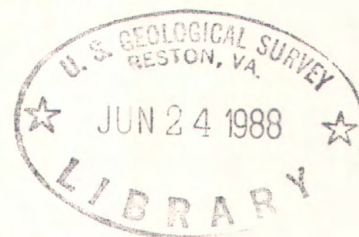




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Water Resources Data Ohio Water Year 1987



Volume 2. St. Lawrence River Basin Statewide Project Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-87-2
Prepared in cooperation with the State of Ohio
and with other agencies

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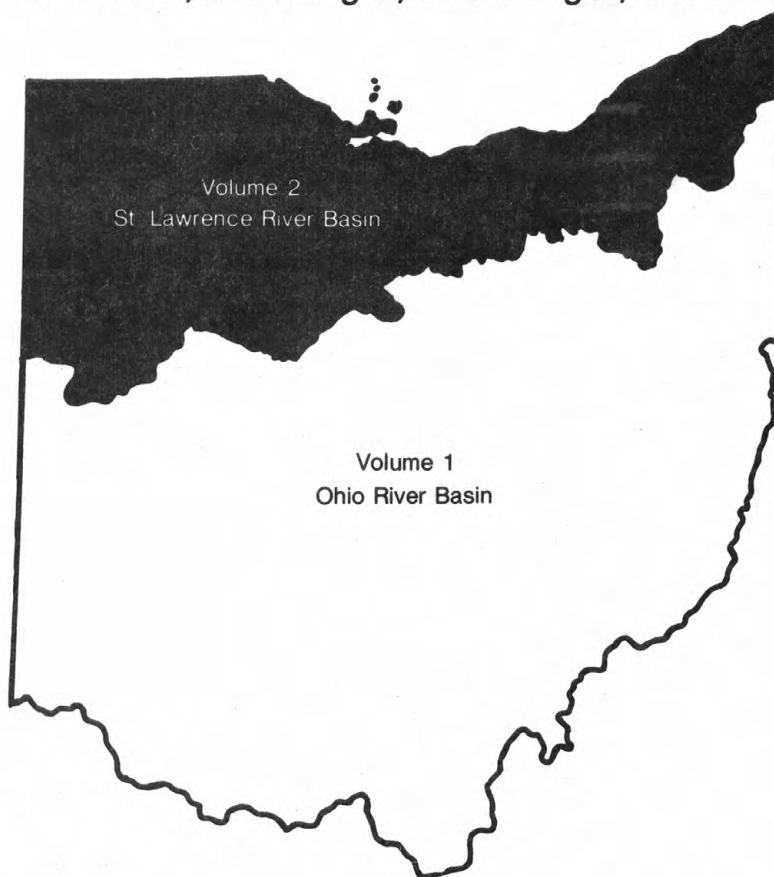
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Water Resources Data Ohio Water Year 1987

Volume 2. St. Lawrence River Basin Statewide Project Data

by H.L. Shindel, J.H. Klingler, J.P. Mangus, and L.E. Trimble



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-87-2
Prepared in cooperation with the State of Ohio
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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District Chief, Water Resources Division

U.S. Geological Survey

975 West Third Avenue

Columbus, Ohio 43212

1987

PREFACE

This volume of the annual hydrologic data report of Ohio is one of the series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provides the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Ohio are contained in 2 volumes:

Volume 1. Ohio River Basin

Volume 2. St. Lawrence River Basin - Statewide Project Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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16. Abstract (Limit: 200 words) Water-resources data for the 1987 water year for Ohio consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, in two volumes, contains records for water discharge at 123 gaging stations, stage and contents at 8 lakes and reservoirs; water quality at 25 gaging stations, 196 wells, and 93 partial-record sites; and water levels at 828 observation wells. Also included are data from 31 crest-stage partial-record stations and 89 miscellaneous sites. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Ohio.			
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(Formerly NTIS-35)
Department of Commerce

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates type of data: (c) chemical, (d) discharge, (e) contents and (or) elevation, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NASQAN) National stream-quality accounting network, (r) radio-chemical, (s) miscellaneous sediment measurements, (S) daily suspended-sediment data, (t) temperature.)

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The following continuous-record streamflow, water quality, or stage stations in Ohio have been discontinued. Daily streamflow, water quality, and stage records were collected and published for the period of record shown for each station. Abbreviations used for characteristics measured are as follows: COND, specific conductance; DIS, discharge; DO, dissolved oxygen; G HT, gage height; PH, pH; and TEMP, temperature. Short term project stations of one or two years not included.

Station number	Station name	Charac- teristic measured	Period of record
04177500	ST JOSEPH R NR BLAKESLEE	DIS	1926-32
04181000	ST MARYS R NR WILLSHIRE	DIS	1925-32
04183500	MAUMEE R AT ANTWERP	DIS	1939-82
		TEMP	1948-49
04184000	MAUMEE R NR SHERWOOD	DIS	1903-06
04184100	MAUMEE RIVER AT DEFIANCE	TEMP	1966-78
		COND	1966-78
		DO	1966-78
		PH	1973-78
04184500	BEAN C AT POWERS	DIS	1940-81
04185300	TIFFIN RIVER AT EVANSPOUR	TEMP	1968-78
		COND	1968-78
		DO	1971-78
		PH	1968-78
04185500	TIFFIN R NR BRUNERSBURG	DIS	1928-35
04186000	MIAMI & ERIE CA AT DELPHOS	DIS	1928-33
04187500	OTTAWA R AT ALLENTOWN	DIS	1923-35
			1943-82
		TEMP	1969-82
		COND	1969-82
		DO	1977-82
		PH	1977-82
04188000	OTTAWA R AT KALIDA	DIS	1930-35
04188200	AUGLAIZE R AT CLOVERDALE	TEMP	1967-78
		COND	1967-78
		DO	1967-78
		PH	1967-78
04188500	EAGLE CR NR FINDLAY	DIS	1947-57
04189500	BLANCHARD R AT GLANDORF	DIS	1921-28
			1947-51
04190000	BLANCHARD R AT DUPONT	DIS	1928-35
04190500	ROLLER CR AT OHIO CITY	DIS	1946-48
04191000	TOWN CR NR VAN WERT	DIS	1945-53
04191500	AUGLAIZE R NR DEFIANCE	TEMP	1966-76
		COND	1966-76
		DO	1966-76
		PH	1966-76
		SED	1936-36
04192000	MIAMI & ERIE CA NR DEFIANCE	DIS	1924-29
			1952-69
04192900	KEITZ RUN AT WATERVILLE	PRECIP	1981-86
04193000	MIAMI & ERIE CA AT WATERVILLE	DIS	1921-29
04193500	MAUMEE RIVER AT WATERVILLE	TEMP	1974-77
		COND	1974-77
		DO	1974-77
		PH	1974-77
04194000	SWAN C AT TOLEDO	DIS	1940-48
04194023	MAUMEE R AT MOUTH AT TOLEDO	TEMP	1967-75
		COND	1967-75
		DO	1967-75
		PH	1967-75
04194310	M B PORTAGE R NR PORTAGE	TEMP	1969-75
		COND	1969-75
04194500	PORTAGE R NR PEMBERVILLE	DIS	1930-35
04195000	N B PORTAGE R NR BOWLING GREEN	DIS	1923-32
04195600	PORTAGE R AT RR BRIDGE AT WOODVILLE	TEMP	1968-80
		COND	1968-80
		DO	1970-80
		PH	1968-80
		SED	1950-53
04195800	PORTAGE R AT ELMORE	TEMP	1950-52
04196000	SANDUSKY R NR BUCYRUS	DIS	1925-35
			1938-51
			1964-81
04196200	BROKEN SWORD C AT NEVADA	DIS	1976-81
04196500	SANDUSKY R NR UPPER SANDUSKY	TEMP	1969-79
		COND	1969-80
		DO	1969-79
		PH	1969-79

DISCONTINUED STATIONS--Continued

Station number	Station name	Characteristic measured	Period of record
04196600	TYMOCHTEE C NR MARSEILLES	DIS	1969-74
04196800	TYMOCHTEE C AT CRAWFORD	TEMP	1968-75
		COND	1968-75
		DO	1968-75
		PH	1968-75
04196990	SANDUSKY R AT ST JOHNS BRIDGE NR MEXICO	TEMP	1969-76
		COND	1969-76
		DO	1969-76
04197000	SANDUSKY RIVER NR MEXICO	DIS	1928-35
			1938-82
04197300	WOLF C AT BETTSVILLE	DIS	1976-81
04197450	E B WOLF C NR BETTSVILLE	DIS	1976-81
04197500	HAVENS C AT HAVENS	DIS	1946-49
04198000	SANDUSKY RIVER NR FREMONT	TEMP	1950-66
		COND	1964-66
		SED	1978-84
04198001	SANDUSKY RIVER AT FREMONT	TEMP	1947-48
			1950
04198005	SANDUSKY RIVER BL FREMONT	TEMP	1966-80
		COND	1966-80
		DO	1966-80
		PH	1966-67
			1969-75
04198018	W B HURON R NR WILLARD	TEMP	1968-75
		COND	1968-75
04198019	SANDHILL C NR MONROEVILLE	PRECIP	1981-86
04199000	HURON RIVER AT MILAN	TEMP	1953-66
			1978-80
		COND	1978-80
		DO	1978-80
		PH	1978-80
04199100	HURON RIVER BL MILAN	TEMP	1968-78
		COND	1968-78
		DO	1968-78
		PH	1968-78
04199160	OLD WOMANS C AB US 6 AT HURON	G HT	1980-84
04199170	LAKE ERIE AT HURON	G HT	1980-84
04199500	VERMILION R NR VERMILION	TEMP	1969-80
		COND	1969-80
		DO	1969-80
		PH	1969-80
		DIS	1950-81
04199900	E B BLACK R AT GRAFTON	TEMP	1969-75
		COND	1969-75
04200000	E B BLACK R AT ELYRIA	DIS	1922-35
04200400	W B BLACK R NR ELYRIA	TEMP	1970-75
		COND	1969-70
04200430	W B BLACK R AB LAKE ST AT ELYRIA	DIS	1980-84
		SED	1980-81
04200500	BLACK R AT ELYRIA	TEMP	1962-70
		COND	1964-70
		SED	1980-81
04200550	BLACK R BL ELYRIA	TEMP	1966-70
		COND	1966-82
		DO	1967-82
		PH	1976-82
04202500	CUYAHOGA RIVER NR KENT	DIS	1933-35
04203000	BREAKNECK C NR KENT	DIS	1927-35
04204000	L CUYAHOGA R AT MOGADORE	DIS	1945-78
04204500	L CUYAHOGA R AT MASSILLON RD AKRON	DIS	1945-74
04205000	SPRINGFIELD LAKE OUTLET AT AKRON	DIS	1945-74
04205500	L CUYAHOGA R AT AKRON	DIS	1920
			1927-34
04205700	L CUYAHOGA R BL OHIO CA AT AKRON	DIS	1973-79
04206000	CUYAHOGA R AT OLD PORTAGE	TEMP	1970-84
		COND	1970-84
		DO	1970-84
		PH	1970-84
		SED	1972-81
04206200	CUYAHOGA R AT BATZUM	TEMP	1947-49
04206250	CUYAHOGA R AT IRA	DIS	1973-79
04207000	OHIO CANAL FEEDER AT BRECKSVILLE	DIS	1923-24
04207200	TINKERS C AT BEDFORD	SED	1972-79
04207500	OHIO CA AT INDEPENDENCE	DIS	1921-23
			1927-35
			1940-41
			1948-81

DISCONTINUED STATIONS--Continued

IX

Station number	Station name	Charac- teristic measured	Period of record
04206200	CUYAHOGA R AT BATZUM	TEMP	1947-49
04206250	CUYAHOGA R AT IRA	DIS	1973-79
04207000	OHIO CANAL FEEDER AT BRECKSVILLE	DIS	1923-24
04207200	TINKERS C AT BEDFORD	SED	1972-79
04207500	OHIO CA AT INDEPENDENCE	DIS	1921-23
			1927-35
			1940-41
			1948-81
04208502	BIG C AT CLEVELAND	DIS	1972-80
		SED	1978
04208505	CUYAHOGA R AT DUPONT INTAKE IN CLEVELAND	COND	1964-75
04208510	CUYAHOGA R AT CNTR ST BRDGE IN CLEVELAND	TEMP	1964-66
		COND	1964-66
		DO	1964-66
		PH	1964-66
04209000	CHAGRIN R AT WILLOUGHBY	DIS	1925-35
			1939-84
		TEMP	1950-50
		SED	1969-74
04209500	GRAND R NR NORTH BRISTOL	DIS	1942-47
04210000	PHELPS C NR WINDSOR	DIS	1942-59
04210500	GRAND RIVER NR ROME	DIS	1942-47
04211000	ROCK C NR ROCK CREEK	DIS	1948-66
04211500	MILL C NR JEFFERSON	DIS	1942-74
04212000	GRAND R NR MADISON	DIS	1922-35
			1938-74
04212200	GRAND RIVER AT PAINESVILLE	TEMP	1966-82
		COND	1966-82
		DO	1966-82
		PH	1966-82
04212500	ASHTABULA R NR ASHTABULA	DIS	1924-35
			1939-47
			1950-80
04212700	ASHTABULA R AT ASHTABULA	TEMP	1983-84
		COND	1983-84
		DO	1970-80
		PH	1971-80

X

GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED

Well number	Local number	Location	Page
CRAWFORD COUNTY			
404838082563100	CR-1	Bucyrus	101
GEAUGA COUNTY			
412518081221500	GE-3A	Southeast of Chagrin Falls	102
HARDIN COUNTY			
404648083412600	HN-2A	Southeast of Dola	103
HENRY COUNTY			
412123083574000	HY-2	Southwest of McClure	104
LUCAS COUNTY			
413704083362200	LU-1	Toledo	105
MEDINA COUNTY			
410142082005900	MD-1	Lodi	106
PORTAGE COUNTY			
410540081213600	PO-7	Brimfield	107
410920081192000	PO-6	East of Kent	108
PUTNAM COUNTY			
405505084032900	PU-1	Columbus Grove	109
RICHLAND COUNTY			
405753082360800	R-3	Shiloh	110
SANDUSKY COUNTY			
411914083045300	S-3	Fremont	111
412703083213600	S-2	Woodville	112
SENECA COUNTY			
410802083093900	SE-2	Tiffin	113
SUMMIT COUNTY			
410330081282000	SU-6	Akron	114
410846081271600	SU-7	Cuyahoga Falls	115
VAN WERT COUNTY			
405215084335400	VW-1	Van Wert	116
WILLIAMS COUNTY			
412821084313600	WM-1	Bryan	117
412930084320900	WM-3	Bryan	118
413108084415300	WM-12	East of Blakeslee	119
WYANDOT COUNTY			
405009083172600	WY-1	Upper Sandusky	120

VOLUME 2: ST. LAWRENCE RIVER BASIN
STATEWIDE PROJECT DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources in Ohio each water year. These data, accumulated during many years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to the interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data--Ohio."

This report (in two volumes) includes records on both surface and ground water in the State. Specifically, it contains: (1) Discharge records for 123 streamflow-gaging stations, 89 miscellaneous sites, and peak flow information for 31 crest-stage partial-record stations; (2) stage and content records for 8 streams, lakes, and reservoirs; (3) water-quality data for 25 streamflow-gaging stations, 196 wells, and 93 partial-record sites; and (4) water levels for 828 observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, partial-record stations, and observation wells in the St. Lawrence River basin are shown in figures 8a, 8b, and 8c.

This series of annual reports for Ohio began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to present, in two to three volumes, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several years concurrent with it, water-resources data for Ohio were published in a series of U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 3 and 4." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on the chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States, and may be purchased from the Books and Open-File Reports Section, U.S. Geological Survey, Box 24525, Federal Center, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report OH-87-2." For archiving and general distribution, the reports for 1971-74 water years are also identified as water-data reports. These water-data reports can be purchased in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information for ordering specific reports, including current prices, may be obtained by writing the District Chief at the address given on the back of title page or by telephoning (614) 469-5553.

COOPERATION

The U.S. Geological Survey and agencies of the State of Ohio have had cooperative agreements for the collection of water-resource records since 1898. Organizations that assist in collecting data in this report are: Ohio Department of Natural Resources, J. J. Sommer, Director; Ohio Environmental Protection Agency, R. L. Shank, Director; Ohio Department of Transportation, W. J. Smith, Director; Miami Conservancy District, J. L. Rozelle, General Manager and Chief Engineer; City of Columbus Department of Public Service, G. Rosenbaum, Director; City of Canton Water Department, J. D. Williams, Superintendent; Ross County, J. L. Kennard, Commissioner; Seneca County Soil and Water District, Gene Baltes, Chief, Water Quality Laboratory; University of Toledo, R. Gallagher; Geauga County, D. C. Dietrich, Planning Director; City of Fremont, R. W. Lash, Service Director; Lucas County, E. J. Ciecka, Administrator; Wood County, F. G. Schutte, Sanitary Engineer; Sandusky County, K. W. Kerik, Health Commissioner; and City of Akron, R. Kapper and A. Youngblood. Funds or services were provided by the U.S. Army Corps of Engineers in collecting records for 72 hydrologic-data stations in this report. The Miami Conservancy District, U.S. Army Corps of Engineers, and Ohio Department Natural Resources aided in collecting records.

SUMMARY OF HYDROLOGIC CONDITIONS

Ohio is located in three physiographic provinces, each with its own distinctive hydrologic characteristics. The topography of the Till Plains section of the Central Lowlands physiographic province (fig. 1) consists of gently rolling ground moraine with bands of terminal moraine and outwash-filled valleys. Glaciation altered the courses of most streams in this area. The Eastern Lake Plains section (fig. 1) consists of wide expanses of level or nearly level land interrupted only by the sporadic sandy ridges that are the last visible remnants of glacial-lake beaches. Much

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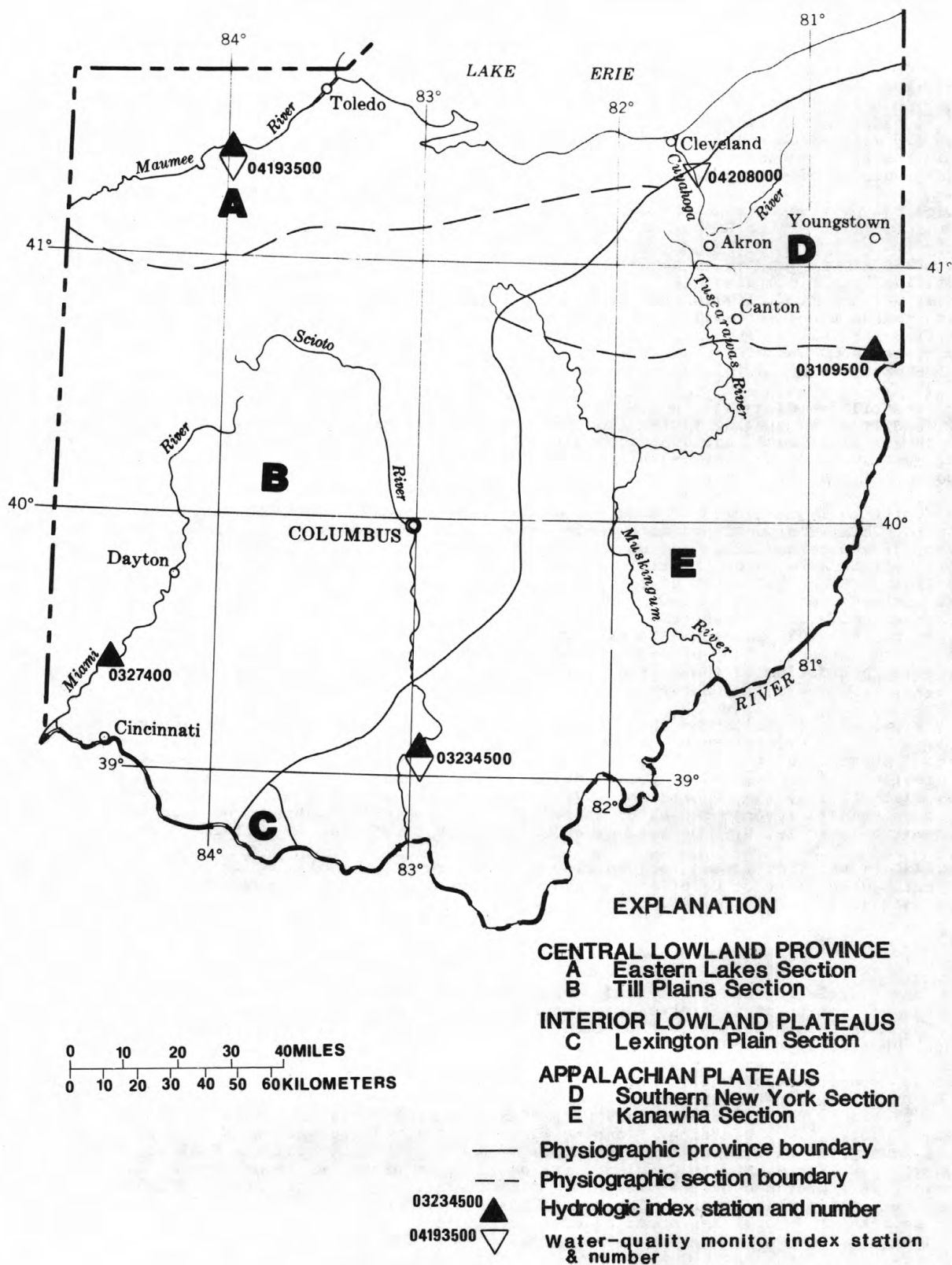


Figure 1.—Physiographic divisions and location of Hydrologic Index Stations.

of the area was swamp prior to development, and marshes are still present along Lake Erie near Toledo. The Lexington Plains section of the Interior Low Plateau province (fig. 1) is characterized by rolling terrain with isolated large hills and ridges. The "barbed" drainage pattern formed when small streams were captured as their headwaters cut back into the hills over time. Streams have carved the Kanawha section of the Appalachian Plateaus province (fig. 1) into an intricate series of hollows and steep-sided ridges. Only the large streams in the section have any appreciable flood plain. In the southern New York section (fig. 1), successive waves of glaciation have subdued the relief, buried many preglacial valleys, and rerouted many streams.

Precipitation

The average annual precipitation in Ohio is about 38 inches. The rainfall decreases from around 42 inches on the southern border to about 32 inches in the northwest. An area of greater precipitation (up to 44 inches) in northeastern Ohio results from air masses that pick up moisture and heat from Lake Erie and subsequently release precipitation over a range of hills stretching northeastward from Cleveland.

Monthly precipitation typically is greatest from May through July and least in October, December, and February. Of the approximate 38 inches of average annual precipitation, about 10 inches runs off immediately, 2 inches is retained at or near the surface and evaporates or transpires, and 26 inches enters the ground. Of the 26 inches that enters the ground, 20 inches is retained in the unsaturated zone and is later lost by evapotranspiration. The remaining 6 inches reaches the water table. Of this 6 inches, 2 inches is eventually discharged to streams, and the rest is lost by evapotranspiration or consumptive use. Average runoff ranges from about 15 to 18 inches along the southern border to about 8 to 12 inches along most of the northern border, except in the northeast where runoff reaches 20 inches. The pattern of streamflow differs from the pattern of precipitation because of the contributions of snowmelt to streamflow in the early spring and the reduction in flows by evapotranspiration from June through September.

Surface Water

Streamflow

Streamflow-data-collection stations are distributed irregularly throughout the State, and tend to be concentrated on the main river systems. The stations sample a wide variety of conditions. The drainage areas range from 12 to 7,420 square miles, and cover a wide diversity of land uses, topographic conditions, and other physical conditions. Streamflow ranges from natural to highly regulated.

At the beginning of the 1987 water year, above-average precipitation caused excessive streamflow statewide, except for eastern Ohio where it was in the normal¹ range. Streamflow remained either excessive or normal throughout the State until January. Thereafter, below-average precipitation that persisted through May caused gradual declines, which resulted in deficient streamflow statewide by March. Eastern Ohio received above-average precipitation in April, which caused excessive flows for that month, but flows in the remainder of the State were either in the normal or deficient range. During June and July, above-average precipitation that occurred statewide, except for parts of southern Ohio, caused excessive streamflow throughout much of the State. Major floods occurred in north-central Ohio in early July and caused serious damage to several small communities. The remainder of the water year was characterized by gradual declines, in streamflow statewide, generally to the normal range. The exception to this trend was part of southwestern Ohio where persistent below-average precipitation produced drought conditions and lower than normal flows for many small streams.

Streamflow trends for the 1987 water year are reflected in graphical comparisons of monthly and annual mean discharges for 1987 and the 1951-80 reference period at four Hydrologic Index Stations (fig. 7; station locations are shown in fig. 1).

Water Quality

Trace-element analyses of samples collected at the NASQAN sites indicated that all concentrations of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were considerably less than U.S. Environmental Protection Agency recommended limits for domestic water supply. Manganese concentrations exceeding 200 micrograms per liter were detected once in November, May, and July in the Hocking River below Athens.

Selected water-quality-monitor data collected from index stations in three major basins (also NASQAN sites) are shown in figure 2 (station locations are shown in figure 1). The graphs represent annual mean values for pH, specific conductance, dissolved-oxygen concentration, and temperature compared with mean values for 1982-87 (averages of annual means for these 6 years). The data

¹ Normal is defined as flow between the 25th and 75th percentiles as measured during the base period 1951 through 1980.

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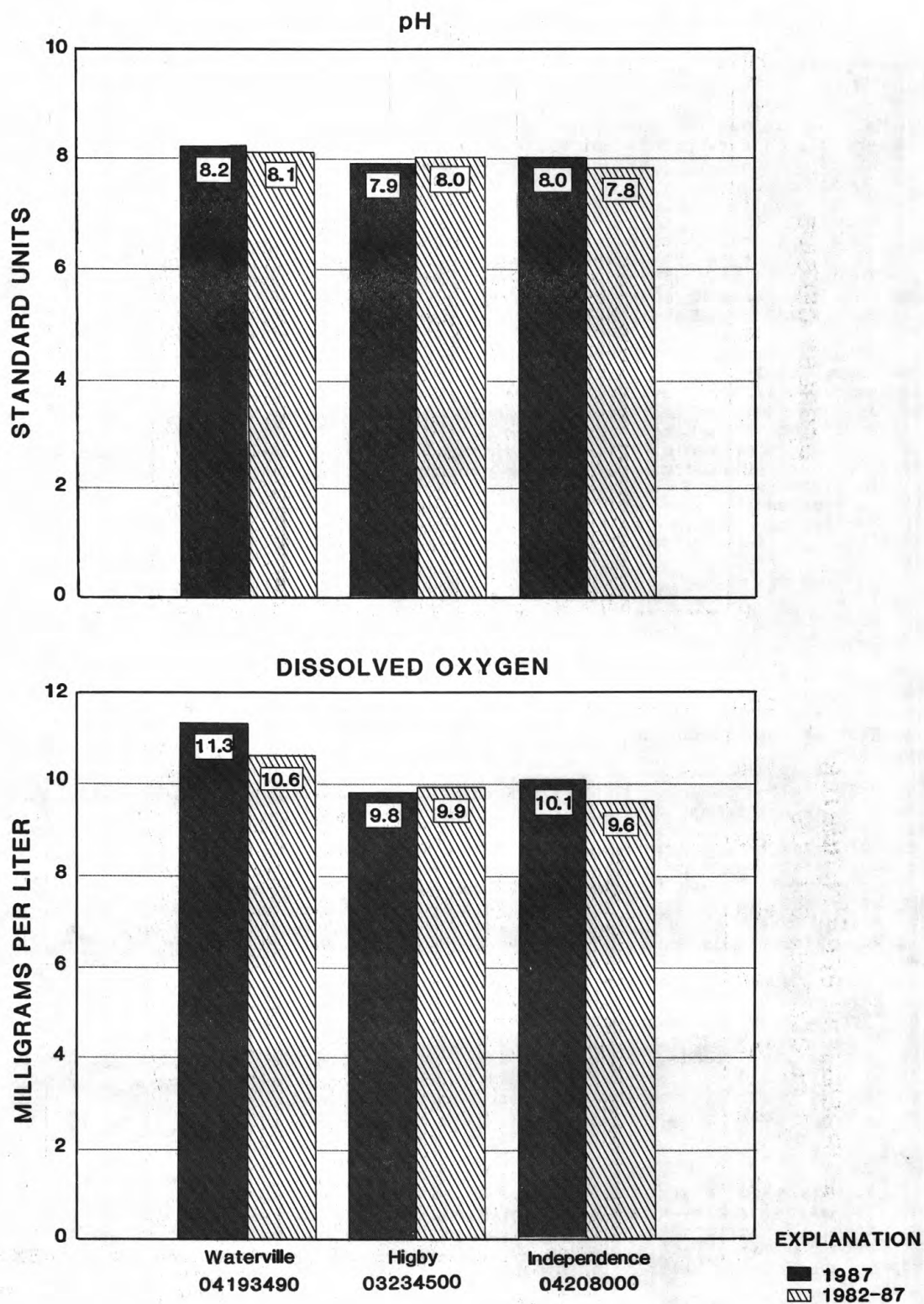


Figure 2.--Comparison of 1987 annual mean values of pH, dissolved oxygen, temperature, and specific conductance with the average of annual mean values for 1982-87 for three water-quality-monitor index stations in Ohio.

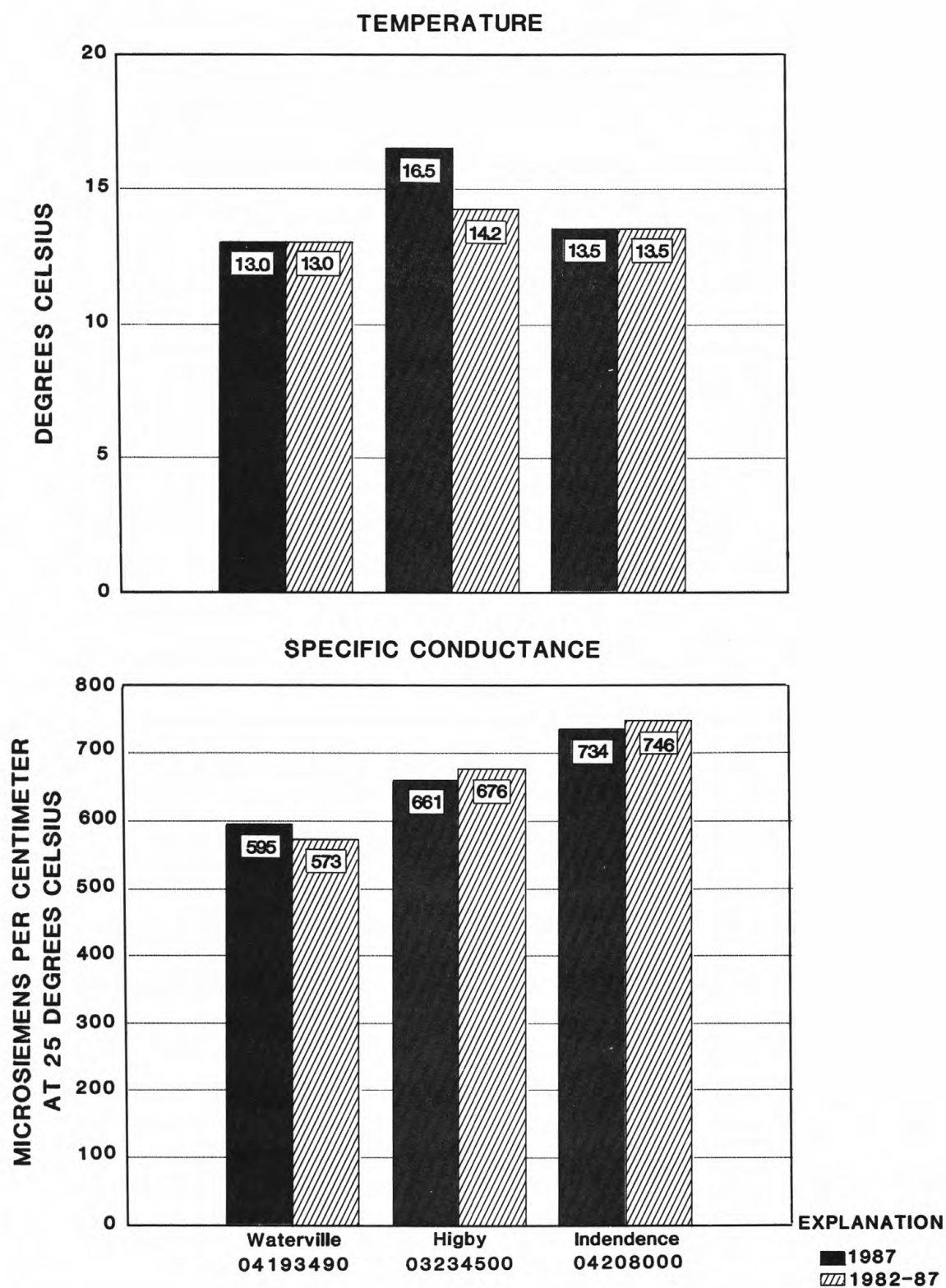


Figure 2.--Comparison of 1987 annual mean values of pH, dissolved oxygen, temperature, and specific conductance with the average of annual mean values for 1982-87 for three water-quality-monitor index stations in Ohio.--Continued

indicate that pH remained about the same at all sites. Specific conductance decreased at Scioto River at Higby (station 03234500) and at Cuyahoga River at Independence (station 04208000), but increased at Maumee River at Waterville (station 04193500). Dissolved-oxygen concentrations increased at Maumee River at Waterville and at Cuyahoga River at Independence. Temperature remained about the same except at Scioto River at Higby, where the increase probably was due to loss of data during the winter period.

Ground Water

Ground water serves the needs of 42 percent of Ohio's population. An estimated 740 million gallons per day (Mgal/d) of ground water is withdrawn for domestic, industrial, and agricultural purposes. Many people in Ohio depend on ground water as the only practical source of supply.

Ohio's unconsolidated aquifers are composed of either coarse- or fine-grained sediments. Both types are composed mainly of materials of glacial origin. The coarse-grained unconsolidated aquifers generally consist of highly permeable sand and gravel; much of the sand and gravel is alluvium derived from glaciofluvial outwash present along the courses of some modern streams; thus, these aquifers sometimes are referred to as "watercourse" aquifers. Coarse-grained unconsolidated aquifers in the northwestern corner of the State (fig. 3) underlie glacial till, are locally under artesian pressure, and are highly productive. Extensive kame-terrace deposits of water-bearing gravel and sand are important ground water sources in northeastern Ohio. The fine-grained unconsolidated aquifers are similar to the coarse-grained unconsolidated aquifers in form and origin but are less permeable because of higher percentages of mixed fine sand, silt, and clay. Included in the fine-grained unconsolidated aquifers are tills that contain thin or localized stratified lenses of sand and gravel.

The principal source of water supply for much of the unglaciated upland area of southeastern Ohio is from bedrock aquifers composed of shaly sandstone or thin limestone aquifers. These strata which range from Mississippian to Permian in age, are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available in fractured coal beds. Several sandstone aquifers in northeastern Ohio are of regional extent and are important ground-water sources for individual and small public supplies. These include the Berea and Black Hand Sandstones of Mississippian age and several sandstone members of the Pottsville and Allegheny Formations of Pennsylvanian age. The Lake Erie coastline of northeastern Ohio is underlain by shale of Devonian and Mississippian age (fig. 3) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 3) of much of western Ohio. Glacial cover is uneven and consists of valley fill and terminal moraine in some places. The northeastern part of western Ohio contains an area of high-yielding wells that tap a preferentially weathered zone, which developed when carbonate section was periodically exposed as land mass during the Paleozoic Era. The southwestern corner of Ohio near Cincinnati is underlain by shale and a thin limestone aquifer of Ordovician age. Away from the watercourse (coarse unconsolidated) aquifers that traverse the area, the rocks that form the uplands have only very small ground-water yields.

Ground-Water Levels

Most of the ground-water observation wells in Ohio tap unconsolidated sand and gravel aquifers in buried valleys of watercourse systems associated with the State's principal streams. Figure 4 shows sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated sand-and-gravel aquifer. The observation-well network also includes some bedrock wells in areas where consolidated aquifers are important water supplies, such as the carbonate-rock region of northwestern Ohio and various sandstone units of eastern Ohio. Figure 5 shows sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer. The yearly low for most wells occurs during the winter months, especially in colder, drier years, or near the end of the growing season. Highs for the year usually occur from March through June, which is the peak of the recharge season. The yearly water-level fluctuation due to climatic conditions in water-table and confined-aquifer wells is commonly 3 to 5 feet.

Ground-water levels rose in response to above-average precipitation statewide at the beginning of the 1987 water year and levels were generally above normal² in northern Ohio and below normal in southern Ohio. These conditions persisted until late November, when heavy precipitation caused above-normal levels throughout much of the State. With the exception of some increases in ground-water levels due to localized heavy precipitation, the remainder of the water year can be characterized as having levels gradually declining into the below-normal ranges for most of the State in response to below-average precipitation.

²For ground-water levels, "normal" is defined as being between the 25th and 75th percentiles of the range of values recorded during the reference period 1960-75.

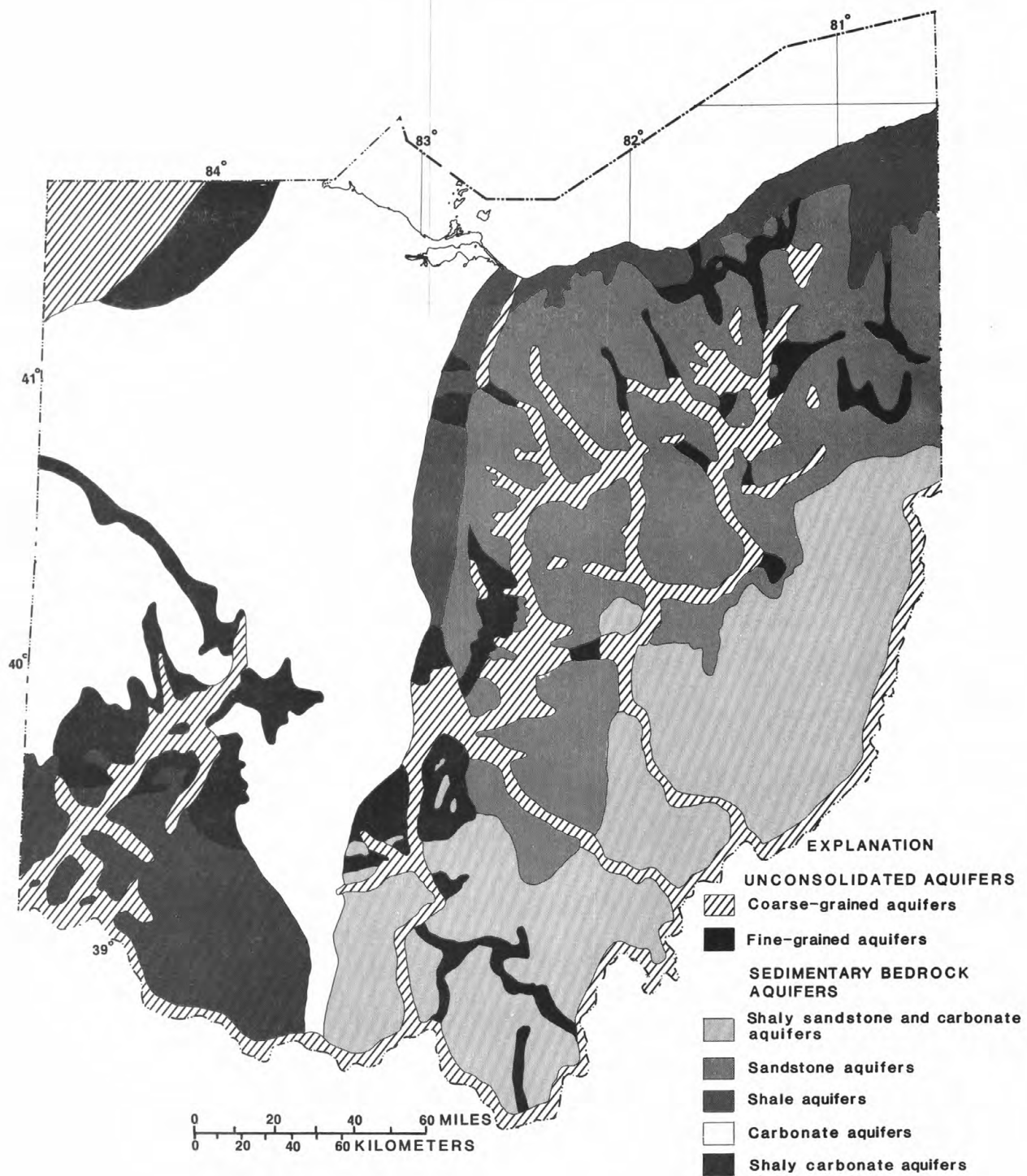


Figure 3.--Geographic distribution of principal aquifers in Ohio.

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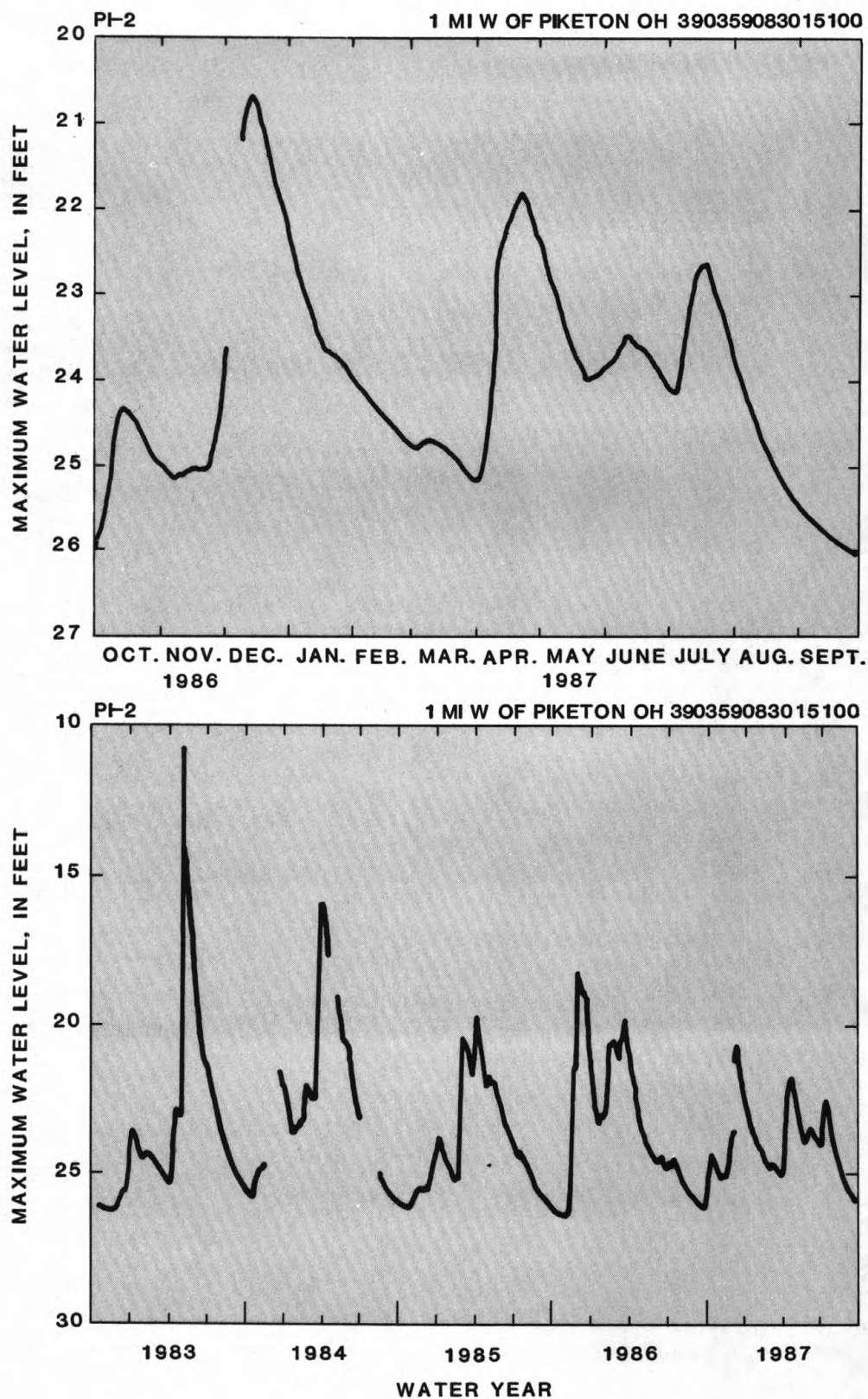


Figure 4.--Sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated aquifer.

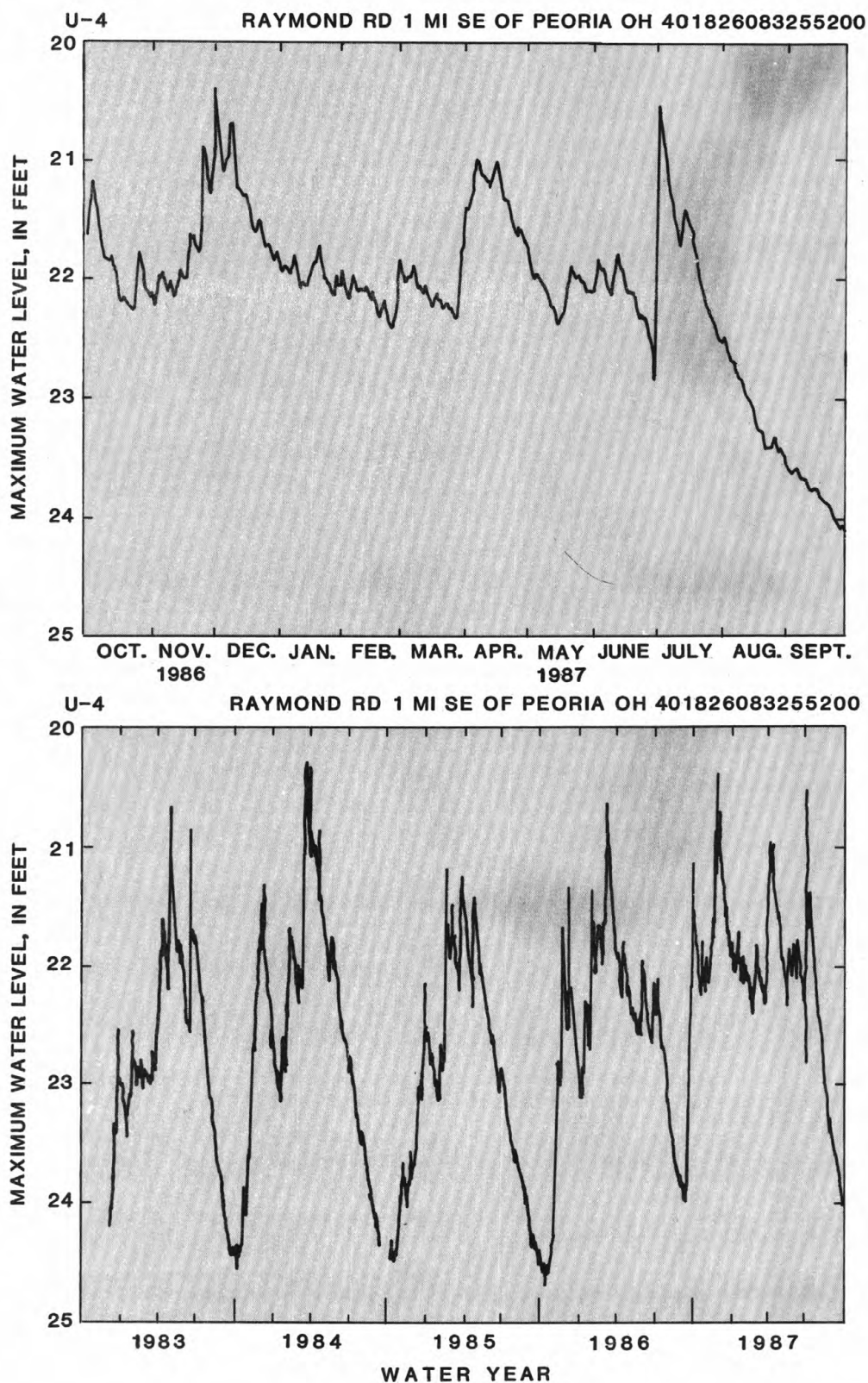


Figure 5.--Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer.

SPECIAL NETWORKS AND PROGRAM

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activity.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in general or regional water-quality planning and management. The approximately 500 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the U.S. Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for; (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The records in this report are for the 1987 water year that began October 1, 1986 and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or wellsite, is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic locations. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Ohio, for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in a "List of Stations" in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 04041000, which appears just to the left of the station name, includes the two-digit part number "04" plus the six-digit downstream order number "041000". The part number designates the major river basin; for example, part "03" is the Ohio River Basin, and part "04" is the St. Lawrence River Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 6.)

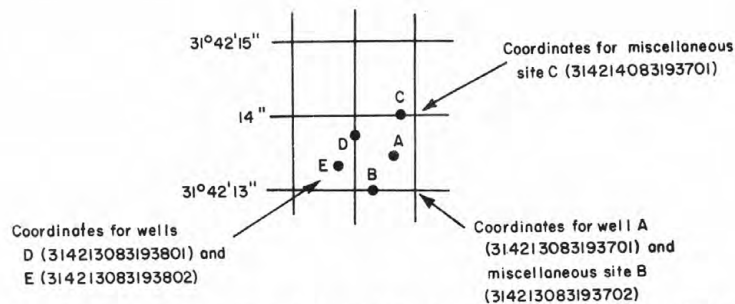


Figure 6. System for numbering wells and miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir contents, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because mean daily discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of a partial record is indicated by table titles such as "crest-stage partial records," or "low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage stations for which data are given in this volume are shown in figure 8.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consists of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, or with digital recorders that punch stage values on paper tapes or store stage data on cassette tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curve or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method, in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and contents. The application of stage to the stage-contents curves or tables give the contents from which daily, monthly, or yearly changes are then determined. If the stage-contents relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

Data Presentation

The records published for each gaging station consist of two parts--the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type maps available varies from one drainage basin to another, the accuracy of the drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum

discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at the station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or contents. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, including the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report following discovery of the error.

Although rare, occasionally the records of a discontinued station gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the data from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published retrieval of data is always accompanied by revisions of the corresponding data in computer storage.

Manuscript information for lakes or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges respectively, for the month. Discharge for the month is often expressed in cubic feet per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are usually presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second, when collected, is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in time of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredths of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Records of discharge, ground-water, reservoir contents, and water-quality not published by the Geological Survey are collected in Ohio at several sites by State and other Federal agencies. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in preparing the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Ohio District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on availability of the unpublished information or on results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recording; however, because of cost, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this volume are shown in figure 8.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at a nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the sample to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations" (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on p. 21-22 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

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 mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, 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 each day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey District Office, whose address is given on the back of the title page of this report.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily 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 recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

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 section.

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 discharge for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge values differ 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 subdivided-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 observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Laboratory Measurements

Sediment samples, samples for biochemical oxygen demand (BOD), and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, CO. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily, are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the record.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums and minimums may not have been sampled. Extremes, when given, are for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

Remark Codes

The following remarks codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organisms may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Water-level data from a network of observation wells (as well as project wells) are given in this report. The network well data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Ohio are shown in figure 8. Water-level data for specific projects are reported under those projects.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is a 15-digit number that is based on latitude and longitude. The secondary identification number is the local well number, which is provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in each well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or larger units.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry describes the aquifer by age and composition.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and (or) screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

DATUM.--This entry describes both the measuring point and the land-surface altitude at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The altitude of the land-surface datum (LSD) is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF PUBLISHED RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water level records by the U.S. Geological Survey or cooperating agency, and the words "to current year" if the records are to be continued to the following year. Periods for which water-level records are available, but not published by the Survey, may be noted.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum (LSD), and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below (or above) land-surface datum. All periodic measurements of water levels for wells are listed. For wells equipped with recorders, daily water-level lows are published. The highest and lowest daily water levels of the water year are shown on a line below the table. Because only daily lows are published for wells with recorders, the extreme instantaneous high may be a value that is not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, so that frequent measuring of the same parameter is not necessary unless one is concerned with a particular problem such as monitoring for trends of a particular constituent.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the TWRI manuals listed on p. 21-22. The data presented in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and the material comprising the casings.

Data Presentation

The records of ground-water quality are published intermixed with the ground-water-level data for network wells and with the specific project for project wells.

ACCESS TO WATSTORE DATA

The National WATER Data STORage and RETrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, VA.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices. (See address given on the back of the title page.)

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot, and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield reasonable quantities of water to wells and springs.

Artesian means confined, and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35°C. In the laboratory, these bacteria are defined as the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C + 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C + 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C + 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism, which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (cfs, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

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

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

Dissolved: That material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totalling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specific 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 stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

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 a body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

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.

Hydrologic Index Stations, in this report, refers to four continuous record gaging stations that have been selected as representative of streamflow patterns for their respective regions of Ohio. Station locations are shown in figure 1.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

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 anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Microgram per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of bottom material.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (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 represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L , and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and (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 by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	0.004 - 0.062	Sedimentation.
Sand.....	0.062 - 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.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, number, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per millimeter (cells/mm) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movement within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m²/time)] for periphyton and macrophytes and [mg C/(m³/time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O₂/(m²/time)] for periphyton and macrophytes and [mg O₂/(m³/time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material.--The amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment, thus, the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported 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.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed-load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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 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).

Suspended-sediment discharge (tons/day) 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 volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

7-day, 10-year low flow (7Q₁₀) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

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. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

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" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrate are basket samplers (made of wire cages filled with clean streamsize rocks) and multiplate samplers (made of hardboard) for benthic-organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms

have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

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Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

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Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

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

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published after 1975.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
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- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
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- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
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- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
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- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
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- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
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- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*. by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*. by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
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- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
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- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
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WATER RESOURCES DATA FOR OHIO, 1987

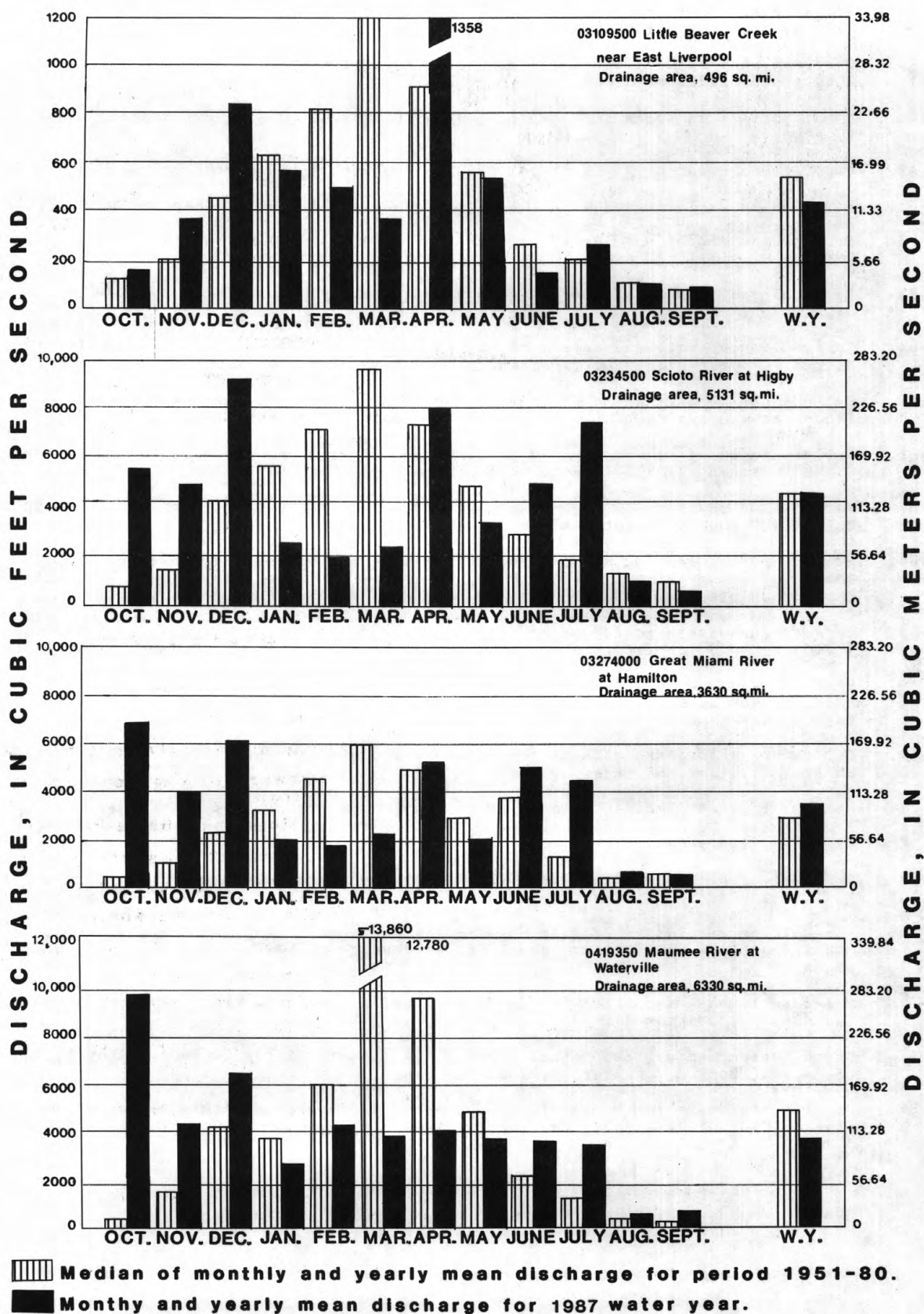


Figure 7. --Runoff during 1987 water year compared with median runoff for period 1951-80 for four representative gaging stations.

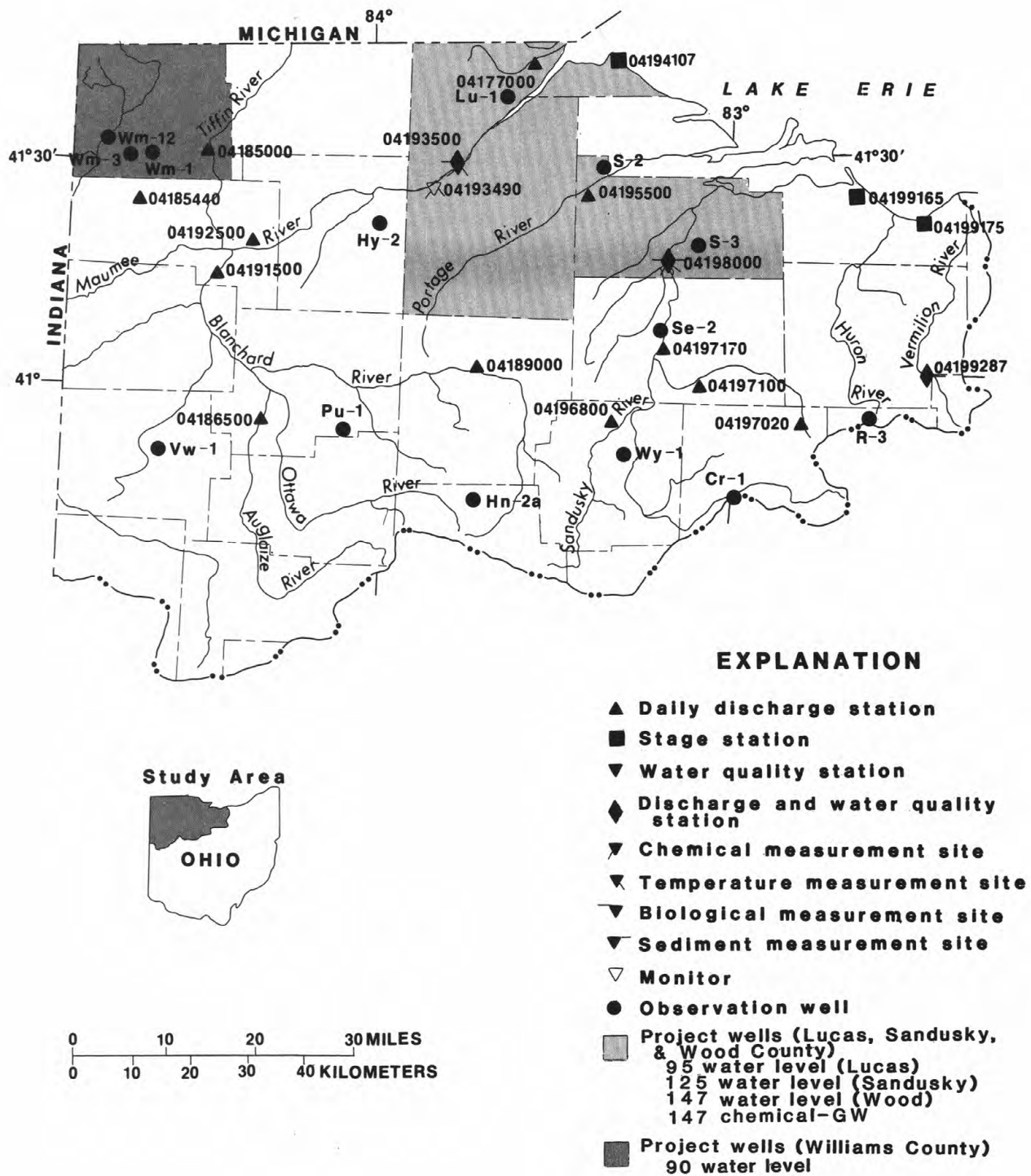


Figure 8a.--Location of data-collection stations excluding crest-stage and low-flow partial record sites.

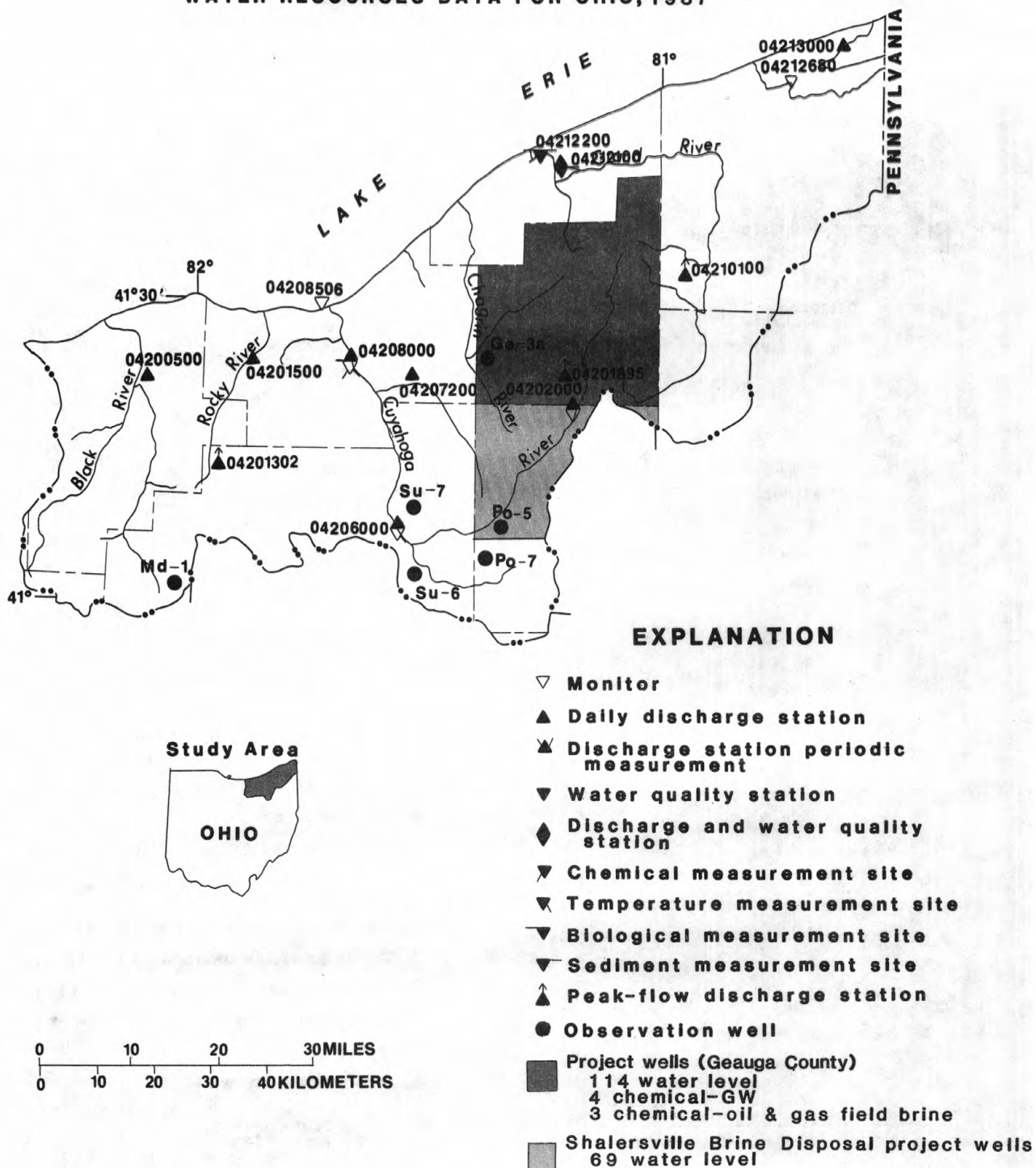


Figure 8b.--Location of data-collection stations including crest-stage and low-flow partial record sites.

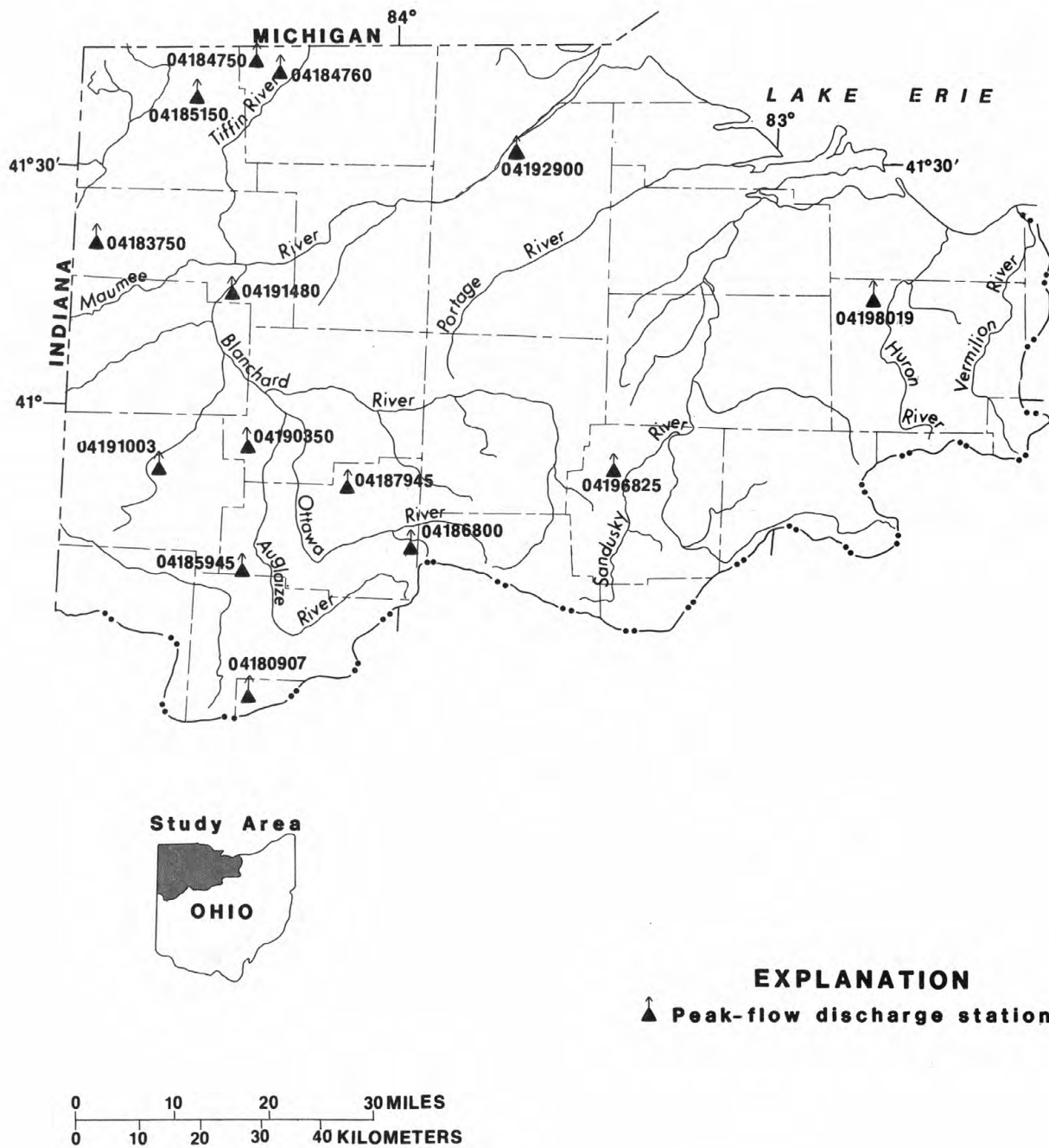


Figure 8c.--Location of crest-stage and low-flow partial record sites.

STREAMS TRIBUTARY TO LAKE ERIE

04177000 OTTAWA RIVER AT TOLEDO UNIVERSITY, TOLEDO, OH

LOCATION.--Lat 41°39'36", long 83°36'44", in NE 1/4 sec. 32, T.9 S., R.7 E., Lucas County, Hydrologic Unit 04100001, on left bank at auto bridge at Toledo University, Toledo, Ohio., 0.4 mi downstream from Deline Ditch, 5.6 mi upstream from Sibley Creek, and 10.9 mi upstream from mouth.

DRAINAGE AREA.--150 mi². Area at site used prior to Sept. 30, 1948, 150 mi², revised.

PERIOD OF RECORD.--March 1945 to September 1948 (published as "Tenmile Creek at Toledo"), August 1976 to current year.

REVISED RECORDS.--WSP 1307: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 576.28 ft above National Geodetic Vertical Datum of 1929. From Aug. 1976 to July, 1979 at site 500 ft downstream. Prior to Sept. 30, 1948 water-stage recorder at site 2,500 ft upstream at datum 3.72 ft higher.

REMARKS.--Estimated daily discharges: Oct. 5-16. Records good except for periods of estimated record, which are fair. Water-quality data collected at this site 1977.

AVERAGE DISCHARGE.--14 years (1946-48, 1977-87) 130 ft³/s, 11.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s Mar. 14, 1982, gage height, 14.54 ft; minimum, no flow Aug. 24 to Sept. 19, 1945, July 7-15, Aug. 12-15, Sept. 1-9, 16-22, Oct. 5-10, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943 reached a stage of 15.1 ft present datum, from floodmark, Lucas County Sanitary Engineers, discharge, 3,400 ft³/s. Flood of Apr. 25, 1950 reached a stage of 15.0 ft present datum, from floodmark, discharge, 3,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	0830	*2,100	*11.62	June 4	0830	1,730	10.79

Minimum daily discharge, 6.4 ft³/s Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	238	49	118	60	49	231	314	40	31	336	20	49	
2	583	50	274	62	51	468	422	45	181	272	25	33	
3	1350	48	714	66	53	316	360	102	1220	183	30	26	
4	1970	47	487	63	53	195	197	178	1650	98	23	23	
5	2000	47	230	60	54	142	402	120	730	103	15	20	
6	1600	45	145	58	54	128	783	83	225	164	13	18	
7	1000	43	141	62	60	113	423	70	111	71	13	17	
8	600	42	261	60	120	105	248	58	72	58	63	17	
9	450	42	595	54	170	90	168	51	56	44	59	22	
10	350	42	799	55	116	68	121	47	45	36	42	18	
11	250	42	408	59	86	55	109	44	39	30	25	24	
12	170	39	204	57	85	56	139	41	54	28	15	26	
13	200	38	119	51	80	52	126	38	70	35	14	19	
14	220	36	82	56	76	63	102	36	61	36	13	16	
15	250	36	80	181	64	70	108	46	42	24	13	32	
16	270	36	72	437	58	69	117	35	35	22	13	26	
17	179	36	71	225	50	76	117	32	27	21	23	31	
18	117	47	91	147	46	114	91	52	22	19	14	30	
19	88	45	88	109	40	166	77	142	20	19	18	22	
20	76	65	78	87	37	141	66	105	277	18	21	16	
21	68	69	71	89	36	99	61	66	393	17	38	14	
22	64	81	66	68	36	79	58	53	518	17	71	11	
23	60	86	65	68	39	77	60	49	749	19	33	9.0	
24	57	90	66	78	44	63	56	38	239	19	30	8.1	
25	54	81	70	44	46	62	48	34	97	31	20	7.8	
26	62	241	68	40	49	60	42	34	62	32	72	7.4	
27	63	769	65	38	47	54	43	33	51	45	465	6.6	
28	64	476	64	39	56	49	43	30	37	20	381	6.4	
29	59	247	64	41	---	46	43	29	30	18	202	10	
30	56	160	64	48	---	161	41	28	173	17	94	12	
31	52	---	63	48	---	561	---	31	---	20	92	---	
TOTAL	12620	3175	5783	2610	1755	4029	4985	1790	7317	1872	1970	577.3	
MEAN	407	106	187	84.2	62.7	130	166	57.7	244	60.4	63.5	19.2	
MAX	2000	769	799	437	170	561	783	178	1650	336	465	49	
MIN	52	36	63	38	36	46	41	28	20	17	13	6.4	
CFSM	2.71	.71	1.25	.56	.42	.87	1.11	.38	1.63	.40	.42	.13	
IN.	3.13	.79	1.43	.65	.44	1.00	1.24	.44	1.81	.46	.49	.14	
CAL YR 1986	TOTAL	63888		MEAN	175	MAX	2000	MIN	12	CFSM	1.17	IN.	15.84
WTR YR 1987	TOTAL	48483.3		MEAN	133	MAX	2000	MIN	6.4	CFSM	.89	IN.	12.02

04185000 TIFFIN RIVER AT STRYKER, OH

LOCATION.--Lat 41°30'16", long 84°25'47", in SE 1/4 sec. 5, T.6 N., R.4 E., Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Highway 191 at west edge of Stryker, 0.6 mi upstream from Penn Central bridge, and 1.6 mi downstream from Leatherwood Creek.

DRAINAGE AREA.--410 mi².

PERIOD OF RECORD.--September 1921 to September 1928 (published as "near Stryker"), October 1940 to current year.

REVISED RECORDS.--WSP 1144: 1922-28. WSP 1387: 1925. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 685.1 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1928, nonrecording gage at site 3.5 mi downstream at different datum. Oct. 13, 1940 to Jan. 17, 1941, nonrecording gage and Jan. 18, 1941 to Sept. 30, 1953, water-stage recorder, at site 0.5 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 21-31, Feb. 9-28, Mar. 2-10, 15, 31. Records fair except those for periods of estimated record which are poor. Small diversion 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 2.16 ft³/s is returned as sewage to Brush Creek which flows into Tiffin River about 15 mi downstream from station. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1969 to 1974.

AVERAGE DISCHARGE.--54 years, 325 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,800 ft³/s Mar. 15, 1982, gage height, 18.36 ft; minimum daily discharge, 3.9 ft³/s Aug. 30, 31, Sept. 1, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 16.0 ft, from floodmarks, discharge, 7,600 ft³/s. Flood in 1937 reached a stage of 15.0 ft, from information by local resident, discharge, 6,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 4	1600	*3,390	*14.27	No other peak greater than base discharge.			

Minimum daily discharge, 16 ft³/s Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	548	208	551	163	145	675	177	123	84	321	23	59
2	913	203	610	166	152	1000	146	126	108	439	24	46
3	1760	202	809	168	160	1400	147	246	107	226	23	39
4	3290	201	869	166	168	1000	157	425	248	177	21	34
5	3340	195	780	163	166	700	271	344	309	123	20	32
6	3220	188	518	162	175	700	304	256	194	110	19	30
7	2740	184	383	162	193	800	377	200	134	107	18	27
8	2220	177	512	157	239	600	390	167	106	86	19	25
9	1670	170	842	155	140	450	321	148	90	69	25	24
10	1060	168	341	152	150	200	283	133	78	58	26	23
11	606	161	747	159	150	115	252	123	69	50	26	25
12	392	154	977	164	150	116	254	113	65	47	24	29
13	364	144	344	155	120	130	293	103	64	44	23	35
14	546	131	291	157	100	124	323	99	65	44	22	33
15	634	140	331	243	90	120	311	100	59	41	20	30
16	584	141	272	388	80	113	287	99	52	39	19	30
17	444	142	240	279	74	142	315	100	47	39	18	32
18	329	144	239	292	70	185	353	122	44	37	17	35
19	270	150	249	236	70	272	321	323	44	36	19	35
20	238	163	241	143	70	255	271	369	44	34	18	36
21	218	226	222	120	66	274	237	258	77	31	18	31
22	204	293	205	100	64	227	205	192	134	30	19	30
23	195	380	192	80	62	254	201	154	338	27	21	29
24	188	482	184	72	62	247	202	131	217	27	21	24
25	184	518	183	70	60	231	190	116	109	26	20	22
26	195	757	179	80	70	219	169	109	77	26	21	20
27	217	983	172	90	100	206	155	103	63	26	43	18
28	234	1100	170	90	160	195	148	97	55	26	90	17
29	242	1140	169	84	---	186	137	90	50	25	114	16
30	232	899	168	80	---	190	132	85	62	24	99	17
31	219	---	166	110	---	185	---	82	---	24	77	---
TOTAL	27496	10144	12156	4806	3306	11511	7329	5136	3193	2419	967	883
MEAN	887	338	392	155	118	371	244	166	106	78.0	31.2	29.4
MAX	3340	1140	977	388	239	1400	390	425	338	439	114	59
MIN	184	131	166	70	60	113	132	82	44	24	17	16
CAL YR 1986 TOTAL	161883			MEAN	444	MAX	3340	MIN	27			
WTR YR 1987 TOTAL	89346			MEAN	245	MAX	3340	MIN	16			

STREAMS TRIBUTARY TO LAKE ERIE

04185440 UNNAMED TRIBUTARY TO LOST CREEK NR FARMER, OH

LOCATION.--Lat 41°21'42", long 84°41'28", Defiance County, Hydrologic Unit 04100006, on right bank 400 ft above bridge on Rosedale Rd., 0.5 mi above mouth and 2.0 mi from Farmer.

DRAINAGE AREA.--4.23 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Estimated daily discharges: Oct. 9-13, Jan. 21 to Feb. 6, Feb. 11-14, Feb. 21-27. Records fair except for estimated daily discharges which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 757 ft³/s Oct. 3, 1987, gage height, 5.74 ft; minimum discharge 0.00 ft³/s several days in August and September 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 3	1230	*757	*5.74	May 3	1030	139	3.37

Minimum daily discharge, 0.00 ft³/s Aug. 3-26, Sept. 5-11, 15, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	53	.11	1.3	.84	.60	46	1.1	.35	.87	4.7	.10	.12	
2	9.7	.11	22	.92	.74	17	2.2	15	.48	4.3	.04	.06	
3	211	.12	15	.88	1.1	8.4	1.2	70	.37	1.9	.00	.04	
4	29	.12	4.4	.81	2.0	3.8	.88	20	.24	2.5	.00	.01	
5	7.6	.12	2.2	.78	2.9	5.5	.84	6.0	.21	1.4	.00	.01	
6	4.5	.11	1.5	.75	5.0	7.1	.92	3.7	.18	7.4	.00	.00	
7	5.2	.10	1.7	.75	15	4.6	.84	2.1	.16	29	.00	.00	
8	9.9	.10	16	.66	24	3.0	.69	1.2	.14	3.3	.00	.00	
9	8.4	.09	36	.65	14	2.1	.62	.87	.13	1.1	.00	.00	
10	6.8	.09	12	.71	2.5	1.0	.60	.64	.12	.60	.00	.00	
11	6.4	.09	3.6	.64	2.3	.84	.62	.51	.12	.40	.00	.06	
12	7.6	.09	2.0	.59	3.9	.76	1.9	.48	.18	.32	.00	.07	
13	10	.09	1.2	.60	3.0	.67	1.2	.38	.14	.22	.00	.07	
14	13	.09	1.1	.63	2.5	.82	1.0	.38	.11	.19	.00	.03	
15	2.8	.09	.97	17	1.4	.94	3.6	.40	.10	.14	.00	.07	
16	1.8	.09	.87	17	.91	.77	13	.33	.09	.14	.00	.58	
17	1.3	.09	.90	3.0	.72	.68	4.2	.31	.09	.11	.00	.75	
18	1.1	.13	2.0	2.0	.58	.66	2.2	15	.09	.09	.00	.93	
19	.53	.22	1.4	1.3	.49	.64	2.4	41	.08	.09	.00	.30	
20	.31	5.4	1.1	1.1	.48	.57	3.5	9.5	.20	.09	.00	.11	
21	.24	20	.97	.94	.46	.54	.80	3.6	7.6	.08	.00	.09	
22	.19	14	.93	.86	.45	.49	.68	2.1	5.1	.08	.00	.08	
23	.17	12	.88	.78	.45	.46	6.5	1.1	5.5	.07	.00	.08	
24	.14	7.9	.86	.72	.45	.45	2.0	.77	.76	.08	.00	.06	
25	.14	3.4	.87	.66	.46	.48	1.1	.61	.34	.14	.00	.06	
26	.21	24	.81	.62	.50	.45	.76	.65	.21	.20	.06	.05	
27	.31	8.8	.78	.58	.56	.41	.68	.51	.13	.22	1.3	.04	
28	.25	3.9	.78	.56	2.3	.40	.62	.42	.10	.20	.82	.06	
29	.19	2.5	.76	.54	---	.40	.54	.34	.12	.19	.45	.05	
30	.14	1.9	.76	.54	---	3.5	.37	.34	7.5	.20	.13	.07	
31	.12	---	.73	.54	---	2.3	---	1.5	---	.20	.17	---	
TOTAL	392.04	105.85	136.37	58.95	89.75	115.73	57.56	200.09	31.46	59.65	3.07	3.85	
MEAN	12.6	3.53	4.40	1.90	3.21	3.73	1.92	6.45	1.05	1.92	.10	.13	
MAX	211	24	36	17	24	46	13	70	7.6	29	1.3	.93	
MIN	.12	.09	.73	.54	.45	.40	.37	.31	.08	.07	.00	.00	
CFSM	2.98	.83	1.04	.45	.76	.88	.45	1.52	.25	.45	.02	.03	
IN.	3.45	.93	1.20	.52	.79	1.02	.51	1.76	.28	.52	.03	.03	
CAL YR 1986	TOTAL	1927.58		MEAN	5.28	MAX	211	MIN	.09	CFSM	1.25	IN.	16.95
WTR YR 1987	TOTAL	1254.37		MEAN	3.44	MAX	211	MIN	.00	CFSM	.81	IN.	11.03

STREAMS TRIBUTARY TO LAKE ERIE

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04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OH

LOCATION.--Lat 40°56'55", long 84°15'58", in SE 1/4 sec. 15, T.1 S., R.5. E., Putnam County, Hydrologic Unit 04100007, on left bank 200 ft upstream from bridge on U. S. Highway 224, 3.5 mi northeast of Fort Jennings, 6 mi upstream from Ottawa River, and 7.3 mi downstream from Jennings Creek.

DRAINAGE AREA.--332 mi².

PERIOD OF RECORD.--August 1921 to December 1935. October 1940 to current year.

REVISED RECORDS.--WSP 744: 1932. WSP 974: 1930(M). WSP 1307: 1922-24(M), 1926-27(M), 1929(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 713.6 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 7-22, Jan. 20-Feb. 25. Records good except for estimated record, which are fair. Beginning Jan. 4, 1971, water was diverted at a point 24.3 mi upstream from station into Lake Bresler. Storage in Lake Bresler is available for low-flow augmentation and water supply of city of Lima, in Ottawa River basin. Net withdrawal totaled 3,694 mil gal, equivalent to a mean withdrawal of 15.6 ft³/s. No releases have been made for low-flow augmentation. Some diversion from Grand Lake to Auglaize River basin through Miami and Erie Canal into Jennings Creek at a point 9.2 mi upstream from station. Annual figures of runoff are considered to be within 10 percent of natural yield. Sediment data collected at this site 1970 to 1974. Water-quality data collected at this site 1968 to 1978. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--61 years, 286 ft³/s, 11.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s Jan. 23, 1959; maximum gage height, 20.30 ft Jan. 23, 1959, from floodmark (ice jam); minimum daily discharge, .94 ft³/s Oct. 10, 11.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 27	2200	*2,820	*10.95	No other peaks above base discharge.			

Minimum daily discharge, 8.2 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	883	99	325	114	200	175	243	69	553	68	36	22	
2	426	88	775	108	280	485	217	74	292	592	35	19	
3	261	80	2060	105	400	427	363	73	1200	1700	58	29	
4	188	78	1930	99	600	254	238	68	1280	1670	54	26	
5	146	78	776	92	470	180	183	65	507	1160	44	21	
6	143	80	393	88	370	173	563	61	201	554	48	18	
7	470	78	281	91	300	182	1020	55	119	242	41	17	
8	330	75	263	90	250	159	604	52	82	165	33	15	
9	250	72	527	86	220	142	320	49	194	129	36	16	
10	190	68	1250	84	190	113	194	48	223	92	39	17	
11	150	68	905	87	170	74	136	45	120	87	32	18	
12	130	68	393	81	150	64	108	44	271	759	30	18	
13	120	66	269	83	130	55	84	39	940	937	27	17	
14	150	65	204	82	120	50	96	41	794	494	26	19	
15	370	62	200	113	110	72	124	40	246	746	23	21	
16	290	61	162	218	100	74	206	36	120	328	20	13	
17	220	60	142	222	96	70	300	34	113	1110	17	13	
18	170	62	139	163	92	63	244	37	83	504	18	14	
19	130	71	143	138	86	44	140	202	60	245	16	16	
20	110	129	147	125	92	38	93	328	56	152	13	20	
21	94	985	135	115	78	35	98	319	77	89	11	15	
22	90	1070	124	110	76	33	121	143	79	69	11	16	
23	88	515	123	100	73	41	116	76	80	71	9.8	16	
24	81	317	128	96	70	57	112	50	79	63	8.8	13	
25	78	242	163	90	68	46	109	45	51	61	11	13	
26	121	575	233	86	66	54	93	457	63	55	31	14	
27	260	2470	214	83	64	42	73	360	58	52	106	12	
28	260	2200	175	80	67	31	62	146	55	44	298	9.1	
29	181	775	150	78	---	28	77	76	51	42	192	9.2	
30	137	459	137	76	---	49	74	71	64	42	74	8.2	
31	113	---	126	140	---	137	---	225	---	38	36	---	
TOTAL	6630	11116	12992	3323	4988	3447	6411	3428	8111	12360	1434.6	494.5	
MEAN	214	371	419	107	178	111	214	111	270	399	46.3	16.5	
MAX	883	2470	2060	222	600	485	1020	457	1280	1700	298	29	
MIN	78	60	123	76	64	28	62	34	51	38	8.8	8.2	
CFSM	.64	1.12	1.26	.32	.54	.33	.64	.33	.81	1.20	.14	.05	
IN.	.74	1.25	1.46	.37	.56	.39	.72	.38	.91	1.38	.16	.06	
CAL YR 1986	TOTAL	151402		MEAN	415	MAX	4350	MIN	32	CFSM	1.25	IN.	16.96
WTR YR 1987	TOTAL	74735.1		MEAN	205	MAX	2470	MIN	8.2	CFSM	.62	IN.	8.37

STREAMS TRIBUTARY TO LAKE ERIE

04189000 BLANCHARD RIVER NEAR FINDLAY, OH

LOCATION.--Lat 41°03'21", long 83°41'17", on east line of sec. 10, T.1 N., R.10 E., Hancock County, Hydrologic Unit 04100008, on left bank at upstream side of county road bridge, 2 mi west of Findlay, 3 mi downstream from Eagle Creek, and 3 mi upstream from Aurand Run.

DRAINAGE AREA.--346 mi².

PERIOD OF RECORD.--October 1923 to December 1935, October 1940 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 974: 1942. WSP 1054: 1927-30, 1933(M), 1945. WSP 1387: 1926, 1928(M), 1930(M), 1952. WSP 1912: Drainage area. WRD-OH-81-2: 1959, 1975 (M).

GAGE.--Water-stage recorder. Datum of gage is 754.55 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-22, Jan. 22, 23, 25-28, Jan. 30-Feb. 19, Aug. 30-Sept. 30. Records good except for periods of estimated record and June 19 to Aug. 30, which are fair. Water is diverted upstream from station into Findlay Reservoir. Storage in Findlay Reservoir used for water supply of city of Findlay, and is available for low-flow augmentation. All water returns to stream upstream from station. No releases have been made for low-flow augmentation. Sediment data collected at this site 1970-74. Water-quality data collected at this site 1968 to 1980.

AVERAGE DISCHARGE.--59 years, 255 ft³/s, 10.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s June 14, 1981, gage height, 17.43 ft from measurement made on peak; minimum daily, 0.4 ft³/s Aug. 27, Sept. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 18.5 ft; discharge, 22,000 ft³/s, from rating curve extended above 10,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 3	1500	*2,780	*7.93	No other peak greater than base discharge			

Minimum daily discharge, 15 ft³/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	99	283	80	160	227	397	49	184	339	40	43
2	1000	91	949	82	220	534	749	87	611	949	32	35
3	1500	85	2620	81	320	391	703	108	1880	1340	27	29
4	2000	82	2230	77	450	230	361	110	1010	1450	23	26
5	880	78	1090	76	330	169	553	90	432	885	22	24
6	540	77	396	78	260	141	1760	70	235	417	22	23
7	360	74	297	83	210	127	1480	63	154	279	25	22
8	250	69	360	78	180	119	757	64	126	250	23	21
9	180	66	699	74	160	117	408	62	577	147	32	20
10	160	64	1230	80	140	93	279	52	1130	111	30	19
11	140	102	737	80	120	78	217	51	698	91	24	20
12	120	88	355	77	110	71	180	50	339	166	21	20
13	150	79	216	91	100	64	146	47	815	110	21	19
14	290	77	158	95	94	66	125	45	590	418	20	22
15	450	71	160	285	87	70	120	47	245	242	21	25
16	320	66	136	380	82	66	116	40	150	119	18	31
17	240	65	123	262	77	57	107	39	106	83	18	29
18	190	89	141	193	73	52	95	64	80	64	18	27
19	150	266	150	170	70	52	83	90	65	55	17	26
20	120	537	143	146	72	51	74	238	112	49	16	24
21	100	1660	125	118	71	49	71	169	462	44	16	22
22	88	1230	121	110	73	46	67	287	610	41	25	21
23	83	625	122	94	76	45	73	283	323	50	18	21
24	78	377	120	85	71	45	68	139	190	36	15	20
25	82	289	123	79	66	46	61	91	127	32	16	20
26	103	955	120	75	62	47	54	88	129	31	57	20
27	147	2140	117	72	59	46	58	263	86	33	141	21
28	196	1710	110	70	72	44	58	369	65	32	152	23
29	170	765	104	81	---	43	53	164	83	32	113	25
30	140	383	99	100	---	221	54	180	207	30	72	25
31	114	---	89	125	---	357	---	151	---	28	54	---
TOTAL	11031	12359	13723	3577	3865	3764	9327	3650	11821	7953	1149	723
MEAN	356	412	443	115	138	121	311	118	394	257	37.1	24.1
MAX	2000	2140	2620	380	450	534	1760	369	1880	1450	152	43
MIN	78	64	89	70	59	43	53	39	65	28	15	19
CFSM	1.03	1.19	1.28	.33	.40	.35	.90	.34	1.14	.74	.11	.07
IN.	1.19	1.33	1.48	.38	.42	.40	1.00	.39	1.27	.86	.12	.08
CAL YR 1986	TOTAL	117806	MEAN	323	MAX	3820	MIN	24	CFSM	.93	IN.	12.67
WTR YR 1987	TOTAL	82942	MEAN	227	MAX	2620	MIN	15	CFSM	.66	IN.	8.92

STREAMS TRIBUTARY TO LAKE ERIE

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04191500 AUGLAIZE RIVER NEAR DEFIANCE, OH

LOCATION.--Lat 41°14'14", long 84°23'59", in NE 1/4 sec. 9, T.3 N. R.4 E., Defiance County, Hydrologic Unit 04100007, on right bank 125 ft downstream from hydroelectric dam of Hydro-Corporation, 0.2 mi upstream from Jackson ditch, and 3 mi south of Defiance.

DRAINAGE AREA.--2,318 mi².

PERIOD OF RECORD.--May to August 1903 (gage heights only), April 1915 to current year. Monthly discharges only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 954: 1941. WSP 1912: Drainage area. WRD OH-72-1: 1966 (M).

GAGE.--Water-stage recorder. Datum of gage is 659.70 ft above National Geodetic Vertical Datum of 1929. May 20 to Aug. 8, 1903, non-recording gage at site 1.8 mi downstream at different datum. April 13, 1915, to Dec. 6, 1933, nonrecording gage near right bank on downstream side of dam at datum 6.00 ft higher, and auxiliary tailwater staff gage near right bank on downstream side of dam at present datum. Oct. 1982 to Nov. 1984 at dam 125 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: June 21 to July 9. Records good except those for Feb. 19 to July 9, which are poor. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occasional gate operation, Jan. 10, 1963 to Sept. 7, 1985. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station. Water-quality data collected at this site 1966 to 1977.

AVERAGE DISCHARGE.--72 years, 1,744 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,500 ft³/s Feb. 16, 1950, Feb. 12, 1959, gage height, 26.4 ft, from graph based on hourly powerplant tailwater-gage readings, and gage readings respectively; maximum gage height 27.65 ft Feb. 13, 1959, from flood mark (ice jam). Minimum daily discharge, 0.5 ft³/s Oct. 13, 14, 1952 during repair to powerplant dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of 38.8 ft, from reading on powerplant tailwater gage at present datum; discharge, 120,000 ft³/s, from rating curve extended above 51,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft³/s Oct. 4, gage height 14.04; minimum daily, 35 ft³/s Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4580	584	3260	504	890	1040	2780	696	1340	1100	480	455
2	9590	621	3660	732	1400	3290	2470	397	1510	6000	213	488
3	11400	590	8680	668	2790	3860	2320	1070	3460	11000	377	167
4	13200	425	9840	484	5740	2960	2390	1610	6480	9000	670	360
5	11700	427	7900	717	6220	2000	2090	1160	5060	7000	400	160
6	8050	435	5360	415	5830	1820	2780	501	3080	4000	110	139
7	5110	433	3390	766	4920	1880	5200	389	1120	3000	338	145
8	2980	438	2310	614	4840	1700	5280	39	626	2500	370	143
9	1730	346	3440	606	3790	1360	4110	477	525	1900	456	107
10	1280	350	7690	424	2800	1200	2350	185	1450	1200	264	117
11	820	284	6990	489	2110	948	1690	113	1570	791	174	192
12	783	367	4480	674	1760	633	1360	342	1520	2390	143	57
13	1050	212	2490	270	1450	543	1390	364	3810	3420	240	59
14	3020	577	1570	592	1240	429	1360	413	4910	2920	480	123
15	4600	452	1280	861	1140	425	892	111	3180	2070	442	249
16	3140	35	1100	2040	808	558	1580	74	1350	1860	61	50
17	2060	188	850	2130	709	502	1990	81	567	1370	162	302
18	1450	210	931	1810	639	455	1670	700	554	1510	44	50
19	860	679	956	1440	522	304	1410	1820	354	902	46	51
20	808	316	858	1110	597	410	871	3000	172	640	48	190
21	597	3450	964	833	599	263	866	1850	500	358	49	51
22	352	7080	948	794	298	42	750	1370	500	435	52	46
23	772	6190	768	558	768	386	1030	648	540	312	50	193
24	517	3790	936	560	804	484	1150	635	450	312	52	47
25	486	2510	727	467	262	423	1060	656	320	205	57	49
26	471	2440	1230	451	308	276	736	563	400	236	182	187
27	973	9350	1270	512	627	338	704	1060	350	215	558	62
28	1280	11200	1130	518	448	249	438	599	330	463	1710	64
29	1210	8120	1010	472	---	263	598	650	400	283	2090	75
30	916	5280	792	480	---	549	378	653	600	197	1130	74
31	668	---	873	478	---	1890	---	652	---	80	655	---
TOTAL	96453	67379	87683	23469	54309	31480	53693	22878	47028	67669	12103	4452
MEAN	3111	2246	2828	757	1940	1015	1790	738	1568	2183	390	148
MAX	13200	11200	9840	2130	6220	3860	5280	3000	6480	11000	2090	488
MIN	352	35	727	270	262	42	378	39	172	80	44	46
CAL YR 1986	TOTAL	940506		MEAN	2577	MAX	18900	MIN	31			
WTR YR 1987	TOTAL	568596		MEAN	1558	MAX	13200	MIN	35			

STREAMS TRIBUTARY TO LAKE ERIE

04192500 MAUMEE RIVER NEAR DEFIANCE, OH

LOCATION.--Lat 41°17'30", long 84°16'52", in NW 1/4 sec. 22, T.4 N., R.5 E., Defiance County, Hydrologic Unit 04100009, on left bank 40 ft. upstream from Independence Dam, 4 mi downstream from mouth of Auglaize River, and 4.5 mi east of Defiance.

DRAINAGE AREA.--5,545 mi².

PERIOD OF RECORD.--October 1924 to December 1935, March 1939 to September 1974, October 1978 to current year.

REVISED RECORDS.--WSP 974: 1926-27, 1930. WSP 1387: 1925-28, 1946. WRD Ohio, 1970: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is 658.56 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1924, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by regulation of Auglaize River at hydroelectric plant of the Hydro-Corporation, 7 mi upstream. Operation of hydroelectric plant there was discontinued Jan. 10, 1963 to Sept. 7, 1985. Low flow slightly regulated by powerplant at Ft. Wayne, Indiana. Slight diversion 275 ft upstream into Miami and Erie Canal through a 24 inch conduit which bypasses station.

AVERAGE DISCHARGE.--55 years, 4,255 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft³/s Mar. 15, 1982, gage height, 15.87 ft; minimum discharge, 2 ft³/s Sept. 3, 1925; minimum gage height, 1.09 ft Sept. 26, 1928.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	0200	*31,200	*6.68	No other peaks greater than base discharge.			

Minimum daily discharge, 172 ft³/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8420	1650	7990	1830	1830	3880	4710	1350	3210	1840	389	1460
2	16900	1650	9070	1590	2560	9490	4450	1450	3440	3290	289	1260
3	22700	1550	15000	1810	4180	11300	4180	4250	4480	6670	305	789
4	29300	1290	15900	1510	8090	9130	4100	8410	9400	8280	476	629
5	29800	1190	13000	1610	10200	7570	3670	7130	7480	8090	493	528
6	24200	1180	9840	1470	10500	7580	4320	4310	4890	6680	321	451
7	18000	1150	7300	1480	9940	8160	6740	3100	2870	4810	335	389
8	13500	1110	6540	1490	10800	7040	7060	2190	2200	4990	250	378
9	10800	1070	8780	1400	9250	5450	5420	1810	1910	5910	356	320
10	8970	940	14600	1340	7060	4170	3800	1440	2680	3480	279	312
11	6940	944	14800	1340	5180	3370	3120	1440	3210	2220	451	362
12	5120	846	11000	1470	4340	2510	2750	1190	2740	3000	397	335
13	3930	865	7530	1150	3770	2180	2490	1200	4250	3980	317	297
14	6180	908	5520	1350	3470	1900	2490	1280	5780	3660	293	334
15	8410	1150	4400	2130	3140	1650	2320	943	3940	2950	230	426
16	7160	557	3760	5480	2260	1930	4710	802	2430	2860	224	473
17	5340	493	2990	6340	1770	1700	7340	889	1350	2980	291	743
18	4130	490	2890	5280	1550	1620	6420	1440	931	2570	200	570
19	3170	1010	2530	3780	1370	1560	4850	7280	852	1720	181	571
20	2560	1080	2630	2640	1700	1480	3290	12400	666	1090	185	522
21	2070	4730	2390	1980	1670	1650	2740	8270	789	993	207	437
22	1690	10000	2470	1670	1340	1280	2480	5460	1770	907	214	396
23	1790	9940	2130	1500	1350	1540	2450	2960	2830	839	178	629
24	1540	7070	2090	1370	1720	1560	2480	2260	2860	670	172	330
25	1440	5580	2070	1180	1120	1490	2300	2000	1910	425	178	265
26	1420	5960	2290	1390	1180	1290	1940	1600	1190	434	328	322
27	1830	14700	2600	1450	1560	1320	1760	2150	938	336	613	288
28	2590	17700	2440	1430	1600	1100	1490	1790	937	408	3010	246
29	2750	13700	2280	1320	---	1250	1380	1640	659	412	3990	253
30	2210	10200	2000	1290	---	1650	1270	1520	775	398	2550	244
31	1910	---	1970	1290	---	3470	---	1910	---	276	1810	---
TOTAL	256770	120703	190800	62360	114500	111270	108520	95864	83367	87168	19512	14559
MEAN	8283	4023	6155	2012	4089	3589	3617	3092	2779	2812	629	485
MAX	29800	17700	15900	6340	10800	11300	7340	12400	9400	8280	3990	1460
MIN	1420	490	1970	1150	1120	1100	1270	802	659	276	172	244
CAL YR 1986	TOTAL	2219600	MEAN	6081	MAX	34300	MIN	373				
WTR YR 1987	TOTAL	1265393	MEAN	3467	MAX	29800	MIN	172				

STREAMS TRIBUTARY TO LAKE ERIE

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04193490 MAUMEE RIVER NEAR WATERVILLE, OH

LOCATION.--Lat 41°28'34", long 83°44'20", Lucas County, Hydrologic Unit 04100009, in Bowling Green water-treatment plant, 2.0 mi upstream from discharge station at Waterville.

DRAINAGE AREA.--6,313 mi².

PERIOD OF RECORD.--Water years 1950 to 1976 (published as Maumee River at Waterville) 1976 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1963 to current year.

pH: May 1963 to current year.

WATER TEMPERATURES: March 1950 to current year.

DISSOLVED OXYGEN: March 1963 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1963. Prior to June 1974 water-quality monitor located in water-treatment plant 2,500 ft upstream from discharge station. Prior to May 1963 alcohol-actuated thermograph located at discharge station.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Prior to October 1976, records published as 04193500, Maumee River at Waterville, Ohio. See records of daily discharge for gaging station at Waterville (04193500).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,260 microsiemens, Feb. 16, 1977; minimum, 156 microsiemens, July 20, 1973.

pH: Maximum, 11.4 units Jan. 16, 1965; minimum, 5.0 units Nov. 24, 1968.

WATER TEMPERATURES: Maximum, 34.0°C July 1, 1963; minimum, 0.0°C on many days during winters.

DISSOLVED OXYGEN: Maximum, ≥20.0 mg/L several days in water years 1980, 1981 and 1987; minimum, 0.3 mg/L Nov. 10, 1965.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 788 microsiemens Feb. 2, 3; minimum, 360 microsiemens, Aug. 3.

pH: Maximum, 9.2 units Sept. 9; minimum, 7.2 units on Feb. 9.

WATER TEMPERATURES: Maximum, 32.5°C Aug. 3; minimum, 0.0°C on many days during winter.

DISSOLVED OXYGEN: Maximum, ≥20.0 mg/L, March 22, 23; minimum, 3.8 mg/L Aug. 18.

STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	466	394	425	702	696	698	520	512	515	764	758	762
2	468	452	461	720	700	709	544	522	531	764	756	761
3	458	374	409	736	720	728	530	502	515	756	750	753
4	412	370	392	748	738	744	524	500	510	752	750	751
5	372	362	367	746	738	742	506	496	502	756	750	753
6	374	360	365	742	734	738	500	494	497	756	754	755
7	380	364	371	740	730	734	516	492	498	752	746	749
8	396	382	391	736	720	729	556	518	538	758	746	753
9	414	396	405	726	710	719	558	526	547	762	756	760
10	426	412	419	718	710	715	526	510	517	758	750	754
11	452	426	438	724	712	718	536	516	527	750	746	748
12	474	452	462	730	718	724	540	528	534	758	748	754
13	500	474	488	734	724	730	548	530	539	760	756	757
14	554	504	523	744	732	736	550	528	537	768	758	763
15	552	524	535	742	736	739	548	540	543	762	732	748
16	604	548	575	740	736	739	558	548	552	744	710	724
17	596	530	554	738	732	735	570	558	564	738	716	723
18	534	524	527	734	718	726	590	572	580	736	698	714
19	558	536	546	726	718	721	608	590	598	710	696	705
20	580	558	569	734	724	727	620	608	613	710	694	703
21	600	580	591	772	720	734	628	620	623	726	706	716
22	606	594	600	742	678	716	646	630	637	712	686	699
23	616	604	608	760	648	725	662	648	654	698	686	693
24	626	612	619	644	596	621	672	660	666	730	694	710
25	628	620	624	596	580	586	688	672	682	732	720	728
26	638	624	630	624	542	586	708	688	697	730	718	725
27	694	640	656	538	500	515	724	708	715	736	728	733
28	684	644	654	538	518	526	728	722	724	734	730	733
29	662	650	655	512	500	505	740	730	733	742	734	737
30	680	662	670	514	508	512	746	740	743	750	744	748
31	694	680	687	---	---	---	756	744	752	756	746	751
MONTH	694	360	523	772	500	686	756	492	593	768	686	738
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	770	754	763	682	654	674	664	650	656	592	572	582
2	788	768	780	642	616	626	674	648	663	598	582	588
3	788	754	779	630	578	605	732	674	699	642	598	613
4	754	714	733	622	596	608	736	670	711	640	616	626
5	760	706	737	594	572	583	690	640	667	626	570	597
6	700	596	650	580	576	578	648	622	633	568	554	561
7	592	548	571	576	566	572	656	628	645	590	572	581
8	548	522	537	578	566	572	670	656	665	622	582	604
9	548	522	532	582	576	580	654	628	636	628	616	620
10	544	528	536	586	564	575	644	636	641	622	612	617
11	550	538	543	588	566	578	636	604	624	614	602	607
12	558	552	555	584	574	578	604	598	603	606	594	601
13	578	558	566	592	584	589	614	598	605	596	588	590
14	580	574	577	604	592	598	630	608	618	590	582	585
15	608	578	592	610	594	604	636	622	628	586	556	574
16	618	594	607	634	612	626	642	634	639	556	536	547
17	628	614	619	638	624	631	656	642	651	548	534	542
18	632	626	630	638	628	633	658	652	656	542	526	536
19	642	632	637	650	638	646	650	612	632	616	536	577
20	648	632	641	650	636	646	620	606	614	622	556	591
21	654	640	650	648	634	641	608	596	604	548	524	532
22	660	652	656	652	620	643	606	598	602	540	520	531
23	666	654	660	634	610	619	612	602	607	540	518	531
24	662	654	659	634	608	621	612	606	609	554	518	532
25	662	654	658	636	612	625	616	606	612	578	554	566
26	666	656	660	642	624	634	624	610	616	584	576	580
27	674	662	669	648	640	644	616	582	602	610	584	597
28	690	674	682	654	640	646	588	572	581	612	604	609
29	---	---	---	648	622	639	578	564	572	604	586	593
30	---	---	---	630	614	620	590	558	579	602	594	598
31	---	---	---	660	632	647	---	---	---	616	600	606
MONTH	788	522	639	682	564	616	736	558	629	642	518	581

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	640	618	632	624	586	608	422	364	405	744	698	731
2	686	542	647	646	600	610	422	366	391	744	722	738
3	646	578	618	606	582	593	404	360	390	766	740	754
4	626	592	606	606	564	595	418	366	389	766	720	743
5	676	602	633	616	560	587	424	400	414	744	720	730
6	598	502	547	576	520	534	464	404	424	764	726	752
7	512	500	507	526	496	512	466	404	438	766	722	755
8	510	504	507	516	480	495	466	440	452	744	682	720
9	502	488	496	500	456	473	466	440	456	720	658	689
10	502	492	498	498	444	473	482	446	463	704	664	690
11	518	502	508	500	480	490	466	458	463	706	640	660
12	550	514	532	498	480	485	458	440	448	658	640	645
13	568	534	549	484	464	480	456	440	445	646	576	611
14	616	560	575	464	416	443	464	440	459	604	564	589
15	646	600	624	466	440	450	466	444	453	582	560	574
16	606	526	576	506	444	474	476	444	462	578	522	557
17	526	502	515	524	480	496	482	456	472	560	538	551
18	524	496	516	504	480	491	484	460	479	566	556	560
19	524	486	516	500	480	493	482	458	479	586	560	568
20	526	476	520	496	480	485	486	480	482	586	560	573
21	526	520	522	486	480	483	486	480	484	598	576	590
22	560	476	511	496	480	486	486	476	483	606	576	600
23	506	484	499	484	458	477	486	476	482	606	566	594
24	486	456	476	480	458	477	484	458	480	586	540	568
25	498	440	470	500	446	477	484	480	481	576	542	561
26	516	484	503	506	480	499	486	480	482	560	520	541
27	538	496	519	506	484	501	486	478	483	556	520	541
28	546	520	539	506	480	495	498	480	485	---	---	---
29	576	520	549	486	400	443	618	496	551	542	524	538
30	596	536	567	420	400	406	686	604	656	544	520	530
31	---	---	---	426	376	407	718	680	697	---	---	---
MONTH	686	440	543	646	376	497	718	360	472	766	520	629
YEAR	788	360	595									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.73	7.59	7.67	8.37	8.28	8.32	8.08	7.98	8.04	8.28	8.22	8.25
2	7.69	7.60	7.64	8.39	8.29	8.34	8.10	7.81	7.97	8.27	8.23	8.25
3	7.67	7.40	7.53	8.44	8.32	8.39	7.85	7.77	7.80	8.28	8.20	8.24
4	7.47	7.39	7.43	8.40	8.29	8.34	7.91	7.85	7.89	8.29	8.21	8.24
5	7.50	7.44	7.46	8.43	8.31	8.38	7.90	7.87	7.88	8.33	8.22	8.27
6	7.57	7.50	7.53	8.44	8.26	8.35	7.93	7.88	7.91	8.36	8.26	8.31
7	7.71	7.57	7.61	8.45	8.29	8.37	7.96	7.92	7.94	8.35	8.27	8.30
8	7.73	7.66	7.70	8.46	8.28	8.37	7.96	7.91	7.93	8.35	8.26	8.31
9	7.78	7.72	7.75	8.53	8.33	8.41	7.91	7.73	7.85	8.40	8.30	8.34
10	7.88	7.78	7.82	8.54	8.38	8.45	7.88	7.74	7.80	8.45	8.34	8.40
11	7.90	7.87	7.89	8.61	8.41	8.51	8.02	7.90	7.97	8.49	8.37	8.42
12	7.95	7.89	7.92	8.57	8.42	8.49	8.02	7.99	8.00	8.49	8.38	8.44
13	8.01	7.93	7.96	8.58	8.46	8.51	8.06	8.00	8.03	8.48	8.36	8.43
14	8.01	7.89	7.93	8.64	8.54	8.60	8.09	8.05	8.07	8.48	8.38	8.44
15	7.96	7.88	7.91	8.69	8.54	8.62	8.05	8.03	8.04	8.47	8.21	8.31
16	8.03	7.94	7.99	8.70	8.57	8.61	8.06	8.03	8.05	8.26	8.15	8.21
17	8.00	7.91	7.95	8.70	8.58	8.64	8.07	8.03	8.05	8.29	8.22	8.25
18	7.97	7.90	7.94	8.76	8.61	8.68	8.09	8.06	8.07	8.27	8.23	8.25
19	8.03	7.95	7.99	8.71	8.64	8.68	8.14	8.09	8.11	8.25	8.21	8.24
20	8.08	8.02	8.06	8.81	8.64	8.72	8.13	8.10	8.11	8.23	8.17	8.20
21	8.11	8.07	8.09	8.68	8.23	8.43	8.13	8.08	8.10	8.22	8.16	8.19
22	8.12	8.07	8.09	8.35	8.18	8.29	8.14	8.10	8.12	8.24	8.16	8.19
23	8.15	8.08	8.11	8.29	8.01	8.20	8.16	7.78	8.12	8.24	8.14	8.18
24	8.17	8.11	8.14	8.00	7.96	7.98	8.23	8.14	8.18	8.23	8.14	8.18
25	8.23	8.14	8.19	8.01	7.96	7.98	8.21	8.18	8.20	8.18	8.08	8.12
26	8.23	8.15	8.19	8.08	7.71	7.94	8.22	8.18	8.20	8.21	8.11	8.16
27	8.22	8.16	8.19	7.77	7.63	7.69	8.22	8.18	8.20	8.21	8.11	8.16
28	8.22	8.09	8.15	7.84	7.77	7.81	8.25	8.19	8.21	8.20	8.11	8.14
29	8.21	8.16	8.19	7.83	7.78	7.80	8.28	8.23	8.25	8.20	8.08	8.12
30	8.30	8.15	8.21	7.98	7.83	7.89	8.26	8.23	8.25	8.20	8.11	8.15
31	8.36	8.26	8.31	---	---	---	8.27	8.21	8.23	8.27	8.10	8.14
MONTH	8.36	7.39	7.92	8.81	7.63	8.33	8.28	7.73	8.05	8.49	8.08	8.25

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	8.33	8.18	8.24	8.50	8.11	8.28	8.47	8.30	8.37	8.73	8.38	8.53
2	8.32	8.15	8.21	8.13	8.07	8.09	8.58	8.39	8.47	8.59	8.33	8.47
3	8.20	8.07	8.13	8.12	8.03	8.07	8.48	8.33	8.43	8.49	7.86	8.24
4	8.09	8.01	8.06	8.07	8.00	8.03	8.52	8.39	8.46	7.98	7.79	7.88
5	8.03	7.91	7.98	8.01	7.98	8.00	8.49	8.16	8.35	7.94	7.87	7.91
6	7.90	7.85	7.87	8.02	7.99	8.00	8.15	8.04	8.08	7.91	7.85	7.88
7	7.87	7.84	7.85	8.00	7.95	7.98	8.21	8.05	8.13	7.90	7.87	7.88
8	7.90	7.84	7.87	8.02	7.95	7.98	8.24	8.11	8.17	8.01	7.84	7.90
9	7.94	7.25	7.87	8.14	7.98	8.04	8.14	8.05	8.09	8.24	7.96	8.08
10	8.00	7.94	7.97	8.25	8.14	8.18	8.19	7.99	8.08	8.23	8.07	8.16
11	8.06	7.99	8.01	8.29	8.17	8.23	8.13	7.99	8.06	8.24	8.06	8.16
12	8.08	8.05	8.06	8.32	8.16	8.23	8.22	8.02	8.10	8.26	8.06	8.16
13	8.18	8.06	8.10	8.36	8.17	8.25	8.40	8.02	8.16	8.50	8.20	8.33
14	8.16	8.10	8.14	8.29	8.19	8.24	8.38	8.14	8.26	8.65	8.32	8.50
15	8.20	8.10	8.14	8.48	8.20	8.28	8.52	8.29	8.37	8.68	8.47	8.55
16	8.18	8.13	8.16	8.49	8.30	8.38	8.53	8.32	8.41	8.65	8.38	8.51
17	8.19	8.14	8.16	8.54	8.29	8.40	8.63	8.46	8.52	8.65	8.35	8.50
18	8.23	8.15	8.17	8.60	8.37	8.48	8.43	8.14	8.28	8.47	8.05	8.26
19	8.29	8.18	8.21	8.66	8.45	8.56	8.13	7.93	8.03	8.23	7.78	7.94
20	8.36	8.20	8.28	8.76	8.52	8.63	8.15	7.85	7.98	7.84	7.60	7.67
21	8.34	8.23	8.28	8.81	8.58	8.72	8.15	7.84	7.98	7.64	7.60	7.62
22	8.42	8.24	8.30	8.66	8.47	8.58	8.29	7.95	8.07	7.63	7.60	7.62
23	8.42	8.28	8.34	8.68	8.38	8.51	8.38	8.08	8.21	7.63	7.61	7.62
24	8.45	8.26	8.37	8.65	8.36	8.52	8.49	8.19	8.29	7.73	7.61	7.66
25	8.46	8.34	8.39	8.56	8.36	8.48	8.68	8.32	8.45	7.81	7.72	7.75
26	8.61	8.34	8.48	8.49	8.36	8.43	8.79	8.51	8.63	7.80	7.74	7.77
27	8.63	8.39	8.53	8.50	8.37	8.45	8.76	8.59	8.68	7.74	7.70	7.72
28	8.62	8.39	8.49	8.49	8.33	8.43	8.84	8.46	8.63	7.76	7.68	7.72
29	---	---	---	8.54	8.40	8.47	8.81	8.50	8.62	7.85	7.68	7.74
30	---	---	---	8.49	8.34	8.41	8.76	8.42	8.57	8.03	7.70	7.83
31	---	---	---	8.41	8.29	8.36	---	---	---	8.03	7.80	7.90
MONTH	8.63	7.25	8.17	8.81	7.95	8.31	8.84	7.84	8.30	8.73	7.60	8.01
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.92	7.80	7.83	8.52	8.19	8.34	9.13	7.81	8.29	8.63	8.20	8.39
2	7.92	7.79	7.83	8.18	8.00	8.04	8.82	7.80	8.45	8.70	8.40	8.52
3	7.84	7.76	7.79	8.33	8.00	8.08	9.11	8.40	8.71	8.68	8.40	8.58
4	7.77	7.71	7.73	8.33	7.89	8.08	9.00	7.81	8.47	8.70	8.29	8.44
5	7.81	7.73	7.78	7.92	7.69	7.82	8.53	7.82	8.16	8.72	8.20	8.48
6	7.78	7.69	7.73	7.82	7.62	7.74	8.81	8.12	8.42	8.60	8.20	8.34
7	7.73	7.68	7.70	7.83	7.79	7.80	8.82	8.19	8.47	8.63	8.00	8.35
8	7.81	7.72	7.77	7.83	7.80	7.82	8.29	7.71	8.05	9.03	8.22	8.54
9	7.83	7.76	7.79	7.83	7.79	7.81	8.71	8.00	8.31	9.23	8.02	8.55
10	7.85	7.79	7.82	7.92	7.80	7.84	8.71	8.39	8.48	8.73	7.89	8.22
11	7.88	7.81	7.83	7.93	7.80	7.88	8.72	8.30	8.49	8.78	7.70	8.25
12	7.92	7.82	7.87	8.02	7.80	7.91	8.99	8.40	8.65	8.79	7.82	8.23
13	7.92	7.87	7.89	7.93	7.82	7.90	8.90	8.52	8.71	9.00	7.90	8.50
14	7.91	7.81	7.85	7.93	7.82	7.87	8.71	8.40	8.56	9.12	8.00	8.46
15	7.92	7.80	7.84	8.09	7.81	7.95	8.73	8.40	8.55	8.52	8.00	8.22
16	8.03	7.81	7.92	8.13	7.89	8.03	8.63	8.20	8.48	8.82	7.80	8.22
17	8.09	7.80	7.89	8.12	8.00	8.03	8.83	8.20	8.43	8.73	8.22	8.50
18	8.42	8.00	8.15	8.13	7.91	8.01	8.90	7.92	8.30	8.68	8.40	8.52
19	8.73	8.13	8.36	8.30	8.00	8.14	8.83	8.21	8.50	8.71	8.31	8.45
20	8.68	8.08	8.31	8.43	8.10	8.24	8.90	8.19	8.57	8.58	8.20	8.31
21	8.48	8.20	8.32	8.72	8.10	8.34	8.70	8.38	8.52	8.70	8.21	8.40
22	8.11	7.79	7.88	8.72	8.10	8.36	8.73	8.11	8.43	8.93	8.28	8.55
23	7.83	7.80	7.81	8.81	8.20	8.50	8.92	8.20	8.56	8.90	8.40	8.67
24	7.98	7.80	7.85	8.83	8.50	8.66	8.91	8.41	8.67	9.03	8.59	8.68
25	8.48	7.88	8.15	8.72	8.58	8.67	8.83	8.48	8.63	9.13	8.50	8.76
26	8.63	8.19	8.43	8.73	8.48	8.56	8.71	8.38	8.49	8.92	8.40	8.69
27	8.71	8.40	8.55	8.73	8.40	8.50	8.62	8.31	8.45	8.92	8.42	8.64
28	8.79	8.42	8.62	8.83	8.43	8.63	8.49	8.40	8.42	---	---	---
29	8.73	8.40	8.55	8.90	8.42	8.65	8.41	8.20	8.29	8.59	8.39	8.44
30	8.61	8.28	8.45	8.91	8.40	8.64	8.42	8.10	8.24	8.73	8.23	8.47
31	---	---	---	8.93	7.91	8.45	8.43	8.20	8.34	---	---	---
MONTH	8.79	7.68	8.01	8.93	7.62	8.17	9.13	7.71	8.45	9.23	7.70	8.46
YEAR	9.23	7.25	8.20									

STREAMS TRIBUTARY TO LAKE ERIE

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04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	21.5	20.5	21.0	13.0	12.0	12.5	4.5	4.0	4.0	1.5	1.5	1.5
2	20.5	20.0	20.5	13.0	12.0	12.5	5.0	3.5	4.5	1.5	1.5	1.5
3	20.0	19.5	19.5	11.5	10.0	10.5	5.5	4.5	5.0	2.0	1.5	1.5
4	19.5	19.0	19.5	10.0	9.5	10.0	4.5	3.5	4.0	2.0	1.5	1.5
5	19.0	18.0	18.5	9.5	9.0	9.5	3.5	3.0	3.5	1.5	1.0	1.5
6	18.0	17.0	17.5	10.5	9.5	10.0	3.0	2.5	2.5	2.0	.5	1.0
7	17.0	16.0	16.5	11.5	10.5	11.0	3.0	2.5	3.0	2.5	2.0	2.0
8	16.5	15.5	16.0	12.5	11.0	11.5	4.0	3.0	3.5	2.0	1.0	1.5
9	16.0	15.0	15.5	12.5	9.5	11.0	5.0	4.0	4.5	1.0	.5	1.0
10	14.5	14.0	14.5	9.5	8.0	8.5	5.0	2.5	3.5	.5	.0	.5
11	14.5	13.0	14.0	8.5	7.5	8.0	2.5	2.0	2.0	1.0	.5	.5
12	14.5	14.0	14.5	7.0	5.5	6.5	2.0	1.5	2.0	.5	.0	.5
13	14.5	14.0	14.5	5.5	3.0	4.0	1.5	.5	1.0	.5	.0	.5
14	14.0	12.0	13.0	3.0	2.5	2.5	.5	.0	.5	1.5	.5	1.0
15	12.0	11.5	12.0	3.0	2.0	2.5	1.0	.0	.5	2.5	1.5	2.0
16	11.5	11.0	11.0	4.0	3.5	3.5	1.0	.5	.5	1.5	.5	1.0
17	11.5	10.5	11.0	5.0	4.0	4.5	1.0	1.0	1.0	.5	.5	.5
18	11.5	10.0	10.5	5.0	4.0	4.5	1.5	1.0	1.5	1.0	.5	1.0
19	11.5	10.0	10.5	4.0	2.5	3.0	1.0	1.0	1.0	1.0	.0	1.5
20	11.5	10.0	11.0	3.0	2.5	3.0	1.5	1.0	1.0	.0	.0	.0
21	12.5	11.0	11.5	3.5	3.0	3.5	2.0	1.5	1.5	.0	.0	.0
22	13.5	12.0	12.5	4.0	3.5	4.0	1.5	1.0	1.5	.0	.0	.0
23	14.0	13.0	13.5	4.0	3.5	4.0	1.0	1.0	1.0	.0	.0	.0
24	14.0	13.0	13.5	4.5	4.0	4.0	1.5	1.0	1.0	.0	.0	.0
25	13.0	12.5	12.5	4.5	3.5	4.0	1.5	1.5	1.5	.0	.0	.0
26	14.0	12.5	13.5	6.0	4.5	5.0	1.5	1.5	1.5	.0	.0	.0
27	14.0	13.0	13.5	6.0	5.5	6.0	1.5	1.5	1.5	.0	.0	.0
28	13.5	12.0	13.0	5.5	5.5	5.5	1.5	1.5	1.5	.0	.0	.0
29	13.0	12.5	13.0	5.5	5.5	5.5	1.5	1.0	1.0	.0	.0	.0
30	12.5	11.5	12.0	5.5	5.0	5.5	1.5	1.0	1.5	.0	.0	.0
31	12.0	11.0	11.5	---	---	---	1.5	1.5	1.5	.0	.0	.0
MONTH	21.5	10.0	14.0	13.0	2.0	6.5	5.5	.0	2.0	2.5	.0	.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	3.5	3.0	3.0	6.0	5.0	5.5	16.0	14.5	15.5
2	.0	.0	.0	4.0	2.5	3.0	5.5	5.0	5.5	16.0	15.0	15.5
3	.0	.0	.0	4.0	3.0	3.5	5.5	4.0	5.0	15.0	11.5	13.5
4	.0	.0	.0	4.5	3.0	4.0	5.0	4.0	4.5	13.0	10.5	12.0
5	.0	.0	.0	4.5	4.0	4.0	5.5	3.0	4.0	13.5	11.0	12.5
6	.0	.0	.0	5.5	3.5	4.5	6.5	5.0	5.5	15.0	12.0	13.5
7	.5	.0	.0	7.0	4.5	5.5	9.0	6.0	7.5	15.5	13.5	14.5
8	.0	.0	.0	7.5	5.5	6.5	9.5	7.0	8.5	17.0	14.0	15.0
9	.0	.0	.0	7.0	3.5	5.5	10.5	7.5	9.0	18.0	15.5	16.5
10	.0	.0	.0	4.0	2.5	3.5	11.5	8.5	10.0	19.0	16.5	18.0
11	.5	.0	.0	3.5	2.0	3.0	11.0	10.0	10.5	20.0	18.0	19.0
12	.5	.0	.0	4.0	2.5	3.5	11.5	9.5	10.5	20.0	18.5	19.0
13	.5	.0	.0	5.0	3.0	4.0	12.5	10.0	11.0	20.0	17.5	18.5
14	.5	.0	.0	5.0	3.0	4.0	12.5	11.5	12.0	21.0	18.5	19.5
15	.0	.0	.0	4.0	3.0	3.5	13.5	12.0	13.0	21.5	19.0	20.0
16	.0	.0	.0	4.0	2.5	3.5	13.0	12.0	13.0	22.0	19.5	20.5
17	.0	.0	.0	4.5	3.0	3.5	14.5	12.0	13.0	22.5	19.5	21.0
18	.5	.0	.0	4.5	3.5	4.0	15.5	13.0	14.5	22.0	21.0	21.5
19	.5	.0	.0	5.5	3.0	4.0	16.5	13.5	15.0	21.5	18.0	19.5
20	.5	.0	.0	6.5	4.5	5.5	18.0	15.0	16.0	19.0	17.5	18.0
21	.5	.0	.0	7.5	5.0	6.5	19.0	16.5	17.5	19.5	17.5	18.5
22	.5	.0	.5	8.0	6.0	7.0	17.5	15.0	16.0	21.5	18.5	20.0
23	1.0	.5	.5	9.5	7.0	8.5	17.0	14.5	15.5	21.0	19.5	20.0
24	1.5	.5	1.0	9.5	7.5	9.0	16.5	14.0	15.5	20.0	18.5	19.5
25	1.5	.5	1.0	10.5	9.5	10.0	15.0	13.0	14.0	19.5	18.5	19.0
26	1.5	.5	1.5	9.5	8.5	9.0	16.0	13.5	14.5	21.5	18.5	20.0
27	2.0	.5	1.5	9.5	8.5	9.0	16.0	14.5	15.0	24.0	20.5	22.0
28	3.0	2.0	2.5	10.0	9.0	9.5	15.5	14.0	15.0	25.0	23.0	24.0
29	---	---	---	11.0	9.0	10.0	16.0	13.5	15.0	26.0	23.5	24.5
30	---	---	---	11.0	7.0	9.5	17.0	14.0	15.5	27.0	24.5	25.5
31	---	---	---	7.0	6.0	6.5	---	---	---	25.5	24.5	25.0
MONTH	3.0	.0	.5	11.0	2.0	5.5	19.0	3.0	11.5	27.0	10.5	18.5

STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	25.0	24.0	24.5	22.5	22.0	22.5	31.0	27.0	28.0	21.0	19.0	20.0
2	25.5	23.0	24.0	22.5	21.0	21.5	29.0	27.0	27.5	20.0	19.0	19.5
3	24.5	22.0	23.0	24.0	22.0	23.0	32.5	27.0	29.5	19.5	18.0	19.0
4	24.0	21.0	22.5	24.5	22.0	23.5	30.5	28.0	29.0	20.5	18.5	19.5
5	24.0	21.5	23.0	24.0	22.0	23.0	28.0	26.0	27.0	22.0	19.0	20.5
6	23.0	21.5	22.5	23.5	21.0	22.5	28.5	25.0	26.0	21.5	20.0	21.0
7	23.5	21.0	22.5	24.5	22.0	23.5	28.0	25.0	26.0	23.0	20.0	21.5
8	23.5	22.0	22.5	25.5	23.0	24.5	26.5	25.0	25.5	25.5	22.0	23.0
9	23.0	22.0	23.0	26.5	24.0	25.0	26.5	24.5	25.5	26.0	22.0	23.0
10	23.0	21.5	22.5	27.0	24.0	25.5	25.5	24.5	25.0	23.0	22.0	22.5
11	23.0	21.0	22.5	28.0	25.5	26.5	24.5	23.5	24.0	23.0	22.0	22.5
12	24.5	22.5	23.0	28.0	26.0	27.0	26.0	23.0	24.5	23.0	22.0	22.5
13	26.0	23.5	24.5	27.5	26.5	27.0	27.5	24.5	26.0	24.0	21.5	22.5
14	26.5	24.0	25.5	26.5	24.5	25.5	27.5	26.0	26.5	24.5	21.0	22.5
15	26.5	24.5	25.5	25.0	23.0	24.0	28.0	26.0	27.0	22.0	21.0	21.5
16	26.5	24.0	25.5	25.0	23.0	24.0	28.5	26.5	27.5	21.0	20.0	20.5
17	26.0	25.0	25.5	26.0	23.0	24.5	29.5	26.5	27.5	21.0	20.0	20.5
18	26.0	24.0	25.0	26.5	24.5	25.5	28.5	26.0	27.0	21.5	21.0	21.0
19	28.0	24.5	25.5	27.0	25.5	26.5	27.5	25.0	26.0	22.5	21.0	21.5
20	27.0	25.0	25.5	28.5	26.0	27.5	28.0	24.5	26.0	21.0	19.5	20.5
21	26.0	25.0	25.5	30.0	27.0	28.0	26.0	24.5	25.0	19.5	18.0	19.0
22	26.0	24.0	25.0	31.0	27.0	28.5	26.5	24.0	25.0	20.0	18.0	19.0
23	25.5	23.5	24.5	30.0	27.5	29.0	25.0	23.0	24.0	19.0	18.0	18.5
24	26.0	23.0	24.5	29.0	28.0	28.5	24.5	22.0	23.0	19.0	17.0	17.5
25	26.5	24.5	25.5	29.0	28.0	28.5	22.5	21.5	22.0	19.5	16.5	18.0
26	26.0	25.0	25.5	29.0	28.0	28.5	21.0	20.5	21.0	18.5	16.5	17.5
27	25.0	23.5	24.5	28.0	26.5	27.5	20.5	19.5	20.0	19.5	17.0	18.0
28	23.5	22.0	23.0	27.5	26.0	27.0	19.5	18.0	19.0	---	---	---
29	23.0	22.0	22.5	28.0	26.0	27.0	21.5	18.0	19.5	19.0	18.5	19.0
30	23.0	22.5	22.5	28.5	26.0	27.5	21.5	19.5	20.5	18.5	17.5	18.0
31	---	---	---	31.5	26.5	28.0	21.5	20.0	21.0	---	---	---
MONTH	28.0	21.0	24.0	31.5	21.0	26.0	32.5	18.0	25.0	26.0	16.5	20.5
YEAR	32.5	.0	13.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.7	6.4	6.6	11.2	10.4	10.8	12.6	12.2	12.4	14.4	13.9	14.1
2	6.6	6.4	6.5	11.6	10.1	10.8	12.6	11.9	12.4	14.4	13.9	14.1
3	6.7	5.9	6.4	11.9	10.4	11.2	12.0	11.7	11.8	14.7	13.9	14.2
4	6.0	5.7	5.8	12.1	10.7	11.2	12.6	12.0	12.3	15.0	14.0	14.3
5	6.3	5.9	6.0	12.1	10.7	11.5	12.7	12.6	12.6	15.2	14.1	14.6
6	6.7	6.3	6.4	12.6	10.7	11.5	13.0	12.7	12.9	15.3	14.2	14.7
7	7.7	6.7	7.2	12.7	10.9	11.7	13.0	12.8	12.9	15.3	14.1	14.6
8	8.3	7.7	8.0	12.4	10.5	11.3	12.8	12.7	12.7	15.4	14.7	14.9
9	8.7	8.3	8.5	12.3	10.3	11.2	12.7	12.1	12.4	15.4	14.5	14.8
10	9.1	8.7	8.9	12.3	11.2	11.8	12.8	12.1	12.4	15.5	14.5	15.0
11	9.2	9.0	9.1	13.9	11.8	12.7	13.0	12.8	12.9	15.7	14.6	15.1
12	9.1	9.0	9.0	13.3	12.0	12.5	13.2	13.0	13.1	15.9	14.6	15.0
13	9.1	9.0	9.0	14.0	12.5	13.0	13.6	13.2	13.4	16.0	14.4	15.2
14	9.5	9.1	9.3	14.5	13.1	13.9	13.7	13.5	13.6	16.0	14.6	15.2
15	9.7	9.4	9.5	14.6	13.1	13.7	13.9	13.6	13.8	16.0	13.8	14.4
16	9.9	9.7	9.8	14.4	12.8	13.3	13.9	13.8	13.9	14.4	13.6	14.0
17	9.9	9.8	9.9	14.8	12.9	13.9	13.8	13.7	13.8	14.4	13.9	14.2
18	10.2	9.9	10.0	15.9	13.2	14.2	13.7	13.5	13.6	14.4	13.8	14.0
19	10.3	10.0	10.1	14.4	13.2	13.8	13.9	13.6	13.8	14.0	13.7	13.9
20	10.2	10.0	10.1	16.0	13.8	14.6	13.9	13.7	13.8	14.4	13.7	14.0
21	10.0	9.8	9.9	14.1	12.4	13.1	13.9	13.6	13.7	14.6	14.1	14.3
22	9.8	9.6	9.7	13.3	12.2	12.7	13.9	13.7	13.8	14.6	13.8	14.2
23	9.8	9.4	9.5	12.6	12.1	12.4	13.9	13.5	13.8	14.8	13.8	14.1
24	9.8	9.2	9.5	12.0	11.8	11.9	14.0	13.7	13.8	15.0	14.3	14.6
25	10.0	9.3	9.6	12.2	11.8	12.0	14.0	13.7	13.8	15.2	14.2	14.6
26	9.9	9.3	9.6	12.0	11.1	11.7	14.1	13.7	13.8	15.7	14.6	15.0
27	9.7	9.2	9.4	11.2	10.9	11.1	14.2	13.7	13.9	15.7	14.6	15.1
28	10.2	9.1	9.5	11.6	11.2	11.4	14.2	13.8	14.0	15.5	14.5	14.9
29	10.0	9.4	9.6	11.6	11.4	11.5	14.4	13.9	14.1	15.2	14.0	14.5
30	11.0	9.5	10.1	12.2	11.6	11.9	14.4	13.9	14.1	15.1	14.1	14.4
31	11.5	10.3	10.8	---	---	---	14.4	13.9	14.1	15.9	13.9	14.4
MONTH	11.5	5.7	8.8	16.0	10.1	12.3	14.4	11.7	13.3	16.0	13.6	14.5

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OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	16.5	14.7	15.3	15.0	12.4	13.2	13.7	12.0	12.7	17.0	12.3	14.8
2	16.4	14.4	15.1	12.7	12.3	12.5	14.3	12.2	13.2	13.9	10.8	12.7
3	15.0	13.7	14.3	12.7	12.3	12.5	14.3	12.2	13.2	12.1	9.7	10.3
4	14.3	13.5	14.0	12.7	12.4	12.5	13.8	12.3	13.1	10.6	9.8	10.1
5	14.0	13.4	13.8	12.6	12.2	12.4	13.5	12.4	12.9	10.3	9.5	9.9
6	13.3	13.1	13.2	12.8	12.3	12.5	12.5	12.1	12.3	10.0	9.3	9.6
7	13.1	12.9	13.0	12.6	12.0	12.2	13.1	12.0	12.4	9.8	8.9	9.3
8	13.0	12.8	12.9	12.3	11.7	11.9	13.2	11.6	12.3	10.5	8.7	9.5
9	13.5	13.0	13.3	12.3	11.5	11.9	12.6	11.4	11.9	11.4	9.1	10.1
10	13.4	13.3	13.3	13.4	12.3	12.7	12.9	10.9	11.7	11.4	8.9	10.3
11	13.5	13.2	13.4	13.8	12.6	13.1	11.5	10.4	11.0	10.8	8.8	9.9
12	13.2	13.0	13.1	14.0	12.5	13.1	12.2	10.5	11.2	10.8	8.5	9.6
13	13.8	13.1	13.4	14.5	12.6	13.3	13.9	10.5	11.7	12.4	8.9	10.7
14	13.5	13.1	13.3	13.6	12.4	12.8	13.1	10.6	11.6	13.7	9.4	11.7
15	14.2	13.3	13.7	14.6	12.3	13.1	14.1	10.9	12.1	13.8	9.4	11.6
16	14.3	13.9	14.0	15.2	12.7	13.8	13.4	10.6	11.8	15.7	11.8	13.5
17	14.3	13.9	14.0	15.7	13.2	14.1	14.2	10.8	12.2	14.8	11.5	13.6
18	14.8	13.9	14.1	15.8	13.2	14.4	12.8	10.1	11.4	13.8	5.0	9.6
19	15.2	14.2	14.5	16.6	13.2	14.7	11.7	9.4	10.4	8.6	6.8	8.0
20	15.5	14.2	14.8	18.3	13.7	15.6	11.9	8.7	10.1	8.1	7.2	7.5
21	15.1	14.2	14.6	18.9	14.3	16.9	11.4	8.5	9.8	7.6	7.2	7.4
22	15.6	13.9	14.5	20.0	15.1	17.4	11.8	8.6	9.8	7.2	6.5	7.0
23	15.5	13.9	14.5	20.0	15.7	18.7	12.7	9.3	10.7	6.8	6.5	6.7
24	16.5	13.9	15.1	19.8	14.8	17.8	12.4	9.7	10.8	7.1	6.5	6.8
25	16.3	14.6	15.3	19.1	15.3	16.6	13.7	10.1	11.7	7.4	6.8	7.1
26	16.9	14.4	15.7	15.7	12.9	13.9	15.5	10.5	12.8	7.5	6.5	7.2
27	17.1	14.2	15.7	14.3	12.4	13.4	17.3	11.9	14.2	7.2	6.8	7.0
28	17.2	14.1	15.1	13.7	11.2	12.6	18.3	12.9	15.6	7.4	6.6	6.9
29	---	---	---	13.3	11.7	12.5	16.6	13.6	15.1	8.0	6.5	7.1
30	---	---	---	12.4	10.6	11.6	18.5	12.3	14.7	9.1	6.5	7.4
31	---	---	---	13.1	11.5	12.2	---	---	---	8.7	6.7	7.5
MONTH	17.2	12.8	14.2	20.0	10.6	13.7	18.5	8.5	12.2	17.0	5.0	9.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.7	6.6	7.0	10.8	8.2	9.3	15.2	5.7	9.2	13.2	8.5	10.5
2	7.8	6.6	7.0	8.4	7.8	8.0	13.0	5.4	9.9	12.8	9.3	11.0
3	7.5	7.1	7.3	8.5	7.6	8.1	15.8	8.4	11.4	14.6	10.0	11.8
4	7.2	7.0	7.1	8.6	7.6	8.1	15.4	6.2	11.5	17.0	11.2	14.0
5	7.5	7.0	7.2	7.7	7.2	7.4	10.8	6.4	8.3	17.9	12.0	15.2
6	7.4	7.1	7.3	7.7	7.2	7.5	15.0	7.2	10.5	14.8	11.9	13.6
7	7.3	7.1	7.2	7.9	4.3	7.3	16.5	8.0	13.2	17.1	10.4	13.3
8	7.6	7.1	7.3	7.6	7.4	7.5	12.2	6.5	9.5	18.8	12.6	14.8
9	7.6	7.2	7.4	7.4	7.2	7.2	11.8	6.8	8.9	19.3	9.8	14.0
10	7.8	7.4	7.6	7.4	7.0	7.3	12.0	8.1	9.2	14.0	7.5	10.2
11	7.8	7.5	7.6	7.6	6.8	7.2	11.2	7.0	9.0	12.8	5.8	9.5
12	7.9	7.3	7.5	8.0	6.8	7.3	13.2	8.3	10.1	12.0	5.6	8.3
13	8.0	7.4	7.6	7.8	6.8	7.2	11.8	8.2	10.0	14.6	5.9	10.2
14	8.2	7.2	7.6	8.0	7.2	7.5	9.8	7.2	8.5	15.3	7.8	10.6
15	8.1	7.0	7.6	8.8	7.4	7.9	9.8	6.8	8.1	13.2	8.0	10.0
16	9.0	7.2	8.0	9.0	7.8	8.3	8.5	5.7	7.2	12.1	6.5	8.7
17	8.8	7.2	7.8	8.7	7.6	8.2	11.2	5.1	6.9	11.4	8.0	9.2
18	10.6	7.7	8.9	9.0	7.4	8.1	11.2	3.8	6.1	11.0	7.8	9.5
19	14.8	8.0	10.6	9.6	7.6	8.5	11.0	5.2	7.7	11.8	8.0	9.3
20	14.4	7.2	9.3	11.0	7.6	8.9	11.0	5.0	8.0	10.4	8.0	8.8
21	10.2	7.6	8.9	14.2	7.4	9.8	9.0	5.2	6.8	12.0	8.2	9.7
22	8.2	6.6	7.1	13.7	6.9	9.7	8.6	5.0	6.6	14.9	9.4	11.3
23	7.0	6.8	6.9	14.0	7.0	10.1	10.8	5.5	7.9	14.0	9.2	11.6
24	8.2	6.8	7.2	13.0	8.0	10.6	11.8	7.2	9.1	18.2	9.0	11.2
25	11.0	7.2	8.9	11.8	8.8	10.1	10.2	6.8	8.3	16.6	8.7	12.2
26	12.7	7.8	10.1	11.2	7.8	9.0	9.0	6.2	7.1	14.9	11.6	13.5
27	13.4	8.8	11.1	12.6	7.0	8.8	7.8	5.6	6.7	13.6	9.6	11.4
28	13.8	9.8	11.7	15.0	7.8	11.7	8.6	7.0	7.8	---	---	---
29	14.6	6.9	12.4	17.6	12.3	15.0	9.3	7.6	8.4	9.2	8.0	8.7
30	13.2	10.0	10.9	16.4	13.4	15.0	10.1	7.4	8.6	9.9	6.8	8.2
31	---	---	---	14.0	7.5	11.4	11.5	8.0	9.6	---	---	---
MONTH	14.8	6.6	8.3	17.6	4.3	9.0	16.5	3.8	8.7	19.3	5.6	11.0
YEAR	20.0	3.8	11.3									

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OH
(National stream quality accounting network station)

LOCATION.--Lat 41°30'00", long 83°42'46", Lucas County, Hydrologic Unit 04100009, on downstream side of first pier from left end of bridge on State Highway 64 at Waterville, 3 mi downstream from Tontogany Creek, and 20.7 mi upstream from mouth.

DRAINAGE AREA.--6,330 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to December 1901, August 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.--WSP 894: 1930(M). WSP 1084: 1946. WSP 1387: 1900(M), 1922-23, 1933. WDR OH-68-1: 1967. WDR OH-70-1: Drainage area. WRD-OH-82-2: 1981.

GAGE.--Water-stage recorder with auxilliary crest-stage gage. Datum of gage is 595.71 ft above National Geodetic Datum of 1929. Nov. 19, 1898 to Dec. 31, 1901, Aug. 26, 1921 to July 31, 1930, nonrecording gage Aug. 1, 1930 to Dec. 31, 1935, water-stage recorder, Mar. 14, 1939 to Mar. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: May 23. Records good.

AVERAGE DISCHARGE.--62 years (1921-35, 1939-87), 4,960 ft³/s, 10.64 in/yr includes flow in Miami and Erie Canal at Waterville 1922-29; canal was abandoned in 1929 and was filled in prior to March 1939.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft³/s Mar. 14, 1982, gage height, 14.96 ft recorder-manometer; 17.18 ft from floodmark. Practically no flow at times prior to June 30, 1929, when entire river flow was being diverted by canal; minimum daily since canal was abandoned, 26 ft³/s Oct. 24, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.9 ft, from information by local resident, estimated discharge, 180,000 ft³/s, from rating curve extended above 94,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,100 ft³/s Oct. 4, gage height, 9.72 ft; minimum daily, 163 ft³/s, Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	6800	1980	8130	2250	1730	3550	5340	1490	2630	1800	346	1600	
2	14600	1860	8290	1820	2420	8670	5450	1570	3840	3130	521	1390	
3	24200	1850	15500	2100	3200	11300	4710	3140	5270	5600	339	1180	
4	36200	1630	16900	1870	5800	9480	4680	10700	7420	7600	326	848	
5	33400	1530	13500	1730	9520	7490	4860	8240	7980	7930	453	733	
6	26400	1500	10100	1890	10300	6850	6250	5730	5730	8420	547	615	
7	19400	1450	7670	1690	9880	7530	6770	3720	4070	6420	400	530	
8	13700	1520	6610	1810	10500	6960	7480	2940	2640	6020	364	479	
9	10400	1510	8640	1610	9690	5730	6430	2200	2090	7070	383	473	
10	8380	1030	14300	1860	8100	4510	4730	1980	2120	5440	394	358	
11	6940	1270	15400	1710	6160	3740	3820	1780	3090	3540	317	379	
12	5370	1200	11800	1510	4760	3110	3610	1470	3040	3250	490	464	
13	4260	1170	7880	1590	4250	2500	2830	1410	3080	5050	504	456	
14	6100	1030	5810	1430	3600	2330	2970	1550	5060	6050	403	342	
15	8340	1410	4580	2290	3700	1980	2900	1430	4420	6110	356	414	
16	7360	1130	3960	4840	3100	2170	3160	1210	3150	5720	315	768	
17	5730	800	3380	6080	2830	2300	6400	1290	1980	4550	284	952	
18	4430	701	3120	5730	2420	1970	6730	1520	1500	2580	274	1140	
19	3650	906	2760	4320	2110	2080	5450	6150	1240	2200	239	934	
20	2780	1510	2830	3570	1960	1890	4000	14500	1040	1450	202	755	
21	2500	2820	2560	3040	2170	2010	3270	10600	1290	1180	163	708	
22	2160	8740	2700	2610	1860	1810	2730	6930	2810	979	337	544	
23	1780	9600	2430	2010	1500	1600	2920	3660	3530	1020	290	596	
24	1870	7790	2280	1570	1870	1920	2530	3120	3290	869	218	556	
25	1710	5920	2600	1950	1620	2030	2650	2740	2600	729	179	360	
26	1840	5810	2210	1740	1390	1770	2570	2490	1970	511	280	312	
27	1920	13700	2680	1910	1540	1600	2290	2120	1550	432	767	357	
28	2420	18900	2700	1880	1960	1640	2040	2580	1110	390	1630	328	
29	2760	15500	2470	1880	---	1650	1800	1980	1220	465	3720	277	
30	2480	10500	2340	1710	---	1960	1400	1960	1280	466	3130	327	
31	2280	---	2150	1740	---	4370	---	1960	---	424	2190	---	
TOTAL	272160	126267	198280	73740	119940	118500	122770	114160	92040	107395	20361	19175	
MEAN	8779	4209	6396	2379	4284	3823	4092	3683	3068	3464	657	639	
MAX	36200	18900	16900	6080	10500	11300	7480	14500	7980	8420	3720	1600	
MIN	1710	701	2150	1430	1390	1600	1400	1210	1040	390	163	277	
CFSM	1.39	.66	1.01	.38	.68	.60	.65	.58	.48	.55	.10	.10	
IN.	1.60	.74	1.17	.43	.70	.70	.72	.67	.54	.63	.12	.11	
CAL YR 1986	TOTAL	2331110		MEAN	6387	MAX	36200	MIN	393	CFSM	1.01	IN.	13.70
WTR YR 1987	TOTAL	1384788		MEAN	3794	MAX	36200	MIN	163	CFSM	.60	IN.	8.14

STREAMS TRIBUTARY TO LAKE ERIE

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04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1950 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: April 1950 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,240 mg/L Mar. 26, 1954; minimum daily mean, 1 mg/L on many days during 1953, 1955, and 1963.

SEDIMENT LOADS: Maximum daily, 208,000 tons Feb. 12, 1959; minimum daily, 0.26 ton Sept. 18, 1955.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 18...	1230	703	740	8.77	-1.0	4.5	5.9	13.0	103	50	50
MAR 24...	1100	1940	680	8.96	21.0	12.5	2.0	12.0	116	K4	K14
APR 28...	1430	2100	560	8.91	23.0	18.5	10	12.8	141	K23	K10
AUG 25...	1315	164	495	8.77	29.0	20.0	15	10.6	121	K27	2200

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 18...	350	120	95	28	26	4.8	254	13	228	94	41
MAR 24...	290	120	70	27	22	3.1	--	--	164	93	39
APR 28...	270	130	67	24	19	3.0	--	--	134	84	33
AUG 25...	190	72	43	20	28	5.5	121	12	119	94	42

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 18...	0.40	6.7	468	0.020	1.90	0.020	0.020	0.90	0.110	0.010	0.030
MAR 24...	0.30	0.07	370	0.040	2.60	0.030	0.050	2.3	0.080	0.020	<0.010
APR 28...	0.30	0.10	335	0.040	3.20	0.020	0.020	1.8	0.160	0.020	<0.010
AUG 25...	0.40	490	297	<0.010	<0.100	<0.010	0.020	1.8	0.180	0.040	0.020

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OH--Continued

WATER QUALITY RECORDS

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 18...	<10	1	54	<0.5	<1	<1	<3	11	10	8	14
MAR 24...	20	<1	36	<0.5	<1	<1	<3	3	18	<5	12
APR 28...	30	<1	38	<0.5	2	<1	<3	6	19	<5	20
AUG 25...	20	2	37	<0.5	<1	<1	<3	2	4	<5	6

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDEED (MG/L)
NOV 18...	2	<0.1	<10	3	<1	<1.0	1200	<6	13	E323
MAR 24...	1	<0.1	<10	2	<1	<1.0	790	<6	10	16
APR 28...	4	<0.1	<10	3	<1	<1.0	680	<6	7	E35
AUG 25...	2	0.1	<10	3	<1	<1.0	770	<6	6	32

K Results based on colony count outside the acceptable range (non-ideal colony count).
 E Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

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04194107 LAKE ERIE AT RENO BEACH, OH

LOCATION.-- Lat 41°40'29", long 83°17'32", Lucas County, Hydrologic Unit 04100010, on right bank at mouth of Reno side cut (Coulee Canal) which is Cedar Creek drainage.

PERIOD OF RECORD.-- November 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft International Great Lakes Datum.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 16.02 ft Mar. 4, 1985; minimum recorded gage height 7.70 ft Dec. 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 14.74 ft Dec. 1, minimum recorded gage height, 11.49 ft Apr. 2.

DAY	GAGE HEIGHT (FEET)					WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987						
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.83	13.30	14.74	13.45	12.80	12.62	12.54	12.98	12.69	13.12	12.90	12.17
2	13.48	13.35	13.81	13.45	12.73	11.70	11.49	13.02	12.84	13.19	12.53	12.43
3	13.33	12.94	11.93	13.18	12.64	12.53	12.81	13.31	12.79	12.74	12.79	12.65
4	13.92	13.40	11.52	13.43	12.74	12.74	13.34	13.31	12.78	12.91	12.76	12.57
5	13.03	13.63	12.90	13.43	12.79	12.96	13.12	13.00	12.82	13.16	13.00	12.42
6	13.16	13.35	12.70	13.30	12.68	12.76	12.95	12.89	13.03	12.86	12.81	12.37
7	13.32	13.43	12.89	12.91	12.79	12.65	12.96	12.93	12.61	12.86	12.62	12.36
8	12.99	13.32	13.90	12.83	11.87	12.75	13.02	12.93	12.45	12.78	12.80	12.32
9	13.81	11.91	13.34	13.26	12.88	13.46	13.04	12.75	12.89	12.88	12.54	12.21
10	14.20	13.31	12.37	13.21	12.66	13.58	13.06	12.80	12.83	12.76	12.77	12.54
11	13.67	13.11	12.95	12.39	13.09	13.16	13.07	12.82	12.83	12.82	13.14	12.34
12	13.48	12.54	12.61	12.36	12.86	12.69	13.09	13.01	12.56	12.78	12.98	12.34
13	13.52	12.59	13.19	13.16	13.00	12.83	13.17	13.20	12.78	12.78	12.69	12.26
14	12.31	12.66	12.59	13.04	13.50	13.10	13.40	12.90	12.72	12.84	12.62	12.38
15	12.89	12.31	13.18	13.08	13.21	13.46	13.25	12.99	12.84	13.14	12.54	12.36
16	13.31	12.77	13.33	13.34	13.37	13.17	13.43	12.95	12.84	13.07	12.45	12.33
17	13.72	12.77	13.46	13.62	13.45	12.81	13.21	12.86	13.13	12.87	12.20	12.35
18	13.67	13.80	12.82	13.23	12.90	13.03	13.09	13.18	12.89	12.76	12.42	12.36
19	13.52	13.31	12.99	14.17	12.79	12.87	13.13	13.55	12.82	12.73	12.29	12.33
20	13.33	13.26	13.37	12.61	12.75	12.62	13.12	13.11	12.95	12.54	12.45	12.31
21	13.30	12.88	13.40	12.31	12.75	12.66	13.17	13.06	13.02	12.70	12.12	12.13
22	13.40	13.02	12.94	12.97	12.74	12.60	13.66	12.91	12.73	12.76	12.15	12.29
23	13.38	12.96	13.04	11.81	12.61	12.76	13.08	12.84	12.98	12.73	12.29	11.85
24	13.83	12.56	13.97	12.26	12.67	12.86	13.39	13.10	12.97	12.64	12.37	12.13
25	13.88	13.04	13.15	13.03	12.71	12.53	13.40	13.14	12.93	12.63	12.17	12.22
26	13.62	13.31	13.35	13.05	12.76	12.33	13.21	12.97	12.55	12.60	12.54	11.91
27	13.17	12.93	13.41	12.92	12.98	12.66	12.98	12.91	12.52	12.85	12.74	12.13
28	13.25	12.81	13.13	12.76	13.08	12.60	12.72	12.87	12.46	12.66	13.00	12.13
29	13.07	13.03	13.28	13.21	---	12.74	12.73	12.86	12.52	12.76	12.48	11.86
30	13.49	14.16	13.39	12.48	---	12.64	12.83	12.75	12.62	12.56	12.35	11.64
31	13.61	---	13.35	12.76	---	12.39	---	12.77	---	12.94	11.97	---
MEAN	13.44	13.06	13.13	13.00	12.85	12.78	13.05	12.99	12.78	12.82	12.56	12.26
MAX	14.20	14.16	14.74	14.17	13.50	13.58	13.66	13.55	13.13	13.19	13.14	12.65
MIN	12.31	11.91	11.52	11.81	11.87	11.70	11.49	12.75	12.45	12.54	11.97	11.64
CAL YR 1986	MEAN	13.33		MAX	14.74	MIN	11.36					
WTR YR 1987	MEAN	12.89		MAX	14.74	MIN	11.49					

STREAMS TRIBUTARY TO LAKE ERIE

04195500 PORTAGE RIVER AT WOODVILLE, OH

LOCATION.--Lat 41°26'58", long 83°21'41", in sec. 28, T.6 N., R.13 E., Sandusky County, Hydrologic Unit 04100010, on left bank at upstream side of bridge on U.S. Highway 20 in Woodville, 600 ft downstream from unnamed right bank tributary, and 10.3 mi upstream from Sugar Creek.

DRAINAGE AREA.--428 mi².

PERIOD OF RECORD.--July 1928 to December 1935, October 1939 to current year.

REVISED RECORDS.--WSP 894: 1929-30. WSP 1207: 1933. WSP 1387: 1931, 1933. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 614.75 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 8, 1933, nonrecording gage, Oct. 9, 1933 to Dec. 30, 1935 water-stage recorder, Oct. 17 to Nov. 29, 1939, nonrecording gage, all at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 21-30, Feb. 17, 18. Records good except for periods of estimated record, which are fair. Flow supplemented by water imported from Maumee River basin for municipal supply for city of Bowling Green 16 mi upstream. The importation of this water began Sept. 1, 1951. Sediment data collected at this site 1950 to 1956. Water-quality data collected at this site 800 ft downstream 1968 to 1980. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE (adjusted for diversion).--55 years, 327 ft³/s, 10.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s Feb. 15, 1950, gage height, 14.51 ft; minimum daily (prior to diversion) 0.4 ft³/s Aug. 26, 1931; (subsequent to diversion) 1.8 ft³/s Sept. 22, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17 ft, from information by local residents, discharge, 17,000 ft³/s, from rating curve extended above 11,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 27	2000	*3,540	*8.37	No other peak greater than base discharge.			

Minimum daily discharge, 6.8 ft³/s Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	160	58	412	134	160	355	1060	91	223	142	9.9	42			
2	834	53	532	130	207	1310	940	94	388	218	10	35			
3	745	48	2280	134	375	957	952	290	1090	228	13	25			
4	1670	45	1820	122	753	558	530	1130	1210	180	17	18			
5	1630	44	783	112	919	379	733	786	453	137	11	15			
6	612	44	439	110	806	303	2650	420	210	245	9.1	12			
7	299	42	331	118	839	249	2210	274	133	199	8.7	11			
8	175	40	556	116	1120	218	1060	204	97	115	8.4	9.6			
9	121	38	1120	96	785	199	615	158	85	259	9.3	8.4			
10	91	36	2080	91	585	160	427	130	77	179	9.9	8.5			
11	72	35	1160	116	373	113	337	111	65	82	10	8.8			
12	61	34	555	90	316	121	297	96	60	53	11	9.7			
13	58	35	315	77	286	105	247	84	72	55	9.4	8.8			
14	190	34	205	88	244	100	200	75	556	65	9.3	8.6			
15	647	33	235	333	168	114	188	69	235	101	9.2	15			
16	319	33	184	712	158	147	189	63	120	95	8.8	18			
17	183	32	153	423	165	152	173	57	77	53	7.4	32			
18	127	35	168	295	145	130	151	58	56	37	6.8	29			
19	92	42	233	242	132	120	130	100	44	29	7.7	33			
20	72	83	221	137	112	116	116	235	54	23	7.1	29			
21	62	493	186	180	103	106	112	215	60	21	8.7	23			
22	59	844	174	160	99	93	112	149	133	15	13	20			
23	55	460	188	140	99	86	114	111	229	14	15	16			
24	49	303	180	120	102	83	121	88	177	13	20	13			
25	47	224	236	100	88	84	112	73	104	17	16	11			
26	49	683	261	95	78	86	99	65	69	14	16	9.9			
27	110	3280	239	93	74	84	93	62	53	12	41	9.1			
28	127	2560	209	90	79	81	95	141	45	11	92	8.1			
29	93	1110	186	99	---	74	100	97	40	10	125	7.8			
30	76	618	172	110	---	281	96	65	44	9.8	93	7.0			
31	68	---	155	129	---	1620	---	56	---	9.8	58	---			
TOTAL	8953	11419	15968	4992	9370	8584	14259	5647	6259	2641.6	690.7	501.3			
MEAN	289	381	515	161	335	277	475	182	209	85.2	22.3	16.7			
MAX	1670	3280	2280	712	1120	1620	2650	1130	1210	259	125	42			
MIN	47	32	153	77	74	74	93	56	40	9.8	6.8	7.0			
(+)	5.3	5.0	6.2	4.9	5.5	5.2	6.0	5.8	5.9	6.4	6.6	6.9			
MEAN %	284	376	509	156	330	272	469	176	203	78.8	15.7	9.8			
CFSM %	.66	.88	1.19	.36	.77	.64	1.10	.41	.47	.18	.04	.02			
IN %	.77	.98	1.37	.42	.80	.73	1.22	.47	.53	.21	.04	.03			
CAL YR 1986	TOTAL	137336	MEAN	376	MAX	4070	MIN	14	+ 5.0	MEAN %	371	CFSM %	.87	IN %	11.77
WTR YR 1987	TOTAL	89284.6	MEAN	245	MAX	3280	MIN	6.8	+ 5.8	MEAN %	239	CFSM %	.56	IN %	7.58

+ Diversion in cubic feet per second, from Maumee River basin for municipal supply; furnished by City of Bowling Green.

Adjusted for diversion.

STREAMS TRIBUTARY TO LAKE ERIE

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04196800 TYMOCHTEE CREEK AT CRAWFORD, OH

LOCATION.--Lat 40°55'22", long 83°20'56", in SE 1/4 sec. 27, T.1 S., R.13 E., Wyandot County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on State Highway 199 (formerly U.S. Highway 23), 0.4 mi northwest of Crawford, 1.5 mi downstream from Lick Run, 2.7 mi upstream from Little Tymochtee Creek, and 3 mi southeast of Carey.

DRAINAGE AREA.--229 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1961-64, June 1964 to current year.

REVISED RECORDS.--WRD Ohio 1969: 1964(P), 1966(M), 1967(P).

GAGE.--Water-stage recorder. Datum of gage is 785.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 24. Records good except those for estimated daily discharges, which are fair. Beginning Mar. 9, 1972 water is diverted at a point 29.4 mi upstream from station into Killdeer Reservoir. Storage is available for low-flow augmentation. During the year, there were no pumpage into or releases made from Killdeer Reservoir. Water-quality data collected at this site 1968 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--23 years, 183 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft³/s Mar. 17, 1978, gage height, 9.94 ft; maximum gage height, 11.21 ft Mar. 6, 1963 (backwater from ice); no flow Aug. 10, Sept. 13-18, Oct. 23 to Nov. 4, 1964, Aug. 23-26, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1959 reached a stage of 12.9 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 28	1830	2,130	6.29	July 4	0600	*4,020	*7.98
Dec. 4	2230	2,210	6.38				

Minimum daily discharge, 1.3 ft³/s Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	75	273	68	100	116	748	30	368	203	7.5	15
2	641	58	578	61	150	401	959	29	301	1220	7.1	9.9
3	909	48	1410	58	265	432	1110	32	586	2060	104	7.8
4	1170	41	2040	61	300	258	798	91	863	3660	104	8.6
5	1280	38	1880	58	140	172	467	80	902	2210	62	6.8
6	1220	56	690	55	110	138	1180	53	277	975	28	4.9
7	459	68	302	56	86	116	1530	36	138	391	23	3.6
8	216	55	261	56	74	88	1390	28	84	231	16	2.2
9	142	52	452	52	68	81	579	25	753	152	11	2.3
10	99	87	838	55	62	71	305	24	1500	117	9.3	1.6
11	74	118	1010	74	58	61	205	19	1420	91	13	3.0
12	56	93	502	62	52	48	161	16	484	61	8.4	4.5
13	47	82	237	52	50	40	130	14	832	80	5.8	4.7
14	119	79	165	51	46	38	111	14	1310	250	6.6	3.0
15	277	66	124	119	44	37	99	15	1180	952	5.7	1.6
16	227	54	100	226	42	37	96	13	261	1100	4.3	1.3
17	133	47	86	235	39	34	96	11	141	318	4.3	1.8
18	90	63	86	143	38	30	92	13	84	134	3.8	2.6
19	65	217	100	103	36	30	75	229	52	80	4.6	3.4
20	48	470	124	83	34	26	52	381	39	52	5.3	4.3
21	39	911	103	73	33	26	43	367	167	37	4.3	4.2
22	33	1060	90	65	31	26	40	611	102	28	3.7	4.1
23	31	752	87	59	30	26	42	340	209	23	2.9	5.1
24	26	340	90	53	28	22	39	173	126	20	3.2	5.7
25	23	239	90	49	27	21	37	90	58	15	4.0	6.0
26	32	577	113	46	27	24	34	125	34	13	6.8	7.3
27	254	1310	138	43	22	22	32	188	21	11	12	7.8
28	291	1900	123	40	25	21	26	100	25	10	66	6.8
29	203	1460	97	37	---	20	29	103	19	10	104	5.7
30	142	478	85	57	---	58	39	57	63	7.4	60	4.2
31	101	---	74	74	---	505	---	40	---	6.7	28	---
TOTAL	8621	10894	12348	2324	2017	3025	10544	3347	12399	14518.1	728.6	149.8
MEAN	278	363	398	75.0	72.0	97.6	351	108	413	468	23.5	4.99
MAX	1280	1900	2040	235	300	505	1530	611	1500	3660	104	15
MIN	23	38	74	37	22	20	26	11	19	6.7	2.9	1.3
CAL YR 1986	TOTAL	89901.6		MEAN	246	MAX	2420	MIN	1.6			
WTR YR 1987	TOTAL	80915.5		MEAN	222	MAX	3660	MIN	1.3			

STREAMS TRIBUTARY TO LAKE ERIE

04197020 HONEY CREEK NEAR NEW WASHINGTON, OH

LOCATION.--Lat 40°57'37", long 82°47'19", in SE 1/4, sec. 7, T.22 N., R.20 W., Crawford County, Hydrologic Unit 04100011, on left bank 250 ft downstream from State Route 103 bridge and 3.4 mi east of New Washington.

DRAINAGE AREA.--17 mi².

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 18-31, Feb. 16-22, Aug. 12 to Sept. 2. Records good, except estimated discharges, which are fair.

AVERAGE DISCHARGE.--8 years, 17.6 ft³/s, 14.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft³/s June 13, 1981, gage height, 20.13 ft, from rating curve extended above 325 ft³/s on basis of step backwater analysis; minimum, no flow Oct. 17, 1981, July 26, 29-31, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 1	1915	390	14.64	July 2	0645	*1,700	*19.85
Nov. 26	1400	358	14.42	July 14	0845	706	16.39
Apr. 5	2315	354	14.39				

Minimum daily discharge, 0.30 ft³/s Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	191	6.6	15	10	10	48	46	3.3	2.0	31	1.3	2.0	
2	107	6.0	83	10	24	51	148	3.8	2.4	656	1.4	1.7	
3	124	5.4	192	8.7	48	24	57	4.4	14	110	1.8	1.6	
4	147	5.1	60	8.3	26	15	33	3.7	5.3	61	3.6	1.4	
5	92	4.8	31	8.0	20	14	113	2.9	2.8	39	3.0	1.1	
6	46	4.7	20	8.3	19	17	206	2.8	2.1	41	1.4	1.1	
7	32	3.9	17	8.3	23	13	99	2.8	1.8	27	1.2	1.1	
8	24	3.5	39	7.8	26	11	55	2.9	5.3	21	1.2	1.0	
9	19	3.8	101	7.5	16	9.3	35	2.7	50	18	1.4	.88	
10	16	3.7	94	7.6	14	6.0	26	2.6	13	15	1.9	.83	
11	13	3.2	32	7.4	15	5.8	20	2.5	5.6	12	1.5	.84	
12	10	4.3	20	6.4	34	4.3	37	2.4	4.1	42	1.4	.92	
13	9.4	4.8	13	5.7	26	3.7	40	2.2	3.5	22	1.1	.88	
14	25	3.9	15	8.4	18	3.7	23	2.2	2.9	323	.90	.82	
15	18	3.1	11	39	14	4.4	17	2.5	2.4	83	.72	.78	
16	13	3.3	9.8	23	9.8	3.9	14	2.2	2.3	46	.54	.79	
17	10	3.3	9.1	13	7.8	3.4	12	1.9	2.2	29	.43	.89	
18	8.4	11	11	10	6.1	3.3	9.6	9.6	2.0	20	.35	1.1	
19	7.3	54	11	8.6	5.4	3.3	8.1	15	2.0	14	.30	1.0	
20	6.7	43	9.5	7.8	5.0	3.0	7.1	5.7	9.9	10	.46	.76	
21	6.1	70	8.5	7.0	3.5	2.8	6.3	3.7	39	7.8	.60	.67	
22	5.6	30	8.2	6.3	4.2	2.6	5.6	11	28	6.0	.78	.89	
23	5.2	21	8.0	5.9	5.0	2.3	5.6	4.1	8.8	4.7	.63	.87	
24	4.9	17	10	5.5	4.2	2.2	5.2	2.9	4.6	3.6	.45	.74	
25	4.4	14	118	5.2	3.7	2.2	4.5	2.5	3.2	3.1	.39	.68	
26	4.7	176	48	5.1	3.2	2.3	4.2	2.3	2.8	2.8	1.0	.56	
27	8.4	102	25	4.8	3.0	2.1	4.2	13	2.2	2.6	2.0	.49	
28	13	49	19	4.6	4.6	1.9	5.2	3.6	2.0	2.1	4.0	.43	
29	10	30	16	4.3	---	1.8	4.2	2.6	1.7	1.7	7.2	.38	
30	8.7	20	13	5.2	---	50	3.8	2.2	8.1	1.5	4.6	.51	
31	7.3	---	11	6.5	---	55	---	2.0	---	1.4	2.9	---	
TOTAL	997.1	710.4	1078.1	274.2	398.5	372.3	1054.6	128.0	236.0	1657.3	50.45	27.71	
MEAN	32.2	23.7	34.8	8.85	14.2	12.0	35.2	4.13	7.87	53.5	1.63	.92	
MAX	191	176	192	39	48	55	206	15	50	656	7.2	2.0	
MIN	4.4	3.1	8.0	4.3	3.0	1.8	3.8	1.9	1.7	1.4	.30	.38	
CFSM	1.89	1.39	2.05	.52	.84	.71	2.07	.24	.46	3.15	.10	.05	
IN.	2.18	1.55	2.36	.60	.87	.81	2.31	.28	.52	3.63	.11	.06	
CAL YR 1986	TOTAL	7268.70		MEAN	19.9	MAX	212	MIN	.15	CFSM	1.17	IN.	15.91
WTR YR 1987	TOTAL	6984.66		MEAN	19.1	MAX	656	MIN	.30	CFSM	1.12	IN.	15.28

STREAMS TRIBUTARY TO LAKE ERIE

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04197100 HONEY CREEK AT MELMORE, OH

LOCATION.--Lat 41°01'20", long 83°06'35", Seneca County, Hydrologic Unit 04100011, at bridge on State Highways 67 and 100 at Melmore, 1.5 mi upstream from Buckeye Creek.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--Annual maximum, water years 1961-75, February 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 818 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20-25, Feb. 16-22. Records good except those for estimated daily discharges which are fair. Water-quality data collected at this site 1976 to 1977.

AVERAGE DISCHARGE.--11 years, 139 ft³/s, 12.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s June 13, 1981, gage height, 11.00 ft; minimum discharge 0.58 ft³/s Sept. 11, 28, 29, 30, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2130	*1,820	*7.68	No other peaks above base discharge.			
Minimum daily discharge 1.2 ft ³ /s Aug. 21.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	289	26	121	65	51	146	493	21	12	24	3.5	26	
2	538	24	278	61	62	398	865	23	13	166	3.6	23	
3	614	21	921	58	187	304	871	29	113	573	4.7	17	
4	919	20	925	52	282	157	464	33	162	736	8.4	12	
5	898	18	517	48	249	105	610	28	70	479	9.2	9.7	
6	565	18	214	46	214	123	1670	24	38	244	8.8	7.4	
7	256	17	132	42	271	127	1440	21	26	148	8.9	5.6	
8	132	17	165	45	329	100	756	19	20	90	7.0	4.1	
9	88	22	463	43	181	81	381	19	72	63	7.5	3.4	
10	65	21	680	42	128	65	219	18	203	46	6.5	3.0	
11	52	20	482	42	120	48	150	16	91	35	5.7	3.0	
12	41	18	209	38	218	43	122	16	45	27	6.0	3.0	
13	36	18	120	35	285	38	130	15	35	33	5.1	7.2	
14	173	17	84	36	177	36	145	13	27	59	4.1	6.3	
15	186	17	74	201	99	38	108	13	21	325	3.3	4.1	
16	107	17	61	282	66	45	87	13	17	364	2.9	3.8	
17	70	16	55	142	52	43	74	13	13	160	2.4	2.9	
18	51	56	55	86	44	38	63	14	11	77	2.0	3.4	
19	39	439	61	73	34	35	53	55	9.2	50	1.5	4.3	
20	33	414	60	69	26	33	46	101	8.0	34	1.5	3.5	
21	28	523	52	63	29	31	41	65	87	23	1.2	2.9	
22	25	409	47	57	33	28	36	42	403	17	3.6	2.5	
23	22	217	44	52	32	26	35	32	324	14	3.8	2.4	
24	21	136	45	49	32	25	33	29	142	12	15	2.0	
25	20	103	391	46	30	24	29	21	64	10	10	1.7	
26	23	547	548	43	28	24	26	17	41	8.2	11	1.5	
27	32	981	314	39	27	24	25	24	39	7.0	32	1.4	
28	40	754	165	37	28	22	24	31	31	6.0	108	1.4	
29	44	342	119	34	---	21	24	26	19	5.3	140	1.3	
30	38	182	94	36	---	172	23	17	16	4.5	70	1.5	
31	32	---	77	43	---	496	---	13	---	3.9	41	---	
TOTAL	5477	5430	7573	2005	3314	2896	9043	821	2172.2	3843.9	538.2	171.3	
MEAN	177	181	244	64.7	118	93.4	301	26.5	72.4	124	17.4	5.71	
MAX	919	981	925	282	329	496	1670	101	403	736	140	26	
MIN	20	16	44	34	26	21	23	13	8.0	3.9	1.2	1.3	
CFSM	1.19	1.21	1.64	.43	.79	.63	2.02	.18	.49	.83	.12	.04	
IN.	1.37	1.36	1.89	.50	.83	.72	2.26	.20	.54	.96	.13	.04	
CAL YR 1986	TOTAL	57023.0		MEAN	156	MAX	1910	MIN	1.9	CFSM	1.05	IN.	14.24
WTR YR 1987	TOTAL	43284.6		MEAN	119	MAX	1670	MIN	1.2	CFSM	.80	IN.	10.81

STREAMS TRIBUTARY TO LAKE ERIE

04197170 ROCK CREEK AT TIFFIN, OH

LOCATION.--Lat 41°06'49", long 83°10'06", Seneca County, Hydrologic Unit 04100011, on left bank 0.05 mi downstream from bridge on Rebecca Street, at Heidelberg College, Tiffin, Ohio.

DRAINAGE AREA.--34.6 mi².

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10-15, Feb. 23-June 18, and July 10-Sept. 20. Records fair except those for estimated record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft³/s Feb. 23, 1985, gage height, 7.78 ft; minimum daily discharge 0.74 ft³/s Oct. 4, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 516 ft³/s Oct. 4, gage height 5.79 ft; minimum daily discharge, 1.2 ft³/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	199	9.0	15	11	11	50	130	7.0	3.1	4.3	2.0	2.7	
2	203	8.4	99	11	14	90	200	8.0	20	15	2.0	2.6	
3	192	8.0	375	11	60	50	160	11	30	14	2.2	2.4	
4	411	7.7	106	11	75	30	120	13	35	26	3.5	2.2	
5	101	7.2	27	10	61	26	150	28	12	29	4.0	2.2	
6	27	7.1	17	9.6	47	30	300	7.0	7.6	54	3.9	2.1	
7	15	6.9	14	9.5	82	23	250	5.6	6.0	19	3.7	2.1	
8	11	7.4	37	9.8	117	18	140	5.4	5.2	9.7	3.5	2.1	
9	9.5	13	194	10	56	14	70	5.0	15	5.5	3.2	2.2	
10	8.5	15	310	10	23	12	45	4.8	40	4.3	2.9	2.5	
11	7.9	12	100	10	18	9.0	33	4.5	17	4.5	2.7	2.7	
12	7.5	11	50	9.6	36	8.0	29	4.1	12	5.0	2.6	2.9	
13	8.8	10	20	9.1	55	7.0	34	3.9	8.0	6.0	2.5	2.7	
14	57	8.8	13	9.3	27	9.0	35	3.7	6.6	9.0	2.1	2.5	
15	45	8.2	11	91	16	10	26	3.6	5.4	15	1.9	3.0	
16	15	8.0	10	53	28	11	21	3.6	4.5	21	1.6	3.2	
17	11	7.5	10	18	23	10	18	3.6	3.2	22	1.4	3.7	
18	9.1	26	13	13	7.8	8.6	15	5.0	2.5	19	1.4	3.7	
19	8.4	222	15	13	6.7	7.8	12	17	2.4	15	1.3	3.5	
20	8.1	104	12	13	5.4	7.4	11	25	2.4	11	1.3	3.0	
21	7.5	257	11	15	5.0	7.2	10	14	4.7	9.0	1.2	2.7	
22	7.2	61	11	11	5.2	7.2	9.6	10	11	7.0	1.4	2.4	
23	7.4	27	9.8	12	9.0	7.0	9.0	8.6	5.5	6.0	2.0	2.3	
24	7.1	19	11	11	9.0	6.8	8.6	7.0	7.2	5.0	3.5	2.3	
25	7.4	16	183	10	7.8	6.8	8.4	5.2	5.1	4.0	5.0	2.2	
26	10	208	90	8.5	7.0	6.6	8.0	4.5	30	3.6	8.0	2.1	
27	18	302	29	8.5	7.0	6.2	8.0	6.0	8.4	3.2	8.0	2.0	
28	18	52	19	8.3	15	6.0	7.4	8.0	4.3	2.8	6.0	1.9	
29	13	25	15	8.1	---	6.0	7.2	6.2	3.7	2.6	4.5	1.9	
30	10	17	13	9.8	---	30	7.0	4.6	4.5	2.4	3.5	1.9	
31	9.2	---	12	10	---	80	---	3.5	---	2.2	3.0	---	
TOTAL	1469.6	1491.2	1851.8	454.1	833.9	600.6	1882.2	246.4	322.3	356.1	95.8	75.7	
MEAN	47.4	49.7	59.7	14.6	29.8	19.4	62.7	7.95	10.7	11.5	3.09	2.52	
MAX	411	302	375	91	117	90	300	28	40	54	8.0	3.7	
MIN	7.1	6.9	9.8	8.1	5.0	6.0	7.0	3.5	2.4	2.2	1.2	1.9	
CFSM	1.37	1.44	1.73	.42	.86	.56	1.81	.23	.31	.33	.09	.07	
IN.	1.58	1.60	1.99	.49	.90	.65	2.02	.26	.35	.38	.10	.08	
CAL YR 1986	TOTAL	14123.7		MEAN	38.7	MAX	715	MIN	3.1	CFSM	1.12	IN.	15.19
WTR YR 1987	TOTAL	9679.7		MEAN	26.5	MAX	411	MIN	1.2	CFSM	.77	IN.	10.41

04198000 SANDUSKY RIVER NEAR FREMONT, OH
(National stream quality accounting network station)

LOCATION.--Lat 41°18'28", long 83°09'32", in sec. 17, T.4 N., R.15 E., Sandusky County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 2.3 mi upstream from Ballville diversion dam, 2.5 mi downstream from Wolf Creek, and 3.5 mi southwest of Fremont.

DRAINAGE AREA.--1,251 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to March 1901 (gage height and discharge measurements only, published at "at Fremont"), October 1923 to December 1935, July 1938 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 744: 1931-32. WSP 874: 1938. WSP 1144: 1924-30. WSP 1387: 1925, 1928-29, 1931-35. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 626.3 ft above National Geodetic Vertical Datum of 1929. Nov. 18, 1898, to Mar. 10, 1901, nonrecording gage at site 4 mi downstream at different datum. Nov. 8, 1923, to Sept. 5, 1930, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: January 22 to February 22. Records good except for periods of estimated record, which are poor.

AVERAGE DISCHARGE.--61 years (1923-35, 1938-87), 1,007 ft³/s, 10.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,500 ft³/s Mar. 16, 1978 gage height, 13.57 ft; maximum, gage height, 16.14 ft Feb. 24, 1979, (ice jam); minimum discharge, 4.4 ft³/s Feb. 29, 1964 (result of freezeup); minimum gage height, 0.78 ft Oct. 20, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 4	1230	ice jam	*6.52	July 6	0430	10,600	6.17
Apr. 6	1530	*10,900	6.29				

Minimum daily discharge, 36 ft³/s Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	2590	406	1610	550	700	491	4130	280	388	487	74	242	
2	4460	340	1620	512	1200	1990	6040	305	591	2190	75	166	
3	4420	297	6290	488	2000	2600	6050	374	2520	5700	82	127	
4	7520	266	7270	462	3000	1880	4640	488	2840	7000	80	107	
5	6440	250	5970	447	2100	1140	4190	435	1860	9230	159	91	
6	5010	239	3910	426	1400	843	9930	395	1340	9550	154	78	
7	3460	234	1870	411	1100	778	9230	339	646	4520	131	70	
8	1580	245	1460	404	900	717	7390	296	408	1570	118	63	
9	879	266	2440	394	800	627	4830	265	458	896	99	57	
10	619	304	4940	397	700	536	2340	245	3400	613	93	51	
11	483	301	4440	393	600	452	1490	236	3690	468	82	54	
12	403	312	3060	385	510	393	1120	231	2230	385	110	53	
13	371	313	1580	365	450	351	930	216	1300	312	118	48	
14	814	289	919	346	400	334	949	210	1820	516	92	45	
15	1630	276	719	591	360	339	935	201	1990	2740	72	50	
16	1190	272	624	1380	320	339	758	188	1480	3670	58	58	
17	817	254	562	1400	280	333	644	172	587	2380	50	55	
18	564	252	539	1000	250	314	573	173	363	972	47	64	
19	439	1550	564	721	220	296	500	201	273	516	42	66	
20	365	2150	570	632	190	284	445	739	237	370	40	55	
21	317	4860	560	604	230	270	394	867	324	279	41	54	
22	282	4470	520	580	280	259	359	972	1580	227	51	54	
23	256	3280	485	540	299	251	346	1760	1410	196	61	56	
24	233	2030	473	520	283	242	336	1010	1070	163	51	52	
25	219	1290	1330	500	268	240	317	528	590	143	43	46	
26	247	2000	2080	490	252	238	293	345	563	122	57	44	
27	382	7810	2130	480	243	234	281	849	483	106	131	38	
28	629	6670	1330	470	247	238	280	1420	282	93	266	36	
29	702	5310	926	470	---	230	276	755	216	85	529	43	
30	629	3230	735	460	---	532	278	465	285	80	533	40	
31	511	---	624	450	---	2610	---	410	---	77	371	---	
TOTAL	48461	49766	62150	17268	19582	20381	70274	15370	35224	55656	3910	2063	
MEAN	1563	1659	2005	557	699	657	2342	496	1174	1795	126	68.8	
MAX	7520	7810	7270	1400	3000	2610	9930	1760	3690	9550	533	242	
MIN	219	234	473	346	190	230	276	172	216	77	40	36	
CFSM	1.25	1.33	1.60	.45	.56	.53	1.87	.40	.94	1.43	.10	.05	
IN.	1.44	1.48	1.85	.51	.58	.61	2.09	.46	1.05	1.65	.12	.06	
CAL YR 1986	TOTAL	511163		MEAN	1400	MAX	11600	MIN	64	CFSM	1.12	IN.	15.20
WTR YR 1987	TOTAL	400105		MEAN	1096	MAX	9930	MIN	36	CFSM	.88	IN.	11.90

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER-QUALITY ANALYSES

PERIOD OF RECORD.--Water years 1951-56, 1978 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: Water years 1951-1956, 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L June 9, 1981; minimum daily mean, 1 mg/L on many days during 1952-1956, 1980, 1981.

SEDIMENT LOADS: Maximum daily, 124,000 tons June 14, 1981; minimum daily, less than 0.05 ton on several days during 1952 and 1954.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,190 mg/L June 11; minimum daily mean, 4 mg/L Feb. 26,27.

SEDIMENT LOADS: Maximum daily, 11,900 tons June 11; minimum daily, 1.4 ton Sept. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
									(PER- CENT SATUR- ATION)		
NOV 19...	0830	1150	775	8.41	-1.5	4.0	22	12.0	94	1000	1100
MAR 25...	0845	242	830	8.58	15.0	10.5	5.0	10.6	98	K42	88
APR 29...	0930	294	680	8.43	19.0	14.5	9.5	11.8	120	K47	87
AUG 25...	1115	43	787	8.58	19.0	19.0	10	9.1	102	130	600
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 19...	380	150	99	31	22	4.0	270	2.0	225	130	36
MAR 25...	380	180	93	34	20	2.4	--	--	195	140	37
APR 29...	350	160	85	32	23	2.7	217	7.0	188	130	35
AUG 25...	290	100	65	31	53	5.5	218	7.0	191	160	49
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 19...	0.40	3.7	501	0.010	1.40	0.120	0.120	1.0	0.200	0.010	0.040
MAR 25...	0.30	0.10	473	0.030	1.70	0.030	0.030	1.2	0.050	0.020	<0.010
APR 29...	0.40	0.20	427	0.020	0.850	0.020	0.020	2.6	0.100	0.020	<0.010
AUG 25...	0.50	1.7	485	<0.010	<0.100	<0.010	0.030	3.0	0.160	0.050	0.020

STREAMS TRIBUTARY TO LAKE ERIE

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04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER-QUALITY ANALYSES

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 19...	40	<1	51	<0.5	<1	<1	<3	4	92	<5	18
MAR 25...	20	<1	52	<0.5	<1	<1	<3	7	63	<5	16
APR 29...	30	<1	52	<0.5	1	<1	<3	4	16	<5	7
AUG 25...	20	2	60	<0.5	1	<1	<3	3	8	<5	9

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)
NOV 19...	18	<0.1	<10	2	<1	<1.0	2700	<6	17	158
MAR 25...	46	<0.1	<10	2	<1	<1.0	2800	<6	25	8
APR 29...	8	1.0	<10	1	<1	<1.0	2400	<6	13	23
AUG 25...	2	0.4	<10	4	1	<1.0	3500	<6	9	23

K Results based on colony count outside the acceptable range (non-ideal colony count).

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	2590	282	1970	406	41	45	1610	100	435
2	4460	322	3880	340	41	38	1620	76	332
3	4420	272	3250	297	28	22	6290	216	3950
4	7520	344	6980	266	19	14	7270	277	5440
5	6440	289	5030	250	14	9.5	5970	216	3480
6	5010	255	3450	239	15	9.7	3910	161	1700
7	3460	181	1690	234	19	12	1870	144	727
8	1580	107	456	245	18	12	1460	111	438
9	879	79	187	266	21	15	2440	130	856
10	619	62	104	304	21	17	4940	170	2270
11	483	50	65	301	16	13	4440	168	2010
12	403	48	52	312	15	13	3060	162	1340
13	371	49	49	313	14	12	1580	135	576
14	814	89	196	289	10	7.8	919	110	273
15	1630	144	634	276	12	8.9	719	42	82
16	1190	96	308	272	13	9.5	624	32	54
17	817	63	139	254	7	4.8	562	10	15
18	564	52	79	252	8	5.4	539	10	15
19	439	49	58	1550	113	602	564	11	17
20	365	43	42	2150	147	853	570	11	17
21	317	43	37	4860	188	2470	560	12	18
22	282	40	30	4470	163	1970	520	27	38
23	256	37	26	3280	102	903	485	14	18
24	233	28	18	2030	70	384	473	18	23
25	219	26	15	1290	48	167	1330	53	190
26	247	25	17	2000	108	856	2080	96	539
27	382	44	45	7810	470	9910	2130	93	535
28	629	45	76	6670	383	6900	1330	87	312
29	702	42	80	5310	278	3990	926	62	155
30	629	44	75	3230	166	1450	735	34	67
31	511	48	66	---	---	---	624	24	40
TOTAL	48461	---	29104	49766	---	30723.6	62150	---	25962
JANUARY			FEBRUARY			MARCH			
1	550	17	25	700	95	180	491	17	23
2	512	15	21	1200	139	450	1990	58	312
3	488	20	26	2000	204	1100	2600	74	519
4	462	22	27	3000	296	2400	1880	49	249
5	447	27	33	2100	212	1200	1140	33	102
6	426	33	38	1400	153	578	843	23	52
7	411	25	28	1100	57	169	778	21	44
8	404	24	26	900	40	97	717	14	27
9	394	20	21	800	27	58	627	13	22
10	397	26	28	700	25	47	536	7	10
11	393	14	15	600	26	42	452	6	7.3
12	385	15	16	510	25	34	393	7	7.4
13	365	30	30	450	26	32	351	6	5.7
14	346	10	9.3	400	28	30	334	7	6.3
15	591	26	41	360	29	28	339	6	5.5
16	1380	42	156	320	29	25	339	6	5.5
17	1400	46	174	280	30	23	333	5	4.5
18	1000	28	76	250	31	21	314	10	8.5
19	721	23	45	220	34	20	296	6	4.8
20	632	19	32	190	36	18	284	6	4.6
21	604	18	29	230	37	23	270	7	5.1
22	580	15	23	280	38	29	259	7	4.9
23	540	15	22	299	38	31	251	10	6.8
24	520	15	21	283	14	11	242	10	6.5
25	500	12	16	268	11	8.0	240	8	5.2
26	490	12	16	252	4	2.7	238	12	7.7
27	480	10	13	243	4	2.6	234	12	7.6
28	470	10	13	247	10	6.7	238	10	6.4
29	470	10	13	---	---	---	230	15	9.3
30	460	10	12	---	---	---	532	68	139
31	450	10	12	---	---	---	2610	120	846
TOTAL	17268	---	1057.3	19582	---	6666.0	20381	---	2464.6

STREAMS TRIBUTARY TO LAKE ERIE

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04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	4130	104	1160	280	31	23	388	194	203
2	6040	190	3100	305	59	49	591	200	319
3	6050	203	3320	374	40	40	2520	868	6360
4	4640	152	1900	488	42	55	2840	490	3760
5	4190	142	1610	435	40	47	1860	320	1610
6	9930	338	9060	395	35	37	1340	360	1300
7	9230	312	7780	339	32	29	646	270	471
8	7390	203	4050	296	30	24	408	202	223
9	4830	140	1830	265	24	17	458	180	223
10	2340	82	518	245	16	11	3400	1090	10800
11	1490	60	241	236	22	14	3690	1190	11900
12	1120	34	103	231	20	12	2230	675	4060
13	930	22	55	216	16	9.3	1300	450	1580
14	949	21	54	210	9	5.1	1820	660	3240
15	935	26	66	201	10	5.4	1990	580	3120
16	758	15	31	188	9	4.6	1480	460	1840
17	644	12	21	172	8	3.7	587	280	444
18	573	11	17	173	13	6.1	363	196	192
19	500	15	20	201	27	15	273	170	125
20	445	16	19	739	89	196	237	150	96
21	394	18	19	867	89	208	324	142	124
22	359	16	16	972	438	1470	1580	301	1330
23	346	20	19	1760	740	3520	1410	322	1230
24	336	24	22	1010	610	1660	1070	223	644
25	317	30	26	528	310	442	590	129	205
26	293	28	22	345	195	182	563	337	600
27	281	28	21	849	392	1290	483	243	317
28	280	28	21	1420	860	3300	282	112	85
29	276	23	17	755	420	856	216	72	42
30	278	23	17	465	350	439	285	136	105
31	---	---	---	410	221	245	---	---	---
TOTAL	70274	---	35155	15370	---	14215.2	35224	---	56548
JULY			AUGUST			SEPTEMBER			
1	487	238	313	74	24	4.8	242	68	44
2	2190	291	2410	75	28	5.7	166	50	22
3	5700	615	9460	82	32	7.1	127	42	14
4	7000	472	8920	80	44	9.5	107	44	13
5	9230	410	10200	159	70	30	91	42	10
6	9550	250	6450	154	45	19	78	38	8.0
7	4520	170	2070	131	47	17	70	31	5.9
8	1570	122	517	118	44	14	63	29	4.9
9	896	77	186	99	38	10	57	44	6.8
10	613	65	108	93	34	8.5	51	34	4.7
11	468	65	82	82	34	7.5	54	28	4.1
12	385	60	62	110	42	12	53	29	4.1
13	312	56	47	118	51	16	48	30	3.9
14	516	90	125	92	36	8.9	45	27	3.3
15	2740	256	1410	72	34	6.6	50	26	3.5
16	3670	370	3670	58	36	5.6	58	38	6.0
17	2380	227	1460	50	32	4.3	55	26	3.9
18	972	115	302	47	30	3.8	64	27	4.7
19	516	97	135	42	30	3.4	66	24	4.3
20	370	85	85	40	26	2.8	55	19	2.8
21	279	70	53	41	34	3.8	54	26	3.8
22	227	52	32	51	32	4.4	54	16	2.3
23	196	50	26	61	28	4.6	56	23	3.5
24	163	53	23	51	24	3.3	52	20	2.8
25	143	29	11	43	23	2.7	46	23	2.9
26	122	38	13	57	26	4.0	44	17	2.0
27	106	27	7.7	131	65	23	38	14	1.4
28	93	26	6.5	266	129	93	36	19	1.8
29	85	25	5.7	529	110	157	43	15	1.7
30	80	26	5.6	533	81	117	40	16	1.7
31	77	28	5.8	371	75	75	---	---	---
TOTAL	55656	---	48201.3	3910	---	684.3	2063	---	197.8
YEAR	400105		250979.1						

STREAMS TRIBUTARY TO LAKE ERIE

04199165 OLD WOMAN'S CREEK AT U.S. 6 AT HURON, OH

LOCATION.--Lat 41°22'51", long 82°30'53", Erie County, Hydrologic Unit 04100012, on left bank at U.S. Highway 6 and State Highway 2 bridge, 0.75 mi east of Huron.

DRAINAGE AREA.--26.5 mi².

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929. Oct. 1982 to Sept. 1985 at same site at datum 0.10 ft lower.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 17.27 ft Nov. 27, 1986; minimum recorded gage height, 10.88 ft Jan. 10, 11, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 17.27 ft Nov. 27; minimum recorded gage height, 13.24 ft Jan. 23.

DAY	GAGE HEIGHT (FEET)					WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987						
	OCT	NOV	DEC	JAN	MEAN	VALUES						
					FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.06	15.85	15.46	14.71	14.27	14.20	14.08	14.84	14.24	14.48	14.28	15.24
2	15.83	15.85	14.90	14.84	14.25	13.69	14.04	14.91	14.32	14.97	14.11	15.24
3	15.54	15.87	14.55	14.63	14.28	14.20	14.40	15.07	14.42	14.36	14.22	15.24
4	16.12	15.88	13.50	14.72	14.31	14.25	16.14	15.40	14.46	14.67	14.18	15.24
5	15.32	15.89	14.30	14.67	14.40	14.36	15.39	15.57	14.34	14.50	14.68	15.24
6	15.07	15.91	14.06	14.56	14.21	14.25	14.80	15.67	14.46	14.36	14.29	15.23
7	14.85	15.92	14.19	14.46	14.32	14.15	14.51	15.74	14.19	14.34	14.09	15.23
8	14.53	15.95	15.03	14.42	14.31	14.23	14.59	15.79	14.06	14.31	14.16	15.23
9	15.12	15.99	14.82	14.48	14.80	15.01	14.50	15.85	14.57	14.35	14.07	15.22
10	15.64	16.00	14.36	14.59	15.16	15.15	14.50	15.86	14.46	14.30	14.38	15.22
11	15.65	16.01	14.33	14.57	15.41	14.52	14.51	15.85	14.25	14.31	14.42	15.24
12	15.61	16.03	14.25	14.02	14.81	14.24	14.57	15.82	14.17	14.27	14.52	15.25
13	15.58	16.04	14.68	14.52	14.52	14.27	14.59	15.82	14.39	14.30	14.52	15.25
14	15.63	16.05	13.99	14.37	14.80	14.39	14.72	15.84	14.28	15.20	14.53	15.26
15	15.60	16.06	14.41	14.50	14.58	14.71	14.70	15.86	14.30	14.52	14.53	15.26
16	15.35	16.06	14.57	14.77	14.80	14.53	14.75	15.86	14.35	14.48	14.51	15.30
17	15.25	16.08	14.64	14.89	14.83	14.24	14.69	15.87	14.51	14.32	14.49	15.33
18	15.32	16.18	14.34	14.90	14.43	14.35	14.57	15.91	14.54	14.24	14.47	15.36
19	15.36	16.57	14.40	15.75	14.28	14.32	14.58	15.99	14.50	14.24	14.45	15.39
20	15.39	16.66	14.62	14.47	14.26	14.12	14.56	16.03	14.91	14.08	14.43	15.41
21	15.43	16.88	14.67	14.00	14.26	14.16	14.61	16.06	14.54	14.21	14.43	15.41
22	15.45	16.92	14.34	14.48	14.23	14.07	15.13	16.14	14.36	14.23	14.52	15.44
23	15.47	16.81	14.35	14.00	14.15	14.17	14.71	16.18	14.57	14.21	14.59	15.44
24	15.49	16.71	15.17	13.72	14.17	14.23	15.06	16.18	14.44	14.12	14.59	15.45
25	15.51	16.63	14.93	14.48	14.22	14.13	15.03	16.18	14.38	14.15	14.59	15.45
26	15.57	16.79	14.64	14.57	14.24	13.87	14.83	16.01	14.34	14.14	14.60	15.45
27	15.63	15.16	14.66	14.32	14.37	14.12	14.88	14.41	14.33	14.32	14.67	15.44
28	15.70	14.15	14.50	14.20	14.36	14.09	14.81	14.33	14.29	14.16	14.86	15.43
29	15.77	14.30	14.54	14.49	---	14.15	14.68	14.30	14.14	14.17	15.08	15.42
30	15.80	15.23	14.65	14.15	---	14.47	14.77	14.27	14.29	14.05	15.18	15.42
31	15.83	---	14.62	14.37	---	14.81	---	14.23	---	14.30	15.22	---
MEAN	15.50	16.01	14.53	14.50	14.47	14.30	14.72	15.54	14.38	14.34	14.51	15.32
MAX	16.12	16.92	15.46	15.75	15.41	15.15	16.14	16.18	14.91	15.20	15.22	15.45
MIN	14.53	14.15	13.50	13.72	14.15	13.69	14.04	14.23	14.06	14.05	14.07	15.22
WTR YR 1987	MEAN	14.85		MAX	16.92	MIN	13.50					

STREAMS TRIBUTARY TO LAKE ERIE

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04199175 LAKE ERIE AT RUGGLES BEACH, OHIO

LOCATION.--Lat 41°22'59", long 82°28'22", Erie County, Hydrologic Unit 04100012, on left bank, at mouth of Cranberry Creek, at Ruggles Beach, 4.5 mi east of Huron.

PERIOD OF RECORD.--Oct. 29, 1986 to Sept. 30, 1987.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 17.98 ft Jan. 19, 1987; minimum recorded gage height, 12.92 ft Sept. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 17.98 ft Jan. 19, minimum recorded gage height, 12.92 ft Sept. 30.

DAY	GAGE HEIGHT (FEET)					WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987						
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.98	15.51	15.12	14.64	14.51	14.40	14.89	14.70	14.91	14.66	14.15
2	---	15.13	15.05	15.20	14.63	14.04	14.03	14.91	14.77	14.95	14.54	14.27
3	---	14.75	14.07	14.98	14.59	14.60	14.74	15.08	14.79	14.70	14.68	14.38
4	---	15.12	13.78	15.12	14.65	14.60	16.24	15.05	14.80	14.87	14.68	14.34
5	---	15.16	14.67	15.07	14.64	14.71	15.21	14.89	14.81	14.94	14.92	14.20
6	---	15.00	14.45	14.93	14.55	14.62	14.95	14.82	14.89	14.81	14.70	14.16
7	---	15.04	14.55	14.80	14.67	14.52	14.91	14.87	14.64	14.81	14.58	14.18
8	---	14.98	15.30	14.75	14.83	14.63	14.97	14.86	14.56	14.78	14.66	14.21
9	---	14.26	14.99	14.89	15.89	15.52	14.95	14.74	14.85	14.83	14.52	14.13
10	---	15.02	14.43	14.90	15.57	15.24	14.96	14.77	14.75	14.78	14.70	14.29
11	---	14.89	14.64	14.54	14.91	14.89	14.96	14.77	14.71	14.81	14.87	14.15
12	---	14.56	14.59	14.46	14.88	14.61	15.00	14.95	14.57	14.76	14.72	14.17
13	---	14.74	14.91	14.90	14.90	14.65	15.04	15.00	14.74	14.80	14.56	14.14
14	---	14.39	14.31	14.78	15.16	14.78	15.18	14.84	14.69	15.00	14.52	14.21
15	---	14.21	14.74	14.90	15.01	15.07	15.10	14.89	14.77	14.92	14.45	14.12
16	---	14.49	14.88	15.04	15.24	14.86	15.29	14.90	14.76	14.92	14.39	14.16
17	---	14.49	15.04	15.15	15.21	14.62	15.07	14.81	14.93	14.77	14.29	14.17
18	---	15.40	14.71	14.95	14.81	14.73	15.02	14.99	14.76	14.71	14.35	14.30
19	---	14.87	14.84	15.70	14.70	14.68	15.04	15.16	14.75	14.72	14.36	14.20
20	---	14.75	15.06	14.70	14.67	14.51	15.02	14.97	14.80	14.57	14.33	14.18
21	---	14.76	15.09	14.45	14.67	14.55	15.02	14.93	14.86	14.71	14.01	14.05
22	---	14.63	14.74	14.89	14.64	14.49	15.31	14.86	14.73	14.72	14.22	14.15
23	---	14.56	14.81	14.30	14.54	14.58	15.00	14.88	14.92	14.70	14.35	13.88
24	---	14.39	15.48	14.36	14.57	14.60	15.22	14.93	14.88	14.63	14.30	14.03
25	---	14.64	14.98	14.96	14.62	14.48	15.16	14.95	14.84	14.65	14.13	14.08
26	---	14.98	15.06	14.98	14.64	14.29	15.06	14.86	14.74	14.63	14.27	13.79
27	---	14.70	15.09	14.75	14.74	14.53	14.97	14.83	14.74	14.75	14.54	13.85
28	---	14.53	14.92	14.60	14.75	14.50	14.85	14.80	14.54	14.63	14.76	13.67
29	15.03	14.69	14.96	14.89	---	14.57	14.82	14.78	14.54	14.67	14.36	13.43
30	15.22	15.41	15.06	14.51	---	14.70	14.86	14.71	14.65	14.54	14.22	13.44
31	15.15	---	15.03	14.76	---	14.76	---	14.77	---	14.72	14.10	---
MEAN	---	14.78	14.83	14.85	14.83	14.66	15.01	14.89	14.75	14.76	14.48	14.08
MAX	---	15.41	15.51	15.70	15.89	15.52	16.24	15.16	14.93	15.00	14.92	14.38
MIN	---	14.21	13.78	14.30	14.54	14.04	14.03	14.71	14.54	14.54	14.01	13.43

STREAMS TRIBUTARY TO LAKE ERIE

04199287 VERMILION RIVER NEAR FITCHVILLE, OH

LOCATION.--Lat 41°07'52", long 82°28'13, Huron County, Hydrologic Unit 04100012, on left bank upstream side of Prospect Road Bridge, 2.6 mi north of Fitchville.

DRAINAGE AREA.--112 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 7, 1987 to Sept. 30, 1987.

GAGE.--Water-stage recorder. Elevation of gage is 903 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those above 2,000 ft³/s which are fair.

EXTREMES FOR PERIOD May-September 1987.--Maximum discharge, 8,900 ft³/s July 2, 1987, gage height, 14.80 ft; (from flood mark), from drainage area adjustment of slope-area estimate of flow at Fitchville; minimum daily 3.2 ft³/s Sept. 30, 1987.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	12	141	29	44
2								---	12	3930	59	34
3								---	115	3100	277	21
4								---	81	597	66	14
5								---	41	189	31	10
6								---	26	160	19	8.9
7								26	20	130	14	8.0
8								27	18	67	9.7	6.8
9								20	103	51	9.9	6.3
10								16	74	88	59	5.5
11								14	36	47	48	7.0
12								11	25	33	24	8.2
13								8.6	63	26	15	6.4
14								7.1	38	841	11	5.5
15								9.0	18	1280	8.5	5.4
16								9.6	12	177	6.9	5.4
17								9.0	8.6	95	5.8	5.9
18								13	7.5	64	4.9	20
19								257	6.4	48	4.1	23
20								125	6.9	37	3.3	12
21								110	34	29	3.6	7.4
22								217	130	24	5.4	6.1
23								86	76	19	6.9	6.4
24								55	46	15	6.9	6.1
25								33	25	13	6.5	5.3
26								28	15	11	6.7	5.0
27								38	21	8.7	56	4.4
28								35	17	7.5	149	3.8
29								24	9.2	6.6	99	3.3
30								16	14	5.8	57	3.2
31								12	---	5.0	36	---
TOTAL								---	1110.6	11245.6	1138.1	308.3
MEAN								---	37.0	363	36.7	10.3
MAX								---	130	3930	277	44
MIN								---	6.4	5.0	3.3	3.2

STREAMS TRIBUTARY TO LAKE ERIE
04199287 VERMILION RIVER NEAR FITCHVILLE, OH
WATER QUALITY RECORDS

PERIOD OF RECORD.--May 7, 1987 to September 30, 1987.

PERIOD OF DAILY RECORD.--May 7, 1987 to September 30, 1987.

INSTRUMENTATION.--Automatic sediment sampler.

REMARKS.--Samples collected periodically as part of non-point source pollution project.

EXTREMES FOR PERIOD May 7 to September 30, 1987.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 685 mg/L July 2, 1987; minimum daily mean 5 mg/L May 9, 14, 16, 17, 1987.

SEDIMENT LOADS: Maximum daily, 7,270 tons July 2, 1987; minimum daily 0.07 tons Sept. 27, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
MAY									
18...	1615	14	450	7.86	20.0	7.0	--	--	200
19...	0845	357	390	7.85	18.0	6.8	--	--	149
19...	1310	315	345	7.34	13.0	5.7	--	--	96
20...	1130	118	420	7.80	18.0	7.1	--	--	172
JUN									
24...	1130	35	530	8.10	21.0	7.1	K670	550	203
JUL									
15...	1130	1270	205	7.60	20.5	7.1	28000	67000	59
AUG									
20...	1030	3.2	570	8.14	20.0	8.3	K100	--	150
SEP									
10...	1055	5.3	620	8.27	20.0	5.2	K34	170	172

K Results based on colony count outside the acceptable range

STREAMS TRIBUTARY TO LAKE ERIE

04199287 VERMILION RIVER NEAR FITCHVILLE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1				---	---	---	12	18	.58
2				---	---	---	12	20	.65
3				---	---	---	115	211	66
4				---	---	---	81	147	32
5				---	---	---	41	56	6.2
6				---	---	---	26	37	2.6
7				26	14	.98	20	33	1.8
8				27	12	.87	18	34	1.7
9				20	5	.27	103	337	94
10				16	11	.48	74	214	43
11				14	6	.23	36	69	6.7
12				11	12	.36	25	68	4.6
13				8.6	6	.14	63	112	19
14				7.1	5	.10	38	84	8.6
15				9.0	7	.17	18	87	4.2
16				9.6	5	.13	12	71	2.3
17				9.0	5	.12	8.6	48	1.1
18				13	10	.35	7.5	33	.67
19				257	420	291	6.4	30	.52
20				125	137	46	6.9	58	1.1
21				110	45	13	34	201	27
22				217	338	198	130	323	113
23				86	95	22	76	151	31
24				55	32	4.8	46	78	9.7
25				33	47	4.2	25	48	3.2
26				28	37	2.8	15	43	1.7
27				38	30	3.1	21	42	2.4
28				35	20	1.9	17	32	1.5
29				24	17	1.1	9.2	27	.67
30				16	20	.86	14	43	1.6
31				12	20	.65	---	---	---
TOTAL				1206.3	---	593.61	1110.6	---	489.09
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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	141	307	117	29	60	4.7	44	20	2.4
2	3930	685	7270	59	117	19	34	18	1.7
3	3100	197	1870	277	327	245	21	16	.91
4	597	132	213	66	114	20	14	14	.53
5	189	82	42	31	46	3.9	10	13	.35
6	160	48	21	19	35	1.8	8.9	10	.24
7	130	39	14	14	23	.87	8.0	8	.17
8	67	28	5.1	9.7	16	.42	6.8	6	.11
9	51	21	2.9	9.9	20	.53	6.3	8	.14
10	88	304	72	59	49	7.8	5.5	8	.12
11	47	85	11	48	46	6.0	7.0	11	.21
12	33	52	4.6	24	31	2.0	8.2	8	.18
13	26	38	2.7	15	21	.85	6.4	12	.21
14	841	239	543	11	16	.48	5.5	9	.13
15	1280	199	688	8.5	10	.23	5.4	8	.12
16	177	73	35	6.9	14	.26	5.4	8	.12
17	95	45	12	5.8	12	.19	5.9	8	.13
18	64	25	4.3	4.9	22	.29	20	26	1.4
19	48	23	3.0	4.1	7	.08	23	22	1.4
20	37	19	1.9	3.3	18	.16	12	13	.42
21	29	12	.94	3.6	16	.16	7.4	11	.22
22	24	14	.91	5.4	9	.13	6.1	7	.12
23	19	12	.62	6.9	8	.15	6.4	7	.12
24	15	13	.53	6.9	10	.19	6.1	14	.23
25	13	11	.39	6.5	9	.16	5.3	8	.11
26	11	11	.33	6.7	9	.16	5.0	20	.27
27	8.7	14	.33	56	50	9.3	4.4	6	.07
28	7.5	10	.20	149	114	46	3.8	22	.23
29	6.6	8	.14	99	60	16	3.3	16	.14
30	5.8	8	.13	57	32	4.9	3.2	20	.17
31	5.0	9	.12	36	26	2.5	---	---	---
TOTAL	11245.6	---	10937.14	1138.1	---	394.21	308.3	---	12.67
YEAR	15008.9		12426.72						

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

STREAMS TRIBUTARY TO LAKE ERIE

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04200500 BLACK RIVER AT ELYRIA, OH

LOCATION.--Lat 41°22'49", long 82°06'17", in T.6 N., R.17 W., Lorain County, Hydrologic Unit 04110001, on left bank in Cascade Park at Elyria, 0.8 mi downstream from confluence of East and West Branches.

DRAINAGE AREA.--396 mi².

PERIOD OF RECORD.--October 1944 to current year. Records for May 1903 to July 1906 (published as "near Elyria") published in WSP 97, 129, and 205, are unreliable and should not be used.

REVISED RECORDS.--WSP 1912: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 620.83 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 25, to Feb. 2, Feb. 10-12. Records good except for periods of estimated record, which are fair. Some regulation at low flow for industrial use. Water-quality data collected at this site 1969 to 1974. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--43 years, 333 ft³/s, 11.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,700 ft³/s July 6, 1969, gage height, 26.4 ft, (from flood mark), from rating curve extended above 13,000 ft³/s on basis of slope-area measurement of peak flow; no flow for part of Oct. 10, 1956 (result of temporary storage at dam upstream).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	0730	5,220	10.60	July 4	0230	*9,350	*14.26

Minimum daily discharge, 10 ft³/s Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	181	40	220	191	160	352	1810	132	68	244	17	51	
2	227	35	342	195	200	852	3070	107	92	4140	26	38	
3	410	31	1620	224	493	824	3530	121	599	8130	57	38	
4	1150	28	1650	226	787	576	1540	115	602	5700	72	35	
5	613	26	679	162	699	416	2540	114	304	850	62	26	
6	406	26	335	157	559	306	5080	108	156	405	44	22	
7	208	25	242	210	754	258	4070	90	95	239	38	22	
8	118	25	478	501	970	222	2810	76	69	167	33	20	
9	72	30	1110	423	566	193	1190	65	217	132	73	17	
10	53	26	1990	306	400	159	589	59	390	99	89	14	
11	41	34	1150	267	350	127	410	54	188	73	42	13	
12	32	34	478	224	500	103	634	51	120	61	93	20	
13	39	38	275	221	887	90	611	44	92	51	55	17	
14	64	34	171	324	673	95	452	49	88	160	39	12	
15	63	33	181	831	407	115	334	55	61	1080	28	14	
16	50	32	146	920	321	157	280	44	46	551	22	18	
17	40	33	126	525	297	268	248	41	38	184	20	16	
18	35	73	167	312	184	365	215	55	32	110	18	72	
19	29	519	282	307	173	316	183	63	25	77	15	60	
20	25	613	260	443	127	247	160	166	855	59	13	36	
21	23	1010	203	404	98	191	132	256	917	45	13	24	
22	23	775	161	286	104	154	111	211	915	37	176	20	
23	23	439	121	227	120	130	131	127	1090	32	91	17	
24	21	281	130	252	128	114	149	100	517	28	40	16	
25	20	202	1150	300	130	103	188	72	203	30	28	16	
26	73	808	1610	220	140	97	198	59	108	36	35	13	
27	144	2300	751	170	142	91	168	54	72	33	77	10	
28	167	1280	450	130	144	88	153	171	76	22	98	13	
29	89	517	332	100	---	85	250	160	80	18	117	11	
30	61	311	260	120	---	400	183	99	213	18	96	11	
31	49	---	227	140	---	1710	---	80	---	15	73	---	
TOTAL	4549	9658	17297	9318	10513	9204	31419	2998	8328	22826	1700	712	
MEAN	147	322	558	301	375	297	1047	96.7	278	736	54.8	23.7	
MAX	1150	2300	1990	920	970	1710	5080	256	1090	8130	176	72	
MIN	20	25	121	100	98	85	111	41	25	15	13	10	
CFSM	.37	.81	1.41	.76	.95	.75	2.64	.24	.70	1.86	.14	.06	
IN.	.43	.91	1.62	.88	.99	.86	2.95	.28	.78	2.14	.16	.07	
CAL YR 1986	TOTAL	118222.3		MEAN	324	MAX	4710	MIN	5.2	CFSM	.82	IN.	11.11
WTR YR 1987	TOTAL	128522		MEAN	352	MAX	8130	MIN	10	CFSM	.89	IN.	12.07

STREAMS TRIBUTARY TO LAKE ERIE

04201500 ROCKY RIVER NEAR BERE, OH

LOCATION.--Lat 41°24'24", long 81°53'14", in T.6 N., R.15 W., Cuyahoga County, Hydrologic Unit 04110001, 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 northwest of Berea.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--October 1923 to September 1935, September 1943 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 1437: 1924, 1925(M), 1926, 1927(M), 1928-29, 1930-35(M), 1945. WSP 1912: Drainage area. WRD-OH-2-1983: 1978-1982(M).

GAGE.--Water-stage recorder. Datum of gage is 649.90 ft above National Geodetic Vertical Datum of 1929 (Cuyahoga County bench mark). Prior to Sept. 30, 1935, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation at low flow by small reservoirs on East Branch. Some inter-basin transfer of water from Lake Erie for municipal water supply by Cleveland Metro Water District. Water-quality data collected at this site 1964 to 1977.

AVERAGE DISCHARGE.--56 years, 273 ft³/s, 13.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s Jan. 22, 1959, gage height, 14.10 ft, from rating curve extended above 11,000 ft³/s on basis of contracted-opening measurement of peak flow; maximum gage height, 18.6 ft June 29, 1924 (backwater caused by tornado); minimum daily discharge, 0.2 ft³/s Sept. 2, 1932, Aug. 22, 27, 30, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.9 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2400	5,180	5.17	July 2	2200	*8,130	*6.40

Minimum daily discharge, 26 ft³/s Aug. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	548	75	188	156	272	1350	1180	101	101	925	39	90
2	688	77	639	182	265	1630	2280	95	89	6160	81	68
3	972	73	1970	226	393	760	1730	132	2060	3910	490	50
4	2440	68	955	187	391	534	909	137	393	2290	149	44
5	624	69	395	151	295	349	2440	110	140	627	70	40
6	355	69	248	145	275	298	4230	88	88	291	51	39
7	192	71	225	216	409	279	4250	69	70	192	45	37
8	121	71	682	363	564	255	2050	72	59	136	57	37
9	95	72	1170	248	312	214	710	71	124	108	146	36
10	84	68	1750	229	341	169	439	65	107	94	236	36
11	77	88	587	247	309	129	323	61	66	80	124	36
12	72	110	317	194	371	122	384	66	103	68	69	57
13	94	92	215	183	489	116	344	51	409	59	50	73
14	164	88	174	228	317	122	250	59	173	2010	41	52
15	178	80	153	904	219	176	227	101	79	512	35	53
16	111	79	136	755	284	247	231	102	59	195	31	60
17	88	82	137	323	189	293	200	71	46	123	30	47
18	77	184	284	267	128	338	169	109	40	87	30	324
19	69	905	417	358	115	349	144	252	35	67	28	439
20	66	505	247	475	114	296	125	142	667	56	26	157
21	64	1120	184	299	116	227	113	96	968	53	26	89
22	62	594	148	218	145	175	101	80	1030	50	351	67
23	57	324	122	175	227	153	118	67	1080	47	207	64
24	57	237	131	150	199	141	167	57	344	44	80	50
25	59	191	1470	229	232	133	169	52	153	42	47	45
26	86	1840	847	201	255	148	128	52	124	75	55	41
27	104	2140	403	199	246	140	110	69	138	61	155	39
28	108	631	279	194	281	127	190	92	667	49	525	37
29	83	354	219	176	---	115	169	64	247	44	217	46
30	77	246	188	258	---	773	126	77	872	43	99	59
31	81	---	170	313	---	1800	---	212	---	41	84	---
TOTAL	7953	10603	15050	8449	7753	11958	24006	2872	10531	18539	3674	2312
MEAN	257	353	485	273	277	386	800	92.6	351	598	119	77.1
MAX	2440	2140	1970	904	564	1800	4250	252	2060	6160	525	439
MIN	57	68	122	145	114	115	101	51	35	41	26	36
CFSM	.96	1.32	1.82	1.02	1.04	1.45	3.00	.35	1.31	2.24	.45	.29
IN.	1.11	1.48	2.10	1.18	1.08	1.67	3.34	.40	1.47	2.58	.51	.32
CAL YR 1986	TOTAL	114350	MEAN	313	MAX	3860	MIN	25	CFSM	1.17	IN.	15.93
WTR YR 1987	TOTAL	123700	MEAN	339	MAX	6160	MIN	26	CFSM	1.27	IN.	17.23

STREAMS TRIBUTARY TO LAKE ERIE

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04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OH

LOCATION.--Lat 41°20'26", long 81°10'01", in T.5 N., R.7 W., Portage County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on Winchell Road at Hiram Rapids, 0.6 mi downstream from Black Brook.

DRAINAGE AREA.--151 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1927 to December 1935 (published as "near Hiram"), October 1944 to current year.

REVISED RECORDS.--WSP 1054: 1945. WSP 1437: 1931. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,087.46 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 26, 1927, nonrecording gage and Aug. 26, 1927, to Dec. 31, 1935, water-stage recorder, at site 2.8 mi downstream at different datum. Oct. 20, 1944, to Oct. 22, 1946, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 24-30. Records good except for estimated daily discharges and Feb. 26 to Apr. 20, which are fair. Flow regulated by East Branch Reservoir, usable capacity, 4,140 acre-ft, 14.6 mi upstream since 1939 and by LaDue Reservoir, usable capacity, 18,110 acre-ft, 9.8 mi upstream since 1961. Water-quality data collected at this site 1965 to 1977.

AVERAGE DISCHARGE.--51 years, 210 ft³/s, 18.89 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft³/s Jan. 23, 1959, gage height, 8.11 ft, from rating curve extended above 2,600 ft³/s; minimum daily, 6.6 ft³/s Sept. 10, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,100 ft³/s Apr. 8, gage height, 5.74 ft; minimum daily, 19 ft³/s June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	448	122	487	225	131	389	379	85	37	228	53	219
2	465	125	443	209	134	714	470	76	36	569	59	198
3	528	120	556	200	137	895	548	78	51	1010	105	181
4	677	123	678	190	138	861	606	92	77	1420	131	168
5	701	118	736	178	136	720	757	92	76	1260	113	157
6	694	116	659	172	133	583	1170	83	62	971	93	150
7	616	116	548	173	130	495	1800	72	47	743	92	144
8	514	117	480	178	130	452	2070	63	49	578	91	143
9	416	126	489	180	123	431	1910	58	45	447	96	142
10	324	127	593	180	173	386	1500	61	31	333	120	138
11	233	118	646	181	146	311	1080	51	24	253	127	138
12	160	116	613	179	135	234	796	55	36	208	112	159
13	116	122	517	176	132	173	599	49	55	165	84	186
14	113	126	461	176	125	139	455	53	54	121	68	196
15	127	133	322	225	118	126	356	60	43	112	60	196
16	128	138	252	299	133	125	280	55	32	110	57	198
17	123	140	207	342	105	129	231	48	25	88	55	201
18	118	146	213	330	101	135	200	46	21	70	54	224
19	106	170	265	308	94	122	176	58	19	57	54	311
20	87	200	317	274	92	117	156	70	66	52	51	504
21	74	248	330	256	92	117	136	69	148	46	50	594
22	66	287	305	210	96	114	117	64	223	39	87	552
23	59	312	267	182	107	112	102	70	253	35	161	475
24	52	327	234	160	111	111	103	56	246	33	169	401
25	48	321	255	140	118	115	106	45	199	34	140	335
26	51	390	317	130	126	131	97	39	146	36	105	275
27	67	585	374	110	134	136	88	43	94	33	105	226
28	79	720	378	100	144	122	107	45	86	26	159	194
29	100	712	341	100	---	115	112	42	96	23	200	174
30	116	606	297	110	---	130	105	39	130	22	228	164
31	117	---	255	127	---	274	---	38	---	41	231	---
TOTAL	7523	7127	12835	6000	3474	9014	16612	1855	2507	9163	3310	7343
MEAN	243	238	414	194	124	291	554	59.8	83.6	296	107	245
MAX	701	720	736	342	173	895	2070	92	253	1420	231	594
MIN	48	116	207	100	92	111	88	38	19	22	50	138
CFSM	1.61	1.58	2.74	1.28	.82	1.93	3.67	.40	.55	1.96	.71	1.62
IN.	1.85	1.76	3.16	1.48	.86	2.22	4.09	.46	.62	2.26	.82	1.81
CAL YR 1986	TOTAL	97710	MEAN	268	MAX	1690	MIN	21	CFSM	1.77	IN.	24.07
WTR YR 1987	TOTAL	86763	MEAN	238	MAX	2070	MIN	19	CFSM	1.58	IN.	21.37

STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH

LOCATION.--Lat 41°08'08", long 81°32'50", Summit County, Hydrologic Unit 04110002, on right bank 230 ft upstream from North Portage Path bridge at Old Portage, 1.2 mi downstream from Little Cuyahoga River, and 4 mi northwest of Akron City Hall.

DRAINAGE AREA.--404 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.--WSP 1307: 1924(M). WSP 1912: Drainage area. WRD OH-79-2: 1974 (M), 1976 (M).

GAGE.--Water-stage recorder. Datum of gage is 740.11 ft above National Geodetic Vertical Datum of 1929, unadjusted. Prior to Dec. 21, 1923, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by diversions, storage reservoirs and power plants. At Lake Rockwell, 17.7 mi upstream from gage, an average of 70 ft³/s was diverted for municipal supply of city of Akron. Sewage from city enters river 2.9 mi downstream from station. Some diversion from the Tuscarawas River basin drainage into this basin at Portage Lakes (see REMARKS for station 03116000 in volume 1 of this report). Sediment data collected at this site 1972-1981.

AVERAGE DISCHARGE.--62 years, 430 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s Jan. 21, 1959, gage height, 11.54 ft, from rating curve extended above 3,900 ft³/s on basis of contracted-opening estimate at gage height 11.54 ft, at site with drainage area of 488 mi² adjusted to gaging station by drainage-area relation; maximum gage height, 13.29 ft Sept. 14, 1979; minimum daily, 26 ft³/s Sept. 2, 1945, July 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,490 ft³/s Oct. 3, gage height, 9.16 ft; minimum daily, 76 ft³/s July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	141	878	421	263	551	642	213	164	333	76	299
2	764	139	1200	424	294	1040	935	186	169	1960	123	248
3	1190	156	1390	413	301	1090	1010	202	169	1670	163	228
4	1570	153	1270	371	309	1120	1010	199	138	1390	110	227
5	1210	163	1150	353	316	1090	1480	185	118	1510	100	310
6	949	162	1160	331	321	944	2250	181	115	1430	122	262
7	878	151	1050	364	328	796	2690	173	112	1140	127	264
8	805	142	939	352	338	697	2790	161	161	889	126	295
9	676	142	945	353	309	643	2790	152	188	753	280	266
10	555	145	1050	372	305	585	2560	143	131	564	237	275
11	467	176	987	368	325	525	2080	139	119	457	185	641
12	376	169	923	369	363	461	1570	135	189	367	165	276
13	400	161	848	350	351	393	1200	127	200	434	158	188
14	457	160	691	348	332	364	908	127	158	361	152	186
15	366	160	632	425	289	363	765	220	133	228	120	205
16	336	183	538	513	221	339	639	132	114	209	110	238
17	312	198	454	506	245	319	546	129	107	176	123	267
18	289	322	469	520	242	329	479	348	102	153	120	501
19	279	381	481	598	216	354	417	387	111	127	103	418
20	269	448	475	589	216	341	381	295	448	116	95	457
21	263	551	487	493	210	314	335	257	275	109	96	511
22	259	535	500	455	203	283	293	213	327	96	238	600
23	233	507	472	432	206	262	294	189	359	94	135	608
24	155	493	444	291	223	241	342	161	350	91	111	550
25	151	465	594	259	242	235	319	154	314	91	106	442
26	258	1040	587	276	253	243	300	151	253	105	136	353
27	206	1140	547	265	270	253	391	153	207	103	145	267
28	194	1010	554	226	259	257	409	139	214	90	182	254
29	174	990	546	241	---	220	337	199	173	84	137	259
30	159	1010	509	293	---	352	329	195	232	78	125	268
31	156	---	457	281	---	587	---	173	---	76	284	---
TOTAL	15456	11593	23227	11852	7750	15591	30491	5818	5850	15284	4490	10163
MEAN	499	386	749	382	277	503	1016	188	195	493	145	339
MAX	1570	1140	1390	598	363	1120	2790	387	448	1960	284	641
MIN	151	139	444	226	203	220	293	127	102	76	76	186
CAL YR 1986	TOTAL	181423		MEAN	497	MAX	1950	MIN	67			
WTR YR 1987	TOTAL	157565		MEAN	432	MAX	2790	MIN	76			

STREAMS TRIBUTARY TO LAKE ERIE

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04207200 TINKERS CREEK AT BEDFORD, OH

LOCATION.--Lat 41°23'04", long 81°31'39", in T.6 N., R.11 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on State Highway 14 in Bedford, 5.5 mi upstream from mouth.

DRAINAGE AREA.--83.9 mi².

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 876.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 23 to Feb. 2, Feb. 16-20, and July 22 to Sept. 28. Records good except for Apr. 6 to June 20, which are fair and for estimated daily discharges, which are poor. Water-quality data collected at this site 1965 to 1977. Sediment data collected at this site 1974 to 1979.

AVERAGE DISCHARGE.--24 years (1963-87), 131 ft³/s, 21.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,220 ft³/s July 20, 1969, gage height, 10.10 ft, from rating curve extended above 3,400 ft³/s on the basis of contracted-opening measurement of peak flow; minimum, 5.2 ft³/s Aug. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 3	2030	1,800	6.34	July 2	0830	*1,970	*6.49

Minimum daily discharge, 16 ft³/s July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	35	102	65	37	997	446	45	26	244	30	120
2	233	37	479	82	30	873	675	52	45	1220	66	52
3	764	34	774	95	51	631	545	67	175	1090	140	43
4	743	35	556	77	58	326	393	60	55	769	30	38
5	607	33	272	59	60	228	940	47	30	290	23	110
6	253	34	150	62	71	220	1200	41	25	122	21	58
7	124	34	180	106	103	214	1100	38	23	79	22	50
8	86	33	321	101	125	183	713	35	26	61	24	88
9	66	36	505	81	92	141	326	32	28	48	60	56
10	56	32	514	86	123	101	190	30	27	130	120	45
11	48	45	320	84	112	81	141	32	24	67	39	300
12	43	39	162	75	116	72	152	52	87	34	28	66
13	84	36	115	74	104	65	136	36	31	36	25	42
14	188	34	93	114	90	63	106	35	28	356	23	38
15	93	35	95	298	73	98	143	81	25	77	21	46
16	62	35	97	249	60	114	126	40	24	46	20	56
17	68	35	91	129	52	121	108	28	22	34	24	72
18	50	162	240	127	48	128	89	88	22	30	27	130
19	42	221	207	134	45	129	74	94	23	26	21	110
20	40	291	127	137	43	112	63	53	300	26	19	100
21	39	426	99	104	60	88	61	39	281	26	19	120
22	37	297	82	79	81	72	54	33	413	25	150	140
23	35	159	66	62	98	67	83	29	218	24	40	180
24	34	124	80	52	106	58	90	26	72	24	25	90
25	31	97	347	45	130	58	75	24	44	25	22	64
26	49	723	267	40	131	66	56	28	36	28	40	44
27	90	685	150	37	127	57	76	31	31	30	86	37
28	60	489	110	35	243	52	83	27	108	25	160	32
29	47	196	91	33	---	47	65	26	138	20	40	44
30	44	131	80	41	---	317	52	26	371	18	31	48
31	39	---	72	52	---	511	---	27	---	16	39	---
TOTAL	4449	4603	6844	2815	2469	6290	8361	1302	2758	5046	1435	2419
MEAN	144	153	221	90.8	88.2	203	279	42.0	91.9	163	46.3	80.6
MAX	764	723	774	298	243	997	1200	94	413	1220	160	300
MIN	31	32	66	33	30	47	52	24	22	16	19	32
CFSM	1.72	1.82	2.63	1.08	1.05	2.42	3.33	.50	1.10	1.94	.55	.96
IN.	1.97	2.04	3.03	1.25	1.09	2.79	3.71	.58	1.22	2.24	.64	1.07
CAL YR 1986	TOTAL	52261	MEAN	143	MAX	983	MIN	16	CFSM	1.70	IN.	23.17
WTR YR 1987	TOTAL	48791	MEAN	134	MAX	1220	MIN	16	CFSM	1.60	IN.	21.63

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH
(National stream quality accounting network station)

LOCATION.--Lat 41°23'43", long 81°37'48, in T.6 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank 240 ft downstream from bridge on Old Rockside Road, 0.8 mi northeast of Independence, and 3.0 mi downstream from Tinkers Creek.

DRAINAGE AREA.--707 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to December 1905 (fragmentary), January to July 1906 (gage heights and discharge measurements only), September 1921 to May 1923, September 1927 to December 1935, March 1940 to current year.

REVISED RECORDS.--WSP 1307: 1922-23(M), 1928-30(M), 1933(M), 1940(M), 1947(M), 1950(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 583.57 ft above National Geodetic Vertical Datum of 1929. Sept. 21, 1903 to July 21, 1906, nonrecording gage at bridge 240 ft upstream at present datum. Sept. 28, 1921 to May 30, 1923, nonrecording gage at bridge 240 ft upstream at datum 2.42 ft higher. Sept. 5, to Oct. 8, 1927, nonrecording gage, and Oct. 9, 1927, to Dec. 31, 1935, Mar. 5, 1940, to June 19, 1969, water-stage recorder, at site 100 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Sept. 1-30. Records fair except for period of estimated daily discharge, which is poor. Natural flow of stream affected by diversion, storage reservoirs and power plants. Some diversion from the Tuscarawas River basin drainage into this basin at Portage Lakes (see REMARKS for station 03117000). Water diverted into Ohio Canal at Brecksville, 6 mi upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft³/s, when channels merge.

AVERAGE DISCHARGE.--56 years (1921-22, 1927-35, 1940-87), 835 ft³/s, not including flow in Ohio Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s Jan. 22, 1959, gage height, 22.41 ft, from rating curve extended above 17,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum daily, 21 ft³/s Aug. 28, 1933; minimum combined daily discharge of river and canal, 55 ft³/s Aug. 28, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s July 2, gage height, 17.69 ft; minimum daily, 169 ft³/s July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	296	1360	795	576	3400	2010	558	291	1360	198	760
2	1910	277	2510	822	612	3380	3180	469	317	7360	335	600
3	2830	281	3810	870	759	2540	2660	519	790	5620	923	470
4	5130	284	2710	758	722	2060	2220	557	438	3480	303	450
5	2650	227	2010	675	688	1840	4240	441	272	2480	215	740
6	1790	259	1780	660	688	1740	6260	421	226	2170	199	560
7	1420	242	1720	753	781	1590	6910	390	213	1870	217	560
8	1230	226	2120	798	889	1390	5000	358	203	1560	223	660
9	1050	223	2450	717	766	1220	3810	333	483	1360	358	540
10	857	224	2870	745	763	1080	3340	304	315	1110	803	520
11	715	223	2000	772	759	949	2810	292	239	988	374	1300
12	607	223	1660	722	846	875	2340	343	408	684	298	700
13	663	212	1440	696	849	772	1930	289	648	662	253	440
14	996	192	1210	751	744	709	1590	281	416	1670	247	440
15	713	191	1090	1420	635	795	1460	581	289	670	225	500
16	590	204	1000	1310	528	852	1290	371	239	494	188	560
17	558	228	876	1000	517	855	1120	292	214	404	180	620
18	505	399	1150	982	517	871	982	484	197	337	229	1100
19	462	1280	1140	1130	481	919	871	1170	195	279	200	900
20	441	940	957	1280	464	860	770	720	1560	243	181	960
21	434	1890	885	983	484	745	700	587	1460	236	179	1100
22	423	1260	865	851	539	671	613	481	1740	242	920	1200
23	423	892	827	800	618	616	666	408	1270	228	531	1300
24	349	792	791	653	590	559	825	326	808	217	257	1100
25	291	703	1870	637	700	521	761	277	685	219	222	900
26	496	3050	1490	607	707	551	624	285	608	245	232	640
27	475	3430	1180	588	710	530	637	366	497	257	514	560
28	442	2160	1050	498	872	527	988	290	852	221	1010	500
29	381	1640	961	475	---	494	735	327	677	200	454	500
30	337	1490	952	549	---	1320	653	339	1290	186	290	560
31	306	---	871	645	---	2400	---	339	---	169	349	---
TOTAL	31504	23938	47605	24942	18804	37631	61995	13198	17840	37221	11107	21740
MEAN	1016	798	1536	805	672	1214	2067	426	595	1201	358	725
MAX	5130	3430	3810	1420	889	3400	6910	1170	1740	7360	1010	1300
MIN	291	191	791	475	464	494	613	277	195	169	179	440

CAL YR 1986 TOTAL 388446 MEAN 1064 MAX 5970 MIN 124
WTR YR 1987 TOTAL 347525 MEAN 952 MAX 7360 MIN 169

STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1948 to September 1949, October 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1965 to current year.

pH: February 1973 to current year.

WATER TEMPERATURES: October 1948 to September 1949, October 1952 to current year.

DISSOLVED OXYGEN: July 1965 to current year.

SUSPENDED SEDIMENT DISCHARGE: Water years 1950-74, December 1976 to September 1984.

INSTRUMENTATION.--Alcohol-actuated thermograph October 1956 to June 1965, water-quality monitor since July 1965.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens Feb. 12, 1977; minimum, 149 microsiemens Nov. 23, 1974.

pH: Maximum, 9.0 units July 20, 1987; minimum, 5.9 units Jan. 26, 1976.

WATER TEMPERATURES: Maximum, 31.0 C Aug. 18, 1949, July 21, 1980; minimum, 0.0 C on many days during winter.

DISSOLVED OXYGEN: Maximum, 17.4 mg/L Feb. 24, 1987; minimum, 0.0 mg/L Oct. 23, 1965, Feb. 10-12, June 23, July 26, 1966.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,800 mg/L Aug. 21, 1960; minimum daily mean, 1 mg/L Sept. 4, 10, 1955.

SEDIMENT LOADS: Maximum daily, 97,000 tons Sept. 14, 1979; minimum daily, 0.25 ton Sept. 4, 1955.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,960 microsiemens Sept. 14; minimum, 282 microsiemens July 2.

pH: Maximum, 9.0 July 29, 30; minimum, 7.4 units Apr. 15.

WATER TEMPERATURES: Maximum, 29.0 C July 21, 22; minimum, 0.0 C Jan. 26, 27, 28.

DISSOLVED OXYGEN: Maximum recorded, 17.4 mg/L Feb. 24; minimum, 3.4 mg/L Sept. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 20...	0900	2260	655	8.04	2.0	5.5	19	12.0	98	8000	6400
MAR 18...	0945	2030	610	7.98	8.0	4.5	2.5	11.6	92	9200	580
APR 29...	0930	592	700	8.11	18.0	13.5	5.1	9.4	95	1500	120
AUG 19...	1430	159	873	8.59	34.0	24.5	4.2	10.0	125	260	1600

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 20...	200	88	58	14	53	4.5	140	0	115	74	85
MAR 18...	220	100	62	15	99	4.6	--	--	115	79	180
APR 29...	220	92	62	15	60	3.7	153	0	124	77	100
AUG 19...	260	100	74	17	78	6.5	174	5.0	151	90	120

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 20...	0.30	7.6	404	0.020	1.50	0.070	0.060	1.1	0.170	0.040	0.040
MAR 18...	0.30	4.3	513	0.050	1.10	1.70	1.70	2.7	0.340	0.230	0.160
APR 29...	0.30	3.8	405	0.090	2.00	0.310	0.310	1.0	0.110	0.040	0.020
AUG 19...	0.50	5.6	504	0.070	3.60	0.010	<0.010	1.3	0.240	0.150	0.110

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

WATER-QUALITY RECORDS

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 20...	20	1	38	<0.5	1	<1	<3	8	38	<5	12
MAR 18...	20	1	39	<0.5	<1	<1	<3	4	35	<5	13
APR 29...	30	1	46	<0.5	<1	<1	<3	9	68	<5	23
AUG 19...	30	3	49	<0.5	<1	1	<3	3	10	<5	9

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)
NOV 20...	40	<0.1	<10	3	<1	<1.0	170	<6	16	--
MAR 18...	120	<0.1	<10	<1	<1	<1.0	190	<6	28	14
APR 29...	67	0.2	<10	3	<1	<1.0	180	<6	24	--
AUG 19...	21	<0.1	<10	1	<1	<1.0	210	<6	12	22

STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	591	429	561	783	768	777	489	480	484	603	564	585
2	555	426	511	801	777	786	603	441	505	948	603	724
3	576	351	511	816	795	806	450	402	421	1240	921	1070
4	486	360	416	834	807	822	435	405	416	1170	1000	1090
5	510	480	491	858	822	837	459	438	446	981	831	900
6	537	489	501	840	828	835	459	441	450	822	789	806
7	504	489	498	873	834	850	498	447	457	852	774	809
8	510	495	503	855	840	848	519	468	483	798	741	781
9	573	504	530	858	840	849	492	447	479	753	726	737
10	582	543	569	849	816	836	441	420	431	990	741	841
11	612	570	598	837	822	828	465	441	448	1190	942	1100
12	636	588	618	849	822	838	477	465	471	1150	1030	1080
13	687	621	657	858	807	831	480	468	477	1100	960	1020
14	666	591	625	873	849	860	516	474	495	957	921	943
15	654	576	625	921	873	893	543	516	534	969	720	832
16	684	654	669	924	897	913	570	534	555	720	654	689
17	702	666	688	912	876	897	588	558	575	663	627	652
18	702	681	693	951	840	877	678	588	630	666	624	644
19	696	666	684	810	639	687	612	570	586	831	651	699
20	696	666	685	681	630	660	588	570	578	1240	846	1090
21	699	672	691	657	603	623	582	567	576	1050	918	980
22	702	678	694	609	597	601	576	558	566	906	819	849
23	705	678	695	624	603	610	582	552	568	873	798	822
24	723	684	703	636	600	619	624	567	592	963	801	884
25	768	726	747	624	606	616	609	468	531	960	915	947
26	777	696	758	606	384	486	513	477	497	906	852	870
27	681	630	651	465	420	446	549	513	537	867	843	854
28	792	681	717	501	465	478	555	531	546	876	828	848
29	792	753	767	519	483	494	552	534	546	876	855	865
30	798	780	787	498	474	486	564	543	558	1360	888	1060
31	798	771	781	---	---	---	573	549	566	1960	1330	1660
MONTH	798	351	633	951	384	733	678	402	516	1960	564	895
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1940	1700	1790	705	495	578	1000	834	926	738	690	707
2	1830	1530	1630	603	501	561	1030	702	858	780	741	763
3	1590	1500	1540	720	588	641	696	651	667	792	768	776
4	1530	1290	1400	702	615	647	927	636	707	777	741	763
5	1280	1150	1200	618	573	590	1060	717	831	795	732	753
6	1130	1080	1100	594	549	569	699	459	575	825	801	808
7	1090	1050	1070	573	540	555	453	414	434	1020	834	955
8	1070	1010	1040	558	540	552	429	414	424	1050	960	1010
9	1110	939	1010	567	546	559	426	399	409	948	870	902
10	1210	1080	1130	564	552	558	405	387	393	888	858	872
11	1310	1200	1240	588	558	579	408	393	398	888	864	875
12	1280	1200	1260	612	576	599	459	411	430	900	858	878
13	1210	1100	1160	630	588	616	480	459	465	909	882	894
14	1090	999	1050	750	618	668	507	483	499	882	861	876
15	987	951	959	1300	738	980	576	516	551	876	813	857
16	945	897	921	1310	1170	1260	591	573	582	876	738	790
17	942	909	926	1160	954	1050	591	573	584	879	771	839
18	927	882	895	948	855	910	612	582	602	903	819	871
19	897	861	875	852	771	816	627	594	615	825	576	696
20	924	891	903	768	741	757	645	618	633	816	714	780
21	951	903	917	762	738	745	684	636	668	798	771	787
22	957	924	936	750	732	740	699	672	685	801	762	776
23	966	909	937	753	735	745	756	684	706	804	783	795
24	906	876	888	771	744	756	759	714	739	834	807	818
25	897	837	858	786	765	774	729	714	721	834	816	827
26	834	810	818	819	789	806	741	723	733	861	834	846
27	810	798	805	813	798	804	744	717	735	891	855	864
28	807	717	789	801	786	792	735	645	692	861	831	840
29	---	---	---	915	789	833	714	666	695	867	837	853
30	---	---	---	921	756	874	711	699	705	855	810	829
31	---	---	---	831	672	727	---	---	---	849	831	841
MONTH	1940	717	1070	1310	495	730	1060	387	622	1050	576	830

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	846	822	834	627	498	589	894	864	880	804	621	705
2	882	792	850	636	282	384	873	492	825	762	705	743
3	804	639	721	408	366	381	729	465	623	759	720	741
4	774	648	725	426	396	411	750	606	661	738	717	724
5	834	780	813	432	423	429	804	753	785	735	714	725
6	864	834	855	435	423	428	858	804	838	720	645	668
7	891	861	874	441	423	427	876	846	862	666	645	658
8	885	870	877	459	435	448	870	825	856	666	633	651
9	---	---	---	474	459	466	846	675	782	711	660	679
10	822	804	807	558	468	494	768	546	636	687	639	657
11	870	822	850	540	435	516	723	555	645	666	555	645
12	873	771	835	576	534	559	807	726	782	654	378	488
13	870	615	789	606	495	584	828	801	812	639	543	601
14	792	624	712	531	405	483	825	807	816	675	642	654
15	876	798	842	612	537	562	852	807	827	684	558	642
16	924	882	909	669	615	637	846	825	839	711	675	690
17	933	912	920	735	663	679	843	822	833	720	687	710
18	921	909	915	735	690	712	843	825	834	702	546	613
19	933	912	926	759	735	750	855	801	839	552	516	540
20	921	432	713	780	759	770	867	795	834	594	537	565
21	636	435	570	822	777	792	897	870	885	564	528	550
22	600	456	534	831	801	816	876	426	681	564	507	548
23	612	543	582	828	816	824	708	555	611	555	519	541
24	672	606	644	843	816	827	735	651	704	549	528	540
25	711	663	686	840	816	830	804	738	775	561	531	551
26	729	696	714	831	822	827	849	801	823	582	543	564
27	729	702	717	846	795	818	1000	681	855	588	546	568
28	675	615	651	825	804	821	693	546	637	612	579	595
29	669	549	634	861	828	848	699	666	681	630	600	617
30	621	474	563	882	858	871	774	705	751	651	618	635
31	---	---	---	885	876	881	801	765	782	---	---	---
MONTH	933	432	761	885	282	641	1000	426	774	804	378	627
YEAR	1960	282	734									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.01	7.60	7.76	8.14	7.92	8.02	7.93	7.85	7.89	7.97	7.94	7.95
2	7.89	7.66	7.79	8.18	7.89	8.01	7.89	7.75	7.83	8.00	7.94	7.97
3	7.87	7.62	7.79	8.27	7.96	8.11	7.84	7.76	7.81	8.02	7.94	7.98
4	7.69	7.52	7.59	8.16	8.00	8.05	7.88	7.83	7.84	8.03	7.93	7.97
5	7.84	7.60	7.69	8.13	7.95	8.06	7.88	7.83	7.86	8.02	7.92	7.98
6	7.92	7.74	7.77	8.29	7.94	8.07	7.86	7.84	7.85	8.04	7.97	8.01
7	7.77	7.73	7.76	8.33	7.98	8.14	7.87	7.81	7.83	8.04	7.94	7.99
8	7.78	7.75	7.77	8.32	7.97	8.08	7.88	7.76	7.81	8.04	7.96	7.99
9	7.79	7.74	7.76	8.29	7.92	8.08	7.78	7.72	7.75	8.08	7.91	8.01
10	7.82	7.79	7.81	8.36	8.02	8.20	7.78	7.66	7.74	8.08	7.96	8.02
11	7.83	7.78	7.81	8.36	8.08	8.16	7.83	7.77	7.80	8.03	7.93	7.98
12	7.81	7.77	7.79	8.28	8.01	8.12	7.86	7.81	7.83	8.12	8.00	8.05
13	7.84	7.77	7.79	8.30	8.05	8.16	7.87	7.82	7.85	8.16	7.96	8.06
14	7.84	7.74	7.79	8.36	8.09	8.24	7.89	7.83	7.85	8.18	7.96	8.06
15	7.87	7.76	7.84	8.32	8.10	8.21	7.89	7.86	7.87	8.07	7.90	7.96
16	7.90	7.86	7.88	8.23	8.03	8.09	7.88	7.84	7.85	7.95	7.91	7.94
17	7.90	7.82	7.86	8.38	7.98	8.16	7.90	7.84	7.87	8.10	7.95	8.02
18	7.91	7.80	7.86	8.30	7.96	8.10	7.94	7.86	7.91	8.03	7.90	7.97
19	7.90	7.86	7.88	8.02	7.66	7.84	7.92	7.90	7.92	7.99	7.90	7.96
20	7.93	7.86	7.89	8.03	7.95	8.01	7.93	7.91	7.92	8.04	7.84	7.94
21	7.92	7.85	7.88	7.93	7.81	7.88	7.95	7.93	7.94	8.06	7.96	8.01
22	7.91	7.81	7.86	8.00	7.92	7.96	7.95	7.93	7.94	8.05	7.93	7.98
23	7.98	7.83	7.89	8.01	7.97	7.99	7.96	7.93	7.94	8.12	7.93	8.03
24	8.04	7.82	7.92	8.06	7.98	8.02	7.97	7.91	7.94	8.07	7.95	8.00
25	8.00	7.88	7.94	8.12	8.04	8.07	7.98	7.78	7.89	7.99	7.89	7.94
26	7.94	7.64	7.85	8.05	7.60	7.79	7.95	7.89	7.93	8.05	7.88	7.95
27	7.93	7.65	7.82	7.76	7.61	7.68	7.96	7.94	7.95	8.03	7.93	7.97
28	8.07	7.89	7.97	7.77	7.62	7.71	7.97	7.94	7.96	8.04	7.92	7.97
29	8.07	7.92	7.98	7.88	7.58	7.81	8.08	7.94	7.98	8.12	7.94	8.01
30	8.04	7.86	7.93	7.93	7.87	7.89	8.00	7.94	7.95	8.03	7.92	7.98
31	8.12	7.89	8.01	---	---	---	7.97	7.92	7.94	7.96	7.85	7.91
MONTH	8.12	7.52	7.84	8.38	7.58	8.02	8.08	7.66	7.88	8.18	7.84	7.99

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	8.02	7.90	7.96	8.04	7.71	7.83	7.95	7.80	7.86	8.52	7.98	8.27
2	8.16	7.94	8.03	7.84	7.73	7.80	7.89	7.71	7.78	8.47	7.99	8.24
3	8.03	7.84	7.91	7.89	7.81	7.85	7.87	7.76	7.79	8.34	7.90	8.05
4	8.16	7.87	8.00	7.94	7.87	7.90	7.86	7.77	7.81	8.58	7.85	8.16
5	8.22	7.93	8.08	7.91	7.87	7.89	7.82	7.68	7.74	8.65	8.29	8.45
6	8.24	7.94	8.09	7.88	7.82	7.85	7.69	7.64	7.67	8.62	8.36	8.47
7	8.26	7.94	8.10	7.84	7.79	7.81	7.64	7.61	7.62	8.53	8.32	8.42
8	8.14	7.95	8.05	7.89	7.75	7.81	7.65	7.61	7.62	8.54	8.11	8.36
9	8.24	7.97	8.09	7.92	7.76	7.83	7.63	7.60	7.62	8.52	8.22	8.40
10	8.27	7.99	8.12	8.04	7.82	7.92	7.60	7.55	7.58	8.53	8.05	8.34
11	8.22	7.93	8.09	8.08	7.80	7.94	7.66	7.55	7.59	8.52	7.96	8.32
12	8.12	7.95	8.03	8.18	7.86	8.02	7.74	7.58	7.64	8.49	7.97	8.32
13	8.26	7.92	8.07	8.18	7.85	8.03	7.86	7.61	7.70	8.73	7.86	8.37
14	8.35	8.01	8.17	8.16	7.86	8.01	7.84	7.58	7.68	8.79	8.02	8.47
15	8.44	8.01	8.21	8.29	7.87	8.07	7.72	7.44	7.61	8.43	7.90	8.20
16	8.47	8.10	8.27	8.31	7.92	8.12	7.92	7.59	7.73	8.44	7.92	8.14
17	8.49	8.11	8.28	8.26	7.83	8.07	7.91	7.65	7.77	8.53	7.96	8.32
18	8.50	8.11	8.30	8.29	7.82	8.07	8.18	7.70	7.89	8.48	7.91	8.15
19	8.55	8.11	8.31	8.39	7.83	8.10	8.26	7.71	7.97	7.93	7.54	7.72
20	8.56	8.20	8.35	8.48	7.84	8.16	8.40	7.68	8.03	8.14	7.87	7.98
21	8.61	8.19	8.37	8.60	7.87	8.24	8.44	7.73	8.11	8.20	7.92	8.05
22	8.57	8.14	8.35	8.70	7.91	8.32	8.50	7.82	8.16	8.14	7.92	8.01
23	8.42	8.06	8.26	8.78	7.98	8.40	8.19	7.77	7.93	8.15	7.93	8.03
24	8.69	8.10	8.36	8.78	8.07	8.45	8.10	7.67	7.86	8.10	7.97	8.04
25	8.58	8.15	8.38	8.70	8.06	8.40	8.39	7.82	8.07	8.10	8.03	8.07
26	8.67	8.08	8.37	8.36	8.03	8.22	8.47	7.83	8.15	8.06	7.96	8.00
27	8.62	8.06	8.35	8.60	7.87	8.21	8.43	7.98	8.22	8.10	7.93	8.01
28	8.60	8.01	8.27	8.77	8.11	8.44	8.13	7.63	7.83	8.05	7.90	7.97
29	---	---	---	8.79	8.37	8.57	8.32	7.75	8.00	8.07	7.92	8.01
30	---	---	---	8.58	7.77	8.06	8.46	7.86	8.17	8.16	7.96	8.03
31	---	---	---	7.86	7.73	7.78	---	---	---	8.15	8.03	8.08
MONTH	8.69	7.84	8.19	8.79	7.71	8.07	8.50	7.44	7.84	8.79	7.54	8.18
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.05	7.89	8.00	8.03	7.89	7.95	8.88	8.37	8.64	8.21	7.85	8.04
2	8.06	7.96	8.01	8.04	7.71	7.82	8.77	8.17	8.43	8.27	8.13	8.18
3	7.97	7.80	7.86	7.85	7.72	7.78	8.11	7.91	8.03	8.37	8.15	8.25
4	8.06	7.75	7.92	7.89	7.84	7.86	8.24	7.80	8.00	8.35	8.15	8.24
5	8.08	7.96	8.03	7.94	7.87	7.90	8.40	8.01	8.18	8.38	8.12	8.26
6	8.11	7.98	8.05	7.96	7.87	7.91	8.48	8.12	8.29	8.54	8.15	8.32
7	8.16	8.03	8.09	7.95	7.80	7.88	8.43	8.15	8.31	8.48	8.22	8.36
8	8.27	8.04	8.16	7.98	7.85	7.91	8.37	8.16	8.28	8.50	8.10	8.28
9	---	---	---	7.94	7.85	7.89	8.29	8.09	8.15	8.59	8.12	8.33
10	8.10	8.00	8.00	8.03	7.86	7.94	8.16	7.86	7.97	8.61	8.20	8.39
11	8.30	8.03	8.18	8.12	7.90	8.00	8.29	7.97	8.11	8.37	8.02	8.22
12	8.27	7.92	8.07	8.37	7.92	8.12	8.35	8.12	8.24	7.94	7.51	7.75
13	8.04	7.80	7.89	8.46	8.01	8.22	8.38	8.15	8.25	8.14	7.94	7.04
14	8.20	7.79	7.96	8.01	7.89	7.94	8.42	8.17	8.31	8.26	8.06	8.15
15	8.27	7.99	8.14	8.18	7.90	8.04	8.47	8.21	8.35	8.20	8.10	8.12
16	8.43	8.11	8.28	8.26	7.98	8.10	8.67	8.23	8.44	8.14	8.02	8.07
17	8.37	8.11	8.26	8.32	7.97	8.15	8.80	8.28	8.53	8.19	7.96	8.06
18	8.45	8.15	8.31	8.38	8.03	8.20	8.80	8.35	8.60	8.08	7.91	8.01
19	8.59	8.24	8.42	8.52	8.08	8.32	8.76	8.30	8.53	8.11	7.88	7.99
20	8.52	7.60	8.01	8.64	8.20	8.45	8.66	8.22	8.45	8.10	7.92	8.02
21	7.93	7.69	7.82	8.78	8.30	8.55	8.48	8.26	8.35	8.18	8.05	8.11
22	7.95	7.80	7.87	8.79	8.25	8.56	8.34	7.96	8.09	8.15	8.08	8.11
23	7.97	7.74	7.88	8.83	8.24	8.55	8.14	7.81	7.94	8.24	8.09	8.15
24	8.11	7.97	8.03	8.90	8.31	8.62	8.29	8.07	8.18	8.19	8.10	8.15
25	8.28	8.03	8.12	8.88	8.33	8.63	8.35	8.15	8.25	8.32	8.11	8.21
26	8.42	8.05	8.20	8.76	8.11	8.45	8.29	8.16	8.22	8.40	8.11	8.25
27	8.32	8.14	8.23	8.80	8.25	8.54	8.20	8.01	8.14	8.49	8.14	8.31
28	8.17	8.04	8.07	8.95	8.34	8.67	8.02	7.97	8.00	8.60	8.18	8.37
29	8.16	7.94	8.06	9.01	8.40	8.71	8.21	8.04	8.12	8.52	8.21	8.37
30	8.07	7.90	7.99	9.02	8.36	8.71	8.23	8.13	8.18	8.52	8.16	8.29
31	---	---	---	8.98	8.42	8.71	8.26	8.14	8.20	---	---	---
MONTH	8.59	7.60	8.07	9.02	7.71	8.23	8.88	7.80	8.25	8.61	7.51	8.18
YEAR	9.02	7.44	8.06									

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	23.0	21.0	22.0	14.0	12.5	13.5	5.5	4.5	5.0	4.0	3.5	4.0
2	21.5	21.0	21.0	14.0	12.5	14.0	5.5	5.0	5.5	3.5	3.0	3.5
3	21.0	20.0	20.5	12.5	11.0	11.5	6.0	5.5	6.0	4.0	3.0	3.5
4	21.5	20.5	21.0	11.5	10.5	11.0	5.0	4.0	5.0	3.0	2.5	3.0
5	21.0	20.0	20.5	11.0	10.0	10.5	4.0	3.5	4.0	3.0	2.0	2.5
6	19.5	17.0	18.0	12.0	11.0	11.5	4.0	3.0	3.5	3.0	2.0	2.5
7	17.5	16.0	17.0	12.5	11.5	12.0	4.5	3.5	4.0	4.0	3.0	3.5
8	17.5	15.5	16.5	14.0	12.5	13.5	5.5	4.5	5.0	4.0	3.5	3.5
9	17.0	15.5	16.5	14.0	12.5	13.5	7.0	5.5	6.5	3.5	3.0	3.5
10	15.5	14.0	15.0	12.0	10.5	11.5	7.0	4.5	6.0	4.0	3.0	3.5
11	15.5	13.5	14.5	10.5	8.5	9.5	4.5	3.5	4.0	4.0	3.0	3.5
12	16.5	15.0	15.5	9.0	8.0	8.5	4.0	3.5	3.5	3.5	2.5	3.0
13	17.0	16.5	16.5	8.0	5.5	6.5	3.5	2.5	3.0	4.5	3.5	4.0
14	16.5	14.5	16.0	5.5	5.0	5.0	3.0	2.0	2.5	5.0	3.5	4.5
15	14.5	13.0	13.5	6.5	5.0	5.5	3.0	2.5	3.0	5.0	4.5	5.0
16	13.5	12.5	13.0	8.0	6.5	7.5	4.0	3.0	3.5	4.5	3.5	4.0
17	14.0	13.0	13.5	9.0	8.0	8.5	5.0	4.5	5.0	3.5	3.0	3.0
18	14.0	12.5	13.5	8.5	7.0	8.0	5.5	4.5	5.0	4.0	3.5	3.5
19	13.5	12.0	12.5	7.0	5.5	6.5	4.5	4.0	4.5	3.5	2.5	3.0
20	13.0	11.5	12.0	6.0	5.5	5.5	4.5	4.0	4.0	3.5	2.5	3.0
21	14.0	12.0	13.0	6.0	5.5	6.0	4.5	3.5	4.5	3.0	2.0	2.5
22	15.5	13.5	14.5	6.5	5.5	6.0	3.5	2.5	3.0	3.0	2.0	2.5
23	16.0	15.0	15.5	7.0	6.0	6.0	3.0	2.5	3.0	2.5	1.0	2.0
24	15.5	15.0	15.5	7.0	6.5	7.0	4.0	3.0	3.5	.5	.5	.5
25	15.0	14.5	15.0	7.0	5.5	6.5	4.0	3.5	3.5	.5	.5	.5
26	16.0	14.5	15.0	8.5	7.0	7.5	3.5	3.5	3.5	.5	.0	.5
27	15.0	14.0	14.5	8.5	7.5	8.0	4.0	3.5	3.5	.5	.0	.5
28	15.0	14.0	14.5	8.0	7.0	7.5	4.0	3.5	3.5	1.5	.0	.5
29	15.5	14.0	14.5	8.5	6.5	7.0	3.5	3.0	3.5	3.0	1.5	2.0
30	15.0	13.5	14.5	7.0	5.5	6.5	4.0	3.5	3.5	3.0	2.5	3.0
31	13.5	12.0	13.0	---	---	---	4.0	3.5	4.0	3.5	2.5	3.0
MONTH	23.0	11.5	15.5	14.0	5.0	8.5	7.0	2.0	4.0	5.0	.0	3.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	2.5	3.0	5.0	4.0	4.5	5.5	4.0	5.0	14.5	12.5	14.0
2	4.0	3.0	3.5	4.5	3.5	4.0	5.5	5.0	5.5	15.5	13.5	14.0
3	3.5	3.0	3.5	4.0	3.0	3.5	5.5	4.5	5.0	15.0	12.5	14.0
4	4.0	3.0	3.5	4.0	3.0	3.5	5.0	3.0	4.0	15.0	11.5	13.0
5	3.5	2.5	3.0	5.0	2.5	3.5	4.5	3.0	4.0	15.5	12.5	14.0
6	4.0	2.5	3.5	6.0	3.5	5.0	5.0	4.0	4.5	16.5	13.5	15.0
7	5.0	3.0	4.0	7.5	5.0	6.5	8.0	5.0	6.5	17.0	15.0	16.0
8	4.0	1.5	3.5	8.0	6.5	7.5	8.5	6.5	7.5	17.5	14.5	16.0
9	2.0	1.0	1.5	8.0	4.0	6.5	9.5	7.0	8.5	18.5	15.0	17.0
10	3.0	1.0	2.0	5.0	3.0	4.0	10.5	8.0	9.5	20.0	17.0	18.5
11	4.0	2.5	3.0	5.0	3.5	4.0	11.0	9.5	10.0	21.0	18.5	20.0
12	4.0	3.5	4.0	6.5	4.5	5.5	11.5	10.0	11.0	21.0	19.0	20.0
13	4.0	3.0	3.5	6.0	4.5	5.5	13.0	10.5	11.5	20.5	17.0	19.0
14	4.0	3.0	3.5	5.0	3.5	4.5	13.5	12.0	12.5	21.5	18.0	20.0
15	3.0	1.5	2.0	6.5	3.5	5.0	14.0	13.0	13.5	21.0	19.0	20.0
16	1.5	.5	1.0	6.5	4.0	5.5	13.5	12.5	13.0	20.5	17.5	19.0
17	3.0	1.5	2.0	6.5	4.0	5.5	13.5	12.5	13.0	22.0	18.0	20.0
18	4.5	2.5	3.5	7.0	4.5	5.5	16.0	12.5	14.0	21.0	19.0	20.0
19	4.0	2.5	3.0	8.0	5.5	7.0	17.0	14.0	15.5	20.5	19.0	19.5
20	3.5	2.0	3.0	8.5	6.0	7.5	19.0	15.5	17.0	21.5	19.5	20.5
21	4.5	2.5	3.5	9.0	6.5	8.0	20.0	16.5	18.5	23.0	20.0	21.5
22	5.0	4.0	4.5	9.5	6.5	8.0	18.5	17.0	18.0	24.5	22.0	23.0
23	4.5	4.0	4.5	11.0	7.5	9.0	17.5	16.0	17.0	24.0	22.0	23.0
24	5.0	3.5	4.0	12.0	8.5	10.5	16.0	13.5	15.0	22.0	19.5	21.0
25	5.0	3.0	4.0	13.5	11.0	12.0	15.5	12.0	13.5	21.0	18.0	19.5
26	5.0	3.0	4.0	12.5	10.5	11.0	17.0	13.5	15.0	22.5	20.0	21.5
27	5.0	4.0	4.5	11.0	10.0	10.5	16.0	14.0	15.0	24.0	21.5	22.5
28	6.5	5.0	5.5	12.5	10.5	11.5	14.0	13.0	13.5	25.0	23.0	24.0
29	---	---	---	13.5	10.5	12.0	15.5	12.0	13.5	25.5	23.5	24.5
30	---	---	---	13.0	6.0	11.0	15.5	13.0	14.5	26.0	24.0	25.0
31	---	---	---	6.0	3.5	4.5	---	---	---	25.5	24.0	24.5
MONTH	6.5	.5	3.5	13.5	2.5	7.0	20.0	3.0	11.5	26.0	11.5	19.5

STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.5	23.0	24.0	21.5	21.0	21.0	27.0	25.0	25.5	20.0	18.0	19.5
2	24.5	22.0	23.5	21.0	19.5	20.0	26.5	24.0	25.0	19.5	18.0	18.5
3	23.5	21.5	22.5	22.5	20.0	21.0	26.5	23.5	25.0	19.5	17.0	18.0
4	24.0	21.5	22.5	23.0	21.5	22.0	26.5	24.5	25.5	20.0	17.5	19.0
5	23.5	20.5	22.0	23.5	21.0	22.5	27.0	24.5	26.0	20.5	19.0	20.0
6	22.5	21.0	22.0	24.0	22.0	23.0	26.0	23.5	25.0	21.0	20.0	20.5
7	24.0	20.5	22.5	25.0	22.5	23.5	26.0	23.0	25.0	21.0	20.0	20.5
8	24.5	22.0	23.5	26.0	23.0	24.5	25.5	24.5	25.0	22.5	20.5	21.5
9	---	---	---	26.0	24.0	25.0	24.0	23.0	24.0	22.5	21.0	21.5
10	21.5	20.5	21.5	25.5	24.5	25.5	23.5	23.0	23.5	22.5	20.5	21.5
11	21.5	18.5	20.5	27.0	24.5	26.0	24.0	21.5	23.0	22.0	21.0	21.5
12	21.5	20.0	21.0	28.0	26.0	27.0	25.0	22.5	24.0	22.5	21.0	21.5
13	23.5	20.5	22.0	27.5	26.0	27.0	26.0	23.5	25.0	23.5	22.0	22.5
14	25.5	22.0	23.5	25.0	22.5	23.5	27.0	24.5	25.5	23.5	21.5	22.5
15	26.5	24.0	25.5	23.0	21.5	22.5	27.5	24.5	26.0	22.0	19.5	20.5
16	26.5	23.5	25.0	24.0	21.5	22.5	27.5	24.5	26.0	21.5	19.5	20.5
17	26.0	23.0	25.0	25.0	22.5	23.5	27.5	25.5	26.5	23.0	21.5	22.0
18	25.5	22.5	24.5	25.5	23.0	24.5	26.5	24.5	25.5	22.5	20.5	21.0
19	26.5	23.5	25.0	27.0	24.0	25.5	25.5	23.5	25.0	20.5	20.0	20.0
20	26.0	22.5	24.0	28.0	25.0	27.0	25.0	23.0	24.0	21.0	19.5	20.0
21	24.5	22.5	23.5	29.0	26.0	28.0	24.0	22.0	22.5	20.0	19.0	19.5
22	24.0	22.5	23.5	29.0	26.5	28.0	22.5	21.0	21.5	19.0	18.5	18.5
23	24.5	23.0	23.5	28.5	26.0	27.5	22.0	20.5	21.5	19.0	17.5	18.5
24	25.5	22.0	24.0	28.5	26.0	27.5	21.5	19.5	20.5	18.5	17.5	18.0
25	26.5	23.5	25.0	28.0	26.0	27.0	20.5	19.0	19.5	18.0	16.5	17.5
26	26.0	24.5	25.5	27.0	25.5	26.5	19.5	18.5	19.0	18.0	16.0	17.0
27	25.0	21.5	23.5	27.0	25.0	26.0	20.0	18.5	19.0	18.5	16.5	17.5
28	22.0	19.0	21.0	26.0	23.5	25.0	20.0	19.5	19.5	19.0	17.0	18.0
29	22.5	21.0	22.0	26.5	23.5	25.0	21.0	19.0	20.0	18.5	17.5	18.5
30	22.0	21.0	21.5	27.0	24.5	26.0	21.5	19.0	20.0	19.0	17.5	18.5
31	---	---	---	27.5	25.0	26.5	21.0	19.5	20.0	---	---	---
MONTH	26.5	18.5	23.0	29.0	19.5	25.0	27.5	18.5	23.5	23.5	16.0	20.0
YEAR	29.0	.0	13.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.1	5.9	6.6	11.3	9.7	10.5	12.8	10.7	12.1	12.8	11.8	12.2
2	7.3	6.0	6.9	10.2	8.4	9.4	12.9	11.8	12.3	13.2	12.4	12.7
3	7.6	7.0	7.3	11.1	8.6	9.8	12.2	11.7	11.9	13.3	12.5	12.8
4	7.2	6.0	6.7	9.9	8.9	9.4	12.6	11.6	12.3	13.6	12.7	13.0
5	7.7	6.4	7.0	11.9	8.6	10.1	12.4	11.5	12.0	14.2	12.9	13.5
6	8.5	6.6	8.0	12.9	10.5	11.7	13.4	12.6	13.1	14.0	13.3	13.7
7	8.6	8.1	8.4	13.8	11.0	12.5	13.3	12.9	13.1	13.3	12.6	12.9
8	8.8	8.4	8.6	13.0	10.6	11.6	12.9	12.1	12.6	13.2	12.5	12.8
9	9.2	8.4	8.7	12.5	9.9	11.4	12.0	10.9	11.5	13.2	12.4	12.9
10	9.8	9.1	9.5	13.6	10.8	12.3	11.0	10.3	10.8	13.1	12.3	12.6
11	9.9	9.5	9.7	12.5	11.2	11.8	11.3	11.0	11.2	12.7	11.9	12.2
12	9.7	9.3	9.6	12.8	11.1	12.0	11.5	11.2	11.3	13.5	12.4	12.9
13	9.3	8.9	9.1	12.8	11.1	11.9	11.6	11.2	11.5	14.2	12.6	13.2
14	9.3	8.8	9.0	13.7	11.5	12.7	12.1	11.6	11.7	14.0	12.4	13.1
15	10.3	9.2	10.0	12.9	11.8	12.4	12.3	11.5	11.9	12.8	12.2	12.4
16	10.9	10.1	10.6	12.1	10.9	11.2	11.9	11.2	11.5	12.8	12.3	12.6
17	11.0	10.4	10.7	12.3	10.3	11.3	12.1	11.1	11.6	13.8	12.6	13.2
18	11.1	10.4	10.8	11.3	10.4	10.8	11.7	11.0	11.2	13.2	12.5	12.9
19	11.6	10.4	10.9	12.1	10.3	11.0	11.8	11.0	11.4	12.7	12.0	12.3
20	11.0	10.3	10.6	12.1	11.4	11.8	12.0	11.4	11.7	13.1	11.3	12.1
21	10.8	10.0	10.5	12.1	11.0	11.5	12.4	11.7	12.0	13.6	12.4	13.0
22	10.2	9.4	9.8	12.4	11.9	12.1	12.8	12.0	12.3	13.1	12.3	12.6
23	10.3	9.0	9.5	13.0	11.9	12.3	12.6	12.0	12.3	12.5	11.4	12.0
24	10.4	8.9	9.6	12.5	12.0	12.3	12.4	11.8	12.1	12.4	11.4	11.9
25	10.0	9.0	9.5	13.1	12.1	12.6	12.4	11.8	12.1	13.3	11.8	12.3
26	9.3	7.4	8.7	12.3	10.6	11.4	12.6	12.3	12.4	13.6	11.8	12.4
27	9.3	7.4	8.7	11.5	10.5	11.0	12.6	12.3	12.5	13.6	12.6	13.0
28	10.7	9.1	9.7	11.5	9.9	10.9	13.0	12.4	12.6	13.3	12.1	12.7
29	10.5	9.1	9.7	12.1	9.5	10.8	13.4	12.4	12.9	13.6	12.3	12.9
30	9.9	8.5	9.2	11.0	10.7	10.8	13.1	12.6	12.8	12.6	11.4	11.9
31	11.5	8.9	10.2	---	---	---	13.0	12.4	12.8	11.8	10.4	11.0
MONTH	11.6	5.9	9.2	13.8	8.4	11.4	13.4	10.3	12.1	14.2	10.4	12.6

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	12.5	11.5	11.9	12.3	10.9	11.4	12.2	10.3	11.0	13.9	8.7	10.9
2	12.9	11.0	11.8	12.8	10.9	11.7	11.9	11.2	11.4	13.3	8.3	10.4
3	11.7	10.2	10.6	13.4	12.3	12.7	13.0	11.2	12.1	10.3	8.3	9.1
4	12.9	10.3	11.2	13.9	13.0	13.4	12.6	12.1	12.4	15.0	8.7	11.3
5	13.0	10.5	11.6	14.0	13.3	13.6	13.1	12.3	12.6	14.2	9.5	11.7
6	12.8	10.5	11.6	13.6	13.0	13.3	13.2	12.6	12.8	14.5	8.3	11.3
7	12.5	10.1	11.1	13.1	12.2	12.6	12.9	11.4	12.0	13.7	7.5	10.4
8	10.5	9.4	9.8	12.3	11.5	11.9	11.6	11.3	11.5	13.8	7.3	10.5
9	11.3	9.4	10.2	11.5	10.7	11.1	11.5	10.9	11.3	13.3	7.2	10.4
10	13.4	10.1	11.7	13.1	10.9	11.8	10.8	10.1	10.4	11.8	6.5	9.9
11	13.2	10.9	11.9	15.0	11.1	12.5	10.4	9.6	10.0	11.0	5.9	8.8
12	11.5	10.8	11.1	14.9	12.6	13.6	9.5	9.1	9.3	11.4	5.5	8.3
13	12.7	10.1	11.2	14.7	12.4	13.3	10.0	9.0	9.5	12.3	7.4	9.9
14	12.6	10.3	11.3	13.2	11.8	12.5	9.6	8.8	9.2	12.5	7.1	9.8
15	13.2	9.9	11.3	14.6	12.0	13.2	8.7	7.4	8.1	9.2	6.0	8.1
16	13.9	10.4	12.1	15.0	12.4	13.6	9.3	7.6	8.5	10.6	6.6	8.5
17	13.5	10.8	12.2	15.1	11.7	13.4	9.6	8.4	8.9	10.7	6.9	9.0
18	13.7	10.4	11.9	14.9	11.2	12.9	10.9	8.5	9.2	9.1	6.7	7.5
19	15.2	10.1	12.8	14.6	10.8	12.4	11.3	8.0	9.3	7.1	4.3	6.1
20	16.4	12.3	14.1	15.2	10.2	12.3	12.3	7.8	9.6	8.5	7.0	7.6
21	16.8	12.4	14.4	15.1	10.2	12.5	12.6	7.4	9.6	9.0	6.8	7.7
22	16.1	11.9	13.7	15.9	10.2	12.8	12.4	7.2	9.5	8.3	6.5	7.3
23	14.4	11.6	13.0	16.3	10.4	13.1	8.7	7.2	8.0	7.9	6.2	7.0
24	17.4	12.1	14.4	16.4	10.1	12.9	9.9	7.2	8.4	7.8	6.5	7.1
25	16.4	12.4	14.3	14.1	8.8	11.2	13.1	8.7	10.6	8.1	7.1	7.6
26	16.6	12.7	14.3	11.1	8.6	9.8	13.3	8.5	10.6	7.5	6.7	7.2
27	16.2	12.4	14.0	13.9	8.6	10.8	13.0	8.5	10.4	8.2	6.6	7.4
28	15.8	11.8	13.6	15.8	9.0	12.0	9.3	7.0	8.4	7.6	6.5	7.0
29	---	---	---	15.8	9.4	12.2	12.2	8.4	9.8	7.6	6.3	7.0
30	---	---	---	10.7	8.2	8.9	12.9	7.9	10.1	7.4	6.2	6.9
31	---	---	---	10.7	9.3	10.0	---	---	---	7.7	6.4	7.1
MONTH	17.4	9.4	12.3	16.4	8.2	12.2	13.3	7.0	10.2	15.0	4.3	8.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.5	6.0	6.8	8.0	7.5	7.8	11.0	6.9	8.7	8.8	6.7	8.0
2	7.8	6.6	7.1	8.2	7.1	7.5	11.1	6.9	8.6	9.2	8.1	8.

STREAMS TRIBUTARY TO LAKE ERIE

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04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH

LOCATION.--Lat 41°29'17", long 81°41'07", in T.7 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank just upstream from bridge on West Third Street in Cleveland, 3.0 mi upstream from mouth, and 1.2 mi downstream from turning basin.

DRAINAGE AREA.--798 mi².

PERIOD OF RECORD.--November 1966 to August 1987.

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: November 1966 to August 1987.

pH: November 1966 to August 1987.

WATER TEMPERATURES: November 1966 to August 1987.

DISSOLVED OXYGEN: November 1966 to August 1987.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. No discharge records available.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,480 microsiemens Feb. 12, 13, 1985; minimum, 192 microsiemens May 22, 1984.

pH: Maximum, 9.3 units Sept. 14, 1969; minimum, 4.3 units May 16, 1969.

WATER TEMPERATURES: Maximum, 35.0°C July 24, 1967; minimum, 1.0°C Jan. 1, 1969.

DISSOLVED OXYGEN: Maximum, 15.7 mg/L Mar. 31, 1984; minimum, 0.0 mg/L on many days during 1967, 1968, 1971 to 1974, 1977 to 1984.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 2,510 microsiemens Feb. 2; minimum, 288 microsiemens July 2.

pH: Maximum, 8.3 units Jan. 26; minimum, 7.3 units on many days during year.

WATER TEMPERATURES: Maximum, 32.0°C July 25, 26, 27; minimum, 3.5°C Jan. 25.

DISSOLVED OXYGEN: Maximum, 13.4 mg/L Jan. 29; minimum, 0.1 mg/L on many days during year.

STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	597	486	563	720	711	715	---	---	---	747	669	707
2	588	495	541	741	720	730	726	603	655	852	696	734
3	627	393	567	744	735	739	591	511	550	1590	852	1210
4	480	384	409	738	717	727	555	509	528	1620	1430	1540
5	534	483	517	729	720	722	599	558	577	1570	1230	1370
6	552	531	539	744	729	735	628	605	618	1210	1020	1100
7	558	540	548	765	747	755	638	562	616	1000	930	962
8	573	552	561	783	765	773	628	546	590	972	936	956
9	585	567	579	783	780	781	588	552	570	936	879	903
10	624	576	604	792	783	789	563	505	519	945	861	900
11	648	609	629	795	747	777	536	521	529	1500	951	1250
12	681	645	661	750	735	741	561	536	550	1410	1270	1340
13	723	675	693	735	708	719	581	568	577	1370	1220	1290
14	723	660	695	771	717	738	590	572	580	1240	1140	1200
15	660	603	621	852	768	807	611	577	597	1130	999	1080
16	669	618	632	888	855	874	639	608	626	975	795	871
17	705	672	690	930	891	913	705	625	659	795	768	784
18	741	705	727	918	813	898	855	690	743	774	741	764
19	738	723	731	849	705	753	861	714	767	810	729	778
20	729	717	724	---	---	---	726	699	711	1210	777	1010
21	738	714	723	---	---	---	726	696	711	1480	1240	1380
22	810	666	749	---	---	---	729	702	715	1360	1210	1310
23	675	663	670	---	---	---	699	675	687	1210	1080	1140
24	678	663	670	---	---	---	732	672	700	1080	1030	1050
25	681	663	671	---	---	---	774	576	677	1150	1040	1080
26	726	681	699	---	---	---	573	549	559	1190	1150	1170
27	732	690	719	---	---	---	597	549	573	1180	1060	1110
28	687	618	665	---	---	---	660	597	633	1080	1050	1060
29	630	609	616	---	---	---	663	633	651	1080	1050	1060
30	681	630	649	---	---	---	660	627	646	1300	1030	1090
31	717	684	701	---	---	---	705	639	668	2110	1360	1780
MONTH	810	384	638	930	705	773	861	505	626	2110	669	1100
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2450	1930	2170	828	474	715	1030	789	908	873	819	838
2	2510	2190	2360	531	456	483	1310	750	1050	864	843	853
3	2180	1790	1950	819	537	668	744	684	704	981	822	893
4	1770	1690	1710	900	771	845	906	675	721	957	864	906
5	1690	1480	1580	768	684	726	1140	663	864	888	828	856
6	1500	1340	1400	693	663	676	654	462	563	885	825	863
7	1330	1230	1270	705	669	681	453	411	431	981	864	909
8	1260	1180	1210	723	687	704	447	417	429	1020	969	986
9	1180	1120	1160	714	690	703	444	420	431	1140	942	1060
10	1420	1180	1270	720	666	693	438	417	428	1200	1050	1160
11	1590	1420	1500	732	651	695	465	432	445	1170	1120	1150
12	1630	1580	1610	750	690	721	528	462	491	1140	1060	1100
13	1550	1450	1510	810	735	768	528	501	509	1070	1010	1040
14	1440	1300	1350	810	765	784	621	531	576	1060	1020	1040
15	1290	1180	1220	1350	816	976	705	600	654	1060	927	1010
16	1180	1070	1120	1780	1370	1590	717	459	697	933	897	918
17	1100	1020	1060	1610	1300	1440	738	708	726	1040	930	970
18	1070	1020	1040	1300	1140	1240	789	717	762	1040	1030	1030
19	1040	1020	1030	1200	1010	1090	801	738	778	1030	849	936
20	1030	996	1020	1050	939	963	843	780	810	843	756	791
21	1040	1000	1010	936	882	901	864	786	824	924	792	860
22	1050	1030	1040	957	894	929	915	816	863	1020	918	961
23	1090	1000	1020	960	921	938	921	870	895	1030	990	1000
24	1030	969	995	942	909	927	924	873	905	1080	1010	1030
25	984	903	946	996	927	960	873	819	853	1070	1000	1030
26	906	861	877	1040	981	1020	837	798	816	1020	984	1000
27	864	825	837	1090	999	1040	909	822	877	1020	891	955
28	849	807	825	1000	990	993	909	801	870	990	915	939
29	---	---	---	1040	456	1000	789	750	772	1030	945	978
30	---	---	---	1060	459	951	879	462	791	1020	969	996
31	---	---	---	861	687	759	---	---	---	990	930	958
MONTH	2510	807	1290	1780	456	890	1310	411	715	1200	756	968

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	957	909	926	579	447	506	1080	1020	1060			
2	945	777	930	615	288	409	1070	786	1040			
3	753	492	570	411	318	367	636	342	457			
4	732	627	687	435	411	425	666	531	597			
5	804	726	766	468	423	453	756	642	711			
6	921	804	854	495	459	481	822	726	785			
7	975	906	934	498	456	474	936	828	890			
8	1020	975	996	555	498	523	1000	930	966			
9	1020	984	1010	561	537	548	999	912	974			
10	981	924	955	582	546	564	900	663	732			
11	930	918	923	591	522	566	681	663	672			
12	924	810	853	657	573	608	732	663	687			
13	903	729	833	729	666	692	---	---	---			
14	900	762	820	735	324	474	---	---	---			
15	903	837	866	564	450	503	---	---	---			
16	903	861	879	690	570	635	---	---	---			
17	936	888	913	777	684	728	---	---	---			
18	990	924	958	801	756	777	---	---	---			
19	1030	990	1010	876	810	847	---	---	---			
20	1030	498	814	903	867	886	---	---	---			
21	555	468	513	927	903	913	---	---	---			
22	597	510	564	951	927	938	---	---	---			
23	579	507	551	987	951	967	---	---	---			
24	660	594	628	1040	990	1010	---	---	---			
25	771	663	713	1060	1040	1050	---	---	---			
26	810	768	787	1070	1050	1060	---	---	---			
27	831	798	816	1060	1050	1060	---	---	---			
28	831	702	798	1050	1010	1020	---	---	---			
29	702	570	664	1010	987	999	---	---	---			
30	558	381	481	999	978	989	---	---	---			
31	---	---	---	1030	987	1000	---	---	---			
MONTH	1030	381	800	1070	288	725	1080	342	798			
YEAR	2510	288	850									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.69	7.39	7.49	7.49	7.42	7.45	7.63	7.50	7.57	7.44	7.32	7.39
2	7.55	7.42	7.47	7.51	7.44	7.48	7.64	7.50	7.57	7.45	7.31	7.38
3	7.64	7.50	7.55	7.51	7.45	7.48	8.21	7.55	7.67	7.47	7.34	7.41
4	7.60	7.47	7.54	7.48	7.45	7.47	8.06	7.66	7.71	7.48	7.35	7.43
5	7.60	7.50	7.55	7.55	7.46	7.50	7.73	7.58	7.65	7.45	7.34	7.41
6	7.80	7.57	7.63	7.60	7.54	7.57	7.69	7.61	7.64	7.48	7.33	7.40
7	7.62	7.52	7.58	7.62	7.59	7.60	7.63	7.55	7.58	7.48	7.32	7.42
8	7.61	7.53	7.56	7.68	7.58	7.62	7.57	7.53	7.55	7.46	7.41	7.44
9	7.78	7.55	7.61	7.67	7.59	7.61	7.80	7.50	7.57	7.47	7.38	7.43
10	7.70	7.55	7.59	7.58	7.52	7.55	7.66	7.59	7.63	7.45	7.36	7.40
11	7.60	7.52	7.56	7.55	7.49	7.51	7.66	7.57	7.61	7.43	7.38	7.41
12	7.57	7.52	7.54	7.55	7.53	7.54	7.65	7.59	7.61	7.46	7.39	7.42
13	7.55	7.50	7.53	7.56	7.52	7.54	7.62	7.52	7.55	7.49	7.39	7.44
14	7.56	7.42	7.49	7.64	7.56	7.60	7.64	7.52	7.58	7.49	7.39	7.44
15	7.64	7.49	7.56	7.64	7.59	7.61	7.56	7.47	7.52	7.61	7.47	7.54
16	7.56	7.51	7.54	7.64	7.58	7.61	7.59	7.47	7.51	7.67	7.54	7.61
17	7.58	7.51	7.54	7.58	7.50	7.54	7.55	7.37	7.45	7.63	7.54	7.57
18	7.61	7.50	7.53	7.60	7.49	7.51	7.46	7.35	7.41	7.64	7.59	7.61
19	7.52	7.43	7.47	7.81	7.47	7.61	7.63	7.37	7.45	7.65	7.55	7.61
20	7.47	7.39	7.42	7.73	7.53	7.61	7.52	7.40	7.44	7.71	7.62	7.66
21	7.49	7.37	7.42	7.71	7.65	7.68	7.46	7.34	7.41	7.75	7.65	7.69
22	7.50	7.36	7.43	7.68	7.61	7.64	7.44	7.34	7.39	7.69	7.58	7.65
23	7.53	7.45	7.48	7.68	7.61	7.64	7.48	7.42	7.46	7.65	7.57	7.62
24	7.47	7.41	7.45	7.61	7.52	7.57	7.54	7.42	7.46	7.63	7.53	7.57
25	7.43	7.40	7.42	7.52	7.34	7.45	7.61	7.42	7.50	7.70	7.59	7.65
26	7.42	7.35	7.38	7.80	7.31	7.54	7.63	7.54	7.59	8.33	7.68	7.85
27	7.49	7.36	7.42	7.70	7.61	7.66	7.67	7.53	7.59	8.08	7.74	7.89
28	7.50	7.40	7.47	7.72	7.62	7.67	7.58	7.45	7.53	7.74	7.67	7.71
29	7.51	7.42	7.47	7.65	7.62	7.64	7.56	7.38	7.51	7.83	7.63	7.69
30	7.52	7.45	7.49	7.62	7.57	7.60	7.53	7.47	7.50	7.69	7.62	7.65
31	7.51	7.44	7.47	---	---	---	7.52	7.43	7.47	7.72	7.60	7.65
MONTH	7.80	7.35	7.50	7.81	7.31	7.57	8.21	7.34	7.54	8.33	7.31	7.55

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.66	7.55	7.62	7.90	7.80	7.85	7.72	7.61	7.66	7.62	7.48	7.55
2	7.64	7.55	7.60	7.81	7.71	7.77	7.67	7.63	7.65	7.54	7.47	7.51
3	7.71	7.60	7.66	7.90	7.73	7.84	7.64	7.59	7.62	7.50	7.42	7.47
4	7.97	7.54	7.68	7.91	7.83	7.85	7.61	7.56	7.60	7.45	7.39	7.43
5	7.63	7.52	7.60	7.90	7.82	7.86	7.60	7.55	7.58	7.58	7.37	7.50
6	7.68	7.61	7.64	7.85	7.82	7.83	7.56	7.53	7.54	7.63	7.52	7.56
7	7.72	7.63	7.69	7.81	7.73	7.76	7.73	7.51	7.66	7.60	7.51	7.54
8	7.74	7.68	7.71	7.75	7.68	7.71	7.72	7.66	7.69	7.54	7.47	7.51
9	7.81	7.73	7.77	7.76	7.68	7.72	7.70	7.63	7.67	7.55	7.46	7.50
10	7.86	7.77	7.81	7.78	7.71	7.75	7.63	7.54	7.58	7.51	7.41	7.47
11	7.83	7.77	7.80	7.80	7.76	7.78	7.55	7.52	7.53	7.50	7.45	7.47
12	7.84	7.77	7.80	7.79	7.71	7.74	7.54	7.50	7.52	7.48	7.43	7.45
13	7.83	7.75	7.78	7.96	7.72	7.82	7.55	7.51	7.53	7.54	7.42	7.46
14	7.83	7.76	7.80	7.79	7.68	7.72	7.52	7.46	7.50	7.61	7.43	7.53
15	7.84	7.79	7.82	7.68	7.58	7.65	7.57	7.48	7.53	7.47	7.36	7.41
16	7.87	7.81	7.85	7.74	7.60	7.65	7.61	7.51	7.56	7.42	7.35	7.38
17	7.93	7.78	7.87	7.75	7.61	7.66	7.68	7.56	7.61	7.39	7.31	7.35
18	7.96	7.87	7.92	7.78	7.65	7.72	7.62	7.53	7.58	7.36	7.29	7.32
19	7.97	7.89	7.94	7.80	7.70	7.74	7.65	7.53	7.59	7.46	7.34	7.41
20	7.89	7.82	7.85	7.75	7.65	7.71	7.67	7.53	7.60	7.48	7.33	7.39
21	7.87	7.79	7.82	7.76	7.65	7.71	7.65	7.51	7.58	7.42	7.34	7.38
22	7.90	7.80	7.83	7.69	7.63	7.66	7.64	7.47	7.55	7.44	7.37	7.39
23	7.88	7.82	7.84	7.79	7.60	7.70	7.68	7.44	7.54	7.41	7.39	7.40
24	7.92	7.85	7.89	7.79	7.70	7.75	7.55	7.45	7.50	7.43	7.37	7.40
25	7.91	7.86	7.88	7.75	7.70	7.72	7.50	7.45	7.48	7.42	7.38	7.39
26	7.96	7.89	7.92	7.77	7.64	7.67	7.55	7.46	7.49	7.41	7.38	7.39
27	7.92	7.87	7.91	7.69	7.52	7.59	7.58	7.42	7.49	7.39	7.35	7.37
28	7.93	7.89	7.92	7.64	7.53	7.57	7.63	7.41	7.57	7.39	7.31	7.34
29	---	---	---	7.72	7.62	7.68	7.64	7.48	7.56	7.36	7.31	7.33
30	---	---	---	7.75	7.55	7.64	7.58	7.46	7.54	7.37	7.30	7.33
31	---	---	---	7.61	7.54	7.58	---	---	---	7.34	7.30	7.32
MONTH	7.97	7.52	7.79	7.96	7.52	7.72	7.73	7.41	7.57	7.63	7.29	7.43
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.37	7.31	7.34	7.63	7.55	7.61	7.59	7.53	7.56			
2	7.37	7.30	7.33	7.75	7.61	7.70	7.72	7.50	7.54			
3	7.55	7.39	7.48	7.69	7.65	7.67	7.76	7.56	7.65			
4	7.43	7.33	7.37	7.76	7.68	7.72	7.59	7.47	7.53			
5	7.34	7.30	7.32	7.74	7.69	7.71	7.52	7.44	7.48			
6	7.33	7.30	7.31	7.74	7.66	7.70	7.46	7.41	7.43			
7	7.34	7.31	7.32	7.71	7.61	7.67	7.45	7.42	7.44			
8	7.37	7.32	7.34	7.67	7.39	7.55	7.52	7.44	7.48			
9	7.40	7.37	7.39	7.58	7.45	7.53	7.50	7.47	7.49			
10	7.41	7.36	7.38	7.58	7.47	7.52	7.49	7.44	7.46			
11	7.42	7.36	7.39	7.58	7.41	7.48	7.54	7.44	7.50			
12	7.39	7.33	7.36	7.52	7.44	7.47	7.46	7.41	7.43			
13	7.38	7.32	7.35	7.49	7.43	7.46	---	---	---			
14	7.51	7.35	7.42	7.76	7.50	7.60	---	---	---			
15	7.53	7.38	7.44	7.57	7.49	7.54	---	---	---			
16	7.38	7.31	7.35	7.64	7.51	7.57	---	---	---			
17	7.37	7.32	7.34	7.59	7.46	7.54	---	---	---			
18	7.36	7.33	7.35	7.50	7.44	7.48	---	---	---			
19	7.37	7.33	7.35	7.50	7.43	7.46	---	---	---			
20	7.61	7.37	7.44	7.52	7.43	7.46	---	---	---			
21	7.53	7.44	7.49	7.51	7.45	7.47	---	---	---			
22	7.81	7.45	7.55	7.53	7.48	7.50	---	---	---			
23	7.83	7.45	7.57	7.50	7.46	7.48	---	---	---			
24	7.64	7.37	7.49	7.56	7.45	7.49	---	---	---			
25	7.53	7.45	7.50	7.55	7.47	7.51	---	---	---			
26	7.54	7.48	7.52	7.62	7.46	7.55	---	---	---			
27	7.54	7.48	7.50	7.71	7.58	7.64	---	---	---			
28	7.58	7.47	7.52	7.76	7.64	7.71	---	---	---			
29	7.58	7.49	7.53	7.78	7.60	7.70	---	---	---			
30	7.66	7.53	7.58	7.77	7.55	7.64	---	---	---			
31	---	---	---	7.61	7.54	7.57	---	---	---			
MONTH	7.83	7.30	7.42	7.78	7.39	7.57	7.76	7.41	7.50			
YEAR	8.33	7.29	7.56									

STREAMS TRIBUTARY TO LAKE ERIE

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04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	26.0	26.5	22.5	22.0	22.5	31.0	30.0	30.5			
2	27.0	25.0	26.5	22.5	20.0	20.5	30.5	27.5	30.0			
3	25.0	21.5	22.5	22.5	20.0	21.0	26.0	24.0	25.0			
4	24.0	22.5	23.5	23.0	22.5	22.5	27.0	25.0	26.5			
5	25.0	24.0	24.5	23.5	23.0	23.5	28.5	27.0	27.5			
6	25.5	24.5	25.0	24.5	23.5	24.0	28.5	27.5	28.5			
7	26.0	25.5	26.0	25.0	24.0	24.5	29.0	28.5	29.0			
8	26.5	26.0	26.0	26.0	24.5	25.5	29.5	29.0	29.0			
9	26.0	26.0	26.0	27.0	25.5	26.5	29.5	28.5	29.0			
10	25.5	24.5	25.0	27.5	26.5	27.0	28.0	25.5	26.5			
11	24.5	24.0	24.5	27.5	27.0	27.0	25.5	25.0	25.5			
12	24.5	24.0	24.0	28.5	27.0	28.0	27.0	25.0	26.0			
13	24.0	23.5	23.5	29.5	28.5	29.0	---	---	---			
14	26.0	23.5	24.5	29.0	23.0	25.0	---	---	---			
15	26.5	25.5	26.0	24.5	23.0	23.5	---	---	---			
16	27.5	26.5	27.0	25.0	24.0	24.5	---	---	---			
17	28.5	27.0	27.5	27.0	24.5	25.5	---	---	---			
18	28.5	27.5	28.0	27.0	25.5	26.0	---	---	---			
19	28.5	28.0	28.5	28.5	26.5	27.5	---	---	---			
20	28.5	23.5	26.5	29.5	28.0	28.5	---	---	---			
21	24.0	23.0	23.5	29.5	29.0	29.5	---	---	---			
22	24.5	24.0	24.5	31.0	29.5	30.0	---	---	---			
23	24.5	24.0	24.0	31.5	30.5	31.0	---	---	---			
24	25.5	24.0	24.5	31.5	31.0	31.5	---	---	---			
25	26.5	25.0	26.0	32.0	31.5	31.5	---	---	---			
26	27.0	26.5	26.5	32.0	31.0	31.5	---	---	---			
27	27.0	26.5	26.5	32.0	31.0	31.5	---	---	---			
28	26.5	24.0	26.0	31.5	31.0	31.0	---	---	---			
29	24.0	23.0	23.5	31.0	30.5	31.0	---	---	---			
30	23.5	22.5	23.0	31.0	29.5	30.0	---	---	---			
31	---	---	---	30.5	29.5	29.5	---	---	---			
MONTH	28.5	21.5	25.5	32.0	20.0	27.0	31.0	24.0	28.0			
YEAR	32.0	3.5	15.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.6	4.1	4.8	4.7	3.6	4.2	7.6	6.6	7.2	6.1	4.1	5.1
2	6.0	4.9	5.4	4.8	4.1	4.5	9.0	7.1	7.7	5.9	3.7	4.8
3	6.7	5.5	6.0	4.7	4.0	4.3	9.7	8.7	9.2	6.0	3.9	5.1
4	6.3	5.6	6.0	4.2	4.0	4.1	9.8	9.4	9.7	7.2	5.2	6.3
5	6.7	5.9	6.4	5.1	4.1	4.6	9.9	9.5	9.7	6.7	4.3	5.7
6	7.2	6.7	6.9	5.3	4.8	4.9	9.7	9.0	9.4	6.9	4.2	5.8
7	7.6	7.0	7.3	5.2	4.9	5.0	9.3	8.4	9.0	6.6	3.7	5.5
8	7.7	7.1	7.4	5.2	4.6	4.9	8.9	8.4	8.6	5.8	4.7	5.3
9	7.5	6.7	7.2	5.1	4.0	4.4	8.8	8.0	8.5	5.8	2.9	4.7
10	7.1	6.6	6.9	4.4	3.8	4.1	9.1	8.3	8.7	4.5	2.6	3.3
11	7.5	6.6	7.1	4.3	3.7	3.8	9.6	8.8	9.2	4.4	2.5	3.6
12	7.3	6.7	7.1	4.2	3.8	4.0	9.3	8.7	9.0	5.6	3.5	4.5
13	6.9	5.6	6.1	4.3	3.9	4.0	9.0	8.0	8.5	5.7	3.2	4.7
14	6.9	5.8	6.5	4.8	3.9	4.5	9.3	8.1	8.7	6.1	4.0	4.8
15	7.2	6.7	7.0	5.1	4.0	4.4	8.6	7.4	8.1	7.7	4.9	6.7
16	7.2	6.6	6.9	5.7	5.0	5.4	7.8	6.8	7.3	8.8	6.9	8.0
17	6.8	5.7	6.2	5.1	3.7	4.4	7.2	5.4	6.5	8.8	7.8	8.3
18	5.6	4.8	5.2	4.2	3.2	3.5	6.2	4.5	5.5	9.3	8.6	9.0
19	4.6	3.8	4.2	8.0	4.2	6.0	7.3	5.4	6.1	9.3	8.2	8.9
20	4.2	3.6	3.9	7.9	7.1	7.4	7.2	5.8	6.4	10.5	9.1	9.7
21	4.7	3.7	4.1	9.1	8.1	8.6	6.6	4.6	5.9	10.3	9.4	9.9
22	4.6	3.4	3.9	8.7	7.2	8.2	6.1	4.1	5.1	10.0	9.1	9.6
23	3.6	2.6	3.2	8.1	7.0	7.6	6.9	5.3	6.3	9.4	7.4	8.9
24	3.0	1.7	2.4	6.9	5.1	6.2	6.8	4.4	6.0	8.8	6.9	7.8
25	2.5	1.6	2.1	5.0	1.3	3.9	9.0	5.4	7.0	9.9	8.3	9.2
26	3.5	1.9	2.4	8.6	1.0	5.3	9.0	8.2	8.7	10.6	9.5	10.1
27	5.0	3.3	4.2	9.0	8.3	8.7	8.5	7.2	7.8	11.1	10.1	10.6
28	4.9	3.6	4.5	9.0	8.6	8.9	7.4	5.4	6.4	11.0	10.7	10.9
29	5.3	4.3	4.7	8.8	8.1	8.5	7.1	4.4	6.1	13.4	10.5	11.4
30	5.1	3.6	4.5	8.3	7.3	7.9	8.3	7.3	7.8	11.3	10.8	11.1
31	4.8	3.7	4.2	---	---	---	7.4	6.3	6.9	11.4	10.0	11.0
MONTH	7.7	1.6	5.3	9.1	1.0	5.5	9.9	4.1	7.7	13.4	2.5	7.4

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	11.5	10.4	11.0	10.9	10.1	10.5	7.7	7.5	7.6	7.3	5.3	6.4
2	12.4	10.1	11.7	10.4	9.9	10.2	7.8	7.4	7.6	6.0	4.7	5.6
3	12.6	11.9	12.4	11.4	10.3	10.8	8.9	7.7	8.0	6.3	4.7	5.8
4	12.7	11.4	12.2	11.8	10.8	11.4	8.9	8.3	8.5	5.7	5.0	5.3
5	11.9	11.3	11.6	12.4	11.8	12.0	9.9	9.1	9.3	6.0	5.0	5.4
6	11.7	11.1	11.3	12.5	11.7	12.0	9.7	9.1	9.4	6.7	5.1	5.6
7	12.1	10.7	11.7	12.1	11.1	11.6	10.1	9.4	9.7	5.7	4.1	4.6
8	11.6	10.5	11.3	11.3	10.2	10.8	9.4	8.9	9.3	4.5	3.0	3.7
9	11.5	10.8	11.1	10.4	9.6	10.1	9.0	8.4	8.7	4.3	3.3	3.7
10	12.9	11.2	12.2	10.0	9.0	9.6	8.3	6.4	7.5	4.0	1.5	3.1
11	13.0	12.4	12.7	10.7	9.7	10.4	7.2	6.8	7.0	3.8	2.3	3.0
12	12.6	11.1	12.1	10.3	9.8	10.2	7.6	6.9	7.2	2.2	.1	.9
13	13.0	11.7	12.5	12.2	9.5	11.5	7.9	7.5	7.7	3.7	.3	1.4
14	13.0	12.6	12.8	11.9	11.6	11.7	7.7	6.6	7.0	4.9	2.1	3.5
15	12.8	12.2	12.5	11.5	10.8	11.1	7.5	6.1	7.1	2.4	.1	.8
16	11.9	11.3	11.6	11.1	10.1	10.7	7.0	6.5	6.8	1.6	.1	.6
17	11.9	11.1	11.6	10.2	9.7	9.9	7.4	6.4	6.8	1.5	.3	.6
18	11.5	10.6	11.1	10.2	9.6	9.8	6.8	5.8	6.5	2.2	.3	.0
19	11.3	10.4	11.0	10.3	8.7	9.9	7.0	5.6	6.5	3.3	.4	2.4
20	11.2	10.0	11.0	10.0	9.2	9.7	7.3	5.3	6.2	3.0	1.6	2.2
21	11.7	11.1	11.3	9.7	8.9	9.3	7.1	5.0	6.4	2.6	1.2	1.7
22	11.9	11.2	11.5	9.0	8.7	8.9	7.3	5.0	5.9	3.2	.7	1.6
23	11.5	10.8	11.0	9.5	7.6	8.6	7.6	4.2	5.7	1.2	.3	.7
24	12.9	10.6	12.2	7.5	6.4	7.0	5.6	4.8	5.2	1.2	.1	.5
25	13.3	12.4	12.8	7.1	6.1	6.6	6.3	5.4	5.9	.8	.1	.4
26	13.2	12.5	12.9	6.0	4.0	5.0	7.6	5.6	6.3	1.0	.1	.4
27	12.5	11.7	12.1	4.9	4.1	4.5	6.7	3.8	5.5	1.2	.1	.5
28	11.7	10.7	11.1	5.2	4.2	4.7	7.6	4.3	6.6	2.3	.3	.8
29	---	---	---	5.5	4.6	5.2	7.2	5.9	6.8	1.6	.2	1.0
30	---	---	---	5.7	4.1	4.9	7.7	5.5	6.9	.9	.2	.6
31	---	---	---	7.5	5.8	6.8	---	---	---	.6	.1	.2
MONTH	13.3	10.0	11.8	12.5	4.0	9.2	10.1	3.8	7.2	7.3	.1	2.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	.9	.1	.4	5.4	5.1	5.3	1.1	.1	.6			
2	1.4	.1	.2	6.1	5.0	5.6	4.3	.1	.5			
3	4.3	2.8	3.3	6.0	5.5	5.8	4.8	3.3	4.1			
4	2.8	1.4	2.2	6.1	5.8	5.9	3.7	2.7	3.3			
5	1.4	.2	1.0	6.0	5.5	5.7	3.1	1.3	2.2			
6	.2	.1	.1	5.9	5.3	5.6	2.0	.7	1.3			
7	.5	.1	.2	5.8	5.1	5.5	1.3	.6	.9			
8	.4	.1	.2	5.4	4.5	5.1	1.6	.6	1.0			
9	.3	.1	.1	4.9	4.3	4.5	1.5	.4	1.0			
10	.5	.1	.3	4.6	3.6	4.2	2.9	1.4	2.3			
11	.7	.1	.3	4.2	2.8	3.5	3.2	2.1	2.8			
12	1.0	.1	.2	3.9	3.0	3.4	3.3	2.1	2.7			
13	2.2	.9	1.5	2.9	2.2	2.5	---	---	---			
14	3.5	1.9	2.8	5.3	2.7	4.6	---	---	---			
15	3.8	.7	2.0	4.8	3.5	4.3	---	---	---			
16	.8	.1	.4	4.9	3.8	4.4	---	---	---			
17	.8	.1	.3	4.8	2.9	4.1	---	---	---			
18	.4	.1	.2	3.2	2.1	2.7	---	---	---			
19	.3	.1	.1	2.7	1.3	2.1	---	---	---			
20	4.4	.1	2.1	2.6	1.0	1.5	---	---	---			
21	4.5	3.3	3.9	1.7	1.0	1.3	---	---	---			
22	4.9	4.4	4.6	2.1	.8	1.4	---	---	---			
23	4.9	3.7	4.3	1.8	.9	1.3	---	---	---			
24	5.0	2.3	3.6	2.6	.7	1.3	---	---	---			
25	3.9	2.5	3.4	2.3	.9	1.6	---	---	---			
26	3.1	2.1	2.8	2.5	.5	1.7	---	---	---			
27	3.1	1.6	2.3	2.9	1.3	2.2	---	---	---			
28	3.9	1.6	2.8	3.1	2.1	2.5	---	---	---			
29	4.3	3.0	3.5	3.2	1.3	2.6	---	---	---			
30	5.1	4.0	4.5	3.3	.4	1.8	---	---	---			
31	---	---	---	1.5	.2	.6	---	---	---			
MONTH	5.1	.1	1.8	6.1	.2	3.4	4.8	.1	1.9			
YEAR	13.4	.1	6.0									

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

LOCATION.--Lat 41°43'08", long 81°13'41", Lake County, Hydrologic Unit 04110004, on downstream left abutment of bridge on State Highway 84 (Walnut Avenue), 0.9 mi downstream from Big Creek in Painesville.

DRAINAGE AREA.--685 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 596.37 ft above National Geodetic Vertical Datum of 1929. Previously published, in error, as 620.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 5, 6, Jan. 21 to Feb. 25, and Aug. 3-13. Records fair except periods of estimated record, which are poor.

AVERAGE DISCHARGE.--13 years, 1,054 ft³/s, 20.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft³/s June 11, 1986, gage height, 13.07 ft; maximum gage height, 13.16 ft Dec. 25, 1979; minimum, 11 ft³/s Sept. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	0430	ice jam	*10.99	July 3	2230	7,690	7.87
Mar. 2	0730	7,870	7.98	Aug. 28	0130	6,820	7.31
Apr. 6	2300	*13,000	10.53				

Minimum daily discharge, 26 ft³/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1660	373	1680	617	500	4960	3660	182	80	2670	30	453	
2	1790	313	1680	580	430	7590	3810	165	69	4410	37	293	
3	2070	320	4460	576	390	5680	3940	168	196	6460	1000	211	
4	2760	316	4840	546	350	3730	5350	209	141	6160	960	175	
5	2810	286	3350	440	450	2810	7900	205	93	3620	250	139	
6	2260	267	2590	380	410	2290	11200	197	66	2450	130	110	
7	1960	255	2280	515	370	2020	12300	162	57	1760	100	94	
8	1660	250	3380	648	330	1790	9050	134	49	964	90	86	
9	1140	245	3350	645	370	1490	5880	112	45	440	80	80	
10	664	231	3830	579	420	1120	4030	100	43	280	70	76	
11	371	231	2880	584	480	825	2530	88	39	206	300	81	
12	262	232	1840	584	410	672	1420	100	60	243	180	98	
13	236	252	1300	611	360	576	919	94	57	475	120	604	
14	375	277	822	616	410	521	688	86	48	2220	77	937	
15	873	285	280	1460	350	489	601	88	45	569	58	683	
16	1060	337	518	2260	310	486	518	80	43	338	46	373	
17	867	428	601	1640	280	535	478	76	44	197	39	294	
18	710	458	965	1200	260	601	463	78	42	134	34	1640	
19	506	844	1610	1080	240	654	448	92	38	103	30	3930	
20	357	1120	1530	942	210	677	412	82	40	85	28	2710	
21	286	1880	1180	700	200	673	366	76	110	75	26	2390	
22	231	1870	876	460	190	618	312	75	480	66	1190	1420	
23	195	1680	672	360	180	548	270	83	546	57	2230	735	
24	175	1370	541	310	170	496	214	77	805	50	1110	456	
25	156	1100	1900	270	160	465	189	71	693	43	522	340	
26	150	1880	3490	250	218	526	172	70	461	42	258	266	
27	176	4490	2430	230	212	806	178	82	214	41	2960	203	
28	505	3710	1630	210	350	830	214	64	145	36	4940	159	
29	1010	2550	1210	200	---	726	214	60	174	36	3610	131	
30	714	2130	909	260	---	1490	201	54	3010	32	1680	137	
31	518	---	718	400	---	3710	---	76	---	31	762	---	
TOTAL	28507	29980	59342	20153	9010	50404	77927	3286	7933	34293	22947	19304	
MEAN	920	999	1914	650	322	1626	2598	106	264	1106	740	643	
MAX	2810	4490	4840	2260	500	7590	12300	209	3010	6460	4940	3930	
MIN	150	231	280	200	160	465	172	54	38	31	26	76	
CFSM	1.34	1.46	2.79	.95	.47	2.37	3.79	.15	.39	1.61	1.08	.94	
IN.	1.55	1.63	3.22	1.09	.49	2.74	4.23	.18	.43	1.86	1.25	1.05	
CAL YR 1986	TOTAL	465108		MEAN	1274	MAX	14400	MIN	17	CFSM	1.86	IN.	25.26
WTR YR 1987	TOTAL	363086		MEAN	995	MAX	12300	MIN	26	CFSM	1.45	IN.	19.72

STREAMS TRIBUTARY TO LAKE ERIE

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04212100 GRAND RIVER NEAR PAINESVILLE, OHIO--Continued

SEDIMENT ANALYSIS

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,350 mg/L Jan. 1, 1979; minimum daily mean, 1 mg/L Nov. 18, 1981, Oct. 26, 27, 1982.

SEDIMENT LOADS: Maximum daily, 38,800 tons Dec. 25, 1979; minimum daily, 0.09 ton Oct. 26, 27, 1982.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 853 mg/L June 30; minimum daily mean, 4 mg/L Nov. 12, 13.

SEDIMENT LOADS: Maximum daily, 9,220 tons Apr. 6; minimum daily, 0.75 July 31.

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	1660	67	300	373	10	10	1680	37	168
2	1790	68	329	313	8	6.8	1680	45	204
3	2070	110	783	320	7	6.0	4460	98	1180
4	2760	135	1010	316	7	6.0	4840	77	1010
5	2810	85	645	286	6	4.6	3350	47	425
6	2240	53	321	267	6	4.3	2590	40	280
7	1920	48	249	255	4	2.8	2280	58	357
8	1600	42	181	250	5	3.4	3380	60	548
9	1090	34	100	245	5	3.3	3350	62	561
10	674	23	42	231	7	4.4	3830	64	662
11	390	13	14	231	5	3.1	2880	36	280
12	277	10	7.5	232	4	2.5	1840	29	144
13	250	11	7.4	252	4	2.7	1300	27	95
14	395	30	32	277	6	4.5	822	31	69
15	854	58	134	285	6	4.6	280	16	12
16	1030	32	89	337	7	6.4	518	13	18
17	853	24	55	428	7	8.1	601	11	18
18	714	27	52	458	12	15	965	40	104
19	530	13	19	844	32	73	1610	37	161
20	376	11	11	1120	36	109	1530	25	103
21	302	9	7.3	1880	58	294	1180	21	67
22	245	8	5.3	1870	41	207	876	16	38
23	207	9	5.0	1680	27	122	672	12	22
24	186	8	4.0	1370	19	70	541	13	19
25	165	7	3.1	1100	21	62	1900	115	764
26	159	7	3.0	1880	133	1070	3490	116	1090
27	187	8	4.0	4490	230	2790	2430	43	282
28	519	30	42	3710	94	942	1630	34	150
29	980	39	103	2550	56	386	1210	27	88
30	714	23	44	2130	46	265	909	19	47
31	518	12	17	---	---	---	718	16	31
TOTAL	28465	---	4618.6	29980	---	6488.5	59342	---	8997
JANUARY			FEBRUARY			MARCH			
1	617	13	22	500	22	30	4960	350	4690
2	580	12	19	430	21	24	7590	410	8400
3	576	12	19	390	19	20	5680	170	2610
4	546	12	18	350	19	18	3730	109	1100
5	440	13	15	450	21	26	2810	84	637
6	380	14	14	410	20	22	2290	70	433
7	515	12	17	370	19	19	2020	56	305
8	648	13	23	330	18	16	1790	40	193
9	645	12	21	370	19	19	1490	36	145
10	579	10	16	420	20	23	1120	31	94
11	584	10	16	480	22	29	825	28	62
12	584	10	16	410	20	22	672	25	45
13	611	9	15	360	20	19	576	18	28
14	616	9	15	410	20	22	521	14	20
15	1460	71	280	350	19	18	489	14	18
16	2260	74	452	310	19	16	486	17	22
17	1640	42	186	280	16	12	535	14	20
18	1200	31	100	260	16	11	601	11	18
19	1080	22	64	240	15	9.7	654	12	21
20	942	16	41	210	14	7.9	677	11	20
21	700	14	26	200	13	7.0	673	10	18
22	460	20	25	190	12	6.2	618	8	13
23	360	19	18	180	10	4.9	548	9	13
24	310	19	16	170	11	5.0	496	8	11
25	270	16	12	160	12	5.2	465	11	14
26	250	15	10	218	15	8.8	526	10	14
27	230	15	9.3	212	14	8.0	806	12	26
28	210	14	7.9	350	30	28	830	12	27
29	200	13	7.0	---	---	---	726	12	24
30	260	16	11	---	---	---	1490	70	396
31	400	21	23	---	---	---	3710	210	2100
TOTAL	20153	---	1534.2	9010	---	456.7	50404	---	21537

STREAMS TRIBUTARY TO LAKE ERIE

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04212100 GRAND RIVER NEAR PAINESVILLE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	3660	142	1400	182	8	3.9	80	9	1.9
2	3810	83	854	165	8	3.6	69	10	1.9
3	3940	91	968	168	11	5.0	196	168	129
4	5350	72	1040	209	7	4.0	141	23	8.8
5	7900	367	7920	205	9	5.0	93	30	7.5
6	11200	305	9220	197	9	4.8	66	32	5.7
7	12300	273	9070	162	8	3.5	57	27	4.2
8	9050	155	3790	134	8	2.9	49	24	3.2
9	5880	105	1670	112	7	2.1	45	20	2.4
10	4030	86	936	100	6	1.6	43	23	2.7
11	2530	64	437	88	10	2.4	39	17	1.8
12	1420	61	234	100	12	3.2	60	31	5.0
13	919	45	112	94	5	1.3	57	20	3.1
14	688	22	41	86	7	1.6	48	21	2.7
15	601	16	26	88	8	1.9	45	24	2.9
16	518	14	20	80	11	2.4	43	22	2.6
17	478	11	14	76	13	2.7	44	22	2.6
18	463	10	13	78	16	3.4	42	12	1.4
19	448	10	12	92	14	3.5	38	20	2.1
20	412	11	12	82	10	2.2	40	15	1.6
21	366	11	11	76	10	2.1	110	93	51
22	312	8	6.7	75	8	1.6	480	308	472
23	270	9	6.6	83	14	3.1	546	120	177
24	214	8	4.6	77	10	2.1	805	110	239
25	189	7	3.6	71	20	3.8	693	87	163
26	172	9	4.2	70	16	3.0	461	61	76
27	178	8	3.8	82	12	2.7	214	48	28
28	214	7	4.0	64	12	2.1	145	16	6.3
29	214	5	2.9	60	10	1.6	174	69	92
30	201	8	4.3	54	10	1.5	3010	853	7360
31	---	---	---	76	8	1.6	---	---	---
TOTAL	77927	---	37840.7	3286	---	86.2	7933	---	8857.4
JULY			AUGUST			SEPTEMBER			
1	2670	260	1870	30	10	.81	453	22	27
2	4410	437	5470	37	15	1.5	293	18	14
3	6460	320	5580	1000	200	540	211	14	8.0
4	6160	220	3660	960	94	244	175	11	5.2
5	3620	73	714	250	54	36	139	11	4.1
6	2450	68	450	130	36	13	110	9	2.7
7	1760	74	352	100	39	11	94	9	2.3
8	964	57	148	90	27	6.6	86	7	1.6
9	440	23	27	80	28	6.0	80	6	1.3
10	280	20	15	70	24	4.5	76	6	1.2
11	206	12	6.7	300	25	20	81	7	1.5
12	243	50	33	180	20	9.7	98	10	2.6
13	475	80	103	120	21	6.8	604	62	101
14	2220	507	4580	77	21	4.4	937	60	152
15	569	45	69	58	18	2.8	683	43	79
16	338	28	26	46	16	2.0	373	38	38
17	197	20	11	39	17	1.8	294	40	32
18	134	13	4.7	34	20	1.8	1640	138	791
19	103	11	3.1	30	10	.81	3930	139	1470
20	85	12	2.8	28	11	.83	2710	69	505
21	75	11	2.2	26	14	.98	2390	67	432
22	66	11	2.0	1190	490	2270	1420	53	203
23	57	7	1.1	2230	300	1810	735	30	60
24	50	7	.95	1110	75	225	456	20	25
25	43	9	1.0	522	40	56	340	16	15
26	42	10	1.1	258	31	22	266	12	8.6
27	41	11	1.2	2960	397	3810	203	9	4.9
28	36	12	1.2	4940	345	5300	159	9	3.9
29	36	14	1.4	3610	70	682	131	8	2.8
30	32	18	1.6	1680	48	218	137	6	2.2
31	31	9	.75	762	41	84	---	---	---
TOTAL	34293	---	23139.80	22947	---	15392.33	19304	---	3996.9
YEAR	363044		132945.33						

STREAMS TRIBUTARY TO LAKE ERIE

04212200 GRAND RIVER AT PAINESVILLE, OH

(National stream-quality accounting network station)

LOCATION.--Lat 41°44'09", long 81°15'59", in T.11 N., R.8 W., Lake County, Hydrologic Unit 04110004, at bridge on State Highway 535 in Painesville, 2.2 mi upstream from mouth, and 8.0 mi downstream from Kellogg Creek.

DRAINAGE AREA.--701 mi².

PERIOD OF RECORD.--March 1950 to February 1952, October 1962 to current year.

REMARKS.--Water temperatures available for Mar. 1950 to February 1952, October 1962 to December 1966. Four parameter (Specific Conductance, pH, Water Temperature, and Dissolved Oxygen) Water quality monitor at site from December 1966 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
NOV 19...	1430	610	7.82	2.5	4.0	8.1	11.6	90	720	2700	180
MAR 17...	1230	620	8.09	6.0	5.0	5.0	11.4	91	120	K50	180
APR 28...	1245	1100	8.17	12.0	12.5	1.5	10.0	97	380	110	370
AUG 19...	1145	2860	8.14	27.0	26.5	12	7.3	95	190	42	850

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 19...	100	56	9.5	43	3.4	--	--	76	48	110	0.20
MAR 17...	69	58	8.6	48	2.7	135	0	111	45	130	0.10
APR 28...	290	130	9.9	100	3.0	98	0	80	50	300	0.20
AUG 19...	740	320	12	250	6.3	131	0	107	62	840	0.20

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 19...	4.3	360	0.010	0.270	0.040	0.030	0.70	0.050	<0.010	<0.010	20
MAR 17...	3.5	361	<0.010	0.340	0.070	0.060	0.50	0.040	0.020	0.010	60
APR 28...	1.4	735	0.010	0.160	0.130	0.120	0.60	0.040	0.010	<0.010	30
AUG 19...	3.3	1810	<0.010	0.360	0.190	0.180	1.2	0.050	0.010	<0.010	30

STREAMS TRIBUTARY TO LAKE ERIE

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0412200 GRAND RIVER AT PAINESVILLE, OH--Continued

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 19...	<1	35	<0.5	<1	<1	<3	6	59	<5	9
MAR 17...	<1	31	<0.5	<1	9	<3	3	150	<5	11
APR 28...	<1	66	<0.5	<1	10	<3	6	91	<5	15
AUG 19...	1	100	<10	<1	10	4	5	20	<5	20

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDEED (MG/L)
NOV 19...	28	<0.1	<10	2	<1	<1.0	160	<6	5	28
MAR 17...	50	<0.1	<10	1	<1	<1.0	160	<6	23	9
APR 28...	47	<0.1	<10	1	<1	<1.0	290	<6	24	7
AUG 19...	120	0.2	9	1	<1	<1.0	700	9	10	23

K Results based on colony count outside the acceptable range (non-ideal colony count)

STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH

LOCATION.--Lat 41°53'36", long 80°47'44", Ashtabula County, Hydrologic Unit 04110003, on left upstream side of bridge at E. 15 th Street in Ashtabula, 1,750 ft upstream from mouth.

DRAINAGE AREA.--3.63 mi².

PERIOD OF RECORD.--April 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1983 to current year.

pH: April 1983 to current year.

WATER TEMPERATURES: April 1983 to current year.

DISSOLVED OXYGEN: April 1983 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 20,600 microsiemens May 4, 1986; minimum, 420 microsiemens Nov. 26, 1985.

pH: Maximum, 9.6 units Feb. 24, 1984; minimum, 2.7 units Oct. 28, 1984.

WATER TEMPERATURES: Maximum, 34.0°C July 23, 1987; minimum, 1.5°C Dec. 24, 25, 1983, Jan. 20, 21, 1985.

DISSOLVED OXYGEN: Maximum, 13.3 mg/L Mar. 5, 1985; minimum, 1.4 mg/L Aug. 10, 1986.

EXTREMES FOR CURRENT YEAR. --

SPECIFIC CONDUCTANCE: Maximum, 17,800 microsiemens Jan. 5; minimum, 800 microsiemens Apr. 5.

pH: Maximum recorded, 8.8 units Apr. 22, May 6; minimum, 5.9 units on Nov. 25.

WATER TEMPERATURES: Maximum, 34.0°C on July 23; minimum, 2.0°C Apr. 4.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L Apr. 5; minimum, 4.5 mg/L June 29.

STREAMS TRIBUTARY TO LAKE ERIE

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04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4340	3080	3710	4600	4180	4420	3900	3360	3650	4100	3440	3690
2	5380	2960	3320	4760	3500	3910	4700	1720	2770	5120	3320	3590
3	3620	1220	2560	5780	3660	4100	2220	1700	1860	5740	3200	3450
4	2820	1860	2400	4020	3720	3830	3700	2260	2490	3540	3080	3200
5	3620	2800	3160	5240	3740	4140	5180	2920	3290	17800	3440	5930
6	3560	3160	3370	4600	4200	4390	3480	3020	3310	4500	3780	4060
7	4380	3340	3680	5520	4260	4630	3080	1800	2630	3820	3080	3360
8	4680	3500	3920	5760	4320	4760	2200	1700	1920	3400	3160	3280
9	6840	3360	4500	5060	4300	4550	2340	1600	2010	3140	2880	3020
10	5780	4140	4720	6020	3780	4650	2560	1660	2130	3240	2940	3060
11	4440	3840	4270	3760	3000	3360	3200	2560	2770	4180	3120	3430
12	5400	4120	4940	3400	3060	3220	3840	2820	3200	4120	3200	3530
13	5100	4500	4760	4000	3180	3640	3480	3160	3270	3960	3280	3550
14	7220	4000	4560	4680	3680	4100	3800	2980	3260	3540	3000	3260
15	4420	2740	3440	4320	4040	4210	3460	3220	3360	5120	2920	3440
16	3960	3000	3300	4200	3740	3970	3620	3160	3320	5100	2820	3170
17	3660	3180	3420	4200	3340	3910	3360	2960	3180	3600	3200	3310
18	4740	3660	4110	3700	3020	3250	2940	1940	2260	3680	2940	3100
19	5680	4420	4800	3260	2820	3010	2680	2080	2370	3320	2800	2960
20	4980	4200	4550	3300	2520	2980	3180	2720	2900	3900	3000	3190
21	5320	3960	4280	2380	2180	2260	3860	2980	3280	3700	2960	3270
22	5640	3640	3930	2880	2120	2490	3920	3380	3610	4740	3420	3750
23	4260	2840	3510	3100	2840	3010	3820	3200	3470	4200	3480	3810
24	3820	2980	3320	3760	2960	3260	4160	1660	3100	4620	3400	3670
25	4980	3440	3780	4180	2980	3250	1860	1220	1520	4700	3280	3510
26	5160	3440	3770	3140	1620	2350	2620	1920	2210	3620	3220	3330
27	4360	3160	3710	2200	1620	1850	2880	2640	2780	3360	2960	3150
28	4280	3280	3580	2680	2240	2440	3460	2660	2810	3940	3180	3450
29	4000	3320	3640	3180	2700	3000	3180	2700	2900	3640	2880	3200
30	4860	3660	3870	3380	2900	3170	3220	2640	2870	3260	2980	3170
31	4560	3920	4130	---	---	---	3460	2720	3090	3560	2960	3210
MONTH	7220	1220	3840	6020	1620	3540	5180	1220	2830	17800	2800	3450
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3200	2920	2990	2680	1200	1760	2120	1780	1910	4400	3740	4090
2	3880	2800	3020	2960	1280	1820	2520	1700	1900	5100	4300	4520
3	3420	2840	3030	2520	1860	2240	3920	1800	2540	4760	3460	4070
4	3500	2940	3290	---	---	---	2640	900	2100	3840	3360	3580
5	3600	2960	3320	---	---	---	2760	800	1250	3600	3100	3430
6	3440	3000	3200	3620	3020	3320	2420	900	1190	3700	2960	3270
7	3460	2980	3210	4940	2400	3490	1480	1080	1210	4280	3620	3860
8	3960	3040	3260	8820	3400	3910	2560	1460	1940	4640	3780	3940
9	3360	3140	3260	6080	3540	3890	3300	2560	2830	5200	3980	4470
10	3640	3220	3460	4000	3560	3780	4820	3300	3970	5080	4640	4870
11	4540	3020	3240	5280	3400	3660	6100	4420	4800	5420	4000	4650
12	3560	3220	3280	5880	3560	3970	4940	4220	4570	4360	3760	4010
13	3860	3160	3320	4720	4020	4260	4220	3720	3990	4640	3600	3960
14	3920	3500	3630	4400	3880	4070	3820	3520	3690	4380	2960	4080
15	3980	3560	3770	4520	4000	4150	3800	3140	3390	4420	3500	4050
16	7740	3600	4230	4420	3820	4110	3740	3320	3540	4580	4020	4300
17	4940	3700	4010	4120	3400	3820	5780	4140	4660	4560	4080	4360
18	4080	3280	3590	4400	3760	4150	5520	4480	4700	5080	3600	4120
19	3800	3300	3570	4360	3500	4000	5320	4180	4550	4020	3580	3840
20	3700	3100	3310	4160	3360	3660	4560	3760	4220	4220	3300	3670
21	4220	3760	3900	5000	3740	4030	4200	3700	3910	5880	4120	4370
22	4360	3800	3990	6100	3880	4350	4260	3100	3580	4380	3400	4050
23	4280	3520	3700	4500	3160	3960	5120	4020	4280	4960	3320	4170
24	9780	3400	4430	4200	3800	3970	4340	3740	4070	8340	4640	5290
25	3760	3140	3360	4280	3160	3780	5620	4020	4300	7580	4980	5740
26	4000	3360	3650	3400	2820	3130	7560	3560	4230	6340	4680	5480
27	4420	3400	3660	3480	2960	3250	4180	3080	3830	6440	4620	5160
28	4200	2800	3470	3740	3220	3470	4060	3200	3630	7960	4740	6410
29	---	---	---	5560	3480	3700	3800	3220	3550	5100	3600	4680
30	---	---	---	3680	1400	2850	4200	3820	4020	4620	3900	4350
31	---	---	---	2400	1360	1780	---	---	---	5160	4600	4770
MONTH	9780	2800	3510	8820	1200	3530	7560	800	3410	8340	2960	4370

STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5680	4280	4640	3880	3360	3630	5320	4200	4630	7880	3760	4770
2	5220	2660	4250	3560	2300	3140	5180	1700	4360	5100	3660	4080
3	4580	3760	4330	3560	2780	3160	4160	2840	3440	5640	4420	4790
4	4140	3200	3730	4760	3240	3920	7600	3420	3950	5140	4880	4980
5	4480	3600	3850	4500	3780	4180	3940	3200	3470	5740	4700	5120
6	5000	3720	4350	4600	3960	4190	3680	1760	3100	6060	5020	5230
7	14000	4600	6270	4400	3660	3910	3820	3060	3380	5880	4800	5120
8	5740	3680	4880	4300	3520	3890	3980	3300	3530	5520	4340	4600
9	4700	4280	4500	4180	3260	3580	4640	3380	3730	4940	3840	4270
10	4820	3100	4060	3720	3220	3440	4140	3400	3750	4560	3460	3750
11	5380	3480	4560	3780	3240	3430	5700	3240	3800	4860	3820	4360
12	4880	3400	4160	4560	3840	4190	5880	3340	4100	7360	4060	4940
13	4480	3400	3790	4700	2100	4180	7520	4220	4690	5960	4820	5040
14	5760	3940	4410	4460	2760	3390	4940	4000	4380	5080	4100	4660
15	5700	4160	4430	4200	3380	3560	5720	4240	4580	4780	2000	3080
16	4400	4000	4200	4720	4020	4270	4900	4120	4410	4500	1760	2760
17	4520	3760	3970	5800	3920	4510	4700	4160	4350	3580	2180	2840
18	9760	3960	4450	6960	3600	4190	4580	3840	4110	3680	2680	3210
19	4600	4000	4280	4740	4160	4410	5020	3360	4160	4140	3560	3880
20	4800	3820	4350	4200	3760	3940	5880	3880	4440	9300	3960	4440
21	5420	2420	4400	4100	3380	3700	5240	4000	4480	5140	4020	4360
22	4020	2020	3030	6320	3560	4040	5460	2420	4410	4180	3400	3830
23	4920	2720	3030	7080	4320	4900	5920	4220	4590	4640	3660	4060
24	4600	2600	3050	5620	4020	4320	6540	4580	5030	5280	4000	4260
25	5340	2620	3430	5020	3400	4460	4900	4420	4690	4480	3940	4210
26	4360	3600	3970	6460	4320	4900	4660	2220	4130	5540	3860	4470
27	4100	3800	3930	5540	4140	4600	2560	860	1680	8980	4800	5360
28	4880	4000	4370	4560	4120	4340	3400	2160	2440	5160	4740	4930
29	4400	2680	4010	5020	4180	4420	3780	2560	2920	5780	4140	4750
30	4380	3140	3610	4820	4300	4540	6160	3400	4090	12800	4580	5920
31	---	---	---	4800	4300	4480	5320	3980	4460	---	---	---
MONTH	14000	2020	4140	7080	2100	4060	7600	860	3980	12800	1760	4400
YEAR	17800	800	3760									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.96	7.32	7.83	7.72	7.66	7.69	7.73	7.67	7.70	7.88	7.73	7.79
2	7.94	7.61	7.85	7.68	7.65	7.67	7.71	7.35	7.55	7.86	7.69	7.80
3	7.92	7.48	7.74	7.72	7.66	7.69	7.41	7.25	7.36	7.86	7.77	7.80
4	7.83	7.57	7.71	7.73	7.67	7.70	7.67	7.42	7.50	7.87	7.75	7.80
5	7.92	7.83	7.87	7.74	7.62	7.68	7.75	7.62	7.69	7.98	7.66	7.81
6	7.94	7.75	7.88	7.63	7.07	7.54	7.81	7.76	7.79	8.24	7.94	8.13
7	7.95	7.86	7.91	7.64	7.56	7.59	7.76	7.46	7.63	8.22	7.78	7.95
8	7.97	7.74	7.86	7.59	7.49	7.54	7.47	7.42	7.44	7.92	7.78	7.84
9	7.77	7.68	7.73	7.55	7.49	7.52	7.51	7.36	7.47	7.95	7.85	7.89
10	7.83	7.73	7.78	7.71	7.53	7.60	7.98	7.40	7.49	8.02	7.59	7.81
11	7.79	7.71	7.77	7.77	7.71	7.73	7.82	7.61	7.72	7.82	7.70	7.75
12	7.77	7.68	7.73	7.84	7.66	7.74	7.85	7.78	7.82	7.83	7.70	7.78
13	7.69	7.53	7.62	7.72	7.63	7.68	7.90	7.82	7.86	7.84	7.71	7.78
14	7.71	7.46	7.63	7.69	7.55	7.64	7.88	7.83	7.86	7.91	7.65	7.83
15	7.71	7.45	7.57	7.66	7.55	7.60	7.87	7.43	7.79	7.97	7.78	7.85
16	7.57	7.45	7.51	7.66	7.60	7.62	7.88	7.79	7.84	8.01	7.83	7.90
17	7.62	7.51	7.58	7.65	7.56	7.60	7.90	7.81	7.86	7.95	7.81	7.88
18	7.65	7.60	7.64	7.63	7.49	7.58	7.90	7.65	7.72	7.90	7.84	7.86
19	7.67	7.49	7.64	7.59	7.50	7.55	7.76	7.57	7.70	7.94	7.73	7.87
20	7.66	7.18	7.57	7.73	7.49	7.58	7.83	7.73	7.80	8.03	7.89	7.93
21	7.64	7.52	7.61	7.53	7.44	7.49	7.89	7.84	7.86	8.04	7.85	7.92
22	7.64	7.61	7.63	7.62	7.53	7.58	8.02	7.76	7.90	8.01	7.88	7.93
23	7.65	7.58	7.62	7.65	7.58	7.60	8.00	7.83	7.87	8.09	7.92	8.01
24	7.68	7.61	7.64	7.70	7.51	7.61	7.92	7.51	7.82	8.12	7.84	8.03
25	7.70	7.63	7.67	7.78	5.87	7.63	7.50	7.38	7.42	8.12	7.73	7.91
26	7.72	7.52	7.65	7.70	7.38	7.55	7.62	7.46	7.53	8.12	7.60	7.86
27	7.65	7.32	7.58	7.54	7.43	7.49	7.73	7.63	7.68	7.97	7.78	7.85
28	7.64	7.59	7.62	7.67	7.53	7.60	7.83	7.72	7.77	7.92	7.72	7.80
29	7.72	7.64	7.68	7.73	7.65	7.69	7.84	7.75	7.79	7.96	7.63	7.75
30	7.73	7.67	7.70	7.79	7.69	7.74	7.86	7.75	7.80	7.87	7.71	7.77
31	7.72	7.28	7.66	---	---	---	7.86	7.76	7.82	7.93	7.74	7.82
MONTH	7.97	7.18	7.69	7.84	5.87	7.62	8.02	7.25	7.70	8.24	7.59	7.86

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.88	7.76	7.80	7.64	7.47	7.55	7.69	7.07	7.56	8.64	7.80	8.14
2	7.93	7.61	7.78	7.79	7.49	7.62	7.63	7.56	7.60	8.65	7.80	8.11
3	7.83	6.79	7.67	7.84	7.70	7.76	7.70	7.56	7.63	8.10	7.81	7.92
4	7.87	7.43	7.66	---	---	---	7.68	7.30	7.58	8.61	7.81	8.12
5	7.79	7.54	7.69	---	---	---	7.54	7.43	7.48	8.76	7.75	8.18
6	7.81	7.57	7.71	7.87	7.57	7.84	7.63	7.37	7.52	8.77	7.70	8.14
7	7.79	7.58	7.67	7.94	7.68	7.82	7.76	7.57	7.66	8.59	7.67	8.06
8	7.72	7.62	7.66	7.94	7.71	7.81	7.88	7.51	7.77	8.50	7.67	7.99
9	7.69	6.77	7.56	7.90	7.65	7.79	7.98	7.77	7.88	8.43	7.69	7.98
10	7.85	7.57	7.69	8.04	7.74	7.92	8.11	7.84	7.99	8.41	7.67	7.96
11	7.86	7.59	7.72	8.04	7.77	7.89	8.03	7.88	7.95	8.14	7.09	7.81
12	7.76	7.52	7.65	7.98	7.77	7.85	7.95	7.84	7.88	8.23	7.71	7.91
13	7.73	6.11	7.35	7.98	7.80	7.86	8.05	7.81	7.92	8.12	7.71	7.87
14	7.83	7.51	7.70	8.00	7.80	7.87	8.12	7.84	7.96	8.08	7.72	7.86
15	8.05	7.84	7.93	8.10	7.84	7.94	8.18	7.88	8.02	8.04	7.61	7.84
16	8.02	7.60	7.83	8.01	7.71	7.87	8.24	7.86	8.02	8.05	7.74	7.85
17	7.90	7.75	7.83	8.01	7.70	7.84	8.27	7.80	7.98	8.09	7.70	7.86
18	7.91	7.72	7.78	8.00	7.78	7.87	8.40	7.85	8.08	7.95	7.76	7.82
19	7.87	7.61	7.77	8.10	7.76	7.86	8.51	7.87	8.13	8.11	7.81	7.93
20	7.90	7.75	7.80	8.00	7.74	7.84	8.59	7.85	8.14	8.19	7.87	7.99
21	7.90	7.70	7.80	8.15	7.71	7.86	8.74	7.78	8.20	8.24	7.85	7.98
22	7.91	7.68	7.76	8.01	7.75	7.85	8.77	7.81	8.26	8.14	7.74	7.95
23	7.81	7.60	7.72	8.11	7.74	7.88	8.38	7.84	8.02	8.19	7.85	7.97
24	7.90	7.70	7.76	8.01	7.71	7.83	8.54	7.91	8.15	8.24	7.83	8.00
25	7.84	7.64	7.74	7.94	7.74	7.82	8.61	7.90	8.19	8.26	7.88	8.05
26	7.81	7.30	7.70	7.90	7.76	7.82	8.57	7.87	8.16	8.29	7.90	8.04
27	7.90	7.08	7.70	7.96	7.80	7.86	8.51	7.85	8.10	8.30	7.50	7.99
28	7.84	7.66	7.74	8.11	7.80	7.91	8.54	7.81	8.09	8.34	7.87	8.04
29	---	---	---	8.13	7.78	7.91	8.67	7.75	8.12	8.35	7.83	8.02
30	---	---	---	7.81	7.56	7.73	8.60	7.65	8.13	8.40	7.87	8.04
31	---	---	---	7.61	7.54	7.59	---	---	---	8.44	7.86	8.07
MONTH	8.05	6.11	7.72	8.15	7.47	7.82	8.77	7.07	7.94	8.77	7.09	7.98
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.15	7.81	7.94	8.16	8.00	8.07	7.99	7.77	7.86	7.89	7.77	7.82
2	8.20	7.35	7.85	8.09	7.66	7.95	7.87	7.33	7.69	7.78	7.70	7.74
3	8.20	7.67	7.85	8.17	7.91	8.04	7.82	7.42	7.67	7.74	7.67	7.71
4	8.07	7.80	7.89	8.25	8.00	8.11	7.90	7.71	7.77	7.78	7.65	7.71
5	7.97	7.58	7.83	8.34	8.07	8.18	7.88	7.71	7.79	7.82	7.71	7.76
6	7.96	7.74	7.82	8.36	8.10	8.20	7.79	7.38	7.61	7.79	7.71	7.74
7	7.94	7.68	7.80	8.35	8.11	8.20	7.87	7.55	7.72	7.81	7.69	7.74
8	8.04	7.70	7.85	8.51	8.07	8.24	7.91	7.72	7.81	7.80	7.67	7.73
9	8.00	7.79	7.88	8.46	8.05	8.21	7.80	7.73	7.76	7.87	7.58	7.76
10	7.96	7.78	7.84	8.48	8.07	8.24	7.84	7.67	7.75	7.94	7.74	7.81
11	7.81	7.67	7.74	8.43	8.02	8.19	7.91	7.67	7.77	7.85	7.57	7.72
12	7.79	7.60	7.69	8.29	7.95	8.09	7.95	7.71	7.82	7.79	7.31	7.66
13	7.86	7.70	7.78	8.22	7.13	7.90	7.89	6.08	7.70	7.80	7.48	7.68
14	7.84	7.70	7.75	7.90	7.62	7.82	7.98	7.68	7.79	7.80	7.63	7.70
15	7.95	7.74	7.82	8.07	7.80	7.92	7.98	7.64	7.79	7.93	7.62	7.75
16	7.91	7.70	7.81	8.08	7.84	7.94	8.04	7.68	7.84	8.09	7.70	7.81
17	8.04	7.78	7.88	8.12	7.86	7.97	8.07	7.71	7.84	7.71	7.39	7.64
18	8.50	7.85	8.11	8.23	7.85	8.00	8.08	7.70	7.84	7.63	7.47	7.57
19	8.10	7.84	7.94	8.26	7.84	8.02	8.05	7.69	7.82	7.79	7.64	7.71
20	7.91	7.67	7.81	8.31	7.85	8.04	8.08	7.69	7.84	7.86	7.71	7.77
21	8.01	7.76	7.86	8.21	7.79	7.95	8.02	7.71	7.84	7.88	7.70	7.78
22	7.87	7.51	7.77	8.21	7.74	7.94	7.81	6.91	7.58	7.87	7.58	7.76
23	8.01	7.84	7.92	8.17	7.73	7.91	7.98	7.68	7.77	7.94	7.70	7.79
24	8.12	7.90	8.00	8.24	7.79	7.95	7.84	7.66	7.74	7.90	7.70	7.77
25	8.11	7.94	8.00	7.87	7.43	7.75	7.89	7.69	7.77	7.85	7.48	7.73
26	8.11	7.88	8.00	8.06	7.75	7.88	7.89	7.61	7.78	7.82	7.63	7.72
27	8.18	8.00	8.06	8.07	7.81	7.90	7.46	7.08	7.26	7.88	7.70	7.77
28	8.21	8.00	8.08	8.03	7.79	7.89	7.64	7.29	7.48	7.90	7.64	7.77
29	8.36	8.04	8.14	8.09	7.75	7.91	7.77	7.15	7.66	7.88	7.32	7.70
30	8.08	7.81	7.98	8.05	7.77	7.88	7.83	7.71	7.77	8.08	7.58	7.78
31	---	---	---	8.08	7.76	7.89	7.86	7.76	7.80	---	---	---
MONTH	8.50	7.35	7.89	8.51	7.13	8.01	8.08	6.08	7.74	8.09	7.31	7.74
YEAR	8.77	5.87	7.81									

STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

STREAMS TRIBUTARY TO LAKE ERIE

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04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	28.0	25.5	26.5	26.5	25.0	25.5	30.5	29.0	30.0	25.5	23.5	24.5
2	30.0	25.5	27.0	26.0	23.5	25.0	30.0	24.5	28.5	25.0	23.5	24.5
3	29.0	25.0	27.0	28.0	24.0	26.0	30.0	25.5	27.5	26.0	23.5	24.5
4	28.5	25.5	27.0	29.0	26.0	27.0	31.5	28.0	29.5	27.0	23.5	25.0
5	28.5	24.0	26.0	30.0	25.5	27.5	30.5	29.0	29.5	26.5	24.5	25.5
6	28.5	25.0	26.5	30.0	27.5	28.5	31.0	28.0	29.5	26.0	24.5	25.5
7	29.5	25.0	27.0	30.0	28.0	29.0	31.5	27.5	29.5	27.0	25.0	26.0
8	28.5	26.0	27.0	31.5	28.5	29.5	29.5	29.0	29.5	27.5	26.5	27.0
9	26.5	23.5	25.5	32.0	29.0	30.5	29.5	28.0	29.0	28.5	26.5	27.5
10	27.0	22.5	24.5	32.5	29.5	31.0	30.0	28.0	29.0	28.5	25.5	27.0
11	27.5	22.5	25.0	32.5	29.5	31.0	30.5	27.5	29.0	28.0	26.0	26.5
12	27.0	23.5	25.5	33.0	30.0	31.5	31.5	27.5	29.5	27.5	25.5	26.5
13	29.5	25.5	27.5	31.5	28.0	30.0	30.0	28.0	29.0	27.5	25.5	26.0
14	31.0	26.0	28.5	29.5	24.5	26.0	31.0	27.5	29.0	27.0	24.5	26.0
15	30.5	27.0	29.0	28.0	24.5	26.0	31.0	27.5	29.5	25.0	24.0	24.5
16	30.5	26.5	28.5	29.5	26.0	27.5	31.0	28.5	30.0	25.5	24.0	24.5
17	29.5	26.0	27.5	30.5	26.0	28.0	32.0	29.0	30.5	26.0	23.0	24.5
18	29.0	25.0	27.0	31.0	27.5	29.0	31.5	29.0	30.0	24.0	23.0	23.5
19	30.0	25.5	27.5	32.5	28.5	30.0	31.5	28.0	29.5	25.0	23.5	24.5
20	27.5	26.0	26.5	33.0	30.0	31.0	30.5	28.0	29.0	26.0	23.5	24.5
21	27.0	23.5	26.0	33.0	30.0	31.0	29.0	27.5	28.5	25.5	23.5	24.5
22	26.0	23.5	24.5	33.5	30.0	31.5	28.0	23.5	26.5	24.5	22.5	23.5
23	28.0	25.0	26.0	34.0	30.5	32.0	27.5	25.0	26.0	25.0	22.5	23.5
24	29.5	25.5	27.5	33.5	30.5	32.0	27.5	24.5	26.0	24.0	23.0	23.5
25	29.5	25.0	27.0	32.5	28.5	31.5	27.0	24.5	25.5	24.0	22.5	23.0
26	29.0	26.5	27.5	32.5	30.5	31.5	26.0	21.5	25.5	24.0	21.5	22.5
27	27.0	25.5	26.5	32.0	29.0	30.5	22.0	18.5	20.0	24.0	21.5	23.0
28	28.5	24.5	26.0	32.0	28.5	30.5	23.0	21.5	22.0	25.5	22.5	24.0
29	29.0	25.5	27.0	32.5	29.0	30.5	25.0	22.0	23.5	25.0	23.5	24.0
30	25.5	24.5	25.5	33.0	29.5	31.0	26.5	23.0	24.5	24.0	22.0	23.0
31	---	---	---	33.0	30.0	31.0	25.5	24.0	24.5	---	---	---
MONTH	31.0	22.5	26.5	34.0	23.5	29.5	32.0	18.5	27.5	28.5	21.5	25.0
YEAR	34.0	2.0	18.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.6	6.2	6.4	7.5	6.9	7.2	11.1	10.5	10.7	10.9	10.4	10.7
2	6.6	6.3	6.5	7.9	7.0	7.5	12.2	10.7	11.7	10.7	10.5	10.5
3	7.0	6.3	6.6	8.3	7.7	8.0	11.9	11.5	11.6	10.9	10.6	10.7
4	6.7	6.4	6.6	8.3	7.8	8.0	11.8	11.3	11.6	11.2	10.8	11.0
5	6.9	6.5	6.8	8.3	7.7	8.0	11.5	11.3	11.5	11.2	10.6	11.0
6	7.3	6.5	7.0	7.9	7.6	7.7	11.7	11.3	11.5	10.9	10.1	10.5
7	6.9	6.3	6.6	8.1	7.4	7.8	12.2	11.3	11.6	11.4	10.1	10.8
8	7.1	6.2	6.5	7.6	6.9	7.3	12.2	11.4	11.9	11.3	10.7	10.9
9	7.1	6.8	7.0	8.1	7.0	7.5	11.4	11.0	11.2	11.0	10.6	10.8
10	7.3	6.8	7.1	8.7	8.0	8.3	11.4	11.1	11.2	11.2	10.6	10.9
11	7.1	6.6	6.9	8.4	8.1	8.2	11.2	10.7	11.0	11.3	11.1	11.1
12	6.9	6.2	6.6	8.8	8.2	8.4	11.1	10.6	10.8	11.5	11.0	11.3
13	6.6	5.9	6.2	9.7	8.8	9.4	11.5	11.1	11.3	11.2	10.8	11.0
14	7.0	6.1	6.6	10.0	9.6	9.8	11.5	10.7	11.1	11.2	10.3	10.9
15	10.5	7.1	8.7	9.8	9.3	9.5	10.9	10.3	10.5	11.0	10.4	10.6
16	10.6	9.8	10.3	9.4	9.1	9.3	10.6	10.4	10.5	11.1	10.7	10.9
17	10.0	9.6	9.8	9.4	8.8	9.1	10.6	10.2	10.4	11.2	10.4	10.8
18	9.6	8.8	9.3	9.3	8.8	9.0	11.3	10.3	10.9	10.7	10.3	10.5
19	10.6	8.9	9.5	9.9	9.4	9.7	11.3	11.1	11.2	10.8	10.3	10.6
20	9.2	8.0	8.7	10.8	8.7	9.8	11.2	11.0	11.0	10.6	10.1	10.4
21	8.2	7.2	7.7	11.5	11.0	11.2	11.4	11.0	11.2	11.6	10.2	10.6
22	7.8	6.8	7.4	11.1	10.4	10.8	11.4	10.7	11.1	10.3	9.5	9.9
23	6.7	6.1	6.4	10.5	9.4	10.1	10.9	10.7	10.8	10.6	9.5	10.1
24	6.7	6.3	6.6	9.4	8.9	9.2	11.9	10.5	11.0	11.2	10.6	10.8
25	8.2	6.7	7.3	10.0	9.1	9.6	12.1	11.6	11.9	10.9	10.2	10.6
26	---	---	---	10.1	9.0	9.6	11.8	11.3	11.5	10.7	10.0	10.4
27	---	---	---	10.6	10.2	10.4	11.4	11.1	11.2	10.4	9.7	10.0
28	---	---	---	10.4	10.0	10.2	11.2	11.0	11.1	10.0	9.0	9.5
29	---	---	---	10.2	9.8	10.0	11.2	10.8	11.0	9.7	8.9	9.2
30	7.5	7.0	7.2	10.6	9.8	10.2	10.8	10.7	10.8	9.1	8.7	8.9
31	7.6	6.9	7.3	---	---	---	10.9	10.6	10.8	9.1	8.5	8.8
MONTH	10.6	5.9	7.4	11.5	6.9	9.0	12.2	10.2	11.2	11.6	8.5	10.5

STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	8.5	7.6	8.1	---	---	---	12.4	11.9	12.2	11.7	9.9	10.6
2	---	---	---	---	---	---	12.2	11.9	12.1	11.6	9.8	10.4
3	---	---	---	---	---	---	12.1	11.2	11.7	11.0	9.8	10.3
4	---	---	---	---	---	---	13.6	11.2	11.5	11.9	8.5	10.7
5	---	---	---	---	---	---	13.7	10.4	12.7	12.6	7.6	10.0
6	---	---	---	10.3	9.3	9.9	12.5	12.0	12.2	12.2	6.4	9.0
7	---	---	---	9.9	8.5	9.3	12.0	11.0	11.5	11.1	5.9	7.8
8	---	---	---	9.4	8.3	8.8	11.1	10.2	10.6	10.2	5.8	7.4
9	---	---	---	10.6	8.6	9.6	10.3	9.7	10.0	9.1	5.7	7.1
10	---	---	---	11.4	10.6	11.0	10.1	9.5	9.8	8.8	5.8	6.9
11	---	---	---	11.3	10.1	10.7	10.0	9.7	9.8	7.6	5.4	6.4
12	---	---	---	10.8	9.7	10.2	9.9	9.7	9.8	7.8	5.2	6.5
13	---	---	---	10.7	9.6	10.1	10.1	9.8	9.9	7.9	6.2	7.0
14	---	---	---	10.8	9.6	10.2	10.1	9.8	10.0	7.9	6.3	7.0
15	---	---	---	11.3	10.2	10.5	10.1	9.8	9.9	7.9	6.5	7.1
16	---	---	---	11.5	10.2	10.8	10.8	10.0	10.3	8.0	6.7	7.3
17	---	---	---	10.7	9.5	10.1	11.0	10.1	10.4	7.9	6.6	7.2
18	---	---	---	10.5	8.9	9.8	11.2	9.9	10.5	7.7	6.8	7.1
19	---	---	---	10.0	8.8	9.3	11.3	9.8	10.4	8.2	7.2	7.6
20	---	---	---	9.5	8.3	8.9	11.6	9.6	10.4	8.7	7.3	7.9
21	---	---	---	9.6	8.6	8.9	11.3	9.6	10.2	9.2	6.8	8.0
22	---	---	---	9.5	8.5	8.9	11.6	9.7	10.5	8.4	6.9	7.5
23	---	---	---	9.5	8.7	9.0	10.7	9.7	10.0	8.9	7.0	7.6
24	---	---	---	9.5	8.6	9.0	11.3	9.7	10.5	8.9	4.7	7.8
25	---	---	---	9.5	8.6	9.0	11.7	10.2	10.8	8.5	7.0	7.8
26	---	---	---	9.8	9.2	9.5	11.4	9.9	10.5	8.3	6.6	7.3
27	---	---	---	9.6	9.1	9.4	10.9	9.9	10.2	8.2	6.4	7.1
28	---	---	---	9.9	9.2	9.5	11.2	9.9	10.4	8.1	6.5	7.1
29	---	---	---	10.1	9.0	9.5	11.3	9.7	10.4	8.6	6.8	7.5
30	---	---	---	11.3	9.1	9.7	11.6	9.7	10.5	8.8	6.8	7.5
31	---	---	---	12.3	11.6	12.1	---	---	---	8.9	6.5	7.5
MONTH	8.5	7.6	8.1	12.3	8.3	9.8	13.7	9.5	10.7	12.6	4.7	7.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.8	6.4	7.0	7.3	6.8	7.1	7.6	6.8	7.1	8.1	7.0	7.6
2	7.8	6.3	6.9	7.2	6.9	7.0	7.3	6.3	6.9	7.4	7.0	7.2
3	7.6	6.2	6.7	7.4	6.4	7.0	7.0	6.5	6.8	7.5	7.1	7.3
4	7.5	5.7	6.5	7.2	6.3	6.7	6.9	6.4	6.6	7.6	6.9	7.2
5	7.6	5.7	6.6	7.3	6.0	6.6	7.1	6.5	6.8	7.4	6.9	7.1
6	---	---	---	7.1	5.9	6.4	7.4	6.3	6.8	7.3	6.7	7.0

STREAMS TRIBUTARY TO LAKE ERIE

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04213000 CONNEAUT CREEK AT CONNEAUT, OH

LOCATION.--Lat 41°55'37", long 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--175 mi².

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961 to current year.

REVISED RECORDS.--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.30 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan 5, 6, Jan. 23 to Feb. 27. Records good except for estimated daily discharges which are poor. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--50 years, 271 ft³/s, 21.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft³/s Jan. 22, 1959, gage height, 11.70 ft; maximum gage height, 12.94 ft Mar. 4, 1934 (backwater from ice); minimum discharge, 0.2 ft³/s July 31, Aug. 1, 1933, Aug. 1, 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 2	2100	4,010	6.99	July 3	2400	*4,890	*7.56
Apr. 6	2400	3,000	6.23				

Minimum daily discharge, 13 ft³/s June 19, Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	133	127	178	142	190	839	1200	74	40	1230	16	84	
2	327	105	291	137	160	2970	744	62	59	798	54	69	
3	416	105	1520	134	130	1890	802	68	162	2760	627	58	
4	1140	106	1980	126	110	495	640	104	141	2260	611	49	
5	963	96	601	87	160	308	1370	116	72	276	155	43	
6	381	86	309	80	140	273	2610	84	44	151	78	37	
7	265	80	270	126	120	402	2680	65	33	109	52	33	
8	185	78	898	164	100	529	1440	55	27	123	42	33	
9	125	74	1020	184	110	390	521	48	23	91	38	570	
10	90	70	1100	157	140	241	310	44	19	71	36	221	
11	75	71	704	160	170	148	225	40	17	58	131	110	
12	63	70	325	171	140	113	187	43	30	57	84	74	
13	67	90	224	150	110	103	184	42	35	55	51	357	
14	192	96	163	141	140	96	174	44	36	105	38	471	
15	437	95	179	377	120	90	149	42	32	456	30	185	
16	327	115	151	825	100	88	137	44	23	217	25	116	
17	266	231	146	375	92	96	125	52	17	102	21	141	
18	193	230	272	220	80	89	115	43	14	65	18	574	
19	155	251	672	194	72	82	106	40	13	50	16	910	
20	115	341	434	168	66	80	93	36	16	42	14	452	
21	91	341	277	164	60	78	83	34	16	37	13	468	
22	76	438	196	112	56	74	73	33	305	33	24	228	
23	67	373	154	92	70	70	65	33	1030	29	18	151	
24	60	307	143	86	80	68	68	30	287	27	31	125	
25	54	268	1060	82	140	71	81	33	117	28	33	105	
26	58	435	1730	78	130	184	85	31	69	24	23	79	
27	59	1780	555	74	120	209	70	30	55	29	568	65	
28	113	1120	323	72	134	171	75	30	51	37	1060	56	
29	442	359	236	70	---	132	108	36	60	26	569	52	
30	252	238	187	96	---	223	96	30	196	21	271	84	
31	169	---	160	150	---	1290	---	33	---	19	136	---	
TOTAL	7356	8176	16458	5194	3240	11892	14616	1499	3039	9386	4883	6000	
MEAN	237	273	531	168	116	384	487	48.4	101	303	158	200	
MAX	1140	1780	1980	825	190	2970	2680	116	1030	2760	1060	910	
MIN	54	70	143	70	56	68	65	30	13	19	13	33	
CFSM	1.35	1.56	3.03	.96	.66	2.19	2.78	.28	.58	1.73	.90	1.14	
IN.	1.56	1.74	3.50	1.10	.69	2.53	3.11	.32	.65	2.00	1.04	1.28	
CAL YR 1986	TOTAL	126550.9		MEAN	347	MAX	7890	MIN	6.5	CFSM	1.98	IN.	26.90
WTR YR 1987	TOTAL	91739		MEAN	251	MAX	2970	MIN	13	CFSM	1.43	IN.	19.50

PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1987

Station No.	Station name	Location	Drainage area ² (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis-charge (ft ³ /s)
Streams tributary to Lake Erie							
04183750	Racetrack Run at Hicksville, OH	Lat 41°18'58", long 84°46'00", Defiance County, Hydrologic Unit 04100005, at culvert on Hicksville-Edgerton Road, 0.2 mi south of Middle Fork Gordon Creek, 0.9 mi north of Hicksville.	0.34	1978-87	10- 3-86	12.31	24
04184750	Spring Creek at Fayette, OH	Lat 41°40'32", long 84°19'47", Fulton County, Hydrologic Unit 04100006, at culvert on Gorham Street, 800 ft north of U.S. Highway 20 in Fayette.	2.58	1978-87	10- 3-86	97.28	282
04184760	Bean Creek tributary near Fayette, OH	Lat 41°39'08", long 84°17'34", Fulton County, Hydrologic Unit 04100006, at culvert on Fulton County Highway N, 1.5 mi south of U.S. Highway 20, and 2.3 mi southeast of Fayette.	0.56	1978-87	10- 3-86	14.60	45
04185150	Beaver Creek tributary near Montpelier, OH	Lat 41°34'19", long 84°31'03", Williams County, Hydrologic Unit 04100006 on Williams County Road K, 2.0 mi east of State Highway 15, and 4.7 mi east of Montpelier.	0.40	1978-87	10- 3-86	18.72	70
04185945	Auglaize River tributary near Spencerville, OH	Lat 40°42'27", long 84°19'06", Allen County, Hydrologic Unit 04100007, at culvert on State Highway 117, 1.8 mi east of Spencerville.	0.51	1978-87	6-12-87	98.74	77
04187945	Rattlesnake Creek near Cairo, OH	Lat 40°49'20", long 84°04'16", Allen County, Hydrologic Unit 04100007, at culvert on Stewart Road, 1.2 mi southeast of Cairo.	1.45	1978-87	6- 9-87	22.00	82
04190350	Little Auglaize River tributary at Ottoville, OH	Lat 40°55'05", long 84°20'47", Putnam County, Hydrologic Unit 04100007, at culvert on State Highway 66, 1.0 mi south of Ottoville.	1.04	1978-87	7-11-87	14.38	77
04191480	Beetree Run near Junction, OH	Lat 41°13'26", long 84°24'33", Defiance County, Hydrologic Unit 04100007, at culvert on private drive from Bowman Road 12, near Sponseller Road 158, 3.2 mi northeast of Junction.	1.66	1978-87	10- 3-86	99.25	51

404838082563100. Local number, CR-1.

LOCATION.--Lat 40°48'38", long 82°56'31", Hydrologic Unit 04100011, Timken Roller Bearing Co., U.S. 30 in Bucyrus.

Owner: Timken Roller Bearing Co.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in., depth 54 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1039.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of water.

PERIOD OF RECORD.--April 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.64 ft below land-surface datum, Dec. 11, 1962; minimum daily low, 16.78 ft below land-surface datum, Apr. 24-25, 1984.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.62	19.83	18.66	18.06	18.47	18.75	18.89	18.23	18.52	18.49	20.08	22.54
2	19.49	19.60	18.49	18.71	18.70	18.90	18.64	18.23	18.55	18.04	19.61	22.39
3	19.37	19.44	18.16	18.43	18.65	19.00	18.60	18.38	18.53	17.20	20.45	22.39
4	19.14	19.45	18.23	18.43	18.74	19.05	18.44	18.67	18.56	17.17	21.12	22.31
5	18.94	19.37	18.21	18.44	19.40	18.93	18.37	18.56	18.59	17.20	21.60	22.21
6	18.95	19.46	18.17	18.28	19.02	18.91	18.15	18.46	18.65	17.27	21.97	22.13
7	18.92	19.47	18.11	18.38	18.64	18.84	17.83	18.48	18.57	17.35	22.30	22.06
8	19.11	19.39	18.08	18.39	18.73	18.71	17.72	18.59	18.57	17.44	22.28	22.71
9	19.10	19.57	17.95	18.35	18.82	18.88	17.75	18.55	18.52	17.52	21.81	22.98
10	19.10	19.61	17.94	18.15	18.70	18.96	17.74	18.53	18.52	17.57	21.59	22.51
11	19.03	19.51	17.85	18.31	18.68	19.04	17.74	18.53	18.42	17.66	21.47	22.05
12	18.99	19.53	17.97	18.41	18.70	18.99	17.88	18.66	18.29	17.67	21.19	22.11
13	18.99	19.67	18.15	18.48	18.71	18.99	17.96	19.17	18.30	17.83	20.97	22.04
14	18.98	19.61	17.98	18.38	18.70	18.86	17.85	18.88	18.08	17.77	21.51	22.28
15	19.05	19.41	17.97	18.53	18.78	18.93	17.76	18.86	18.16	17.31	22.36	22.39
16	19.03	19.34	17.97	18.58	18.76	19.03	17.74	18.83	18.19	17.39	22.88	22.36
17	19.18	19.40	17.96	18.51	18.65	19.04	17.85	18.77	18.30	17.46	23.36	22.05
18	19.25	19.50	17.98	18.33	18.81	18.94	17.97	18.77	18.32	17.48	23.68	21.95
19	19.24	19.52	18.03	18.40	18.87	19.57	18.03	18.59	18.28	17.52	23.90	21.94
20	19.17	19.21	18.14	18.45	18.88	19.33	18.06	18.61	18.26	17.60	23.72	21.91
21	19.10	19.25	18.23	18.41	18.73	19.16	18.05	18.66	18.22	17.83	23.77	21.88
22	19.15	19.14	18.21	18.25	18.69	19.16	18.04	18.61	18.28	18.08	24.08	21.86
23	19.22	19.05	18.14	18.39	18.89	19.11	18.07	18.67	18.38	18.29	24.26	21.83
24	19.24	19.15	18.04	18.52	19.62	19.04	18.21	18.72	18.41	18.47	24.36	21.78
25	19.18	19.12	18.10	18.53	19.33	19.04	18.24	18.69	18.36	18.53	24.00	21.84
26	19.08	18.88	18.13	18.52	19.18	19.13	18.24	18.71	18.40	18.49	23.49	21.86
27	19.18	18.80	18.14	18.50	19.07	19.13	18.18	18.59	18.60	18.36	23.18	21.85
28	19.24	18.64	18.14	18.58	18.93	19.18	18.17	18.53	18.59	18.48	22.99	21.82
29	19.52	18.63	18.06	18.58	---	19.17	18.14	18.54	18.60	19.32	22.92	21.71
30	19.47	18.66	18.10	18.42	---	19.02	18.26	18.51	18.62	20.09	22.78	21.69
31	19.43	---	18.16	18.54	---	18.90	---	18.51	---	20.40	22.58	

GROUND-WATER RECORDS

GEAUGA COUNTY

412518081221500. Local number, GE-3A.

LOCATION.--Lat 41°25'18", long 81°22'15", Hydrologic Unit 04110003, 1.2 mi southeast of Chagrin Falls.

Owner: City of Chagrin Falls.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth drilled 120 ft, present depth 89 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1951 to current year.

REMARKS.--Water level affected by pumping wells nearby for Chagrin Falls municipal supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 52.85 ft below land-surface datum, Oct. 2, 1965; minimum daily low, 8.70 ft below land-surface datum, May 17, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.17	38.78	36.35	33.99	34.91	31.36	29.96	28.19	27.29	30.40	38.79	41.19
2	42.88	38.63	36.13	33.70	35.41	31.62	29.83	28.05	27.27	31.20	38.87	41.32
3	42.73	38.53	36.13	33.94	35.83	31.89	29.93	28.24	27.27	31.86	39.02	41.41
4	42.33	38.41	35.91	33.94	34.90	31.93	29.90	28.32	27.29	32.39	39.12	41.41
5	42.06	38.36	36.04	33.90	34.56	31.84	29.51	28.32	27.29	32.69	39.31	41.45
6	41.91	38.27	36.01	33.68	34.04	31.72	29.51	28.13	27.31	33.02	39.44	41.48
7	41.83	38.27	35.90	33.58	33.54	31.53	29.38	27.98	27.17	33.35	39.52	41.53
8	41.58	38.04	35.57	33.58	33.32	31.20	29.29	27.99	27.06	33.64	39.60	41.56
9	41.41	38.07	35.41	33.54	33.53	31.33	29.22	27.99	27.22	33.88	39.60	41.67
10	41.41	38.09	35.44	33.10	33.41	31.46	29.17	27.87	27.25	34.10	39.83	41.71
11	41.11	37.81	35.44	33.12	33.29	31.45	28.96	27.87	27.13	34.27	39.84	41.78
12	40.94	37.79	35.29	33.22	32.93	31.19	28.95	27.99	26.85	---	39.89	41.79
13	40.72	37.82	35.60	33.32	32.98	31.19	29.13	27.99	26.87	---	40.00	41.89
14	40.54	37.76	35.50	33.22	32.84	31.01	29.13	27.87	26.87	---	40.09	41.97
15	40.54	37.40	35.10	33.19	32.92	30.96	28.79	27.89	26.85	---	40.14	42.02
16	40.44	37.23	35.10	33.30	32.92	31.02	28.62	27.89	28.48	---	40.16	41.99
17	40.33	37.19	35.03	33.28	32.64	31.02	28.54	27.70	29.50	---	40.29	41.99
18	40.35	37.24	34.67	32.82	32.62	30.89	28.60	27.65	29.72	---	40.35	42.12
19	40.21	37.32	34.76	32.77	32.67	30.61	28.69	27.63	29.15	---	40.42	42.16
20	39.96	37.00	34.76	32.91	32.67	30.59	28.69	27.67	29.51	---	40.49	42.19
21	39.77	37.05	34.88	32.80	32.45	30.51	28.62	27.68	29.73	---	40.49	42.29
22	39.67	37.00	34.86	32.64	32.30	30.51	28.52	27.62	29.61	---	40.64	42.33
23	39.60	36.76	34.60	32.58	32.35	30.50	28.32	27.64	30.37	---	40.71	42.35
24	39.55	36.77	34.43	32.79	32.39	30.37	28.53	27.64	30.68	---	40.79	42.44
25	39.40	36.76	34.35	32.79	32.39	30.20	28.56	27.60	30.89	37.93	40.79	42.52
26	39.14	36.48	34.39	32.60	32.39	30.26	28.52	27.49	31.40	38.03	40.81	42.57
27	39.07	36.58	34.39	32.57	32.24	30.26	28.42	27.52	31.83	38.16	40.89	42.59
28	39.12	36.45	34.32	32.49	31.93	30.28	28.13	27.49	32.24	38.31	40.96	42.62
29	39.05	36.36	34.21	32.49	---	30.28	28.13	27.44	32.34	38.48	41.06	42.59
30	38.99	36.36	33.98	32.62	---	29.97	28.19	27.35	31.16	38.62	41.08	42.53
31	38.99	---	34.08	34.77	---	29.96	---	27.31	---	38.74	41.12	---
MAX	43.17	38.78	36.35	34.77	35.83	31.93	29.96	28.32	32.34	---	41.12	42.62
WTR YR 1987 MEAN	34.42			HIGH	26.85	JUN 12 AND OTHERS		LOW	43.17	OCT 1		

GROUND-WATER RECORDS

103

HARDIN COUNTY

404648083412600. Local number, HN-2A.

LOCATION.--Lat 40°46'48", long 83°41'26", Hydrologic Unit 04100007, at southeast edge of Dola.

Owner: Kevin Eikenbary.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 51 ft cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 945 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.88 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 15.86 ft below land-surface datum, Jan. 20, 21, 1965; minimum daily low, 5.46 ft below land-surface datum, Mar. 21, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.08	6.70	6.52	6.41	6.62	6.10	6.53	6.41	6.52	6.55	6.68	7.80
2	7.01	6.73	6.30	6.37	6.30	6.50	6.57	6.31	6.52	6.40	6.65	7.87
3	6.94	6.65	6.19	6.60	6.68	6.80	6.62	6.56	6.60	6.38	6.72	8.00
4	6.67	6.54	6.42	6.64	6.90	6.88	6.56	6.70	6.65	6.41	6.74	8.00
5	6.71	6.53	6.58	6.65	6.90	6.75	6.40	6.70	6.66	6.38	6.89	7.98
6	6.86	6.57	6.52	6.47	6.77	6.66	6.40	6.54	6.66	6.34	6.99	7.93
7	6.82	6.62	6.42	6.53	6.42	6.57	6.27	6.45	6.55	6.34	7.05	7.88
8	6.70	6.58	6.22	6.54	6.45	6.36	6.20	6.50	6.45	6.34	7.05	7.85
9	6.75	6.81	6.05	6.50	6.67	6.55	6.25	6.49	6.56	6.37	6.96	7.95
10	6.78	6.90	6.30	6.11	6.53	6.66	6.18	6.44	6.61	6.33	7.14	7.99
11	6.67	6.74	6.30	6.38	6.45	6.66	6.05	6.42	6.51	6.37	7.16	8.00
12	6.55	6.75	6.33	6.51	6.40	6.60	6.30	6.62	6.26	6.33	7.12	8.00
13	6.45	7.06	6.69	6.62	6.45	6.60	6.43	6.62	6.24	6.24	7.18	8.08
14	6.42	7.06	6.55	6.49	6.38	6.44	6.32	6.55	6.24	6.38	7.24	8.22
15	6.51	6.68	6.32	6.69	6.54	6.47	6.16	6.68	6.29	6.40	7.28	8.22
16	6.51	6.45	6.29	6.83	6.53	6.63	6.07	6.68	6.34	6.50	7.26	8.16
17	6.66	6.49	6.28	6.77	6.32	6.67	6.22	6.54	6.45	6.58	7.35	8.07
18	6.81	6.65	6.21	6.43	6.53	6.56	6.38	6.55	6.46	6.57	7.44	8.10
19	6.80	6.84	6.29	6.49	6.64	6.42	6.48	6.45	6.37	6.53	7.50	8.20
20	6.69	6.64	6.42	6.56	6.67	6.45	6.49	6.51	6.30	6.56	7.66	8.25
21	6.51	6.71	6.57	6.50	6.54	6.43	6.42	6.59	6.20	6.59	7.65	8.30
22	6.48	6.71	6.57	6.34	6.35	6.50	6.40	6.61	6.29	6.59	7.64	8.43
23	6.49	6.53	6.41	6.47	6.56	6.46	6.33	6.70	6.44	6.54	7.80	8.43
24	6.53	6.66	6.25	6.69	6.68	6.37	6.53	6.69	6.58	6.58	7.90	8.43
25	6.49	6.65	6.40	6.69	6.75	6.32	6.56	6.63	6.42	6.59	7.89	8.58
26	6.26	6.49	6.52	6.62	6.80	6.50	6.51	6.58	6.38	6.59	7.87	8.62
27	6.43	6.60	6.54	6.62	6.70	6.51	6.46	6.63	6.46	6.55	7.68	8.70
28	6.54	6.54	6.53	6.63	6.47	6.62	6.33	6.63	6.50	6.60	7.76	8.76
29	6.58	6.50	6.45	6.63	---	6.62	6.32	6.63	6.52	6.63	7.85	8.65
30	6.78	6.52	6.38	6.42	---	6.44	6.44	6.55	6.59	6.66	7.85	8.61
31	6.78	---	6.50	6.64	---	6.53	---	6.52	---	6.71	7.79	---
MAX	7.08	7.06	6.69	6.83	6.90	6.88	6.62	6.70	6.66	6.71	7.90	8.76
WTR YR 1987 MEAN	6.73		HIGH		6.05	DEC 9 AND OTHERS	LOW		8.76	SEP 28		

GROUND-WATER RECORDS

HENRY COUNTY

412123083574000. Local number, HY-2.

LOCATION.--Lat 41°21'23", long 83°57'40", Hydrologic Unit 04100009, 1.4 Mi southwest of McClure.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth drilled 300 ft, cased to 43 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 22.76 ft below land-surface datum, May 30, 1977; minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.07	18.52	18.26	17.99	17.81	17.53	18.13	18.95	18.67	20.59	20.40	19.39
2	19.02	18.52	18.12	17.89	17.65	17.74	18.19	18.76	18.91	20.32	20.11	19.22
3	19.00	18.49	17.99	18.05	17.89	17.98	18.27	18.70	19.30	19.87	19.90	19.32
4	18.81	18.39	18.09	18.11	18.07	18.06	18.26	18.78	19.52	19.52	19.85	19.39
5	18.86	18.39	18.12	18.11	18.07	18.05	18.19	18.76	19.65	19.31	19.82	19.38
6	18.95	18.37	17.99	18.02	18.04	18.03	18.18	18.64	19.75	19.01	20.14	19.38
7	18.97	18.40	17.85	17.91	17.89	17.99	18.14	18.57	19.77	18.87	20.42	19.28
8	18.91	18.32	17.64	17.89	17.97	17.92	18.16	18.57	19.78	18.76	20.61	19.23
9	19.03	18.44	17.45	17.70	18.00	18.07	18.17	18.57	19.71	18.72	20.63	19.20
10	19.05	18.51	17.45	17.38	17.93	18.12	18.16	18.55	19.61	18.66	20.84	19.26
11	18.96	18.42	17.43	17.31	17.81	18.11	18.07	18.58	19.45	18.58	20.90	19.58
12	18.86	18.43	17.42	17.35	17.56	18.17	18.19	18.66	19.20	18.48	20.91	19.82
13	18.80	18.56	17.56	17.35	17.57	18.18	18.26	18.65	19.19	18.39	21.01	20.08
14	18.73	18.54	17.56	17.25	17.41	18.10	18.21	18.62	19.16	18.35	21.06	20.24
15	18.78	18.31	17.66	17.35	17.47	18.16	18.10	18.71	19.19	18.31	21.08	20.29
16	18.78	18.26	17.75	17.52	17.46	18.25	18.17	18.77	19.29	18.57	21.08	20.28
17	18.82	18.24	17.75	17.54	17.33	18.28	18.53	19.03	19.74	19.11	21.13	20.20
18	18.84	18.22	17.75	17.49	17.39	18.22	18.93	19.13	20.04	19.49	21.21	20.12
19	18.83	18.25	17.83	17.57	17.44	18.15	19.19	19.05	20.21	19.74	21.25	20.14
20	18.74	18.12	17.93	17.64	17.43	18.15	19.36	18.89	20.35	19.99	21.32	20.11
21	18.64	18.13	17.98	17.64	17.33	18.18	19.43	18.81	20.36	20.15	21.29	20.09
22	18.62	18.13	17.98	17.59	17.25	18.20	19.42	18.78	20.39	20.26	21.24	20.09
23	18.60	18.13	17.91	17.69	17.37	18.19	19.52	18.79	20.24	20.32	21.32	19.99
24	18.63	18.25	17.84	17.85	17.47	18.16	19.67	18.77	20.05	20.46	21.37	19.57
25	18.57	18.28	17.87	17.84	17.70	18.10	19.73	18.74	19.85	20.55	21.30	19.29
26	18.38	18.08	18.01	17.85	17.79	18.19	19.72	18.68	19.96	20.59	21.13	19.17
27	18.41	18.18	18.03	17.85	17.80	18.19	19.69	18.69	20.25	20.61	20.59	19.15
28	18.47	18.16	18.02	17.86	17.71	18.28	19.56	18.76	20.39	20.66	20.26	19.17
29	18.45	18.21	18.01	17.87	---	18.29	19.25	18.79	20.47	20.70	19.98	19.11
30	18.58	18.26	17.99	17.71	---	18.15	19.04	18.75	20.59	20.74	19.77	18.99
31	18.58	---	17.99	17.83	---	18.11	---	18.74	---	20.72	19.53	---
MAX	19.07	18.56	18.26	18.11	18.07	18.29	19.73	19.13	20.59	20.74	21.37	20.29
WTR YR 1987 MEAN	18.81			HIGH	17.25	JAN 14 AND OTHERS		LOW	21.37	AUG 24		

413704083362200. Local number, LU-1.

LOCATION.--Lat 41°37'04", long 83°36'22", Hydrologic Unit 04100001, at Toledo State Hospital.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth drilled 525 ft, present depth 523.0 ft, cased to 93 ft.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 624 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.98 ft above land-surface datum (Revised from 1978 and 1979).

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to Aug. 23, 1978, measuring point was 3.10 ft above land-surface datum. Reported in 1979 as 3.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1946 to September 1982 continuous, October 1983 to January 1985 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 117.25 ft below land-surface datum, Sept. 18, 1957; minimum daily low, 56.87 ft below land-surface datum, Apr. 16, 1987.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.39	59.00	58.72	58.14	57.67	57.18	57.22	57.01	58.87	61.62	62.56	63.28
2	59.43	59.04	58.40	57.99	57.40	57.57	57.33	56.95	59.09	61.48	62.44	63.36
3	59.27	58.91	58.19	58.24	57.84	57.97	57.45	57.21	59.42	61.25	62.54	63.51
4	59.07	58.85	58.51	58.32	58.20	58.06	57.36	57.38	59.68	61.45	62.57	63.52
5	59.12	58.77	58.72	58.35	58.23	57.96	57.28	57.37	59.85	61.50	62.69	63.44
6	59.30	58.75	58.65	58.11	58.05	57.92	57.21	57.20	60.02	61.53	62.82	63.34
7	59.31	58.81	58.57	58.10	57.73	57.79	57.12	57.11	59.95	61.62	62.83	63.28
8	59.15	58.64	58.40	58.10	57.92	57.55	57.13	57.14	60.04	61.73	62.85	63.22
9	59.43	58.92	58.14	58.04	58.04	57.82	57.15	57.06	60.39	61.82	62.65	63.30
10	59.45	59.05	58.39	57.60	57.90	57.95	57.08	56.97	60.54	61.81	62.87	63.33
11	59.26	58.82	58.38	57.72	57.90	57.90	56.92	56.91	60.46	61.84	62.88	63.31
12	59.11	58.90	58.51	57.86	57.85	57.85	57.21	57.18	60.26	61.85	62.84	63.21
13	59.02	59.17	58.82	57.95	57.88	57.86	57.30	57.18	60.38	61.80	62.85	62.89
14	58.90	59.13	58.63	57.76	57.87	57.64	57.16	57.00	60.43	62.00	62.92	62.81
15	59.04	58.70	58.44	58.06	58.03	57.71	56.98	57.21	60.64	62.05	62.95	62.69
16	59.03	58.46	58.41	58.24	57.99	57.84	56.87	57.17	60.73	62.25	62.90	62.52
17	59.28	58.39	58.37	58.17	57.75	57.86	56.97	56.98	60.98	62.37	62.97	62.14
18	59.41	58.57	58.16	57.83	57.96	57.67	57.13	56.92	61.02	62.38	63.07	61.80
19	59.40	58.71	58.22	57.79	58.10	57.52	57.25	56.92	60.96	62.37	63.12	61.76
20	59.24	58.40	58.39	57.87	58.12	57.52	57.27	56.96	60.93	62.47	63.26	61.68
21	59.03	58.54	58.57	57.84	57.87	57.45	57.24	56.98	60.84	62.54	63.23	61.53
22	58.99	58.55	58.52	57.64	57.69	57.48	57.20	57.05	60.93	62.54	63.21	61.45
23	59.00	58.39	58.34	57.68	57.91	57.44	57.11	57.15	61.17	62.48	63.35	61.40
24	59.08	58.60	58.21	57.99	58.04	57.30	57.39	57.19	61.25	62.51	63.43	61.15
25	58.96	58.60	58.18	58.00	58.14	57.14	57.45	57.13	61.17	62.53	63.37	61.25
26	58.63	58.41	58.33	57.94	58.20	57.30	57.38	57.08	61.18	62.48	63.33	61.13
27	58.70	58.56	58.36	57.92	58.04	57.30	57.20	57.51	61.31	62.48	63.16	61.12
28	58.82	58.53	58.34	57.96	57.73	57.40	57.11	57.91	61.41	62.50	63.26	61.05
29	58.89	58.58	58.26	57.98	---	57.40	57.00	58.20	61.45	62.53	63.37	60.79
30	59.11	58.71	58.16	57.60	---	57.16	57.09	58.46	61.62	62.55	63.34	60.60
31	59.12	---	58.24	57.82	---	57.23	---	58.72	---	62.60	63.25	

GROUND-WATER RECORDS

MEDINA COUNTY

410142082005900. Local number, MD-1.

LOCATION.--Lat 41°01'42", long 82°00'59", Hydrologic Unit 04110001. Waterworks plant at Lodi.

Owner: Lodi Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 65 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 910 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.90 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--September 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 39.33 ft below land-surface datum, July 21, 1983; minimum daily low, 7.60 ft below land-surface datum, July 6, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.74	27.20	28.87	23.47	25.14	24.59	28.39	31.44	32.56	28.71	26.68	32.55
2	32.70	26.33	27.62	27.48	29.57	31.37	31.28	25.18	32.47	29.54	26.52	31.91
3	26.53	28.54	30.40	22.55	26.94	34.17	29.65	21.94	32.32	24.30	32.72	32.90
4	25.87	26.37	28.33	23.11	27.61	34.17	25.45	29.87	32.91	23.77	32.09	31.46
5	25.55	26.09	29.19	32.75	29.54	28.65	24.28	32.47	32.14	24.04	29.98	25.98
6	25.47	35.54	23.65	26.85	29.56	32.67	28.23	30.19	28.72	29.25	31.84	25.09
7	35.85	27.98	25.43	28.16	26.14	26.68	28.05	32.47	26.20	28.74	33.22	25.88
8	34.33	25.47	27.01	28.60	23.68	26.04	29.59	29.90	31.45	29.33	26.62	33.69
9	38.21	26.63	29.82	27.47	30.75	29.29	28.79	25.57	29.60	28.49	24.33	32.32
10	29.16	28.45	27.31	24.91	29.83	27.96	27.10	25.21	29.91	29.54	32.75	30.01
11	28.55	27.51	28.39	22.99	33.19	29.84	23.19	32.47	29.71	24.26	32.23	28.33
12	26.78	26.30	28.24	26.53	30.21	31.78	21.78	31.49	29.89	24.53	33.32	26.75
13	28.86	35.93	25.28	28.57	32.39	31.73	28.03	31.20	26.60	30.63	32.30	26.71
14	28.46	28.40	23.58	27.80	25.98	26.77	27.20	29.55	26.54	29.05	32.67	32.08
15	26.79	28.22	27.12	27.87	25.14	24.60	27.88	29.80	29.31	29.28	25.45	30.61
16	35.05	25.82	26.90	27.98	28.69	29.07	25.92	24.84	29.78	29.00	24.95	30.51
17	28.08	27.46	28.03	24.83	30.63	31.33	29.61	26.32	31.97	29.28	32.43	32.42
18	27.35	25.84	28.66	23.19	29.37	31.76	24.11	31.09	30.45	26.08	32.92	30.88
19	24.99	26.90	27.42	31.44	29.81	28.50	21.32	32.17	30.34	23.28	30.38	26.65
20	27.17	34.38	26.95	27.85	29.92	29.82	25.17	32.07	27.96	30.53	30.63	28.36
21	27.86	27.62	26.02	27.03	27.48	27.82	27.52	31.01	26.27	32.21	31.85	30.25
22	28.12	27.24	34.06	29.55	24.43	24.76	26.15	30.82	28.98	32.17	29.66	28.91
23	32.93	26.28	32.36	28.16	31.88	31.28	31.24	26.36	31.31	32.67	28.25	29.65
24	27.65	30.07	27.52	26.19	34.46	30.94	29.00	24.51	27.75	31.81	32.67	32.67
25	26.01	28.67	23.94	23.88	29.73	29.10	24.73	26.16	29.68	25.73	30.74	32.67
26	25.52	29.22	26.21	30.15	32.95	29.63	23.63	32.22	27.40	26.27	33.31	27.42
27	27.60	24.02	24.42	29.04	31.47	29.66	30.70	33.31	25.50	32.67	32.61	24.88
28	28.64	27.59	22.43	31.13	24.07	27.13	27.63	33.39	24.69	32.65	30.16	29.46
29	28.36	26.27	30.23	30.86	---	23.93	30.86	29.48	29.88	31.25	26.88	29.96
30	31.12	25.57	28.91	31.12	---	33.41	25.77	27.70	29.72	32.67	26.95	28.38
31	28.21	---	28.52	25.56	---	28.39	---	26.42	---	32.20	30.21	---
MAX	38.21	35.93	34.06	32.75	34.46	34.17	31.28	33.39	32.91	32.67	33.32	33.69

WTR YR 1987 MEAN 28.69 HIGH 21.32 APR 19 LOW 38.21 OCT 9

GROUND-WATER RECORDS

107

PORTAGE COUNTY

410540081213600. Local number, PQ-7.

LOCATION.--Lat 41°05'40", long 81°21'36", Hydrologic Unit 04110002, Sunnysbrook golf course near Brimfield.

Owner: City of Talmidge.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 101 ft cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1065 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 7.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 1.53 ft above land-surface datum, Aug. 22, 1987; minimum daily low, 3.94 ft above land-surface datum, Mar. 15-16, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-2.92	-2.93	-2.79	-2.81	-2.56	-2.54	-2.21	-2.80	-2.42	-2.02	-1.76	-1.72
2	-2.83	-2.98	-2.91	-2.85	-2.54	-2.51	-2.20	-2.80	-2.40	-2.18	-1.77	-1.75
3	-2.92	-2.51	-2.93	-2.85	-2.50	-2.49	-2.20	-2.82	-2.45	-2.33	-1.77	-1.74
4	-3.13	-2.55	-2.85	-2.85	-2.49	-2.51	-2.25	-2.80	-2.39	-2.37	-1.80	-1.64
5	-3.13	-2.84	-2.92	-2.83	-2.45	-2.50	-2.26	-2.78	-2.33	-2.39	-1.68	-1.63
6	-3.08	-2.48	-2.95	-2.79	-2.47	-2.47	-2.32	-2.71	-2.32	-2.37	-1.71	-1.66
7	-3.05	-2.50	-2.98	-2.84	-2.46	-2.45	-2.38	-2.73	-2.32	-2.34	-1.69	-1.74
8	-3.09	-2.40	-2.97	-2.70	-2.50	-2.46	-2.41	-2.69	-2.32	-2.28	-1.57	-1.67
9	-3.09	-2.47	-2.97	-2.58	-2.45	-2.42	-2.41	-2.77	-2.31	-2.29	-1.60	-1.64
10	-3.08	-2.45	-3.00	-2.52	-2.43	-2.42	-2.39	-2.73	-2.31	-2.28	-1.64	-1.61
11	-3.09	-2.39	-2.97	-2.61	-2.42	-2.44	-2.48	-2.73	-2.23	-2.20	-1.63	-1.62
12	-3.09	-2.52	-2.94	-2.52	-2.38	-2.38	-2.49	-2.66	-2.22	-2.23	-1.63	-1.75
13	-3.13	-2.52	-2.88	-2.58	-2.44	-2.39	-1.93	-2.62	-2.32	-2.19	-1.65	-1.84
14	-3.07	-2.37	-2.91	-2.47	-2.47	-2.17	-3.29	-2.56	-2.30	-2.13	-1.64	-1.86
15	-3.07	-2.52	-2.85	-2.39	-2.51	-2.17	-3.25	-2.51	-2.27	-2.14	-1.64	-1.81
16	-3.09	-2.59	-2.86	-2.39	-2.49	-2.15	-3.22	-2.50	-2.23	-2.10	-1.66	-1.80
17	-2.96	-2.27	-2.85	-2.45	-2.50	-2.19	-3.17	-2.50	-2.20	-2.07	-1.66	-1.86
18	-3.00	-2.48	-2.77	-2.61	-2.50	-2.16	-3.03	-2.47	-2.15	-2.14	-1.65	-1.80
19	-3.04	-2.50	-2.80	-2.63	-2.44	-2.15	-3.03	-2.49	-2.02	-2.14	-1.60	-1.77
20	-3.05	-2.55	-2.83	-2.63	-2.39	-2.15	-3.01	-2.49	-1.95	-2.13	-1.60	-1.85
21	-3.05	-2.65	-2.83	-2.68	-2.37	-2.14	-2.95	-2.47	-2.12	-2.01	-1.60	-1.91
22	-3.04	-2.64	-2.86	-2.67	-2.42	-2.10	-2.89	-2.45	-2.18	-1.99	-1.53	-1.90
23	-3.03	-2.65	-2.87	-2.65	-2.34	-2.13	-2.87	-2.50	-2.14	-1.97	-1.54	-1.85
24	-3.03	-2.60	-2.90	-2.50	-2.37	-2.10	-2.84	-2.50	-2.07	-1.85	-1.65	-1.89
25	-3.04	-2.65	-2.93	-2.54	-2.35	-2.10	-2.94	-2.52	-1.84	-1.84	-1.70	-1.90
26	-3.06	-2.70	-2.81	-2.55	-2.33	-2.07	-2.95	-2.48	-1.81	-1.90	-1.59	-1.92
27	-3.04	-2.85	-2.84	-2.50	-2.42	-2.07	-2.99	-2.45	-1.93	-1.91	-1.62	-1.95
28	-3.00	-2.89	-2.86	-2.50	-2.48	-2.14	-2.95	-2.35	-2.00	-1.74	-1.63	-1.95
29	-3.03	-2.83	-2.84	-2.49	---	-2.16	-2.98	-2.43	-2.09	-1.74	-1.65	-1.93
30	-2.96	-2.80	-2.78	-2.58	---	-2.17	-2.89	-2.44	-1.97	-1.71	-1.70	-1.90
31	-2.91	---	-2.80	-2.53	---	---	---	-2.48	---	-1.70	-1.75	---
MAX	-2.83	-2.27	-2.77	-2.39	-2.33	---	-1.93	-2.35	-1.81	-1.70	-1.53	-1.61
WTR YR 1987 MEAN	-2.41											
HIGH												
LOW												

HIGH -3.29 APR 14 LOW -1.53 AUG 22

GROUND-WATER RECORDS

PORTAGE COUNTY

410920081192000. Local number, PQ-6.

LOCATION.--Lat 41°09'20", long 81°19'20", Hydrologic Unit 04110002, State Rt 59, east of Kent.

Owner: Testa Bros.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 72 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of platform 4.50 ft below land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.37 ft below land-surface datum, Feb. 22, 1977; minimum daily low, 14.28 ft below-land surface datum, May 5, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.60	24.45	25.11	24.46	24.00	24.44	24.85	23.53	22.88	23.30	23.38	24.05
2	23.64	24.49	25.11	24.39	23.99	24.47	24.87	23.53	22.87	23.30	23.42	24.08
3	23.66	24.50	25.14	24.36	24.04	24.49	24.88	23.51	22.87	23.30	23.42	24.10
4	23.73	24.52	25.14	24.36	24.05	24.49	24.88	23.50	22.87	23.30	23.43	24.12
5	23.75	24.53	25.14	24.34	24.05	24.52	24.89	23.48	22.87	23.30	23.43	24.14
6	23.78	24.58	25.13	24.32	24.05	24.52	24.88	23.44	22.86	23.30	23.43	24.15
7	23.81	24.60	25.10	24.27	24.05	24.52	24.87	23.42	22.85	23.30	23.44	24.17
8	23.85	24.61	25.05	24.27	24.05	24.52	24.81	23.40	22.85	23.30	23.45	24.20
9	23.90	24.64	25.02	24.27	24.07	24.55	24.70	23.39	22.88	23.30	23.48	24.24
10	23.91	24.67	25.01	24.19	24.07	24.55	24.57	23.38	22.89	23.29	23.50	24.26
11	23.93	24.67	25.00	24.19	24.07	24.57	---	23.37	22.89	23.27	23.50	24.30
12	23.94	24.68	24.95	24.18	24.10	24.57	---	23.35	22.88	23.26	23.51	24.33
13	23.96	24.75	24.95	24.18	24.13	24.57	---	23.33	22.87	23.22	23.53	24.38
14	24.01	24.76	24.93	24.15	24.16	24.58	---	23.32	22.88	23.23	23.55	24.41
15	24.03	24.77	24.87	24.14	24.19	24.65	---	23.29	22.90	23.23	23.57	24.44
16	24.06	24.78	24.86	24.14	24.20	24.67	---	23.28	22.97	23.21	23.59	24.45
17	24.10	24.80	24.83	24.13	24.23	24.68	---	23.26	23.00	23.21	23.64	24.50
18	24.13	24.85	24.78	24.09	24.25	24.68	---	23.22	23.01	23.21	23.65	24.52
19	24.14	24.92	24.78	24.09	24.28	24.70	---	23.18	23.01	23.20	23.70	24.56
20	24.15	24.91	24.75	24.07	24.30	24.70	---	23.17	23.01	23.20	23.73	24.57
21	24.18	24.95	24.74	24.05	24.30	24.72	---	23.15	23.02	23.21	23.76	24.59
22	24.20	24.97	24.71	24.05	24.30	24.73	---	23.13	23.05	23.22	23.78	24.64
23	24.25	24.98	24.67	24.04	24.36	24.75	---	23.10	23.10	23.23	23.79	24.67
24	24.27	25.01	24.64	24.02	24.37	24.75	---	23.08	23.11	23.25	23.84	24.69
25	24.27	25.03	24.60	24.01	24.40	24.75	---	23.03	23.12	23.26	23.87	24.70
26	24.31	25.05	24.60	24.00	24.42	24.76	---	23.00	23.20	23.28	23.88	24.75
27	24.36	25.10	24.58	23.99	24.42	24.76	---	22.97	23.25	23.29	23.90	24.78
28	24.38	25.10	24.55	23.98	24.42	24.79	---	22.96	23.27	23.30	23.94	24.80
29	24.41	25.11	24.55	23.98	---	24.80	---	22.94	23.28	23.32	23.96	24.82
30	24.44	25.11	24.48	23.99	---	24.80	---	22.92	23.30	23.34	23.98	24.85
31	24.45	---	24.47	24.01	---	24.81	---	22.90	---	23.38	24.00	---
MAX	24.45	25.11	25.14	24.46	24.42	24.81	---	23.53	23.30	23.38	24.00	24.85
WTR YR 1987 MEAN	24.05				22.85	JUN 7 AND OTHERS		LOW	25.14	DEC 3 AND OTHERS		

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PUTNAM COUNTY

405505084032900. Local number, PU-1.

LOCATION.--Lat 40°55'05", long 84°03'29", Hydrologic Unit 04100007, Center and Broadway Streets, Columbus Grove.

Owner: Columbus Grove Water Department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 110 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resource, Division of Water.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.30 ft below land-surface datum, Aug. 24, 1962; minimum daily low, 9.50 ft below land-surface datum, Jan. 5, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.91	11.91	10.81	12.98	13.13	12.61	11.40	13.78		11.77	14.58	12.65
2	10.95	13.12	11.84	12.71	13.63	10.79	12.07	11.98		13.37	12.55	14.48
3	11.97	12.80	11.24	11.57	12.41	12.72	12.70	13.48		11.54	14.44	12.69
4	11.87	11.57	10.50	13.29	12.63	12.86	11.76	11.93		13.21	12.74	14.18
5	10.59	12.57	11.85	10.78	12.88	13.08	11.11	13.79		11.30	14.32	12.77
6	12.41	12.94	11.71	11.51	12.38	12.13	12.58	12.18		13.35	12.70	14.56
7	10.33	11.61	10.63	12.86	12.49	13.34	12.96	13.78		11.70	14.62	12.84
8	10.73	13.36	12.33	13.49	13.21	12.69	13.71	12.10		14.08	12.82	14.64
9	12.18	13.92	12.32	11.37	12.86	13.18	13.07	14.05		13.63	14.21	14.29
10	10.62	12.75	10.57	13.18	12.73	11.68	11.16	12.29		13.59	13.95	14.93
11	11.14	12.67	12.17	12.91	12.27	12.83	11.88	14.31		11.74	14.55	14.68
12	12.37	13.25	11.89	11.33	11.52	13.00	12.59	12.85		13.40	12.89	14.94
13	10.50	13.88	11.03	13.21	12.58	13.13	12.46	14.47		13.08	14.65	13.29
14	11.20	13.14	12.49	13.28	12.69	13.44	10.60	12.85		13.29	13.17	15.10
15	12.37	13.81	12.74	11.99	12.51	13.20	12.77	14.79		11.56	15.18	13.45
16	10.54	11.59	10.96	13.18	10.54	13.26	12.16	12.97		13.66	13.69	15.01
17	11.00	13.28	12.10	12.56	12.63	13.34	10.64	15.03		11.89	15.12	13.38
18	12.87	13.10	12.21	13.02	12.39	12.92	13.35	14.30		13.49	14.67	14.93
19	12.20	11.68	10.89	12.81	13.11	13.11	11.69	14.58		12.82	15.13	13.49
20	11.12	12.66	12.91	13.15	12.42	13.34	12.62	12.77		13.94	13.33	14.97
21	12.92	12.73	12.74	11.60	13.25	13.55	13.68	14.62		12.44	14.93	13.49
22	12.20	11.40	11.15	12.82	12.88	13.48	13.01	12.87		14.25	13.26	15.16
23	11.17	12.21	13.14	12.31	13.06	13.14	13.52	14.83		14.44	15.07	13.46
24	12.68	12.60	13.03	11.69	13.53	11.38	11.51	13.55		14.30	13.38	15.25
25	13.48	11.13	11.45	13.14	13.28	13.00	13.51	14.74		14.05	15.26	13.49
26	11.16	12.72	12.98	11.49	11.27	12.94	11.77	13.14		14.27	14.61	15.20
27	12.78	12.02	13.47	11.68	13.00	11.57	13.47	14.97		13.74	14.75	13.70
28	12.19	10.82	12.69	13.43	13.66	13.56	11.80	---		14.52	12.70	15.55
29	11.73	12.58	12.85	13.58	---	11.74	13.45	---		12.79	14.36	13.59
30	13.25	12.15	12.76	11.41	---	11.35	12.07	---		14.37	14.03	15.26
31	11.01	---	13.37	13.39	---	13.42	---	---		14.30	14.50	---
MAX	13.48	13.92	13.47	13.58	13.66	13.56	13.71	---		14.52	15.26	15.55
WTR YR 1987	MEAN	12.87		HIGH	10.33	OCT 7	LOW	15.55	SEP 28			

WTR YR 1987	MEAN	12.87	HIGH	10.33	OCT 7	LOW	15.55	SEP 28
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GROUND-WATER RECORDS

RICHLAND COUNTY

405753082360800. Local number, R-3.

LOCATION.--Lat 40°57'53", long 82°36'08", Hydrologic Unit 04100012, Voisard plant in Shiloh.

Owner: Voisard Corp.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 150 ft, cased.

INSTRUMENTATION.--Digital recorder --60-minute punch.

DATUM.--Elevation of land-surface datum is 1080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.17 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 35.90 ft below land-surface datum, Feb. 12, 1981; minimum daily low, 23.68 ft below land-surface datum, June 15, 23, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.23	33.11	33.11	32.14	32.23	31.84	32.14			---	31.92	31.93
2	33.28	33.14	32.58	31.95	31.93	32.31	32.28			---	31.75	31.97
3	33.17	33.06	32.69	32.32	32.40	32.66	32.30			---	31.83	32.05
4	32.99	33.05	32.89	32.33	32.63	32.74	32.19			---	31.83	32.03
5	33.09	33.02	33.04	32.39	32.59	32.61	32.09			---	31.84	31.93
6	33.36	33.07	32.98	32.20	32.42	32.58	32.06			---	31.90	31.83
7	33.34	33.06	32.85	32.19	32.03	32.46	31.98			---	31.87	31.78
8	33.18	32.97	32.63	32.35	32.24	32.29	31.95			---	31.84	31.80
9	33.38	33.24	32.43	32.39	32.42	32.41	31.94			---	31.69	31.90
10	33.33	33.38	32.59	31.90	32.45	32.55	31.89			---	31.84	31.86
11	33.17	33.16	32.55	31.98	32.46	32.55	31.69			---	31.80	31.84
12	33.09	33.20	32.56	32.16	32.35	32.51	31.74			---	31.80	31.86
13	32.97	33.50	32.87	32.27	32.31	32.46	31.93			---	31.78	31.98
14	32.97	33.42	32.67	32.01	32.32	32.19	31.79			---	31.78	32.12
15	33.04	33.05	32.55	32.22	32.45	32.26	31.58			---	31.80	32.06
16	32.98	32.82	32.43	32.32	32.42	32.45	31.37			31.50	31.77	31.95
17	33.21	32.88	32.36	32.22	32.28	32.44	---			31.54	31.91	31.84
18	33.36	32.96	32.16	31.95	32.51	32.25	---			31.52	31.98	31.84
19	33.33	33.14	32.20	31.95	32.63	32.08	---			31.43	32.05	31.98
20	33.23	32.95	32.37	32.05	32.58	32.02	---			31.53	32.13	32.07
21	33.07	33.12	32.50	31.99	32.33	32.02	---			31.58	32.09	32.17
22	33.07	33.06	32.48	31.75	32.33	32.01	---			31.59	31.95	32.20
23	33.08	32.96	32.31	31.91	32.59	32.00	---			31.58	32.06	32.17
24	33.06	33.18	32.14	32.16	32.65	31.99	---			31.63	32.13	32.10
25	32.95	33.13	32.18	32.04	32.68	31.90	---			31.69	32.08	32.25
26	32.73	32.97	32.34	32.39	32.65	32.11	---			31.71	32.07	32.36
27	32.87	33.14	32.34	32.28	32.59	32.01	---			31.74	31.81	32.40
28	33.02	33.07	32.34	32.40	32.24	32.22	---			31.82	31.83	32.41
29	33.00	33.07	32.22	32.33	---	32.14	---			31.83	32.01	32.26
30	33.22	33.09	32.15	31.99	---	31.91	---			31.88	32.00	32.14
31	33.19	---	32.25	32.29	---	32.12	---			31.95	31.88	---
MAX	33.38	33.50	33.11	32.40	32.68	32.74	---			---	32.13	32.41
WTR YR 1987 MEAN		32.36		HIGH	31.37	APR 16	LOW	33.50	NOV 13			

GROUND-WATER RECORDS

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SANDUSKY COUNTY

411914083045300. Local number, S-3.

LOCATION.--Lat 41°19'14", long 83°04'53", Hydrologic Unit 04100011, 2.6 mi southeast of Fremont Post Office.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 121 ft, cased to 93 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 627 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.18 ft below land-surface datum, Aug. 2, 1975; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.70	16.99	16.18	15.11	14.69	14.22	14.37	14.52	19.39	16.99	20.43	19.01
2	17.60	16.98	15.98	14.95	14.53	14.50	14.40	14.49	19.52	16.76	20.18	18.87
3	17.50	16.94	15.76	15.11	14.72	14.68	14.53	14.62	18.23	16.68	20.68	18.91
4	17.23	16.83	15.87	15.15	14.88	14.76	14.42	14.73	17.61	16.63	20.55	18.89
5	17.26	16.82	15.95	15.18	14.90	14.61	14.34	14.74	17.27	16.61	20.95	18.74
6	17.36	16.74	15.87	15.01	14.77	14.59	14.30	14.62	17.02	16.47	20.04	18.63
7	17.39	16.80	15.77	15.04	14.57	14.50	14.31	14.64	16.76	16.44	19.64	18.55
8	17.24	16.66	15.67	15.00	14.75	14.42	14.32	14.72	16.62	16.42	20.85	18.45
9	17.28	16.83	15.46	14.95	14.91	14.62	14.35	16.02	16.52	16.42	20.94	18.43
10	17.31	16.98	15.57	14.70	14.91	14.68	14.30	17.10	16.53	16.40	20.06	18.41
11	17.15	16.75	15.52	14.79	14.90	14.62	14.24	17.43	16.32	16.37	19.69	18.34
12	17.06	16.76	15.55	14.88	14.80	14.59	14.30	16.38	16.08	16.34	20.35	18.31
13	17.05	16.93	15.70	14.90	14.80	14.59	14.49	15.98	16.04	16.25	20.99	18.23
14	16.92	16.87	15.59	14.79	14.73	14.47	14.37	15.63	16.02	16.22	20.43	18.36
15	16.99	16.63	15.48	14.90	14.81	14.51	14.25	15.58	17.11	16.18	19.84	18.28
16	16.97	16.48	15.45	14.95	14.77	14.62	14.20	16.76	18.24	16.30	20.62	18.14
17	17.09	16.43	15.40	14.94	14.61	14.58	14.27	17.21	19.06	16.34	21.20	17.96
18	17.17	16.47	15.25	14.77	14.68	14.46	14.45	16.49	19.38	16.34	20.85	17.93
19	17.17	16.52	15.28	14.70	14.77	14.41	14.51	16.04	18.84	16.34	21.79	17.95
20	17.13	16.34	15.32	14.77	14.76	14.45	14.52	15.80	18.59	17.47	22.34	17.97
21	17.02	16.31	15.42	14.72	14.58	14.46	14.62	15.73	17.63	18.68	22.57	17.99
22	17.02	16.32	15.40	14.53	14.51	14.48	14.61	15.66	17.25	19.41	22.50	17.97
23	17.02	16.20	15.24	14.62	14.72	14.47	14.51	15.72	17.97	19.93	21.57	17.92
24	17.06	16.28	15.12	14.82	14.76	14.42	14.61	15.70	18.96	20.41	20.92	17.84
25	17.01	16.25	15.13	14.80	14.81	14.36	14.71	16.85	19.09	20.51	20.49	17.93
26	16.80	16.04	15.26	14.84	14.81	14.47	14.68	17.22	18.86	19.38	20.15	17.90
27	16.83	16.14	15.27	14.80	14.72	14.46	14.62	16.48	17.93	18.72	19.71	17.93
28	16.97	16.12	15.23	14.80	14.51	14.52	14.57	16.24	17.55	18.40	19.48	17.95
29	16.95	16.15	15.18	14.80	---	14.51	14.46	17.62	17.30	18.18	19.34	17.83
30	17.08	16.18	15.14	14.55	---	14.40	14.56	18.50	17.11	19.26	19.24	17.72
31	17.07	---	15.15	14.72	---	14.37	---	19.05	---	20.17	19.01	---
MAX	17.70	16.99	16.18	15.18	14.91	14.76	14.71	19.05	19.52	20.51	22.57	19.01
WTR YR 1987 MEAN	16.50			HIGH	14.20	APR 16	LOW	22.57	AUG 21			

GROUND-WATER RECORDS

SANDUSKY COUNTY--Continued

412703083213600. Local number, S-2.

LOCATION.--Lat 41°27'03", long 83°21'36", Hydrologic Unit 04100010, at water works in Woodville.

Owner: Woodville Water department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 198 ft cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 635 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Top of casing at land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 100.97 ft below land-surface datum, Jan. 29, 1982; minimum daily low, 18.60 ft below land-surface datum, May 6, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	26.60	24.46	24.80	25.72	24.54	24.74	26.20			
2	---	---	25.99	23.85	25.25	26.03	24.06	24.61	25.95			
3	---	---	26.08	24.61	25.72	25.80	24.12	24.68	25.80			
4	29.12	29.08	25.68	24.48	26.32	25.44	23.93	25.12	25.35			
5	28.47	27.87	25.19	24.71	26.66	25.19	23.74	24.81	23.85			
6	27.98	27.83	24.79	24.28	---	25.04	24.00	24.28	24.80			
7	27.68	28.19	24.98	24.71	---	24.55	24.05	23.08	25.33			
8	---	27.87	24.89	24.62	---	25.04	24.06	23.83	25.37			
9	30.16	30.56	25.18	24.55	---	25.78	24.16	24.76	25.28			
10	27.65	40.37	24.14	23.98	29.60	25.81	24.04	24.80	---			
11	35.48	---	24.18	24.56	27.41	25.99	24.18	24.84	---			
12	27.68	---	24.63	24.73	26.55	28.52	24.22	25.04	---			
13	---	---	24.47	24.36	26.59	27.92	24.43	23.29	---			
14	---	---	24.34	23.97	27.06	26.97	24.25	24.30	---			
15	28.51	---	24.11	24.25	30.68	27.07	22.77	25.04	---			
16	27.67	28.83	24.64	26.40	---	26.79	23.51	25.40	---			
17	39.56	28.30	24.24	25.60	27.73	26.57	24.28	26.00	---			
18	---	45.51	24.66	25.63	27.50	25.19	24.62	25.37	---			
19	27.96	---	24.49	25.50	27.54	26.19	24.24	25.23	---			
20	---	29.69	24.76	25.28	27.50	25.77	24.69	24.99	---			
21	44.11	29.06	24.08	24.79	27.00	26.11	24.60	25.13	---			
22	---	29.23	24.66	24.81	26.59	26.06	24.44	25.18	---			
23	---	---	24.79	25.00	26.89	25.86	24.46	24.02	---			
24	---	---	24.54	25.32	26.48	25.57	23.74	24.37	---			
25	28.64	29.04	24.36	25.38	26.21	25.51	23.79	25.04	---			
26	28.23	---	24.68	25.46	25.46	24.93	24.85	25.30	---			
27	---	---	24.75	25.07	26.19	25.08	24.60	25.40	---			
28	29.96	27.79	24.66	25.08	25.85	25.33	24.67	25.49	---			
29	28.31	26.86	24.11	24.90	---	25.21	22.71	25.71	---			
30	28.18	26.44	24.50	24.98	---	25.23	24.65	26.22	---			
31	---	---	24.35	24.75	---	24.95	---	25.98	---			
MAX	---	---	26.60	26.40	---	28.52	24.85	26.22	---			
WTR YR 1987	MEAN	25.97		HIGH	22.71	APR 29	LOW	45.51	NOV 18			

410802083093900. Local number, SE-2.

Owner: State of Ohio.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 250 ft, cased.

DATUM.--Elevation of land-surface datum is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 0.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--July 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 23.76 ft below land-surface datum, Nov. 22, 1964; minimum daily low, 14.48 ft below land-surface datum, Mar. 22, 1984.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.55	18.85	17.58	17.81	18.81	18.43	18.83	18.57	19.39	19.43	20.03	20.54
2	18.04	18.89	17.37	17.82	18.50	18.75	18.56	18.56	19.35	19.14	19.99	20.57
3	17.73	18.84	17.00	18.09	18.83	19.02	18.55	18.81	18.97	18.94	20.13	20.74
4	17.05	18.83	17.13	18.17	18.93	19.07	18.25	18.97	18.97	18.91	20.16	20.72
5	16.57	18.84	17.24	18.22	18.91	18.89	17.85	18.93	18.91	18.86	20.30	20.67
6	16.65	18.97	17.16	18.03	18.52	18.84	17.41	18.73	18.92	18.67	20.44	20.59
7	16.68	19.02	17.12	18.16	18.08	18.73	16.71	18.76	18.76	18.74	20.47	20.59
8	16.81	18.90	17.06	18.19	18.30	18.50	16.43	18.84	18.75	18.89	20.48	20.57
9	17.30	19.25	16.83	18.16	18.41	18.95	16.45	18.84	18.97	19.03	20.28	20.72
10	17.44	19.38	16.94	17.78	18.26	19.06	16.47	18.83	19.03	19.07	20.58	20.74
11	17.40	19.17	16.86	18.07	18.20	18.98	16.51	18.86	18.79	19.14	20.58	20.75
12	17.39	19.25	16.98	18.36	18.28	19.05	16.99	19.16	18.56	19.15	20.50	20.78
13	17.48	19.52	17.33	18.44	18.28	19.04	17.17	19.19	18.71	19.15	20.54	20.87
14	17.43	19.47	17.25	18.35	18.35	18.86	17.00	19.06	18.73	19.33	20.62	21.00
15	17.62	19.10	17.26	18.63	18.44	19.01	16.96	19.32	18.84	19.30	20.66	20.99
16	17.66	18.94	17.36	18.72	18.40	19.17	17.08	19.24	18.93	19.29	20.65	20.89
17	18.06	19.07	17.37	18.66	18.28	19.16	17.39	19.13	19.17	19.41	20.73	20.74
18	18.25	19.13	17.45	18.30	18.57	18.96	17.67	19.14	19.24	19.44	20.84	20.84
19	18.25	19.23	17.60	18.42	18.69	18.93	17.85	19.16	19.21	19.51	20.90	20.94
20	18.15	18.86	17.84	18.55	18.71	18.94	17.90	19.24	19.22	19.61	21.07	20.94
21	18.10	18.65	17.99	18.54	18.46	18.97	18.00	19.32	19.15	19.74	21.01	20.99
22	18.20	18.55	18.01	18.38	18.38	19.03	17.95	19.31	19.06	19.79	20.94	21.05
23	18.36	18.22	17.88	18.66	18.83	19.01	18.07	19.41	19.23	19.74	21.08	21.05
24	18.44	18.47	17.81	18.96	18.96	18.91	18.41	19.43	19.32	19.77	21.13	21.01
25	18.39	18.44	17.81	18.92	19.04	18.98	18.49	19.41	19.18	19.80	21.05	21.14
26	18.23	18.05	17.87	18.93	19.05	19.19	18.47	19.41	19.23	19.78	20.98	21.12
27	18.41	17.99	17.83	18.84	18.87	19.16	18.28	19.51	19.33	19.79	20.73	21.16
28	18.59	17.72	17.76	19.02	18.66	19.30	18.40	19.47	19.42	19.86	20.62	21.18
29	18.66	17.44	17.73	19.01	---	19.25	18.32	19.48	19.42	19.88	20.66	21.04
30	18.92	17.58	17.76	18.78	---	19.09	18.61	19.46	19.51	19.94	20.63	21.03
31	18.91	---	17.82	18.94	---	18.90	---	19.46	---	20.01	20.48	

GROUND-WATER RECORDS

SUMMIT COUNTY

410330081282000. Local number, SU-6.

LOCATION.--Lat 41°03'30", long 81°28'20", Hydrologic Unit 04110002, Seiberling St, Akron.

Owner: Goodyear Tire and Rubber Co.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 in., depth 89 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1000 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Floor of instrument shelter 2.63 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1944 to current year. Records for May 14-Sept. 30, 1980, published in USGS-WRD-OH-80-1, are unreliable and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 59.47 ft below land-surface datum, Oct. 18, 1947; minimum daily low, 11.92 ft below land-surface datum, April 7, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.02	22.37	15.58	---	12.45	12.51	12.62	12.35	12.70	---	21.53	22.84
2	20.94	22.37	15.41	---	12.43	12.52	12.53	12.33	12.81	---	21.52	22.91
3	20.96	22.42	15.14	---	12.57	12.63	12.52	12.28	12.94	---	21.58	22.97
4	20.18	22.53	15.02	---	12.63	12.68	12.48	12.34	13.03	---	21.70	23.05
5	20.30	22.61	14.89	---	12.62	12.70	12.39	12.35	13.04	---	21.83	22.03
6	20.50	22.68	14.74	---	12.61	12.71	12.15	12.35	13.02	---	21.91	---
7	20.68	22.74	14.62	---	12.58	12.70	11.92	12.40	12.95	---	21.98	---
8	20.83	22.80	14.34	---	12.48	12.60	---	12.45	12.93	---	22.01	---
9	20.94	22.80	14.23	---	12.54	12.62	---	12.44	13.00	---	21.98	---
10	21.02	22.84	14.12	---	12.58	12.67	---	12.35	13.01	---	21.94	---
11	21.05	22.90	14.04	---	12.58	12.68	---	12.28	13.01	---	22.03	---
12	21.08	22.94	13.89	---	12.58	12.73	---	12.35	13.06	---	22.11	---
13	21.17	23.02	13.85	---	12.59	12.73	---	12.35	13.01	---	22.22	---
14	21.25	23.09	13.64	12.51	12.57	12.69	---	12.38	12.99	---	22.28	---
15	21.35	23.12	13.60	12.56	12.55	12.60	---	12.38	12.99	---	22.28	---
16	21.44	23.12	13.58	12.56	12.53	12.58	---	12.38	13.09	---	22.27	---
17	21.55	23.14	13.48	12.51	12.56	12.62	---	12.29	13.14	---	22.30	---
18	21.57	23.23	13.49	12.42	12.62	12.62	---	12.23	13.16	---	22.36	---
19	21.58	23.30	13.44	12.45	12.63	12.62	---	12.15	13.16	---	22.45	---
20	21.55	23.33	---	12.45	12.63	12.64	---	12.21	13.15	---	22.53	---
21	21.63	23.34	---	12.48	12.57	12.68	12.34	12.27	12.96	---	22.56	---
22	21.69	20.08	---	12.46	12.52	12.67	12.34	12.29	12.95	---	22.59	---
23	21.77	18.62	---	12.55	12.55	12.57	12.34	12.28	---	---	22.57	---
24	21.88	17.87	---	12.55	12.60	12.58	12.35	12.21	---	21.01	22.59	---
25	21.95	17.44	---	12.51	12.65	12.60	12.34	12.16	---	21.07	22.65	---
26	21.97	17.08	---	12.48	12.66	12.62	12.28	12.40	---	21.11	22.72	---
27	22.03	16.71	---	12.50	12.65	12.66	12.20	12.54	---	21.21	22.75	---
28	22.12	16.36	---	12.55	12.63	12.71	12.23	12.59	---	21.33	22.78	---
29	22.22	16.06	---	12.55	---	12.71	12.29	12.65	---	21.43	22.80	---
30	22.28	15.82	---	12.47	---	12.59	12.35	12.66	---	21.47	22.78	---
31	22.36	---	---	12.51	---	12.62	---	12.64	---	21.52	22.77	---
MAX	22.36	23.34	---	---	12.66	12.73	---	12.66	---	---	22.80	---
WTR YR 1987 MEAN	16.21											
HIGH					11.92		APR 7	LOW	23.34		NOV 21	

GROUND-WATER RECORDS

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SUMMIT COUNTY--Continued

410846081271600. Local number, SU-7.

LOCATION.--Lat 41°08'46", long 81°27'16", Hydrologic Unit 04110002, Monroe Falls Road, Cuyahoga Falls.

Owner: Cuyahoga Falls Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 994 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 44.19 ft below land-surface datum, Sept. 7, 1971; minimum daily low, 0.45 ft above land-surface datum, Feb. 27, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.99	32.46	29.25	19.97	25.09	29.22	---	16.64	24.62	26.59	27.63	32.91
2	34.31	32.96	27.52	20.20	25.36	29.29	---	16.97	24.77	26.32	27.86	32.84
3	33.45	33.39	26.48	20.47	25.63	28.85	---	17.26	24.44	25.18	28.01	32.83
4	32.33	33.42	24.75	20.49	25.88	27.51	---	17.39	25.14	---	28.22	33.03
5	30.89	34.05	22.96	20.63	25.90	26.25	---	17.56	25.42	---	28.55	33.04
6	27.96	34.40	21.09	20.75	26.19	24.53	---	18.11	25.74	---	28.79	32.93
7	25.99	34.66	19.23	21.09	26.35	---	---	18.23	26.08	---	29.03	32.85
8	24.90	35.01	17.82	21.48	26.37	---	---	18.86	26.43	---	29.23	32.86
9	24.83	35.23	17.13	21.62	26.62	---	---	19.26	26.72	---	29.29	32.84
10	25.15	35.21	16.85	21.64	26.80	---	---	19.69	26.82	---	29.24	32.86
11	25.54	35.64	15.90	21.79	26.79	---	---	19.87	26.71	---	29.34	32.92
12	25.99	35.71	15.33	22.24	26.96	---	---	20.28	27.35	---	29.48	32.94
13	25.95	35.84	15.09	22.29	27.15	---	---	20.76	27.77	---	29.55	33.02
14	26.78	36.02	15.25	22.64	27.15	---	---	21.02	27.86	---	29.78	33.09
15	27.14	36.27	15.40	22.85	27.32	---	---	21.55	28.06	---	30.15	33.15
16	27.41	36.53	15.78	22.95	27.40	---	---	21.66	28.36	---	30.55	33.03
17	27.64	37.22	16.72	23.04	27.64	---	---	21.80	28.54	---	30.78	33.09
18	28.09	37.48	17.34	23.09	27.89	---	---	22.06	28.19	---	31.09	33.09
19	28.42	37.80	17.59	23.06	28.09	---	---	22.09	26.89	---	31.38	32.42
20	28.93	37.86	17.77	23.20	28.20	---	---	22.21	25.76	---	31.74	32.41
21	28.94	37.84	18.20	23.24	28.35	---	11.19	22.31	24.45	24.01	31.99	32.07
22	29.54	37.67	18.42	22.79	28.45	---	11.91	22.43	24.29	24.56	32.18	31.54
23	29.80	37.37	18.81	22.89	28.65	---	12.69	22.59	24.28	25.13	32.14	30.98
24	30.22	37.10	19.09	23.03	28.78	---	13.34	22.65	25.07	25.42	32.31	31.06
25	30.53	36.97	19.29	23.21	28.86	---	13.61	22.72	25.14	25.70	32.39	31.13
26	30.74	36.65	19.33	23.99	28.96	---	14.17	22.91	25.21	25.92	32.50	31.13
27	31.12	36.19	19.36	24.10	29.06	---	14.91	23.10	25.34	26.09	32.53	31.18
28	31.42	34.51	19.39	24.06	29.08	---	15.52	23.24	25.44	26.24	32.61	31.17
29	31.70	32.96	18.98	24.03	---	---	15.91	23.59	25.61	26.51	32.62	31.44
30	32.03	30.74	19.77	24.41	---	---	16.29	24.08	26.11	26.86	32.78	31.66
31	32.15	---	19.95	24.80	---	---	---	24.47	---	27.33	32.86	---
MAX	34.99	37.86	29.25	24.80	29.08	---	---	24.47	28.54	---	32.86	33.15
WTR YR 1987 MEAN	26.54			HIGH	11.19	APR 21	LOW	37.86	NOV 20			

GROUND-WATER RECORDS

VAN WERT COUNTY

405215084335400. Local number, VW-1.

LOCATION.--Lat 40°52'15", long 84°33'54", Hydrologic Unit 04100007, Ridge Road near Van Wert.

Owner: Marsh Foundation.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 340 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 790.37 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter 6.15 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 32.81 ft below land-surface datum, Mar. 2, 1977; minimum daily low, 18.85 ft below land-surface datum, Mar. 6, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.05	28.10	28.10	28.00	28.20	---	28.55	28.75	29.05	29.10	28.90	28.95
2	28.10	28.10	27.85	27.90	28.00	---	28.70	28.70	29.05	28.95	28.80	28.95
3	28.00	28.00	27.80	28.10	28.35	28.80	28.80	28.85	29.15	28.90	28.85	29.05
4	27.90	27.90	28.05	28.20	28.65	28.85	28.75	29.05	29.20	29.00	28.85	29.05
5	28.05	27.85	28.20	28.20	28.65	28.70	28.70	29.05	29.25	29.00	28.95	28.95
6	28.15	27.90	28.15	28.05	28.55	28.70	28.65	29.00	29.25	28.95	29.05	28.85
7	28.15	27.95	28.10	28.10	28.30	28.65	28.65	28.85	29.10	28.95	29.10	28.80
8	28.05	27.80	27.95	28.10	28.45	28.45	28.60	28.95	29.05	28.95	29.05	28.75
9	28.25	28.10	27.75	28.10	28.55	28.65	28.65	28.90	29.15	29.00	28.90	28.80
10	28.30	28.20	28.00	27.70	28.45	28.75	28.65	28.85	29.25	28.95	29.05	28.80
11	28.15	28.00	28.00	27.85	28.40	28.75	28.45	28.80	29.10	29.00	29.05	28.80
12	28.00	28.10	28.05	28.00	28.45	28.80	28.65	29.00	28.90	28.90	28.95	28.80
13	27.95	28.35	28.35	28.05	28.45	28.80	28.85	29.00	28.90	28.80	28.95	28.85
14	27.90	28.30	28.20	27.95	28.45	28.60	28.75	28.95	28.85	28.95	29.00	28.95
15	28.00	28.00	28.05	28.20	28.50	28.65	28.60	29.05	28.95	28.90	29.00	28.90
16	28.00	27.80	28.05	28.30	28.50	28.80	28.50	29.05	29.00	28.95	28.95	28.80
17	28.20	27.75	28.00	28.30	28.35	28.80	28.55	29.00	29.10	29.05	28.95	28.65
18	28.30	27.90	27.90	28.10	28.60	28.70	28.75	28.90	29.20	29.00	29.10	28.70
19	28.30	28.00	27.95	27.95	28.70	28.60	28.80	28.85	29.15	29.00	29.05	28.75
20	28.20	27.80	28.10	28.10	28.70	28.60	28.85	28.95	29.05	29.00	29.20	28.80
21	28.05	27.95	28.20	28.10	28.50	28.55	28.85	29.05	28.95	29.05	29.15	28.80
22	28.00	27.95	28.20	27.95	28.40	28.60	28.80	29.10	28.95	29.05	29.10	28.90
23	28.00	27.85	28.05	28.10	28.40	28.55	28.70	29.25	29.10	29.05	29.25	28.90
24	28.05	28.05	27.90	28.35	28.80	28.45	28.90	29.25	29.15	29.00	29.30	28.85
25	27.95	28.00	28.00	28.35	28.80	28.40	29.05	29.25	29.10	29.05	29.25	29.00
26	27.70	27.85	28.10	28.40	28.75	28.55	29.00	29.20	29.00	29.05	29.25	28.95
27	27.80	28.00	28.15	28.35	28.50	28.55	28.95	29.15	29.05	29.00	29.00	29.00
28	27.90	28.00	28.15	28.40	28.00	28.65	28.85	29.15	29.10	28.95	28.95	29.05
29	27.95	28.00	28.10	28.40	---	28.60	28.75	29.20	29.10	28.95	29.05	28.90
30	28.10	28.10	28.00	28.20	---	28.45	28.80	29.10	29.10	28.90	29.00	28.85
31	28.10	---	28.10	28.30	---	28.50	---	29.10	---	28.95	28.90	---
MAX	28.30	28.35	28.35	28.40	28.80	---	29.05	29.25	29.25	29.10	29.30	29.05
WTR YR 1987 MEAN	28.59		HIGH		27.70	OCT 26 AND OTHERS			LOW	29.30	AUG 24	

GROUND-WATER RECORDS

117

WILLIAMS COUNTY

412821084313600. Local number, WM-1.

LOCATION.--Lat 41°28'21", long 84°31'36", Hydrologic Unit 04100006, Bryan Water Treatment Plant, Bryan.

Owner: City of Bryan.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused production well, diameter 8 in., depth 118 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 747 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.30 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--May 1951 to May 1957, discontinued June 1957 to September 1984, reactivated October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 36.80 ft below land-surface datum, Aug. 20, 1987; minimum daily low, 1.45 ft below land-surface datum, Jan. 27, 1952.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.50	27.65	24.20	---	24.70	26.50	27.60	27.95	28.40	28.90	---	35.55
2	30.45	25.35	24.35	---	25.80	26.40	27.80	28.15	29.40	28.75	---	35.60
3	29.50	26.20	24.70	---	26.30	27.70	28.00	26.55	30.25	28.80	---	35.40
4	29.50	26.00	---	---	27.10	28.40	28.25	25.90	30.60	27.90	---	35.35
5	27.55	26.45	---	---	27.20	28.90	27.70	27.10	30.95	27.40	---	35.15
6	28.60	26.35	---	---	27.90	28.80	26.50	27.05	31.00	28.40	---	33.55
7	28.70	26.60	23.45	---	29.40	29.15	27.60	27.35	30.20	29.35	35.00	33.70
8	---	26.85	23.50	---	29.50	26.75	28.30	27.50	29.85	29.50	35.10	34.55
9	---	24.50	24.90	---	29.80	27.10	27.80	27.75	30.60	29.85	33.35	34.65
10	29.30	25.95	25.15	---	30.25	28.35	28.40	26.80	31.00	29.90	34.50	34.45
11	29.45	25.55	25.35	---	29.65	27.95	28.40	26.90	30.80	29.25	34.90	34.65
12	27.80	25.90	25.20	---	29.70	28.20	27.60	27.35	30.30	29.25	34.65	34.75
13	27.95	26.50	24.40	---	29.85	28.50	27.35	27.95	29.90	29.85	35.35	33.05
14	28.00	26.35	23.35	24.30	29.80	27.55	27.20	28.20	29.60	30.40	35.20	34.00
15	28.20	25.40	25.30	24.30	28.00	26.70	27.45	28.80	30.50	30.70	35.30	34.55
16	28.35	24.45	25.30	---	27.20	27.80	27.75	28.40	31.35	31.75	34.25	34.20
17	28.70	25.45	25.40	24.70	28.60	28.80	27.00	27.00	31.80	32.30	35.95	34.05
18	28.75	25.90	25.85	23.45	28.90	29.30	26.20	27.50	32.15	31.10	36.50	34.05
19	26.35	25.85	26.00	24.50	29.20	29.80	24.80	27.70	---	30.30	36.15	34.20
20	27.65	26.15	24.75	24.45	29.15	30.00	26.45	28.35	31.35	32.65	36.80	32.80
21	27.80	26.10	23.85	24.90	29.00	28.95	27.10	29.90	30.10	32.75	36.70	33.95
22	28.00	25.55	25.60	25.25	27.30	27.45	27.65	30.65	30.70	33.80	36.55	34.50
23	27.75	24.80	25.10	25.90	28.60	28.35	27.75	30.50	31.05	---	34.60	33.35
24	28.20	26.00	25.20	25.20	28.70	28.10	28.20	27.80	31.30	---	36.10	33.80
25	27.35	26.15	23.90	24.15	28.65	28.95	27.25	27.25	31.20	33.40	36.45	34.20
26	25.40	26.25	23.35	24.20	28.90	28.75	27.10	27.80	31.25	32.50	35.70	34.35
27	26.75	25.15	22.50	26.00	29.00	28.60	26.50	28.25	30.75	33.30	35.65	32.80
28	26.90	24.05	---	26.40	27.50	29.40	27.00	28.80	29.85	---	35.55	33.30
29	27.25	23.35	22.95	26.10	---	28.50	27.65	30.00	30.40	---	34.10	34.05
30	27.30	22.75	23.20	25.30	---	27.00	27.90	30.30	29.15	---	33.95	34.40
31	27.60	---	---	24.70	---	27.45	---	29.75	---	---	34.20	---
MAX	---	27.65	---	---	30.25	30.00	28.40	30.65	---	---	---	35.60
WTR YR 1987	MEAN	28.90		HIGH	22.50	DEC 27	LOW	36.80	AUG 20			

GROUND-WATER RECORDS

WILLIAMS COUNTY

412930084320900. Local number, WM-3.

LOCATION.--Lat 41°29'30", long 84°32'09", Hydrologic Unit 04100006, Union Street, Bryan.

Owner: City of Bryan.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused test well, diameter 8 in., depth 174 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.40 ft below land-surface datum, Aug. 21, 1987; minimum daily low, 15.15 ft below land-surface datum, Jan. 4, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.15	19.40	---	15.95	17.90	18.90	20.70	21.25	22.10	21.75	25.45	24.90
2	22.20	18.60	17.45	15.35	18.00	18.40	20.80	21.20	22.40	21.25	24.50	24.90
3	21.95	18.60	17.50	15.40	18.60	18.95	21.05	20.45	22.65	20.75	24.00	24.90
4	21.60	19.15	17.85	15.15	19.00	19.60	20.90	20.40	22.90	20.25	24.80	24.80
5	20.50	19.15	18.00	15.70	19.05	19.85	20.60	20.60	23.00	19.65	24.90	24.65
6	20.30	18.90	18.15	16.25	18.70	20.20	20.45	20.90	22.95	19.20	24.80	23.85
7	20.60	19.00	17.75	17.05	---	20.10	20.85	20.95	22.45	19.90	24.80	23.15
8	20.50	18.80	17.15	17.30	---	19.60	21.00	21.05	22.65	20.15	24.85	24.10
9	20.70	18.05	17.80	17.35	19.90	19.30	21.30	21.05	22.85	20.45	24.10	24.20
10	20.70	18.50	18.00	17.30	20.45	19.90	21.35	20.65	23.00	20.55	24.00	24.20
11	20.65	18.60	18.10	16.65	20.45	20.00	21.25	20.40	23.05	20.30	24.60	24.20
12	19.85	18.60	18.10	16.80	20.45	20.05	20.80	20.65	22.75	20.30	24.65	24.20
13	19.65	19.05	18.15	17.50	20.40	20.05	20.45	21.25	22.75	20.10	24.90	23.05
14	19.85	19.20	17.65	17.70	20.35	19.70	20.60	21.30	22.35	20.70	24.90	23.80
15	19.90	19.10	---	18.00	19.60	19.10	20.65	21.60	22.60	20.95	24.95	23.80
16	19.90	18.25	---	18.25	19.45	19.45	20.85	21.60	23.15	21.80	24.55	23.80
17	20.05	---	---	18.25	19.75	20.25	20.80	21.10	23.70	22.50	24.85	23.70
18	20.00	---	---	17.60	19.90	20.70	20.10	20.85	23.80	22.55	25.70	23.60
19	19.30	---	---	17.55	20.15	21.20	19.35	21.00	23.95	21.95	25.70	23.60
20	19.50	---	---	17.80	20.10	21.50	19.85	21.25	24.00	22.50	26.30	22.95
21	19.85	---	---	17.85	20.10	21.45	20.35	21.25	23.20	23.15	26.40	23.05
22	20.05	---	---	18.05	19.40	20.70	20.70	---	22.65	24.05	26.10	23.80
23	19.90	---	17.75	18.30	19.60	20.60	20.85	---	22.85	24.70	25.60	23.80
24	19.95	---	17.75	18.30	19.95	20.80	21.10	---	23.15	25.20	25.20	23.70
25	19.90	18.35	16.65	17.90	20.05	21.15	21.05	---	23.15	25.15	25.65	23.80
26	18.85	18.45	16.00	17.65	20.10	21.10	20.65	20.90	23.15	24.20	25.65	23.80
27	18.95	---	15.90	18.15	20.10	21.50	20.35	21.60	23.00	23.60	25.25	23.10
28	19.25	---	15.50	18.65	19.55	21.45	20.90	21.95	22.85	23.70	25.05	23.25
29	19.35	---	15.85	18.75	---	20.95	20.95	22.65	22.40	24.30	24.85	23.75
30	19.40	---	16.20	18.70	---	20.40	21.10	22.55	22.40	25.05	24.00	23.75
31	19.50	---	16.25	18.45	---	20.55	---	22.35	---	25.40	24.05	---
MAX	22.20	---	---	18.75	---	21.50	21.35	---	24.00	25.40	26.40	24.90
WTR YR 1987 MEAN	20.95			HIGH	15.15	JAN 4	LOW	26.40	AUG 21			

GROUND-WATER RECORDS

119

WILLIAMS COUNTY

413108084415300. Local number, WM-12.

LOCATION.--Lat 41°31'08", long 84°41'53", Hydrologic Unit 04100003, 1.7 mi east of Blakeslee.

Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 10 in., depth 115 ft, cased to 115 ft, screened 85 ft to 115 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 830 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--1974 to September 1982 continuous, periodic October 1983 to December 1984, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 10.56 ft below land-surface datum, Feb. 6-7, 1977; minimum daily low, 3.83 ft below land-surface datum, Mar. 17, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.43	8.85					---					
2	9.11	8.88					---					
3	8.96	8.85					---					
4	7.72	8.86					---					
5	7.14	8.86					---					
6	6.83	8.90					---					
7	6.66	8.93					---					
8	6.87	8.90					---					
9	7.29	9.08					---					
10	7.54	9.13					---					
11	7.67	9.06					---					
12	7.78	9.11					---					
13	7.92	9.22					---					
14	7.86	---					---					
15	7.96	---					---					
16	8.03	---					---					
17	8.25	---					---					
18	8.36	---					---					
19	8.40	---					---					
20	8.39	---					---					
21	8.41	---					---					
22	8.47	---					---					
23	8.59	---					---					
24	8.64	---					---					
25	8.64	---					---					
26	8.59	---					---					
27	8.65	---					8.79					
28	8.72	---					---					
29	8.76	---					---					
30	8.85	---					---					
31	8.86	---					---					
MAX	9.43	---					---					
WTR YR 1987	MEAN	8.42										
			HIGH		6.66	OCT 7	LOW	9.43	OCT 1			

GROUND-WATER RECORDS

WYANDOT COUNTY

405009083172600. Local number, WY-1.

LOCATION.--Lat 40°50'09", long 83°17'26", Hydrologic Unit 04100011, State Rt 199, Upper Sandusky.

Owner: Karg Supply Co.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in, depth 90 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--September 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 40.90 ft below land-surface datum, July 12, 15, 17, 21, Aug. 26, 1961; minimum daily low, 25.75 ft below land-surface datum, Apr. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.53	29.68	28.92	28.72	28.28	28.50	28.67	28.49	29.08	29.61	30.61	31.06
2	30.50	29.56	28.90	28.40	28.27	28.25	28.66	28.40	29.12	29.46	30.15	31.01
3	30.42	29.42	28.74	28.37	28.45	28.66	28.78	28.43	29.47	29.42	30.35	30.92
4	30.30	29.36	28.72	28.28	28.65	28.86	28.78	28.57	29.48	29.42	30.66	30.95
5	30.15	29.36	28.89	28.43	28.76	28.88	28.46	28.57	29.46	29.33	30.82	30.95
6	30.17	29.36	28.89	28.43	28.76	28.88	28.28	28.50	29.49	29.38	31.16	30.68
7	30.18	29.44	28.84	28.50	28.72	28.81	28.27	28.56	29.50	29.40	31.14	30.51
8	30.21	29.44	28.72	28.60	28.50	28.35	27.97	28.72	29.50	29.53	30.92	30.81
9	30.10	29.28	28.71	28.61	28.67	28.38	28.08	28.98	29.51	29.64	30.50	31.08
10	29.99	29.45	28.70	28.61	28.68	28.77	27.99	29.02	29.14	29.68	30.77	31.09
11	29.94	29.48	28.70	28.38	28.68	28.85	27.96	29.05	28.86	29.70	30.97	31.15
12	29.77	29.68	28.75	28.53	28.62	28.83	27.58	29.05	28.95	29.70	30.99	31.16
13	29.66	29.69	28.82	28.59	28.63	28.80	27.70	29.32	29.00	29.28	31.12	30.70
14	29.65	29.77	28.81	28.60	28.64	28.80	27.81	29.47	29.17	29.54	31.38	30.78
15	29.82	29.72	28.75	28.62	28.66	28.65	27.91	29.47	29.33	29.54	31.41	30.81
16	29.78	29.46	28.74	28.76	28.68	28.83	27.93	29.26	29.46	29.59	30.76	30.76
17	29.68	29.53	28.64	28.78	28.68	28.84	27.87	29.35	29.56	29.65	31.02	30.69
18	29.69	29.53	28.60	28.71	28.69	28.85	28.03	29.39	29.57	29.65	31.28	30.80
19	29.69	29.56	28.65	28.57	28.82	28.74	28.10	29.32	29.55	29.63	31.60	30.80
20	29.86	29.56	28.67	28.64	28.85	28.67	28.01	28.32	29.50	29.59	31.69	30.55
21	29.85	29.49	28.66	28.69	28.85	28.68	28.46	29.26	29.50	29.70	31.70	30.76
22	30.05	29.49	28.72	28.69	28.67	28.66	28.55	29.33	29.42	30.06	31.62	30.80
23	30.05	29.31	28.75	28.58	28.54	28.51	28.56	29.02	29.49	30.24	30.87	30.79
24	30.08	29.52	28.75	28.68	28.74	28.51	28.73	29.04	29.59	30.44	31.29	30.79
25	30.08	29.52	28.62	28.70	28.87	28.65	28.78	28.95	29.62	30.47	31.44	30.66
26	29.68	29.29	28.59	28.69	28.92	28.65	28.78	29.01	29.66	30.07	31.50	30.62
27	29.72	29.19	28.69	28.64	28.90	28.69	28.37	29.24	29.67	30.51	31.40	30.48
28	29.72	29.04	28.69	28.65	28.78	28.68	28.41	29.46	29.46	30.51	31.14	30.34
29	29.84	28.93	28.73	28.61	---	28.55	28.43	29.56	29.34	30.62	30.89	30.59
30	29.81	28.74	28.72	28.42	---	28.35	28.53	29.59	29.60	30.71	30.60	30.59
31	29.70	---	28.73	28.28	---	28.60	---	29.56	---	30.71	30.99	---
MAX	30.53	29.77	28.92	28.78	28.92	28.88	28.78	29.59	29.67	30.71	31.70	31.16
WTR YR 1987 MEAN	29.37			HIGH	27.58	APR 12	LOW	31.70	AUG 21			

The following 10 tables list the results of bacteriological and chemical, physical analyses collected at 10 sites in the Scioto and Olentangy Rivers in Franklin and Delaware Counties, Ohio.

All data was collected as part of a study to determine the bacteriological quality at selected sites on the Scioto and Olentangy Rivers in the greater Columbus metropolitan area, Ohio.

WATER-QUALITY DATA

03221000 - SCIOTO R BL O'SHAUGHNESSY DAM NR DUBLIN OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
28...	0730	514	4.2	25.0	--	3000	1800
AUG							
06...	0730	--	--	--	--	190	120
12...	0730	--	--	--	--	17000	15000
17...	0730	--	--	--	--	>1600	>1600
19...	0730	--	--	--	--	1900	1800
24...	0730	--	--	--	--	35000	30000
27...	0730	560	1.9	22.5	--	K500	K300
SEP							
03...	0730	--	--	--	--	K120	K120
14...	0730	660	5.6	21.5	8.03	800	660
OCT							
08...	0730	759	7.6	12.5	7.60	190	180

400048083053400 - SCIOTO R BL GRIGGS RE AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
28...	0800	470	5.8	27.5	--	51	27
AUG							
06...	0800	--	--	--	--	200	350
12...	0800	--	--	--	--	98	60
17...	0800	--	--	--	--	K64	64
19...	0800	--	--	--	--	K12	22
24...	0800	--	--	--	--	25	31
27...	0800	470	5.8	27.5	--	74	120
SEP							
03...	0800	--	--	--	--	34	56
14...	0800	569	7.9	22.5	8.28	270	400
OCT							
08...	0800	632	8.7	14.0	8.10	31	36

03222010 - SCIOTO R AT DUBLIN ROAD WTP AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
29...	0900	421	6.1	26.5	--	120	34
AUG							
06...	0900	--	--	--	--	>320	--
12...	0900	--	--	--	--	K52	K24
17...	0900	--	--	--	--	88	46
19...	0900	--	--	--	--	K32	K18
24...	0900	--	--	--	--	K16	K12
27...	0900	530	7.4	23.0	--	K1200	290
SEP							
03...	0900	--	--	--	--	49	53
14...	0900	572	7.4	22.0	7.87	98	110
OCT							
08...	0900	615	8.0	11.5	8.10	K24	K18

BACTERIOLOGICAL AND SELECTED WATER QUALITY DATA OF SCIOTO AND OLENTANGY RIVERS--Continued

WATER-QUALITY DATA--Continued

395731083001400 - SCIOTO R AT TOWN ST AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
29...	1100	492	11.9	27.0	--	3400	970
AUG							
06...	1230	--	--	--	--	10000	--
12...	1230	--	--	--	--	K1500	640
17...	1230	--	--	--	--	480	580
19...	1230	--	--	--	--	480	210
24...	1230	--	--	--	--	140	94
27...	1230	670	--	24.5	--	8600	260
SEP							
03...	1230	--	--	--	--	580	440
14...	1230	602	7.9	23.5	7.96	K110	K110
OCT							
08...	1230	781	8.1	13.5	7.80	>1200	>1600

395623082595800 - SCIOTO R AT GREENLAWN AVE AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
29...	1230	450	8.2	27.0	--	>100000	60000
AUG							
06...	1300	--	--	--	--	5400	--
12...	1300	--	--	--	--	1500	980
17...	1300	--	--	--	--	K1500	K200
19...	1300	--	--	--	--	K200	150
24...	1300	--	--	--	--	80	56
27...	1300	620	--	24.5	--	2400	5000
SEP							
03...	1300	--	--	--	--	780	900
14...	1300	649	12.7	24.0	8.52	400	390
OCT							
08...	1300	732	10.5	13.5	8.40	>12000	>16000

03227500 - SCIOTO R AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS. / 100 ML)
JUL 1987							
29...	1400	502	7.1	28.5	--	24000	6700
AUG							
06...	1400	--	--	--	--	>80000	28000
12...	1400	--	--	--	--	K2200	K2600
17...	1400	--	--	--	--	2300	2100
19...	1400	--	--	--	--	430	650
24...	1400	--	--	--	--	100	88
27...	1400	605	6.5	24.0	--	>8000	>8000
SEP							
03...	1400	--	--	--	--	7000	5500
14...	1400	635	7.4	24.0	7.85	4500	4500
OCT							
08...	1400	677	7.1	15.5	7.90	>120000	>160000

WATER-QUALITY DATA--Continued

03226800 - OLENTANGY R NR WORTHINGTON OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
30...	1100	688	5.8	25.0	--	270	29
AUG							
06...	1100	--	--	--	--	140	260
12...	1100	--	--	--	--	140	55
17...	1100	--	--	--	--	320	280
19...	1100	--	--	--	--	78	47
24...	1100	--	--	--	--	84	80
27...	1100	535	6.3	21.5	--	170	260
SEP							
03...	1100	--	--	--	--	82	100
14...	1100	713	6.9	20.0	7.87	99	100
OCT							
08...	1100	708	8.8	9.5	8.00	130	110

03226885 - OLENTANGY R AT HENDERSON RD AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
30...	1030	716	7.0	25.0	--	640	500
AUG							
06...	1030	--	--	--	--	460	820
12...	1030	--	--	--	--	K110	120
17...	1030	--	--	--	--	160	140
19...	1030	--	--	--	--	100	120
24...	1030	--	--	--	--	120	92
27...	1030	548	7.0	21.0	--	680	1800
SEP							
03...	1030	--	--	--	--	220	210
14...	1030	567	6.9	20.0	7.77	880	740
OCT							
08...	1030	629	8.9	10.0	8.00	K1200	K1000

400015083012100 - OLENTANGY R AT WOODY HAYES DR AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
30...	1000	686	7.8	26.5	--	K7200	K900
AUG							
06...	1000	--	--	--	--	5200	5400
12...	1000	--	--	--	--	K9700	5800
17...	1000	--	--	--	--	>24000	>20000
19...	1000	--	--	--	--	7500	5000
24...	1000	--	--	--	--	5600	5200
27...	1000	605	7.2	22.0	--	2400	5200
SEP							
03...	1000	--	--	--	--	520	320
14...	1000	397	5.5	21.5	7.55	790	720
OCT							
08...	1000	673	8.5	11.5	7.90	1200	800

BACTERIOLOGICAL AND SELECTED WATER QUALITY DATA OF SCIOTO AND OLENTANGY RIVERS--Continued

WATER-QUALITY DATA--Continued

395829083011200 - OLENTANGY R AT GOODALE ST AT COLUMBUS OH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COLS./ 100 ML)
JUL 1987							
30...	0930	707	3.3	25.5	--	>130000	>12000
AUG							
06...	0930	--	--	--	--	>80000	>16000
12...	0930	--	--	--	--	130000	62000
17...	0930	--	--	--	--	>140000	>130000
19...	0930	--	--	--	--	88000	50000
24...	0930	--	--	--	--	140000	98000
27...	0930	639	6.5	23.5	--	6400	6400
SEP							
03...	0930	--	--	--	--	2800	3600
14...	0930	713	5.4	22.0	7.65	K300	K200
OCT							
08...	0930	673	8.5	11.5	7.90	1200	1100

The following tables list the results of chemical analysis of samples collected from 20 drainage basins in eastern Ohio. All basins are in Ohio's coal region. The first table lists surface-water quality data and the second lists ground-water quality data and ground-water level measurements where available.

An asterisk denotes an active gaging station. Refer to report OH-87-1 for detailed flow records.

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
03108980		M F L BEAVER C NR SALEM OH (LAT 40 54 20N LONG 080 48 17W)						
OCT 1986 21...	0945	7.7	1210	7.73	8.0	--	158	160
03108990		E B M F L BEAVER C AT LEETONIA OH (LAT 40 52 16N LONG 080 45 54W)						
OCT 1986 21...	0815	2.0	790	8.14	7.5	--	257	140
03109100		M F L BEAVER C NR ROGERS OH (LAT 40 43 22N LONG 080 38 03W)						
OCT 1986 21...	1645	27	765	8.81	12.0	--	147	150
JUL 1987 21...	0945	29	730	8.32	25.5	--	139	160
03109200		W F L BEAVER C AT WEST POINT OH (LAT 40 42 38N LONG 080 41 49W)						
OCT 1986 22...	0815	28	450	8.18	9.0	--	169	97
03109395		BULL C AT NEGLEY OH (LAT 40 47 15N LONG 080 32 42W)						
OCT 1986 22...	1015	11	670	8.30	9.0	--	170	110
03109400		N F L BEAVER C NR NEGLEY OH (LAT 40 46 30N LONG 080 32 36W)						
OCT 1986 22...	1130	29	930	8.44	9.5	--	169	250
03109500*		L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33N LONG 080 32 27W)						
OCT 1986 22...	1330	93	700	8.83	12.5	--	130	160
JUL 1987 21...	1145	78	770	8.30	27.0	--	121	190
03110000*		YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16N LONG 080 43 31W)						
OCT 1986 22...	1545	14	570	8.42	13.5	--	101	150
JUL 1987 21...	1345	17	570	8.36	29.5	--	83	130
03111500*		SHORT C NR DILLONVALE OH (LAT 40 11 36N LONG 080 44 04W)						
OCT 1986 20...	1215	31	2400	8.32	8.5	--	255	1100
JUL 1987 22...	0845	27	2350	8.05	22.5	--	167	1100
03111548		WHEELING C BL BLAINE OH (LAT 40 04 01N LONG 080 48 31W)						
OCT 1986 20...	1245	22	2250	8.24	7.5	--	220	1100
JUL 1987 20...	1630	28	2400	8.20	28.0	--	173	1100
03113550		MCMAHON C AT BELLAIRE OH (LAT 40 00 39N LONG 080 45 45W)						
OCT 1986 20...	1430	15	980	8.31	10.5	--	146	330
JUL 1987 20...	1500	7.2	1350	8.17	27.0	--	146	480

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
03108980	M F L BEAVER C NR SALEM OH (LAT 40 54 20N LONG 080 48 17W)							
OCT 1986 21...	220	20	2700	2700	50	780	20	760
03108990	E B M F L BEAVER C AT LEETONIA OH (LAT 40 52 16N LONG 080 45 54W)							
OCT 1986 21...	200	10	1100	1100	40	300	90	210
03109100	M F L BEAVER C NR ROGERS OH (LAT 40 43 22N LONG 080 38 03W)							
OCT 1986 21...	130	20	560	530	30	80	40	40
JUL 1987 21...	280	40	210	--	<10	80	40	40
03109200	W F L BEAVER C AT WEST POINT OH (LAT 40 42 38N LONG 080 41 49W)							
OCT 1986 22...	140	20	480	450	30	90	30	60
03109395	BULL C AT NEGLEY OH (LAT 40 47 15N LONG 080 32 42W)							
OCT 1986 22...	20	<10	190	140	50	70	0	70
03109400	N F L BEAVER C NR NEGLEY OH (LAT 40 46 30N LONG 080 32 36W)							
OCT 1986 22...	50	20	290	250	40	60	10	50
03109500*	L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33N LONG 080 32 27W)							
OCT 1986 22...	90	10	340	290	50	50	20	30
JUL 1987 21...	190	40	260	230	30	60	30	30
03110000*	YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16N LONG 080 43 31W)							
OCT 1986 22...	80	30	310	290	20	20	10	10
JUL 1987 21...	220	60	210	190	20	30	10	20
03111500*	SHORT C NR DILLONVALE OH (LAT 40 11 36N LONG 080 44 04W)							
OCT 1986 20...	320	110	700	680	20	90	10	80
JUL 1987 22...	420	190	470	440	30	50	10	40
03111548	WHEELING C BL BLAINE OH (LAT 40 04 01N LONG 080 48 31W)							
OCT 1986 20...	420	100	920	900	20	190	0	190
JUL 1987 20...	870	480	1300	1300	20	70	0	70
03113550	MCMAHON C AT BELLAIRE OH (LAT 40 00 39N LONG 080 45 45W)							
OCT 1986 20...	210	140	490	470	20	90	0	90
JUL 1987 20...	440	140	460	--	<10	40	0	40

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
03114000*		CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31N LONG 080 55 27W)						
OCT 1986 21...	0845	13	605	8.39	8.5	--	141	120
JUL 1987 20...	1145	5.7	510	8.35	27.5	--	151	77
03114250		SUNFISH C AT CAMERON OH (LAT 39 46 00N LONG 080 56 09W)						
OCT 1986 22...	0900	4.3	435	8.31	10.5	--	125	52
JUL 1987 20...	1320	3.7	405	8.37	29.0	--	132	40
03116950		NEWMAN C NR MASSILLON OH (LAT 40 49 22N LONG 081 33 06W)						
OCT 1986 22...	1045	1.8	460	8.24	13.0	--	209	110
JUL 1987 22...	1245	3.8	740	8.31	28.5	--	202	240
03117500*		SANDY C AT WAYNESBURG OH (LAT 40 40 21N LONG 081 15 36W)						
OCT 1986 22...	1245	68	340	8.03	13.5	--	116	120
JUL 1987 21...	1430	71	640	8.34	24.0	--	129	240
03123000		SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24N LONG 081 34 37W)						
OCT 1986 22...	0900	19	720	7.80	18.5	--	192	74
JUL 1987 22...	0915	29	600	7.98	25.0	--	173	140
03127500*		STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10N LONG 081 20 50W)						
OCT 1986 22...	1630	88	890	7.69	12.5	--	95	340
JUL 1987 21...	1015	69	865	7.95	25.5	--	123	300
03129100		WHITE EYES C NR FRESNO OH (LAT 40 18 17N LONG 081 45 01W)						
OCT 1986 23...	1100	14	420	7.67	12.5	--	89	66
JUL 1987 20...	1645	7.4	400	7.77	26.0	--	98	120
03140000*		MILL C NR COSHOCTON OH (LAT 40 21 46N LONG 081 51 45W)						
OCT 1986 21...	1400	5.3	380	7.81	10.0	--	93	54
JUL 1987 20...	1515	6.3	350	7.86	26.0	--	91	87
03148150		MOXAHALA C NR CROOKSVILLE OH (LAT 39 43 52N LONG 082 06 04W)						
OCT 1986 21...	1400	6.4	2600	3.50	11.0	197	-	1600
03148400		MOXAHALA C AT ROBERTS OH (LAT 39 51 17N LONG 082 03 23W)						
OCT 1986 22...	0900	12	2600	3.44	11.0	148	--	1400
JUL 1987 20...	1500	15	1950	3.22	25.5	206	0	450

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
03114000*	CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31N LONG 080 55 27W)							
OCT 1986 21...	120	20	270	240	30	20	10	10
JUL 1987 20...	370	40	470	--	<10	50	30	20
03114250	SUNFISH C AT CAMERON OH (LAT 39 46 00N LONG 080 56 09W)							
OCT 1986 22...	70	30	150	120	30	20	0	20
JUL 1987 20...	240	30	310	--	<10	50	30	20
03116950	NEWMAN C NR MASSILLON OH (LAT 40 49 22N LONG 081 33 06W)							
OCT 1986 22...	200	20	940	910	30	180	30	150
JUL 1987 22...	140	<10	490	430	60	210	70	140
03117500*	SANDY C AT WAYNESBURG OH (LAT 40 40 21N LONG 081 15 36W)							
OCT 1986 22...	70	20	520	500	20	410	10	400
JUL 1987 21...	110	20	410	350	60	270	40	230
03123000	SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24N LONG 081 34 37W)							
OCT 1986 22...	870	180	1700	1300	380	220	60	160
JUL 1987 22...	1500	20	2400	2400	30	270	120	150
03127500*	STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10N LONG 081 20 50W)							
OCT 1986 22...	300	40	840	820	20	450	30	420
JUL 1987 21...	440	50	700	670	30	570	120	450
03129100	WHITE EYES C NR FRESNO OH (LAT 40 18 17N LONG 081 45 01W)							
OCT 1986 23...	240	40	1600	1500	70	390	0	400
JUL 1987 20...	200	50	1300	1300	40	280	30	250
03140000*	MILL C NR COSHOCTON OH (LAT 40 21 46N LONG 081 51 45W)							
OCT 1986 21...	80	<10	1600	1500	60	270	0	280
JUL 1987 20...	120	<10	940	880	60	160	30	130
03148150	MOXAHALA C NR CROOKSVILLE OH (LAT 39 43 52N LONG 082 06 04W)							
OCT 1986 21...	7500	6600	24000	4000	20000	25000	2000	23000
03148400	MOXAHALA C AT ROBERTS OH (LAT 39 51 17N LONG 082 03 23W)							
OCT 1986 22...	8600	8200	11000	0	11000	14000	0	16000
JUL 1987 20...	7900	8200	1100	280	820	3300	200	3100

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
03149500 SALT C NR CHANDLERSVILLE OH (LAT 39 54 31N LONG 081 51 38W)								
OCT 1986 21...	0900	5.7	480	7.40	7.5	--	110	69
JUL 1987 21...	0930	5.1	505	8.04	24.5	--	115	590
03150250 MEIGS C NR BEVERLY OH (LAT 39 36 00N LONG 081 42 42W)								
OCT 1986 21...	1115	7.4	1400	7.70	9.0	--	163	630
JUL 1987 22...	0900	9.1	1250	8.10	25.5	--	131	550
03156700 RUSH C NR SUGAR GROVE OH (LAT 39 38 18N LONG 082 30 42W)								
OCT 1986 21...	1130	24	515	8.20	7.5	--	101	120
JUL 1987 23...	1030	22	745	7.85	28.5	--	93	210
03157000* CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18N LONG 082 34 43W)								
OCT 1986 21...	1415	27	430	8.85	8.0	--	178	39
JUL 1987 22...	1700	17	370	8.34	26.0	--	157	640
03158200 MONDAY C AT DOANVILLE OH (LAT 39 26 07N LONG 082 11 30W)								
OCT 1986 21...	1625	5.6	1150	3.41	10.0	69	0	480
JUL 1987 22...	1500	7.1	1050	3.58	27.0	73	0	970
03160050 LEADING C NR MIDDLEPORT OH (LAT 39 00 31N LONG 082 05 07W)								
JUL 1987 21...	0845	0.61	1200	7.83	23.5	--	118	280
03160105 CAMPAIGN C NR GALLIPOLIS OH (LAT 38 53 51N LONG 082 11 31W)								
OCT 1986 23...	1600	0.22	855	6.95	12.5	--	23	410
JUL 1987 20...	1600	0.04	700	7.70	29.0	--	78	160
03201988 L RACCOON C NR VINTON OH (LAT 38 57 11N LONG 082 21 56W)								
OCT 1986 22...	1515	6.6	790	4.75	8.5	31	0	340
JUL 1987 22...	0945	8.8	730	4.38	24.5	28	0	320
382715082242400 INDIAN GUYAN C NR BRADRIK OH (LAT 38 27 15N LONG 082 24 24W)								
OCT 1986 23...	1100	2.6	615	7.76	10.5	--	85	200
JUL 1987 20...	1415	2.6	550	7.80	24.0	--	86	170
383005082280600 SYMMES C NR GETAWAY OH (LAT 38 30 05N LONG 082 28 06W)								
OCT 1986 23...	1300	13	405	7.68	10.0	--	75	100
JUL 1987 20...	1245	14	400	7.65	23.0	--	132	65

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV- (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
03149500	SALT C NR CHANDLERSVILLE OH (LAT 39 54 31N LONG 081 51 38W)							
OCT 1986 21...	140	20	980	850	130	260	0	260
JUL 1987 21...	4700	60	310	270	40	7100	300	6800
03150250	MEIGS C NR BEVERLY OH (LAT 39 36 00N LONG 081 42 42W)							
OCT 1986 21...	270	<10	520	500	20	140	60	80
JUL 1987 22...	590	10	790	760	30	100	70	30
03156700	RUSH C NR SUGAR GROVE OH (LAT 39 38 18N LONG 082 30 42W)							
OCT 1986 21...	340	20	1100	1100	30	1700	0	1700
JUL 1987 23...	610	50	1400	1300	60	670	100	570
03157000*	CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18N LONG 082 34 43W)							
OCT 1986 21...	40	20	280	230	50	40	0	40
JUL 1987 22...	490	470	41000	5000	36000	3300	200	3100
03158200	MONDAY C AT DOANVILLE OH (LAT 39 26 07N LONG 082 11 30W)							
OCT 1986 21...	7800	7600	2500	300	2200	3900	100	3800
JUL 1987 22...	17000	17000	8700	100	8600	10000	0	12000
03160050	LEADING C NR MIDDLEPORT OH (LAT 39 00 31N LONG 082 05 07W)							
JUL 1987 21...	360	30	370	340	30	810	140	670
03160105	CAMPAIGN C NR GALLIPOLIS OH (LAT 38 53 51N LONG 082 11 31W)							
OCT 1986 23...	100	20	610	480	130	7100	0	7300
JUL 1987 20...	460	50	640	550	90	2400	0	2400
03201988	L RACCOON C NR VINTON OH (LAT 38 57 11N LONG 082 21 56W)							
OCT 1986 22...	4100	4100	430	80	350	4100	0	4300
JUL 1987 22...	4000	4200	400	310	90	2800	200	2600
382715082242400	INDIAN GUYAN C NR BRADRIK OH (LAT 38 27 15N LONG 082 24 24W)							
OCT 1986 23...	160	40	790	570	220	560	0	580
JUL 1987 20...	610	30	820	790	30	400	0	410
383005082280600	SYMME C NR GETAWAY OH (LAT 38 30 05N LONG 082 28 06W)							
OCT 1986 23...	140	20	1300	1200	100	450	0	450
JUL 1987 20...	340	30	1300	1300	50	740	0	760

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
385826082201800		RACCOON C AT VINTON OH (LAT 38 58 26N LONG 082 20 18W)						
OCT 1986 22...	1345	11	450	7.13	9.0	--	33	140
JUL 1987 22...	0830	11	510	6.94	25.0	--	17	190
390941082212200		ELK F NR RADCLIFF OH (LAT 39 09 41N LONG 082 21 22W)						
OCT 1986 22...	1200	3.2	500	7.35	8.5	--	48	130
JUL 1987 22...	1145	0.93	400	7.15	24.0	--	43	120
392342082072000		SUNDAY C AT CHAUNCEY OH (LAT 39 23 42N LONG 082 07 20W)						
OCT 1986 22...	0950	6.9	2000	2.70	8.0	260	--	1000
JUL 1987 22...	1200	11	1650	3.31	25.0	137	0	75
394340082041200		OGG C NR DEAVERTOWN OH (LAT 39 43 40N LONG 082 04 12W)						
OCT 1986 21...	1300	0.13	4500	4.67	15.5	465	8	2800
394519082051600		BLACK F NR CROOKSVILLE OH (LAT 39 45 19N LONG 082 05 16W)						
OCT 1986 21...	1500	1.2	4600	4.89	12.0	177	2	2700
394645081004100		PINEY F NR WOODSFIELD OH (LAT 39 46 45N LONG 081 00 41W)						
OCT 1986 22...	1015	0.58	350	8.43	8.5	--	119	46
394712081070100		SUNFISH C NR WOODSFIELD OH (LAT 39 47 12N LONG 081 07 01W)						
OCT 1986 22...	1150	0.28	495	8.78	10.0	--	105	51
394827081065300		BAKER F NR WOODSFIELD OH (LAT 39 48 27N LONG 081 06 53W)						
OCT 1986 22...	1115	0.27	350	8.12	9.0	--	85	38
394919082082000		BUTCHERKNIFE C NR FULTONHAM OH (LAT 39 49 19N LONG 082 08 20W)						
OCT 1986 20...	1415	0.39	1600	3.77	9.0	142	--	960
395048082072000		BUCKEYE F NR EAST FULTONHAM OH (LAT 39 50 48N LONG 082 07 20W)						
OCT 1986 22...	1200	1.8	1600	6.60	12.0	--	13	900
395128082121600		TURKEY RN NR SOMERSET OH (LAT 39 51 28N LONG 082 12 16W)						
OCT 1986 20...	1315	0.39	1000	7.65	8.5	--	56	390
395210082165600		PAINTER C NR SOMERSET OH (LAT 39 52 10N LONG 082 16 56W)						
OCT 1986 20...	1230	0.57	520	8.42	8.0	--	152	59

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
385826082201800	RACCOON C AT VINTON OH (LAT 38 58 26N LONG 082 20 18W)							
OCT 1986 22...	70	40	870	500	370	360	0	370
JUL 1987 22...	270	<10	520	480	40	700	20	680
390941082212200	ELK F NR RADCLIFF OH (LAT 39 09 41N LONG 082 21 22W)							
OCT 1986 22...	110	90	800	0	950	370	0	400
JUL 1987 22...	250	20	920	790	130	700	0	720
392342082072000	SUNDAY C AT CHAUNCEY OH (LAT 39 23 42N LONG 082 07 20W)							
OCT 1986 22...	3500	3500	54000	0	54000	4400	400	4000
JUL 1987 22...	240	30	570	500	70	40	0	40
394340082041200	OGG C NR DEAVERTOWN OH (LAT 39 43 40N LONG 082 04 12W)							
OCT 1986 21...	26000	24000	110000	0	120000	9300	0	9500
394519082051600	BLACK F NR CROOKSVILLE OH (LAT 39 45 19N LONG 082 05 16W)							
OCT 1986 21...	4200	3600	64000	5000	59000	5900	200	5700
394645081004100	PINEY F NR WOODSFIELD OH (LAT 39 46 45N LONG 081 00 41W)							
OCT 1986 22...	10	20	60	40	20	<10	--	10
394712081070100	SUNFISH C NR WOODSFIELD OH (LAT 39 47 12N LONG 081 07 01W)							
OCT 1986 22...	40	30	150	100	50	40	0	40
394827081065300	BAKER F NR WOODSFIELD OH (LAT 39 48 27N LONG 081 06 53W)							
OCT 1986 22...	50	20	150	110	40	20	0	20
394919082082000	BUTCHERKNIFE C NR FULTONHAM OH (LAT 39 49 19N LONG 082 08 20W)							
OCT 1986 20...	12000	11000	3200	400	2800	16000	0	18000
395048082072000	BUCKEYE F NR EAST FULTONHAM OH (LAT 39 50 48N LONG 082 07 20W)							
OCT 1986 22...	1200	630	600	100	500	14000	0	17000
395128082121600	TURKEY RN NR SOMERSET OH (LAT 39 51 28N LONG 082 12 16W)							
OCT 1986 20...	110	20	440	380	60	2300	0	2300
395210082165600	PAINTER C NR SOMERSET OH (LAT 39 52 10N LONG 082 16 56W)							
OCT 1986 20...	70	10	400	320	80	90	10	80

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
395214082054700		JONATHAN C	AT WHITE	COTTAGE OH	(LAT 39 52 14N	LONG 082 05 47W)		
OCT 1986								
22...	1015	9.5	1050	7.46	12.5	--	120	310
JUL 1987								
20...	1800	5.8	1030	8.46	28.5	--	107	350
395217082055300		KENT RN	AT WHITE	COTTAGE OH	(LAT 39 52 17N	LONG 082 05 53W)		
OCT 1986								
22...	1100	0.13	1100	7.86	12.0	--	151	82
395333080541300		PEA VINE C	NR ARMSTRONGS	MILLS OH	(LAT 39 53 33N	LONG 080 54 13W)		
OCT 1986								
21...	0945	0.41	475	8.33	7.5	--	186	59
395337082011100		MOXAHALA C	NR DARLINGTON	OH	(LAT 39 53 37N	LONG 082 01 11W)		
OCT 1986								
22...	1300	25	1600	6.30	12.0	9.0	25	800
JUL 1987								
20...	1130	26	1300	5.43	26.5	14	6	170
395417081323000		WILLS C	AT PLEASANT	CITY OH	(LAT 39 54 17N	LONG 081 32 30W)		
OCT 1986								
22...	1415	11	2050	8.21	11.5	--	201	930
JUL 1987								
21...	1730	2.9	1900	8.28	29.0	--	189	900
395419081044800		S F CAPTINA C	NR SOMERTON	OH	(LAT 39 54 19N	LONG 081 04 48W)		
OCT 1986								
21...	1230	2.0	485	8.48	9.5	--	134	37
395419082184400		VALLEY RN	NR GLENFORD	OH	(LAT 39 54 19N	LONG 082 18 44W)		
OCT 1986								
20...	1100	2.2	540	9.20	8.0	--	425	60
395432082194000		JONATHAN C	NR GLENFORD	OH	(LAT 39 54 32N	LONG 082 19 40W)		
OCT 1986								
20...	1000	2.1	540	7.10	8.0	--	240	42
395444081025000		N F CAPTINA C	SOMERTON	OH	(LAT 39 54 44N	LONG 081 02 50W)		
OCT 1986								
21...	1145	4.5	550	8.75	8.5	--	165	79
395502080575700		BEND F	NR ARMSTRONGS	MILLS OH	(LAT 39 55 02N	LONG 080 57 57W)		
OCT 1986								
21...	1045	2.4	455	8.50	7.0	--	140	73
400013080533000		WILLIAMS C	AT GLENCO	OH	(LAT 40 00 13N	LONG 080 53 30W)		
OCT 1986								
21...	1600	1.2	485	8.47	13.5	--	153	71
400023080532000		MCMAHON C	AT GLENCOE	OH	(LAT 40 00 23N	LONG 080 53 20W)		
OCT 1986								
21...	1645	9.6	680	8.63	10.5	--	134	160

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
395214082054700	JONATHAN C AT WHITE COTTAGE OH (LAT 39 52 14N LONG 082 05 47W)							
OCT 1986								
22...	280	80	420	390	30	2500	0	2600
JUL 1987								
20...	170	60	2400	--	<10	590	0	590
395217082055300	KENT RN AT WHITE COTTAGE OH (LAT 39 52 17N LONG 082 05 53W)							
OCT 1986								
22...	190	20	550	500	50	160	20	140
395333080541300	PEA VINE C NR ARMSTRONGS MILLS OH (LAT 39 53 33N LONG 080 54 13W)							
OCT 1986								
21...	40	10	120	100	20	20	10	10
395337082011100	MOXAHALA C NR DARLINGTON OH (LAT 39 53 37N LONG 082 01 11W)							
OCT 1986								
22...	360	60	1100	250	850	6400	0	6600
JUL 1987								
20...	190	20	610	580	30	210	0	210
395417081323000	WILLS C AT PLEASANT CITY OH (LAT 39 54 17N LONG 081 32 30W)							
OCT 1986								
22...	520	30	610	570	40	170	90	80
JUL 1987								
21...	1000	20	1400	1400	1400	370	60	310
395419081044800	S F CAPTINA C NR SOMERTON OH (LAT 39 54 19N LONG 081 04 48W)							
OCT 1986								
21...	170	30	380	350	30	30	20	10
395419082184400	VALLEY RN NR GLENFORD OH (LAT 39 54 19N LONG 082 18 44W)							
OCT 1986								
20...	270	20	1000	920	80	190	0	190
395432082194000	JONATHAN C NR GLENFORD OH (LAT 39 54 32N LONG 082 19 40W)							
OCT 1986								
20...	100	20	400	330	70	120	0	120
395444081025000	N F CAPTINA C SOMERTON OH (LAT 39 54 44N LONG 081 02 50W)							
OCT 1986								
21...	110	30	240	160	80	50	20	30
395502080575700	BEND F NR ARMSTRONGS MILLS OH (LAT 39 55 02N LONG 080 57 57W)							
OCT 1986								
21...	30	30	120	100	20	<10	--	10
400013080533000	WILLIAMS C AT GLENCO OH (LAT 40 00 13N LONG 080 53 30W)							
OCT 1986								
21...	50	10	150	110	40	<10	--	10
400023080532000	MCMAHON C AT GLENCOE OH (LAT 40 00 23N LONG 080 53 20W)							
OCT 1986								
21...	90	50	220	140	80	20	0	20

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CaCO3)	ALKA- LITY NE WAT TOTAL MG/L AS CaCO3	SULFATE DIS- SOLVED (MG/L AS SO4)
400117081362600		CROOKED C NR CAMBRIDGE OH (LAT 40 01 17N LONG 081 36 26W)						
OCT 1986								
22...	1515	4.6	630	7.97	12.5	--	149	119
JUL 1987								
21...	1530	2.7	555	8.23	25.5	--	157	200
400225080504100		L MCMAHON C NR NEFFS OH (LAT 40 02 25N LONG 080 50 41W)						
OCT 1986								
20...	1530	1.8	1200	7.94	12.0	--	192	410
400912082014700		L WAKATOMIKA C NR TRINWAY OH (LAT 40 09 12N LONG 082 01 47W)						
OCT 1986								
21...	1015	21	970	7.84	9.0	--	104	390
JUL 1987								
20...	1145	3.4	1000	7.82	24.0	--	92	470
400920081432900		WHITE EYES C NR PLAINFIELD OH (LAT 40 09 20N LONG 081 43 29W)						
OCT 1986								
23...	1400	17	700	7.44	13.0	--	85	240
JUL 1987								
21...	1200	4.5	720	7.61	25.0	--	84	270
401624081363400		BUCKHORN C AT NEWCOMERTOWN OH (LAT 40 16 24N LONG 081 36 34W)						
OCT 1986								
23...	0930	12	360	7.50	12.0	--	60	76
JUL 1987								
21...	0845	3.8	430	7.78	24.0	--	73	170
401716080451300		MCINTYRE C NR SMITHFIELD OH (LAT 40 17 16N LONG 080 45 13W)						
OCT 1986								
20...	1400	4.9	2000	8.35	10.0	--	203	1000
JUL 1987								
22...	1015	4.6	2300	8.19	24.0	--	191	1100
401857080391700		CROSS C NR MINGO JUNCTION OH (LAT 40 18 57N LONG 080 39 17W)						
OCT 1986								
20...	1545	20	1300	8.78	10.5	--	135	600
JUL 1987								
21...	1600	23	1550	8.46	28.5	--	114	660
401936082001400		SIMMONS RN NR WARSAW OH (LAT 40 19 36N LONG 082 00 14W)						
OCT 1986								
21...	1230	3.9	760	8.04	8.0	--	100	250
JUL 1987								
20...	1330	2.5	700	7.93	23.5	--	112	230
403426081211900		CONOTTON C NR SOMERDALE OH (LAT 40 34 26N LONG 081 21 19W)						
OCT 1986								
22...	1515	46	310	7.66	14.0	--	79	120
JUL 1987								
21...	1215	45	445	7.57	24.0	--	81	190
403715080391400		L YELLOW C NR WELLSVILLE OH (LAT 40 37 15N LONG 080 39 14W)						
OCT 1986								
23...	0930	0.52	660	7.49	9.5	--	35	230

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
400117081362600	CROOKED C NR CAMBRIDGE OH (LAT 40 01 17N LONG 081 36 26W)							
OCT 1986 22...	240	20	630	--	<10	290	200	90
JUL 1987 21...	540	<10	1000	1000	20	360	140	220
400225080504100	L MCMAHON C NR NEFFS OH (LAT 40 02 25N LONG 080 50 41W)							
OCT 1986 20...	3500	130	3100	3100	20	120	10	110
400912082014700	L WAKATOMIKA C NR TRINWAY OH (LAT 40 09 12N LONG 082 01 47W)							
OCT 1986 21...	80	10	710	650	60	1100	0	1100
JUL 1987 20...	160	<10	630	590	40	420	40	380
400920081432900	WHITE EYES C NR PLAINFIELD OH (LAT 40 09 20N LONG 081 43 29W)							
OCT 1986 23...	110	10	890	790	100	940	0	970
JUL 1987 21...	310	20	1400	1400	40	520	10	510
401624081363400	BUCKHORN C AT NEWCOMERSTOWN OH (LAT 40 16 24N LONG 081 36 34W)							
OCT 1986 23...	160	20	770	750	20	550	0	560
JUL 1987 21...	180	20	700	670	30	320	30	290
401716080451300	MCINTYRE C NR SMITHFIELD OH (LAT 40 17 16N LONG 080 45 13W)							
OCT 1986 20...	60	40	200	170	30	100	0	100
JUL 1987 22...	260	50	210	180	30	50	0	60
401857080391700	CROSS C NR MINGO JUNCTION OH (LAT 40 18 57N LONG 080 39 17W)							
OCT 1986 20...	840	70	560	530	30	170	40	130
JUL 1987 21...	620	150	450	430	20	130	30	100
401936082001400	SIMMONS RN NR WARSAW OH (LAT 40 19 36N LONG 082 00 14W)							
OCT 1986 21...	40	10	420	380	40	280	0	280
JUL 1987 20...	130	<10	460	420	40	170	30	140
403426081211900	CONOTTON C NR SOMERDALE OH (LAT 40 34 26N LONG 081 21 19W)							
OCT 1986 22...	250	50	2000	1700	330	1000	0	1100
JUL 1987 21...	350	20	2000	2000	50	870	0	1100
403715080391400	L YELLOW C NR WELLSVILLE OH (LAT 40 37 15N LONG 080 39 14W)							
OCT 1986 23...	180	30	280	260	20	60	40	20

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

SURFACE-WATER-QUALITY DATA--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
403823081213700 NIMISHILLEN C AT SANDYVILLE OH (LAT 40 38 23N LONG 081 21 37W)								
OCT 1986								
22...	1400	81	1120	8.12	15.0	--	216	180
JUL 1987								
21...	1630	114	1300	8.21	27.0	--	198	330
404140080351100 LONGS RN NR CALCUTTA OH (LAT 40 41 40N LONG 080 35 11W)								
OCT 1986								
23...	0815	0.89	600	7.97	10.0	--	105	110
404204080515600 BRUSH C NR WEST POINT OH (LAT 40 42 04N LONG 080 51 56W)								
OCT 1986								
21...	1300	0.58	330	8.54	11.0	--	84	41
404423080502900 COLD RN NR LISBON OH (LAT 40 44 23N LONG 080 50 29W)								
OCT 1986								
21...	1200	2.0	520	8.44	10.0	--	158	79
404544080415400 ELK RN AT ELKTON OH (LAT 40 45 44N LONG 080 41 54W)								
OCT 1986								
21...	1515	2.4	650	8.76	12.0	--	138	170
410616082075500 WAKATOMIKA C NR FRAZEYSBURG OH (LAT 41 06 16N LONG 082 07 55W)								
OCT 1986								
21...	0915	41	410	7.50	8.5	--	75	25
JUL 1987								
20...	0945	33	350	7.64	23.5	--	82	27

SURFACE-WATER-QUALITY DATA--Continued

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
403823081213700 NIMISHILLEN C AT SANDYVILLE OH (LAT 40 38 23N LONG 081 21 37W)								
OCT 1986								
22...	100	10	840	810	30	170	0	170
JUL 1987								
21...	150	20	670	640	30	130	40	90
404140080351100 LONGS RN NR CALCUTTA OH (LAT 40 41 40N LONG 080 35 11W)								
OCT 1986								
23...	40	<10	320	240	80	80	40	40
404204080515600 BRUSH C NR WEST POINT OH (LAT 40 42 04N LONG 080 51 56W)								
OCT 1986								
21...	120	20	720	660	60	90	40	50
404423080502900 COLD RN NR LISBON OH (LAT 40 44 23N LONG 080 50 29W)								
OCT 1986								
21...	390	10	1300	1200	50	160	50	110
404544080415400 ELK RN AT ELKTON OH (LAT 40 45 44N LONG 080 41 54W)								
OCT 1986								
21...	30	20	150	100	50	120	10	110
410616082075500 WAKATOMIKA C NR FRAZEYSBURG OH (LAT 41 06 16N LONG 082 07 55W)								
OCT 1986								
21...	60	10	840	750	90	90	0	90
JUL 1987								
20...	110	10	450	370	80	590	540	50

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

GROUND-WATER-QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)
401620081415300 CS-148 KOEBEL NURSERY NR W LAFAYETTE OH (LAT 40 16 20N LONG 081 41 53W)									
AUG 1987									
24...	1445	23.12	635	7.50	12.0	1.2	320	87	94
401800081324500 TU-47 ECHO PT HARDWOODS NR PT WASHINGTON OH (LAT 40 18 00N LONG 081 32 45W)									
AUG 1987									
24...	1800	10.11	540	8.04	12.5	7.8	230	83	64
402532081241400 TU-48 L CONKEY NR TUSCARAWAS OH (LAT 40 25 32N LONG 081 24 14W)									
AUG 1987									
25...	1145	40.63	695	7.55	11.5	5.8	330	110	95
402224081292400 TU-49 S JOHNSON NR GNADENHUTTEN OH (LAT 40 22 24N LONG 081 29 24W)									
AUG 1987									
25...	1415	24.91	940	7.07	11.5	1.0	450	190	130
404130081354200 ST-51 D HOSTETLER NR BREWSTER OH (LAT 40 41 30N LONG 081 35 42W)									
AUG 1987									
25...	1630	36.80	640	7.59	10.5	1.2	310	120	87
403742081331800 TU-50 BECKERS FALLS FARMS NR STRASBURG OH (LAT 40 37 42N LONG 081 33 18W)									
AUG 1987									
25...	1730	19.58	685	7.35	11.0	3.8	330	89	99
403543081321800 TU-51 L ELLIOTT AT STRASBURG OH (LAT 40 35 43N LONG 081 32 18W)									
AUG 1987									
25...	1845	34.85	850	7.53	11.0	1.7	450	290	110
403830081220700 TU-53 US POST OFFICE AT SANDYVILLE OH (LAT 40 38 30N LONG 081 22 07W)									
AUG 1987									
26...	1200	--	1280	7.50	12.5	1.1	420	250	130
403816081175100 C-11 BELDEN AND BLAKE NR MAGNOLIA OH (LAT 40 38 16N LONG 081 17 51W)									
AUG 1987									
26...	1415	28.40	400	5.43	14.0	5.4	89	79	24
404115081152000 ST-52 D GREEN AT WAYNESBURG OH (LAT 40 41 15N LONG 081 15 20W)									
AUG 1987									
26...	1700	--	380	6.67	12.5	1.9	120	0	33
404317081091500 C-12 R BECKER NR MINERVA OH (LAT 40 43 17N LONG 081 09 15W)									
AUG 1987									
26...	1930	--	360	6.48	11.5	1.5	160	0	47
403255081295800 TU-52 ZIMMER PATIENT CARE NR DOVER OH (LAT 40 32 55N LONG 081 29 58W)									
AUG 1987									
26...	1000	--	685	7.45	10.5	0.9	330	180	94

GROUND-WATER-QUALITY DATA--Continued

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
401620081415300	CS-148 KOEBEL NURSERY NR W LAFAYETTE OH (LAT 40 16 20N LONG 081 41 53W)							
AUG 1987 24...	21	3.7	1.3	232	82	19	12	400
401800081324500	TU-47 ECHO PT HARDWOODS NR PT WASHINGTON OH (LAT 40 18 00N LONG 081 32 45W)							
AUG 1987 24...	16	19	1.2	141	75	23	10	328
402532081241400	TU-48 L CONKEY NR TUSCARAWAS OH (LAT 40 25 32N LONG 081 24 14W)							
AUG 1987 25...	22	6.6	2.0	210	66	20	12	426
402224081292400	TU-49 S JOHNSON NR GNADENHUTTEN OH (LAT 40 22 24N LONG 081 29 24W)							
AUG 1987 25...	31	16	2.7	257	250	17	10	632
404130081354200	ST-51 D HOSTETLER NR BREWSTER OH (LAT 40 41 30N LONG 081 35 42W)							
AUG 1987 25...	23	7.9	1.4	193	70	47	1.7	377
403742081331800	TU-50 BECKERS FALLS FARMS NR STRASBURG OH (LAT 40 37 42N LONG 081 33 18W)							
AUG 1987 25...	19	7.2	6.8	230	44	24	13	399
403543081321800	TU-51 L ELLIOTT AT STRASBURG OH (LAT 40 35 43N LONG 081 32 18W)							
AUG 1987 25...	43	7.9	2.0	159	300	10	13	616
403830081220700	TU-53 US POST OFFICE AT SANDYVILLE OH (LAT 40 38 30N LONG 081 22 07W)							
AUG 1987 26...	22	48	2.3	168	110	200	12	663
403816081175100	C-11 BELDEN AND BLAKE NR MAGNOLIA OH (LAT 40 38 16N LONG 081 17 51W)							
AUG 1987 26...	7.1	34	1.8	10	47	68	13	238
404115081152000	ST-52 D GREEN AT WAYNESBURG OH (LAT 40 41 15N LONG 081 15 20W)							
AUG 1987 26...	10	28	3.2	191	6.0	2.6	9.5	192
404317081091500	C-12 R BECKER NR MINERVA OH (LAT 40 43 17N LONG 081 09 15W)							
AUG 1987 26...	10	9.9	1.2	174	9.0	2.1	12	190
403255081295800	TU-52 ZIMMER PATIENT CARE NR DOVER OH (LAT 40 32 55N LONG 081 29 58W)							
AUG 1987 26...	24	10	1.9	153	180	19	11	444

SURFACE-WATER AND GROUND-WATER QUALITY IN ACTIVE COAL MINING AREAS OF OHIO--Continued

GROUND-WATER-QUALITY DATA--Continued

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
401620081415300 CS-148 KOEBEL NURSERY NR W LAFAYETTE OH (LAT 40 16 20N LONG 081 41 53W)								
AUG 1987 24...	373	20	<10	280	290	390	370	--
401800081324500 TU-47 ECHO PT HARDWOODS NR PT WASHINGTON OH (LAT 40 18 00N LONG 081 32 45W)								
AUG 1987 24...	293	20	10	740	6	10	5	--
402532081241400 TU-48 L CONKEY NR TUSCARAWAS OH (LAT 40 25 32N LONG 081 24 14W)								
AUG 1987 25...	350	20	<10	60	6	<10	<1	0.8
402224081292400 TU-49 S JOHNSON NR GNADENHUTTEN OH (LAT 40 22 24N LONG 081 29 24W)								
AUG 1987 25...	613	10	10	1200	710	950	890	1.1
404130081354200 ST-51 D HOSTETLER NR BREWSTER OH (LAT 40 41 30N LONG 081 35 42W)								
AUG 1987 25...	355	20	<10	680	710	180	24	0.6
403742081331800 TU-50 BECKERS FALLS FARMS NR STRASBURG OH (LAT 40 37 42N LONG 081 33 18W)								
AUG 1987 25...	351	20	<10	20	3	<10	<1	0.7
403543081321800 TU-51 L ELLIOTT AT STRASBURG OH (LAT 40 35 43N LONG 081 32 18W)								
AUG 1987 25...	582	20	<10	500	580	100	93	0.5
403830081220700 TU-53 US POST OFFICE AT SANDYVILLE OH (LAT 40 38 30N LONG 081 22 07W)								
AUG 1987 26...	630	10	<10	6700	4200	810	800	1.0
403816081175100 C-11 BELDEN AND BLAKE NR MAGNOLIA OH (LAT 40 38 16N LONG 081 17 51W)								
AUG 1987 26...	201	90	70	80	26	40	38	0.6
404115081152000 ST-52 D GREEN AT WAYNESBURG OH (LAT 40 41 15N LONG 081 15 20W)								
AUG 1987 26...	209	10	<10	1700	1700	190	190	0.5
404317081091500 C-12 R BECKER NR MINERVA OH (LAT 40 43 17N LONG 081 09 15W)								
AUG 1987 26...	197	20	<10	750	780	730	730	0.7
403255081295800 TU-52 ZIMMER PATIENT CARE NR DOVER OH (LAT 40 32 55N LONG 081 29 58W)								
AUG 1987 26...	432	20	<10	200	220	130	130	0.5

Data in the following three tables were collected as part of a 3-year study of ground water and Scioto River quality in Southern Franklin County between Frank Road and the Southerly Sewage Treatment Facility; the reach includes the City of Columbus collector-well system. The objective of the study is to (1) determine what proportion of water that is pumped from the collector wells originates from the alluvial aquifer, the bedrock aquifer, and the Scioto River and (2) characterize the quality of water from the collector wells as a function of variation in pumping rates and as a function of variation in the quantity of effluent from the Jackson Pike Sewage Treatment Plant when the Scioto River is at low flow.

Tables 1 and 2 contain chemical-quality data from a network of 18 surface-water sites and 12 ground-water wells. Table 3 contains ground-water level measurements from a network of 52 wells.

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT

CHEMICAL QUALITY OF SURFACE WATER

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
395501083003400 SCIOTO R AT FRANK RD AT COLUMBUS OH (LAT 39 55 01N LONG 083 00 34W)										
AUG 1987 18...	0630	73	550	8.1	17.0	24.5	4.2	¹ 1100	230	88
395417083003200 JACKSON PIKE STP OUTFALL AT COLUMBUS OH (LAT 39 54 17N LONG 083 00 32W)										
AUG 1987 18...	0820	--	980	7.4	22.0	24.5	4.1	¹ 2	250	83
395408083002100 SCIOTO R BL SEWAGE PLANT AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 21W)										
AUG 1987 18...	1630	201	950	7.6	29.5	29.0	5.5	¹ 30	330	180
395408083000200 KIAN RN AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 02W)										
AUG 1987 18...	1230	0.80	700	8.0	29.5	18.5	7.7	660	260	140
395328083003500 SCIOTO R 2.4 MI BL FRANK RD AT COLUMBUS OH (LAT 39 53 28N LONG 083 00 35W)										
AUG 1987 18...	2145	207	790	7.0	--	27.0	5.4	--	330	170
395251083010700 SCIOTO R AT I-270 S AT COLUMBUS OH (LAT 39 52 51N LONG 083 01 07W)										
AUG 1987 19...	0345	206	910	6.8	17.0	24.5	4.7	--	330	170
395250083010900 SCIOTO BIG RUN AT COLUMBUS OH (LAT 39 52 50N LONG 083 01 09W)										
AUG 1987 19...	0415	6.6	1050	7.4	16.0	21.5	6.7	--	500	220
395244083010700 SCIOTO R BL SCIOTO BIG RN AT COLUMBUS OH (LAT 39 52 44N LONG 083 01 07W)										
AUG 1987 18...	0630	208	840	6.9	23.0	25.5	5.9	¹ 100	300	150
395156083012600 SCIOTO R BL I-270 AT COLUMBUS OH (LAT 39 51 56N LONG 083 01 26W)										
AUG 1987 18...	1000	207	820	7.6	24.0	24.5	--	560	300	150
395147083012800 UNNAMED TRIB TO SCIOTO R NR COLUMBUS OH (LAT 39 51 47N LONG 083 01 28W)										
AUG 1987 18...	0845	0.23	740	6.5	--	20.5	6.8	140	360	89
395114083010401 SCIOTO R AT CW-101 NR SHADEVILLE OH (LAT 39 51 14N LONG 083 01 04W)										
AUG 1987 18...	1140	198	810	6.9	--	25.5	4.6	--	310	160
395041083004800 SCIOTO R NR CW-103 NR SHADEVILLE OH (LAT 39 50 41N LONG 083 00 48W)										
AUG 1987 18...	1445	178	800	7.2	32.0	27.5	6.3	200	300	160
395021083003600 SCIOTO R AT CW-104 NR COLUMBUS OH (LAT 39 50 21N LONG 083 00 36W)										
AUG 1987 18...	0630	203	860	7.5	18.0	25.0	2.2	¹ 86	320	180
18...	1715	187	790	7.0	31.0	27.5	8.6	--	310	160

CHEMICAL QUALITY OF SURFACE WATER--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)
395501083003400 SCIOTO R AT FRANK RD AT COLUMBUS OH (LAT 39 55 01N LONG 083 00 34W)										
AUG 1987 18...	59	19	20	4.6	139	83	34	0.5	<0.01	3.8
395417083003200 JACKSON PIKE STP OUTFALL AT COLUMBUS OH (LAT 39 54 17N LONG 083 00 32W)										
AUG 1987 18...	73	15	75	12	162	120	110	1.0	0.52	10
395408083002100 SCIOTO R BL SEWAGE PLANT AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 21W)										
AUG 1987 18...	93	23	57	9.2	147	190	93	0.9	0.32	6.8
395408083000200 KIAN RN AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 02W)										
AUG 1987 18...	71	21	42	3.4	124	140	57	0.8	0.05	10
395328083003500 SCIOTO R 2.4 MI BL FRANK RD AT COLUMBUS OH (LAT 39 53 28N LONG 083 00 35W)										
AUG 1987 18...	92	23	56	9.1	156	180	92	0.9	0.33	6.6
395251083010700 SCIOTO R AT I-270 S AT COLUMBUS OH (LAT 39 52 51N LONG 083 01 07W)										
AUG 1987 19...	92	23	56	9.2	152	170	92	0.9	--	6.6
395250083010900 SCIOTO BIG RUN AT COLUMBUS OH (LAT 39 52 50N LONG 083 01 09W)										
AUG 1987 19...	130	43	51	6.7	289	220	90	0.3	0.17	10
395244083010700 SCIOTO R BL SCIOTO BIG RN AT COLUMBUS OH (LAT 39 52 44N LONG 083 01 07W)										
AUG 1987 18...	80	24	47	7.9	151	180	63	0.7	0.50	6.2
395156083012600 SCIOTO R BL I-270 AT COLUMBUS OH (LAT 39 51 56N LONG 083 01 26W)										
AUG 1987 18...	80	24	46	7.9	151	200	62	0.7	0.50	6.2
395147083012800 UNNAMED TRIB TO SCIOTO R NR COLUMBUS OH (LAT 39 51 47N LONG 083 01 28W)										
AUG 1987 18...	94	30	23	2.8	272	99	36	0.4	<0.01	5.5
395114083010401 SCIOTO R AT CW-101 NR SHADEVILLE OH (LAT 39 51 14N LONG 083 01 04W)										
AUG 1987 18...	81	25	48	7.8	148	180	62	0.7	0.52	6.1
395041083004800 SCIOTO R NR CW-103 NR SHADEVILLE OH (LAT 39 50 41N LONG 083 00 48W)										
AUG 1987 18...	81	24	48	8.2	148	170	61	0.7	0.53	5.8
395021083003600 SCIOTO R AT CW-104 NR COLUMBUS OH (LAT 39 50 21N LONG 083 00 36W)										
AUG 1987 18...	87	25	46	8.2	146	190	64	0.7	1.0	6.2
18...	82	24	47	7.5	144	190	62	0.7	0.57	5.3

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--Continued

CHEMICAL QUALITY OF SURFACE WATER--Continued

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)
395501083003400 SCIOTO R AT FRANK RD AT COLUMBUS OH (LAT 39 55 01N LONG 083 00 34W)										
AUG 1987										
18...	334	0.10	0.07	0.80	0.03	43	<0.5	160	<1	<3
395417083003200 JACKSON PIKE STP OUTFALL AT COLUMBUS OH (LAT 39 54 17N LONG 083 00 32W)										
AUG 1987										
18...	529	4.1	8.0	13	5.6	19	<0.5	280	<1	<3
395408083002100 SCIOTO R BL SEWAGE PLANT AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 21W)										
AUG 1987										
18...	574	3.2	5.4	10	1.8	31	<0.5	230	1	<3
395408083000200 KIAN RN AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 02W)										
AUG 1987										
18...	427	<0.10	0.08	0.50	0.04	27	<0.5	90	2	<3
395328083003500 SCIOTO R 2.4 MI BL FRANK RD AT COLUMBUS OH (LAT 39 53 28N LONG 083 00 35W)										
AUG 1987										
18...	582	3.3	5.4	5.4	2.1	30	<0.5	230	<1	<3
395251083010700 SCIOTO R AT I-270 S AT COLUMBUS OH (LAT 39 52 51N LONG 083 01 07W)										
AUG 1987										
19...	527	3.2	5.0	5.4	2.3	31	<0.5	--	<1	<3
395250083010900 SCIOTO BIG RUN AT COLUMBUS OH (LAT 39 52 50N LONG 083 01 09W)										
AUG 1987										
19...	754	0.91	0.34	1.1	0.09	100	<0.5	170	<1	<3
395244083010700 SCIOTO R BL SCIOTO BIG RN AT COLUMBUS OH (LAT 39 52 44N LONG 083 01 07W)										
AUG 1987										
18...	509	3.4	3.8	4.5	2.5	33	<0.5	190	<1	<3
395156083012600 SCIOTO R BL I-270 AT COLUMBUS OH (LAT 39 51 56N LONG 083 01 26W)										
AUG 1987										
18...	519	3.3	3.7	3.8	2.5	33	<0.5	190	<1	<3
395147083012800 UNNAMED TRIB TO SCIOTO R NR COLUMBUS OH (LAT 39 51 47N LONG 083 01 28W)										
AUG 1987										
18...	467	<0.10	0.08	0.40	0.02	100	<0.5	50	<1	<3
395114083010401 SCIOTO R AT CW-101 NR SHADEVILLE OH (LAT 39 51 14N LONG 083 01 04W)										
AUG 1987										
18...	522	3.5	3.4	3.6	2.4	35	<0.5	190	<1	<3
395041083004800 SCIOTO R NR CW-103 NR SHADEVILLE OH (LAT 39 50 41N LONG 083 00 48W)										
AUG 1987										
18...	536	3.6	3.2	3.6	2.5	34	<0.5	190	<1	<3
395021083003600 SCIOTO R AT CW-104 NR COLUMBUS OH (LAT 39 50 21N LONG 083 00 36W)										
AUG 1987										
18...	517	3.8	3.9	4.3	2.6	34	<0.5	190	<1	<3
18...	519	4.1	2.7	3.8	2.4	34	<0.5	200	<1	<3

CHEMICAL QUALITY OF SURFACE WATER--Continued

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
395501083003400 SCIOTO R AT FRANK RD AT COLUMBUS OH (LAT 39 55 01N LONG 083 00 34W)									
AUG 1987									
18...	<10	25	<10	13	6	<10	1200	<6	16
395417083003200 JACKSON PIKE STP OUTFALL AT COLUMBUS OH (LAT 39 54 17N LONG 083 00 32W)									
AUG 1987									
18...	10	59	<10	43	40	20	870	<6	65
395408083002100 SCIOTO R BL SEWAGE PLANT AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 21W)									
AUG 1987									
18...	<10	37	<10	25	29	20	1900	<6	63
395408083000200 KIAN RN AT COLUMBUS OH (LAT 39 54 08N LONG 083 00 02W)									
AUG 1987									
18...	10	21	10	10	56	10	340	<6	62
395328083003500 SCIOTO R 2.4 MI BL FRANK RD AT COLUMBUS OH (LAT 39 53 28N LONG 083 00 35W)									
AUG 1987									
18...	<10	28	<10	27	29	20	1900	<6	41
395251083010700 SCIOTO R AT I-270 S AT COLUMBUS OH (LAT 39 52 51N LONG 083 01 07W)									
AUG 1987									
19...	<10	29	<10	26	28	20	1900	<6	40
395250083010900 SCIOTO BIG RUN AT COLUMBUS OH (LAT 39 52 50N LONG 083 01 09W)									
AUG 1987									
19...	<10	17	<10	16	36	10	2500	<6	11
395244083010700 SCIOTO R BL SCIOTO BIG RN AT COLUMBUS OH (LAT 39 52 44N LONG 083 01 07W)									
AUG 1987									
18...	<10	28	<10	15	22	10	1800	<6	37
395156083012600 SCIOTO R BL I-270 AT COLUMBUS OH (LAT 39 51 56N LONG 083 01 26W)									
AUG 1987									
18...	<10	25	<10	15	32	20	1700	<6	19
395147083012800 UNNAMED TRIB TO SCIOTO R NR COLUMBUS OH (LAT 39 51 47N LONG 083 01 28W)									
AUG 1987									
18...	<10	22	<10	10	220	10	1900	<6	4
395114083010401 SCIOTO R AT CW-101 NR SHADEVILLE OH (LAT 39 51 14N LONG 083 01 04W)									
AUG 1987									
18...	<10	24	<10	15	27	10	1800	<6	33
395041083004800 SCIOTO R NR CW-103 NR SHADEVILLE OH (LAT 39 50 41N LONG 083 00 48W)									
AUG 1987									
18...	<10	25	<10	14	26	10	1800	<6	23
395021083003600 SCIOTO R AT CW-104 NR COLUMBUS OH (LAT 39 50 21N LONG 083 00 36W)									
AUG 1987									
18...	<10	19	<10	15	16	<10	1800	<6	22
18...	<10	21	<10	11	17	10	1800	<6	20

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--Continued

CHEMICAL QUALITY OF SURFACE WATER--Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
394957083002900 SCIOTO R AT SHADEVILLE OH (LAT 39 49 57N LONG 083 00 29W)										
AUG 1987 18...	0830	208	860	7.5	20.0	25.0	8.6	1 ¹ 50	310	160
394931083003600 SCIOTO R NR SHADEVILLE OH (LAT 39 49 31N LONG 083 00 36W)										
AUG 1987 18...	0945	203	860	7.5	22.0	25.5	3.9	1 ¹ 30	320	160
394903083010200 SCIOTO R AB SOUTHERLY STP OUTFALL AT SHADEVILLE O (LAT 39 49 03N LONG 083 01 02W)										
AUG 1987 18...	1230	197	850	7.5	24.0	26.0	3.8	100	310	170
394902083010300 PLUM RN NR SHADEVILLE OH (LAT 39 49 02N LONG 083 01 03W)										
AUG 1987 18...	1345	0.16	780	8.1	28.0	24.0	8.8	280	380	99
DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)
394957083002900 SCIOTO R AT SHADEVILLE OH (LAT 39 49 57N LONG 083 00 29W)										
AUG 1987 18...	83	24	46	7.7	147	170	88	0.6	1.0	6.0
394931083003600 SCIOTO R NR SHADEVILLE OH (LAT 39 49 31N LONG 083 00 36W)										
AUG 1987 18...	86	24	45	8.1	160	180	63	0.7	1.0	6.0
394903083010200 SCIOTO R AB SOUTHERLY STP OUTFALL AT SHADEVILLE O (LAT 39 49 03N LONG 083 01 02W)										
AUG 1987 18...	85	24	46	8.2	146	180	63	0.7	1.2	5.7
394902083010300 PLUM RN NR SHADEVILLE OH (LAT 39 49 02N LONG 083 01 03W)										
AUG 1987 18...	97	34	9.3	2.2	284	63	28	0.4	0.014	12

CHEMICAL QUALITY OF SURFACE WATER--Continued

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)
394957083002900 SCIOTO R AT SHADEVILLE OH (LAT 39 49 57N LONG 083 00 29W)										
AUG 1987 18...	546	3.8	3.9	4.2	2.7	33	<0.5	100	<1	<3
394931083003600 SCIOTO R NR SHADEVILLE OH (LAT 39 49 31N LONG 083 00 36W)										
AUG 1987 18...	514	3.8	3.8	3.9	2.6	34	<0.5	190	<1	<3
394903083010200 SCIOTO R AB SOUTHERLY STP OUTFALL AT SHADEVILLE O (LAT 39 49 03N LONG 083 01 02W)										
AUG 1987 18...	522	3.8	3.7	4.1	2.5	34	<0.5	200	<1	<3
394902083010300 PLUM RN NR SHADEVILLE OH (LAT 39 49 02N LONG 083 01 03W)										
AUG 1987 18...	418	1.4	0.09	0.50	0.04	170	<0.5	30	<1	<3
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	
394957083002900 SCIOTO R AT SHADEVILLE OH (LAT 39 49 57N LONG 083 00 29W)										
AUG 1987 18...	<10	16	<10	11	21	10	1800	<6	28	
394931083003600 SCIOTO R NR SHADEVILLE OH (LAT 39 49 31N LONG 083 00 36W)										
AUG 1987 18...	<10	16	<10	41	22	10	1800	<6	21	
394903083010200 SCIOTO R AB SOUTHERLY STP OUTFALL AT SHADEVILLE O (LAT 39 49 03N LONG 083 01 02W)										
AUG 1987 18...	<10	21	<10	11	24	<10	1800	<6	16	
394902083010300 PLUM RN NR SHADEVILLE OH (LAT 39 49 02N LONG 083 01 03W)										
AUG 1987 18...	<10	47	<10	4	270	10	800	<6	<3	

¹Based on a non-ideal colony count (less than 20 or greater than 80 counts per plate)

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT

CHEMICAL QUALITY OF GROUND WATER

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CaCO3)
395020083003405 FR-104 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 20N LONG 83 00 34W)										
SEP 1987 03...	1045	¹ 664.2	685	788	7.4	22.0	13.5	0.3	<1	410
395046083003105 FR-103 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 46N LONG 83 00 31W)										
SEP 1987 03...	1300	--	699	793	7.2	23.5	14.0	0.3	<1	410
395114083010405 FR 101CW RADIAL COLLECTOR WELL AT HARTMAN FMS COL (LAT 39 51 14N LONG 083 01 04W)										
SEP 1987 03...	1335	¹ 661.9	685	774	7.3	26.0	15.5	0.2	<1	380
395108083010600 FR-147 NR SCIOTO R NR COLUMBUS OH (LAT 39 51 08N LONG 083 01 06W)										
SEP 1987 04...	0935	17.25	685	896	7.5	29.0	13.0	0.3	² ₁	470
395024083003000 FR-149 HARTMAN FARMS AT CW-104 NR COLUMBUS OH (LAT 39 50 24N LONG 083 00 30W)										
SEP 1987 04...	1240	16.35	684	952	7.5	31.0	13.0	0.3	<1	--
395132083001200 FR-73 (LAT 39 51 32N LONG 083 00 12W)										
SEP 1987 04...	1430	46.34	735	699	7.3	30.0	14.5	--	<1	390
395314083021900 FR-202 (LAT 39 53 14N LONG 083 02 19W)										
SEP 1987 08...	1400	94.70	752	986	7.3	29.0	14.0	0.3	<1	500
394956083002700 FR-18 CITY OF COLS S OF RT 665 AT SHADEVILLE OH (LAT 39 49 56N LONG 083 00 27W)										
SEP 1987 08...	1000	24.11	--	1010	7.1	24.0	12.5	0.2	² ₁	460
395020083003700 FR-104 TH-73 (LAT 39 50 20N LONG 083 00 37W)										
SEP 1987 09...	1007	17.21	685	742	7.7	23.0	12.0	1.3	>60	400
395117083011600 FR-120 (LAT 39 51 17N LONG 083 01 16W)										
SEP 1987 11...	1045	13.02	690	672	7.4	24.0	12.5	0.5	² ₁	380
395114083010200 FR-148 HARTMAN FARMS AT CW-101 NR COLUMBUS OH (LAT 39 51 14N LONG 083 01 02W)										
SEP 1987 03...	1440	21.93	687	744	10.4	25.5	14.0	0.5	<1	290
395020083014400 FR-141 J LAKOS NR SHADEVILLE, OH (LAT 39 50 20N LONG 083 01 44W)										
SEP 1987 02...	1235	28.66								
08...	1130	--	720	894	7.3	27.0	14.0	0.3	<1	480

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--Continued

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CHEMICAL QUALITY OF GROUND WATER--Continued

DATE	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
395020083003405 FR-104 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 20N LONG 83 00 34W)										
SEP 19 87 03...	150	110	33	19	2.1	265	100	35	0.40	0.12
395046083003105 FR-103 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 46N LONG 83 00 31W)										
SEP 1987 03...	150	110	33	18	2.7	260	120	32	0.50	0.14
395114083010405 FR 101CW RADIAL COLLECTOR WELL AT HARTMAN FMS COL (LAT 39 51 14N LONG 083 01 04W)										
SEP 1987 03...	130	100	31	22	3.0	247	110	36	0.40	0.20
395108083010600 FR-147 NR SCIOTO R NR COLUMBUS OH (LAT 39 51 08N LONG 083 01 06W)										
SEP 1987 04...	160	120	40	14	1.8	310	120	29	0.70	0.17
395024083003000 FR-149 HARTMAN FARMS AT CW-104 NR COLUMBUS OH (LAT 39 50 24N LONG 083 00 30W)										
SEP 1987 04...	--	--	--	--	--	382	--	--	--	--
395132083001200 FR-73 (LAT 39 51 32N LONG 083 00 12W)										
SEP 1987 04...	82	100	34	3.3	1.4	308	63	5.1	0.30	0.033
395314083021900 FR-202 (LAT 39 53 14N LONG 083 02 19W)										
SEP 1987 08...	160	120	44	27	2.2	341	190	9.8	1.7	0.034
394956083002700 FR-18 CITY OF COLS S OF RT 665 AT SHADEVILLE OH (LAT 39 49 56N LONG 083 00 27W)										
SEP 1987 08...	92	120	38	34	2.2	362	88	87	0.20	0.12
395020083003700 FR-104 TH-73 (LAT 39 50 20N LONG 083 00 37W)										
SEP 1987 09...	110	100	37	6.2	1.5	291	90	14	0.40	0.037
395117083011600 FR-120 (LAT 39 51 17N LONG 083 01 16W)										
SEP 1987 11...	80	99	32	4.9	1.7	293	53	15	0.30	0.026
395114083010200 FR-148 HARTMAN FARMS AT CW-101 NR COLUMBUS OH (LAT 39 51 14N LONG 083 01 02W)										
SEP 1987 03...	250	24	54	46	5.3	35	230	60	1.0	0.70
395020083014400 FR-141 J LAKOS NR SHADEVILLE, OH (LAT 39 50 20N LONG 083 01 44W)										
SEP 1987 08...	140	120	43	6.6	1.2	336	72	53	0.50	0.050

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--Continued

CHEMICAL QUALITY OF GROUND WATER--Continued

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
395020083003405 FR-104 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 20N LONG 83 00 34W)										
SEP 1987 03...	12	429	<0.10	0.16	0.30	<0.01	130	<0.5	70	<1
395046083003105 FR-103 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 46N LONG 83 00 31W)										
SEP 1987 03...	12	500	<0.10	0.09	0.50	<0.01	60	<0.5	70	<1
395114083010405 FR 101CW RADIAL COLLECTOR WELL AT HARTMAN FMS COL (LAT 39 51 14N LONG 083 01 04W)										
SEP 1987 03...	12	483	<0.10	0.24	0.60	<0.01	87	<0.5	90	<1
395108083010600 FR-147 NR SCIOTO R NR COLUMBUS OH (LAT 39 51 08N LONG 083 01 06W)										
SEP 1987 04...	15	542	<0.10	0.29	0.60	<0.01	30	<0.5	80	<1
395024083003000 FR-149 HARTMAN FARMS AT CW-104 NR COLUMBUS OH (LAT 39 50 24N LONG 083 00 30W)										
SEP 1987 04...	--	--	<0.10	1.4	1.7	0.02	--	--	--	--
395132083001200 FR-73 (LAT 39 51 32N LONG 083 00 12W)										
SEP 1987 04...	16	400	<0.10	0.14	0.70	<0.01	310	<0.5	10	5
395314083021900 FR-202 (LAT 39 53 14N LONG 083 02 19W)										
SEP 1987 08...	16	637	<0.10	0.60	0.30	<0.01	26	<0.5	190	<1
394956083002700 FR-18 CITY OF COLS S OF RT 665 AT SHADEVILLE OH (LAT 39 49 56N LONG 083 00 27W)										
SEP 1987 08...	14	482	<0.10	0.22	<0.20	<0.01	270	<0.5	40	<1
395020083003700 FR-104 TH-73 (LAT 39 50 20N LONG 083 00 37W)										
SEP 1987 09...	14	460	<0.10	0.19	0.20	<0.01	250	<0.5	40	<1
395117083011600 FR-120 (LAT 39 51 17N LONG 083 01 16W)										
SEP 1987 11...	14	396	<0.10	0.19	0.30	<0.01	210	<0.5	20	<1
395114083010200 FR-148 HARTMAN FARMS AT CW-101 NR COLUMBUS OH (LAT 39 51 14N LONG 083 01 02W)										
SEP 1987 03...	180	474	<0.10	0.03	0.40	<0.01	6	<0.5	330	<1
395020083014400 FR-141 J LAKOS NR SHADEVILLE, OH (LAT 39 50 20N LONG 083 01 44W)										
SEP 1987 08...	17	507	<0.10	0.16	0.30	<0.01	270	<0.5	20	<1

CHEMICAL QUALITY OF GROUND WATER--Continued

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
395020083003405 FR-104 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 20N LONG 83 00 34W)										
SEP 1987 03...	<3	<10	1300	<10	8	100	<10	740	<6	<3
395046083003105 FR-103 CW COLLECTOR WELL NR COLUMBUS OH (LAT 39 50 46N LONG 83 00 31W)										
SEP 1987 03...	<3	<10	460	<10	8	100	<10	680	<6	<3
395114083010405 FR 101CW RADIAL COLLECTOR WELL AT HARTMAN FMS COL (LAT 39 51 14N LONG 083 01 04W)										
SEP 1987 03...	<3	<10	1200	<10	8	100	<10	880	<6	<3
395108083010600 FR-147 NR SCIOTO R NR COLUMBUS OH (LAT 39 51 08N LONG 083 01 06W)										
SEP 1987 04...	<3	<10	730	<10	18	43	<10	2000	<6	6
395024083003000 FR-149 HARTMAN FARMS AT CW-104 NR COLUMBUS OH (LAT 39 50 24N LONG 083 00 30W)										
SEP 1987 04...	--	--	--	--	--	--	--	--	--	--
395132083001200 FR-73 (LAT 39 51 32N LONG 083 00 12W)										
SEP 1987 04...	<3	<10	2500	<10	5	37	<10	200	<6	10
395314083021900 FR-202 (LAT 39 53 14N LONG 083 02 19W)										
SEP 1987 08...	<3	<10	3100	<10	13	35	50	19000	<6	<3
394956083002700 FR-18 CITY OF COLS S OF RT 665 AT SHADEVILLE OH (LAT 39 49 56N LONG 083 00 27W)										
SEP 1987 08...	<3	<10	470	20	<4	86	10	480	<6	10
395020083003700 FR-104 TH-73 (LAT 39 50 20N LONG 083 00 37W)										
SEP 1987 09...	<3	<10	1100	<10	10	120	<10	1300	<6	12
395117083011600 FR-120 (LAT 39 51 17N LONG 083 01 16W)										
SEP 1987 11...	<3	<10	2000	<10	5	57	<10	630	<6	46
395114083010200 FR-148 HARTMAN FARMS AT CW-101 NR COLUMBUS OH (LAT 39 51 14N LONG 083 01 02W)										
SEP 1987 03...	<3	<10	5	<10	49	22	<10	5100	<6	<3
395020083014400 FR-141 J LAKOS NR SHADEVILLE, OH (LAT 39 50 20N LONG 083 01 44W)										
SEP 1987 08...	<3	<10	3500	10	<4	38	10	1100	<6	14

¹Water level elevation, in feet.²Based on a non-ideal colony count (less than 20 or greater than 80 counts per plate).

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--
Continued

GROUND-WATER LEVEL MEASUREMENTS

SITE ID	LOCAL WELL NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	WATER- LEVEL DATE	WATER LEVEL (FEET BELOW LAND SURFACE)
394956083002700	FR-18	394956	830027	06-11-87	21.18
				09-08-87	24.11
395006083013600	FR-116	395006	830136	02-26-87	24.48
				04-27-87	23.20
				06-11-87	23.22
				09-02-87	25.29
				09-04-87	25.35
395008082593100	FR-126 M13	395008	825931	06-11-87	18.54
				09-02-87	19.31
395016083010300	FR-117	395016	830103	02-26-87	18.23
				04-27-87	16.42
				06-11-87	16.05
				09-02-87	17.59
395020083003405	FR 104 CW	395020	830034	09-02-87	1664.2
395020083003300	FR-104 TH-20	395020	830033	06-10-87	22.84
				09-03-87	22.30
395020083003400	FR-104 TH-72	395020	830034	06-10-87	23.73
				09-02-87	18.94
395020083003700	FR-104 TH-73	395020	830037	06-11-87	18.16
				09-09-87	17.21
395020083014400	FR-141	395020	830144	09-02-87	28.66
395021083002900	FR-104 TH-18	395021	830029	06-10-87	28.34
				09-02-87	27.67
395024083003000	FR-149	395024	830030	06-10-87	14.68
				09-03-87	16.28
				09-04-87	16.35
395027082592500	FR 151	395027	825925	06-11-87	29.10
				09-02-87	29.12
395037082581900	FR-36	395037	825819	06-11-87	15.54
				09-02-87	16.50
395039082585800	FR-115 TH 67	395039	825858	06-11-87	34.48
				09-02-87	34.45
395045083003100	FR 103 TH-11	395045	830025	06-10-87	38.22
				09-02-87	43.13
395046083003105	FR 103 CW	395046	830031	09-03-87	
395058083002400	FR-119	395111	830026	06-11-87	28.06
				09-02-87	32.17
395059083000900	FR-122	395059	830009	06-10-87	40.10
				09-02-87	40.76
395108083010600	FR-147	395108	830106	06-10-87	16.66
395108083010600	FR-147	395108	830106	09-03-87	20.13
				09-04-87	17.25
395114083010201	FR-101-TH 46	395114	830102	06-10-87	21.11
				06-10-87	21.1
				09-03-87	24.42
395114083010200	FR-148	395114	830102	06-10-87	17.56
				09-03-87	21.93
395114083010405	FR 101CW	395114	830104	09-03-87	1662.0
395117083011600	FR-120	395117	830116	06-11-87	10.70
				09-11-87	13.02
395123083003300	FR-121	395123	830033	06-10-87	17.88
				09-02-87	19.67
395126083014000	FR-131	395126	830140	06-11-87	45.60
395131082592400	FR-123	395131	825924	06-11-87	11.96
				09-02-87	12.63
395132083001200	FR-73	395132	830012	06-10-87	45.85
				09-04-87	46.34
395157083003500	FR-109	395157	830035	06-10-87	24.59
				09-02-87	22.76
395206083014501	FR-209	395206	830145	06-11-87	15.21
				09-02-87	16.08
395218083023900	FR-133	395218	830239	06-11-87	60.52
				09-02-87	61.27
395250083014101	FR-236	395250	830141	06-11-87	60.18
				09-01-87	60.36
395254083010700	FR-253	395254	830107	06-10-87	27.70
				09-01-87	33.64
395255083003000	FR-262	395255	830030	06-11-87	23.75
395314083021900	FR-202	395314	830219	06-11-87	89.03
				09-08-87	94.70
395315083020002	FR-213	395315	830200	06-11-87	80.20
				09-01-87	80.29
395321083005700	FR-268	395321	830057	06-10-87	30.36
				09-01-87	34.22
395329083013100	FR-264	395329	830131	06-10-87	62.13
				06-11-87	89.03
				09-01-87	61.49
				09-08-87	94.70

SURFACE- AND GROUND-WATER RECORDS FOR THE SOUTHERN FRANKLIN COUNTY PROJECT--
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GROUND-WATER LEVEL MEASUREMENTS--Continued

SITE ID	LOCAL WELL NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	WATER- LEVEL DATE	WATER LEVEL (FEET BELOW LAND SURFACE)
395331083013900	FR-246	395331	830139	06-11-87	122.44
				09-01-87	122.34
395348083022701	FR-227	395348	830227	06-11-87	75.18
				09-08-87	76.73
395350083030001	FR-230	395350	830300	06-11-87	85.76
				09-01-87	86.17
395351083013700	FR-244	395335	830137	06-11-87	69.73
				09-01-87	68.77
395413083002900	FR-260	395413	830029	06-10-87	31.55
				09-01-87	32.62
395409083013201	FR-217	395409	830132	06-11-87	69.79
				09-01-87	70.14
395409083015001	FR-224	395409	830150	06-10-87	76.71
				09-01-87	76.71
395409083015000	FR-224R	395409	830150	06-10-87	82.18
				09-01-87	82.61
395417083005000	FR-259	395417	830050	06-10-87	43.39
				09-01-87	43.74
395437083021300	FR-132	395437	830213	06-10-87	29.97
				09-01-87	30.12
395448083004200	FR-258	395448	830042	01-21-87	30.48
				06-10-87	28.48
				09-01-87	31.84
395458083011600	FR-248	395458	830116	02-04-87	44.08
				06-11-87	43.87
				09-01-87	43.11
395509083003700	FR-257	395509	830037	06-10-87	24.61
				09-01-87	29.66
395523083003100	FR-256	395523	830031	06-10-87	22.01
				09-01-87	27.88

¹ Water level elevation in the collector well during pumping.

GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT

The following tables contain chemical analyses of brine from three oil- and gas-production wells. The tables also contain chemical analyses and ground-water-level measurements from a network of water-supply wells in Geauga County. The data was collected as part of a cooperative study with the Geauga County Planning Commission for evaluating ground-water resources in Geauga County.

Remarks: Brine samples were taken from the well head at each oil and gas well.

SUMMIT COUNTY

411143081273800. Local number, SUNE - Stow #2

LOCATION.--Lat 41°11'43", long 81°27'38", Hydrologic Unit 04110002, near Stow, OH.

RESERVOIR.--Lockport equivalent, informally referred to as the "Newburg" zone.

WELL CHARACTERISTICS.--Gas production well.

DATUM.--Elevation of land-surface datum is 1,042 ft above National Geodetic Vertical Datum of 1929.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 17...	13.0	123000	5.45	288	28	0.8	120000	120000	37000	7600

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 17...	58000	2200	200000	720	4.3	6000	920000	43000	2100

GEAUGA COUNTY

413622081054000. Local number, GBCL-CNG #634

LOCATION.--Lat 41°36'22", long 81°05'40", Hydrologic Unit 04110004, Near Montville, Ohio.

Owner: CNG Development Company.

RESERVOIR.--Albion Sandstone, informally referred to as the "Clinton" zone.

WELL CHARACTERISTICS.--Oil and gas production well.

DATUM.--Elevation of land-surface datum is 1,210 ft above National Geodetic Vertical Datum of 1929.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 18...	5.0	130000	6.72	35	91	3.1	95000	95000	31000	3900

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 18...	71000	1400	190000	270	<2.5	8000	1200000	52000	2000

GEAUGA COUNTY--Continued

413009081073000. Local number, GECL - BAPTIST #1

LOCATION.--Lat 41°30'09", long 81°07'30", Hydrologic Unit 04110002, near Burton, Ohio.

Owner: Lomak Petroleum, Inc.

RESERVOIR.--Albion Sandstone, informally referred to as the "Clinton" zone.

WELL CHARACTERISTICS.--Oil and gas production well.

DATUM.--Elevation of land-surface datum is 1,305 ft above National Geodetic Vertical Datum of 1929.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 19...	-10.0	125000	6.02	115	53	1.4	130000	130000	39000	7200

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 19...	69000	2400	200000	270	4.3	6000	1100000	59000	2100

413624081055800. Local number, GE-205

LOCATION.--Lat 41°36'24", long 81°05'58", Hydrologic Unit 04110002, 15247 G.A.R. Highway near Montville, Ohio.

OWNER: S. Craxton.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled well, diameter 6.0 in., depth 70 ft.

INSTRUMENTATION.--Water-level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,200 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--November 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL
Nov. 18, 1986	20.56

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 18...	11.5	5.0	2340	8.02	7.5	398	0.6	53	0	12

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 18...	5.3	500	3.5	520	5.2	1.1	1300	440	40	3.3

GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT--Continued

GEAUGA COUNTY--Continued

414248081045200. Local number, GE-207

LOCATION.--Lat 41°42'48", long 81°04'52", Hydrologic Unit 04110004, Clay Street near Thompson, Ohio.

Owner: M. Collen.

AQUIFER.--Ohio Shale of Devonian Age.

WELL CHARACTERISTICS.--Drilled well, diameter 10 in., depth 50 ft.

INSTRUMENTATION.--Water-level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,005 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL
NOV. 19, 1986	3.90

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 19...	11.5	-1.0	1500	8.27	2.8	266	0.8	120	0	28
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 19...	12	260	3.8	320	9.9	1.0	70	650	60	1.1

413633081051800. Local number, GE-113.

LOCATION.--Lat 41°36'33", long 81°05'18", Hydrologic Unit 04110002, G.A.R. Highway near Montville, Ohio.

Owner: Heath Construction.

AQUIFER.--Cuyahoga Group of Mississippian Age.

WELL CHARACTERISTICS.--Drilled well, diameter 6.0 in., depth 80 ft, cased to 60 ft.

INSTRUMENTATION.--Water-level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,250 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 0.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1980 to November 1986.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.68 ft below land-surface datum, May 8, 1980; lowest, 28.60 ft below land-surface datum, Nov. 5, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 05, 1986	28.60	NOV 19, 1986	24.69

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 19...	11.0	0.0	460	7.54	13	233	0.6	230	0	59
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 19...	19	16	2.4	3.8	21	0.30	140	540	24	0.026

GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT--Continued

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GEAUGA COUNTY--Continued

413259081013300. Local number, GE-206.

LOCATION.--Lat 41°32'59", long 81°01'33", Hydrologic Unit 04110004, Huntley Road, near Huntsburg, Ohio.

OWNER: T. Lane.

AQUIFER.--Berea Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled well, diameter 6.0 in., depth 170 ft, cased to 35 ft.

INSTRUMENTATION.--Water-level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,090 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--November 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	WATER LEVEL
NOV. 13, 1986	35.97

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TEMPER- ATURE AIR (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 18...	5.0	1450	8.83	1.6	562	0.6	15	0	4.3	1.1

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BARIUM, DIS- SOLVED (UG/L AS BA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	LITHIUM DIS- SOLVED (UG/L AS LI)	BROMIDE DIS- SOLVED (MG/L AS BR)
NOV 18...	350	1.6	180	11	2.0	19	74	24	0.98

GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT--Continued

GEAUGA COUNTY--Continued

Site Number	Local Number	Geologic Unit	Date	Water Level
412309081202400	GE-23	324PSVL	Nov. 3, 1986	13.46
412449081232700	GE-29	330BERE	Nov. 3, 1986	40.12
412655081205600	GE-31	----	Nov. 6, 1986	0.98
412803081210000	GE-32	330BDFD	Nov. 6, 1986	0.74
412439081183000	GE-36	324PSVL	Nov. 3, 1986	66.78
412440081201500	GE-38	----	Nov. 3, 1986	23.96
412514081202200	GE-39	324PSVL	Nov. 3, 1986	37.94
412905081045500	GE-42	1120TSH	Nov. 4, 1986	40.40
414220081045500	GE-43	330BDFD	Nov. 5, 1986	8.90
414124081010100	GE-44	330BERE	Nov. 5, 1986	1.59
413202081015700	GE-48	330CYHG	Nov. 4, 1986	1.72
412620081032400	GE-49	----	Nov. 4, 1986	15.90
413449081121600	GE-52	----	Nov. 5, 1986	39.37
413346081122300	GE-53	1120TSH	Nov. 6, 1986	24.99
413346081122301	GE-53A	----	Nov. 6, 1986	38.87
413343081132800	GE-54	----	Nov. 6, 1986	60.23
412051081165700	GE-60	324PSVL	Nov. 3, 1986	60.20
412749081145200	GE-64	324PSVL	Nov. 6, 1986	30.58
412622081162500	GE-65	----	Nov. 6, 1986	6.70
412645081182400	GE-66	----	Nov. 6, 1986	26.33
412949081104600	GE-68	324PSVL	Nov. 4, 1986	18.27
413151081125800	GE-69	324PSVL	Nov. 6, 1986	27.56
413201081110900	GE-70	330CYHG	Nov. 4, 1986	0.55
413433081075500	GE-72	324PSVL	Nov. 5, 1986	13.74
413138081152000	GE-76	1120TSH	Nov. 6, 1986	24.27
413735081131200	GE-82	----	Nov. 5, 1986	66.91
412627081075400	GE-83	324PSVL	Nov. 4, 1986	31.19
412716081125400	GE-85	324PSVL	Nov. 6, 1986	49.85
412749081171500	GE-89	324PSVL	Nov. 6, 1986	85.84
412748081143900	GE-91	324PSVL	Nov. 6, 1986	44.23
412354081010400	GE-93	----	Nov. 4, 1986	10.58
412547081211500	GE-94	330CYHG	Nov. 6, 1986	14.31
412547081211501	GE-94A	330CYHG 330BERE	Nov. 6, 1986	28.12
412559081095200	GE-96	324PSVL	Nov. 4, 1986	15.53
412559081095201	GE-96A	----	Nov. 4, 1986	24.69
412718081102400	GE-98	----	Nov. 4, 1986	7.63
412225081035600	GE-99	----	Nov. 4, 1986	32.15
413757081122300	GE-101	1120TSH	Nov. 5, 1986	24.58
413755081101200	GE-103	330BERE	Nov. 5, 1986	86.78
413606081102100	GE-104	330BERE	Nov. 5, 1986	94.33
413544081060500	GE-105	330CYHG	Nov. 5, 1986	29.99
413456081035600	GE-106	330CYHG	Nov. 5, 1986	36.10
413249081173800	GE-107	1120TSH	Nov. 6, 1986	59.33
413117081171900	GE-108	1120TSH	Nov. 6, 1986	49.54
413005081130000	GE-109	324PSVL	Nov. 6, 1986	76.09
413346081064000	GE-111	324PSVL	Nov. 4, 1986	28.52
413207081044400	GE-112	324PSVL	Nov. 4, 1986	46.75
412901081070200	GE-114	324PSVL	Nov. 4, 1986	43.48
412737081063300	GE-115	324PSVL	Nov. 4, 1986	24.26
412926081144300	GE-116	1120TSH	Nov. 6, 1986	42.30
412915081045900	GE-118	330CYHG	Nov. 4, 1986	21.37
412657081040500	GE-119	324PSVL	Nov. 4, 1986	11.73
413230081190200	GE-120	330BERE	Nov. 6, 1986	99.60
412746081202000	GE-121	330CYHG 330BERE	Nov. 6, 1986	68.82
412410081223900	GE-122	330BERE	Nov. 3, 1986	61.08
412703081181600	GE-123	330CYHG 330BERE	Nov. 6, 1986	87.13
413052081153100	GE-124	330CYHG 330BERE 330BDFD	Nov. 6, 1986	26.01
413100081105500	GE-125	330CYHG 330BERE	Nov. 4, 1986	74.37
412212081230100	GE-126	330BERE	Nov. 4, 1986	116.99
413821081060500	GE-129	330CYHG 330BERE	Nov. 5, 1986	103.23
413623081101000	GE-130	330BERE	Nov. 5, 1986	86.68
412959081030700	GE-135	1120TSH	Nov. 4, 1986	12.44
412841081023200	GE-136	330CYHG	Nov. 4, 1986	13.67
413318081004100	GE-137	330CYHG	Nov. 4, 1986	14.26
413318081004300	GE-137A	330BERE	Nov. 4, 1986	60.80
412159081104100	GE-138	324PSVL	Nov. 3, 1986	46.50
412138081072000	GE-139	324PSVL	Nov. 3, 1986	35.62

GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT--Continued

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GEAUGA COUNTY--Continued

Site Number	Local Number	Geologic Unit	Date	Water Level
412318081073700	GE-140	324PSVL	Nov. 3, 1986	48.43
412224081084300	GE-141	1120TSH	Nov. 3, 1986	9.11
412529081132000	GE-143	324PSVL	Nov. 3, 1986	11.00
412211081183400	GE-144	324PSVL	Nov. 3, 1986	38.72
413729081024700	GE-145	330CYHG	Nov. 5, 1986	48.09
412845081030100	GE-147	330CYHG	Nov. 4, 1986	2.28
414158081050000	GE-148	330BDFD	Nov. 5, 1986	7.17
413155081214900	GE-150	324PSVL	Nov. 6, 1986	25.41
412319081135000	GE-151	324PSVL	Nov. 3, 1986	82.97
413246081144000	GE-152	324PSVL	Nov. 6, 1986	29.72
413415081160900	GE-153	1120TSH	Nov. 5, 1986	62.60
412441081061400	GE-155	----	Nov. 3, 1986	22.58
412835081185800	GE-156	324PSVL	Nov. 6, 1986	61.66
413628081060500	GE-157	1120TSH	Nov. 5, 1986	4.36
412442081102100	GE-159	330BERE	Nov. 3, 1986	20.80
412304081102300	GE-161	324PSVL	Nov. 3, 1986	23.84
412511081032800	GE-162	324PSVL	Nov. 4, 1986	40.12
412415081033500	GE-163	324PSVL	Nov. 4, 1986	14.11
412319081163000	GE-165	1120TSH	Nov. 3, 1986	9.28
412454081162400	GE-166	324PSVL	Nov. 3, 1986	53.43
412138081113000	GE-167	----	Nov. 3, 1986	16.25
412628081122800	GE-169	330CYHG	Nov. 6, 1986	FLOWING
412311081213000	GE-170	330CYHG	Nov. 3, 1986	47.35
412511081225900	GE-171	330CYHG	Nov. 3, 1986	53.93
413415081155100	GE-172	330CYHG	Nov. 5, 1986	55.12
412142081212300	GE-173	324PSVL	Nov. 3, 1986	6.14
412907081202100	GE-174	1120TSH	Nov. 6, 1986	30.95
412841081214900	GE-175	1120TSH	Nov. 6, 1986	30.76
413521081143100	GE-176	324PSVL	Nov. 5, 1986	46.29
413416081083000	GE-177	1120TSH	Nov. 4, 1986	11.41
413138081084200	GE-178	324PSVL	Nov. 4, 1986	55.43
413414081214200	GE-179	330BERE	Nov. 6, 1986	63.90
413114081201600	GE-180	324PSVL	Nov. 6, 1986	31.48
413118081193600	GE-181	324PSVL	Nov. 6, 1986	8.09
412429081045100	GE-183	324PSVL	Nov. 4, 1986	41.06
413020081175400	GE-184	1120TSH	Nov. 6, 1986	74.91
413630081145000	GE-185	330CYHG	Nov. 5, 1986	35.25
413647081120000	GE-186	330CYHG	Nov. 5, 1986	46.16
413506081161800	GE-193	324PSVL	Nov. 5, 1986	53.03
413513081110700	GE-195	1120TSH	Nov. 5, 1986	13.73
413808081034700	GE-196	324PSVL	Nov. 5, 1986	67.06
413957081011800	GE-197	330BERE	Nov. 5, 1986	62.25
414058081010000	GE-198	330BERE	Nov. 5, 1986	15.60
414106081041400	GE-199	324PSVL	Nov. 5, 1986	15.89
413607081032500	GE-202	324PSVL	Nov. 5, 1986	28.80
413256081045800	GE-204	324PSVL	Nov. 4, 1986	10.33

Geologic Unit (Aquifer)

1120TSH - Outwash, Pleistocene Epoch
 324PSVL - Pottsville Formation, Pennsylvanian Age
 330CYHG - Cuyahoga Group, Mississippian Age
 330BERE - Berea Sandstone, Mississippian Age
 330BDFD - Bedford Shale, Mississippian Age

¹Depth of water level below land surface, in feet.

GROUND-WATER RECORDS IN STRIP MINES

The following tables contain ground water-level measurements, chemical analyses from observation wells located in a small watershed affected by coal mining. The data will be used to document ground-water flow and water quality during post-mining conditions.

JEFFERSON COUNTY

401011080521602. Local number, J11 P1-1.

LOCATION.--Lat 40°10'11", long 80°52'16", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 5 in., depth 39 ft, cased to 39 ft, bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1,236.2 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--March 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.65 ft below land-surface datum, Feb. 19, 1986; lowest, measured, 37.40 ft Dec. 28, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 28, 1986	34.16	Dec 22, 1986	33.02	Feb 25, 1987	31.60	Apr 14, 1987	30.15
May 5, 1987	30.03	June 16, 1987	31.29	Aug 21, 1987	32.48		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 1986 28...	1300	212	6.81	13.5	1100	820	310	84	30
MAY 1987 05...	1445	1700	6.82	15.0	1100	840	310	80	32

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1986 28...	3.6	305	980	58	1800	<10	20	6200
MAY 1987 05...	3.7	260	800	68	1540	<10	29	4200

401011080521603. Local number, J11 P2-2.

LOCATION.--Lat 40°10'11", long 80°52'16", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 187 ft, cased to 46 ft.

DATUM.--Altitude of land-surface datum is 1,236.2 ft. Measuring point: Top of casing, 2.7 ft above land-surface datum.

PERIOD OF RECORD.--March 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.95 ft below land-surface datum, May 24, 1983; lowest, measured, 46.84 ft below land-surface datum, Aug 21, 1987.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 28, 1986	46.52	Dec 22, 1986	46.45	Feb 25, 1987	46.70	Apr 14, 1987	45.28
May 5, 1987	45.83	June 16, 1987	46.67	Aug 21, 1987	46.84		

GROUND-WATER RECORDS IN STRIP MINES--Continued

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JEFFERSON COUNTY--Continued

401010080521801. Local number, J11 P3-1.

LOCATION.--Lat 40°10'10", long 80°52'18", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 7 in., depth 35.5 ft.

DATUM.--Elevation of land-surface datum is 1,236.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.80 ft below land-surface datum, February 19, 1986; lowest water level, dry many days.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Dec 25, 1986	32.51	Apr 14, 1987	31.26	May 4, 1987	31.43	June 16, 1987	32.36
Aug 21, 1987	33.70						

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 1987 04...	1400	2180	6.84	14.0	1300	900	330	110	23
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
MAY 1987 04...	4.4	377	930	49	1820	20	80	450	

401002080521800. Local number, W4-1.

LOCATION.--Lat 40°10'02", long 80°52'18", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 60 ft., cased to 18.00 ft.

DATUM.--Altitude of land-surface datum is 1251.37 ft. Measuring point: Top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.88 ft below land-surface datum, May 29, 1979; lowest, measured, 55.60 ft below land-surface datum, July 21, 1980.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 28, 1986	53.15	Dec 22, 1986	50.71	Feb 25, 1987	49.50	Apr 13, 1987	45.83
May 5, 1987	46.65	June 16, 1987	49.50	Aug 21, 1987	51.32		

GROUND-WATER RECORDS IN STRIP MINES--Continued

JEFFERSON COUNTY--Continued

401002080521801. Local number, J11 W5-3.

LOCATION.--Lat 40°10'02", long 80°52'18", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 280 ft., cased to 218 ft.

DATUM.--Altitude of land-surface datum is 1,251.74 ft. Measuring point: Top of casing, 1.76 ft.

REMARKS.--Dry since construction.

PERIOD OF RECORD.--June 1976 to current year.

401004080521900. Local number, J11 W6-1.

LOCATION.--Lat 40°10'04", long 80°52'19", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 46 ft., cased to 17.8 ft.

DATUM.--Altitude of land-surface datum is 1237.36 ft. Measuring point: Top of casing, 3.2 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.60 ft below land-surface datum, Feb. 26, 1979; lowest, 45.21 ft below land-surface datum, Aug. 3, 1980.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 28, 1986	39.30	Dec 22, 1986	37.86	Feb 25, 1987	36.24	Apr 14, 1987	34.92
May 5, 1987	33.17	June 16, 1987	35.68	Aug 21, 1987	37.35		

401004080521901. Local number, J11 W7-2.

LOCATION.--Lat 40°10'04", long 80°52'19", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 192 ft., cased to 53.8 ft.

DATUM.--Altitude of land-surface datum is 1237.25 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.45 ft below land-surface datum, Jan. 16, 1980; lowest, 170.11 ft below land-surface datum, Nov. 19, 1979.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Dec 22, 1986	166.82	Feb 25, 1987	162.50	Apr 14, 1987	148.84	May 5, 1987	150.80
June 16, 1987	151.10	Aug 21, 1987	155.37				

JEFFERSON COUNTY--Continued

401007080522400. Local number, J11 W8-2.

LOCATION.--Lat 40°10'07", long 80°52'24", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 105 ft., cased to 20.43 ft.

INSTRUMENTATION.--Digital recorder--60 minute punch.

DATUM.--Altitude of land-surface datum is 1,156.67 ft. Measuring point: Top of casing, 0.57 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.45 ft below land-surface datum, July 13, 1986; lowest, 37.23 ft below land-surface datum, June 18, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.44						---	27.13	27.92	28.05	28.27	27.97
2	28.96						---	27.09	27.91	27.88	28.35	28.03
3	28.93						---	27.13	27.90	27.50	28.31	28.08
4	28.92						---	26.99	27.95	27.53	28.08	28.11
5	28.35						---	29.14	27.99	27.61	28.06	28.11
6	28.61						---	27.91	28.02	27.68	28.03	28.11
7	28.84						---	27.71	28.00	27.68	28.03	28.11
8	29.08						---	27.75	28.03	27.64	28.03	28.11
9	29.12						---	27.76	28.03	27.83	28.03	27.87
10	29.21						---	27.80	28.00	27.87	28.04	27.85
11	29.24						---	27.82	27.97	27.91	28.04	27.99
12	29.29						---	27.89	27.96	27.93	28.09	27.99
13	29.38						---	27.90	27.68	27.93	28.15	28.00
14	29.39						27.13	27.89	27.70	28.03	28.18	28.06
15	29.39						27.11	27.91	27.82	28.03	28.20	28.08
16	29.51						27.11	27.91	27.95	28.16	28.21	28.09
17	29.55						27.16	27.89	28.03	28.19	28.28	28.20
18	29.51						27.19	27.89	28.03	28.15	28.33	28.26
19	29.47						27.32	27.84	28.03	28.13	28.33	28.26
20	29.47						27.32	27.81	28.03	28.13	28.38	28.31
21	29.52						27.32	27.84	27.90	28.14	28.45	28.34
22	29.53						27.32	27.84	27.81	28.14	28.42	28.34
23	29.54						27.33	27.84	27.84	28.17	28.13	28.34
24	29.51						27.23	27.83	27.85	28.08	27.87	28.38
25	29.45						26.75	27.83	27.85	27.96	27.93	28.43
26	29.48						26.80	27.82	27.93	28.04	27.93	28.43
27	29.56						26.83	27.81	27.99	28.05	27.91	28.46
28	29.56						26.94	27.81	28.03	28.05	27.91	28.45
29	---						27.05	27.87	28.04	28.05	27.92	28.41
30	---						27.13	27.89	28.06	28.27	27.92	28.35
31	---						---	27.90	---	28.27	27.93	---
MAX	---						---	29.14	28.06	28.27	28.45	28.46
WTR YR 1987	MEAN	28.11		HIGH	26.75	APR 25	LOW	29.56	OCT 27	AND OTHERS		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 1986									
28...	1200	1920	6.77	11.5	1200	740	330	94	17
MAY 1987									
05...	1220	2000	6.64	12.5	1200	710	330	91	15
DATE		ALKA- LITY POTAS- SIUM, WH WAT TOTAL DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
OCT 1986									
28...	2.5	470	750	31	1400	<10	9	4	
MAY 1987									
05...	2.7	493	740	33	1640	<10	150	7600	

GROUND-WATER RECORDS IN STRIP MINES--Continued

JEFFERSON COUNTY--Continued

401007080522401. Local number, J11 W9-3.

LOCATION.--Lat 40°10'07", long 80°52'24", Hydrologic Unit 05030106, near Harrisville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 122.3 ft. cased to 120 ft.

DATUM.--Altitude of land-surface datum is 1,154.60 ft. Measuring point: Top of casing, 1.6 ft above land-surface datum.

REMARKS.--Dry since construction. Well caved, original depth, 189.40 ft.

PERIOD OF RECORD.--June 1976 to current year.

401009080521500. Local number, J11 P10-1.

LOCATION.--LAT 40°10'09", long 80°52'15", Hydrologic Unit 05010306, near Harrisville.

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 5 in., depth 39.3 ft, cased to 39.0 ft.

DATUM.--Altitude of land-surface datum is 1236.1 ft. Measuring point: Top of casing, 3.0 ft above land surface datum.

PERIOD OF RECORD.--March 1981 to August 1982, January 1984 to May 1984, Dec. 1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 29.92 ft below land-surface datum, Jan. 18, 1986, lowest measured, dry prior to January 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 1986 28...	0930	1460	6.74	12.5	860	600	240	63	21
MAY 1987 05...	1010	1300	6.74	13.0	740	490	210	53	18

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1986 28...	2.7	255	540	44	1180	<10	14	920
MAY 1987 05...	2.7	243	480	33	999	30	10	740

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.13	35.13	35.06	33.40	---	32.27	32.08	31.01	31.59	32.27	32.77	33.32
2	35.15	35.14	35.03	33.34	---	32.27	31.97	31.02	31.62	32.27	32.79	33.34
3	35.17	35.15	34.82	33.34	---	32.28	31.86	31.04	31.65	32.29	32.79	33.36
4	35.17	35.16	34.74	33.34	---	32.30	31.72	31.05	31.68	32.29	32.82	33.38
5	35.18	35.16	34.72	33.34	---	32.29	31.59	31.07	31.71	32.33	32.84	33.39
6	35.23	35.19	34.70	33.34	---	32.28	31.49	31.07	31.74	32.34	32.87	33.39
7	35.24	35.22	34.60	33.34	---	32.27	31.18	31.07	31.76	32.36	32.88	33.41
8	35.27	35.22	34.50	33.34	---	32.25	30.75	31.07	31.78	32.37	32.89	33.41
9	35.31	35.21	34.42	33.34	---	32.21	30.63	31.08	31.79	32.39	32.89	33.43
10	35.32	35.23	---	33.34	---	32.23	30.59	31.09	31.84	32.41	32.93	33.45
11	35.34	35.23	---	33.34	---	32.23	30.54	31.09	31.85	32.42	32.95	33.47
12	35.35	35.23	---	---	---	32.22	30.50	31.12	31.86	32.44	32.96	33.48
13	35.37	35.24	---	---	---	32.22	30.51	31.13	31.87	32.44	32.99	33.49
14	35.40	35.25	---	---	---	32.22	30.95	31.14	31.89	32.46	33.02	33.52
15	35.43	35.25	---	---	---	32.21	30.95	31.17	31.92	32.48	33.03	33.54
16	35.46	35.23	---	---	---	32.21	30.95	31.18	31.95	32.49	33.04	33.55
17	35.51	35.22	---	---	---	32.22	30.97	31.19	31.97	32.54	33.06	33.55
18	35.54	35.22	---	---	---	32.22	31.00	31.20	32.00	32.55	33.08	33.56
19	35.55	35.25	---	---	---	32.21	31.03	31.23	32.01	32.57	33.09	33.59
20	35.56	35.25	---	---	---	32.20	31.04	31.27	32.03	32.59	33.14	33.59
21	35.59	35.23	---	---	---	32.21	31.04	31.29	32.04	32.59	33.16	33.63
22	35.64	35.23	33.85	---	---	32.21	31.04	31.33	32.06	32.62	33.16	33.65
23	35.66	35.23	33.85	---	---	32.21	31.05	31.37	32.09	32.63	33.18	33.66
24	35.67	35.24	33.81	---	---	32.22	31.05	31.39	32.11	32.65	33.19	33.68
25	35.69	35.25	33.74	---	32.35	32.21	31.02	31.42	32.13	32.67	33.23	33.69
26	35.72	35.24	33.68	---	32.35	32.22	31.01	31.46	32.14	32.67	33.23	33.71
27	35.74	35.15	33.64	---	32.34	32.21	31.00	31.48	32.17	32.69	33.24	33.76
28	35.75	35.13	33.60	---	32.33	32.24	30.97	31.49	32.21	32.71	33.26	33.76
29	35.06	35.10	33.53	---	---	32.24	30.97	31.53	32.24	32.73	33.29	33.76
30	35.09	35.10	33.45	---	---	32.23	30.98	31.55	32.27	32.74	33.29	33.77
31	35.12	---	33.43	---	---	32.19	---	31.57	---	32.76	33.29	---
MAX	35.75	35.25	---	---	---	32.30	32.08	31.57	32.27	32.76	33.29	33.77
WTR YR 1987 MEAN		32.99			30.50	APR 12		35.75	OCT 28			

GROUND-WATER RECORDS IN STRIP MINES--Continued

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JEFFERSON COUNTY--Continued

401008080522900. Local number. J11 Stream.
 LOCATION.--LAT 40°10'08", long 80°52'29", Hydrologic Unit 05030106, near Harrisville.
 DRAINAGE AREA.--0.05 mi².
 DATUM.--Altitude of land surface datum is 1,120 ft.
 PERIOD OF RECORD.--May 1987 to present.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 1987									
04...	1445	1400	8.16	15.0	800	670	210	68	13
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY 1987									
04...	3.4	137	680	23	1160	30	11	6	

401007080522000. Local number. J11 Seep.
 LOCATION.--LAT 40°10'07", long 80°52'20", Hydrologic Unit 05030106, near Harrisville.
 AQUIFER.--Overburden spoils, replaced after mining.
 DATUM.--Altitude of land-surface datum is 1,160 ft.
 PERIOD OF RECORD.--May 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY									
04...	1445	2200	3.84	16.0	--	--	--	--	--
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY 1987									
04...	--	0	--	--	--	--	--	--	--

The following tables contain ground water-level measurements, chemical analyses from observation wells located in a small watershed affected by coal mining. The data will be used to document ground-water flow and water quality during post-mining conditions.

MUSKINGUM COUNTY

394859081462802. Local number, M09 P1-1.

LOCATION.--Lat 39°48'59", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 65 in., depth 24 ft, cased to 24.0 ft, bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1,038.46 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.19 below land-surface datum, Feb. 20, 1986; lowest measured, dry many days.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL
Apr 13, 1987	20.92

394859081462803. Local number, M09 P2-2.

LOCATION.--Lat 39°48'59", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 7 in., depth 117 ft, cased to 40.0 ft.

DATUM.--Altitude of land-surface datum is 1,038.56 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.34 ft below land-surface datum, Feb 20, 1986; lowest, measured, 42.75 ft below land-surface datum, July 30, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	36.89	Dec 23, 1986	36.01	Feb 25, 1987	36.40	Apr 13, 1987	35.42
May 28, 1987	35.32	June 16, 1987	35.33	Aug 20, 1987	35.84		

394855081462702. Local number, M09 P3-1.

LOCATION.--Lat 39°48'55", long 81°46'27", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 7 in., depth 24 ft, cased to 24.0 ft, bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1023.06 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.27 ft below land-surface datum, Feb. 20, 1986; lowest measured, dry many days.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	16.24	Dec 23, 1986	15.91	Feb 25, 1987	15.77	Apr 13, 1987	14.92
May 28, 1987	16.58	June 16, 1987	16.88	Aug 20, 1987	17.40		

394845081462600. Local number, M09 W5-2.

LOCATION.--Lat 39°48'45", long 81°46'26", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 49 ft, cased to 17.3 ft.

DATUM.--Altitude of land-surface datum is 973.03 ft. Measuring point: Top of casing, 3.7 ft above land-surface datum.

PERIOD OF RECORD.--March 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.71 ft below land-surface datum, Apr 13, 1987; lowest, measured, 21.70 ft below land-surface datum, Jan. 4, 1977.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	14.33	Dec 23, 1986	13.15	Feb 25, 1987	13.34	Apr 13, 1987	12.71
May 28, 1987	13.89	June 16, 1987	14.05	Aug 20, 1987	15.02		

GROUND-WATER RECORDS IN STRIP MINES--Continued

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MUSKINGUM COUNTY--Continued

394845081462601. Local number, M09 P5-2a.

LOCATION.--Lat 39°48'45", long 81°46'26", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 50 ft., cased to 16.5 ft.

DATUM.--Altitude of land-surface datum is 974.17 ft. Measuring point: Top of casing, 3.0 ft.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 3.91 ft below land-surface datum, Aug. 19, 1980; lowest measured, 9.48 ft below land-surface datum, Sept. 26, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	6.72	Dec 23, 1986	5.28	Apr 13, 1987	4.67	May 28, 1987	7.22
June 16, 1987	6.35	Aug 20, 1987	8.26				

394845081462602. Local number, M09 P5-2b.

LOCATION.--Lat 39°48'45", long 81°46'26", Hydrologic Unit 05040004, near Chandlersville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 50 ft., cased to 17.5 ft.

DATUM.--Altitude of land-surface datum is 973.98 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.67 ft below land-surface datum, Feb. 20, 1986; lowest, 18.68 ft below land-surface datum, Sept. 26, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	15.28	Dec 23, 1986	14.07	Feb 25, 1987	14.25	Apr 13, 1987	13.61
May 28, 1987	14.84	June 16, 1987	14.97	Aug 20, 1987	15.86		

394855081461603. Local number, M09 P6-1.

LOCATION.--Lat 39°48'55", long 81°46'16", Hydrologic Unit 05040004, near Chandlersville

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 56 ft, cased to 56.0 ft, bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1059.91 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, Apr. 11, 1986; lowest measured, dry, prior to April 1980.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	49.81	Dec 23, 1986	49.50	Feb 25, 1987	49.10	Apr 13, 1987	48.60
May 27, 1987	48.10	June 16, 1987	48.30	Aug 20, 1987	49.27		

GROUND-WATER RECORDS IN STRIP MINES--Continued

MUSKINGUM COUNTY--Continued

394855081461604. Local number, MQ9 P7-2.

LOCATION.--Lat 39°48'55", long 81°46'16", Hydrologic Unit 05030106, near Chandlersville

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in, depth 170 ft, cased to 72.0 ft.

DATUM.--Altitude of land-surface datum is 1,060.54 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.80 ft below land-surface datum, Sept. 25 1980; lowest measured, 106.18 ft below land-surface datum, Aug 20, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105.77	105.71	105.70	105.42	105.16	105.19	105.12	104.88	105.09	105.43	105.93	106.25
2	105.77	105.73	105.70	105.42	105.16	105.15	105.11	104.88	105.09	105.43	105.95	106.26
3	105.76	105.74	105.69	105.39	105.14	105.14	105.10	104.88	105.10	105.43	105.95	106.28
4	105.75	105.75	105.66	105.39	105.13	105.13	105.10	104.88	105.10	105.44	105.96	106.29
5	105.73	105.75	105.65	105.37	105.14	105.13	---	104.89	105.11	105.44	105.96	106.30
6	105.72	105.75	105.65	105.37	105.14	105.14	---	104.89	105.12	105.45	105.97	106.31
7	105.72	105.76	105.65	105.36	105.15	105.14	---	104.89	105.12	105.46	105.98	106.33
8	105.72	105.76	105.65	105.35	105.15	105.14	---	104.90	105.14	105.49	106.00	---
9	105.72	105.76	105.65	105.35	105.14	105.13	---	104.92	105.15	105.50	106.02	---
10	105.73	105.76	105.62	105.34	105.14	105.11	---	104.93	105.16	105.51	106.02	---
11	105.74	105.76	105.60	105.32	105.15	105.12	---	104.94	105.18	105.53	106.03	---
12	105.75	105.76	105.57	105.30	105.15	105.12	---	104.94	105.18	105.53	106.04	---
13	105.75	105.76	105.56	105.29	105.15	105.13	104.96	104.96	105.19	105.53	106.05	---
14	105.75	105.77	105.56	105.29	105.15	105.13	104.96	104.97	105.19	105.54	106.07	---
15	105.75	105.77	105.56	105.29	105.15	105.13	104.95	104.98	105.20	105.56	106.08	---
16	105.75	105.77	105.55	105.29	105.15	105.13	104.94	104.99	105.20	105.58	106.10	---
17	105.75	105.76	105.55	105.29	105.15	105.13	104.93	105.00	105.22	105.59	106.11	---
18	105.77	105.76	105.53	105.29	105.15	105.14	104.91	105.01	105.24	105.65	106.11	---
19	105.78	105.75	105.50	105.28	105.15	105.14	104.90	105.02	105.26	105.66	106.11	---
20	105.80	105.75	105.50	105.25	105.16	105.14	104.90	105.02	105.28	105.69	106.13	---
21	105.81	105.72	105.49	105.25	105.17	105.14	104.90	105.04	105.29	105.72	106.15	---
22	105.81	105.72	105.49	105.24	105.17	105.13	104.90	105.05	105.31	105.74	106.15	---
23	105.82	105.72	105.49	105.22	105.17	105.13	104.90	105.05	105.31	105.77	106.16	---
24	105.83	105.72	105.48	105.20	105.17	105.13	104.90	105.07	105.32	105.78	106.17	---
25	105.84	105.72	105.46	105.20	105.18	105.13	104.89	105.08	105.34	105.81	106.19	---
26	105.84	105.72	105.45	105.20	105.19	105.12	104.89	105.10	105.35	105.84	---	---
27	105.84	105.71	105.44	105.20	105.21	105.12	104.90	105.10	105.36	105.85	106.21	---
28	105.84	105.71	105.44	105.20	105.21	105.12	104.89	105.03	105.37	105.86	106.22	---
29	105.84	105.71	105.44	105.20	---	105.14	104.89	105.05	105.39	105.87	106.23	---
30	105.66	105.70	105.43	105.19	---	105.14	104.88	105.07	105.41	105.89	106.23	---
31	105.68	---	105.42	105.17	---	105.13	---	105.08	---	105.92	106.24	---
MAX	105.84	105.77	105.70	105.42	105.21	105.19	---	105.10	105.41	105.92	---	---
WTR YR 1987	MEAN	105.44		HIGH	104.88	APR 30	AND OTHERS	LOW	106.33	SEP 7		

GROUND-WATER RECORDS IN STRIP MINES--Continued

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MUSKINGUM COUNTY--Continued

394852081462002. Local number, M09 P8-1

LOCATION.--Lat 39°48'52", long 81°46'20", Hydrologic Unit 05040004, near Chandlersville

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 37 ft. cased to 37.0 ft, bottom 10 ft slotted..

DATUM.--Altitude of land-surface datum is 1,039.42 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 32.25 ft below land-surface datum, Aug. 19, 1980; lowest measured, intersittently dry.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.06	29.83	---	29.68	29.31	28.86	---	28.22	28.12	28.34	28.67	28.99
2	29.08	29.93	---	29.65	29.12	---	---	28.17	28.12	28.33	28.67	29.01
3	29.08	29.95	---	29.75	29.33	---	---	28.19	28.13	28.35	28.66	29.07
4	29.01	30.79	---	29.74	29.37	---	---	28.26	28.15	28.37	28.65	29.07
5	29.08	---	---	29.75	29.42	---	---	28.27	28.16	28.39	28.68	29.05
6	29.19	---	---	29.70	29.37	---	---	28.25	28.18	28.39	28.72	29.01
7	29.21	---	---	29.67	29.27	---	---	28.22	28.18	28.44	28.73	29.00
8	29.21	---	---	29.67	29.22	---	---	28.23	28.16	28.46	28.74	29.06
9	29.21	---	---	29.66	29.33	---	---	28.22	28.19	28.49	28.74	29.00
10	29.28	---	---	29.42	29.30	---	---	28.19	28.22	28.49	28.76	29.00
11	29.29	---	---	29.52	29.26	---	---	28.16	28.21	28.49	28.77	29.00
12	29.27	---	---	29.53	29.20	---	---	28.17	28.15	28.49	28.77	29.00
13	29.20	---	---	29.54	29.20	---	28.32	28.19	28.12	28.49	28.79	29.07
14	29.21	---	---	29.53	29.15	---	28.31	28.18	28.12	28.49	28.82	29.09
15	29.22	---	---	29.56	29.25	---	28.27	28.19	28.12	28.53	28.83	29.08
16	29.22	---	---	29.59	29.23	---	28.21	28.19	28.12	28.59	28.83	29.07
17	29.32	---	---	29.58	29.09	---	28.20	28.17	28.18	28.64	28.80	29.00
18	29.43	---	---	29.47	29.17	---	28.27	28.12	28.20	28.65	28.86	29.06
19	29.43	---	---	29.45	29.24	---	28.29	28.10	28.20	28.67	28.87	29.07
20	29.41	---	---	29.49	29.25	---	28.33	28.13	28.19	28.68	28.95	29.09
21	29.36	---	---	29.47	29.17	---	28.31	28.17	28.14	28.69	28.95	29.09
22	29.35	---	---	29.33	29.09	---	28.31	28.17	28.14	28.69	28.93	29.14
23	29.36	---	---	29.34	29.19	---	28.28	28.17	28.19	28.68	28.95	29.12
24	29.38	---	29.80	29.42	29.22	---	28.29	28.18	28.21	28.68	29.00	29.19
25	29.38	---	29.76	29.42	29.22	---	28.34	28.17	28.21	28.68	28.99	29.24
26	29.29	---	29.81	29.38	29.24	---	28.36	28.17	28.18	28.67	28.99	29.29
27	29.33	---	29.83	29.38	29.22	---	28.33	28.18	28.22	28.65	28.94	29.30
28	29.40	---	29.82	29.39	29.11	---	28.28	28.67	28.29	28.67	28.95	29.29
29	29.40	---	29.78	29.39	---	---	28.27	28.28	28.29	28.67	29.00	29.12
30	29.62	---	29.73	29.20	---	---	28.22	28.18	28.35	28.66	29.01	29.19
31	29.73	---	29.77	29.32	---	---	---	28.13	---	28.67	28.97	---
MAX	29.73	---	---	29.75	29.42	---	---	28.67	28.35	28.69	29.01	29.30
WTR YR 1987 MEAN	28.87			HIGH 28.10	MAY 19		LOW 30.79	NOV 4				

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 1986									
04...	1500	1830	6.70	14.0	1200	680	370	64	8.3
MAY 1987									
28...	1130	1300	6.75	14.5	1100	0	330	55	6.5
DATE		POTAS- SIUM, WH WAT DIS- SOLVED (MG/L AS K)	ALKA- LINITY TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 1986									
04...	2.2	510	840	2.7	1310	<10	7	1200	
MAY 1987									
28...	2.2	M404	700	2.0	1350	10	5	930	

GROUND-WATER RECORDS IN STRIP MINES--Continued

MUSKINGUM COUNTY--Continued

394582081462003. Local number, M09 P9-2.

LOCATION.--LAT 39°48'52", long 81°46'20", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in, depth 119 ft, cased to 60.0 ft.

DATUM.--Altitude of land-surface datum is 1,039.24 ft. Measuring point: Top of casing, 3.0 ft above land surface datum.

PERIOD OF RECORD.--highest water level, 54.62 ft below land-surface datum, April 15, 1980; lowest measured, 67.45 ft below land-surface datum, Aug. 2, 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 29.92 ft below land-surface datum, Jan. 18, 1986, lowest measured, dry, prior to January 1982.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	65.47	Nov 4, 1986	65.53	Dec 23, 1986	59.81	Feb 25, 1987	61.11
Apr 13, 1987	58.62	May 28, 1987	61.63	Jun 16, 1987	66.58	Aug 20, 1987	65.45

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 1986									
04...	1340	919	7.35	12.0	230	0	55	22	140
MAY 1987									
28...	1300	905	7.45	14.0	220	0	55	21	120
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 1986									
04...	2.2	347	160	5.3	614	30	9	75	
MAY 1987									
28...	2.4	363	130	2.6	553	<10	23	96	

394841081463200. Local number, M09 W10-3.

LOCATION.--LAT 39°48'41", long 81°46'32", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in, depth 190 ft, cased to 41 ft. After Sept. 29, 1976, slotted casing from 140 ft to bottom of well.

DATUM.--Altitude of land-surface datum is 941.51 ft. Measuring point: Top of casing, 0.98 ft above land surface datum. Prior to Sept. 29, 1976, top of casing, 2.8 ft above land-surface datum

REMARKS.--Well redrilled September 29, 1976 because well collapsed.

PERIOD OF RECORD.--March 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 7.92 ft below land-surface datum, Apr 13, 1987, lowest measured, 37.55 ft below land-surface datum, Dec. 21, 1976.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	24.52	Dec 23, 1986	12.35	Feb 25, 1987	12.02	Apr 13, 1987	7.92
June 16, 1987	12.75	Aug 20, 1987	22.43				

394853081462803. Local number, M09 P11-2.

LOCATION.--LAT 39°48'53", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in, depth 97 ft, cased to 26.8 ft.

DATUM.--Altitude of land-surface datum is 1,022.15 ft. Measuring point: Top of casing, 2.5 ft above land surface datum. Prior to Sept. 27, 1978, top of casing, 2.8 ft above land-surface datum

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 23.17 ft below land-surface datum, Feb. 20, 1986, lowest measured, 28.97 ft below land-surface datum, Sept. 27, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	24.82	Dec 23, 1986	23.75	Feb 25, 1987	24.36	Apr 13, 1987	22.71
May 28, 1987	24.25	June 16, 1987	24.55	Aug 20, 1987	24.73		

GROUND-WATER RECORDS IN STRIP MINES--Continued

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MUSKINGUM COUNTY--Continued

394858081462801. Local number. M09 P12-1.

LOCATION.--LAT 39°48'58", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in, depth 62.2 ft, cased to 62.0 ft. bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1,071.07 ft. Measuring point: Top of casing, 2.2 ft above land surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 54.32 ft below land-surface datum, Feb. 20, 1986; lowest water level measured, 60.76 ft below land-surface datum, Jan. 15, 1982.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	59.82	Dec 23, 1986	59.22	Feb 25, 1987	58.89	Apr 13, 1987	58.19
May 27, 1987	57.75	June 16, 1987	58.10	Aug 20, 1987	59.23		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 1986 04...	1130	4340	6.94	14.0	3400	3000	490	530	56
MAY 1987 27...	1230	4100	6.70	18.0	3300	2700	530	470	47

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 1986 04...	9.7	554	3000	4.6	4610	20	600	1500
MAY 1987 27...	9.2	581	2900	11	4650	10	1400	1900

394855081462802. Local number, M09 P13-1.

LOCATION.--LAT 39°48'55", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Sand, shales and coals of Middle Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in, depth 53.2 ft, cased to 53.2 ft. bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1,059.98 ft. Measuring point: Top of casing, 3.0 ft above land surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 43.70 ft below land-surface datum, July 23, 1986; lowest measured, 49.50 ft below land-surface datum, Jan. 15, 1982.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 26, 1986	48.77	Dec 23, 1986	48.14	Feb 25, 1987	47.80	Apr 13, 1987	47.10
May 27, 1987	46.73	June 16, 1987	46.95	Aug 20, 1987	48.05		

GROUND-WATER RECORDS IN STRIP MINES--Continued

MUSKINGUM COUNTY--Continued

394851081462803. Local number. M09 P14-1.

LOCATION.--LAT 39°48'51", long 81°46'28", Hydrologic Unit 05040004, near Chandlersville.

AQUIFER.--Overburden spoils, replaced after mining.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in, depth 56.0 ft, cased to 56.0 ft. bottom 10 ft slotted.

DATUM.--Altitude of land-surface datum is 1,046.03 ft. Measuring point: Top of casing, 3.0 ft above land surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 19.87 ft below land-surface datum, Feb. 25, 1981; lowest water level measured, 39.31 ft below land-surface datum, Oct. 16, 1985.

WATER LEVELS, IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 29, 1986	31.18	Dec 23, 1986	31.91	Feb 25, 1987	31.40	Apr 13, 1987	30.25
May 27, 1987	30.70	June 16, 1987	34.70	Aug 20, 1987	31.33		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 1986									
29...	0900	1510	6.74	14.0	810	0	230	58	13
MAY 1987									
27...	1430	1100	6.75	14.5	860	0	250	58	13

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1986								
29...	1.1	992	9.3	5.7	833	10	32000	3100
MAY 1987								
27...	1.0	1120	8.5	11	918	<10	41000	3300

394839081463000. Local number. M09 Stream

LOCATION.--LAT 39°48'39", long 81°46'30", Hydrologic Unit 05040004, near Chandlersville.

DRAINAGE AREA.--0.06 mi².

DATUM.--Altitude of land-surface datum is 920 ft.

PERIOD OF RECORD.--July 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 1986									
29...	1030	2200	7.79	16.0	1300	1100	310	130	15
MAY 1987									
28...	1015	1850	7.8	21.5	1500	0	370	140	14

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1986								
29...	2.1	225	1300	3.0	1980	10	<10	1800
MAY 1987								
28...	1.6	243	1200	11	2000	10	20	580

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394846081463100. Local number. M09 Seep.
LOCATION.--LAT 39°48'46", long 81°46'31", Hydrologic Unit 05040004, near Chandlersville.
AQUIFER.--Overburden spoils, replaced after mining.
DATUM.--Altitude of land-surface datum is 985 ft.
PERIOD OF RECORD.--July 1986 to current year.

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH TOT (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 1986 29...	1000	3140	7.60	15.0	2400	2000	560	240	19
MAY 1987 28...	1200	Dry	--	--	--	--	--	--	--

[illegible]

The following table contains water-level measurements from a network of wells in Portage County. The data was collected as part of a cooperative study with the City of Akron for evaluating the possible degradation of ambient ground-water quality by brine injection wells.

Geologic Unit Codes: 1120TSH, Pleistocene outwash; 324PSVL, Pennsylvanian Pottsville Formation.

Site No.	Geologic Local No.	Unit	Date	Water ¹ Level
411038081190200	PO-19	1120TSH	Sept. 16, 1987	3.39
411038081190201	PO-20	1120TSH	Sept. 16, 1987	3.40
411418081141200	PO-21	324PSVL	Sept. 10, 1987	31.45
411404081135500	PO-22	324PSVL	Sept. 10, 1987	29.15
411319081141400	PO-23	324PSVL	Sept. 11, 1987	24.25
411258081165300	PO-24	324PSVL	Sept. 11, 1987	54.20
411311081161600	PO-25	324PSVL	Sept. 11, 1987	42.10
411041081172100	PO-26	1120TSH	Sept. 14, 1987	14.84
411040081172800	PO-27	1120TSH	Sept. 14, 1987	2.03
411049081174500	PO-28	324PSVL	Sept. 14, 1987	51.70
411126081175900	PO-29	1120TSH	Sept. 15, 1987	62.08
411509081123300	PO-30	324PSVL	Sept. 10, 1987	27.66
411508081120800	PO-31	324PSVL	Sept. 10, 1987	31.29
411558081141000	PO-32	324PSVL	Sept. 10, 1987	14.08
411556081142900	PO-33	324PSVL	Sept. 10, 1987	34.14
411517081114200	PO-34	324PSVL	Sept. 11, 1987	71.06
411550081144900	PO-35	1120TSH	Sept. 11, 1987	14.50
411541081171300	PO-36	1120TSH	Sept. 11, 1987	16.04
411512081120500	PO-37	324PSVL	Sept. 15, 1987	26.72
411559081142100	PO-38	-----	Sept. 15, 1987	41.51
411559081142400	PO-39	324PSVL	Sept. 15, 1987	42.40
411540081150100	PO-40	324PSVL	Sept. 15, 1987	12.09
411539081164600	PO-41	1120TSH	Sept. 15, 1987	17.96
411635081185500	PO-42	1120TSH	Sept. 16, 1987	42.80
411635081185501	PO-42A	-----	Sept. 16, 1987	48.45
411631081181500	PO-43	1120TSH	Sept. 16, 1987	96.98
411539081180800	PO-44	1120TSH	Sept. 16, 1987	60.70
411432081200100	PO-45	324PSVL	Sept. 16, 1987	76.43
411405081192200	PO-46	324PSVL	Sept. 16, 1987	52.40
411441081193400	PO-47	1120TSH	Sept. 16, 1987	74.08
411341081203800	PO-48	1120TSH	Sept. 16, 1987	85.24
412017081052100	PO-49	324PSVL	Sept. 17, 1987	76.97
411243081121100	PO-50	1120TSH	Sept. 14, 1987	43.40
411242081120600	PO-51	1120TSH	Sept. 14, 1987	52.05
411227081115700	PO-52	1120TSH	Sept. 14, 1987	38.88
411417081114100	PO-53	324PSVL	Sept. 14, 1987	37.02
411418081131300	PO-54	1120TSH	Sept. 15, 1987	6.72
411701081152600	PO-55	324PSVL	Sept. 15, 1987	29.96
411729081124600	PO-56	324PSVL	Sept. 15, 1987	22.05
412033081124900	PO-57	1120TSH	Sept. 15, 1987	13.63
412033081122600	PO-58	324PSVL	Sept. 15, 1987	23.50
411741081132400	PO-59	324PSVL	Sept. 15, 1987	31.19
411405081041400	PO-60	324PSVL	Sept. 16, 1987	10.54
411423081050800	PO-61	324PSVL	Sept. 16, 1987	77.02
411500081050500	PO-62	324PSVL	Sept. 16, 1987	57.44
411536081032800	PO-63	324PSVL	Sept. 16, 1987	10.60
411528081024400	PO-64	324PSVL	Sept. 16, 1987	10.62
411515081013200	PO-65	324PSVL	Sept. 16, 1987	14.40
411534081003300	PO-66	324PSVL	Sept. 16, 1987	11.52
411452081023300	PO-67	324PSVL	Sept. 16, 1987	16.20
411409081044400	PO-68	324PSVL	Sept. 16, 1987	88.84
411450081174100	PO-69	324PSVL	Sept. 16, 1987	9.29
411119081165100	PO-70	324PSVL	Sept. 15, 1987	1.19
411125081170800	PO-71	1120TSH	Sept. 15, 1987	9.41
411205081170700	PO-72	324PSVL	Sept. 15, 1987	9.41
411155081115700	PO-73	324PSVL	Sept. 15, 1987	33.80
411418081143800	PO-74	324PSVL	Sept. 15, 1987	24.52
411435081151800	PO-75	1120TSH	Sept. 15, 1987	18.20
411209081165900	PO-76	1120TSH	Sept. 16, 1987	27.26
411317081175600	PO-77	1120TSH	Sept. 16, 1987	11.66
411315081155100	PO-78	324PSVL	Sept. 16, 1987	24.41
411325081154400	PO-79	324PSVL	Sept. 16, 1987	23.88
411327081164900	PO-80	1120TSH	Sept. 16, 1987	10.67

Site No.	Local No.	Geologic Unit	Date	Water ¹ Level
411344081175500	PO-81	324PSVL	Sept. 16, 1987	8.90
411427081172100	PO-82	324PSVL	Sept. 16, 1987	20.93
411448081172100	PO-83	324PSVL	Sept. 16, 1987	22.65
411448081171900	PO-84	-----	Sept. 16, 1987	21.66
411840081052200	PO-85	324PSVL	Sept. 17, 1987	45.72
411857081054300	PO-86	1120TSH	Sept. 17, 1987	30.92
411958081044700	PO-87	-----	Sept. 17, 1987	50.68
412031081051700	PO-88	324PSVL	Sept. 17, 1987	66.38
411956081064400	PO-89	1120TSH	Sept. 17, 1987	27.57
411221081205100	PO-90	1120TSH	Sept. 16, 1987	70.96
411851081044400	PO-91	324PSVL	Sept. 17, 1987	74.20
411418081122100	PO-92	324PSVL	Sept. 23, 1987	17.10
411709081140800	PO-93	324PSVL	Sept. 22, 1987	15.04
411743081135400	PO-94	324PSVL	Sept. 22, 1987	55.07
411824081140000	PO-95	324PSVL	Sept. 22, 1987	30.72
411858081122600	PO-96	324PSVL	Sept. 22, 1987	12.42
411954081120600	PO-97	324PSVL	Sept. 22, 1987	51.25
411939081113600	PO-98	324PSVL	Sept. 22, 1987	42.03
411714081113500	PO-99	324PSVL	Sept. 23, 1987	32.29
411752081120800	PO-100	1120TSH	Sept. 23, 1987	16.00
411834081112800	PO-101	1120TSH	Sept. 23, 1987	27.48
411837081102000	PO-102	1120TSH	Sept. 23, 1987	22.90
411956081094100	PO-103	324PSVL	Sept. 23, 1987	28.09
412034081091900	PO-104	324PSVL	Sept. 23, 1987	20.07
412041081101600	PO-105	324PSVL	Sept. 23, 1987	9.89
412040081101000	PO-106	1120TSH	Sept. 23, 1987	12.89

¹Depth of water level below land surface, in feet.

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT

The following tables contain ground-water levels from a network of 412 domestic, industrial, and observation water wells in Lucas, Wood, and Sandusky Counties. Also, the tables list water-quality data for ground water from 147 wells and springs. The well network and spring network has been established as part of an ongoing assessment of ground-water movement and ground-water quality in the regional Silurian and Devonian Carbonate aquifer and selected unconsolidated aquifers of Quaternary age.

Local well numbers are comprised of a county prefix and township and section number suffix. City and township abbreviations used for well identification in Lucas, Wood, and Sandusky Counties are shown below:

Lucas		Sandusky		Wood	
City or township	Abbreviation	City or township	Abbreviation	City or township	Abbreviation
Jerusalem	J	Ballville	B	Bloom	B
City of Maumee	MA	Green Creek	GC	Center	C
Monclova	M	Jackson	J	Freedom	F
City of Oregon	O	Madison	M	Grand Rapids	GR
Providence	P	Rice	R	Henry	H
Richfield	R	Riley	RL	Jackson	J
Spencer	SP	Sandusky	S	Liberty	LI
Springfield	SF	Scott	SC	Lake	LK
Swanton	SW	Townsend	T	Middleton	MD
Sylvania	SY	Washington	W	Milton	ML
City of Toledo	T	Woodville	WO	Montgomery	MO
Washington	WA	York	Y	City of Northwood	N
Waterville	W			Perry	PE
				Perrysburg	PB
				Plain	PL
				Portage	PO
				City of Rossford	R
				Troy	T
				Washington	WA
				Webster	WB
				Weston	WS

The ground-water assessment is being conducted in cooperation with: Wood County; Sandusky County Department of Public Health; Lucas County; City of Toledo, Ohio; City of Oregon, Ohio; City of Sylvania, Ohio; and City of Maumee, Ohio.

GROUND-WATER LEVELS FOR LUCAS COUNTY

413728083393900. Local number, LU-110-T.

LOCATION.--Lat 41°37'28", long 83°39'39", Hydrologic Unit 04100001, 5020 Angola Rd. at Toledo.

Owner: Gelco Truck Leasing.

AQUIFER.--Dolomite of Silurian Age.

WELL CHARACTERISTICS.--Drilled commercial water well converted for observation, diameter 4.25 in., depth, 342 ft., cased to 122 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 626 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--June 10, 1986 to September 30, 1987.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.46 ft below land-surface datum, Apr. 16 and 29, 1987; lowest water level, 50.86 ft below land-surface datum, Aug. 24, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49.96	49.00	49.20	48.58	48.35	47.99	47.96	47.50	48.33	48.92	49.92	50.47
2	49.98	49.05	48.96	48.44	48.10	48.27	47.96	47.47	48.49	48.86	49.89	50.39
3	49.92	48.99	48.74	48.57	48.39	48.50	48.09	47.62	48.59	48.83	50.03	50.51
4	49.71	48.87	48.91	48.65	48.62	48.59	48.00	47.74	48.69	48.86	50.07	50.47
5	49.64	48.91	49.06	48.64	48.63	48.49	47.91	47.72	48.74	48.87	50.23	50.38
6	49.72	48.83	48.99	48.46	48.53	48.44	47.86	47.62	48.79	48.78	50.31	50.27
7	49.75	48.92	48.91	48.54	48.43	48.36	47.77	47.59	48.66	48.79	50.35	50.22
8	49.58	48.79	48.79	48.51	48.64	48.20	47.73	47.63	48.60	48.78	50.37	50.16
9	49.61	48.99	48.59	48.47	48.66	48.43	47.71	47.60	48.73	48.80	50.23	50.19
10	49.68	49.11	48.79	48.18	48.56	48.47	47.67	47.59	48.84	48.75	50.41	50.23
11	49.51	48.96	48.74	48.26	48.56	48.45	47.53	47.58	48.67	48.73	50.41	50.19
12	49.36	49.00	48.86	48.45	48.49	48.40	47.68	47.81	48.50	48.67	50.36	50.20
13	49.28	49.22	48.97	48.45	48.51	48.40	47.79	47.84	48.51	48.60	50.34	50.23
14	49.15	49.22	48.89	48.45	48.46	48.27	47.66	47.78	48.45	48.71	50.40	50.38
15	49.23	48.93	48.74	48.99	48.54	48.27	47.48	48.01	48.49	48.72	50.41	50.37
16	49.21	48.82	48.73	49.08	48.54	48.38	47.46	47.97	48.49	48.85	50.37	50.31
17	49.25	48.81	48.71	49.03	48.34	48.38	47.48	47.90	48.59	48.96	50.38	50.20
18	49.31	48.92	48.54	48.66	48.43	48.25	47.60	47.93	48.63	48.99	50.52	50.16
19	49.32	49.05	48.58	48.53	48.56	48.17	47.66	47.98	48.62	49.04	50.52	50.23
20	49.18	48.85	48.66	48.56	48.55	48.12	47.62	48.05	48.62	49.13	50.67	50.22
21	48.98	48.94	48.77	48.47	48.42	48.14	47.64	48.08	48.62	49.25	50.65	50.22
22	48.94	48.99	48.77	48.30	48.31	48.13	47.62	48.13	48.68	49.33	50.59	50.23
23	48.89	48.88	48.61	48.38	48.52	48.10	47.55	48.26	48.88	49.37	50.79	50.23
24	48.96	49.04	48.53	48.57	48.61	48.04	47.72	48.30	48.96	49.47	50.86	50.14
25	48.87	49.04	48.57	48.55	48.66	47.96	47.79	48.26	48.85	49.58	50.81	50.23
26	48.67	48.95	48.69	48.54	48.66	48.08	47.74	48.22	48.80	49.62	50.76	50.23
27	48.72	49.06	48.69	48.54	48.62	48.08	47.64	48.25	48.81	49.67	50.58	50.24
28	48.84	49.05	48.68	48.56	48.41	48.17	47.60	48.28	48.86	49.75	50.58	50.25
29	48.89	49.11	48.66	48.57	---	48.16	47.46	48.28	48.85	49.77	50.65	50.11
30	49.06	49.17	48.62	48.26	---	47.98	47.59	48.26	48.95	49.82	50.63	50.01
31	49.07	---	48.64	48.40	---	47.94	---	48.31	---	49.89	50.45	---
MAX	49.98	49.22	49.20	49.08	48.66	48.59	48.09	48.31	48.96	49.89	50.86	50.51
WTR YR 1987 MEAN	48.87			HIGH	47.46	APR 16 AND OTHERS		LOW	50.86	AUG 24		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR LUCAS COUNTY--Continued

413300083510500. Local number, LU-303-SW20

LOCATION.--Lat 41°33'00", long 83°51'05", Hydrologic Unit 04100009, 300 ft north of Reed Rd, 700 ft east of Girdham Rd., Oak Openings Park.

Owner: City of Toledo Metropolitan Parks.

AQUIFER.--Sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point with 2 ft of 0.007 in. well screen, diameter 1.25 in., depth, 11.8 ft.

INSTRUMENTATION.--Pressure transducer and data logger -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 675 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of coupling, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--October 1, 1986 to September 30, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.79	3.26	3.23	3.21	3.39	3.26	---	3.15	3.59	3.84	5.10	5.59
2	3.68	3.27	3.18	3.24	3.33	3.10	---	3.14	3.46	3.81	5.13	5.59
3	3.59	3.39	2.91	3.27	3.30	3.15	---	3.02	3.30	3.84	5.17	5.60
4	2.91	3.42	2.98	3.31	3.28	3.17	---	2.52	3.43	3.81	5.21	5.63
5	2.94	3.43	3.02	3.33	3.27	3.17	---	2.57	3.55	3.84	5.26	5.65
6	3.01	3.47	3.05	3.28	3.26	3.17	---	2.65	3.60	3.81	5.29	5.69
7	3.04	3.47	3.04	3.34	3.20	3.17	---	2.73	3.68	3.86	5.33	5.72
8	3.11	3.49	2.84	3.36	3.10	3.15	---	2.81	3.73	3.97	5.33	5.75
9	3.14	3.55	2.75	3.36	3.14	3.24	---	2.86	3.81	4.05	5.36	5.79
10	3.17	3.56	2.68	3.37	3.15	3.27	---	2.94	3.85	4.14	5.39	5.81
11	3.18	3.59	2.69	3.39	3.15	3.28	---	3.01	3.88	4.21	5.40	5.82
12	3.21	3.62	2.84	3.40	3.14	3.31	---	3.11	3.91	4.26	5.42	5.81
13	3.04	3.63	2.91	3.43	3.14	3.34	---	3.13	3.91	4.30	5.45	5.81
14	2.75	3.65	2.91	3.42	3.18	3.33	---	3.18	3.97	4.34	5.47	5.82
15	2.81	3.65	2.95	3.21	3.24	3.30	2.60	3.23	4.04	4.37	5.50	5.76
16	2.85	3.66	2.97	3.08	3.26	3.24	2.56	3.27	4.08	4.40	5.53	5.79
17	2.94	3.69	2.95	3.10	3.30	3.15	2.62	3.33	4.15	4.44	5.58	---
18	3.00	3.69	2.85	3.10	3.36	3.10	2.69	3.33	4.20	4.49	5.60	---
19	3.03	3.68	2.89	3.14	3.40	3.20	2.75	2.78	4.26	4.55	5.65	---
20	3.05	3.62	2.97	3.15	3.42	---	2.78	2.81	4.26	4.60	5.68	---
21	3.08	3.44	3.01	3.18	3.42	---	2.85	2.89	4.01	4.65	5.69	---
22	3.11	3.42	3.04	3.15	3.42	---	2.86	3.01	3.95	4.69	5.74	---
23	3.16	3.42	3.02	3.24	3.44	---	2.86	3.10	3.72	4.73	5.75	---
24	3.18	3.46	3.01	3.30	3.46	---	2.95	3.15	3.79	4.79	5.78	---
25	3.18	3.49	3.08	3.31	3.46	---	2.98	3.20	3.86	4.82	5.78	---
26	3.13	3.46	3.13	3.34	3.47	---	3.01	3.26	3.97	4.87	5.78	---
27	3.08	3.15	3.14	3.36	3.46	---	3.02	3.34	4.08	4.91	5.76	---
28	3.13	3.15	3.17	3.40	3.44	---	3.08	3.42	4.15	4.94	5.76	---
29	3.18	3.18	3.17	3.40	---	---	3.08	3.49	4.21	4.98	5.72	---
30	3.23	3.20	3.20	3.40	---	---	3.14	3.55	4.23	5.02	5.65	---
31	3.24	---	3.21	3.43	---	---	---	3.57	---	5.05	5.60	---
MAX	3.79	3.69	3.23	3.43	3.47	---	---	3.57	4.26	5.05	5.78	---
WTR YR 1987 MEAN	3.71		HIGH	2.52		MAY 4	LOW	5.82		SEP 11 and 14.		

GROUND-WATER LEVELS FOR LUCAS COUNTY--Continued

SITE NUMBER	LOCAL NO. CO. SEC. & ID. NO.	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
<u>Wells Completed in Carbonate Aquifer</u>					
414127083424800	LU-100-SY16	414127	0834248	02-04-87	53.32
414125083423500	LU-101-SY16	414125	0834235	02-04-87	51.57
414132083423300	LU-102-SY16	414132	0834233	02-04-87	53.58
414213083432000	LU-103-SY9	414213	0834320	02-04-87	21.85
414238083395700	LU-104-SY11	414238	0833957	02-05-87	54.43
414209083405800	LU-105-SY14	414209	0834058	02-05-87	40.99
				06-17-87	49.60
413824083435100	LU-106-SF5	413824	0834351	02-04-87	20.50
413914083441000	LU-108-SF32	413914	0834410	02-04-87	46.45
413728083393900	LU-110-T	413728	0833939	10-01-86	49.90
				12-10-86	48.63
				01-27-87	48.29
				04-14-87	47.57
				06-16-87	48.47
				07-28-87	49.75
413447083382500	LU-111-MA36	413447	0833825	01-26-87	58
413328083410500	LU-112-MA3	413328	0834105	01-26-87	69.19
				07-07-87	72.22
413246083415400	LU-113-M10	413246	0834154	01-26-87	43.87
				06-17-87	46.52
413213083445000	LU-114-M7	413213	0834450	01-26-87	15.83
413332083440500	LU-115-M5	413332	0834405	01-27-87	22.66
413436083441300	LU-116-M32	413436	0834413	01-27-87	15.43
				06-25-87	19.19
413614083441600	LU-117-SF19	413614	0834416	01-27-87	16.47
413638083453200	LU-118-SF18	413638	0834532	02-05-87	20.15
413728083445600	LU-119-SF18	413728	0834456	01-27-87	21.74
				06-24-87	23.63
413534083470900	LU-120-SF1	413534	0834709	02-03-87	40.07
				06-23-87	40.06
413424083421400	LU-121-M33	413424	0834214	01-27-87	38.15
414126083395300	LU-123-SY23	414126	0833953	02-05-87	48.54
413939083420700	LU-124-SY27	413939	0834207	02-04-87	65.28
413922083384800	LU-125-T	413922	0833848	02-04-87	37.00
413942083364400	LU-127-T	413942	0833644	06-17-87	25.80
413819083370200	LU-128-T	413819	0833702	01-27-87	48.68
413748083321600	LU-129-T	413748	0833216	01-27-87	55.15
414321083303300	LU-130-T	414321	0833033	01-27-87	30.63
414317083424100	LU-131-SY4	414317	0834241	02-04-87	16.03
				06-10-87	16.91
414315083445400	LU-132-SY6	414315	0834454	02-04-87	33.20
414024083435500	LU-133-SY29	414024	0834355	02-04-87	39.03
				06-16-87	40.87
413429083511200	LU-134-SW8	413429	0835112	02-03-87	31.03
				06-16-87	31.90
413535083502800	LU-135-SW4	413535	0835028	02-03-87	23.45
				06-24-87	25.82
413303083492800	LU-136-SW22	413303	0834928	02-03-87	44.72
				06-23-87	45.88
413217083475300	LU-137-W26	413217	0834753	02-03-87	31.81
413327083470800	LU-138-M24	413327	0834708	02-03-87	31.62
413426083474800	LU-139-M14	413426	0834748	02-03-87	44.23
413003083441300	LU-141-W29	413003	0834413	01-26-87	25.06
				07-07-87	25.90
412803083454500	LU-142-W19	412803	0834545	02-03-87	37.12
				06-26-87	38.60
412736083471500	LU-143-W24	412736	0834715	02-03-87	35.78
412843083474800	LU-144-P14	412843	0834748	02-03-87	25.10
412929083460300	LU-145-W12	412929	0834603	02-03-87	25.93
412945083485700	LU-146-W10	412945	0834857	02-03-87	31.82
				07-08-87	29.59
412731083492100	LU-147-P27	412731	0834921	02-03-87	26.61
412633083482400	LU-148-P34	412633	0834824	02-03-87	36.79
				06-24-87	37.26
412539083503800	LU-149-P33	412539	0835038	02-03-87	34.68
412704083511200	LU-150-P29	412704	0835112	02-03-87	28.31
412906083512200	LU-151-P17	412906	0835122	02-03-87	41.49
413102083504600	LU-152-SW32	413102	0835046	02-03-87	45.42
				06-25-87	46.00
413927083221300	LU-154-J33	413927	0832213	01-29-87	29.30
414029083214100	LU-155-J28	414029	0832141	01-29-87	22.41
413909083195300	LU-156-J2	413909	0831953	01-29-87	24.19
413939083154200	LU-157-J32	413939	0831542	01-29-87	0.14
413820083181400	LU-158-J1	413820	0831814	01-29-87	18.03
413830083162800	LU-159-J6	413830	0831628	01-29-87	10.10
413727083190500	LU-160-J11	413727	0831905	01-29-87	20.78
				07-14-87	21.18
414022083171800	LU-161-J30	414022	0831718	01-29-87	8.22
				07-09-87	10.50

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR LUCAS COUNTY--Continued

SITE NUMBER	LOCAL NO.		LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
	CO. ID.	SEC. & NO.				
413734083210300	LU-162-J10		413734	0832103	01-29-87	35.44
413728083173500	LU-163-J12		413728	0831735	01-29-87	16.30
413719083221300	LU-164-J17		413719	0832213	01-29-87	42.02
413730083250200	LU-165-O12		413730	0832502	01-29-87	45.93
					07-06-87	51.81
413749083234300	LU-166-O7		413749	0832343	01-28-87	42.33
413937083223700	LU-167-O32		413937	0832237	01-28-87	27.44
					07-13-87	34.29
413931083274200	LU-168-O34		413931	0832742	01-28-87	40.29
					07-14-87	47.68
414019083261400	LU-170-O26		414019	0832614	07-07-87	38.96
413723083280300	LU-171-O9		413723	0832803	01-30-87	55.21
414314083351000	LU-173-T		414314	0833510	01-28-87	35.47
414151083352200	LU-174-T		414151	0833522	01-28-87	61.57
					06-23-87	65.20
414142083290400	LU-175-T		414142	0832904	01-29-87	20.80
413819083195600	LU-176-J3		413819	0831956	01-29-87	29.07
414029083201000	LU-177-J27		414029	0832010	01-29-87	20.52
					07-15-87	25.07
413926083173300	LU-178-J31		413926	0831733	01-29-87	12.12
413915083144200	LU-179-J33		413915	0831442	02-02-87	4.46
					07-14-87	6.21
413743083112300	LU-180-J12		413743	0831123	02-02-87	4.32
					07-23-87	4.62
413742083111600	LU-181-J12		413742	0831116	02-02-87	4.40
413730083153500	LU-182-J8		413730	0831535	01-29-87	5.90
413747083265200	LU-183-O10		413747	0832652	01-28-87	49.46
					09-02-87	58.86
413817083242700	LU-184-O6		413817	0832427	01-28-87	39.71
					07-08-87	46.29
413912083221400	LU-185-J33		413912	0832214	01-29-87	30.03
414128083314800	LU-193-T		414128	0833148	01-27-87	75.47
					06-22-87	82.97
414330083315700	LU-194-T		414330	0833157	01-28-87	36.00
					06-23-87	32.14
414344083292000	LU-195-WA4		414344	0832920	01-29-87	21.38
					07-06-87	25.31
					07-21-87	26.31
414328083281300	LU-196-T		414328	0832813	01-28-87	22.05
<u>Wells Completed in Sand Aquifer</u>						
413408083512400	LU-301-SW17		413408	0835124	10-01-86	6.77
					02-03-87	5.82
					06-02-87	6.18
413212083514300	LU-302-SW29		413212	0835143	10-01-86	4.17
					02-03-87	3.46
					06-02-87	4.17
413300083510500	LU-303-SW20		413300	0835105	10-01-86	3.81
					11-03-86	3.39
					12-10-86	2.64
					12-11-86	2.70
					02-03-87	3.32
					02-04-87	3.28
					04-15-87	2.60
					04-28-87	3.10
					06-03-87	3.19
					06-16-87	4.08
					07-28-87	4.96
413328083501100	LU-304-SW21		413328	0835011	10-01-86	8.68
					02-03-87	7.65
					06-03-87	7.71
414133083424800	LU-305-SY16		414133	0834248	10-02-86	6.53
					02-04-87	5.92
					06-03-87	6.04
414314083403100	LU-306-SY2		414314	0834031	10-02-86	5.04
					02-05-87	5.00
					06-03-87	4.73
414203083411700	LU-307-SY15		414203	0834117	10-02-86	8.69
					06-10-87	7.75
413503083473900	LU-308-M11		413503	0834739	11-14-86	8.45
					11-20-86	3.36
					02-03-87	3.19
					06-09-87	3.98
414242083395100	LU-309-SY12		414242	0833951	02-05-87	8.32
					06-04-87	9.15
413823083435200	LU-310-SF5		413823	0834352	11-20-86	3.81
					02-04-87	3.60
					06-09-87	4.05
414258083403100	LU-312-SY11		414258	0834031	02-05-87	3.72
414203083425500	LU-315-SY16		414203	0834255	02-04-87	5.60

The following tables contain results of analyses of ground waters collected for the purpose of establishing a data base of water-quality information for wells completed in the Silurian-Devonian carbonate aquifer and in selected surficial-sand aquifers of Quaternary age. Ground water also was collected from a spring (IU-14) that discharges from the Silurian-Devonian carbonate aquifer at a quarry sump. Water characteristics, major and minor dissolved inorganic constituents, dissolved trace elements, nitrogen and phosphorus compounds, and dissolved organic carbon are reported.

In data for total coliform, fecal coliform, and fecal streptococcus bacteria counts, the prefix "K" indicates an estimated count based on a non-ideal colony number of less than 20 per filter. The ">" symbol preceding a value indicates that the number of colonies per filter was too numerous to count; therefore, an estimate was made based on the smallest filtered volume.

Samples for total recoverable purgeable organic compound analysis by GC-MS were collected from the following: wells (county prefix is omitted)--116-M32, 127-T, 131-SY4, 133-SY29, 141-W29, 148-P34, 169-05, 170-026, 179-J33, 180-J12, 193-T, 197-027, 198-W3, 301-SW17, 302-SW29, 305-SY16, 306-SY2; Spring--14. The results for the specific purgeable compounds were found to be less than the reporting concentration listed in the table below for all wells and the spring.

[illegible]

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413431083403400. Local number, LU-14 at Maumee.
 LOCATION.--Lat 41°34'31", long 83°40'03", Hydrologic Unit 04100009.
 OWNER: Stoneco, Inc.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Quarry sump spring.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 05...	0900	1350	8.05	7.50	22.0	19.0	7.8	K16	K11	K16	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 05...	560	300	120	53	5.4	1.0	318	0	261	4.5	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 05...	ND	250	9.7	1.3	0.075	7.7	674	640	0.011	0.537	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 05...	0.207	0.60	0.001	20	<1	30	260	25	35000	3.7	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414209083405800. Local number, LU-105-SY14 at Sylvania.

LOCATION.--Lat 41°42'09", long 83°40'58", Hydrologic Unit 04100001.

OWNER: Sylvania Country Club.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 71 ft., cased to 59.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 17...	0940	49.60	360	8.00	8.00	24.0	13.0	ND	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 17...	<1	140	0	31	10	25	1.0	214	0	173	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 17...	3.4	38	1.4	2.0	<0.010	10	216	239	<0.010	<0.100	
DATE	TIME	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 17...	0.090	0.20	<0.001	10	290	4	<1	15000	2.4		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413328083410500. Local number, LU-112-MA3 at Maumee.

LOCATION.--Lat 41°33'28", long 83°41'05", Hydrologic Unit 04100009.

OWNER: St. Lukes Hospital.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 305 ft., cased to 72.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUL 07...	0945	72.22	3000	7.26	7.60	23.0	12.5	0	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3)
JUL 07...	<1		1700	1600	460	140	100	7.4	184	0	153
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 07...	16	29	1900	8.6	2.2	0.13	10	2910	2730	0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 07...	<0.100	0.900	1.0	0.004	10	1400	100	20	11000	1.2	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413246083415400. Local number, LU-113-M10 at Maumee.

LOCATION.--Lat 41°32'46", long 83°41'54", Hydrologic Unit 04100009.

OWNER: Arthur Graham.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.0 in., depth 57 ft., cased to 45.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 17...	1800	46.52	1760	6.95	7.00	19.5	12.5	ND	K12	K1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 17...	K17		1000	620	210	120	38	3.6	510	0	407
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 17...	91	ND		700	14	1.4	0.059	15	1430	1370	<0.010
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 17...		<0.100	0.310	0.30	<0.001	20	460	860	35	20000	2.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413436083441300. Local number, LU-116-M32 at Monclova.

LOCATION.--Lat 41°34'36", long 83°44'13", Hydrologic Unit 04100009.

OWNER: Jason Wildarger.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 55 ft., cased to 45 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 25...	1830	19.19	2040	7.34	7.50	28.0	13.5	0.2	K14	K6	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 25...	1100		920	280	100	52	3.6	244	0	199	18	<0.5
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 25...	1000		73	0.8	0.54	11	1870	1650	<0.010	<0.100	0.470	1.3
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 25...	0.008		10	<1	<1	<100	350	<1	<10	7	460	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 25...	50		50	0.2	4	<1	1.0	12000	40	1.6	<0.010	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413728083445600. Local number, LU-119-SF18 near Crissey.

LOCATION.--Lat 41°37'28", long 83°44'56", Hydrologic Unit 04100009.

OWNER: Joseph Nowowiejski.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.56 in., depth 80 ft., cased to 65.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 24...	1220	23.63	347	7.75	7.80	34.0	13.0	0.1	<1	<1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 24...	<1	150	0	40	10	17	0.9	228	0	185	
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 24...	6.4	ND	3.1	1.0	1.0	<0.010	16	203	207	<0.010	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 24...	<0.100	0.330	0.60	0.006	<10	190	610	6	4200	4.0	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413534083470900. Local number, LU-120-SF1 near Criesey.

LOCATION.--Lat 41°35'34", long 83°47'09", Hydrologic Unit 04100009.

OWNER: Harry Wagner

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.50 in., depth 90 ft., cased to 66.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 23...	1545	40.06	284	8.38	8.30	30.0	15.5	ND	<1	K1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 23...	K2		47	0	10	4.5	48	0.9	162	0	135
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 23...	1.1	<0.5	8.6	2.8	2.1	0.030	11	173	172	<0.010	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 23...	<0.100	0.180	0.40	0.004	<10	840	77	3	3000	2.5	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413942083364400. Local number, LU-127-T at Toledo.

LOCATION.--Lat 41°39'42", long 83°36'44", Hydrologic Unit 04100009.

OWNER: University of Toledo.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 7 in., depth 200 ft., cased to 86.0 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 17...	1245	25.80	1990	7.30	7.30	34.0	14.0	ND	K2	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 17...	1100	910	910	250	110	40	3.2	221	0	178	18	0.6
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 17...	910	44	44	1.7	0.27	13	1790	1500	<0.010	<0.100	0.400	0.80
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 17...	<0.001	10	10	<1	<1	100	350	<1	20	<1	30	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 17...	60	60	20	<0.1	<1	<1	<1.0	14000	10	2.7	<0.010	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413748083321600. Local number, LU-129-T at Toledo.

LOCATION.--Lat 41°37'48", long 83°32'16", Hydrologic Unit 04100009.

OWNER: Kuhlman Building Supply.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 10.0 in., depth 550 ft., cased to 79.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 17...	1600	1560	7.30	7.40	29.0	13.0	4.0	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUN 17...	740	590	190	66	56	4.0	188	0	154	15	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 17...	ND	670	70	2.1	0.50	9.2	1210	1220	0.030	0.230	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 17...	0.770	0.80	<0.001	10	270	70	14	19000	2.4		

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414317083424100. Local number, LU-131-SY4 at Sylvania.

LOCATION.--Lat 41°43'17", long 83°42'41", Hydrologic Unit 04100001.

OWNER: Westgate.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 52 ft., cased to 16.4 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUN 10...	1000	16.91	830	7.15	7.60	18.0	13.0	ND	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 10...	440	150	120	30	8.5	1.7	356	0	291	40	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 10...	140	25	1.0	0.048	12	555	529	<0.010	<0.100	0.110	1.8

DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 10...	0.002	20	<1	<1	230	30	<1	110	1	300	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)
JUN 10...	22	8	<0.1	<1	<1	<1.0	15000	47	2.6	<0.010

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414024083435500. Local number, LU-133-SY29 near Sylvania.

LOCATION.--Lat 41° 40' 24", long 83° 43' 55", Hydrologic Unit 04100001.

OWNER: Conventry Furniture.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 100 ft., cased to 51.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 16...	1440	40.87	315	7.80	7.90	35.0	12.5	ND	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 16...	150	16	46	7.2	7.8	1.0	167	0	137	4.2	<0.5	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 16...	13	8.0	0.7	<0.010	15	190	189	<0.010	<0.100	0.200	<0.20	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 16...	0.009	20	<1	9	320	30	<1	<10	<1	190	<5	
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 16...	7	7	1.5	<1	<1	<1.0	7300	7	3.4	<0.010		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413429083511200. Local number, LU-134-SW8 near Swanton.

LOCATION.--Lat 41°34'29", long 83°51'12", Hydrologic Unit 04100009.

OWNER: Robert Lambdin.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 95 ft., cased to 73 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 16...	1800	31.90	315	8.10	8.00	33.0	13.0	ND	>80	<1	
DATE	TIME	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 16...	<1	82	0	18	8.4	42	2.0	210	0	170	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 16...	2.7	<0.5	5.4	1.7	1.6	<0.010	9.8	193	195	<0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 16...	<0.100	0.250	0.30	0.005	<10	650	8	10	2100	4.1	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413535083502800. Local number, LU-135-SW4 near Swanton.

LOCATION.--Lat 41°35'35", long 83°50'28", Hydrologic Unit 04100009.

OWNER: Daniel Pietraszak.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.50 in., depth 80 ft., cased to 48.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 24...	0930	25.82	480	7.90	8.10	12.5	9.5	K2	<1	K2	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUN 24...	150		0	34	15	47	5.4	282	0	230	5.6
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 24...	9.3	58		2.5	1.4	0.020	7.7	285	319	<0.010	<0.100
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 24...		0.530	0.70	<0.001	<10	1200	43	3	7200	2.0	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413303083492800. Local number, LU-136-SW22 near Whitehouse.

LOCATION.--Lat 41°33'03", long 83°49'28", Hydrologic Unit 04100009.

OWNER: James Webber.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 83 ft., cased to 70.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 23...	1900	45.88	490	7.68	7.90	35.0	13.5	ND	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 23...	<1	220	0	30	26	25	1.4	314	0	255	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 23...	10	<0.5	22	1.0	1.5	<0.010	22	320	318	<0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 23...	<0.100	0.440	0.70	0.006	20	340	130	4	34000	6.5	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413003083441300. Local number, LU-141-W29 at Waterville.

LOCATION.--Lat 41°30'03", long 83°44'13", Hydrologic Unit 04100009.

OWNER: Craddock.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 77 ft., cased to 32 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUL 07...	1310	25.90	950	7.15	7.70	25.0	12.5	0	K16	K1	K6	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 07...	520	210	120	47	19	3.9	379	0	314	43	0.8	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 07...	160	7.4	0.4	0.067	13	646	578	<0.010	<0.100	0.400	0.80	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 07...	0.005	<10	<1	<1	42	350	<1	<10	<1	39	<5	
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 07...	40	7	0.4	2	<1	<1.0	20000	3	1.3	<0.010		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

412803083454500. Local number, LU-142-W19 near Waterville.

LOCATION.--Lat 41°28'03", long 83°45'45", Hydrologic Unit 04100009.

OWNER: Robert Seeman.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 85 ft., cased to 61.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 26...	1045	38.60	2060	7.22	7.30	27.0	17.5	ND	K7	K1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 26...	K11		1200	910	300	98	55	3.6	309	0	251
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 26...	30		7.2	1100	39	1.2	0.27	12	1950	1780	<0.010
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 26...	<0.100	0.610	2.2	0.010	30	630	80	20	13000	1.5	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

412945083485700. Local number, LU-146-W10 near Whitehouse.

LOCATION.--Lat 41°29'45", long 83°48'57", Hydrologic Unit 04100009.

OWNER: David Senancik.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 74.5 ft., cased to 23.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUL 08...	1430	29.59	640	8.08	7.70	30.0	12.5	0.1	<1	<1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUL 08...	<1	290	45	65	29	23	1.6	299	0	245	
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 08...	4.0	ND	120	1.8	1.9	0.022	11	390	409	<0.010	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 08...	<0.100	0.180	1.1	0.001	<10	300	25	<1	7600	1.5	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

412633083482400. Local number, LU-148-P34 at Providence Township.

LOCATION.--Lat 41°26'33", long 83°48'24", Hydrologic Unit 04100009.

OWNER: Wilbur Kunkle.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 61 ft., cased to 57.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL KF AGAR (COLS. PER 100 ML)	
JUN 25...	1300	37.26	1120	7.40	7.20	33.0	12.0	ND	K1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 25...	600		260	150	52	27	2.0	415	0	347	26	ND
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 25...	230		51	0.6	0.060	15	782	741	<0.010	<0.100	0.260	1.2
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 25...		<0.001	<10	<1	<1	110	210	1	<10	2	1200	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 25...			29	<1	0.8	3	<1	7.0	7800	75	2.5	<0.010

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413102083504600. Local number, LU-152-SW32 near Whitehouse.

LOCATION.--Lat 41°31'02", long 83°50'46", Hydrologic Unit 04100009.

OWNER: Bittersweet Farms Inc.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62, depth 143 ft., cased to 63 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 24...	1015	46.00	344	8.28	8.20	35.0	12.5	0.6	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 24...	<1	64	0	14	6.1	57	1.8	217	0	193	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 24...	1.8	<0.5	3.0	4.9	1.9	0.071	9.4	212	210	<0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 24...	<0.100	0.170	1.3	0.001	10	1100	18	<1	3500	2.1	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413727083190500. Local number, LU-160-J11 near Curtice.

LOCATION.--Lat 41°37'27", long 83°19'05", Hydrologic Unit 04100010.

OWNER: Helen Courtay.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 83 ft., cased to 40.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL KF AGAR (COLS. PER 100 ML)
JUL 14...	1610	21.18	870	7.32	7.30	23.0	14.5	0	K3	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 14...	510	240	110	49	15	2.4	325	0	266	25

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 14...	<0.5	240	2.1	2.0	0.050	17	624	623	<0.010	<0.100

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 14...	0.260	0.20	0.003	<10	<1	170	130	6	25000	1.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414022083171800. Local number, LU-161-J30 near Reno Beach.

LOCATION.--Lat 41°40'22", long 83°17'18", Hydrologic Unit 04100010.

OWNER: City of Oregon.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 100 ft., cased to 71.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUL 09...	0920	10.50	1150	7.71	7.90	25.0	12.5	0.1	<1	<1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUL 09...	<1	520	420	120	49	43	2.2	121	0	99	
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 09...	3.7	ND	490	30	2.1	0.28	8.7	858	826	<0.010	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 09...	<0.100	0.870	1.0	<0.001	<10	360	300	5	19000	0.9	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413730083250200. Local number, LU-165-012 at Oregon.

LOCATION.--Lat 41°37'30", long 83°25'02", Hydrologic Unit 04100010.

OWNER: Charles Schroeder.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 102 ft., cased to 81 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 06...	1730	51.81	1270	7.29	7.60	20.0	12.5	0.1	K13	<1	K1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 06...	620	470	150	55	50	2.4	182	0	150	15

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 06...	<0.5	540	44	1.7	0.31	11	992	963	<0.010	<0.100

DATE	NITRO- GEN, AMMONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 06...	0.310	1.8	<0.001	<10	8	330	450	2	18000	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413937083223700. Local number, LU-167-032 at Oregon.

LOCATION.--Lat 41°39'37", long 83°22'37", Hydrologic Unit 04100010.

OWNER: Joe Dusseau.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 100 ft., cased to 74.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 13...	1530	34.29	890	7.75	7.90	31.0	13.5	0	21	<1	>100

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 13...	350	280	80	31	69	1.6	87	0	71	2.5

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 13...	ND	390	12	1.3	0.15	10	675	657	<0.010	<0.100

DATE	NITRO- GEN,AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 13...	0.340	0.60	0.003	<10	<1	540	360	10	18000	1.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413931083274200. Local number, LY-168-034 at Oregon.

LOCATION.--Lat 41°39'31", long 83°27'42", Hydrologic Unit 04100010.

OWNER: William Frigmanski.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 110 ft., cased to 95.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL KF AGAR (COLS. PER 100 ML)
JUL 14...	0910	47.68	2110	7.33	7.40	17.0	13.0	0.7	K5	<1	K7

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
JUL 14...		960	840	260	70	60	2.5	146	0	120	11

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 14...	ND	1100	27	1.5	0.22	12	1900	1620	<0.010	<0.100

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 14...	0.520	0.50	0.005	<10	2	580	860	50	16000	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413830083293800. Local number, LU-169 at Oregon.

LOCATION.--Lat 41°38'30", long 83°29'38", Hydrologic Unit 04100009.

OWNER: Al Kish-Fun Spot Skate.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 256 ft., cased to 82 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
JUL 23...	1440	810	7.55	8.10	30.0	17.5	0	K12	K3	K12	280
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 23...	150	66	27	56	1.3	154	0	125	6.9	ND	270
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO- DIS- SOLVED (MG/L AS P)
JUL 23...	11	2.1	0.15	9.7	652	523	0.003	0.028	0.450	0.60	<0.001
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	
JUL 23...	<10	<1	<1	19	560	<1	10	<1	100	<5	
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 23...	24	4	0.6	<1	4	<1.0	2300	170	2.0	<0.010	

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414019083261400. Local number, LU-170-026 at Oregon.

LOCATION.--Lat 41°40'19", long 83°26'14", Hydrologic Unit 04100010.

OWNER: Joe Fox.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 110 ft., cased to 83.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 07...	1800	38.96	2710	7.32	7.70	22.0	12.5	0	K1	<1	K1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 07...	1300	1200	360	98	150	4.1	122	0	100	9.3	5.4

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 07...	1600	36	1.6	0.31	12	2500	2330	<0.010	<0.100	0.320	0.40

DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 07...	0.001	10	<1	<1	<100	1000	<1	<10	<1	360	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)
JUL 07...	40	50	3.9	4	<1	<1.0	11000	20	0.9	<0.010

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414151083352200. Local number, LU-174-T at Toledo.

LOCATION.--Lat 41°41'51", long 83°35'22", Hydrologic Unit 04100001.

OWNER: E. I. Dupont.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commerical water well, diameter 8 in., depth 180 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 23...	1215	65.20	2540	7.40	7.10	26.0	12.5	3.0	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 23...	<1	1500	1200	410	100	33	2.7	259	0	212	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 23...	16	2.2	1400	59	1.7	0.20	13	2400	2160	<0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 23...	<0.100	0.440	1.8	<0.001	10	470	220	20	14000	2.1	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414029083201000. Local number, LU-177-J27 east of Oregon.

LOCATION.--Lat 41°40'29", long 83°20'10", Hydrologic Unit 04100010.

OWNER: Mike Lewis.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 83 ft., cased to 65.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 15...	1800	25.07	1150	7.73	7.80	23.0	12.5	0	K1	<1	K1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 15...	560	490	130	52	42	1.8	82	0	66	2.4

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 15...	<0.5	530	16	1.7	0.15	9.7	875	842	<0.010	0.150

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 15...	0.340	0.60	0.011	<10	1	320	350	11	17000	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413915083144200. Local number, LU-179-J33 at Reno Beach.

LOCATION.--Lat 41°39'15", long 83°14'42", Hydrologic Unit 04100010.

OWNER: Anna Davis.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 91 ft., cased to 59.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, TOCOCCI FECAL, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100	
JUL 14...	1215	6.21	1350	7.60	7.60	29.0	12.5	0	K4	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 14...	700	620	160	69	38	2.6	109	0	90	4.4	<0.5	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 14...	650	34	1.7	0.30	10	1080	1040	<0.010	<0.100	0.340	0.40	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 14...	0.005	10	<1	3	12	330	<1	<10	<1	1100	<5	
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 14...	39	21	1.1	5	<1	<1.0	18000	10	1.0	<0.010		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413743083112300. Local number, LU-180-J12 Crane Cr Park near Reno Beach.

LOCATION.--Lat 41°37'43", long 83°11'23", Hydrologic Unit 04100010.

OWNER: State of Ohio

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commerical water well, diameter 5.62 in., depth 105 ft., cased to 57.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUL 23...	1045	4.62	1940	7.14	7.70	28.0	13.0	0.8	K3	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 23...	1100		990	260	110	47	2.4	150	0	123	17	ND
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 23...	1000		29	1.8	0.26	9.4	1710	1550	0.002	0.010	0.490	1.3
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 23...	<0.001		<10	<1	<1	10	500	<1	10	<1	220	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 23...			63	6	<0.1	<1	<1	<1.0	13000	150	1.8	<0.010

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413817083242700. Local number, LU-184-C6 at Oregon.
 LOCATION.--Lat 41°38'17", long 83°24'27", Hydrologic Unit 04100010.
 OWNER: William Iman.
 AQUIFER.--Dolomite of Silurian age.
 WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 112 ft., cased to 83.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUL 08...	1830	46.29	1450	7.29	7.50	20.0	12.0	0.1	K1	<1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 10G ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUL 08...	K1		720	570	180	60	50	2.5	182	0	148
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 08...	15	<0.5	600	58	58	1.7	0.18	11	1110	1070	<0.010
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 08...	<0.100	0.250	2.5	<0.001	<10	290	320	5	19000	1.1	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414128083314800. Local number, LU-193-T at Toledo.

LOCATION.--Lat 41°41'28", long 83°31'48", Hydrologic Unit 04100010.

OWNER: Diversitech Corp.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 10 in., depth 518 ft., cased to 107 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI FECAL KF AGAR (COLS. PER 100 ML)	
JUN 22...	1600	82.97	2560	7.10	7.20	21.0	14.0	0.1	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 22...	1500		1400	360	150	48	3.8	182	0	149	23	ND
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 22...	1600		55	1.6	0.41	12	2580	2340	<0.010	<0.100	0.630	0.60
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 22...		<0.001	20	<1	<1	<100	710	<1	<10	<1	1800	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 22...			70	40	1.5	<1	<1	1.0	12000	100	1.4	<0.010

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414330083315700. Local number, LU-194-T at Toledo.

LOCATION.--Lat 41°43'30", long 83°31'57", Hydrologic Unit 04100001.

OWNER: Lucas County Asphalt.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 4.25 in., depth 135 ft., cased to 62 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 23...	0940	32.14	2340	7.04	7.10	20.0	18.0	0	<1	<1	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 23...	K1		1500	1300	400	120	46	3.3	215	0	175
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 23...	31		<0.5	1400	30	1.6	0.25	11	2340	2130	<0.010
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 23...		<0.100	0.710	0.70	<0.001	20	360	1500	90	13000	1.4

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414032083274600. Local number, LU-197-027 at Oregon.

LOCATION.--Lat 41°40'32", long 83°27'46", Hydrologic Unit 04100010.

OWNER: Sohio, Toledo Refinery.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 12 in., depth 215 ft., cased to 121 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	PH LAB (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS. PER 100 ML)	COLIFORM, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CaCO3)
JUL 15...	1020	2520	7.36	7.60	26.0	12.0	14.0	<1	<1	<1	1800
DATE	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 15...	1700	490	130	40	2.7	107	0	87	7.4	<0.5	1600
DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	BROMIDE, DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	PHOSPHOROUS, ORTHO, DIS-SOLVED (MG/L AS P)
JUL 15...	35	1.6	0.31	8.7	2520	2370	<0.050	<0.100	0.430	5.8	0.008
DATE	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ANTIMONY, DIS-SOLVED (UG/L AS SB)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	
JUL 15...	10	<1	<1	<100	310	<1	<10	<1	260	<5	
DATE	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC, DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 15...	30	20	0.2	<1	<1	<1.0	12000	20	1.4	<0.010	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413049083483800. Local number, LU-198 at Whitehouse.

LOCATION.--Lat 41°30'49", long 83°48'38", Hydrologic Unit 04100009.

OWNER: Village of Whitehouse.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 10 in., depth 170 ft., cased to 41.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3
JUL 08...	1130	750	7.58	7.80	30.0	12.5	0	K7	<1	K1	390
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 08...	170	90	34	14	1.9	268	0	222	11	<0.5	210
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
JUL 08...	9.7	1.2	0.045	8.5	499	525	<0.010	<0.100	0.180	0.60	0.002
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	
JUL 08...	<10	<1	<1	57	180	<1	<10	<1	110	<5	
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUL 08...	12	5	3.4	2	<1	<1.0	23000	4	1.5	<0.010	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413408083512400. Local number, LU-301-SW17 near Swanton.

LOCATION.--Lat 41°34'08", long 83°51'24", Hydrologic Unit 04100009.

OWNER: USGS-Toledo Metro Parks.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 14.9 ft., finish is 1.5 ft. of 0.010-inch well screen.

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL KF AGAR (COLS. PER 100 ML)
JUN 02...	1320	6.18	117	7.30	7.60	27.0	10.0	2.6	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 02...	44	9	13	2.9	1.4	0.6	43	0	35	3.4	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 02...	16	1.0	<0.1	<0.010	11	66	68	<0.010	<0.100	0.030	0.40
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUN 02...	0.004	20	<1	2	20	20	<1	20	2	550	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 02...	<5	5	47	<0.1	1	<1	<1.0	47	120	1.1	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413212083514300. Local number, LU-302-SW29 near Swanton.

LOCATION.--Lat 41°32'12", long 83°51'43", Hydrologic Unit 04100009.

OWNER: USGS-Toledo Metro Parks.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 11.3 ft., finish is 1.5 ft. of 0.010-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 02...	1645	4.17	170	8.30	8.40	26.0	10.0	2.3	<1	<1	K1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 02...	74	7	22	4.6	1.6	0.2	82	0	67	0.7	ND	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 02...	13	1.0	<0.1	<0.010	8.8	89	92	<0.010	<0.100	0.030	0.60	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUN 02...	0.012	20	<1	<1	20	<10	<1	<10	1	51	9	
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
JUN 02...	<4	55	<0.1	<1	<1	<1.0	32	40	0.8	0.300		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413300083510500. Local number, LU-303-SW20 near Swanton.

LOCATION.--Lat 41°33'00", long 83°51'05", Hydrologic Unit 04100009.

OWNER: USGS-Toledo Metro Parks.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 11.8 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 03...	0830	3.19	91	9.25	8.90	16.0	10.0	4.5	<1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 03...	<1	39	5	12	2.2	1.1	0.4	31	5.0	36	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 03...	0.0	ND	9.7	0.40	0.2	<0.010	9.3	51	61	<0.010	
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 03...	<0.100	0.020	0.20	0.012	30	10	<3	3	24	0.6	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413328083501100. Local number, LU-304-SW21 near Swanton.

LOCATION.--Lat 41°33'28", long 83°50'11", Hydrologic Unit 04100009.

OWNER: USGS-Toledo Metro Parks.

AQUIFER.--SAND OF Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 12.7 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 03...	1115	7.71	170	8.65	8.50	20.0	9.0	4.3	<1	<1
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 03...	<1	76	10	24	3.8	1.9	<0.1	78	1.0	66
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 03...	0.3	ND	19	1.6	<0.1	0.010	15	105	<0.010	<0.100
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 03...	<0.010	<0.20	0.009	20	40	<3	2	44	0.8	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414133083424800. Local number, LU-305-SY16 at Sylvania.

LOCATION.--Lat 41°41'33", long 83°42'48", Hydrologic Unit 04100001.

OWNER: USGS-Sylvania City Parks.

AQUIFER.--Sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 15.1 ft., finish is 1.5 ft. of 0.010-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 03...	1430	6.04	270	7.43	7.50	23.0	9.5	1.5	<1	<1	K4	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 03...	140	19	44	7.4	2.5	0.2	148	0	118	8.7	ND	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 03...	42	2.8	<0.1	<0.010	18	196	191	<0.010	<0.100	0.080	1.2	
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUN 03...	0.010	60	<1	1	21	50	<1	20	1	680		
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 03...	<5	7	40	<0.1	1	<1	1.0	63	210	11		

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414314083403100. Local number, LU-306-SY2 at Sylvania.

LOCATION.--Lat 41°43'14", long 83°40'31", Hydrologic Unit 04100001.

OWNER: USGS-Huntington Farms Inc.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 13.2 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)
JUN 03...	1700	4.73	820	7.58	7.70	25.0	10.0	1.3	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 03...	280	80	87	16	60	2.1	249	0	203	10	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 03...	35	130	0.1	<0.010	6.6	473	461	<0.010	0.340	0.020	0.40
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUN 03...	0.001	20	<1	<1	71	30	<1	20	1	240	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 03...	<5	11	290	<0.1	1	<1	<1.0	620	100	4.4	

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414203083411700. Local number, LU-307-SY15 at Sylvania.

LOCATION.--Lat 41°42'03", long 83°41'17", Hydrologic Unit 04100001.

OWNER: USGS-Camp Miakonda, Boy Scouts of America.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 14.6 ft., finish is 1.5 ft. of 0.010-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 10...	1240	7.75	298	8.27	8.30	20.0	10.0	1.6	<1	<1
DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 10...	K1	140	48	45	6.5	3.6	0.4	111	0	94
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 10...	0.9	ND	51	4.8	<0.1	<0.010	9.7	186	176	<0.010
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 10...	<0.100	0.030	0.20	0.011	20	70	65	59	82	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413503083473900. Local number, LU-308-M11 near Swanton.

LOCATION.--Lat 41°35'03", long 83°47'39", Hydrologic Unit 04100009.

OWNER: USGS-Ohio Air Guard.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 8 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
JUN 09...	1440	3.98	503	7.40	7.30	22.0	12.0	0.7	K1	<1	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
JUN 09...	K3		260	33	79	14	2.5	0.4	271	0	223
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 09...	17	ND		49	4.0	0.1	0.030	14	335	302	<0.010
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 09...	<0.100	0.120	1.6	0.010	30	40	5500	180	110	11	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

414242083395100. Local number, LU-309-SY12 at Sylvania.

LOCATION.--Lat 41°42'42", long 83°39'51", Hydrologic Unit 04100001.

OWNER: USGS-Arbor Jr. High, Sylvania Schools.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 15.5 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	
JUN 04...	0830	9.15	1450	7.23	7.40	15.0	9.0	3.2	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUN 04...	420		64	140	17	120	2.2	434	0	354	41	ND
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUN 04...	120		170	<0.1	0.062	11	869	796	0.020	11.0	0.060	1.5
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUN 04...		0.002		20	<1	<1	62	250	<1	<10	3	12
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUN 04...		10		14	8	<0.1	<1	<1	<1.0	410	1100	2.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR LUCAS COUNTY--Continued

413823083435200. Local number, LU-310-SF5 near Holland.

LOCATION.--Lat 41°38'23", long 83°43'52", Hydrologic Unit 04100001.

OWNER: USGS-Sewing Machine Sales.

AQUIFER.--Sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 12.3 ft., finish is 2 ft. of 0.007-inch well screen.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
JUN 09...	1700	4.05	590	7.90	7.60	22.0	11.0	0.4	<1	<1
DATE	TIME	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
JUN 09...	<1	240	63	74	14	29	0.6	220	0	179
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUN 09...	4.4	<0.5	56	54	0.1	<0.010	8.1	385	347	<0.010
DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 09...	<0.100	0.220	0.80	0.027	20	1100	1300	230	170	8.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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GROUND-WATER LEVELS FOR SANDUSKY COUNTY

411644082511600. Local number, S-129-Y25

LOCATION.--Lat 41°16'44", long 82°51'16", Hydrologic Unit 04100011, at France Stone Quarry at Bellevue.

Owner: France Stone Company.

AQUIFER.--Dolomite of Upper Silurian and Lower Devonian Age.

WELL CHARACTERISTICS.--Drilled commercial water well converted to observation well, diameter 5.62 in., depth, 130 ft, cased to 8 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch from July 8, 1986 to July 22, 1987. Pressure transducer July 22 to October 5, 1987.

DATUM.--Elevation of land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--July 8, 1986 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.43 ft below land-surface datum, Apr. 17, 1987; lowest water level, 64.49 ft below land-surface datum, Nov. 18, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	62.20	61.32	52.76	55.65	53.95	---	---	---	48.08	49.47	56.93
2	---	62.34	61.25	52.71	55.71	53.95	---	---	---	47.97	49.68	57.23
3	62.09	62.50	60.67	52.68	55.71	53.91	---	---	---	47.86	49.84	57.50
4	60.76	62.67	59.83	52.73	55.69	53.90	---	---	---	47.41	50.12	57.78
5	60.07	62.80	59.29	52.77	55.59	53.78	---	---	---	47.30	50.41	58.02
6	59.83	62.97	59.01	52.78	55.49	53.75	---	---	---	46.37	50.70	58.26
7	59.86	63.09	58.83	52.87	55.32	53.62	49.92	---	---	45.76	51.00	58.52
8	59.93	63.18	58.53	52.97	54.97	53.56	48.50	---	---	45.46	51.27	58.78
9	60.02	63.25	58.16	53.04	54.62	53.26	47.56	---	---	45.33	51.41	59.04
10	60.09	63.40	57.02	53.08	54.46	53.12	46.82	---	---	---	51.76	59.30
11	60.18	63.49	56.11	53.22	54.34	53.03	46.22	---	---	---	52.04	59.54
12	60.26	63.67	55.48	53.37	54.17	52.89	45.81	---	---	---	52.29	59.72
13	60.27	63.83	55.17	53.50	54.10	52.73	45.34	---	---	---	52.57	59.96
14	60.09	63.96	55.00	53.58	54.00	52.63	45.05	---	---	---	52.87	60.41
15	60.11	64.13	54.85	53.65	53.95	52.63	44.77	---	---	---	53.14	60.51
16	60.18	64.27	54.75	53.74	53.95	52.51	44.55	---	---	---	53.42	61.91
17	60.30	64.44	54.71	53.82	53.94	52.51	44.43	---	---	---	53.70	61.43
18	60.41	64.49	54.67	53.89	53.96	52.33	---	---	---	---	53.94	61.22
19	60.52	64.25	54.47	53.97	54.02	52.15	---	---	---	---	54.22	61.20
20	60.63	64.32	54.44	54.08	54.08	52.03	---	---	53.39	---	54.49	61.86
21	60.75	63.95	54.37	54.18	54.11	52.00	---	---	51.69	---	54.66	61.69
22	60.86	63.67	54.32	54.24	54.14	51.81	---	---	50.76	---	54.79	61.58
23	61.00	63.52	54.30	54.36	54.24	51.64	---	---	49.77	---	55.10	61.88
24	61.12	63.53	54.29	54.61	54.30	51.57	---	---	49.23	---	55.39	62.42
25	61.23	63.56	53.89	54.77	54.30	51.34	---	---	48.92	---	55.65	62.78
26	61.31	63.56	53.58	54.89	54.23	51.30	---	---	48.72	---	55.77	63.06
27	61.41	62.66	53.26	55.07	54.23	51.03	---	---	48.63	---	55.81	63.56
28	61.57	62.00	53.05	55.26	54.22	50.97	---	---	48.61	48.33	55.86	63.52
29	61.71	61.59	52.94	55.35	---	50.74	---	---	48.65	48.63	56.15	63.64
30	61.90	61.41	52.81	55.39	---	---	---	---	48.33	48.92	56.45	63.99
31	62.08	---	52.78	55.55	---	---	---	---	---	49.20	56.65	---
MAX	---	64.49	61.32	55.55	55.71	---	---	---	---	---	56.65	63.99
WTR YR 1987	MEAN	55.67		HIGH	44.43	APR 17	LOW	64.49	NOV 18			

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR SANDUSKY COUNTY--Continued

412409083110200. Local number, S-170-W12.

LOCATION.--Lat 41°24'09", long 83°11'02", Hydrologic Unit 04100011, 2188 County Road 122 near Lindsey.

Owner: Charles Wonderly.

AQUIFER.--Lockport dolomite of Middle Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well converted to observation well, diameter 4.25 in., depth, 61 ft, cased to 20.7 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--June 19, 1986 to September 30, 1987.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.42 ft below land-surface datum, Apr. 7, 1987; lowest water level, 11.88 ft below land-surface datum, Sept. 30, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.80	10.90	8.85	---	6.07	5.51	5.21	5.66	7.54	7.85	7.06	9.08
2	11.87	10.91	8.63	---	5.77	5.69	4.83	5.74	7.61	7.69	7.09	9.10
3	11.80	10.87	8.05	---	5.69	5.85	4.80	5.79	7.43	7.63	7.22	9.24
4	11.62	10.83	7.89	---	5.69	5.93	4.60	5.81	7.43	7.55	7.31	9.25
5	11.31	10.84	7.87	---	5.69	5.79	4.30	5.78	7.48	7.39	7.44	9.24
6	11.24	10.86	7.70	---	5.46	5.75	3.76	5.69	7.53	7.06	7.64	9.24
7	11.19	10.92	7.52	---	5.13	5.63	3.42	5.74	7.49	6.77	7.69	9.26
8	11.06	10.81	7.31	---	5.16	5.49	3.48	5.86	7.49	6.66	7.78	9.27
9	11.11	11.01	6.93	---	5.28	5.80	3.57	5.84	7.68	6.57	7.72	9.41
10	11.16	11.08	6.68	---	5.10	5.88	3.64	5.89	7.81	6.57	7.95	9.47
11	11.06	11.01	6.54	---	5.09	5.83	3.82	5.94	7.74	6.54	8.02	9.47
12	11.00	11.03	6.48	---	5.11	5.89	4.11	6.24	7.68	6.56	8.04	9.56
13	11.01	11.22	6.60	---	5.13	5.89	4.24	6.27	7.80	6.61	8.53	9.53
14	10.90	11.15	6.46	---	5.19	5.79	4.15	6.28	7.84	6.58	8.19	9.59
15	10.90	10.95	6.40	---	5.34	5.88	4.14	6.47	8.02	6.55	8.28	9.60
16	10.84	10.89	6.38	---	5.34	5.86	4.25	6.49	8.08	6.60	8.33	9.49
17	10.91	10.95	6.38	---	5.33	5.78	4.36	6.51	8.28	6.70	8.51	9.26
18	10.96	11.07	6.34	---	5.49	5.54	4.56	6.53	8.29	6.78	8.62	9.19
19	10.94	11.15	6.33	---	5.64	5.46	4.70	6.62	8.31	6.76	8.75	9.15
20	10.86	10.95	6.34	---	5.69	5.51	4.71	6.66	8.24	6.84	8.89	9.00
21	10.74	10.92	6.38	---	5.55	5.50	4.88	6.77	7.71	7.03	8.96	8.98
22	10.75	10.75	6.36	---	5.53	5.56	4.88	6.83	7.54	7.08	9.02	8.93
23	10.76	10.54	---	---	5.81	5.60	5.00	6.97	7.63	7.22	9.19	8.94
24	10.84	10.54	---	---	5.88	5.50	5.23	7.13	7.68	7.24	9.26	8.91
25	10.76	10.53	---	---	5.94	5.59	5.31	7.11	7.58	7.33	9.28	8.98
26	10.66	10.26	---	---	5.96	5.75	5.33	7.12	7.63	7.17	9.29	9.01
27	10.75	9.93	---	6.03	5.91	5.74	5.30	7.41	7.72	6.90	9.28	9.08
28	10.82	9.34	---	6.20	5.77	5.86	5.38	7.38	7.81	6.86	9.26	9.13
29	10.84	8.98	---	6.21	---	5.83	5.37	7.53	7.88	6.79	9.21	9.05
30	10.96	8.91	---	6.01	---	5.69	5.64	7.40	7.96	6.94	9.13	9.02
31	10.95	---	---	6.19	---	5.31	---	7.51	---	7.04	9.01	---
MAX	11.87	11.22	---	---	6.07	5.93	5.64	7.53	8.31	7.85	9.29	9.60
WTR YR 1987 MEAN	7.58		HIGH	3.42		APR 7	LOW	11.87		OCT 2		

GROUND-WATER LEVELS FOR SANDUSKY COUNTY--Continued

SITE NUMBER	LOCAL NO. CO. SEC.& ID. NO.	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
<u>Wells completed in carbonate aquifer</u>					
411914083045300	S-3-B12	411914	0830453	01-28-87	14.74
412356083212600	S-11-M15	412356	0832126	02-03-87	3.25
				09-02-87	5.45
412537083040100	S-18-R1	412537	0830401	02-02-87	3.28
				08-13-87	6.05
411531083044600	S-23-B36	411531	0830446	01-28-87	7.73
412435083071800	S-101-S10	412435	0830718	02-02-87	16.59
412604083062100	S-102-R35	412604	0830621	02-02-87	4.00
				08-18-87	7.15
412527083042300	S-103-R1	412527	0830423	02-02-87	6.52
412450083051000	S-104-R12	412450	0830510	02-02-87	7.89
412314083040600	S-105-RL18	412314	0830406	02-02-87	18.52
				08-19-87	23.45
412427083022800	S-106-RL8	412427	0830228	02-11-87	0.13
412123083012000	S-107-RL33	412123	0830120	01-28-87	2.02
				08-18-87	4.43
412214083025700	S-108-RL29	412214	0830257	01-27-87	20.48
412143083053500	S-110-S26	412143	0830535	02-04-87	37
				08-20-87	222
412128083054000	S-111-S26	412128	0830540	02-04-87	27
411918083040000	S-112-G7	411918	0830400	01-28-87	23.35
411927083010700	S-113-G9	411927	0830107	01-27-87	6.36
411731083001200	S-114-G22	411731	0830012	01-29-87	22.56
411615083001900	S-115-G27	411615	0830019	01-28-87	9.09
411652083031000	S-116-G30	411652	0830310	01-28-87	40.97
411751083041800	S-117-B24	411751	0830418	01-28-87	42.59
411920083071600	S-118-B10	411920	0830716	01-28-87	37.18
				08-26-87	41.90
411729083061700	S-119-B23	411729	0830617	08-27-87	35
411549083064300	S-120-B35	411549	0830643	01-28-87	17.49
411711083075000	S-121-B21	411711	0830750	01-28-87	18.26
411755083111000	S-122-B19	411755	0831110	01-27-87	5.98
				08-17-87	9.50
411547083093900	S-123-B32	411547	0830939	01-27-87	24.18
				08-20-87	25.75
411536083124100	S-124-J35	411536	0831241	01-27-87	16.40
411656083130100	S-125-J26	411656	0831301	01-27-87	6.50
411602083145400	S-126-J33	411602	0831454	01-27-87	3.47
				08-27-87	7.47
411622082502900	S-127-Y25	411622	0825029	02-10-87	56.04
411615082505100	S-128-Y25	411615	0825051	02-10-87	72.59
411644082511600	S-129-Y25	411644	0825116	10-01-86	65.56
				10-03-86	62.09
				12-10-86	56.49
				01-29-87	55.38
				04-14-87	44.85
				06-16-87	53.48
				07-22-87	46.95
				07-28-87	48.37
				08-05-87	50.46
411757082504300	S-130-Y13	411757	0825043	10-03-86	55.18
				01-29-87	62.66
				08-18-87	61.72
411851082521800	S-131-Y11	411851	0825218	10-03-86	49.31
				01-29-87	42.32
412026082505000	S-132-Y1	412026	0825050	10-03-86	77.86
				01-30-87	89.19
				08-19-87	89.65
412153082514100	S-133-T26	412153	0825141	01-30-87	44.38
412052082531900	S-134-T34	412052	0825319	01-29-87	57.97
411935082560300	S-135-Y8	411935	0825603	01-29-87	26.79
				08-20-87	28.75
411835082550000	S-137-Y16	411835	0825500	01-29-87	37.97
				08-21-87	38.15
411627082554200	S-138-Y29	411627	0825542	01-29-87	33.91
411526082564500	S-139-Y31	411526	0825645	01-29-87	26.47
411521082535700	S-140-Y33	411521	0825357	01-29-87	31.19
411722082540200	S-141-Y21	411722	0825402	01-29-87	37.96
				08-18-87	41.28
412115082560800	S-143-T32	412115	0825608	02-10-87	7.76
412102082585000	S-144-RL35	412102	0825850	02-10-87	-0.59
				08-11-87	0.45
411938082592000	S-145-G11	411938	0825920	01-28-87	3.41
411729082585300	S-146-G23	411729	0825853	02-10-87	2.98

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR SANDUSKY COUNTY--Continued

SITE NUMBER	LOCAL NO. CO. SEC. & ID. NO.	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
411632082580300	S-147-G25	411632	0825803	01-29-87	16.28
				08-14-87	19.64
411627082584000	S-148-G26	411627	0825840	01-29-87	20.78
411534082585900	S-149-G35	411534	0825859	01-29-87	31.32
411831082575200	S-150-G13	411831	0825752	01-29-87	28.50
411831082575400	S-151-G13	411831	0825754	01-29-87	27.53
412055083073200	S-152-S33	412055	0830732	01-28-87	52.38
412055083073201	S-153-S33	412055	0830732	01-28-87	50.14
412150083083000	S-154-S28	412150	0830830	01-27-87	31.13
412050083091400	S-156-S32	412050	0830914	01-27-87	28.18
412226083102900	S-157-S19	412226	0831029	01-27-87	7.79
412003083081800	S-158-B4	412003	0830818	01-28-87	12.44
411855083085600	S-159-B9	411855	0830856	01-28-87	12.10
411806083145400	S-160-J16	411806	0831454	01-27-87	10.73
412013083142400	S-161-J3	412013	0831424	01-27-87	8.89
				08-27-87	14.15
				09-03-87	14.30
412146083124900	S-162-W26	412146	0831249	02-10-87	3.02
412241083131600	S-163-W23	412241	0831316	02-03-87	20.97
				08-26-87	26.09
412404083143100	S-164-W9	412404	0831431	02-03-87	14.10
412241083080400	S-165-S21	412241	0830804	02-03-87	36.80
				08-19-87	43.59
412420083081600	S-166-S9	412420	0830816	02-03-87	24.39
				08-18-87	26.72
412636083080900	S-167-R28	412636	0830809	02-03-87	12.65
412455083094300	S-168-R5	412455	0830943	02-03-87	23.57
412410083110000	S-169-W12	412410	0831100	02-03-87	10.03
412409083110200	S-170-W12	412409	0831102	10-01-86	11.74
				12-10-86	6.62
				02-03-87	5.69
				02-27-87	5.80
				04-14-87	4.07
				06-16-87	8.02
				07-28-87	6.82
				08-13-87	8.07
412449083130400	S-171-W11	412449	0831304	08-25-87	18.13
412620083131700	S-172-W35	412620	0831317	02-03-87	14.89
412621083102400	S-173-R31	412621	0831024	02-11-87	18.50
				08-24-87	21.81
412619083150400	S-174-W33	412619	0831504	02-11-87	7.41
412451083153600	S-175-W5	412451	0831536	02-03-87	6.19
				08-19-87	8.46
412240083151400	S-176-W21	412240	0831514	02-03-87	1.57
412303083180500	S-178-M24	412303	0831805	02-03-87	3.39
412249083191400	S-179-M23	412249	0831914	02-04-87	53
				08-26-87	64
412359083191300	S-180-M11	412359	0831913	02-03-87	7.26
412329083213200	S-181-M16	412329	0832132	02-03-87	2.56
412451083232500	S-182-W05	412451	0832325	02-04-87	7.13
412318083244600	S-183-M18	412318	0832446	02-11-87	34.36
412241083224000	S-184-M21	412241	0832240	02-04-87	1.77
412627083230800	S-185-W032	412627	0832308	02-04-87	10.89
412537083181100	S-186-W01	412537	0831811	08-25-87	12.70
412722083221200	S-188-W028	412722	0832212	02-04-87	40.73
412909083214500	S-189-W016	412909	0832145	02-10-87	5.13
412909083245100	S-190-W07	412909	0832451	02-04-87	3.34
				08-25-87	6.58
412745083245300	S-191-W019	412745	0832453	02-04-87	5.77
412619083211900	S-192-W034	412619	0832119	02-03-87	32.84
411602083224900	S-194-SC32	411602	0832249	01-26-87	12.32
411754083241600	S-195-SC18	411754	0832416	01-26-87	8.87
412001083244500	S-196-SC6	412001	0832445	02-04-87	11.53
411951083224000	S-197-SC4	411951	0832240	02-11-87	4.90
412118083231400	S-198-M32	412118	0832314	08-26-87	8.05
412214083245600	S-199-M19	412214	0832456	01-26-87	10.02
412119083205800	S-200-M34	412119	0832058	01-26-87	5.55
				08-26-87	9.25
412158083191700	S-201-M26	412158	0831917	01-26-87	2.08
412120083172400	S-202-W31	412120	0831724	01-27-87	9.67
				08-27-87	14.46
411914083164200	S-204-J8	411914	0831642	01-27-87	7.69
411911083165100	S-205-J8	411911	0831651	08-12-87	30.16
411757083171100	S-206-J18	411757	0831711	01-27-87	4.94
				08-27-87	7.65
411715083153200	S-207-J21	411715	0831532	01-27-87	6.80

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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GROUND-WATER LEVELS FOR SANDUSKY COUNTY--Continued

SITE NUMBER	LOCAL NO. CO. SEC. & ID. NO.	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
411613083193300	S-208-SC26	411613	0831933	01-26-87	2.64
				08-27-87	4.64
411519083211800	S-209-SC34	411519	0832118	01-26-87	3.43
411654083213400	S-210-SC27	411654	0832134	08-26-87	18.68
412023083194900	S-211-SC2	412023	0831949	01-26-87	12.87
411921083202500	S-212-SC10	411921	0832025	01-26-87	2.30
411959083181900	S-213-SC1	411959	0831819	01-26-87	3.89
411935083213900	S-214-SC9	411935	0832139	01-26-87	3.64
411754083185500	S-215-SC13	411754	0831855	01-26-87	4.89
412311082510800	S-216-T24	412311	0825108	01-30-87	FLOWING
412505082512400	S-217-T1	412505	0825124	08-19-87	FLOWING
412314082533000	S-218-T15	412314	0825330	08-20-87	FLOWING
411751082531000	S-220-Y22	411751	0825310	01-29-87	52.93
412405082545700	S-227-T9	412405	0825457	01-30-87	FLOWING
412546082540400	S-228-T4	412546	0825404	02-02-87	FLOWING
412310082560900	S-229-T19	412310	0825609	01-30-87	-2.13
412312082570500	S-230-T19	412312	0825705	01-30-87	FLOWING
412605082574900	S-231-RL36	412605	0825749	08-11-87	FLOWING
412417082593300	S-232-RL10	412417	0825933	01-30-87	FLOWING
412453082595500	S-233-RL10	412453	0825955	01-30-87	FLOWING
412340083011400	S-234-RL16	412340	0830114	02-02-87	FLOWING
				08-13-87	FLOWING
412313082573500	S-235-RL13	412313	0825735	01-30-87	FLOWING
412252082582600	S-236-RL23	412252	0825826	01-30-87	5.49
				08-20-87	13.10

GROUND-WATER QUALITY IN SANDUSKY COUNTY

The following tables contain results of analyses of ground waters collected for the purpose of establishing a data base of water-quality information for wells completed in the Silurian-Devonian carbonate aquifer. Ground water also was collected from five springs; three that discharge from the Silurian-Devonian carbonate aquifer into selected quarries, and two that discharge naturally at land surface. Water characteristics, major and minor inorganic constituents, nitrogen and phosphorus compounds, radiochemical constituents, and dissolved organic carbon are reported. A sample from one site, 188-WO28 was collected during the 1986 water year.

The notation "ND" means the constituent of interest was not detectable at the analytical limit. Sulfide concentrations listed as ND were based on titrations for which the sample aliquot required more titrant than a blank aliquot of equal volume.

In data for total coliform, fecal coliform, and fecal streptococcus bacteria counts, the prefix "K" indicates an estimated count based on a non-ideal colony number of less than 20 per filter. The ">" symbol preceding a value indicates that the number of colonies per filter was too numerous to count; therefore, an estimate was made based on the smallest filtered volume.

WATER-QUALITY DATA FOR SANDUSKY COUNTY

412356083212600. Local number, S-11 near Gibsonburg.

LOCATION.--Lat 41°23'56", long 83°21'26", Hydrologic Unit 04100010.

OWNER: James Ackerman.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled test well, diameter 12 in., depth 250 ft., cased to 24 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
SEP 02...	1615	5.45	651	7.40	7.50	21.5	11.5	0	>80	K4
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
SEP 02...	<1	350	77	77	27	8.8	1.9	328	0	269
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRI TE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
SEP 02...	21	ND	84	11	0.7	13	419	423	<0.005	<0.010
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
SEP 02...	0.167	0.50	0.003	<10	55	650	<1	37000	34	1.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412537083040100. Local number, S-18 near Wightmans Grove.
 LOCATION.--Lat 41°25'37", long 83°04'01", Hydrologic Unit 04100011.

OWNER: Lamalie Farms.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled test well converted to water supply, diameter 12 in., depth 340 ft., cased to 180 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)
AUG 13...	1300	6.05	2680	7.23	7.20	26.0	13.0	0	K10	<1	K9
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 13...	1700		1500	430	150	26	4.4	286	0	235	27
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	ND		1600	40	1.4	10	2610	2410	0.001	<0.010	0.520
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...		0.90	<0.005	<0.001	20	100	4800	80	290	<10	1.1

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412417082543000. Local number, S-30-T9 near Vickery.

LOCATION.--Lat 41°24'17", long 82°54'30", Hydrologic Unit 04100011.

OWNER: Ohio Department of Natural Resources, Wildlife.

AQUIFER.--Dolomite of Silurian age.

SPRING CHARACTERISTICS.--Blue hole spring, discharge measured at 2.1 cubic feet per second.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	
AUG 13...	1630	2250	7.32	7.40	30.0	14.5	5.5	>80	56	>100	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 13...	1700	1400	590	44	9.0	2.2	316	0	259	24	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	ND	1300	21	1.1	9.8	2250	2150	0.001	<0.010	0.250	
DATE		NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...	0.50	<0.005	<0.001	20	100	40	<10	19000	10	1.8	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412045083090600. Local number, S-31 at Fremont.
 LOCATION.--Lat 41°20'45", long 83°09'06", Hydrologic Unit 04100011.
 OWNER: Gotttron Brothers Co.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Discharge from fracture on quarry bench.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 06...	1000	840	7.25	7.60	24.0	18.0	25	K5	23	410
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 06...	170	89	38	17	8.3	289	0	241	26	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 06...	140	34	1.3	5.6	528	502	0.002	1.10	0.035	0.70
DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 06...	0.006	<0.001	20	150	<3	<1	26000	17	2.7	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412048083085500. Local number, S-32 at Fremont.
 LOCATION.--Lat 41°20'48", long 83°08'55", Hydrologic Unit 04100011.
 OWNER: Gotttron Brothers Co.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Discharge from fracture in quarry floor.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

								COLI-	COLI-	STREP-	
DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 06...	1200	950	6.96	7.30	24.0	12.0	0	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 06...	480		180	110	43	19	10	366	0	296	64
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 06...	ND		160	38	1.7	4.5	619	594	0.004	0.495	0.046
DATE		NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 06...	0.70	<0.005	<0.001	<10	190	17	19	28000	37	2.7	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412805083211400. Local number, S-33 at Woodville.
 LOCATION.--Lat 41°28'05", long 83°21'14", Hydrologic Unit 04100010.
 OWNER: Martin-Marietta Co.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Discharge from fracture in quarry floor.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 12...	1030	1100	7.14	7.30	23.0	20.5	0.6	80	<1	K9	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 12...	580		280	120	63	9.7	2.8	366	0	299	42
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 12...	ND		250	26	0.6	5.3	703	675	<0.003	0.417	0.040
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 12...	0.50	<0.005	<0.001		20	77	3	7	17000	27	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411551083030900. Local number, S-34 at Green Springs.

LOCATION.--Lat 41°15'51", long 83°03'09", Hydrologic Unit 04100011.

OWNER: St. Francis of Oak Ridge Hospital.

AQUIFER.--Dolomite of Silurian age.

SPRING CHARACTERISTICS.--Artesian discharge in topographic depression, reported discharge = 12 cubic feet per second. Sample taken at artesian fountain.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 14...	1200	2520	7.05	7.00	26.0	11.0	0	<1	<1	<1	1700
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
AUG 14...	1400	570	67	12	2.8	364	0	299	52	2.6	1500
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)
AUG 14...	11	1.3	0.080	12	2530	2370	0.002	<0.010	0.440	1.1	0.022
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
AUG 14...	0.014	20	<1	<1	100	240	<1	10	<1	30	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	
AUG 14...	40	10	<0.1	1	<1	<1.0	15000	<10	2.0	<0.010	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412604083062100. Local number, S-102-R35 near Wightmans Grove.

LOCATION.--Lat 41°26'04", long 83°06'21", Hydrologic Unit 04100011.

OWNER: James Thrun.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 55 ft., cased to 51.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 18...	0930	7.15	759	7.70	7.60	26.0	12.0	0.2	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 18...	410	150	85	38	22	2.5	306	0	250	9.7

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 18...	ND	210	11	1.5	15	551	569	0.001	0.031	0.260

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 18...	0.50	<0.005	<0.001	<10	20	1000	7	32000	25	1.1

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

41231408304040600 Local number, S-105-RL18 near Fremont.

LOCATION.--Lat 41°23'14", long 83°04'06", Hydrologic Unit 04100011.

OWNER: Helen Overmyer.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 86 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
AUG 19...	1150	23.45	2240	7.05	7.10	27.0	12.0	0	K10	<1
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
AUG 19...	K1	1400	1200	370	110	33	3.4	201	0	164
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 19...	28	ND	1400	12	1.0	12	2250	2050	0.004	<0.010
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 19...	0.302	4.8	<0.005	0.003	10	3100	20	8700	20	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412123083012000. Local number, S-107-RL33 near Erlin.

LOCATION.--Lat 41°21'23", long 83°01'20", Hydrologic Unit 04100011.

OWNER: Jim Diedrich.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 100 ft., cased to 94.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	DENSITY (GM/ML AT 20 C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
AUG 18...	1440	4.43	2630	7.30	7.90	30.0	13.0	1.002	0	<1	<1
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	
AUG 18...	K1	1700	1500	450	140	27	3.6	236	0	192	
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	
AUG 18...	19	ND	1600	16	1.1	0.004	13	2260	2380	0.001	
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- NUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	
AUG 18...	0.015	0.480	0.90	<0.005	<0.001	20	<1	<100	<1	40	
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 18...	<1	2100	<5	40	1.6	<1	<1.0	9200	60	1.6	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412143083053500. Local number, S-110-S26 at Fremont.

LOCATION.--Lat 41°21'43", long 83°05'35", Hydrologic Unit 04100011.

OWNER: H. J. Heinz.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 8 in., depth 315 ft., cased to 88 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
AUG 20...	0830	222	2150	7.14	7.50	23.0	13.0	15.0	K10	K2	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
AUG 20...	K6	1200	970	300	100	38	3.7	253	0	206	
DATE	TIME	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 20...	29	ND	1100	30	1.5	14	2000	1720	0.010	0.125	
DATE	TIME	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	0.650	0.60	0.005	0.006	<100	290	20	11000	20	1.8	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411920083071600. Local number, S-118-B10 south of Fremont.

LOCATION.--Lat 41°19'20", long 83°07'16", Hydrologic Unit 04100011.

OWNER: David Loew.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 66 ft., cased to 62.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	1330	41.90	607	7.20	7.60	15.0	12.5	0	<1	<1	K7

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 26...	330	49	67	32	19	1.9	347	0	285	35

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	ND	89	2.0	1.1	18	419	432	<0.001	<0.010	0.840

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	0.70	0.007	<0.001	<10	150	610	8	30000	17	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411729083061700. Local number, S-119-B23 south of Fremont.

LOCATION.--Lat 41°17'29", long 83°06'17", Hydrologic Unit 04100011.

OWNER: Howard Sacks.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial irrigation well, diameter 12 in., depth 355 ft., cased to 94 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 27...	0900	34.67	1270	7.35	7.30	19.0	11.0	0	K10	<1	K2

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 27...	700	490	180	57	29	1.7	257	0	211	18

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 27...	ND	520	6.5	1.3	15	986	957	0.004	0.015	0.475

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 27...	0.60	0.005	<0.001	20	40	1300	18	18000	<3	1.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411755083111000. Local number, S-122-B19 near Havens.
 LOCATION.--Lat 41°17'55", long 83°11'10", Hydrologic Unit 04100011.

OWNER: Joseph Roth.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 61 ft., cased to 23.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
AUG 17...	1425	9.50	899	7.40	7.30	29.0	14.0	0	<1	<1
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY SUM WAT TOTAL FIELD MG/L AS CACO3
AUG 17...	<1	500	160	120	40	10	2.1	421	0	347
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
AUG 17...	27	<0.5	160	12	1.0	0.004	12	603	601	<0.001
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
AUG 17...	0.025	0.153	0.40	0.009	0.002	<10	1	120	<1	20
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 17...	1	1400	<5	18	<0.1	<1	<1.0	35000	10	2.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411547083093900. Local number, S-123-B32 near Green Springs.

LOCATION.--Lat 41°15'47", long 83°09'39", Hydrologic Unit 04100011.

OWNER: Gerald Guth.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 92 ft., cased to 85.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 20...	1210	25.75	633	7.24	7.40	30.0	15.0	0	K3	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 20...	380	57	78	35	3.0	1.4	390	0	319	36

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 20...	ND	57	1.3	1.2	10	411	413	0.002	<0.010	0.062

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	0.50	<0.005	0.006	<10	120	620	6	33000	65	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411602083145400. Local number, S-126-J33 near Burgoon.

LOCATION.--Lat 41°16'02", long 83°14'54", Hydrologic Unit 04100011.

OWNER: Wayne Mutchler.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 83 ft., cased to 24.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 27...	1100	7.47	630	7.25	7.40	18.0	12.0	0	K2	<1	65

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 27...	350	60	87	30	4.9	1.3	358	0	293	32

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 27...	ND	42	4.8	0.6	11	373	370	0.003	0.025	0.134

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 27...	<0.20	0.006	<0.001	<10	570	1100	16	10000	110	1.9

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411644082511600. Local number, S-129-Y25 at Bellevue.

LOCATION.--Lat 41°16'44", long 82°51'16", Hydrologic Unit 04100011.

OWNER: France Stone Company.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well (unused), converted for observation, diameter 5.62 in., depth 130 ft., cased to 8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 05...	1700	50.46	2080	7.09	7.20	22.0	12.0	0	K3	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 05...	1100		810	350	44	10	2.1	311	0	255	40
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 05...		<0.5	1100	26	1.2	0.098	8.9	1890	1710	0.002	<0.010
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 05...		0.520	0.80	0.002	<10	<1	100	80	10	11000	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411757082504300. Local number, S-130-Y13 near Bellevue.

LOCATION.--Lat 41°17'57", long 82°50'43", Hydrologic Unit 04100011.

OWNER: Larry Gardner.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 140 ft., cased to 29.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 18...	1730	61.72	648	7.38	7.40	30.0	12.0	0	K16	<1	>100

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 18...	360	110	92	31	4.2	1.8	301	0	246	20

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 18...	ND	100	5.5	1.4	9.1	401	394	<0.001	<0.010	0.146

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 18...	1.1	0.014	0.010	10	160	11	6	660	3	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412026082505000. Local number, S-132-Y1 north of Bellevue.

LOCATION.--Lat 41°20'26", long 82°50'50", Hydrologic Unit 04100011.

OWNER: Terry Groves.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 150 ft., cased to 31 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 19...	0930	89.65	1620	7.28	7.30	28.0	11.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 19...	940	700	310	37	10	2.3	288	0	236	24

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 19...	<0.5	680	22	0.9	8.6	1340	1220	0.003	0.856	0.117

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 19...	0.50	<0.005	0.002	10	36	21	<1	7600	460	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411935082560300. Local number, S-135-Y8 near Clyde.

LOCATION.--Lat 41°19'35", long 82°56'03", Hydrologic Unit 04100011.

OWNER: Denny Snyder.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 70 ft., cased to 63.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 20...	1145	28.75	1020	7.07	7.30	30.0	12.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 20...	590	240	120	60	19	2.8	416	0	339	56

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 20...	ND	250	2.8	1.6	18	738	714	0.002	<0.010	0.590

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	1.0	0.005	0.007	10	30	160	6	34000	69	1.8

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411806082554800. Local number, S-136A near Clyde.

LOCATION.--Lat 41°18'06", long 82°55'48", Hydrologic Unit 04100011.

OWNER: Steinbauer Farms.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial irrigation water well, diameter 14 in., depth 250 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 20...	1700	1220	6.75	7.60	32.0	11.5	0	K5	K3	K1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 20...	730	470	220	38	7.9	2.2	308	0	254	87	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 20...	ND	430	23	0.8	9.1	950	900	0.003	0.024	0.044	
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	0.50	0.006	0.006	20	140	77	27	17000	12	1.5	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411722082540200. Local number, S-141-Y21 near Wales Corners.

LOCATION.--Lat 41°17'22", long 82°54'02", Hydrologic Unit 04100011.

OWNER: Bill Gore.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 100 ft., cased to 28 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 18...	1530	41.28	910	7.36	7.50	32.0	12.0	0	K2	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 18...	350	120	98	24	52	2.2	290	0	237	20

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 18...	ND	100	80	0.3	11	540	519	0.001	0.014	0.048

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 18...	0.40	<0.005	0.003	10	220	180	13	8300	6	2.1

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412102082585000. Local number, S-144-RL35 north of Clyde.

LOCATION.--Lat 41°21'02", long 82°58'50", Hydrologic Unit 04100011.

OWNER: John Huffman.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well (unused), diameter 5.62 in., depth 48 ft., cased to 46.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SODIUM, DATE	TIME	DEPTH BELOW LAND	SPE- CIFIC	PH		TEMPER- ATURE AIR	TEMPER- ATURE WATER	OXYGEN, DIS- SOLVED	COLI- FORM, TOTAL,	COLI- FORM, FECAL,	STREP- TOCOCCI FECAL,	DIS- SOLVED AS
		SURFACE (WATER LEVEL) (FEET)	CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	LAB (STAND- ARD UNITS)	(DEG C)	(DEG C)	(MG/L)	IMMED. (COLS. PER 100 ML)	0.7 UM-MF (COLS./ 100 ML)	KF AGAR (COLS. PER 100 ML)	
NA) AUG 11...	1600	0.45	4000	7.29	7.30	24.0	12.5	0	K7	K2	<1	160
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 11...	15	192	0	155	16	26	2100	310	1.4	16	3830	
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 11...		<0.001	0.028	2.90	2.6	<0.005	0.023	100	20	9500	20	0.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411632082580300. Local number, S-147-G25 south of Clyde.

LOCATION.--Lat 41°16'32", long 82°58'03", Hydrologic Unit 04100011.

OWNER: Green Hills Golf Club.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 8 in., depth 138 ft., cased to 75.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 14...	0845	19.64	1580	7.15	7.40	24.0	11.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 14...	960	680	300	44	9.1	2.3	345	0	282	39

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 14...	0.6	720	8.7	1.3	13	1390	1300	0.001	<0.010	0.380

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 14...	0.70	0.009	0.002	20	35	68	7	29000	4	2.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412013083142400. Local number, S-161-J3 northwest of Gabels Corner.

LOCATION.--Lat 41°20'13", long 83°14'24", Hydrologic Unit 04100011.

OWNER: Douglas Hallbert.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 81 ft., cased to 20.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
SEP 03...	1130	14.30	880	7.02	7.60	19.5	12.0	1.4	K4	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
SEP 03...		450	97	96	50	22	2.8	436	0	356	66
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
SEP 03...		ND	94	19	1.1	6.0	536	513	0.039	8.90	0.022
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
SEP 03...		0.80	<0.005	<0.001	<10	220	5	<1	7100	32	3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412241083131600. Local number, S-163-W23 southeast of Hessville.

LOCATION.--Lat 41°22'41", long 83°13'16", Hydrologic Unit 04100011.

OWNER: Don Zimmerman.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 66 ft., cased to 17.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	1050	26.09	682	7.19	7.40	15.0	14.0	0	K1	<1	K1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 26...	400	110	84	35	8.6	3.2	354	0	289	36

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	<0.5	99	14	1.5	5.6	468	461	0.004	0.381	0.055

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	0.20	0.008	0.002	<10	70	25	3	36000	64	1.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412241083080400. Local number, S-165-S21 north of Fremont.

LOCATION.--Lat 41°22'41", long 83°08'04", Hydrologic Unit 04100011.

OWNER: Edward Dick.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 150 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 19...	0945	43.59	666	7.60	7.40	25.0	13.0	0.2	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 19...	380	67	76	32	6.1	1.8	384	0	308	15

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 19...	ND	84	7.0	1.4	11	463	462	0.001	0.016	0.196

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 19...	0.90	<0.005	<0.001	<10	84	180	2	53000	76	1.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412420083081600. Local number, S-166-S9 south of Kingsway.

LOCATION.--Lat 41°24'20", long 83°08'16", Hydrologic Unit 04100011.

OWNER: Bernard Schneider.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 98 ft., cased to 60.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	DENSITY (GM/ML AT 20 C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
AUG 18...	1135	26.72	727	7.60	7.50	28.0	12.5	0.999	0.4	<1	<1
DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	
AUG 18...	<1	370	100	77	34	21	2.4	329	0	269	
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	
AUG 18...	13	ND	140	5.5	1.4	0.010	13	496	494	0.001	
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- NUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	
AUG 18...	0.019	0.300	0.60	<0.005	<0.001	<10	2	42	<1	30	
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 18...	<1	670	<5	19	0.4	<1	<1.0	37000	21	1.2	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412409083110200. Local number, S-170-W12 near Lindsey.

LOCATION.--Lat 41°24'09, long 83°11'02", Hydrologic Unit 04100011.

OWNER: Charles Wonderly.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well (unused), diameter 4.25 in., depth 61 ft., cased to 20.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 13...	1020	8.07	670	7.17	7.40	24.0	12.0	0	52	K1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINEITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 13...	370	42	82	36	5.3	1.4	399	0	321	43

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	ND	53	8.3	1.6	5.7	405	404	0.004	0.025	0.031

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...	0.60	<0.005	<0.001	20	100	21	2	14000	190	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412449083130400. Local number, S-171-W11 near Lindsey.

LOCATION.--Lat 41°24'49", long 83°13'04", Hydrologic Unit 04100011.

OWNER: Vernon Roepke.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.5 in., depth 87 ft., cased to 21.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 25...	1510	18.13	801	7.14	7.30	25.0	12.5	0	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 25...		460	140	100	41	7.7	2.0	392	0	321	45
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 25...		ND	170	1.4	1.5	16	562	571	<0.002	<0.010	0.157
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 25...		1.1	0.007	0.002	<10	23	120	2	38000	12	1.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412621083102400. Local number, S-173-R31 northeast of Lindsey.

LOCATION.--Lat 41°26'21", long 83°10'24", Hydrologic Unit 04100011.

OWNER: Edward Lagrou.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 80 ft., cased to 35.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 24...	1540	21.81	755	7.21	7.70	20.0	12.0	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 24...	410	77	79	40	16	2.3	409	0	335	40

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 24...	ND	120	3.4	1.5	17	518	526	<0.001	0.031	0.425

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 24...	0.70	0.011	<0.001	20	77	1100	7	44000	15	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412451083153600. Local number, S-175-W5 northwest of Hessville.

LOCATION.--Lat 41°24'51", long 83°15'36", Hydrologic Unit 04100011.

OWNER: Richard Fahle.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 91 ft., cased to 23.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 19...	1430	8.46	700	7.37	7.40	28.0	13.0	0	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
AUG 19...		410	97	84	34	4.3	1.4	381	0	312	26
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
AUG 19...	ND	100	4.7	1.5	11	490	481	0.001	<0.010	0.153	
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 19...	0.40	<0.005	<0.001	<10	34	77	2	52000	21	1.4	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412249083191400. Local number, S-179-M23 at Gibsonburg.

LOCATION.--Lat 41°22'49", long 83°19'14", Hydrologic Unit 04100010.

OWNER: Village of Gibsonburg, well No. 4.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled public water supply well, diameter 10 in., depth 301 ft., cased to 25.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	0830	64	722	7.14	7.50	14.0	11.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CAO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CAO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CAO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 26...	420	110	87	38	8.2	1.5	378	0	310	44

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	ND	120	17	0.9	7.4	502	507	<0.001	<0.010	0.024

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	0.20	0.009	0.003	<10	28	160	3	41000	<3	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412537083181100. Local number, S-186-W01 near Busy Corners.

LOCATION.--Lat 41°25'37", long 83°18'11", Hydrologic Unit 04100010.

OWNER: Sam James.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 105 ft., cased to 24 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 25...	1255	12.70	697	6.99	7.20	18.0	12.5	0	<1	<1	K7
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 25...		410	64	83	50	5.2	1.8	427	0	349	69
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 25...		ND	63	7.9	0.3	3.8	429	426	0.002	0.369	0.024
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 25...		0.50	0.008	0.003	<10	80	220	9	680	35	5.1

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412722083221200. Local number, S-188-WO28 at Woodville.

LOCATION.--Lat 41°27'22", long 83°22'12", Hydrologic Unit 04100010.

OWNER: Woodmore Schools.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 142 ft., cased to 35.4 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)
SEP 04...	1015	40.85	1120	7.10	7.30	12.0	<1	600	240	140
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 04...		61	10	2.3	445	0	358	56	0.3	250
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
SEP 04...		23	0.4	6.6	860	714	<0.010	2.40	0.040	0.40
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
SEP 04...		<0.010	<10	22	<1	2100	7.3	8.6	5.6	5.8

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412909083245100. Local number, S-190-WO7 northwest of Woodville.

LOCATION.--Lat 41°29'09", long 83°24'51", Hydrologic Unit 04100010.

OWNER: Edward Minke.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 71 ft., cased to 29.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 25...	0940	6.58	799	7.09	7.20	18.0	12.0	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 25...	420	47	90	38	11	1.4	450	0	368	58

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 25...	<0.5	61	25	0.3	8.7	496	489	0.002	0.294	0.815

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 25...	1.0	0.006	0.001	<10	220	1500	10	30000	34	4.8

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412118083231400. Local number, S-198-M32 northeast of Bradner.

LOCATION.--Lat 41°21'18", long 83°23'14", Hydrologic Unit 04100010.

OWNER: Kenneth Holcomb.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 52 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	1245	8.05	665	7.40	7.50	15.0	11.0	0	<1	<1	K2

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 26...	350	90	83	31	5.4	0.9	312	0	254	20

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	ND	87	8.4	1.1	10	381	390	<0.001	<0.010	0.129

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	0.60	0.012	0.007	<10	150	400	6	9500	21	2.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412119083205800. Local number, S-200-M34 near Rollersville.

LOCATION.--Lat 41°21'19", long 83°20'58", Hydrologic Unit 04100010.

OWNER: Walter Underwood.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 85 ft., cased to 22.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	1000	9.25	885	7.32	7.40	15.0	11.0	0.8	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 26...	370	95	100	29	9.5	45	342	0	279	26

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	ND	110	28	0.1	10	532	506	0.182	0.988	0.200

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	0.50	0.006	<0.001	<10	150	200	140	4700	320	4.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412120083172400. Local number, S-202-W31 north of Helena.

LOCATION.--Lat 41°21'20", long 83°17'24", Hydrologic Unit 04100011.

OWNER: Ron Wasserman.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 80 ft., cased to 23.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 27...	1430	14.46	675	7.27	7.40	16.0	11.0	2.8	<1	<1	K6

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 27...	370	90	80	34	3.0	0.7	343	0	280	29

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 27...	ND	68	8.1	1.0	6.7	411	397	0.004	0.971	<0.002

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 27...	0.30	0.006	<0.001	20	160	15	1	27000	39	1.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411911083165100. Local number, S-205-J8 near Millersville.

LOCATION.--Lat 41°19'11", long 83°16'51", Hydrologic Unit 04100011.

OWNER: Ohio Lime Company.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 8 in., depth 300 ft., cased to 23.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 12...	1530	30.16	910	7.04	7.20	24.0	12.0	0	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
AUG 12...	510	150	93	60	9.6	2.8	445	0	360	64	
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
AUG 12...	ND	130	18	0.8	9.5	590	571	<0.001	<0.010	0.147	
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 12...	0.40	<0.005	0.003	10	97	690	11	27000	23	9.7	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411757083171100. Local number, S-206-J18 south of Millersville.

LOCATION.--Lat 41°17'57", long 83°17'11", Hydrologic Unit 04100011.

OWNER: Birdell Bender.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 50 ft., cased to 23.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 27...	1310	7.65	765	7.03	7.70	18.0	12.0	0	21	<1	40

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 27...	410	140	110	32	5.3	1.1	326	0	268	48

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 27...	ND	97	31	0.6	8.8	474	450	0.017	0.962	0.051

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 27...	<0.20	0.005	<0.001	<10	47	15	11	3600	38	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411613083193300. Local number, S-208-SC26 southeast of Girton.

LOCATION.--Lat 41°16'13", long 83°19'33", Hydrologic Unit 04100011.

OWNER: Lakota High School.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 8 in., depth 230 ft., cased to 30.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 27...	1200	4.64	590	7.28	7.50	19.0	14.0	0.3	K5	<1	K10

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 27...	300	23	73	25	12	1.5	336	0	274	28

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 27...	ND	33	12	0.6	16	349	350	0.002	<0.010	0.218

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 27...	<0.20	0.007	0.001	<10	170	240	5	11000	24	1.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

411654083213400. Local number, S-210-SC27 at Girton.

LOCATION.--Lat 41°16'54", long 83°21'34", Hydrologic Unit 04100011.

OWNER: William Dieter.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 102 ft., cased to 21.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 26...	1530	18.68	1280	6.98	7.10	20.0	12.5	3.0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
AUG 26...		430	70	92	49	77	6.3	442	0	362	74

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 26...	ND	47	130	0.1	4.8	647	624	0.005	1.00	0.038

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 26...	5.4	0.020	0.016	10	30	<3	<1	290	77	3.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412505082512400. Local number, S-217-T1 near Castalia.

LOCATION.--Lat 41°25'05", long 82°51'24", Hydrologic Unit 04100011.

OWNER: Roger Hall.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 76 ft., cased to 64 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 19...	1200	Flowing	2340	7.18	7.20	30.0	11.0	0	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 19...	1500	1200	480	60	6.5	3.2	312	0	255	33	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 19...	ND	1300	12	1.4	190	2230	2220	0.001	<0.010	0.304	
DATE		NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 19...	0.80	<0.005	0.002	20	<100	570	20	11000	80	1.6	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412314082533000. Local number, S-218-T15 near Vickery.
 LOCATION.--Lat 41°23'14", long 82°53'30", Hydrologic Unit 04100011.
 OWNER: William Warner.
 AQUIFER.--Dolomite of Silurian age.
 WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 109 ft., cased to 108 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 20...	1415	Flowing	2230	7.09	7.80	32.0	11.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 20...	1300	1100	410	64	8.0	2.5	305	0	247	39

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 20...	<0.5	1200	17	1.4	12	2190	1880	<0.001	<0.010	0.259

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	0.60	0.010	<0.001	10	200	150	20	13000	10	1.6

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412310082533000. Local number, S-218A near Vickery.

LOCATION.--Lat 41°23'10", long 82°53'30", Hydrologic Unit 04100011.

OWNER: William Warner.

AQUIFER.--Gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.82 in., depth 80 ft., cased to 80 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 19...	1400	FLOWING	2300	7.18	7.20	30.0	11.5	0	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 19...	1100		870	340	62	7.3	2.4	306	0	251	32
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 19...	ND		1200	15	1.0	7.5	2170	1800	0.002	<0.010	0.304
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 19...		0.50	<0.005	0.003	20	<100	80	20	13000	30	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412605082574900. Local number, S-231-RL36 at Bayview.

LOCATION.--Lat 41°26'05", long 82°57'49", Hydrologic Unit 04100011.

OWNER: Ohio Department of Natural Resources, Wildlife

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled water well (unused), diameter 6 in., depth 300 ft., cased to 45 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	DENSITY (GM/ML AT 20 C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
AUG 11...	1730	Flowing	100000	6.33	6.20	23.0	12.0	1.050	0	K3
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)
AUG 11...	<1	<1	15000	15000	5800	150	15000	480	328	0
DATE	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
AUG 11...	269	244	300	1200	37000	0.6	2.2	8.8	72400	59900
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)
AUG 11...	0.005	0.030	0.800	4.5	<0.005	0.133	40	6	300	<1
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 11...	<10	<1	500	<5	190	<1	<1.0	84000	100	0.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412340083011400. Local number, S-234-RL16 near Wightmans Grove.

LOCATION.--Lat 41°23'40", long 83°01'14", Hydrologic Unit 04100011.

OWNER: Merle Pearson.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth unknown, cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 13...	1430	Flowing	2730	7.11	7.30	29.0	11.5	30.0	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 13...	1600		1400	400	150	25	3.8	273	0	225	34
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	0.6	1700	33	1.3	14	2720	2470	0.001	<0.010	0.600	
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...	0.90	<0.005	<0.001	20	100	350	20	9000	<10	2.0	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR SANDUSKY COUNTY--Continued

412252082582600. Local number, S-236-RL23 near Vickery.

LOCATION.--Lat 41°22'52", long 82°58'26", Hydrologic Unit 04100011.

OWNER: C. R. Griffaw.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 62 ft., cased to 58 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MP (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 20...	1900	13.10	3980	6.56	7.40	28.0	16.5	5.6	K2	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 20...	2400	2200	590	210	140	34	133	0	109	58

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 20...	1.1	2000	380	1.7	11	3570	3450	0.041	0.516	1.40

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 20...	2.8	<0.005	0.003	20	14	100	7	11000	1900	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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GROUND-WATER LEVELS FOR WOOD COUNTY

413629083304400. Local number, WQ-121-N.

LOCATION.--Lat 41°36'29", long 83°30'44", Hydrologic Unit 04100010, 6585 Wales Road at Northwood.

OWNER; Waste Management Inc.

AQUIFER.--Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well converted to observation well, diameter 6.0 in., depth, 188.5 ft, cased to unknown depth.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 616.47 ft above National Geodetic Vertical Datum of 1929, from levels.

Measuring point: Top of casing, 2.12 ft below land-surface datum.

PERIOD OF RECORD.--August 22, 1984 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.60 ft below land-surface datum, Jan. 8, 1986; lowest water level, 63.46 ft below land-surface datum, Nov. 21, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.57	59.99	59.85	59.25	58.66	57.91	57.71	57.61	57.52	57.84	58.41	58.72
2	59.65	60.02	59.59	58.99	58.27	58.14	57.72	57.51	57.53	57.72	58.27	59.19
3	59.56	59.97	59.25	59.24	58.65	58.55	57.93	57.63	57.54	57.74	58.36	58.88
4	59.25	59.79	59.53	59.32	58.98	58.71	57.86	57.89	57.61	57.85	58.44	58.93
5	58.74	59.85	59.72	59.36	59.04	58.62	57.64	57.88	57.60	57.96	58.59	58.89
6	58.45	59.74	59.75	59.15	58.92	58.55	57.60	57.74	57.63	57.90	58.68	58.82
7	58.35	59.86	59.67	59.10	58.64	58.45	57.35	57.67	57.47	57.98	58.70	58.78
8	58.09	59.71	59.46	59.10	58.67	58.20	57.04	57.69	57.41	58.04	58.69	58.74
9	58.36	59.93	59.21	59.06	58.76	58.42	56.93	57.63	57.62	58.14	58.44	58.83
10	58.52	60.12	59.42	58.64	58.74	58.58	56.90	57.54	57.85	58.12	58.65	58.89
11	58.57	59.94	59.40	58.66	58.75	58.57	56.81	57.49	57.73	58.12	58.69	58.85
12	58.59	59.99	59.49	58.88	58.64	58.54	57.13	57.75	57.52	58.08	58.63	58.87
13	58.77	60.29	59.75	58.88	58.66	58.54	57.32	57.80	57.59	57.96	58.59	58.72
14	58.87	60.28	59.71	58.82	58.61	58.37	57.25	57.64	57.53	58.11	58.67	58.40
15	59.14	59.93	59.48	59.00	58.76	58.35	57.09	57.85	57.63	58.14	58.74	58.00
16	59.19	59.67	59.49	59.19	58.79	58.49	57.09	57.75	57.70	58.29	58.66	57.53
17	59.57	59.55	59.47	59.21	58.55	58.53	57.18	57.55	57.87	58.44	58.65	57.06
18	59.77	59.67	59.27	58.88	58.64	58.36	57.39	57.49	57.89	58.47	58.79	56.55
19	59.81	59.82	59.29	58.73	58.84	58.15	57.58	57.49	57.82	58.44	58.79	56.53
20	59.76	59.62	59.42	58.79	58.81	58.09	57.58	57.53	57.76	58.45	58.99	56.54
21	59.60	59.59	59.53	58.77	58.65	58.06	57.61	57.59	57.59	58.55	58.97	56.56
22	59.59	59.68	59.57	58.61	58.44	58.06	57.60	57.63	57.50	58.61	58.85	56.68
23	59.59	59.53	59.40	58.61	58.64	58.00	57.52	57.79	57.65	58.63	59.07	56.71
24	59.73	59.73	59.25	58.94	58.80	57.91	57.80	57.84	57.75	58.64	59.18	56.83
25	59.67	59.73	59.16	58.91	58.89	57.74	57.91	57.79	57.59	58.61	59.15	57.06
26	59.40	59.47	59.38	58.96	58.89	57.89	57.89	57.69	57.53	58.47	59.08	57.23
27	59.46	59.66	59.39	58.95	58.85	57.89	57.75	57.76	57.60	58.45	58.87	57.41
28	59.63	59.64	59.37	58.95	58.55	57.97	57.65	57.77	57.70	58.45	58.86	57.55
29	59.76	59.68	59.36	58.95	---	57.98	57.49	57.72	57.72	58.42	58.94	57.52
30	60.02	59.82	59.25	58.47	---	57.69	57.63	57.63	57.86	58.40	58.91	57.62
31	60.03	---	59.27	58.67	---	57.66	---	57.61	---	58.44	58.70	---
MAX	60.03	60.29	59.85	59.36	59.04	58.71	57.93	57.89	57.89	58.64	59.18	59.19
WTR YR 1987	MEAN	58.51		HIGH	56.53	SEP 19	LOW	60.29	NOV 13			

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR WOOD COUNTY--Continued

411721083250900. Local number, WQ-200-M024

LOCATION.--Lat 41°17'21", long 83°25'09", Hydrologic Unit 04100010, on SR 23, 1.15 mi north of Risingsun.

Owner: Cletus Brockschmidt.

AQUIFER.--Lockport Dolomite of Middle Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 265 ft, cased to unknown depth.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 704.66 ft above National Geodetic Vertical Datum of 1929, from levels.

Measuring point: floor of shelter, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--November 6, 1985 to September 30, 1987.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land-surface datum, Dec. 12, 1985; lowest water level, 9.62 ft below land-surface datum, Aug. 23, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.25	5.53	4.27	4.26	4.53	4.07	3.73	4.58	5.26	5.87	7.32	9.06
2	6.89	5.51	4.11	4.29	4.35	4.07	3.72	4.57	5.27	5.80	7.44	9.19
3	6.70	5.52	3.60	4.46	4.19	4.09	3.69	4.63	5.27	5.92	7.56	9.11
4	6.12	5.58	3.90	4.50	4.14	4.21	3.61	4.29	5.30	5.95	7.57	9.10
5	5.67	5.55	4.03	4.39	4.03	4.17	3.54	4.25	5.35	5.92	7.79	9.09
6	5.64	5.53	4.12	4.22	3.86	4.16	3.16	4.21	5.41	5.79	7.82	9.10
7	5.60	5.78	4.06	4.53	3.75	4.11	3.25	4.29	5.32	5.80	7.85	9.15
8	5.56	5.45	3.88	4.43	3.83	4.07	3.35	4.38	5.39	5.81	8.00	9.11
9	5.79	5.72	3.50	4.36	3.89	4.36	3.50	4.46	5.46	5.95	7.86	9.21
10	5.73	5.78	3.62	4.24	3.94	4.44	3.50	4.59	5.51	5.84	8.13	9.18
11	5.76	5.69	3.60	4.49	3.98	4.40	3.57	4.50	5.38	6.00	8.13	9.14
12	5.62	5.64	4.04	4.66	4.03	4.61	3.86	4.68	5.30	6.02	8.20	9.20
13	5.57	5.87	4.30	4.63	4.05	4.48	3.92	4.66	5.31	6.02	8.49	9.34
14	5.40	5.78	4.11	4.57	4.09	4.39	3.81	4.63	5.30	6.04	8.54	9.36
15	5.29	5.53	4.25	4.25	4.33	4.51	3.78	4.80	5.49	6.05	8.60	9.30
16	5.23	5.55	4.20	4.24	4.21	4.41	3.90	4.80	5.58	6.17	8.77	9.24
17	5.39	5.57	4.22	4.17	4.21	4.42	4.04	4.88	5.63	6.44	9.01	9.19
18	5.51	5.65	4.17	4.24	4.39	4.32	4.23	4.79	5.61	6.39	9.16	9.20
19	5.54	5.71	4.15	4.27	4.48	4.28	4.30	4.82	5.59	6.35	9.36	9.28
20	5.38	5.43	4.30	4.32	4.48	4.32	4.18	4.89	5.57	6.60	9.43	9.23
21	5.40	5.18	4.32	4.35	4.49	4.41	4.27	4.92	5.56	6.59	9.38	9.31
22	5.53	5.00	4.29	4.18	4.41	4.52	4.18	5.12	5.59	6.69	9.47	9.28
23	5.41	5.06	4.22	4.44	4.62	4.38	4.24	5.10	5.59	6.75	9.62	9.33
24	5.45	5.16	4.13	4.63	4.70	4.35	4.39	5.21	5.59	6.66	9.47	9.23
25	5.36	5.04	4.01	4.60	4.80	4.50	4.47	5.15	5.40	6.72	9.40	9.31
26	5.38	4.77	4.08	4.59	4.70	4.52	4.51	5.13	5.47	6.82	9.34	9.32
27	5.41	4.13	4.20	4.55	4.61	4.51	4.37	5.20	5.56	6.96	9.21	9.37
28	5.47	3.96	4.22	4.70	4.45	4.61	4.51	5.19	5.83	6.89	9.22	9.59
29	5.50	4.12	4.11	4.67	---	4.57	4.44	5.20	5.80	7.03	9.20	9.31
30	5.65	4.26	4.28	4.53	---	4.43	4.61	5.22	5.84	7.16	9.19	9.36
31	5.62	---	4.27	4.65	---	3.77	---	5.30	---	7.15	9.05	---
MAX	7.25	5.87	4.32	4.70	4.80	4.61	4.61	5.30	5.84	7.16	9.62	9.59
WTR YR 1987 MEAN		5.55		HIGH	3.16	APR 6		LOW	9.62	AUG 23		

GROUND-WATER LEVELS FOR WOOD COUNTY--Continued

SITE NUMBER	LOCAL NO.		LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
	CO. ID.	SEC.& NO.				
<u>Wells Completed in Carbonate Aquifer</u>						
411007083401600	WO-11-H35		411007	0834016	01-27-87	11.97
411705083254100	WO-12-MO24		411705	0832541	01-26-87	3.94
412645083315800	WO-13-WB25		412645	0833158	02-04-87	2.65
412140083352700	WO-23-C27		412140	0833527	01-27-87	5.43
					08-03-87	6.74
413512083320900	WO-100-PB25		413512	0833209	02-04-87	52.28
413631083314200	WO-101-N		413631	0833142	02-04-87	58.43
413635083293400	WO-102-N		413625	0832934	02-04-87	59.87
413551083293900	WO-103-L5		413551	0832939	02-04-87	63.20
413620083304100	WO-104-N		413620	0833041	02-04-87	59.22
413630083302300	WO-115-N		413629	0833023	02-04-87	57.23
413515083304300	WO-118-L8		413515	0833043	02-04-87	57.39
					09-01-87	57.01
413515083313700	WO-119-L7		413515	0833137	02-04-87	53.22
					09-01-87	52.38
413629083304400	WO-121-N		413629	0833044	10-01-86	59.51
					12-10-86	59.27
					02-11-87	58.58
					04-14-87	57.23
					06-17-87	57.76
					07-29-87	58.35
					09-02-87	58.67
413655083305800	WO-124-N		413655	0833058	02-04-87	59.69
413557083332300	WO-129-PB23		413557	0833323	02-04-87	41.18
					07-21-87	40.82
413540083322200	WO-131-PB24		413540	0833222	02-04-87	55.58
413546083292000	WO-141-LK4		413546	0832920	02-04-87	65.47
412726083283100	WO-198-T21		412726	0832831	08-13-87	8.89
412103083272200	WO-199-F34		412103	0832722	08-06-87	8.22
411721083250900	WO-200-MO24		411721	0832509	10-01-86	7.02
					12-11-86	3.59
					01-26-87	4.50
					03-24-87	4.23
					06-17-87	5.49
					07-29-87	6.89
411130083253300	WO-202-PE25		411130	0832533	01-27-87	6.61
411411083260600	WO-203-PE12		411411	0832606	01-27-87	2.17
					07-30-87	4.20
411209083273500	WO-204-PE22		411209	0832735	01-27-87	8.90
					07-22-87	10.49
411443083291500	WO-206-PE4		411443	0832915	01-27-87	20.80
411235083324000	WO-207-B24		411235	0833240	01-26-87	3.18
411036083320500	WO-208-PE31		411036	0833205	01-27-87	4.10
411050083333400	WO-210-B35		411050	0833334	07-30-87	5.50
411150083332000	WO-211-B23		411150	0833320	01-26-87	9.26
411429083362200	WO-212-B4		411429	0833622	01-26-87	3.67
					07-22-87	2.73
411331083360600	WO-213-B16		411331	0833606	01-26-87	3.99
411031083364400	WO-214-B32		411031	0833644	01-27-87	5.72
411352083371800	WO-215-B8		411352	0833718	01-26-87	11.66
411428083395400	WO-216-H1		411428	0833954	01-28-87	3.50
					08-04-87	4.94
411022083394000	WO-218-H36		411022	0833940	07-28-87	12.28
411336083411200	WO-219-H11		411336	0834112	01-28-87	6.31
411354083422700	WO-220-H10		411354	0834227	01-28-87	8.14
411339083430200	WO-221-H9		411339	0834302	01-28-87	11.93
411253083434000	WO-222-H17		411253	0834340	01-28-87	1.17
411250083434000	WO-223-H17		411250	0834340	01-28-87	2.81
					08-05-87	5.35
411101083442900	WO-224-H29		411101	0834429	01-28-87	12.27
411425083441600	WO-225-H8		411425	0834416	01-28-87	10.54
411429083440800	WO-226-H5		411429	0834408	01-28-87	9.68
411256083453100	WO-228-H18		411256	0834531	02-05-87	15.64
411216083470300	WO-230-J24		411216	0834703	01-29-87	22.09
					08-04-87	23.79
411059083484900	WO-232-J27		411059	0834849	01-29-87	18.74
411217083510900	WO-234-J20		411217	0835109	01-29-87	28.49
411217083515300	WO-235-J19		411217	0835153	01-29-87	29.19
411337083503800	WO-236-J8		411337	0835038	01-29-87	26.21
					08-03-87	23.60
411520083520900	WO-237-ML31		411520	0835209	08-04-87	24.24
411944083525700	WO-239-ML6		411944	0835257	01-29-87	70.41
411940083511600	WO-240-ML8		411940	0835116	01-29-87	18.55
411706083503200	WO-241-ML21		411706	0835032	01-29-87	16.69
411943083493200	WO-242-ML4		411943	0834932	01-29-87	7.81
411652083495700	WO-244-ML22		411652	0834957	01-29-87	16.50
411706083455600	WO-246-LI19		411706	0834556	01-29-87	9.22
					07-31-87	10.30
411521083462500	WO-247-ML36		411521	0834625	01-29-87	15.14
411609083441300	WO-248-LI32		411609	0834413	01-28-87	5.08

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

GROUND-WATER LEVELS FOR WOOD COUNTY--Continued

SITE NUMBER	LOCAL NO.		LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
	CO. ID.	SEC. & NO.				
411945083410600	WO-250-LI2		411945	0834106	01-28-87	9.91
					08-05-87	11.70
411749083401900	WO-251-LI23		411749	0834019	01-28-87	6.39
411603083401200	WO-252-LI35		411603	0834012	01-28-87	1.98
411752083384700	WO-253-PO18		411752	0833847	01-28-87	11.70
					07-29-87	13.34
411749083361000	WO-255-PO16		411749	0833610	01-26-87	6.41
411516083360900	WO-257-PO33		411516	0833609	01-26-87	12.86
411828083345200	WO-258-PO15		411828	0833452	01-26-87	3.53
411658083323500	WO-259-PO24		411658	0833235	01-26-87	7.59
					07-29-87	9.64
411911083285300	WO-260-MO9		411911	0832853	01-26-87	6.21
					07-28-87	20.80
411533083284200	WO-262-MO33		411533	0832842	01-26-87	4.89
411943083261300	WO-263-MO1		411943	0832613	01-26-87	2.08
					07-29-87	3.38
411700083261100	WO-264-MO24		411700	0832611	01-26-87	2.34
411616083251900	WO-265-MO25		411616	0832519	01-26-87	9.97
					07-22-87	12.79
412204083271800	WO-266-F26		412204	0832718	01-26-87	5.82
412524083252800	WO-267-F1		412524	0832528	02-04-87	8.07
412453083291700	WO-268-F4		412453	0832917	02-04-87	5.14
412237083301800	WO-269-F20		412237	0833018	02-04-87	6.79
					08-07-87	10.80
412136083300300	WO-270-F29		412136	0833003	01-26-87	11.24
412316083334800	WO-271-WB14		412316	0833348	02-04-87	9.44
412542083330700	WO-272-WB36		412542	0833307	02-04-87	5.96
					08-13-87	6.20
412721083333900	WO-273-WB26		412721	0833339	02-04-87	18.43
412635083362700	WO-274-MD28		412635	0833627	02-04-87	7.69
					08-06-87	8.72
412114083380400	WO-275-C31		412114	0833804	01-28-87	8.04
					08-13-87	13.67
412253083372400	WO-276-C20		412253	0833724	02-04-87	3.65
412357083371400	WO-277-C17		412357	0833714	02-04-87	4.36
412431083374500	WO-278-C8		412431	0833745	02-03-87	1.49
412305083390900	WO-280-PL24		412305	0833909	01-30-87	4.38
412117083410500	WO-282-PL35		412117	0834105	01-28-87	14.29
412235083441200	WO-283-PL20		412235	0834412	01-30-87	4.70
412236083435300	WO-284-PL20		412236	0834353	01-30-87	5.03
412244083441400	WO-285-PL20		412244	0834414	01-30-87	6.15
412350083444900	WO-286-PL17		412350	0834449	08-05-87	14.05
412541083443000	WO-287-WA5		412541	0834430	01-30-87	35.79
412131083460500	WO-288-WS25		412131	0834605	01-29-87	9.77
412218083463400	WO-289-WS25		412218	0834634	01-29-87	6.22
412225083492700	WO-290-WS22		412225	0834927	01-29-87	14.58
412457083482900	WO-291-GR3		412457	0834829	02-03-87	30.14
412630083465000	WO-292-WA36		412630	0834650	02-03-87	34.58
412554083483200	WO-293-WA3		412554	0834832	02-03-87	35.79
412453083504600	WO-294-GR9		412453	0835046	02-03-87	18.59
412438083521000	WO-295-GR7		412438	0835210	02-03-87	18.19
					07-24-87	20.29
412200083514800	WO-296-GR29		412200	0835148	01-29-87	22.00
412124083513000	WO-298-WS32		412124	0835130	08-04-87	27.90
412735083460800	WO-299-WA24		412735	0834608	02-03-87	12.47
					07-27-87	14.15
412802083435700	WO-300-MD20		412802	0834357	01-30-87	31.97
412804083435200	WO-301-MD20		412804	0834352	01-30-87	31.97
413025083423000	WO-302-MD51		413025	0834230	02-03-87	40.92
413026083420800	WO-303-MD23		413026	0834208	02-03-87	34.94
					07-28-87	41.10
413210083380600	WO-305-PB18		413210	0833806	02-03-87	36.64
413345083371500	WO-306-PB		413345	0833715	02-04-87	42.65
					07-16-87	44.18
412839083352000	WO-307-WB15		412839	0833520	02-04-87	4.34
					08-11-87	8.70
413117083303900	WO-308-LK32		413117	0833039	02-04-87	5.62
413147083275800	WO-309-LK27		413147	0832758	02-04-87	32.44
					08-12-87	38.65
413302083260600	WO-310-LK23		413302	0832606	02-04-87	37.30
413535083343800	WO-311-PB27		413535	0833438	02-04-87	50.47
413658083332900	WO-313-R		413658	0833329	02-04-87	101
					07-21-87	126
413656083333000	WO-314-R		413656	0833330	02-04-87	138
413700083291000	WO-315-N28		413700	0832910	02-04-87	59.88
413542083282700	WO-316-LK4		413542	0832827	02-04-87	61.02
					09-02-87	63.22
413515083271800	WO-317-LK10		413515	0832718	02-04-87	60.55
413657083263000	WO-318-N35		413657	0832630	02-04-87	52.66
413628083260800	WO-319-N35		413628	0832608	02-04-87	55.09
413608083255500	WO-320-N36		413608	0832555	09-03-87	63.53

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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GROUND-WATER LEVELS FOR WOOD COUNTY--Continued

SITE NUMBER	LOCAL NO.		LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DATE	WATER LEVEL (FEET BELOW LAND- SURFACE DATUM)
	CO. ID.	SEC. & NO.				
413455083260400	WO-321-LK12		413455	0832604	02-04-87	64.70
					08-10-87	63.16
412411083464101	WO-322-WA12		412411	0834641	02-03-87	6.37
413123083420200	WO-323-PB57		413123	0834202	02-03-87	44.87
411309083453500	WO-324-H18		411309	0834535	02-05-87	13.24
412123083512900	WO-326-WS32		412123	0835129	01-29-87	22.43
					08-04-87	26.17
412220083441400	WO-327-PL20		412220	0834414	01-28-87	5.57
413226083345200	WO-328-PB10		413226	0833452	02-04-87	39.10
413355083344100	WO-329-PB34		413355	0833441	02-04-87	45.40
413345083314200	WO-330-PB1		413345	0833142	02-04-87	31.58
					08-12-87	32.38
413101083325300	WO-331-PB23		413101	0833253	02-04-87	7.82
					08-11-87	9.70
413027083353300	WO-332-PB21		413027	0833533	02-03-87	13.37
413025083374000	WO-333-PB19		413025	0833740	02-03-87	34.07
					08-14-87	38.37
413239083401500	WO-334-PB11		413239	0834015	02-03-87	13.94
412430083415200	WO-336-PL10		412430	0834152	01-30-87	5.09
412847083313200	WO-338-T18		412847	0833132	02-04-87	4.73
413331083283600	WO-340-LK16		413331	0832836	02-04-87	46.72
413055083254300	WO-341-LK36		413055	0832543	02-04-87	11.90
					08-11-87	13.00
412950083282500	WO-342-T9		412950	0832825	02-04-87	10.46
					08-12-87	13.80
412657083260200	WO-343-T25		412657	0832602	02-04-87	11.96
412202083423000	WO-344-PL27		412202	0834230	01-28-87	4.76
					08-06-87	7.19
412050083435700	WO-345-PL32		412050	0834357	01-28-87	9.98
411913083445200	WO-346-LI7		411913	0834452	01-28-87	5.71
411354083322000	WO-347-B12		411354	0833220	01-26-87	3.79
					07-30-87	5.17
411242083353200	WO-348-B15		411242	0833532	01-26-87	6.09
412451083280200	WO-349-F3		412451	0832802	02-04-87	15.35
411432083385100	WO-351-B6		411432	0833851	01-28-87	5.49
					08-05-87	7.07
412144083515100	WO-353-GR30		412144	0835151	01-29-87	21.17

GROUND-WATER QUALITY IN WOOD COUNTY

The following tables contain results of analyses of ground waters collected for the purpose of establishing a data base of water-quality information for wells completed in the Silurian-Devonian carbonate aquifer. Ground waters also were collected from three springs that discharge from the Silurian-Devonian carbonate aquifer into selected quarries. Water characteristics, major and minor dissolved inorganic constituents, dissolved trace elements, nitrogen and phosphorus compounds, radiochemical constituents, and dissolved organic carbon are reported. Samples from sites 349-F3 and 352-B36 were collected during the 1986 water year.

The notation "ND" means the constituent of interest was not detectable at the analytical limit. Sulfide concentrations listed as ND were based on titrations for which the sample aliquot required more titrant than a blank aliquot of equal volume.

In data for total coliform, fecal coliform, and fecal streptococcus bacteria counts, the prefix "K" indicates an estimated count based on a non-ideal colony number of less than 20 per filter. The ">" symbol preceding a value indicates that the number of colonies per filter was too numerous to count; therefore, an estimate was made based on the smallest filtered volume.

Samples for total recoverable purgeable organic compound analysis by GC-MS were collected from the following wells (county prefix is omitted): 23-C27, 121-N, 198-T21, 204-PE22, 210-B35, 212-B4, 230-J24, 236-J8, 246-L19, 250-L12, 260-M09, 263-M01, 265-M025, 299-WA24, 303-MD23, 306-PB, 307-WB15, 309-LK27, 320-N36, 326-WS32, 333-PB19, 341-LK36, 342-T9, and 351-B6. The results for the specific purgeable compounds were found to be less than the reporting concentration listed in the table below for all wells except 326-WS32. The detection level of methylene chloride changed from sample to sample and is provided with the water-quality data for the above wells. The purgeable organic data for well 326-WS32 are included with the water-quality data for that well.

[illegible]

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412140083352700. Local number, WQ-23-C27 near Bowling Green.

LOCATION.--Lat 41°21'40", long 83°35'27", Hydrologic Unit 04100010.

OWNER: Edgar Stewart.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled test well, diameter 12 in., depth 235 ft., cased to 22 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)
AUG 03...	1830	6.74	3040	6.86	7.10	30.0	12.0	0	K12	K4	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 03...	1900	1600	500	150	19	3.3	301	0	245	66	1.0
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 03...	1700	25	1.6	0.23	16	2830	2570	0.002	<0.010	0.825	0.90
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
AUG 03...	<0.001	20	2	<1	<100	210	<1	40	<1	180	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 03...	30	20	<0.1	<1	1	<1.0	9100	10	1.6	<0.010	<6.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413515083304300. Local number, WO-118 near Walbridge.

LOCATION.--Lat 41°31'15", long 83°30'43", Hydrologic Unit 04100010.

OWNER: Robert Elvy.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 160 ft., cased to 65.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
SEP 01...	1550	57.01	971	7.76	21.0	12.0	0	K5

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
SEP 01...	<1	K1	139	0	114	3.8	ND	1.1

413515083313700. Local number, WO-119 near Walbridge.

LOCATION.--Lat 41°35'15", long 83°31'37", Hydrologic Unit 04100010.

OWNER: Ramon E. Siewert.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 132 ft., cased to 55 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
SEP 01...	1310	52.38	1110	7.46	21.0	12.0	0	K6

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
SEP 01...	<1	<1	218	0	179	12	<0.5	1.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413629083304400. Local number, WQ-121-N at Northwood.

LOCATION.--Lat 41°36'29", long 83°30'44", Hydrologic Unit 04100010.

OWNER: Waste Management Inc.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well converted for observation, diameter 6 in., depth 188.5 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
SEP 02...	1130	58.67	880	7.85	7.80	16.5	12.0	0	>80	52	K3

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
SEP 02...	340	240	76	31	56	1.6	122	0	100	2.7	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
SEP 02...	350	14	2.1	5.2	7.5	619	497	0.003	<0.010	0.866

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)
SEP 02...	0.60	0.004	50	<1	1	5	250	<1	20	<1

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	METHYL ENE CHLO- RIDE TOTAL (UG/L)
SEP 02...	56	<5	17	9	<1	<1	<1.0	22000	13	1.4	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

41355708332300. Local number, WQ-129-PB23 near Northwood.

LOCATION.--Lat 41°35'57", long 83°33'23", Hydrologic Unit 04100010.

OWNER: Bruns Greenhouse and Florist.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 149 ft., cased to 74 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 21...	1800	40.82	1350	7.47	7.40	35.5	15.5	1.3	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
JUL 21...	600	470	130	61	61	2.3	150	0	123	8.1	
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
JUL 21...	ND	630	6.4	1.2	0.065	12	1050	997	0.001	0.056	
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUL 21...	0.650	0.60	<0.001	<10	<1	730	460	22	17000	2.2	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411426083290700. Local number, WQ-150 at West Millgrove.
 LOCATION.--Lat 41°14'26", long 83°29'07", Hydrologic Unit 04100010.
 OWNER: MacRitchie Materials Inc.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Discharge from fracture above quarry sump.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 03...	1350	880	7.31	7.80	29.0	16.0	0	33	K13	K13
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 03...	480	210	100	50	14	3.1	332	0	272	26
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 03...	ND	180	30	0.8	0.18	9.2	555	570	0.002	0.433
DATE	NITRO- GEN,AM- MONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 03...	0.036	0.50	0.002	<10	<1	60	41	<3	19000	1.9

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413219083334300. Local number, WQ-151 at Lime City.
 LOCATION.--Lat 41°32'19", long 83°33'43", Hydrologic Unit 04100010.
 OWNER: Stoneco Inc.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.-- Discharge from fracture at quarry floor.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 04...	0900	1010	7.12	8.00	26.0	11.0	<1	<1	<1	750
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 04...	460	160	78	18	2.6	358	0	294	43	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 04...	490	26	2.0	0.16	6.7	1020	990	0.003	0.028	0.077
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
AUG 04...	0.50	0.010	10	<1	90	53	24	30000	2.2	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411912083384800. Local number, WQ-152 at Portage.
 LOCATION.--Lat 41°19'12", long 83°38'48", Hydrologic Unit 04100010.
 OWNER: Stoneco Inc.
 AQUIFER.--Dolomite of Silurian age.
 SPRING CHARACTERISTICS.--Discharge from fracture above quarry sump.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	PH LAB (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, TOTAL, IMMEDIATE (COLS./100 ML)	COLIFORM, FECA, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS./100 ML)
AUG 04...	1230	1810	7.19	7.30	28.0	13.5	0	<1	<1	<1
DATE	HARDNESS TOTAL (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
AUG 04...	830	560	190	80	73	3.8	332	0	272	34
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS Br)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
AUG 04...	3.2	490	150	1.5	0.81	10	1220	1190	0.044	0.053
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS Al)	ARSENIC DIS-SOLVED (UG/L AS As)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)	STRONTIUM, DIS-SOLVED (UG/L AS Sr)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
AUG 04...	1.60	1.4	<0.001	50	<1	150	200	18	22000	2.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412726083283100. Local number, WQ-198-T21 at Luckey.

LOCATION.--Lat 41°27'26", long 83°28'31", Hydrologic Unit 04100010.

OWNER: Jerry Vestal.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.82 in., depth 55 ft., cased to 25 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI KF AGAR (COLS. PER 100 ML)	
AUG 13...	0910	8.89	765	7.12	7.30	22.0	12.5	1.0	<1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 13...	390	120	75	49	15	6.7	333	0	271	40	ND	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 13...	69	23	0.1	<0.010	6.3	482	436	0.010	12.0	2.30	2.9	
DATE		PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
AUG 13...	10.0	7.90	<10	1	6	20	60	<1	<10	2	6	
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 13...	<5	11	<0.1	5	<1	<1.0	460	100	5.5	<0.010	<3.0	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412103083272200. Local number, WQ-199-F34 near Bradner.

LOCATION.--Lat 41°21'03", long 83°27'22", Hydrologic Unit 04100010.

OWNER: William Libbe.

AQUIFER.--Dolomite of SILURIAN age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 72 ft., cased to 28 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)
AUG 06...	1655	8.22	695	7.28	7.50	26.0	12.5	0.3	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 06...		330	81	72	35	14	2.1	306	0	250	26
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 06...		ND	140	6.2	1.8	0.059	13	468	443	<0.001	0.021
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 06...		0.310	1.0	0.002	<10	1	140	290	6	7400	1.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411411083260600. Local number, WQ-203-PE12 near West Millgrove.

LOCATION.--Lat 41°14'11", long 83°26'06", Hydrologic Unit 04100010.

OWNER: Alton Mauholland.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 70 ft., cased to 26.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 30...	1215	4.20	566	7.15	7.80	27.0	14.5	0	<1	K1	K18

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 30...	340	18	81	33	1.8	0.6	390	0	320	44

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 30...	<0.5	9.1	1.3	0.2	0.042	0.002	12	314	333	0.004

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 30...	0.011	0.068	0.60	<0.001	<10	10	1900	11	240	3.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411209083273500. Local number, WQ-204-PE22 near Fostoria.

LOCATION.--Lat 41°12'09", long 83°27'35", Hydrologic Unit 04100010.

OWNER: Paul R. Dibling.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 65 ft., cased to 24.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 22...	1325	10.49	655	7.36	7.50	35.0	12.5	0.4	K2	<1	K2
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 22...	350	57	87	29	4.4	3.8	358	0	293	25	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 22...	59	2.7	0.5	0.020	14	396	390	0.002	0.708	0.096	0.40
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 22...	0.002	<10	<1	<1	92	40	<1	<10	<1	700	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 22...	26	7	<0.1	3	<1	<1.0	12000	84	1.7	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411050083333400. Local number, WQ-210-B35 at Bloomdale.

LOCATION.--Lat 41°10'50", long 83°33'34", Hydrologic Unit 04100010.

OWNER: Claude Baird.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 80 ft., cased to 23.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JUL 30...	0950	5.50	1320	7.13	8.10	25.0	13.0	0	K1	<1	51	
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
JUL 30...	620	430	140	62	63	2.9	243	0	198	29	14	
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
JUL 30...	530	19	1.5	0.069	0.009	15	996	971	0.001	<0.010	0.305	
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUL 30...	0.70	<0.001	20	<1	<1	23	380	<1	<10	1	10	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 30...	<5	47	<1	0.1	2	<1	<1.0	17000	9	2.5	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411429083362200. Local number, WQ-212-B4 at Jerry City.

LOCATION.--Lat 41°14'29", long 83°36'22", Hydrologic Unit 04100010.

OWNER: Jerry Roberts.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 30 ft., cased to 19.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
JUL 22...	1700	2.73	1890	6.79	7.00	31.0	12.5	1.5	K2	<1	K3	1100

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LILITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 22...	650	230	110	34	4.3	489	0	400	126	<0.5	640

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
JUL 22...	93	1.3	0.65	21	1510	1400	0.001	0.010	0.274	0.60	<0.001

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	BORON, DIS- SOLVED (UG/L AS B)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 22...	<10	<1	150	30	1000	100	26	1	24000	2.4	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411428083395400. Local number, WQ-216-H1 at Cygnet.

LOCATION.--Lat 41°14'28", long 83°39'54", Hydrologic Unit 04100010.

OWNER: Louis Wagner.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 48 ft., cased to 27.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 04...	1615	4.94	1230	7.12	7.50	30.0	13.0	0	22	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 04...	570	150	110	67	32	3.8	515	0	421	62

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 04...	47	270	50	1.4	0.34	15	738	820	0.002	<0.010

DATE	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 04...	0.650	1.0	<0.001	40	2	230	36	6	16000	2.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411022083394000. Local number, WQ-218-H36 at North Baltimore.

LOCATION.--Lat 41°10'22", long 83°39'40", Hydrologic Unit 04100010.

OWNER: Len's Implement.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 4.25 in., depth 62 ft., cased to 22 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 28...	1015	12.28	1170	7.03	7.50	24.0	15.5	0	K1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
JUL 28...	610	240	130	68	28	3.4	455	0	372	67	
DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
JUL 28...	22	340	6.1	0.8	0.079	26	818	835	0.003	<0.010	
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	
JUL 28...	0.310	0.70	0.004	<10	<1	260	18	2	7800	2.2	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411250083434000. Local number, WQ-223-H17 near Hammansburg.

LOCATION.--Lat 41°12'50", long 83°43'40", Hydrologic Unit 04100010.

OWNER: Chris Smith.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 40 ft., cased to 28.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 05...	0950	5.35	1140	7.57	7.30	21.0	12.0	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 05...	580	260	130	51	32	2.9	390	0	317	17

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 05...	2.7	260	60	1.0	0.41	14	776	783	0.002	<0.010

DATE	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 05...	0.286	1.0	0.003	<10	<1	200	27	4	39000	2.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411216083470300. Local number, WQ-230-J24 at Hoytville.

LOCATION.--Lat 41°12'16", long 83°47'03", Hydrologic Unit 04100010.

OWNER: Grace E. Smith.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 89 ft., cased to 60.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 04...	1000	23.79	1770	7.52	7.50	22.0	13.0	0	20	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 04...	870	770	200	84	110	2.6	123	0	102	5.9	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 04...	960	13	1.2	0.14	9.2	1580	1460	0.003	<0.010	0.650	1.0
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
AUG 04...	<0.001	<10	<1	<1	13	230	<1	20	<1	120	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 04...	32	7	0.1	<1	<1	<1.0	22000	110	1.5	<0.010	<6.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411337083503800. Local number, WQ-236-J8 near Deshler.

LOCATION.--Lat 41°13'37", long 83°50'38", Hydrologic Unit 04100009

OWNER: Eugene Moses.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 100 ft., cased to 64.4 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)		
AUG 03...	1445	23.60	1100	7.60	7.60	33.0	13.0	0	<1	<1	K9	380		
DATE	TIME	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	
AUG 03...	270	95	28	110	2.3	129	0	106	5.1	ND	460	10		
DATE	TIME	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	
AUG 03...	1.5	0.14	10	811	802	<10	1	1	13	600	<1	<10		
DATE	TIME	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 03...	<1	310	<5	34	4	<0.1	<1	<1	<1.0	21000	46	<0.010	<3.0	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411520083520900. Local number, WQ-237-ML31 near Custer.

LOCATION.--Lat 41°15'20", long 83°52'09", Hydrologic Unit 04100009.

OWNER: Terry Feehan.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 93 ft., cased to 68.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 04...	1215	24.24	944	7.94	7.80	25.0	13.0	0	K7	<1	K9

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 04...	290	160	69	22	90	1.9	159	0	129	2.9

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRI TE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 04...	<0.5	370	16	1.3	0.21	8.9	695	681	0.003	0.048

DATE	NITRO- GEN,AM- AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 04...	0.520	0.80	<0.001	<10	<1	500	200	5	22000	1.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411706083455600. Local number, WQ-246-LI19 near Custar.

LOCATION.--Lat 41°17'06", long 83°45'56", Hydrologic Unit 04100010.

OWNER: Richard Wensink

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 57 ft., cased to 43.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)		
JUL 31...	0930	10.30	605	7.71	8.10	28.0	12.0	0	>80	<1	K14		
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
JUL 31...	240		72	49	20	35	2.1	205	0	168	6.4	<0.5	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
JUL 31...	140		10	1.5	0.089	0.011	14	395	405	<0.001	<0.010	0.311	
DATE		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
JUL 31...	0.50		0.001	20	<1	<1	37	390	<1	<10	1	320	
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 31...	<5	27	4	<0.1	2	<1	<1.0	31000	14	2.7	<0.010	<3.0	

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411945083410600. Local number, WQ-250-LI2 near Portage.

LOCATION.--Lat 41°19'45", long 83°41'06", Hydrologic Unit 04100010.

OWNER: Pat Maidment.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 31 ft., cased to 23.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 05...	1150	11.70	1220	7.26	7.40	26.0	13.5	0	K11	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 05...	630	360	140	65	38	6.1	333	0	272	29	0.8
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 05...	370	48	1.1	0.28	18	889	864	0.033	0.127	0.670	0.70
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
AUG 05...	<0.001	10	<1	<1	32	540	<1	20	<1	470	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 05...	31	21	0.1	<1	<1	<1.0	12000	14	2.3	<0.010	<5.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411752083384700. Local number, WQ-253-PO18 at Mermill.
 LOCATION.--Lat 41°17'52", long 83°38'47", Hydrologic Unit 04100010.
 OWNER: James Copus.
 AQUIFER.--Dolomite of Silurian age.
 WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 50 ft., cased to 31.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 29...	1515	13.34	1230	6.94	7.20	33.0	14.0	0.5	<1	<1	K1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
JUL 29...		650	240	160	55	43	14	505	0	413	92

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 29...	ND	250	68	0.9	0.11	21	918	883	<0.001	<0.010

DATE	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 29...	0.310	0.60	0.012	<10	<1	290	980	63	21000	6.5

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411658083323500. Local number, WQ-259-PO24 near Jerry City.

LOCATION.--Lat 41°16'58", long 83°32'35", Hydrologic Unit 04100010.

OWNER: Bill Aurand.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 33 ft., cased to 28.2 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS. 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. 100 ML)
JUL 29...	1310	9.64	1200	6.87	7.60	30.0	13.5	0	K2	<1	>100

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 29...	710	420	150	75	31	3.3	348	0	285	75

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 29...	<0.5	420	21	1.9	0.20	20	977	916	<0.001	<0.010

DATE	NITRO- GEN,AM- AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 29...	0.310	0.60	<0.001	<10	<1	350	700	10	21000	2.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411911083285300. Local number, WQ-260-M09 near Wayne.

LOCATION.--Lat 41°19'11", long 83°28'53", Hydrologic Unit 04100010.

OWNER: John Firsdon, Jr.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 40 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 28...	1330	20.80	711	7.42	7.60	32.0	12.0	0	<1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 28...	350	120	67	33	24	2.2	275	0	225	17	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 28...	140	11	1.9	0.12	15	487	468	<0.001	<0.010	0.310	0.70
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 28...	0.001	20	<1	1	46	300	<1	30	<1	720	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 28...	33	6	0.3	1	<1	<1.0	37000	14	2.4	<0.010	<3.0

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411943083261300. Local number, WQ-263-MO1 at Bradner.

LOCATION.--Lat 41°19'43", long 83°26'13", Hydrologic Unit 04100010.

OWNER: Larry Beckford.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 75 ft., cased to 20.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 29...	1040	3.38	966	7.05	7.30	27.0	13.5	1.0	K8	<1	K13
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 29...	430	48	100	44	42	7.6	469	0	381	66	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 29...	68	53	0.2	0.079	9.4	563	557	<0.001	8.30	0.029	0.90
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 29...	0.058	30	<1	<1	58	320	<1	710	3	<3	5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- IDE TOTAL (UG/L)
JUL 29...	13	1	<0.1	<1	1	<1.0	840	170	3.0	<0.010	<13

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411616083251900. Local number, WQ-265-MO25 at Risingsun.

LOCATION.--Lat 41°16'16", long 83°25'19", Hydrologic Unit 04100010.

OWNER: Chuck Bowen.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 74 ft., cased to 41.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 22...	0930	12.79	1040	6.93	7.10	35.0	13.5	0	>80	<1	38
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 22...	440	0	92	50	51	11	533	0	435	100	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 22...	39	48	0.2	0.054	11	589	574	0.004	3.50	3.20	8.4
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 22...	1.40	<10	2	15	28	230	<1	10	3	280	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 22...	10	130	0.2	14	<1	<1.0	790	24	5.0	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412237083301800. Local number, WQ-269-F20 at New Rochester.

LOCATION.--Lat 41°22'37", long 83°30'18", Hydrologic Unit 04100010.

OWNER: Donald Contries.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 82 ft., cased to 17 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 07...	0945	10.80	455	7.41	7.50	23.0	12.5	0.5	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 07...	260	4	62	25	1.4	0.7	310	0	253	19

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 07...	ND	6.0	1.0	1.6	<0.010	8.4	240	259	0.006	0.982

DATE	NITRO- GEN,AM- MONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 07...	0.058	2.1	<0.001	<10	<1	<10	<3	<1	77	2.8

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412542083330700. Local number, WQ-272-WB36 near Scotch Ridge.

LOCATION.--Lat 41°25'42", long 83°33'07", Hydrologic Unit 04100010.

OWNER: Webster Methodist Church.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 69 ft., cased to 49.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 13...	1430	6.20	1210	7.17	7.30	28.0	15.5	1.1	<1	<1	K14

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 13...	670	420	140	73	25	2.8	304	0	247	33	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	490	5.0	1.2	0.059	19	967	927	0.002	0.031	0.600

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...	0.60	0.008	0.029	<10	<1	320	470	4	20000	2.1

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412635083362700. Local number, WQ-274-MD28 at Dunbridge.

LOCATION.--Lat 41°26'35", long 83°36'27", Hydrologic Unit 04100010.

OWNER: John Schaller.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 75 ft., cased to 46 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- FORM, FECAL, KF AGAR (COLS. PER 100 ML)
AUG 06...	1020	8.72	950	7.38	7.50	26.0	12.0	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 06...	450	250	96	46	32	1.9	250	0	207	17

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 06...	ND	310	6.0	1.0	0.061	13	643	652	0.003	0.065

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 06...	0.600	0.60	0.003	<10	<1	330	360	6	22000	1.3

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412114083380400. Local number, WQ-275-C31 at Bowling Green.

LOCATION.--Lat 41°21'14", long 83°38'04", Hydrologic Unit 04100010.

OWNER: Richard Mlinarik.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 42 ft., cased to 21.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR PER 100 ML)
AUG 13...	1630	13.67	1160	7.26	7.40	32.0	14.5	0.5	K3	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 13...	450	150	97	46	63	1.2	375	0	307	33	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 13...	83	160	0.6	0.034	6.7	696	661	0.001	0.031	0.114

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 13...	0.80	<0.005	0.030	<10	<1	20	98	8	19000	2.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412350083444900. Local number, WQ-286-PL17 near Tontogany.

LOCATION.--Lat 41°23'50", long 83°44'49", Hydrologic Unit 04100009.

OWNER: John Spangler.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6 in., depth 88 ft., cased to 80 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- FECAL, KF AGAR (COLS. PER 100 ML)
AUG 05...	1520	14.05	2500	7.62	8.00	28.0	12.5	0	<1	<1	<1
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 05...	1400	1300	360	110	100	2.6	89	0	73	3.4	
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 05...	ND	1600	47	1.3	0.37	17	2400	2290	<0.002	0.036	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 05...	1.00	1.2	<0.006	10	1	<100	780	1	<10	<1	
DATE		IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 05...	1500	<5	30	40	<1	<1	<1.0	8300	50	1.3	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412438083521000. Local number, WQ-295-GR7 at Grand Rapids.

LOCATION.--Lat 41°24'38", long 83°52'10", Hydrologic Unit 04100009.

OWNER: Douglas Scott.

AQUIFER.--Dolomite of Devonian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 50 ft., cased to 26.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 24...	0920	20.29	2080	7.01	7.30	25.0	12.5	0.6	30	<1	K8

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 24...	1300	990	200	190	67	3.4	379	0	311	59

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 24...	ND	1100	10	1.4	0.13	19	1890	1800	0.001	0.023

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 24...	0.795	0.80	0.001	10	1	690	2500	21	15000	2.1

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412735083460800. Local number, WQ-299-WA24 near Grand Rapids.

LOCATION.--Lat 41°27'35", long 83°46'08", Hydrologic Unit 04100009.

OWNER: Bruce Seeger.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 7 in., depth 36 ft., cased to 27.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 27...	1540	14.15	2560	6.90	7.10	32.0	14.5	0	K1	<1	<1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 27...	1700	1500	430	160	56	5.0	325	0	266	65	1.9
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 27...	1300	38	1.0	0.30	16	2240	2180	<0.001	<0.010	0.315	1.1
DATE	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 27...	<0.001	<10	<1	<1	<100	360	<1	20	<1	660	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 27...	80	40	0.3	<1	<1	<1.0	8400	10	2.6	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413026083420800. Local number, WQ-303-MD23 near Waterville.

LOCATION.--Lat 41°30'26", long 83°42'08", Hydrologic Unit 04100009.

OWNER: Frank Ferris.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 48 ft., cased to 37.7 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	
JUL 28...	1745	41.10	1910	7.06	7.50	26.0	13.0	0	K1	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
JUL 28...	1200		810	190	160	56	3.3	411	0	381	57	17
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
JUL 28...	970		9.2	1.0	0.080	16	1670	1620	0.003	<0.010	0.305	0.60
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 28...	0.020		10	<1	<1	53	660	<1	<10	<1	85	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 28...	95		260	<0.1	<1	<1	<1.0	15000	10	2.6	<0.010	<5.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413345083371500. Local number, WQ-306-PB at Perrysburg.

LOCATION.--Lat 41°33'45", long 83°37'15", Hydrologic Unit 04100009.

OWNER: Herman Mizer.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 192 ft., cased to 71.9 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
JUL 16...	0920	44.18	2110	7.40	7.70	12.5	3.2	>80	<1	>100	980

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 16...	930	240	89	140	2.2	67	0	56	4.2	ND	1200

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO-AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
JUL 16...	9.7	1.3	0.12	11	1850	1740	0.020	0.160	0.680	0.70	0.014

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 16...	<10	<1	<1	200	890	<1	60	<1	420	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
JUL 16...	20	40	2.4	<1	<1	<1.0	13000	30	1.7	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412839083352000. Local number, WQ-307-WB15 at Dowling.

LOCATION.--Lat 41°28'39", long 83°35'20", Hydrologic Unit 04100010.

OWNER: Jim Roth.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 82 ft., cased to 20 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 11...	1200	8.70	634	7.41	7.40	23.0	12.5	0	<1	<1	<1	
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 11...	340	86	81	33	8.7	3.0	310	0	254	19	ND	
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 11...	84	13	0.3	0.045	9.7	382	388	0.001	<0.010	0.047	0.80	
DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 11...	<0.005	<0.001	<10	<1	<1	240	10	<1	<10	<1	350	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	
AUG 11...	<5	<4	15	0.2	<1	<1	<1.0	1700	94	1.9	<0.010	<24

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413147083275800. Local number, WQ-309-LK27 near Millbury.

LOCATION.--Lat 41°31'47", long 83°27'58", Hydrologic Unit 04100010.

OWNER: Robert Sibberson.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 149 ft., cased to 60.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 12...		0855	38.65	892	7.24	7.40	23.0	12.0	0.5	30	<1	K1
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 12...		470	270	110	40	20	1.8	254	0	207	23	ND
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 12...	260	8.8	1.7	0.091	11	638	609	<0.001	0.014	0.505	1.0	
DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 12...	<0.005	<0.001	20	<1	<1	16	200	<1	<10	2	47	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 12...	<5	11	2	0.2	<1	<1	<1.0	30000	31	1.6	<0.010	<7.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413658083332900. Local number, WQ-313-R at Rossford.

LOCATION.--Lat 41°36'58", long 83°33'29", Hydrologic Unit 04100009.

OWNER: Libbey Owens Ford.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commerical water well, diameter 10.0 in., depth 541 ft., cased to 92.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 21...	0940	126	960	7.50	7.80	27.0	16.5	6.1	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 21...	380	220	85	32	56	2.7	193	0	157	9.7

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 21...	<0.5	320	19	1.7	0.15	8.9	673	650	0.001	0.011

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 21...	0.680	0.70	0.001	20	<1	420	180	14	28000	2.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413542083282700. Local number, WQ-316-LK4 at Walbridge.

LOCATION.--Lat 41°35'42", long 83°28'27", Hydrologic Unit 04100010.

OWNER: Don Billings.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 149 ft., cased to 77.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
SEP 02...	1400	63.22	960	7.85	7.80	18.5	11.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
SEP 02...	380	280	83	35	63	2.2	118	0	98	2.6

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
SEP 02...	<0.5	380	12	2.6	0.75	6.4	699	665	<0.001	<0.010

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
SEP 02...	0.305	0.90	<0.001	<10	<1	300	<3	<1	21000	1.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413608083255500. Local number, WQ-320-N36 near Woodville Gardens.

LOCATION.--Lat 41°36'08", long 83°25'55", Hydrologic Unit 04100010.

OWNER: Fred Draper.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 110 ft., cased to 82.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
SEP 03...	0900	63.53	745	7.50	7.50	13.0	11.5	0	K18	<1	<1	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
SEP 03...	770		650	190	68	48	2.4	150	0	123	7.5	<0.5
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
SEP 03...	690		16	2.0	10	9.5	1180	1130	<0.001	<0.010	0.305	0.80
DATE		PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
SEP 03...		<0.001	<10	1	3	6	310	<1	20	<1	480	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
SEP 03...	23		3	<0.1	<1	<1	<1.0	14000	150	1.2	<0.010	<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413455083260400. Local number, WQ-321-LK12 at East Lawn.

LOCATION.--Lat 41°34'55", long 83°26'04", Hydrologic Unit 04100010.

OWNER: Gerald Traver.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 115 ft., cased to 78.5 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 10...	1600	63.16	1860	7.22	7.30	27.0	12.5	0.1	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 10...	1100	950	270	100	45	2.4	184	0	149	18	ND

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 10...	940	16	1.6	0.16	11	1690	1490	<0.001	<0.010	0.655

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 10...	0.80	<0.005	<0.001	<10	2	360	890	9	13000	1.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412123083512900. Local number, WQ-326-WS32 near Weston.

LOCATION.--Lat 41°21'23", long 83°51'29", Hydrologic Unit 04100009.

OWNER: Vernon Weaver.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 55 ft., cased to 36.4 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)		
AUG 04...	1455	26.17	2660	7.18	7.30	27.0	17.0	0	70	K7	28		
DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 04...	1600	1400	390	140	63	4.6	196	0	161	21	8.2		
DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 04...	1600	41	1.5	0.33	11	2640	2350	0.003	<0.010	1.00	0.70		
DATE	TIME	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	
AUG 04...	0.004	10	<1	<1	<100	570	<1	20	<1	70	<5		
DATE	TIME	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)		
AUG 04...	60	10	<0.1	<1	<1	<1.0	4800	<10	1.7	<0.010			
DATE	TIME	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
AUG 04...	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	
DATE	TIME	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,2- TRANSDI- CHLORO- ETHENE TOTAL (UG/L)
AUG 04...	<15.0	29	310	<15	<15	<15	220	<15	<15	<15.0	<15	<15	
DATE	TIME	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,2- DIBROMO ETHYL- ENE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)
AUG 04...	<15	<15.0	<15.0	<15.0	<15	<15	<15.0	<15.0	<15	<15	<15.0	<15	<15

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413345083314200. Local number, WQ-330-PB1 near Moline.

LOCATION.--Lat 41°33'45", long 83°31'42", Hydrologic Unit 04100010.

OWNER: Donald Snyder.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 130 ft., cased to 43.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER 100 ML	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 12...	1335	32.38	1200	7.08	7.20	28.0	12.5	1.1	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 12...	650	380	140	66	28	2.8	329	0	268	43	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 12...	360	35	1.3	0.083	16	890	841	<0.001	<0.010	0.590

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 12...	0.40	<0.005	<0.001	10	<1	280	750	10	28000	2.2

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413101083325300. Local number, WQ-331-PB23 near Lime City.

LOCATION.--Lat 41°31'01", long 83°32'53", Hydrologic Unit 04100010.

OWNER: Lowell Gurtzweiler.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 85 ft., cased to 33.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 11...	0950	9.70	772	7.57	7.60	21.0	11.5	0	32	27	K4

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
AUG 11...	390	230	88	37	23	2.0	204	0	169	8.7	<0.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 11...	220	13	1.0	0.11	10	534	514	<0.001	0.011	0.525

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 11...	0.70	0.013	0.010	<10	<1	220	46	2	19000	1.8

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413025083374000. Local number, WQ-333-PB19 near Five Points.

LOCATION.--Lat 41°30'25", long 83°37'40", Hydrologic Unit 04100009.

OWNER: John Volland.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 112 ft., cased to 62.8 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)		
AUG 14...		0840	38.37	1250	7.41	7.60	24.0	15.0	0	K14	K2	<1	
DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 14...		580	440	130	58	64	2.8	173	0	141	11	<0.5	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 14...		570	10	2.0	0.088	8.4	977	949	0.001	0.033	0.900	1.3	
DATE		PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 14...		0.007	0.012	20	<1	<1	9	460	<1	30	<1	260	
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 14...	<5	12	3	0.6	3	<1	<1.0	17000	14	2.1	<0.010		<3.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

413055083254300. Local number, WQ-341-LK36 near Forest Park.

LOCATION.--Lat 41°30'55", long 83°25'43", Hydrologic Unit 04100010.

OWNER: Lowell Baker.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 80 ft., cased to 34.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)		
AUG 11...	1455	13.00	763	7.29	7.30	25.0	12.5	0	<1	<1	<1		
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 11...	430	130	87	39	7.5	1.4	366	0	299	30	<0.5		
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 11...	120	5.1	1.8	0.047	11	511	502	<0.001	0.011	0.276	0.70		
DATE		PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 11...	<0.005	<0.001	10	<1	<1	36	70	<1	<10	<1	93		
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 11...	5	10	<3	0.2	<1	<1	<1.0	49000	44	1.6	<0.010	<22	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412950083282500. Local number, WQ-342-T9 at Lemoyne.

LOCATION.--Lat 41°29'50", long 83°28'25", Hydrologic Unit 04100010.

OWNER: Luckey Farmers.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.62 in., depth 135 ft., cased to 38.4 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)		
AUG 12...		1055	13.80	687	7.33	7.50	24.0	16.5	0.4	<1	<1		
	DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 12...		350	130	77	29	15	2.0	267	0	215	20	<0.5	
	DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
AUG 12...		140	3.9	1.5	0.034	11	461	443	<0.001	0.013	0.645	1.2	
	DATE	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 12...		<0.005	<0.001	<10	<1	<1	30	160	<1	<10	<1	210	
	DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 12...	<5	10	2	<0.1	<1	<1	<1.0	31000	16	1.7	<0.010	<24	

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412202083423000. Local number, WQ-344-PL27 near Bowling Green.

LOCATION.--Lat 41°22'02", long 83°42'30", Hydrologic Unit 04100009.

OWNER: William Howard.

AQUIFER.--Dolomite of Upper Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 38 ft., cased to 30.1 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 06...	1245	7.19	930	7.20	7.40	27.0	13.5	0	<1	<1	<1

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
AUG 06...	530	200	97	66	23	3.6	403	0	322	40

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 06...	<0.5	220	12	1.3	0.093	30	681	666	0.003	0.084

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 06...	0.320	1.5	0.003	<10	<1	580	160	14	14000	1.4

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

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WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411354083322000. Local number, WQ-347-B12 near Eagleville.

LOCATION.--Lat 41°13'54", long 83°32'20", Hydrologic Unit 04100010.

OWNER: Allen Fredrick.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.62 in., depth 41 ft., cased to 19.3 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)
JUL 30...	1530	5.17	1260	7.00	7.60	27.0	13.5	0	K1	<1	K8

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
JUL 30...	750	400	180	68	15	3.4	433	0	354	69

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 30...	<0.5	370	3.8	1.5	0.052	0.003	23	945	901	<0.001

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUL 30...	<0.010	0.277	0.50	<0.001	10	190	1400	13	21000	2.7

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

412451083280200. Local number, WQ-349-F3 at Pemberville.

LOCATION.--Lat 41°24'51", long 83°28'02", Hydrologic Unit 04100010.

OWNER: City of Pemberville, north wellfield well, No. 1.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled public supply water well, diameter 10.0 in., depth 227 ft., cased to unknown depth.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
SEP 03...	1530	36.90	965	7.40	7.60	11.5	<1	390	160	95	37	36
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
SEP 03...		3.4	225	18	180	75	1.1	0.39	12	610	575	0.60
DATE		ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
SEP 03...		<10	<1	<1	31	160	<1	<10	4	15	<5	40
DATE		MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	CYANIDE TOTAL (MG/L AS CN)
SEP 03...		<1	3	<1	<1.0	32	10	20	5.2	3.6	0.06	<0.010

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411432083385100. Local number, WQ-351-B6 at Cygnet.

LOCATION.--Lat 41°14'32", long 83°38'51", Hydrologic Unit 04100010.

OWNER: Village of Cygnet, well No. 9.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled public supply water well (unused), diameter 6.5 in., depth 100 ft., cased to 25 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
AUG 05...	1130	7.07	1490	7.15	7.40	24.0	16.0	0	K12	<1	<1	
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	
AUG 05...	640	220	140	62	69	3.2	516	0	420	58	19	
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
AUG 05...	190	190	0.5	1.1	0.039	12	981	955	0.006	<0.010	0.298	
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
AUG 05...	0.50	0.007	20	<1	<1	280	110	<1	30	<1	19	
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
AUG 05...	<5	25	9	0.1	<1	<1	<1.0	33000	12	4.6	<0.010	<6.0

GROUND-WATER RECORDS FOR THE NORTHWEST OHIO PROJECT--Continued

WATER-QUALITY DATA FOR WOOD COUNTY--Continued

411003083330200. Local number, WQ-352-B36 at Bloomdale.
 LOCATION.--Lat 41°10'03", long 83°33'02", Hydrologic Unit 04100010.

OWNER: Village of Bloomdale, Well No. 5.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled public supply water well, diameter 8.0 in., depth 185 ft., cased to 28.6 ft.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
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SEP 03...	1200	27.00	1920	7.40	7.20	11.5	<1	1000	890	230	100
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DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
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SEP 03...	84	4.5	129	0	109	8.2	0.2	1000	37	1.9	0.31
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DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)
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SEP 03...	11	1620	1550	<0.010	<0.100	0.660	0.90	0.010	20	<1
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DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
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SEP 03...	<1	9	610	2	<10	2	6	<5	57	2
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DATE	TIME	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	CYANIDE TOTAL (MG/L AS CN)
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SEP 03...	2	<1	<1.0	12000	18	<0.4	11	6.9	<0.01	<0.010
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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
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AUG 05...	1330	1990	7.44	23.0	12.5	0	<1
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DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)
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AUG 05...	<1	<1	148	0	121	8.5	ND
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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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