



United States  
Department of  
Agriculture

Forest Service

Northeastern Forest  
Experiment Station

General Technical  
Report NE-75

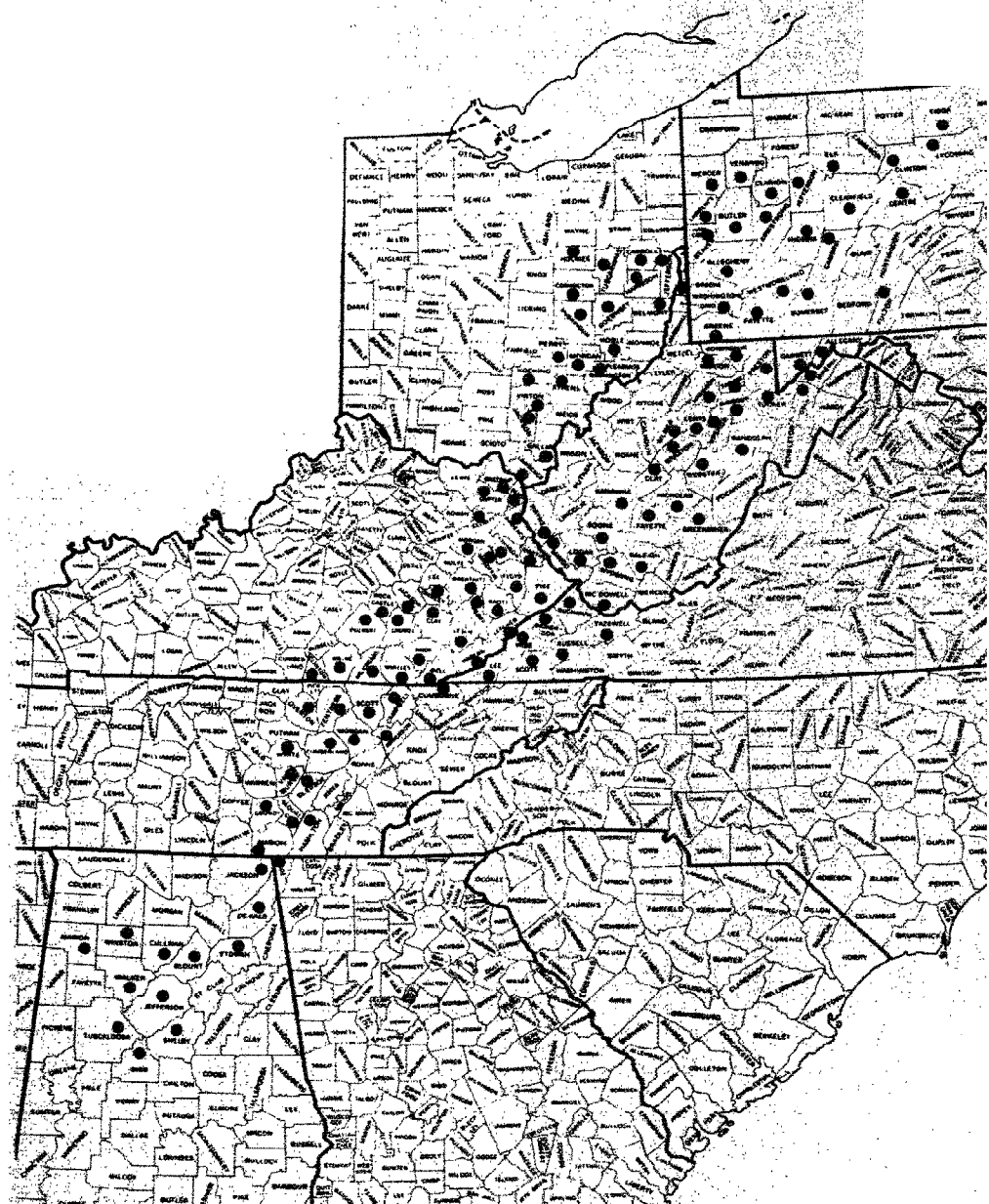
1982



# Stream Water Quality in the Coal Region of Ohio

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in cooperation with Industrial Environmental Research  
Laboratory, Office of Research and Development,  
United States Environmental Protection Agency



STREAM WATER QUALITY IN THE COAL REGION OF OHIO

by

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This study was conducted  
in cooperation with  
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## ABSTRACT

This report is a compilation of water quality data for 70 small streams sampled in 19 counties of Ohio where coal is surface-mined. Nineteen of these streams drain unmined watersheds; 50 drain areas where coal has been surface-mined. Most of these streams were sampled at approximate monthly intervals. The water quality data from these streams are presented in this report and should help fill the need for data from small watersheds in Ohio. Data reported include the common ions, alkalinity, acidity, pH, 16 trace elements, 5 nitrogen and phosphorus species, specific conductance, suspended solids, turbidity, settleable matter, water temperature and estimated discharge.

Data contained in this report should not only be useful in assessing the impacts on stream water quality of old and recent surface mining for coal, it should also provide a data base of small reference watersheds which can serve as a basis for future studies. The report covers the period June 1, 1977 to October 4, 1979.

## THE AUTHOR

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## FOREWORD

When energy and material resources are extracted, processed, converted, and used, these operations usually pollute our environment. The resultant air, land, solid waste, and other pollution may adversely affect our aesthetic and physical well-being. Protection of our environment requires that we recognize and understand the complex environmental impacts of these operations and apply corrective measures.

This study was undertaken with the primary objective of establishing a water quality data base for small first-order unmined and surface-mined watersheds throughout Appalachia. There is a need for data that explicitly show changes in water quality attributable to past and recent surface mining. Most previous water quality data in the study area came from watersheds so large that it was impossible to isolate the effects of surface mining from the confounding effects of other human activities.

This report includes a compilation of water quality data for 70 small watersheds in Ohio. Most streams were sampled at approximate monthly intervals from June 1977 through August 1979, as part of a study of the effects of surface mining on water quality in Appalachia. Nineteen of these sampled watersheds were unmined; 50 contained areas that had been surface-mined for coal. These data are being released ahead of the interpretative report because of the immediate needs of many potential users.

Regulatory agencies, environmentalists, and writers of environmental impact statements will be particularly interested in these data. The water quality data base provided in this report for small reference watersheds should provide a basis for future studies and should be especially helpful in determining the probable hydrologic consequences of future mining operations.

This study was made possible by funding from the U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, Ohio, and was completed under Contract No. EPA-IAG-DE-E764 by the U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, Broomall, Pennsylvania. The Surface-Mined Area Reclamation Research Unit of the Northeastern Forest Experiment Station in Berea, Kentucky, may be contacted for further information.

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## LIST OF ABBREVIATIONS AND SYMBOLS

AL = Aluminum  
B = Boron  
BA = Barium  
BE = Beryllium  
C = Celsius  
CA = Calcium  
CFS = Cubic feet per second  
CL = Chloride  
CO = Cobalt  
CO<sub>3</sub> = Carbonate  
CU = Copper  
DA = Day  
DEG C = Degrees Celsius  
DIS SOLID = Calculated total dissolved solids  
EST DISCH = Estimated Discharge  
F = Filtered water sample (see Table 2)  
FA = Filtered water sample preserved with nitric acid (see Table 2)  
FE = Iron  
FN = Filtered water sample preserved with sulfuric acid (see Table 2)  
FP = Filtered water sample preserved with mercuric chloride (see Table 2)  
HCO<sub>3</sub> = Bicarbonate  
JTU = Jackson turbidity units (assumed to be equivalent to both nephelometric and formazin turbidity units)  
K = Potassium  
KJ = Unfiltered sample preserved with sulfuric acid (see Table 2)  
L (or l) = Liter  
LI = Lithium  
MG = Magnesium  
MG/L (or mg/l) = Milligrams per liter. Essentially the same value as parts per million for concentrations given in this report.  
ML/L (or ml/l) = Milliliters per liter  
MO = Molybdenum (when found under the date heading MO = Month)  
MN = Manganese  
N = Nitrogen  
NA = Sodium  
NEUT RATIO = Neutralization ratio  
NH<sub>3</sub> = Ammonia  
NI = Nickel  
NO<sub>3</sub> = Nitrate plus nitrite as N, determined on an unpreserved sample (sample F)  
\*NO<sub>3</sub> = Nitrate plus nitrite as N, determined on a sample preserved with H<sub>2</sub>SO<sub>4</sub> (sample FN)  
ORTHO PO<sub>4</sub> = Orthophosphate  
P = Phosphorus  
PB = Lead

PH = pH  
SA = Unfiltered water sample preserved with nitric acid (see Table 2)  
SETT MATTER = Settleable matter  
SI - Silicon  
SO4 - Sulfate  
SPEC COND = Specific conductance at 25° Celsius  
SR = Strontium  
SUSP SOL = Suspended solids  
SV = Unfiltered, untreated water sample for settleable matter analyses (see Table 2)  
TEMP = Temperature  
TI = Titanium  
TKN = Total Kjeldahl nitrogen  
TOT = Total  
TURB = Turbidity  
U = Unfiltered, untreated water sample (see Table 2)  
UM/CM = Micromhos/centimeter  
YR = Year  
ZN = Zinc

#### ACKNOWLEDGMENTS

The cooperation of the Ohio Department of Natural Resources, Division of Reclamation is gratefully acknowledged. Personnel from this agency designated those areas in which sites suitable for this study might be found. Numerous individuals, including landowners and mining company representatives, cooperated in this study by helping select watersheds which met the criteria for this study, or by allowing access onto or over their land so that the samples might be taken, or both.

## SECTION 1

### INTRODUCTION

Surface mining throughout Appalachia is known to cause changes in the quality of water downstream from the mined areas (U.S. Army Corps of Engineers and others 1969). Numerous water quality sampling sites have been established on Appalachian streams since 1950, but most of these are on streams that drain large watersheds with multiple land uses so that it is not possible to correlate surface mining with downstream water quality.

A network of sampling sites on small first-order surface-mined and unmined watersheds throughout Appalachia was needed so that water quality data could be correlated with the type and date of surface mining, the type and date of reclamation, and the type of coal mined. These small reference watersheds should provide a good data base for future studies to aid in determining differences in stream water quality from mined and unmined watersheds, differences in the effects of various mining and reclamation techniques on water quality, and water quality recovery rates in streams that have been affected by mining.

Such a network of sampling sites was established in 1977 in the 135 Appalachian counties in nine states where coal was surface mined. The three sites initially selected in each county were to represent three watershed conditions: (1) unmined, (2) surface mined before January 1972, and (3) surface mined after January 1972. The 135 Appalachian counties which comprise the study area are mapped in Figure 1.

Starting in June 1977, 70 water sampling sites were established in the 19 counties of Ohio in which surface mining for coal was practiced. Most of these were sampled at approximately monthly intervals until August 1979.

Time was not available for a detailed examination of each watershed, so some may not now be correctly classified by mining status, dates of mining, or hydrologic boundaries. The user of this report should not make crucial decisions based on these data unless the classification of the site can be verified. Verification of mining activity is of special concern as there may be old, unreported underground mine discharge in some watersheds.

Ultimately the data from throughout Appalachia should help determine which methods of surface mining are most effective in reducing the quantity of pollution reaching streams. An interpretive report covering the entire Appalachian study area is to be published later.

## SECTION 2

### STUDY METHODS

#### SITE SELECTION

A critical element in collecting valid water-quality data is site selection. Procedures and criteria used for site selection follow:

##### General Criteria for all Watersheds

1. A first order stream was to be selected if at all practical. A first-order stream is defined as a stream with perennial flow but without perennial tributaries. Information provided by local residents was often used to identify perennial streams. When possible, sampling sites were selected at points where flow was over bedrock to lessen the chance of contamination of samples with streambed materials, to increase likelihood of perennial flow, and to improve the discharge estimates.
2. Springs flowing from hillsides were not to be sampled.
3. When possible watersheds from 50 to 250 acres were selected.

##### Criteria for Unmined Watersheds

1. These watersheds were to be strictly unmined.
2. These watersheds were to have no roads or cuts which exposed bare ground. Old revegetated logging roads and skid trails were allowed.
3. These watersheds were not to be farmed, disturbed, or developed in any way.
4. Watersheds that were completely forested were to be selected if at all possible; when no completely forested watersheds were available, one that was part forest and part grassland or pasture was substituted.
5. Unmined watersheds were to be as close as possible to the mined watersheds, and as similar in aspect as possible.
6. There were to be no plans to mine or develop the watershed within the 2-year study period.

#### Criteria for Newly Mined Watersheds

1. No mining should have occurred before January 1972.
2. From 10 to 100 percent of the watershed should have been disturbed by surface mining after January 1972. Active surface mines were permitted on watersheds in this category. Old mines that were worked before January 1972, were permitted provided that all surfaces exposed to the atmosphere before then were completely reworked after January 1972.
3. When possible, watersheds were to be selected where only one seam of coal had been or was being mined. This was to make it possible to better evaluate the effects of mining each coal seam on water quality. Watersheds with two or more seams of coal mined were selected when these were the best available.

#### Criteria for Old Mined Watersheds

1. No mining or reclamation should have occurred since January 1972.
2. From 10 to 100 percent of the watershed should have been disturbed by surface mining before January 1972.
3. When possible, watersheds were to be selected where only one seam of coal had been mined. Watersheds with two or more seams of coal mined were selected when these were the best available.
4. There should be no plans for further mining or development in the watershed within the 2-year study period.

#### Problems in Site Selection

Site selection was carried out under severe time restraints; therefore, few of the watersheds selected met the specified criteria fully. Many of the watersheds initially classified as either old mined or newly mined have been found to be a mixture of the two. These have been arbitrarily given site classification numbers indicative of newly mined watersheds--even though in some cases the old mining may have had a greater impact on water quality.

Underground mines were prevalent over much of the area in Ohio, making it difficult to find watersheds suitable for study there. Time was not available for close examination of the watersheds, thus some may not be what they appeared to be from the limited information then available on mining status, dates of mining, or hydrologic boundaries.

## SITE NOMENCLATURE

### Site Numbers

Four-digit site numbers were assigned thus:

First digit designates state:

- |             |                 |                  |
|-------------|-----------------|------------------|
| 1. Alabama  | 4. Maryland     | 7. Tennessee     |
| 2. Georgia  | 5. Ohio         | 8. Virginia      |
| 3. Kentucky | 6. Pennsylvania | 9. West Virginia |

Second and third digits designate county:

(See Table 1 for county designations)

Fourth digit:

0 used as needed for any watershed condition

1, 4, or 7 indicates an unmined watershed

2, 5, or 8 indicates a watershed that has been surface mined since January 1972 (surface mining may still be in progress on some of these)

3, 6, or 9 indicates a watershed that was surface mined before January 1972

Example: In site number 5012 the 5 indicates Ohio, the 01 indicates Athens County, and the 2 designates this as a watershed on which surface mining for coal has occurred after January 1972.

### Site Names

Names are taken from U.S. Geological Survey topographic maps of the 7-1/2 minute series (scale 1:24,000). The site is designated as being at a community when it is within a mile of the center of the community or within the urbanized area of the community. The site is designated as being near a community when it is more than a mile from the center of the community and outside an urbanized area.

### STREAM SAMPLING PROCEDURES

Samples collected as part of this study are listed in Table 2 with treatment, time interval over which collected, and approximate volume of sample.

In addition to the samples described in Table 2 two samples of bottom material (generally rocks, sand, gravel, and/or mud) were collected from the bottoms of most streams sampled, one early in 1978 and one early in 1979. These samples were analyzed by X-ray diffraction for mineralogy and by X-ray fluorescence for major and minor elements including aluminum, calcium, iron, manganese, magnesium, potassium, silicon, and titanium. Data from the analyses of these samples are not given in this report but will be released later.

All samples were collected in plastic bottles, rinsed twice with at least 25 ml of the water being collected. Attempts were made to collect representative stream samples free of bottom material, floating debris, or material put in suspension through disturbance of the stream bottom. Unfiltered samples (KJ, SA, SV, and U) were generally dipped from flowing water or pools, but in extremely shallow streams these samples were collected with a 50-ml prerinsed syringe. When necessary, a clean thin rock was placed on the stream bottom at the collection site to avoid inadvertent collection of bottom material with the syringe.

All filtered samples were collected in a 50 ml plastic syringe and forced through a 0.45-micron type HAWG millipore filter 47 millimeters in diameter. The syringe was prerinsed with two 50 ml slugs of sample water and each filter was prerinsed with 50 ml of sample water. Filters for samples FN and FP (see Table 2 for description) were prerinsed with 200 ml of distilled water or sample water. Collection of samples F and FA generally sufficed for the prerinsing of the filters for samples FN and FP. A few samples were so muddy they could not be filtered at the site; so, liter samples of these were collected, allowed to settle a few hours, and then filtered.

Samples were refrigerated from the time they were received in Berea until they could be analyzed. As much as 2 weeks could pass between collection and refrigeration. Samples were usually stored in the refrigerator a month or two before they were analyzed in the lab. Samples were protected from freezing during the winter.

#### FIELD MEASUREMENTS

Field measurements were performed concurrently with stream sampling. The reported stream discharges are all listed as estimates, though in a very few cases the discharge was computed when the entire flow was allowed to fill a cup or bucket of known volume during a measured time. Discharge in cubic feet per second was generally estimated by multiplying the mean estimated cross-sectional area of flow in square feet by the mean surface velocity (estimated by movement of a floating leaf or stick) in feet per second times a roughness factor. The assigned roughness factors ranged from 0.5 to 0.9 and were designed to compensate for differences in stream channel shape and roughness.

Field pH measurements were obtained at streamside for most samples collected during the first half of the study. These were generally measured in the flowing stream unless velocities exceeded about 0.5 ft/sec, in which case they were measured at streamside in a cup of water collected for the purpose. Field pH readings were made with a Markson digi-sense pH meter, Model 5985-40, which was standardized with two buffers at each sampling site. The collection of field pH values was discontinued after we discovered that even under carefully controlled laboratory conditions the field meters were giving pH values for natural waters which, though stable, sometimes differed by as much as two whole pH units from readings taken only a few minutes before. Time was not available either to ascertain why field pH readings were inconsistent or to develop a better system for measuring. Because of the unreliability of many of these values, no field pH data are included in this report.

Water temperatures were measured with a thermometer placed in a flowing portion of the stream and are reported in degrees Celsius.

#### LABORATORY ANALYSES

Most analyses given in this report were determined at the laboratory of the Surface-Mined Area Reclamation Research Unit of the Northeastern Forest Experiment Station in Berea, Kentucky. Most samples of suspended solids were analyzed at Eastern Kentucky University in Richmond, Kentucky under the direction of Dr. Samuel S. Leung, Department of Geology. Special Nutrient samples collected between July 18 and August 16, 1979, were analyzed at the Argonne National Laboratory at Argonne, Illinois, under the direction of Dr. Richard D. Olsen.

An attempt was made to maintain the same analytical techniques throughout the study; however, this was not always possible. Changes and the dates they were instituted have been specified in the following discussions of individual parameters.

#### Elemental Analyses by Emission Spectrometer

A total of 31 elements was analyzed on the "FA" samples using a Spectraspan III emission spectrometer with DC argon plasma source. Data for 20 of these elements are included in this report. These 20 elements are tabulated in Table 3 along with approximate detection limits and approximate levels of reproducibility.

Concentrations of 11 additional elements were obtained but are not published in this report because their concentrations in natural waters were generally far below the detection limits of the emission spectrometer. These elements and their approximate detection limits in mg/l are: Arsenic (3), bismuth (5), cadmium (0.5), chromium (0.1), germanium (0.1), mercury (0.05), phosphorus (0.7), selenium (0.3), silver (0.05), tin (0.2), and vanadium (0.2).

### Other Analyses

Descriptions of the remaining laboratory analyses (anions, nutrients, physical parameters, and calculated values) follow in alphabetical sequence.

#### Acidity--

Reported as mg/l calcium carbonate equivalent and analyzed in accordance with a modification of the procedure published in Methods for Chemical Analysis of Water and Wastes (EPA 1974). A 25-ml portion of the filtered "F" sample was first acidified to pH 4.0 with 0.02 N  $H_2SO_4$  with a Mettler autotitrator consisting of modules DK 10, DK 11, DK 12, DK 13, and DV 210. Three drops of 30 percent  $H_2O_2$  were then added and the sample boiled for 2 to 4 minutes. Upon cooling, samples were titrated by autotitrator with either 0.02 N NaOH; or 0.1 N NaOH. Paired aliquots titrated with 0.1 N NaOH and containing less than 20 mg/l acidity as  $CaCO_3$  differed from their respective means by an average of  $\pm 2.4$  mg/l while those containing more than 20 mg/l acidity as  $CaCO_3$  differed from their respective means by an average of  $\pm 6.9$  percent. Paired samples titrated with 0.02 N NaOH should be in much better agreement in the lower range and in slightly better agreement in the upper range.

Negative acidity values represent excess alkalinity contributed by constituents such as bicarbonates. Negative acidities are frequently reported as zero but the negative values are needed if the final acidity of a mixed water system is to be computed from the acidities of each of its component waters. In general, the negative acidities should be fairly close in absolute value to the alkalinity concentrations, though there can be exceptions.

Acidity is normally determined on unfiltered and untreated raw water samples but such samples were not available at the end of the study when the decision was made to analyze the available samples for acidity. Only filtered samples were available then, so the acidity data reported may differ appreciably from what would have been obtained from unfiltered, untreated samples. If the sediment contained pyritic materials, as was sometimes the case in the study area, then the unfiltered samples would have been higher in acidity than the filtered samples used in this study. If the sediment contained carbonate minerals (rarely the case in the study area) then the unfiltered samples would have been lower in acidity than the values given in this report.

#### Alkalinity--

Reported as mg/l calcium carbonate equivalent. A 25 ml portion of the "F" sample was titrated with 0.02 N  $H_2SO_4$  to a calculated end point using a Mettler autotitrator (described above). During the first few months of the study alkalinity was determined on 50 ml portions of the unfiltered, untreated "U" sample. After it was observed that the pH of a few of the "U" samples dropped appreciably during storage before analysis, the remaining alkalinities were determined on 25 ml portions of the "F" samples. It had been observed that the "F" samples were not only more stable than the "U" samples, but maintained pH

values that agreed more closely with field pH values. The titration was done in two steps, first to a preliminary end point at pH 5.64, then to a final computed end point based on the number of milliliters of titrant required to reach the preliminary end point. Samples with pH values less than 5.64 were assumed to have no measurable alkalinity. The end points used were essentially the same as those given by Barnes (1964, p. H15, Table 4) but minor corrections were added to account for dilution of the samples by titrant.

Alkalinities of the filtered samples used in this study may be either higher or lower than alkalinities that would have been measured in unfiltered samples, as explained in the preceding section on acidity.

During storage calcium carbonate tended to precipitate from many of those samples in which alkalinity exceeded about 100 mg/l. The reported alkalinity, carbonate, and bicarbonate values from these samples may be lower than the concentrations that would have been found had the samples been analyzed before storage.

#### Ammonia--

Reported as mg/l N. Ammonia was analyzed on the "FN" sample with a Technicon autoanalyzer II using industrial method number 154-71W tentative, dated February 1973. Technicon gives the detection limit for this method as 0.024 mg N/l and the coefficient of variation at 0.14 mg N/l as 0.31 percent.

#### Bicarbonate--

Computed from alkalinity, pH, and ionic strength using the formula:

$$\text{HCO}_3 = \frac{(1.219) (A2) (\text{HYD}) (\text{ALK})}{(9.6 \times 10^{-11}) + (\text{HYD}) (A2)}$$

Wherein  $\text{HCO}_3$  is bicarbonate in mg/l, ALK is the alkalinity in mg/l calcium carbonate equivalent, HYD is the hydrogen ion concentration in moles/l computed by:  $\text{HYD} = \text{antilog} (-\text{pH})$ , and A2 is the activity coefficient for divalent ions computed from the equation:

$$A2 = \text{antilog} \frac{-2.034}{1 + 1.64 \sqrt{I}}$$

where I is the ionic strength (Garrels and Christ 1965, p. 61-62). The value 1.64 is the product of 0.3281 (Garrels and Christ 1965, Table 2.6) and 5 [an approximate value for major ions in the streams sampled (Garrels and Christ

1965, Table 2.7)]. This equation is valid when the total ionic concentration is less than or equal to 0.1 mole per liter and the sample temperature is near 25°C. The ionic strength, I, is defined by:

$$I = 0.5 \sum_{i=1}^n C_i Z_i^2$$

wherein n is the number of ion species, i, in the solution;  $C_i$  is the concentration in moles/l of ion species, i, in the solution; and  $Z_i$  is the charge (or valence) of the ion (Garrels and Christ 1965, p. 56).

#### Carbonate--

Computed from alkalinity and bicarbonate using the equation:

$$CO_3 = 0.4917 (1.219 \text{ ALK} - HCO_3)$$

wherein  $CO_3$  is carbonate as mg/l,  $HCO_3$  is bicarbonate in mg/l, and ALK is alkalinity in mg/l calcium carbonate equivalent.

#### Chloride--

Except for the last few samples chloride was determined on the "F" sample with a Technicon autoanalyzer II using industrial method number 99-70 W/B released September 1974, revised February 1976. This procedure depends on the liberation of thiocyanate ion from mercuric thiocyanate by the formation of soluble, un-ionized mercuric chloride. In the presence of ferric ion, the liberated thiocyanate forms a highly colored ferric thiocyanate proportional to the original chloride concentration. Technicon gives the coefficient of variation of this method at 5.0 mg/l as  $\pm 0.42$  percent, and the detection limit as 0.2 mg/l.

Chloride samples collected during the last 2 months of the study were analyzed on a Coulter Industrial Kem-O-Lab, model IKL, using procedures supplied with the instrument dated February 1979. This procedure uses ferric thiocyanate as the colorimetric indicator and is similar to the automated method described in Methods for Chemical Analysis of Water and Wastes (EPA 1974, p. 31-34). The detection limit is about 0.1 mg/l.

#### Conductivity--

See Specific Conductance

#### Dissolved Solids--

See Total Dissolved Solids, calculated

#### Neutralization Ratio--

Computed from the equation:

$$\begin{aligned}\text{Neutralization ratio} &= \frac{\text{gross alkalinity (in meq/l)}}{\text{gross acidity (in meq/l)}} \\ &= \frac{(\text{Ca}^{++} + \text{Mg}^{++} + \text{Na}^+ + \text{K}^+) - (\text{Cl}^- + \text{F}^- + \text{NO}_3^-)}{\text{SO}_4^{--}}\end{aligned}$$

wherein all ions in the water sample are reported in milliequivalents per liter (Hollyday and McKenzie 1973, p. 24-25). The neutralization ratio is unity when the gross alkalinity produced during formation and neutralization of mine drainage is equal to the gross acidity produced concurrently. A neutralization ratio greater than 1.00 indicates that the alkalinity formed was more than enough to neutralize the gross acidity from sulfuric acid released to the water by oxidation of iron sulfide.

Fluoride concentrations were not obtained as a part of this study and so were omitted from the computation of the neutralization ratios. Since fluoride rarely exceeds a few mg/l in natural waters and is low in comparison to the other ions summed in the computations, only negligible errors have been introduced by its omission.

#### Nitrate--

See Nitrate Plus Nitrite

#### Nitrate Plus Nitrite--

Nitrate and nitrite were analyzed together on the "F" sample with a Technicon autoanalyzer II using a modification of industrial method number 100-70W, released September 1973. Nitrate is reduced to nitrite by a copper-cadmium reductor column developed by Willis (1980). The nitrite ion reacts with sulfanilamide under acidic conditions to form a diazo compound, which couples with N-1-naphthylethylenediamine dihydrochloride to form a reddish purple azo dye. Technicon states that the coefficient of variation at 1.0 mg N/l is 0.31 percent and that the detection limit is 0.04 mg N/l.

The preserved "FN" samples collected late in the study were analyzed by the Argonne National Laboratory using a similar procedure (Technicon industrial method number 158-71W/A tentative, released December 1972, revised June 1977). The Argonne National Lab reported the detection limit using this method as 0.1 mg N/l.

#### Nitrite--

See Nitrate Plus Nitrite

#### Nitrogen, Total Kjeldahl--

Total Kjeldahl nitrogen was analyzed simultaneously with total phosphorus on the "KJ" sample using a Technicon autoanalyzer II and industrial methods number 376-75W/B, released November 1975, and number 334-74W/B released January 1976, both methods revised March 1977. The Argonne National Laboratory reported the detection limit using this method as 0.20 mg/l.

#### Orthophosphate--

Orthophosphate was analyzed colorimetrically on the "FP" sample with a Technicon autoanalyzer II using industrial method number 155-71W tentative, released January 1973. Ammonium molybdate reacts in an acid medium containing ascorbic acid and antimony to form a phosphomolybdenum-blue complex. The Argonne National Laboratory reported the detection limit using this method as about 0.01 mg/l.

#### pH--

Reported as pH units. The laboratory pH values were initially analyzed on the unfiltered "U" samples; but after a few months were analyzed only on the filtered "F" samples after it was observed that the latter were in closer agreement with field pH measurements than were the former. The pH value of many of the "U" samples tended to change appreciably (usually to lower pH values) during a few weeks in storage, while the pH value of almost all the "F" samples remained nearly constant for a year or more. Five different types of meters were used to measure pH values. Two of these were highly accurate while two used during the first half of the study were frequently in error, sometimes by as much as two full pH units. Questionable pH values were rerun using one of the more reliable meters when sufficient sample remained.

#### Phosphorus, Total--

Total phosphorus was analyzed simultaneously with total nitrogen on the "KJ" sample using a Technicon autoanalyzer II and the same methods given earlier for total Kjeldahl nitrogen. The Argonne National Laboratory reported the detection limit using this method as 0.05 mg/l.

#### Settleable Matter--

Settleable matter was determined as the volume of material settling in an Imhoff cone in 45 minutes, in accordance with the procedure given in Standard Methods for the Examination of Water and Waste Water (APHA 1975, p. 95-96). Precision data are not available but samples were usually read to hundredths of a milliliter. Settleable matter was determined on the approximately 1-liter "SV" sample.

#### Specific Conductance--

Reported as micromhos/cm at 25° Celsius. Specific conductance was determined on the "U" sample during the first few months of the study, then on the "F" sample for the remainder of the study. This change was made because some samples containing sediment increased in conductivity after a few months storage. The use of the "F" sample gave more reliable results, since most samples were stored prior to analysis. Samples collected during the first third of the study were analyzed on a Yellow Springs Instrument Company model 31 conductivity bridge which gave values reproducible to within  $\pm 30$  percent. Many of these samples were rerun on the equipment used for the later samples.

The last two-thirds of the samples were analyzed using improved techniques and a temperature-compensated Markson Electromark analyzer. Precision data are not available but sample reproducibility is about  $\pm 2$  percent.

#### Sulfate--

Sulfate was analyzed on the "F" sample during the first few months of the study, and on the "FA" sample during the remainder of the study. The change was made to avoid interference from the precipitate which formed in some of the unacidified samples. Sulfates were analyzed by a turbidimetric technique using Sulfaver IV powder pillows (Hach Chemical Company 1970, p. 91). Absorbance by the barium sulfate suspension was measured using a Bausch and Lomb Spectronic 20 spectrophotometer. Sulfate standards deviated as much as  $\pm 30$  percent from the known concentration when measured from this standard curve. In the latter months of the study the standard curve was calibrated daily, and data obtained during this period probably did not deviate more than about  $\pm 15$  percent from the true values.

#### Suspended Solids--

Suspended solids were determined gravimetrically on either the "U" or "SA" sample using Millipore 47-mm fiberglass filter paper (equivalent to about 0.45 micron pore size), and an analytical balance sensitive to 0.1 mg. Samples and filter paper were dried at 105° C for a minimum of 4 hours and cooled 1.5 hours in a desiccator before being weighed. Acidified "SA" samples were used in the beginning of the study to prevent precipitation of salts which might add to the suspended solids concentration. Unacidified samples were used after a preliminary investigation indicated that error due to precipitation of salts was negligible, and that dissolution of some of the sediment by the acid might introduce a larger error. A further inspection and analysis of "U" and "SA" samples late in the study indicated that during storage there had been appreciable precipitation of iron compounds from the more acid samples, and of calcium carbonate from the more alkaline samples. In either case this would cause the measured suspended solids concentrations to be higher than they would have been at the time the samples were collected. Unreasonably high suspended solids values were systematically deleted when field notes indicated that the streams had been

clear when sampled and when orange or yellow precipitates of iron compounds had formed before analysis. Suspended solids concentrations were less seriously affected by precipitation of calcium carbonate (most adhered to the walls of the container), so little effort was made to delete data that might have been affected by this precipitate. Samples collected during the first half of the study were stored for a year or more before analysis for suspended solids and so are more likely to have been affected by precipitates than the remaining samples, which received more prompt analysis.

The "U" and "SA" samples were collected solely for turbidity and suspended solids analyses; nevertheless, by the time the suspended solids analyses were performed an appreciable part of many of these samples had been lost--either through use in other analyses or through slow leakage from overturned containers. In both cases supernatant liquid was lost, leaving essentially all the now-settle suspended solids. All samples weighing less than 100 grams were corrected for this loss of liquid and were assumed to have weighed exactly 100 grams when collected. Suspended solids concentrations in these 100-ml samples are not highly reproducible, so errors introduced by this type of sample reconstruction should be minor by comparison. Most of these samples were collected from shallow streams and there is some evidence that the recommended collection techniques were not always carefully followed. Traces of bottom material, algae, and/or floating debris probably account for many of the higher values observed in the unmined watershed samples. Suspended solids data were deleted where there was evidence that bottom materials (generally sand and gravel) had been scooped up from the streambed during seasons of low flow. The true suspended solids concentrations should almost always be equal to or less than the reported values.

A big percentage of the samples were clear and without visible turbidity. Careful work by the author indicated that most of these should contain no more than 4 or 5 mg/l suspended solids. After a certain date, the suspended solids data generated by two of the eight analysts stand apart in that most of them run 20 to 100 mg/l higher than data by the other analysts, or data analyzed earlier by these two analysts. The data in question, 2,300 values out of a total of 6,400 analyzed can readily be identified as work of these two analysts from the data alone. Suspended solids data that ran about 40 to 100 mg/l or more above the norm for one group of 300 of these samples were deemed so defective that all of them were deleted. Most of the remaining 2,000 questionable values have been left in the various state reports but they have been marked with asterisks to indicate that they are 5 to 80 mg/l (generally 20 to 40 mg/l) higher than the true values.

#### Total Dissolved Solids, Calculated--

The calculated total dissolved solids value is the sum of all the dissolved constituents and approximates the quantity of dry residue that would be left after evaporation. It is assumed that all the bicarbonate is converted to carbonate and carbon dioxide when evaporated to dryness at 180° C, so the bicarbonate is multiplied by 0.4917 to give an estimate of residual carbonate. The silicon value is multiplied by 2.142, on the assumption that silicon dioxide residue is left upon evaporation.

## Turbidity--

Reported as Jackson turbidity units (JTU)--equivalent to formazin or nephelometric turbidity units. Turbidity was measured on the "U" samples except for a few measured on "SA" samples. Transmittance of light through the sample contained in a 1-inch test tube was measured at a wavelength of 450 nanometers with a Bausch and Lomb Spectronic 20 spectrophotometer. Turbidity was determined from transmittance using a table prepared by the Hach Chemical Company (1970, p. 97). This table was prepared from standard formazin solutions calibrated with a Jackson candle turbidimeter. Recent checking indicates that this table is not very suitable for analysis of natural water samples in that values obtained in the more turbid samples were highly dependent upon the dilution chosen. Turbidities computed from a transmittance of 80 would be about double those computed from a transmittance of 20.

The turbidity values reported have not been corrected for the small positive bias which may have been introduced by the presence of true color in some of the water samples. Numerous analysts produced the turbidity data contained in this report and it is obvious that some of them deviated from the prescribed methods, perhaps by not adequately dispersing the settled materials or by using 1/2-inch test tubes instead of 1-inch test tubes. In general, most of the questionable data appear to be too low. The most obviously defective turbidity data were deleted. Unreasonably high turbidity values were systematically deleted when field notes indicated that the water had been clear when sampled but the orange and yellow precipitates of iron compounds had formed before analysis.

### SECTION 3

#### RESULTS

A tabulation of sites by site number, county, date of surface mining, latitude, longitude, surface drainage area, percentage of land disturbed by surface mining, and site name is given in Table 1. Site locations and watershed boundaries were drawn on U. S. Geological Survey 7 1/2 minute topographic maps which are reproduced in Figures 2 through 46. Field observations and analytical data are tabulated in Tables 4 through 73. An interpretive report, to be released later, will cover all nine states in the Appalachian study area.

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- Willis, Raymond B. Reduction column for automated determination of nitrate and nitrite in water. Anal. Chem. 52:1376-1377; 1980.

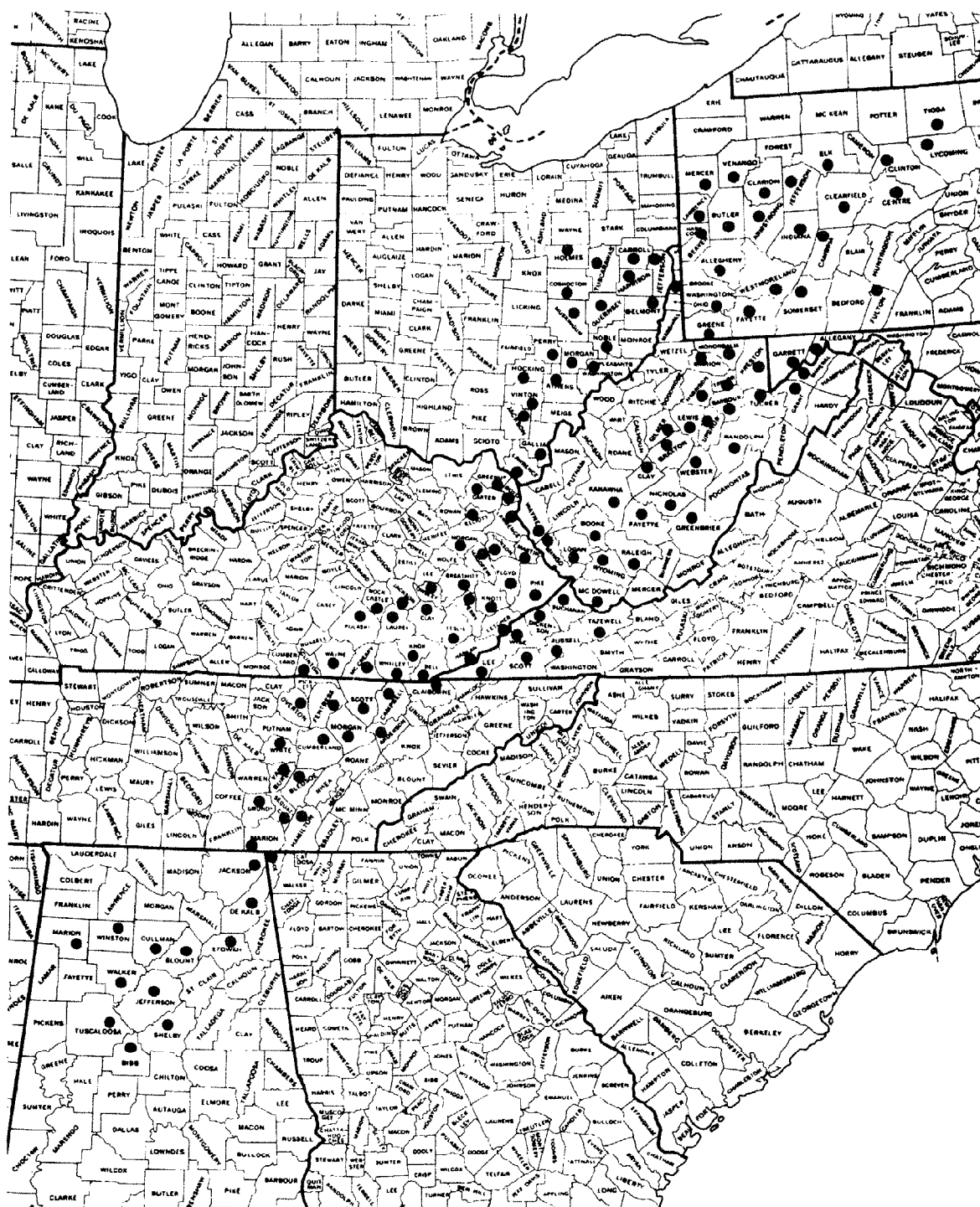


Figure 1. The study area. (Each dot marks one of the 136 Appalachian counties included in this study)



Figure 2. Location map for sites 5011, 5012, and 5013, Athens Co., Ohio. Nelsonville Quadrangle.

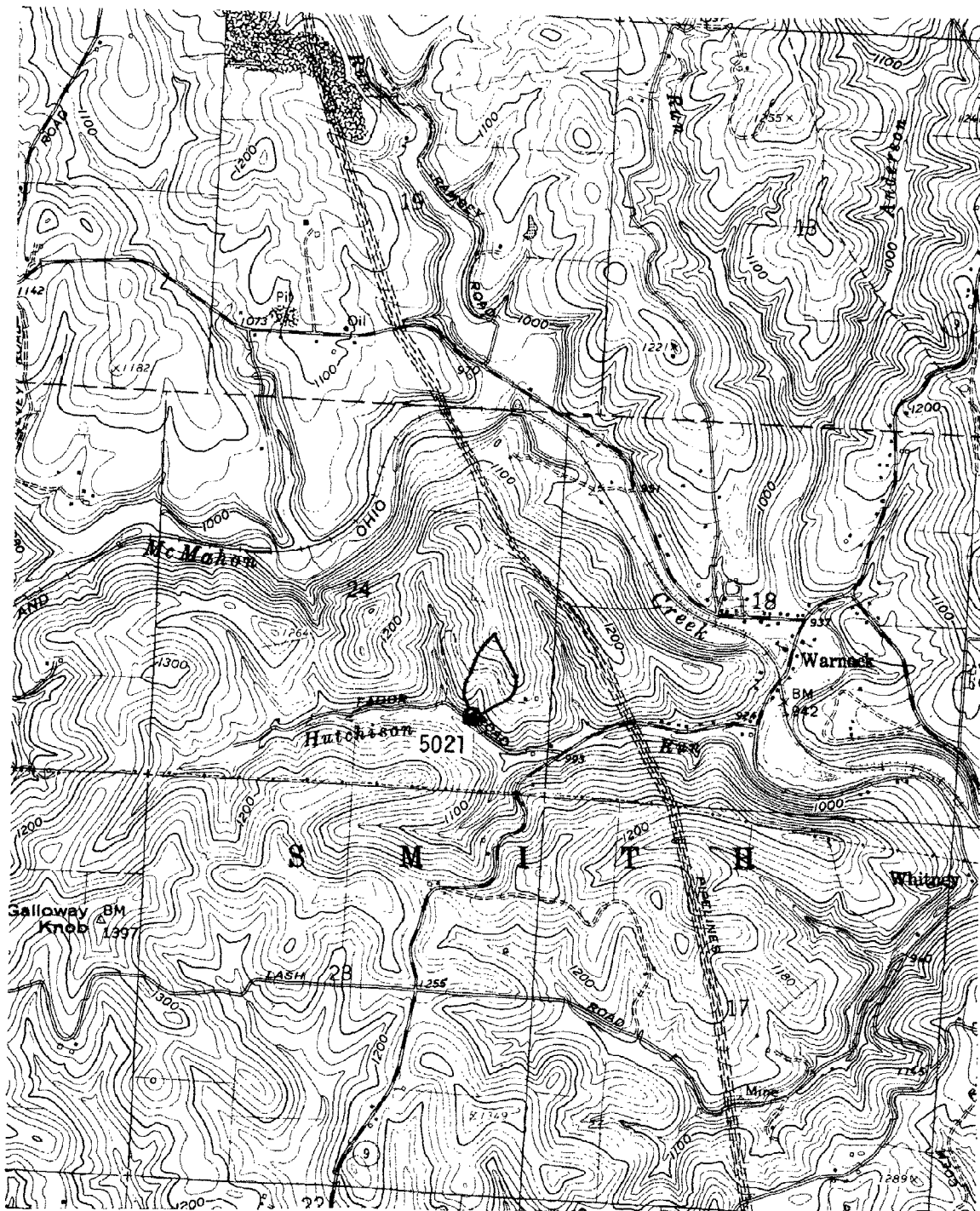


Figure 3. Location map for site 5021, Belmont Co., Ohio. St. Clairsville Quadrangle.

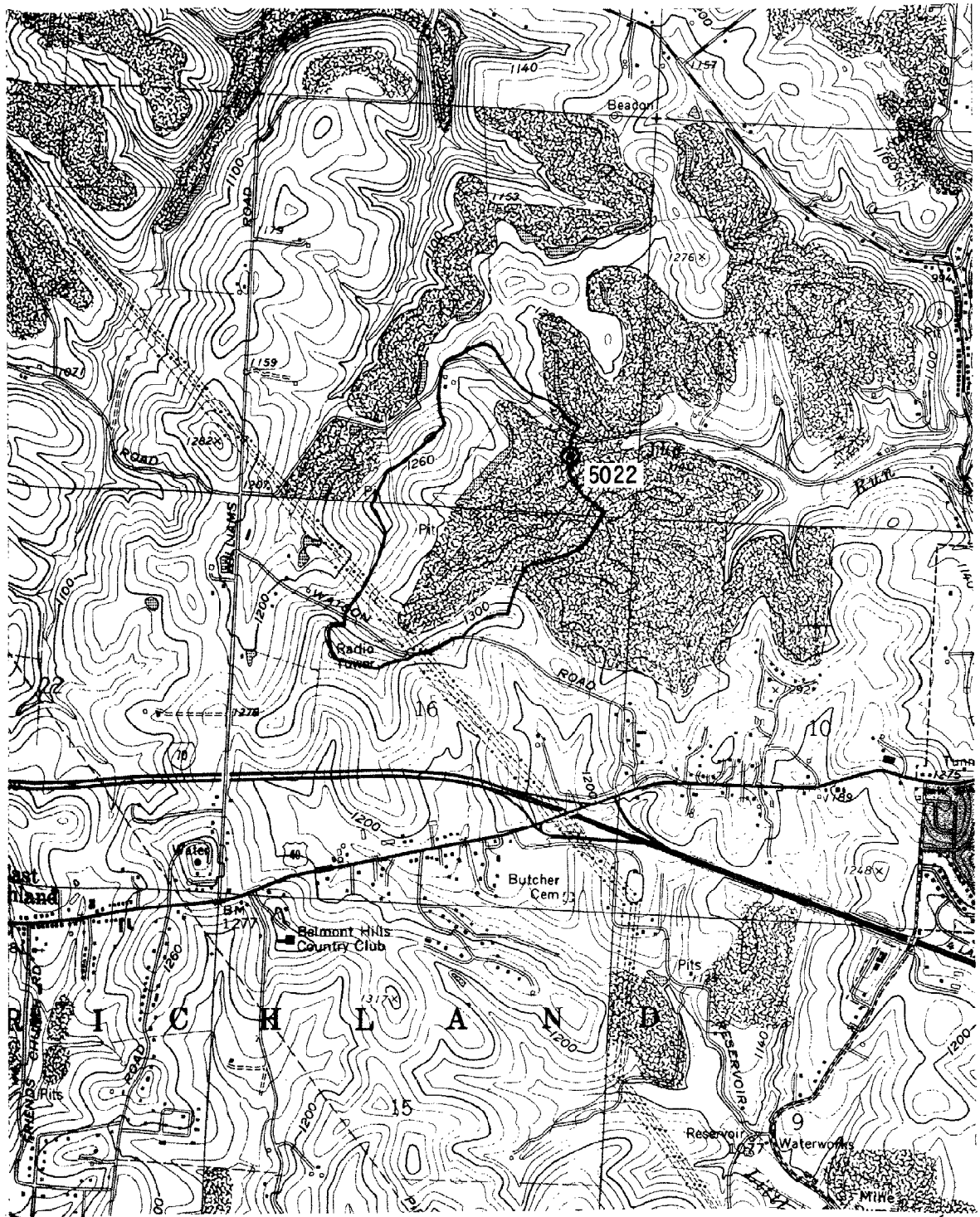


Figure 4. Location map for site 5022, Belmont Co., Ohio. St. Clairsville Quadrangle.

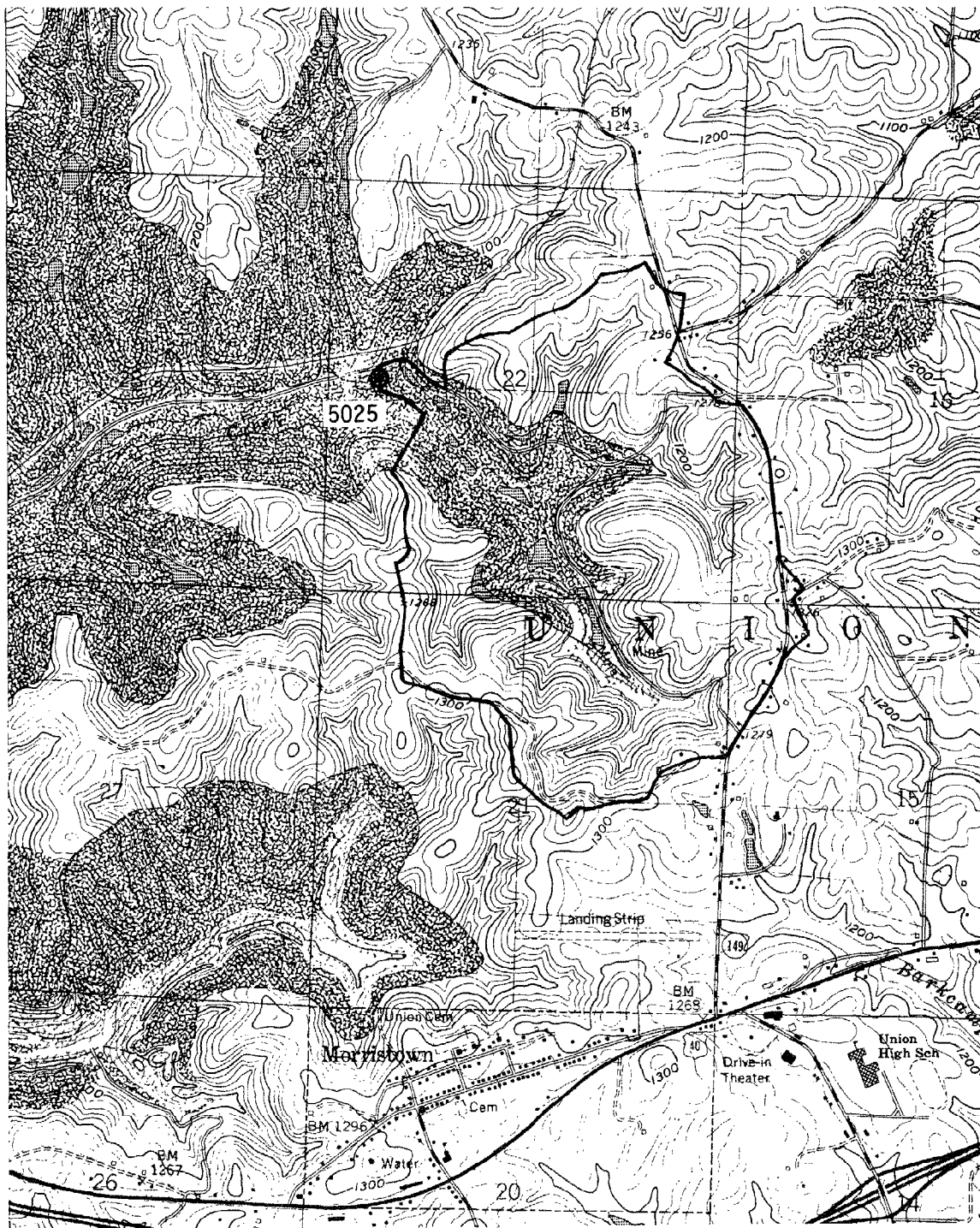


Figure 5. Location map for site 5025, Belmont Co., Ohio. Bethesda Quad-range.

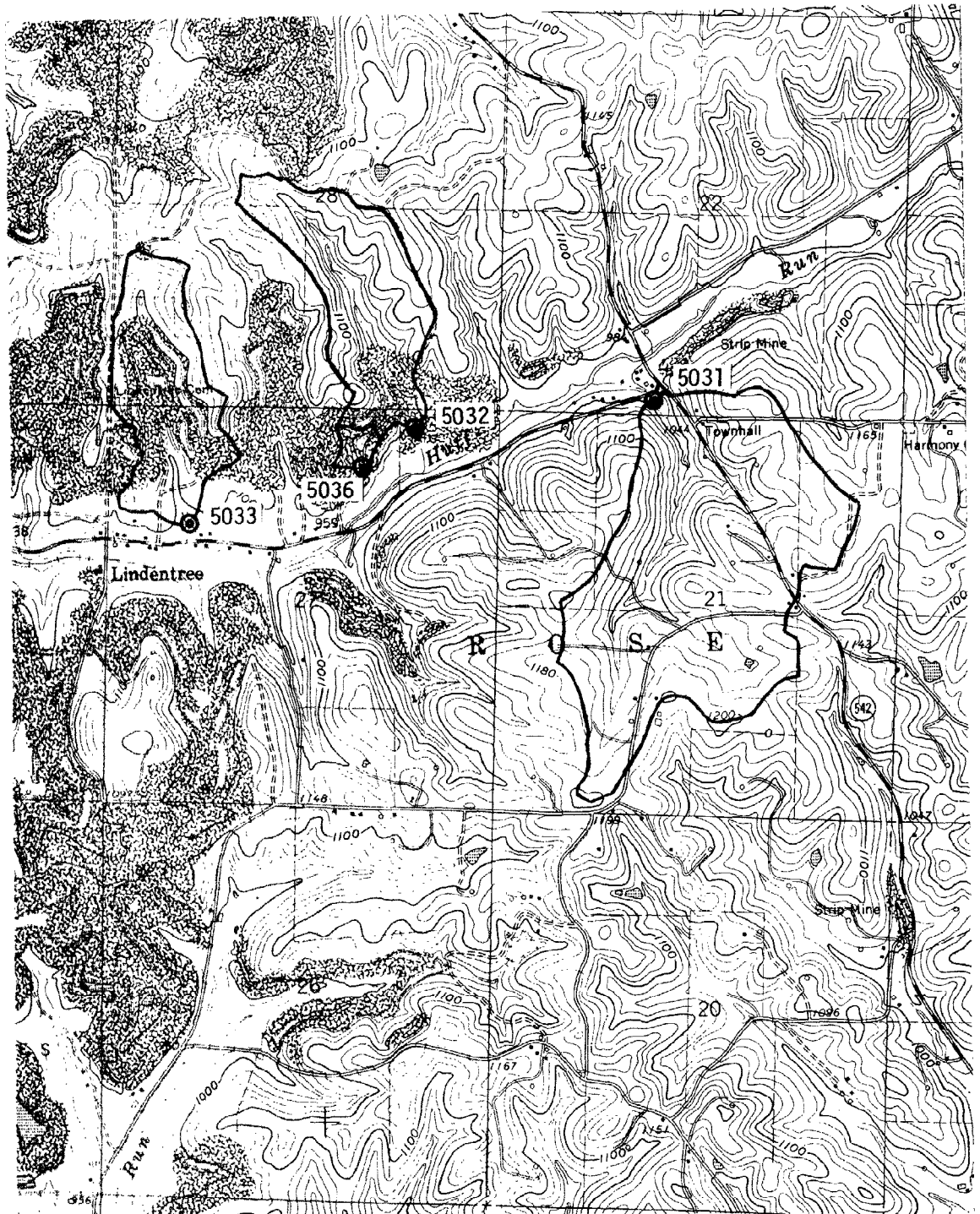


Figure 6. Location map for sites 5031, 5032, 5033, and 5036, Carroll Co., Ohio. Mineral City Quadrangle.

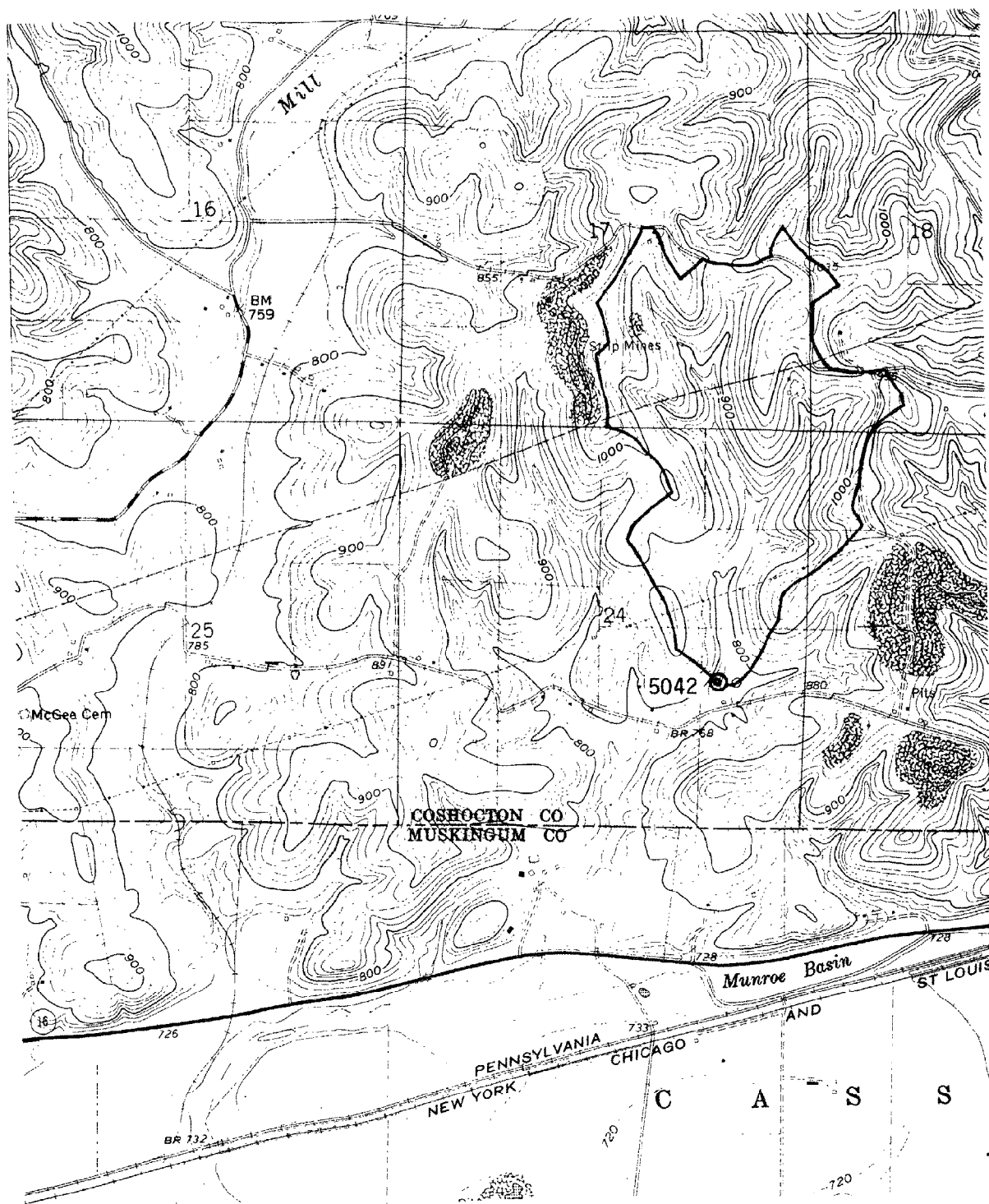


Figure 7. Location map for site 5042, Coshocton Co., Ohio. Conesville Quadrangle.



Figure 8. Location map for sites 5043 and 5046, Coshocton Co., Ohio. Conesville Quadrangle.



Figure 9. Location map for sites 5051, 5053, and 5056, Gallia Co., Ohio.  
Mercerville Quadrangle.

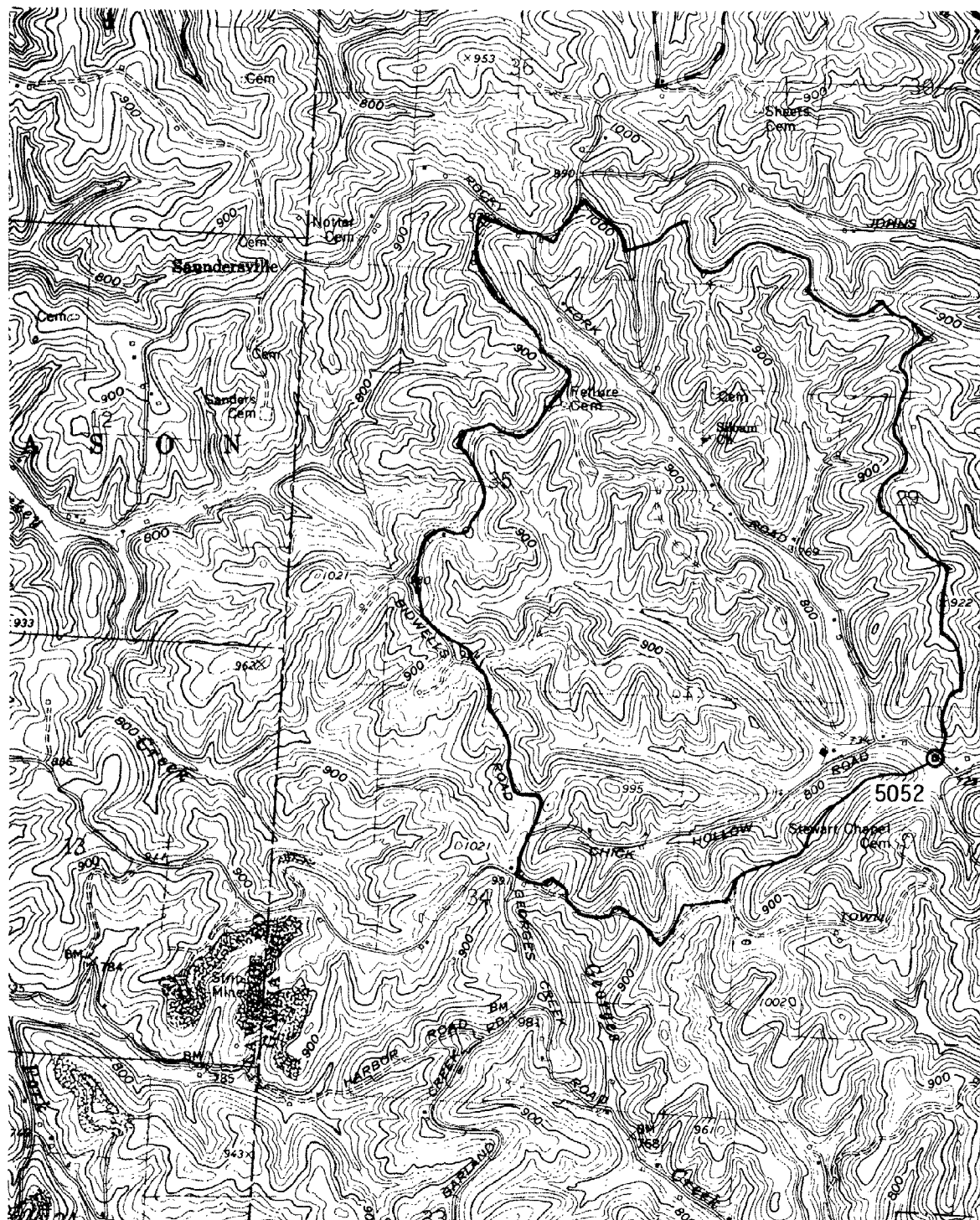


Figure 10. Location map for site 5052, Gallia Co., Ohio. Mercerville Quadrangle.

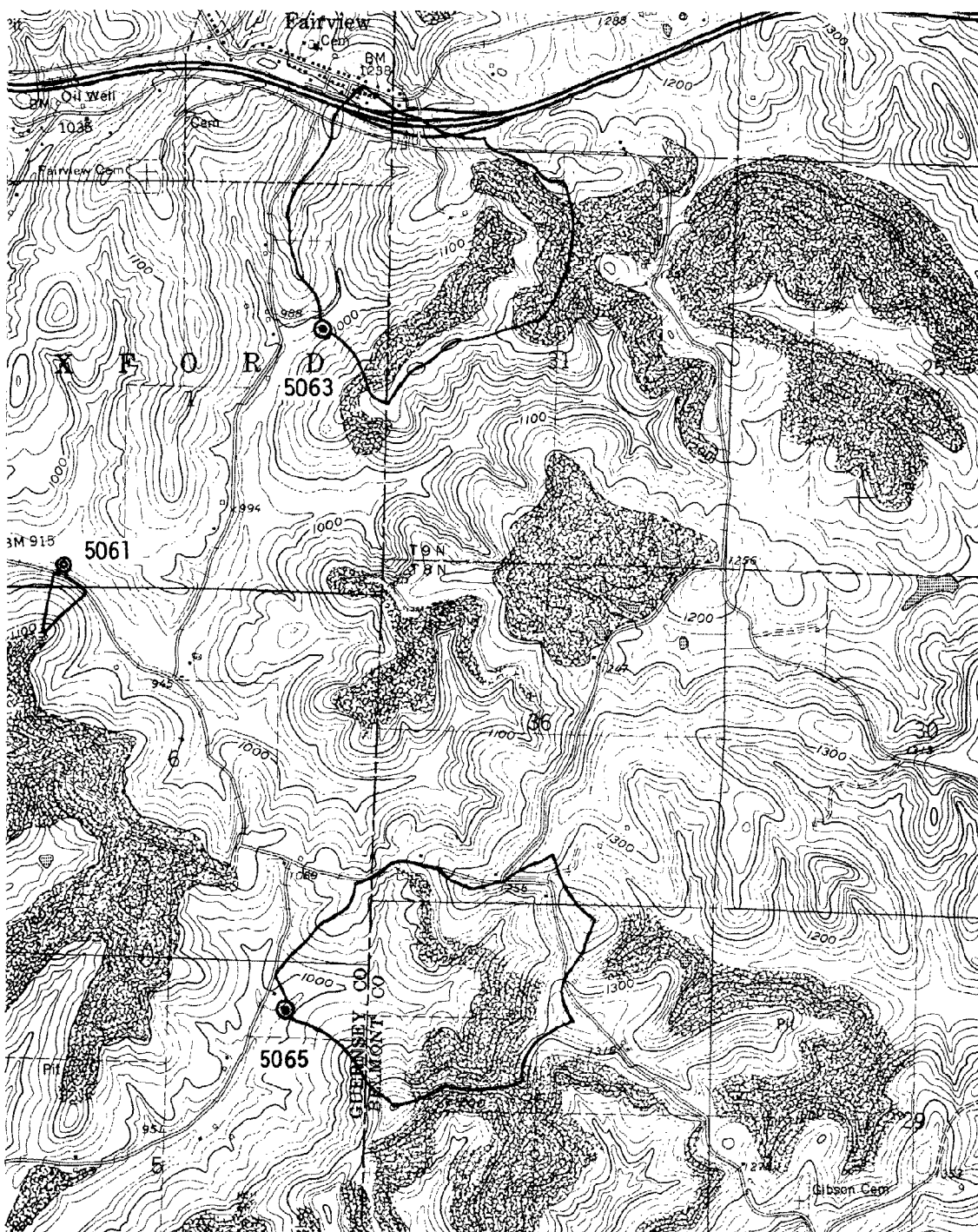


Figure 11. Location map for sites 5061, 5063, and 5065, Guernsey Co., Ohio. Fairview Quadrangle.

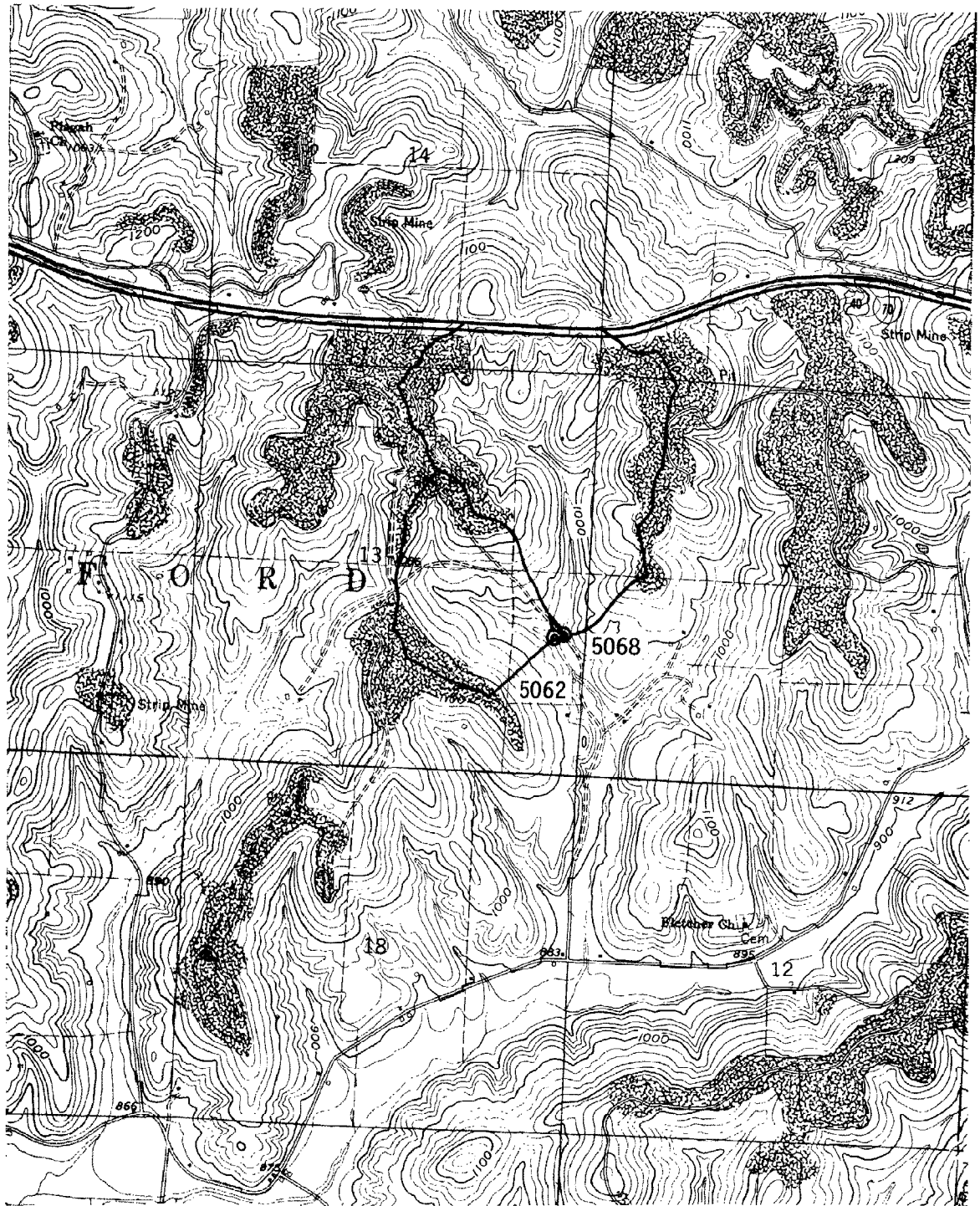


Figure 12. Location map for sites 5062 and 5068, Guernsey Co., Ohio.  
Antrim Quadrangle.

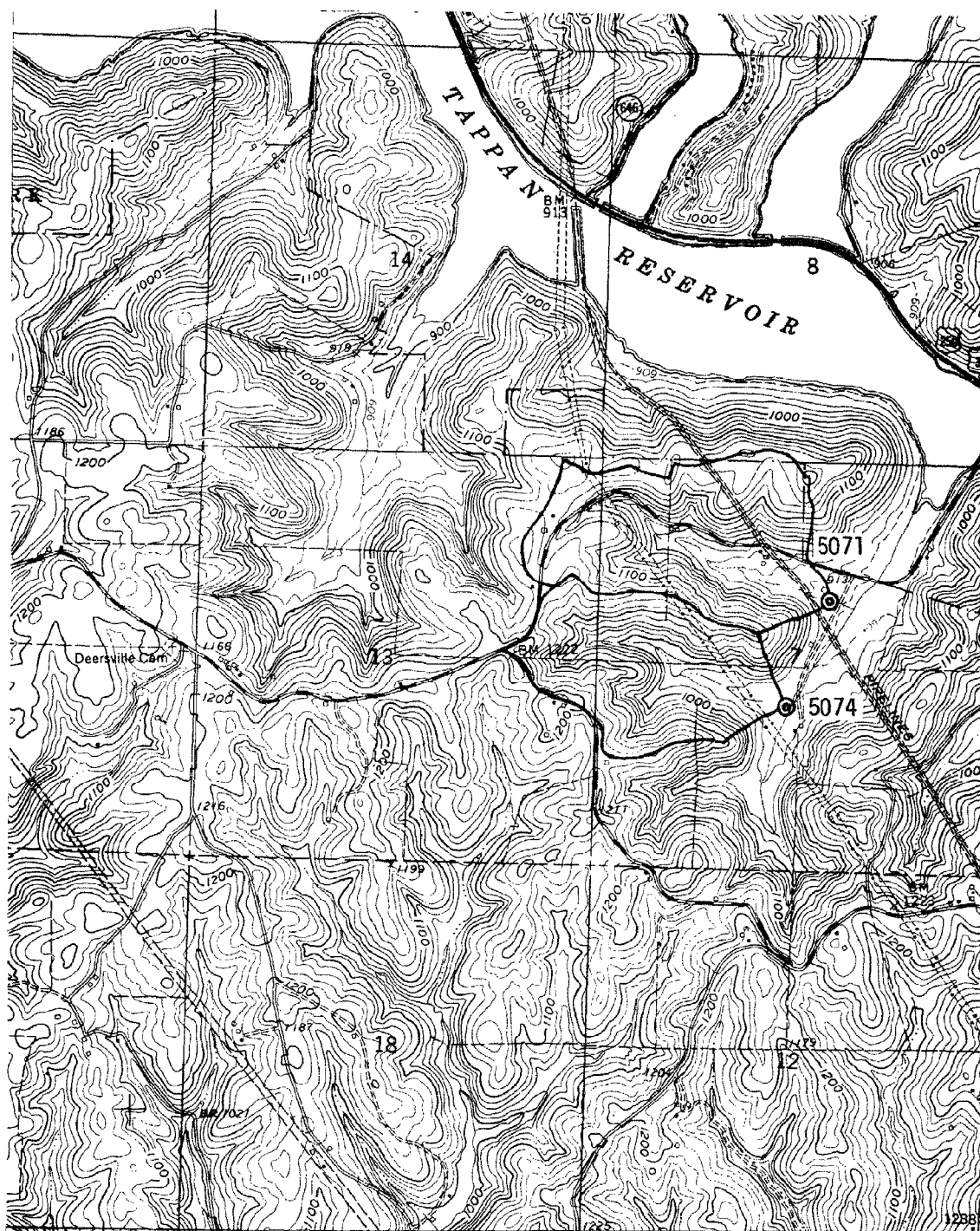


Figure 13. Location map for sites 5071 and 5074, Harrison Co., Ohio.  
Deersville Quadrangle.



Figure 14. Location map for sites 5072 and 5075, Harrison Co., Ohio. Harrisville and Flushing Quadrangles.

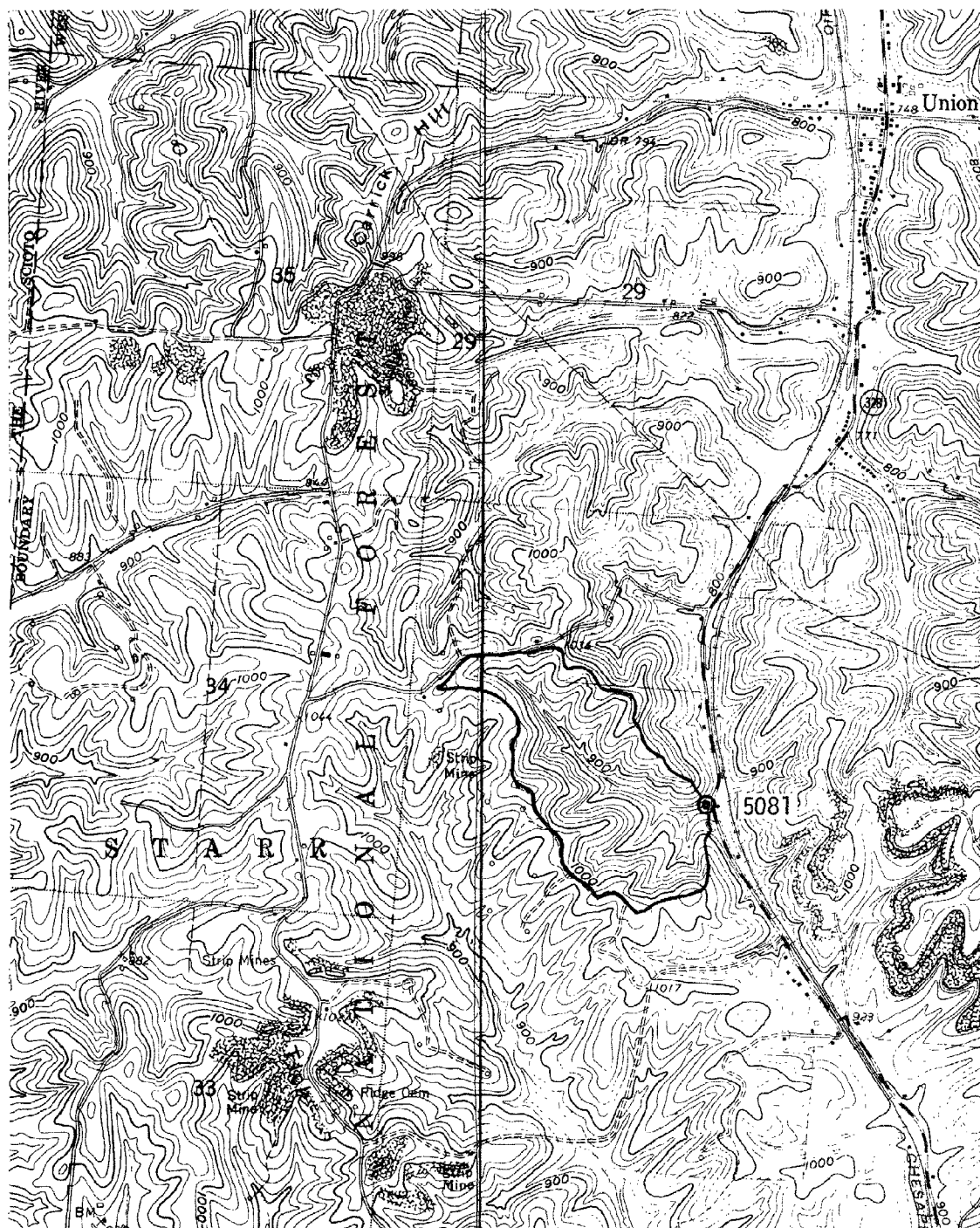


Figure 15. Location map for site 5081, Hocking Co., Ohio. New Plymouth and Union Furnace Quadrangles.



Figure 16. Location map for sites 5082 and 5085, Hocking Co., Ohio.  
Union Furnace Quadrangle.

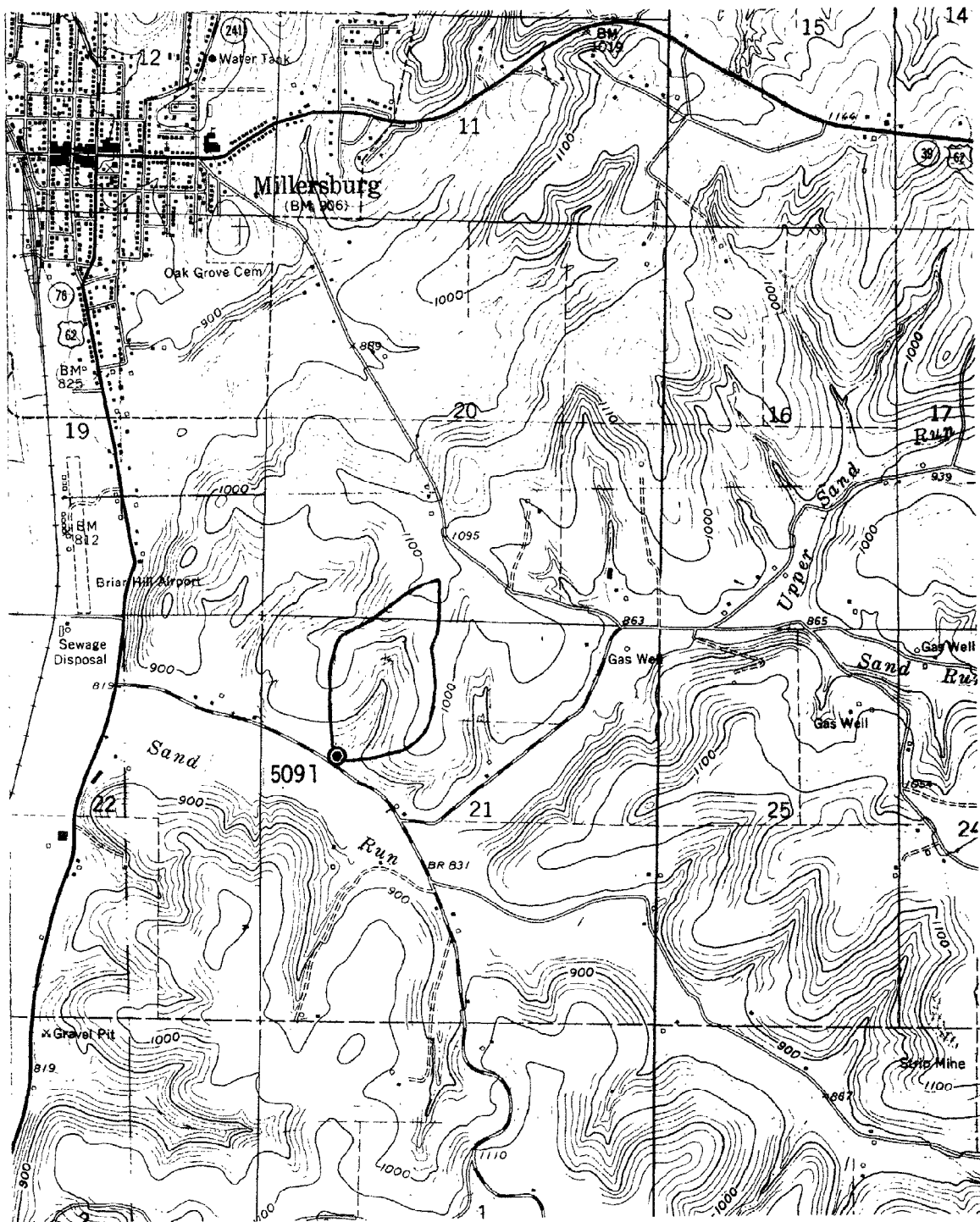


Figure 17. Location map for site 5091, Holmes Co., Ohio. Millersburg Quadrangle.

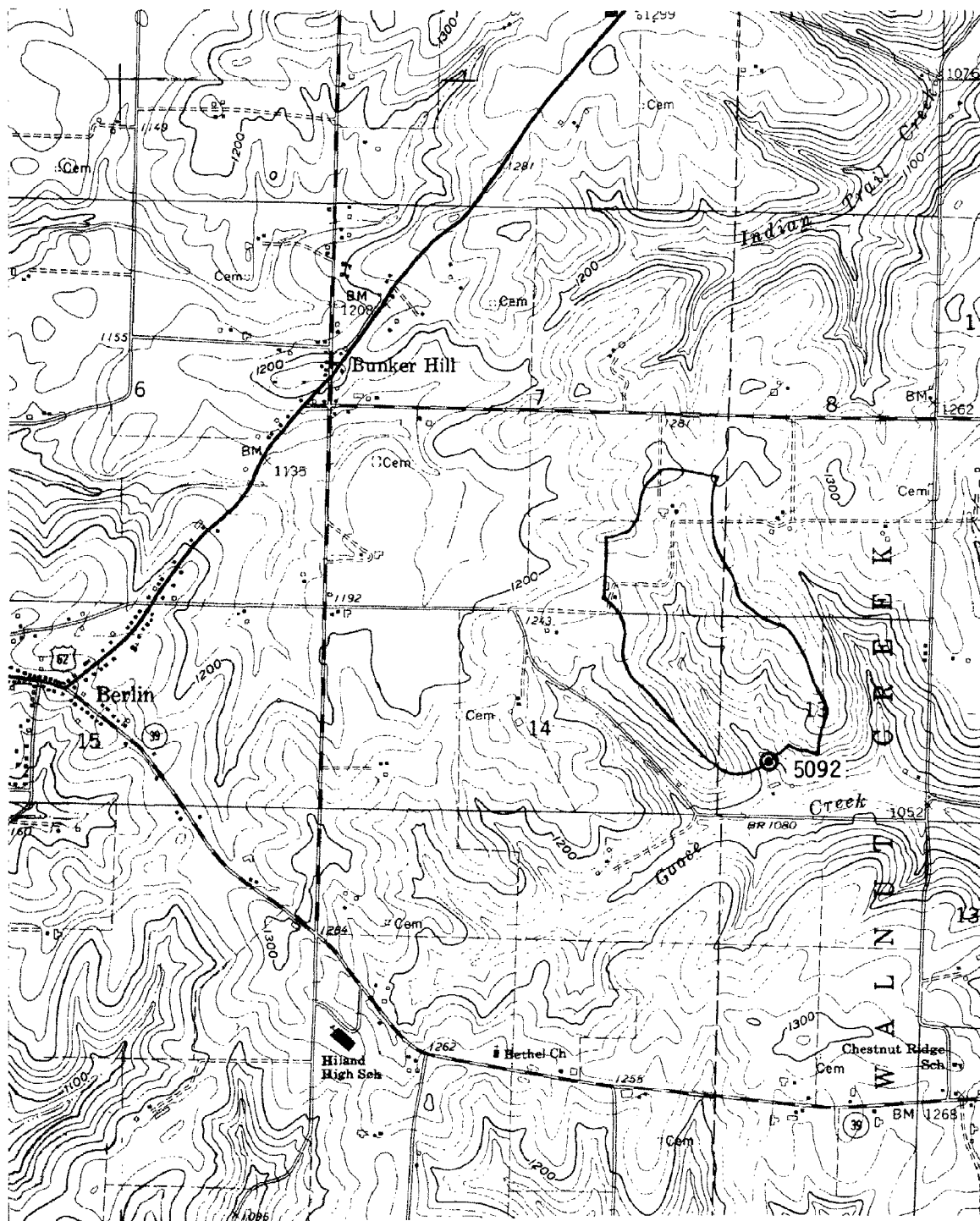


Figure 18. Location map for site 5092, Holmes Co., Ohio. Berlin Quadrangle.

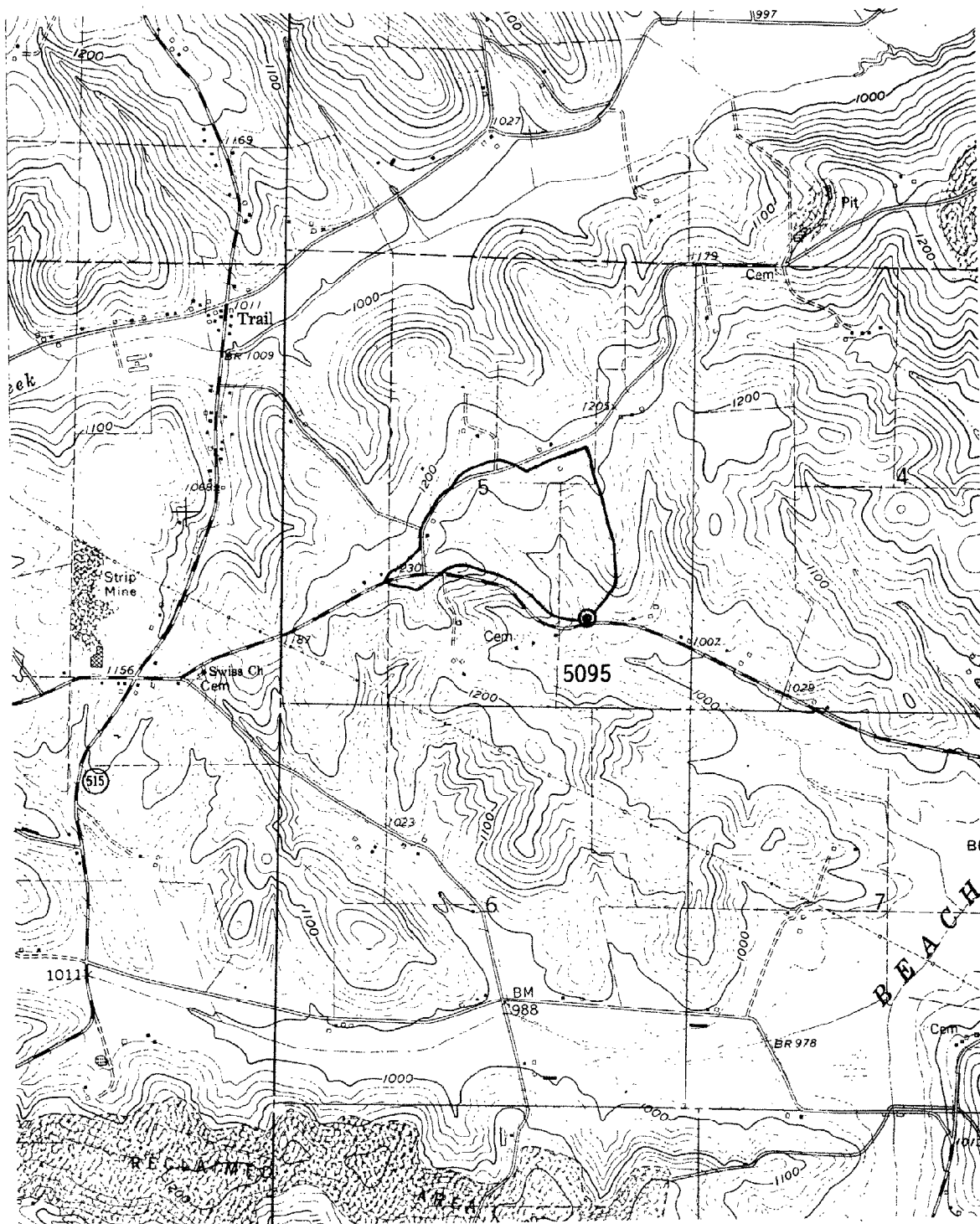


Figure 19. Location map for site 5095, Holmes Co., Ohio. Sugarcreek Quadrangle.

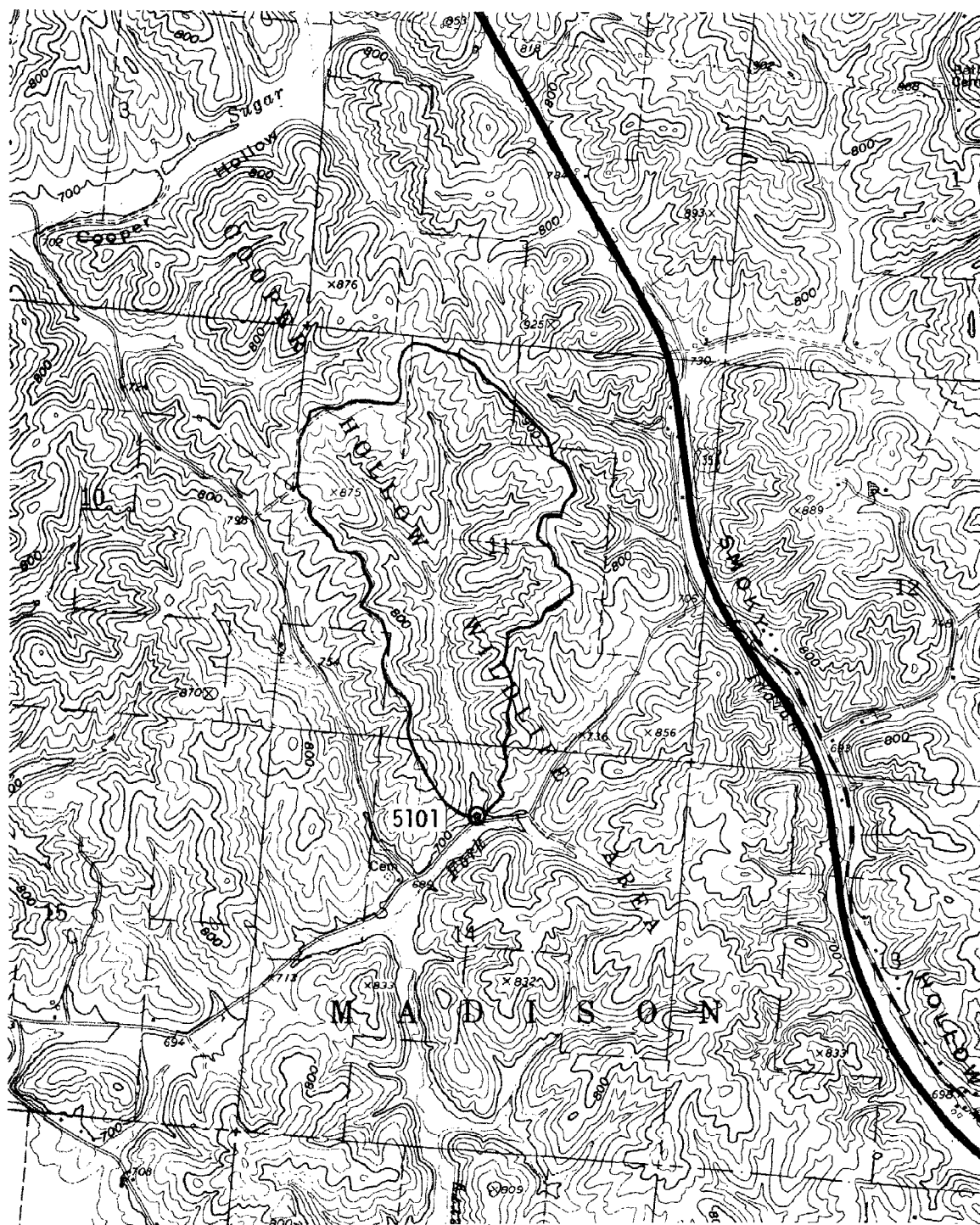




Figure 21. Location map for site 5102, Jackson Co., Ohio. Oak Hill Quadrangle.



Figure 22. Location map for site 5103, Jackson Co., Ohio. Oak Hill Quadrangle.

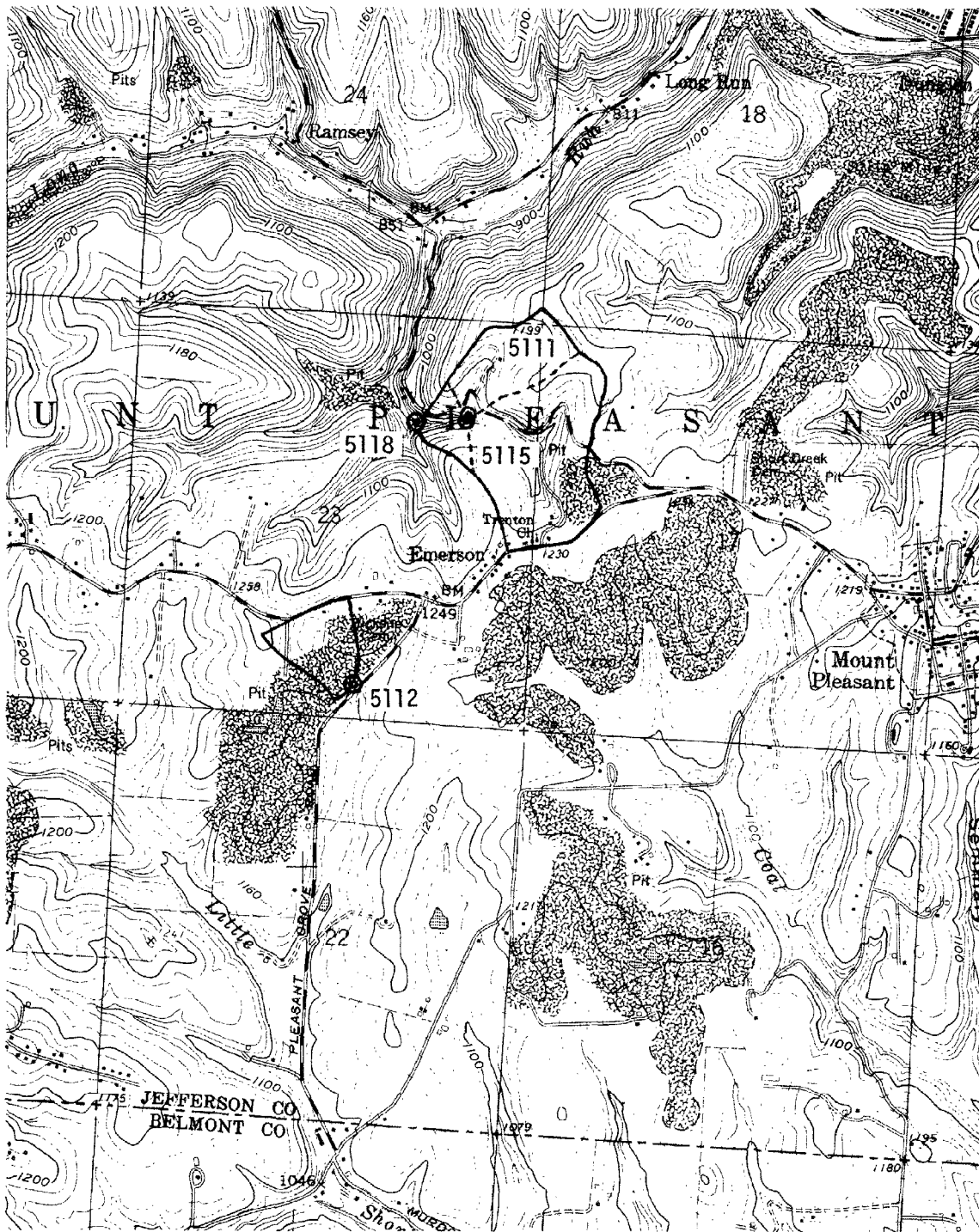


Figure 23. Location map for sites 5111, 5112, 5115, and 5118, Jefferson Co., Ohio. Dillonvale Quadrangle.



Figure 24. Location map for site 5113, Jefferson Co., Ohio. Dillonvale and Harrisville Quadrangles.

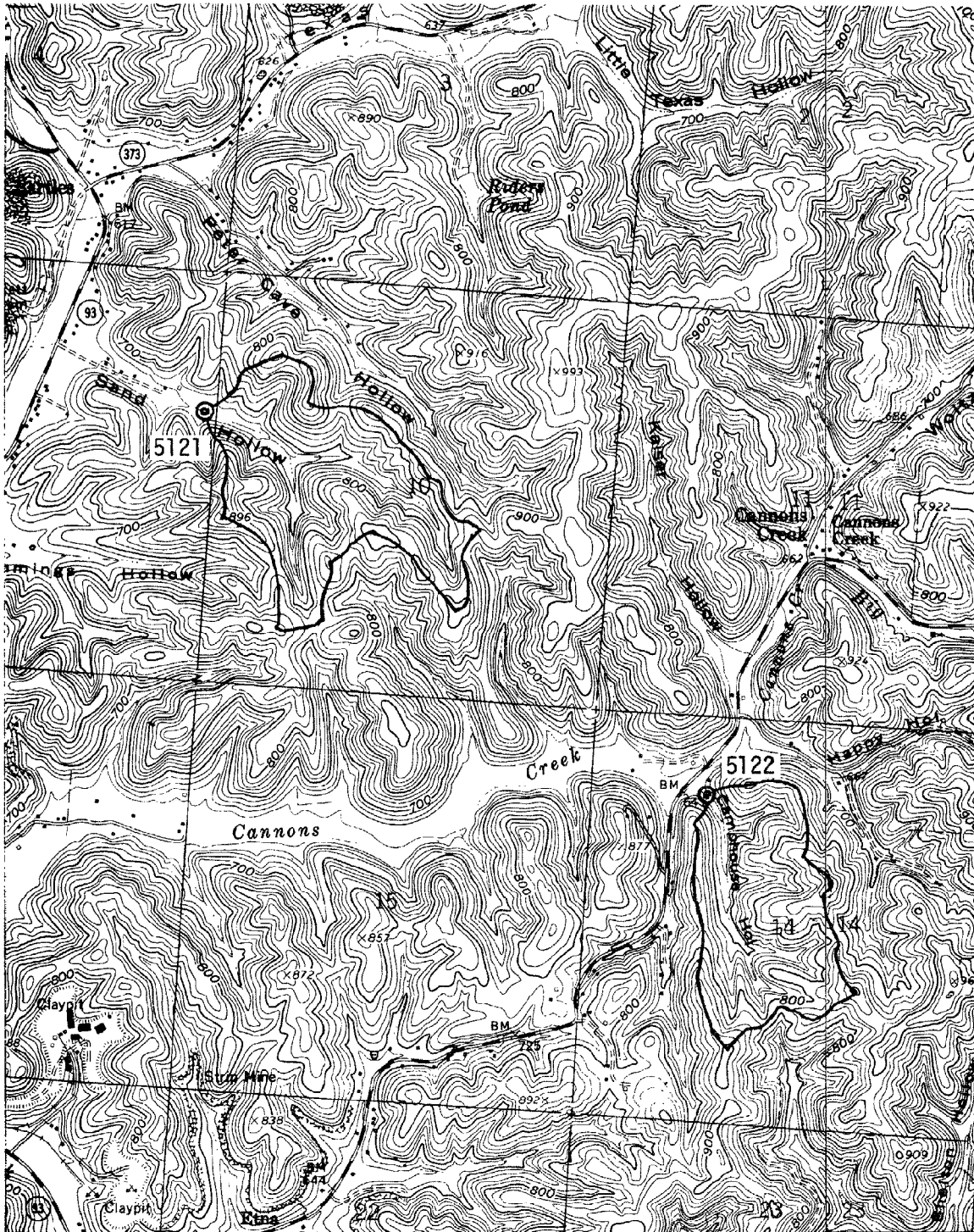


Figure 25. Location map for sites 5121 and 5122, Lawrence Co., Ohio. Pedro and Sherritts Quadrangles.

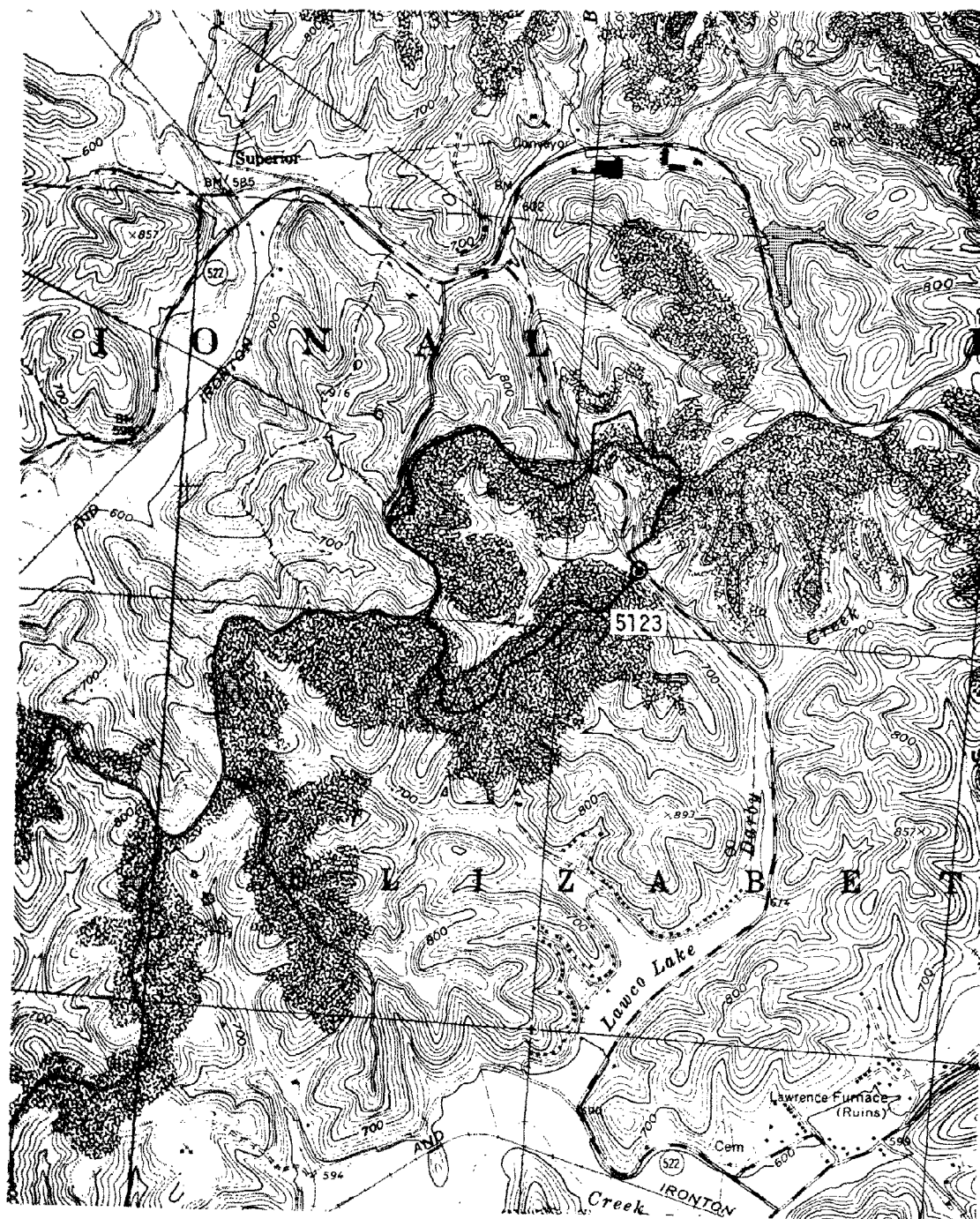


Figure 26. Location map for site 5123, Lawrence Co., Ohio. Pedro Quadrangle.

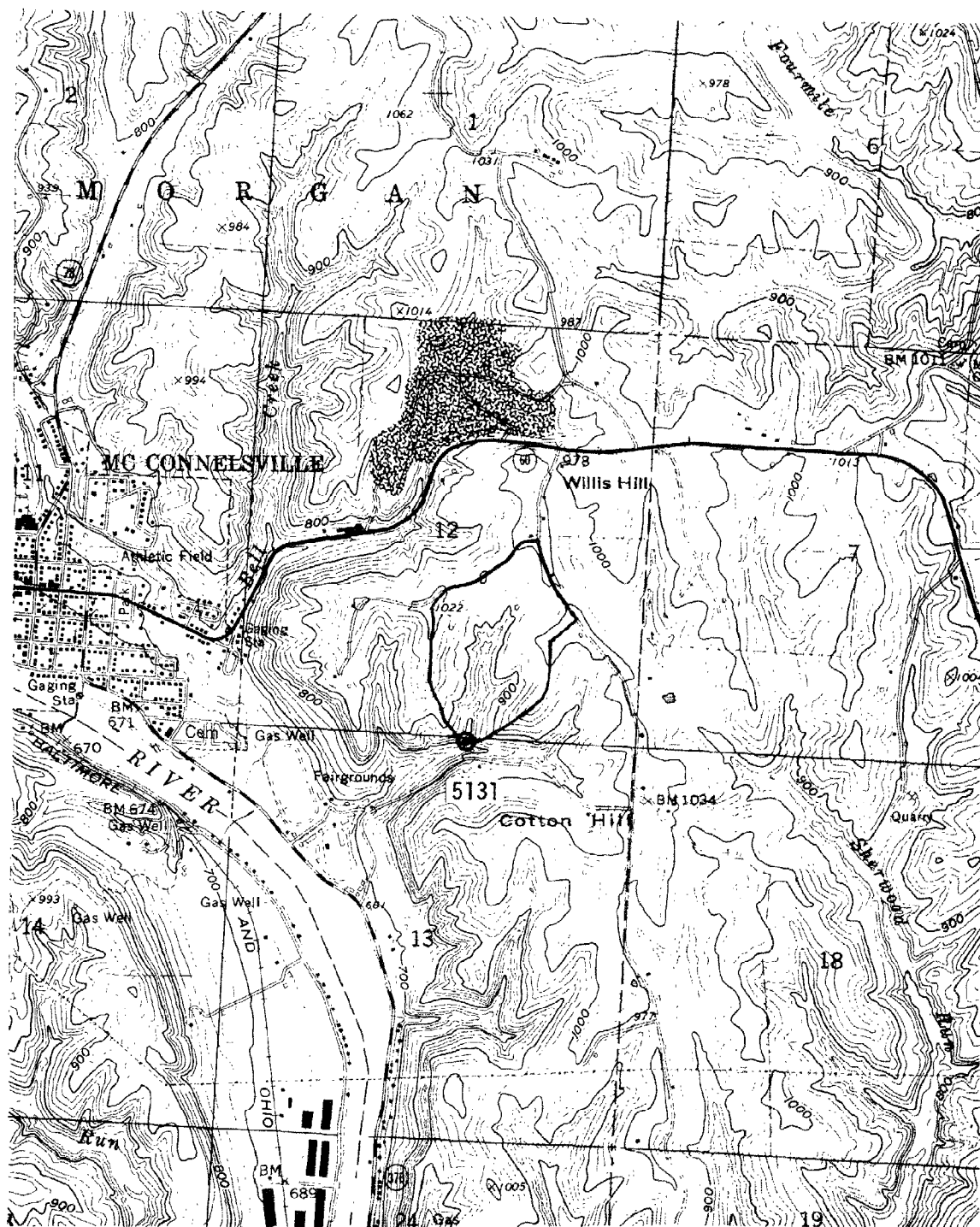


Figure 27. Location map for site 5131, Morgan Co., Ohio. McConnellsville Quadrangle.

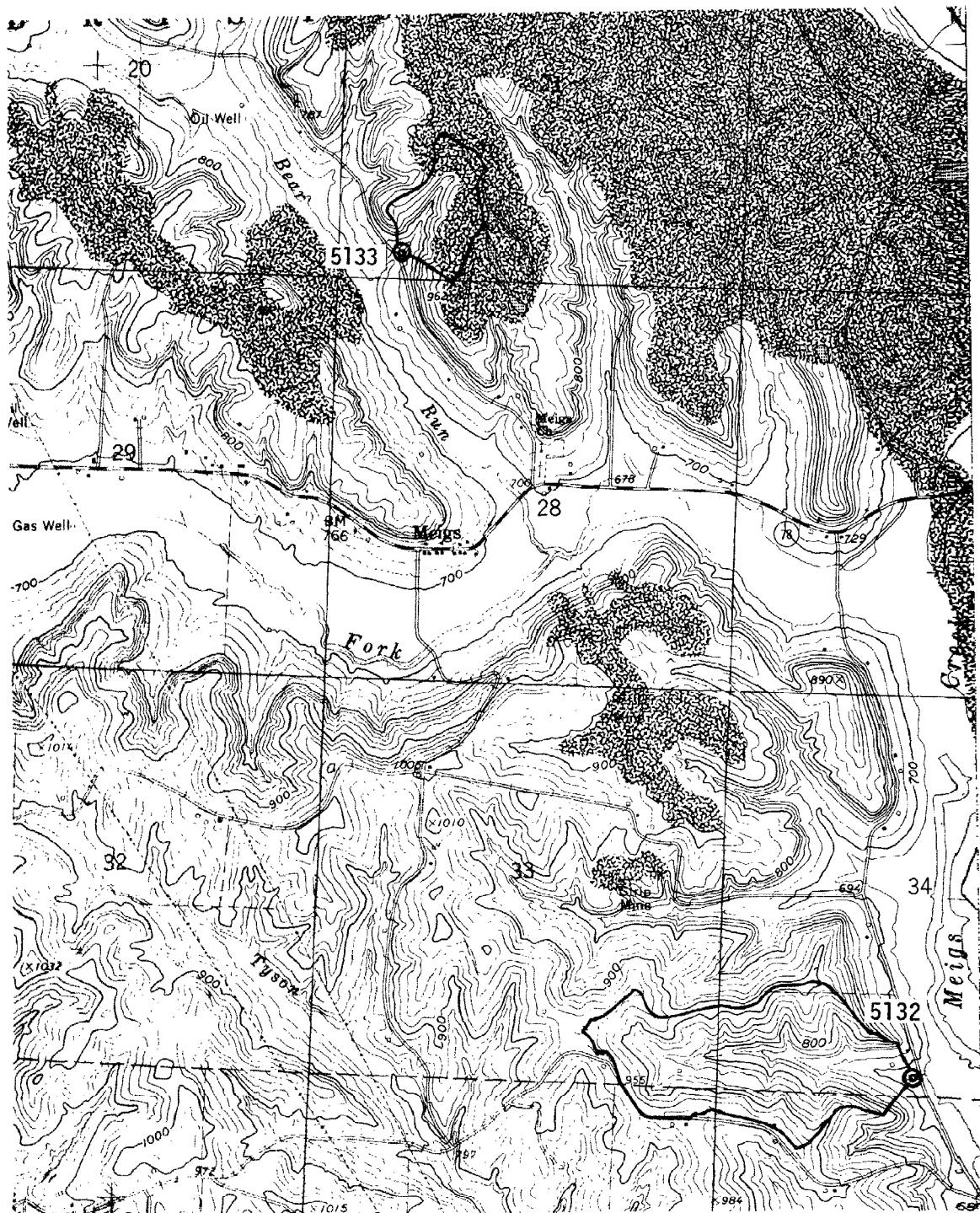


Figure 28. Location map for sites 5132 and 5133, Morgan Co., Ohio.  
McConnellsville Quadrangle.

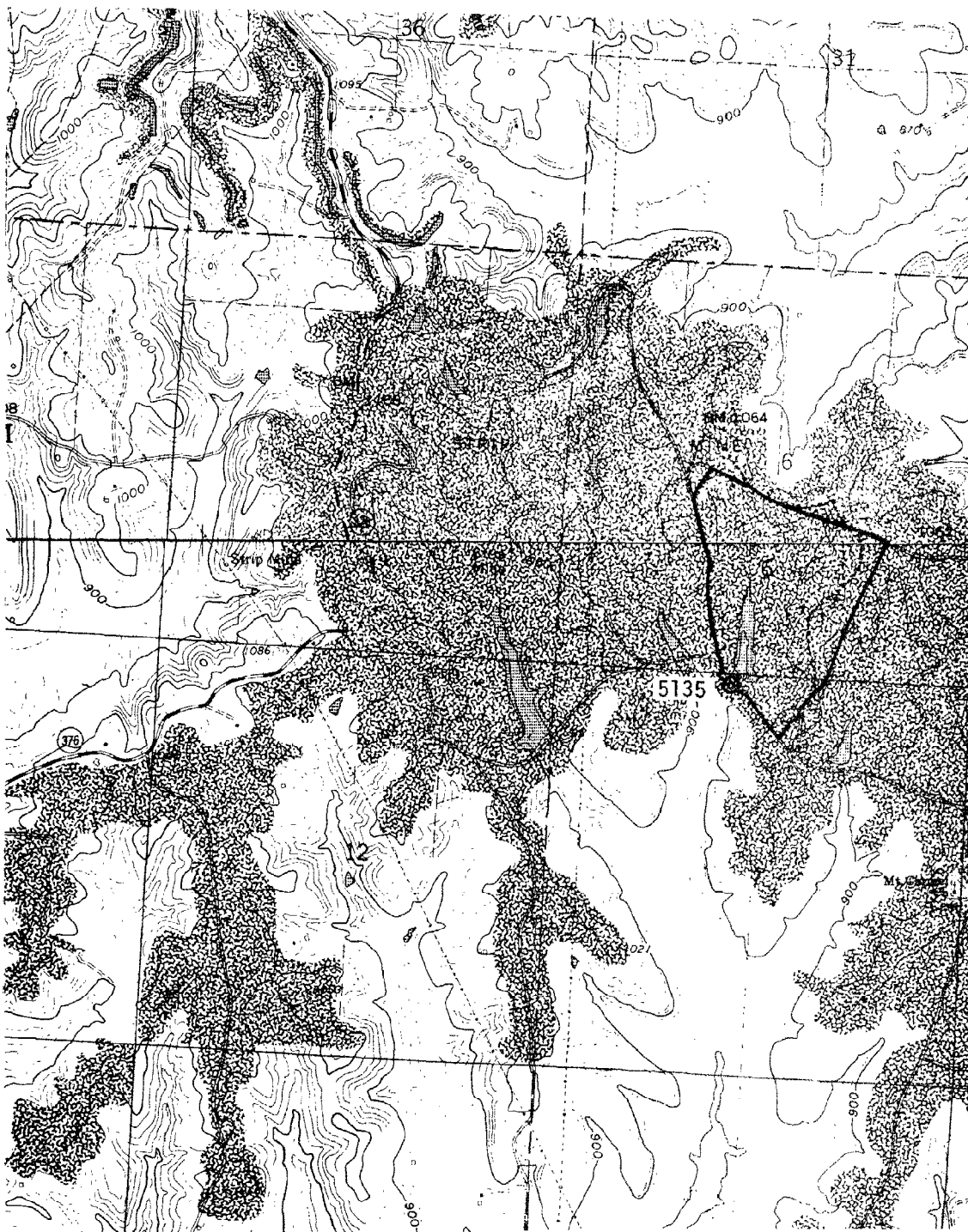


Figure 29. Location map for site 5135, Morgan Co., Ohio. McConnellsville and Ruraldale Quadrangles.

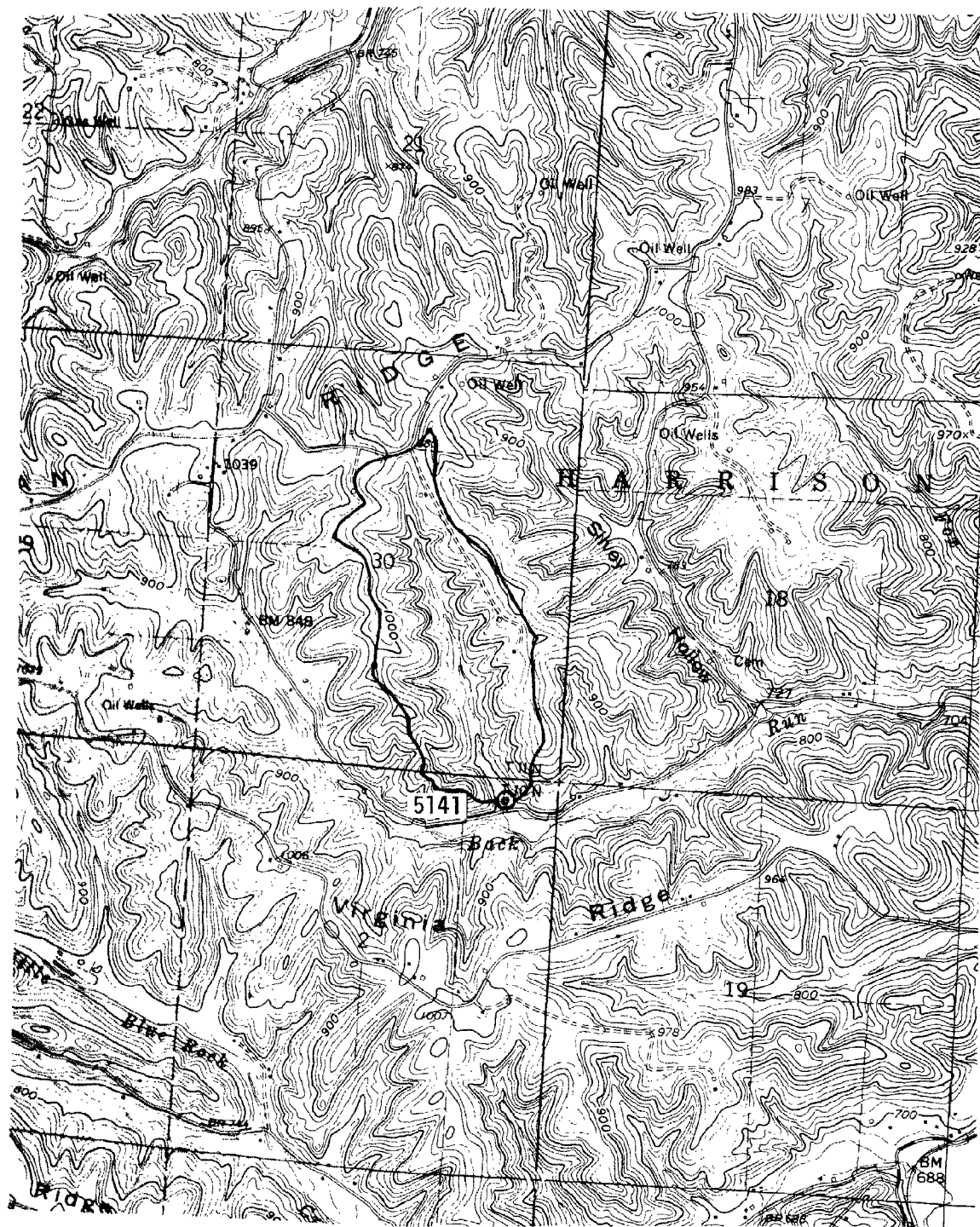


Figure 30. Location map for site 5141, Muskingum Co., Ohio. Philo Quadrangle.

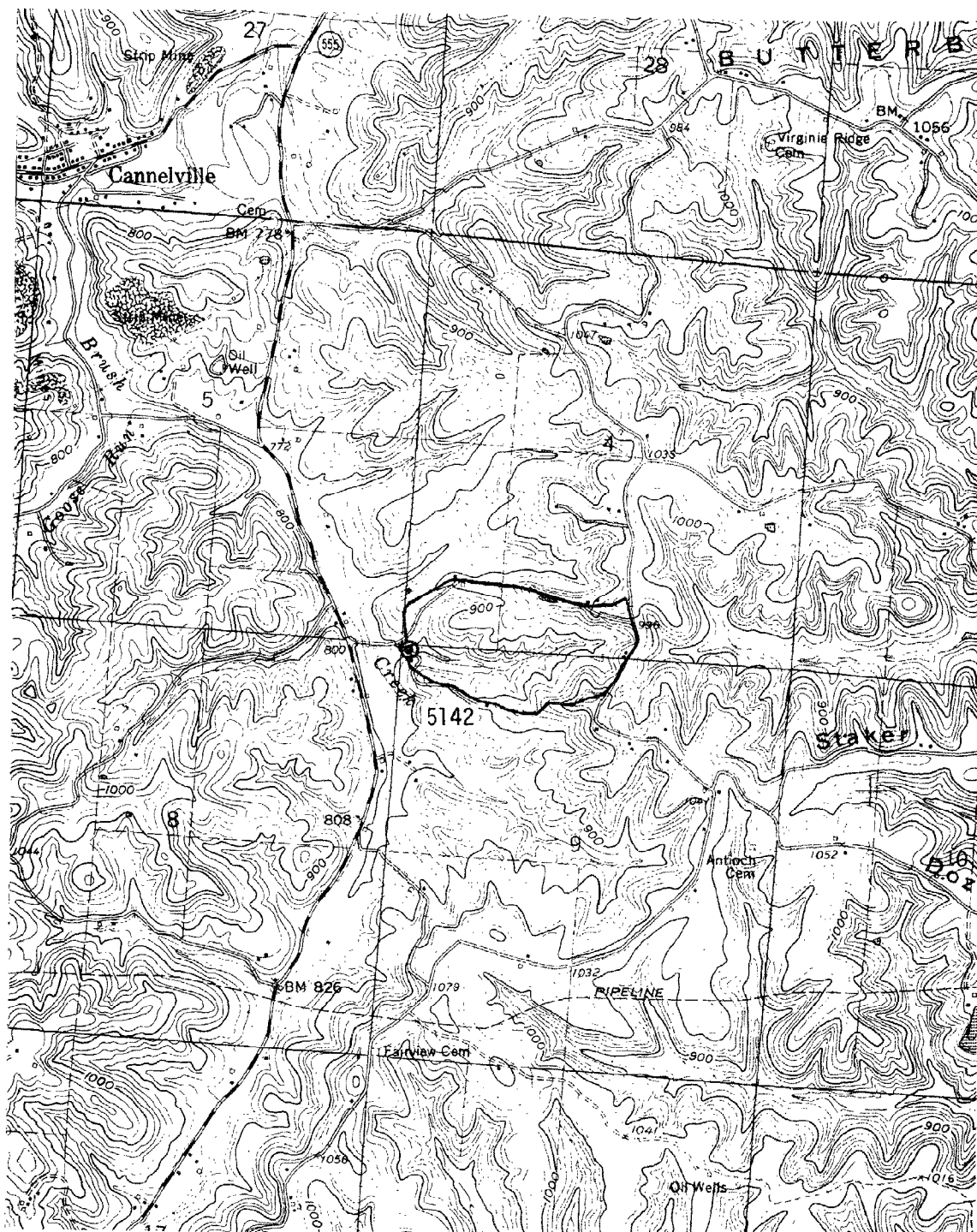


Figure 31. Location map for site 5142, Muskingum Co., Ohio. Philo Quadrangle.



Figure 32. Location map for site 5143, Muskingum Co., Ohio. Crooksville Quadrangle.



Figure 33. Location map for sites 5151 and 5156, Noble Co., Ohio.  
Macksburg Quadrangle.

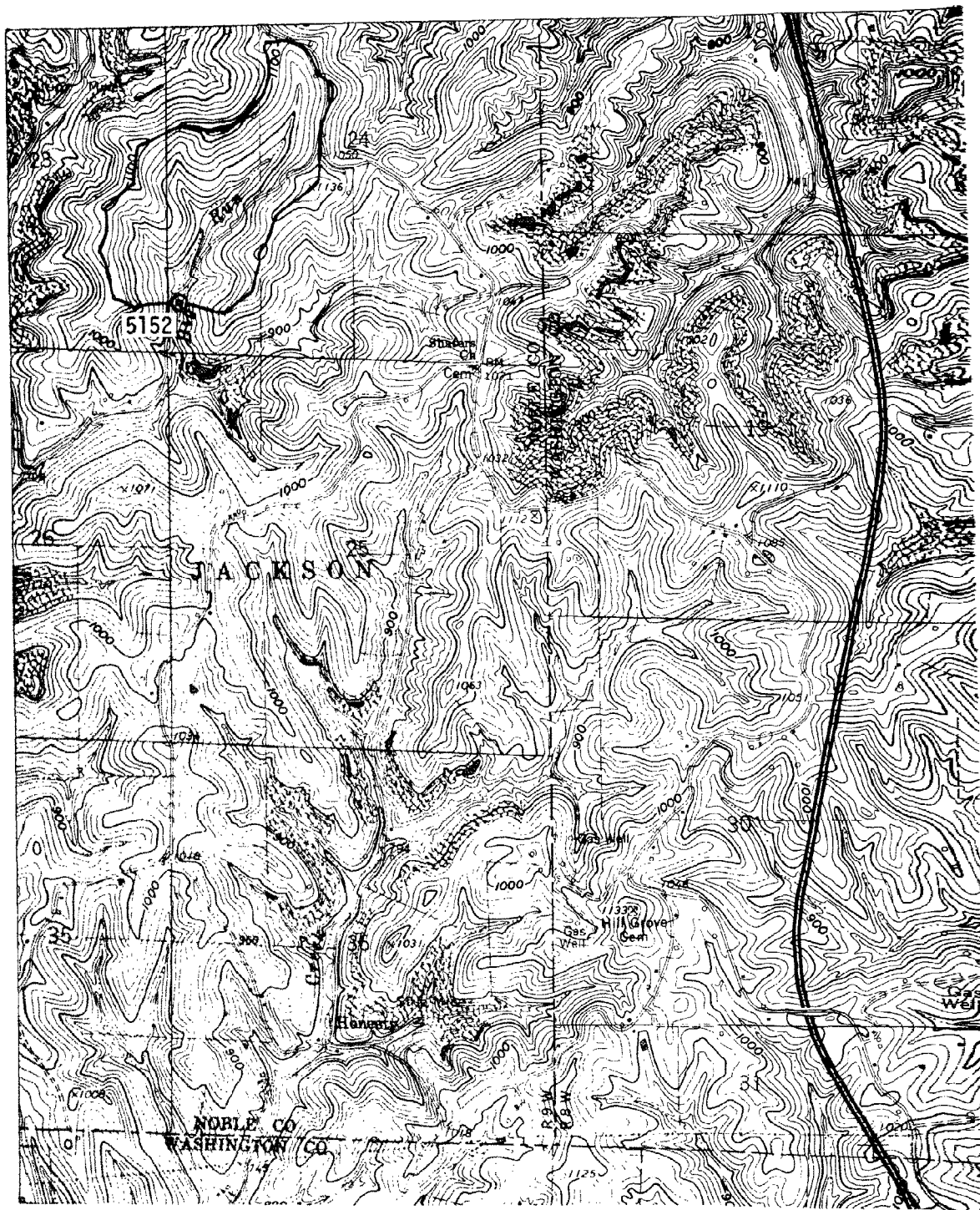


Figure 34. Location map for site 5152, Noble Co., Ohio. Lower Salem Quadrangle.

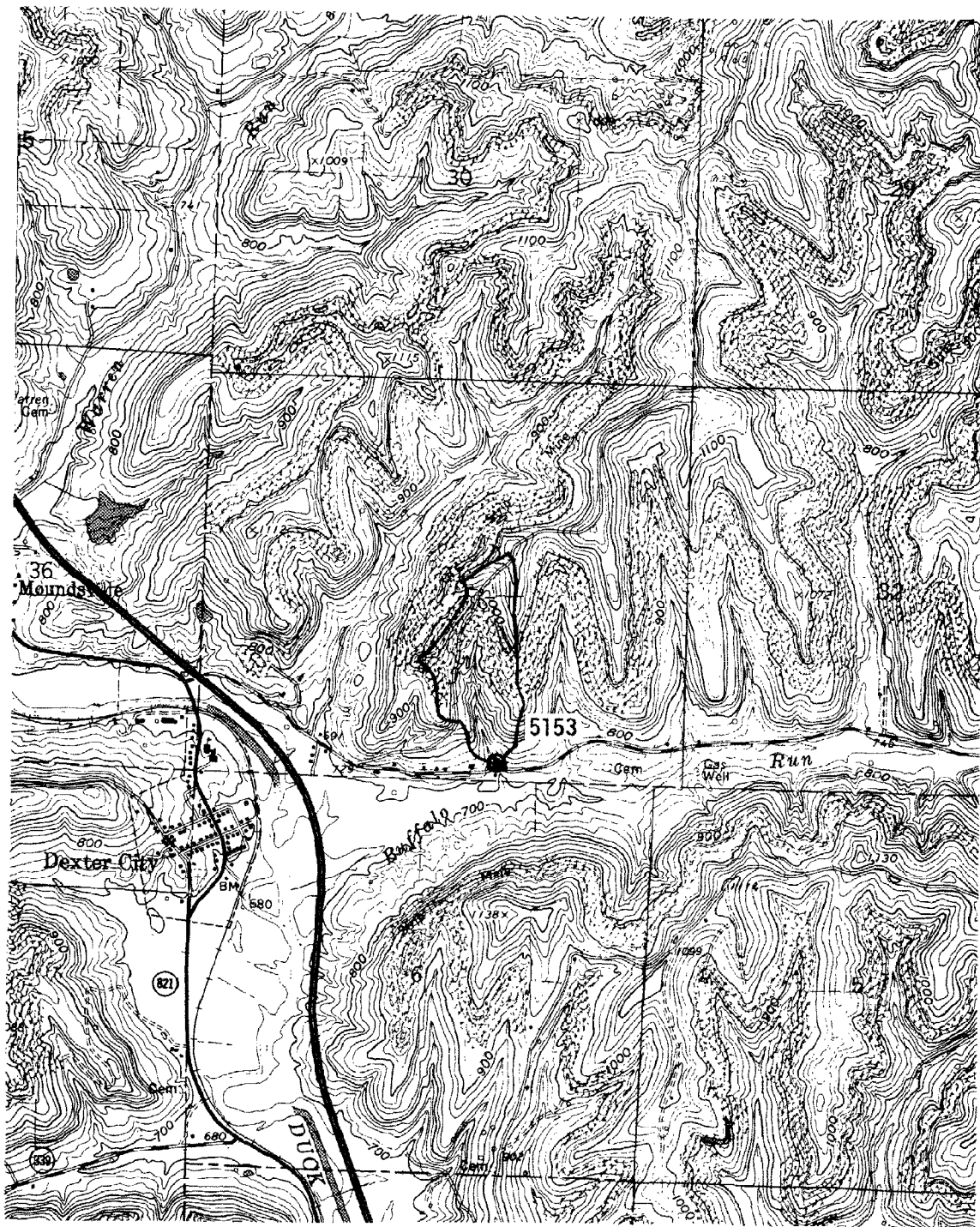


Figure 35. Location map for site 5153, Noble Co., Ohio. Macksburg Quadrangle.



Figure 36. Location map for site 5160, Perry Co., Ohio. Crooksville Quadrangle.



Figure 37. Location map for site 5161, Perry Co., Ohio. Somerset Quadrangle.

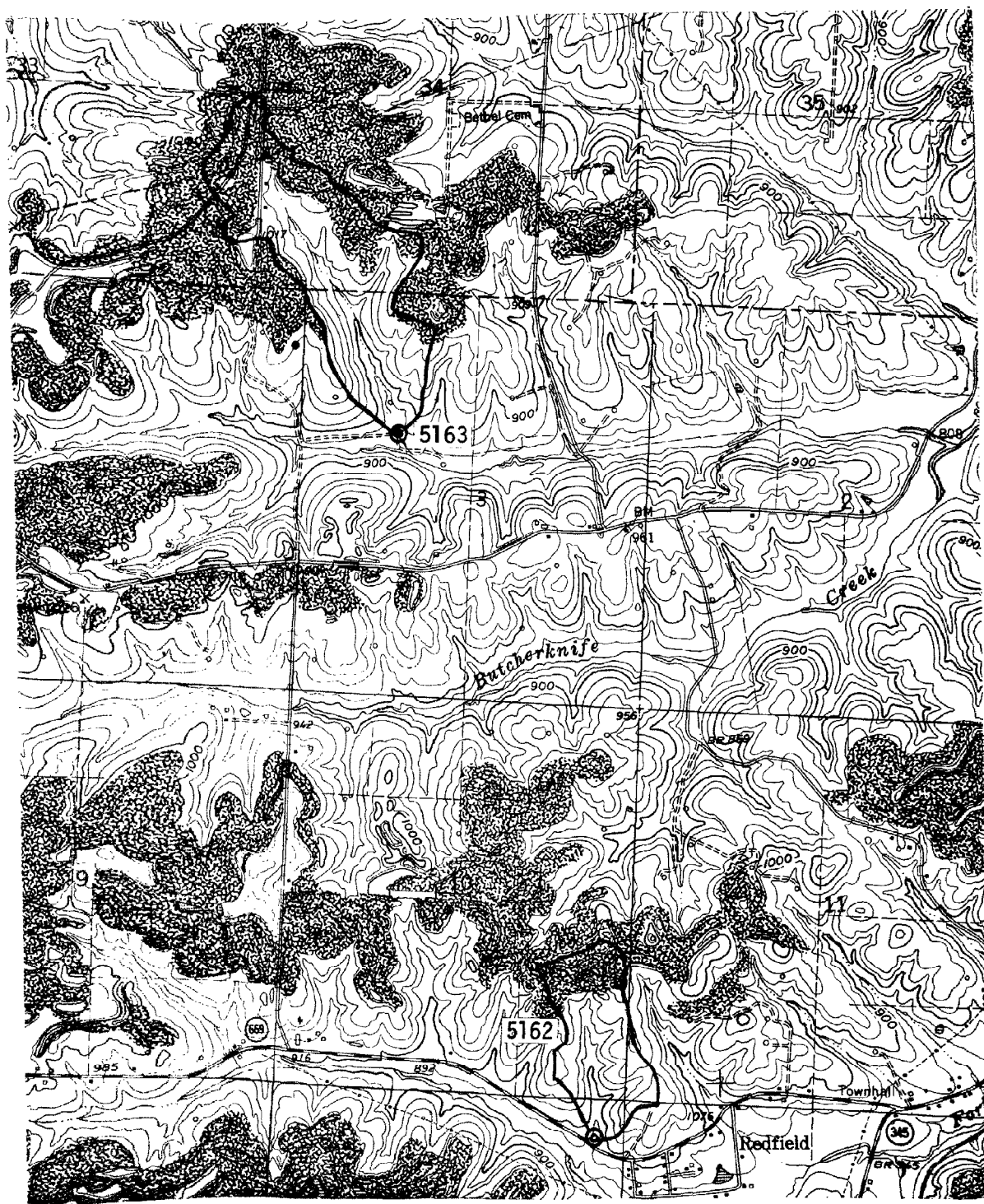


Figure 38. Location map for sites 5162 and 5163, Perry Co., Ohio.  
Fultonham Quadrangle.

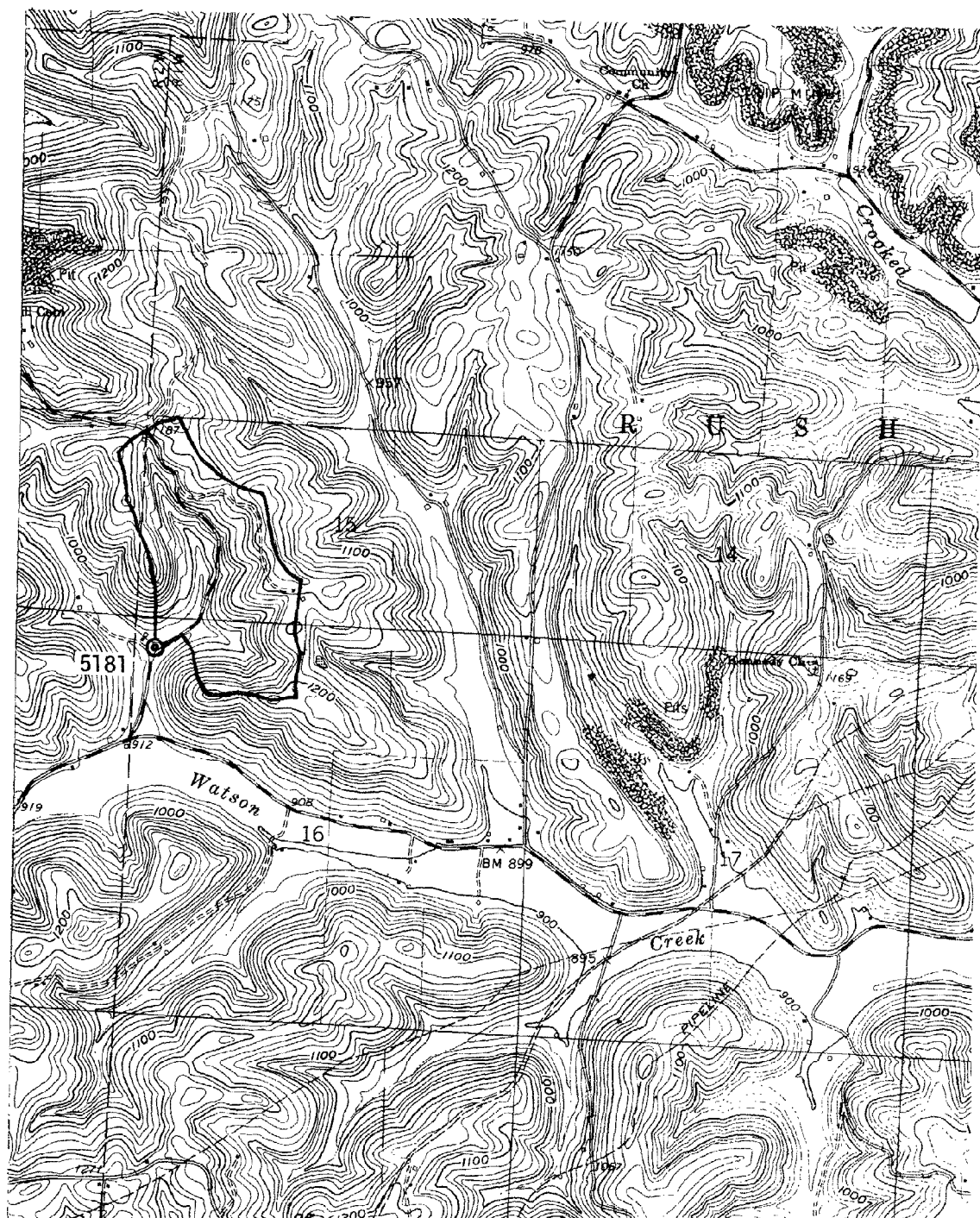


Figure 39. Location map for site 5181, Tuscarawas Co., Ohio. Gnadenhutten Quadrangle.



Figure 40. Location map for site 5182, Tuscarawas Co., Ohio. Gnadenhutten and Newcomerstown Quadrangles.

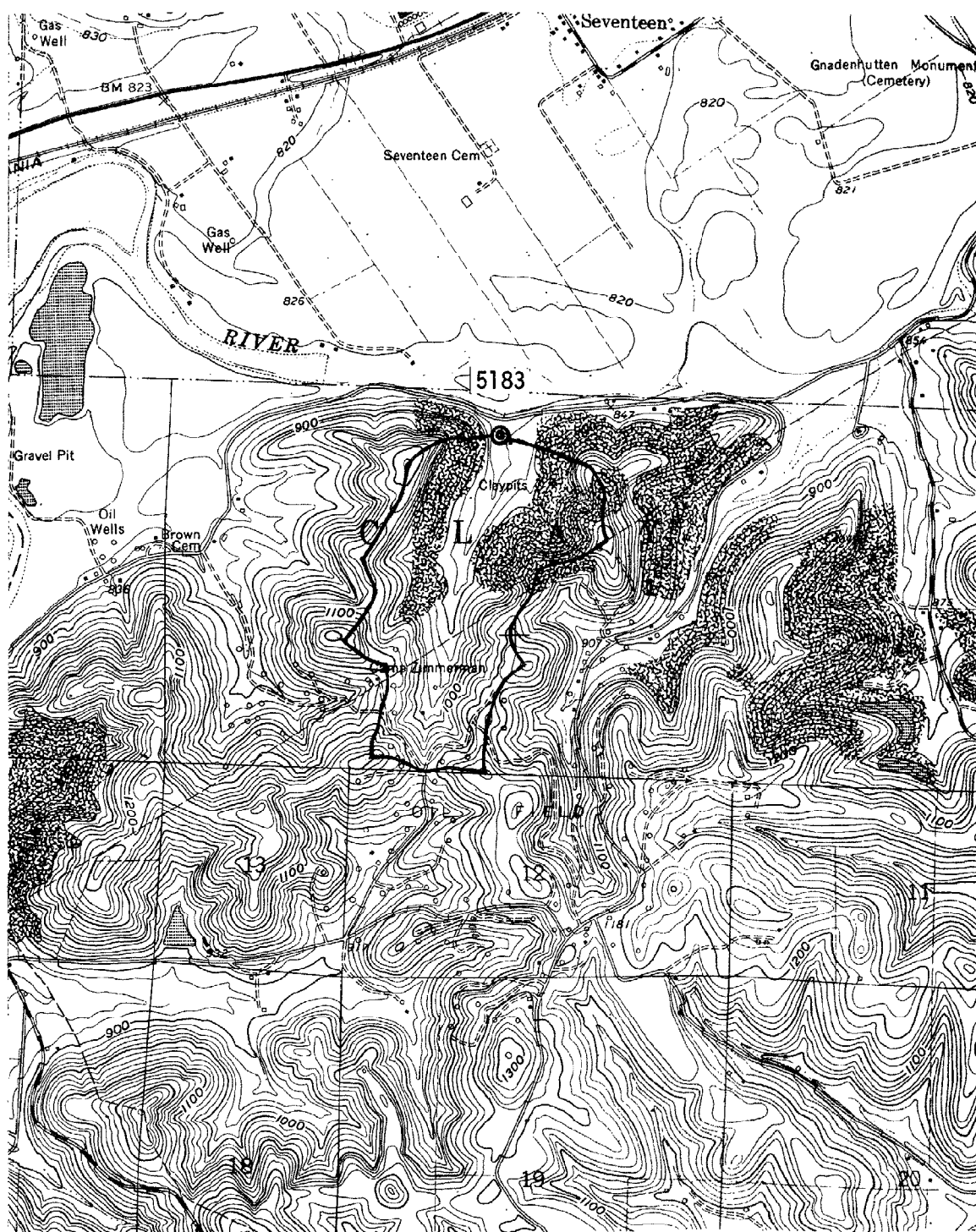


Figure 41. Location map for site 5183, Tuscarawas Co., Ohio. Gnadenhutten Quadrangle.

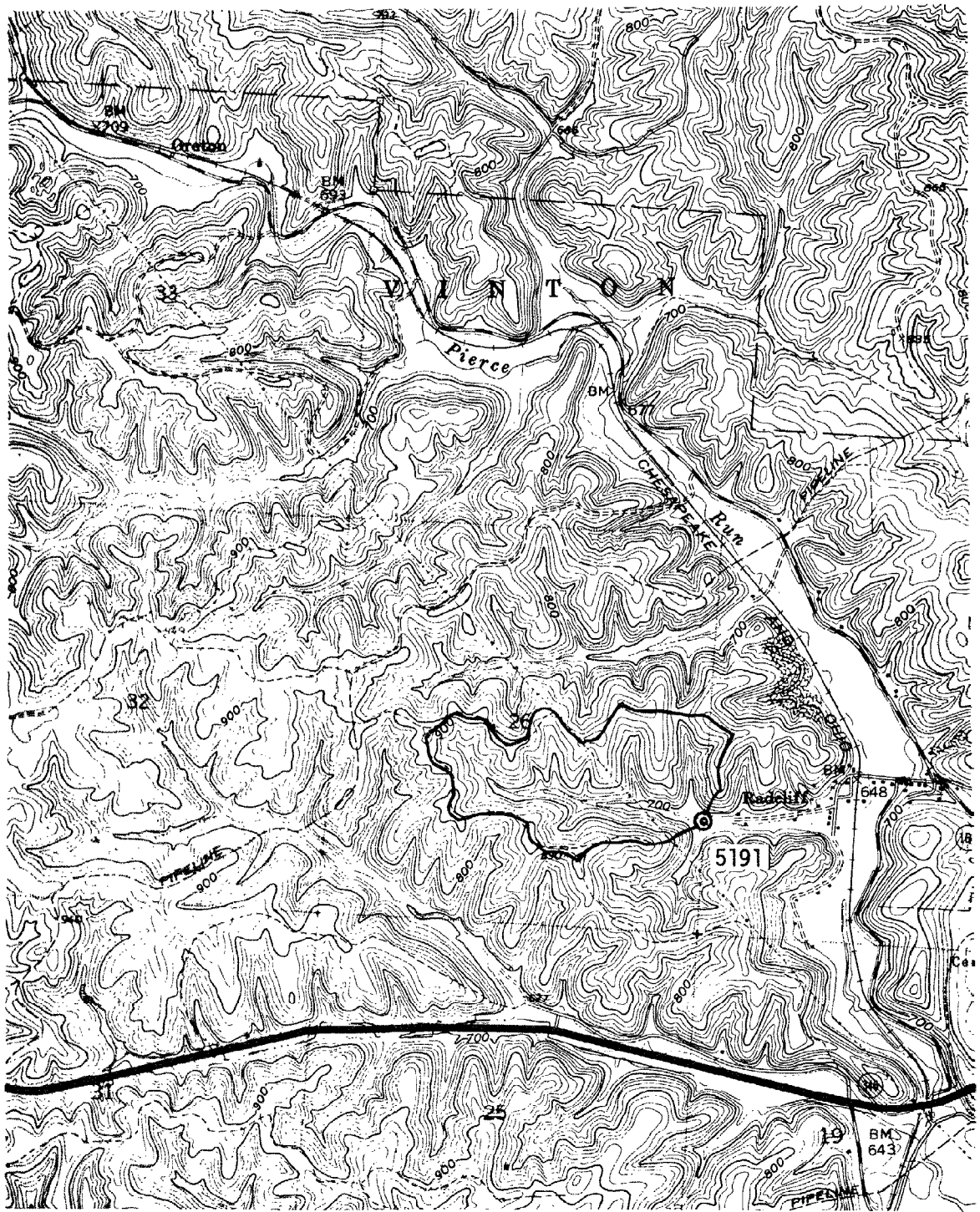


Figure 42. Location map for site 5191, Vinton Co., Ohio. McArthur Quadrangle.

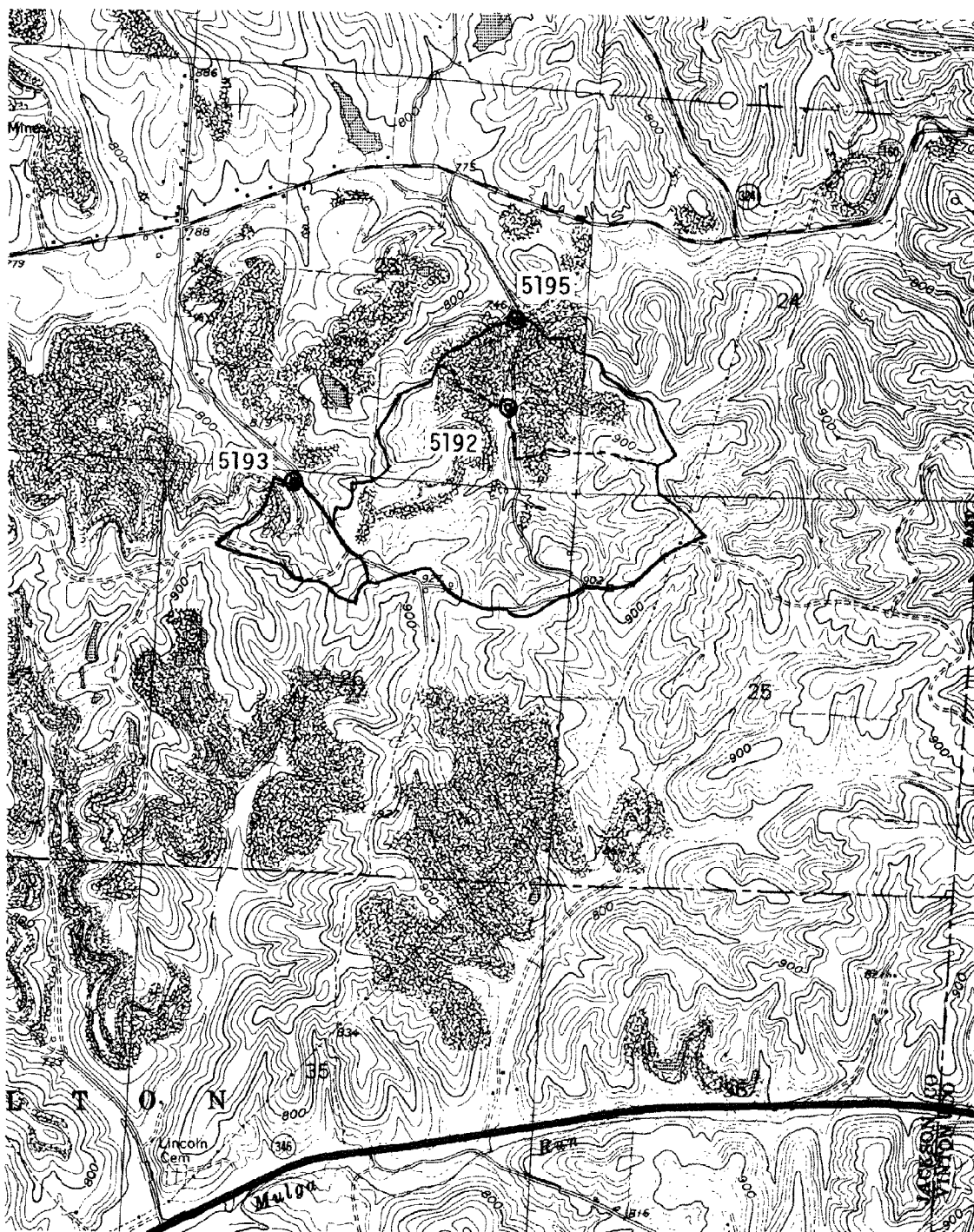


Figure 43. Location map for sites 5192, 5193, and 5195, Vinton Co., Ohio. McArthur Quadrangle.

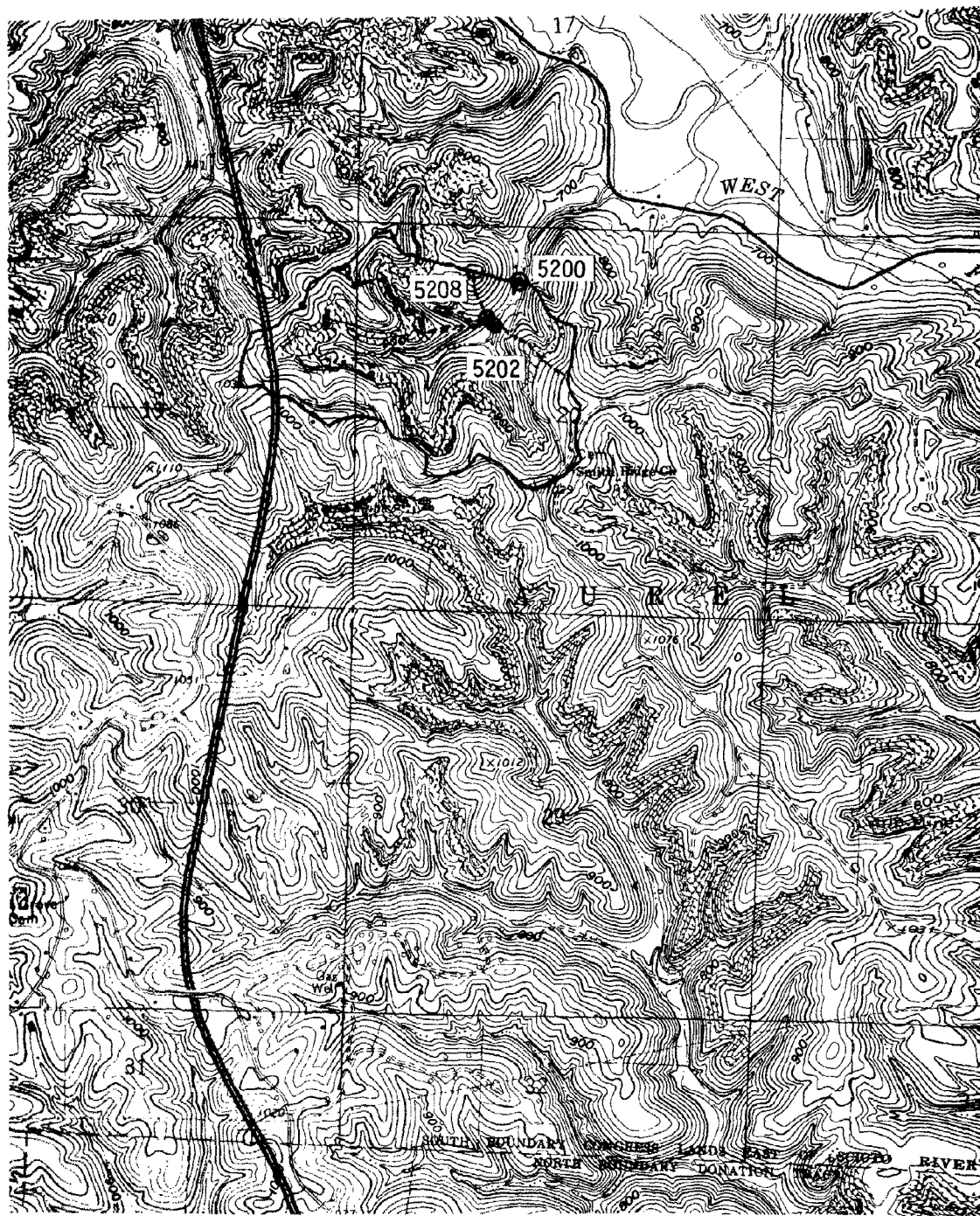


Figure 44. Location map for sites 5200, 5202, and 5208, Washington Co., Ohio. Lower Salem Quadrangle.

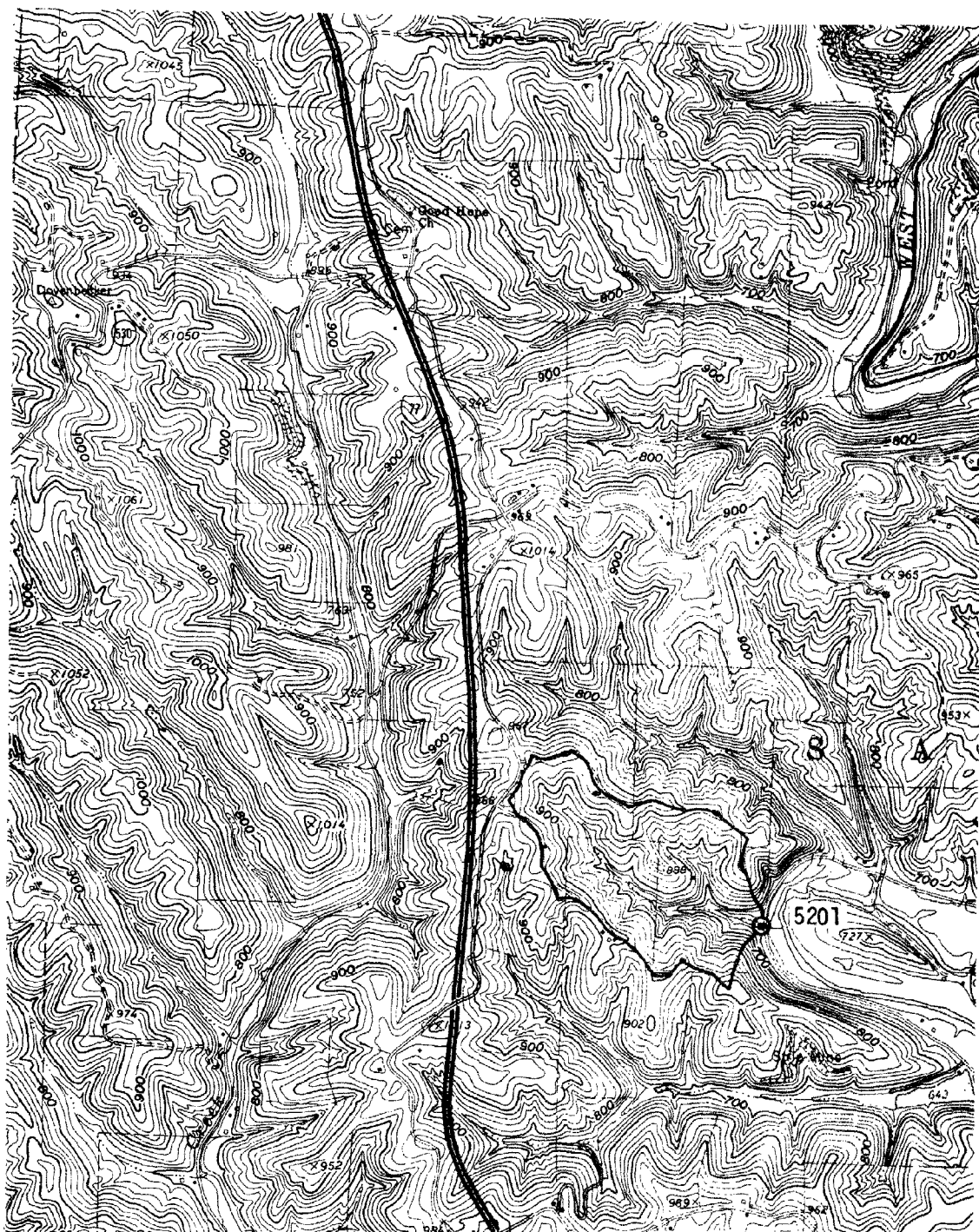


Figure 45. Location map for site 5201, Washington Co., Ohio. Lower Salem Quadrangle.

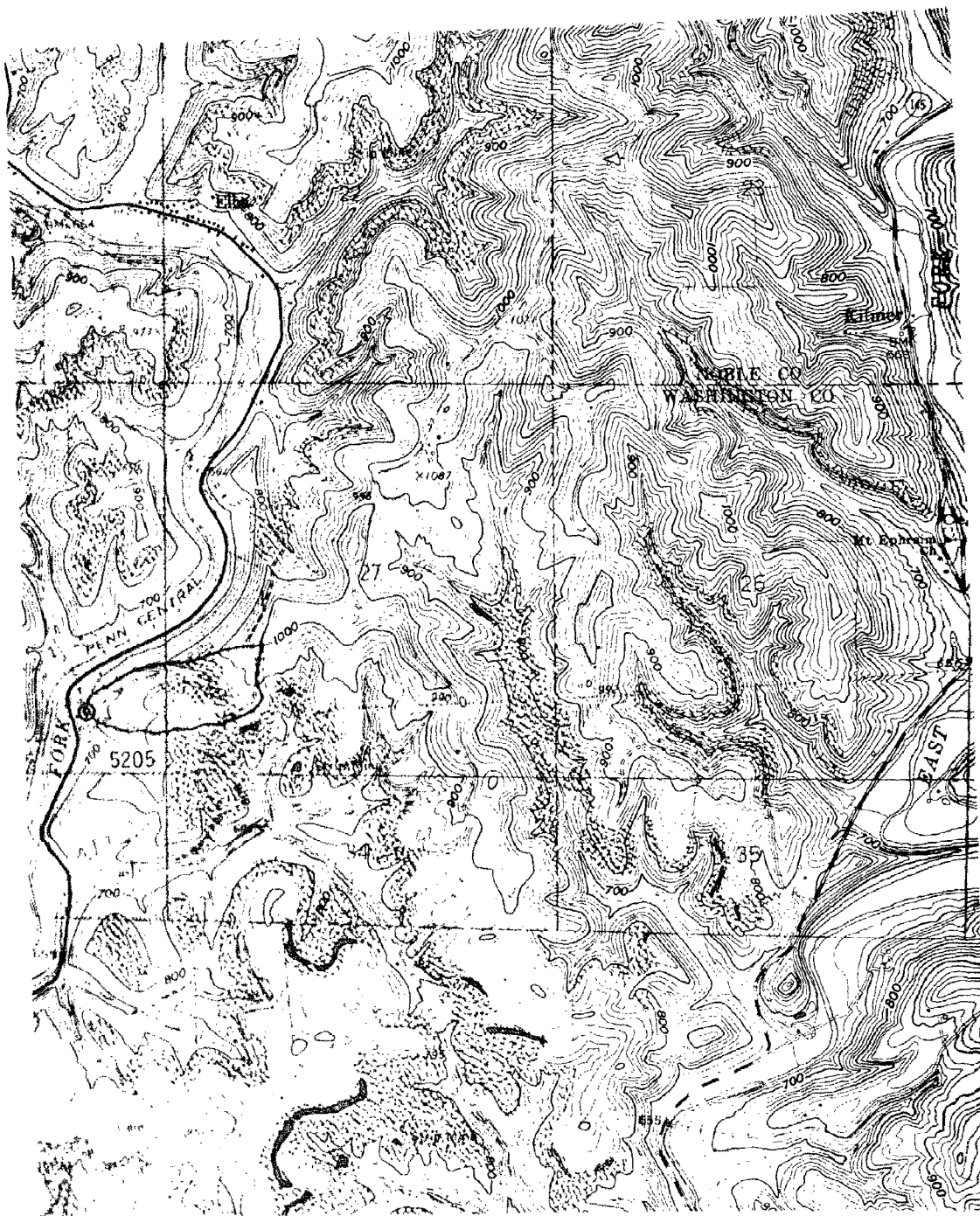


Figure 46. Location map for site 5205, Washington Co., Ohio. Lower Salem Quadrangle.

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES

| Site Number | County    | Approximate Date of Surf. Min. | Latitude  | Longitude | Acres | Percent $\frac{1}{2}$ Disturbed |  | Site Name                                         |
|-------------|-----------|--------------------------------|-----------|-----------|-------|---------------------------------|--|---------------------------------------------------|
|             |           |                                |           |           |       |                                 |  |                                                   |
| 5011        | Athens    | Unmined                        | 39°25'54" | 82°10'01" | 58    | 0                               |  | West Bailey Run near Doanville.                   |
| 5012        | Athens    | 1940-1978                      | 39 26 24  | 82 11 08  | 191   | 35                              |  | Tributary to Old Don Hall Hollow at Doanville.    |
| 5013        | Athens    | 1948-1955                      | 39 26 13  | 82 11 07  | 253   | 16                              |  | Old Don Hall Hollow at Doanville.                 |
| 5021        | Belmont   | Unmined                        | 40 01 08  | 80 57 14  | 11    | 0                               |  | Tributary to Hutchison Run.                       |
| 5022        | Belmont   | 1971-1977                      | 40 05 22  | 80 55 43  | 188   | 45                              |  | Jug Run near St. Clairsville.                     |
| 5025        | Belmont   | 1949-1973                      | 40 05 22  | 81 04 36  | 627   | 14                              |  | Buttermilk Creek near Morristown.                 |
| 5031        | Carroll   | Unmined                        | 40 36 35  | 81 16 31  | 284   | 0                               |  | Tributary to Huff Run near Lindentree.            |
| 5032        | Carroll   | 1945-1979                      | 40 36 31  | 81 17 13  | 103   | (18)                            |  | Tributary to Huff Run at Lindentree.              |
| 5033        | Carroll   | 1945-1955                      | 40 36 19  | 81 17 53  | 93    | 50                              |  | Tributary to Huff Run at Lindentree.              |
| 5036        | Carroll   | 1945-1955                      | 40 36 26  | 81 17 22  | 6     | 100                             |  | Tributary to Huff Run at Lindentree.              |
| 5042        | Coshocton | 1948-1978                      | 40 09 54  | 81 57 57  | 341   | (3)                             |  | Tributary to Muskingum River near Adams Mills.    |
| 5043        | Coshocton | 1946-1966                      | 40 12 28  | 81 55 47  | 96    | 15                              |  | Tributary to Mill Fork near New Moscow.           |
| 5046        | Coshocton | 1961-1965                      | 40 11 36  | 81 55 04  | 81    | 5                               |  | Tributary to Davis Hollow near Conesville.        |
| 5051        | Gallia    | Unmined                        | 38 39 24  | 82 18 28  | 35    | 0                               |  | Tributary to Johns Creek near Mercerville.        |
| 5052        | Gallia    | 1976-1979                      | 38 38 33  | 82 19 35  | 1057  | (15)                            |  | Rocky Fork Indian Guyan Creek near Saundersville. |

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES (Continued)

| Site Number | County   | Approximate Date of |  | Latitude  | Longitude | Acres | Percent <sup>1</sup> /<br>Disturbed |  | Site Name                                             |
|-------------|----------|---------------------|--|-----------|-----------|-------|-------------------------------------|--|-------------------------------------------------------|
|             |          | Surf. Min.          |  |           |           |       |                                     |  |                                                       |
| 5053        | Gallia   | 1959                |  | 38°38'34" | 82°18'59" | 84    | 8                                   |  | Rocky Fork Indian Guyan Creek near Saundersville.     |
| 5056        | Gallia   | Before 1974         |  | 38 39 05  | 82 18 08  | 42    | 17                                  |  | Tributary to Johns Creek near Mercerville.            |
| 5061        | Guernsey | Unmined             |  | 40 02 22  | 81 14 45  | 4     | 0                                   |  | Tributary to Salt Fork near Fairview.                 |
| 5062        | Guernsey | 1945-1978           |  | 40 02 39  | 81 16 13  | 98    | 20                                  |  | Tributary to Salt Fork near Fairview.                 |
| 5063        | Guernsey | Before 1974         |  | 40 02 52  | 81 14 01  | 219   | 27                                  |  | Tributary to Salt Fork near Fairview.                 |
| 5065        | Guernsey | 1958-1973           |  | 40 01 24  | 81 14 07  | 208   | 34                                  |  | Tributary to Salt Fork near Fairview.                 |
| 5068        | Guernsey | 1945-1976           |  | 40 02 40  | 81 16 12  | 229   | 23                                  |  | Tributary to Salt Fork near Fairview.                 |
| 5071        | Harrison | Unmined             |  | 40 18 35  | 81 07 59  | 156   | 0                                   |  | Tributary to Little Stillwater Creek near Deersville. |
| 5072        | Harrison | 1945-1976           |  | 40 11 42  | 80 59 24  | 96    | 35                                  |  | South Fork of Short Creek at New Athens.              |
| 5074        | Harrison | Unmined             |  | 40 18 22  | 81 08 07  | 124   | 0                                   |  | Tributary to Little Stillwater Creek near Deersville. |
| 5075        | Harrison | 1945-1976           |  | 40 11 42  | 80 58 31  | 543   | 72                                  |  | South Fork Short Creek near New Athens.               |
| 5081        | Hocking  | Unmined             |  | 39 26 12  | 82 21 53  | 139   | 0                                   |  | Tributary to Fivemile Creek near Union.               |
| 5082        | Hocking  | 1948-1978           |  | 39 23 30  | 82 20 09  | 89    | 35                                  |  | Tributary to East Branch Raccoon Creek at Coonville.  |

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES (Continued)

| Site Number | County    | Approximate Date of Surf. Min. | Latitude  | Longitude | Acres | Percent <sup>1</sup> / <sub>Disturbed</sub> | Site Name                                            |
|-------------|-----------|--------------------------------|-----------|-----------|-------|---------------------------------------------|------------------------------------------------------|
| 5085        | Hocking   | 1955-1972                      | 39°24'13" | 82°20'19" | 136   | 30                                          | Tributary to East Branch Raccoon Creek at Coonville. |
| 5091        | Holmes    | Unmined                        | 40 31 55  | 81 54 24  | 59    | 0                                           | Tributary to Sand Run near Millersburg.              |
| 5092        | Holmes    | 1975-1978                      | 40 33 30  | 81 45 38  | 156   | (40)                                        | Tributary to Goose Creek near Bunker Hill.           |
| 5095        | Holmes    | 1969-1974                      | 40 34 45  | 81 41 21  | 95    | 50                                          | Tributary to Walnut Creek near Trail.                |
| 5101        | Jackson   | Unmined                        | 38 55 02  | 82 28 38  | 298   | 0                                           | Cherry Fork Symmes Creek near Thurman.               |
| 5102        | Jackson   | 1950-1978                      | 38 54 17  | 82 32 05  | 31    | 65                                          | Tributary to Symmes Creek near Oak Hill.             |
| 5103        | Jackson   | 1949-1955                      | 38 53 58  | 82 34 34  | 60    | 15                                          | Huntingcamp Creek at Oak Hill.                       |
| 5111        | Jefferson | Unmined                        | 40 10 58  | 80 49 33  | 30    | 0                                           | Tributary to Long Run at Emerson.                    |
| 5112        | Jefferson | 1970-1976                      | 40 10 23  | 80 49 51  | 22    | 50                                          | Tributary to Little Short Creek at Emerson.          |
| 5113        | Jefferson | 1945-1959                      | 40 12 39  | 80 51 37  | 277   | 17                                          | Tributary to Short Creek at Adena.                   |
| 5115        | Jefferson | 1973-1976                      | 40 10 58  | 80 49 33  | 73    | 27                                          | Tributary to Long Run at Emerson.                    |
| 5118        | Jefferson | 1970-1976                      | 40 10 57  | 80 49 42  | 113   | 18                                          | Tributary to Long Run at Emerson.                    |
| 5121        | Lawrence  | Unmined                        | 38 39 16  | 82 39 13  | 151   | 0                                           | Sand Hollow at Bartles.                              |
| 5122        | Lawrence  | 1975-1976                      | 38 38 27  | 82 37 50  | 117   | (20)                                        | Camphouse Hollow at Cannons Creek.                   |

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES (Continued)

| Site Number | County    | Approximate Date of Surf. Min. | Latitude  | Longitude | Acres | Percent <sup>1/</sup> Disturbed | Site Name                                            |
|-------------|-----------|--------------------------------|-----------|-----------|-------|---------------------------------|------------------------------------------------------|
| 5123        | Lawrence  | 1958-1970                      | 38°39'49" | 82°41'13" | 190   | 65                              | Tributary to Darby Creek near Bartles.               |
| 5131        | Morgan    | Unmined                        | 39 38 36  | 81 49 55  | 78    | 0                               | Tributary to Muskingum River at McConnellsville.     |
| 5132        | Morgan    | 1976-1978                      | 39 40 15  | 81 45 12  | 141   | (30)                            | Tributary to Meigs Creek near Meigs.                 |
| 5133        | Morgan    | 1965                           | 39 42 05  | 81 46 36  | 35    | 62                              | Tributary to Bear Run at Meigs.                      |
| 5135        | Morgan    | 1972-1973                      | 39 44 41  | 81 48 30  | 118   | 100                             | Tributary to Mans Fork Meigs Creek near Ruraldale.   |
| 5141        | Muskingum | Unmined                        | 39 48 28  | 81 55 40  | 171   | 0                               | Tributary to Back Run near Merriam.                  |
| 5142        | Muskingum | 1976-1977                      | 39 47 48  | 81 58 52  | 93    | (20)                            | Tributary to Brush Creek near Cannelville.           |
| 5143        | Muskingum | 1948-1963 <sup>2/</sup>        | 39 50 40  | 82 01 42  | 260   | 50                              | Baughman Run near Stovertown.                        |
| 5151        | Noble     | Unmined                        | 39 44 08  | 81 26 43  | 80    | 0                               | Tributary to Camp Run near Ashton.                   |
| 5152        | Noble     | 1976-1978                      | 39 36 53  | 81 29 30  | 150   | (5)                             | Big Run near Crooked Tree.                           |
| 5153        | Noble     | Before 1960                    | 39 39 38  | 81 27 32  | 52    | 12                              | Tributary to Buffalo Run at Dexter City.             |
| 5156        | Noble     | Before 1960                    | 39 44 10  | 81 26 41  | 271   | 50                              | Camp Run near Ashton.                                |
| 5160        | Perry     | Deep Mine <sup>3/</sup>        | 39 45 46  | 82 06 40  | 23    | 0                               | Tributary to Snake Run at Crooksville.               |
| 5161        | Perry     | Unmined                        | 39 47 35  | 82 15 42  | 33    | 0                               | Tributary to Center Branch Rush Creek near Somerset. |

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES (Continued)

| Site<br>Number | County     | Approximate<br>Date<br>Surf. Min. | Latitude  | Longitude | Acres | Percent<br>Disturbed <sup>1</sup> / <sub>2</sub> | Site Name                                           |
|----------------|------------|-----------------------------------|-----------|-----------|-------|--------------------------------------------------|-----------------------------------------------------|
| 5162           | Perry      | 1945-1977                         | 39°47'23" | 82°10'22" | 58    | (40)                                             | Tributary to Buckeye Fork at Redfield.              |
| 5163           | Perry      | 1945-1966                         | 39 48 58  | 82 10 55  | 140   | 38                                               | Tributary to Butcherknife Creek near Redfield.      |
| 5181           | Tuscarawas | Unmined                           | 40 19 09  | 81 25 41  | 127   | 0                                                | Tributary to Watson Creek near Gilmore.             |
| 5182           | Tuscarawas | 1972-1977                         | 40 19 27  | 81 29 24  | 364   | 25                                               | Tributary to Tuscarawas River near Port Washington. |
| 5183           | Tuscarawas | 1955-1970                         | 40 20 27  | 81 27 32  | 215   | 22                                               | Tributary to Tuscarawas River near Seventeen.       |
| 5191           | Vinton     | Unmined                           | 39 08 22  | 82 23 17  | 130   | 0                                                | Tributary to Pierce Run at Radcliff.                |
| 5192           | Vinton     | 1950-1979                         | 39 09 21  | 82 26 45  | 206   | 21                                               | Tributary to Pierce Run near Oreton.                |
| 5193           | Vinton     | 1950-1960                         | 39 09 11  | 82 27 21  | 34    | 25                                               | Tributary to Sugar Run near Puritan.                |
| 5195           | Vinton     | 1950-1979                         | 39 09 32  | 82 26 43  | 279   | 35                                               | Tributary to Pierce Run near Oreton.                |
| 5200           | Washington | 1955-1979                         | 39 36 52  | 81 26 44  | 223   | 35                                               | Tributary to West Fork Duck Creek near Macksburg.   |
| 5201           | Washington | Unmined                           | 39 32 47  | 81 26 04  | 134   | 0                                                | Tributary to Duck Creek near Warner.                |
| 5202           | Washington | 1955-1979                         | 39 36 46  | 81 26 48  | 171   | 38                                               | Tributary to West Fork Duck Creek near Macksburg.   |
| 5205           | Washington | 1971-1975                         | 39 35 22  | 81 25 08  | 45    | (30)                                             | Tributary to West Fork Duck Creek near Elba.        |
| 5208           | Washington | 1955-1979                         | 39 36 47  | 81 26 50  | 29    | 40                                               | Tributary to West Fork Duck Creek near Macksburg.   |

TABLE 1. DESCRIPTIVE DATA FOR THE OHIO WATER QUALITY SITES (Continued)

- 1/ The percentage of land disturbed by surface mining was generally not verified by field observations and so may be subject to considerable error. Percentages enclosed by parentheses are based on very scanty or questionable information and may be subject to large errors.
- 2/ Old deep mines on the watershed were allegedly stripped out by surface mining.
- 3/ Drainage from an underground mine severely affects the quality of water in this stream. There is no surface mining on the watershed.

TABLE 2. TYPES OF WATER SAMPLES COLLECTED AT EACH SITE,  
VOLUME OF SAMPLE, TREATMENT OF SAMPLE, AND  
INCLUSIVE DATES OF COLLECTION

| Sample<br>Designation | Volume<br>of Sample<br>(ml) | Treatment/Inclusive Dates of Collection                                                          |
|-----------------------|-----------------------------|--------------------------------------------------------------------------------------------------|
| F                     | 100                         | Filtered<br>(June 1, 1977 to October 4, 1979)                                                    |
| FA                    | 100                         | Filtered, acidified with 0.5 ml 50% nitric acid<br>(June 1, 1977 to October 4, 1979)             |
| FN                    | 50                          | Filtered, acidified with 0.25 ml 50% sulfuric acid<br>(July 18, 1979 to August 16, 1979)         |
| FP                    | 50                          | Filtered, preserved with 0.25 ml 0.5% mercuric<br>chloride (July 18, 1979 to August 16, 1979)    |
| KJ                    | 100                         | Unfiltered, acidified with 0.5 ml 50% sulfuric acid<br>(July 18, 1979 to August 16, 1979)        |
| SA                    | 100                         | Unfiltered, acidified with 0.5 ml 50% nitric acid<br>(Collected June 1, 1977 to about June 1978) |
| SV                    | 1000                        | Unfiltered, untreated, raw water<br>(Collected April 19, 1979 to August 14, 1979)                |
| U                     | 100                         | Unfiltered, untreated, raw water<br>(Collected June 1, 1977 to October 4, 1979)                  |

TABLE 3. TABULATION OF ELEMENTS ANALYZED ON THE  
SPECTRASpan III EMISSION SPECTROMETER

| Element     | Approximate<br>detection limit<br>Mg/l | Approximate<br>deviation from<br>the mean |
|-------------|----------------------------------------|-------------------------------------------|
| Aluminum    | 0.2                                    | $\pm 10\%$                                |
| Barium*     | 0.5                                    |                                           |
| Beryllium*  | 0.01                                   | $\pm 0.01 \text{ mg/l}$                   |
| Boron       | 0.05                                   | $\pm 10\%$                                |
| Calcium     | 0.05                                   | $\pm 10\%$                                |
| Cobalt      | 0.1                                    | $\pm 20\%$                                |
| Copper      | 0.02                                   | $\pm 20\%$                                |
| Iron        | 0.05                                   | $\pm 10\%$                                |
| Lead        | 0.1                                    |                                           |
| Lithium*    | 0.05                                   | $\pm 25\%$                                |
| Magnesium   | 0.05                                   | $\pm 10\%$                                |
| Manganese   | 0.05                                   | $\pm 20\%$                                |
| Molybdenum* | 0.25                                   |                                           |
| Nickel      | 0.03                                   | $\pm 10\%$                                |
| Potassium   | 0.1                                    | $\pm 10\%$                                |
| Silicon     | 0.1                                    | $\pm 20\%$                                |
| Sodium      | 0.05                                   | $\pm 10\%$                                |
| Strontium*  | 0.03                                   | $\pm 20\%$                                |
| Titanium    | 0.5                                    |                                           |
| Zinc        | 0.3                                    | $\pm 10\%$                                |

\*Analyzed about every third month

TABLE 4. WATER QUALITY FOR SITE 5011 ATHENS COUNTY, OHIO

| WATER QUALITY FOR SITE 5011 ATHENS COUNTY, OHIO |            |           |          |             |      |           |           |            |        |          |             |     |     |                      |     |          |          |          |       |       |          |      |
|-------------------------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|-----|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|------|
| DATE                                            | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 | CO3 | CL                   | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
| MO DA YR                                        | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |     |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |      |
| 6 7 77                                          | 12         | 0.007     |          |             | 4    | 477       | 213       | 3.29       | 7.8    |          |             | 107 | 130 | 1                    | 2.6 | 62       |          |          |       |       |          |      |
| 7 25 77                                         | 24         | 0.06      |          |             | 75   | 351       | 221       | 2.56       | 7.4    |          |             | 108 | 132 | 0                    | 2.6 | 72       |          | 0.2      |       |       |          |      |
| 9 29 77                                         | 18         | 0.004     |          |             | 4    | 470       | 313       | 3.05       | 8.0    |          |             | 157 | 190 | 1                    | 3.1 | 95       |          | 0.1      |       |       |          |      |
| 11 10 77                                        | 11         | 0.1       | 35       |             | 40   | 409       | 266       | 2.32       | 8.3    |          |             | 90  | 107 | 1                    | 4.0 | 100      |          | 0.2      |       |       |          |      |
| 12 28 77                                        | 1          | 0.01      |          |             | 0    | 436       | 249       | 2.27       | 8.2    |          |             | 106 | 126 | 1                    | 4.2 | 92       |          | 0.1      |       |       |          |      |
| 2 15 78                                         | 1          | 0.05      |          |             | 6    | 339       | 186       | 2.03       | 8.0    |          |             | 66  | 79  | 0                    | 2.3 | 77       |          | 0.0      |       |       |          |      |
| 3 20 78                                         | 2          | 0.4       |          |             | 2    | 211       | 105       | 1.94       | 7.7    |          |             | 34  | 42  | 0                    | 2.2 | 43       |          | 0.1      |       |       |          |      |
| 4 17 78                                         | 16         | 0.15      | 8        |             | 10   | 317       | 197       | 1.83       | 8.0    |          |             | 68  | 82  | 0                    | 2.5 | 87       |          | 0.0      |       |       |          |      |
| 5 17 78                                         | 13         | 1.0       | 49*      |             | 15   | 244       | 138       | 1.85       | 8.0    |          |             | 49  | 59  | 0                    | 1.9 | 58       |          | 0.1      |       |       |          |      |
| 6 23 78                                         | 14         | 0.15      | 26*      |             | 4    | 360       | 220       | 2.57       | 8.2    |          |             | 98  | 118 | 1                    | 2.2 | 77       |          | 0.0      |       |       |          |      |
| 7 25 78                                         | 20         | 0.025     |          |             | 25   | 468       | 279       | 3.58       | 8.4    |          |             | 162 | 192 | 3                    | 2.6 | 71       |          | 0.1      |       |       |          |      |
| 8 29 78                                         | 23         | 0.001     | 39*      |             | 35   | 452       | 259       | 3.68       | 8.4    |          |             | 152 | 180 | 3                    | 2.3 | 63       |          | 0.2      |       |       |          |      |
| 10 4 78                                         | 15         | 0.004     |          |             | 8    | 429       | 289       | 3.02       | 8.4    |          |             | 139 | 165 | 3                    | 5.5 | 85       |          | 0.0      |       |       |          |      |
| 11 1 78                                         | 9          | 0.006     | 9        |             | 65   | 427       | 294       | 1.89       | 8.4    | -140     |             | 130 | 153 | 2                    | 3.2 | 120      |          | 0.0      |       |       |          |      |
| 12 14 78                                        | 1          | 0.07      | 5        |             | 5    | 213       | 120       | 1.36       | 7.6    | -34      |             | 34  | 41  | 0                    | 1.7 | 60       |          | 0.1      |       |       |          |      |
| 2 6 79                                          | 0          |           | 8        |             | 3    | 310       | 188       | 2.02       | 7.7    | -72      |             | 58  | 71  | 0                    | 2.8 | 79       |          | 0.1      |       |       |          |      |
| 3 21 79                                         | 9          | 0.2       | 2        |             | 4    | 297       | 179       | 2.15       | 7.8    | -66      |             | 66  | 79  | 0                    | 2.4 | 70       |          | 0.1      |       |       |          |      |
| 4 23 79                                         | 18         | 0.2       | 9        | 0.00        | 15   | 291       | 181       | 2.25       | 7.9    | -71      |             | 70  | 84  | 0                    | 2.0 | 68       |          | 0.0      |       |       |          |      |
| 5 20 79                                         | 17         | 0.02      | 4        | 0.00        | 7    | 383       | 230       | 2.21       | 8.3    | -98      |             | 97  | 115 | 1                    | 2.5 | 86       |          | 0.1      |       |       |          |      |
| 6 24 79                                         | 20         | 0.1       | 23       |             | 35   | 324       | 179       | 2.12       | 8.4    | -81      |             | 83  | 98  | 1                    | 2.3 | 65       |          | 0.0      |       |       |          |      |
| 7 19 79                                         | 23         | 0.02      |          |             | 15   | 382       | 243       | 2.26       | 8.5    | -110     |             | 104 | 122 | 2                    | 2.3 | 90       | 0.1      | 0.0      | 0.01  | 0.45  | 0.30     | 0.01 |
| 8 7 79                                          | 23         | 0.02      | 7        |             | 15   | 358       | 186       | 3.11       | 8.4    | -39      |             | 94  | 112 | 2                    | 2.0 | 54       | 0.2      | 0.2      | 0.03  | 0.00  | 0.00     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CD  | CU   | FE  | K   | LI   | MG   | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |      |     |     |     |      |     |     |     |     |     |
| 6 7 77   | 0.1                  | 0.03 |     |      | 38 | 0.0 | 0.00 | 0.1 | 1.7 |      | 18   | 0.0 |     | 20  | 0.00 | 0.0 | 2.5 |     | 0.0 | 0.3 |
| 7 25 77  | 0.1                  | 0.05 |     |      | 33 | 0.0 | 0.01 | 0.1 | 2.2 |      | 17   | 0.0 |     | 19  | 0.01 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 9 29 77  | 0.1                  | 0.08 | 0.0 | 0.00 | 55 | 0.0 | 0.00 | 0.0 | 2.4 | 0.20 | 26   | 0.0 | 0.1 | 27  | 0.00 | 0.0 | 3.8 | 0.3 | 0.0 | 0.0 |
| 11 10 77 | 0.3                  | 0.13 |     |      | 50 | 0.0 | 0.00 | 0.2 | 3.6 |      | 18   | 0.1 |     | 22  | 0.01 | 0.0 | 4.8 |     | 0.1 | 0.0 |
| 12 28 77 | 0.1                  | 0.01 | 0.0 | 0.00 | 40 | 0.0 | 0.00 | 0.0 | 1.8 | 0.25 | 21   | 0.0 | 0.0 | 16  | 0.01 | 0.0 | 4.0 | 0.3 | 0.0 | 0.0 |
| 2 15 78  | 0.1                  | 0.10 |     |      | 29 | 0.0 | 0.00 | 0.1 | 1.8 |      | 14   | 0.0 |     | 15  | 0.03 | 0.0 | 3.0 |     | 0.1 | 0.0 |
| 3 20 78  | 0.1                  | 0.02 |     |      | 16 | 0.0 | 0.00 | 0.0 | 1.3 |      | 7.7  | 0.0 |     | 7.7 | 0.00 | 0.0 | 2.9 |     | 0.2 | 0.0 |
| 4 17 78  | 0.1                  | 0.04 | 0.0 | 0.00 | 26 | 0.0 | 0.00 | 0.1 | 1.8 | 0.09 | 17   | 0.0 | 0.0 | 14  | 0.02 | 0.0 | 3.4 | 0.2 | 0.2 | 0.0 |
| 5 17 78  | 0.1                  | 0.05 | 0.0 | 0.00 | 20 | 0.0 | 0.00 | 0.1 | 1.4 | 0.06 | 10.0 | 0.0 | 0.0 | 9.8 | 0.01 | 0.1 | 2.9 | 0.1 | 0.2 | 0.0 |
| 6 23 78  | 0.1                  | 0.04 |     |      | 38 | 0.0 | 0.00 | 0.0 | 1.4 |      | 18   | 0.0 |     | 18  | 0.00 | 0.0 | 2.9 |     | 0.1 | 0.0 |
| 7 25 78  | 0.1                  | 0.03 |     |      | 49 | 0.0 | 0.00 | 0.0 | 2.2 |      | 22   | 0.0 |     | 25  | 0.00 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 8 29 78  | 0.1                  | 0.05 |     |      | 49 | 0.0 | 0.00 | 0.0 | 2.7 |      | 17   | 0.0 |     | 23  | 0.01 | 0.1 | 4.8 |     | 0.0 | 0.0 |
| 10 4 78  | 0.2                  | 0.04 | 0.0 | 0.00 | 53 | 0.0 | 0.02 | 0.0 | 2.7 | 0.15 | 18   | 0.0 | 0.0 | 29  | 0.02 | 0.0 | 5.2 | 0.3 | 0.0 | 0.0 |
| 11 1 78  | 0.1                  | 0.04 |     |      | 47 | 0.0 | 0.00 | 0.0 | 1.9 |      | 17   | 0.0 |     | 20  | 0.01 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 12 14 78 | 0.1                  | 0.04 |     |      | 17 | 0.0 | 0.00 | 0.1 | 1.2 |      | 7.0  | 0.0 |     | 6.3 | 0.03 | 0.2 | 2.6 |     | 0.2 | 0.0 |
| 2 6 79   | 0.1                  | 0.01 | 0.0 | 0.00 | 38 | 0.0 | 0.01 | 0.0 | 1.6 | 0.15 | 12   | 0.0 | 0.1 | 11  | 0.02 | 0.0 | 3.7 | 0.2 | 0.0 | 0.0 |
| 3 21 79  | 0.1                  | 0.03 |     |      | 37 | 0.0 | 0.02 | 0.0 | 1.7 |      | 10   | 0.0 |     | 11  | 0.00 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 4 23 79  | 0.2                  | 0.02 | 0.1 | 0.00 | 37 | 0.0 | 0.01 | 0.0 | 1.7 | 0.15 | 11   | 0.0 | 0.0 | 10  | 0.02 | 0.0 | 3.7 | 0.1 | 0.0 | 0.0 |
| 5 20 79  | 0.1                  | 0.04 |     |      | 42 | 0.0 | 0.01 | 0.0 | 1.8 |      | 15   | 0.0 |     | 15  | 0.01 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 6 24 79  | 0.1                  | 0.03 |     |      | 31 | 0.1 | 0.02 | 0.1 | 1.5 |      | 11   | 0.0 |     | 11  | 0.02 | 0.0 | 3.3 |     | 0.0 | 0.3 |
| 7 19 79  | 0.1                  | 0.04 | 0.0 | 0.00 | 44 | 0.0 | 0.02 | 0.0 | 2.0 | 0.40 | 15   | 0.1 | 0.0 | 18  | 0.03 | 0.1 | 3.5 | 0.2 | 0.1 | 0.0 |
| 8 7 79   | 0.1                  | 0.05 |     |      | 35 | 0.0 | 0.01 | 0.0 | 1.8 |      | 16   | 0.0 |     | 11  | 0.01 | 0.0 | 4.3 |     | 0.0 | 0.0 |

TABLE 5. WATER QUALITY FOR SITE 5012 ATHENS COUNTY, OHIO

| DATE     | WATER TEMP |        | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | HCO <sub>3</sub> | CO <sub>3</sub> | CL  | SD <sub>4</sub> | NO <sub>3</sub> AS N | NO <sub>3</sub> AS N | NH <sub>3</sub> AS N | TOT N | TOT P | TOT ORTH P <sub>04</sub> |
|----------|------------|--------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|------------------|-----------------|-----|-----------------|----------------------|----------------------|----------------------|-------|-------|--------------------------|
|          | MO         | DA     | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | MILLIGRAMS PER LITER |             |                  |                 |     |                 |                      |                      |                      |       |       |                          |
| 6 7 77   | 13         | 0.06   |           |          |             | 20   | 1990      | 1810      | 1.07       | 6.6    |                      | 67          | 82               | 0               | 4.3 | 1200            |                      |                      |                      |       |       |                          |
| 7 25 77  | 23         | 0.0000 |           |          |             | 320  | 480       | 263       | 1.58       | 6.8    |                      | 62          | 76               | 0               | 3.5 | 130             | 0.8                  |                      |                      |       |       |                          |
| 9 28 77  | 15         | 0.4    |           |          |             | 80   | 2070      | 1850      | 0.97       | 7.6    |                      | 70          | 84               | 0               | 3.7 | 1300            | 0.1                  |                      |                      |       |       |                          |
| 11 10 77 | 10         | 0.0000 |           |          |             |      | 521       | 355       | 1.27       | 7.8    |                      | 24          | 29               | 0               | 3.9 | 220             | 0.0                  |                      |                      |       |       |                          |
| 12 28 77 | 0          | 0.2    |           |          |             | 0    | 977       | 740       | 0.97       | 7.5    |                      | 19          | 23               | 0               | 6.7 | 520             | 1.4                  |                      |                      |       |       |                          |
| 2 15 78  | 0          | 0.09   |           |          |             | 45   | 876       | 655       | 1.07       | 7.4    |                      | 20          | 25               | 0               | 5.0 | 450             | 0.2                  |                      |                      |       |       |                          |
| 3 20 78  | 2          | 0.2    |           |          |             | 0    | 660       | 432       | 1.18       | 8.3    |                      | 73          | 87               | 1               | 4.2 | 260             | 0.8                  |                      |                      |       |       |                          |
| 4 17 78  | 17         | 0.25   | 8         |          |             | 8    | 663       | 483       | 1.10       | 7.7    |                      | 31          | 38               | 0               | 4.4 | 320             | 0.0                  |                      |                      |       |       |                          |
| 5 17 78  | 14         | 0.6    | 43*       |          |             | 10   | 628       | 404       | 1.37       | 7.9    |                      | 58          | 70               | 0               | 4.0 | 240             | 0.2                  |                      |                      |       |       |                          |
| 12 14 78 | 1          | 0.04   | 15        |          |             | 7    | 617       | 373       | 1.25       | 7.8    | -40                  | 43          | 52               | 0               | 3.7 | 220             | 0.9                  |                      |                      |       |       |                          |
| 3 21 79  | 9          | 0.15   | 34        |          |             | 15   | 638       | 489       | 1.14       | 7.6    | -42                  | 42          | 51               | 0               | 4.9 | 310             | 0.5                  |                      |                      |       |       |                          |
| 4 23 79  | 16         | 0.03   | 21        | 0.00     |             | 15   | 594       | 414       | 1.49       | 7.6    | -52                  | 52          | 63               | 0               | 4.2 | 240             | 0.1                  |                      |                      |       |       |                          |
| 8 7 79   | 24         | 0.03   | 0         |          |             | 20   | 682       | 442       | 1.27       | 8.1    | -52                  | 57          | 69               | 1               | 5.4 | 260             | 0.1                  | 0.2                  | 0.09                 | 0.35  | 0.00  | 0.02                     |
| 9 19 79  | 14         | 0.1    | 4         |          |             | 25   | 628       | 398       | 1.40       | 7.7    | -57                  | 64          | 77               | 0               | 4.4 | 220             | 0.2                  |                      |                      |       |       |                          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 7 77   | 0.4                  | 0.32 |     |      | 280 | 0.1 | 0.01 | 7.5 | 13  |      | 110 | 8.0 |     | 110 | 0.09 | 0.1 | 5.6 |     | 0.2 | 0.3 |
| 7 25 77  | 0.4                  | 0.11 |     |      | 36  | 0.0 | 0.01 | 0.2 | 3.5 |      | 24  | 0.6 |     | 15  | 0.02 | 0.1 | 2.9 |     | 0.1 | 0.0 |
| 9 28 77  | 0.3                  | 0.50 | 0.0 | 0.00 | 270 | 0.1 | 0.00 | 4.5 | 7.6 | 1.0  | 110 | 6.2 | 0.0 | 90  | 0.08 | 0.1 | 5.1 | 2.4 | 0.2 | 0.0 |
| 11 10 77 | 0.1                  | 0.11 |     |      | 66  | 0.0 | 0.01 | 0.2 | 15  |      | 18  | 0.1 |     | 16  | 0.02 | 0.0 | 1.3 |     | 0.1 | 0.0 |
| 12 28 77 | 0.3                  | 0.07 | 0.0 | 0.00 | 110 | 0.0 | 0.00 | 0.3 | 3.4 | 0.60 | 54  | 1.3 | 0.0 | 15  | 0.05 | 0.1 | 5.3 | 0.6 | 0.1 | 0.1 |
| 2 15 78  | 0.2                  | 0.08 |     |      | 110 | 0.0 | 0.00 | 0.1 | 2.5 |      | 52  | 0.6 |     | 12  | 0.03 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 3 20 78  | 0.1                  | 0.04 |     |      | 66  | 0.0 | 0.00 | 0.2 | 2.2 |      | 34  | 0.9 |     | 8.5 | 0.03 | 0.0 | 4.7 |     | 0.2 | 0.0 |
| 4 17 78  | 0.2                  | 0.08 | 0.0 | 0.00 | 77  | 0.0 | 0.01 | 0.1 | 3.1 | 0.25 | 38  | 0.4 | 0.0 | 11  | 0.03 | 0.0 | 2.9 | 0.3 | 0.2 | 0.0 |
| 5 17 78  | 0.1                  | 0.08 | 0.0 | 0.00 | 67  | 0.1 | 0.01 | 0.1 | 3.3 | 0.20 | 35  | 0.7 | 0.0 | 12  | 0.03 | 0.1 | 4.1 | 0.3 | 0.3 | 0.0 |
| 12 14 78 | 0.2                  | 0.05 | 0.0 | 0.00 | 66  | 0.1 | 0.00 | 0.1 | 2.3 | 0.35 | 28  | 0.6 | 0.0 | 7.3 | 0.06 | 0.2 | 4.4 | 0.2 | 0.3 | 0.0 |
| 3 21 79  | 0.3                  | 0.06 |     |      | 87  | 0.0 |      | 0.2 | 2.6 |      | 34  | 0.2 |     | 8.9 | 0.04 | 0.1 | 4.0 |     | 0.2 | 0.0 |
| 4 23 79  | 0.2                  | 0.07 |     |      | 85  | 0.0 | 0.01 | 0.1 | 2.7 |      | 35  | 0.2 |     | 9.3 | 0.04 | 0.1 | 3.1 |     | 0.2 | 0.0 |
| 8 7 79   | 0.2                  | 0.10 |     |      | 81  | 0.0 | 0.01 | 0.1 | 4.2 |      | 32  | 0.4 |     | 7.9 | 0.02 | 0.1 | 5.2 |     | 0.2 | 0.0 |
| 9 19 79  | 0.2                  | 0.09 |     |      | 75  | 0.0 | 0.01 | 0.1 | 3.9 |      | 30  | 0.3 |     | 9.0 | 0.02 | 0.1 | 4.8 |     | 0.2 | 0.0 |

TABLE 6. WATER QUALITY FOR SITE 5013 ATHENS COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL                   | SD4  | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|------|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     | MILLIGRAMS PER LITER |      |          |          |          |       |       |          |
| 6 7 77   | 13         | 0.15      |          |             | 0    | 2120      | 1550      | 0.66       | 3.0    |          | 0           | 0    | 0   | 1.9                  | 1100 |          |          |          |       |       |          |
| 7 25 77  | 24         | 0.15      |          |             | 8    | 2370      | 1530      | 0.59       | 2.7    |          | 0           | 0    | 0   | 1.3                  | 1100 | 0.0      |          |          |       |       |          |
| 9 28 77  | 19         | 0.25      |          |             | 4    | 2560      | 2080      | 0.59       | 3.4    |          | 0           | 0    | 0   | 1.6                  | 1600 | 0.2      |          |          |       |       |          |
| 11 10 77 | 11         | 0.6       | 29       |             | 4    | 2300      | 1910      | 0.57       | 2.8    |          | 0           | 0    | 0   | 1.9                  | 1400 | 0.1      |          |          |       |       |          |
| 12 28 77 | 0          | 0.7       |          |             | 0    | 1620      | 1180      | 0.61       | 3.4    |          | 0           | 0    | 0   | 3.0                  | 850  | 0.2      |          |          |       |       |          |
| 2 15 78  | 0          | 0.25      |          |             | 0    | 1620      | 1260      | 0.66       | 2.8    |          | 0           | 0    | 0   | 1.6                  | 900  | 0.1      |          |          |       |       |          |
| 3 20 78  | 3          | 0.7       |          |             | 0    | 691       | 504       | 0.59       | 3.4    |          | 0           | 0    | 0   | 2.1                  | 370  | 0.2      |          |          |       |       |          |
| 4 17 78  | 18         | 0.3       | 6        |             | 4    | 1290      | 957       | 0.65       | 3.0    |          | 0           | 0    | 0   | 2.1                  | 710  | 0.1      |          |          |       |       |          |
| 5 17 78  | 14         | 1.5       | 46*      |             | 5    | 643       | 439       | 0.95       | 3.9    |          | 0           | 0    | 0   | 1.8                  | 300  | 0.1      |          |          |       |       |          |
| 6 23 78  | 14         | 0.7       |          |             | 8    | 1760      | 1370      | 0.57       | 2.9    |          | 0           | 0    | 0   | 1.4                  | 1000 | 0.1      |          |          |       |       |          |
| 7 25 78  | 20         | 0.7       | 85*      |             | 10   | 1990      | 1590      | 0.56       | 2.9    |          | 0           | 0    | 0   | 1.5                  | 1200 | 0.2      |          |          |       |       |          |
| 8 29 78  | 22         | 0.08      | 16*      |             | 0    | 1950      | 1560      | 0.54       | 2.9    |          | 0           | 0    | 0   | 1.8                  | 1200 | 0.3      |          |          |       |       |          |
| 10 4 78  | 15         | 0.15      | 18*      |             | 0    | 2080      | 1860      | 0.57       | 2.9    |          | 0           | 0    | 0   | 2.8                  | 1400 | 0.1      |          |          |       |       |          |
| 11 1 78  | 6          | 0.1       | 23       |             | 5    | 1530      | 1210      | 0.60       | 2.8    |          | 0           | 0    | 0   | 1.5                  | 900  | 0.0      |          |          |       |       |          |
| 12 14 78 | 0          | 0.2       | 23       |             | 30   | 791       | 546       | 0.80       | 3.6    | 120      | 0           | 0    | 0   | 1.4                  | 380  | 0.3      |          |          |       |       |          |
| 2 6 79   | 0          |           | 15       |             | 10   | 1170      | 906       | 0.65       | 3.2    | 290      | 0           | 0    | 0   | 1.0                  | 670  | 0.0      |          |          |       |       |          |
| 3 21 79  | 9          | 0.25      | 20       |             | 4    | 1180      | 902       | 0.79       | 3.4    | 200      | 0           | 0    | 0   | 1.5                  | 640  | 0.1      |          |          |       |       |          |
| 4 23 79  | 16         | 0.9       | 42       | 0.00        | 110  | 1100      | 906       | 0.69       | 3.4    | 170      | 0           | 0    | 0   | 1.4                  | 670  | 0.1      |          |          |       |       |          |
| 5 20 79  | 18         | 0.2       | 23       | 0.00        | 4    | 1420      | 1110      | 0.60       | 3.2    | 310      | 0           | 0    | 0   | 1.4                  | 840  | 0.1      |          |          |       |       |          |
| 6 24 79  | 20         | 0.2       | 42       |             | 70   | 1320      | 931       | 0.75       | 3.0    | 260      | 0           | 0    | 0   | 2.0                  | 660  | 0.4      |          |          |       |       |          |
| 7 19 79  | 23         | 0.06      | 29*      |             | 15   | 2050      | 1660      | 0.57       | 3.0    | 450      | 0           | 0    | 0   | 1.6                  | 1200 | 0.2      | 0.0      | 0.53     | 1.55  | 0.15  | 0.02     |
| 8 7 79   | 23         | 0.15      | 3        |             | 15   | 1370      | 1050      | 0.52       | 3.1    | 270      | 0           | 0    | 0   | 1.9                  | 810  | 0.4      | 0.1      | 0.36     | 0.50  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |    |      |     |     |     |     |     |
| 6 7 77   | 82                   | 0.28 |     |      | 120 | 0.4 | 0.03 | 19  | 2.4 |      | 100 | 4.9 |     | 32 | 0.65 | 0.1 | 31  |     | 0.2 | 1.2 |
| 7 25 77  | 77                   | 0.31 |     |      | 110 | 0.4 | 0.03 | 15  | 2.9 |      | 84  | 4.5 |     | 31 | 0.65 | 0.1 | 35  |     | 0.2 | 1.2 |
| 9 28 77  | 74                   | 0.39 | 0.0 | 0.02 | 150 | 0.4 | 0.03 | 12  | 2.5 | 0.75 | 130 | 7.4 | 0.0 | 30 | 0.62 | 0.1 | 47  | 0.6 | 0.2 | 0.2 |
| 11 10 77 | 82                   | 0.46 |     |      | 150 | 0.3 | 0.02 | 23  | 3.1 |      | 100 | 5.7 |     | 32 | 0.61 | 0.1 | 39  |     | 0.2 | 2.8 |
| 12 28 77 | 66                   | 0.16 | 0.0 | 0.01 | 87  | 0.2 | 0.02 | 25  | 2.2 | 0.55 | 67  | 3.5 | 0.0 | 21 | 0.38 | 0.1 | 24  | 0.6 | 0.2 | 0.8 |
| 2 15 78  | 65                   | 0.21 |     |      | 97  | 0.3 | 0.02 | 29  | 1.9 |      | 79  | 3.9 |     | 23 | 0.44 | 0.1 | 25  |     | 0.2 | 0.9 |
| 3 20 78  | 18                   | 0.06 |     |      | 35  | 0.0 | 0.00 | 11  | 1.5 |      | 28  | 1.2 |     | 13 | 0.12 | 0.0 | 8.5 |     | 0.1 | 0.2 |
| 4 17 78  | 42                   | 0.15 | 0.0 | 0.01 | 75  | 0.2 | 0.02 | 8.7 | 2.4 | 0.35 | 61  | 4.0 | 0.0 | 19 | 0.33 | 0.1 | 15  | 0.4 | 0.2 | 0.6 |
| 5 17 78  | 11                   | 0.11 | 0.0 | 0.00 | 50  | 0.2 | 0.01 | 5.7 | 1.9 | 0.20 | 34  | 1.2 | 0.0 | 15 | 0.13 | 0.1 | 9.8 | 0.3 | 0.3 | 0.2 |
| 6 23 78  | 49                   | 0.27 |     |      | 100 | 0.2 | 0.02 | 13  | 2.3 |      | 74  | 3.9 |     | 28 | 0.38 | 0.1 | 26  |     | 0.2 | 0.8 |
| 7 25 78  | 56                   | 0.30 |     |      | 120 | 0.2 | 0.02 | 11  | 2.6 |      | 86  | 4.4 |     | 28 | 0.50 | 0.1 | 33  |     | 0.2 | 0.9 |
| 8 29 78  | 57                   | 0.34 |     |      | 110 | 0.2 | 0.03 | 9.9 | 3.2 |      | 80  | 4.3 |     | 30 | 0.53 | 0.2 | 40  |     | 0.2 | 0.9 |
| 10 4 78  | 98                   | 0.33 | 0.0 | 0.02 | 130 | 0.3 | 0.03 | 16  | 3.4 | 0.55 | 97  | 5.5 | 0.1 | 37 | 0.73 | 0.3 | 45  | 0.5 | 0.7 | 1.2 |
| 11 1 78  | 43                   | 0.22 |     |      | 99  | 0.2 | 0.02 | 11  | 2.1 |      | 64  | 3.2 |     | 25 | 0.36 | 0.1 | 23  |     | 0.1 | 0.9 |
| 12 14 78 | 17                   | 0.10 |     |      | 59  | 0.1 | 0.01 | 7.9 | 1.7 |      | 33  | 1.5 |     | 15 | 0.17 | 0.1 | 12  |     | 0.1 | 0.3 |
| 2 6 79   | 33                   | 0.14 | 0.0 | 0.01 | 83  | 0.1 | 0.00 | 13  | 1.5 | 0.45 | 51  | 2.6 | 0.0 | 18 | 0.23 | 0.1 | 15  | 0.2 | 0.4 | 0.5 |
| 3 21 79  | 32                   | 0.16 |     |      | 98  | 0.1 | 0.02 | 4.2 | 2.0 |      | 58  | 2.6 |     | 19 | 0.26 | 0.1 | 18  |     | 0.4 | 0.5 |
| 4 23 79  | 29                   | 0.15 | 0.1 | 0.01 | 85  | 0.1 | 0.01 | 3.6 | 1.9 | 0.80 | 55  | 2.2 | 0.1 | 22 | 0.24 | 0.1 | 14  | 0.5 | 0.2 | 0.5 |
| 5 20 79  | 36                   | 0.18 |     |      | 89  | 0.2 | 0.01 | 4.6 | 2.2 |      | 62  | 3.0 |     | 20 | 0.36 | 0.2 | 22  |     | 0.5 | 0.7 |
| 6 24 79  | 39                   | 0.20 |     |      | 94  | 0.2 | 0.01 | 6.3 | 2.1 |      | 57  | 2.9 |     | 22 | 0.29 | 0.1 | 18  |     | 0.2 | 0.9 |
| 7 19 79  | 66                   | 0.32 | 0.0 | 0.02 | 120 | 0.3 | 0.03 | 9.8 | 2.9 | 0.65 | 88  | 4.7 | 0.0 | 31 | 0.55 | 0.2 | 38  | 0.5 | 0.4 | 1.2 |
| 8 7 79   | 42                   | 0.22 |     |      | 80  | 0.1 | 0.01 | 3.9 | 1.8 |      | 50  | 2.8 |     | 17 | 0.29 | 0.1 | 18  |     | 0.3 | 0.6 |

TABLE 7. WATER QUALITY FOR SITE 5021 BELMONT COUNTY, OHIO

| TABLE 7. WATER QUALITY FOR SITE 3021 DEERHAY COUNTRY CREEK |    |            |       |           |          |             |      |           |           |                                |        |          |             |          |         |     |     |          |          |          |       |       |          |  |
|------------------------------------------------------------|----|------------|-------|-----------|----------|-------------|------|-----------|-----------|--------------------------------|--------|----------|-------------|----------|---------|-----|-----|----------|----------|----------|-------|-------|----------|--|
| DATE                                                       |    | WATER TEMP |       | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO                     | LAB PH | ACID-ITY | ALKA-LINITY | NO3 HC03 | NO3 CO3 | CL  | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |  |
| MO                                                         | DA | YR         | DEG C | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | -----MILLIGRAMS PER LITER----- |        |          |             |          |         |     |     |          |          |          |       |       |          |  |
| 6                                                          | 28 | 77         | 18    | 0.005     |          |             | 70   | 373       | 231       | 3.61                           | 8.2    |          | 149         | 178      | 2       | 1.4 | 54  | 0.1      |          |          |       |       |          |  |
| 8                                                          | 4  | 77         | 25    | 0.0000    |          |             |      | 511       | 242       | 3.84                           | 8.2    |          | 129         | 154      | 2       | 1.8 | 62  | 0.1      |          |          |       |       |          |  |
| 8                                                          | 31 | 77         | 22    | 0.0009    |          |             |      | 511       | 289       | 3.75                           | 7.6    |          | 180         | 219      | 1       | 1.8 | 68  | 0.0      |          |          |       |       |          |  |
| 11                                                         | 3  | 77         | 14    | 0.0000    | 85       |             | 30   | 508       | 296       | 3.72                           | 8.3    |          | 164         | 195      | 2       | 2.1 | 74  | 0.1      |          |          |       |       |          |  |
| 1                                                          | 4  | 78         | 1     | 0.04      |          |             | 4    | 360       | 231       | 3.38                           | 8.5    |          | 124         | 145      | 3       | 3.0 | 61  | 0.3      |          |          |       |       |          |  |
| 2                                                          | 6  | 78         | 2     | 0.004     |          |             | 30   | 399       | 242       | 4.69                           | 8.3    |          | 142         | 169      | 2       | 1.7 | 53  | 0.1      |          |          |       |       |          |  |
| 3                                                          | 16 | 78         | 2     | 0.15      |          |             | 8    | 216       | 127       | 2.03                           | 8.0    |          | 59          | 71       | 0       | 1.6 | 45  | 0.2      |          |          |       |       |          |  |
| 4                                                          | 13 | 78         | 11    | 0.09      | 6        |             | 20   | 403       | 244       | 3.27                           | 8.4    |          | 148         | 175      | 3       | 2.0 | 64  | 0.0      |          |          |       |       |          |  |
| 5                                                          | 11 | 78         | 13    | 0.03      | 13       |             | 35   | 384       | 223       | 3.01                           | 8.4    |          | 147         | 174      | 3       | 1.5 | 58  | 0.1      |          |          |       |       |          |  |
| 6                                                          | 20 | 78         | 18    | 0.07      | 73*      |             |      | 396       | 225       | 3.82                           | 8.2    |          | 148         | 177      | 2       | 1.3 | 49  | 0.2      |          |          |       |       |          |  |
| 7                                                          | 18 | 78         | 12    | 0.02      |          |             | 45   | 382       | 239       | 3.97                           | 7.7    |          | 116         | 140      | 0       | 1.6 | 62  | 0.1      |          |          |       |       |          |  |
| 8                                                          | 24 | 78         | 22    | 0.0004    | 33*      |             | 60   | 488       | 278       | 4.90                           | 8.1    |          | 180         | 216      | 2       | 0.9 | 54  | 0.1      |          |          |       |       |          |  |
| 10                                                         | 11 | 78         | 13    | 0.0001    |          |             |      | 510       | 314       | 3.52                           | 8.5    |          | 173         | 203      | 4       | 1.8 | 82  | 0.2      |          |          |       |       |          |  |
| 11                                                         | 20 | 78         | 3     | 0.0002    |          |             |      | 452       | 290       | 3.19                           | 8.4    |          | 152         | 179      | 3       | 2.4 | 82  | 0.0      |          |          |       |       |          |  |
| 12                                                         | 19 | 78         | 1     | 0.0004    |          |             |      | 383       | 215       | 4.11                           | 8.2    |          | 131         | 157      | 2       | 1.7 | 48  | 0.3      |          |          |       |       |          |  |
| 2                                                          | 2  | 79         |       | 0.015     |          |             | 2    | 352       | 210       | 3.32                           | 7.9    |          | 111         | 134      | 1       | 2.1 | 57  | 0.1      |          |          |       |       |          |  |
| 3                                                          | 17 | 79         | 2     | 0.006     |          |             | 4    | 388       | 242       | 3.25                           | 8.0    |          | 134         | 161      | 1       | 2.5 | 66  | 0.0      |          |          |       |       |          |  |
| 4                                                          | 20 | 79         | 9     | 0.01      | 25       | 0.00        | 15   | 380       | 248       | 3.78                           | 8.2    |          | 136         | 163      | 2       | 1.4 | 62  | 0.1      |          |          |       |       |          |  |
| 5                                                          | 17 | 79         | 13    | 0.008     |          |             |      | 439       | 264       | 3.51                           | 8.1    |          | 161         | 194      | 2       | 1.7 | 66  | 0.2      |          |          |       |       |          |  |
| 6                                                          | 21 | 79         | 23    | 0.005     |          |             |      | 410       | 240       | 4.02                           | 8.4    |          | 154         | 182      | 3       | 2.0 | 52  | 0.4      |          |          |       |       |          |  |
| 8                                                          | 10 | 79         | 19    | 0.001     | 32       |             | 45   | 526       | 259       | 4.09                           | 8.3    |          | 184         | 218      | 3       | 1.8 | 53  | 0.2      | 0.0      | 0.06     | 0.00  | 0.05  | 0.01     |  |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 28 77  | 0.2                  | 0.03 |     |      | 54 | 0.0 | 0.02 | 0.2 | 2.5 |      | 12  | 0.0 |     | 6.5 | 0.00 | 0.0 | 4.5 |     | 0.0 | 0.3 |
| 8 4 77   | 0.1                  | 0.00 |     |      | 73 | 0.0 | 0.00 | 0.0 | 2.1 |      | 12  | 0.0 |     | 7.2 | 0.00 | 0.0 | 3.3 |     | 0.0 | 0.1 |
| 8 31 77  | 0.1                  | 0.00 |     |      | 71 | 0.0 | 0.02 | 0.0 | 3.7 |      | 16  | 0.0 |     | 9.4 | 0.03 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 11 3 77  | 0.1                  | 0.06 | 0.1 | 0.00 | 82 | 0.0 | 0.00 | 0.1 | 2.6 | 0.20 | 16  | 0.0 | 0.0 | 7.7 | 0.02 | 0.0 | 5.0 | 0.4 | 0.2 | 0.1 |
| 1 4 78   | 0.1                  | 0.00 | 0.1 | 0.00 | 63 | 0.0 | 0.00 | 0.1 | 1.7 | 0.35 | 13  | 0.0 | 0.0 | 4.7 | 0.00 | 0.0 | 3.7 | 0.4 | 0.0 | 0.0 |
| 2 6 78   | 0.1                  | 0.05 |     |      | 65 | 0.1 | 0.00 | 0.1 | 2.2 |      | 21  | 0.0 |     | 5.3 | 0.02 | 0.0 | 4.0 |     | 0.1 | 0.0 |
| 3 16 78  | 0.2                  | 0.03 |     |      | 26 | 0.0 | 0.00 | 0.1 | 2.0 |      | 6.2 | 0.0 |     | 2.6 | 0.01 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 4 13 78  | 0.1                  | 0.02 | 0.1 | 0.00 | 55 | 0.0 | 0.01 | 0.2 | 2.8 | 0.25 | 17  | 0.0 | 0.0 | 5.2 | 0.05 | 0.1 | 3.5 | 0.3 | 0.1 | 0.0 |
| 5 11 78  | 0.1                  | 0.01 |     |      | 55 | 0.0 | 0.02 | 0.0 | 1.7 |      | 8.5 | 0.0 |     | 4.6 | 0.00 | 0.0 | 2.3 |     | 0.0 | 0.0 |
| 6 20 78  | 0.1                  | 0.03 |     |      | 55 | 0.0 | 0.00 | 0.1 | 2.0 |      | 12  | 0.0 |     | 4.8 | 0.00 | 0.0 | 5.1 |     | 0.1 | 0.0 |
| 7 18 78  | 0.1                  | 0.03 | 0.1 | 0.00 | 70 | 0.0 | 0.00 | 0.1 | 2.0 | 0.15 | 17  | 0.0 | 0.1 | 4.9 | 0.00 | 0.0 | 4.5 | 0.4 | 0.0 | 0.0 |
| 8 24 78  | 0.1                  | 0.04 |     |      | 78 | 0.0 | 0.01 | 0.1 | 2.3 |      | 16  | 0.0 |     | 6.2 | 0.02 | 0.1 | 5.4 |     | 0.1 | 0.0 |
| 10 11 78 | 0.2                  | 0.02 | 0.1 | 0.01 | 87 | 0.0 | 0.00 | 0.0 | 2.8 | 0.60 | 17  | 0.0 | 0.0 | 6.1 | 0.01 | 0.1 | 4.8 | 0.4 | 0.0 | 0.0 |
| 11 20 78 | 0.2                  | 0.03 |     |      | 80 | 0.0 | 0.01 | 0.0 | 1.9 |      | 15  | 0.0 |     | 5.6 | 0.03 | 0.1 | 4.8 |     | 0.1 | 0.2 |
| 12 19 78 | 0.1                  | 0.01 |     |      | 60 | 0.0 | 0.00 | 0.0 | 1.8 |      | 11  | 0.0 |     | 4.7 | 0.00 | 0.1 | 3.5 |     | 0.0 | 0.0 |
| 2 2 79   | 0.2                  | 0.00 | 0.1 | 0.00 | 61 | 0.0 | 0.01 | 0.1 | 1.7 | 0.20 | 9.7 | 0.0 | 0.0 | 3.6 | 0.02 | 0.1 | 3.5 | 0.3 | 0.0 | 0.0 |
| 3 17 79  | 0.1                  | 0.01 |     |      | 68 | 0.0 | 0.01 | 0.0 | 1.9 |      | 11  | 0.0 |     | 4.6 | 0.00 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 4 20 79  | 0.1                  | 0.02 | 0.1 | 0.00 | 74 | 0.0 | 0.00 | 0.0 | 1.8 | 0.40 | 13  | 0.0 | 0.0 | 4.5 | 0.01 | 0.1 | 4.1 | 0.2 | 0.1 | 0.0 |
| 5 17 79  | 0.6                  | 0.01 |     |      | 70 | 0.0 | 0.02 | 0.0 | 2.0 |      | 14  | 0.0 |     | 5.1 | 0.01 | 0.1 | 3.6 |     | 0.1 | 0.1 |
| 6 21 79  | 0.2                  | 0.03 |     |      | 62 | 0.1 | 0.05 | 0.1 | 2.2 |      | 12  | 0.0 |     | 5.3 | 0.03 | 0.1 | 4.5 |     | 0.0 | 0.0 |
| 8 10 79  | 0.1                  | 0.02 |     |      | 60 | 0.1 | 0.05 | 0.0 | 2.2 |      | 16  | 0.0 |     | 5.0 | 0.03 | 0.1 | 4.3 |     | 0.0 | 0.0 |

TABLE 8. WATER QUALITY FOR SITE 5022 BELMONT COUNTY, OHIO

| DATE |    |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | MC03 | CO3 | CL  | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|------|----|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|-----|-----|----------|----------|----------|-------|-------|----------|
| MO   | DA | YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UH/CN     | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |     |     |          |          |          |       |       |          |
| 6    | 28 | 77 | 24         | 0.08      |          |             | 550  | 280       | 182       | 2.79                 | 7.8    |          | 82          | 99   | 0   | 6.7 | 58  |          |          |          |       |       |          |
| 8    | 4  | 77 | 31         | 0.02      |          |             | 60   | 435       | 267       | 1.25                 | 7.4    |          | 49          | 60   | 0   | 4.5 | 160 | 0.1      |          |          |       |       |          |
| 8    | 31 | 77 | 30         | 0.004     |          |             |      | 566       | 333       | 2.07                 | 7.9    |          | 134         | 162  | 1   | 3.6 | 140 | 0.1      |          |          |       |       |          |
| 11   | 3  | 77 | 18         | 0.0000    | 74       |             | 50   | 431       | 320       | 3.06                 | 8.5    |          | 146         | 171  | 4   | 7.2 | 100 | 0.1      |          |          |       |       |          |
| 1    | 4  | 78 | 1          | 0.07      |          |             | 15   | 444       | 326       | 2.53                 | 8.2    |          | 136         | 163  | 2   | 4.3 | 120 | 0.4      |          |          |       |       |          |
| 2    | 6  | 78 | 2          | 0.1       |          |             | 4    | 570       | 417       | 2.97                 | 8.2    |          | 189         | 225  | 2   | 3.4 | 130 | 0.5      |          |          |       |       |          |
| 3    | 16 | 78 | 2          | 1.0       |          |             | 4    | 367       | 199       | 2.86                 | 8.0    |          | 90          | 109  | 1   | 3.3 | 60  | 1.1      |          |          |       |       |          |
| 4    | 13 | 78 | 18         | 1.0       | 19       |             | 60   | 465       | 346       | 1.76                 | 7.9    |          | 77          | 93   | 0   | 3.6 | 170 | 0.1      |          |          |       |       |          |
| 5    | 11 | 78 | 19         | 0.2       | 21*      |             | 25   | 481       | 337       | 2.28                 | 8.1    |          | 111         | 133  | 1   | 2.9 | 140 | 0.1      |          |          |       |       |          |
| 6    | 20 | 78 | 21         | 1.5       | 93*      |             |      | 463       | 269       | 2.86                 | 8.1    |          | 138         | 165  | 1   | 4.1 | 82  | 0.3      |          |          |       |       |          |
| 7    | 18 | 78 | 26         | 1.0       |          |             | 80   | 460       | 316       | 2.85                 | 8.1    |          | 97          | 116  | 1   | 3.0 | 120 | 0.0      |          |          |       |       |          |
| 8    | 23 | 78 | 31         | 0.004     | 39*      |             | 40   | 528       | 328       | 2.52                 | 8.3    |          | 145         | 172  | 2   | 2.2 | 120 | 0.1      |          |          |       |       |          |
| 10   | 11 | 78 | 18         | 0.003     |          |             |      | 578       | 355       | 2.35                 | 8.5    |          | 144         | 169  | 3   | 3.6 | 130 | 0.5      |          |          |       |       |          |
| 11   | 20 | 78 | 4          | 0.001     | 106      |             | 20   | 546       | 348       | 2.63                 | 8.2    | -84      | 104         | 124  | 1   | 3.7 | 130 | 0.6      |          |          |       |       |          |
| 12   | 19 | 78 | 0          | 0.03      | 117      |             | 95   | 441       | 278       | 3.48                 | 8.1    |          | 152         | 182  | 1   | 6.2 | 69  | 1.1      |          |          |       |       |          |
| 2    | 2  | 79 | 0          | 0.25      | 70       |             | 2    | 627       | 420       | 2.41                 | 7.8    |          | 157         | 190  | 1   | 4.9 | 160 | 0.6      |          |          |       |       |          |
| 3    | 17 | 79 | 0          | 0.2       | 242      |             | 65   | 709       | 505       | 2.03                 | 7.8    |          | 204         | 247  | 1   | 6.0 | 200 | 0.2      |          |          |       |       |          |
| 4    | 19 | 79 | 17         | 0.2       | 112      | 0.00        | 40   | 534       | 366       | 2.11                 | 8.3    |          | 131         | 156  | 2   | 3.7 | 150 | 0.1      |          |          |       |       |          |
| 5    | 17 | 79 | 16         | 0.05      | 103      | 0.00        | 30   | 597       | 378       | 2.73                 | 7.9    |          | 170         | 205  | 1   | 3.9 | 130 | 0.1      |          |          |       |       |          |
| 6    | 21 | 79 | 22         | 0.15      | 38       |             | 45   | 393       | 259       | 2.01                 | 8.0    |          | 107         | 128  | 1   | 8.8 | 98  | 0.6      |          |          |       |       |          |
| 7    | 25 | 79 | 23         | 0.09      | 39       |             | 20   | 435       | 298       | 2.07                 | 8.1    |          | 132         | 158  | 1   | 2.0 | 120 | 0.1      | 0.0      | 0.12     | 0.00  | 0.00  | 0.01     |
| 8    | 9  | 79 | 27         | 0.02      | 19       |             | 20   | 582       | 300       | 2.36                 | 8.4    | -100     | 120         | 142  | 2   | 2.4 | 110 | 0.2      | 0.0      | 0.14     | 0.45  | 0.05  | 0.01     |
| 9    | 12 | 79 | 24         | 0.01      | 2        |             | 10   | 458       | 286       | 1.73                 | 8.1    |          | 117         | 141  | 1   | 7.9 | 120 | 0.0      |          |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE |    | AL | B                    | BA   | BE  | CA   | CO  | CU   | FE   | K   | LI  | MG   | MN  | MO  | NA  | NI   | PB   | SI  | SR  | TI  | ZN  |     |
|------|----|----|----------------------|------|-----|------|-----|------|------|-----|-----|------|-----|-----|-----|------|------|-----|-----|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |     |      |     |      |      |     |     |      |     |     |     |      |      |     |     |     |     |     |
| 6    | 28 | 77 | 0.2                  | 0.03 |     | 44   | 0.0 | 0.01 | 0.1  | 2.8 |     | 10   | 0.2 |     | 8.1 | 0.00 | 0.0  | 1.2 |     | 0.1 | 0.0 |     |
| 8    | 4  | 77 | 0.1                  | 0.00 |     | 36   | 0.0 | 0.00 | 0.0  | 3.3 |     | 16   | 0.0 |     | 22  | 0.00 | 0.0  |     |     | 0.0 | 0.2 |     |
| 8    | 31 | 77 | 0.1                  | 0.00 |     | 52   | 0.0 | 0.01 | 0.1  | 5.8 |     | 24   | 0.3 |     | 27  | 0.04 | 0.0  | 1.4 |     | 0.0 | 0.0 |     |
| 11   | 3  | 77 | 0.1                  | 0.03 | 0.2 | 0.00 | 74  | 0.0  | 0.00 | 0.1 | 6.3 | 0.10 | 27  | 0.2 | 0.0 | 15   | 0.01 | 0.0 |     | 0.4 | 0.0 | 0.0 |
| 1    | 4  | 78 | 0.1                  | 0.02 | 0.1 | 0.00 | 81  | 0.0  | 0.00 | 0.1 | 1.9 | 0.50 | 21  | 1.4 | 0.0 | 11   | 0.00 | 0.0 | 2.5 | 0.7 | 0.0 | 0.1 |
| 2    | 6  | 78 | 0.2                  | 0.09 |     | 110  | 0.1 | 0.00 | 0.1  | 2.9 |     | 28   | 1.3 |     | 15  | 0.04 | 0.1  | 3.6 |     | 0.3 | 0.0 |     |
| 3    | 16 | 78 | 0.1                  | 0.03 |     | 51   | 0.0 | 0.00 | 0.1  | 3.0 |     | 9.8  | 0.6 |     | 6.5 | 0.01 | 0.0  | 2.6 |     | 0.0 | 0.0 |     |
| 4    | 13 | 78 | 0.1                  | 0.04 | 0.0 | 0.00 | 80  | 0.0  | 0.00 | 0.1 | 2.2 | 0.35 | 21  | 1.0 | 0.0 | 15   | 0.01 | 0.0 |     | 0.5 | 0.0 | 0.0 |
| 5    | 11 | 78 | 0.1                  | 0.05 |     | 83   | 0.0 | 0.00 | 0.1  | 2.1 |     | 20   | 1.0 |     | 17  | 0.01 | 0.0  | 2.4 |     | 0.1 | 0.0 |     |
| 6    | 20 | 78 | 0.1                  | 0.04 |     | 61   | 0.0 | 0.01 | 0.1  | 2.8 |     | 17   | 0.9 |     | 11  | 0.01 | 0.0  | 2.7 |     | 0.3 | 0.0 |     |
| 7    | 18 | 78 | 0.1                  | 0.05 | 0.1 | 0.00 | 86  | 0.0  | 0.00 | 0.0 | 2.5 | 0.20 | 23  | 1.1 | 0.0 | 18   | 0.00 | 0.0 | 2.1 | 0.6 | 0.0 | 0.0 |
| 8    | 23 | 78 | 0.1                  | 0.07 |     | 65   | 0.0 | 0.01 | 0.0  | 3.5 |     | 20   | 0.1 |     | 27  | 0.02 | 0.1  | 2.4 |     | 0.1 | 0.0 |     |
| 10   | 11 | 78 | 0.2                  | 0.07 | 0.0 | 0.01 | 64  | 0.0  | 0.00 | 0.1 | 3.2 | 0.50 | 24  | 0.1 | 0.0 | 32   | 0.01 | 0.1 | 2.7 | 0.5 | 0.0 | 0.0 |
| 11   | 20 | 78 | 0.2                  | 0.05 |     | 91   | 0.0 | 0.01 | 0.1  | 3.3 |     | 23   | 0.2 |     | 22  | 0.04 | 0.1  | 2.3 |     | 0.1 | 0.3 |     |
| 12   | 19 | 78 | 0.2                  | 0.03 |     | 79   | 0.0 | 0.01 | 0.1  | 3.1 |     | 11   | 0.4 |     | 6.9 | 0.02 | 0.1  | 2.9 |     | 0.0 | 0.0 |     |
| 2    | 2  | 79 | 0.2                  | 0.03 | 0.1 | 0.00 | 110 | 0.0  | 0.01 | 0.1 | 2.6 | 0.30 | 21  | 1.2 | 0.0 | 17   | 0.02 | 0.2 | 2.4 | 0.6 | 0.1 | 0.0 |
| 3    | 17 | 79 | 0.3                  | 0.04 |     | 120  | 0.0 | 0.00 | 0.2  | 2.3 |     | 26   | 1.7 |     | 17  | 0.01 | 0.1  | 1.6 |     | 0.2 | 0.0 |     |
| 4    | 19 | 79 | 0.2                  | 0.03 | 0.1 | 0.00 | 87  | 0.0  | 0.01 | 0.1 | 2.3 | 0.60 | 20  | 0.5 | 0.0 | 17   | 0.02 | 0.1 | 1.2 | 0.7 | 0.1 | 0.0 |
| 5    | 17 | 79 | 0.1                  | 0.04 |     | 95   | 0.0 | 0.01 | 0.1  | 2.1 |     | 21   | 0.6 |     | 20  | 0.01 | 0.1  | 2.8 |     | 0.1 | 0.0 |     |
| 6    | 21 | 79 | 0.1                  | 0.04 |     | 53   | 0.0 | 0.03 | 0.0  | 1.9 |     | 16   | 0.2 |     | 9.1 | 0.00 | 0.0  | 1.9 |     | 0.0 | 0.0 |     |
| 7    | 25 | 79 | 0.1                  | 0.08 | 0.1 | 0.00 | 40  | 0.1  | 0.00 | 0.0 | 2.0 | 0.25 | 25  | 0.0 | 0.0 | 23   | 0.05 | 0.1 | 4.4 | 0.6 | 0.2 | 0.0 |
| 8    | 9  | 79 | 0.1                  | 0.06 |     | 55   | 0.0 | 0.00 | 0.0  | 3.7 |     | 21   | 0.1 |     | 25  | 0.00 | 0.1  | 3.4 |     | 0.0 | 0.0 |     |
| 9    | 12 | 79 | 0.0                  | 0.08 |     | 40   | 0.0 | 0.00 | 0.0  | 2.7 |     | 20   | 0.0 |     | 19  | 0.04 | 0.0  | 3.0 |     | 0.1 | 0.1 |     |

TABLE 9. WATER QUALITY FOR SITE 5025 BELMONT COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL                   | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |
| 6 28 77  | 23         | 0.6       |          |             | 50   | 1320      | 937       | 1.30       | 7.7    |          | 162         | 196  | 1   | 7.6                  | 560 | 0.0      |          |          |       |       |          |
| 8 4 77   | 31         | 2.0       |          |             | 30   | 1220      | 890       | 1.08       | 7.9    |          | 130         | 156  | 1   | 7.9                  | 570 | 0.1      |          |          |       |       |          |
| 8 31 77  | 28         | 0.8       |          |             | 25   | 1250      | 914       | 1.37       | 7.6    |          | 111         | 134  | 0   | 6.3                  | 560 | 0.0      |          |          |       |       |          |
| 11 3 77  | 18         | 1.5       | 189      |             | 10   | 1520      | 1070      | 1.45       | 8.1    |          | 117         | 140  | 1   | 6.8                  | 640 | 0.0      |          |          |       |       |          |
| 1 4 78   | 1          | 2.0       |          |             | 4    | 1310      | 957       | 1.20       | 8.2    |          | 122         | 145  | 2   | 9.7                  | 600 | 0.3      |          |          |       |       |          |
| 2 6 78   | 1          | 3         |          |             | 6    | 1140      | 902       | 1.49       | 7.8    |          | 150         | 181  | 1   | 9.4                  | 510 | 0.3      |          |          |       |       |          |
| 4 13 78  | 17         | 10        | 5        |             | 10   | 1120      | 839       | 1.08       | 8.0    |          | 70          | 85   | 1   | 7.8                  | 560 | 0.0      |          |          |       |       |          |
| 5 11 78  | 19         | 4         | 18*      |             | 10   | 1140      | 859       | 1.37       | 8.1    |          | 93          | 112  | 1   | 5.2                  | 530 | 0.0      |          |          |       |       |          |
| 6 20 78  | 25         | 6         | 47*      |             | 0    | 847       | 585       | 1.42       | 8.0    |          | 136         | 164  | 1   | 5.5                  | 320 | 0.1      |          |          |       |       |          |
| 7 18 78  | 22         | 6         | 157*     |             | 4    | 1110      | 843       | 1.19       | 8.1    |          | 84          | 100  | 1   | 5.1                  | 550 | 0.0      |          |          |       |       |          |
| 8 24 78  | 28         | 0.3       | 21*      |             | 15   | 1220      | 842       | 1.53       | 7.8    |          | 148         | 178  | 1   | 4.9                  | 480 | 0.0      |          |          |       |       |          |
| 10 11 78 | 15         | 0.15      | 30*      |             | 4    | 1240      | 1040      | 1.25       | 8.1    |          | 95          | 114  | 1   | 6.4                  | 660 | 0.1      |          |          |       |       |          |
| 11 20 78 | 6          | 0.15      | 179      |             | 6    | 1300      | 1050      | 1.22       | 7.9    |          | 141         | 170  | 1   | 7.4                  | 650 | 0.1      |          |          |       |       |          |
| 12 19 78 | 1          | 0.7       | 132      |             | 1    | 1240      | 893       | 1.66       | 8.0    |          | 187         | 224  | 2   | 6.5                  | 470 | 0.4      |          |          |       |       |          |
| 3 17 79  | 3          | 1.5       | 122      |             | 3    | 1370      | 1200      | 1.31       | 7.9    |          | 216         | 261  | 2   | 6.0                  | 710 | 0.2      |          |          |       |       |          |
| 4 20 79  | 11         | 1.5       | 0        | 0.00        | 10   | 989       | 783       | 1.44       | 7.8    |          | 143         | 173  | 1   | 6.7                  | 450 | 0.0      |          |          |       |       |          |
| 5 17 79  | 23         | 0.25      | 150      | 0.03        | 15   | 1210      |           |            | 8.1    |          |             |      |     | 6.2                  | 610 | 0.0      |          |          |       |       |          |
| 6 21 79  | 26         | 0.5       | 130      |             | 9    | 1190      | 863       | 1.58       | 7.8    |          | 150         | 181  | 1   | 6.4                  | 480 | 0.1      |          |          |       |       |          |
| 7 25 79  | 24         | 0.5       | 27       |             | 10   | 1450      | 843       | 1.39       | 8.1    |          | 148         | 178  | 2   | 6.3                  | 490 | 0.1      | 0.0      | 0.21     | 0.00  | 0.00  | 0.00     |
| 8 10 79  | 26         | 0.1       | 11       |             | 15   | 1430      | 839       | 1.27       | 8.0    |          | 143         | 172  | 1   | 7.8                  | 500 | 0.0      | 0.0      | 0.06     | 0.40  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA   | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|------|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |      |      |     |     |     |     |     |
| 6 28 77  | 0.2                  | 0.04 |     |      | 180 | 0.0 | 0.00 | 0.2 | 3.1 |      | 71 | 0.1 |     | 13   | 0.02 | 0.1 | 2.3 |     | 0.2 | 0.2 |
| 8 4 77   | 0.2                  | 0.00 |     |      | 160 | 0.0 | 0.00 | 0.1 | 3.1 |      | 52 | 0.3 |     | 15   | 0.02 | 0.0 | 1.2 |     | 0.0 | 0.1 |
| 8 31 77  | 0.1                  | 0.04 |     |      | 190 | 0.0 | 0.00 | 0.1 | 4.2 |      | 71 | 0.0 |     | 16   | 0.03 | 0.1 | 3.0 |     | 0.1 | 0.0 |
| 11 3 77  | 0.2                  | 0.07 | 0.0 | 0.00 | 230 | 0.0 | 0.00 | 0.1 | 4.0 | 0.70 | 88 | 0.1 | 0.0 | 16   | 0.04 | 0.1 | 2.3 | 1.1 | 0.2 | 0.1 |
| 1 4 78   | 0.2                  | 0.02 | 0.0 | 0.00 | 190 | 0.0 | 0.00 | 0.2 | 2.5 | 1.0  | 67 | 1.7 | 0.0 | 8.6  | 0.02 | 0.1 | 3.0 | 1.8 | 0.0 | 0.1 |
| 2 6 78   | 0.3                  | 0.06 |     |      | 190 | 0.0 | 0.00 | 0.2 | 3.0 |      | 74 | 1.7 |     | 10   | 0.04 | 0.1 | 3.6 |     | 0.2 | 0.0 |
| 4 13 78  | 0.2                  | 0.02 | 0.0 | 0.00 | 140 | 0.0 | 0.01 | 0.4 | 2.9 | 0.70 | 63 | 0.9 | 0.0 | 9.5  | 0.03 | 0.1 | 1.5 | 0.9 | 0.2 | 0.0 |
| 5 11 78  | 0.2                  | 0.03 |     |      | 180 | 0.0 | 0.00 | 0.1 | 2.9 |      | 71 | 0.3 |     | 10   | 0.03 | 0.1 | 2.4 |     | 0.2 | 0.0 |
| 6 20 78  | 0.1                  | 0.03 |     |      | 110 | 0.0 | 0.00 | 0.1 | 2.2 |      | 46 | 0.1 |     | 7.5  | 0.02 | 0.1 | 2.8 |     | 0.4 | 0.0 |
| 7 18 78  | 0.1                  | 0.02 | 0.0 | 0.00 | 160 | 0.0 | 0.00 | 0.0 | 2.7 | 0.40 | 62 | 0.1 | 0.0 | 8.5  | 0.00 | 0.0 | 2.6 | 1.0 | 0.1 | 0.0 |
| 8 24 78  | 0.2                  | 0.04 |     |      | 180 | 0.0 | 0.01 | 0.1 | 3.9 |      | 71 | 0.0 |     | 12   | 0.04 | 0.2 | 2.8 |     | 0.2 | 0.0 |
| 10 11 78 | 0.2                  | 0.03 | 0.0 | 0.00 | 200 | 0.0 | 0.01 | 0.2 | 4.6 | 1.0  | 81 | 0.1 | 0.0 | 12   | 0.04 | 0.2 | 3.0 | 0.7 | 0.2 | 0.0 |
| 11 20 78 | 0.5                  | 0.03 |     |      | 210 | 0.0 | 0.00 | 0.1 | 3.7 |      | 70 | 0.5 |     | 10.0 | 0.07 | 0.3 | 2.9 |     | 0.2 | 0.1 |
| 12 19 78 | 0.4                  | 0.02 | 0.0 | 0.00 | 210 | 0.0 | 0.01 | 0.1 | 3.5 | 1.0  | 68 | 0.8 | 0.0 | 10   | 0.05 | 0.2 | 3.2 | 1.0 | 0.1 | 0.0 |
| 3 17 79  | 0.2                  | 0.02 |     |      | 240 | 0.0 | 0.02 | 1.0 | 3.7 |      | 79 | 1.9 |     | 17   | 0.06 | 0.2 | 2.8 |     | 0.2 | 0.1 |
| 4 20 79  | 0.3                  | 0.03 | 0.0 | 0.00 | 170 | 0.0 | 0.00 | 0.1 | 2.6 | 1.0  | 57 | 0.4 | 0.1 | 8.1  | 0.05 | 0.2 | 1.6 | 0.7 | 0.5 | 0.0 |
| 5 17 79  | 0.2                  | 0.00 |     |      | 180 | 0.0 | 0.00 | 0.2 | 2.6 |      | 60 | 0.3 |     | 9.9  | 0.02 | 0.1 | 1.9 |     | 0.3 | 0.1 |
| 6 21 79  | 0.3                  | 0.02 |     |      | 200 | 0.0 | 0.00 | 0.1 | 2.7 |      | 65 | 0.1 |     | 8.1  | 0.03 | 0.1 | 2.3 |     | 0.2 | 0.0 |
| 7 25 79  | 0.3                  | 0.04 | 0.0 | 0.00 | 170 | 0.0 | 0.00 | 0.1 | 2.7 | 0.60 | 66 | 0.1 | 0.0 | 8.1  | 0.04 | 0.2 | 2.9 | 0.9 | 0.4 | 0.0 |
| 8 10 79  | 0.3                  | 0.02 |     |      | 160 | 0.0 | 0.00 | 0.1 | 3.7 |      | 62 | 0.0 |     | 9.5  | 0.03 | 0.2 | 2.9 |     | 0.3 | 0.0 |

TABLE 10. WATER QUALITY FOR SITE 5031 CARROLL COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | 2NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CN     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6    | 29 | 77         | 26        | 0.1      |             |      | 85        | 621       | 329        | 2.61                 | 7.4      |             | 33   | 40  | 0  | 150 | 30       | 0.0       |          |       |       |          |      |
| 8    | 4  | 77         | 22        | 1.0      |             |      | 15        | 682       | 328        | 2.64                 | 7.5      |             | 28   | 34  | 0  | 150 | 26       | 0.2       |          |       |       |          |      |
| 9    | 1  | 77         | 26        | 0.2      |             |      | 20        | 682       | 367        | 4.90                 | 7.2      |             | 29   | 35  | 0  | 170 | 25       | 0.0       |          |       |       |          |      |
| 11   | 7  | 77         | 17        | 0.9      | 36          |      | 25        | 622       | 333        | 3.51                 | 7.7      |             | 34   | 42  | 0  | 130 | 37       | 0.0       |          |       |       |          |      |
| 1    | 5  | 78         | 3         | 0.5      |             |      | 2         | 365       | 232        | 1.29                 | 7.6      |             | 23   | 28  | 0  | 93  | 36       | 0.8       |          |       |       |          |      |
| 2    | 7  | 78         | 1         | 0.5      |             |      | 0         | 411       | 219        | 2.26                 | 7.5      |             | 23   | 28  | 0  | 74  | 37       | 0.7       |          |       |       |          |      |
| 3    | 15 | 78         | 5         | 6        |             |      | 8         | 261       | 136        | 1.49                 | 7.0      |             | 10   | 12  | 0  | 40  | 32       | 1.0       |          |       |       |          |      |
| 4    | 13 | 78         | 12        | 3        | 6           |      | 8         | 355       | 176        | 1.10                 | 7.4      |             | 18   | 22  | 0  | 61  | 40       | 0.5       |          |       |       |          |      |
| 5    | 10 | 78         | 13        | 2.0      | 17*         |      | 20        | 376       | 214        | 1.65                 | 7.6      |             | 26   | 32  | 0  | 66  | 49       | 0.3       |          |       |       |          |      |
| 6    | 20 | 78         |           | 2.0      | 43*         |      |           | 338       | 159        | 2.38                 | 7.4      |             | 26   | 32  | 0  | 42  | 31       | 0.5       |          |       |       |          |      |
| 7    | 19 | 78         | 20        | 2.0      | 94*         |      | 20        | 382       | 197        | 1.86                 | 7.5      |             | 26   | 32  | 0  | 72  | 31       | 0.4       |          |       |       |          |      |
| 9    | 7  | 78         | 10        | 0.003    |             |      |           | 393       | 235        | 2.84                 | 7.8      |             | 51   | 62  | 0  | 65  | 39       | 0.5       |          |       |       |          |      |
| 9    | 13 | 78         | 20        | 0.1      | 47*         |      | 10        | 483       | 231        | 1.06                 | 7.8      |             | 33   | 40  | 0  | 95  | 35       | 0.2       |          |       |       |          |      |
| 10   | 13 | 78         | 12        | 1.0      | 68*         |      | 55        | 325       | 165        | 2.20                 | 7.7      |             | 25   | 30  | 0  | 49  | 30       | 0.7       |          |       |       |          |      |
| 11   | 20 | 78         | 8         | 0.06     | 14          |      | 25        | 490       | 257        | 2.21                 | 7.6      | -45         | 34   | 41  | 0  | 100 | 36       | 0.2       |          |       |       |          |      |
| 12   | 20 | 78         | 1         | 0.4      | 28          |      | 7         | 369       | 213        | 1.62                 | 7.6      |             | 22   | 27  | 0  | 82  | 31       | 1.3       |          |       |       |          |      |
| 1    | 31 | 79         | 0         | 0.4      | 8           |      | 1         | 347       | 197        | 2.22                 | 7.5      | -16         | 20   | 25  | 0  | 60  | 38       | 0.6       |          |       |       |          |      |
| 3    | 18 | 79         | 7         | 0.4      | 14          |      | 3         | 347       | 166        | 2.58                 | 7.4      | -16         | 18   | 22  | 0  | 39  | 39       | 0.3       |          |       |       |          |      |
| 4    | 20 | 79         | 12        | 0.4      | 14          | 0.00 | 8         | 308       | 199        | 1.01                 | 7.4      |             | 20   | 25  | 0  | 75  | 38       | 0.5       |          |       |       |          |      |
| 5    | 16 | 79         | 17        | 0.4      | 14          | 0.00 | 25        | 393       | 227        | 1.93                 | 7.5      |             | 46   | 56  | 0  | 58  | 52       | 0.5       |          |       |       |          |      |
| 6    | 20 | 79         | 24        | 0.25     | 8           |      | 8         | 411       | 285        | 0.85                 | 7.6      |             | 42   | 51  | 0  | 100 | 61       | 0.4       |          |       |       |          |      |
| 7    | 24 | 79         | 22        | 0.06     |             |      | 30        | 539       | 260        | 1.54                 | 7.7      |             | 41   | 50  | 0  | 110 | 33       | 0.2       | 0.0      | 0.08  | 0.00  | 0.00     | 0.01 |
| 8    | 16 | 79         | 19        | 0.07     | 7           |      | 15        | 590       | 231        | 3.14                 | 7.8      | -22         | 36   | 44  | 0  | 79  | 31       | 0.5       | 0.0      | 0.32  | 0.45  | 0.10     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |    |      |     |     |     |     |     |
| 6 29 77  | 0.1                  | 0.04 |     |      | 36 | 0.0 | 0.00 | 0.6 | 2.3 |      | 12  | 0.2 |     | 70 | 0.01 | 0.0 | 2.3 |     | 0.0 | 0.0 |
| 8 4 77   | 0.0                  | 0.00 |     |      | 38 | 0.0 | 0.00 | 0.0 | 3.0 |      | 8.2 | 0.1 |     | 72 | 0.01 | 0.0 | 4.5 |     | 6.0 | 0.2 |
| 9 1 77   | 0.0                  | 0.00 |     |      | 39 | 0.0 | 0.01 | 0.4 | 4.4 |      | 14  | 0.2 |     | 96 | 0.01 | 0.0 |     |     | 0.0 | 0.2 |
| 11 7 77  | 0.1                  |      | 0.1 | 0.00 | 41 | 0.0 | 0.00 | 0.3 | 4.8 | 0.04 | 12  | 0.5 | 0.0 | 76 | 0.02 | 0.0 | 2.9 | 0.4 | 0.1 | 0.0 |
| 1 5 78   | 0.0                  | 0.01 | 0.0 | 0.00 | 23 | 0.0 | 0.00 | 0.2 | 2.3 | 0.20 | 8.1 | 0.2 | 0.0 | 40 | 0.01 | 0.0 | 5.1 | 0.3 | 0.0 | 0.0 |
| 2 7 78   | 0.0                  | 0.02 |     |      | 23 | 0.0 | 0.00 | 0.2 | 2.4 |      | 8.4 | 0.1 |     | 45 | 0.00 | 0.0 | 5.4 |     | 0.0 | 0.0 |
| 3 15 78  | 0.0                  | 0.03 |     |      | 14 | 0.0 | 0.00 | 0.1 | 2.4 |      | 5.9 | 0.2 |     | 22 | 0.01 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 4 13 78  | 0.1                  | 0.01 | 0.0 | 0.00 | 17 | 0.0 | 0.01 | 0.2 | 2.5 | 0.08 | 7.0 | 0.2 | 0.0 | 27 | 0.03 | 0.0 | 3.7 | 0.2 | 0.0 | 0.0 |
| 5 10 78  | 0.0                  | 0.03 |     |      | 23 | 0.0 | 0.00 | 0.1 | 2.4 |      | 8.2 | 0.1 |     | 38 | 0.01 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 6 20 78  | 0.1                  | 0.02 |     |      | 19 | 0.0 | 0.00 | 0.3 | 2.7 |      | 7.4 | 0.2 |     | 26 | 0.00 | 0.0 | 5.0 |     | 0.2 | 0.0 |
| 7 19 78  | 0.1                  | 0.03 | 0.0 | 0.00 | 22 | 0.0 | 0.00 | 0.1 | 2.6 | 0.10 | 7.9 | 0.1 | 0.0 | 33 | 0.00 | 0.0 | 4.5 | 0.2 | 0.0 | 0.0 |
| 9 7 78   | 0.1                  | 0.02 |     |      | 41 | 0.0 | 0.01 | 0.1 | 2.0 |      | 8.8 | 0.0 |     | 31 | 0.02 | 0.1 | 7.5 |     | 0.1 | 0.0 |
| 9 13 78  | 0.1                  | 0.03 | 0.0 | 0.00 | 28 | 0.0 | 0.00 | 0.2 | 3.2 | 0.10 | 8.6 | 0.1 | 0.0 | 30 | 0.01 | 0.0 | 4.8 | 0.3 | 0.0 | 0.1 |
| 10 13 78 | 0.2                  | 0.02 | 0.1 | 0.01 | 21 | 0.0 | 0.00 | 0.3 | 5.0 | 0.45 | 6.4 | 0.1 | 0.0 | 25 | 0.00 | 0.0 | 3.8 | 0.5 | 0.0 | 0.0 |
| 11 20 78 | 0.1                  | 0.02 |     |      | 37 | 0.0 | 0.01 | 0.2 | 3.2 |      | 8.8 | 0.2 |     | 43 | 0.00 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 12 20 78 | 0.1                  | 0.02 |     |      | 23 | 0.0 | 0.00 | 0.2 | 2.2 |      | 7.4 | 0.1 |     | 37 | 0.01 | 0.0 | 5.2 |     | 0.1 | 0.0 |
| 1 31 79  | 0.2                  | 0.00 | 0.0 | 0.00 | 22 | 0.1 | 0.02 | 0.1 | 2.5 | 0.10 | 6.6 | 0.2 | 0.0 | 41 | 0.04 | 0.1 | 5.2 | 0.2 | 0.0 | 0.0 |
| 3 18 79  | 0.1                  | 0.02 |     |      | 24 | 0.0 | 0.00 | 0.2 | 2.4 |      | 7.8 | 0.1 |     | 31 | 0.02 | 0.1 | 4.6 |     | 0.0 | 0.0 |
| 4 20 79  | 0.1                  | 0.01 | 0.1 | 0.00 | 21 | 0.0 | 0.00 | 0.1 | 2.1 | 0.15 | 6.9 | 0.1 | 0.0 | 30 | 0.02 | 0.0 | 5.0 | 0.2 | 0.1 | 0.0 |
| 5 16 79  | 0.2                  | 0.01 |     |      | 31 | 0.0 | 0.01 | 0.1 | 2.5 |      | 8.1 | 0.2 |     | 34 | 0.00 | 0.0 | 5.2 |     | 0.0 | 0.0 |
| 6 20 79  | 0.1                  | 0.03 |     |      | 32 | 0.0 | 0.00 | 0.1 | 2.6 |      | 8.3 | 0.1 |     | 39 | 0.00 | 0.0 | 5.4 |     | 0.0 | 0.0 |
| 7 24 79  | 0.1                  | 0.03 | 0.0 | 0.00 | 33 | 0.0 | 0.01 | 0.2 | 2.6 | 0.10 | 9.0 | 0.1 | 0.0 | 39 | 0.00 | 0.0 | 4.9 | 0.2 | 0.0 | 0.0 |
| 8 16 79  | 0.1                  | 0.03 |     |      | 30 | 0.0 | 0.03 | 0.1 | 3.3 |      | 8.9 | 0.0 |     | 45 | 0.02 | 0.1 | 4.5 |     | 0.0 | 0.0 |

TABLE 11. WATER QUALITY FOR SITE 5032 CARROLL COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SO4  | NO3 AS N | NO3 N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|------|----------|-------|----------|-------|-------|----------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |     |      |          |       |          |       |       |          |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |        |          |             |      |     |     |      |          |       |          |       |       |          |
| 6 29 77                          | 22         | 0.004     |          |             | 20   | 392       | 245       | 1.50       | 7.3    |          | 51          | 62   | 0   | 3.0 | 130  | 0.1      |       |          |       |       |          |
| 8 4 77                           | 21         | 0.15      |          |             | 170  | 388       | 248       | 1.65       | 7.1    |          | 43          | 52   | 0   | 1.6 | 130  | 0.1      |       |          |       |       |          |
| 9 1 77                           | 25         | 0.06      |          |             | 85   | 1220      | 811       | 1.64       | 7.2    |          | 107         | 130  | 0   | 3.7 | 440  | 0.5      |       |          |       |       |          |
| 11 7 77                          | 18         | 0.025     | 40       |             | 35   | 445       | 266       | 2.12       | 8.0    |          | 74          | 89   | 1   | 3.5 | 120  | 0.1      |       |          |       |       |          |
| 1 5 78                           | 0          | 0.1       |          |             | 40   | 286       | 189       | 1.29       | 7.5    |          | 46          | 56   | 0   | 3.0 | 96   | 0.6      |       |          |       |       |          |
| 2 7 78                           | 0          | 0.15      |          |             | 85   | 264       | 146       | 1.75       | 7.7    |          | 34          | 41   | 0   | 2.1 | 66   | 0.3      |       |          |       |       |          |
| 4 12 78                          | 14         | 0.7       | 32       |             | 90   | 197       | 111       | 1.31       | 7.6    |          | 28          | 34   | 0   | 2.1 | 55   | 0.1      |       |          |       |       |          |
| 5 10 78                          | 17         | 0.9       | 34*      |             | 100  | 213       | 117       | 1.90       | 7.8    |          | 37          | 45   | 0   | 1.7 | 49   | 0.2      |       |          |       |       |          |
| 6 20 78                          |            | 0.25      | 131*     |             |      | 364       | 241       | 1.19       | 7.7    |          | 44          | 54   | 0   | 1.4 | 140  | 0.2      |       |          |       |       |          |
| 7 19 78                          | 22         | 0.3       | 96*      |             | 35   | 454       | 283       | 1.45       | 7.9    |          | 51          | 61   | 0   | 1.8 | 160  | 0.0      |       |          |       |       |          |
| 1 31 79                          | 0          | 0.015     | 26       |             | 1    | 1700      | 1620      | 1.11       | 7.7    | -42      | 47          | 56   | 0   | 3.9 | 1100 | 0.1      |       |          |       |       |          |
| 3 18 79                          | 8          | 0.015     | 3        |             | 6    | 1710      | 1610      | 0.97       | 7.5    | -36      | 43          | 53   | 0   | 4.4 | 1200 | 0.3      |       |          |       |       |          |
| 4 20 79                          | 11         | 0.09      | 12       | 0.00        | 8    | 1860      | 1740      | 0.90       | 7.8    | -28      | 34          | 41   | 0   | 6.4 | 1300 | 0.2      |       |          |       |       |          |
| 5 16 79                          | 13         | 0.008     | 56       | 0.12        | 25   | 2370      | 1960      | 0.90       | 7.9    | -11      | 39          | 47   | 0   | 6.2 | 1400 | 0.1      |       |          |       |       |          |
| 6 20 79                          | 24         | 0.15      |          |             | 15   | 1960      | 1760      | 0.93       | 7.5    | -26      | 33          | 40   | 0   | 7.1 | 1300 | 0.1      |       |          |       |       |          |
| 7 24 79                          | 22         | 0.01      | 92       |             | 45   | 1960      | 1280      | 1.15       | 7.6    | -2       | 21          | 26   | 0   | 7.5 | 870  | 0.0      | 0.1   | 0.06     | 0.00  | 0.00  | 0.01     |
| 8 16 79                          | 18         | 0.04      | 15       |             | 20   | 1840      | 1340      | 1.13       | 8.1    | -59      | 75          | 89   | 1   | 3.9 | 900  | 1.0      | 0.2   | 0.32     | 0.45  | 0.00  | 0.03     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 29 77  | 0.1                              | 0.05 |     |      | 42  | 0.0 | 0.00 | 0.1 | 3.0 |      | 22  | 1.6 |     | 6.5 | 0.01 | 0.0 | 2.1 |     | 0.0 | 0.2 |
| 8 4 77   | 0.1                              | 0.05 |     |      | 47  | 0.0 | 0.00 | 0.1 | 4.2 |      | 21  | 3.5 |     | 7.2 | 0.02 | 0.0 | 3.3 |     | 0.0 | 0.0 |
| 9 1 77   | 0.1                              | 0.31 |     |      | 120 | 0.0 | 0.01 | 0.1 | 12  |      | 47  | 1.2 |     | 120 | 0.04 | 0.1 | 2.6 |     | 0.1 | 0.0 |
| 11 7 77  | 0.1                              | 0.11 | 0.1 | 0.00 | 53  | 0.0 | 0.00 | 0.1 | 6.8 | 0.15 | 24  | 2.2 | 0.0 | 9.6 | 0.02 | 0.0 | 2.0 | 0.2 | 0.1 | 0.0 |
| 1 5 78   | 0.1                              | 0.01 | 0.0 | 0.00 | 30  | 0.0 | 0.00 | 0.2 | 2.4 | 0.15 | 12  | 2.7 | 0.0 | 4.4 | 0.01 | 0.0 | 3.7 | 0.2 | 0.0 | 0.0 |
| 2 7 78   | 0.1                              | 0.03 |     |      | 27  | 0.0 | 0.00 | 0.3 | 2.4 |      | 11  | 1.8 |     | 4.2 | 0.03 | 0.0 | 4.6 |     | 0.2 | 0.0 |
| 4 12 78  | 0.1                              | 0.01 | 0.0 | 0.00 | 16  | 0.0 | 0.01 | 0.2 | 2.6 | 0.07 | 6.7 | 0.9 | 0.0 | 3.2 | 0.03 | 0.1 | 3.2 | 0.1 | 0.0 | 0.0 |
| 5 10 78  | 0.1                              | 0.02 |     |      | 22  | 0.0 | 0.00 | 0.2 | 2.6 |      | 8.3 | 0.9 |     | 3.2 | 0.01 | 0.0 | 3.1 |     | 0.0 | 0.0 |
| 6 20 78  | 0.1                              | 0.03 |     |      | 32  | 0.0 | 0.00 | 0.3 | 3.2 |      | 20  | 1.6 |     | 5.4 | 0.01 | 0.0 | 3.7 |     | 0.2 | 0.0 |
| 7 19 78  | 0.1                              | 0.03 | 0.0 | 0.00 | 53  | 0.0 | 0.00 | 0.1 | 3.8 | 0.15 | 23  | 1.8 | 0.0 | 4.7 | 0.00 | 0.0 | 3.1 | 0.2 | 0.0 | 0.0 |
| 1 31 79  | 0.6                              | 0.09 | 0.0 | 0.00 | 300 | 0.0 | 0.00 | 0.3 | 6.3 | 2.0  | 130 | 11  | 0.0 | 9.9 | 0.13 | 0.2 | 4.8 | 0.6 | 0.5 | 0.0 |
| 3 18 79  | 0.5                              | 0.09 |     |      | 270 | 0.0 | 0.00 | 0.3 | 6.6 |      | 110 | 11  |     | 9.9 | 0.15 | 0.3 | 5.5 |     | 0.7 | 0.0 |
| 4 20 79  | 0.6                              | 0.09 | 0.1 | 0.00 | 290 | 0.1 | 0.00 | 0.1 | 5.6 | 2.0  | 110 | 13  | 0.2 | 11  | 0.19 | 0.3 | 5.6 | 0.8 | 0.5 | 0.1 |
| 5 16 79  | 0.8                              | 0.11 |     |      | 300 | 0.1 | 0.01 | 1.2 | 7.5 |      | 140 | 15  |     | 13  | 0.19 | 0.3 | 5.9 |     | 0.7 | 0.1 |
| 6 20 79  | 0.4                              | 0.10 |     |      | 300 | 0.0 | 0.00 | 1.3 | 8.0 |      | 110 | 16  |     | 11  | 0.17 | 0.2 | 4.5 |     | 0.4 | 0.1 |
| 7 24 79  | 0.5                              | 0.10 | 0.0 | 0.00 | 250 | 0.1 | 0.02 | 0.2 | 6.6 | 0.85 | 100 | 14  | 0.0 | 8.9 | 0.15 | 0.3 | 4.0 | 0.7 | 0.6 | 0.0 |
| 8 16 79  | 0.3                              | 0.27 |     |      | 230 | 0.1 | 0.04 | 0.1 | 11  |      | 89  | 8.4 |     | 53  | 0.12 | 0.3 | 1.4 |     | 0.4 | 0.0 |

TABLE 12. WATER QUALITY FOR SITE 5033 CARROLL COUNTY, OHIO

| -----    |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |  |  |  |  |  |
|----------|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|--|--|--|--|--|
| DATE     |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO                       | LAB PH | ACID-ITY | ALKA-LINITY | MC03 | CO3 | CL | SD4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |  |  |  |  |  |
| MO DA YR |    | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | ----- MILLIGRAMS PER LITER ----- |        |          |             |      |     |    |     |          |           |          |       |       |          |      |  |  |  |  |  |
| 6        | 29 | 77         | 20        | 0.15     |             | 35   | 2030      | 1470      | 0.90                             | 3.3    |          |             | 0    | 0   | 0  | 57  | 1000     | 0.0       |          |       |       |          |      |  |  |  |  |  |
| 8        | 4  | 77         | 19        | 0.8      |             | 15   | 1450      | 1030      | 0.92                             | 3.4    |          |             | 0    | 0   | 0  | 56  | 680      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 9        | 1  | 77         | 23        | 0.04     |             | 90   | 1890      | 1510      | 0.80                             | 3.5    |          |             | 0    | 0   | 0  | 61  | 1000     | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 11       | 7  | 77         | 18        | 0.7      | 30          | 4    | 1840      | 1310      | 0.98                             | 3.5    |          |             | 0    | 0   | 0  | 90  | 830      | 0.1       |          |       |       |          |      |  |  |  |  |  |
|          |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |  |  |  |  |  |
| 1        | 5  | 78         | 3         | 0.4      |             | 4    | 1050      | 800       | 0.94                             | 3.3    |          |             | 0    | 0   | 0  | 65  | 500      | 0.2       |          |       |       |          |      |  |  |  |  |  |
| 2        | 7  | 78         | 1         | 0.15     |             | 0    | 1350      | 1000      | 0.96                             | 3.5    |          |             | 0    | 0   | 0  | 72  | 630      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 3        | 15 | 78         | 3         | 1.5      |             | 15   | 1340      | 938       | 0.83                             | 3.4    |          |             | 0    | 0   | 0  | 31  | 640      | 0.5       |          |       |       |          |      |  |  |  |  |  |
| 4        | 13 | 78         | 10        | 2.0      | 4           | 4    | 1330      | 923       | 0.81                             | 3.6    |          |             | 0    | 0   | 0  | 59  | 610      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 5        | 10 | 78         | 15        | 1.0      | 18*         | 10   | 1440      | 1070      | 0.79                             | 3.6    |          |             | 0    | 0   | 0  | 50  | 740      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 6        | 20 | 78         |           | 1.0      | 49*         |      | 1400      | 886       | 0.95                             | 3.5    |          |             | 0    | 0   | 0  | 43  | 580      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 7        | 19 | 78         | 18        | 1.0      | 53*         | 8    | 1450      | 1040      | 0.82                             | 3.6    |          |             | 0    | 0   | 0  | 56  | 710      | 0.0       |          |       |       |          |      |  |  |  |  |  |
| 9        | 7  | 78         | 22        | 0.03     | 18*         | 0    | 1650      | 1250      | 0.75                             | 3.4    |          |             | 0    | 0   | 0  | 51  | 880      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 10       | 13 | 78         | 12        | 0.2      | 61*         | 35   | 1650      | 1260      | 0.74                             | 3.3    |          |             | 0    | 0   | 0  | 29  | 910      | 0.3       |          |       |       |          |      |  |  |  |  |  |
| 11       | 20 | 78         | 7         | 0.02     | 3           | 5    | 1710      | 1360      | 0.95                             | 3.5    | 170      |             | 0    | 0   | 0  | 45  | 910      | 0.4       |          |       |       |          |      |  |  |  |  |  |
| 12       | 20 | 78         | 3         | 0.1      | 8           | 8    | 1290      | 902       | 0.87                             | 3.8    | 72       |             | 0    | 0   | 0  | 36  | 620      | 0.4       |          |       |       |          |      |  |  |  |  |  |
|          |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |  |  |  |  |  |
| 1        | 31 | 79         | 0         | 0.15     | 12          | 5    | 1270      | 957       | 0.84                             | 3.6    | 81       |             | 0    | 0   | 0  | 30  | 670      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 3        | 18 | 79         | 8         | 0.4      | 20          | 3    | 1150      | 989       | 0.77                             | 3.9    | 56       |             | 0    | 0   | 0  | 35  | 710      | 0.2       |          |       |       |          |      |  |  |  |  |  |
| 4        | 20 | 79         | 14        | 0.4      | 20          | 4    | 1200      | 922       | 0.88                             | 3.7    | 70       |             | 0    | 0   | 0  | 35  | 630      | 0.2       |          |       |       |          |      |  |  |  |  |  |
| 5        | 16 | 79         | 17        | 0.25     | 20          | 4    | 1350      | 1010      | 0.85                             | 3.6    | 88       |             | 0    | 0   | 0  | 40  | 690      | 0.1       |          |       |       |          |      |  |  |  |  |  |
| 6        | 20 | 79         | 22        | 0.15     | 17          | 7    | 1910      | 1170      | 0.74                             | 3.5    |          |             | 0    | 0   | 0  | 72  | 810      | 0.2       |          |       |       |          |      |  |  |  |  |  |
| 7        | 24 | 79         | 23        | 0.09     | 13          | 10   | 1840      | 1100      | 0.97                             | 3.5    | 92       |             | 0    | 0   | 0  | 29  | 750      | 0.1       | 0.0      | 0.10  | 0.00  | 0.00     | 0.01 |  |  |  |  |  |
| 8        | 16 | 79         | 14        | 0.025    | 0           | 5    | 2020      | 1420      | 0.82                             | 3.5    | 120      |             | 0    | 0   | 0  | 30  | 1000     | 0.1       | 0.0      |       | 0.25  | 0.00     | 0.03 |  |  |  |  |  |
| 9        | 11 | 79         | 17        | 0.008    | 14          | 50   | 1580      | 1170      | 0.88                             | 3.7    | 86       |             | 0    | 0   | 0  | 30  | 810      | 0.1       |          |       |       |          |      |  |  |  |  |  |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |    |     |    |      |     |     |     |     |     |
| 6 29 77  | 11                   | 0.07 |     |      | 160 | 0.2 | 0.01 | 1.6 | 3.5 |      | 130 | 45 |     | 29 | 0.45 | 0.2 | 11  |     | 0.2 | 0.7 |
| 8 4 77   | 7.0                  | 0.04 |     |      | 130 | 0.1 | 0.01 | 1.5 | 4.2 |      | 80  | 17 |     | 32 | 0.29 | 0.0 | 11  |     | 0.1 | 0.2 |
| 9 1 77   | 10                   | 0.07 |     |      | 180 | 0.1 | 0.02 | 1.2 | 5.4 |      | 110 | 35 |     | 32 | 0.38 | 0.2 | 13  |     | 0.2 | 0.3 |
| 11 7 77  | 7.7                  |      | 0.0 | 0.00 | 160 | 0.2 | 0.01 | 1.3 | 5.4 | 0.50 | 120 | 33 | 0.1 | 33 | 0.37 | 0.1 | 14  | 0.5 | 0.2 | 0.3 |
| 1 5 78   | 6.4                  | 0.01 | 0.0 | 0.00 | 98  | 0.0 | 0.00 | 1.2 | 2.8 | 0.55 | 68  | 20 | 0.0 | 23 | 0.24 | 0.0 | 8.3 | 0.6 | 0.0 | 0.2 |
| 2 7 78   | 6.5                  | 0.07 |     |      | 120 | 0.1 | 0.01 | 2.0 | 3.7 |      | 89  | 25 |     | 28 | 0.33 | 0.0 | 9.6 |     | 0.2 | 0.3 |
| 3 15 78  | 9.2                  | 0.06 |     |      | 97  | 0.1 | 0.01 | 4.0 | 3.3 |      | 78  | 35 |     | 14 | 0.33 | 0.1 | 8.6 |     | 0.2 | 0.3 |
| 4 13 78  | 6.0                  | 0.02 | 0.0 | 0.00 | 98  | 0.1 | 0.01 | 1.6 | 3.5 | 0.45 | 73  | 26 | 0.0 | 23 | 0.29 | 0.1 | 7.8 | 0.4 | 0.1 | 0.2 |
| 5 10 78  | 8.8                  | 0.04 |     |      | 110 | 0.1 | 0.01 | 2.3 | 3.9 |      | 83  | 25 |     | 25 | 0.41 | 0.1 | 9.4 |     | 0.2 | 0.3 |
| 6 20 78  | 6.9                  | 0.05 |     |      | 100 | 0.1 | 0.01 | 2.2 | 3.1 |      | 79  | 22 |     | 24 | 0.32 | 0.1 | 11  |     | 0.5 | 0.3 |
| 7 19 78  | 6.1                  | 0.04 | 0.0 | 0.00 | 120 | 0.1 | 0.01 | 1.2 | 3.2 | 0.35 | 80  | 22 | 0.0 | 26 | 0.28 | 0.1 | 10  | 0.5 | 0.2 | 0.2 |
| 9 7 78   | 7.4                  | 0.06 |     |      | 130 | 0.1 | 0.02 | 1.2 | 5.3 |      | 95  | 31 |     | 21 | 0.35 | 0.2 | 13  |     | 0.2 | 0.3 |
| 10 13 78 | 9.2                  | 0.05 |     |      | 130 | 0.1 | 0.02 | 12  | 6.8 |      | 92  | 34 |     | 21 | 0.31 | 0.2 | 9.5 |     | 0.2 | 0.3 |
| 11 20 78 | 11                   | 0.05 |     |      | 170 | 0.2 | 0.02 | 1.8 | 5.3 |      | 120 | 45 |     | 27 | 0.46 | 0.2 | 13  |     | 0.3 | 0.4 |
| 12 20 78 | 4.6                  | 0.03 |     |      | 110 | 0.1 | 0.02 | 1.4 | 3.2 |      | 70  | 19 |     | 21 | 0.30 | 0.1 | 8.6 |     | 0.2 | 0.2 |
| 1 31 79  | 5.6                  | 0.03 | 0.0 | 0.00 | 110 | 0.0 | 0.00 | 2.0 | 2.9 | 0.45 | 73  | 21 | 0.1 | 19 | 0.28 | 0.1 | 7.2 | 0.2 | 0.4 | 0.3 |
| 3 18 79  | 4.7                  | 0.03 |     |      | 110 | 0.1 | 0.01 | 0.9 | 3.2 |      | 71  | 18 |     | 20 | 0.27 | 0.2 | 7.1 |     | 0.4 | 0.3 |
| 4 20 79  | 5.7                  | 0.03 | 0.0 | 0.00 | 110 | 0.1 | 0.01 | 0.8 | 3.2 | 0.80 | 72  | 17 | 0.1 | 21 | 0.29 | 0.2 | 7.0 | 0.4 | 0.2 | 0.2 |
| 5 16 79  | 6.2                  | 0.03 |     |      | 120 | 0.1 | 0.01 | 1.0 | 2.8 |      | 76  | 22 |     | 23 | 0.28 | 0.2 | 8.6 |     | 0.3 | 0.2 |
| 6 20 79  | 6.1                  | 0.05 |     |      | 140 | 0.1 | 0.00 | 0.9 | 2.7 |      | 81  | 20 |     | 23 | 0.29 | 0.1 | 8.1 |     | 0.3 | 0.3 |
| 7 24 79  | 7.4                  | 0.06 | 0.0 | 0.00 | 150 | 0.1 | 0.00 | 0.7 | 2.5 | 0.60 | 94  | 33 | 0.0 | 20 | 0.34 | 0.2 | 8.7 | 0.5 | 0.4 | 0.3 |
| 8 16 79  | 10                   | 0.06 |     |      | 170 | 0.1 | 0.03 | 1.1 | 4.2 |      | 110 | 36 |     | 21 | 0.41 | 0.2 | 11  |     | 0.3 | 0.3 |
| 9 11 79  | 7.9                  | 0.06 |     |      | 140 | 0.1 | 0.01 | 2.8 | 5.0 |      | 91  | 31 |     | 21 | 0.34 | 0.1 | 12  |     | 0.4 | 0.3 |

TABLE 13. WATER QUALITY FOR SITE 5036 CARROLL COUNTY, OHIO

| SUSP<br>SOL MATTER | SETT<br>TURB | SPEC<br>COND | DIS<br>SOLID | NEUT<br>RATIO | LAB<br>PH            | ACID-<br>ITY | ALKA-<br>LINEITY | HCO <sub>3</sub> | CO <sub>3</sub> | CL  | SO <sub>4</sub> | NO <sub>3</sub><br>AS N | NO <sub>3</sub><br>AS N | NH <sub>3</sub><br>AS N | TOT<br>N | TOT<br>P | ORTH<br>PO <sub>4</sub> |
|--------------------|--------------|--------------|--------------|---------------|----------------------|--------------|------------------|------------------|-----------------|-----|-----------------|-------------------------|-------------------------|-------------------------|----------|----------|-------------------------|
| MG/L               | ML/L         | JTU          | UM/CM        | MG/L          | MILLIGRAMS PER LITER |              |                  |                  |                 |     |                 |                         |                         |                         |          |          |                         |
| 45*                | 15           | 1760         | 1560         | 0.98          | 7.7                  |              | 39               | 47               | 0               | 4.7 | 1100            | 0.1                     |                         |                         |          |          |                         |
|                    |              | 1600         | 1380         | 0.89          | 7.6                  |              | 34               | 41               | 0               | 6.1 | 1000            | 0.3                     |                         |                         |          |          |                         |
| 18                 | 25           | 1480         | 1280         | 0.96          | 7.8                  | -32          | 46               | 55               | 0               | 4.4 | 910             | 0.1                     |                         |                         |          |          |                         |
|                    | 6            | 1610         | 1310         | 1.12          | 7.8                  | -10          | 39               | 47               | 0               | 4.3 | 900             | 0.4                     |                         |                         |          |          |                         |
| 53                 | 50           | 1860         | 1420         | 0.89          | 6.6                  | -2           | 13               | 16               | 0               | 11  | 1000            | 0.1                     |                         |                         |          |          |                         |

Values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| BA                   | BE | CA  | CO  | CU   | FE  | K   | LI | MG  | MN  | MO | NA  | NI   | PB  | SI  | SR | TI  | ZN  |
|----------------------|----|-----|-----|------|-----|-----|----|-----|-----|----|-----|------|-----|-----|----|-----|-----|
| MILLIGRAMS PER LITER |    |     |     |      |     |     |    |     |     |    |     |      |     |     |    |     |     |
|                      |    | 240 | 0.0 | 0.01 | 0.2 | 9.2 |    | 120 | 9.4 |    | 17  | 0.14 | 0.3 | 6.8 |    | 0.2 | 0.0 |
|                      |    | 200 | 0.0 | 0.00 | 0.3 | 6.7 |    | 100 | 8.0 |    | 8.5 | 0.10 | 0.2 | 5.0 |    | 0.2 | 0.0 |
|                      |    | 200 | 0.0 | 0.01 | 0.2 | 5.8 |    | 94  | 8.1 |    | 9.9 | 0.14 | 0.3 | 5.6 |    | 0.3 | 0.0 |
|                      |    | 230 | 0.1 | 0.01 | 0.3 | 6.9 |    | 110 | 12  |    | 10  | 0.19 | 0.5 | 6.3 |    | 0.6 | 0.0 |
|                      |    | 230 | 0.1 | 0.00 | 0.1 | 9.1 |    | 88  | 14  |    | 18  | 0.19 | 0.2 | 4.0 |    | 0.4 | 0.1 |

TABLE 14. WATER QUALITY FOR SITE 5042 COSHOCTON COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 6    | 20 | 77         | 21        | 0.08     |             |      | 15        | 462       | 334        | 1.15                 | 8.1      |             | 82   | 98  | 1  | 2.8 | 190      | 0.1      |          |       |       |          |      |
| 8    | 2  | 77         | 20        | 0.1      |             |      | 40        | 711       | 451        | 1.09                 | 7.7      |             | 64   | 77  | 0  | 2.9 | 280      | 0.3      |          |       |       |          |      |
| 9    | 22 | 77         | 15        | 0.15     |             |      | 10        | 416       | 267        | 1.86                 | 7.7      |             | 73   | 88  | 0  | 2.5 | 120      | 0.1      |          |       |       |          |      |
| 11   | 9  | 77         | 14        | 0.25     | 56          |      | 8         | 381       | 248        | 2.67                 | 8.1      |             | 134  | 161 | 1  | 3.4 | 73       | 0.1      |          |       |       |          |      |
| 12   | 29 | 77         | 0         | 1.5      |             |      | 8         | 240       | 163        | 2.03                 | 7.9      |             | 63   | 76  | 0  | 3.5 | 58       | 0.8      |          |       |       |          |      |
| 2    | 8  | 78         | 1         | 0.4      |             |      | 0         | 273       | 149        | 2.22                 | 7.6      |             | 53   | 65  | 0  | 2.5 | 54       | 0.6      |          |       |       |          |      |
| 3    | 14 | 78         | 4         | 25       | 685         |      | 470       | 164       | 90         | 1.28                 | 6.9      |             | 5    | 6   | 0  | 2.0 | 47       | 1.0      |          |       |       |          |      |
| 4    | 12 | 78         | 17        | 3        | 19          |      | 40        | 262       | 167        | 2.12                 | 7.8      |             | 44   | 54  | 0  | 3.0 | 68       | 0.5      |          |       |       |          |      |
| 5    | 10 | 78         | 12        | 6        | 32*         |      | 60        | 252       | 160        | 1.17                 | 7.7      |             | 34   | 41  | 0  | 2.5 | 85       | 0.5      |          |       |       |          |      |
| 6    | 21 | 78         |           | 2.0      | 234*        |      |           | 655       | 437        | 1.10                 | 7.3      |             | 38   | 46  | 0  | 1.8 | 280      | 0.3      |          |       |       |          |      |
| 7    | 19 | 78         | 24        | 0.5      | 66*         |      | 15        | 394       | 243        | 1.76                 | 8.2      |             | 72   | 86  | 1  | 3.0 | 110      | 0.1      |          |       |       |          |      |
| 9    | 12 | 78         | 20        | 0.08     | 61*         |      | 40        | 610       | 381        | 1.21                 | 8.3      |             | 84   | 99  | 1  | 3.3 | 220      | 0.2      |          |       |       |          |      |
| 10   | 13 | 78         | 12        | 1.0      |             |      | 250       | 356       | 204        |                      | 7.3      |             | 57   | 69  | 0  |     | 95       |          |          |       |       |          |      |
| 11   | 7  | 78         | 7         | 0.06     | 12          |      | 25        | 316       | 191        | 2.41                 | 8.0      | -81         | 84   | 101 | 1  | 4.4 | 62       | 0.0      |          |       |       |          |      |
| 12   | 21 | 78         | 1         | 0.3      | 83          |      | 100       | 239       | 153        | 2.15                 | 7.8      |             | 51   | 62  | 0  | 2.9 | 55       | 1.0      |          |       |       |          |      |
| 3    | 19 | 79         | 9         | 0.4      | 6           |      | 7         | 270       | 175        | 2.01                 | 8.0      | -51         | 58   | 70  | 0  | 2.8 | 70       | 0.2      |          |       |       |          |      |
| 4    | 21 | 79         | 13        | 0.9      | 28          | 0.00 | 20        | 237       | 179        | 1.40                 | 7.7      | -44         | 47   | 57  | 0  | 2.7 | 87       | 0.5      |          |       |       |          |      |
| 5    | 17 | 79         | 22        | 0.08     | 21          | 0.00 | 25        | 305       | 206        | 2.61                 | 7.9      | -64         | 86   | 104 | 1  | 2.9 | 70       | 0.3      |          |       |       |          |      |
| 6    | 23 | 79         | 20        | 0.2      | 33          |      | 50        | 274       | 155        | 2.15                 | 8.2      | -59         | 65   | 78  | 1  | 3.8 | 54       | 0.3      |          |       |       |          |      |
| 7    | 18 | 79         | 22        | 0.04     | 11          |      | 20        | 315       | 165        | 3.19                 | 8.4      | -75         | 80   | 94  | 1  | 2.8 | 46       | 0.1      | 0.0      | 0.12  | 0.80  | 0.10     | 0.01 |
| 8    | 8  | 79         | 22        | 0.3      | 258         |      | 750       | 229       | 118        | 2.06                 | 7.9      | -30         | 43   | 52  | 0  | 3.1 | 43       | 0.0      | 0.1      | 0.17  | 0.70  | 0.20     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 20 77  | 0.1                  | 0.00 | 0.0 | 0.00 | 51 | 0.0 | 0.01 | 0.3 | 0.3 | 0.10 | 20  | 0.1 | 0.0 | 9.6 | 0.05 | 0.2 | 4.4 | 0.1 | 0.0 | 0.0 |
| 8 2 77   | 0.1                  | 0.01 |     |      | 78 | 0.0 | 0.00 | 0.0 | 3.3 |      | 24  | 0.5 |     | 12  | 0.03 | 0.0 | 4.7 |     | 0.0 | 0.4 |
| 9 22 77  | 0.1                  |      |     |      | 48 | 0.1 | 0.01 | 0.2 | 2.9 |      | 24  | 0.3 |     | 7.2 |      | 0.1 | 7.7 |     | 0.2 | 0.1 |
| 11 9 77  | 0.1                  |      | 0.1 | 0.00 | 54 | 0.0 | 0.00 | 0.1 | 2.8 | 0.20 | 13  | 0.1 | 0.0 | 8.3 | 0.01 | 0.0 | 5.4 | 0.1 | 0.1 | 0.0 |
| 12 29 77 | 0.0                  | 0.00 | 0.1 | 0.00 | 31 | 0.0 | 0.01 | 0.1 | 1.8 | 0.15 | 9.5 | 0.3 | 0.0 | 5.5 | 0.01 | 0.0 | 5.1 | 0.1 | 0.0 | 0.0 |
| 2 8 78   | 0.1                  | 0.02 |     |      | 30 | 0.0 | 0.00 | 0.0 | 1.8 |      | 9.5 | 0.2 |     | 5.7 | 0.00 | 0.0 | 5.0 |     | 0.0 | 0.0 |
| 3 14 78  | 0.3                  | 0.02 |     |      | 14 | 0.0 | 0.00 | 0.3 | 2.6 |      | 6.0 | 0.6 |     | 2.5 | 0.00 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 4 12 78  | 0.1                  | 0.01 | 0.0 | 0.00 | 35 | 0.0 | 0.00 | 0.1 | 2.2 | 0.10 | 12  | 0.3 | 0.0 | 7.2 | 0.02 | 0.0 | 4.8 | 0.1 | 0.0 | 0.0 |
| 5 10 78  | 0.1                  | 0.02 |     |      | 24 | 0.0 | 0.01 | 0.1 | 1.8 |      | 9.0 | 0.4 |     | 4.6 | 0.02 | 0.0 | 4.8 |     | 0.1 | 0.0 |
| 6 21 78  | 0.1                  | 0.03 |     |      | 66 | 0.0 | 0.00 | 0.1 | 3.4 |      | 34  | 3.3 |     | 8.7 | 0.02 | 0.0 | 5.5 |     | 0.2 | 0.0 |
| 7 19 78  | 0.1                  | 0.03 | 0.1 | 0.00 | 48 | 0.0 | 0.00 | 0.1 | 2.2 | 0.15 | 18  | 0.0 | 0.0 | 6.6 | 0.00 | 0.0 | 4.1 | 0.1 | 0.0 | 0.0 |
| 9 12 78  | 0.1                  | 0.04 |     |      | 60 | 0.0 | 0.00 | 0.1 | 3.0 |      | 28  | 0.3 |     | 5.6 | 0.03 | 0.1 | 5.2 |     | 0.1 | 0.0 |
| 10 13 78 | 0.5                  | 0.01 | 0.0 | 0.02 | 36 | 0.0 | 0.01 | 0.7 | 7.3 | 0.25 | 16  | 0.5 | 0.0 | 6.1 | 0.01 | 0.0 | 3.3 | 0.1 | 0.0 | 0.0 |
| 11 7 78  | 0.1                  | 0.02 |     |      | 46 | 0.0 | 0.00 | 0.2 | 2.8 |      | 10  | 0.4 |     | 5.6 | 0.02 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 12 21 78 | 0.1                  | 0.02 |     |      | 35 | 0.0 | 0.00 | 0.1 | 2.0 |      | 7.3 | 0.2 |     | 5.1 | 0.01 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 3 19 79  | 0.1                  | 0.02 |     |      | 40 | 0.0 | 0.00 | 0.1 | 1.9 |      | 9.2 | 0.1 |     | 5.3 | 0.02 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 4 21 79  | 0.1                  | 0.02 | 0.1 | 0.00 | 35 | 0.0 | 0.01 | 0.1 | 1.9 | 0.15 | 7.8 | 0.1 | 0.0 | 5.2 | 0.01 | 0.0 | 4.3 | 0.1 | 0.0 | 0.0 |
| 5 17 79  | 0.2                  | 0.02 |     |      | 49 | 0.0 | 0.01 | 0.1 | 2.0 |      | 14  | 0.1 |     | 5.8 | 0.01 | 0.0 | 4.3 |     | 0.0 | 0.1 |
| 6 23 79  | 0.1                  | 0.02 |     |      | 31 | 0.0 | 0.01 | 0.1 | 2.1 |      | 8.5 | 0.1 |     | 5.0 | 0.02 | 0.1 | 4.5 |     | 0.0 | 0.0 |
| 7 18 79  | 0.1                  | 0.03 | 0.0 | 0.00 | 40 | 0.0 | 0.00 | 0.1 | 2.2 | 0.15 | 10  | 0.1 | 0.0 | 5.6 | 0.01 | 0.1 | 4.5 | 0.1 | 0.0 | 0.0 |
| 8 8 79   | 0.1                  | 0.04 |     |      | 22 | 0.0 | 0.04 | 0.1 | 3.4 |      | 7.0 | 0.1 |     | 4.1 | 0.03 | 0.1 | 4.7 |     | 0.1 | 0.0 |

TABLE 15. WATER QUALITY FOR SITE 5043 COSHOCTON COUNTY, OHIO

|      |    |            |           |          |             |      |           |           |            |                      |          |             |      | NO3 |    |     |      |          | TOT      |      | TOT  |      | ORTH |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|------|----------|----------|------|------|------|------|
| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SD4 | AS N | NO3 AS N | NH3 AS N | N    | P    | PO4  |      |
| MO   | DA | YR         | DES C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |      |          |          |      |      |      |      |
| 6    | 20 | 77         | 21        | 0.01     |             |      | 10        | 1640      | 1000       | 0.79                 | 2.8      |             | 0    | 0   | 0  | 1.8 | 720  | 0.0      |          |      |      |      |      |
| 8    | 2  | 77         | 21        | 0.004    |             |      | 15        | 1450      | 1090       | 0.83                 | 2.9      |             | 0    | 0   | 0  | 1.5 | 740  | 0.1      |          |      |      |      |      |
| 9    | 22 | 77         | 16        | 0.015    |             |      | 10        | 1290      | 1060       | 1.06                 | 3.3      |             | 0    | 0   | 0  | 1.7 | 710  | 0.0      |          |      |      |      |      |
| 11   | 9  | 77         | 14        | 0.02     | 20          |      | 4         | 1570      | 1090       | 0.82                 | 3.1      |             | 0    | 0   | 0  | 2.2 | 780  | 0.0      |          |      |      |      |      |
| 12   | 29 | 77         | 1         | 0.2      |             |      | 15        | 1460      | 1070       | 1.00                 | 3.7      |             | 0    | 0   | 0  | 2.4 | 730  | 0.2      |          |      |      |      |      |
|      |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |      |          |          |      |      |      |      |
| 2    | 8  | 78         | 1         | 0.04     |             |      | 0         | 1220      | 956        | 0.96                 | 3.2      |             | 0    | 0   | 0  | 1.5 | 650  | 0.1      |          |      |      |      |      |
| 3    | 14 | 78         | 4         | 2.5      | 46          |      | 65        | 502       | 324        | 1.05                 | 4.2      |             | 0    | 0   | 0  | 3.0 | 210  | 0.6      |          |      |      |      |      |
| 4    | 12 | 78         | 16        | 0.4      | 4           |      | 8         | 1180      | 914        | 0.98                 | 3.4      |             | 0    | 0   | 0  | 1.9 | 640  | 0.2      |          |      |      |      |      |
| 5    | 10 | 78         | 13        | 0.4      | 11          |      | 8         | 995       | 748        | 0.81                 | 3.6      |             | 0    | 0   | 0  | 1.5 | 540  | 0.3      |          |      |      |      |      |
| 6    | 21 | 78         |           | 0.15     | 72*         |      |           | 1330      | 948        | 0.87                 | 3.3      |             | 0    | 0   | 0  | 1.0 | 670  | 0.1      |          |      |      |      |      |
| 7    | 19 | 78         | 22        | 0.1      | 92*         |      | 60        | 1400      | 980        | 0.78                 | 3.2      |             | 0    | 0   | 0  | 1.2 | 710  | 0.0      |          |      |      |      |      |
| 9    | 12 | 78         | 20        | 0.005    | 38*         |      | 10        | 1340      | 975        | 0.94                 | 3.3      |             | 0    | 0   | 0  | 1.7 | 680  | 0.2      |          |      |      |      |      |
| 10   | 13 | 78         | 12        | 0.06     | 55*         |      | 7         | 1220      | 967        | 0.81                 | 3.4      |             | 0    | 0   | 0  | 1.1 | 710  | 0.0      |          |      |      |      |      |
| 11   | 7  | 78         | 7         | 0.03     | 32          |      | 25        | 1330      | 1120       | 0.78                 | 3.4      | 110         | 0    | 0   | 0  | 2.2 | 820  | 0.0      |          |      |      |      |      |
| 12   | 21 | 78         | 0         | 0.02     | 5           |      | 1         | 1200      | 885        | 0.92                 | 3.6      | 100         | 0    | 0   | 0  | 1.8 | 610  | 0.8      |          |      |      |      |      |
|      |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |      |          |          |      |      |      |      |
| 3    | 19 | 79         | 6         | 0.05     | 5           |      | 1         | 1270      | 1250       | 0.82                 | 3.6      | 97          | 0    | 0   | 0  | 5.9 | 910  | 0.5      |          |      |      |      |      |
| 4    | 21 | 79         | 12        | 0.08     | 10          | 0.00 | 4         | 1250      | 944        | 0.90                 | 3.5      | 92          | 0    | 0   | 0  | 6.0 | 670  | 0.4      |          |      |      |      |      |
| 5    | 17 | 79         | 18        | 0.03     | 29          | 0.00 | 2         | 1350      | 1020       | 0.79                 | 3.4      | 100         | 0    | 0   | 0  | 6.9 | 750  | 0.1      |          |      |      |      |      |
| 6    | 23 | 79         | 20        | 0.03     | 6           |      | 15        | 1340      | 1050       | 0.76                 | 3.4      | 92          | 0    | 0   | 0  | 7.7 | 770  | 0.0      |          |      |      |      |      |
| 7    | 18 | 79         | 23        | 0.001    | 17*         |      | 15        | 1480      | 1000       | 0.82                 | 3.2      | 100         | 0    | 0   | 0  | 7.0 | 720  | 0.1      | 0.0      | 0.14 | 0.60 | 0.15 | 0.04 |
| 8    | 8  | 79         | 24        | 0.07     | 60          | 0.02 | 75        | 1640      | 1010       | 0.98                 | 3.4      | 62          | 0    | 0   | 0  | 44  | 650  | 0.0      | 0.1      | 0.16 | 0.50 | 0.00 | 0.03 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 20 77  | 11                   | 0.01 | 0.0 | 0.00 | 110 | 0.1 | 0.02 | 25  | 6.4 | 0.10 | 71 | 11  | 0.0 | 8.1 | 0.23 | 0.2 | 17  | 0.1 | 0.1 | 0.2 |
| 8 2 77   | 9.9                  |      |     |      | 130 | 0.1 | 0.00 | 49  | 6.0 |      | 69 | 11  |     | 8.9 | 0.16 | 0.0 | 26  |     | 0.1 | 0.4 |
| 9 22 77  | 10.0                 |      |     |      | 150 | 0.1 | 0.01 | 13  | 5.7 |      | 94 | 8.5 |     | 8.2 | 0.20 | 0.1 | 28  |     | 0.2 | 0.3 |
| 11 9 77  | 14                   | 0.09 | 0.1 | 0.01 | 130 | 0.0 | 0.00 | 26  | 6.5 | 0.55 | 78 | 12  | 0.1 | 7.4 | 0.16 | 0.0 | 21  | 0.4 | 0.0 | 0.2 |
| 12 29 77 | 17                   | 0.09 | 0.0 | 0.00 | 140 | 0.1 | 0.01 | 7.8 | 5.4 | 0.80 | 92 | 15  | 0.0 | 7.1 | 0.26 | 0.1 | 22  | 0.6 | 0.2 | 0.2 |
| 2 8 78   | 16                   | 0.13 |     |      | 120 | 0.1 | 0.00 | 4.6 | 4.4 |      | 82 | 13  |     | 6.0 | 0.21 | 0.1 | 25  |     | 0.3 | 0.2 |
| 3 14 78  | 4.0                  | 0.04 |     |      | 43  | 0.0 | 0.00 | 0.8 | 3.5 |      | 29 | 4.0 |     | 4.3 | 0.05 | 0.0 | 7.9 |     | 0.0 | 0.0 |
| 4 12 78  | 9.9                  | 0.07 | 0.0 | 0.00 | 130 | 0.1 | 0.02 | 2.3 | 5.4 | 0.45 | 77 | 11  | 0.0 | 5.5 | 0.19 | 0.1 | 15  | 0.3 | 0.3 | 0.2 |
| 5 10 78  | 11                   | 0.08 |     |      | 89  | 0.1 | 0.01 | 1.7 | 4.2 |      | 54 | 7.7 |     | 6.2 | 0.17 | 0.0 | 14  |     | 0.2 | 0.1 |
| 6 21 78  | 12                   | 0.09 |     |      | 110 | 0.1 | 0.01 | 11  | 5.1 |      | 76 | 12  |     | 6.8 | 0.20 | 0.1 | 20  |     | 0.2 | 0.1 |
| 7 19 78  | 8.2                  | 0.10 | 0.0 | 0.00 | 110 | 0.1 | 0.00 | 12  | 3.8 | 0.40 | 69 | 11  | 0.0 | 5.5 | 0.13 | 0.1 | 23  | 0.4 | 0.1 | 0.1 |
| 9 12 78  | 10                   | 0.11 |     |      | 130 | 0.1 | 0.01 | 3.9 | 4.7 |      | 75 | 14  |     | 9.6 | 0.18 | 0.2 | 21  |     | 0.4 | 0.2 |
| 10 13 78 | 7.0                  | 0.07 | 0.0 | 0.00 | 120 | 0.1 | 0.02 | 4.3 | 6.9 | 0.85 | 68 | 13  | 0.0 | 7.4 | 0.15 | 0.1 | 16  | 0.4 | 0.1 | 0.1 |
| 11 7 78  | 12                   | 0.10 |     |      | 140 | 0.1 | 0.01 | 3.6 | 5.3 |      | 74 | 14  |     | 6.3 | 0.21 | 0.3 | 22  |     | 0.4 | 0.1 |
| 12 21 78 | 12                   | 0.07 | 0.0 | 0.00 | 120 | 0.1 | 0.01 | 1.8 | 4.7 | 0.90 | 65 | 12  | 0.0 | 10  | 0.15 | 0.1 | 19  | 0.4 | 0.1 | 0.1 |
| 3 19 79  | 18                   | 0.06 |     |      | 170 | 0.1 | 0.01 | 1.2 | 5.6 |      | 85 | 1.3 |     | 7.8 | 0.28 | 0.2 | 17  |     | 0.4 | 0.2 |
| 4 21 79  | 9.8                  | 0.07 |     |      | 130 | 0.1 | 0.00 | 0.7 | 3.7 |      | 74 | 11  |     | 5.9 | 0.19 | 0.2 | 14  |     | 0.3 | 0.2 |
| 5 17 79  | 8.4                  | 0.06 |     |      | 120 | 0.1 | 0.00 | 1.2 | 3.7 |      | 72 | 12  |     | 6.6 | 0.16 | 0.1 | 16  |     | 0.3 | 0.2 |
| 6 23 79  | 8.9                  | 0.10 |     |      | 120 | 0.1 | 0.00 | 2.5 | 3.8 |      | 71 | 12  |     | 6.3 | 0.16 | 0.1 | 20  |     | 0.2 | 0.2 |
| 7 18 79  | 8.9                  | 0.09 | 0.0 | 0.00 | 120 | 0.1 | 0.00 | 3.1 | 4.0 | 0.85 | 71 | 12  | 0.0 | 7.1 | 0.18 | 0.2 | 19  | 0.4 | 0.3 | 0.1 |
| 8 8 79   | 6.9                  | 0.08 |     |      | 150 | 0.1 | 0.02 | 7.2 | 6.8 |      | 64 | 12  |     | 39  | 0.17 | 0.2 | 13  |     | 0.2 | 0.0 |

TABLE 16. WATER QUALITY FOR SITE 5046 COSHOCTON COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6    | 20 | 77         | 19        | 0.015    |             |      | 0         | 413       | 235        | 1.16                 | 6.6      |             | 4    | 5   | 0  | 1.9 | 140      | 1.7       |          |       |       |          |      |
| 8    | 2  | 77         | 17        | 0.015    |             |      | 25        | 326       | 207        | 1.15                 | 6.5      |             | 13   | 16  | 0  | 1.8 | 120      | 0.2       |          |       |       |          |      |
| 9    | 22 | 77         | 14        | 0.025    |             |      | 20        | 416       | 253        | 1.14                 | 6.9      |             | 11   | 13  | 0  | 1.8 | 150      | 0.1       |          |       |       |          |      |
| 11   | 9  | 77         | 14        | 0.025    | 21          |      | 8         | 406       | 274        | 1.10                 | 6.5      |             | 15   | 18  | 0  | 2.5 | 170      | 0.1       |          |       |       |          |      |
| 12   | 29 | 77         | 0         | 0.1      |             |      | 4         | 249       | 175        | 0.80                 | 4.8      |             | 0    | 0   | 0  | 2.5 | 120      | 0.2       |          |       |       |          |      |
| 2    | 8  | 78         | 1         | 0.25     |             |      | 0         | 293       | 194        | 1.18                 | 4.2      |             | 0    | 0   | 0  | 1.8 | 120      | 0.2       |          |       |       |          |      |
| 3    | 14 | 78         | 4         | 4        | 215         |      | 90        | 185       | 113        | 0.92                 | 4.5      |             | 0    | 0   | 0  | 1.7 | 70       | 0.6       |          |       |       |          |      |
| 4    | 12 | 78         | 15        | 0.5      | 14          |      | 4         | 304       | 182        | 0.77                 | 4.1      |             | 0    | 0   | 0  | 2.1 | 130      | 0.1       |          |       |       |          |      |
| 5    | 10 | 78         | 11        | 0.9      | 11          |      | 10        | 267       | 165        | 0.87                 | 4.4      |             | 0    | 0   | 0  | 1.6 | 110      | 0.1       |          |       |       |          |      |
| 6    | 21 | 78         |           | 0.3      | 32*         |      | 0         | 348       | 225        | 0.99                 | 4.4      |             | 0    | 0   | 0  | 1.6 | 150      | 0.1       |          |       |       |          |      |
| 7    | 19 | 78         | 19        | 0.15     | 57*         |      | 10        | 320       | 186        | 1.06                 | 4.7      |             | 0    | 0   | 0  | 2.1 | 120      | 0.2       |          |       |       |          |      |
| 9    | 12 | 78         |           | 0.02     | 35*         |      | 15        | 293       | 182        | 0.99                 | 4.5      |             | 0    | 0   | 0  | 2.7 | 110      | 0.3       |          |       |       |          |      |
| 10   | 13 | 78         | 12        | 0.07     | 28*         |      | 30        | 432       | 311        | 0.88                 | 5.1      |             | 0    | 0   | 0  | 1.8 | 210      | 0.4       |          |       |       |          |      |
| 11   | 7  | 78         | 7         | 0.04     | 20          |      | 5         | 365       | 308        | 0.96                 | 4.9      | 4           | 0    | 0   | 0  | 2.4 | 200      | 0.1       |          |       |       |          |      |
| 3    | 19 | 79         | 9         | 0.3      | 5           |      | 1         | 462       | 346        | 0.93                 | 4.2      | 20          | 0    | 0   | 0  | 1.0 | 240      | 0.3       |          |       |       |          |      |
| 4    | 21 | 79         | 9         | 0.3      | 37          |      | 20        | 367       | 260        | 1.20                 | 4.1      |             | 0    | 0   | 0  | 1.7 | 170      | 0.2       |          |       |       |          |      |
| 5    | 17 | 79         | 18        | 0.04     | 35          |      | 8         | 383       | 268        | 0.86                 | 4.6      | 14          | 0    | 0   | 0  | 1.6 | 190      | 0.1       |          |       |       |          |      |
| 6    | 23 | 79         | 21        | 0.15     |             |      |           | 390       | 286        | 1.12                 | 4.7      | 12          | 0    | 0   | 0  | 2.1 | 180      | 0.1       |          |       |       |          |      |
| 7    | 18 | 79         | 22        | 0.02     | 20*         |      | 7         | 436       | 314        | 0.84                 | 4.3      | 11          | 0    | 0   | 0  | 1.4 | 220      | 0.2       | 0.1      | 0.06  | 1.15  | 0.35     | 0.01 |
| 8    | 8  | 79         | 21        | 0.04     | 20          |      | 15        | 455       | 261        | 0.89                 | 4.5      | 15          | 0    | 0   | 0  | 1.7 | 180      | 0.1       | 0.0      | 0.33  | 0.20  | 0.05     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 20 77  | 0.2                  | 0.03 | 0.0 | 0.00 | 26 | 0.0 | 0.05 | 0.4 | 6.0 | 0.08 | 21  | 1.4 | 0.0 | 8.4 | 0.06 | 0.0 | 8.8 | 0.1 | 0.0 | 0.1 |
| 8 2 77   | 0.0                  | 0.01 |     |      | 23 | 0.0 | 0.00 | 0.3 | 3.0 |      | 19  | 1.2 |     | 6.0 | 0.02 | 0.0 | 8.6 |     | 0.0 | 0.2 |
| 9 22 77  | 0.1                  |      |     |      | 25 | 0.1 | 0.00 | 0.4 | 3.1 |      | 27  | 1.8 |     | 5.0 | 0.09 | 0.1 | 12  |     | 0.1 | 0.1 |
| 11 9 77  | 0.0                  | 0.07 | 0.0 | 0.00 | 34 | 0.0 | 0.00 | 0.2 | 3.6 | 0.15 | 23  | 1.5 | 0.0 | 6.2 | 0.02 | 0.0 | 10  | 0.1 | 0.0 | 0.0 |
| 12 29 77 | 1.6                  | 0.00 | 0.0 | 0.00 | 19 | 0.0 | 0.00 | 0.4 | 2.0 | 0.15 | 11  | 1.5 | 0.0 | 2.8 | 0.03 | 0.0 | 8.0 | 0.1 | 0.0 | 0.1 |
| 2 8 78   | 2.2                  | 0.04 |     |      | 22 | 0.0 | 0.00 | 0.4 | 2.6 |      | 20  | 1.4 |     | 3.7 | 0.03 | 0.0 | 9.4 |     | 0.0 | 0.0 |
| 3 14 78  | 0.7                  | 0.04 |     |      | 12 | 0.0 | 0.00 | 0.5 | 2.6 |      | 7.9 | 1.0 |     | 2.5 | 0.02 | 0.0 | 5.4 |     | 0.0 | 0.0 |
| 4 12 78  | 1.6                  | 0.01 | 0.0 | 0.00 | 18 | 0.0 | 0.01 | 0.4 | 2.6 | 0.07 | 12  | 1.8 | 0.0 | 3.3 | 0.05 | 0.0 | 6.1 | 0.0 | 0.0 | 0.0 |
| 5 10 78  | 1.3                  | 0.03 |     |      | 17 | 0.0 | 0.01 | 0.5 | 2.4 |      | 12  | 1.0 |     | 3.3 | 0.04 | 0.0 | 8.1 |     | 0.0 | 0.0 |
| 6 21 78  | 1.2                  | 0.03 |     |      | 22 | 0.0 | 0.00 | 0.7 | 2.9 |      | 21  | 2.1 |     | 3.9 | 0.03 | 0.0 | 11  |     | 0.1 | 0.0 |
| 7 19 78  | 0.5                  | 0.03 | 0.0 | 0.00 | 21 | 0.0 | 0.00 | 0.4 | 2.9 | 0.10 | 16  | 1.5 | 0.0 | 3.4 | 0.00 | 0.0 | 9.8 | 0.1 | 0.0 | 0.0 |
| 9 12 78  | 0.7                  | 0.05 |     |      | 20 | 0.0 | 0.00 | 0.9 | 3.4 |      | 14  | 1.7 |     | 2.7 | 0.04 | 0.1 | 12  |     | 0.1 | 0.1 |
| 10 13 78 | 0.7                  | 0.05 | 0.0 | 0.00 | 36 | 0.0 | 0.01 | 1.5 | 3.9 | 0.20 | 24  | 2.8 | 0.0 | 2.6 | 0.08 | 0.1 | 9.6 | 0.1 | 0.1 | 0.1 |
| 11 7 78  | 0.6                  | 0.04 |     |      | 40 | 0.0 | 0.00 | 0.5 | 4.3 |      | 23  | 3.0 |     | 4.4 | 0.06 | 0.1 | 12  |     | 0.2 | 0.0 |
| 3 19 79  | 2.1                  | 0.03 |     |      | 44 | 0.0 | 0.01 | 0.4 | 2.4 |      | 28  | 2.9 |     | 3.0 | 0.07 | 0.1 | 9.2 |     | 0.1 | 0.1 |
| 4 21 79  | 1.6                  | 0.02 | 0.0 | 0.00 | 39 | 0.0 | 0.01 | 0.8 | 2.6 | 0.15 | 25  | 1.7 | 0.0 | 3.5 | 0.05 | 0.0 | 8.3 | 0.0 | 0.0 | 0.1 |
| 5 17 79  | 1.3                  | 0.03 |     |      | 32 | 0.0 | 0.01 | 0.4 | 2.6 |      | 19  | 1.9 |     | 3.5 | 0.05 | 0.0 | 9.1 |     | 0.1 | 0.1 |
| 6 23 79  | 1.2                  | 0.04 |     |      | 40 | 0.0 | 0.05 | 0.7 | 3.0 |      | 25  | 2.2 |     | 3.9 | 0.06 | 0.1 | 11  |     | 0.1 | 0.6 |
| 7 18 79  | 0.9                  | 0.04 | 0.0 | 0.00 | 36 | 0.0 | 0.01 | 0.6 | 2.9 | 0.20 | 22  | 2.4 | 0.0 | 4.0 | 0.05 | 0.0 | 11  | 0.1 | 0.1 | 0.0 |
| 8 8 79   | 0.9                  | 0.03 |     |      | 28 | 0.1 | 0.05 | 0.4 | 3.5 |      | 22  | 1.8 |     | 3.0 | 0.07 | 0.1 | 7.4 |     | 0.0 | 0.0 |

TABLE 17. WATER QUALITY FOR SITE 5051 GALLIA COUNTY, OHIO

| TABLE 17. WATER QUALITY FOR SITE |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
|----------------------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| DATE                             |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
| MO                               | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 9                                | 27 | 77         | 17        | 0.006    |             |      | 8         | 434       | 231        | 3.22                 | 7.8      |             | 125  | 152 | 1  | 2.8 | 62       | 0.1      |          |       |       |          |      |
| 11                               | 22 | 77         | 8         | 0.01     | 7           |      | 8         | 360       | 212        | 3.01                 | 8.3      |             | 104  | 124 | 2  | 2.9 | 63       | 0.2      |          |       |       |          |      |
| 12                               | 28 | 77         | 0         | 0.04     |             |      | 10        | 338       | 196        | 2.58                 | 8.1      |             | 76   | 92  | 1  | 3.9 | 68       | 0.5      |          |       |       |          |      |
| 2                                | 22 | 78         | 0         | 0.08     |             |      | 4         | 316       | 171        | 2.65                 | 8.3      |             | 87   | 104 | 1  | 3.0 | 52       | 0.2      |          |       |       |          |      |
| 3                                | 21 | 78         | 10        | 0.15     |             |      | 4         | 251       | 124        | 2.35                 | 7.8      |             | 64   | 77  | 0  | 3.7 | 38       | 0.1      |          |       |       |          |      |
| 4                                | 19 | 78         | 11        | 0.9      | 22          |      | 55        | 168       | 95         | 1.78                 | 7.8      |             | 43   | 52  | 0  | 2.0 | 35       | 0.2      |          |       |       |          |      |
| 5                                | 25 | 78         | 13        | 0.09     | 28*         |      | 9         | 347       | 218        | 2.49                 | 8.2      |             | 110  | 131 | 1  | 3.2 | 71       | 0.1      |          |       |       |          |      |
| 6                                | 26 | 78         | 23        | 0.015    | 58*         |      |           | 335       | 186        | 3.00                 | 8.0      |             | 106  | 127 | 1  | 2.6 | 49       | 0.4      |          |       |       |          |      |
| 7                                | 27 | 78         | 22        | 0.015    |             |      | 8         | 297       | 178        | 3.38                 | 8.3      |             | 97   | 115 | 1  | 2.2 | 45       | 0.2      |          |       |       |          |      |
| 8                                | 30 | 78         | 21        | 0.0003   | 31*         |      | 5         | 315       | 180        | 3.55                 | 7.9      |             | 106  | 128 | 1  | 1.7 | 43       | 0.2      |          |       |       |          |      |
| 10                               | 5  | 78         | 14        | 0.003    |             |      |           | 324       | 196        | 2.99                 | 8.2      |             | 104  | 125 | 1  | 2.3 | 54       | 0.2      |          |       |       |          |      |
| 11                               | 2  | 78         | 10        | 0.003    | 5           |      | 7         | 317       | 201        | 3.03                 | 8.3      | -98         | 95   | 113 | 1  | 2.4 | 59       | 0.1      |          |       |       |          |      |
| 12                               | 7  | 78         | 7         | 0.015    | 2           |      | 5         | 237       | 130        | 2.58                 | 7.9      | -54         | 57   | 69  | 0  | 1.9 | 40       | 0.5      |          |       |       |          |      |
| 2                                | 8  | 79         | 0         |          | 4           |      | 3         | 333       | 193        | 3.01                 | 8.3      | -110        | 94   | 112 | 1  | 2.7 | 58       | 0.2      |          |       |       |          |      |
| 3                                | 27 | 79         | 5         | 0.09     |             |      | 5         | 275       | 163        | 2.74                 | 8.0      | -70         | 75   | 91  | 1  | 2.2 | 51       | 0.1      |          |       |       |          |      |
| 4                                | 24 | 79         | 18        | 0.1      | 28          | 0.00 | 20        | 350       | 235        | 3.31                 | 8.2      | -110        | 127  | 152 | 1  | 3.2 | 63       | 0.0      |          |       |       |          |      |
| 5                                | 21 | 79         | 19        | 0.003    | 36          | 0.55 | 35        | 412       | 246        | 2.74                 | 8.3      | -120        | 123  | 146 | 2  | 3.6 | 75       | 0.3      |          |       |       |          |      |
| 6                                | 25 | 79         | 21        | 0.02     |             |      |           | 297       | 192        | 2.29                 | 8.3      |             | 84   | 100 | 1  | 3.1 | 64       | 0.4      |          |       |       |          |      |
| 7                                | 20 | 79         | 23        | 0.01     | 44          | 6.0  |           | 407       | 228        | 3.37                 | 8.5      | -110        | 124  | 145 | 3  | 2.9 | 60       | 0.2      | 0.0      | 0.04  | 0.65  | 0.00     | 0.01 |
| 8                                | 10 | 79         | 25        | 0.015    | 9           |      | 25        | 258       | 138        | 2.27                 | 7.9      | -46         | 64   | 77  | 0  | 1.8 | 45       | 0.2      | 0.0      |       | 0.25  | 0.00     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 9 27 77  | 0.0                  | 0.04 | 0.1 | 0.00 | 37 | 0.0 | 0.00 | 0.0 | 3.2 | 0.15 | 18  | 0.5 | 0.0 | 19  | 0.01 | 0.0 | 5.0 | 0.2 | 0.0 | 0.0 |
| 11 22 77 | 0.1                  | 0.00 |     |      | 36 | 0.0 | 0.00 | 0.1 | 2.8 |      | 17  | 0.1 |     | 16  | 0.01 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 12 28 77 | 0.1                  | 0.00 | 0.1 | 0.00 | 31 | 0.0 | 0.00 | 0.1 | 2.2 | 0.20 | 19  | 0.0 | 0.0 | 14  | 0.01 | 0.0 | 4.6 | 0.2 | 0.1 | 0.0 |
| 2 22 78  | 0.0                  | 0.02 |     |      | 27 | 0.0 | 0.00 | 0.1 | 1.5 |      | 12  | 0.0 |     | 14  | 0.00 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 3 21 78  | 0.1                  | 0.00 |     |      | 16 | 0.0 | 0.00 | 0.0 | 2.0 |      | 7.3 | 0.0 |     | 11  | 0.00 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 4 19 78  | 0.2                  | 0.00 | 0.0 | 0.00 | 12 | 0.0 | 0.02 | 0.1 | 1.9 | 0.06 | 5.1 | 0.2 | 0.0 | 6.9 | 0.04 | 0.1 | 2.1 | 0.1 | 0.0 | 0.0 |
| 5 25 78  | 0.1                  | 0.02 |     |      | 29 | 0.1 | 0.01 | 0.1 | 2.7 |      | 19  | 0.0 |     | 16  | 0.01 | 0.1 | 4.4 |     | 0.3 | 0.0 |
| 6 26 78  | 0.1                  | 0.01 |     |      | 28 | 0.0 | 0.00 | 0.1 | 3.1 |      | 12  | 0.0 |     | 17  | 0.00 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 7 27 78  | 0.2                  | 0.03 | 0.1 | 0.00 | 33 | 0.0 | 0.00 | 0.1 | 3.0 | 0.10 | 11  | 0.0 | 0.0 | 13  | 0.00 | 0.0 | 5.1 | 0.2 | 0.0 | 0.0 |
| 8 30 78  | 0.1                  | 0.03 |     |      | 34 | 0.0 | 0.00 | 0.1 | 3.0 |      | 11  | 0.1 |     | 12  | 0.02 | 0.1 | 4.7 |     | 0.0 | 0.0 |
| 10 5 78  | 0.1                  | 0.00 | 0.1 | 0.00 | 37 | 0.2 | 0.00 | 0.0 | 2.8 | 0.10 | 12  | 0.0 | 0.0 | 13  | 0.01 | 0.0 | 4.8 | 0.2 | 0.0 | 0.0 |
| 11 2 78  | 0.1                  | 0.01 |     |      | 39 | 0.0 | 0.01 | 0.0 | 2.9 |      | 10  | 0.0 |     | 21  | 0.01 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 12 7 78  | 0.1                  | 0.01 |     |      | 22 | 0.0 | 0.00 | 0.0 | 1.9 |      | 8.2 | 0.0 |     | 9.3 | 0.01 | 0.1 | 4.4 |     | 0.1 | 0.0 |
| 2 8 79   | 0.1                  | 0.01 | 0.1 | 0.00 | 36 | 0.0 | 0.00 | 0.0 | 1.6 | 0.30 | 16  | 0.0 | 0.0 | 13  | 0.02 | 0.1 | 3.6 | 0.2 | 0.1 | 0.0 |
| 3 27 79  | 0.1                  | 0.00 |     |      | 33 | 0.0 | 0.01 | 0.0 | 1.7 |      | 10  | 0.0 |     | 11  | 0.03 | 0.1 | 3.7 |     | 0.1 | 0.0 |
| 4 24 79  | 0.2                  | 0.01 | 0.1 | 0.00 | 45 | 0.0 | 0.00 | 0.1 | 2.5 | 0.20 | 16  | 0.0 | 0.0 | 19  | 0.01 | 0.0 | 4.4 | 0.2 | 0.0 | 0.1 |
| 5 21 79  | 0.1                  | 0.01 |     |      | 43 | 0.0 | 0.01 | 0.0 | 2.9 |      | 16  | 0.0 |     | 20  | 0.00 | 0.0 | 4.8 |     | 0.1 | 0.0 |
| 6 25 79  | 0.5                  | 0.01 |     |      | 34 | 0.0 | 0.06 | 0.7 | 2.7 |      | 11  | 0.2 |     | 13  | 0.01 | 0.0 | 4.9 |     | 0.0 | 0.1 |
| 7 20 79  | 0.1                  | 0.02 |     |      | 41 | 0.1 | 0.07 | 0.0 | 2.8 |      | 16  | 0.0 |     | 20  | 0.01 | 0.1 | 4.8 |     | 0.0 | 0.0 |
| 8 10 79  | 0.1                  | 0.03 |     |      | 22 | 0.0 | 0.01 | 0.0 | 2.6 |      | 7.9 | 0.0 |     | 8.5 | 0.01 | 0.0 | 5.3 |     | 0.0 | 0.0 |

TABLE 18. WATER QUALITY FOR SITE 5052 GALLIA COUNTY, OHIO

| STATION 00000000 |            |           |          |             |      |           |           |            |        |                                  |             |          |     |    | STATION 00000000 |          |          |          |       |       |          |      |      |
|------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------------------|-------------|----------|-----|----|------------------|----------|----------|----------|-------|-------|----------|------|------|
| DATE             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY                         | ALKA-LINITY | NO3 HCO3 | CO3 | CL | SO4              | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO               | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | ----- MILLIGRAMS PER LITER ----- |             |          |     |    |                  |          |          |          |       |       |          |      |      |
| 6                | 2          | 77        | 22       | 0.008       |      |           | 30        | 530        | 336    | 1.42                             | 7.7         | 106      | 128 | 0  | 2.7              | 170      |          |          |       |       |          |      |      |
| 7                | 6          | 77        | 28       | 0.7         |      |           | 70        | 1430       | 1170   | 1.05                             | 8.0         | 103      | 124 | 1  | 2.3              | 780      | 1.3      |          |       |       |          |      |      |
| 9                | 27         | 77        | 19       | 0.4         |      |           | 60        | 1700       | 1340   | 1.22                             | 7.6         | 105      | 127 | 0  | 4.6              | 850      | 0.4      |          |       |       |          |      |      |
| 11               | 22         | 77        | 8        | 0.4         | 7    |           | 30        | 1000       | 716    | 1.29                             | 8.0         | 89       | 106 | 1  | 5.2              | 430      | 0.4      |          |       |       |          |      |      |
| 12               | 28         | 77        | 3        | 0.8         |      |           | 8         | 1060       | 797    | 1.37                             | 7.8         | 108      | 131 | 1  | 4.3              | 460      | 1.0      |          |       |       |          |      |      |
|                  |            |           |          |             |      |           |           |            |        |                                  |             |          |     |    |                  |          |          |          |       |       |          |      |      |
| 2                | 22         | 78        | 0        | 0.5         |      |           | 4         | 1000       | 731    | 1.25                             | 8.1         | 80       | 96  | 1  | 2.9              | 450      | 0.7      |          |       |       |          |      |      |
| 3                | 21         | 78        | 12       | 4           |      |           | 30        | 793        | 562    | 1.12                             | 8.1         | 62       | 75  | 1  | 2.3              | 360      | 0.5      |          |       |       |          |      |      |
| 4                | 19         | 78        | 13       | 15          |      |           | 550       | 553        | 280    | 1.20                             | 7.9         | 55       | 66  | 0  | 3.7              | 160      | 0.8      |          |       |       |          |      |      |
| 5                | 25         | 78        | 23       | 2.0         | 65*  |           | 65        | 964        | 658    | 1.21                             | 8.3         | 102      | 120 | 2  | 2.8              | 400      | 0.1      |          |       |       |          |      |      |
| 6                | 26         | 78        | 34       | 2.0         | 126* |           | 90        | 1340       | 1070   | 0.94                             | 7.5         | 62       | 76  | 0  | 2.7              | 750      | 1.1      |          |       |       |          |      |      |
| 7                | 27         | 78        | 26       | 0.4         | 253* |           | 250       | 1200       | 911    | 1.00                             | 8.0         | 46       | 55  | 0  | 2.0              | 630      | 0.0      |          |       |       |          |      |      |
| 8                | 30         | 78        | 25       | 0.001       | 179* |           | 230       | 1450       | 1070   | 1.05                             | 8.2         | 130      | 154 | 2  | 2.5              | 700      | 0.3      |          |       |       |          |      |      |
| 10               | 5          | 78        | 17       | 0.15        | 121* |           | 35        | 1340       | 1170   | 0.96                             | 8.2         | 102      | 121 | 2  | 3.1              | 790      | 1.8      |          |       |       |          |      |      |
| 11               | 2          | 78        | 12       | 0.1         | 54   |           | 80        | 716        | 449    | 1.34                             | 8.2         | 79       | 94  | 1  | 3.7              | 250      | 0.8      |          |       |       |          |      |      |
| 12               | 7          | 78        | 5        | 1.0         | 16   |           | 20        | 597        | 344    | 1.19                             | 8.0         | -62      | 53  | 64 | 0                | 1.9      | 200      | 0.5      |       |       |          |      |      |
|                  |            |           |          |             |      |           |           |            |        |                                  |             |          |     |    |                  |          |          |          |       |       |          |      |      |
| 2                | 8          | 79        | 0        | 1.0         | 51   |           | 10        | 1230       | 981    | 1.09                             | 8.2         | 101      | 120 | 1  | 4.4              | 630      | 0.5      |          |       |       |          |      |      |
| 3                | 27         | 79        | 3        | 2.0         |      |           | 9         | 812        | 638    | 1.41                             | 8.2         | -62      | 72  | 86 | 1                | 2.2      | 380      | 0.4      |       |       |          |      |      |
| 4                | 24         | 79        | 21       | 0.4         | 49   | 0.00      | 9         | 1000       | 768    | 1.11                             | 8.0         | 89       | 106 | 1  | 2.4              | 490      | 0.3      |          |       |       |          |      |      |
| 5                | 21         | 79        | 27       | 0.6         | 32   | 0.01      | 25        | 1120       | 967    | 1.25                             | 8.2         | -52      | 70  | 84 | 1                | 2.5      | 620      | 0.0      |       |       |          |      |      |
| 6                | 25         | 79        | 20       | 0.25        | 32   |           | 90        | 969        | 650    | 1.39                             | 8.1         | 93       | 112 | 1  | 3.7              | 370      | 0.6      |          |       |       |          |      |      |
| 7                | 20         | 79        | 24       | 0.02        | 20*  |           | 9         | 527        | 373    | 1.07                             | 7.7         | -11      | 21  | 26 | 0                | 1.1      | 250      | 0.0      | 0.0   | 0.01  | 0.35     | 0.10 | 0.01 |
| 8                | 10         | 79        | 29       | 1.0         | 41   |           | 160       | 914        | 590    | 1.33                             | 8.2         | -58      | 74  | 88 | 1                | 2.6      | 350      | 0.6      | 0.1   | 0.12  | 0.35     | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 2 77   | 0.1                              | 0.02 |     |      | 61  | 0.0 | 0.02 | 0.0 | 3.4 |      | 18 | 1.8 |     | 10  | 0.02 | 0.1 | 2.1 |     | 0.1 | 0.0 |
| 7 6 77   | 0.2                              | 0.04 |     |      | 230 | 0.0 | 0.01 | 0.3 | 4.1 |      | 56 | 4.6 |     | 20  | 0.04 | 0.1 | 4.7 |     | 0.1 | 0.1 |
| 9 27 77  | 0.3                              | 0.03 | 0.1 | 0.00 | 300 | 0.0 | 0.00 | 0.1 | 5.6 | 1.0  | 68 | 4.8 | 0.0 | 27  | 0.04 | 0.1 | 2.8 | 1.3 | 0.1 | 0.0 |
| 11 22 77 | 0.2                              | 0.00 |     |      | 150 | 0.0 | 0.00 | 0.1 | 3.1 |      | 40 | 1.8 |     | 16  | 0.03 | 0.1 | 3.2 |     | 0.2 | 0.0 |
| 12 28 77 | 0.2                              | 0.01 | 0.1 | 0.00 | 170 | 0.0 | 0.00 | 0.2 | 3.3 | 0.80 | 49 | 3.5 | 0.0 | 18  | 0.04 | 0.0 | 5.0 | 0.8 | 0.1 | 0.0 |
| 2 22 78  | 0.1                              | 0.07 |     |      | 150 | 0.0 | 0.00 | 0.1 | 2.4 |      | 45 | 3.8 |     | 14  | 0.05 | 0.1 | 4.7 |     | 0.2 | 0.0 |
| 3 21 78  | 0.2                              | 0.02 |     |      | 100 | 0.0 | 0.00 | 0.0 | 2.8 |      | 34 | 3.9 |     | 12  | 0.06 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 4 19 78  | 0.2                              | 0.00 | 0.0 | 0.00 | 54  | 0.0 | 0.03 | 0.0 | 2.4 | 0.30 | 12 | 1.1 | 0.0 | 8.6 | 0.04 | 0.0 | 1.3 | 0.3 | 0.0 | 0.0 |
| 5 25 78  | 0.2                              | 0.02 |     |      | 130 | 0.0 | 0.00 | 0.1 | 2.9 |      | 39 | 2.2 |     | 15  | 0.03 | 0.1 | 3.9 |     | 0.1 | 0.0 |
| 6 26 78  | 0.3                              | 0.04 |     |      | 200 | 0.0 | 0.00 | 0.1 | 4.0 |      | 48 | 2.3 |     | 19  | 0.02 | 0.2 | 3.5 |     | 0.1 | 0.0 |
| 7 27 78  | 0.3                              | 0.04 | 0.0 | 0.00 | 170 | 0.0 | 0.00 | 0.2 | 3.9 | 0.35 | 45 | 0.7 | 0.1 | 16  | 0.03 | 0.1 | 2.4 | 0.7 | 0.2 | 0.0 |
| 8 30 78  | 0.4                              | 0.04 |     |      | 210 | 0.0 | 0.01 | 0.1 | 6.5 |      | 51 | 2.2 |     | 17  | 0.05 | 0.3 | 2.7 |     | 0.2 | 0.0 |
| 10 5 78  | 0.5                              | 0.03 | 0.1 | 0.00 | 230 | 0.0 | 0.01 | 0.1 | 3.6 | 0.65 | 49 | 4.0 | 0.0 | 14  | 0.06 | 0.4 | 2.7 | 0.9 | 0.3 | 0.0 |
| 11 2 78  | 0.2                              | 0.02 |     |      | 99  | 0.0 | 0.01 | 0.0 | 3.2 |      | 21 | 1.3 |     | 9.3 | 0.02 | 0.1 | 4.0 |     | 0.1 | 0.0 |
| 12 7 78  | 0.3                              | 0.01 |     |      | 70  | 0.1 | 0.01 | 0.1 | 2.0 |      | 16 | 1.3 |     | 6.0 | 0.06 | 0.4 | 3.7 |     | 0.4 | 0.0 |
| 2 8 79   | 0.4                              | 0.00 | 0.1 | 0.00 | 200 | 0.1 | 0.02 | 0.1 | 3.1 | 0.65 | 44 | 4.8 | 0.0 | 15  | 0.13 | 0.2 | 4.1 | 0.9 | 0.2 | 0.1 |
| 3 27 79  | 0.3                              | 0.01 |     |      | 150 | 0.0 | 0.01 | 0.1 | 2.4 |      | 39 | 3.8 |     | 11  | 0.06 | 0.2 | 3.3 |     | 0.1 | 0.1 |
| 4 24 79  | 0.4                              | 0.02 | 0.1 | 0.00 | 150 | 0.1 | 0.00 | 0.1 | 2.2 | 0.95 | 43 | 3.2 | 0.0 | 10  | 0.08 | 0.2 | 3.1 | 0.5 | 0.4 | 0.1 |
| 5 21 79  | 0.4                              | 0.02 |     |      | 210 | 0.0 | 0.01 | 0.1 | 3.0 |      | 57 | 1.1 |     | 21  | 0.04 | 0.2 | 2.9 |     | 0.2 | 0.1 |
| 6 25 79  | 0.3                              | 0.04 |     |      | 150 | 0.0 | 0.02 | 0.1 | 3.9 |      | 35 | 1.6 |     | 13  | 0.03 | 0.1 | 4.1 |     | 0.1 | 0.2 |
| 7 20 79  | 0.1                              | 0.02 | 0.0 | 0.00 | 67  | 0.0 | 0.02 | 0.1 | 2.7 | 0.30 | 21 | 0.1 | 0.0 | 8.9 | 0.00 | 0.1 | 6.1 | 0.2 | 0.1 | 0.0 |
| 8 10 79  | 0.3                              | 0.03 |     |      | 140 | 0.0 | 0.01 | 0.0 | 3.4 |      | 30 | 1.5 |     | 9.8 | 0.02 | 0.2 | 4.3 |     | 0.1 | 0.0 |

TABLE 19. WATER QUALITY FOR SITE 5053 GALLIA COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL                   | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |
| 6 2 77   | 19         | 0.01      |          |             | 15   | 517       | 361       | 0.96       | 7.5    |          | 23          | 28   | 0   | 1.4                  | 250 |          |          |          |       |       |          |
| 7 6 77   | 23         | 0.03      |          |             | 8    | 481       | 329       | 1.17       | 6.7    |          | 15          | 18   | 0   | 1.3                  | 210 | 0.0      |          |          |       |       |          |
| 9 27 77  | 18         | 0.06      |          |             | 8    | 553       | 382       | 1.07       | 6.8    |          | 9           | 11   | 0   | 1.7                  | 260 | 0.0      |          |          |       |       |          |
| 11 22 77 | 8          | 0.06      | 7        |             | 8    | 563       | 368       | 1.18       | 7.4    |          | 26          | 32   | 0   | 1.5                  | 230 | 0.1      |          |          |       |       |          |
| 12 28 77 | 0          | 0.15      |          |             | 2    | 512       | 358       | 1.24       | 7.6    |          | 27          | 33   | 0   | 2.0                  | 220 | 0.2      |          |          |       |       |          |
| 2 22 78  | 0          | 0.25      |          |             | 3    | 471       | 301       | 1.26       | 7.4    |          | 17          | 21   | 0   | 1.5                  | 190 | 0.2      |          |          |       |       |          |
| 3 21 78  | 11         | 0.3       |          |             | 10   | 367       | 274       | 1.16       | 7.0    |          | 19          | 23   | 0   | 1.5                  | 170 | 0.2      |          |          |       |       |          |
| 4 19 78  | 12         | 1.5       | 4        |             | 30   | 240       | 142       | 1.30       | 7.5    |          | 28          | 34   | 0   | 1.9                  | 73  | 0.3      |          |          |       |       |          |
| 5 25 78  | 20         | 0.25      | 43*      |             | 3    | 484       | 314       | 1.22       | 7.5    |          | 23          | 28   | 0   | 1.4                  | 190 | 0.1      |          |          |       |       |          |
| 6 26 78  | 28         | 0.02      | 62*      |             | 0    | 509       | 360       | 1.03       | 6.7    |          | 5           | 6    | 0   | 1.0                  | 250 | 0.2      |          |          |       |       |          |
| 7 27 78  | 25         | 0.04      | 87*      |             | 4    | 464       | 316       | 1.11       | 6.9    |          | 6           | 7    | 0   | 1.4                  | 210 | 0.1      |          |          |       |       |          |
| 8 30 78  | 21         | 0.003     | 26*      |             | 35   | 517       | 348       | 0.98       | 7.2    |          | 15          | 18   | 0   | 0.9                  | 230 | 0.2      |          |          |       |       |          |
| 10 5 78  | 16         | 0.006     | 29*      |             | 20   | 523       | 373       | 1.00       | 7.2    |          | 13          | 16   | 0   | 1.3                  | 250 | 0.0      |          |          |       |       |          |
| 11 2 78  | 12         | 0.01      | 10       |             | 5    | 490       | 336       | 1.12       | 7.7    |          | 30          | 36   | 0   | 1.3                  | 210 | 0.1      |          |          |       |       |          |
| 12 7 78  | 6          | 0.07      | 28       |             | 10   | 349       | 242       | 0.95       | 6.8    | 5        | 5           | 6    | 0   | 1.4                  | 160 | 0.1      |          |          |       |       |          |
| 2 8 79   | 0          | 0.02      | 8        |             | 3    | 442       | 310       | 1.02       | 6.8    | -14      | 16          | 19   | 0   | 1.6                  | 200 | 0.1      |          |          |       |       |          |
| 3 27 79  | 6          | 0.15      |          |             | 8    | 333       | 230       | 1.38       | 7.5    | -20      | 23          | 28   | 0   | 1.5                  | 130 | 0.1      |          |          |       |       |          |
| 4 24 79  | 18         | 0.08      | 11       | 0.00        | 7    | 416       | 317       | 1.37       | 7.5    | -24      | 25          | 31   | 0   | 1.2                  | 190 | 0.1      |          |          |       |       |          |
| 5 21 79  | 25         | 0.02      | 11       | 0.00        | 3    | 519       | 336       | 1.19       | 7.6    | -20      | 28          | 34   | 0   | 1.2                  | 210 | 0.0      |          |          |       |       |          |
| 6 25 79  | 22         | 0.04      | 14       |             | 55   | 458       | 377       | 1.23       | 7.7    | -20      | 29          | 35   | 0   | 1.7                  | 230 | 0.1      |          |          |       |       |          |
| 7 20 79  | 24         | 0.06      | 79       | 0.03        | 20   | 1480      | 949       | 1.24       | 7.9    | -45      | 55          | 66   | 0   | 3.8                  | 610 | 0.3      | 0.0      | 0.03     | 0.65  | 0.00  | 0.00     |
| 8 10 79  | 26         | 0.1       | 3        |             | 30   | 395       | 229       | 1.16       | 7.5    | -13      | 22          | 27   | 0   | 1.3                  | 140 | 0.0      | 0.0      | 0.05     | 0.15  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 2 77   | 0.1                  | 0.02 |     |      | 56  | 0.0 | 0.02 | 0.0 | 2.7 |      | 19  | 0.2 |     | 10  | 0.02 | 0.1 | 4.4 |     | 0.2 | 0.0 |
| 7 6 77   | 0.1                  | 0.02 |     |      | 61  | 0.0 | 0.00 | 0.2 | 3.2 |      | 19  | 0.3 |     | 9.8 | 0.04 | 0.1 | 6.7 |     | 0.0 | 0.0 |
| 9 27 77  | 0.1                  | 0.00 | 0.0 | 0.00 | 70  | 0.0 | 0.00 | 0.1 | 3.3 | 0.20 | 20  | 0.9 | 0.0 | 12  | 0.02 | 0.0 | 6.2 | 0.2 | 0.0 | 0.0 |
| 11 22 77 | 0.1                  | 0.00 |     |      | 71  | 0.0 | 0.00 | 0.1 | 2.5 |      | 21  | 1.0 |     | 9.6 | 0.03 | 0.0 | 5.1 |     | 0.1 | 0.0 |
| 12 28 77 | 0.6                  | 0.00 | 0.0 | 0.00 | 67  | 0.0 | 0.00 | 0.2 | 2.1 | 0.30 | 24  | 0.9 | 0.0 | 9.1 | 0.03 | 0.0 | 5.9 | 0.3 | 0.1 | 0.0 |
| 2 22 78  | 0.1                  |      |     |      | 57  | 0.0 | 0.00 | 0.2 | 1.5 |      | 21  | 1.1 |     | 7.3 | 0.02 | 0.0 | 5.3 |     | 0.1 | 0.0 |
| 3 21 78  | 0.1                  | 0.01 |     |      | 50  | 0.0 | 0.00 | 0.0 | 2.1 |      | 15  | 1.0 |     | 10  | 0.03 | 0.1 | 5.6 |     | 0.1 | 0.0 |
| 4 19 78  | 0.3                  | 0.00 | 0.0 | 0.00 | 22  | 0.0 | 0.00 | 0.1 | 1.9 | 0.09 | 8.0 | 0.5 | 0.0 | 6.4 | 0.01 | 0.0 | 4.5 | 0.1 | 0.0 | 0.0 |
| 5 25 78  | 0.2                  | 0.02 |     |      | 57  | 0.0 | 0.01 | 0.1 | 2.7 |      | 20  | 0.6 |     | 9.0 | 0.02 | 0.0 | 6.0 |     | 0.0 | 0.0 |
| 6 26 78  | 0.1                  | 0.02 |     |      | 62  | 0.0 | 0.00 | 0.1 | 3.1 |      | 21  | 0.4 |     | 9.3 | 0.01 | 0.0 | 5.9 |     | 0.1 | 0.0 |
| 7 27 78  | 0.1                  | 0.02 | 0.1 | 0.00 | 59  | 0.0 | 0.00 | 0.1 | 3.2 | 0.15 | 18  | 0.4 | 0.0 | 8.3 | 0.00 | 0.1 | 6.4 | 0.2 | 0.1 | 0.0 |
| 8 30 78  | 0.5                  | 0.04 |     |      | 60  | 0.0 | 0.01 | 1.1 | 3.3 |      | 16  | 0.4 |     | 8.1 | 0.04 | 0.2 | 6.6 |     | 0.2 | 0.0 |
| 10 5 78  | 0.2                  | 0.01 | 0.1 | 0.00 | 70  | 0.0 | 0.00 | 0.2 | 2.6 | 0.20 | 17  | 0.4 | 0.0 | 7.8 | 0.02 | 0.1 | 6.0 | 0.3 | 0.1 | 0.0 |
| 11 2 78  | 0.2                  | 0.01 |     |      | 64  | 0.0 | 0.01 | 0.1 | 2.8 |      | 15  | 0.3 |     | 11  | 0.02 | 0.0 | 5.1 |     | 0.0 | 0.0 |
| 12 7 78  | 0.4                  | 0.01 |     |      | 42  | 0.1 | 0.01 | 0.2 | 2.0 |      | 11  | 1.0 |     | 5.1 | 0.06 | 0.2 | 6.3 |     | 0.3 | 0.0 |
| 2 8 79   | 0.2                  | 0.00 | 0.0 | 0.00 | 61  | 0.1 | 0.02 | 0.1 | 1.7 | 0.20 | 12  | 0.7 | 0.0 | 6.8 | 0.05 | 0.1 | 4.7 | 0.3 | 0.0 | 0.1 |
| 3 27 79  | 0.2                  | 0.01 |     |      | 53  | 0.0 | 0.01 | 0.0 | 1.8 |      | 11  | 0.6 |     | 6.3 | 0.04 | 0.1 | 4.5 |     | 0.1 | 0.0 |
| 4 24 79  | 0.2                  | 0.02 | 0.1 | 0.00 | 69  | 0.0 | 0.00 | 0.0 | 2.1 | 0.30 | 20  | 0.3 | 0.0 | 7.1 | 0.03 | 0.1 | 4.4 | 0.2 | 0.1 | 0.1 |
| 5 21 79  | 0.1                  | 0.00 |     |      | 64  | 0.1 | 0.02 | 0.0 | 2.3 |      | 21  | 0.1 |     | 8.0 | 0.02 | 0.1 | 4.9 |     | 0.0 | 0.1 |
| 6 25 79  | 0.2                  | 0.01 |     |      | 71  | 0.0 | 0.01 | 0.1 | 3.3 |      | 23  | 0.3 |     | 11  | 0.00 | 0.1 | 7.0 |     | 0.1 | 0.2 |
| 7 20 79  | 0.5                  | 0.03 |     |      | 230 | 0.1 | 0.03 | 0.1 | 3.4 |      | 48  | 1.0 |     | 13  | 0.03 | 0.3 | 2.5 |     | 0.1 | 0.0 |
| 8 10 79  | 0.1                  | 0.03 |     |      | 44  | 0.0 | 0.00 | 0.0 | 2.0 |      | 10  | 0.4 |     | 6.0 | 0.01 | 0.1 | 6.3 |     | 0.1 | 0.0 |

TABLE 20. WATER QUALITY FOR SITE 5056 GALLIA COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 NO3 AS N | NH3 AS N | TOT N | TOT P | TOT ORTH P |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|-----|----------|--------------|----------|-------|-------|------------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |     |          |              |          |       |       |            |
| 6 2 77   | 17         | 0.01      |          |             | 10   |           | 855       | 1.42       | 7.8    |          |             | 86   | 104 | 1  | 2.3 | 520      |              |          |       |       |            |
| 7 6 77   | 22         | 0.06      |          |             | 20   | 1180      | 959       | 1.08       | 7.9    |          |             | 83   | 100 | 1  | 2.3 | 630      | 0.2          |          |       |       |            |

MILLIGRAMS PER LITER

| DATE     | AL  | B    | BA | BE | CA  | CD  | CU   | FE  | K   | LI | MG | MN  | MO | NA | NI   | PB  | SI  | SR | TI  | ZN  |
|----------|-----|------|----|----|-----|-----|------|-----|-----|----|----|-----|----|----|------|-----|-----|----|-----|-----|
| MO DA YR |     |      |    |    |     |     |      |     |     |    |    |     |    |    |      |     |     |    |     |     |
| 6 2 77   | 0.3 | 0.03 |    |    | 190 | 0.0 | 0.02 | 0.3 | 3.8 |    | 59 | 1.3 |    | 24 | 0.03 | 0.1 | 4.2 |    | 0.1 | 0.1 |
| 7 6 77   | 0.2 | 0.02 |    |    | 180 | 0.0 | 0.01 | 0.4 | 5.6 |    | 49 | 6.1 |    | 22 | 0.06 | 0.2 | 5.4 |    | 0.1 | 0.0 |

MILLIGRAMS PER LITER

TABLE 21. WATER QUALITY FOR SITE 5061 GUERNSEY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL                   | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|-----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |           |          |       |       |          |
| 9 20 77  | 16         | 0.015     |          |             | 10   | 508       | 261       | 6.35       | 8.0    |          | 175         | 210  | 1   | 1.6                  | 42  | 0.4      |           |          |       |       |          |
| 11 4 77  | 13         | 0.01      | 61       |             | 4    | 381       | 242       | 4.77       | 8.3    |          | 169         | 201  | 2   | 1.5                  | 45  | 0.4      |           |          |       |       |          |
| 1 4 78   | 6          | 0.05      |          |             | 4    | 304       | 197       | 6.79       | 8.2    |          | 143         | 172  | 2   | 2.0                  | 26  | 0.7      |           |          |       |       |          |
| 2 8 78   | 7          | 0.04      |          |             | 0    | 328       | 177       | 5.74       | 8.3    |          | 124         | 147  | 2   | 1.3                  | 28  | 0.7      |           |          |       |       |          |
| 3 16 78  | 9          | 0.3       | 9        |             | 4    | 159       | 87        | 2.21       | 7.6    |          | 35          | 43   | 0   | 1.6                  | 27  | 1.1      |           |          |       |       |          |
| 4 14 78  | 10         | 0.1       | 7        |             | 8    | 279       | 166       | 4.74       | 8.2    |          | 103         | 124  | 1   | 1.7                  | 32  | 0.5      |           |          |       |       |          |
| 5 11 78  | 12         | 0.15      | 17*      |             | 8    | 288       | 169       | 4.81       | 8.1    |          | 116         | 140  | 1   | 1.3                  | 30  | 0.4      |           |          |       |       |          |
| 6 19 78  | 13         | 0.25      | 54*      |             | 0    | 169       | 93        | 2.55       | 7.7    |          | 48          | 59   | 0   | 0.7                  | 26  | 0.4      |           |          |       |       |          |
| 7 18 78  | 12         | 0.007     | 67*      |             | 8    | 284       | 183       | 7.29       | 8.3    |          | 103         | 123  | 1   | 1.6                  | 29  | 0.5      |           |          |       |       |          |
| 9 6 78   | 19         | 0.0002    | 68*      |             | 30   | 377       | 216       | 6.54       | 8.2    |          | 154         | 184  | 2   | 0.8                  | 31  | 0.4      |           |          |       |       |          |
| 10 11 78 |            | 0.001     | 17*      |             | 7    | 335       | 211       | 8.15       | 8.4    |          | 130         | 153  | 2   | 1.5                  | 28  | 0.6      |           |          |       |       |          |
| 11 8 78  | 8          | 0.0009    | 79       |             | 15   | 389       | 238       | 8.67       | 8.3    |          | 158         | 188  | 2   | 2.4                  | 29  | 0.5      |           |          |       |       |          |
| 12 13 78 | 8          | 0.02      | 6        |             | 0    | 257       | 141       | 5.05       | 8.1    | -72      | 89          | 106  | 1   | 1.4                  | 25  | 0.6      |           |          |       |       |          |
| 2 2 79   | 1          | 0.02      | 12       |             | 15   | 269       | 163       | 6.04       | 7.9    |          | 91          | 110  | 1   | 1.5                  | 27  | 0.8      |           |          |       |       |          |
| 3 17 79  | 3          | 0.009     | 78       |             | 15   | 312       | 183       | 5.52       | 8.0    |          | 116         | 139  | 1   | 1.7                  | 31  | 0.8      |           |          |       |       |          |
| 4 20 79  | 12         | 0.02      | 4        | 0.06        | 3    | 285       | 179       | 5.08       | 8.3    |          | 111         | 133  | 2   | 1.3                  | 33  | 0.6      |           |          |       |       |          |
| 5 17 79  | 12         | 0.04      | 48       |             | 9    | 363       | 206       | 5.74       | 8.3    |          | 145         | 173  | 2   | 1.6                  | 33  | 0.6      |           |          |       |       |          |
| 6 22 79  | 19         | 0.007     |          |             | 5    | 343       | 208       | 5.81       | 8.2    |          | 142         | 170  | 2   | 1.8                  | 33  | 0.6      |           |          |       |       |          |
| 7 25 79  | 22         | 0.005     | 10       |             | 15   | 453       | 233       | 7.02       | 8.0    |          | 177         | 213  | 1   | 2.0                  | 30  | 0.9      | 0.0       | 0.02     | 0.00  | 0.00  | 0.01     |
| 8 9 79   | 21         | 0.003     | 5        |             | 15   | 556       | 240       | 8.70       | 8.5    |          | 180         | 212  | 4   | 1.8                  | 27  | 0.0      | 0.0       | 0.07     | 0.00  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 9 20 77  | 0.0                  |      |     |      | 67 | 0.0 | 0.00 | 0.0 | 1.7 |      | 21  | 0.0 |     | 12  | 0.01 | 0.0 | 4.6 |     | 0.1 | 0.0 |
| 11 4 77  | 0.1                  | 0.00 | 0.1 | 0.00 | 59 | 0.0 | 0.01 | 0.0 | 1.7 | 0.25 | 13  | 0.0 | 0.0 | 11  | 0.00 | 0.0 | 3.5 | 0.2 | 0.0 | 0.0 |
| 1 4 78   | 0.1                  | 0.01 | 0.0 | 0.00 | 52 | 0.0 | 0.00 | 0.1 | 1.5 | 0.20 | 10  | 0.0 | 0.0 | 7.1 | 0.02 | 0.0 | 3.8 | 0.2 | 0.1 | 0.0 |
| 2 8 78   | 0.0                  | 0.02 |     |      | 47 | 0.0 | 0.00 | 0.0 | 1.2 |      | 8.8 | 0.0 |     | 5.9 | 0.00 | 0.0 | 3.2 |     | 0.0 | 0.0 |
| 3 16 78  | 0.1                  | 0.02 |     |      | 19 | 0.0 | 0.00 | 0.1 | 1.4 |      | 3.6 | 0.0 |     | 2.2 | 0.00 | 0.0 | 3.1 |     | 0.0 | 0.0 |
| 4 14 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 44 | 0.0 | 0.03 | 0.0 | 1.4 | 0.20 | 8.8 | 0.0 | 0.0 | 5.9 | 0.02 | 0.1 | 3.2 | 0.1 | 0.1 | 0.0 |
| 5 11 78  | 0.0                  | 0.01 |     |      | 45 | 0.0 | 0.00 | 0.0 | 1.2 |      | 7.4 | 0.0 |     | 5.0 | 0.00 | 0.0 | 3.0 |     | 0.0 | 0.0 |
| 6 19 78  | 0.1                  | 0.01 |     |      | 20 | 0.0 | 0.00 | 0.1 | 1.4 |      | 3.6 | 0.0 |     | 2.7 | 0.00 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 7 18 78  | 0.1                  | 0.01 |     |      | 58 | 0.0 | 0.00 | 0.0 | 1.6 |      | 15  | 0.0 |     | 8.2 | 0.00 | 0.1 | 2.6 |     | 0.2 | 0.0 |
| 9 6 78   | 0.1                  | 0.02 |     |      | 57 | 0.0 | 0.00 | 0.1 | 1.5 |      | 12  | 0.0 |     | 9.7 | 0.01 | 0.1 | 3.9 |     | 0.0 | 0.0 |
| 10 11 78 | 0.1                  | 0.01 | 0.0 | 0.00 | 65 | 0.0 | 0.01 | 0.1 | 1.7 | 0.40 | 14  | 0.0 | 0.0 | 11  | 0.02 | 0.1 | 3.8 | 0.2 | 0.0 | 0.0 |
| 11 8 78  | 0.2                  | 0.02 |     |      | 73 | 0.0 | 0.00 | 0.0 | 1.6 |      | 14  | 0.0 |     | 11  | 0.02 | 0.1 | 4.0 |     | 0.1 | 0.0 |
| 12 13 78 | 0.2                  | 0.01 |     |      | 41 | 0.0 | 0.00 | 0.1 | 1.2 |      | 5.8 | 0.0 |     | 3.3 | 0.03 | 0.2 | 3.3 |     | 0.2 | 0.0 |
| 2 2 79   | 0.1                  | 0.02 |     |      | 53 | 0.0 | 0.00 | 0.0 | 1.6 |      | 8.0 | 0.0 |     | 5.1 | 0.02 | 0.1 | 3.7 |     | 0.1 | 0.0 |
| 3 17 79  | 0.1                  | 0.00 |     |      | 53 | 0.0 | 0.02 | 0.0 | 1.6 |      | 7.7 | 0.0 |     | 7.1 | 0.02 | 0.0 | 3.3 |     | 0.0 | 0.1 |
| 4 20 79  | 0.1                  | 0.01 | 0.0 | 0.00 | 53 | 0.0 | 0.00 | 0.0 | 1.3 | 0.25 | 7.8 | 0.0 | 0.0 | 5.1 | 0.01 | 0.1 | 3.2 | 0.1 | 0.1 | 0.0 |
| 5 17 79  | 0.1                  | 0.01 |     |      | 56 | 0.0 | 0.01 | 0.0 | 1.5 |      | 10  | 0.0 |     | 7.3 | 0.00 | 0.0 | 3.3 |     | 0.1 | 0.0 |
| 6 22 79  | 0.1                  | 0.01 |     |      | 57 | 0.0 | 0.01 | 0.0 | 1.5 |      | 11  | 0.0 |     | 8.2 | 0.00 | 0.1 | 3.2 |     | 0.0 | 0.0 |
| 7 25 79  | 0.1                  | 0.03 | 0.0 | 0.00 | 62 | 0.0 | 0.00 | 0.0 | 1.2 | 0.15 | 12  | 0.0 | 0.0 | 7.9 | 0.00 | 0.1 | 3.3 | 0.2 | 0.2 | 0.0 |
| 8 9 79   | 0.1                  | 0.03 |     |      | 66 | 0.0 |      | 0.0 | 2.7 |      | 12  | 0.0 |     | 12  | 0.03 | 0.1 | 4.6 |     | 0.0 | 0.0 |

TABLE 22. WATER QUALITY FOR SITE 5062 GUERNSEY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | NO3 MCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UH/CM     | MG/L      | MILLIGRAMS PER LITER |        |          |             |          |     |    |     |          |          |          |       |       |          |
| 8 3 77   | 19         | 0.02      |          |             | 50   | 638       | 433       | 1.92                 | 8.2    |          |             | 130      | 155 | 2  | 2.3 | 200      |          |          |       |       |          |
| 9 20 77  | 21         | 0.04      |          |             | 10   | 801       | 474       | 1.99                 | 7.8    |          |             | 134      | 162 | 1  | 2.3 | 220      |          |          |       |       |          |
| 11 4 77  | 16         | 0.09      | 40       |             | 20   | 724       | 468       | 1.96                 | 8.5    |          |             | 126      | 147 | 3  | 2.7 | 220      |          |          |       |       |          |
| 9 6 78   | 23         | 0.003     | 17*      |             | 10   | 742       | 496       | 1.36                 | 7.8    |          |             | 100      | 121 | 1  | 9.2 | 270      |          |          |       |       |          |
| 10 11 78 | 8          | 0.008     | 44*      |             | 40   | 722       | 452       |                      | 8.1    |          |             | 70       | 85  | 1  |     | 260      |          |          |       |       |          |
| 11 6 78  | 9          | 0.02      | 18       |             | 10   | 786       | 572       | 1.28                 | 7.9    | -75      |             | 64       | 77  | 0  | 26  | 330      |          |          |       |       |          |
| 12 13 78 | 5          | 0.15      | 1        |             | 3    | 565       | 394       | 1.13                 | 7.9    | -48      |             | 49       | 59  | 0  | 19  | 230      |          |          |       |       |          |
| 2 2 79   | 0          | 0.1       | 6        |             | 0    | 585       | 374       | 1.39                 | 7.6    | -44      |             | 43       | 53  | 0  | 1.8 | 220      |          |          |       |       |          |
| 3 17 79  | 7          | 0.25      | 16       |             | 7    | 735       | 586       | 1.23                 | 8.1    | -38      |             | 44       | 53  | 0  | 1.9 | 380      |          |          |       |       |          |
| 4 20 79  | 17         | 0.09      | 15       | 0.00        | 15   | 635       | 484       | 1.29                 | 7.9    | -46      |             | 48       | 57  | 0  | 1.7 | 300      |          |          |       |       |          |
| 5 17 79  | 26         | 0.05      | 33       | 0.01        | 20   | 640       | 411       | 1.58                 | 8.0    | -63      |             | 69       | 83  | 1  | 1.6 | 230      |          |          |       |       |          |
| 6 22 79  | 22         | 0.1       | 26       |             | 20   | 697       | 461       | 1.43                 | 7.9    | -76      |             | 87       | 105 | 1  | 2.2 | 260      |          |          |       |       |          |
| 7 25 79  | 23         | 0.06      | 28       | 0.06        | 45   | 721       | 399       | 2.09                 | 8.3    | -120     |             | 138      | 164 | 2  | 4.1 | 170      | 0.0      | 0.0      | 0.69  | 0.00  | 0.00     |
| 8 9 79   | 28         | 0.006     | 13       |             | 20   | 896       | 557       | 1.40                 | 8.1    | -51      |             | 65       | 78  | 1  | 4.1 | 330      | 0.1      | 0.0      | 0.11  | 0.35  | 0.00     |
| 9 12 79  | 25         | 0.015     | 5        |             | 20   | 594       | 368       | 1.84                 | 8.2    | -94      |             | 109      | 130 | 1  | 1.9 | 170      |          |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 8 3 77   | 0.0                  | 0.00 |     |      | 95  | 0.0 | 0.00 | 0.2 | 2.1 |      | 32 | 0.9 |     | 15  | 0.00 | 0.0 | 3.5 |     | 0.0 | 0.0 |
| 9 20 77  | 0.0                  |      |     |      | 100 | 0.1 | 0.01 | 0.0 | 3.3 |      | 42 | 0.0 |     | 13  | 0.02 | 0.1 | 5.2 |     | 0.1 | 0.0 |
| 11 4 77  | 0.1                  |      | 0.1 | 0.00 | 110 | 0.0 | 0.00 | 0.1 | 2.2 | 0.30 | 34 | 0.2 | 0.0 | 16  | 0.02 | 0.0 | 4.3 | 0.3 | 0.1 | 0.0 |
| 9 6 78   | 0.1                  | 0.03 |     |      | 94  | 0.0 | 0.01 | 0.2 | 3.7 |      | 31 | 0.2 |     | 15  | 0.02 | 0.1 | 4.4 |     | 0.1 | 0.0 |
| 10 11 78 | 0.2                  | 0.01 | 0.1 | 0.00 | 93  | 0.0 | 0.00 | 0.1 | 3.4 | 0.65 | 31 | 0.2 | 0.0 | 12  | 0.02 | 0.1 | 4.0 | 0.4 | 0.0 | 0.0 |
| 11 6 78  | 0.2                  | 0.02 |     |      | 120 | 0.0 | 0.00 | 0.1 | 3.1 |      | 34 | 0.1 |     | 18  | 0.02 | 0.1 | 4.0 |     | 0.1 | 0.0 |
| 12 13 78 | 0.1                  | 0.00 |     |      | 67  | 0.0 | 0.00 | 0.0 | 2.1 |      | 23 | 0.0 |     | 14  | 0.02 | 0.1 | 4.4 |     | 0.1 | 0.0 |
| 2 2 79   | 0.1                  | 0.00 | 0.0 | 0.00 | 77  | 0.0 | 0.01 | 0.0 | 1.4 | 0.25 | 29 | 0.0 | 0.0 | 5.4 | 0.02 | 0.1 | 3.3 | 0.3 | 0.1 | 0.0 |
| 3 17 79  | 0.2                  | 0.02 |     |      | 120 | 0.0 | 0.00 | 0.1 | 1.8 |      | 43 | 0.0 |     | 6.3 | 0.04 | 0.2 | 4.1 |     | 0.1 | 0.1 |
| 4 20 79  | 0.2                  | 0.02 |     |      | 98  | 0.0 | 0.01 | 0.1 | 1.7 |      | 37 | 0.0 |     | 6.3 | 0.04 | 0.1 | 3.4 |     | 0.2 | 0.0 |
| 5 17 79  | 0.2                  | 0.01 |     |      | 88  | 0.0 | 0.01 | 0.1 | 1.6 |      | 33 | 0.1 |     | 8.4 | 0.02 | 0.1 | 3.4 |     | 0.1 | 0.1 |
| 6 22 79  | 0.1                  | 0.03 |     |      | 89  | 0.0 | 0.03 | 0.0 | 2.4 |      | 35 | 0.3 |     | 10  | 0.00 | 0.1 | 3.9 |     | 0.1 | 0.0 |
| 7 25 79  | 0.2                  | 0.03 | 0.0 | 0.00 | 86  | 0.0 | 0.01 | 0.0 | 2.8 | 0.30 | 30 | 0.2 | 0.0 | 15  | 0.01 | 0.1 | 3.1 | 0.3 | 0.1 | 0.0 |
| 8 9 79   | 0.2                  | 0.04 |     |      | 130 | 0.0 | 0.01 | 0.0 | 4.2 |      | 36 | 1.6 |     | 9.2 | 0.03 | 0.2 | 2.1 |     | 0.2 | 0.0 |
| 9 12 79  | 0.1                  | 0.04 |     |      | 76  | 0.0 | 0.00 | 0.1 | 1.9 |      | 29 | 0.1 |     | 11  | 0.01 | 0.0 | 4.3 |     | 0.1 | 0.0 |

TABLE 23. WATER QUALITY FOR SITE 5063 GUERNSEY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SD4 | NO3 AS N             | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|-----|----------------------|-----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |     | MILLIGRAMS PER LITER |           |          |       |       |          |
| 6 17 77  | 22         | 0.4       |          |             | 4    | 977       | 660       | 1.24       | 7.2    |          |             | 85   | 104 | 0  | 41  | 360                  | 0.3       |          |       |       |          |
| 8 3 77   | 20         | 0.15      |          |             | 20   | 1020      | 765       | 1.63       | 7.8    |          |             | 92   | 111 | 1  | 68  | 360                  | 0.5       |          |       |       |          |

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |    |      |     |     |     |     |     |
| 6 17 77  | 0.2                  | 0.01 | 0.0 | 0.00 | 100 | 0.1 | 0.01 | 0.2 | 4.6 | 0.15 | 35 | 0.1 | 0.0 | 56 | 0.09 | 0.3 | 2.4 | 0.1 | 0.1 | 0.1 |
| 8 3 77   | 0.1                  | 0.03 |     |      | 170 | 0.0 | 0.00 | 0.1 | 3.7 |      | 38 | 0.2 |     | 60 | 0.01 | 0.0 | 3.4 |     | 0.0 | 0.0 |

TABLE 24. WATER QUALITY FOR SITE 5065 GUERNSEY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SO4 | NO3 AS | NO3 N | NH3 AS | NH3 N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|-----|--------|-------|--------|-------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |     |     |        |       |        |       |       |       |          |
| 6 17 77  | 15         | 0.02      |          |             | 10   | 915       | 654       | 1.13       | 7.8    |          | 69          | 83   | 0   | 2.9 | 420 | 0.3    |       |        |       |       |       |          |
| 8 3 77   | 15         | 0.05      |          |             | 10   | 1070      | 805       | 1.39       | 7.8    |          | 103         | 125  | 1   | 2.7 | 480 | 0.2    |       |        |       |       |       |          |
| 9 20 77  | 16         | 0.04      |          |             | 20   | 1140      | 854       | 1.36       | 7.6    |          | 89          | 107  | 0   | 2.4 | 520 | 0.2    |       |        |       |       |       |          |
| 11 4 77  | 14         | 0.25      | 52       |             | 4    | 1090      | 868       | 1.19       | 8.3    |          | 87          | 103  | 2   | 2.7 | 560 | 0.1    |       |        |       |       |       |          |
| 1 4 78   | 6          | 0.05      |          |             | 6    | 707       | 523       | 1.42       | 8.1    |          | 107         | 128  | 1   | 4.0 | 290 | 0.7    |       |        |       |       |       |          |
| 2 8 78   | 7          | 0.08      |          |             | 0    | 603       | 387       | 1.77       | 8.1    |          | 89          | 107  | 1   | 3.2 | 190 | 0.8    |       |        |       |       |       |          |
| 3 16 78  | 6          | 0.6       | 11       |             | 30   | 516       | 312       | 1.73       | 8.0    |          | 77          | 93   | 1   | 3.8 | 150 | 0.5    |       |        |       |       |       |          |
| 4 14 78  | 9          | 0.3       | 6        |             | 8    | 569       | 358       | 1.51       | 8.2    |          | 85          | 102  | 1   | 3.5 | 190 | 0.5    |       |        |       |       |       |          |
| 5 11 78  | 16         | 0.3       | 9        |             | 7    | 621       | 390       | 1.56       | 8.4    |          | 111         | 132  | 2   | 2.7 | 200 | 0.4    |       |        |       |       |       |          |
| 6 19 78  | 18         | 0.1       | 75*      |             | 0    | 575       | 370       | 1.40       | 8.0    |          | 92          | 111  | 1   | 2.2 | 200 | 0.4    |       |        |       |       |       |          |
| 7 18 78  | 14         | 0.3       | 118*     |             | 4    | 730       | 501       | 1.40       | 8.1    |          | 78          | 93   | 1   | 2.7 | 290 | 0.3    |       |        |       |       |       |          |
| 9 6 78   | 28         | 0.025     | 397*     |             | 700  | 1030      | 765       | 1.11       | 8.0    |          | 102         | 122  | 1   | 4.5 | 480 | 0.4    |       |        |       |       |       |          |
| 10 11 78 | 12         | 0.04      | 66*      |             | 20   | 1170      | 883       | 1.07       | 8.2    |          | 84          | 101  | 1   | 3.9 | 580 | 0.2    |       |        |       |       |       |          |
| 11 8 78  | 8          | 0.04      | 54       |             | 10   | 1120      | 870       | 1.14       | 7.8    | -42      | 44          | 53   | 0   | 2.9 | 580 | 0.1    |       |        |       |       |       |          |
| 12 13 78 | 7          | 0.02      | 34       |             | 7    | 730       | 456       | 1.42       | 8.3    |          | 84          | 99   | 1   | 2.8 | 250 | 0.9    |       |        |       |       |       |          |
| 2 2 79   | 0          | 0.05      | 43       |             | 4    | 570       | 349       | 1.81       | 7.7    |          | 86          | 104  | 0   | 2.6 | 170 | 0.6    |       |        |       |       |       |          |
| 3 17 79  | 3          | 0.02      | 27       |             | 0    | 582       | 456       | 1.63       | 7.9    |          | 95          | 115  | 1   | 2.3 | 240 | 0.6    |       |        |       |       |       |          |
| 4 20 79  | 13         | 0.04      | 21       | 0.00        | 5    | 560       | 409       | 1.84       | 8.0    |          | 97          | 116  | 1   | 2.2 | 200 | 0.4    |       |        |       |       |       |          |
| 5 17 79  | 15         | 0.02      | 58       | 0.11        | 10   | 730       | 487       | 1.47       | 8.0    |          | 102         | 122  | 1   | 2.2 | 270 | 0.5    |       |        |       |       |       |          |
| 6 22 79  | 18         | 0.1       | 65       |             | 5    | 741       | 492       | 1.68       | 8.1    |          | 110         | 132  | 1   | 2.8 | 250 | 0.3    |       |        |       |       |       |          |
| 7 25 79  | 23         | 0.06      | 63       |             | 75   | 1130      | 800       | 1.09       | 8.2    |          | 96          | 114  | 1   | 2.5 | 520 | 0.4    | 0.1   | 0.10   | 0.00  | 0.00  | 0.02  |          |
| 8 9 79   | 18         | 0.1       | 8        |             | 20   | 1230      | 843       | 1.24       | 8.2    | -72      | 87          | 103  | 1   | 2.8 | 530 | 0.2    | 0.0   | 0.13   | 0.20  | 0.00  | 0.01  |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|-----|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 17 77  | 0.1 | 0.02 | 0.0 | 0.00 | 120 | 0.0 | 0.00 | 0.1 | 2.3 | 0.25 | 41 | 0.4 | 0.0 | 9.6 | 0.01 | 0.1 | 3.7 | 0.1 | 0.0 | 0.0 |
| 8 3 77   | 0.1 | 0.03 |     |      | 180 | 0.0 | 0.03 | 0.2 | 2.6 |      | 56 | 0.9 |     | 11  | 0.02 | 0.0 | 4.8 |     | 0.1 | 0.1 |
| 9 20 77  | 0.0 |      |     |      | 180 | 0.1 | 0.01 | 0.0 | 2.6 |      | 66 | 0.1 |     | 9.9 | 0.04 | 0.3 | 5.8 |     | 0.2 | 0.0 |
| 11 4 77  | 0.2 |      | 0.1 | 0.00 | 180 | 0.0 | 0.01 | 0.1 | 2.8 | 0.40 | 52 | 0.7 | 0.0 | 12  | 0.03 | 0.1 | 4.6 | 0.7 | 0.1 | 0.0 |
| 1 4 78   | 0.1 | 0.00 | 0.0 | 0.00 | 100 | 0.0 | 0.01 | 0.0 | 1.7 | 0.45 | 39 | 0.2 | 0.0 | 8.5 | 0.01 | 0.0 | 3.6 | 0.5 | 0.1 | 0.0 |
| 2 8 78   | 0.1 | 0.02 |     |      | 83  | 0.0 | 0.00 | 0.0 | 1.4 |      | 33 | 0.2 |     | 7.8 | 0.01 | 0.0 | 3.5 |     | 0.0 | 0.0 |
| 3 16 78  | 0.1 | 0.02 |     |      | 65  | 0.0 | 0.00 | 0.1 | 1.3 |      | 26 | 0.2 |     | 6.4 | 0.01 | 0.0 | 3.2 |     | 0.0 | 0.0 |
| 4 14 78  | 0.1 | 0.00 | 0.0 | 0.00 | 66  | 0.0 | 0.01 | 0.0 | 1.8 | 0.30 | 29 | 0.2 | 0.0 | 8.0 | 0.03 | 0.1 | 2.8 | 0.3 | 0.1 | 0.0 |
| 5 11 78  | 0.1 | 0.00 |     |      | 78  | 0.0 | 0.00 | 0.0 | 1.7 |      | 27 | 0.1 |     | 8.2 | 0.00 | 0.0 | 2.6 |     | 0.0 | 0.0 |
| 6 19 78  | 0.0 | 0.01 |     |      | 68  | 0.0 | 0.00 | 0.0 | 1.9 |      | 26 | 0.4 |     | 7.4 | 0.00 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 7 18 78  | 0.1 | 0.03 | 0.1 | 0.00 | 100 | 0.1 | 0.00 | 0.1 | 2.3 | 0.20 | 38 | 0.6 | 0.1 | 8.0 | 0.00 | 0.2 | 3.7 | 0.5 | 0.3 | 0.0 |
| 9 6 78   | 0.6 | 0.04 |     |      | 140 | 0.0 | 0.03 | 1.0 | 12  |      | 43 | 1.9 |     | 12  | 0.03 | 0.1 | 5.0 |     | 0.1 | 0.1 |
| 10 11 78 | 0.3 | 0.01 | 0.1 | 0.00 | 170 | 0.0 | 0.00 | 0.1 | 2.7 | 1.0  | 51 | 0.7 | 0.0 | 8.6 | 0.04 | 0.2 | 4.3 | 1.0 | 0.1 | 0.0 |
| 11 8 78  | 0.3 | 0.02 |     |      | 190 | 0.0 | 0.01 | 0.1 | 2.4 |      | 52 | 0.7 |     | 12  | 0.03 | 0.2 | 4.2 |     | 0.2 | 0.0 |
| 12 13 78 | 0.2 | 0.01 |     |      | 98  | 0.0 | 0.01 | 0.1 | 1.8 |      | 29 | 0.4 |     | 7.8 | 0.02 | 0.1 | 3.8 |     | 0.1 | 0.0 |
| 2 2 79   | 0.2 | 0.00 | 0.0 | 0.00 | 84  | 0.0 | 0.00 | 0.0 | 1.4 | 0.45 | 24 | 0.4 | 0.0 | 6.8 | 0.00 | 0.1 | 2.9 | 0.2 | 0.0 | 0.0 |
| 3 17 79  | 0.1 | 0.03 |     |      | 100 | 0.0 | 0.01 | 0.0 | 1.7 |      | 32 | 0.3 |     | 8.3 | 0.04 | 0.2 | 3.7 |     | 0.2 | 0.1 |
| 4 20 79  | 0.2 | 0.02 |     |      | 99  | 0.0 | 0.00 | 0.0 | 1.6 |      | 30 | 0.4 |     | 6.8 | 0.02 | 0.1 | 3.2 |     | 0.1 | 0.0 |
| 5 17 79  | 0.2 | 0.01 |     |      | 100 | 0.0 | 0.01 | 0.1 | 2.6 |      | 33 | 0.6 |     | 7.5 | 0.01 | 0.1 | 3.8 |     | 0.0 | 0.1 |
| 6 22 79  | 0.1 | 0.03 |     |      | 110 | 0.0 | 0.02 | 0.0 | 2.4 |      | 37 | 0.7 |     | 8.6 | 0.00 | 0.1 | 4.4 |     | 0.1 | 0.0 |
| 7 25 79  | 0.3 | 0.03 | 0.1 | 0.00 | 150 | 0.0 | 0.00 | 0.1 | 2.6 | 0.50 | 45 | 0.7 | 0.0 | 8.5 | 0.02 | 0.1 | 3.8 | 0.6 | 0.2 | 0.0 |
| 8 9 79   | 0.4 | 0.04 |     |      | 180 | 0.0 | 0.01 | 1.0 | 2.8 |      | 52 | 0.9 |     | 9.9 | 0.04 | 0.3 | 4.8 |     | 0.3 | 0.0 |

TABLE 25. WATER QUALITY FOR SITE 5068 GUERNSEY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 MCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |          |     |    |     |          |          |          |       |       |          |
| 6 16 77  | 26         | 0.06      |          |             | 8    | 580       | 375       | 1.38       | 7.3    |          |             | 82       | 100 | 0  | 11  | 200      | 0.0      |          |       |       |          |
| 1 4 78   | 1          | 0.2       |          |             | 8    | 549       | 353       | 1.74       | 8.0    |          |             | 80       | 96  | 1  | 2.8 | 180      | 0.1      |          |       |       |          |
| 2 8 78   | 1          | 0.15      |          |             | 0    | 540       | 345       | 1.62       | 7.9    |          |             | 57       | 69  | 0  | 1.8 | 190      | 0.1      |          |       |       |          |
| 3 16 78  | 6          | 1.5       | 20       |             | 4    | 437       | 269       | 1.40       | 7.6    |          |             | 33       | 40  | 0  | 1.8 | 160      | 0.3      |          |       |       |          |
| 4 14 78  |            | 0.9       | 7        |             | 4    | 649       | 427       | 1.31       | 8.0    |          |             | 59       | 71  | 0  | 2.0 | 260      | 0.1      |          |       |       |          |
| 5 11 78  | 19         | 0.3       | 218      |             | 35   | 660       | 443       | 1.19       | 8.0    |          |             | 62       | 75  | 1  | 1.4 | 280      | 0.1      |          |       |       |          |
| 6 19 78  | 22         | 1.0       | 109*     |             |      | 456       | 275       | 1.33       | 7.6    |          |             | 38       | 46  | 0  | 0.8 | 160      | 0.2      |          |       |       |          |
| 7 18 78  | 19         | 0.15      | 114*     |             | 20   | 595       | 387       | 1.54       | 8.5    |          |             | 113      | 132 | 3  | 1.9 | 200      | 0.0      |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|-----|------|-----|------|----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |    |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 16 77  | 0.1 | 0.03 | 0.0 | 0.00 | 65 | 0.0 | 0.00 | 0.2 | 2.0 | 0.15 | 25 | 0.3 | 0.0 | 16  | 0.01 | 0.0 | 3.0 | 0.1 | 0.0 | 0.0 |
| 1 4 78   | 0.1 | 0.00 | 0.0 | 0.00 | 72 | 0.0 | 0.00 | 0.1 | 1.5 | 0.30 | 31 | 0.1 | 0.0 | 8.8 | 0.02 | 0.0 | 3.8 | 0.3 | 0.1 | 0.0 |
| 2 8 78   | 0.1 | 0.02 |     |      | 70 | 0.0 | 0.00 | 0.1 | 1.2 |      | 32 | 0.1 |     | 7.3 | 0.01 | 0.0 | 3.4 |     | 0.1 | 0.0 |
| 3 16 78  | 0.1 | 0.02 |     |      | 51 | 0.0 | 0.00 | 0.1 | 1.7 |      | 23 | 0.1 |     | 4.0 | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 4 14 78  | 0.1 | 0.01 | 0.0 | 0.00 | 75 | 0.0 | 0.01 | 0.1 | 1.7 | 0.30 | 37 | 0.1 | 0.0 | 7.3 | 0.03 | 0.1 | 3.0 | 0.2 | 0.1 | 0.0 |
| 5 11 78  | 0.1 | 0.01 |     |      | 79 | 0.0 | 0.00 | 0.0 | 1.7 |      | 31 | 0.1 |     | 7.4 | 0.01 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 6 19 78  | 0.1 | 0.02 |     |      | 50 | 0.0 | 0.00 | 0.1 | 1.8 |      | 21 | 0.1 |     | 4.8 | 0.01 | 0.0 | 4.8 |     | 0.1 | 0.0 |
| 7 18 78  | 0.1 | 0.02 | 0.0 | 0.00 | 69 | 0.1 | 0.00 | 0.0 | 1.9 | 0.15 | 30 | 0.2 | 0.0 | 10  | 0.00 | 0.2 | 2.8 | 0.2 | 0.3 | 0.0 |

TABLE 26, WATER QUALITY FOR SITE 5071 HARRISON COUNTY, OHIO

| DATE | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | -NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | HCO3 | CO3 | CL  | SO4 | NO3 AS N | NO3 N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
|------|------------|-----------|----------|-------------|------|-----------|-----------|-------------|--------|----------------------|-------------|------|-----|-----|-----|----------|-------|----------|-------|-------|----------|------|------|
| MO   | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM       | MG/L   | MILLIGRAMS PER LITER |             |      |     |     |     |          |       |          |       |       |          |      |      |
| 6    | 29         | 77        | 26       | 0.09        |      |           | 25        | 311         | 154    | 4.57                 | 7.8         |      | 91  | 110 | 0   | 18       | 23    | 0.0      |       |       |          |      |      |
| 8    | 4          | 77        | 24       | 0.06        |      |           | 15        | 305         | 148    | 6.52                 | 8.0         |      | 92  | 111 | 1   | 14       | 18    | 0.1      |       |       |          |      |      |
| 9    | 1          | 77        | 21       | 0.03        |      |           | 8         | 298         | 146    | 5.39                 | 7.0         |      | 84  | 102 | 0   | 13       | 21    | 0.0      |       |       |          |      |      |
| 11   | 7          | 77        | 16       | 0.2         | 52   |           | 4         | 318         | 155    | 4.60                 | 8.4         |      | 83  | 98  | 1   | 10       | 29    | 0.0      |       |       |          |      |      |
| 1    | 5          | 78        | 0        | 0.4         |      |           | 2         | 244         |        |                      | 7.9         |      |     |     |     | 8.8      | 35    | 0.2      |       |       |          |      |      |
| 2    | 6          | 78        | 1        | 0.4         |      |           | 0         | 220         | 114    | 2.69                 | 7.9         |      | 47  | 56  | 0   | 7.8      | 32    | 0.3      |       |       |          |      |      |
| 3    | 15         | 78        | 5        | 4           | 13   |           | 4         | 146         | 82     | 1.95                 | 7.5         |      | 24  | 29  | 0   | 5.1      | 27    | 0.5      |       |       |          |      |      |
| 4    | 13         | 78        | 14       | 1.5         | 13   |           | 10        | 200         | 110    | 2.03                 | 7.8         |      | 46  | 56  | 0   | 7.1      | 36    | 0.1      |       |       |          |      |      |
| 5    | 11         | 78        | 11       | 2.0         | 25*  |           | 7         | 218         | 117    | 2.48                 | 8.0         |      | 63  | 76  | 0   | 6.7      | 32    | 0.1      |       |       |          |      |      |
| 6    | 20         | 78        |          | 0.4         | 52*  |           |           | 247         | 127    | 3.28                 | 7.8         |      | 72  | 87  | 0   | 6.7      | 28    | 0.1      |       |       |          |      |      |
| 7    | 18         | 78        | 25       | 0.15        | 81*  |           | 10        | 251         | 144    | 3.84                 | 8.3         |      | 81  | 97  | 1   | 8.8      | 29    | 0.0      |       |       |          |      |      |
| 12   | 20         | 78        | 1        | 0.15        | 3    |           | 0         | 224         | 137    | 3.85                 | 8.0         |      | 58  | 70  | 0   | 6.7      | 31    | 0.5      |       |       |          |      |      |
| 2    | 1          | 79        | 0        | 0.7         | 11   |           | 2         | 188         | 103    | 2.33                 | 7.7         |      | 47  | 57  | 0   | 6.1      | 29    | 0.3      |       |       |          |      |      |
| 3    | 16         | 79        | 2        | 0.3         | 4    |           | 5         | 194         | 116    | 2.23                 | 7.7         | -46  | 48  | 59  | 0   | 6.4      | 37    | 0.2      |       |       |          |      |      |
| 4    | 19         | 79        | 17       | 0.3         | 6    | 0.00      | 30        | 181         | 111    | 2.61                 | 7.5         | -42  | 51  | 62  | 0   | 5.3      | 32    | 0.0      |       |       |          |      |      |
| 5    | 16         | 79        | 25       | 0.1         | 7    |           | 15        | 241         | 139    | 3.60                 | 8.0         | -70  | 70  | 85  | 0   | 6.9      | 32    | 0.0      |       |       |          |      |      |
| 6    | 20         | 79        | 27       | 0.01        | 12   |           | 10        | 264         | 155    | 4.77                 | 8.3         |      | 83  | 99  | 1   | 8.5      | 29    | 0.1      |       |       |          |      |      |
| 8    | 9          | 79        | 26       | 0.003       | 49   |           | 20        | 335         | 158    | 6.15                 | 8.4         | -100 | 97  | 115 | 2   | 10       | 22    | 0.1      | 0.0   | 0.06  | 0.00     | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA   | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|------|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |      |      |     |     |     |     |     |
| 6 29 77  | 0.1                  | 0.04 |     |      | 32 | 0.0 | 0.00 | 0.2 | 1.4 |      | 7.6 | 0.1 |     | 10.0 | 0.01 | 0.1 | 3.2 |     | 0.0 | 0.0 |
| 8 4 77   | 0.0                  | 0.01 |     |      | 34 | 0.0 | 0.00 | 0.1 | 1.5 |      | 7.3 | 0.0 |     | 11   | 0.00 | 0.0 | 3.3 |     | 0.0 | 0.1 |
| 9 1 77   | 0.0                  | 0.01 |     |      | 32 | 0.0 | 0.01 | 0.0 | 2.0 |      | 7.4 | 0.0 |     | 12   | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 11 7 77  | 0.0                  |      | 0.0 | 0.00 | 35 | 0.0 | 0.00 | 0.0 | 2.4 | 0.04 | 8.6 | 0.0 | 0.2 | 11   | 0.01 | 0.0 | 4.0 | 0.1 | 0.1 | 0.1 |
| 1 5 78   | 0.0                  | 0.00 | 0.0 | 0.00 | 25 | 0.0 | 0.01 | 0.0 | 1.5 | 0.15 | 6.9 | 0.0 | 0.0 | 7.6  | 0.01 | 0.0 | 3.4 | 0.1 | 0.0 | 0.0 |
| 2 6 78   | 0.0                  | 0.00 |     |      | 23 | 0.0 | 0.00 | 0.0 | 1.5 |      | 6.3 | 0.0 |     | 7.2  | 0.00 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 3 15 78  | 0.1                  | 0.01 |     |      | 14 | 0.0 | 0.00 | 0.1 | 1.8 |      | 3.9 | 0.0 |     | 4.6  | 0.00 | 0.0 | 4.0 |     | 0.0 | 0.0 |
| 4 13 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 19 | 0.0 | 0.00 | 0.1 | 1.7 | 0.07 | 5.2 | 0.1 | 0.0 | 6.7  | 0.01 | 0.1 | 2.7 | 0.1 | 0.1 | 0.0 |
| 5 11 78  | 0.0                  | 0.00 |     |      | 22 | 0.0 | 0.00 | 0.0 | 1.4 |      | 5.4 | 0.1 |     | 6.9  | 0.00 | 0.0 | 2.0 |     | 0.0 | 0.0 |
| 6 20 78  | 0.0                  | 0.01 |     |      | 24 | 0.0 | 0.00 | 0.1 | 1.4 |      | 6.3 | 0.1 |     | 8.6  | 0.00 | 0.0 | 3.7 |     | 0.1 | 0.0 |
| 7 18 78  | 0.1                  | 0.03 | 0.0 | 0.00 | 32 | 0.0 | 0.00 | 0.1 | 1.8 | 0.08 | 7.1 | 0.1 | 0.0 | 8.4  | 0.00 | 0.0 | 3.7 | 0.1 | 0.0 | 0.0 |
| 12 20 78 | 0.1                  | 0.01 |     |      | 36 | 0.0 | 0.01 | 0.1 | 2.1 |      | 5.9 | 0.1 |     | 8.0  | 0.04 | 0.1 | 4.5 |     | 0.0 | 0.0 |
| 2 1 79   | 0.1                  | 0.01 | 0.0 | 0.00 | 20 | 0.0 | 0.00 | 0.1 | 1.3 | 0.20 | 4.8 | 0.0 | 0.0 | 4.7  | 0.02 | 0.0 | 3.5 | 0.1 | 0.1 | 0.0 |
| 3 16 79  | 0.1                  | 0.01 |     |      | 23 | 0.0 | 0.00 | 0.0 | 1.4 |      | 5.4 | 0.0 |     | 5.6  | 0.01 | 0.0 | 3.1 |     | 0.0 | 0.1 |
| 4 19 79  | 0.1                  | 0.01 | 0.0 | 0.00 | 24 | 0.0 | 0.00 | 0.0 | 1.6 | 0.15 | 5.2 | 0.0 | 0.0 | 5.9  | 0.00 | 0.0 | 2.7 | 0.1 | 0.0 | 0.0 |
| 5 16 79  | 0.1                  | 0.02 |     |      | 35 | 0.0 | 0.00 | 0.1 | 1.5 |      | 6.5 | 0.1 |     | 6.9  | 0.00 | 0.0 | 3.5 |     | 0.0 | 0.0 |
| 6 20 79  | 0.1                  | 0.02 |     |      | 44 | 0.0 | 0.00 | 0.2 | 1.5 |      | 7.1 | 0.1 |     | 7.5  | 0.00 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 8 9 79   | 0.1                  | 0.01 |     |      | 41 | 0.0 | 0.02 | 0.1 | 2.4 |      | 7.4 | 0.2 |     | 8.4  | 0.01 | 0.1 | 3.5 |     | 0.0 | 0.0 |

TABLE 27. WATER QUALITY FOR SITE 5072 HARRISON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SD4  | NO3 AS N             | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|------|----------------------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |      | MILLIGRAMS PER LITER |          |          |       |       |          |
| 6 29 77  | 23         | 0.025     |          |             | 25   | 1890      | 1400      | 1.31       | 7.8    |          | 169         | 204  | 1   | 68 | 800  | 0.0                  |          |          |       |       |          |
| 8 4 77   | 21         | 0.09      |          |             | 20   | 1730      | 1480      | 1.38       | 7.9    |          | 90          | 108  | 1   | 66 | 880  | 0.1                  |          |          |       |       |          |
| 9 1 77   | 18         | 0.1       |          |             | 15   | 1760      | 1310      | 1.26       | 7.3    |          | 107         | 130  | 0   | 68 | 780  | 0.0                  |          |          |       |       |          |
| 11 7 77  | 14         | 0.4       |          |             | 20   | 1800      | 1590      | 1.55       | 7.9    |          | 343         | 412  | 3   | 34 | 850  | 0.0                  |          |          |       |       |          |
| 1 5 78   | 3          | 0.1       |          |             | 4    | 1660      | 1490      | 1.26       | 7.9    |          | 155         | 186  | 1   | 74 | 870  | 0.3                  |          |          |       |       |          |
| 6 20 78  |            | 0.4       | 191*     |             |      | 1970      | 1600      | 0.95       | 7.8    |          | 138         | 166  | 1   | 47 | 1100 | 0.1                  |          |          |       |       |          |
| 7 18 78  | 22         | 0.25      |          |             | 8    | 1890      | 1650      | 1.05       | 8.2    |          | 109         | 129  | 2   | 69 | 1100 | 0.0                  |          |          |       |       |          |
| 9 7 78   | 19         | 0.04      | 36*      |             | 10   | 1900      | 1590      | 1.10       | 8.0    |          | 218         | 261  | 2   | 40 | 990  | 0.1                  |          |          |       |       |          |
| 10 12 78 | 11         | 0.15      | 24*      |             | 10   | 1740      | 1540      | 1.14       | 8.1    |          | 131         | 156  | 2   | 56 | 960  | 0.2                  |          |          |       |       |          |
| 11 20 78 | 6          | 0.06      |          |             | 15   | 1820      | 1500      | 1.34       | 7.9    |          | 124         | 149  | 1   | 53 | 890  | 0.0                  |          |          |       |       |          |
| 12 19 78 | 0          | 0.06      |          |             | 1    | 1800      | 1330      | 1.10       | 8.0    |          | 160         | 192  | 2   | 46 | 830  | 0.2                  |          |          |       |       |          |
| 2 1 79   | 0          | 0.15      | 53       |             | 0    | 1770      | 1580      | 1.13       | 8.1    |          | 56          | 66   | 1   | 31 | 1100 | 0.0                  |          |          |       |       |          |
| 3 16 79  | 2          | 0.2       | 55       |             | 5    | 2270      | 1880      | 0.99       | 8.2    |          | 113         | 134  | 2   | 37 | 1300 | 0.0                  |          |          |       |       |          |
| 4 19 79  | 16         | 0.3       | 90       | 0.00        | 9    | 1980      | 1910      | 1.11       | 8.1    |          | 128         | 152  | 2   | 53 | 1200 | 0.0                  |          |          |       |       |          |
| 5 17 79  | 11         | 0.15      | 80       | 0.00        | 5    | 2180      | 1840      | 1.24       | 7.9    |          | 48          | 58   | 0   | 42 | 1200 | 0.0                  |          |          |       |       |          |
| 6 21 79  | 24         | 0.07      | 42       |             | 20   | 1900      | 1530      | 1.03       | 8.1    |          | 162         | 194  | 2   | 38 | 990  | 0.1                  |          |          |       |       |          |
| 7 25 79  | 23         | 0.09      | 108      |             | 70   | 2510      | 1770      | 1.06       | 8.0    |          | 176         | 211  | 2   | 43 | 1100 | 0.0                  | 0.1      | 0.04     | 0.00  | 0.00  | 0.01     |
| 8 2 79   | 22         | 0.007     | 18       |             | 30   | 2360      | 1670      | 1.06       | 8.1    |          | 216         | 257  | 3   | 41 | 1100 | 0.0                  |          |          |       |       |          |
| 8 9 79   |            | 0.01      | 26       |             | 30   | 2280      | 1490      | 1.38       | 8.0    |          | 151         | 181  | 2   | 42 | 870  | 0.0                  | 0.0      | 0.26     | 0.60  | 0.00  | 0.03     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |    |      |     |     |     |     |     |
| 6 29 77  | 0.3                  | 0.08 |     |      | 270 | 0.0 | 0.00 | 0.3 | 3.6 |      | 110 | 2.2 |     | 33 | 0.05 | 0.2 | 5.4 |     | 0.1 | 0.0 |
| 8 4 77   | 0.2                  | 0.05 |     |      | 300 | 0.0 | 0.01 | 0.2 | 3.1 |      | 120 | 1.7 |     | 52 | 0.04 | 0.1 | 5.2 |     | 0.2 | 0.1 |
| 9 1 77   | 0.3                  | 0.06 |     |      | 240 | 0.0 | 0.02 | 0.2 | 3.9 |      | 99  | 2.3 |     | 47 | 0.05 | 0.2 | 5.1 |     | 0.2 | 0.0 |
| 11 7 77  | 0.3                  |      | 0.0 | 0.00 | 310 | 0.1 | 0.01 | 0.4 | 5.1 | 0.55 | 140 | 2.5 | 0.2 | 33 | 0.07 | 0.2 | 5.8 | 2.1 | 0.4 | 0.0 |
| 1 5 78   | 0.2                  | 0.04 | 0.0 | 0.00 | 270 | 0.0 | 0.01 | 0.8 | 3.8 | 1.5  | 120 | 1.2 | 0.0 | 40 | 0.04 | 0.1 | 4.8 | 3.2 | 0.3 | 0.0 |
| 6 20 78  | 0.3                  | 0.04 |     |      | 250 | 0.0 | 0.00 | 0.2 | 4.9 |      | 100 | 5.1 |     | 28 | 0.07 | 0.1 | 5.1 |     | 0.4 | 0.0 |
| 7 18 78  | 0.3                  | 0.06 | 0.0 | 0.00 | 270 | 0.1 | 0.01 | 0.2 | 4.8 | 0.55 | 120 | 3.9 | 0.1 | 32 | 0.04 | 0.2 | 4.6 | 1.9 | 0.3 | 0.0 |
| 9 7 78   | 0.3                  | 0.05 |     |      | 260 | 0.0 | 0.02 | 0.4 | 3.3 |      | 110 | 1.2 |     | 28 | 0.05 | 0.2 | 6.5 |     | 0.2 | 0.0 |
| 10 12 78 | 0.4                  | 0.04 | 0.0 | 0.00 | 290 | 0.0 | 0.01 | 0.6 | 8.7 | 1.5  | 110 | 1.1 | 0.0 | 25 | 0.05 | 0.3 | 5.4 | 2.2 | 0.2 | 0.0 |
| 11 20 78 | 0.5                  | 0.04 |     |      | 320 | 0.0 | 0.01 | 0.5 | 2.9 |      | 110 | 0.9 |     | 24 | 0.10 | 0.3 | 5.2 |     | 0.4 | 0.1 |
| 12 19 78 | 0.9                  | 0.03 |     |      | 230 | 0.0 | 0.01 | 0.4 | 3.3 |      | 98  | 0.6 |     | 19 | 0.10 | 0.6 | 4.8 |     | 0.5 | 0.0 |
| 2 1 79   | 0.4                  | 0.03 | 0.0 | 0.00 | 320 | 0.0 | 0.00 | 0.1 | 3.3 | 2.0  | 100 | 0.4 | 0.0 | 18 | 0.04 | 0.2 | 4.5 | 1.0 | 0.4 | 0.0 |
| 3 16 79  | 0.5                  | 0.03 |     |      | 320 | 0.0 | 0.00 | 0.2 | 4.2 |      | 130 | 0.2 |     | 17 | 0.08 | 0.4 | 4.4 |     | 0.5 | 0.1 |
| 4 19 79  | 0.3                  | 0.06 | 0.1 | 0.00 | 390 | 0.0 | 0.00 | 0.2 | 4.2 | 2.5  | 120 | 0.3 | 0.1 | 27 | 0.04 | 0.2 | 3.4 | 2.7 | 0.5 | 0.0 |
| 5 17 79  | 0.4                  | 0.04 |     |      | 390 | 0.0 | 0.01 | 0.3 | 2.6 |      | 130 | 0.9 |     | 34 | 0.06 | 0.2 | 4.8 |     | 0.5 | 0.1 |
| 6 21 79  | 0.4                  | 0.05 |     |      | 280 | 0.0 | 0.00 | 0.3 | 4.7 |      | 89  | 0.6 |     | 24 | 0.04 | 0.2 | 4.3 |     | 0.3 | 0.0 |
| 7 25 79  | 0.6                  | 0.05 | 0.0 | 0.00 | 310 | 0.1 | 0.04 | 0.3 | 1.2 | 1.5  | 120 | 0.8 | 0.0 | 26 | 0.09 | 0.4 | 5.1 | 2.4 | 0.8 | 0.0 |
| 8 2 79   | 0.6                  | 0.05 |     |      | 290 | 0.1 | 0.03 | 0.3 | 2.8 |      | 110 | 0.9 |     | 23 | 0.08 | 0.4 | 4.9 |     | 0.8 | 0.0 |
| 8 9 79   | 0.4                  | 0.05 |     |      | 310 | 0.0 | 0.01 | 0.1 | 4.4 |      | 99  | 1.7 |     | 53 | 0.08 | 0.3 | 5.2 |     | 0.5 | 0.0 |

TABLE 28. WATER QUALITY FOR SITE 5074 HARRISON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | SPEC TURB | DIS COND | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3-MCO3 | NO3-CO3 | CL | SO4 | NO3-AS N | NO3-AS N | NH3-AS N | TOT N | TOT P |
|----------|------------|-----------|----------|-------------|-----------|----------|------------|--------|----------|-------------|----------|---------|----|-----|----------|----------|----------|-------|-------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU UM/CM | MG/L     |            |        |          |             |          |         |    |     |          |          |          |       |       |
| 9 7 78   | 24         | 0.01      | 20*      |             | 9         | 345      | 201        | 5.49   | 8.3      |             | 135      | 161     | 2  | 5.7 | 32       | 0.1      |          |       |       |
| 10 12 78 | 12         | 0.03      | 42*      |             | 10        | 363      | 209        | 4.98   | 8.4      |             | 132      | 156     | 2  | 9.0 | 36       | 0.1      |          |       |       |
| 11 20 78 | 9          | 0.05      | 54       |             | 10        | 327      | 177        | 4.06   | 7.6      |             | 104      | 126     | 0  | 6.6 | 37       | 0.1      |          |       |       |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  |
|----------|-----|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |
| 9 7 78   | 0.1 | 0.02 |     |      | 53 | 0.0 | 0.02 | 0.1 | 2.2 |      | 9.8 | 0.1 |     | 6.9 | 0.01 | 0.0 | 4.3 |     | 0.0 |
| 10 12 78 | 0.1 | 0.02 | 0.1 | 0.00 | 57 | 0.0 | 0.00 | 0.2 | 2.9 | 0.25 | 9.6 | 0.1 | 0.0 | 6.0 | 0.01 | 0.1 | 3.7 | 0.2 | 0.1 |
| 11 20 78 | 0.1 | 0.01 |     |      | 48 | 0.0 | 0.00 | 0.1 | 1.8 |      | 7.7 | 0.1 |     | 5.6 | 0.01 | 0.1 | 3.6 |     | 0.0 |

TABLE 29. WATER QUALITY FOR SITE 5075 HARRISON COUNTY, OHIO

| WATER ANALYSIS REPORT |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |      |
|-----------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| DATE                  |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SD4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
| MO                    | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6                     | 29 | 77         | 23        | 2.0      |             |      | 25        | 3540      | 2950       | 1.31                 | 7.8      |             | 206  | 248 | 2  | 25  | 1900     | 0.2       |          |       |       |          |      |
| 8                     | 4  | 77         | 26        | 10       |             |      | 4         | 3090      | 2740       | 1.24                 | 7.9      |             | 138  | 165 | 1  | 17  | 1800     | 0.0       |          |       |       |          |      |
| 9                     | 1  | 77         | 22        | 4        |             |      | 8         | 3190      | 2670       | 1.16                 | 7.4      |             | 223  | 271 | 1  | 16  | 1800     | 0.1       |          |       |       |          |      |
| 11                    | 7  | 77         | 15        | 4        |             |      | 4         | 3750      | 3110       | 1.31                 | 8.0      |             | 257  | 307 | 3  | 16  | 2000     | 0.1       |          |       |       |          |      |
|                       |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 1                     | 5  | 78         | 5         | 4        |             |      | 10        | 3100      | 2860       | 1.30                 | 7.9      |             | 318  | 382 | 3  | 24  | 1800     | 0.1       |          |       |       |          |      |
| 2                     | 6  | 78         | 4         | 4        |             |      | 4         | 2750      |            |                      | 7.8      |             |      |     |    | 26  | 1700     | 0.4       |          |       |       |          |      |
| 3                     | 15 | 78         | 3         | 15       | 97          |      | 60        | 1970      | 1600       | 1.13                 | 7.9      |             | 123  | 148 | 1  | 18  | 1100     | 0.4       |          |       |       |          |      |
| 4                     | 13 | 78         | 14        | 8        | 18          |      | 15        | 2860      |            |                      | 8.1      |             |      |     |    | 21  | 1800     | 0.0       |          |       |       |          |      |
| 5                     | 11 | 78         | 14        | 3        | 17*         |      | 15        | 3100      |            |                      | 7.8      |             |      |     |    | 21  | 2000     | 0.0       |          |       |       |          |      |
| 6                     | 20 | 78         |           | 5        |             |      |           | 2820      | 2260       | 1.16                 | 7.6      |             | 202  | 244 | 1  | 13  | 1500     | 0.1       |          |       |       |          |      |
| 7                     | 18 | 78         | 25        | 4        | 29*         |      | 8         | 3050      | 2730       | 1.13                 | 8.2      |             | 169  | 199 | 3  | 20  | 1800     | 0.0       |          |       |       |          |      |
| 9                     | 7  | 78         | 23        | 2.5      | 66*         |      | 20        | 3180      | 2870       | 1.10                 | 7.9      |             | 249  | 299 | 2  | 17  | 1900     | 0.1       |          |       |       |          |      |
| 10                    | 12 | 78         | 13        | 0.06     | 74*         |      | 9         | 3570      | 3330       | 1.10                 | 7.9      |             | 272  | 326 | 3  | 14  | 2200     | 0.3       |          |       |       |          |      |
| 11                    | 20 | 78         | 9         | 1.5      |             |      | 7         | 3380      | 3180       | 1.35                 | 7.7      |             | 216  | 261 | 1  | 16  | 2000     | 0.0       |          |       |       |          |      |
| 12                    | 19 | 78         | 3         | 3        |             |      | 0         | 2850      | 2260       | 1.08                 | 7.9      |             | 270  | 325 | 2  | 14  | 1500     | 0.1       |          |       |       |          |      |
|                       |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 3                     | 16 | 79         | 2         | 1.5      |             |      | 1         | 3430      | 3460       | 1.18                 | 8.0      |             | 290  | 346 | 4  | 14  | 2300     | 0.0       |          |       |       |          |      |
| 4                     | 19 | 79         | 13        | 0.0000   | 368         | 0.25 | 180       | 3050      | 2920       | 1.17                 | 7.9      |             | 175  | 209 | 2  | 16  | 1900     | 0.0       |          |       |       |          |      |
| 5                     | 17 | 79         | 22        | 0.0000   | 345         | 0.85 | 370       | 3460      | 2860       | 1.11                 | 8.2      |             | 163  | 193 | 3  | 13  | 2000     | 0.1       |          |       |       |          |      |
| 6                     | 21 | 79         | 24        | 0.8      |             |      | 6         | 3360      | 2550       | 1.12                 | 7.7      |             | 243  | 293 | 1  | 16  | 1700     | 0.1       |          |       |       |          |      |
| 7                     | 25 | 79         | 24        | 0.07     | 381         | 1.3  | 600       | 3810      | 2970       | 1.07                 | 8.0      |             | 191  | 228 | 2  | 17  | 2000     | 0.2       | 0.0      | 0.05  | 0.00  | 0.07     | 0.01 |
| 8                     | 9  | 79         | 28        | 3        | 1           |      | 10        | 3690      | 2780       | 1.13                 | 8.0      |             | 189  | 226 | 2  | 16  | 1900     | 0.0       | 0.0      | 0.07  | 0.00  | 0.00     | 0.03 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 29 77  | 0.5                  | 0.28 |     |      | 430 | 0.1 | 0.01 | 0.4 | 12  |      | 270 | 0.5 |     | 190 | 0.09 | 0.3 | 3.1 |     | 0.3 | 0.0 |
| 8 4 77   | 0.4                  | 0.23 |     |      | 420 | 0.0 | 0.00 | 0.2 | 13  |      | 210 | 0.2 |     | 190 | 0.08 | 0.2 | 2.4 |     | 0.2 | 0.0 |
| 9 1 77   | 0.4                  | 0.24 |     |      | 360 | 0.1 | 0.02 | 0.2 | 15  |      | 200 | 1.1 |     | 190 | 0.09 | 0.2 | 2.3 |     | 0.3 | 0.0 |
| 11 7 77  | 0.4                  |      | 0.0 | 0.00 | 470 | 0.1 | 0.00 | 0.2 | 13  | 0.85 | 280 | 0.3 | 0.2 | 180 | 0.09 | 0.2 | 2.3 | 11  | 0.4 | 0.0 |
| 1 5 78   | 0.3                  | 0.19 | 0.0 | 0.00 | 410 | 0.0 | 0.02 | 0.3 | 13  | 2.0  | 250 | 1.0 | 0.0 | 170 | 0.08 | 0.2 | 3.0 | 6.3 | 0.4 | 0.0 |
| 2 6 78   | 0.3                  | 0.22 |     |      | 350 | 0.0 | 0.00 | 0.2 | 8.4 |      | 220 | 1.2 |     | 140 | 0.09 | 0.1 | 3.4 |     | 0.4 | 0.0 |
| 3 15 78  | 0.3                  | 0.12 |     |      | 230 | 0.0 | 0.00 | 0.2 | 6.8 |      | 130 | 1.4 |     | 77  | 0.05 | 0.1 | 2.5 |     | 0.2 | 0.0 |
| 4 13 78  | 0.5                  | 0.17 | 0.0 | 0.00 | 290 | 0.0 | 0.01 | 0.2 | 8.1 | 1.5  | 190 | 1.1 | 0.1 | 140 | 0.08 | 0.2 | 2.1 | 5.7 | 0.4 | 0.0 |
| 5 11 78  | 0.4                  | 0.22 |     |      | 340 | 0.1 | 0.01 | 0.2 | 11  |      | 220 | 0.4 |     | 150 | 0.07 | 0.2 | 1.8 |     | 0.5 | 0.0 |
| 6 20 78  | 0.3                  | 0.19 |     |      | 300 | 0.0 | 0.00 | 0.2 | 8.1 |      | 200 | 0.9 |     | 120 | 0.11 | 0.1 | 3.7 |     | 0.5 | 0.0 |
| 7 18 78  | 0.3                  | 0.25 | 0.0 | 0.00 | 350 | 0.0 | 0.01 | 0.2 | 13  | 0.70 | 220 | 0.5 | 0.2 | 180 | 0.06 | 0.3 | 2.8 | 5.3 | 0.4 | 0.0 |
| 9 7 78   | 0.7                  | 0.28 |     |      | 350 | 0.1 | 0.01 | 0.2 | 12  |      | 220 | 0.2 |     | 190 | 0.12 | 0.6 | 1.6 |     | 1.2 | 0.0 |
| 10 12 78 | 0.6                  | 0.32 | 0.1 | 0.00 | 460 | 0.0 | 0.01 | 0.3 | 13  | 2.5  | 240 | 0.4 | 0.1 | 180 | 0.12 | 0.6 | 2.6 | 7.0 | 0.4 | 0.0 |
| 11 20 78 | 1.7                  | 0.35 |     |      | 530 | 0.1 | 0.03 | 0.5 | 16  |      | 270 | 0.8 |     | 190 | 0.23 | 0.8 | 3.7 |     | 1.3 | 0.1 |
| 12 19 78 | 1.0                  | 0.23 | 0.0 | 0.00 | 290 | 0.1 | 0.01 | 0.2 | 11  | 1.5  | 160 | 1.0 | 0.0 | 130 | 0.17 | 0.8 | 2.7 | 5.3 | 1.0 | 0.0 |
| 3 16 79  | 0.6                  | 0.24 |     |      | 500 | 0.0 | 0.01 | 0.2 | 10  |      | 290 | 1.0 |     | 180 | 0.15 | 0.5 | 3.1 |     | 1.0 | 0.1 |
| 4 19 79  | 0.4                  | 0.22 | 0.1 | 0.00 | 480 | 0.0 | 0.00 | 0.1 | 9.6 | 2.5  | 230 | 0.6 | 0.1 | 110 | 0.07 | 0.2 | 1.8 | 5.6 | 0.8 | 0.0 |
| 5 17 79  | 0.7                  | 0.26 |     |      | 410 | 0.0 | 0.01 | 0.4 | 10  |      | 230 | 0.5 |     | 140 | 0.11 | 0.4 | 2.9 |     | 1.0 | 0.1 |
| 6 21 79  | 0.5                  | 0.25 |     |      | 350 | 0.1 | 0.04 | 0.2 | 11  |      | 200 | 0.4 |     | 130 | 0.12 | 0.5 | 2.7 |     | 0.9 | 0.0 |
| 7 25 79  | 0.8                  | 0.25 | 0.0 | 0.00 | 410 | 0.1 | 0.05 | 0.2 | 11  | 0.80 | 250 | 0.1 | 0.1 | 110 | 0.13 | 0.5 | 1.6 | 6.4 | 1.3 | 0.0 |
| 8 9 79   | 0.4                  | 0.25 |     |      | 400 | 0.0 | 0.01 | 0.1 | 10  |      | 240 | 0.2 |     | 110 | 0.08 | 0.4 | 1.6 |     | 0.9 | 0.0 |

TABLE 30. WATER QUALITY FOR SITE 5081 HOCKING COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | SPEC TURB | DIS COND | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | S04 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|----------------------------------|------------|-----------|----------|-------------|-----------|----------|------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU UM/CM | MG/L     |            |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |           |          |            |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6 7 77                           | 18         | 0.01      |          |             | 8         | 133      | 90         | 1.47   | 7.5      |             | 22   | 27  | 0  | 7.4 | 36       |           |          |       |       |          |      |
| 7 26 77                          | 17         | 0.1       |          |             | 35        | 150      | 102        | 1.68   |          |             | 27   | 0   | 16 | 6.4 | 35       | 0.1       |          |       |       |          |      |
| 9 29 77                          | 17         | 0.007     |          |             | 15        | 288      | 165        | 2.23   | 7.6      |             | 54   | 66  | 0  | 28  | 40       | 0.0       |          |       |       |          |      |
| 11 10 77                         | 10         | 0.2       | 39       |             | 30        | 156      | 104        | 2.08   | 8.1      |             | 28   | 34  | 0  | 5.2 | 34       | 0.1       |          |       |       |          |      |
| 12 29 77                         | 0          | 0.07      |          |             | 10        | 179      | 112        | 1.41   | 7.4      |             | 17   | 21  | 0  | 9.0 | 47       | 0.1       |          |       |       |          |      |
|                                  |            |           |          |             |           |          |            |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 2 9 78                           | 0          | 0.2       |          |             | 20        | 128      | 81         | 1.54   | 7.0      |             | 16   | 20  | 0  | 4.2 | 32       | 0.1       |          |       |       |          |      |
| 3 20 78                          | 7          | 1.5       |          |             | 40        | 103      | 72         | 1.28   | 6.6      |             | 6    | 7   | 0  | 3.4 | 32       | 0.1       |          |       |       |          |      |
| 4 17 78                          | 14         | 0.7       | 11       |             | 25        | 122      | 78         | 1.12   | 6.9      |             | 8    | 10  | 0  | 3.6 | 39       | 0.0       |          |       |       |          |      |
| 5 17 78                          | 13         | 3         | 156*     |             | 50        | 90       | 60         | 1.07   | 7.0      |             | 6    | 7   | 0  | 2.1 | 30       | 0.1       |          |       |       |          |      |
| 6 23 78                          | 17         | 0.2       | 53*      |             | 20        | 130      | 84         | 1.60   | 7.5      |             | 20   | 24  | 0  | 5.3 | 32       | 0.0       |          |       |       |          |      |
| 7 25 78                          | 20         | 0.5       | 83*      |             | 30        | 132      | 87         | 2.14   | 7.7      |             | 28   | 34  | 0  | 6.1 | 25       | 0.1       |          |       |       |          |      |
| 8 29 78                          | 21         | 0.01      | 24*      |             | 25        | 139      | 95         | 2.27   | 7.5      |             | 26   | 32  | 0  | 5.3 | 27       | 0.1       |          |       |       |          |      |
| 10 4 78                          | 14         | 0.03      | 83*      |             | 8         | 166      | 108        | 2.09   | 7.6      |             | 30   | 37  | 0  | 7.7 | 33       | 0.0       |          |       |       |          |      |
| 11 1 78                          | 9          | 0.04      | 15       |             | 6         | 158      | 101        | 1.54   | 7.4      | -20         | 22   | 27  | 0  | 7.9 | 38       | 0.0       |          |       |       |          |      |
| 12 14 78                         | 2          | 0.25      | 4        |             | 3         | 105      | 66         | 1.29   | 6.7      | -2          | 7    | 8   | 0  | 3.0 | 28       | 0.3       |          |       |       |          |      |
|                                  |            |           |          |             |           |          |            |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 2 6 79                           | 0          | 0.06      | 13       |             | 3         | 119      | 79         | 1.56   | 6.8      |             | 10   | 12  | 0  | 3.4 | 32       | 0.1       |          |       |       |          |      |
| 3 21 79                          | 9          | 0.2       | 23       |             | 4         | 107      | 79         | 1.09   | 6.4      | -2          | 7    | 8   | 0  | 3.6 | 38       | 0.1       |          |       |       |          |      |
| 4 23 79                          | 18         | 0.25      | 27       | 0.00        | 45        | 107      | 75         | 1.24   | 6.8      | -4          | 7    | 9   | 0  | 3.2 | 35       | 0.0       |          |       |       |          |      |
| 5 20 79                          | 20         | 0.09      | 15       |             | 10        | 117      | 80         | 1.18   | 7.2      | 0           | 9    | 11  | 0  | 3.7 | 37       | 0.0       |          |       |       |          |      |
| 6 24 79                          | 22         | 0.1       | 26*      |             | 25        | 139      | 91         | 1.37   | 7.3      | -9          | 16   | 19  | 0  | 6.8 | 35       | 0.0       |          |       |       |          |      |
| 7 19 79                          | 22         | 0.06      | 32*      |             | 30        | 153      | 91         | 1.67   | 7.7      | -16         | 20   | 25  | 0  | 8.0 | 30       | 0.1       | 0.1      | 0.04  | 1.25  | 0.40     | 0.01 |
| 8 7 79                           | 23         | 0.03      | 1        |             | 20        | 165      | 88         | 1.52   | 7.8      | -18         | 25   | 30  | 0  | 9.0 | 27       | 0.0       | 0.0      | 0.05  | 0.00  | 0.00     | 0.00 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 7 77   | 0.1                              | 0.02 |     |      | 8.1 | 0.0 | 0.04 | 0.1 | 1.9 |      | 4.8 | 0.2 |     | 8.6 | 0.02 | 0.1 | 4.3 |     | 0.2 | 0.0 |
| 7 26 77  | 0.0                              | 0.03 |     |      | 10  | 0.0 | 0.01 | 0.3 | 2.0 |      | 5.7 | 0.2 |     | 8.8 | 0.02 | 0.1 | 7.4 |     | 0.0 | 0.3 |
| 9 29 77  | 0.0                              | 0.00 | 0.0 | 0.00 | 20  | 0.0 | 0.00 | 0.1 | 2.4 | 0.09 | 6.5 | 0.6 | 0.0 | 24  | 0.01 | 0.0 | 5.2 | 0.1 | 0.0 | 0.0 |
| 11 10 77 | 0.1                              | 0.05 |     |      | 12  | 0.0 | 0.00 | 0.2 | 3.8 |      | 6.7 | 0.2 |     | 8.8 | 0.01 | 0.0 | 7.2 |     | 0.1 | 0.0 |
| 12 29 77 | 0.1                              | 0.00 | 0.0 | 0.00 | 11  | 0.0 | 0.00 | 0.3 | 2.0 | 0.06 | 7.0 | 0.2 | 0.0 | 10  | 0.02 | 0.0 | 6.7 | 0.1 | 0.0 | 0.0 |
| 2 9 78   | 0.0                              | 0.00 |     |      | 7.6 | 0.0 | 0.00 | 0.1 | 1.4 |      | 5.4 | 0.1 |     | 6.4 | 0.01 | 0.0 | 6.8 |     | 0.0 | 0.0 |
| 3 20 78  | 0.0                              | 0.00 |     |      | 7.1 | 0.0 | 0.00 | 0.1 | 2.1 |      | 4.3 | 0.1 |     | 4.7 | 0.02 | 0.0 | 6.4 |     | 0.0 | 0.0 |
| 4 17 78  | 0.1                              | 0.00 | 0.0 | 0.00 | 6.9 | 0.1 | 0.01 | 0.0 | 1.6 | 0.04 | 4.6 | 0.2 | 0.0 | 5.5 | 0.03 | 0.1 | 5.5 | 0.0 | 0.1 | 0.0 |
| 5 17 78  | 0.0                              | 0.00 |     |      | 4.8 | 0.0 | 0.01 | 0.1 | 1.3 |      | 3.8 | 0.1 |     | 3.4 | 0.02 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 6 23 78  | 0.0                              | 0.01 |     |      | 8.7 | 0.0 | 0.01 | 0.1 | 1.6 |      | 5.2 | 0.2 |     | 6.7 | 0.00 | 0.0 | 5.8 |     | 0.0 | 0.0 |
| 7 25 78  | 0.1                              | 0.02 | 0.0 | 0.00 | 9.1 | 0.0 | 0.01 | 0.2 | 2.2 | 0.02 | 5.4 | 0.2 | 0.0 | 7.4 | 0.00 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 |
| 8 29 78  | 0.1                              | 0.02 |     |      | 9.7 | 0.1 | 0.03 | 0.8 | 2.4 |      | 5.5 | 0.3 |     | 10  | 0.03 | 0.0 | 7.9 |     | 0.0 | 0.0 |
| 10 4 78  | 0.1                              | 0.02 | 0.0 | 0.00 | 12  | 0.0 | 0.01 | 0.2 | 2.6 | 0.02 | 6.3 | 0.3 | 0.0 | 11  | 0.02 | 0.0 | 7.5 | 0.1 | 0.0 | 0.0 |
| 11 1 78  | 0.1                              | 0.01 |     |      | 10  | 0.0 | 0.01 | 0.2 | 2.0 |      | 5.4 | 0.2 |     | 9.6 | 0.01 | 0.0 | 6.9 |     | 0.0 | 0.0 |
| 12 14 78 | 0.1                              | 0.01 |     |      | 6.1 | 0.0 | 0.00 | 0.2 | 1.3 |      | 3.9 | 0.2 |     | 4.4 | 0.02 | 0.1 | 6.5 |     | 0.1 | 0.0 |
| 2 6 79   | 0.1                              | 0.01 | 0.0 | 0.00 | 8.5 | 0.0 | 0.01 | 0.1 | 1.6 | 0.07 | 5.2 | 0.2 | 0.0 | 6.1 | 0.01 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 |
| 3 21 79  | 0.1                              | 0.01 |     |      | 7.2 | 0.0 | 0.01 | 0.1 | 1.5 |      | 4.2 | 0.1 |     | 5.4 | 0.01 | 0.0 | 6.6 |     | 0.0 | 0.0 |
| 4 23 79  | 0.1                              | 0.01 | 0.1 | 0.00 | 7.2 | 0.0 | 0.00 | 0.1 | 1.4 | 0.03 | 4.6 | 0.1 | 0.0 | 4.9 | 0.01 | 0.0 | 6.5 | 0.0 | 0.0 | 0.1 |
| 5 20 79  | 0.1                              | 0.00 |     |      | 7.4 | 0.0 | 0.01 | 0.1 | 1.4 |      | 4.9 | 0.1 |     | 4.9 | 0.02 | 0.0 | 6.9 |     | 0.1 | 0.1 |
| 6 24 79  | 0.2                              | 0.01 | 0.0 | 0.00 | 8.5 | 0.0 | 0.01 | 0.5 | 1.6 | 0.20 | 4.9 | 0.2 | 0.0 | 7.1 | 0.01 | 0.0 | 7.4 | 0.1 | 0.0 | 0.3 |
| 7 19 79  | 0.0                              | 0.01 | 0.0 | 0.00 | 9.6 | 0.0 | 0.01 | 0.2 | 1.8 | 0.20 | 5.0 | 0.2 | 0.0 | 8.1 | 0.00 | 0.0 | 6.9 | 0.1 | 0.0 | 0.0 |
| 8 7 79   | 0.1                              | 0.03 |     |      | 8.8 | 0.0 | 0.00 | 0.2 | 1.5 |      | 4.2 | 0.2 |     | 6.4 | 0.02 | 0.0 | 7.5 |     | 0.0 | 0.1 |

TABLE 31. WATER QUALITY FOR SITE 5082 HOCKING COUNTY, OHIO

| DATE  | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB      | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL                   | SD4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|-------|------------|-----------|----------|-------------|-----------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|-----------|----------|-------|-------|----------|------|
| DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU UM/CM | MG/L      |           |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |           |          |       |       |          |      |
| 7 77  | 14         | 0.015     |          |             | 8         | 1180      | 679       | 0.99       | 4.5    |          |             | 0    | 0   | 0                    | 2.6 | 480      |           |          |       |       |          |      |
| 26 77 | 17         | 0.05      |          |             | 95        | 884       | 600       | 0.83       | 3.8    |          |             | 0    | 0   | 0                    | 1.3 | 420      | 0.0       |          |       |       |          |      |
| 29 77 | 15         | 0.02      |          |             | 40        | 1010      | 732       | 0.83       | 3.8    |          |             | 0    | 0   | 0                    | 1.6 | 520      | 0.1       |          |       |       |          |      |
| 10 77 | 9          | 0.15      | 32       |             | 4         | 915       | 657       | 1.09       | 4.4    |          |             | 0    | 0   | 0                    | 1.5 | 440      | 0.2       |          |       |       |          |      |
| 29 77 | 0          | 0.4       |          |             | 20        | 876       | 659       | 1.03       | 3.6    |          |             | 0    | 0   | 0                    | 1.4 | 450      | 0.1       |          |       |       |          |      |
| 9 78  | 0          | 4         |          |             | 190       | 466       | 272       | 1.07       | 3.9    |          |             | 0    | 0   | 0                    | 1.3 | 170      | 3.0       |          |       |       |          |      |
| 20 78 | 6          | 1.0       | 79       |             | 110       | 728       | 503       | 0.92       | 4.1    |          |             | 0    | 0   | 0                    | 1.5 | 350      | 1.3       |          |       |       |          |      |
| 17 78 | 16         | 0.7       | 4        |             | 8         | 822       | 557       | 0.74       | 3.9    |          |             | 0    | 0   | 0                    | 1.7 | 410      | 0.5       |          |       |       |          |      |
| 17 78 | 15         | 0.6       | 39*      |             | 35        | 588       | 393       | 0.74       | 3.9    |          |             | 0    | 0   | 0                    | 1.3 | 280      | 0.2       |          |       |       |          |      |
| 23 78 | 14         | 0.1       | 54*      |             | 10        | 1100      | 802       | 0.81       | 3.5    |          |             | 0    | 0   | 0                    | 1.1 | 580      | 0.1       |          |       |       |          |      |
| 25 78 | 20         | 0.2       | 294*     |             | 320       | 1020      | 805       | 0.87       | 5.2    |          |             | 0    | 0   | 0                    | 1.6 | 580      | 0.1       |          |       |       |          |      |
| 29 78 | 22         | 0.01      |          |             |           | 1140      | 858       | 0.91       | 3.9    |          |             | 0    | 0   | 0                    | 0.9 | 590      | 3.5       |          |       |       |          |      |
| 4 78  | 14         | 0.05      |          |             |           | 1240      | 856       | 0.95       | 3.8    |          |             | 0    | 0   | 0                    | 1.5 | 600      | 1.1       |          |       |       |          |      |
| 1 78  | 9          | 0.02      |          |             |           | 968       | 798       | 0.74       | 3.1    | 48       |             | 0    | 0   | 0                    | 1.3 | 590      | 0.1       |          |       |       |          |      |
| 14 78 | 1          | 0.08      | 6        |             | 3         | 789       | 534       | 1.00       | 3.8    | 270      |             | 0    | 0   | 0                    | 1.1 | 360      | 1.6       |          |       |       |          |      |
| 6 79  | 0          |           | 40       |             | 45        | 1000      | 698       | 0.96       | 3.6    | 90       |             | 0    | 0   | 0                    | 1.4 | 480      | 1.2       |          |       |       |          |      |
| 21 79 | 10         | 0.15      |          |             |           | 1110      | 887       | 0.99       | 7.8    | -46      | 53          | 64   | 0   | 0                    | 3.9 | 570      | 10        |          |       |       |          |      |
| 23 79 | 17         | 0.15      | 8        | 0.06        | 55        | 1010      | 796       | 0.90       | 4.1    | 77       | 0           | 0    | 0   | 0                    | 1.4 | 560      | 1.0       |          |       |       |          |      |
| 20 79 | 20         | 0.09      |          |             |           | 1100      | 835       | 0.78       | 3.7    | 88       | 0           | 0    | 0   | 0                    | 1.2 | 620      | 0.4       |          |       |       |          |      |
| 24 79 | 21         | 0.1       |          |             |           | 1080      | 829       | 0.78       | 3.5    | 62       | 0           | 0    | 0   | 0                    | 2.3 | 610      | 0.2       |          |       |       |          |      |
| 19 79 | 23         | 0.15      | 35*      |             |           | 1330      | 1060      | 0.75       | 3.6    | 90       | 0           | 0    | 0   | 0                    | 1.3 | 790      | 0.1       | 0.0      | 0.29  | 0.55  | 0.10     | 0.01 |
| 7 79  | 26         | 0.04      |          |             |           | 1380      | 993       | 0.82       | 3.7    | 74       | 0           | 0    | 0   | 0                    | 2.0 | 730      | 0.1       | 0.0      | 0.28  | 0.45  | 0.00     | 0.01 |

Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE  | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN   | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|-------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|------|-----|-----|------|-----|-----|-----|-----|-----|
| DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |      |     |     |      |     |     |     |     |     |
| 6 77  | 6.6                  | 0.06 |     |      | 80  | 0.2 |      | 2.0 | 5.0 |      | 61 | 8.6  |     | 15  | 0.19 | 0.2 | 10  |     | 0.4 | 0.4 |
| 26 77 | 6.4                  | 0.09 |     |      | 50  | 0.2 | 0.01 | 11  | 4.2 |      | 52 | 9.4  |     | 11  | 0.20 | 0.1 | 14  |     | 0.0 | 0.3 |
| 29 77 | 7.3                  | 0.17 | 0.0 | 0.01 | 83  | 0.2 | 0.01 | 6.4 | 4.7 | 0.30 | 48 | 15   | 0.0 | 18  | 0.19 | 0.0 | 13  | 0.3 | 0.0 | 0.0 |
| 10 77 | 5.9                  | 0.13 |     |      | 88  | 0.3 | 0.01 | 1.0 | 5.0 |      | 59 | 16   |     | 14  | 0.17 | 0.0 | 14  |     | 0.2 | 0.2 |
| 29 77 | 11                   | 0.02 | 0.0 | 0.01 | 68  | 0.2 | 0.01 | 11  | 3.8 | 0.35 | 68 | 12   | 0.0 | 12  | 0.19 | 0.0 | 11  | 0.4 | 0.1 | 0.2 |
| 9 78  | 2.3                  | 0.02 |     |      | 31  | 0.1 | 0.00 | 1.3 | 3.4 |      | 26 | 3.3  |     | 5.9 | 0.09 | 0.0 | 4.9 |     | 0.0 | 0.1 |
| 20 78 | 6.5                  | 0.05 |     |      | 58  | 0.1 | 0.01 | 2.8 | 3.1 |      | 42 | 5.1  |     | 7.8 | 0.14 | 0.0 | 8.8 |     | 0.2 | 0.2 |
| 17 78 | 7.8                  | 0.02 | 0.0 | 0.01 | 55  | 0.2 | 0.02 | 0.4 | 3.5 | 0.30 | 39 | 8.7  | 0.0 | 9.5 | 0.18 | 0.1 | 8.2 | 0.3 | 0.2 | 0.2 |
| 17 78 | 7.2                  | 0.04 |     |      | 32  | 0.1 | 0.01 | 3.2 | 2.4 |      | 30 | 4.0  |     | 6.6 | 0.12 | 0.0 | 9.5 |     | 0.1 | 0.2 |
| 23 78 | 9.8                  | 0.07 |     |      | 84  | 0.2 | 0.00 | 7.4 | 3.5 |      | 61 | 11   |     | 10  | 0.22 | 0.1 | 15  |     | 0.1 | 0.4 |
| 25 78 | 0.3                  | 0.07 | 0.0 | 0.00 | 110 | 0.2 | 0.01 | 12  | 4.8 | 0.30 | 57 | 9.6  | 0.0 | 12  | 0.13 | 0.1 | 9.8 | 0.3 | 0.2 | 0.2 |
| 29 78 | 0.4                  | 0.07 |     |      | 120 | 0.2 | 0.03 | 11  | 6.6 |      | 55 | 10   |     | 23  | 0.17 | 0.2 | 10  |     | 0.1 | 0.2 |
| 4 78  | 1.3                  | 0.05 | 0.0 | 0.00 | 140 | 0.1 | 0.01 | 9.0 | 6.2 | 0.45 | 51 | 7.1  | 0.0 | 19  | 0.17 | 0.4 | 7.0 | 0.9 | 0.4 | 0.2 |
| 1 78  | 3.8                  | 0.07 |     |      | 93  | 0.1 | 0.01 | 11  | 3.1 |      | 50 | 9.0  |     | 9.5 | 0.16 | 0.1 | 11  |     | 0.1 | 0.2 |
| 14 78 | 7.7                  | 0.05 |     |      | 64  | 0.1 | 0.01 | 6.6 | 3.4 |      | 48 | 6.7  |     | 8.2 | 0.21 | 0.2 | 10  |     | 0.3 | 0.3 |
| 6 79  | 12                   | 0.02 | 0.0 | 0.00 | 88  | 0.2 | 0.01 | 8.6 | 3.2 | 0.50 | 58 | 9.6  | 0.0 | 11  | 0.22 | 0.1 | 9.7 | 0.2 | 0.2 | 0.3 |
| 21 79 | 0.8                  | 0.08 |     |      | 140 | 0.1 | 0.01 | 0.4 | 6.8 |      | 56 | 2.9  |     | 20  | 0.15 | 0.3 | 3.3 |     | 0.8 | 0.0 |
| 23 79 | 13                   | 0.05 | 0.1 | 0.00 | 100 | 0.2 | 0.01 | 4.6 | 3.8 | 0.50 | 62 | 8.8  | 0.0 | 12  | 0.22 | 0.1 | 8.9 | 0.3 | 0.3 | 0.3 |
| 20 79 | 9.5                  | 0.04 |     |      | 89  | 0.2 | 0.01 | 6.2 | 3.5 |      | 62 | 10.0 |     | 11  | 0.23 | 0.2 | 10  |     | 0.5 | 0.4 |
| 24 79 | 7.2                  | 0.06 |     |      | 92  | 0.2 | 0.02 | 8.2 | 4.2 |      | 58 | 9.5  |     | 12  | 0.19 | 0.2 | 11  |     | 0.3 | 0.6 |
| 19 79 | 8.9                  | 0.07 | 0.0 | 0.00 | 120 | 0.2 | 0.01 | 8.5 | 4.5 | 0.45 | 71 | 13   | 0.1 | 13  | 0.27 | 0.2 | 12  | 0.2 | 0.3 | 0.2 |
| 7 79  | 6.4                  | 0.05 |     |      | 130 | 0.2 | 0.03 | 8.5 | 5.8 |      | 64 | 12   |     | 16  | 0.22 | 0.2 | 10  |     | 0.2 | 0.2 |

TABLE 32. WATER QUALITY FOR SITE 5085 HOCKING COUNTY, OHIO

| WATER QUALITY DATA |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |
|--------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|
| DATE               |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
| MO                 | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |
| 6                  | 7  | 77         | 16        | 0.015    |             |      | 10        | 1590      | 1400       | 0.76                 | 3.7      |             | 0    | 0   | 0  | 1.8 | 1000     |           |          |       |       |          |
| 7                  | 26 | 77         | 18        | 0.5      |             |      | 0         | 1760      | 1480       | 0.75                 | 3.4      |             | 0    | 0   | 0  | 1.0 | 1100     | 0.1       |          |       |       |          |
| 9                  | 29 | 77         | 18        | 0.0015   |             |      | 8         | 1740      | 1630       | 0.78                 | 4.0      |             | 0    | 0   | 0  | 1.8 | 1200     | 0.1       |          |       |       |          |
| 11                 | 10 | 77         | 9         | 0.2      | 43          |      | 8         | 2410      | 2100       | 0.66                 | 3.7      |             | 0    | 0   | 0  | 0.8 | 1600     | 0.2       |          |       |       |          |
| 12                 | 29 | 77         | 0         | 0.4      |             |      | 0         | 2120      | 1620       | 0.82                 | 3.7      |             | 0    | 0   | 0  | 1.8 | 1200     | 0.3       |          |       |       |          |
|                    |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |
| 2                  | 9  | 78         | 0         | 0.1      |             |      | 4         | 1660      | 1470       | 0.71                 | 3.5      |             | 0    | 0   | 0  | 1.4 | 1100     | 0.5       |          |       |       |          |
| 3                  | 20 | 78         | 5         | 1.5      |             |      | 4         | 1210      | 1010       | 0.61                 | 3.6      |             | 0    | 0   | 0  | 1.6 | 770      | 0.7       |          |       |       |          |
| 4                  | 17 | 78         | 14        | 1.0      | 3           |      | 8         | 1510      | 1330       | 0.79                 | 3.5      |             | 0    | 0   | 0  | 1.9 | 960      | 0.3       |          |       |       |          |
| 5                  | 17 | 78         | 13        | 1.0      | 36*         |      | 2         | 1070      | 761        | 0.75                 | 3.7      |             | 0    | 0   | 0  | 1.5 | 560      | 0.3       |          |       |       |          |
| 6                  | 23 | 78         | 16        | 0.25     | 23*         |      | 4         | 1860      | 1690       | 0.67                 | 3.5      |             | 0    | 0   | 0  | 1.8 | 1300     | 0.3       |          |       |       |          |
| 7                  | 25 | 78         | 20        | 0.4      | 87*         |      | 4         | 1810      | 1690       | 0.64                 | 3.6      |             | 0    | 0   | 0  | 1.9 | 1300     | 0.3       |          |       |       |          |
| 8                  | 29 | 78         | 22        | 0.015    | 24*         |      | 5         | 1850      | 1820       | 0.71                 | 3.5      |             | 0    | 0   | 0  | 0.9 | 1400     | 0.4       |          |       |       |          |
| 10                 | 4  | 78         | 15        | 0.01     | 44*         |      | 10        | 1860      | 1880       | 0.60                 | 3.6      |             | 0    | 0   | 0  | 1.9 | 1400     | 0.2       |          |       |       |          |
| 11                 | 1  | 78         | 9         | 0.06     | 12          |      | 0         | 1740      | 1470       | 0.77                 | 3.7      | 340         | 0    | 0   | 0  | 1.7 | 1100     | 0.3       |          |       |       |          |
| 12                 | 14 | 78         | 2         | 0.15     | 33          |      | 20        | 1340      | 1060       | 0.79                 | 3.6      | 240         | 0    | 0   | 0  | 1.4 | 750      | 0.7       |          |       |       |          |
|                    |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |           |          |       |       |          |
| 2                  | 6  | 79         | 0         |          | 14          |      | 1         | 1740      | 1660       | 0.71                 | 3.4      |             | 0    | 0   | 0  | 1.7 | 1200     | 0.4       |          |       |       |          |
| 3                  | 21 | 79         | 10        | 0.2      | 5           |      | 1         | 1720      | 1820       | 0.61                 | 3.3      | 350         | 0    | 0   | 0  | 4.2 | 1400     | 0.3       |          |       |       |          |
| 4                  | 23 | 79         | 16        | 0.3      | 3           | 0.00 | 4         | 1580      | 1540       | 0.69                 | 3.4      | 270         | 0    | 0   | 0  | 1.8 | 1100     | 0.3       |          |       |       |          |
| 5                  | 20 | 79         | 24        | 0.08     | 18          | 0.00 | 3         | 1830      | 1500       | 0.68                 | 3.5      | 330         | 0    | 0   | 0  | 1.6 | 1100     | 0.3       |          |       |       |          |
| 6                  | 24 | 79         | 20        | 0.3      | 16          |      | 15        | 1980      | 1470       | 0.78                 | 3.4      | 350         | 0    | 0   | 0  | 2.1 | 1100     | 0.3       |          |       |       |          |
| 7                  | 19 | 79         | 22        | 0.07     | 32*         |      | 40        | 2090      | 1730       | 0.66                 | 3.4      | 340         | 0    | 0   | 0  | 1.8 | 1300     | 0.2       |          | 0.55  | 0.15  | 0.02     |
| 7                  | 31 | 79         | 21        | 0.004    | 6           |      | 15        | 2200      | 1570       | 0.71                 | 3.4      | 310         | 0    | 0   | 0  | 2.3 | 1200     | 0.2       |          |       |       |          |
| 8                  | 7  | 79         | 24        | 0.06     | 1           |      | 5         | 2210      | 1790       | 0.62                 | 3.4      | 350         | 0    | 0   | 0  | 2.5 | 1400     | 0.3       | 0.1      | 0.08  | 0.25  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |    |     |     |     |
| 6 7 77   | 46                   | 0.03 |     |      | 150 | 0.3 | 0.02 | 0.4 | 2.3 |      | 97  | 19  |     | 12  | 0.47 | 0.0 | 18 |     | 0.1 | 0.7 |
| 7 26 77  | 47                   | 0.04 |     |      | 160 | 0.4 | 0.03 | 1.1 | 3.7 |      | 100 | 16  |     | 12  | 0.56 | 0.2 | 27 |     | 0.1 | 0.8 |
| 9 29 77  | 51                   | 0.09 | 0.0 | 0.02 | 170 | 0.4 | 0.01 | 0.4 | 3.5 | 0.55 | 120 | 33  | 0.0 | 15  | 0.42 | 0.1 | 16 | 0.3 | 0.1 | 0.1 |
| 11 10 77 | 65                   | 0.04 |     |      | 240 | 0.5 | 0.02 | 0.6 | 4.6 |      | 110 | 37  |     | 14  | 0.61 | 0.1 | 24 |     | 0.3 | 1.3 |
| 12 29 77 | 76                   | 0.00 | 0.0 | 0.01 | 170 | 0.4 | 0.02 | 0.6 | 2.9 | 0.90 | 130 | 27  | 0.0 | 11  | 0.52 | 0.1 | 15 | 0.6 | 0.2 | 0.7 |
| 2 9 78   | 63                   | 0.04 |     |      | 140 | 0.3 | 0.02 | 1.1 | 2.2 |      | 100 | 21  |     | 9.4 | 0.48 | 0.1 | 15 |     | 0.2 | 0.6 |
| 3 20 78  | 41                   | 0.03 |     |      | 86  | 0.2 | 0.01 | 2.1 | 1.8 |      | 65  | 13  |     | 6.0 | 0.30 | 0.0 | 12 |     | 0.2 | 0.4 |
| 4 17 78  | 51                   | 0.04 | 0.0 | 0.01 | 150 | 0.3 | 0.01 | 0.9 | 2.4 | 0.65 | 94  | 19  | 0.0 | 14  | 0.43 | 0.2 | 17 | 0.3 | 0.2 | 0.6 |
| 5 17 78  | 26                   | 0.02 |     |      | 79  | 0.2 | 0.01 | 1.2 | 1.8 |      | 55  | 9.7 |     | 6.6 | 0.24 | 0.0 | 11 |     | 0.1 | 0.3 |
| 6 23 78  | 56                   | 0.03 |     |      | 160 | 0.3 | 0.00 | 0.7 | 2.3 |      | 110 | 25  |     | 9.4 | 0.48 | 0.1 | 21 |     | 0.2 | 0.7 |
| 7 25 78  | 52                   | 0.04 | 0.0 | 0.02 | 150 | 0.4 | 0.03 | 0.8 | 3.3 | 0.50 | 110 | 24  | 0.0 | 9.8 | 0.56 | 0.3 | 18 | 0.4 | 0.4 | 0.6 |
| 8 29 78  | 60                   | 0.04 |     |      | 180 | 0.4 | 0.05 | 0.7 | 3.5 |      | 120 | 29  |     | 18  | 0.60 | 0.2 | 22 |     | 0.2 | 0.8 |
| 10 4 78  | 66                   | 0.04 | 0.0 | 0.02 | 160 | 0.4 | 0.03 | 0.7 | 3.4 | 0.50 | 110 | 34  | 0.0 | 11  | 0.64 | 1.0 | 21 | 0.4 | 1.1 | 0.9 |
| 11 1 78  | 51                   | 0.02 |     |      | 160 | 0.4 | 0.02 | 0.5 | 2.6 |      | 100 | 23  |     | 10  | 0.47 | 0.2 | 18 |     | 0.3 | 0.6 |
| 12 14 78 | 45                   | 0.02 |     |      | 120 | 0.2 | 0.02 | 2.1 | 2.2 |      | 74  | 15  |     | 8.1 | 0.39 | 0.2 | 15 |     | 0.2 | 0.5 |
| 2 6 79   | 56                   | 0.02 | 0.0 | 0.01 | 170 | 0.3 | 0.03 | 2.5 | 1.9 | 1.0  | 120 | 22  | 0.0 | 9.2 | 0.45 | 0.2 | 15 | 0.2 | 0.5 | 0.7 |
| 3 21 79  | 55                   | 0.03 |     |      | 170 | 0.3 | 0.03 | 2.2 | 2.0 |      | 110 | 22  |     | 7.8 | 0.43 | 0.2 | 15 |     | 0.5 | 0.6 |
| 4 23 79  | 60                   | 0.02 | 0.0 | 0.01 | 170 | 0.2 | 0.01 | 1.4 | 1.8 | 0.90 | 96  | 19  | 0.1 | 8.3 | 0.36 | 0.1 | 14 | 0.2 | 0.3 | 0.6 |
| 5 20 79  | 38                   | 0.02 |     |      | 140 | 0.3 | 0.04 | 1.1 | 2.4 |      | 100 | 20  |     | 11  | 0.47 | 0.2 | 17 |     | 0.5 | 0.6 |
| 6 24 79  | 47                   | 0.04 |     |      | 160 | 0.3 | 0.02 | 1.3 | 2.7 |      | 110 | 23  |     | 12  | 0.45 | 0.1 | 20 |     | 0.3 | 1.1 |
| 7 19 79  | 54                   | 0.03 | 0.0 | 0.01 | 170 | 0.4 | 0.04 | 0.9 | 3.0 | 0.75 | 110 | 24  | 0.1 | 14  | 0.55 | 0.2 | 22 | 0.4 | 0.4 | 0.8 |
| 7 31 79  | 49                   | 0.04 |     |      | 160 | 0.3 | 0.08 | 1.2 | 2.6 |      | 100 | 23  |     | 11  | 0.46 | 0.2 | 18 |     | 0.5 | 0.6 |
| 8 7 79   | 68                   | 0.04 |     |      | 170 | 0.4 | 0.07 | 1.4 | 3.0 |      | 100 | 23  |     | 13  | 0.50 | 0.2 | 20 |     | 0.4 | 0.6 |

TABLE 33. WATER QUALITY FOR SITE 5091 HOLMES COUNTY, OHIO

| TABLE 33. WATER QUALITY FOR SITE 5091 HOLMES COUNTY, MISSISSIPPI |    |            |       |           |          |             |      |           |           |                      |        |          |             |      |     |    |     |          |          |          |       |       |          |      |
|------------------------------------------------------------------|----|------------|-------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| DATE                                                             |    | WATER TEMP |       | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                                                               | DA | YR         | DEG C | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 6                                                                | 22 | 77         | 16    | 0.01      |          |             | 20   | 220       | 134       | 3.93                 | 8.2    |          |             | 91   | 109 | 1  | 3.6 | 25       | 0.1      |          |       |       |          |      |
| 8                                                                | 3  | 77         | 20    | 0.15      |          |             | 10   | 261       | 138       | 4.77                 | 7.5    |          |             | 84   | 102 | 0  | 4.8 | 23       | 0.2      |          |       |       |          |      |
| 9                                                                | 2  | 77         | 21    | 0.07      |          |             | 35   | 290       | 136       | 5.03                 | 7.9    |          |             | 82   | 99  | 0  | 3.1 | 23       | 0.1      |          |       |       |          |      |
| 11                                                               | 8  | 77         | 14    | 0.04      | 35       |             | 50   | 268       | 154       | 3.49                 | 8.7    |          |             | 76   | 88  | 3  | 2.5 | 39       | 0.0      |          |       |       |          |      |
| 1                                                                | 6  | 78         | 1     | 0.15      |          |             | 6    | 230       | 136       | 2.45                 | 7.4    |          |             | 64   | 78  | 0  | 4.1 | 39       | 1.1      |          |       |       |          |      |
| 2                                                                | 7  | 78         | 0     | 0.25      |          |             | 0    | 232       | 123       |                      | 7.8    |          |             | 59   | 71  | 0  |     | 37       | 1.1      |          |       |       |          |      |
| 3                                                                | 14 | 78         | 4     | 15        |          |             | 170  | 76        | 44        | 1.71                 | 7.1    |          |             | 7    | 8   | 0  | 1.9 | 16       | 1.0      |          |       |       |          |      |
| 4                                                                | 12 | 78         | 16    | 1.0       | 13       |             | 8    | 222       | 118       | 2.25                 | 7.8    |          |             | 55   | 67  | 0  | 3.9 | 36       | 0.7      |          |       |       |          |      |
| 5                                                                | 10 | 78         | 12    | 0.25      | 43*      |             | 15   | 198       | 114       | 1.90                 | 8.0    |          |             | 57   | 68  | 0  | 2.8 | 38       | 0.7      |          |       |       |          |      |
| 6                                                                | 21 | 78         |       | 0.4       |          |             | 6    | 246       | 130       | 2.72                 | 7.9    |          |             | 72   | 87  | 0  | 3.1 | 33       | 0.7      |          |       |       |          |      |
| 7                                                                | 19 | 78         | 20    | 0.1       | 73*      |             | 10   | 252       | 145       | 3.36                 | 7.9    |          |             | 80   | 96  | 0  | 3.6 | 34       | 0.3      |          |       |       |          |      |
| 9                                                                | 12 | 78         | 20    | 0.002     | 82*      |             | 35   | 249       | 142       | 3.06                 | 8.3    |          |             | 87   | 104 | 1  | 3.5 | 33       | 0.3      |          |       |       |          |      |
| 10                                                               | 13 | 78         | 11    | 0.3       | 21*      |             | 30   | 176       | 106       | 2.17                 | 7.8    |          |             | 28   | 34  | 0  | 6.2 | 26       | 3.7      |          |       |       |          |      |
| 11                                                               | 21 | 78         | 6     | 0.008     | 4        |             | 8    | 229       | 142       | 3.23                 | 7.5    |          |             | 76   | 93  | 0  | 4.4 | 33       | 0.6      |          |       |       |          |      |
| 12                                                               | 21 | 78         | 0     | 0.03      | 4        |             | 5    | 225       | 129       | 3.14                 | 7.7    |          |             | 57   | 69  | 0  | 4.9 | 33       | 0.6      |          |       |       |          |      |
| 1                                                                | 31 | 79         | 0     | 0.05      | 6        |             | 1    | 216       | 140       | 2.90                 | 7.8    |          |             | 56   | 67  | 0  | 3.4 | 40       | 1.1      |          |       |       |          |      |
| 3                                                                | 18 | 79         | 2     | 0.1       | 4        |             | 3    | 236       | 143       | 2.73                 | 8.0    | -54      |             | 59   | 71  | 0  | 3.6 | 42       | 1.0      |          |       |       |          |      |
| 4                                                                | 21 | 79         | 9     | 0.06      | 15       | 0.00        | 8    | 218       | 142       | 3.07                 | 7.7    | -49      |             | 59   | 72  | 0  | 3.1 | 39       | 1.0      |          |       |       |          |      |
| 5                                                                | 16 | 79         | 14    | 0.006     |          | 0.00        | 7    | 244       | 152       | 3.02                 | 7.8    | -58      |             | 68   | 82  | 0  | 3.1 | 44       | 0.1      |          |       |       |          |      |
| 6                                                                | 20 | 79         | 16    | 0.05      | 65*      |             | 65   | 268       | 149       | 3.14                 | 8.2    | -64      |             | 74   | 88  | 1  | 3.0 | 37       | 0.9      |          |       |       |          |      |
| 7                                                                | 24 | 79         | 23    | 0.02      | 0        |             | 20   | 293       | 165       | 3.88                 | 8.2    | -67      |             | 84   | 101 | 1  | 3.6 | 37       | 0.8      | 0.1      | 0.30  | 0.25  | 0.00     | 0.01 |
| 8                                                                | 15 | 79         | 16    | 0.007     | 6        |             | 15   | 279       | 147       | 3.58                 | 8.2    | -74      |             | 84   | 100 | 1  | 3.7 | 33       | 0.1      | 0.1      | 0.09  | 7.00  | 0.00     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | RE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 22 77  | 0.0                  | 0.00 | 0.0 | 0.00 | 30  | 0.0 | 0.00 | 0.2 | 2.3 | 0.08 | 5.1 | 0.1 | 0.0 | 3.8 | 0.03 | 0.1 | 3.6 | 0.0 | 0.0 | 0.0 |
| 8 3 77   | 0.0                  | 0.00 |     |      | 33  | 0.0 | 0.00 | 0.6 | 3.6 |      | 5.1 | 0.3 |     | 5.9 | 0.01 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 9 2 77   | 0.0                  | 0.02 |     |      | 35  | 0.0 | 0.00 | 0.8 | 3.6 |      | 5.6 | 0.4 |     | 5.2 | 0.00 | 0.0 | 4.5 |     | 0.0 | 0.0 |
| 11 8 77  | 0.0                  | 0.01 | 0.0 | 0.00 | 41  | 0.0 | 0.00 | 0.4 | 3.9 | 0.03 | 5.8 | 0.3 | 0.0 | 5.4 | 0.00 | 0.0 | 4.3 | 0.1 | 0.0 | 0.0 |
| 1 6 78   | 0.0                  | 0.00 | 0.0 | 0.00 | 30  | 0.0 | 0.00 | 0.4 | 2.2 | 0.20 | 5.5 | 0.1 | 0.0 | 3.7 | 0.02 | 0.0 | 3.8 | 0.1 | 0.0 | 0.0 |
| 2 7 78   | 0.0                  | 0.02 |     |      | 27  | 0.0 | 0.00 | 0.2 | 1.7 |      | 5.0 | 0.1 |     | 3.3 | 0.02 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 3 14 78  | 0.2                  | 0.01 |     |      | 7.7 | 0.0 | 0.00 | 0.1 | 2.8 |      | 2.0 | 0.1 |     | 1.2 | 0.00 | 0.0 | 2.1 |     | 0.0 | 0.0 |
| 4 12 78  | 0.0                  | 0.00 | 0.0 | 0.00 | 25  | 0.0 | 0.00 | 0.2 | 1.8 | 0.15 | 4.9 | 0.1 | 0.0 | 3.3 | 0.00 | 0.0 | 3.2 | 0.1 | 0.0 | 0.0 |
| 5 10 78  | 0.0                  | 0.00 |     |      | 23  | 0.0 | 0.01 | 0.0 | 1.5 |      | 4.3 | 0.0 |     | 2.6 | 0.02 | 0.1 | 2.3 |     | 0.1 | 0.0 |
| 6 21 78  | 0.0                  | 0.01 |     |      | 28  | 0.0 | 0.00 | 0.0 | 1.9 |      | 5.4 | 0.1 |     | 3.1 | 0.00 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 7 19 78  | 0.0                  | 0.02 | 0.0 | 0.00 | 38  | 0.0 | 0.00 | 0.2 | 1.7 | 0.10 | 5.4 | 0.1 | 0.0 | 2.9 | 0.00 | 0.0 | 4.4 | 0.1 | 0.0 | 0.0 |
| 9 12 78  | 0.1                  | 0.03 |     |      | 33  | 0.0 | 0.00 | 0.4 | 2.0 |      | 4.7 | 0.2 |     | 2.3 | 0.03 | 0.1 | 4.2 |     | 0.1 | 0.0 |
| 10 13 78 | 0.1                  | 0.02 | 0.0 | 0.00 | 23  | 0.0 | 0.01 | 0.2 | 2.2 | 0.15 | 4.2 | 0.1 | 0.0 | 2.2 | 0.01 | 0.1 | 3.9 | 0.0 | 0.0 | 0.0 |
| 11 21 78 | 0.1                  | 0.01 |     |      | 37  | 0.0 | 0.01 | 0.1 | 2.1 |      | 4.6 | 0.1 |     | 3.2 | 0.01 | 0.0 | 4.0 |     | 0.0 | 0.0 |
| 12 21 78 | 0.1                  | 0.02 |     |      | 38  | 0.0 | 0.00 | 0.1 | 1.3 |      | 4.1 | 0.1 |     | 2.4 | 0.01 | 0.0 | 3.8 |     | 0.0 | 0.1 |
| 1 31 79  | 0.1                  | 0.00 | 0.0 | 0.00 | 40  | 0.0 | 0.01 | 0.1 | 1.5 | 0.30 | 4.7 | 0.0 | 0.0 | 3.4 | 0.00 | 0.0 | 3.6 | 0.1 | 0.0 | 0.0 |
| 3 18 79  | 0.0                  | 0.01 |     |      | 40  | 0.0 | 0.00 | 0.1 | 1.4 |      | 5.0 | 0.0 |     | 3.0 | 0.01 | 0.0 | 3.5 |     | 0.0 | 0.1 |
| 4 21 79  | 0.1                  | 0.01 | 0.2 | 0.00 | 41  | 0.0 | 0.00 | 0.1 | 1.7 | 0.30 | 5.0 | 0.1 | 0.0 | 3.1 | 0.00 | 0.0 | 3.7 | 0.1 | 0.0 | 0.0 |
| 5 16 79  | 0.1                  | 0.01 |     |      | 45  | 0.0 | 0.00 | 0.2 | 1.4 |      | 5.6 | 0.1 |     | 2.9 | 0.02 | 0.1 | 4.1 |     | 0.1 | 0.0 |
| 6 20 79  | 0.0                  | 0.01 | 0.0 | 0.00 | 40  | 0.0 | 0.00 | 0.2 | 1.4 | 0.55 | 5.2 | 0.1 | 0.1 | 2.6 | 0.01 | 0.0 | 4.6 | 0.2 | 0.0 | 0.2 |
| 7 24 79  | 0.1                  | 0.03 |     |      | 50  | 0.0 | 0.00 | 0.0 | 1.7 |      | 5.4 | 0.1 |     | 2.9 | 0.00 | 0.0 | 4.8 |     | 0.0 | 0.0 |
| 8 15 79  | 0.1                  | 0.02 |     |      | 40  | 0.0 | 0.01 | 0.3 | 1.6 |      | 5.0 | 0.2 |     | 3.2 | 0.01 | 0.1 | 4.3 |     | 0.0 | 0.0 |

TABLE 34. WATER QUALITY FOR SITE 5092 HOLMES COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO <sub>3</sub> | CO <sub>3</sub> | CL | SO <sub>4</sub> | NO <sub>3</sub> AS N | NO <sub>3</sub> AS N | NH <sub>3</sub> AS N | TOT N | TOT P | ORTH PO <sub>4</sub> |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------------------|-----------------|----|-----------------|----------------------|----------------------|----------------------|-------|-------|----------------------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |                  |                 |    |                 |                      |                      |                      |       |       |                      |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |        |          |             |                  |                 |    |                 |                      |                      |                      |       |       |                      |
| 6 22 77                          | 14         | 0.015     |          |             | 10   | 644       | 526       | 1.07       | 7.0    |          |             | 37               | 45              | 0  | 9.0             | 340                  | 0.4                  |                      |       |       |                      |
| 8 3 77                           | 21         | 0.6       |          |             | 45   | 566       | 371       | 1.73       | 7.8    |          |             | 62               | 75              | 0  | 10              | 160                  | 6.5                  |                      |       |       |                      |
| 9 2 77                           | 21         | 0.1       |          |             | 10   | 812       | 615       | 1.32       | 7.8    |          |             | 89               | 107             | 0  | 6.2             | 340                  | 5.0                  |                      |       |       |                      |
| 11 8 77                          | 14         | 2.5       | 771      |             | 1400 | 991       | 673       | 1.45       | 8.5    |          |             | 79               | 92              | 2  | 13              | 380                  | 2.0                  |                      |       |       |                      |
| 1 6 78                           | 1          | 0.15      |          |             | 25   | 801       | 556       | 1.26       | 7.7    |          |             | 58               | 70              | 0  | 7.7             | 320                  | 6.8                  |                      |       |       |                      |
| 2 7 78                           | 0          | 0.4       |          |             | 6    | 691       | 479       | 1.25       | 7.6    |          |             | 47               | 57              | 0  | 7.8             | 280                  | 2.5                  |                      |       |       |                      |
| 3 14 78                          | 2          | 6         |          |             | 1100 | 171       | 92        | 2.63       | 6.3    |          |             | 15               | 18              | 0  | 4.5             | 27                   | 2.5                  |                      |       |       |                      |
| 4 12 78                          | 15         | 0.7       | 15       |             | 15   | 644       | 399       | 1.38       | 7.9    |          |             | 52               | 62              | 0  | 7.7             | 220                  | 2.9                  |                      |       |       |                      |
| 5 10 78                          | 13         | 0.5       | 44*      |             | 30   | 813       | 583       | 1.21       | 8.2    |          |             | 71               | 85              | 1  | 8.0             | 350                  | 1.7                  |                      |       |       |                      |
| 6 21 78                          |            | 0.9       |          |             | 0    | 1080      | 759       | 1.14       | 7.8    |          |             | 96               | 116             | 1  | 6.9             | 460                  | 3.4                  |                      |       |       |                      |
| 7 19 78                          | 20         | 0.15      |          |             | 8    | 1400      | 1090      | 1.13       | 8.3    |          |             | 99               | 117             | 2  | 6.4             | 710                  | 0.5                  |                      |       |       |                      |
| 9 12 78                          | 20         | 0.02      | 38*      |             | 10   | 1600      | 1250      | 1.18       | 8.1    |          |             | 98               | 117             | 1  | 5.5             | 810                  | 0.4                  |                      |       |       |                      |
| 10 13 78                         | 12         | 0.3       | 64*      |             | 95   | 1120      | 905       | 1.13       | 8.1    |          |             | 70               | 83              | 1  | 17              | 570                  | 0.9                  |                      |       |       |                      |
| 11 21 78                         | 5          | 0.03      | 69       |             | 10   | 1430      | 1200      | 1.15       | 8.0    |          |             | 106              | 127             | 1  | 7.5             | 770                  | 0.4                  |                      |       |       |                      |
| 12 21 78                         | 0          | 0.15      | 58       |             | 8    | 1300      | 900       | 1.25       | 8.1    |          |             | 136              | 163             | 2  | 9.4             | 530                  | 2.9                  |                      |       |       |                      |
| 1 31 79                          | 0          | 0.06      |          |             | 25   | 1360      | 935       | 1.23       | 7.9    |          |             | 126              | 152             | 1  | 5.2             | 570                  | 1.4                  |                      |       |       |                      |
| 3 18 79                          | 7          | 0.2       |          |             | 10   | 1500      | 1540      | 1.24       | 8.2    |          |             | 157              | 187             | 3  | 7.1             | 960                  | 1.2                  |                      |       |       |                      |
| 4 21 79                          | 9          | 0.15      | 91       | 0.00        | 130  | 1670      | 1420      | 1.23       | 7.9    |          |             | 127              | 153             | 1  | 7.0             | 890                  | 2.2                  |                      |       |       |                      |
| 5 16 79                          | 13         | 0.25      | 679      | 1.4         | 1200 | 1900      | 1630      | 1.06       | 8.3    |          |             | 134              | 158             | 3  | 5.8             | 1100                 | 0.4                  |                      |       |       |                      |
| 6 20 79                          | 18         | 0.07      | 469      | 0.01        | 420  | 1950      | 1780      | 1.07       | 7.8    |          |             | 157              | 190             | 1  | 8.6             | 1200                 | 0.5                  |                      |       |       |                      |
| 7 24 79                          | 24         | 0.07      | 103      | 0.02        | 120  | 2250      | 1710      | 1.03       | 8.0    |          |             | 156              | 187             | 2  | 8.3             | 1100                 | 0.3 0.0 0.55         | 0.00                 | 0.00  | 0.01  |                      |
| 8 15 79                          | 15         | 0.06      | 59       |             | 140  | 2200      | 1520      | 1.25       | 8.0    |          |             | 116              | 139             | 1  | 8.6             | 960                  | 0.2 0.0 0.63         | 0.95                 | 0.00  | 0.01  |                      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 22 77  | 0.1                              | 0.04 |     |      | 77  | 0.0 | 0.01 | 0.2 | 12  |      | 33  | 0.4 |     | 21  | 0.03 | 0.2 | 3.7 |     | 0.0 | 0.0 |
| 8 3 77   | 0.1                              | 0.05 |     |      | 61  | 0.0 | 0.00 | 0.2 | 6.9 |      | 28  | 0.6 |     | 25  | 0.02 | 0.0 | 4.8 |     | 0.0 | 0.2 |
| 9 2 77   | 0.1                              | 0.13 |     |      | 96  | 0.0 | 0.01 | 0.1 | 8.8 |      | 36  | 0.4 |     | 42  | 0.02 | 0.1 | 4.4 |     | 0.1 | 0.0 |
| 11 8 77  | 0.4                              | 0.13 | 0.1 | 0.00 | 140 | 0.0 | 0.01 | 0.6 | 11  | 0.20 | 45  | 1.3 | 0.0 | 24  | 0.02 | 0.0 | 3.4 | 0.5 | 0.0 | 0.0 |
| 1 6 78   | 0.2                              | 0.03 | 0.0 | 0.00 | 90  | 0.0 | 0.00 | 0.1 | 4.8 | 0.50 | 43  | 1.7 | 0.0 | 20  | 0.00 | 0.0 | 3.6 | 0.6 | 0.0 | 0.0 |
| 2 7 78   | 0.1                              | 0.06 |     |      | 79  | 0.0 | 0.00 | 0.3 | 4.5 |      | 36  | 2.6 |     | 17  | 0.04 | 0.0 | 4.6 |     | 0.1 | 0.0 |
| 3 14 78  | 0.2                              | 0.02 |     |      | 18  | 0.0 | 0.00 | 0.3 | 5.2 |      | 7.6 | 0.8 |     | 3.6 | 0.01 | 0.0 | 1.9 |     | 0.0 | 0.1 |
| 4 12 78  | 0.1                              | 0.06 | 0.0 | 0.00 | 65  | 0.0 | 0.00 | 0.2 | 5.0 | 0.35 | 31  | 1.4 | 0.0 | 18  | 0.01 | 0.0 | 4.0 | 0.5 | 0.0 | 0.0 |
| 5 10 78  | 0.1                              | 0.08 |     |      | 98  | 0.1 | 0.01 | 0.1 | 5.7 |      | 38  | 1.6 |     | 24  | 0.03 | 0.1 | 3.7 |     | 0.1 | 0.0 |
| 6 21 78  | 0.2                              | 0.11 |     |      | 120 | 0.0 | 0.00 | 0.0 | 6.7 |      | 52  | 2.2 |     | 26  | 0.01 | 0.0 | 4.5 |     | 0.1 | 0.0 |
| 7 19 78  | 0.2                              | 0.17 | 0.1 | 0.00 | 180 | 0.0 | 0.01 | 0.1 | 10  | 0.45 | 74  | 2.6 | 0.0 | 38  | 0.03 | 0.2 | 5.4 | 1.2 | 0.3 | 0.0 |
| 9 12 78  | 0.2                              | 0.17 |     |      | 220 | 0.0 | 0.01 | 0.1 | 12  |      | 79  | 2.0 |     | 53  | 0.03 | 0.1 | 4.4 |     | 0.2 | 0.0 |
| 10 13 78 | 0.2                              | 0.10 | 0.1 | 0.00 | 160 | 0.0 | 0.02 | 0.2 | 10  | 1.0  | 58  | 3.8 | 0.0 | 26  | 0.06 | 0.2 | 4.5 | 1.2 | 0.1 | 0.0 |
| 11 21 78 | 0.6                              | 0.17 |     |      | 220 | 0.1 | 0.01 | 0.2 | 5.7 |      | 73  | 5.4 |     | 38  | 0.13 | 0.4 | 5.6 |     | 0.4 | 0.0 |
| 12 21 78 | 0.3                              | 0.12 |     |      | 160 | 0.0 | 0.01 | 0.3 | 6.7 |      | 59  | 4.1 |     | 28  | 0.06 | 0.2 | 4.6 |     | 0.1 | 0.0 |
| 1 31 79  | 0.5                              | 0.12 | 0.0 | 0.00 | 170 | 0.0 | 0.01 | 0.9 | 4.6 | 1.0  | 65  | 4.8 | 0.0 | 20  | 0.07 | 0.3 | 4.4 | 0.8 | 0.3 | 0.0 |
| 3 18 79  | 1.0                              | 0.15 |     |      | 310 | 0.1 | 0.00 | 0.3 | 9.7 |      | 93  | 6.9 |     | 43  | 0.13 | 0.4 | 5.8 |     | 0.7 | 0.1 |
| 4 21 79  | 0.4                              | 0.15 | 0.1 | 0.00 | 290 | 0.0 | 0.00 | 1.1 | 8.3 | 1.5  | 89  | 6.6 | 0.2 | 26  | 0.08 | 0.2 | 4.8 | 1.0 | 0.4 | 0.1 |
| 5 16 79  | 0.5                              | 0.14 |     |      | 290 | 0.0 | 0.00 | 0.3 | 10  |      | 98  | 6.9 |     | 31  | 0.04 | 0.2 | 4.9 |     | 0.5 | 0.1 |
| 6 20 79  | 0.4                              | 0.18 |     |      | 340 | 0.0 | 0.00 | 0.2 | 12  |      | 90  | 5.8 |     | 43  | 0.06 | 0.2 | 5.1 |     | 0.3 | 0.0 |
| 7 24 79  | 0.5                              | 0.20 | 0.0 | 0.00 | 300 | 0.0 | 0.00 | 0.1 | 9.8 | 1.0  | 92  | 6.4 | 0.0 | 39  | 0.09 | 0.3 | 4.9 | 2.0 | 0.5 | 0.0 |
| 8 15 79  | 0.3                              | 0.21 |     |      | 320 | 0.0 | 0.01 | 0.1 | 11  |      | 85  | 7.3 |     | 46  | 0.07 | 0.2 | 5.0 |     | 0.4 | 0.1 |

TABLE 35. WATER QUALITY FOR SITE 5095 HOLMES COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH                         | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------------------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | -----MILLIGRAMS PER LITER----- |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6    | 22 | 77         | 17        | 0.02     |             |      | 0         | 2520      | 2130       | 0.71                           | 3.3      |             | 0    | 0   | 0  | 5.6 | 1600     | 0.4       |          |       |       |          |      |
| 8    | 3  | 77         | 22        | 0.04     |             |      | 8         | 2180      | 2130       | 0.80                           | 3.4      |             | 0    | 0   | 0  | 6.6 | 1500     | 0.7       |          |       |       |          |      |
| 9    | 2  | 77         | 21        | 0.02     |             |      | 4         | 2240      | 1900       | 0.79                           | 3.6      |             | 0    | 0   | 0  | 4.7 | 1400     | 0.6       |          |       |       |          |      |
| 11   | 8  | 77         | 14        | 3        | 825         |      | 1400      | 2290      | 1580       | 0.73                           | 3.3      |             | 0    | 0   | 0  | 7.3 | 1100     | 1.0       |          |       |       |          |      |
| 1    | 6  | 78         | 1         | 0.25     |             |      | 8         | 2670      | 2590       | 0.83                           | 3.5      |             | 0    | 0   | 0  | 4.8 | 1900     | 3.7       |          |       |       |          |      |
| 2    | 7  | 78         | 1         | 0.1      |             |      | 10        | 2470      | 2320       | 0.74                           | 3.2      |             | 0    | 0   | 0  | 5.0 | 1700     | 1.0       |          |       |       |          |      |
| 3    | 14 | 78         | 3         | 6        | 1590        |      | 800       | 587       | 383        | 0.81                           | 4.1      |             | 0    | 0   | 0  | 3.2 | 270      | 1.0       |          |       |       |          |      |
| 4    | 12 | 78         | 14        | 3        | 15          |      | 10        | 2600      | 2330       | 0.71                           | 3.2      |             | 0    | 0   | 0  | 5.1 | 1700     | 1.3       |          |       |       |          |      |
| 5    | 10 | 78         | 15        | 1.0      | 60*         |      | 25        | 2500      | 1700       | 0.91                           | 3.5      |             | 0    | 0   | 0  | 4.2 | 1200     | 3.5       |          |       |       |          |      |
| 6    | 21 | 78         |           | 0.4      | 42*         |      | 0         | 2410      | 1860       | 0.87                           | 3.5      |             | 0    | 0   | 0  | 6.8 | 1300     | 1.0       |          |       |       |          |      |
| 7    | 19 | 78         | 22        | 0.25     | 79*         |      | 4         | 2650      | 2050       | 0.88                           | 3.6      |             | 0    | 0   | 0  | 5.5 | 1500     | 0.4       |          |       |       |          |      |
| 9    | 12 | 78         | 21        | 0.004    | 21*         |      | 7         | 2320      | 1690       | 0.81                           | 3.5      |             | 0    | 0   | 0  | 5.3 | 1200     | 0.6       |          |       |       |          |      |
| 10   | 13 | 78         | 12        | 0.15     | 27*         |      | 10        | 1540      | 1150       | 0.86                           | 3.8      |             | 0    | 0   | 0  | 9.1 | 830      | 0.5       |          |       |       |          |      |
| 11   | 21 | 78         | 5         | 0.015    | 4           |      | 5         | 2390      | 1880       | 0.86                           | 3.8      | 280         | 0    | 0   | 0  | 7.0 | 1400     | 0.1       |          |       |       |          |      |
| 12   | 21 | 78         | 0         | 0.07     | 26          |      | 25        | 2130      | 1610       | 0.83                           | 3.7      | 260         | 0    | 0   | 0  | 8.4 | 1200     | 2.3       |          |       |       |          |      |
| 1    | 31 | 79         | 0         | 0.25     | 35          |      | 20        | 2330      | 2100       | 0.90                           | 3.5      | 330         | 0    | 0   | 0  | 4.9 | 1500     | 1.1       |          |       |       |          |      |
| 3    | 18 | 79         | 6         | 0.3      | 32          |      | 25        | 2980      | 2930       | 0.75                           | 3.4      | 440         | 0    | 0   | 0  | 4.3 | 2200     | 0.8       |          |       |       |          |      |
| 4    | 21 | 79         | 13        | 0.4      | 22          | 0.00 | 25        | 2610      | 2630       | 0.82                           | 3.1      | 410         | 0    | 0   | 0  | 4.0 | 1900     | 0.7       |          |       |       |          |      |
| 5    | 16 | 79         | 14        | 0.1      | 15          | 0.00 | 5         | 3360      | 3260       | 0.73                           | 3.3      | 510         | 0    | 0   | 0  | 4.3 | 2400     | 0.7       |          |       |       |          |      |
| 6    | 20 | 79         | 20        | 0.4      | 12          |      | 9         | 2980      | 2600       | 0.66                           | 3.5      | 420         | 0    | 0   | 0  | 6.3 | 2000     | 0.5       |          |       |       |          |      |
| 7    | 24 | 79         | 23        | 0.04     | 10          |      | 20        | 2960      | 2010       | 0.80                           | 3.5      | 330         | 0    | 0   | 0  | 5.8 | 1500     | 0.1       | 0.1      | 0.86  | 0.00  | 0.00     | 0.01 |
| 8    | 15 | 79         | 17        | 0.03     | 11          |      | 6         | 2720      | 2130       | 0.86                           | 3.5      | 320         | 0    | 0   | 0  | 7.2 | 1500     | 0.5       | 0.0      | 0.40  | 0.45  | 0.00     | 0.04 |
| 9    | 13 | 79         | 18        | 0.04     | 10          |      | 5         | 2100      | 1860       | 0.82                           | 3.6      | 310         | 0    | 0   | 0  | 7.6 | 1400     | 1.4       |          |       |       |          |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG  | MN | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |    |     |     |      |     |     |     |     |     |
| 6 22 77  | 36                   | 0.09 |     |      | 190 | 0.6 | 0.03 | 1.2 | 5.8 |      | 170 | 63 |     | 13  | 0.88 | 0.3 | 15  |     | 0.2 | 0.9 |
| 8 3 77   | 51                   | 0.02 |     |      | 230 | 0.6 | 0.00 | 1.4 | 5.7 |      | 170 | 66 |     | 17  | 0.86 | 0.1 | 21  |     | 0.1 | 0.8 |
| 9 2 77   | 31                   | 0.02 |     |      | 200 | 0.5 | 0.05 | 0.9 | 6.2 |      | 150 | 52 |     | 15  | 0.69 | 0.4 | 15  |     | 0.3 | 0.7 |
| 11 8 77  | 78                   | 0.00 | 0.0 | 0.02 | 190 | 0.5 | 0.10 | 23  | 9.4 | 0.45 | 86  | 36 | 0.1 | 12  | 0.82 | 0.1 | 5.5 | 0.2 | 0.1 | 1.3 |
| 1 6 78   | 58                   | 0.01 | 0.0 | 0.01 | 240 | 0.7 | 0.03 | 5.9 | 5.9 | 1.5  | 240 | 86 | 0.0 | 13  | 0.97 | 0.1 | 13  | 1.1 | 0.3 | 1.6 |
| 2 7 78   | 44                   | 0.07 |     |      | 200 | 0.7 | 0.03 | 8.4 | 5.3 |      | 200 | 72 |     | 13  | 0.91 | 0.1 | 14  |     | 0.3 | 1.0 |
| 3 14 78  | 8.2                  | 0.02 |     |      | 36  | 0.1 | 0.01 | 1.1 | 3.7 |      | 33  | 12 |     | 2.9 | 0.16 | 0.0 | 3.3 |     | 0.0 | 0.2 |
| 4 12 78  | 48                   | 0.03 | 0.0 | 0.01 | 190 | 0.6 | 0.04 | 7.4 | 5.6 | 1.0  | 190 | 93 | 0.0 | 11  | 0.87 | 0.1 | 12  | 0.8 | 0.3 | 0.9 |
| 5 10 78  | 35                   | 0.08 |     |      | 170 | 0.7 | 0.04 | 5.1 | 5.1 |      | 170 | 60 |     | 9.8 | 0.79 | 0.6 | 12  |     | 1.9 | 0.7 |
| 6 21 78  | 42                   | 0.04 |     |      | 180 | 0.6 | 0.00 | 0.7 | 5.1 |      | 180 | 71 |     | 11  | 0.81 | 0.1 | 15  |     | 0.4 | 0.9 |
| 7 19 78  | 33                   | 0.06 | 0.0 | 0.01 | 210 | 0.6 | 0.04 | 1.3 | 5.7 | 0.50 | 190 | 69 | 0.1 | 11  | 0.92 | 0.5 | 17  | 0.6 | 0.5 | 0.8 |
| 9 12 78  | 25                   | 0.06 | 0.0 | 0.01 | 170 | 0.4 | 0.03 | 0.9 | 5.4 | 0.75 | 150 | 56 | 0.1 | 9.1 | 0.69 | 0.5 | 16  | 0.6 | 0.6 | 0.8 |
| 10 13 78 | 18                   | 0.03 | 0.0 | 0.00 | 130 | 0.2 | 0.02 | 0.7 | 5.3 | 0.65 | 98  | 31 | 0.0 | 9.6 | 0.40 | 0.2 | 9.0 | 0.4 | 0.2 | 0.4 |
| 11 21 78 | 30                   | 0.04 |     |      | 200 | 0.4 | 0.02 | 0.9 | 4.4 |      | 170 | 63 |     | 11  | 0.63 | 0.5 | 13  |     | 0.8 | 0.6 |
| 12 21 78 | 22                   | 0.03 |     |      | 160 | 0.4 | 0.03 | 2.2 | 4.4 |      | 140 | 43 |     | 14  | 0.60 | 0.3 | 11  |     | 0.4 | 0.6 |
| 1 31 79  | 38                   | 0.04 | 0.0 | 0.01 | 220 | 0.5 | 0.03 | 3.3 | 4.4 | 0.85 | 200 | 71 | 0.2 | 8.6 | 0.83 | 0.3 | 12  | 0.5 | 0.6 | 0.8 |
| 3 18 79  | 56                   | 0.04 |     |      | 280 | 0.7 | 0.04 | 8.3 | 5.6 |      | 240 | 86 |     | 11  | 1.1  | 0.4 | 14  |     | 1.1 | 1.0 |
| 4 21 79  | 49                   | 0.04 | 0.0 | 0.00 | 270 | 0.7 | 0.03 | 11  | 5.4 | 1.0  | 230 | 81 | 0.2 | 11  | 1.1  | 0.3 | 12  | 0.3 | 1.0 | 1.1 |
| 5 16 79  | 63                   | 0.04 |     |      | 320 | 0.9 | 0.06 | 8.4 | 7.0 |      | 250 | 94 |     | 18  | 1.0  | 0.4 | 17  |     | 0.9 | 1.2 |
| 6 20 79  | 43                   | 0.05 |     |      | 220 | 0.7 | 0.05 | 2.4 | 5.4 |      | 200 | 83 |     | 11  | 1.1  | 0.3 | 17  |     | 0.6 | 1.1 |
| 7 24 79  | 27                   | 0.05 | 0.0 | 0.01 | 190 | 0.6 | 0.04 | 1.4 | 4.7 | 1.5  | 180 | 57 | 0.0 | 9.9 | 0.82 | 0.5 | 14  | 0.7 | 1.1 | 0.7 |
| 8 15 79  | 40                   | 0.05 |     |      | 230 | 0.6 | 0.03 | 1.0 | 6.2 |      | 190 | 63 |     | 13  | 0.88 | 0.4 | 15  |     | 0.6 | 0.7 |
| 9 13 79  | 27                   | 0.05 |     |      | 190 | 0.4 | 0.02 | 0.6 | 5.2 |      | 160 | 58 |     | 10  | 0.69 | 0.2 | 16  |     | 0.6 | 0.8 |

TABLE 36. WATER QUALITY FOR SITE 5101 JACKSON COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB ACID- PH | ALKA- LITY | HCO <sub>3</sub> | CO <sub>3</sub> | CL | SO <sub>4</sub> | NO <sub>3</sub> AS N | #NO <sub>3</sub> AS N | NH <sub>3</sub> AS N | TOT N | TOT P | ORTI PO <sub>4</sub> |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------------|------------|------------------|-----------------|----|-----------------|----------------------|-----------------------|----------------------|-------|-------|----------------------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |              |            |                  |                 |    |                 |                      |                       |                      |       |       |                      |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |              |            |                  |                 |    |                 |                      |                       |                      |       |       |                      |
| 6 3 77                           | 20         | 0.01      |          |             | 8    | 205       | 98        | 1.89       | 6.9          |            | 27               | 33              | 0  | 1.8             | 42                   |                       |                      |       |       |                      |
| 7 6 77                           | 23         | 0.04      |          |             | 15   | 195       | 98        | 1.62       | 7.0          |            | 20               | 24              | 0  | 6.6             | 40                   | 0.8                   |                      |       |       |                      |
| 9 26 77                          | 21         | 0.001     |          |             | 55   | 230       | 132       | 2.21       | 7.2          |            | 45               | 55              | 0  | 1.6             | 46                   | 0.0                   |                      |       |       |                      |
| 11 21 77                         | 8          | 0.04      | 2        |             |      | 195       | 125       | 1.08       | 7.0          |            | 19               | 23              | 0  | 1.3             | 73                   | 0.0                   |                      |       |       |                      |
| 12 27 77                         | 0          | 0.1       |          |             | 0    | 246       | 128       | 1.36       | 7.2          |            | 20               | 24              | 0  | 2.1             | 71                   | 0.1                   |                      |       |       |                      |
| 2 16 78                          | 1          | 0.15      |          |             | 6    | 187       | 100       | 1.32       | 6.9          |            | 23               | 28              | 0  | 1.3             | 53                   | 0.1                   |                      |       |       |                      |
| 3 21 78                          | 9          | 2.0       | 9        |             | 10   | 144       | 82        | 1.31       | 7.1          |            | 15               | 18              | 0  | 1.6             | 44                   | 0.1                   |                      |       |       |                      |
| 4 17 78                          | 11         | 0.5       | 5        |             | 4    | 170       | 98        | 1.19       | 7.2          |            | 16               | 19              | 0  | 1.6             | 56                   | 0.1                   |                      |       |       |                      |
| 6 26 78                          | 20         | 0.1       | 114*     |             | 25   | 142       | 83        | 1.48       | 6.7          |            | 20               | 24              | 0  | 1.0             | 40                   | 0.0                   |                      |       |       |                      |
| 7 27 78                          | 22         | 0.015     | 68*      |             | 4    | 155       | 96        | 1.61       | 7.3          |            | 27               | 33              | 0  | 1.4             | 43                   | 0.1                   |                      |       |       |                      |
| 8 30 78                          | 20         | 0.007     | 64*      |             | 70   | 147       | 95        | 1.51       | 7.2          |            | 25               | 31              | 0  | 1.4             | 43                   | 0.1                   |                      |       |       |                      |
| 10 5 78                          | 14         | 0.008     | 55*      |             | 50   | 151       | 97        | 1.55       | 7.4          |            | 27               | 33              | 0  | 1.1             | 43                   | 0.1                   |                      |       |       |                      |
| 11 2 78                          | 4          | 0.04      | 7        |             | 0    | 175       | 104       | 1.26       | 7.5          | -17        | 22               | 27              | 0  | 1.2             | 56                   | 0.0                   |                      |       |       |                      |
| 12 7 78                          | 4          | 0.25      | 7        |             | 1    | 141       | 78        | 1.38       | 7.2          | -10        | 16               | 20              | 0  | 1.1             | 39                   | 0.1                   |                      |       |       |                      |
| 2 8 79                           | 0          | 0.15      | 1        |             | 0    | 161       | 104       | 1.36       | 6.7          | -18        | 16               | 19              | 0  | 1.1             | 58                   | 0.0                   |                      |       |       |                      |
| 3 27 79                          | 3          | 0.25      |          |             | 1    | 166       | 108       | 1.54       | 7.4          | -14        | 20               | 24              | 0  | 1.4             | 56                   | 0.0                   |                      |       |       |                      |
| 4 24 79                          | 16         | 0.2       | 24       | 0.00        | 4    | 176       | 106       | 1.40       | 7.3          | -17        | 20               | 24              | 0  | 1.6             | 56                   | 0.0                   |                      |       |       |                      |
| 5 21 79                          | 18         | 0.06      | 13       | 0.00        | 9    | 168       | 101       | 1.43       | 7.4          | -15        | 20               | 25              | 0  | 0.9             | 52                   | 0.0                   |                      |       |       |                      |
| 6 25 79                          | 21         | 0.15      | 4        |             | 8    | 173       | 104       | 1.51       | 7.6          | -18        | 24               | 29              | 0  | 5.3             | 47                   | 0.1                   |                      |       |       |                      |
| 7 20 79                          | 23         | 0.03      | 1        |             | 10   | 170       | 95        | 1.62       | 7.7          | -18        | 25               | 30              | 0  | 1.0             | 45                   | 0.0                   | 0.0                  | 0.00  | 0.50  | 0.00                 |
| 8 7 79                           | 21         | 0.005     | 0        |             | 10   | 179       | 89        | 1.56       | 7.8          | -20        | 26               | 32              | 0  | 1.1             | 40                   | 0.0                   | 0.0                  | 0.02  | 0.00  | 0.00                 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 3 77   | 0.0                              | 0.01 |     |      | 17 | 0.0 | 0.00 | 0.1 | 2.4 |      | 7.2 | 0.2 |     | 3.6 | 0.12 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 7 6 77   | 0.0                              | 0.02 |     |      | 15 | 0.0 | 0.00 | 0.1 | 1.9 |      | 7.6 | 0.2 |     | 3.6 | 0.01 | 0.0 | 3.5 |     | 0.0 | 0.0 |
| 9 26 77  | 0.0                              | 0.07 | 0.0 | 0.00 | 22 | 0.0 | 0.00 | 0.2 | 2.4 | 0.09 | 9.4 | 2.2 | 0.0 | 5.3 | 0.02 | 0.0 | 7.3 | 0.1 | 0.1 | 0.0 |
| 11 21 77 | 0.0                              | 0.00 |     |      | 17 | 0.0 | 0.01 | 0.4 | 1.8 |      | 8.0 | 0.5 |     | 3.3 | 0.00 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 12 27 77 | 0.0                              | 0.01 | 0.0 | 0.00 | 18 | 0.0 | 0.00 | 0.1 | 1.4 | 0.15 | 12  | 0.1 | 0.0 | 3.8 | 0.01 | 0.0 | 3.3 | 0.1 | 0.1 | 0.0 |
| 2 16 78  | 0.0                              | 0.02 |     |      | 13 | 0.0 | 0.00 | 0.1 | 1.3 |      | 8.2 | 0.1 |     | 3.4 | 0.01 | 0.0 | 2.5 |     | 0.1 | 0.0 |
| 3 21 78  | 0.1                              | 0.00 |     |      | 11 | 0.0 | 0.00 | 0.0 | 1.6 |      | 6.6 | 0.0 |     | 2.6 | 0.00 | 0.0 | 2.6 |     | 0.0 | 0.0 |
| 4 17 78  | 0.0                              | 0.00 | 0.0 | 0.00 | 13 | 0.0 | 0.00 | 0.1 | 1.6 | 0.05 | 7.6 | 0.1 | 0.0 | 3.1 | 0.00 | 0.0 | 2.7 | 0.1 | 0.0 | 0.0 |
| 6 26 78  | 0.0                              | 0.01 |     |      | 12 | 0.0 | 0.00 | 0.0 | 1.6 |      | 6.5 | 0.2 |     | 2.3 | 0.04 | 0.0 | 3.2 |     | 0.0 | 0.0 |
| 7 27 78  | 0.0                              | 0.02 | 0.0 | 0.00 | 14 | 0.0 | 0.00 | 0.0 | 2.1 | 0.03 | 7.2 | 0.2 | 0.0 | 3.0 | 0.00 | 0.0 | 4.0 | 0.1 | 0.0 | 0.0 |
| 8 30 78  | 0.0                              | 0.01 |     |      | 12 | 0.1 |      | 0.1 | 3.8 |      | 6.2 | 0.4 |     | 4.6 | 0.03 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 10 5 78  | 0.1                              | 0.00 | 0.0 | 0.00 | 14 | 0.0 | 0.00 | 0.2 | 1.8 | 0.07 | 6.7 | 0.6 | 0.0 | 3.0 | 0.01 | 0.1 | 4.2 | 0.1 | 0.1 | 0.0 |
| 11 2 78  | 0.0                              | 0.01 |     |      | 14 | 0.0 | 0.01 | 0.1 | 1.7 |      | 7.2 | 0.2 |     | 3.5 | 0.01 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 12 7 78  | 0.1                              | 0.01 |     |      | 11 | 0.0 | 0.00 | 0.1 | 1.3 |      | 6.0 | 0.0 |     | 2.1 | 0.03 | 0.2 | 3.0 |     | 0.2 | 0.0 |
| 2 8 79   | 0.1                              | 0.00 | 0.0 | 0.00 | 16 | 0.0 | 0.01 | 0.0 | 1.6 | 0.10 | 8.1 | 0.0 | 0.0 | 3.2 | 0.01 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| 3 27 79  | 0.1                              | 0.00 |     |      | 18 | 0.0 | 0.01 | 0.1 | 1.6 |      | 9.3 | 0.0 |     | 3.1 | 0.03 | 0.1 | 3.2 |     | 0.0 | 0.0 |
| 4 24 79  | 0.0                              | 0.01 | 0.2 | 0.00 | 17 | 0.0 | 0.00 | 0.0 | 1.8 | 0.15 | 8.4 | 0.1 | 0.0 | 3.1 | 0.00 | 0.0 | 2.8 | 0.1 | 0.0 | 0.1 |
| 5 21 79  | 0.1                              | 0.01 |     |      | 16 | 0.0 | 0.00 | 0.1 | 1.7 |      | 7.9 | 0.1 |     | 2.8 | 0.02 | 0.0 | 3.4 |     | 0.1 | 0.1 |
| 6 25 79  | 0.0                              | 0.02 |     |      | 17 | 0.0 | 0.00 | 0.1 | 1.7 |      | 7.9 | 0.1 |     | 2.8 | 0.00 | 0.0 | 3.2 |     | 0.0 | 0.1 |
| 7 20 79  | 0.0                              | 0.02 |     |      | 16 | 0.0 | 0.00 | 0.0 | 1.8 |      | 7.2 | 0.1 |     | 2.7 | 0.00 | 0.0 | 3.4 |     | 0.0 | 0.0 |
| 8 7 79   | 0.0                              | 0.02 |     |      | 13 | 0.0 | 0.00 | 0.1 | 1.8 |      | 6.3 | 0.2 |     | 2.7 | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |

TABLE 37. WATER QUALITY FOR SITE 5102 JACKSON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 NC03             | CO3 | CL  | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTN P04 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------------------|-----|-----|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             | MILLIGRAMS PER LITER |     |     |     |          |          |          |       |       |          |
| 7 6 77   | 33         | 0.0000    |          |             | 75   | 494       | 323       | 1.82       | 7.9    |          | 104         | 126                  | 1   | 2.3 | 150 | 0.1      |          |          |       |       |          |
| 9 26 77  | 22         | 0.0000    |          |             | 50   | 571       | 384       | 1.77       | 7.7    |          | 80          | 96                   | 0   | 3.2 | 200 | 0.2      |          |          |       |       |          |
| 11 21 77 | 9          | 0.0000    | 5        |             |      | 840       | 605       | 1.30       | 8.1    |          | 68          | 82                   | 1   | 4.8 | 370 | 0.7      |          |          |       |       |          |
| 12 27 77 | 1          | 0.0000    |          |             | 0    | 1390      | 961       | 1.46       | 8.1    |          | 177         | 212                  | 2   | 7.4 | 540 | 1.4      |          |          |       |       |          |
| 2 16 78  | 1          | 0.25      |          |             | 4    | 1650      | 1170      | 1.26       | 8.3    |          | 66          | 78                   | 1   | 7.7 | 760 | 0.5      |          |          |       |       |          |
| 3 21 78  | 10         | 2.0       | 221      |             | 180  | 903       | 661       | 1.35       | 8.1    |          | 137         | 164                  | 1   | 4.8 | 380 | 1.0      |          |          |       |       |          |
| 4 17 78  | 17         | 0.0000    | 15       |             | 8    | 1220      | 834       | 1.25       | 8.1    |          | 89          | 107                  | 1   | 6.4 | 530 | 0.2      |          |          |       |       |          |
| 6 26 78  | 27         | 0.1       | 57*      |             | 45   | 928       | 639       | 1.07       | 7.5    |          | 48          | 59                   | 0   | 5.0 | 430 | 0.2      |          |          |       |       |          |
| 7 27 78  | 28         | 0.09      | 82*      |             | 45   | 1160      | 892       | 1.06       | 8.1    |          | 88          | 105                  | 1   | 8.6 | 580 | 0.7      |          |          |       |       |          |
| 8 30 78  | 25         | 0.15      | 61*      |             | 65   | 1410      | 980       | 1.24       | 8.1    |          | 116         | 139                  | 1   | 5.4 | 610 | 0.1      |          |          |       |       |          |
| 10 5 78  | 16         | 0.01      | 99*      |             | 70   | 1700      | 1330      | 1.08       | 8.2    |          | 61          | 72                   | 1   | 7.4 | 900 | 2.5      |          |          |       |       |          |
| 12 7 78  | 5          | 0.008     |          |             |      | 352       | 235       | 1.43       | 7.7    | -47      | 48          | 59                   | 0   | 4.3 | 120 | 1.6      |          |          |       |       |          |
| 2 8 79   | 1          | 0.015     |          |             | 0    | 1540      | 1250      | 1.40       | 7.7    |          | 211         | 255                  | 1   | 8.5 | 720 | 1.2      |          |          |       |       |          |
| 3 27 79  | 3          | 0.01      |          |             | 30   | 1110      | 928       | 1.26       | 8.0    |          | 135         | 162                  | 1   | 9.0 | 550 | 3.1      |          |          |       |       |          |
| 7 20 79  | 24         | 0.06      | 41       | 1.1         | 60   | 1430      | 1050      | 1.10       | 8.0    | -59      | 65          | 78                   | 1   | 8.9 | 690 | 4.5      | 0.4      | 0.19     | 1.35  | 0.00  | 0.03     |
| 8 7 79   | 27         | 0.01      | 18       |             | 30   | 1280      | 866       | 1.03       | 8.1    | -48      | 49          | 59                   | 1   | 12  | 560 | 5.1      | 0.3      | 0.09     | 1.25  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 7 6 77   | 0.1                  | 0.06 |     |      | 62  | 0.0 | 0.00 | 0.0 | 6.9 |      | 24 | 0.1 |     | 11  | 0.03 | 0.0 | 1.4 |     | 0.0 | 0.0 |
| 9 26 77  | 0.1                  | 0.06 | 0.0 | 0.00 | 83  | 0.0 | 0.00 | 0.1 | 5.0 | 0.25 | 30 | 0.4 | 0.0 | 11  | 0.02 | 0.0 | 2.7 | 0.4 | 0.1 | 0.0 |
| 11 21 77 | 0.2                  | 0.01 |     |      | 140 | 0.0 | 0.01 | 0.2 | 9.3 |      | 33 | 0.1 |     | 7.3 | 0.02 | 0.1 | 1.2 |     | 0.1 | 0.0 |
| 12 27 77 | 0.2                  | 0.12 | 0.1 | 0.00 | 160 | 0.0 | 0.01 | 0.1 | 7.9 | 0.90 | 78 | 0.0 | 0.0 | 48  | 0.00 | 0.1 | 2.0 | 1.7 | 0.2 | 0.0 |
| 2 16 78  | 0.1                  | 0.27 |     |      | 190 | 0.0 | 0.01 | 0.1 | 10  |      | 97 | 0.6 |     | 58  | 0.06 | 0.1 | 3.1 |     | 0.2 | 0.0 |
| 3 21 78  | 0.2                  | 0.11 |     |      | 110 | 0.0 | 0.01 | 0.1 | 6.9 |      | 52 | 0.4 |     | 25  | 0.03 | 0.1 | 1.5 |     | 0.1 | 0.0 |
| 4 17 78  | 0.1                  | 0.14 |     |      | 120 | 0.0 | 0.00 | 0.1 | 9.1 |      | 68 | 0.1 |     | 47  | 0.02 | 0.0 | 0.4 |     | 0.0 | 0.0 |
| 6 26 78  | 0.1                  | 0.12 |     |      | 97  | 0.0 | 0.00 | 0.0 | 6.3 |      | 39 | 0.1 |     | 33  | 0.06 | 0.0 | 1.0 |     | 0.0 | 0.0 |
| 7 27 78  | 0.2                  | 0.13 | 0.1 | 0.00 | 150 | 0.0 | 0.00 | 0.1 | 11  | 0.30 | 50 | 0.6 | 0.0 | 32  | 0.10 | 0.2 | 2.3 | 1.3 | 0.2 | 0.0 |
| 8 30 78  | 0.3                  | 0.15 |     |      | 150 | 0.1 | 0.04 | 0.2 | 12  |      | 58 | 0.2 |     | 72  | 0.06 | 0.2 | 1.2 |     | 0.1 | 0.0 |
| 10 5 78  | 0.8                  | 0.18 | 0.1 | 0.00 | 220 | 0.1 | 0.01 | 0.2 | 13  | 0.55 | 88 | 0.5 | 0.1 | 46  | 0.17 | 0.6 | 2.0 | 3.2 | 0.6 | 0.0 |
| 12 7 78  | 0.2                  | 0.03 |     |      | 46  | 0.0 | 0.01 | 0.1 | 6.3 |      | 11 | 0.2 |     | 8.6 | 0.05 | 0.2 | 1.8 |     | 0.2 | 0.0 |
| 2 8 79   | 0.5                  | 0.18 | 0.0 | 0.00 | 230 | 0.0 | 0.00 | 0.1 | 11  | 1.0  | 91 | 1.0 | 0.0 | 49  | 0.09 | 0.4 | 2.0 | 1.6 | 0.2 | 0.0 |
| 3 27 79  | 0.3                  | 0.13 | 0.1 | 0.00 | 160 | 0.0 | 0.01 | 0.1 | 14  | 0.65 | 58 | 0.2 | 0.0 | 40  | 0.07 | 0.2 | 1.2 | 2.2 | 0.2 | 0.0 |
| 7 20 79  | 0.2                  | 0.26 | 0.0 | 0.00 | 160 | 0.0 | 0.01 | 0.1 | 18  | 1.0  | 79 | 0.1 | 0.1 | 35  | 0.03 | 0.2 | 1.1 | 4.0 | 0.2 | 0.0 |
| 8 7 79   | 0.2                  | 0.19 |     |      | 110 | 0.0 | 0.01 | 0.4 | 22  |      | 59 | 0.0 |     | 39  | 0.04 | 0.2 | 1.4 |     | 0.2 | 0.0 |

TABLE 38. WATER QUALITY FOR SITE 5103 JACKSON COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB ACID-ITY         | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |             |      |     |    |     |          |          |          |       |       |          |      |      |
| 6    | 6  | 77         | 15        | 0.009    |             |      | 10        | 434       | 272        | 0.68                 |             | 0    | 0   | 0  | 3.8 | 180      |          |          |       |       |          |      |      |
| 7    | 6  | 77         | 23        | 0.0000   |             |      | 30        | 494       | 280        | 0.93                 | 3.6         | 0    | 0   | 0  | 0.8 | 180      | 0.0      |          |       |       |          |      |      |
| 9    | 26 | 77         | 21        | 0.0000   |             |      |           | 519       | 365        | 1.12                 | 4.0         | 0    | 0   | 0  | 3.0 | 210      | 0.0      |          |       |       |          |      |      |
| 11   | 21 | 77         | 9         | 0.02     | 9           |      |           | 585       | 452        | 0.76                 | 3.2         | 0    | 0   | 0  | 0.8 | 320      | 0.6      |          |       |       |          |      |      |
| 12   | 27 | 77         | 1         | 0.04     |             |      | 2         | 619       | 453        | 0.94                 | 4.0         | 0    | 0   | 0  | 2.9 | 300      | 0.1      |          |       |       |          |      |      |
|      |    |            |           |          |             |      |           |           |            |                      |             |      |     |    |     |          |          |          |       |       |          |      |      |
| 2    | 16 | 78         | 1         | 0.15     |             |      | 4         | 536       | 354        | 0.90                 | 3.7         | 0    | 0   | 0  | 2.2 | 240      | 0.1      |          |       |       |          |      |      |
| 3    | 21 | 78         | 8         | 1.5      | 4           |      | 20        | 406       | 246        | 0.83                 | 4.1         | 0    | 0   | 0  | 2.6 | 170      | 0.2      |          |       |       |          |      |      |
| 4    | 17 | 78         | 13        | 0.15     | 4           |      | 8         | 524       | 361        | 0.77                 | 3.8         | 0    | 0   | 0  | 2.9 | 250      | 0.1      |          |       |       |          |      |      |
| 6    | 26 | 78         | 22        | 0.06     | 62*         |      | 0         | 508       | 249        | 0.94                 | 3.6         | 0    | 0   | 0  | 4.3 | 160      | 0.2      |          |       |       |          |      |      |
| 7    | 27 | 78         | 22        | 0.25     | 76*         |      | 30        | 513       | 335        | 0.78                 | 3.7         | 0    | 0   | 0  | 2.3 | 230      | 0.1      |          |       |       |          |      |      |
| 8    | 30 | 78         | 25        | 0.002    | 87*         |      | 200       | 346       | 210        | 0.70                 | 3.6         | 0    | 0   | 0  | 1.3 | 140      | 0.1      |          |       |       |          |      |      |
| 10   | 5  | 78         | 14        | 0.0015   |             |      |           | 390       | 265        | 0.81                 | 3.8         | 0    | 0   | 0  | 2.3 | 180      | 0.0      |          |       |       |          |      |      |
| 11   | 2  | 78         | 7         | 0.01     | 7           |      | 3         | 458       | 315        | 0.77                 | 3.9         | 41   | 0   | 0  | 0   | 2.1      | 220      | 0.0      |       |       |          |      |      |
| 12   | 7  | 78         | 5         | 0.06     | 6           |      | 1         | 415       | 254        | 0.92                 | 4.0         | 40   | 0   | 0  | 0   | 2.1      | 160      | 0.2      |       |       |          |      |      |
|      |    |            |           |          |             |      |           |           |            |                      |             |      |     |    |     |          |          |          |       |       |          |      |      |
| 2    | 8  | 79         | 0         |          | 9           |      | 2         | 463       | 305        | 0.92                 | 3.9         | 41   | 0   | 0  | 0   | 2.2      | 200      | 0.1      |       |       |          |      |      |
| 3    | 27 | 79         | 3         | 0.15     |             |      | 0         | 429       | 302        | 1.04                 | 4.1         | 32   | 0   | 0  | 0   | 2.3      | 200      | 0.1      |       |       |          |      |      |
| 4    | 24 | 79         | 19        | 0.08     | 24          |      | 10        | 460       | 287        | 0.98                 | 3.9         | 43   | 0   | 0  | 0   | 2.1      | 190      | 0.0      |       |       |          |      |      |
| 5    | 21 | 79         | 19        | 0.04     | 20          | 0.00 | 4         | 479       | 289        | 0.92                 | 3.8         | 48   | 0   | 0  | 0   | 1.9      | 190      | 0.0      |       |       |          |      |      |
| 6    | 25 | 79         | 20        | 0.02     | 3           |      | 15        | 432       | 257        | 0.89                 | 3.9         | 36   | 0   | 0  | 0   | 2.0      | 170      | 0.0      |       |       |          |      |      |
| 7    | 20 | 79         | 22        | 0.02     | 15          |      | 30        | 430       | 206        | 1.00                 | 3.7         | 28   | 0   | 0  | 0   | 2.3      | 130      | 0.0      | 0.0   | 0.32  | 0.95     | 0.00 | 0.02 |
| 8    | 7  | 79         | 22        | 0.001    | 2           |      | 55        | 439       | 257        | 0.75                 | 3.3         | 30   | 0   | 0  | 0   | 2.8      | 170      | 0.0      | 0.0   | 0.34  | 0.40     | 0.00 | 0.01 |
| 9    | 18 | 79         | 14        | 0.015    | 31          |      | 35        | 377       | 271        | 0.90                 | 3.8         | 26   | 0   | 0  | 0   | 2.2      | 180      | 0.1      |       |       |          |      |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI   | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|------|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |      |     |     |     |
| 6 6 77   | 0.0                  | 0.03 |     |      | 28 | 0.0 | 0.02 | 25  | 1.3 |      | 9.3 | 3.7 |     | 8.0 | 0.02 | 0.0 | 6.7  |     | 0.0 | 0.3 |
| 7 6 77   | 2.9                  | 0.06 |     |      | 34 | 0.1 | 0.01 | 4.5 | 1.9 |      | 18  | 3.6 |     | 6.6 | 0.10 | 0.1 | 11   |     | 0.1 | 0.1 |
| 9 26 77  | 0.1                  | 0.11 | 0.0 | 0.00 | 49 | 0.1 | 0.00 | 32  | 4.7 | 0.15 | 25  | 7.0 | 0.0 | 9.1 | 0.05 | 0.0 | 11   | 0.2 | 0.1 | 0.0 |
| 11 21 77 | 5.0                  |      |     |      | 58 | 0.2 | 0.01 | 0.1 | 2.4 |      | 23  | 5.2 |     | 8.0 | 0.13 | 0.0 | 11   |     | 0.0 | 0.2 |
| 12 27 77 | 10                   | 0.04 | 0.0 | 0.01 | 64 | 0.2 | 0.00 | 2.2 | 1.6 | 0.35 | 29  | 5.1 | 0.0 | 7.4 | 0.12 | 0.0 | 14   | 0.3 | 0.1 | 0.2 |
| 2 16 78  | 8.5                  | 0.07 |     |      | 46 | 0.1 | 0.01 | 1.4 | 1.6 |      | 24  | 3.4 |     | 6.9 | 0.12 | 0.0 | 9.1  |     | 0.1 | 0.2 |
| 3 21 78  | 4.9                  | 0.05 |     |      | 33 | 0.1 | 0.00 | 0.4 | 2.0 |      | 13  | 2.5 |     | 4.6 | 0.06 | 0.0 | 7.5  |     | 0.0 | 0.1 |
| 4 17 78  | 6.2                  | 0.05 | 0.1 | 0.00 | 42 | 0.1 | 0.01 | 1.0 | 1.7 | 0.65 | 21  | 3.8 | 0.0 | 5.4 | 0.10 | 0.0 | 9.6  | 2.6 | 0.1 | 0.1 |
| 6 26 78  | 3.4                  | 0.06 |     |      | 28 | 0.1 | 0.00 | 2.5 | 1.9 |      | 18  | 3.7 |     | 5.6 | 0.09 | 0.0 | 9.8  |     | 0.1 | 0.1 |
| 7 27 78  | 3.3                  | 0.09 | 0.0 | 0.01 | 40 | 0.1 | 0.00 | 0.2 | 1.9 | 0.10 | 19  | 2.9 | 0.0 | 5.1 | 0.10 | 0.1 | 13   | 0.2 | 0.1 | 0.1 |
| 8 30 78  | 0.4                  | 0.05 |     |      | 18 | 0.1 | 0.04 | 14  | 3.0 |      | 8.4 | 2.8 |     | 7.8 | 0.06 | 0.1 | 7.2  |     | 0.0 | 0.0 |
| 10 5 78  | 0.7                  | 0.02 | 0.0 | 0.00 | 37 | 0.0 | 0.00 | 2.4 | 2.1 | 0.10 | 11  | 3.7 | 0.0 | 5.9 | 0.05 | 0.0 | 9.6  | 0.1 | 0.0 | 0.0 |
| 11 2 78  | 4.2                  | 0.04 |     |      | 43 | 0.1 | 0.02 | 1.1 | 1.8 |      | 12  | 3.3 |     | 8.0 | 0.10 | 0.0 | 10   |     | 0.1 | 0.1 |
| 12 7 78  | 4.7                  | 0.04 |     |      | 41 | 0.1 | 0.01 | 1.2 | 1.5 |      | 11  | 2.4 |     | 4.6 | 0.09 | 0.1 | 9.4  |     | 0.0 | 0.1 |
| 2 8 79   | 6.2                  | 0.02 | 0.0 | 0.00 | 48 | 0.1 | 0.02 | 1.0 | 1.5 | 0.20 | 16  | 2.2 | 0.0 | 5.4 | 0.11 | 0.1 | 7.6  | 0.1 | 0.1 | 0.1 |
| 3 27 79  | 5.4                  | 0.03 |     |      | 49 | 0.1 | 0.02 | 0.8 | 1.3 |      | 21  | 1.9 |     | 4.7 | 0.07 | 0.1 | 7.4  |     | 0.1 | 0.1 |
| 4 24 79  | 1.0                  | 0.05 | 0.0 | 0.00 | 43 | 0.1 | 0.02 | 0.9 | 1.5 | 0.25 | 20  | 1.9 | 0.0 | 4.9 | 0.09 | 0.0 | 7.4  | 0.3 | 0.1 | 0.2 |
| 5 21 79  | 3.6                  | 0.05 |     |      | 42 | 0.1 | 0.01 | 0.9 | 1.7 |      | 17  | 2.6 |     | 4.9 | 0.10 | 0.0 | 9.1  |     | 0.1 | 0.2 |
| 6 25 79  | 4.3                  | 0.05 |     |      | 39 | 0.1 | 0.00 | 1.4 | 1.7 |      | 11  | 2.3 |     | 5.2 | 0.09 | 0.0 | 11   |     | 0.1 | 0.3 |
| 7 20 79  | 1.7                  | 0.05 |     |      | 34 | 0.1 | 0.01 | 1.4 | 1.7 |      | 10  | 2.8 |     | 5.0 | 0.06 | 0.1 | 8.0  |     | 0.0 | 0.1 |
| 8 7 79   | 1.3                  | 0.05 |     |      | 34 | 0.0 | 0.00 | 3.6 | 1.8 |      | 10  | 2.7 |     | 5.5 | 0.06 | 0.0 | 9.5  |     | 0.0 | 0.1 |
| 9 18 79  | 2.4                  | 0.06 |     |      | 37 | 0.1 | 0.00 | 2.0 | 1.6 |      | 16  | 3.0 |     | 5.4 | 0.08 | 0.0 | 10.0 |     | 0.1 | 0.1 |

TABLE 39. WATER QUALITY FOR SITE 5111 JEFFERSON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL MATTER | SETT TURB | SPEC COND | DIS SOLID | MEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|-----------------|-----------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L            | ML/L      | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |
| 6 30 77  | 17         | 0.0000    |                 |           | 65        | 675       | 384        | 2.51                 | 8.0      |             | 123  | 148 | 1  | 49  | 120      | 0.1      |          |       |       |          |
| 3 16 79  | 2          | 0.025     | 106             |           | 10        | 766       | 510        | 3.54                 | 7.9      |             | 225  | 272 | 2  | 28  | 140      | 0.5      |          |       |       |          |
| 4 3 79   | 3          | 0.3       | 145             |           | 20        | 646       | 371        | 3.11                 | 8.1      |             | 160  | 192 | 2  | 27  | 100      | 1.0      |          |       |       |          |
| 5 16 79  | 17         | 0.02      | 103             |           | 25        | 625       | 402        | 3.39                 | 8.1      |             | 201  | 241 | 2  | 28  | 100      | 0.5      |          |       |       |          |

| DATE     | AL                   | B    | BA | BE | CA  | CO  | CU   | FE  | K   | LI | MG | MN  | MO | NA | NI   | PB  | SI  | SR | TI  | ZN  |
|----------|----------------------|------|----|----|-----|-----|------|-----|-----|----|----|-----|----|----|------|-----|-----|----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |    |    |     |     |      |     |     |    |    |     |    |    |      |     |     |    |     |     |
| 6 30 77  | 0.1                  | 0.13 |    |    | 32  | 0.0 | 0.00 | 0.1 | 4.4 |    | 43 | 0.1 |    | 51 | 0.01 | 0.1 | 6.5 |    | 0.0 | 0.0 |
| 3 16 79  | 0.2                  | 0.07 |    |    | 110 | 0.0 | 0.01 | 0.1 | 3.0 |    | 46 | 0.0 |    | 37 | 0.02 | 0.0 | 4.0 |    | 0.1 | 0.0 |
| 4 3 79   | 0.2                  | 0.04 |    |    | 83  | 0.1 | 0.00 | 0.1 | 2.2 |    | 28 | 0.0 |    | 19 | 0.05 | 0.2 | 3.1 |    | 0.6 | 0.1 |
| 5 16 79  | 0.1                  | 0.06 |    |    | 83  | 0.0 | 0.01 | 0.0 | 2.5 |    | 31 | 0.0 |    | 26 | 0.01 | 0.1 | 3.6 |    | 0.1 | 0.0 |

TABLE 40. WATER QUALITY FOR SITE 5112 JEFFERSON COUNTY, OHIO

| WATER |      | EST   | SUSP  | SETT   | SPEC |      | DIS   | NEUT  | LAB  | ACID-                | ALKA-  | NO3  |     | NO3 | NH3 | TOT  | TOT  | ORT  |     |      |
|-------|------|-------|-------|--------|------|------|-------|-------|------|----------------------|--------|------|-----|-----|-----|------|------|------|-----|------|
| DATE  | TEMP | DISCH | SOL   | MATTER | TURB | COND | SOLID | RATIO | PH   | ITY                  | LINITY | HC03 | CO3 | CL  | SO4 | AS N | AS N | AS N | P   | PO4  |
| MO    | DA   | YR    | DEG C | CFS    | MG/L | ML/L | JTU   | UM/CM | MG/L | MILLIGRAMS PER LITER |        |      |     |     |     |      |      |      |     |      |
| 6     | 30   | 77    | 22    | 0.4    |      |      | 95    | 1110  | 812  | 1.09                 | 7.6    |      | 59  | 72  | 0   | 26   | 520  |      |     |      |
| 8     | 4    | 77    | 28    | 0.0000 |      |      | 30    | 899   | 616  | 1.77                 | 7.8    |      | 89  | 108 | 0   | 22   | 310  | 0.1  |     |      |
| 8     | 31   | 77    | 26    | 0.0000 |      |      | 20    | 1130  | 628  | 1.60                 | 7.6    |      | 123 | 149 | 0   | 19   | 320  | 0.1  |     |      |
| 11    | 4    | 77    | 16    | 0.05   | 176  |      | 65    | 1190  | 865  | 1.67                 | 8.5    |      | 197 | 229 | 6   | 26   | 420  | 0.1  |     |      |
| 1     | 5    | 78    | 2     | 0.0015 |      |      | 10    | 1270  | 1020 | 1.32                 | 8.1    |      | 159 | 190 | 2   | 20   | 580  | 0.3  |     |      |
| 3     | 15   | 78    | 3     | 0.2    | 22   |      | 4     | 1210  | 901  | 0.99                 | 5.0    |      | 0   | 0   | 0   | 34   | 600  | 2.6  |     |      |
| 4     | 13   | 78    | 17    | 0.15   | 6    |      | 10    | 1650  | 1270 | 0.95                 | 8.0    |      | 68  | 82  | 1   | 20   | 880  | 0.2  |     |      |
| 5     | 11   | 78    | 16    | 0.025  | 26*  |      | 10    | 1580  | 1300 | 1.00                 | 8.0    |      | 95  | 114 | 1   | 27   | 870  | 0.8  |     |      |
| 6     | 20   | 78    |       | 0.15   | 74*  |      |       | 1820  | 1480 | 0.95                 | 7.9    |      | 102 | 122 | 1   | 22   | 1000 | 0.8  |     |      |
| 7     | 18   | 78    | 26    | 0.1    | 123* |      | 55    | 1510  | 1370 | 1.16                 | 8.2    |      | 88  | 104 | 1   | 29   | 870  | 0.1  |     |      |
| 9     | 7    | 78    | 22    | 0.002  | 73*  |      | 55    | 1590  | 1530 | 1.09                 | 8.0    |      | 92  | 110 | 1   | 14   | 1000 | 0.1  |     |      |
| 10    | 12   | 78    | 12    | 0.003  | 45*  |      | 4     | 1710  | 1470 | 0.98                 | 8.2    |      | 91  | 108 | 1   | 17   | 990  | 1.0  |     |      |
| 11    | 20   | 78    | 7     | 0.003  |      |      |       | 1520  | 1370 | 1.21                 | 7.9    |      | 101 | 121 | 1   | 15   | 860  | 0.0  |     |      |
| 12    | 19   | 78    | 0     | 0.007  |      |      | 10    | 1150  | 791  | 1.28                 | 8.0    |      | 129 | 155 | 1   | 20   | 440  | 0.5  |     |      |
| 3     | 16   | 79    | 2     | 0.025  | 65   |      | 10    | 1280  | 996  | 1.10                 | 8.0    |      | 126 | 152 | 1   | 24   | 620  | 0.1  |     |      |
| 4     | 19   | 79    | 16    | 0.003  |      | 0.13 |       | 1300  | 1060 | 1.25                 | 8.0    |      | 110 | 132 | 1   | 28   | 630  | 0.0  |     |      |
| 6     | 21   | 79    | 24    | 0.015  | 88   |      | 190   | 724   | 516  | 0.97                 | 7.7    |      | 26  | 32  | 0   | 6.4  | 350  | 0.5  |     |      |
| 8     | 9    | 79    | 28    | 0.0001 | 108  |      | 30    | 1480  | 855  | 1.67                 | 8.1    |      | 146 | 175 | 2   | 41   | 420  | 0.1  | 0.1 | 0.20 |
| 9     | 12   | 79    | 19    | 0.0000 | 89   |      | 70    | 1200  | 850  | 1.28                 | 7.9    |      | 102 | 122 | 1   | 23   | 500  | 0.2  |     | 0.00 |
| 10    | 4    | 79    | 14    | 0.0000 | 104  |      | 120   | 1290  | 947  | 1.33                 | 8.0    |      | 141 | 169 | 1   | 23   | 530  | 1.3  |     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 30 77  | 0.3                  | 0.06 |     |      | 170 | 0.0 | 0.00 | 0.2 | 4.2 |      | 38 | 0.9 |     | 14  | 0.02 | 0.0 | 1.0 |     | 0.0 | 0.0 |
| 8 4 77   | 0.2                  | 0.02 |     |      | 160 | 0.0 | 0.00 | 0.1 | 1.8 |      | 35 | 2.4 |     | 19  | 0.02 | 0.0 | 4.7 |     | 0.0 | 0.2 |
| 8 31 77  | 0.2                  | 0.00 |     |      | 160 | 0.1 | 0.03 | 0.0 | 1.8 |      | 29 | 4.8 |     | 17  | 0.04 | 0.2 | 4.4 |     | 0.1 | 0.2 |
| 11 4 77  | 0.2                  | 0.00 | 0.1 | 0.00 | 230 | 0.0 | 0.01 | 2.2 | 2.1 | 0.35 | 34 | 7.1 | 0.1 | 22  | 0.02 | 0.1 | 4.1 | 0.7 | 0.1 | 0.0 |
| 1 5 78   | 0.2                  | 0.03 | 0.1 | 0.00 | 240 | 0.1 | 0.02 | 1.8 | 2.9 | 1.0  | 46 | 4.6 | 0.1 | 17  | 0.06 | 0.1 | 4.6 | 1.1 | 0.3 | 0.0 |
| 3 15 78  | 1.2                  | 0.10 |     |      | 160 | 0.1 | 0.02 | 4.6 | 2.6 |      | 54 | 4.0 |     | 21  | 0.21 | 0.0 | 4.0 |     | 0.1 | 0.1 |
| 4 13 78  | 0.3                  | 0.06 | 0.0 | 0.00 | 240 | 0.0 | 0.00 | 0.2 | 2.4 | 1.0  | 63 | 2.1 | 0.1 | 15  | 0.05 | 0.1 | 2.4 | 1.0 | 0.1 | 0.0 |
| 5 11 78  | 0.3                  | 0.06 |     |      | 260 | 0.0 | 0.00 | 0.5 | 2.4 |      | 63 | 1.1 |     | 17  | 0.05 | 0.1 | 1.3 |     | 0.2 | 0.1 |
| 6 20 78  | 0.3                  | 0.05 |     |      | 280 | 0.0 | 0.00 | 0.3 | 3.2 |      | 75 | 2.0 |     | 15  | 0.04 | 0.1 | 1.9 |     | 0.2 | 0.0 |
| 7 18 78  | 0.2                  | 0.07 | 0.1 | 0.00 | 320 | 0.0 | 0.00 | 0.3 | 3.9 | 0.45 | 62 | 2.9 | 0.1 | 14  | 0.08 | 0.2 | 2.2 | 0.8 | 0.3 | 0.0 |
| 9 7 78   | 0.3                  | 0.04 |     |      | 340 | 0.0 | 0.01 | 0.4 | 4.2 |      | 67 | 4.3 |     | 19  | 0.07 | 0.2 | 2.8 |     | 0.2 | 0.0 |
| 10 12 78 | 0.4                  | 0.03 | 0.1 | 0.00 | 320 | 0.0 | 0.00 | 0.5 | 4.5 | 2.5  | 50 | 4.0 | 0.1 | 18  | 0.05 | 0.3 | 2.2 | 1.5 | 0.1 | 0.0 |
| 11 20 78 | 0.6                  | 0.05 |     |      | 330 | 0.1 | 0.02 | 0.3 | 2.8 |      | 49 | 4.9 |     | 31  | 0.14 | 0.3 | 3.7 |     | 0.2 | 0.1 |
| 12 19 78 | 0.3                  | 0.06 | 0.1 | 0.00 | 180 | 0.1 | 0.01 | 0.4 | 2.1 | 1.0  | 29 | 2.6 | 0.0 | 19  | 0.08 | 0.2 | 2.6 | 0.6 | 0.4 | 0.1 |
| 3 16 79  | 0.3                  | 0.02 |     |      | 210 | 0.0 | 0.00 | 0.2 | 1.6 |      | 41 | 1.5 |     | 15  | 0.04 | 0.2 | 2.4 |     | 0.1 | 0.1 |
| 4 19 79  | 0.2                  | 0.05 | 0.1 | 0.00 | 260 | 0.0 | 0.00 | 0.3 | 1.8 | 1.5  | 40 | 2.4 | 0.0 | 24  | 0.02 | 0.1 | 1.8 | 0.8 | 0.2 | 0.0 |
| 6 21 79  | 0.2                  | 0.03 |     |      | 110 | 0.0 | 0.00 | 0.3 | 2.5 |      | 16 | 1.0 |     | 3.8 | 0.03 | 0.1 | 1.9 |     | 0.1 | 0.1 |
| 8 9 79   | 0.3                  | 0.06 |     |      | 200 | 0.0 | 0.00 | 0.0 | 4.7 |      | 45 | 3.7 |     | 37  | 0.02 | 0.2 | 7.1 |     | 0.1 | 0.0 |
| 9 12 79  | 0.2                  | 0.00 |     |      | 200 | 0.0 | 0.00 | 0.4 | 1.7 |      | 40 | 3.1 |     | 12  | 0.03 | 0.2 | 4.9 |     | 0.2 | 0.0 |
| 10 4 79  | 0.3                  | 0.06 |     |      | 220 | 0.0 | 0.00 | 2.0 | 1.9 |      | 43 | 10  |     | 18  | 0.03 | 0.2 | 4.4 |     | 0.2 | 0.1 |

TABLE 41. WATER QUALITY FOR SITE 5113 JEFFERSON COUNTY, OHIO

| DATE |    |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|------|----|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|
| MO   | DA | YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |     |     |          |           |          |       |       |          |
| 6    | 30 | 77 | 0          | 0.2       |          |             | 45   | 1620      | 1230      | 1.29                 | 8.0    |          | 107         | 128  | 1   | 4.3 | 780 | 0.1      |           |          |       |       |          |
| 8    | 4  | 77 | 23         | 0.6       |          |             | 35   | 1270      | 1040      | 1.24                 | 7.8    |          | 92          | 111  | 1   | 5.2 | 660 | 0.1      |           |          |       |       |          |
| 8    | 31 | 77 | 20         | 0.08      |          |             | 0    | 1600      | 1190      | 1.24                 | 7.7    |          | 113         | 137  | 1   | 3.4 | 760 | 0.1      |           |          |       |       |          |
| 11   | 4  | 77 | 17         | 0.1       |          |             | 4    | 1540      | 1210      | 1.44                 | 8.5    |          | 128         | 148  | 4   | 4.1 | 730 | 0.1      |           |          |       |       |          |
| 1    | 5  | 78 | 1          | 1.5       |          |             | 10   | 1150      | 940       | 1.46                 | 7.9    |          | 139         | 168  | 1   | 5.8 | 540 | 0.3      |           |          |       |       |          |
| 2    | 6  | 78 | 1          | 0.15      |          |             | 20   | 1110      | 806       | 1.31                 | 7.8    |          | 134         | 161  | 1   | 5.1 | 480 | 0.4      |           |          |       |       |          |
| 3    | 15 | 78 | 2          | 3         | 189      |             | 130  | 865       | 705       | 1.43                 | 7.8    |          | 120         | 146  | 1   | 3.4 | 400 | 0.3      |           |          |       |       |          |
| 4    | 13 | 78 | 16         | 2.0       | 37       |             | 85   | 955       | 716       | 1.28                 | 8.1    |          | 75          | 90   | 1   | 5.7 | 450 | 0.3      |           |          |       |       |          |
| 5    | 11 | 78 | 15         | 1.5       | 32*      |             | 30   | 1140      | 948       | 1.25                 | 7.9    |          | 127         | 153  | 1   | 3.2 | 590 | 0.2      |           |          |       |       |          |
| 6    | 20 | 78 |            | 1.5       |          |             | 6    | 1250      | 918       | 1.23                 | 7.8    |          | 154         | 186  | 1   | 3.4 | 560 | 0.3      |           |          |       |       |          |
| 7    | 18 | 78 | 22         | 4         |          |             | 50   | 1080      | 842       | 1.33                 | 8.2    |          | 72          | 86   | 1   | 4.0 | 530 | 0.1      |           |          |       |       |          |
| 9    | 7  | 78 | 19         | 0.1       | 39*      |             | 15   | 1310      | 1200      | 1.25                 | 8.3    |          | 91          | 107  | 2   | 2.7 | 770 | 0.1      |           |          |       |       |          |
| 10   | 12 | 78 | 13         | 0.3       | 33*      |             | 7    | 1400      | 1250      | 1.10                 | 8.1    |          | 105         | 125  | 1   | 6.4 | 830 | 0.0      |           |          |       |       |          |
| 11   | 20 | 78 | 7          | 0.25      |          |             | 5    | 1370      | 1160      | 1.27                 | 7.9    |          | 127         | 153  | 1   | 4.5 | 720 | 0.0      |           |          |       |       |          |
| 12   | 19 | 78 | 1          | 0.4       |          |             | 10   | 1210      | 863       | 1.69                 | 8.0    |          | 175         | 210  | 2   | 3.9 | 460 | 0.5      |           |          |       |       |          |
| 3    | 16 | 79 | 2          | 0.3       |          |             | 15   | 1190      | 1000      | 1.16                 | 8.0    |          | 186         | 223  | 2   | 3.4 | 620 | 0.2      |           |          |       |       |          |
| 4    | 19 | 79 | 13         | 0.5       |          |             |      | 1120      | 876       | 1.52                 | 7.9    |          | 141         | 170  | 1   | 3.7 | 500 | 0.2      |           |          |       |       |          |
| 5    | 16 | 79 | 18         | 0.2       |          |             | 50   | 1270      | 1020      | 1.21                 | 7.9    |          | 114         | 137  | 1   | 3.4 | 660 | 0.0      |           |          |       |       |          |
| 6    | 21 | 79 | 23         | 0.6       |          |             |      | 1160      | 749       | 1.45                 | 7.9    |          | 135         | 163  | 1   | 4.7 | 420 | 0.8      |           |          |       |       |          |
| 7    | 24 | 79 | 24         | 0.15      | 73       |             | 35   | 1740      | 1260      | 1.02                 | 8.1    |          | 143         | 171  | 2   | 5.2 | 840 | 0.1      | 0.0       | 0.14     | 0.00  | 0.00  | 0.00     |
| 8    | 9  | 79 | 26         | 0.08      | 45       |             | 30   | 1430      | 1060      | 1.26                 | 8.1    |          | 103         | 123  | 1   | 5.3 | 670 | 0.1      | 0.1       | 0.06     | 0.20  | 0.00  | 0.01     |
| 9    | 12 | 79 | 17         | 0.1       | 40       |             | 45   | 1430      | 1110      | 1.21                 | 7.9    |          | 111         | 134  | 1   | 5.4 | 710 | 0.0      |           |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE |    | AL | B                    | BA   | BE       | CA  | CD  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|------|----|----|----------------------|------|----------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |          |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6    | 30 | 77 | 0.3                  | 0.08 |          | 270 | 0.0 | 0.00 | 0.2 | 3.8 |      | 82 | 0.2 |     | 22  | 0.02 | 0.1 | 4.0 |     | 0.1 | 0.2 |
| 8    | 4  | 77 | 0.2                  | 0.05 |          | 210 | 0.0 | 0.00 | 0.1 | 4.8 |      | 68 | 0.1 |     | 25  | 0.02 | 0.1 | 3.8 |     | 0.1 | 0.0 |
| 8    | 31 | 77 | 0.6                  | 0.08 |          | 240 | 0.0 | 0.02 | 0.2 | 4.5 |      | 76 | 0.2 |     | 26  | 0.04 | 0.3 | 4.1 |     | 0.2 | 0.0 |
| 11   | 4  | 77 | 0.3                  |      | 0.0 0.00 | 280 | 0.0 | 0.01 | 0.1 | 5.4 | 0.40 | 81 | 0.2 | 0.1 | 30  | 0.03 | 0.1 | 3.5 | 1.6 | 0.2 | 0.0 |
| 1    | 5  | 78 | 0.2                  | 0.03 | 0.0 0.00 | 200 | 0.0 | 0.00 | 0.1 | 3.1 | 1.0  | 73 | 0.2 | 0.0 | 18  | 0.03 | 0.1 | 3.7 | 1.7 | 0.1 | 0.0 |
| 2    | 6  | 78 | 0.1                  | 0.11 |          | 150 | 0.0 | 0.00 | 0.1 | 2.9 |      | 60 | 0.2 |     | 17  | 0.03 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 3    | 15 | 78 | 0.3                  | 0.07 |          | 160 | 0.0 | 0.00 | 0.2 | 2.8 |      | 47 | 0.2 |     | 9.4 | 0.02 | 0.1 | 3.1 |     | 0.1 | 0.0 |
| 4    | 13 | 78 | 0.2                  | 0.04 | 0.0 0.00 | 140 | 0.0 | 0.00 | 0.1 | 2.8 | 0.65 | 54 | 0.2 | 0.0 | 12  | 0.02 | 0.0 | 2.5 | 1.2 | 0.0 | 0.0 |
| 5    | 11 | 78 | 0.2                  | 0.06 |          | 180 | 0.0 | 0.00 | 0.1 | 3.2 |      | 67 | 0.1 |     | 14  | 0.04 | 0.1 | 3.0 |     | 0.2 | 0.0 |
| 6    | 20 | 78 | 0.2                  | 0.05 |          | 170 | 0.0 | 0.00 | 0.1 | 3.2 |      | 67 | 0.2 |     | 13  | 0.02 | 0.1 | 2.7 |     | 0.1 | 0.0 |
| 7    | 18 | 78 | 0.2                  | 0.06 | 0.0 0.00 | 170 | 0.0 | 0.00 | 0.2 | 3.7 | 0.07 | 67 | 0.1 | 0.0 | 16  | 0.90 | 0.1 | 3.5 | 0.1 | 0.2 | 0.0 |
| 9    | 7  | 78 | 0.2                  | 0.07 |          | 240 | 0.0 | 0.01 | 0.1 | 5.0 |      | 78 | 0.2 |     | 42  | 0.03 | 0.2 | 4.4 |     | 0.2 | 0.0 |
| 10   | 12 | 78 | 0.3                  | 0.06 | 0.0 0.00 | 230 | 0.0 | 0.01 | 0.1 | 5.6 | 1.5  | 77 | 0.2 | 0.0 | 24  | 0.04 | 0.2 | 4.0 | 0.8 | 0.2 | 0.0 |
| 11   | 20 | 78 | 0.6                  | 0.06 |          | 250 | 0.0 | 0.01 | 0.1 | 3.4 |      | 73 | 0.2 |     | 19  | 0.09 | 0.4 | 3.7 |     | 0.3 | 0.0 |
| 12   | 19 | 78 | 0.5                  | 0.04 |          | 200 | 0.0 | 0.01 | 0.1 | 3.3 |      | 65 | 0.2 |     | 18  | 0.06 | 0.2 | 3.6 |     | 0.2 | 0.0 |
| 3    | 16 | 79 | 0.3                  | 0.04 |          | 180 | 0.0 | 0.00 | 0.1 | 2.8 |      | 64 | 0.2 |     | 11  | 0.04 | 0.2 | 3.0 |     | 0.3 | 0.1 |
| 4    | 19 | 79 | 0.3                  | 0.06 | 0.1 0.00 | 200 | 0.0 | 0.00 | 0.1 | 3.1 | 1.0  | 63 | 0.1 | 0.0 | 17  | 0.03 | 0.1 | 2.5 | 1.7 | 0.3 | 0.0 |
| 5    | 16 | 79 | 0.3                  | 0.06 |          | 200 | 0.0 | 0.03 | 0.1 | 3.7 |      | 71 | 0.1 |     | 19  | 0.02 | 0.2 | 2.9 |     | 0.3 | 0.1 |
| 6    | 21 | 79 | 0.3                  | 0.07 |          | 150 | 0.0 | 0.03 | 0.2 | 3.8 |      | 54 | 0.1 |     | 19  | 0.05 | 0.2 | 3.4 |     | 0.2 | 0.0 |
| 7    | 24 | 79 | 0.4                  | 0.09 | 0.1 0.00 | 220 | 0.0 | 0.00 | 0.1 | 3.5 | 0.90 | 74 | 0.1 | 0.0 | 21  | 0.04 | 0.2 | 3.2 | 2.0 | 0.4 | 0.0 |
| 8    | 9  | 79 | 0.4                  | 0.08 |          | 210 | 0.0 | 0.01 | 0.1 | 4.5 |      | 70 | 0.1 |     | 26  | 0.04 | 0.3 | 3.7 |     | 0.3 | 0.0 |
| 9    | 12 | 79 | 0.2                  | 0.09 |          | 210 | 0.0 | 0.00 | 0.1 | 4.5 |      | 77 | 0.1 |     | 26  | 0.03 | 0.2 | 3.7 |     | 0.3 | 0.0 |

TABLE 42. WATER QUALITY FOR SITE 5115 JEFFERSON COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 & NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|-----|----------|----------------|----------|-------|-------|----------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |     |          |                |          |       |       |          |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |        |          |             |      |     |    |     |          |                |          |       |       |          |
| 8 4 77                           | 20         | 0.04      |          |             | 50   | 609       | 392       | 3.90       | 8.0    |          | 137         | 165  | 1   | 29 | 100 | 0.2      |                |          |       |       |          |
| 8 31 77                          | 21         | 0.025     |          |             | 50   | 696       | 485       | 1.82       | 7.4    |          | 154         | 187  | 0   | 30 | 200 | 0.4      |                |          |       |       |          |
| 11 4 77                          | 15         | 0.06      |          |             | 4    | 762       | 503       | 4.24       | 8.6    |          | 213         | 246  | 7   | 49 | 110 | 0.2      |                |          |       |       |          |
| 1 5 78                           | 2          | 0.2       |          |             | 6    | 515       | 423       | 2.71       | 7.9    |          | 220         | 266  | 1   | 31 | 120 | 0.4      |                |          |       |       |          |
| 2 6 78                           | 3          | 0.15      |          |             | 6    | 612       | 366       | 3.27       | 7.9    |          | 160         | 193  | 1   | 29 | 98  | 0.6      |                |          |       |       |          |
| 3 15 78                          | 6          | 2.5       | 56       |             | 35   | 493       | 290       | 3.76       | 8.0    |          | 139         | 168  | 1   | 24 | 63  | 1.8      |                |          |       |       |          |
| 4 13 78                          | 15         | 0.2       | 13       |             | 4    | 517       | 344       | 2.59       | 8.2    |          | 110         | 131  | 1   | 44 | 100 | 0.3      |                |          |       |       |          |
| 5 11 78                          | 15         | 0.25      | 27*      |             | 20   | 563       | 368       | 3.42       | 7.7    |          | 147         | 178  | 1   | 36 | 96  | 0.3      |                |          |       |       |          |
| 6 20 78                          |            | 0.6       |          |             |      | 523       | 348       | 3.72       | 8.0    |          | 130         | 157  | 1   | 26 | 93  | 0.5      |                |          |       |       |          |
| 7 18 78                          | 18         | 0.15      | 77*      |             | 4    | 437       | 398       | 3.01       | 8.3    |          | 118         | 140  | 2   | 84 | 90  | 0.2      |                |          |       |       |          |
| 4 3 79                           |            |           |          |             | 100  | 835       | 451       | 2.15       | 8.1    |          | 264         | 317  | 3   | 30 | 130 | 0.6      |                |          |       |       |          |
| 4 19 79                          | 11         | 0.06      |          | 0.00        | 35   | 597       | 364       | 3.65       | 8.5    |          | 142         | 166  | 3   | 24 | 97  | 0.6      |                |          |       |       |          |
| 5 16 79                          |            |           |          | 0.01        | 300  | 649       | 420       | 1.95       | 8.4    |          | 207         | 244  | 4   | 28 | 140 | 0.2      |                |          |       |       |          |
| 6 21 79                          | 23         | 0.07      |          |             | 60   | 603       | 352       | 3.50       | 8.1    |          | 179         | 214  | 2   | 23 | 84  | 0.9      |                |          |       |       |          |
| 8 9 79                           | 21         | 0.01      | 38       |             | 30   | 520       | 306       | 2.80       | 8.3    |          | 155         | 184  | 2   | 23 | 83  | 0.2      | 0.1            | 0.07     | 0.20  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |    |     |     |    |      |     |     |     |     |     |
| 8 4 77   | 0.1                              | 0.09 |     |      | 80  | 0.0 | 0.02 | 0.1 | 2.9 |      | 36 | 0.0 |     | 49 | 0.01 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 8 31 77  | 0.1                              | 0.05 |     |      | 70  | 0.0 | 0.02 | 0.0 | 3.2 |      | 33 | 0.1 |     | 48 | 0.03 | 0.1 | 3.6 |     | 0.1 | 0.0 |
| 11 4 77  | 0.1                              |      | 0.6 | 0.00 | 100 | 0.0 | 0.00 | 0.1 | 4.4 | 0.15 | 40 | 0.0 | 0.0 | 57 | 0.01 | 0.0 | 4.8 | 1.2 | 0.0 | 0.0 |
| 1 5 78   | 0.1                              | 0.04 | 0.1 | 0.00 | 73  | 0.0 | 0.01 | 0.1 | 1.9 | 0.60 | 36 | 0.1 | 0.0 | 20 | 0.02 | 0.1 | 3.3 | 1.3 | 0.2 | 0.0 |
| 2 6 78   | 0.0                              | 0.10 |     |      | 74  | 0.0 | 0.00 | 0.1 | 2.2 |      | 34 | 0.1 |     | 22 | 0.02 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 3 15 78  | 0.1                              | 0.06 |     |      | 64  | 0.0 | 0.00 | 0.1 | 2.6 |      | 23 | 0.1 |     | 14 | 0.00 | 0.0 | 3.7 |     | 0.0 | 0.0 |
| 4 13 78  | 0.1                              | 0.05 | 0.1 | 0.00 | 67  | 0.0 | 0.00 | 0.1 | 2.1 | 0.35 | 32 | 0.1 | 0.0 | 19 | 0.01 | 0.0 | 3.1 | 0.9 | 0.0 | 0.0 |
| 5 11 78  | 0.1                              | 0.07 |     |      | 80  | 0.0 | 0.00 | 0.1 | 2.2 |      | 35 | 0.0 |     | 24 | 0.01 | 0.0 | 2.8 |     | 0.1 | 0.0 |
| 6 20 78  | 0.1                              | 0.06 |     |      | 81  | 0.0 | 0.00 | 0.0 | 2.5 |      | 35 | 0.0 |     | 22 | 0.01 | 0.0 | 3.5 |     | 0.1 | 0.0 |
| 7 18 78  | 0.2                              | 0.08 | 0.1 | 0.00 | 82  | 0.0 | 0.00 | 0.1 | 2.8 | 0.20 | 35 | 0.0 | 0.0 | 22 | 0.06 | 0.1 | 3.9 | 0.9 | 0.2 | 0.0 |
| 4 3 79   | 0.2                              |      |     |      | 37  | 0.0 | 0.00 | 0.1 | 3.6 |      | 37 | 0.0 |     | 41 | 0.02 | 0.1 | 4.8 |     | 0.1 | 0.0 |
| 4 19 79  | 0.2                              | 0.04 | 0.1 | 0.00 | 93  | 0.0 | 0.01 | 0.0 | 2.4 | 0.50 | 30 | 0.0 | 0.0 | 21 | 0.04 | 0.2 | 3.0 | 0.8 | 0.1 | 0.0 |
| 5 16 79  | 0.1                              | 0.10 |     |      | 28  | 0.0 | 0.00 | 0.1 | 3.2 |      | 40 | 0.0 |     | 43 | 0.01 | 0.0 | 3.9 |     | 0.1 | 0.0 |
| 6 21 79  | 0.2                              | 0.06 |     |      | 75  | 0.1 | 0.00 | 0.1 | 3.1 |      | 25 | 0.0 |     | 21 | 0.04 | 0.1 | 4.3 |     | 0.0 | 0.0 |
| 8 9 79   | 0.1                              | 0.10 |     |      | 32  | 0.0 | 0.00 | 0.0 | 2.8 |      | 30 | 0.0 |     | 32 | 0.04 | 0.0 | 4.5 |     | 0.1 | 0.0 |

TABLE 43. WATER QUALITY FOR SITE 5118 JEFFERSON COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |
| 9    | 7  | 78         | 17        | 0.03     | 58*         |      | 45        | 712       | 417        | 2.89                 | 8.1      |             | 220  | 264 | 2  | 21  | 120      | 0.3       |          |       |       |          |
| 10   | 12 | 78         | 10        | 0.002    | 38*         |      | 7         | 647       | 404        | 3.21                 | 8.4      |             | 161  | 190 | 3  | 25  | 120      | 0.0       |          |       |       |          |
| 11   | 20 | 78         | 7         | 0.01     |             |      | 7         | 661       | 421        | 3.54                 | 7.8      |             | 130  | 157 | 1  | 32  | 120      | 0.1       |          |       |       |          |
| 12   | 19 | 78         | 0         | 0.07     |             |      | 3         | 671       | 441        | 3.35                 | 8.1      |             | 189  | 227 | 2  | 22  | 120      | 0.9       |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE | AL | B  | BA                   | BE   | CA  | CO   | CU  | FE   | K    | LI  | MG  | MN   | MO  | NA  | NI  | PB   | SI   | SR  | TI  | ZN  |
|------|----|----|----------------------|------|-----|------|-----|------|------|-----|-----|------|-----|-----|-----|------|------|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |     |      |     |      |      |     |     |      |     |     |     |      |      |     |     |     |
| 9    | 7  | 78 | 0.2                  | 0.08 |     | 75   | 0.0 | 0.01 | 0.1  | 3.4 |     | 30   | 0.0 |     | 28  | 0.02 | 0.1  | 4.7 |     | 0.1 |
| 10   | 12 | 78 | 0.2                  | 0.07 | 0.1 | 0.02 | 83  | 0.0  | 0.00 | 0.1 | 3.9 | 0.75 | 35  | 0.0 | 0.0 | 32   | 0.02 | 0.1 | 4.4 | 0.8 |
| 11   | 20 | 78 | 0.2                  | 0.06 |     | 100  | 0.0 | 0.01 | 0.1  | 3.1 |     | 37   | 0.0 |     | 35  | 0.02 | 0.1  | 4.2 |     | 0.1 |
| 12   | 19 | 78 | 0.3                  | 0.06 |     | 110  | 0.0 | 0.01 | 0.1  | 2.8 |     | 36   | 0.0 |     | 24  | 0.06 | 0.2  | 4.4 |     | 0.2 |

TABLE 44. WATER QUALITY FOR SITE 5121 LAWRENCE COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 HCO3 | CO3 | CL  | S04 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |          |     |     |     |          |           |          |       |       |          |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |        |          |             |          |     |     |     |          |           |          |       |       |          |
| 6 2 77                           | 16         | 0.007     |          |             | 4    | 225       | 121       | 1.89       |        |          | 38          | 0        | 23  | 1.0 | 52  |          |           |          |       |       |          |
| 7 6 77                           | 19         | 0.08      |          |             | 8    | 221       | 133       | 2.03       | 7.6    |          | 52          | 64       | 0   | 1.1 | 50  | 0.1      |           |          |       |       |          |
| 9 27 77                          | 15         | 0.006     |          |             | 20   | 254       | 129       | 3.93       | 7.4    |          | 61          | 75       | 0   | 1.3 | 30  | 0.0      |           |          |       |       |          |
| 11 22 77                         | 7          | 0.15      | 3        |             |      | 238       | 143       | 1.56       | 7.9    |          | 47          | 56       | 0   | 1.4 | 64  | 0.1      |           |          |       |       |          |
| 12 27 77                         | 0          | 0.08      |          |             | 4    | 256       | 130       | 1.73       | 7.7    |          | 41          | 50       | 0   | 1.6 | 56  | 0.1      |           |          |       |       |          |
| 2 22 78                          | 0          | 0.09      |          |             | 3    | 222       | 120       | 1.58       | 7.7    |          | 34          | 42       | 0   | 1.4 | 55  | 0.2      |           |          |       |       |          |
| 3 21 78                          | 6          | 1.0       |          |             | 10   | 138       | 94        | 1.29       | 7.5    |          | 20          | 25       | 0   | 2.0 | 46  | 0.4      |           |          |       |       |          |
| 4 19 78                          | 12         | 2.0       | 18       |             | 8    | 190       | 108       | 1.41       | 7.7    |          | 31          | 38       | 0   | 1.7 | 50  | 0.3      |           |          |       |       |          |
| 5 25 78                          | 18         | 0.7       | 22*      |             | 5    | 198       |           |            | 7.6    |          | 38          | 46       | 0   | 1.3 |     | 0.1      |           |          |       |       |          |
| 6 27 78                          | 20         | 0.25      | 54*      |             |      | 217       | 117       | 2.04       | 7.7    |          | 46          | 56       | 0   | 0.8 | 45  | 0.1      |           |          |       |       |          |
| 7 27 78                          | 20         | 0.7       | 38*      |             | 8    | 227       | 140       | 2.34       | 8.2    |          | 58          | 70       | 1   | 1.2 | 48  | 0.1      |           |          |       |       |          |
| 8 28 78                          | 24         | 0.007     | 19*      |             | 10   | 221       | 138       | 2.79       | 7.8    |          | 57          | 69       | 0   | 0.7 | 44  | 0.1      |           |          |       |       |          |
| 10 6 78                          | 9          | 0.003     | 35*      |             | 15   | 222       | 135       | 2.42       | 7.9    |          | 61          | 73       | 0   | 1.3 | 44  | 0.1      |           |          |       |       |          |
| 2 9 79                           | 0          | 0.0000    | 21       |             | 5    | 183       | 123       | 1.87       | 7.1    |          | 30          | 37       | 0   | 1.2 | 53  | 0.3      |           |          |       |       |          |
| 3 27 79                          | 4          | 0.25      |          |             | 2    | 182       | 124       | 1.85       | 7.6    | -25      | 30          | 37       | 0   | 1.6 | 54  | 0.4      |           |          |       |       |          |
| 4 25 79                          | 18         | 0.15      | 17       | 0.00        | 6    | 194       | 129       | 1.93       | 7.4    | -36      | 34          | 41       | 0   | 1.1 | 56  | 0.1      |           |          |       |       |          |
| 5 22 79                          | 18         | 0.07      | 6        |             | 10   | 222       | 142       | 1.90       | 7.8    | -39      | 42          | 51       | 0   | 0.9 | 61  | 0.1      |           |          |       |       |          |
| 8 6 79                           | 23         | 0.01      | 1        |             | 6    | 238       | 126       | 2.17       | 8.0    | -44      | 51          | 61       | 0   | 1.0 | 45  | 0.0      | 0.0       | 0.04     | 0.00  | 0.00  | 0.00     |
| 9 21 79                          | 15         | 3         | 398      |             | 750  | 150       | 86        | 2.96       | 7.7    | -34      | 40          | 49       | 0   | 1.2 | 22  | 0.4      |           |          |       |       |          |
| 10 4 79                          | 14         | 0.15      | 3        |             | 10   | 211       | 127       |            | 7.9    | -32      | 52          | 62       | 0   |     | 38  | 0.0      |           |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 2 77   | 0.0                              | 0.01 |     |      | 26 | 0.0 |      | 0.0 | 1.4 |      | 6.1 | 0.1 |     | 4.3 | 0.06 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 7 6 77   | 0.0                              | 0.02 |     |      | 26 | 0.0 | 0.00 | 0.1 | 2.0 |      | 7.0 | 0.1 |     | 4.4 | 0.02 | 0.1 | 4.9 |     | 0.0 | 0.0 |
| 9 27 77  | 0.0                              | 0.04 | 0.0 | 0.00 | 30 | 0.0 | 0.00 | 0.1 | 2.1 | 0.10 | 8.7 | 0.2 | 0.0 | 5.3 | 0.01 | 0.0 | 6.5 | 0.1 | 0.0 | 0.0 |
| 11 22 77 | 0.1                              | 0.00 |     |      | 27 | 0.0 | 0.01 | 0.1 | 1.7 |      | 6.7 | 0.0 |     | 4.6 | 0.01 | 0.0 | 4.1 |     | 0.0 | 0.0 |
| 12 27 77 | 0.0                              | 0.00 | 0.0 | 0.00 | 25 | 0.0 | 0.00 | 0.0 | 1.3 | 0.15 | 7.3 | 0.1 | 0.0 | 4.3 | 0.00 | 0.0 | 4.1 | 0.1 | 0.0 | 0.0 |
| 2 22 78  | 0.0                              | 0.01 |     |      | 22 | 0.0 | 0.00 | 0.0 | 1.2 |      | 6.8 | 0.0 |     | 3.9 | 0.00 | 0.0 | 3.7 |     | 0.0 | 0.0 |
| 3 21 78  | 0.1                              | 0.00 |     |      | 15 | 0.0 | 0.00 | 0.0 | 1.7 |      | 4.8 | 0.0 |     | 3.1 | 0.00 | 0.0 | 3.7 |     | 0.1 | 0.0 |
| 4 19 78  | 0.1                              | 0.00 | 0.0 | 0.01 | 18 | 0.0 | 0.00 | 0.0 | 1.3 | 0.35 | 5.6 | 0.1 | 0.0 | 2.8 | 0.01 | 0.0 | 3.5 | 0.3 | 0.0 | 0.0 |
| 5 25 78  | 0.0                              | 0.01 |     |      | 20 | 0.0 | 0.00 | 0.1 | 2.8 |      | 6.0 | 0.0 |     | 3.3 | 0.00 | 0.0 | 4.5 |     | 0.0 | 0.1 |
| 6 27 78  | 0.1                              | 0.01 |     |      | 23 | 0.0 | 0.00 | 0.0 | 1.7 |      | 6.9 | 0.1 |     | 4.2 | 0.00 | 0.0 | 3.7 |     | 0.0 | 0.0 |
| 7 27 78  | 0.1                              | 0.02 | 0.0 | 0.00 | 32 | 0.0 | 0.00 | 0.1 | 1.9 | 0.06 | 7.3 | 0.1 | 0.0 | 3.6 | 0.05 | 0.0 | 4.7 | 0.1 | 0.0 | 0.0 |
| 8 28 78  | 0.1                              | 0.04 |     |      | 33 | 0.1 | 0.00 | 0.4 | 1.6 |      | 8.2 | 0.2 |     | 4.7 | 0.03 | 0.1 | 4.8 |     | 0.2 | 0.2 |
| 10 6 78  | 0.1                              | 0.00 | 0.0 | 0.00 | 31 | 0.0 | 0.00 | 0.0 | 2.0 | 0.09 | 6.4 | 0.0 | 0.0 | 2.8 | 0.01 | 0.0 | 4.8 | 0.1 | 0.0 | 0.0 |
| 2 9 79   | 0.1                              | 0.00 | 0.0 | 0.00 | 29 | 0.0 | 0.01 | 0.0 | 1.5 | 0.20 | 5.9 | 0.0 | 0.0 | 4.0 | 0.00 | 0.0 | 3.8 | 0.1 | 0.0 | 0.0 |
| 3 27 79  | 0.1                              | 0.00 |     |      | 28 | 0.0 | 0.01 | 0.1 | 1.4 |      | 6.8 | 0.0 |     | 3.2 | 0.01 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 4 25 79  | 0.1                              | 0.01 | 0.1 | 0.00 | 31 | 0.0 | 0.00 | 0.1 | 1.6 | 0.10 | 6.3 | 0.0 | 0.0 | 3.5 | 0.01 | 0.0 | 3.8 | 0.0 | 0.0 | 0.1 |
| 5 22 79  | 0.1                              | 0.01 |     |      | 33 | 0.0 | 0.00 | 0.1 | 1.6 |      | 7.2 | 0.1 |     | 3.7 | 0.01 | 0.0 | 4.0 |     | 0.0 | 0.1 |
| 8 6 79   | 0.0                              | 0.03 |     |      | 27 | 0.0 | 0.00 | 0.1 | 1.8 |      | 6.0 | 0.2 |     | 3.3 | 0.01 | 0.0 | 5.1 |     | 0.0 | 0.0 |
| 9 21 79  | 0.2                              | 0.00 |     |      | 18 | 0.0 | 0.01 | 0.2 | 3.6 |      | 4.4 | 0.0 |     | 2.6 | 0.00 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 10 4 79  | 0.1                              | 0.03 |     |      | 32 | 0.0 | 0.01 | 0.1 | 2.6 |      | 7.1 | 0.1 |     | 3.8 | 0.01 | 0.1 | 5.3 |     | 0.0 | 0.0 |

TABLE 45. WATER QUALITY FOR SITE 5122 LAWRENCE COUNTY, OHIO

| WATER QUALITY DATA |    |    |            |           |          |             |      |           |           |                      |        |          |             |      |     |     |      |          |          |          |       |       |        |
|--------------------|----|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|-----|------|----------|----------|----------|-------|-------|--------|
| DATE               |    |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SD4  | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P |
| MO                 | DA | YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |     |      |          |          |          |       |       |        |
| 6                  | 1  | 77 | 26         | 0.02      |          |             | 8    | 915       | 537       | 0.69                 | 3.4    |          | 0           | 0    | 0   | 1.7 | 400  |          |          |          |       |       |        |
| 7                  | 5  | 77 | 29         | 0.04      |          |             | 55   | 1630      | 1160      | 0.52                 | 2.9    |          | 0           | 0    | 0   | 1.1 | 890  | 0.0      |          |          |       |       |        |
| 9                  | 26 | 77 | 24         | 0.06      |          |             | 20   | 2070      | 1650      | 0.44                 | 3.4    |          | 0           | 0    | 0   | 1.1 | 1300 | 0.2      |          |          |       |       |        |
| 11                 | 22 | 77 | 8          | 0.04      | 6        |             |      | 1700      | 1190      | 0.54                 | 3.0    |          | 0           | 0    | 0   | 1.0 | 910  | 0.3      |          |          |       |       |        |
| 12                 | 27 | 77 | 3          | 0.15      |          |             | 8    | 1500      | 824       | 0.69                 | 3.2    |          | 0           | 0    | 0   | 1.5 | 600  | 0.2      |          |          |       |       |        |
|                    |    |    |            |           |          |             |      |           |           |                      |        |          |             |      |     |     |      |          |          |          |       |       |        |
| 2                  | 22 | 78 | 1          | 0.15      |          |             | 3    | 1140      | 765       | 0.66                 | 3.1    |          | 0           | 0    | 0   | 1.2 | 560  | 0.2      |          |          |       |       |        |
| 3                  | 21 | 78 | 8          | 0.8       |          |             | 30   | 715       | 447       | 0.54                 | 3.1    |          | 0           | 0    | 0   | 1.4 | 330  | 0.3      |          |          |       |       |        |
| 4                  | 19 | 78 | 17         | 0.7       | 7        |             | 30   | 1240      | 673       | 0.73                 | 2.9    |          | 0           | 0    | 0   | 1.8 | 480  | 0.3      |          |          |       |       |        |
| 5                  | 25 | 78 |            | 0.25      | 13       |             | 7    | 853       | 507       | 0.70                 | 3.2    |          | 0           | 0    | 0   | 1.4 | 370  | 0.1      |          |          |       |       |        |
| 6                  | 27 | 78 | 28         | 0.2       | 64*      |             |      | 1310      | 781       | 0.66                 | 3.1    |          | 0           | 0    | 0   | 0.8 | 580  | 0.2      |          |          |       |       |        |
| 7                  | 27 | 78 | 28         | 0.25      |          |             | 25   | 1440      | 1060      | 0.56                 | 3.1    |          | 0           | 0    | 0   | 1.0 | 810  | 0.2      |          |          |       |       |        |
| 8                  | 28 | 78 | 28         | 0.003     | 34*      |             | 50   | 1250      | 898       | 0.71                 | 3.2    |          | 0           | 0    | 0   | 1.0 | 660  | 0.1      |          |          |       |       |        |
| 10                 | 6  | 78 | 11         | 0.002     | 54*      |             | 10   | 1300      | 826       | 0.66                 | 3.2    |          | 0           | 0    | 0   | 0.8 | 610  | 0.1      |          |          |       |       |        |
| 11                 | 2  | 78 | 8          | 0.002     |          |             | 9    | 1280      | 934       | 0.58                 | 3.2    |          | 0           | 0    | 0   | 0.8 | 710  | 0.0      |          |          |       |       |        |
| 12                 | 7  | 78 | 6          | 0.03      | 12       |             | 3    | 448       | 299       | 0.75                 | 3.6    | 51       | 0           | 0    | 0   | 1.1 | 210  | 0.2      |          |          |       |       |        |
|                    |    |    |            |           |          |             |      |           |           |                      |        |          |             |      |     |     |      |          |          |          |       |       |        |
| 2                  | 9  | 79 | 0          | 0.2       | 61       |             | 7    | 1350      | 986       | 0.76                 | 3.2    | 240      | 0           | 0    | 0   | 1.4 | 690  | 0.1      |          |          |       |       |        |
| 3                  | 27 | 79 | 4          | 0.1       |          |             | 75   | 725       | 635       | 0.66                 | 3.8    | 98       | 0           | 0    | 0   | 1.2 | 470  | 0.1      |          |          |       |       |        |
| 4                  | 25 | 79 | 22         | 0.25      | 42       | 0.00        | 65   | 1090      | 856       | 0.74                 | 3.4    | 150      | 0           | 0    | 0   | 0.6 | 620  | 0.0      |          |          |       |       |        |
| 5                  | 22 | 79 | 18         | 0.09      | 34       | 0.01        | 35   | 1350      | 1040      | 0.69                 | 3.1    | 200      | 0           | 0    | 0   | 0.9 | 770  | 0.3      |          |          |       |       |        |
| 6                  | 25 | 79 | 24         | 0.05      | 31       |             |      | 1030      | 646       | 0.88                 | 3.2    | 120      | 0           | 0    | 0   | 1.6 | 440  | 0.1      |          |          |       |       |        |
| 7                  | 20 | 79 | 23         | 0.2       | 21*      |             | 3    | 2150      | 1900      | 0.85                 | 4.5    | 74       | 0           | 0    | 0   | 7.6 | 1400 | 0.0      | 0.1      | 0.05     | 0.15  | 0.10  | 0.01   |
| 8                  | 6  | 79 | 30         | 0.01      | 23       |             |      | 1750      | 981       | 0.72                 | 3.1    | 170      | 0           | 0    | 0   | 1.8 | 710  | 0.0      | 0.0      | 1.30     | 1.30  | 0.00  | 0.02   |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 1 77   | 14                   | 0.01 |     |      | 61  | 0.2 | 0.08 | 2.3 | 3.3 |      | 28  | 9.3 |     | 5.9 | 0.27 | 0.0 | 4.3 |     | 0.2 | 0.6 |
| 7 5 77   | 50                   | 0.02 |     |      | 97  | 0.6 | 0.11 | 22  | 4.4 |      | 55  | 16  |     | 6.8 | 0.61 | 0.2 | 6.5 |     | 0.1 | 1.5 |
| 9 26 77  | 76                   | 0.04 | 0.1 | 0.04 | 120 | 0.8 | 0.11 | 27  | 4.7 | 0.50 | 65  | 24  | 0.0 | 7.7 | 0.71 | 0.0 | 9.0 | 0.5 | 0.2 | 1.2 |
| 11 22 77 | 46                   | 0.00 |     |      | 110 | 0.6 | 0.07 | 20  | 4.2 |      | 55  | 24  |     | 5.6 | 0.47 | 0.1 | 7.5 |     | 0.2 | 0.7 |
| 12 27 77 | 28                   | 0.03 | 0.1 | 0.01 | 85  | 0.4 |      | 16  | 3.8 | 0.45 | 49  | 18  | 0.0 | 5.1 | 0.30 | 0.0 | 6.9 | 0.4 | 0.0 | 0.5 |
| 2 22 78  | 24                   | 0.02 |     |      | 74  | 0.3 | 0.05 | 18  | 3.1 |      | 46  | 15  |     | 4.8 | 0.29 | 0.0 | 6.7 |     | 0.0 | 0.3 |
| 3 21 78  | 18                   | 0.02 |     |      | 32  | 0.2 | 0.03 | 15  | 2.4 |      | 24  | 6.3 |     | 3.5 | 0.19 | 0.0 | 4.8 |     | 0.1 | 0.3 |
| 4 19 78  | 21                   | 0.01 | 0.0 | 0.01 | 73  | 0.3 | 0.02 | 10  | 2.8 | 0.35 | 41  | 21  | 0.0 | 5.0 | 0.26 | 0.0 | 5.9 | 0.3 | 0.0 | 0.5 |
| 5 25 78  | 11                   | 0.02 |     |      | 52  | 0.2 | 0.02 | 4.4 | 2.6 |      | 32  | 9.9 |     | 4.4 | 0.16 | 0.0 | 6.6 |     | 0.0 | 0.3 |
| 6 27 78  | 27                   | 0.02 |     |      | 78  | 0.4 | 0.05 | 9.4 | 3.3 |      | 46  | 16  |     | 5.2 | 0.34 | 0.1 | 5.9 |     | 0.1 | 0.6 |
| 7 27 78  | 31                   | 0.03 | 0.1 | 0.02 | 92  | 0.4 | 0.05 | 19  | 3.6 | 0.25 | 55  | 18  | 0.0 | 4.6 | 0.49 | 0.2 | 8.6 | 0.3 | 0.3 | 0.8 |
| 8 28 78  | 16                   | 0.02 |     |      | 110 | 0.3 | 0.03 | 6.9 | 4.8 |      | 45  | 20  |     | 8.1 | 0.30 | 0.2 | 9.7 |     | 0.1 | 0.5 |
| 10 6 78  | 16                   | 0.00 | 0.0 | 0.01 | 92  | 0.4 | 0.03 | 11  | 4.2 | 0.35 | 43  | 23  | 0.0 | 3.9 | 0.31 | 0.2 | 11  | 0.4 | 0.1 | 0.7 |
| 11 2 78  | 17                   | 0.03 |     |      | 90  | 0.4 | 0.03 | 15  | 4.9 |      | 45  | 20  |     | 5.9 | 0.27 | 0.1 | 9.0 |     | 0.2 | 0.6 |
| 12 7 78  | 5.5                  | 0.02 | 0.0 | 0.00 | 31  | 0.1 | 0.02 | 6.8 | 2.4 | 0.15 | 20  | 4.5 | 0.0 | 2.2 | 0.10 | 0.1 | 4.6 | 0.1 | 0.2 | 0.2 |
| 2 9 79   | 24                   | 0.01 | 0.0 | 0.01 | 110 | 0.4 | 0.04 | 39  | 3.4 | 0.65 | 61  | 26  | 0.0 | 6.1 | 0.38 | 0.2 | 8.9 | 0.4 | 0.3 | 0.7 |
| 3 27 79  | 11                   | 0.02 | 0.0 | 0.00 | 70  | 0.2 | 0.02 | 15  | 2.5 | 0.30 | 33  | 11  | 0.0 | 5.1 | 0.19 | 0.1 | 5.6 | 0.2 | 0.2 | 0.3 |
| 4 25 79  | 15                   | 0.03 |     |      | 99  | 0.3 | 0.02 | 20  | 3.2 |      | 52  | 20  |     | 6.3 | 0.25 | 0.1 | 7.1 |     | 0.3 | 0.5 |
| 5 22 79  | 23                   | 0.02 |     |      | 120 | 0.4 | 0.06 | 12  | 4.2 |      | 55  | 22  |     | 6.7 | 0.35 | 0.2 | 7.5 |     | 0.2 | 0.7 |
| 6 25 79  | 11                   | 0.04 |     |      | 81  | 0.4 | 0.04 | 15  | 4.5 |      | 44  | 18  |     | 6.7 | 0.26 | 0.1 | 11  |     | 0.2 | 0.5 |
| 7 20 79  | 7.8                  | 0.06 | 0.0 | 0.01 | 240 | 0.3 | 0.03 | 0.2 | 6.7 | 1.0  | 150 | 20  | 0.1 | 19  | 0.30 | 0.2 | 7.7 | 0.5 | 0.4 | 0.1 |
| 8 6 79   | 13                   | 0.05 |     |      | 120 | 0.4 | 0.05 | 12  | 4.9 |      | 51  | 29  |     | 6.9 | 0.32 | 0.1 | 15  |     | 0.2 | 0.5 |

TABLE 46. WATER QUALITY FOR SITE 5123 LAWRENCE COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | NO3 HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |          |     |    |     |          |          |          |       |       |          |      |
| 6    | 1  | 77         | 24        | 0.08     |             |      | 0         | 2250      | 1860       | 0.86                 | 5.3      |             | 0        | 0   | 0  | 9.5 | 1400     |          |          |       |       |          |      |
| 7    | 5  | 77         | 28        | 0.2      |             |      | 8         | 2270      | 1760       | 0.91                 | 4.8      |             | 0        | 0   | 0  | 8.6 | 1300     | 0.0      |          |       |       |          |      |
| 9    | 26 | 77         | 25        | 0.1      |             |      | 4         | 2470      | 2100       | 1.03                 | 6.3      |             | 20       | 25  | 0  | 9.7 | 1500     | 0.0      |          |       |       |          |      |
| 11   | 22 | 77         | 7         | 0.6      | 4           |      |           | 1900      | 1570       | 1.07                 | 5.4      |             | 0        | 0   | 0  | 27  | 1100     | 0.1      |          |       |       |          |      |
| 12   | 27 | 77         | 0         | 0.8      |             |      | 4         | 2560      | 1770       | 0.91                 | 4.8      |             | 0        | 0   | 0  | 9.4 | 1300     | 0.0      |          |       |       |          |      |
|      |    |            |           |          |             |      |           |           |            |                      |          |             |          |     |    |     |          |          |          |       |       |          |      |
| 2    | 22 | 78         | 0         | 1.0      |             |      | 3         | 1890      | 1510       | 0.87                 | 4.6      |             | 0        | 0   | 0  | 24  | 1100     | 0.1      |          |       |       |          |      |
| 3    | 21 | 78         | 9         | 1.0      |             |      | 20        | 1650      | 1220       | 1.03                 | 4.4      |             | 0        | 0   | 0  | 24  | 850      | 0.1      |          |       |       |          |      |
| 4    | 19 | 78         | 15        | 4        | 6           |      | 8         | 1830      | 1530       | 0.81                 | 4.5      |             | 0        | 0   | 0  | 21  | 1100     | 0.0      |          |       |       |          |      |
| 5    | 25 | 78         | 23        | 2.5      | 21*         |      | 2         | 1740      | 1310       | 0.87                 | 4.7      |             | 0        | 0   | 0  | 18  | 960      | 0.0      |          |       |       |          |      |
| 6    | 27 | 78         | 24        | 4        | 31*         |      | 0         | 1730      | 1470       | 0.85                 | 4.3      |             | 0        | 0   | 0  | 9.3 | 1100     | 0.0      |          |       |       |          |      |
| 7    | 27 | 78         | 24        | 4        | 22*         |      | 4         | 1760      | 1530       | 1.02                 | 4.7      |             | 0        | 0   | 0  | 8.5 | 1100     | 0.0      |          |       |       |          |      |
| 8    | 28 | 78         | 28        | 0.15     | 14          |      | 5         | 2220      | 1990       | 1.07                 | 4.8      |             | 0        | 0   | 0  | 5.6 | 1400     | 0.0      |          |       |       |          |      |
| 10   | 6  | 78         | 11        | 0.25     | 25*         |      | 10        | 2200      | 2090       | 0.99                 | 5.3      |             | 0        | 0   | 0  | 7.7 | 1500     | 0.0      |          |       |       |          |      |
| 11   | 2  | 78         | 7         | 0.15     | 5           |      | 0         | 2110      | 1730       | 0.92                 | 5.1      | 30          | 0        | 0   | 0  | 8.3 | 1300     | 0.0      |          |       |       |          |      |
| 12   | 7  | 78         | 3         | 0.25     | 7           |      | 0         | 1450      | 1110       | 0.94                 | 4.1      | 21          | 0        | 0   | 0  | 11  | 800      | 0.1      |          |       |       |          |      |
|      |    |            |           |          |             |      |           |           |            |                      |          |             |          |     |    |     |          |          |          |       |       |          |      |
| 3    | 27 | 79         | 2         | 0.4      |             |      | 3         | 2090      | 1840       | 0.92                 | 4.5      | 75          | 0        | 0   | 0  | 14  | 1300     | 0.1      |          |       |       |          |      |
| 4    | 25 | 79         | 19        | 0.15     | 17          | 0.00 | 5         | 1970      | 1990       | 0.98                 | 4.4      | 80          | 0        | 0   | 0  | 12  | 1400     | 0.1      |          |       |       |          |      |
| 5    | 22 | 79         | 18        | 0.05     | 25          | 0.00 | 40        | 2140      | 1710       | 0.77                 | 4.4      | 91          | 0        | 0   | 0  | 10  | 1300     | 0.0      |          |       |       |          |      |
| 6    | 25 | 79         | 23        | 0.2      | 22          |      | 9         | 1720      | 1150       | 1.14                 | 4.4      | 72          | 0        | 0   | 0  | 8.5 | 790      | 0.0      |          |       |       |          |      |
| 7    | 20 | 79         | 23        | 0.06     | 24*         |      | 110       | 1770      | 1330       | 0.66                 | 3.0      | 200         | 0        | 0   | 0  | 1.4 | 990      | 0.1      | 0.1      | 1.10  | 2.30  | 0.10     | 0.03 |
| 8    | 6  | 79         | 27        | 0.15     | 3           |      | 5         | 2070      | 1660       | 1.11                 | 4.6      | 39          | 0        | 0   | 0  | 8.3 | 1200     | 0.0      | 0.0      | 0.05  | 0.20  | 0.00     | 0.03 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 1 77   | 2.4                  | 0.05 |     |      | 260 | 0.4 | 0.05 | 0.7 | 5.5 |      | 130 | 23  |     | 26  | 0.39 | 0.2 | 6.2 |     | 0.2 | 0.2 |
| 7 5 77   | 3.3                  | 0.07 |     |      | 240 | 0.4 | 0.01 | 0.5 | 6.0 |      | 150 | 22  |     | 25  | 0.30 | 0.1 | 7.4 |     | 0.2 | 0.3 |
| 9 26 77  | 0.4                  | 0.11 | 0.0 | 0.00 | 310 | 0.2 | 0.00 | 0.2 | 5.9 | 0.95 | 190 | 25  | 0.0 | 36  | 0.18 | 0.1 | 5.2 | 1.0 | 0.2 | 0.2 |
| 11 22 77 | 1.1                  | 0.06 |     |      | 250 | 0.2 | 0.00 | 0.2 | 5.7 |      | 140 | 18  |     | 23  | 0.21 | 0.2 | 7.6 |     | 0.3 | 0.2 |
| 12 27 77 | 5.2                  | 0.03 | 0.0 | 0.00 | 240 | 0.3 | 0.00 | 0.2 | 5.0 | 1.5  | 150 | 19  | 0.0 | 20  | 0.25 | 0.1 | 8.4 | 1.1 | 0.1 | 0.2 |
| 2 22 78  | 8.8                  | 0.04 |     |      | 190 | 0.3 | 0.00 | 0.1 | 4.9 |      | 120 | 15  |     | 23  | 0.32 | 0.1 | 8.9 |     | 0.2 | 0.2 |
| 3 21 78  | 6.1                  | 0.04 |     |      | 180 | 0.2 | 0.00 | 0.2 | 4.7 |      | 110 | 13  |     | 20  | 0.26 | 0.1 | 8.5 |     | 0.4 | 0.2 |
| 4 19 78  | 5.5                  | 0.04 | 0.0 | 0.01 | 190 | 0.2 | 0.00 | 0.1 | 4.2 | 0.85 | 110 | 20  | 0.1 | 20  | 0.25 | 0.1 | 7.1 | 0.6 | 0.1 | 0.3 |
| 5 25 78  | 4.8                  | 0.05 |     |      | 170 | 0.2 | 0.00 | 0.2 | 3.7 |      | 100 | 14  |     | 18  | 0.23 | 0.1 | 8.1 |     | 0.2 | 0.3 |
| 6 27 78  | 7.1                  | 0.06 |     |      | 180 | 0.3 | 0.00 | 0.2 | 4.9 |      | 120 | 19  |     | 19  | 0.29 | 0.1 | 8.3 |     | 0.3 | 0.2 |
| 7 27 78  | 6.4                  | 0.07 | 0.0 | 0.01 | 200 | 0.3 | 0.00 | 0.4 | 5.4 | 0.40 | 150 | 24  | 0.1 | 21  | 0.44 | 0.3 | 6.8 | 0.6 | 0.6 | 0.2 |
| 8 28 78  | 2.2                  | 0.09 |     |      | 320 | 0.3 | 0.01 | 0.2 | 6.5 |      | 170 | 29  |     | 33  | 0.27 | 0.3 | 6.7 |     | 0.4 | 0.2 |
| 10 6 78  | 1.2                  | 0.03 | 0.0 | 0.00 | 320 | 0.2 | 0.00 | 0.1 | 7.2 | 0.75 | 170 | 25  | 0.0 | 22  | 0.28 | 0.5 | 6.9 | 0.9 | 0.5 | 0.2 |
| 11 2 78  | 2.0                  | 0.05 |     |      | 240 | 0.3 | 0.01 | 0.1 | 5.5 |      | 140 | 18  |     | 27  | 0.26 | 0.3 | 7.0 |     | 0.5 | 0.1 |
| 12 7 78  | 3.1                  | 0.04 |     |      | 160 | 0.2 | 0.01 | 0.2 | 4.0 |      | 85  | 8.5 |     | 21  | 0.24 | 0.6 | 6.4 |     | 0.6 | 0.2 |
| 3 27 79  | 14                   | 0.04 |     |      | 260 | 0.3 | 0.01 | 0.1 | 5.2 |      | 150 | 15  |     | 22  | 0.37 | 0.2 | 7.9 |     | 0.5 | 0.4 |
| 4 25 79  | 13                   | 0.07 | 0.1 | 0.01 | 310 | 0.3 | 0.01 | 0.2 | 4.6 | 1.5  | 160 | 16  | 0.2 | 20  | 0.38 | 0.3 | 7.4 | 0.5 | 0.7 | 0.5 |
| 5 22 79  | 11                   | 0.03 |     |      | 220 | 0.2 | 0.00 | 0.2 | 3.6 |      | 110 | 16  |     | 20  | 0.29 | 0.2 | 6.2 |     | 0.6 | 0.3 |
| 6 25 79  | 6.8                  | 0.07 |     |      | 180 | 0.2 | 0.00 | 0.2 | 3.8 |      | 120 | 14  |     | 12  | 0.27 | 0.2 | 7.7 |     | 0.3 | 0.3 |
| 7 20 79  | 21                   | 0.05 | 0.0 | 0.01 | 150 | 0.5 | 0.10 | 16  | 4.8 | 0.70 | 69  | 34  | 0.1 | 7.4 | 0.39 | 0.2 | 14  | 0.4 | 0.3 | 7.6 |
| 8 6 79   | 4.3                  | 0.08 |     |      | 230 | 0.3 | 0.04 | 0.2 | 5.2 |      | 180 | 18  |     | 17  | 0.26 | 0.3 | 7.2 |     | 0.6 | 0.2 |

TABLE 47. WATER QUALITY FOR SITE 5131 MORGAN COUNTY, OHIO

| TABLE 477. WATER QUALITY FOR SITE 000 |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |              |       |       |          |      |      |
|---------------------------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|--------------|-------|-------|----------|------|------|
| DATE                                  |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO                                    | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |              |       |       |          |      |      |
| 11                                    | 9  | 77         | 16        | 0.06     |             |      | 15        | 610       | 344        | 5.54                 | 8.5      |             | 241  | 282 | 6  | 4.6 | 60       | 0.1          |       |       |          |      |      |
| 2                                     | 14 | 78         | 2         | 0.4      |             |      | 4         | 414       | 279        | 7.15                 | 8.1      |             | 187  | 224 | 2  | 4.1 | 43       | 0.2          |       |       |          |      |      |
| 3                                     | 17 | 78         | 5         | 0.7      |             |      | 45        | 486       | 270        | 6.20                 | 8.3      |             | 188  | 223 | 3  | 4.6 | 44       | 0.2          |       |       |          |      |      |
| 4                                     | 18 | 78         | 9         | 2.0      | 383         |      |           | 331       | 203        | 9.88                 | 8.1      |             | 113  | 136 | 1  | 3.9 | 26       | 0.2          |       |       |          |      |      |
| 5                                     | 16 | 78         | 13        | 0.4      | 18*         |      | 15        | 381       | 261        | 4.78                 | 8.1      |             | 129  | 154 | 1  | 5.4 | 62       | 0.1          |       |       |          |      |      |
| 6                                     | 22 | 78         | 18        | 0.4      |             |      | 80        | 357       | 246        | 6.62                 | 8.1      |             | 130  | 156 | 1  | 5.6 | 45       | 0.1          |       |       |          |      |      |
| 7                                     | 25 | 78         | 21        | 0.5      |             |      | 80        | 454       | 260        | 8.13                 | 8.3      |             | 152  | 181 | 2  | 5.2 | 38       | 0.3          |       |       |          |      |      |
| 10                                    | 3  | 78         | 12        | 0.04     | 21*         |      | 15        | 428       | 249        | 6.07                 | 8.3      |             | 146  | 174 | 2  | 8.1 | 44       | 0.0          |       |       |          |      |      |
| 10                                    | 31 | 78         | 12        | 0.15     |             |      | 5         | 537       | 298        | 6.98                 | 8.1      |             | 203  | 244 | 2  | 7.6 | 43       | 0.0          |       |       |          |      |      |
| 12                                    | 12 | 78         | 0         | 0.2      |             |      | 3         | 439       | 286        | 3.79                 | 8.0      |             | 148  | 178 | 1  | 6.0 | 74       | 0.4          |       |       |          |      |      |
| 2                                     | 4  | 79         | 0         | 0.2      |             |      | 2         | 421       | 265        | 6.72                 | 7.8      |             | 146  | 177 | 1  | 8.5 | 45       | 0.1          |       |       |          |      |      |
| 3                                     | 20 | 79         | 3         | 0.15     |             |      | 3         | 503       | 298        | 6.98                 | 7.9      |             | 200  | 241 | 1  | 10  | 44       | 0.2          |       |       |          |      |      |
| 4                                     | 22 | 79         | 15        | 0.15     |             | 0.00 | 15        | 488       | 282        | 6.47                 | 8.0      |             | 188  | 226 | 1  | 8.8 | 44       | 0.0          |       |       |          |      |      |
| 5                                     | 18 | 79         | 15        | 0.15     |             |      | 80        | 438       | 262        | 5.19                 | 7.9      |             | 165  | 199 | 1  | 12  | 48       | 0.1          |       |       |          |      |      |
| 6                                     | 22 | 79         | 20        | 0.06     |             |      | 100       | 375       | 249        | 5.90                 | 8.3      |             | 156  | 185 | 2  | 13  | 38       | 0.2          |       |       |          |      |      |
| 7                                     | 18 | 79         | 22        | 0.06     | 62*         | 0.01 |           | 480       | 273        | 5.79                 | 8.3      |             | 164  | 195 | 2  | 16  | 45       | 0.1          | 0.0   | 0.04  | 0.55     | 0.40 | 0.01 |
| 8                                     | 8  | 79         | 24        | 0.2      | 60          |      | 70        | 612       | 299        | 7.03                 | 8.0      |             | 206  | 248 | 2  | 17  | 40       | 0.0          | 0.0   |       | 0.25     | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 11 9 77  | 0.1                  | 0.00 | 0.1 | 0.00 | 78 | 0.0 | 0.01 | 0.1 | 2.0 | 0.10 | 31 | 0.0 | 0.0 | 13  | 0.00 | 0.0 | 4.4 | 0.5 | 0.0 | 0.0 |
| 2 14 78  | 0.0                  | 0.01 |     |      | 73 | 0.0 | 0.00 | 0.0 | 0.9 |      | 30 | 0.0 |     | 8.1 | 0.00 | 0.0 | 3.2 |     | 0.0 | 0.0 |
| 3 17 78  | 0.1                  |      |     |      | 67 | 0.0 | 0.00 | 0.1 | 1.2 |      | 25 | 0.0 |     | 7.0 | 0.01 | 0.0 | 3.2 |     | 0.2 | 0.0 |
| 4 18 78  | 0.1                  | 0.01 | 0.1 | 0.00 | 63 | 0.0 | 0.00 | 0.2 | 1.0 | 0.35 | 26 | 0.0 | 0.0 | 6.2 | 0.01 | 0.0 | 2.6 | 0.4 | 0.1 | 0.0 |
| 5 16 78  | 0.1                  | 0.02 |     |      | 75 | 0.0 | 0.00 | 0.1 | 0.9 |      | 27 | 0.0 |     | 7.4 | 0.01 | 0.0 | 2.7 |     | 0.1 | 0.0 |
| 6 22 78  | 0.1                  | 0.02 |     |      | 71 | 0.0 | 0.00 | 0.1 | 1.2 |      | 30 | 0.0 |     | 7.3 | 0.02 | 0.1 | 3.7 |     | 0.1 | 0.0 |
| 7 25 78  | 0.1                  | 0.02 | 0.1 | 0.00 | 75 | 0.0 | 0.00 | 0.0 | 1.7 | 0.15 | 30 | 0.0 | 0.1 | 7.8 | 0.00 | 0.0 | 3.9 | 0.4 | 0.0 | 0.0 |
| 10 3 78  | 0.2                  | 0.01 | 0.1 | 0.00 | 66 | 0.0 | 0.01 | 0.1 | 1.4 | 0.25 | 24 | 0.0 | 0.0 | 8.6 | 0.03 | 0.2 | 3.2 | 0.5 | 0.1 | 0.0 |
| 10 31 78 | 0.1                  | 0.01 |     |      | 82 | 0.0 | 0.00 | 0.0 | 1.4 |      | 25 | 0.0 |     | 7.5 | 0.01 | 0.1 | 3.8 |     | 0.1 | 0.0 |
| 12 12 78 | 0.2                  | 0.01 | 0.1 | 0.00 | 80 | 0.0 | 0.01 | 0.1 | 1.2 | 0.45 | 21 | 0.0 | 0.0 | 6.2 | 0.03 | 0.2 | 3.2 | 0.4 | 0.1 | 0.0 |
| 2 4 79   | 0.2                  | 0.00 | 0.1 | 0.00 | 86 | 0.0 | 0.01 | 0.0 | 1.0 | 0.35 | 23 | 0.0 | 0.0 | 6.8 | 0.03 | 0.1 | 2.8 | 0.6 | 0.1 | 0.0 |
| 3 20 79  | 0.1                  | 0.00 |     |      | 82 | 0.0 | 0.01 | 0.0 | 1.1 |      | 27 | 0.0 |     | 7.1 | 0.00 | 0.0 | 2.2 |     | 0.0 | 0.1 |
| 4 22 79  | 0.1                  | 0.01 | 0.1 | 0.00 | 78 | 0.0 | 0.00 | 0.0 | 1.1 | 0.45 | 23 | 0.0 | 0.0 | 7.2 | 0.02 | 0.1 | 2.8 | 0.4 | 0.1 | 0.0 |
| 5 18 79  | 0.6                  | 0.00 |     |      | 64 | 0.0 | 0.03 | 0.1 | 1.1 |      | 24 | 0.0 |     | 7.0 | 0.01 | 0.0 | 2.4 |     | 0.0 | 0.0 |
| 6 22 79  | 0.5                  | 0.01 |     |      | 63 | 0.0 | 0.00 | 0.6 | 1.6 |      | 19 | 0.0 |     | 7.7 | 0.01 | 0.1 | 4.6 |     | 0.1 | 0.0 |
| 7 18 79  | 0.2                  | 0.01 | 0.1 | 0.00 | 70 | 0.0 | 0.01 | 0.1 | 1.4 | 0.35 | 25 | 0.0 | 0.0 | 7.8 | 0.02 | 0.1 | 3.9 | 0.4 | 0.1 | 0.0 |
| 8 8 79   | 0.1                  | 0.01 |     |      | 73 | 0.0 | 0.00 | 0.0 | 1.3 |      | 28 | 0.0 |     | 7.6 | 0.01 | 0.1 | 3.8 |     | 0.1 | 0.0 |

TABLE 4B. WATER QUALITY FOR SITE 5132 MORGAN COUNTY, OHIO

| MILLIGRAMS PER LITER |    |    |     |       |      |      |      |     |       |      |      |     |  |     |     |   |     |     |     |     |      |      |      |      |
|----------------------|----|----|-----|-------|------|------|------|-----|-------|------|------|-----|--|-----|-----|---|-----|-----|-----|-----|------|------|------|------|
| MO                   | DA | YR | DEG | C     | CFS  | MG/L | ML/L | JTU | UM/CM | MG/L |      |     |  |     |     |   |     |     |     |     |      |      |      |      |
| 6                    | 15 | 77 | 23  | 0.05  |      |      |      | 25  | 468   |      |      | 7.8 |  | 139 | 168 | 1 | 15  |     | 0.0 |     |      |      |      |      |
| 7                    | 26 | 77 | 29  | 0.15  |      |      |      | 30  | 481   | 267  | 2.36 | 8.0 |  | 102 | 122 | 1 | 8.7 | 100 | 0.0 |     |      |      |      |      |
| 9                    | 22 | 77 | 23  | 0.04  |      |      |      | 10  |       |      |      | 8.0 |  |     |     |   | 19  | 150 | 0.0 |     |      |      |      |      |
| 11                   | 9  | 77 | 19  | 0.06  |      |      |      | 8   | 584   | 344  | 2.52 | 8.8 |  | 175 | 197 | 8 | 16  | 110 | 0.1 |     |      |      |      |      |
| 1                    | 11 | 78 | 1   | 0.15  |      |      |      | 45  | 662   | 379  | 2.32 | 8.6 |  | 148 | 171 | 5 | 4.7 | 150 | 0.1 |     |      |      |      |      |
| 2                    | 14 | 78 | 2   | 0.5   |      |      |      | 4   | 449   | 364  | 3.25 | 8.0 |  | 185 | 223 | 1 | 4.9 | 110 | 1.6 |     |      |      |      |      |
| 3                    | 17 | 78 | 5   | 1.0   |      |      |      | 55  | 541   | 347  | 2.96 | 8.2 |  | 136 | 163 | 2 | 3.8 | 110 | 3.5 |     |      |      |      |      |
| 4                    | 18 | 78 | 10  | 1.5   | 14   |      |      | 100 | 426   |      |      | 8.2 |  |     |     |   | 4.2 | 96  | 1.5 |     |      |      |      |      |
| 5                    | 16 | 78 | 15  | 1.5   | 15   |      |      | 30  | 497   | 312  | 3.18 | 8.1 |  | 142 | 170 | 1 | 3.7 | 100 | 0.4 |     |      |      |      |      |
| 6                    | 22 | 78 | 27  | 0.5   | 120* |      |      | 60  | 378   | 243  | 3.23 | 8.2 |  | 136 | 163 | 2 | 4.2 | 70  | 0.1 |     |      |      |      |      |
| 7                    | 25 | 78 | 26  | 4     |      |      |      | 350 | 1020  | 638  | 2.41 | 8.0 |  | 90  | 108 | 1 | 59  | 110 | 49  |     |      |      |      |      |
| 10                   | 3  | 78 | 13  | 0.005 | 37*  |      |      | 10  |       |      |      | 8.3 |  |     |     |   | 4.8 | 120 | 0.0 |     |      |      |      |      |
| 10                   | 31 | 78 | 12  | 0.08  |      |      |      |     | 553   | 359  | 3.85 | 7.9 |  | 182 | 220 | 1 | 6.2 | 94  | 0.4 |     |      |      |      |      |
| 12                   | 12 | 78 | 0   | 0.15  |      |      |      | 10  | 548   | 303  | 4.43 | 8.2 |  | 181 | 217 | 2 | 4.2 | 66  | 0.9 |     |      |      |      |      |
| 2                    | 4  | 79 | 0   | 0.3   |      |      |      | 15  | 506   | 318  | 3.89 | 7.7 |  | 154 | 187 | 1 | 4.9 | 81  | 1.1 |     |      |      |      |      |
| 3                    | 20 | 79 | 7   | 0.25  |      |      |      | 1   | 560   | 361  | 3.41 | 7.9 |  | 189 | 229 | 1 | 1.9 | 110 | 0.4 |     |      |      |      |      |
| 4                    | 22 | 79 | 19  | 0.08  |      | 0.00 |      | 15  | 511   | 308  | 4.22 | 8.1 |  | 176 | 211 | 2 | 4.0 | 74  | 0.1 |     |      |      |      |      |
| 5                    | 18 | 79 | 26  | 0.07  |      |      |      | 15  | 474   | 325  | 4.85 | 7.9 |  | 211 | 254 | 1 | 4.2 | 67  | 0.0 |     |      |      |      |      |
| 6                    | 22 | 79 | 24  | 0.2   |      |      |      | 10  | 498   | 348  | 2.29 | 7.9 |  | 166 | 200 | 1 | 4.7 | 130 | 0.1 |     |      |      |      |      |
| 7                    | 18 | 79 | 25  | 0.01  | 18   | 0.01 |      | 8   | 598   | 302  | 2.77 | 8.4 |  | 126 | 149 | 2 | 5.0 | 100 | 0.5 | 0.0 | 0.01 | 0.65 | 0.00 | 0.01 |
| 8                    | 8  | 79 | 28  | 0.03  | 0    |      |      | 8   | 378   | 242  | 2.83 | 8.2 |  | 146 | 175 | 2 | 5.0 | 70  | 0.0 | 0.0 | 0.09 | 0.35 | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 15 77  | 0.1                  | 0.03 |     |      | 57  | 0.0 | 0.00 | 0.0 | 2.3 |      | 30 | 0.0 |     | 13  | 0.02 | 0.1 | 1.9 |     | 0.0 | 0.2 |
| 7 26 77  | 0.1                  | 0.05 |     |      | 40  | 0.0 |      | 0.1 | 3.1 |      | 33 | 0.1 |     | 12  | 0.03 | 0.1 | 3.0 |     | 0.0 | 0.0 |
| 9 22 77  | 0.2                  |      |     |      | 120 | 0.1 | 0.01 | 0.1 | 3.2 |      | 53 | 0.1 |     | 18  | 0.05 | 0.2 | 3.4 |     | 0.3 | 0.1 |
| 11 9 77  | 0.0                  | 0.00 | 0.1 | 0.00 | 50  | 0.0 | 0.00 | 0.1 | 1.9 | 0.15 | 34 | 0.0 | 0.1 | 20  | 0.00 | 0.0 | 2.7 | 0.4 | 0.0 | 0.0 |
| 1 11 78  | 0.1                  | 0.00 | 0.1 | 0.00 | 83  | 0.0 | 0.00 | 0.1 | 2.3 | 0.60 | 33 | 0.2 | 0.0 | 10  | 0.02 | 0.0 | 3.0 | 0.8 | 0.0 | 0.0 |
| 2 14 78  | 0.0                  | 0.00 |     |      | 84  | 0.0 | 0.00 | 0.0 | 1.7 |      | 33 | 0.2 |     | 10  | 0.01 | 0.0 | 2.8 |     | 0.0 | 0.0 |
| 3 17 78  | 0.1                  | 0.04 |     |      | 82  | 0.0 | 0.00 | 0.1 | 2.3 |      | 34 | 0.2 |     | 7.8 | 0.02 | 0.0 | 3.2 |     | 0.1 | 0.0 |
| 4 18 78  | 0.2                  | 0.03 | 0.1 | 0.00 | 72  | 0.0 | 0.00 | 0.1 | 1.7 | 0.40 | 30 | 0.1 | 0.0 | 7.1 | 0.03 | 0.1 | 1.8 | 0.4 | 0.2 | 0.0 |
| 5 16 78  | 0.1                  | 0.03 |     |      | 81  | 0.0 | 0.00 | 0.1 | 1.6 |      | 28 | 0.1 |     | 8.3 | 0.02 | 0.0 | 1.4 |     | 0.0 | 0.0 |
| 6 22 78  | 0.1                  | 0.03 |     |      | 48  | 0.0 | 0.00 | 0.1 | 1.7 |      | 25 | 0.0 |     | 7.0 | 0.02 | 0.1 | 2.3 |     | 0.1 | 0.0 |
| 7 25 78  | 0.3                  | 0.03 | 0.1 | 0.00 | 150 | 0.0 | 0.01 | 0.2 | 6.8 | 0.30 | 33 | 0.1 | 0.0 | 7.6 | 0.00 | 0.1 | 3.8 | 0.5 | 0.1 | 0.0 |
| 10 3 78  | 0.1                  | 0.01 | 0.2 | 0.00 | 100 | 0.0 | 0.01 | 0.1 | 2.3 | 0.75 | 35 | 0.0 | 0.0 | 12  | 0.03 | 0.1 | 2.8 | 1.0 | 0.1 | 0.0 |
| 10 31 78 | 0.4                  | 0.03 |     |      | 100 | 0.0 | 0.00 | 0.4 | 2.2 |      | 26 | 0.5 |     | 7.1 | 0.03 | 0.1 | 3.0 |     | 0.1 | 0.0 |
| 12 12 78 | 0.2                  | 0.00 |     |      | 87  | 0.0 | 0.00 | 0.0 | 2.0 |      | 20 | 0.2 |     | 4.8 | 0.02 | 0.1 | 3.0 |     | 0.0 | 0.0 |
| 2 4 79   | 0.2                  | 0.00 | 1.1 | 0.00 | 94  | 0.1 | 0.02 | 0.0 | 1.6 | 0.40 | 20 | 0.1 | 1.8 | 7.7 | 0.05 | 0.1 | 2.9 | 0.6 | 0.1 | 0.1 |
| 3 20 79  | 0.2                  | 0.01 |     |      | 96  | 0.0 | 0.00 | 0.1 | 1.7 |      | 29 | 0.1 |     | 7.2 | 0.01 | 0.1 | 1.7 |     | 0.2 | 0.0 |
| 4 22 79  | 0.2                  | 0.02 | 0.1 | 0.00 | 86  | 0.0 | 0.00 | 0.1 | 1.6 | 0.40 | 23 | 0.1 | 0.0 | 7.3 | 0.02 | 0.1 | 1.9 | 0.2 | 0.1 | 0.0 |
| 5 18 79  | 0.2                  | 0.01 |     |      | 85  | 0.0 | 0.00 | 0.1 | 1.5 |      | 28 | 0.0 |     | 7.6 | 0.02 | 0.1 | 2.2 |     | 0.1 | 0.0 |
| 6 22 79  | 0.1                  | 0.03 |     |      | 78  | 0.0 | 0.02 | 0.0 | 2.3 |      | 22 | 0.0 |     | 8.7 | 0.02 | 0.1 | 2.9 |     | 0.1 | 0.0 |
| 7 18 79  | 0.1                  | 0.04 |     |      | 76  | 0.0 | 0.00 | 0.0 | 2.0 |      | 22 | 0.0 |     | 9.5 | 0.02 | 0.1 | 3.1 |     | 0.1 | 0.0 |
| 8 8 79   | 0.1                  | 0.04 |     |      | 35  | 0.0 | 0.00 | 0.0 | 4.1 |      | 24 | 0.1 |     | 9.2 | 0.04 | 0.0 | 3.1 |     | 0.0 | 0.0 |

TABLE 49. WATER QUALITY FOR SITE 5133 MORGAN COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SD4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |     |     |          |           |          |       |       |          |
| 6 15 77  | 17         | 0.007     |          |             | 90   | 915       | 954       | 0.93       | 6.9    |          | 59          | 72   | 0   | 1.6 | 680 | 0.1      |           |          |       |       |          |
| 7 26 77  | 19         | 0.005     |          |             | 35   | 968       | 859       | 1.45       | 7.8    |          | 195         | 236  | 1   | 1.8 | 480 | 0.0      |           |          |       |       |          |
| 9 22 77  | 17         | 0.0025    |          |             | 15   | 944       | 904       | 1.63       | 7.9    |          | 215         | 259  | 2   | 1.7 | 480 | 0.0      |           |          |       |       |          |

| DATE     | AL  | B    | BA | BE | CA  | CO  | CU   | FE  | K   | LI | MG | MN  | MO | NA  | NI   | PB  | SI  | SR | TI  | ZN  |
|----------|-----|------|----|----|-----|-----|------|-----|-----|----|----|-----|----|-----|------|-----|-----|----|-----|-----|
| MO DA YR |     |      |    |    |     |     |      |     |     |    |    |     |    |     |      |     |     |    |     |     |
| 6 15 77  | 0.2 | 0.04 |    |    | 170 | 0.0 | 0.00 | 0.2 | 1.6 |    | 49 | 0.0 |    | 9.0 | 0.02 | 0.1 | 3.6 |    | 0.1 | 0.1 |
| 7 26 77  | 0.1 | 0.02 |    |    | 180 | 0.0 | 0.00 | 0.2 | 2.0 |    | 58 | 0.1 |    | 10  | 0.03 | 0.1 | 4.8 |    | 0.1 | 0.1 |
| 9 22 77  | 0.2 | 0.00 |    |    | 230 | 0.0 | 0.00 | 0.0 | 2.5 |    | 52 | 0.0 |    | 12  | 0.00 | 0.1 | 2.3 |    | 0.0 | 0.0 |

TABLE 50. WATER QUALITY FOR SITE 5135 MORGAN COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB ACID- PH                     | ALKA- LINTY | NO3 HC03 | CO3 | CL  | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------------------|-------------|----------|-----|-----|-----|----------|----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | ----- MILLIGRAMS PER LITER ----- |             |          |     |     |     |          |          |          |       |       |          |      |
| 6    | 15 | 77         | 24        | 0.01     |             |      | 0         | 405       | 408        | 1.20                             | 7.7         | 57       | 69  | 0   | 3.3 | 250      | 0.0      |          |       |       |          |      |
| 7    | 26 | 77         | 23        | 0.015    |             |      | 20        | 702       | 422        | 2.56                             | 8.2         | 175      | 209 | 2   | 3.6 | 160      | 0.0      |          |       |       |          |      |
| 9    | 22 | 77         | 21        | 0.06     |             |      | 15        | 631       | 381        | 3.28                             | 8.0         | 188      | 226 | 2   | 4.1 | 110      | 0.0      |          |       |       |          |      |
| 11   | 9  | 77         | 21        | 0.025    |             |      | 25        | 635       | 446        | 3.70                             | 7.3         | 305      | 371 | 1   | 4.5 | 100      | 0.1      |          |       |       |          |      |
| 1    | 11 | 78         |           |          |             |      | 30        | 517       | 313        | 2.01                             | 8.3         | 150      | 178 | 2   | 3.6 | 120      | 0.1      |          |       |       |          |      |
| 2    | 14 | 78         | 2         | 0.04     |             |      | 20        | 548       | 311        | 2.31                             | 7.7         | 125      | 151 | 0   | 4.6 | 120      | 0.2      |          |       |       |          |      |
| 3    | 17 | 78         | 1         | 0.7      |             |      | 20        | 325       | 204        | 2.46                             | 8.2         | 84       | 100 | 1   | 2.4 | 73       | 0.5      |          |       |       |          |      |
| 4    | 18 | 78         | 11        | 0.15     | 345         |      | 440       | 495       | 286        | 1.92                             | 8.2         | 103      | 123 | 1   | 3.5 | 120      | 0.9      |          |       |       |          |      |
| 5    | 16 | 78         | 14        | 0.4      | 18*         |      | 5         | 556       | 345        | 1.76                             | 8.4         | 123      | 145 | 2   | 4.8 | 160      | 0.1      |          |       |       |          |      |
| 6    | 22 | 78         | 20        | 0.02     | 62*         |      | 8         | 576       | 364        | 1.81                             | 8.1         | 110      | 132 | 1   | 4.9 | 170      | 0.1      |          |       |       |          |      |
| 7    | 25 | 78         | 27        | 0.15     | 73*         |      | 10        | 505       | 368        | 1.59                             | 8.4         | 98       | 116 | 2   | 7.8 | 190      | 0.1      |          |       |       |          |      |
| 10   | 3  | 78         | 13        | 0.001    | 150*        |      | 120       | 550       | 333        | 1.85                             | 7.4         | 100      | 122 | 0   | 7.0 | 150      | 0.0      |          |       |       |          |      |
| 10   | 31 | 78         | 13        | 0.001    | 96          |      | 30        | 632       | 432        | 1.73                             | 8.2         | 145      | 173 | 2   | 8.7 | 200      | 0.1      |          |       |       |          |      |
| 12   | 12 | 78         | 0         | 0.003    | 66          |      | 20        | 565       | 359        | 2.03                             | 8.0         | 122      | 147 | 1   | 5.9 | 150      | 0.3      |          |       |       |          |      |
| 3    | 20 | 79         | 9         | 0.07     | 79          |      | 30        | 509       | 350        | 1.99                             | 8.0         | 121      | 146 | 1   | 5.2 | 150      | 0.1      |          |       |       |          |      |
| 4    | 22 | 79         | 18        | 0.001    | 62          | 0.00 | 20        | 585       | 379        | 1.92                             | 8.3         | 132      | 157 | 2   | 3.9 | 170      | 0.0      |          |       |       |          |      |
| 8    | 8  | 79         | 24        | 0.004    | 229         |      | 390       | 666       | 445        | 1.85                             | 8.1         | 119      | 143 | 1   | 30  | 190      | 0.0      | 0.0      | 0.09  | 0.80  | 0.10     | 0.01 |
| 9    | 19 | 79         | 23        | 0.001    | 156         |      | 140       | 566       | 342        | 2.22                             | 8.3         | -110     | 133 | 158 | 2   | 5.6      | 140      | 0.0      |       |       |          |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 15 77  | 0.1                              | 0.00 |     |      | 84  | 0.0 | 0.01 | 0.1 | 1.5 |      | 22 | 0.9 |     | 6.4 | 0.02 | 0.2 | 2.7 |     | 0.1 | 0.0 |
| 7 26 77  | 0.1                              | 0.01 |     |      | 110 | 0.0 | 0.01 | 0.2 | 2.3 |      | 33 | 0.8 |     | 7.4 | 0.03 | 0.1 | 3.9 |     | 0.0 | 0.1 |
| 9 22 77  | 0.1                              | 0.00 |     |      | 110 | 0.0 | 0.00 | 0.1 | 1.5 |      | 24 | 1.0 |     | 8.0 | 0.00 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 11 9 77  | 0.1                              | 0.00 | 0.1 | 0.00 | 110 | 0.0 | 0.00 | 0.3 | 2.2 | 0.35 | 27 | 0.6 | 0.0 | 9.1 | 0.00 | 0.0 | 3.5 | 0.4 | 0.0 | 0.0 |
| 1 11 78  | 0.1                              | 0.00 | 0.0 | 0.00 | 63  | 0.0 | 0.00 | 0.0 | 3.3 | 0.45 | 22 | 0.1 | 0.0 | 4.7 | 0.02 | 0.0 | 0.7 | 0.4 | 0.0 | 0.0 |
| 2 14 78  | 0.0                              | 0.00 |     |      | 74  | 0.0 | 0.00 | 0.0 | 4.1 |      | 24 | 0.0 |     | 4.6 | 0.01 | 0.0 | 1.1 |     | 0.0 | 0.0 |
| 3 17 78  | 0.1                              | 0.03 |     |      | 56  | 0.0 | 0.00 | 0.1 | 2.5 |      | 11 | 0.1 |     | 2.3 | 0.01 | 0.0 | 1.9 |     | 0.1 | 0.0 |
| 4 18 78  | 0.2                              | 0.02 | 0.0 | 0.00 | 59  | 0.0 | 0.00 | 0.1 | 3.2 | 0.35 | 22 | 0.2 | 0.0 | 4.4 | 0.02 | 0.1 | 2.7 | 0.3 | 0.2 | 0.0 |
| 5 16 78  | 0.1                              | 0.02 |     |      | 78  | 0.0 | 0.00 | 0.0 | 2.6 |      | 21 | 0.0 |     | 4.5 | 0.01 | 0.0 | 0.5 |     | 0.0 | 0.0 |
| 6 22 78  | 0.1                              | 0.02 |     |      | 82  | 0.0 | 0.00 | 0.1 | 2.9 |      | 28 | 0.0 |     | 5.2 | 0.01 | 0.0 | 0.9 |     | 0.0 | 0.0 |
| 7 25 78  | 0.1                              | 0.02 | 0.1 | 0.00 | 75  | 0.0 | 0.00 | 0.0 | 3.3 | 0.30 | 28 | 0.0 | 0.2 | 6.1 | 0.00 | 0.0 | 0.7 | 0.3 | 0.0 | 0.0 |
| 10 3 78  | 0.3                              | 0.02 | 0.1 | 0.00 | 84  | 0.0 | 0.00 | 0.1 | 1.2 | 0.25 | 19 | 0.2 | 0.1 | 3.9 | 0.04 | 0.1 | 3.0 | 0.4 | 0.1 | 0.0 |
| 10 31 78 | 0.2                              | 0.02 |     |      | 97  | 0.0 | 0.01 | 0.1 | 3.2 |      | 26 | 0.1 |     | 7.4 | 0.04 | 0.1 | 1.6 |     | 0.1 | 0.0 |
| 12 12 78 | 0.4                              | 0.03 | 0.0 | 0.00 | 84  | 0.1 | 0.01 | 0.1 | 3.7 | 0.40 | 27 | 0.1 | 0.0 | 5.0 | 0.05 | 0.4 | 1.5 | 0.3 | 0.4 | 0.1 |
| 3 20 79  | 0.1                              | 0.01 |     |      | 87  | 0.0 | 0.00 | 0.1 | 3.1 |      | 23 | 0.3 |     | 4.0 | 0.00 | 0.1 | 0.7 |     | 0.1 | 0.1 |
| 4 22 79  | 0.2                              | 0.01 |     |      | 96  | 0.0 | 0.01 | 0.1 | 3.2 |      | 22 | 0.0 |     | 4.9 | 0.02 | 0.1 | 0.4 |     | 0.1 | 0.0 |
| 8 8 79   | 1.0                              | 0.03 |     |      | 86  | 0.0 | 0.00 | 0.5 | 4.4 |      | 40 | 0.1 |     | 13  | 0.03 | 0.1 | 3.6 |     | 0.2 | 0.0 |
| 9 19 79  | 0.1                              | 0.04 |     |      | 80  | 0.0 | 0.02 | 0.0 | 3.4 |      | 27 | 0.0 |     | 5.2 | 0.01 | 0.0 | 1.4 |     | 0.1 | 0.1 |

TABLE 51. WATER QUALITY FOR SITE 5141 MUSKINGUM COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6 14 77  | 19         | 0.015     |          |             | 8    | 280       | 202       | 2.43                 | 7.9    |          |             | 99   | 120 | 1  | 4.1 | 65       | 0.0       |          |       |       |          |      |
| 8 2 77   | 19         | 0.04      |          |             | 8    | 348       | 188       | 3.06                 | 7.7    |          |             | 108  | 131 | 0  | 3.2 | 48       | 0.1       |          |       |       |          |      |
| 9 22 77  | 19         | 0.008     |          |             | 10   | 354       | 191       | 2.98                 | 8.0    |          |             | 116  | 140 | 1  | 3.8 | 48       | 0.0       |          |       |       |          |      |
| 11 9 77  | 17         | 0.06      | 10       |             | 10   | 347       | 200       | 3.52                 | 8.5    |          |             | 115  | 135 | 3  | 4.0 | 48       | 0.1       |          |       |       |          |      |
| 1 11 78  | 0          | 0.25      |          |             | 25   | 272       | 181       | 2.45                 | 7.9    |          |             | 93   | 113 | 1  | 4.1 | 55       | 0.3       |          |       |       |          |      |
| 2 14 78  | 1          | 0.15      |          |             | 4    | 304       | 158       | 2.14                 | 8.0    |          |             | 65   | 78  | 0  | 4.0 | 57       | 0.2       |          |       |       |          |      |
| 3 17 78  | 2          | 1.5       |          |             | 15   | 208       | 124       | 2.35                 | 7.7    |          |             | 50   | 61  | 0  | 3.6 | 40       | 0.3       |          |       |       |          |      |
| 4 14 78  | 15         | 0.7       | 18       |             | 0    | 302       | 175       | 1.80                 | 8.1    |          |             | 70   | 85  | 1  | 7.8 | 65       | 0.1       |          |       |       |          |      |
| 5 12 78  | 13         | 1.5       | 37*      |             | 30   | 267       | 160       | 2.03                 | 8.0    |          |             | 70   | 85  | 0  | 4.1 | 57       | 0.1       |          |       |       |          |      |
| 6 22 78  | 19         | 0.3       | 38*      |             | 15   | 299       | 176       | 2.88                 | 7.9    |          |             | 84   | 101 | 0  | 4.0 | 52       | 0.2       |          |       |       |          |      |
| 7 26 78  | 22         | 0.15      | 48*      |             | 8    | 331       | 212       | 3.69                 | 8.3    |          |             | 102  | 121 | 1  | 4.7 | 55       | 0.1       |          |       |       |          |      |
| 9 5 78   | 20         | 0.003     | 29*      |             | 5    | 295       | 199       | 2.54                 | 8.1    |          |             | 89   | 106 | 1  | 3.0 | 67       | 0.1       |          |       |       |          |      |
| 10 12 78 | 16         | 0.01      | 47*      |             | 7    | 393       | 205       | 2.89                 | 8.3    |          |             | 103  | 123 | 1  | 4.7 | 58       | 0.2       |          |       |       |          |      |
| 11 7 78  | 9          | 0.02      | 10       |             | 9    | 315       | 206       | 2.73                 | 8.4    |          |             | 92   | 109 | 2  | 5.7 | 64       | 0.0       |          |       |       |          |      |
| 12 12 78 | 0          | 0.2       | 4        |             | 5    | 260       | 134       | 2.31                 | 7.9    | -51      |             | 51   | 61  | 0  | 12  | 40       | 0.3       |          |       |       |          |      |
| 2 4 79   | 0          | 0.4       | 2        |             | 2    | 272       | 172       | 2.12                 | 8.1    |          |             | 60   | 72  | 1  | 6.0 | 64       | 0.2       |          |       |       |          |      |
| 3 20 79  | 3          | 0.15      | 5        |             | 2    | 275       | 170       | 2.29                 | 7.6    | -58      |             | 59   | 72  | 0  | 4.7 | 62       | 0.1       |          |       |       |          |      |
| 4 22 79  | 15         | 0.1       | 4        | 0.00        | 8    | 275       | 166       | 2.57                 | 8.1    | -60      |             | 68   | 82  | 1  | 4.2 | 55       | 0.0       |          |       |       |          |      |
| 5 18 79  | 16         | 0.09      | 14       | 0.11        | 10   | 317       | 176       | 2.05                 | 8.1    | -74      |             | 78   | 94  | 1  | 4.0 | 64       | 0.1       |          |       |       |          |      |
| 6 23 79  | 24         | 0.15      | 22*      |             | 20   | 266       | 157       | 2.70                 | 8.2    | -64      |             | 68   | 81  | 1  | 3.9 | 49       | 0.1       |          |       |       |          |      |
| 7 18 79  | 23         | 0.02      | 46*      |             | 20   | 326       | 167       | 3.46                 | 8.4    | -88      |             | 89   | 106 | 2  | 3.7 | 42       | 0.0       | 0.0      | 0.02  | 0.40  | 0.05     | 0.01 |
| 8 8 79   | 24         | 0.015     | 6        |             | 15   | 371       | 186       | 3.42                 | 8.3    | -90      |             | 106  | 126 | 2  | 4.4 | 45       | 0.1       | 0.0      | 0.07  | 0.20  | 0.00     | 0.00 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 14 77  | 0.0                  | 0.08 |     |      | 35 | 0.0 | 0.00 | 0.1 | 3.1 |      | 12  | 0.5 |     | 13  | 0.00 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 8 2 77   | 0.0                  | 0.01 |     |      | 33 | 0.0 | 0.00 | 0.0 | 3.3 |      | 10  | 0.2 |     | 14  | 0.01 | 0.0 | 4.6 |     | 0.0 | 0.2 |
| 9 22 77  | 0.0                  | 0.00 |     |      | 32 | 0.0 | 0.02 | 0.1 | 4.1 |      | 7.9 | 1.0 |     | 17  | 0.00 | 0.0 | 2.8 |     | 0.0 | 0.0 |
| 11 9 77  | 0.0                  | 0.00 | 0.1 | 0.00 | 37 | 0.0 | 0.00 | 0.1 | 3.2 | 0.10 | 12  | 0.4 | 0.0 | 16  | 0.01 | 0.0 | 4.2 | 0.2 | 0.0 | 0.0 |
| 1 11 78  | 0.1                  | 0.04 | 0.0 | 0.00 | 33 | 0.0 | 0.00 | 0.1 | 2.3 | 0.15 | 10  | 0.0 | 0.0 | 8.2 | 0.02 | 0.1 | 4.5 | 0.2 | 0.1 | 0.0 |
| 2 14 78  | 0.0                  | 0.00 |     |      | 25 | 0.0 | 0.00 | 0.0 | 2.5 |      | 10  | 0.0 |     | 12  | 0.00 | 0.0 | 3.3 |     | 0.0 | 0.0 |
| 3 17 78  | 0.1                  | 0.04 |     |      | 21 | 0.0 | 0.00 | 0.1 | 2.3 |      | 8.4 | 0.0 |     | 7.6 | 0.02 | 0.0 | 4.4 |     | 0.1 | 0.0 |
| 4 14 78  | 0.1                  | 0.04 | 0.0 | 0.00 | 25 | 0.0 | 0.00 | 0.1 | 2.7 | 0.20 | 11  | 0.1 | 0.0 | 11  | 0.02 | 0.0 | 4.0 | 0.1 | 0.2 | 0.0 |
| 5 12 78  | 0.0                  | 0.04 |     |      | 25 | 0.0 | 0.00 | 0.0 | 2.5 |      | 9.7 | 0.0 |     | 9.7 | 0.01 | 0.0 | 4.1 |     | 0.0 | 0.0 |
| 6 22 78  | 0.0                  | 0.05 |     |      | 36 | 0.0 | 0.00 | 0.1 | 2.9 |      | 11  | 0.1 |     | 10  | 0.00 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 7 26 78  | 0.0                  | 0.05 | 0.0 | 0.00 | 42 | 0.0 | 0.00 | 0.1 | 4.4 | 0.20 | 18  | 0.3 | 0.1 | 16  | 0.00 | 0.0 | 4.8 | 0.2 | 0.1 | 0.0 |
| 9 5 78   | 0.1                  | 0.04 |     |      | 41 | 0.1 | 0.00 | 0.1 | 3.9 |      | 11  | 0.2 |     | 12  | 0.02 | 0.1 | 2.9 |     | 0.1 | 0.2 |
| 10 12 78 | 0.1                  | 0.03 | 0.0 | 0.00 | 42 | 0.0 | 0.00 | 0.2 | 3.2 | 0.25 | 12  | 0.4 | 0.0 | 11  | 0.01 | 0.1 | 4.5 | 0.2 | 0.1 | 0.0 |
| 11 7 78  | 0.1                  | 0.03 |     |      | 45 | 0.0 | 0.00 | 0.1 | 2.7 |      | 12  | 0.2 |     | 12  | 0.02 | 0.1 | 4.1 |     | 0.1 | 0.0 |
| 12 12 78 | 0.1                  | 0.02 |     |      | 23 | 0.0 | 0.00 | 0.0 | 2.4 |      | 8.1 | 0.0 |     | 8.9 | 0.01 | 0.0 | 3.8 |     | 0.0 | 0.2 |
| 2 4 79   | 0.1                  | 0.01 | 0.0 | 0.00 | 34 | 0.0 | 0.01 | 0.0 | 2.3 | 0.25 | 9.9 | 0.0 | 0.0 | 9.5 | 0.03 | 0.1 | 4.0 | 0.1 | 0.1 | 0.0 |
| 3 20 79  | 0.1                  | 0.03 |     |      | 36 | 0.0 | 0.00 | 0.0 | 2.5 |      | 9.6 | 0.0 |     | 10  | 0.01 | 0.0 | 3.6 |     | 0.1 | 0.1 |
| 4 22 79  | 0.1                  | 0.03 | 0.0 | 0.00 | 36 | 0.0 | 0.00 | 0.1 | 2.5 | 0.15 | 9.5 | 0.0 | 0.0 | 9.2 | 0.01 | 0.0 | 3.6 | 0.1 | 0.0 | 0.0 |
| 5 18 79  | 0.1                  | 0.03 |     |      | 29 | 0.0 | 0.01 | 0.1 | 2.6 |      | 11  | 0.0 |     | 10  | 0.00 | 0.0 | 3.9 |     | 0.1 | 0.0 |
| 6 23 79  | 0.1                  | 0.02 | 0.1 | 0.00 | 30 | 0.0 | 0.00 | 0.1 | 3.2 | 0.25 | 10  | 0.0 | 0.0 | 10  | 0.00 | 0.1 | 3.7 | 0.1 | 0.0 | 0.0 |
| 7 18 79  | 0.0                  | 0.05 | 0.0 | 0.00 | 35 | 0.0 | 0.00 | 0.0 | 2.9 | 0.40 | 10  | 0.1 | 0.0 | 10  | 0.00 | 0.1 | 3.9 | 0.2 | 0.0 | 0.0 |
| 8 8 79   | 0.1                  | 0.06 |     |      | 38 | 0.0 | 0.00 | 0.0 | 3.3 |      | 11  | 0.4 |     | 11  | 0.02 | 0.0 | 4.9 |     | 0.0 | 0.0 |

TABLE 52. WATER QUALITY FOR SITE 5142 MUSKINGUM COUNTY, OHIO

| MILLIGRAMS PER LITER |            |           |          |             |      |           |           |            |        |          |             |      |     |     |     |          |          |          |       |       |          |      |
|----------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|-----|----------|----------|----------|-------|-------|----------|------|
| DATE                 | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
| MO                   | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   |          |             |      |     |     |     |          |          |          |       |       |          |      |
| 6                    | 14         | 77        | 22       | 0.001       |      |           | 15        | 413        | 227    | 1.51     | 7.7         |      | 57  | 70  | 0   | 16       | 100      | 0.0      |       |       |          |      |
| 8                    | 2          | 77        | 17       | 0.0000      |      |           | 55        | 537        | 380    | 1.68     | 7.5         |      | 71  | 87  | 0   | 15       | 180      | 0.2      |       |       |          |      |
| 9                    | 22         | 77        | 18       | 0.015       |      |           | 50        | 865        | 582    | 1.36     | 7.8         |      | 73  | 88  | 0   | 9.0      | 330      | 0.5      |       |       |          |      |
| 11                   | 9          | 77        | 18       | 0.007       | 31   |           | 25        | 664        | 462    | 1.77     | 8.5         |      | 123 | 144 | 3   | 10       | 210      | 0.1      |       |       |          |      |
| 1                    | 11         | 78        | 0        | 0.3         |      |           | 85        | 377        | 205    | 1.67     | 8.0         |      | 78  | 94  | 1   | 6.3      | 84       | 0.5      |       |       |          |      |
| 2                    | 14         | 78        | 0        | 0.06        |      |           | 30        | 551        | 355    | 1.80     | 8.0         |      | 92  | 111 | 1   | 6.4      | 170      | 0.5      |       |       |          |      |
| 3                    | 17         | 78        | 2        | 0.7         |      |           | 75        | 317        | 206    | 1.83     | 7.9         |      | 48  | 58  | 0   | 4.2      | 93       | 0.8      |       |       |          |      |
| 4                    | 14         | 78        | 15       | 0.2         | 22   |           | 20        | 445        | 257    | 2.15     | 8.2         |      | 92  | 110 | 1   | 7.1      | 100      | 0.1      |       |       |          |      |
| 5                    | 12         | 78        | 15       | 0.7         | 47*  |           | 80        | 390        | 251    | 1.69     | 8.1         |      | 78  | 94  | 1   | 4.7      | 120      | 0.2      |       |       |          |      |
| 6                    | 22         | 78        | 26       | 0.6         | 101* |           | 75        | 523        | 339    | 2.04     | 8.1         |      | 116 | 140 | 1   | 8.1      | 140      | 0.1      |       |       |          |      |
| 7                    | 26         | 78        | 25       | 0.3         | 116* |           | 50        | 784        | 528    | 1.51     | 8.4         |      | 98  | 115 | 2   | 7.6      | 280      | 0.1      |       |       |          |      |
| 9                    | 5          | 78        | 23       | 0.007       | 39*  |           | 50        | 801        | 546    | 1.24     | 8.0         |      | 80  | 96  | 1   | 8.8      | 320      | 0.0      |       |       |          |      |
| 10                   | 12         | 78        | 16       | 0.02        | 34*  |           | 40        | 1280       | 969    | 1.05     | 7.5         |      | 22  | 27  | 0   | 6.5      | 660      | 0.2      |       |       |          |      |
| 11                   | 7          | 78        | 9        | 0.02        | 65   |           | 30        | 850        | 555    | 1.54     | 8.2         |      | 126 | 151 | 2   | 9.5      | 290      | 0.2      |       |       |          |      |
| 12                   | 12         | 78        | 2        | 0.1         | 62   |           | 95        | 424        | 284    | 1.27     | 7.8         | -49  | 39  | 48  | 0   | 3.8      | 160      | 0.8      |       |       |          |      |
| 2                    | 4          | 79        | 0        | 0.15        | 11   |           | 9         | 499        | 294    | 1.72     | 7.8         |      | 65  | 78  | 0   | 5.9      | 140      | 0.4      |       |       |          |      |
| 3                    | 20         | 79        | 6        | 0.04        | 45   |           | 6         | 482        | 333    | 1.52     | 7.7         | -68  | 70  | 84  | 0   | 4.1      | 180      | 0.4      |       |       |          |      |
| 4                    | 22         | 79        | 15       | 0.06        | 23   | 0.00      | 20        | 482        | 329    | 1.55     | 8.1         | -86  | 86  | 103 | 1   | 4.7      | 160      | 0.1      |       |       |          |      |
| 5                    | 18         | 79        | 21       | 0.02        |      | 0.00      |           | 605        | 375    | 1.99     | 8.4         |      | 121 | 143 | 2   | 12       | 160      | 0.0      |       |       |          |      |
| 6                    | 23         | 79        | 22       | 0.1         | 41   |           |           | 453        | 295    | 1.58     | 8.2         | -69  | 79  | 94  | 1   | 6.2      | 140      | 0.2      |       |       |          |      |
| 7                    | 18         | 79        | 23       | 0.007       | 16*  |           | 15        | 868        | 558    | 1.30     | 8.4         | -85  | 98  | 115 | 2   | 38       | 280      | 0.0 0.1  | 0.08  | 0.45  | 0.10     | 0.02 |
| 8                    | 8          | 79        | 24       | 0.002       | 6    |           | 5         | 1000       | 586    | 1.45     | 8.4         | -97  | 109 | 128 | 2   | 34       | 290      | 0.1 0.0  | 0.12  | 0.35  | 0.00     | 0.03 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |    |      |     |     |     |     |     |
| 6 14 77  | 0.1                  | 0.08 |     |      | 28  | 0.0 | 0.00 | 0.1 | 2.4 |      | 13 | 0.3 |     | 24 | 0.00 | 0.1 | 4.0 |     | 0.0 | 0.3 |
| 8 2 77   | 0.1                  | 0.03 |     |      | 42  | 0.0 | 0.00 | 0.1 | 3.5 |      | 21 | 0.2 |     | 65 | 0.02 | 0.0 | 3.9 |     | 0.0 | 0.1 |
| 9 22 77  | 0.1                  | 0.13 |     |      | 71  | 0.0 | 0.00 | 0.0 | 6.4 |      | 29 | 1.2 |     | 81 | 0.00 | 0.0 | 3.6 |     | 0.1 | 0.0 |
| 11 9 77  | 0.0                  | 0.00 | 0.1 | 0.00 | 55  | 0.0 | 0.00 | 0.1 | 4.8 | 0.15 | 28 | 0.8 | 0.0 | 69 | 0.01 | 0.0 | 3.2 | 0.4 | 0.0 | 0.0 |
| 1 11 78  | 0.1                  | 0.01 | 0.0 | 0.00 | 28  | 0.0 | 0.02 | 0.2 | 2.4 | 0.25 | 12 | 0.4 | 0.0 | 16 | 0.02 | 0.0 | 3.3 | 0.3 | 0.0 | 0.0 |
| 2 14 78  | 0.1                  | 0.00 |     |      | 44  | 0.0 | 0.00 | 0.1 | 3.5 |      | 26 | 0.7 |     | 46 | 0.03 | 0.0 | 2.6 |     | 0.0 | 0.0 |
| 3 17 78  | 0.1                  | 0.05 |     |      | 28  | 0.0 | 0.00 | 0.2 | 2.4 |      | 18 | 0.5 |     | 18 | 0.03 | 0.0 | 3.8 |     | 0.1 | 0.0 |
| 4 14 78  | 0.1                  | 0.05 | 0.0 | 0.00 | 40  | 0.0 | 0.00 | 0.1 | 2.7 | 0.25 | 23 | 0.6 | 0.0 | 20 | 0.03 | 0.0 | 2.1 | 0.2 | 0.2 | 0.0 |
| 5 12 78  | 0.1                  | 0.05 |     |      | 34  | 0.0 | 0.00 | 0.1 | 2.8 |      | 19 | 0.5 |     | 22 | 0.02 | 0.0 | 2.5 |     | 0.0 | 0.0 |
| 6 22 78  | 0.1                  | 0.07 |     |      | 55  | 0.0 | 0.00 | 0.1 | 3.9 |      | 26 | 0.5 |     | 30 | 0.00 | 0.0 | 1.8 |     | 0.0 | 0.0 |
| 7 26 78  | 0.1                  | 0.10 | 0.1 | 0.00 | 70  | 0.0 | 0.00 | 0.1 | 5.9 | 0.30 | 33 | 0.9 | 0.1 | 62 | 0.02 | 0.1 | 2.1 | 0.7 | 0.0 | 0.0 |
| 9 5 78   | 0.1                  | 0.08 |     |      | 47  | 0.1 | 0.00 | 0.2 | 4.3 |      | 36 | 0.6 |     | 73 | 0.03 | 0.1 | 1.7 |     | 0.1 | 0.0 |
| 10 12 78 | 0.3                  | 0.00 | 0.0 | 0.00 | 120 | 0.0 | 0.01 | 0.1 | 7.6 | 0.60 | 52 | 1.8 | 0.0 | 96 | 0.05 | 0.2 | 2.0 | 1.5 | 0.0 | 0.0 |
| 11 7 78  | 0.2                  | 0.09 |     |      | 91  | 0.0 | 0.00 | 0.1 | 4.3 |      | 36 | 1.3 |     | 44 | 0.04 | 0.1 | 2.3 |     | 0.1 | 0.0 |
| 12 12 78 | 0.1                  | 0.02 |     |      | 41  | 0.0 | 0.00 | 0.1 | 2.8 |      | 17 | 0.7 |     | 21 | 0.02 | 0.0 | 3.3 |     | 0.0 | 0.0 |
| 2 4 79   | 0.2                  | 0.04 | 0.0 | 0.00 | 47  | 0.0 | 0.00 | 0.1 | 2.6 | 0.35 | 22 | 0.8 | 0.0 | 25 | 0.06 | 0.1 | 3.0 | 0.3 | 0.2 | 0.1 |
| 3 20 79  | 0.1                  | 0.05 |     |      | 52  | 0.0 | 0.00 | 0.1 | 2.9 |      | 23 | 0.7 |     | 26 | 0.02 | 0.1 | 2.2 |     | 0.1 | 0.0 |
| 4 22 79  | 0.5                  | 0.04 | 0.1 | 0.00 | 53  | 0.0 | 0.00 | 0.1 | 2.9 | 0.45 | 19 | 0.7 | 0.0 | 26 | 0.03 | 0.0 | 2.7 | 0.4 | 0.1 | 0.0 |
| 5 18 79  | 0.2                  | 0.05 |     |      | 65  | 0.0 | 0.02 | 0.1 | 3.6 |      | 27 | 1.2 |     | 29 | 0.02 | 0.1 | 2.4 |     | 0.1 | 0.0 |
| 6 23 79  | 0.3                  | 0.07 |     |      | 43  | 0.0 | 0.01 | 0.5 | 4.1 |      | 20 | 0.8 |     | 23 | 0.02 | 0.0 | 3.6 |     | 0.1 | 0.6 |
| 7 18 79  | 0.2                  | 0.08 | 0.1 | 0.00 | 82  | 0.0 | 0.02 | 0.2 | 4.4 | 0.50 | 34 | 4.8 | 0.0 | 40 | 0.07 | 0.1 | 4.4 | 0.7 | 0.1 | 0.0 |
| 8 8 79   | 0.2                  | 0.10 |     |      | 91  | 0.0 | 0.01 | 0.2 | 3.4 |      | 39 | 5.8 |     | 45 | 0.08 | 0.2 | 4.5 |     | 0.2 | 0.0 |

TABLE 53. WATER QUALITY FOR SITE 5143 MUSKINGUM COUNTY, OHIO

| TABLE 53. WATER QUALITY FOR SITE 5143 MUSKOGEE COUNTY, GA |            |           |          |             |      |           |           |            |        |          |             |      |     |                      |     |          |          |          |       |       |          |      |
|-----------------------------------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|------|
|                                                           |            |           |          |             |      |           |           |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |      |
| DATE                                                      | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL                   | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                                                        | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU UN/CM | MG/L       |        |          |             |      |     |                      |     |          |          |          |       |       |          |      |
| 6                                                         | 14         | 77        | 18       | 0.15        |      |           | 0         | 1860       | 1360   | 0.82     | 3.4         | 0    | 0   | 0                    | 2.8 | 980      | 0.0      |          |       |       |          |      |
| 8                                                         | 2          | 77        | 18       | 0.0000      |      |           | 15        | 1770       | 1280   | 0.73     | 3.0         | 0    | 0   | 0                    | 1.5 | 930      | 0.5      |          |       |       |          |      |
| 9                                                         | 22         | 77        | 18       | 0.25        |      |           | 4         | 1830       | 1460   | 0.91     | 3.2         | 0    | 0   | 0                    | 1.8 | 1000     | 0.1      |          |       |       |          |      |
| 11                                                        | 9          | 77        | 14       | 0.1         | 25   |           | 50        | 1950       | 1270   | 0.85     | 3.4         | 0    | 0   | 0                    | 1.6 | 900      | 0.1      |          |       |       |          |      |
| 1                                                         | 11         | 78        | 2        | 0.3         |      |           | 20        | 1130       | 777    | 0.76     | 3.6         | 0    | 0   | 0                    | 3.2 | 560      | 0.4      |          |       |       |          |      |
| 2                                                         | 14         | 78        | 2        | 0.3         |      |           | 4         | 1320       | 982    | 0.80     | 3.2         | 0    | 0   | 0                    | 2.2 | 700      | 0.2      |          |       |       |          |      |
| 3                                                         | 17         | 78        | 3        | 2.0         |      |           | 4         | 925        | 836    | 0.74     | 3.6         | 0    | 0   | 0                    | 3.1 | 610      | 1.1      |          |       |       |          |      |
| 4                                                         | 14         | 78        | 14       | 1.5         | 17   |           | 15        | 1410       | 936    | 0.76     | 2.9         | 0    | 0   | 0                    | 2.6 | 670      | 0.2      |          |       |       |          |      |
| 5                                                         | 12         | 78        | 13       | 2.5         | 338  |           | 10        | 1220       | 927    | 0.69     | 3.3         | 0    | 0   | 0                    | 2.0 | 690      | 0.2      |          |       |       |          |      |
| 6                                                         | 22         | 78        | 17       | 0.3         | 638  |           | 10        | 1490       | 1120   | 0.70     | 3.1         | 0    | 0   | 0                    | 1.6 | 830      | 0.2      |          |       |       |          |      |
| 7                                                         | 21         | 78        | 20       | 1.0         | 468  |           | 20        | 1550       | 1180   | 0.78     | 3.1         | 0    | 0   | 0                    | 1.6 | 850      | 0.1      |          |       |       |          |      |
| 9                                                         | 5          | 78        | 18       | 0.05        | 328  |           | 10        | 1520       | 1240   | 0.77     | 3.2         | 0    | 0   | 0                    | 0.9 | 900      | 0.1      |          |       |       |          |      |
| 10                                                        | 12         | 78        | 12       | 0.08        | 378  |           | 10        | 1720       | 1260   | 0.80     | 3.3         | 0    | 0   | 0                    | 2.0 | 900      | 0.4      |          |       |       |          |      |
| 11                                                        | 7          | 78        | 10       | 0.07        | 6    |           | 3         | 1520       | 1210   | 0.88     | 3.2         | 200  | 0   | 0                    | 2.7 | 850      | 0.1      |          |       |       |          |      |
| 12                                                        | 12         | 78        | 5        | 0.25        | 7    |           | 15        | 999        | 669    | 0.91     | 3.5         | 97   | 0   | 0                    | 2.2 | 460      | 0.3      |          |       |       |          |      |
| 2                                                         | 4          | 79        | 1        | 0.3         | 21   |           | 25        | 1270       | 861    | 0.70     | 3.3         | 180  | 0   | 0                    | 2.2 | 640      | 0.2      |          |       |       |          |      |
| 3                                                         | 20         | 79        | 5        | 0.4         | 27   |           | 10        | 1660       | 1170   | 0.84     | 3.1         | 270  | 0   | 0                    | 2.1 | 830      | 0.2      |          |       |       |          |      |
| 4                                                         | 22         | 79        | 15       | 0.4         | 15   | 0.00      | 10        | 1430       | 1090   | 0.71     | 3.0         | 200  | 0   | 0                    | 1.9 | 810      | 0.1      |          |       |       |          |      |
| 5                                                         | 18         | 79        | 21       | 0.15        | 28   | 0.01      | 10        | 1660       | 1260   | 0.73     | 3.0         | 250  | 0   | 0                    | 1.7 | 920      | 0.0      |          |       |       |          |      |
| 6                                                         | 23         | 79        | 23       | 0.5         | 12   |           | 20        | 1270       | 849    | 0.74     | 3.2         | 140  | 0   | 0                    | 1.8 | 620      | 0.2      |          |       |       |          |      |
| 7                                                         | 18         | 79        | 23       | 0.15        | 218  |           | 15        | 1740       | 1230   | 0.70     | 3.1         | 170  | 0   | 0                    | 1.3 | 910      | 0.2      | 0.0      | 0.50  | 0.75  | 0.10     | 0.05 |
| 8                                                         | 8          | 79        | 22       | 0.06        | 2    |           | 15        | 1840       | 925    | 0.90     | 3.1         | 180  | 0   | 0                    | 2.0 | 630      | 0.1      | 0.0      | 0.00  | 0.00  | 0.02     |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE | AL | B  | BA                   | BE   | CA  | CO   | CU  | FE   | K    | LI  | MG  | MM   | MO | NA  | NI   | PB  | SI   | SR  | TI  | ZN  |     |     |
|------|----|----|----------------------|------|-----|------|-----|------|------|-----|-----|------|----|-----|------|-----|------|-----|-----|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |     |      |     |      |      |     |     |      |    |     |      |     |      |     |     |     |     |     |
| 6    | 14 | 77 | 30                   | 0.09 |     | 170  | 0.3 | 0.01 | 7.1  | 4.6 | 87  | 22   |    | 21  | 0.43 | 0.1 | 20   |     | 0.1 | 0.5 |     |     |
| 8    | 2  | 77 | 27                   | 0.02 |     | 140  | 0.3 | 0.06 | 9.0  | 4.7 | 74  | 19   |    | 17  | 0.34 | 0.1 | 24   |     | 0.1 | 0.6 |     |     |
| 9    | 22 | 77 | 25                   | 0.12 |     | 190  | 0.4 | 0.01 | 9.2  | 5.2 | 100 | 32   |    | 21  | 0.38 | 0.1 | 33   |     | 0.1 | 0.5 |     |     |
| 11   | 9  | 77 | 27                   | 0.00 | 0.0 | 0.01 | 160 | 0.3  | 0.01 | 11  | 5.8 | 0.60 | 75 | 23  | 0.1  | 39  | 0.34 | 0.0 | 16  | 0.7 | 0.2 | 0.4 |
| 1    | 11 | 78 | 14                   | 0.01 | 0.0 | 0.00 | 92  | 0.1  | 0.02 | 4.3 | 3.0 | 0.65 | 47 | 11  | 0.0  | 11  | 0.19 | 0.0 | 12  | 0.4 | 0.0 | 0.2 |
| 2    | 14 | 78 | 20                   | 0.05 |     | 120  | 0.2 | 0.01 | 6.8  | 3.1 | 62  | 15   |    | 14  | 0.24 | 0.1 | 15   |     | 0.1 | 0.3 |     |     |
| 3    | 17 | 78 | 16                   | 0.07 |     | 95   | 0.2 | 0.01 | 3.2  | 2.8 | 54  | 8.9  |    | 8.2 | 0.18 | 0.0 | 12   |     | 0.2 | 0.2 |     |     |
| 4    | 14 | 78 | 24                   | 0.05 | 0.0 | 0.01 | 110 | 0.2  | 0.02 | 6.2 | 2.8 | 0.55 | 59 | 17  | 0.0  | 10  | 0.24 | 0.1 | 15  | 0.3 | 0.2 | 0.3 |
| 5    | 12 | 78 | 22                   | 0.05 |     | 100  | 0.2 | 0.02 | 5.2  | 3.0 | 52  | 9.7  |    | 11  | 0.25 | 0.0 | 13   |     | 0.1 | 0.2 |     |     |
| 6    | 22 | 78 | 23                   | 0.07 |     | 120  | 0.2 | 0.02 | 6.9  | 3.4 | 65  | 13   |    | 10  | 0.26 | 0.1 | 19   |     | 0.2 | 0.3 |     |     |
| 7    | 21 | 78 | 21                   | 0.06 | 0.0 | 0.01 | 140 | 0.2  | 0.02 | 5.6 | 4.1 | 0.70 | 73 | 16  | 0.3  | 16  | 0.32 | 0.1 | 21  | 0.5 | 0.2 | 0.3 |
| 9    | 5  | 78 | 21                   | 0.08 |     | 150  | 0.3 | 0.03 | 6.3  | 4.3 | 73  | 19   |    | 23  | 0.32 | 0.2 | 22   |     | 0.3 | 0.5 |     |     |
| 10   | 12 | 78 | 20                   | 0.07 | 0.0 | 0.01 | 160 | 0.2  | 0.01 | 8.8 | 5.9 | 1.0  | 72 | 20  | 0.1  | 23  | 0.29 | 0.2 | 21  | 0.8 | 0.2 | 0.4 |
| 11   | 7  | 78 | 20                   | 0.07 |     | 170  | 0.3 | 0.02 | 5.9  | 4.2 | 75  | 22   |    | 23  | 0.32 | 0.3 | 19   |     | 0.3 | 0.3 |     |     |
| 12   | 12 | 78 | 11                   | 0.03 |     | 97   | 0.1 | 0.01 | 3.1  | 2.7 | 44  | 9.0  |    | 7.8 | 0.17 | 0.1 | 12   |     | 0.2 | 0.2 |     |     |
| 2    | 4  | 79 | 16                   | 0.03 | 0.0 | 0.01 | 100 | 0.1  | 0.02 | 5.8 | 1.8 | 0.40 | 48 | 10  | 0.1  | 6.7 | 0.20 | 0.2 | 13  | 0.1 | 0.2 | 0.3 |
| 3    | 20 | 79 | 12                   | 0.06 |     | 160  | 0.2 | 0.03 | 21   | 3.6 | 74  | 14   |    | 12  | 0.34 | 0.2 | 15   |     | 0.5 | 0.4 |     |     |
| 4    | 22 | 79 | 26                   | 0.04 | 0.0 | 0.01 | 130 | 0.2  | 0.03 | 11  | 3.1 | 1.0  | 60 | 11  | 0.1  | 10  | 0.26 | 0.1 | 14  | 0.4 | 0.2 | 0.3 |
| 5    | 18 | 79 | 24                   | 0.07 |     | 150  | 0.2 | 0.02 | 9.4  | 4.4 | 71  | 15   |    | 17  | 0.28 | 0.1 | 20   |     | 0.3 | 0.5 |     |     |
| 6    | 23 | 79 | 15                   | 0.07 |     | 110  | 0.1 | 0.01 | 4.8  | 3.2 | 46  | 9.4  |    | 7.9 | 0.20 | 0.1 | 16   |     | 0.2 | 0.4 |     |     |
| 7    | 18 | 79 | 20                   | 0.07 | 0.0 | 0.01 | 140 | 0.2  | 0.02 | 7.3 | 3.8 | 0.65 | 66 | 16  | 0.1  | 16  | 0.31 | 0.2 | 20  | 0.3 | 0.3 | 0.2 |
| 8    | 8  | 79 | 20                   | 0.08 |     | 140  | 0.2 | 0.03 | 5.2  | 3.4 | 55  | 14   |    | 11  | 0.27 | 0.1 | 20   |     | 0.2 | 0.4 |     |     |

TABLE 54. WATER QUALITY FOR SITE 5151 MOBILE COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3-NO3              | CO3 | CL  | SO4 | AS N | NO3-AS N | NO3-N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------------------|-----|-----|-----|------|----------|-------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             | MILLIGRAMS PER LITER |     |     |     |      |          |       |       |       |          |
| 6 16 77  | 21         | 0.008     |          |             | 0    | 500       | 272       | 2.92       |        |          | 113         | 0                    | 68  | 26  | 76  | 0.0  |          |       |       |       |          |
| 7 27 77  | 17         | 0.06      |          |             | 20   | 494       | 300       | 3.45       | 7.5    |          | 174         | 211                  | 0   | 6.0 | 78  | 0.0  |          |       |       |       |          |
| 9 21 77  | 18         | 0.02      |          |             | 4    | 636       | 356       | 5.74       | 7.8    |          | 198         | 240                  | 1   | 11  | 65  | 0.1  |          |       |       |       |          |
| 11 8 77  | 16         | 0.04      |          |             | 55   | 533       | 320       | 4.53       | 8.3    |          | 215         | 255                  | 3   | 6.2 | 63  | 0.1  |          |       |       |       |          |
| 1 12 78  | 0          | 0.5       |          |             | 30   | 412       | 258       | 3.06       | 8.3    |          | 141         | 168                  | 2   | 3.0 | 75  | 0.4  |          |       |       |       |          |
| 2 14 78  | 1          | 0.15      |          |             | 4    | 455       | 253       | 3.11       | 8.3    |          | 139         | 165                  | 2   | 3.1 | 73  | 0.3  |          |       |       |       |          |
| 3 16 78  | 5          | 1.5       |          |             | 45   | 328       | 188       | 2.92       | 8.1    |          | 88          | 105                  | 1   | 2.8 | 57  | 0.8  |          |       |       |       |          |
| 4 18 78  | 11         | 0.7       | 14       |             | 40   | 415       | 228       | 3.46       | 8.3    |          | 121         | 144                  | 2   | 2.9 | 63  | 0.2  |          |       |       |       |          |
| 5 16 78  | 12         | 0.7       | 21*      |             | 30   | 427       | 253       | 2.99       | 8.5    |          | 146         | 171                  | 3   | 2.4 | 74  | 0.3  |          |       |       |       |          |
| 6 23 78  | 20         | 0.15      | 54*      |             | 8    |           |           | 8.2        |        |          |             |                      |     | 3.2 | 64  | 0.1  |          |       |       |       |          |
| 7 20 78  | 23         | 0.06      | 50*      |             | 15   |           |           | 8.0        |        |          |             |                      |     | 5.1 | 70  | 0.1  |          |       |       |       |          |
| 9 6 78   | 17         | 0.001     |          |             |      | 558       | 305       | 3.78       | 8.0    |          | 210         | 253                  | 2   | 6.9 | 66  | 0.1  |          |       |       |       |          |
| 8 14 79  | 17         | 0.08      | 44       | 0.00        | 25   | 502       | 283       | 3.17       | 8.5    |          | 152         | 179                  | 4   | 2.0 | 80  | 0.3  | 0.0      | 0.06  | 0.15  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 16 77  | 0.2                  | 0.04 |     |      | 53 | 0.1 | 0.01 | 0.0 | 1.8 |      | 20 | 0.1 |     | 23  | 0.00 | 0.4 | 2.0 |     | 0.2 | 0.0 |
| 7 27 77  | 0.1                  | 0.03 |     |      | 62 | 0.0 | 0.01 | 0.1 | 1.5 |      | 22 | 0.1 |     | 17  | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 9 21 77  | 0.1                  | 0.00 |     |      | 94 | 0.0 | 0.00 | 0.0 | 2.1 |      | 20 | 0.2 |     | 40  | 0.00 | 0.0 | 2.2 |     | 0.0 | 0.0 |
| 11 8 77  | 0.1                  | 0.00 | 0.1 | 0.00 | 68 | 0.0 | 0.00 | 0.1 | 2.6 | 0.25 | 19 | 0.1 | 0.0 | 25  | 0.00 | 0.0 | 2.9 | 0.4 | 0.0 | 0.0 |
| 1 12 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 56 | 0.1 | 0.00 | 0.1 | 1.0 | 0.40 | 23 | 0.0 | 0.0 | 5.4 | 0.03 | 0.5 | 3.1 | 0.3 | 0.2 | 0.0 |
| 2 14 78  | 0.1                  | 0.02 |     |      | 57 | 0.0 | 0.00 | 0.1 | 1.0 |      | 20 | 0.0 |     | 8.3 | 0.01 | 0.0 | 2.6 |     | 0.0 | 0.0 |
| 3 16 78  | 0.1                  | 0.05 |     |      | 50 | 0.0 | 0.00 | 0.1 | 1.1 |      | 11 | 0.0 |     | 3.8 | 0.01 | 0.0 | 3.2 |     | 0.0 | 0.0 |
| 4 18 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 55 | 0.0 | 0.00 | 0.1 | 1.1 | 0.35 | 19 | 0.0 | 0.1 | 6.2 | 0.01 | 0.0 | 2.9 | 0.2 | 0.0 | 0.0 |
| 5 16 78  | 0.1                  | 0.01 |     |      | 60 | 0.0 | 0.00 | 0.0 | 1.2 |      | 18 | 0.0 |     | 4.8 | 0.02 | 0.0 | 2.0 |     | 0.0 | 0.0 |
| 6 23 78  | 0.1                  | 0.02 |     |      | 69 | 0.0 | 0.00 | 0.0 | 1.4 |      | 21 | 0.1 |     | 9.5 | 0.00 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 7 20 78  | 0.1                  | 0.02 | 0.1 | 0.00 | 72 | 0.0 | 0.00 | 0.0 | 1.8 | 0.35 | 22 | 0.1 | 0.1 | 13  | 0.00 | 0.0 | 3.4 | 0.3 | 0.1 | 0.0 |
| 9 6 78   | 0.1                  | 0.03 |     |      | 45 | 0.1 | 0.01 | 0.1 | 1.4 |      | 21 | 0.2 |     | 31  | 0.03 | 0.1 | 2.4 |     | 0.1 | 0.1 |
| 8 14 79  | 0.2                  | 0.02 |     |      | 71 | 0.0 | 0.00 | 0.0 | 1.5 |      | 19 | 0.0 |     | 5.8 | 0.02 | 0.1 | 4.4 |     | 0.1 | 0.0 |

TABLE 55. WATER QUALITY FOR SITE 5152 NOBLE COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL                   | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |
| 6 16 77  | 20         | 0.01      |          |             | 10   |           | 261       | 3.56       | 7.5    |          | 167         | 203  | 0   | 2.8                  | 65  | 0.0      |          |          |       |       |          |
| 7 27 77  | 16         | 0.03      |          |             | 25   | 572       | 329       | 4.22       | 7.5    |          | 189         | 229  | 0   | 3.7                  | 78  | 0.0      |          |          |       |       |          |
| 9 21 77  | 19         | 0.06      |          |             | 50   | 670       | 369       | 6.69       | 8.0    |          | 230         | 276  | 2   | 3.4                  | 60  | 0.1      |          |          |       |       |          |
| 11 8 77  | 18         | 0.1       |          |             | 55   | 660       | 344       | 4.92       | 8.5    |          | 197         | 230  | 5   | 3.3                  | 73  | 0.1      |          |          |       |       |          |
| 1 12 78  | 3          | 0.25      |          |             | 45   | 458       | 274       | 4.31       | 8.4    |          | 186         | 220  | 3   | 3.2                  | 57  | 0.4      |          |          |       |       |          |
| 2 14 78  | 3          | 0.4       |          |             | 8    | 474       | 266       | 4.32       | 8.3    |          | 176         | 210  | 3   | 2.8                  | 57  | 0.3      |          |          |       |       |          |
| 3 16 78  | 7          | 1.5       |          |             | 850  | 305       | 180       | 4.44       | 8.1    |          | 89          | 107  | 1   | 3.9                  | 40  | 1.2      |          |          |       |       |          |
| 4 18 78  | 12         | 0.8       | 16       |             | 50   | 372       | 227       | 4.25       | 8.2    |          | 119         | 142  | 1   | 3.0                  | 56  | 0.2      |          |          |       |       |          |
| 5 16 78  | 12         | 0.9       | 42*      |             | 75   | 386       | 232       | 4.15       | 8.2    |          | 135         | 162  | 2   | 2.5                  | 57  | 0.3      |          |          |       |       |          |
| 6 23 78  | 28         | 0.25      |          |             | 30   | 370       |           |            | 8.1    |          |             |      |     | 2.5                  | 58  | 0.1      |          |          |       |       |          |
| 7 20 78  | 29         | 1.0       | 57*      |             | 10   | 404       |           |            | 8.3    |          |             |      |     | 2.7                  | 49  | 0.0      |          |          |       |       |          |
| 9 6 78   | 21         | 0.004     |          |             | 30   | 421       | 294       | 4.05       | 8.1    |          | 153         | 184  | 1   | 2.8                  | 75  | 0.1      |          |          |       |       |          |
| 10 3 78  |            | 0.01      |          |             | 8    | 425       |           |            | 8.4    |          |             |      |     | 5.3                  | 64  | 0.0      |          |          |       |       |          |
| 11 8 78  | 8          | 0.02      |          |             | 3    | 585       | 318       | 4.54       | 8.4    |          | 161         | 190  | 3   | 4.2                  | 76  | 0.0      |          |          |       |       |          |
| 12 13 78 | 5          | 0.4       |          |             | 9    | 441       | 252       | 3.11       | 8.1    |          | 130         | 156  | 1   | 2.7                  | 73  | 0.5      |          |          |       |       |          |
| 2 5 79   | 0          | 0.08      |          |             | 4    | 469       | 274       | 4.01       | 7.9    |          | 157         | 190  | 1   | 2.8                  | 66  | 0.2      |          |          |       |       |          |
| 3 21 79  |            |           |          |             | 3    | 483       | 294       | 4.85       | 8.2    |          | 174         | 208  | 2   | 5.6                  | 62  | 0.5      |          |          |       |       |          |
| 4 23 79  | 16         | 0.2       |          | 0.00        | 8    | 490       | 291       | 3.77       | 8.4    |          | 175         | 207  | 3   | 2.2                  | 72  | 0.1      |          |          |       |       |          |
| 5 19 79  | 20         | 0.07      | 12       | 0.65        | 75   | 486       | 246       | 3.29       | 7.6    |          | 129         | 156  | 0   | 2.2                  | 72  | 0.0      |          |          |       |       |          |
| 6 22 79  | 24         | 0.04      |          |             | 60   | 362       | 293       | 4.42       | 8.2    |          | 157         | 188  | 2   | 2.4                  | 70  | 0.2      |          |          |       |       |          |
| 7 19 79  | 22         | 0.01      | 50       |             | 10   | 553       |           |            | 8.3    |          |             |      |     | 2.5                  | 61  | 0.0      | 0.0      | 0.01     | 0.55  | 0.00  | 0.01     |
| 8 14 79  | 20         | 0.1       | 0        | 0.01        | 8    | 545       | 289       | 4.55       | 8.3    |          | 193         | 230  | 3   | 2.5                  | 60  | 0.0      | 0.0      | 0.06     | 0.30  | 0.00  | 0.01     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 16 77  | 0.2                  | 0.03 |     |      | 52  | 0.2 | 0.01 | 0.1 | 2.4 |      | 21 | 0.4 |     | 12  | 0.00 | 0.6 | 1.9 |     | 0.4 | 0.0 |
| 7 27 77  | 0.1                  | 0.03 |     |      | 84  | 0.0 | 0.01 | 0.2 | 2.6 |      | 25 | 0.8 |     | 13  | 0.01 | 0.1 | 3.6 |     | 0.0 | 0.1 |
| 9 21 77  | 0.2                  |      |     |      | 110 | 0.0 | 0.00 | 0.1 | 1.8 |      | 29 | 1.0 |     | 11  | 0.03 | 0.1 | 6.0 |     | 0.1 | 0.2 |
| 11 8 77  | 0.1                  | 0.00 | 0.9 | 0.00 | 98  | 0.0 | 0.00 | 0.1 | 2.5 | 0.30 | 26 | 1.0 | 0.0 | 12  | 0.01 | 0.0 | 3.2 | 0.4 | 0.0 | 0.0 |
| 1 12 78  | 0.2                  | 0.00 | 0.0 | 0.00 | 61  | 0.1 | 0.00 | 0.1 | 1.4 | 0.45 | 22 | 0.3 | 0.0 | 7.1 | 0.04 | 0.6 | 3.0 | 0.3 | 0.2 | 0.0 |
| 2 14 78  | 0.1                  | 0.02 |     |      | 62  | 0.0 | 0.00 | 0.1 | 1.4 |      | 20 | 0.4 |     | 9.1 | 0.00 | 0.0 | 2.8 |     | 0.0 | 0.0 |
| 3 16 78  | 0.1                  | 0.02 |     |      | 52  | 0.0 | 0.00 | 0.0 | 2.1 |      | 12 | 0.0 |     | 5.3 | 0.01 | 0.0 | 2.9 |     | 0.0 | 0.0 |
| 4 18 78  | 0.1                  | 0.01 | 0.1 | 0.00 | 58  | 0.0 | 0.00 | 0.1 | 1.3 | 0.25 | 21 | 0.4 | 0.1 | 8.4 | 0.01 | 0.0 | 2.5 | 0.3 | 0.0 | 0.0 |
| 5 16 78  | 0.1                  | 0.01 |     |      | 65  | 0.0 | 0.00 | 0.0 | 1.3 |      | 18 | 0.2 |     | 6.5 | 0.03 | 0.0 |     |     | 0.0 | 0.0 |
| 6 23 78  | 0.1                  | 0.02 |     |      | 76  | 0.0 | 0.00 | 0.0 | 2.1 |      | 22 | 0.5 |     | 9.2 | 0.00 | 0.1 | 3.3 |     | 0.1 | 0.0 |
| 7 20 78  | 0.1                  | 0.02 | 0.1 | 0.00 | 70  | 0.0 | 0.00 | 0.0 | 2.2 | 0.35 | 30 | 0.1 | 0.2 | 11  | 0.00 | 0.0 | 2.8 | 0.4 | 0.1 | 0.0 |
| 9 6 78   | 0.2                  | 0.03 |     |      | 80  | 0.0 | 0.00 | 0.1 | 2.0 |      | 23 | 0.3 |     | 11  | 0.01 | 0.1 | 3.6 |     | 0.1 | 0.0 |
| 10 3 78  | 0.1                  | 0.01 | 0.1 | 0.00 | 92  | 0.0 | 0.01 | 0.1 | 1.8 | 0.30 | 28 | 0.3 | 0.0 | 13  | 0.02 | 0.1 | 3.4 | 0.5 | 0.1 | 0.0 |
| 11 8 78  | 0.2                  | 0.02 |     |      | 97  | 0.0 | 0.00 | 0.1 | 1.6 |      | 25 | 0.6 |     | 9.5 | 0.03 | 0.1 | 3.1 |     | 0.1 | 0.0 |
| 12 13 78 | 0.1                  | 0.01 |     |      | 65  | 0.0 | 0.00 | 0.0 | 1.5 |      | 15 | 0.2 |     | 7.1 | 0.02 | 0.1 | 3.2 |     | 0.0 | 0.0 |
| 2 5 79   | 0.2                  | 0.00 | 0.1 | 0.00 | 76  | 0.0 | 0.01 | 0.0 | 1.4 | 0.25 | 17 | 0.2 | 0.0 | 7.9 | 0.03 | 0.1 | 2.9 | 0.4 | 0.1 | 0.0 |
| 3 21 79  | 0.2                  | 0.01 |     |      | 81  | 0.0 | 0.01 | 0.1 | 1.3 |      | 24 | 0.2 |     | 7.9 | 0.01 | 0.1 | 2.1 |     | 0.1 | 0.2 |
| 4 23 79  | 0.2                  | 0.01 | 0.1 | 0.00 | 76  | 0.0 | 0.00 | 0.0 | 1.3 | 0.40 | 18 | 0.2 | 0.0 | 8.2 | 0.02 | 0.1 | 2.6 | 0.2 | 0.1 | 0.0 |
| 5 19 79  | 0.4                  | 0.01 |     |      | 59  | 0.1 | 0.02 | 0.1 | 1.4 |      | 20 | 0.2 |     | 8.3 | 0.02 | 0.1 | 2.0 |     | 0.1 | 0.0 |
| 6 22 79  | 0.1                  | 0.02 |     |      | 79  | 0.0 | 0.00 | 0.1 | 2.2 |      | 25 | 0.3 |     | 10  | 0.02 | 0.1 | 3.8 |     | 0.1 | 0.1 |
| 7 19 79  | 0.2                  | 0.02 |     |      | 79  | 0.1 | 0.01 | 0.0 | 1.4 |      | 26 | 0.2 |     | 9.0 | 0.01 | 0.1 | 2.8 |     | 0.1 | 0.0 |
| 8 14 79  | 0.1                  | 0.02 |     |      | 73  | 0.0 | 0.00 | 0.0 | 1.3 |      | 21 | 0.1 |     | 7.9 | 0.00 | 0.1 | 3.2 |     | 0.0 | 0.0 |

TABLE 56. WATER QUALITY FOR SITE 5153 NOBLE COUNTY, OHIO

| MILLIGRAMS PER LITER |            |           |          |             |      |           |           |            |        |          |             |      |     |     |     |          |           |          |       |       |          |      |      |
|----------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|------|------|
| DATE                 | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL  | SO4 | NO3 AS N | 2NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |      |
| MO                   | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU UM/CM | MG/L       |        |          |             |      |     |     |     |          |           |          |       |       |          |      |      |
| 6                    | 16         | 77        | 19       | 0.01        |      |           | 4         | 980        | 861    | 1.24     | 7.8         |      | 75  | 90  | 0   | 2.5      | 560       | 0.0      |       |       |          |      |      |
| 7                    | 27         | 77        | 17       | 0.15        |      |           | 70        | 1890       | 974    | 1.87     | 6.3         |      | 221 | 270 | 0   | 1.9      | 490       | 0.1      |       |       |          |      |      |
| 9                    | 21         | 77        | 19       | 0.04        |      |           | 4         | 1730       | 1460   | 1.22     | 7.5         |      | 48  | 58  | 0   | 2.6      | 980       | 0.1      |       |       |          |      |      |
| 11                   | 8          | 77        | 17       | 0.1         | 11   |           | 35        | 2160       | 1310   | 1.29     | 6.8         |      | 50  | 61  | 0   | 1.4      | 850       | 0.1      |       |       |          |      |      |
| 1                    | 12         | 78        | 1        | 0.09        |      |           | 35        | 1530       | 1240   | 1.00     | 7.3         |      | 43  | 53  | 0   | 2.4      | 870       | 0.2      |       |       |          |      |      |
| 2                    | 14         | 78        | 3        | 0.4         |      |           | 8         | 1770       | 1390   | 0.85     | 7.2         |      | 14  | 17  | 0   | 1.9      | 1000      | 0.1      |       |       |          |      |      |
| 3                    | 16         | 78        | 6        | 1.0         |      |           | 8         | 1560       | 1280   | 1.06     | 6.9         |      | 11  | 14  | 0   | 2.3      | 900       | 0.2      |       |       |          |      |      |
| 4                    | 18         | 78        | 12       | 1.5         | 7    |           | 4         | 1780       | 1590   | 0.82     | 4.6         |      | 0   | 0   | 0   | 2.1      | 1200      | 0.0      |       |       |          |      |      |
| 5                    | 16         | 78        | 12       | 1.5         | 21*  |           | 15        | 1610       | 1250   | 1.00     | 7.8         |      | 33  | 40  | 0   | 2.0      | 880       | 0.2      |       |       |          |      |      |
| 6                    | 23         | 78        | 23       | 0.25        | 62*  |           | 10        | 1670       | 1470   | 0.94     | 7.8         |      | 48  | 58  | 0   | 1.9      | 1100      | 0.1      |       |       |          |      |      |
| 7                    | 20         | 78        | 25       | 1.0         | 97*  |           | 55        | 1740       | 1530   | 1.00     | 7.6         |      | 27  | 33  | 0   | 1.6      | 1100      | 0.1      |       |       |          |      |      |
| 9                    | 6          | 78        | 19       | 0.02        | 33*  |           | 65        | 1830       | 1780   | 0.87     | 7.4         |      | 20  | 25  | 0   | 1.3      | 1300      | 0.1      |       |       |          |      |      |
| 10                   | 3          | 78        |          |             | 48*  |           | 6         | 1780       | 1770   | 0.96     | 7.7         |      | 34  | 41  | 0   | 2.6      | 1300      | 0.0      |       |       |          |      |      |
| 11                   | 8          | 78        | 6        | 0.03        | 26   |           | 65        | 1880       | 1740   | 1.04     | 7.4         | -19  | 21  | 26  | 0   | 2.8      | 1200      | 0.0      |       |       |          |      |      |
| 12                   | 13         | 78        | 6        | 0.15        | 7    |           | 95        | 1660       | 1450   | 0.98     | 5.3         | 13   | 0   | 0   | 0   | 1.2      | 1000      | 0.3      |       |       |          |      |      |
| 2                    | 5          | 79        | 0        | 0.15        | 87   |           | 85        | 1880       | 1560   | 1.24     | 6.8         | -8   | 15  | 18  | 0   | 2.0      | 1000      | 0.2      |       |       |          |      |      |
| 3                    | 21         | 79        | 7        | 0.15        | 61   |           | 80        | 1860       | 1690   | 1.07     | 6.0         | 4    | 2   | 3   | 0   | 2.0      | 1200      | 0.1      |       |       |          |      |      |
| 4                    | 23         | 79        | 13       | 0.25        | 68   | 0.00      |           | 1760       | 1750   | 0.96     | 6.8         | -13  | 16  | 20  | 0   | 1.8      | 1300      | 0.1      |       |       |          |      |      |
| 5                    | 19         | 79        | 19       | 0.15        | 42   | 0.01      | 90        | 1880       | 1560   | 0.88     | 7.6         | -21  | 34  | 42  | 0   | 1.8      | 1200      | 0.1      |       |       |          |      |      |
| 6                    | 22         | 79        | 20       | 0.05        | 46   |           | 110       | 1940       | 1230   | 0.92     | 7.4         | -14  | 29  | 35  | 0   | 5.5      | 900       | 0.7      |       |       |          |      |      |
| 7                    | 19         | 79        | 22       | 0.06        | 18   | 0.01      | 45        | 2100       | 1870   | 0.93     | 7.7         | -26  | 32  | 39  | 0   | 2.5      | 1400      | 0.0      | 0.0   | 0.04  | 0.65     | 0.00 | 0.00 |
| 8                    | 14         | 79        | 18       | 0.06        | 38   | 0.01      | 95        | 2140       | 1900   | 1.01     | 7.3         | -4   | 13  | 16  | 0   | 2.1      | 1400      | 0.1      | 0.0   | 0.15  | 0.35     | 0.00 | 0.04 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | NH  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 16 77  | 0.4                  | 0.00 |     |      | 160 | 0.2 | 0.01 | 0.0 | 2.3 |      | 66  | 2.4 |     | 18  | 0.02 | 0.7 |     |     | 0.3 | 0.0 |
| 7 27 77  | 0.3                  | 0.02 |     |      | 230 | 0.1 | 0.01 | 1.7 | 2.8 |      | 81  | 6.3 |     | 14  | 0.16 | 0.3 | 5.3 |     | 0.1 | 0.2 |
| 9 21 77  | 0.4                  | 0.04 |     |      | 320 | 0.1 | 0.00 | 0.3 | 2.7 |      | 93  | 6.4 |     | 20  | 0.07 | 0.1 | 2.3 |     | 0.1 | 0.0 |
| 11 8 77  | 0.3                  | 0.00 | 0.1 | 0.00 | 290 | 0.1 | 0.00 | 0.3 | 3.4 | 0.80 | 87  | 6.2 | 0.1 | 20  | 0.10 | 0.1 | 4.7 | 0.9 | 0.2 | 0.0 |
| 1 12 78  | 0.4                  | 0.00 | 0.0 | 0.00 | 230 | 0.0 | 0.01 | 0.4 | 1.7 | 1.5  | 76  | 4.7 | 0.0 | 11  | 0.10 | 0.1 | 4.7 | 0.8 | 0.1 | 0.1 |
| 2 14 78  | 0.2                  | 0.03 |     |      | 230 | 0.1 | 0.01 | 0.4 | 2.0 |      | 77  | 5.6 |     | 12  | 0.16 | 0.1 | 5.4 |     | 0.2 | 0.1 |
| 3 16 78  | 0.6                  |      |     |      | 260 | 0.1 | 0.00 | 0.3 | 2.2 |      | 76  | 5.9 |     | 7.7 | 0.16 | 0.1 | 6.8 |     | 0.2 | 0.1 |
| 4 18 78  | 5.0                  | 0.01 | 0.0 | 0.01 | 260 | 0.1 | 0.00 | 0.4 | 2.1 | 1.0  | 88  | 9.1 | 0.1 | 9.4 | 0.19 | 0.1 | 7.7 | 0.8 | 0.2 | 0.2 |
| 5 16 78  | 0.4                  | 0.03 |     |      | 240 | 0.1 | 0.00 | 0.3 | 1.9 |      | 74  | 3.4 |     | 9.7 | 0.15 | 0.1 | 6.2 |     | 0.2 | 0.1 |
| 6 23 78  | 0.3                  | 0.03 |     |      | 260 | 0.1 | 0.00 | 0.5 | 1.9 |      | 86  | 4.2 |     | 15  | 0.11 | 0.2 | 4.0 |     | 0.2 | 0.0 |
| 7 20 78  | 0.3                  | 0.02 | 0.0 | 0.00 | 310 | 0.1 | 0.00 | 0.7 | 2.6 | 1.0  | 85  | 5.8 | 0.5 | 11  | 0.15 | 0.2 | 5.2 | 0.8 | 0.2 | 0.0 |
| 9 6 78   | 0.5                  | 0.03 |     |      | 320 | 0.1 | 0.01 | 1.2 | 3.3 |      | 89  | 8.9 |     | 16  | 0.14 | 0.3 | 6.1 |     | 0.2 | 0.1 |
| 10 3 78  | 0.6                  | 0.03 | 0.0 | 0.00 | 340 | 0.1 | 0.01 | 1.0 | 2.3 | 0.75 | 95  | 8.0 | 0.0 | 16  | 0.12 | 1.0 | 3.0 | 0.9 | 0.7 | 0.0 |
| 11 8 78  | 0.6                  | 0.03 |     |      | 360 | 0.1 | 0.01 | 0.7 | 2.6 |      | 94  | 6.6 |     | 16  | 0.19 | 0.3 | 5.5 |     | 0.3 | 0.1 |
| 12 13 78 | 1.3                  | 0.04 |     |      | 280 | 0.1 | 0.00 | 0.4 | 1.9 |      | 86  | 3.8 |     | 7.9 | 0.17 | 0.2 | 7.4 |     | 0.4 | 0.3 |
| 2 5 79   | 0.9                  | 0.02 | 0.0 | 0.00 | 360 | 0.1 | 0.01 | 0.3 | 1.8 | 1.5  | 110 | 4.8 | 0.1 | 8.6 | 0.21 | 0.3 | 6.4 | 0.4 | 0.4 | 0.2 |
| 3 21 79  | 0.9                  | 0.02 |     |      | 360 | 0.1 | 0.01 | 0.4 | 2.0 |      | 100 | 5.1 |     | 9.7 | 0.22 | 0.3 | 6.2 |     | 0.6 | 0.3 |
| 4 23 79  | 0.4                  | 0.02 | 0.1 | 0.00 | 360 | 0.1 | 0.00 | 0.2 | 2.0 | 1.5  | 85  | 4.1 | 0.1 | 10  | 0.16 | 0.1 | 4.6 | 0.8 | 0.4 | 0.1 |
| 5 19 79  | 0.5                  | 0.02 |     |      | 250 | 0.1 | 0.01 | 0.3 | 1.9 |      | 99  | 4.8 |     | 12  | 0.17 | 0.3 | 4.8 |     | 0.5 | 0.1 |
| 6 22 79  | 1.5                  | 0.03 |     |      | 170 | 0.1 | 0.01 | 0.9 | 2.6 |      | 100 | 7.1 |     | 12  | 0.20 | 0.2 | 7.7 |     | 0.3 | 0.2 |
| 7 19 79  | 0.4                  | 0.03 | 0.0 | 0.00 | 350 | 0.1 | 0.03 | 1.6 | 2.2 | 2.0  | 97  | 9.0 | 0.2 | 15  | 0.11 | 0.3 | 3.6 | 1.1 | 0.3 | 0.0 |
| 8 14 79  | 0.4                  | 0.03 |     |      | 400 | 0.1 | 0.03 | 1.0 | 2.6 |      | 95  | 7.9 |     | 12  | 0.19 | 0.2 | 6.1 |     | 0.4 | 0.1 |

TABLE 57. WATER QUALITY FOR SITE 5156 NOBLE COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 HCO3 | CO3 | CL                   | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |          |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |
| 10 3 78  | 15         | 0.07      |          |             | 40   | 1370      | 1180      | 0.87       | 7.4    |          |             | 18       | 22  | 0                    | 1.1 | 870      | 0.1      |          |       |       |          |
| 11 8 78  | 4          | 0.05      | 29       |             | 40   | 1080      | 928       | 1.07       | 8.2    |          |             | 100      | 119 | 1                    | 2.3 | 610      | 0.1      |          |       |       |          |
| 12 13 78 | 5          | 0.9       | 46       |             | 70   | 777       | 533       | 1.10       | 4.7    | 23       |             | 0        | 0   | 0                    | 2.2 | 360      | 0.1      |          |       |       |          |
| 2 5 79   | 0          | 0.3       | 67       |             | 95   | 949       | 692       | 1.23       | 6.8    | -5       |             | 8        | 10  | 0                    | 2.1 | 450      | 0.2      |          |       |       |          |
| 3 21 79  | 6          | 0.5       | 85       |             | 60   | 994       | 865       | 1.01       | 6.0    | 4        |             | 1        | 1   | 0                    | 1.7 | 610      | 0.1      |          |       |       |          |
| 4 23 79  | 13         | 0.25      | 50       | 0.00        | 100  | 916       | 764       | 1.01       | 7.0    | -5       |             | 11       | 13  | 0                    | 2.6 | 540      | 0.1      |          |       |       |          |
| 5 19 79  | 20         | 0.2       | 77       | 0.00        | 110  | 1050      | 854       | 0.84       | 7.3    | -7       |             | 18       | 22  | 0                    | 1.4 | 630      | 0.1      |          |       |       |          |
| 6 22 79  | 21         | 0.9       | 67       |             | 90   | 765       | 562       | 0.92       | 7.2    | -2       |             | 16       | 19  | 0                    | 1.8 | 400      | 0.2      |          |       |       |          |
| 7 19 79  | 22         | 0.1       | 31       | 0.01        | 75   | 1240      | 938       | 1.02       | 7.7    | -14      |             | 32       | 39  | 0                    | 1.8 | 650      | 0.1      | 0.0      | 0.08  | 0.90  | 0.00     |
| 8 14 79  | 17         | 0.3       |          |             |      | 708       | 759       | 0.89       | 7.5    | -57      |             | 65       | 79  | 0                    | 0.9 | 530      |          |          |       |       |          |

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 10 3 78  | 0.4                  | 0.02 | 0.0 | 0.00 | 210 | 0.1 | 0.01 | 0.4 | 2.3 | 0.50 | 56 | 2.0 | 0.1 | 9.8 | 0.11 | 0.3 | 6.4 | 0.6 | 0.3 | 0.1 |
| 11 8 78  | 0.4                  | 0.01 |     |      | 180 | 0.0 | 0.01 | 0.2 | 2.1 |      | 47 | 2.3 |     | 11  | 0.08 | 0.2 | 5.5 |     | 0.1 | 0.0 |
| 12 13 78 | 2.2                  | 0.01 |     |      | 110 | 0.1 | 0.01 | 0.9 | 1.6 |      | 31 | 1.9 |     | 4.8 | 0.15 | 0.3 | 7.9 |     | 0.4 | 0.1 |
| 2 5 79   | 1.0                  | 0.01 | 0.0 | 0.00 | 160 | 0.1 | 0.01 | 1.2 | 1.6 | 0.40 | 43 | 2.9 | 0.0 | 6.8 | 0.13 | 0.2 | 7.1 | 0.4 | 0.2 | 0.2 |
| 3 21 79  | 1.0                  | 0.02 |     |      | 170 | 0.1 | 0.01 | 1.4 | 1.8 |      | 50 | 3.3 |     | 6.5 | 0.18 | 0.4 | 7.0 |     | 0.4 | 0.2 |
| 4 23 79  | 0.4                  | 0.02 | 0.1 | 0.00 | 150 | 0.1 | 0.00 | 0.5 | 1.5 | 0.70 | 42 | 2.7 | 0.0 | 6.2 | 0.12 | 0.1 | 5.9 | 0.4 | 0.3 | 0.1 |
| 5 19 79  | 0.4                  | 0.03 |     |      | 140 | 0.1 | 0.01 | 0.2 | 1.8 |      | 45 | 2.6 |     | 7.5 | 0.12 | 0.2 | 6.3 |     | 0.2 | 0.1 |
| 6 22 79  | 0.2                  | 0.02 |     |      | 100 | 0.0 | 0.00 | 0.3 | 1.8 |      | 28 | 1.9 |     | 5.8 | 0.07 | 0.1 | 6.8 |     | 0.1 | 0.0 |
| 7 19 79  | 0.4                  | 0.02 | 0.0 | 0.00 | 180 | 0.1 | 0.00 | 0.2 | 1.9 | 1.5  | 53 | 2.1 | 0.1 | 8.3 | 0.10 | 0.3 | 5.9 | 0.8 | 0.3 | 0.0 |
| 8 14 79  | 0.9                  | 0.00 |     |      | 130 | 0.0 | 0.00 | 0.2 | 2.4 |      | 37 | 1.2 |     | 8.2 | 0.03 | 0.1 | 5.9 |     | 0.3 | 0.0 |

TABLE 58. WATER QUALITY FOR SITE 5160 PERRY COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | NO3 HCO3 | CO3 | CL                   | SD4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|----------|-----|----------------------|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |          |     | MILLIGRAMS PER LITER |     |          |          |          |       |       |          |
| 6 14 77  | 16         | 0.05      |          |             | 20   | 1650      | 1170      | 0.78       | 2.7    |          |             | 0        | 0   | 0                    | 0.2 | 820      | 0.0      |          |       |       |          |
| 7 26 77  | 17         | 0.02      |          |             | 15   | 2340      | 1570      | 0.77       | 2.6    |          |             | 0        | 0   | 0                    | 1.6 | 1100     | 0.0      |          |       |       |          |

| DATE     | AL                   | B    | BA | BE | CA  | CO  | CU   | FE | K   | LI | MG | MN  | MO | NA | NI   | PB  | SI | SR | TI  | ZN  |
|----------|----------------------|------|----|----|-----|-----|------|----|-----|----|----|-----|----|----|------|-----|----|----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |    |    |     |     |      |    |     |    |    |     |    |    |      |     |    |    |     |     |
| 6 14 77  | 18                   | 0.20 |    |    | 110 | 0.1 | 0.01 | 44 | 4.9 |    | 71 | 7.4 |    | 42 | 0.16 | 0.1 | 18 |    | 0.1 | 0.7 |
| 7 26 77  | 25                   | 0.28 |    |    | 140 | 0.1 | 0.02 | 54 | 6.4 |    | 97 | 8.2 |    | 60 | 0.20 | 0.2 | 36 |    | 0.2 | 0.5 |

TABLE 59. WATER QUALITY FOR SITE 5161 PERRY COUNTY, OHIO

| WATER QUALITY DATA |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
|--------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| DATE               |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                 | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 8                  | 1  | 77         | 20        |          |             |      | 60        | 580       | 291        | 11.1                 | 7.8      |             | 135  | 164 | 1  | 56  | 19       | 0.5      |          |       |       |          |      |
| 9                  | 28 | 77         | 17        | 0.1      |             |      | 70        | 395       | 209        | 6.25                 | 7.8      |             | 95   | 115 | 0  | 40  | 22       | 0.3      |          |       |       |          |      |
| 11                 | 10 | 77         | 14        | 0.1      | 68          |      | 85        | 445       | 269        | 3.18                 | 8.2      |             | 103  | 124 | 1  | 50  | 48       | 0.3      |          |       |       |          |      |
| 12                 | 29 | 77         | 3         | 0.4      |             |      | 44        | 502       | 248        | 1.77                 | 7.6      |             | 60   | 73  | 0  | 35  | 85       | 0.5      |          |       |       |          |      |
|                    |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 2                  | 9  | 78         | 1         | 0.6      |             |      | 8         | 357       | 182        | 1.82                 | 7.8      |             | 49   | 60  | 0  | 30  | 47       | 2.5      |          |       |       |          |      |
| 3                  | 17 | 78         | 3         | 0.8      |             |      | 0         | 288       | 162        | 1.86                 | 7.6      |             | 29   | 35  | 0  | 32  | 41       | 2.4      |          |       |       |          |      |
| 4                  | 14 | 78         | 16        | 0.8      | 30          |      | 8         | 350       | 193        | 1.76                 | 7.7      |             | 48   | 58  | 0  | 36  | 57       | 1.3      |          |       |       |          |      |
| 5                  | 17 | 78         | 13        | 0.6      | 17*         |      | 3         | 309       | 159        | 2.28                 | 7.9      |             | 53   | 64  | 0  | 25  | 42       | 0.4      |          |       |       |          |      |
| 6                  | 22 | 78         | 13        | 0.3      | 84*         |      | 35        | 314       | 191        | 6.22                 | 7.9      |             | 82   | 99  | 0  | 24  | 25       | 1.2      |          |       |       |          |      |
| 7                  | 21 | 78         | 20        | 0.03     | 87*         |      | 75        | 356       |            |                      | 8.2      |             |      |     |    |     | 26       | 0.3      |          |       |       |          |      |
| 8                  | 29 | 78         | 21        | 0.006    | 84*         |      | 70        | 405       | 257        | 8.86                 | 7.7      |             | 118  | 143 | 0  | 51  | 18       | 0.2      |          |       |       |          |      |
| 10                 | 4  | 78         | 13        | 0.008    |             |      |           | 393       | 190        | 3.77                 | 7.9      |             | 90   | 109 | 1  | 26  | 32       | 0.3      |          |       |       |          |      |
| 11                 | 7  | 78         | 8         | 0.04     | 11          |      | 30        | 349       | 196        | 2.10                 | 7.3      | -44         | 49   | 60  | 0  | 30  | 54       | 1.2      |          |       |       |          |      |
| 12                 | 12 | 78         | 3         | 0.1      | 7           |      | 7         | 294       | 165        | 1.74                 | 7.6      | -30         | 34   | 42  | 0  | 18  | 49       | 3.6      |          |       |       |          |      |
|                    |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 2                  | 3  | 79         | 1         | 0.15     | 22          |      | 6         | 329       | 190        | 2.03                 | 7.7      |             | 44   | 54  | 0  | 27  | 53       | 3.1      |          |       |       |          |      |
| 3                  | 20 | 79         | 3         | 0.25     | 8           |      | 8         | 327       | 192        | 2.11                 | 7.0      | -38         | 43   | 52  | 0  | 28  | 60       | 1.6      |          |       |       |          |      |
| 4                  | 22 | 79         | 14        | 0.15     | 32          | 0.00 | 25        | 302       | 173        | 2.22                 | 7.5      | -48         | 48   | 59  | 0  | 24  | 50       | 1.6      |          |       |       |          |      |
| 5                  | 18 | 79         | 15        | 0.06     | 40          | 0.55 | 40        | 432       | 267        | 3.66                 | 8.2      |             | 152  | 181 | 2  | 23  | 53       | 1.2      |          |       |       |          |      |
| 6                  | 23 | 79         | 23        | 0.08     | 21          |      | 25        | 284       | 157        | 2.44                 | 8.2      | -58         | 61   | 74  | 1  | 22  | 30       | 2.8      |          |       |       |          |      |
| 7                  | 18 | 79         | 23        | 0.01     | 52*         |      | 130       | 411       | 231        | 3.63                 | 8.4      | -92         | 100  | 118 | 2  | 28  | 45       | 0.7      | 0.3      | 0.22  | 1.05  | 0.30     | 0.08 |
| 8                  | 8  | 79         | 22        | 0.03     | 24          |      | 50        | 445       | 222        | 11.7                 | 8.6      | -110        | 143  | 166 | 4  | 24  | 14       | 0.0      | 0.2      | 0.23  | 0.30  | 0.00     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |    |      |     |     |     |     |     |
| 8 1 77   | 0.0                  | 0.03 |     |      | 38 | 0.0 | 0.00 | 1.2 | 2.4 |      | 25  | 3.8 |     | 47 | 0.01 | 0.0 | 6.9 |     | 0.0 | 0.1 |
| 9 28 77  | 0.1                  | 0.07 | 0.0 | 0.00 | 28 | 0.0 | 0.00 | 2.8 | 2.8 | 0.10 | 23  | 2.6 | 0.0 | 15 | 0.02 | 0.0 | 7.3 | 0.1 | 0.1 | 0.1 |
| 11 10 77 | 0.0                  | 0.00 |     |      | 31 | 0.0 | 0.00 | 1.8 | 1.6 |      | 20  | 1.5 |     | 23 | 0.01 | 0.0 | 6.2 |     | 0.1 | 0.0 |
| 12 29 77 | 0.0                  | 0.03 | 0.0 | 0.00 | 26 | 0.0 | 0.00 | 0.9 | 3.0 | 0.20 | 22  | 0.9 | 0.0 | 22 | 0.00 | 0.0 | 6.9 | 0.1 | 0.0 | 0.0 |
| 2 9 78   | 0.0                  | 0.00 |     |      | 19 | 0.0 | 0.01 | 0.9 | 2.3 |      | 11  | 0.3 |     | 20 | 0.01 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 3 17 78  | 0.0                  | 0.03 |     |      | 18 | 0.0 | 0.00 | 0.3 | 2.4 |      | 11  | 0.2 |     | 18 | 0.01 | 0.0 | 5.2 |     | 0.0 | 0.0 |
| 4 14 78  | 0.0                  | 0.02 | 0.0 | 0.00 | 23 | 0.0 | 0.00 | 0.6 | 1.6 | 0.10 | 13  | 0.3 | 0.0 | 22 | 0.01 | 0.0 | 2.5 | 0.1 | 0.0 | 0.0 |
| 5 17 78  | 0.0                  | 0.03 |     |      | 20 | 0.0 | 0.00 | 0.5 | 0.8 |      | 12  | 0.2 |     | 18 | 0.01 | 0.0 | 3.7 |     | 0.0 | 0.0 |
| 6 22 78  | 0.0                  | 0.02 | 0.0 | 0.00 | 30 | 0.0 | 0.01 | 1.2 | 0.5 | 0.10 | 18  | 0.7 | 0.0 | 24 | 0.00 | 0.0 | 6.3 | 0.1 | 0.0 | 0.0 |
| 7 21 78  | 0.0                  | 0.01 |     |      | 27 | 0.0 | 0.00 | 1.6 | 1.1 |      | 18  | 2.0 |     | 32 | 0.00 | 0.0 | 6.3 |     | 0.1 | 0.0 |
| 8 29 78  | 0.1                  | 0.03 |     |      | 35 | 0.0 | 0.01 | 3.0 | 2.6 |      | 16  | 1.7 |     | 39 | 0.01 | 0.0 | 8.1 |     | 0.0 | 0.0 |
| 10 4 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 26 | 0.0 | 0.00 | 1.4 | 4.6 | 0.09 | 10  | 1.2 | 0.0 | 22 | 0.00 | 0.0 | 5.4 | 0.1 | 0.0 | 0.0 |
| 11 7 78  | 0.1                  | 0.03 |     |      | 22 | 0.0 | 0.00 | 0.6 | 5.5 |      | 14  | 0.3 |     | 22 | 0.01 | 0.0 | 5.7 |     | 0.0 | 0.0 |
| 12 12 78 | 0.1                  | 0.02 |     |      | 18 | 0.0 | 0.00 | 0.4 | 2.4 |      | 9.6 | 0.2 |     | 18 | 0.02 | 0.1 | 5.3 |     | 0.1 | 0.0 |
| 2 3 79   | 0.1                  | 0.04 | 0.0 | 0.00 | 21 | 0.0 | 0.00 | 0.4 | 1.6 | 0.20 | 17  | 0.2 | 0.0 | 16 | 0.02 | 0.0 | 5.7 | 0.1 | 0.1 | 0.0 |
| 3 20 79  | 0.1                  | 0.04 |     |      | 27 | 0.1 | 0.01 | 0.3 | 1.5 |      | 17  | 0.2 |     | 18 | 0.03 | 0.1 | 3.7 |     | 0.2 | 0.0 |
| 4 22 79  | 0.2                  | 0.03 | 0.1 | 0.00 | 20 | 0.0 | 0.01 | 0.4 | 1.3 | 0.15 | 13  | 0.2 | 0.0 | 22 | 0.02 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 |
| 5 18 79  | 0.1                  | 0.02 |     |      | 38 | 0.0 | 0.01 | 1.0 | 0.7 |      | 22  | 1.1 |     | 23 | 0.01 | 0.0 | 4.2 |     | 0.0 | 0.2 |
| 6 23 79  | 0.1                  | 0.02 |     |      | 19 | 0.1 | 0.03 | 0.6 | 1.2 |      | 9.7 | 0.8 |     | 14 | 0.02 | 0.0 | 4.9 |     | 0.0 | 0.1 |
| 7 18 79  | 0.1                  | 0.02 | 0.1 | 0.00 | 31 | 0.0 | 0.01 | 1.5 | 1.2 | 0.20 | 19  | 2.3 | 0.0 | 24 | 0.02 | 0.1 | 6.9 | 0.1 | 0.1 | 0.0 |
| 8 8 79   | 0.1                  | 0.02 |     |      | 31 | 0.0 | 0.02 | 1.0 | 3.5 |      | 18  | 6.5 |     | 23 | 0.01 | 0.1 | 6.6 |     | 0.0 | 0.0 |

TABLE 60. WATER QUALITY FOR SITE 5162 PERRY COUNTY, OHIO

| TABLE 301 WATER QUALITY FOR SITE 1000 |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
|---------------------------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| DATE                                  |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                                    | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 6                                     | 14 | 77         | 17        | 0.2      |             |      | 240       | 643       | 397        | 1.04                 | 4.9      |             | 0    | 0   | 0  | 22  | 250      | 0.5      |          |       |       |          |      |
| 7                                     | 26 | 77         | 19        | 0.0000   |             |      | 15        | 1140      | 699        | 1.05                 | 4.5      |             | 0    | 0   | 0  | 95  | 390      | 0.1      |          |       |       |          |      |
| 9                                     | 28 | 77         | 13        | 0.05     |             |      | 20        | 1090      | 781        | 1.01                 | 5.8      |             | 1    | 1   | 0  | 71  | 480      | 0.2      |          |       |       |          |      |
| 11                                    | 10 | 77         | 14        | 0.15     | 137         |      | 110       | 914       | 712        | 0.94                 | 6.3      |             | 5    | 6   | 0  | 80  | 420      | 0.3      |          |       |       |          |      |
| 12                                    | 29 | 77         | 0         | 0.4      |             |      | 8         | 662       | 364        | 1.05                 | 6.7      |             | 9    | 11  | 0  | 51  | 190      | 0.3      |          |       |       |          |      |
|                                       |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 2                                     | 9  | 78         | 0         | 0.25     |             |      | 0         | 454       | 280        | 1.13                 | 6.8      |             | 2    | 3   | 0  | 24  | 160      | 0.4      |          |       |       |          |      |
| 3                                     | 17 | 78         | 3         | 2.5      |             |      | 4         | 244       | 145        | 1.15                 | 6.1      |             | 3    | 4   | 0  | 12  | 73       | 1.1      |          |       |       |          |      |
| 4                                     | 14 | 78         | 16        | 0.3      | 8           |      | 5         | 384       | 251        | 1.08                 | 6.0      |             | 7    | 8   | 0  | 21  | 140      | 0.4      |          |       |       |          |      |
| 5                                     | 17 | 78         | 12        | 1.0      | 44*         |      | 7         | 354       | 203        | 1.28                 | 6.9      |             | 6    | 7   | 0  | 22  | 100      | 0.7      |          |       |       |          |      |
| 6                                     | 22 | 78         | 15        | 0.2      | 85*         |      | 0         | 765       | 486        | 0.99                 | 6.5      |             | 4    | 5   | 0  | 45  | 290      | 0.1      |          |       |       |          |      |
| 8                                     | 29 | 78         | 21        | 0.004    | 64*         |      | 15        | 952       | 642        | 1.18                 | 6.8      |             | 7    | 8   | 0  | 56  | 370      | 0.2      |          |       |       |          |      |
| 10                                    | 4  | 78         | 14        | 0.02     | 251*        |      | 120       | 908       | 691        | 0.99                 | 7.1      |             | 11   | 14  | 0  | 40  | 440      | 0.1      |          |       |       |          |      |
| 11                                    | 7  | 78         | 8         | 0.006    | 202         |      | 110       | 761       | 536        | 1.05                 | 6.9      | 2           | 11   | 14  | 0  | 48  | 310      | 0.2      |          |       |       |          |      |
| 12                                    | 12 | 78         | 5         | 0.07     | 10          |      | 3         | 330       | 196        | 1.22                 | 6.6      | 4           | 2    | 3   | 0  | 13  | 100      | 1.7      |          |       |       |          |      |
|                                       |    |            |           |          |             |      |           |           |            |                      |          |             |      |     |    |     |          |          |          |       |       |          |      |
| 2                                     | 3  | 79         | 0         | 0.25     | 35          |      | 4         | 383       | 263        | 1.07                 | 6.4      | -1          | 7    | 8   | 0  | 16  | 160      | 0.6      |          |       |       |          |      |
| 3                                     | 20 | 79         | 3         | 0.06     | 14          |      | 3         | 460       | 344        | 1.04                 | 6.7      | -2          | 4    | 5   | 0  | 14  | 220      | 0.5      |          |       |       |          |      |
| 4                                     | 22 | 79         | 14        | 0.2      | 21          | 0.00 | 30        | 493       | 336        | 1.15                 | 5.7      | 6           | 0    | 0   | 0  | 14  | 210      | 0.5      |          |       |       |          |      |
| 5                                     | 18 | 79         | 21        | 0.06     |             | 0.12 | 35        | 595       | 390        | 1.02                 | 6.8      | 8           | 6    | 7   | 0  | 15  | 250      | 0.2      |          |       |       |          |      |
| 6                                     | 23 | 79         | 23        | 0.08     | 20          |      | 15        | 315       | 223        | 0.98                 | 6.7      | 0           | 7    | 8   | 0  | 11  | 140      | 0.7      |          |       |       |          |      |
| 7                                     | 18 | 79         | 23        | 0.02     | 17*         |      | 65        | 922       | 634        | 0.99                 | 5.5      | 14          | 0    | 0   | 0  | 21  | 420      | 0.1      | 0.1      | 0.24  | 0.65  | 0.20     | 0.01 |
| 8                                     | 1  | 79         | 22        | 0.02     | 30          |      | 20        | 414       | 238        | 1.13                 | 7.2      | 31          | 9    | 11  | 0  | 10  | 140      | 0.6      |          |       |       |          |      |
| 8                                     | 8  | 79         | 22        | 0.04     | 16          |      | 20        | 773       | 498        | 1.08                 | 7.2      | -1          | 8    | 10  | 0  | 17  | 320      | 0.1      | 0.0      | 0.27  | 0.45  | 0.00     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 14 77  | 0.1                  | 0.01 |     |      | 49 | 0.0 | 0.00 | 3.6 | 4.6 |      | 35 | 6.7 |     | 14  | 0.11 | 0.0 | 4.1 |     | 0.0 | 0.0 |
| 7 26 77  | 0.8                  | 0.06 |     |      | 84 | 0.1 | 0.00 | 0.6 | 4.6 |      | 68 | 13  |     | 28  | 0.09 | 0.0 | 7.7 |     | 0.1 | 0.3 |
| 9 28 77  | 0.4                  | 0.09 | 0.0 | 0.00 | 99 | 0.1 | 0.01 | 1.9 | 5.5 | 0.30 | 77 | 16  | 0.0 | 15  | 0.09 | 0.1 | 7.9 | 0.3 | 0.2 | 0.1 |
| 11 10 77 | 0.2                  | 0.01 |     |      | 85 | 0.1 | 0.00 | 2.1 | 13  |      | 60 | 13  |     | 23  | 0.07 | 0.0 | 7.0 |     | 0.1 | 0.0 |
| 12 29 77 | 0.2                  | 0.01 | 0.1 | 0.00 | 38 | 0.0 | 0.00 | 0.8 | 2.9 | 0.25 | 35 | 5.9 | 0.0 | 18  | 0.06 | 0.0 | 5.9 | 0.2 | 0.1 | 0.0 |
| 2 9 78   | 0.1                  | 0.04 |     |      | 29 | 0.0 | 0.00 | 0.2 | 2.2 |      | 30 | 4.2 |     | 12  | 0.05 | 0.0 | 5.8 |     | 0.0 | 0.0 |
| 3 17 78  | 0.2                  | 0.03 |     |      | 18 | 0.0 | 0.00 | 0.3 | 2.0 |      | 12 | 1.6 |     | 6.8 | 0.03 | 0.0 | 5.4 |     | 0.1 | 0.0 |
| 4 14 78  | 0.1                  | 0.04 | 0.5 | 0.00 | 26 | 0.1 | 0.00 | 0.2 | 1.8 | 0.20 | 26 | 4.5 | 0.0 | 7.9 | 0.08 | 0.1 | 6.8 | 0.2 | 0.4 | 0.1 |
| 5 17 78  | 0.1                  | 0.02 |     |      | 24 | 0.0 | 0.00 | 0.3 | 2.1 |      | 21 | 2.3 |     | 10  | 0.05 | 0.0 | 5.9 |     | 0.0 | 0.0 |
| 6 22 78  | 0.2                  | 0.03 | 0.1 | 0.00 | 57 | 0.1 | 0.00 | 0.5 | 3.8 | 0.20 | 41 | 8.4 | 0.0 | 20  | 0.06 | 0.0 | 7.0 | 0.2 | 0.1 | 0.0 |
| 8 29 78  | 0.2                  | 0.05 |     |      | 93 | 0.1 | 0.01 | 0.7 | 6.5 |      | 58 | 12  |     | 25  | 0.09 | 0.1 | 8.5 |     | 0.1 | 0.1 |
| 10 4 78  | 0.2                  | 0.04 | 0.1 | 0.00 | 89 | 0.0 | 0.01 | 0.3 | 7.5 | 0.25 | 56 | 10  | 0.0 | 23  | 0.08 | 0.1 | 7.4 | 0.3 | 0.0 | 0.0 |
| 11 7 78  | 0.2                  | 0.03 |     |      | 72 | 0.0 | 0.01 | 1.4 | 5.3 |      | 42 | 8.6 |     | 23  | 0.06 | 0.1 | 6.0 |     | 0.1 | 0.0 |
| 12 12 78 | 0.1                  | 0.00 |     |      | 28 | 0.0 | 0.00 | 0.3 | 2.3 |      | 16 | 2.2 |     | 7.1 | 0.04 | 0.0 | 5.5 |     | 0.0 | 0.0 |
| 2 3 79   | 0.2                  | 0.02 | 0.0 | 0.00 | 32 | 0.1 | 0.01 | 0.2 | 2.1 | 0.10 | 23 | 3.2 | 0.0 | 8.6 | 0.06 | 0.1 | 5.7 | 0.1 | 0.1 | 0.0 |
| 3 20 79  | 0.2                  | 0.02 |     |      | 47 | 0.1 |      | 0.2 | 2.1 |      | 30 | 4.0 |     | 8.1 | 0.08 | 0.1 | 5.8 |     | 0.2 | 0.1 |
| 4 22 79  | 0.4                  | 0.01 | 0.0 | 0.00 | 49 | 0.1 | 0.01 | 0.5 | 2.5 | 0.20 | 32 | 4.7 | 0.0 | 8.0 | 0.08 | 0.0 | 5.6 | 0.1 | 0.0 | 0.1 |
| 5 18 79  | 0.7                  | 0.01 |     |      | 53 | 0.1 | 0.02 | 0.5 | 3.0 |      | 32 | 6.2 |     | 10  | 0.09 | 0.0 | 5.5 |     | 0.1 | 0.2 |
| 6 23 79  | 0.2                  | 0.03 |     |      | 23 | 0.0 | 0.00 | 0.6 | 2.2 |      | 20 | 2.3 |     | 6.7 | 0.04 | 0.0 | 5.9 |     | 0.0 | 0.1 |
| 7 18 79  | 0.3                  | 0.04 | 0.1 | 0.00 | 84 | 0.1 | 0.01 | 0.3 | 4.6 | 0.40 | 54 | 11  | 0.0 | 13  | 0.14 | 0.1 | 9.3 | 0.3 | 0.2 | 0.0 |
| 8 1 79   | 0.1                  | 0.03 |     |      | 32 | 0.0 | 0.04 | 0.7 | 2.5 |      | 21 | 2.8 |     | 6.7 | 0.04 | 0.0 | 5.4 |     | 0.0 | 0.0 |
| 8 8 79   | 0.1                  | 0.05 |     |      | 71 | 0.1 | 0.01 | 0.4 | 3.8 |      | 44 | 7.6 |     | 11  | 0.09 | 0.1 | 7.2 |     | 0.2 | 0.0 |

TABLE 61. WATER QUALITY FOR SITE 5163 PERRY COUNTY, OHIO

| COUNTY DATA |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
|-------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|------|
| DATE        | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | NO3 HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO          | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | MILLIGRAMS PER LITER |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 6           | 14         | 77        | 17       | 0.08        |      |           | 4         | 2310       | 1450   | 0.96                 | 3.0         | 0        | 0   | 0  | 3.3 | 1000     | 0.1      |          |       |       |          |      |      |
| 7           | 26         | 77        | 18       | 0.02        |      |           | 8         | 1820       | 1220   | 0.87                 | 3.3         | 0        | 0   | 0  | 3.7 | 890      | 0.2      |          |       |       |          |      |      |
| 9           | 28         | 77        | 14       | 0.15        |      |           | 8         | 1590       | 1210   | 0.88                 | 3.4         | 0        | 0   | 0  | 3.5 | 880      | 0.2      |          |       |       |          |      |      |
| 11          | 10         | 77        | 14       | 0.8         | 18   |           | 40        | 1480       | 1230   | 0.89                 | 3.5         | 0        | 0   | 0  | 3.0 | 900      | 0.1      |          |       |       |          |      |      |
| 12          | 29         | 77        | 0        | 0.4         |      |           | 10        | 1820       | 1210   | 0.97                 | 3.4         | 0        | 0   | 0  | 3.6 | 860      | 0.2      |          |       |       |          |      |      |
|             |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 3           | 17         | 78        | 2        | 1.5         |      |           | 6         | 1160       | 834    | 0.94                 | 3.3         | 0        | 0   | 0  | 2.2 | 590      | 0.6      |          |       |       |          |      |      |
| 4           | 14         | 78        | 15       | 1.0         | 5    |           | 0         | 1620       | 1160   | 0.85                 | 3.2         | 0        | 0   | 0  | 2.7 | 850      | 0.2      |          |       |       |          |      |      |
| 5           | 17         | 78        | 12       | 0.7         | 47*  |           | 2         | 1510       | 1060   | 0.83                 | 3.3         | 0        | 0   | 0  | 2.6 | 790      | 0.2      |          |       |       |          |      |      |
| 6           | 22         | 78        | 12       | 0.2         | 42*  |           | 4         | 1770       | 1430   | 0.78                 | 3.0         | 0        | 0   | 0  | 2.5 | 1100     | 0.2      |          |       |       |          |      |      |
| 7           | 21         | 78        | 19       | 0.1         | 79*  |           | 10        | 1720       | 1310   | 0.88                 | 3.3         | 0        | 0   | 0  | 3.2 | 960      | 0.3      |          |       |       |          |      |      |
| 8           | 29         | 78        | 20       | 0.09        | 46*  |           | 8         | 1610       | 1250   | 0.75                 | 3.2         | 0        | 0   | 0  | 2.3 | 950      | 0.3      |          |       |       |          |      |      |
| 10          | 4          | 78        | 14       | 0.08        | 38*  |           | 4         | 1500       | 1180   | 0.82                 | 3.4         | 0        | 0   | 0  | 1.5 | 880      | 0.2      |          |       |       |          |      |      |
| 11          | 7          | 78        | 9        | 0.04        | 8    |           | 5         | 1380       | 1050   | 0.88                 | 3.4         | 93       | 0   | 0  | 0   | 3.3      | 770      | 0.2      |       |       |          |      |      |
| 12          | 12         | 78        | 3        | 0.4         | 8    |           | 6         | 1320       | 1020   | 0.84                 | 3.3         | 120      | 0   | 0  | 0   | 2.1      | 750      | 0.6      |       |       |          |      |      |
|             |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 2           | 3          | 79        | 1        | 0.5         | 1    |           | 3         | 1650       | 1190   | 0.83                 | 3.0         | 150      | 0   | 0  | 0   | 1.7      | 880      | 0.3      |       |       |          |      |      |
| 3           | 20         | 79        | 6        | 0.4         | 16   |           | 3         | 1930       | 1880   | 0.79                 | 3.2         | 160      | 0   | 0  | 0   | 2.2      | 1400     | 0.3      |       |       |          |      |      |
| 4           | 22         | 79        | 15       | 0.3         | 6    | 0.00      | 5         | 1750       | 1460   | 0.91                 | 3.1         | 130      | 0   | 0  | 0   | 1.9      | 1100     | 0.2      |       |       |          |      |      |
| 5           | 18         | 79        | 13       | 0.25        | 13   | 0.00      | 3         | 1770       | 1450   | 0.78                 | 3.2         | 150      | 0   | 0  | 0   | 2.3      | 1100     | 0.2      |       |       |          |      |      |
| 6           | 23         | 79        | 23       | 0.4         | 6    |           | 8         | 1380       | 825    | 1.02                 | 3.3         | 84       | 0   | 0  | 0   | 2.2      | 580      | 0.3      |       |       |          |      |      |
| 7           | 18         | 79        | 23       | 0.07        | 16*  |           | 65        | 2140       | 1730   | 0.86                 | 3.2         | 110      | 0   | 0  | 0   | 2.2      | 1300     | 0.3      | 0.1   | 0.10  | 0.80     | 0.15 | 0.03 |
| 8           | 1          | 79        | 21       | 0.08        | 7    |           | 20        | 1700       | 1060   | 0.78                 | 3.2         | 92       | 0   | 0  | 0   | 2.8      | 800      | 0.3      |       |       |          |      |      |
| 8           | 8          | 79        | 22       | 0.05        | 0    |           | 5         | 1860       | 1090   | 1.01                 | 3.2         | 110      | 0   | 0  | 0   | 3.2      | 770      | 0.3      | 0.1   | 0.10  | 0.20     | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |    |     |     |      |     |     |     |     |     |
| 6 14 77  | 13                   | 0.03 |     |      | 160 | 0.4 | 0.02 | 5.5 | 5.7 |      | 150 | 21 |     | 12  | 0.64 | 0.1 | 13  |     | 0.1 | 1.1 |
| 7 26 77  | 12                   | 0.08 |     |      | 130 | 0.3 | 0.02 | 1.9 | 5.0 |      | 110 | 16 |     | 12  | 0.40 | 0.1 | 19  |     | 0.1 | 0.9 |
| 9 28 77  | 10                   | 0.10 | 0.0 | 0.01 | 140 | 0.2 | 0.01 | 3.2 | 4.1 | 0.50 | 100 | 16 | 0.0 | 6.8 | 0.34 | 0.1 | 17  | 0.5 | 0.2 | 0.6 |
| 11 10 77 | 13                   | 0.09 |     |      | 150 | 0.2 | 0.01 | 2.5 | 6.8 |      | 100 | 14 |     | 12  | 0.29 | 0.1 | 14  |     | 0.2 | 0.4 |
| 12 29 77 | 18                   | 0.03 | 0.0 | 0.01 | 140 | 0.3 | 0.01 | 3.8 | 3.7 | 0.80 | 120 | 17 | 0.0 | 9.5 | 0.45 | 0.1 | 12  | 0.6 | 0.3 | 0.5 |
| 3 17 78  | 8.4                  | 0.06 |     |      | 89  | 0.2 | 0.01 | 9.8 | 3.1 |      | 85  | 11 |     | 5.6 | 0.29 | 0.0 | 9.6 |     | 0.2 | 0.4 |
| 4 14 78  | 12                   | 0.04 | 0.0 | 0.01 | 120 | 0.2 | 0.01 | 6.3 | 3.4 | 0.40 | 110 | 23 | 0.1 | 7.7 | 0.41 | 0.1 | 11  | 0.4 | 0.3 | 0.5 |
| 5 17 78  | 9.6                  | 0.05 |     |      | 100 | 0.3 | 0.01 | 9.2 | 3.5 |      | 99  | 14 |     | 7.1 | 0.44 | 0.1 | 11  |     | 0.3 | 0.5 |
| 6 22 78  | 9.2                  | 0.06 | 0.0 | 0.01 | 130 | 0.3 | 0.01 | 4.6 | 4.2 | 0.50 | 130 | 18 | 0.1 | 7.9 | 0.44 | 0.1 | 13  | 0.4 | 0.3 | 0.5 |
| 7 21 78  | 10                   | 0.06 |     |      | 140 | 0.3 | 0.02 | 1.8 | 5.2 |      | 120 | 16 |     | 10  | 0.51 | 0.1 | 15  |     | 0.3 | 0.5 |
| 8 29 78  | 7.2                  | 0.07 |     |      | 130 | 0.2 | 0.02 | 5.6 | 5.0 |      | 98  | 14 |     | 7.3 | 0.36 | 0.2 | 13  |     | 0.2 | 0.4 |
| 10 4 78  | 7.9                  | 0.05 | 0.0 | 0.01 | 130 | 0.2 | 0.02 | 2.5 | 5.1 | 0.45 | 97  | 14 | 0.0 | 9.9 | 0.34 | 0.2 | 14  | 0.4 | 0.3 | 0.4 |
| 11 7 78  | 8.1                  | 0.05 |     |      | 130 | 0.2 | 0.01 | 1.3 | 3.7 |      | 88  | 12 |     | 8.3 | 0.28 | 0.2 | 12  |     | 0.2 | 0.4 |
| 12 12 78 | 9.5                  | 0.03 |     |      | 110 | 0.2 | 0.01 | 7.8 | 3.6 |      | 87  | 13 |     | 6.5 | 0.36 | 0.2 | 10  |     | 0.2 | 0.4 |
| 2 3 79   | 9.9                  | 0.05 | 0.0 | 0.00 | 120 | 0.3 | 0.01 | 14  | 3.5 | 0.85 | 110 | 17 | 0.1 | 6.6 | 0.44 | 0.3 | 10  | 0.3 | 0.7 | 0.6 |
| 3 20 79  | 17                   | 0.05 |     |      | 190 | 0.4 | 0.01 | 15  | 4.9 |      | 170 | 25 |     | 9.4 | 0.72 | 0.3 | 12  |     | 1.0 | 0.8 |
| 4 22 79  | 13                   | 0.06 | 0.1 | 0.00 | 160 | 0.3 | 0.01 | 10  | 4.0 | 0.75 | 150 | 20 | 0.1 | 7.9 | 0.54 | 0.2 | 11  | 0.2 | 0.5 | 0.7 |
| 5 18 79  | 10                   | 0.05 |     |      | 140 | 0.3 | 0.03 | 4.6 | 3.7 |      | 130 | 19 |     | 8.9 | 0.51 | 0.2 | 12  |     | 0.6 | 0.7 |
| 6 23 79  | 6.0                  | 0.05 |     |      | 99  | 0.2 | 0.01 | 2.9 | 3.6 |      | 86  | 13 |     | 6.4 | 0.32 | 0.1 | 11  |     | 0.2 | 0.5 |
| 7 18 79  | 12                   | 0.08 | 0.0 | 0.00 | 180 | 0.3 | 0.05 | 2.8 | 4.4 | 0.95 | 170 | 22 | 0.1 | 9.1 | 0.50 | 0.2 | 15  | 0.5 | 0.4 | 0.6 |
| 8 1 79   | 6.1                  | 0.06 |     |      | 110 | 0.2 | 0.01 | 2.7 | 3.7 |      | 85  | 14 |     | 5.9 | 0.33 | 0.2 | 9.9 |     | 0.3 | 0.4 |
| 8 8 79   | 8.9                  | 0.08 |     |      | 140 | 0.2 | 0.03 | 1.9 | 4.0 |      | 110 | 15 |     | 8.3 | 0.37 | 0.2 | 14  |     | 0.3 | 0.4 |

TABLE 62. WATER QUALITY FOR SITE 5181 TUSCARAWAS COUNTY, OHIO

| WIDE SWATH SURVEY FOR 1977 |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
|----------------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| DATE                       |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO                       | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                         | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU UM/CM | MG/L      | ----- MILLIGRAMS PER LITER ----- |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6                          | 21 | 77         | 22        | 0.01     |             |      | 8         | 340       | 159                              | 3.75   | 7.4      |             | 65   | 79  | 0  | 25  | 28       | 0.1       |          |       |       |          |      |
| 8                          | 3  | 77         | 20        | 0.04     |             |      | 10        | 257       | 146                              | 3.45   | 8.0      |             | 79   | 95  | 1  | 5.2 | 33       | 0.7       |          |       |       |          |      |
| 9                          | 1  | 77         | 22        | 0.04     |             |      | 15        | 343       | 156                              | 4.93   | 7.7      |             | 61   | 74  | 0  | 33  | 19       | 0.1       |          |       |       |          |      |
| 11                         | 7  | 77         | 16        | 0.25     | 13          |      | 35        | 343       | 190                              | 2.84   | 7.2      |             | 72   | 88  | 0  | 42  | 32       | 0.1       |          |       |       |          |      |
|                            |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 1                          | 5  | 78         | 1         | 0.4      |             |      | 8         | 310       | 152                              | 1.54   | 7.4      |             | 40   | 49  | 0  | 26  | 48       | 0.1       |          |       |       |          |      |
| 2                          | 7  | 78         | 1         | 0.4      |             |      | 4         | 232       | 119                              | 1.95   | 7.5      |             | 28   | 34  | 0  | 21  | 34       | 0.1       |          |       |       |          |      |
| 3                          | 14 | 78         | 4         | 8        | 520         |      | 240       | 133       | 65                               | 1.14   | 6.6      |             | 10   | 12  | 0  | 9.4 | 25       | 0.5       |          |       |       |          |      |
| 4                          | 12 | 78         | 11        | 2.5      | 8           |      | 3         | 201       | 107                              | 1.82   | 7.0      |             | 27   | 33  | 0  | 17  | 32       | 0.1       |          |       |       |          |      |
| 5                          | 10 | 78         | 10        | 4        | 234         |      | 35        | 165       | 100                              | 1.83   | 7.3      |             | 25   | 31  | 0  | 9.4 | 35       | 0.1       |          |       |       |          |      |
| 6                          | 21 | 78         |           | 0.4      | 744         |      |           | 229       | 129                              | 2.19   | 7.7      |             | 46   | 56  | 0  | 20  | 32       | 0.0       |          |       |       |          |      |
| 7                          | 20 | 78         | 18        | 0.1      | 794         |      | 4         | 270       | 155                              | 3.56   | 7.6      |             | 58   | 71  | 0  | 26  | 28       | 0.1       |          |       |       |          |      |
| 9                          | 12 | 78         | 20        | 0.4      | 6424        |      | 1300      | 210       | 113                              | 2.19   | 7.7      |             | 34   | 42  | 0  | 16  | 31       |           |          |       |       |          |      |
| 10                         | 16 | 78         | 9         | 1.5      | 554         |      | 45        | 206       | 117                              | 2.33   | 8.0      |             | 42   | 50  | 0  | 11  | 32       | 0.2       |          |       |       |          |      |
| 11                         | 21 | 78         | 6         | 0.03     | 4           |      | 4         | 241       | 137                              | 2.53   | 7.0      | -60         | 50   | 61  | 0  | 16  | 36       | 0.1       |          |       |       |          |      |
| 12                         | 20 | 78         | 0         | 0.06     | 5           |      | 0         | 192       | 123                              | 2.47   | 7.6      |             | 38   | 46  | 0  | 12  | 34       | 0.5       |          |       |       |          |      |
|                            |    |            |           |          |             |      |           |           |                                  |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 2                          | 1  | 79         | 0         | 0.2      | 3           |      | 1         | 191       | 108                              | 2.23   | 7.1      | -30         | 27   | 33  | 0  | 16  | 31       | 0.1       |          |       |       |          |      |
| 3                          | 19 | 79         | 4         | 0.08     | 11          |      | 3         | 197       | 122                              | 1.82   | 7.4      | -27         | 31   | 38  | 0  | 16  | 40       | 0.1       |          |       |       |          |      |
| 4                          | 20 | 79         | 9         | 0.4      | 7           | 0.00 | 5         | 176       | 105                              | 1.88   | 7.5      | -25         | 26   | 32  | 0  | 12  | 36       | 0.0       |          |       |       |          |      |
| 5                          | 16 | 79         | 16        | 0.07     | 9           |      | 15        | 226       | 142                              | 2.48   | 7.4      | -34         | 48   | 58  | 0  | 14  | 40       | 0.3       |          |       |       |          |      |
| 6                          | 20 | 79         | 24        | 0.01     | 13          |      | 30        | 237       | 144                              | 2.54   | 8.0      | -45         | 50   | 60  | 0  | 18  | 37       | 0.2       |          |       |       |          |      |
| 7                          | 24 | 79         | 23        | 0.04     | 0           |      | 15        | 264       | 149                              | 3.20   | 7.8      | -42         | 63   | 76  | 0  | 20  | 32       | 0.2       | 0.0      | 0.18  | 0.00  | 0.00     | 0.01 |
| 8                          | 15 | 79         | 15        | 0.02     | 37          |      | 8         | 320       | 160                              | 3.64   | 8.1      | -57         | 70   | 84  | 1  | 20  | 30       | 0.0       | 0.0      | 0.15  | 0.30  | 0.00     | 0.00 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE |    |    | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|------|----|----|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6    | 21 | 77 | 0.0                  | 0.00 |     |      | 27  | 0.0 | 0.00 | 0.1 | 2.4 |      | 6.9 | 0.3 |     | 22  | 0.05 | 0.1 | 3.1 |     | 0.0 | 0.1 |
| 8    | 3  | 77 | 0.0                  | 0.01 |     |      | 29  | 0.0 | 0.00 | 0.2 | 2.0 |      | 8.5 | 0.0 |     | 8.5 | 0.00 | 0.0 | 4.2 |     | 0.0 | 0.2 |
| 9    | 1  | 77 | 0.1                  | 0.00 |     |      | 28  | 0.0 | 0.03 | 0.1 | 2.1 |      | 6.1 | 0.2 |     | 21  | 0.01 | 0.1 | 4.1 |     | 0.0 | 0.0 |
| 11   | 7  | 77 | 0.0                  | 0.00 | 2.1 | 0.00 | 30  | 0.0 | 0.00 | 0.1 | 2.0 | 0.09 | 6.9 | 0.2 | 0.0 | 21  | 0.00 | 0.0 | 4.4 | 0.1 | 0.0 | 0.1 |
| 1    | 5  | 78 | 0.0                  | 0.00 | 0.0 | 0.00 | 23  | 0.0 | 0.00 | 0.0 | 1.7 | 0.15 | 6.3 | 0.0 | 0.0 | 14  | 0.02 | 0.0 | 4.0 | 0.1 | 0.0 | 0.0 |
| 2    | 7  | 78 | 0.0                  | 0.04 |     |      | 20  | 0.0 | 0.00 | 0.1 | 1.2 |      | 5.6 | 0.0 |     | 12  | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 3    | 14 | 78 | 0.4                  | 0.03 |     |      | 8.5 | 0.0 | 0.00 | 0.3 | 1.4 |      | 2.7 | 0.2 |     | 5.1 | 0.01 | 0.0 | 1.9 |     | 0.0 | 0.0 |
| 4    | 12 | 78 | 0.1                  | 0.01 | 0.0 | 0.00 | 17  | 0.0 | 0.00 | 0.1 | 1.3 | 0.09 | 4.7 | 0.0 | 0.0 | 9.4 | 0.01 | 0.0 | 3.9 | 0.1 | 0.0 | 0.0 |
| 5    | 10 | 78 | 0.1                  | 0.02 |     |      | 17  | 0.0 | 0.00 | 0.1 | 1.6 |      | 4.3 | 0.0 |     | 8.6 | 0.02 | 0.0 | 4.0 |     | 0.0 | 0.0 |
| 6    | 21 | 78 | 0.0                  | 0.03 |     |      | 21  | 0.0 | 0.00 | 0.1 | 1.8 |      | 5.4 | 0.0 |     | 11  | 0.00 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 7    | 20 | 78 | 0.1                  | 0.02 | 0.0 | 0.00 | 30  | 0.0 | 0.00 | 0.0 | 1.9 | 0.15 | 6.4 | 0.0 | 0.2 | 18  | 0.00 | 0.0 | 3.6 | 0.1 | 0.0 | 0.0 |
| 9    | 12 | 78 | 0.3                  | 0.05 |     |      | 18  | 0.0 | 0.01 | 0.6 | 3.8 |      | 4.1 | 0.1 |     | 8.8 | 0.01 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 10   | 16 | 78 | 0.1                  | 0.02 | 0.0 | 0.00 | 22  | 0.0 | 0.00 | 0.2 | 1.9 | 0.15 | 4.8 | 0.1 | 0.0 | 8.5 | 0.01 | 0.0 | 4.7 | 0.1 | 0.0 | 0.1 |
| 11   | 21 | 78 | 0.1                  | 0.01 |     |      | 25  | 0.0 | 0.00 | 0.0 | 1.5 |      | 6.0 | 0.0 |     | 12  | 0.01 | 0.0 | 4.8 |     | 0.0 | 0.0 |
| 12   | 20 | 78 | 0.1                  | 0.01 |     |      | 24  | 0.0 | 0.01 | 0.0 | 1.4 |      | 5.0 | 0.0 |     | 11  | 0.01 | 0.0 | 4.5 |     | 0.1 | 0.0 |
| 2    | 1  | 79 | 0.1                  | 0.01 | 0.0 | 0.00 | 22  | 0.0 | 0.00 | 0.0 | 1.1 | 0.20 | 4.7 | 0.1 | 0.0 | 8.8 | 0.01 | 0.0 | 4.0 | 0.1 | 0.0 | 0.0 |
| 3    | 19 | 79 | 0.1                  | 0.02 |     |      | 22  | 0.0 | 0.00 | 0.0 | 1.4 |      | 5.3 | 0.0 |     | 9.3 | 0.02 | 0.1 | 4.2 |     | 0.1 | 0.0 |
| 4    | 20 | 79 | 0.1                  | 0.01 | 0.1 | 0.00 | 20  | 0.0 | 0.00 | 0.0 | 1.4 | 0.15 | 4.2 | 0.0 | 0.0 | 8.1 | 0.01 | 0.0 | 3.8 | 0.1 | 0.0 | 0.0 |
| 5    | 16 | 79 | 0.1                  | 0.02 |     |      | 31  | 0.0 | 0.00 | 0.0 | 1.4 |      | 5.7 | 0.0 |     | 9.6 | 0.00 | 0.0 | 4.5 |     | 0.0 | 0.0 |
| 6    | 20 | 79 | 0.1                  | 0.02 |     |      | 29  | 0.0 | 0.01 | 0.1 | 1.6 |      | 5.5 | 0.1 |     | 12  | 0.00 | 0.0 | 4.4 |     | 0.0 | 0.0 |
| 7    | 24 | 79 | 0.0                  | 0.04 |     |      | 33  | 0.1 | 0.01 | 0.1 | 1.1 |      | 7.0 | 0.1 |     | 11  | 0.01 | 0.1 | 3.1 |     | 0.1 | 0.2 |
| 8    | 15 | 79 | 0.1                  | 0.04 |     |      | 31  | 0.0 | 0.01 | 0.1 | 1.9 |      | 6.0 | 0.2 |     | 17  | 0.02 | 0.0 | 5.4 |     | 0.0 | 0.0 |

TABLE 63. WATER QUALITY FOR SITE 5182 TUSCARAWAS COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | MEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | CO3 HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |          |     |    |     |          |          |          |       |       |          |      |
| 6    | 21 | 77         | 17        | 0.0000   |             |      | 35        | 1060      | 687        | 1.10                 | 7.6      |             | 61       | 74  | 0  | 12  | 440      | 0.0      |          |       |       |          |      |
| 8    | 3  | 77         | 20        | 0.0000   |             |      | 25        | 1160      | 923        | 1.00                 | 7.1      |             | 54       | 66  | 0  | 17  | 620      | 0.1      |          |       |       |          |      |
| 9    | 1  | 77         | 21        | 0.25     |             |      | 55        | 653       | 368        | 1.12                 | 7.1      |             | 18       | 22  | 0  | 32  | 210      | 0.3      |          |       |       |          |      |
| 11   | 7  | 77         | 18        | 0.008    | 110         |      | 45        | 838       | 561        | 1.44                 | 7.3      |             | 54       | 66  | 0  | 27  | 300      | 0.1      |          |       |       |          |      |
| 1    | 5  | 78         | 2         | 0.4      |             |      | 55        | 475       | 262        | 2.02                 | 7.6      |             | 57       | 69  | 0  | 9.6 | 120      | 0.3      |          |       |       |          |      |
| 2    | 7  | 78         | 1         | 0.15     |             |      | 20        | 330       | 170        | 1.55                 | 7.7      |             | 41       | 50  | 0  | 8.5 | 77       | 0.1      |          |       |       |          |      |
| 3    | 14 | 78         | 3         | 30       | 956         |      | 260       | 147       | 59         | 1.75                 | 6.8      |             | 10       | 12  | 0  | 4.0 | 24       | 0.5      |          |       |       |          |      |
| 4    | 12 | 78         | 12        | 2.0      |             |      | 110       | 262       | 147        | 1.52                 | 7.2      |             | 37       | 45  | 0  | 5.6 | 68       | 0.1      |          |       |       |          |      |
| 5    | 10 | 78         | 3         | 3        | 144*        |      | 210       | 248       | 155        | 1.38                 | 7.6      |             | 33       | 40  | 0  | 7.6 | 74       | 0.3      |          |       |       |          |      |
| 6    | 21 | 78         |           | 0.5      | 206*        |      |           | 292       | 177        | 1.71                 | 7.6      |             | 56       | 68  | 0  | 6.2 | 75       | 0.1      |          |       |       |          |      |
| 7    | 20 | 78         | 23        | 0.06     | 109*        |      | 55        | 403       | 248        | 2.04                 | 8.3      |             | 76       | 91  | 1  | 8.7 | 100      | 0.1      |          |       |       |          |      |
| 9    | 12 | 78         | 24        | 0.01     |             |      |           | 357       | 222        | 1.31                 | 8.1      |             | 65       | 78  | 1  | 14  | 99       | 0.6      |          |       |       |          |      |
| 10   | 16 | 78         | 10        | 0.8      | 88*         |      | 140       | 445       | 273        | 1.78                 | 8.1      |             | 66       | 80  | 1  | 14  | 120      | 0.3      |          |       |       |          |      |
| 11   | 21 | 78         | 6         | 0.1      | 17          |      | 10        | 416       | 260        | 1.79                 | 8.1      | -87         | 75       | 91  | 1  | 12  | 110      | 0.2      |          |       |       |          |      |
| 12   | 20 | 78         | 0         | 0.09     | 22          |      | 40        | 318       | 201        | 1.61                 | 7.7      |             | 48       | 59  | 0  | 6.2 | 94       | 0.1      |          |       |       |          |      |
| 2    | 1  | 79         | 1         | 0.9      | 12          |      | 4         | 307       | 171        | 2.19                 | 7.5      | -40         | 40       | 49  | 0  | 6.4 | 69       | 0.1      |          |       |       |          |      |
| 3    | 19 | 79         | 5         | 0.09     | 32          |      | 35        | 331       | 210        | 1.76                 | 8.1      | -39         | 48       | 57  | 0  | 7.8 | 96       | 0.8      |          |       |       |          |      |
| 4    | 20 | 79         | 10        | 0.08     | 17          | 0.00 | 35        | 310       | 202        | 1.70                 | 7.8      | -37         | 39       | 48  | 0  | 4.0 | 99       | 0.1      |          |       |       |          |      |
| 5    | 16 | 79         | 22        | 0.03     | 19          | 0.01 | 70        | 366       | 208        | 1.58                 | 8.0      | -54         | 57       | 68  | 0  | 6.8 | 98       | 0.1      |          |       |       |          |      |
| 6    | 20 | 79         | 23        | 0.015    | 53          |      | 100       | 397       | 249        | 1.88                 | 7.9      | -56         | 70       | 85  | 0  | 4.5 | 110      | 0.2      |          |       |       |          |      |
| 7    | 24 | 79         | 24        | 0.01     | 48          | 0.50 | 150       | 457       | 262        | 1.81                 | 8.2      | -68         | 74       | 88  | 1  | 8.9 | 120      | 0.2      | 0.0      | 0.20  | 0.75  | 0.00     | 0.01 |
| 8    | 15 | 79         | 19        | 0.1      | 70          |      | 220       | 413       | 204        | 1.86                 | 7.9      | -65         | 70       | 84  | 0  | 9.8 | 81       | 0.0      | 0.1      | 0.20  |       |          | 0.01 |
| 9    | 11 | 79         | 18        | 0.015    | 21          |      | 150       | 340       | 196        | 2.06                 | 8.0      | -61         | 73       | 88  | 1  | 12  | 70       | 0.1      |          |       |       |          |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 21 77  | 0.1                  | 0.00 |     |      | 120 | 0.0 | 0.01 | 0.1 | 4.5 |      | 47  | 19  |     | 12  | 0.08 | 0.2 | 2.7 |     | 0.0 | 0.0 |
| 8 3 77   | 0.2                  | 0.02 |     |      | 150 | 0.0 | 0.00 | 0.1 | 4.5 |      | 61  | 21  |     | 13  | 0.10 | 0.1 | 3.5 |     | 0.0 | 0.0 |
| 9 1 77   | 0.2                  | 0.00 |     |      | 63  | 0.0 | 0.03 | 0.1 | 5.1 |      | 20  | 1.8 |     | 20  | 0.02 | 0.1 | 1.3 |     | 0.0 | 0.0 |
| 11 7 77  | 0.1                  | 0.00 | 0.0 | 0.00 | 120 | 0.0 | 0.00 | 0.1 | 3.5 | 0.30 | 41  | 19  | 0.0 | 12  | 0.03 | 0.1 | 4.4 | 0.3 | 0.1 | 0.0 |
| 1 5 78   | 0.1                  | 0.01 | 0.0 | 0.00 | 54  | 0.0 | 0.00 | 0.2 | 3.2 | 0.30 | 24  | 0.6 | 0.0 | 10  | 0.04 | 0.0 | 3.8 | 0.2 | 0.0 | 0.0 |
| 2 7 78   | 0.0                  | 0.02 |     |      | 30  | 0.0 | 0.00 | 0.2 | 1.8 |      | 9.8 | 0.6 |     | 9.6 | 0.02 | 0.0 | 3.6 |     | 0.0 | 0.0 |
| 3 14 78  | 0.1                  | 0.02 |     |      | 11  | 0.0 | 0.00 | 0.0 | 1.8 |      | 3.9 | 1.1 |     | 2.4 | 0.01 | 0.0 | 1.3 |     | 0.0 | 0.0 |
| 4 12 78  | 0.2                  | 0.02 | 0.0 | 0.00 | 26  | 0.0 | 0.00 | 0.1 | 1.9 | 0.10 | 8.9 | 0.7 | 0.0 | 5.6 | 0.02 | 0.0 | 3.6 | 0.1 | 0.2 | 0.0 |
| 5 10 78  | 0.1                  | 0.03 |     |      | 26  | 0.0 | 0.00 | 0.1 | 3.3 |      | 8.5 | 0.3 |     | 6.8 | 0.02 | 0.0 | 3.1 |     | 0.0 | 0.0 |
| 6 21 78  | 0.1                  | 0.03 |     |      | 31  | 0.0 | 0.00 | 0.1 | 2.9 |      | 11  | 0.9 |     | 7.1 | 0.00 | 0.0 | 3.7 |     | 0.0 | 0.0 |
| 7 20 78  | 0.1                  | 0.03 | 0.0 | 0.00 | 52  | 0.0 | 0.00 | 0.0 | 3.5 | 0.25 | 19  | 2.4 | 0.3 | 8.0 | 0.00 | 0.1 | 2.3 | 0.1 | 0.0 | 0.0 |
| 9 12 78  | 0.2                  | 0.05 |     |      | 38  | 0.0 | 0.00 | 0.3 | 4.9 |      | 11  | 0.3 |     | 5.5 | 0.03 | 0.2 | 3.2 |     | 0.1 | 0.0 |
| 10 16 78 | 0.2                  | 0.03 | 0.0 | 0.01 | 59  | 0.0 | 0.01 | 0.2 | 7.4 | 0.35 | 17  | 0.3 | 0.0 | 7.0 | 0.03 | 0.1 | 2.6 | 0.1 | 0.1 | 0.2 |
| 11 21 78 | 0.2                  | 0.03 |     |      | 57  | 0.0 | 0.01 | 0.1 | 4.4 |      | 15  | 0.1 |     | 9.0 | 0.01 | 0.1 | 2.1 |     | 0.0 | 0.0 |
| 12 20 78 | 0.1                  | 0.02 |     |      | 45  | 0.0 | 0.00 | 0.0 | 2.1 |      | 9.6 | 0.4 |     | 6.1 | 0.01 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 2 1 79   | 0.1                  | 0.00 | 0.0 | 0.00 | 44  | 0.0 | 0.01 | 0.1 | 1.8 | 0.20 | 9.9 | 0.5 | 0.0 | 6.2 | 0.03 | 0.1 | 3.2 | 0.1 | 0.1 | 0.0 |
| 3 19 79  | 0.2                  | 0.02 |     |      | 46  | 0.0 | 0.00 | 0.1 | 1.7 |      | 15  | 0.4 |     | 5.5 | 0.02 | 0.1 | 2.8 |     | 0.1 | 0.0 |
| 4 20 79  | 0.1                  | 0.02 |     |      | 49  | 0.0 | 0.00 | 0.1 | 1.9 |      | 11  | 0.4 |     | 5.3 | 0.01 | 0.0 | 3.3 |     | 0.0 | 0.1 |
| 5 16 79  | 0.2                  | 0.00 |     |      | 45  | 0.0 | 0.01 | 0.0 | 1.8 |      | 11  | 0.2 |     | 5.3 | 0.01 | 0.0 | 2.7 |     | 0.0 | 0.1 |
| 6 20 79  | 0.2                  | 0.03 |     |      | 55  | 0.0 | 0.01 | 0.3 | 3.0 |      | 15  | 1.0 |     | 9.6 | 0.01 | 0.1 | 2.8 |     | 0.0 | 0.0 |
| 7 24 79  | 0.2                  | 0.03 | 0.0 | 0.00 | 57  | 0.0 | 0.03 | 0.1 | 3.6 | 0.15 | 16  | 0.9 | 0.0 | 8.2 | 0.01 | 0.0 | 2.0 | 0.2 | 0.0 | 0.0 |
| 8 15 79  | 0.1                  | 0.03 |     |      | 42  | 0.0 | 0.02 | 0.0 | 3.9 |      | 11  | 1.0 |     | 7.1 | 0.01 | 0.1 | 2.7 |     | 0.0 | 0.0 |
| 9 11 79  | 0.0                  | 0.05 |     |      | 43  | 0.0 | 0.00 | 0.0 | 2.6 |      | 11  | 0.3 |     | 5.0 | 0.04 | 0.0 | 3.6 |     | 0.0 | 0.1 |

TABLE 64. WATER QUALITY FOR SITE 5183 TUSCARAWAS COUNTY, OHIO

| DATE                             | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HC03 | CO3 | CL | SO4  | MD3 AS N | MD3 NH3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|------|----------|--------------|----------|-------|-------|----------|
| MO DA YR                         | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |      |          |              |          |       |       |          |
| ----- MILLIGRAMS PER LITER ----- |            |           |          |             |      |           |           |            |        |          |             |      |     |    |      |          |              |          |       |       |          |
| 6 21 77                          | 17         | 0.015     |          |             | 20   | 2730      | 1520      | 1.18       | 7.3    |          |             | 28   | 34  | 0  | 200  | 800      | 0.1          |          |       |       |          |
| 8 3 77                           | 20         | 0.003     |          |             | 50   | 3190      | 2180      | 1.28       | 7.1    |          |             | 36   | 44  | 0  | 720  | 680      | 0.1          |          |       |       |          |
| 9 1 77                           | 21         | 0.05      |          |             | 50   | 4790      | 2640      | 0.78       | 6.7    |          |             | 26   | 32  | 0  | 1300 | 430      | 0.2          |          |       |       |          |
| 11 7 77                          | 15         | 0.06      | 38       |             | 30   | 4700      | 2840      | 1.29       | 6.7    |          |             | 28   | 34  | 0  | 1200 | 660      | 0.1          |          |       |       |          |
| 1 5 78                           | 2          | 0.4       |          |             | 8    | 2750      | 1970      | 0.89       | 7.1    |          |             | 41   | 50  | 0  | 630  | 710      | 0.2          |          |       |       |          |
| 2 7 78                           | 1          | 0.09      |          |             | 4    | 2050      | 1280      | 1.08       | 7.5    |          |             | 20   | 25  | 0  | 230  | 630      | 0.1          |          |       |       |          |
| 3 14 78                          | 3          | 7         | 702      |             | 120  | 863       | 573       | 0.93       | 5.4    |          |             | 0    | 0   | 0  | 81   | 320      | 0.7          |          |       |       |          |
| 4 12 78                          | 11         | 0.7       | 7        |             | 0    | 2630      | 1430      | 0.97       | 5.4    |          |             | 0    | 0   | 0  | 320  | 660      | 0.1          |          |       |       |          |
| 5 10 78                          | 10         | 2.5       | 22*      |             | 20   | 1590      | 963       | 1.36       | 7.2    |          |             | 16   | 20  | 0  | 220  | 390      | 0.2          |          |       |       |          |
| 6 21 78                          |            | 1.0       | 85*      |             | 0    | 2260      | 1410      | 1.19       | 7.1    |          |             | 20   | 24  | 0  | 320  | 610      | 0.0          |          |       |       |          |
| 7 20 78                          | 19         | 0.4       | 86*      |             | 10   | 2670      | 1730      | 0.98       | 7.9    |          |             | 33   | 39  | 0  | 420  | 770      | 0.1          |          |       |       |          |
| 11 21 78                         | 6          | 0.07      | 9        |             | 25   | 4400      | 2760      | 1.04       | 7.6    |          |             | 36   | 44  | 0  | 1200 | 570      | 0.2          |          |       |       |          |
| 12 20 78                         | 0          | 0.09      | 88       |             | 35   | 2580      | 1420      | 0.96       | 7.1    |          |             | 18   | 22  | 0  | 290  | 690      | 0.5          |          |       |       |          |
| 2 1 79                           | 0          | 0.25      | 4        |             | 20   | 1550      | 990       | 0.93       | 7.4    |          |             | 28   | 34  | 0  | 160  | 540      | 0.2          |          |       |       |          |
| 3 19 79                          | 6          | 0.15      | 4        |             | 10   | 1520      | 1170      | 0.91       | 7.0    | -7       |             | 16   | 19  | 0  | 85   | 770      | 0.1          |          |       |       |          |
| 4 20 79                          | 9          | 0.5       | 25       | 0.00        | 20   | 1460      | 1170      | 1.18       | 7.0    | -14      |             | 20   | 24  | 0  | 88   | 700      | 0.1          |          |       |       |          |
| 5 16 79                          | 15         | 0.2       | 16       | 0.00        | 10   | 1660      | 1200      | 1.01       | 7.6    | -22      |             | 31   | 38  | 0  | 150  | 690      | 0.1          |          |       |       |          |
| 6 20 79                          | 26         | 0.06      | 22       | 0.25        | 20   | 1840      | 1340      | 1.07       | 7.5    |          |             | 36   | 44  | 0  | 70   | 850      | 0.2          |          |       |       |          |
| 7 24 79                          | 23         | 0.01      | 61       |             | 45   | 3080      | 1730      | 1.08       | 7.7    |          |             | 31   | 38  | 0  | 560  | 580      | 0.3          | 0.2      | 0.07  | 0.00  | 0.00     |
| 8 15 79                          | 15         | 0.8       | 1        |             | 10   | 3220      | 1600      | 1.07       | 7.8    | -29      |             | 41   | 49  | 0  | 520  | 530      | 0.1          | 0.2      | 0.22  | 0.45  | 0.00     |
| 9 11 79                          | 18         | 0.06      | 13       |             | 15   | 2030      | 1330      | 0.93       | 7.7    | -32      |             | 49   | 59  | 0  | 270  | 650      | 0.1          |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                               | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG  | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------------------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | ----- MILLIGRAMS PER LITER ----- |      |     |      |     |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 21 77  | 0.3                              | 0.00 |     |      | 180 | 0.0 | 0.01 | 0.9 | 7.7 |      | 62  | 0.4 |     | 240 | 0.07 | 0.2 | 3.6 |     | 0.0 | 0.0 |
| 8 3 77   | 0.6                              | 0.06 |     |      | 280 | 0.0 | 0.00 | 1.4 | 9.0 |      | 110 | 2.2 |     | 340 | 0.07 | 0.1 | 5.3 |     | 0.1 | 0.0 |
| 9 1 77   | 1.1                              | 0.10 |     |      | 280 | 0.2 |      | 0.6 | 9.7 |      | 100 | 10  |     | 480 | 0.15 | 0.6 | 4.6 |     | 0.3 | 0.0 |
| 11 7 77  | 0.3                              |      | 0.1 | 0.00 | 320 | 0.1 | 0.01 | 0.2 | 14  | 1.0  | 140 | 10  | 0.1 | 500 | 0.10 | 0.2 | 4.7 | 0.4 | 0.4 | 0.0 |
| 1 5 78   | 0.4                              | 0.02 | 0.1 | 0.00 | 210 | 0.1 | 0.00 | 1.2 | 5.9 | 1.5  | 110 | 5.4 | 0.0 | 250 | 0.10 | 0.1 | 4.4 | 3.1 | 0.3 | 0.0 |
| 2 7 78   | 0.2                              | 0.08 |     |      | 160 | 0.0 | 0.01 | 1.4 | 4.9 |      | 83  | 4.6 |     | 140 | 0.10 | 0.1 | 4.2 |     | 0.2 | 0.1 |
| 3 14 78  | 0.6                              | 0.06 |     |      | 67  | 0.0 | 0.00 | 0.5 | 4.0 |      | 35  | 3.1 |     | 50  | 0.08 | 0.0 | 3.8 |     | 0.1 | 0.1 |
| 4 12 78  | 0.5                              | 0.05 | 0.1 | 0.00 | 170 | 0.1 | 0.01 | 1.0 | 5.5 | 0.65 | 92  | 5.5 | 0.0 | 150 | 0.14 | 0.1 | 5.0 | 1.7 | 0.4 | 0.1 |
| 5 10 78  | 0.2                              | 0.04 |     |      | 120 | 0.0 | 0.00 | 0.8 | 5.0 |      | 58  | 2.3 |     | 150 | 0.11 | 0.1 | 4.1 |     | 0.1 | 0.0 |
| 6 21 78  | 0.4                              | 0.07 |     |      | 180 | 0.1 | 0.00 | 0.5 | 6.6 |      | 98  | 5.4 |     | 170 | 0.08 | 0.2 | 5.4 |     | 0.3 | 0.1 |
| 7 20 78  | 0.2                              | 0.07 | 0.1 | 0.00 | 200 | 0.0 | 0.00 | 0.4 | 7.1 | 1.0  | 100 | 5.2 | 0.4 | 200 | 0.09 | 0.2 | 5.1 | 2.0 | 0.3 | 0.0 |
| 11 21 78 | 1.5                              | 0.06 |     |      | 290 | 0.1 | 0.01 | 0.6 | 8.8 |      | 120 | 8.0 |     | 500 | 0.18 | 0.6 | 5.1 |     | 0.8 | 0.0 |
| 12 20 78 | 0.6                              | 0.04 |     |      | 170 | 0.0 | 0.01 | 1.7 | 4.8 |      | 88  | 3.8 |     | 140 | 0.12 | 0.4 | 4.1 |     | 0.3 | 0.1 |
| 2 1 79   | 0.2                              | 0.03 | 0.1 | 0.00 | 130 | 0.0 | 0.00 | 0.8 | 3.4 | 0.60 | 69  | 2.9 | 0.0 | 54  | 0.07 | 0.2 | 3.8 | 0.7 | 0.4 | 0.1 |
| 3 19 79  | 0.4                              | 0.03 |     |      | 170 | 0.0 | 0.00 | 0.5 | 4.0 |      | 76  | 3.2 |     | 51  | 0.12 | 0.2 | 4.2 |     | 0.2 | 0.1 |
| 4 20 79  | 0.4                              | 0.04 | 0.1 | 0.00 | 190 | 0.0 | 0.01 | 0.2 | 4.6 | 1.0  | 89  | 3.0 | 0.2 | 66  | 0.11 | 0.1 | 3.6 | 0.5 | 0.4 | 0.0 |
| 5 16 79  | 0.3                              | 0.05 |     |      | 170 | 0.0 | 0.01 | 0.3 | 5.0 |      | 85  | 2.9 |     | 70  | 0.09 | 0.2 | 4.3 |     | 0.4 | 0.1 |
| 6 20 79  | 0.3                              | 0.04 |     |      | 200 | 0.0 | 0.00 | 0.2 | 5.5 |      | 77  | 2.5 |     | 99  | 0.07 | 0.1 | 4.1 |     | 0.2 | 0.0 |
| 7 24 79  | 0.3                              | 0.05 | 0.1 | 0.00 | 210 | 0.1 | 0.01 | 0.4 | 7.6 | 0.80 | 90  | 4.1 | 0.0 | 240 | 0.06 | 0.3 | 5.2 | 2.8 | 0.4 | 0.1 |
| 8 15 79  | 0.3                              | 0.08 |     |      | 200 | 0.0 | 0.00 | 0.2 | 6.7 |      | 84  | 4.2 |     | 220 | 0.09 | 0.2 | 4.7 |     | 0.3 | 0.1 |
| 9 11 79  | 0.2                              | 0.06 |     |      | 180 | 0.0 | 0.00 | 0.3 | 7.0 |      | 78  | 3.7 |     | 100 | 0.06 | 0.2 | 5.1 |     | 0.4 | 0.0 |

TABLE 65. WATER QUALITY FOR SITE 5191 VINTON COUNTY, OHIO

| VIRGIN COUNTY, OHIO |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
|---------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|----------|-----|----|-----|----------|----------|----------|-------|-------|----------|------|------|
| DATE                | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | NO3 MCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO                  | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UN/CM      | MG/L   | MILLIGRAMS PER LITER |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 6                   | 6          | 77        | 16       | 0.005       |      |           | 8         |            | 80     | 1.23                 | 6.6         |          | 1   | 1  | 0   | 1.2      | 48       |          |       |       |          |      |      |
| 7                   | 25         | 77        | 19       | 0.003       |      |           | 8         | 182        | 97     | 1.30                 |             |          | 9   | 0  | 5   | 1.2      | 52       | 0.1      |       |       |          |      |      |
| 9                   | 27         | 77        | 17       | 0.007       |      |           | 15        | 207        | 121    | 1.36                 | 6.3         |          | 17  | 21 | 0   | 1.5      | 62       | 0.3      |       |       |          |      |      |
| 11                  | 22         | 77        | 10       | 0.007       | 5    |           |           | 220        | 127    | 1.43                 | 7.5         |          | 20  | 25 | 0   | 1.5      | 64       | 0.6      |       |       |          |      |      |
| 12                  | 28         | 77        | 3        | 0.25        |      |           | 8         | 262        | 128    | 1.31                 | 7.3         |          | 20  | 25 | 0   | 2.2      | 65       | 1.1      |       |       |          |      |      |
|                     |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 2                   | 16         | 78        | 3        | 0.09        |      |           | 4         | 199        | 107    | 1.24                 | 7.4         |          | 17  | 21 | 0   | 1.5      | 57       | 0.5      |       |       |          |      |      |
| 3                   | 20         | 78        | 9        | 0.9         |      |           | 0         | 152        | 93     | 1.38                 | 6.9         |          | 12  | 15 | 0   | 1.3      | 47       | 0.5      |       |       |          |      |      |
| 4                   | 17         | 78        | 11       | 0.25        | 6    |           | 0         | 196        | 115    | 1.40                 | 7.6         |          | 23  | 28 | 0   | 1.5      | 58       | 0.3      |       |       |          |      |      |
| 5                   | 18         | 78        | 13       | 1.5         | 23*  |           | 8         | 128        | 85     | 1.31                 | 7.0         |          | 15  | 18 | 0   | 1.8      | 42       | 0.3      |       |       |          |      |      |
| 6                   | 26         | 78        | 16       | 0.05        | 23*  |           | 4         | 117        | 77     | 1.46                 | 7.1         |          | 20  | 24 | 0   | 1.1      | 34       | 0.1      |       |       |          |      |      |
| 7                   | 26         | 78        | 19       | 0.03        | 43*  |           | 10        | 146        | 90     | 1.48                 | 7.4         |          | 16  | 19 | 0   | 1.9      | 42       | 0.2      |       |       |          |      |      |
| 8                   | 30         | 78        | 18       | 0.001       | 58*  |           |           | 145        | 92     | 1.40                 | 6.9         |          | 17  | 21 | 0   | 1.2      | 44       | 0.3      |       |       |          |      |      |
| 10                  | 5          | 78        | 11       | 0.0015      | 35*  |           | 8         | 183        | 117    | 1.39                 | 7.4         |          | 20  | 25 | 0   | 1.1      | 58       | 0.3      |       |       |          |      |      |
| 11                  | 1          | 78        | 11       | 0.005       | 11   |           | 0         | 195        | 115    | 1.25                 | 7.7         | -22      | 26  | 32 | 0   | 0.8      | 58       | 0.7      |       |       |          |      |      |
| 12                  | 14         | 78        | 2        | 0.06        | 2    |           | 3         | 145        | 96     | 1.11                 | 7.2         | -11      | 14  | 17 | 0   | 0.9      | 53       | 0.4      |       |       |          |      |      |
|                     |            |           |          |             |      |           |           |            |        |                      |             |          |     |    |     |          |          |          |       |       |          |      |      |
| 2                   | 6          | 79        | 0        | 0.25        | 1    |           | 2         | 157        | 99     | 1.57                 | 6.7         | -14      | 16  | 19 | 0   | 1.1      | 48       | 0.2      |       |       |          |      |      |
| 3                   | 27         | 79        | 5        | 0.5         |      |           | 2         | 160        | 105    | 1.32                 | 7.1         | -7       | 13  | 16 | 0   | 1.4      | 57       | 0.2      |       |       |          |      |      |
| 4                   | 24         | 79        | 16       | 0.3         | 11   | 0.00      | 4         | 180        | 120    | 1.20                 | 7.3         | -16      | 17  | 21 | 0   | 1.2      | 68       | 0.1      |       |       |          |      |      |
| 5                   | 21         | 79        | 20       | 0.02        | 9    | 0.00      | 15        | 150        | 96     | 1.34                 | 7.4         | -8       | 16  | 19 | 0   | 0.8      | 50       | 0.1      |       |       |          |      |      |
| 6                   | 25         | 79        | 20       | 0.02        | 5    |           | 10        | 175        | 113    | 1.01                 | 7.3         | -14      | 21  | 26 | 0   | 1.6      | 64       | 0.1      |       |       |          |      |      |
| 7                   | 20         | 79        | 21       | 0.07        | 0    |           | 5         | 167        | 105    | 1.25                 | 7.5         | -11      | 16  | 19 | 0   | 0.9      | 57       | 0.1      | 0.0   | 0.01  | 0.50     | 0.00 | 0.00 |
| 8                   | 7          | 79        | 20       | 0.002       | 0    |           | 5         | 202        | 109    | 1.26                 | 7.6         | -13      | 19  | 23 | 0   | 1.0      | 57       | 0.1      | 0.0   | 0.02  | 0.00     | 0.00 | 0.00 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | MN  | MO  | HA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 6 77   | 0.2                  | 0.00 |     |      | 14 | 0.0 | 0.00 | 0.1 | 1.3 |      | 4.0 | 0.0 |     | 2.6 | 0.00 | 0.0 | 4.0 |     | 0.0 | 0.1 |
| 7 25 77  | 0.0                  | 0.01 |     |      | 17 | 0.0 | 0.01 | 0.0 | 1.8 |      | 5.1 | 0.1 |     | 3.4 | 0.00 | 0.1 | 4.8 |     | 0.0 | 0.1 |
| 9 27 77  | 0.0                  | 0.04 | 0.0 | 0.00 | 22 | 0.0 | 0.00 | 0.0 | 2.0 | 0.08 | 5.9 | 0.1 | 0.0 | 4.3 | 0.01 | 0.0 | 5.1 | 0.1 | 0.0 | 0.1 |
| 11 22 77 | 0.0                  | 0.00 |     |      | 24 | 0.0 | 0.00 | 0.0 | 1.9 |      | 7.1 | 0.0 |     | 4.0 | 0.00 | 0.0 | 4.3 |     | 0.0 | 0.0 |
| 12 28 77 | 0.0                  | 0.00 | 0.0 | 0.00 | 22 | 0.0 | 0.00 | 0.0 | 1.9 | 0.10 | 7.7 | 0.0 | 0.0 | 3.7 | 0.01 | 0.0 | 4.0 | 0.1 | 0.0 | 0.0 |
| 2 16 78  | 0.0                  | 0.00 |     |      | 17 | 0.0 | 0.00 | 0.0 | 1.6 |      | 6.3 | 0.0 |     | 3.4 | 0.01 | 0.0 | 3.6 |     | 0.1 | 0.0 |
| 3 20 78  | 0.1                  | 0.01 |     |      | 15 | 0.0 | 0.00 | 0.1 | 2.1 |      | 6.2 | 0.0 |     | 2.4 | 0.01 | 0.0 | 4.2 |     | 0.1 | 0.0 |
| 4 17 78  | 0.0                  | 0.00 | 0.0 | 0.00 | 19 | 0.0 | 0.00 | 0.1 | 2.0 | 0.07 | 7.5 | 0.0 | 0.0 | 3.0 | 0.00 | 0.0 | 4.1 | 0.1 | 0.0 | 0.0 |
| 5 18 78  | 0.1                  | 0.02 |     |      | 13 | 0.0 | 0.00 | 0.0 | 2.2 |      | 5.1 | 0.0 |     | 2.2 | 0.01 | 0.0 | 4.1 |     | 0.0 | 0.0 |
| 6 26 78  | 0.0                  | 0.01 |     |      | 12 | 0.0 | 0.00 | 0.0 | 1.3 |      | 4.2 | 0.0 |     | 1.9 | 0.00 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 7 26 78  | 0.0                  | 0.01 | 0.0 | 0.00 | 16 | 0.0 | 0.00 | 0.0 | 1.6 | 0.10 | 5.0 | 0.0 | 0.1 | 2.5 | 0.00 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 |
| 8 30 78  | 0.0                  | 0.02 |     |      | 16 | 0.0 | 0.00 | 0.0 | 2.0 |      | 4.6 | 0.1 |     | 2.4 | 0.00 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 10 5 78  | 0.1                  | 0.02 | 0.0 | 0.00 | 20 | 0.0 | 0.02 | 0.0 | 2.0 | 0.05 | 6.0 | 0.0 | 0.0 | 4.0 | 0.03 | 0.0 | 5.6 | 0.1 | 0.0 | 0.0 |
| 11 1 78  | 0.1                  | 0.02 |     |      | 18 | 0.0 | 0.00 | 0.0 | 1.7 |      | 5.7 | 0.0 |     | 3.2 | 0.01 | 0.0 | 4.2 |     | 0.1 | 0.0 |
| 12 14 78 | 0.1                  | 0.01 | 0.0 | 0.00 | 15 | 0.0 | 0.00 | 0.0 | 1.7 | 0.05 | 5.0 | 0.0 | 0.0 | 2.0 | 0.02 | 0.1 | 4.0 | 0.0 | 0.1 | 0.0 |
| 2 6 79   | 0.1                  | 0.00 | 0.0 | 0.00 | 19 | 0.0 | 0.01 | 0.0 | 1.9 | 0.15 | 6.2 | 0.0 | 0.0 | 2.8 | 0.02 | 0.0 | 4.1 | 0.0 | 0.0 | 0.0 |
| 3 27 79  | 0.1                  | 0.00 |     |      | 19 | 0.0 | 0.01 | 0.0 | 1.7 |      | 6.5 | 0.0 |     | 2.1 | 0.01 | 0.0 | 3.9 |     | 0.0 | 0.0 |
| 4 24 79  | 0.1                  | 0.01 | 0.0 | 0.00 | 20 | 0.0 | 0.00 | 0.0 | 1.9 | 0.15 | 6.9 | 0.0 | 0.0 | 2.6 | 0.01 | 0.0 | 4.1 | 0.1 | 0.0 | 0.0 |
| 5 21 79  | 0.1                  | 0.01 |     |      | 17 | 0.0 | 0.00 | 0.1 | 1.6 |      | 5.3 | 0.0 |     | 2.1 | 0.02 | 0.0 | 4.4 |     | 0.1 | 0.1 |
| 6 25 79  | 0.0                  | 0.02 |     |      | 17 | 0.0 | 0.00 | 0.1 | 1.7 |      | 5.0 | 0.0 |     | 2.0 | 0.00 | 0.0 | 3.7 |     | 0.0 | 0.1 |
| 7 20 79  | 0.0                  | 0.02 |     |      | 19 | 0.0 | 0.00 | 0.0 | 1.5 |      | 5.2 | 0.1 |     | 2.2 | 0.00 | 0.0 | 4.3 |     | 0.0 | 0.0 |
| 8 7 79   | 0.1                  | 0.03 |     |      | 18 | 0.0 | 0.00 | 0.1 | 1.6 |      | 5.5 | 0.1 |     | 2.7 | 0.01 | 0.0 | 5.1 |     | 0.0 | 0.0 |

TABLE 66. WATER QUALITY FOR SITE 5192 VINTON COUNTY, OHIO

| TABLE 88. WATER QUALITY FOR GIVE SITE |            |           |          |             |      |           |           |            |        |                      |             |      |     |    |     |          |           |          |       |       |          |      |      |
|---------------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|------|
| DATE                                  | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO                                    | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | MILLIGRAMS PER LITER |             |      |     |    |     |          |           |          |       |       |          |      |      |
| 7                                     | 25         | 77        | 24       | 0.4         |      |           | 110       | 611        | 364    | 0.94                 | 5.6         |      | 0   | 0  | 0   | 1.7      | 260       | 0.4      |       |       |          |      |      |
| 9                                     | 27         | 77        | 18       | 0.06        |      |           | 70        | 1490       | 961    | 0.96                 | 3.1         |      | 0   | 0  | 0   | 1.8      | 670       | 0.1      |       |       |          |      |      |
| 11                                    | 22         | 77        | 8        | 0.09        | 13   |           |           | 904        | 630    | 0.88                 | 3.5         |      | 0   | 0  | 0   | 2.3      | 440       | 0.0      |       |       |          |      |      |
| 12                                    | 28         | 77        | 1        | 0.15        |      |           | 6         | 854        | 508    | 0.96                 | 3.7         |      | 0   | 0  | 0   | 2.4      | 340       | 0.0      |       |       |          |      |      |
| 3                                     | 20         | 78        | 12       | 1.0         |      |           | 15        | 261        | 161    | 1.05                 | 4.0         |      | 0   | 0  | 0   | 1.4      | 100       | 0.1      |       |       |          |      |      |
| 4                                     | 17         | 78        | 7        | 0.5         | 4    |           | 0         | 432        | 360    | 0.93                 | 5.4         |      | 0   | 0  | 0   | 1.8      | 250       | 0.1      |       |       |          |      |      |
| 5                                     | 18         | 78        | 12       | 1.0         | 44*  |           | 10        | 268        | 174    | 0.88                 | 6.2         |      | 2   | 2  | 0   | 1.5      | 120       | 0.1      |       |       |          |      |      |
| 6                                     | 26         | 78        | 19       | 0.1         | 53*  |           | 100       | 670        | 500    | 0.98                 | 6.3         |      | 2   | 3  | 0   | 1.9      | 340       | 0.1      |       |       |          |      |      |
| 7                                     | 26         | 78        | 22       | 0.03        | 110* |           | 95        | 1260       | 1020   | 0.77                 | 3.4         |      | 0   | 0  | 0   | 2.8      | 730       | 0.0      |       |       |          |      |      |
| 8                                     | 30         | 78        | 22       | 0.2         | 29*  |           | 150       | 493        | 323    | 1.22                 | 7.4         |      | 31  | 38 | 0   | 1.4      | 190       | 0.1      |       |       |          |      |      |
| 10                                    | 5          | 78        | 10       | 0.003       | 43*  |           | 8         | 1780       | 1290   | 0.78                 | 3.3         |      | 0   | 0  | 0   | 3.1      | 910       | 0.0      |       |       |          |      |      |
| 11                                    | 1          | 78        | 12       | 0.01        | 35   |           | 120       | 934        | 769    | 0.74                 | 3.9         | 76   | 0   | 0  | 0   | 2.1      | 560       | 0.1      |       |       |          |      |      |
| 12                                    | 14         | 78        | 0        | 0.1         | 13   |           | 25        | 265        | 169    | 0.92                 | 6.4         | 5    | 2   | 2  | 0   | 1.3      | 110       | 0.4      |       |       |          |      |      |
| 2                                     | 6          | 79        | 0        | 0.15        | 32   |           | 50        | 447        | 327    | 0.94                 | 4.9         | 7    | 0   | 0  | 0   | 1.6      | 230       | 0.1      |       |       |          |      |      |
| 3                                     | 27         | 79        | 3        | 0.06        |      |           | 20        | 308        | 230    | 1.23                 | 6.7         | 0    | 8   | 10 | 0   | 1.4      | 140       | 0.0      |       |       |          |      |      |
| 4                                     | 24         | 79        | 14       | 0.2         | 18   | 0.00      | 60        | 368        | 259    | 1.22                 | 6.7         | 0    | 4   | 5  | 0   | 1.3      | 170       | 0.0      |       |       |          |      |      |
| 5                                     | 21         | 79        | 18       | 0.1         | 13   | 0.12      |           | 542        | 368    | 1.09                 | 6.6         | 6    | 3   | 4  | 0   | 1.5      | 240       | 0.1      |       |       |          |      |      |
| 6                                     | 25         | 79        | 18       | 0.06        | 40   |           |           | 840        | 501    | 1.07                 | 4.9         | 32   | 0   | 0  | 0   | 2.2      | 330       | 0.0      |       |       |          |      |      |
| 7                                     | 20         | 79        | 22       | 0.03        | 50   |           |           | 1610       | 1210   | 0.70                 | 3.2         | 180  | 0   | 0  | 0   | 2.2      | 900       | 0.0      | 0.0   | 0.48  | 1.45     | 0.00 | 0.01 |
| 8                                     | 7          | 79        | 22       | 0.01        | 26   |           |           | 579        | 369    | 0.93                 | 6.9         | 6    | 3   | 4  | 0   | 1.5      | 250       | 0.1      | 0.0   | 0.13  | 0.00     | 0.00 | 0.01 |
| 9                                     | 18         | 79        | 17       | 0.15        | 26   |           |           | 469        | 309    | 1.05                 | 6.8         | 4    | 6   | 7  | 0   | 1.7      | 210       | 0.0      |       |       |          |      |      |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | RE   | CA  | CO  | CU   | FE   | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|------|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |      |     |      |    |     |     |     |      |     |     |     |     |     |
| 7 25 77  | 0.1                  | 0.04 |     |      | 51  | 0.1 | 0.01 | 2.5  | 3.8 |      | 26 | 5.9 |     | 6.2 | 0.08 | 0.1 | 4.0 |     | 0.0 | 0.4 |
| 9 27 77  | 5.9                  | 0.12 | 0.0 | 0.01 | 150 | 1.0 | 0.00 | 3.0  | 5.3 | 0.45 | 64 | 10  | 0.0 | 10  | 0.63 | 0.1 | 13  | 0.4 | 0.1 | 0.8 |
| 11 22 77 | 4.6                  | 0.00 |     |      | 93  | 0.3 | 0.01 | 13   | 3.2 |      | 37 | 19  |     | 7.1 | 0.18 | 0.1 | 6.4 |     | 0.1 | 0.2 |
| 12 28 77 | 6.5                  | 0.00 | 0.0 | 0.00 | 69  | 0.3 | 0.01 | 15   | 2.7 | 0.35 | 37 | 12  | 0.0 | 6.2 | 0.21 | 0.0 | 6.7 | 0.2 | 0.1 | 0.2 |
| 3 20 78  | 0.9                  | 0.01 |     |      | 22  | 0.1 | 0.00 | 1.4  | 1.8 |      | 12 | 1.9 |     | 3.7 | 0.07 | 0.0 | 5.2 |     | 0.0 | 0.1 |
| 4 17 78  | 0.7                  | 0.01 | 0.0 | 0.00 | 50  | 0.1 | 0.00 | 4.6  | 1.9 | 0.15 | 26 | 5.8 | 0.0 | 5.1 | 0.11 | 0.0 | 5.6 | 0.1 | 0.0 | 0.1 |
| 5 18 78  | 0.4                  | 0.01 |     |      | 21  | 0.0 | 0.00 | 0.8  | 1.9 |      | 12 | 1.7 |     | 3.8 | 0.09 | 0.0 | 4.9 |     | 0.0 | 0.1 |
| 6 26 78  | 0.2                  | 0.04 |     |      | 77  | 0.2 | 0.01 | 10   | 2.9 |      | 35 | 9.1 |     | 5.8 | 0.14 | 0.1 | 5.7 |     | 0.1 | 0.2 |
| 7 26 78  | 13                   | 0.06 | 0.0 | 0.01 | 130 | 0.6 | 0.02 | 27   | 4.1 | 0.55 | 61 | 29  | 0.3 | 8.0 | 0.46 | 0.2 | 9.4 | 0.3 | 0.2 | 0.5 |
| 8 30 78  | 0.2                  | 0.03 |     |      | 62  | 0.0 | 0.01 | 3.5  | 5.1 |      | 19 | 4.5 |     | 4.8 | 0.04 | 0.0 | 3.8 |     | 0.0 | 0.1 |
| 10 5 78  | 22                   | 0.06 | 0.0 | 0.02 | 160 | 1.1 | 0.02 | 23   | 4.5 | 0.50 | 77 | 53  | 0.1 | 7.8 | 0.75 | 0.6 | 12  | 0.5 | 0.7 | 1.0 |
| 11 1 78  | 5.1                  | 0.04 |     |      | 100 | 0.3 | 0.01 | 16   | 2.9 |      | 38 | 17  |     | 7.5 | 0.24 | 0.1 | 6.2 |     | 0.2 | 0.3 |
| 12 14 78 | 0.4                  | 0.01 |     |      | 23  | 0.1 | 0.01 | 2.0  | 1.6 |      | 11 | 1.8 |     | 3.4 | 0.08 | 0.2 | 4.2 |     | 0.3 | 0.1 |
| 2 6 79   | 1.7                  | 0.00 | 0.0 | 0.00 | 50  | 0.1 | 0.01 | 3.1  | 1.6 | 0.25 | 22 | 4.0 | 0.0 | 4.1 | 0.12 | 0.1 | 5.0 | 0.1 | 0.1 | 0.2 |
| 3 27 79  | 0.4                  | 0.00 | 0.0 | 0.00 | 40  | 0.1 | 0.01 | 0.9  | 1.7 | 0.15 | 18 | 2.1 | 0.0 | 4.1 | 0.08 | 0.0 | 5.1 | 0.1 | 0.1 | 0.1 |
| 4 24 79  | 0.2                  | 0.00 | 0.1 | 0.00 | 45  | 0.1 | 0.02 | 1.6  | 2.0 | 0.20 | 21 | 3.0 | 0.0 | 4.7 | 0.08 | 0.0 | 5.2 | 0.0 | 0.0 | 0.2 |
| 5 21 79  | 0.4                  | 0.02 |     |      | 65  | 0.1 | 0.01 | 3.4  | 1.9 |      | 25 | 5.5 |     | 5.2 | 0.12 | 0.1 | 5.4 |     | 0.1 | 0.2 |
| 6 25 79  | 1.6                  | 0.03 |     |      | 83  | 0.3 | 0.02 | 10.0 | 2.3 |      | 37 | 11  |     | 6.1 | 0.27 | 0.2 | 5.8 |     | 0.2 | 0.4 |
| 7 20 79  | 19                   | 0.06 | 0.0 | 0.01 | 140 | 0.6 | 0.03 | 27   | 3.0 | 0.70 | 68 | 28  | 0.2 | 6.5 | 0.49 | 0.2 | 8.8 | 0.4 | 0.3 | 0.6 |
| 8 7 79   | 0.2                  | 0.04 |     |      | 57  | 0.2 |      | 6.3  | 2.6 |      | 22 | 6.1 |     | 5.8 | 0.15 | 0.1 | 5.8 |     | 0.1 | 0.1 |
| 9 18 79  | 0.0                  | 0.04 |     |      | 51  | 0.1 | 0.00 | 0.0  | 1.8 |      | 23 | 5.3 |     | 3.5 | 0.11 | 0.0 | 5.6 |     | 0.1 | 0.2 |

TABLE 67. WATER QUALITY FOR SITE 5193 VINTON COUNTY, OHIO

| WATER QUALITY DATA FOR SITE 0175 VIRGIN COUNTY, W.V. |            |           |          |             |      |           |           |            |        |                      |             |      |     |    |     |          |           |          |       |       |          |      |      |
|------------------------------------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|------|
| DATE                                                 | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | HC03 | CO3 | CL | SO4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO                                                   | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | MILLIGRAMS PER LITER |             |      |     |    |     |          |           |          |       |       |          |      |      |
| 6                                                    | 6          | 77        | 19       | 0.025       |      |           | 90        | 372        | 206    | 1.44                 | 7.1         |      | 43  | 53 | 0   | 1.0      | 110       |          |       |       |          |      |      |
| 7                                                    | 25         | 77        | 24       | 0.08        |      |           | 45        | 312        | 153    | 1.95                 | 6.7         |      | 67  | 82 | 0   | 1.4      | 58        | 0.1      |       |       |          |      |      |
| 9                                                    | 27         | 77        | 19       | 0.03        |      |           | 45        | 281        | 155    | 3.36                 | 7.2         |      | 73  | 89 | 0   | 1.2      | 45        | 0.1      |       |       |          |      |      |
| 11                                                   | 22         | 77        | 8        | 0.02        | 6    |           |           | 234        | 138    | 1.87                 | 7.1         |      | 39  | 48 | 0   | 1.2      | 60        | 0.1      |       |       |          |      |      |
| 12                                                   | 28         | 77        | 0        | 0.015       |      |           | 2         | 395        | 225    | 1.34                 | 7.4         |      | 32  | 39 | 0   | 1.5      | 130       | 0.0      |       |       |          |      |      |
|                                                      |            |           |          |             |      |           |           |            |        |                      |             |      |     |    |     |          |           |          |       |       |          |      |      |
| 2                                                    | 16         | 78        | 1        | 0.06        |      |           | 8         | 234        | 130    | 1.24                 | 7.1         |      | 14  | 17 | 0   | 0.9      | 75        | 0.0      |       |       |          |      |      |
| 3                                                    | 20         | 78        | 12       | 0.3         |      |           | 35        | 195        | 109    | 1.51                 | 6.9         |      | 9   | 11 | 0   | 0.9      | 58        | 0.0      |       |       |          |      |      |
| 4                                                    | 17         | 78        | 9        | 0.15        | 7    |           | 0         | 246        | 143    | 1.20                 | 6.8         |      | 15  | 18 | 0   | 0.8      | 85        | 0.0      |       |       |          |      |      |
| 5                                                    | 18         | 78        | 14       | 0.4         | 18*  |           | 10        | 204        | 124    | 1.05                 | 7.0         |      | 12  | 15 | 0   | 0.8      | 77        | 0.0      |       |       |          |      |      |
| 6                                                    | 26         | 78        | 19       | 0.1         | 34*  |           | 20        | 298        | 198    | 1.73                 | 7.5         |      | 38  | 46 | 0   | 0.7      | 99        | 0.1      |       |       |          |      |      |
| 7                                                    | 26         | 78        | 23       | 0.15        | 85*  |           | 20        | 327        | 249    | 1.22                 | 7.9         |      | 54  | 65 | 0   | 1.3      | 140       | 0.0      |       |       |          |      |      |
| 8                                                    | 30         | 78        | 21       | 0.03        | 69*  |           | 35        | 261        | 152    | 2.23                 | 7.9         |      | 69  | 83 | 0   | 0.9      | 53        | 0.1      |       |       |          |      |      |
| 10                                                   | 5          | 78        | 11       | 0.004       | 82*  |           | 8         | 307        | 203    | 1.91                 | 8.0         |      | 65  | 78 | 0   | 1.4      | 89        | 0.0      |       |       |          |      |      |
| 11                                                   | 1          | 78        | 11       | 0.004       |      |           | 75        | 278        | 171    | 1.68                 | 8.0         | -49  | 70  | 84 | 0   | 1.1      | 72        | 0.0      |       |       |          |      |      |
| 12                                                   | 14         | 78        | 0        | 0.04        | 10   |           | 3         | 187        | 108    | 1.19                 | 7.0         | -3   | 11  | 14 | 0   | 0.8      | 62        | 0.2      |       |       |          |      |      |
|                                                      |            |           |          |             |      |           |           |            |        |                      |             |      |     |    |     |          |           |          |       |       |          |      |      |
| 2                                                    | 6          | 79        | 0        | 0.2         | 32   |           | 6         | 252        | 141    | 1.55                 | 6.9         |      | 14  | 17 | 0   | 0.9      | 76        | 0.0      |       |       |          |      |      |
| 3                                                    | 27         | 79        | 4        | 0.2         |      |           | 5         | 241        | 141    | 1.21                 | 6.9         | -5   | 8   | 10 | 0   | 1.1      | 86        | 0.0      |       |       |          |      |      |
| 4                                                    | 24         | 79        | 17       | 0.07        | 25   | 0.00      | 15        | 243        | 156    | 1.08                 | 7.0         | -9   | 12  | 15 | 0   | 0.9      | 98        | 0.0      |       |       |          |      |      |
| 5                                                    | 21         | 79        | 20       | 0.03        | 28   | 0.25      | 15        | 272        | 178    | 1.43                 | 7.7         | -16  | 24  | 29 | 0   | 0.7      | 100       | 0.0      |       |       |          |      |      |
| 6                                                    | 25         | 79        | 18       | 0.4         | 15   |           | 15        | 271        | 156    | 1.17                 | 8.1         | -30  | 36  | 43 | 0   | 1.1      | 85        | 0.1      |       |       |          |      |      |
| 7                                                    | 20         | 79        | 22       | 0.06        | 12   |           | 30        | 342        | 179    | 1.52                 | 8.1         | -38  | 53  | 64 | 0   | 0.9      | 86        | 0.1      | 0.0   | 0.09  | 0.55     | 0.00 | 0.00 |
| 8                                                    | 7          | 79        | 27       | 0.04        | 32   |           | 30        | 238        | 126    | 1.91                 | 7.9         | -26  | 35  | 43 | 0   | 1.5      | 53        | 0.0      | 0.2   | 0.06  | 0.40     | 0.00 | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG  | NH  | NO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|----|-----|------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |    |     |      |     |     |      |     |     |     |     |      |     |     |     |     |     |
| 6 6 77   | 0.1                  | 0.01 |     |      | 28 | 0.0 | 0.00 | 0.1 | 2.1 |      | 21  | 0.9 |     | 4.1 | 0.03 | 0.0 | 4.9 |     | 0.0 | 0.0 |
| 7 25 77  | 0.0                  | 0.01 |     |      | 22 | 0.0 | 0.01 | 0.1 | 2.8 |      | 12  | 1.1 |     | 4.3 | 0.04 | 0.0 | 5.0 |     | 0.0 | 0.0 |
| 9 27 77  | 0.0                  | 0.04 | 0.0 | 0.00 | 25 | 0.0 | 0.00 | 0.5 | 2.3 | 0.10 | 20  | 1.4 | 0.0 | 4.6 | 0.02 | 0.0 | 4.7 | 0.1 | 0.0 | 0.0 |
| 11 22 77 | 0.0                  | 0.00 |     |      | 22 | 0.0 | 0.00 | 0.3 | 1.7 |      | 13  | 1.4 |     | 3.8 | 0.01 | 0.0 | 4.6 |     | 0.1 | 0.0 |
| 12 28 77 | 0.4                  | 0.00 | 0.0 | 0.00 | 26 | 0.0 | 0.00 | 2.1 | 1.8 | 0.20 | 26  | 2.4 | 0.0 | 4.3 | 0.03 | 0.0 | 5.4 | 0.2 | 0.1 | 0.0 |
| 2 16 78  | 0.0                  | 0.02 |     |      | 18 | 0.0 | 0.00 | 0.4 | 1.4 |      | 11  | 0.7 |     | 3.6 | 0.00 | 0.0 | 5.1 |     | 0.0 | 0.0 |
| 3 20 78  | 0.1                  | 0.02 |     |      | 17 | 0.0 | 0.00 | 0.2 | 2.1 |      | 9.9 | 0.4 |     | 3.2 | 0.02 | 0.0 | 5.5 |     | 0.0 | 0.0 |
| 4 17 78  | 0.1                  | 0.00 | 0.0 | 0.00 | 19 | 0.0 | 0.00 | 0.4 | 1.5 | 0.06 | 13  | 1.1 | 0.0 | 3.6 | 0.02 | 0.0 | 4.7 | 0.1 | 0.0 | 0.0 |
| 5 18 78  | 0.1                  | 0.01 |     |      | 16 | 0.0 | 0.00 | 0.2 | 1.6 |      | 9.2 | 0.4 |     | 3.0 | 0.02 | 0.0 | 4.2 |     | 0.0 | 0.0 |
| 6 26 78  | 0.1                  | 0.01 |     |      | 32 | 0.0 | 0.00 | 0.4 | 1.4 |      | 22  | 1.5 |     | 3.3 | 0.00 | 0.0 | 6.5 |     | 0.0 | 0.0 |
| 7 26 78  | 0.1                  | 0.02 | 0.0 | 0.00 | 31 | 0.0 | 0.00 | 0.6 | 2.0 | 0.15 | 23  | 1.6 | 0.1 | 3.7 | 0.02 | 0.1 | 5.3 | 0.1 | 0.1 | 0.0 |
| 8 30 78  | 0.1                  | 0.03 |     |      | 22 | 0.0 | 0.00 | 0.6 | 2.8 |      | 15  | 1.7 |     | 3.1 | 0.02 | 0.0 | 5.3 |     | 0.0 | 0.0 |
| 10 5 78  | 0.2                  | 0.00 | 0.0 | 0.00 | 31 | 0.0 | 0.00 | 0.9 | 1.9 | 0.10 | 23  | 2.3 | 0.0 | 3.1 | 0.06 | 0.2 | 4.8 | 0.1 | 0.3 | 0.0 |
| 11 1 78  | 0.1                  | 0.02 |     |      | 21 | 0.0 | 0.01 | 0.7 | 2.0 |      | 16  | 1.3 |     | 4.2 | 0.03 | 0.0 | 4.7 |     | 0.1 | 0.0 |
| 12 14 78 | 0.1                  | 0.01 |     |      | 15 | 0.0 | 0.01 | 0.4 | 1.6 |      | 8.2 | 0.7 |     | 2.6 | 0.03 | 0.1 | 4.6 |     | 0.1 | 0.0 |
| 2 6 79   | 0.3                  | 0.01 | 0.0 | 0.00 | 22 | 0.0 | 0.01 | 0.4 | 1.7 | 0.15 | 14  | 1.2 | 0.0 | 3.8 | 0.03 | 0.0 | 5.5 | 0.1 | 0.0 | 0.0 |
| 3 27 79  | 0.1                  | 0.01 |     |      | 21 | 0.0 | 0.01 | 0.5 | 1.4 |      | 12  | 1.1 |     | 2.8 | 0.03 | 0.0 | 4.7 |     | 0.0 | 0.0 |
| 4 24 79  | 0.1                  | 0.01 | 0.1 | 0.00 | 21 | 0.0 | 0.00 | 0.3 | 1.4 | 0.20 | 12  | 1.0 | 0.0 | 3.0 | 0.02 | 0.0 | 4.8 | 0.1 | 0.0 | 0.1 |
| 5 21 79  | 0.3                  | 0.01 |     |      | 23 | 0.0 | 0.01 | 0.6 | 1.8 |      | 20  | 1.6 |     | 3.3 | 0.03 | 0.0 | 5.3 |     | 0.1 | 0.1 |
| 6 25 79  | 0.1                  | 0.01 |     |      | 20 | 0.0 | 0.00 | 0.4 | 1.6 |      | 12  | 2.0 |     | 3.0 | 0.03 | 0.0 | 4.2 |     | 0.0 | 0.1 |
| 7 20 79  | 0.1                  | 0.02 |     |      | 24 | 0.0 | 0.00 | 0.3 | 1.6 |      | 17  | 2.4 |     | 3.5 | 0.03 | 0.1 | 4.9 |     | 0.1 | 0.0 |
| 8 7 79   | 0.1                  | 0.03 |     |      | 21 | 0.0 | 0.03 | 0.3 | 2.2 |      | 11  | 1.7 |     | 3.5 | 0.02 | 0.0 | 5.1 |     | 0.0 | 0.0 |

TABLE 68. WATER QUALITY FOR SITE 5195 VINTON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |    |     |          |           |          |       |       |          |
| 6 6 77   | 17         | 0.01      |          |             | 95   | 888       | 662       | 0.91       | 4.7    |          |             | 0    | 0   | 0  | 1.9 | 470      |           |          |       |       |          |

| DATE     | AL  | B    | BA | BE | CA  | CO  | CU   | FE  | K   | LI | MG | MN | MO | NA  | NI   | PB  | SI  | SR | TI  | ZN  |
|----------|-----|------|----|----|-----|-----|------|-----|-----|----|----|----|----|-----|------|-----|-----|----|-----|-----|
| MO DA YR |     |      |    |    |     |     |      |     |     |    |    |    |    |     |      |     |     |    |     |     |
| 6 6 77   | 3.2 | 0.02 |    |    | 100 | 0.3 | 0.00 | 6.2 | 3.1 |    | 42 | 16 |    | 7.4 | 0.25 | 0.0 | 6.8 |    | 0.0 | 1.3 |

TABLE 69. WATER QUALITY FOR SITE 5200 WASHINGTON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL  | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------|-------------|------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|
| MO DA YR | DEG C      | CFS       | MG/L     | ML/L        | JTU  | UM/CM     | MG/L      |            |        |          |             |      |     |     |     |          |           |          |       |       |          |
| 1 12 78  | 0          | 0.5       |          |             | 25   | 865       | 614       | 1.34       | 8.2    |          | 125         | 150  | 2   | 5.5 | 340 | 1.8      |           |          |       |       |          |
| 2 15 78  | 0          | 0.25      |          |             | 8    | 1020      | 701       | 1.36       | 8.2    |          | 107         | 128  | 1   | 6.4 | 400 | 2.4      |           |          |       |       |          |
| 3 16 78  | 3          | 2.0       | 72       |             | 60   | 655       | 436       | 1.44       | 7.6    |          | 80          | 96   | 0   | 4.1 | 230 | 2.1      |           |          |       |       |          |
| 4 18 78  | 13         | 0.7       | 10       |             | 10   | 1020      | 773       | 1.36       | 7.8    |          | 65          | 78   | 0   | 4.9 | 480 | 0.3      |           |          |       |       |          |
| 5 16 78  | 14         | 1.5       | 60*      |             | 30   | 981       | 662       | 1.31       | 8.1    |          | 103         | 124  | 1   | 4.8 | 390 | 0.4      |           |          |       |       |          |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA   | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|-----|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|------|------|-----|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |     |     |      |     |     |      |    |     |     |      |      |     |     |     |     |     |
| 1 12 78  | 0.2 | 0.00 |     |      | 130 | 0.0 | 0.00 | 0.0 | 1.8 |      | 37 | 0.4 |     | 12   | 0.02 | 0.0 | 2.9 |     | 0.0 | 0.0 |
| 2 15 78  | 0.1 | 0.03 | 0.1 | 0.00 | 150 | 0.0 | 0.00 | 0.1 | 1.8 | 0.00 | 43 | 0.3 | 0.0 | 17   | 0.01 | 0.0 | 3.4 | 1.0 | 0.0 | 0.0 |
| 3 16 78  | 0.2 |      |     |      | 98  | 0.0 | 0.00 | 0.1 | 2.4 |      | 23 | 0.6 |     | 10.0 | 0.03 | 0.0 | 2.9 |     | 0.1 | 0.0 |
| 4 18 78  | 0.2 | 0.02 | 0.1 | 0.00 | 170 | 0.0 | 0.00 | 0.1 | 2.4 | 0.55 | 53 | 0.9 | 0.0 | 14   | 0.04 | 0.1 | 2.9 | 0.8 | 0.1 | 0.0 |
| 5 16 78  | 0.2 | 0.03 |     |      | 140 | 0.0 | 0.00 | 0.1 | 2.8 |      | 39 | 0.7 |     | 15   | 0.06 | 0.0 | 3.0 |     | 0.1 | 0.0 |

TABLE 70. WATER QUALITY FOR SITE 5201 WASHINGTON COUNTY, OHIO

| SOL. WASHINGTON COUNTY, MD |            |           |          |             |      |           |           |            |        |                      |             |      |     |     |     |          |           |          |       |       |          |      |      |
|----------------------------|------------|-----------|----------|-------------|------|-----------|-----------|------------|--------|----------------------|-------------|------|-----|-----|-----|----------|-----------|----------|-------|-------|----------|------|------|
| DATE                       | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH | ACID-ITY             | ALKA-LINITY | HC03 | C03 | CL  | SD4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |      |      |
| MO                         | DA         | YR        | DEG C    | CFS         | MG/L | ML/L      | JTU       | UM/CM      | MG/L   | MILLIGRAMS PER LITER |             |      |     |     |     |          |           |          |       |       |          |      |      |
| 6                          | 8          | 77        | 12       | 0.02        |      |           | 45        | 449        | 351    | 3.27                 | 7.9         |      | 166 | 200 | 1   | 4.0      | 110       |          |       |       |          |      |      |
| 7                          | 27         | 77        | 17       | 0.0000      |      |           | 8         | 527        | 359    | 3.82                 | 7.1         |      | 197 | 240 | 0   | 12       | 88        | 0.1      |       |       |          |      |      |
| 9                          | 21         | 77        | 18       | 0.0009      |      |           | 10        | 557        | 320    | 4.83                 | 8.2         |      | 192 | 229 | 2   | 3.3      | 68        | 0.1      |       |       |          |      |      |
| 11                         | 8          | 77        | 15       | 0.004       |      |           | 30        | 515        | 380    | 2.92                 | 8.3         |      | 209 | 248 | 3   | 4.2      | 110       | 0.0      |       |       |          |      |      |
| 1                          | 12         | 78        | 2        | 0.4         |      |           | 10        | 517        | 317    | 3.73                 | 8.5         |      | 201 | 235 | 5   | 3.3      | 78        | 0.1      |       |       |          |      |      |
| 2                          | 15         | 78        | 0        | 0.3         |      |           | 8         | 577        | 332    | 3.51                 | 8.2         |      | 177 | 212 | 2   | 3.1      | 93        | 0.1      |       |       |          |      |      |
| 3                          | 16         | 78        | 4        | 2.0         | 38   |           | 60        | 326        |        |                      | 8.4         |      |     |     |     | 2.7      | 42        | 0.2      |       |       |          |      |      |
| 4                          | 18         | 78        | 10       | 1.5         | 8    |           | 30        | 481        |        |                      | 8.3         |      |     |     |     | 3.2      | 89        | 0.1      |       |       |          |      |      |
| 5                          | 16         | 78        | 12       | 1.5         | 48*  |           | 10        | 494        | 293    | 3.58                 | 8.4         |      | 181 | 214 | 3   | 2.5      | 74        | 0.1      |       |       |          |      |      |
| 6                          | 23         | 78        | 18       | 0.3         | 41*  |           | 25        | 452        |        |                      | 8.2         |      |     |     |     | 2.9      | 97        | 0.2      |       |       |          |      |      |
| 7                          | 20         | 78        | 20       | 0.7         | 81*  |           | 25        | 557        | 333    | 3.68                 | 8.3         |      | 161 | 192 | 3   | 3.1      | 93        | 0.1      |       |       |          |      |      |
| 9                          | 6          | 78        | 19       | 0.0006      | 94*  |           | 75        | 566        | 322    | 3.26                 | 8.2         |      | 202 | 241 | 2   | 1.8      | 84        | 0.2      |       |       |          |      |      |
| 10                         | 3          | 78        |          | 0.0005      |      |           |           | 514        |        |                      | 8.2         |      |     |     |     | 4.0      | 98        | 0.1      |       |       |          |      |      |
| 11                         | 8          | 78        | 7        | 0.015       |      |           | 20        | 604        | 394    | 2.95                 | 8.3         |      | 207 | 245 | 3   | 3.6      | 120       | 0.1      |       |       |          |      |      |
| 12                         | 13         | 78        | 2        | 0.15        | 17   |           | 4         | 484        | 292    | 3.53                 | 8.2         |      | 163 | 195 | 2   | 1.7      | 77        | 0.1      |       |       |          |      |      |
| 2                          | 5          | 79        | 0        | 0.09        |      |           | 1         | 533        | 327    | 3.90                 | 7.8         |      | 168 | 203 | 1   | 2.9      | 87        | 0.0      |       |       |          |      |      |
| 3                          | 21         | 79        | 9        | 0.3         |      |           | 3         | 572        | 374    | 3.18                 | 8.1         |      | 197 | 236 | 2   | 4.2      | 110       | 0.6      |       |       |          |      |      |
| 4                          | 23         | 79        | 15       | 0.25        | 0.00 |           | 10        | 554        | 337    | 3.65                 | 8.3         |      | 184 | 219 | 3   | 2.6      | 89        | 0.0      |       |       |          |      |      |
| 5                          | 19         | 79        | 13       | 0.15        |      |           | 10        | 608        | 371    | 3.58                 | 8.0         |      | 209 | 252 | 2   | 2.9      | 99        | 0.1      |       |       |          |      |      |
| 6                          | 22         | 79        | 22       | 0.09        |      |           | 35        | 448        | 344    | 2.89                 | 8.4         |      | 177 | 209 | 3   | 2.9      | 110       | 0.2      |       |       |          |      |      |
| 7                          | 19         | 79        | 21       | 0.02        | 43*  |           | 80        | 601        | 352    | 2.84                 | 8.2         |      | 161 | 193 | 2   | 3.8      | 110       | 0.3      | 0.2   | 0.07  | 0.75     | 0.15 | 0.01 |
| 8                          | 14         | 79        | 16       | 0.02        | 8    | 0.01      | 15        | 619        | 317    | 3.70                 | 8.4         |      | 203 | 240 | 4   | 3.1      | 75        | 0.0      | 0.0   | 0.04  | 0.30     | 0.00 | 0.03 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|-----|------|-----|------|----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |    |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 8 77   | 0.1 | 0.00 |     |      | 89 | 0.0 | 0.00 | 0.0 | 2.6 |      | 25 | 0.0 |     | 19  | 0.03 | 0.0 | 2.0 |     | 0.0 | 0.1 |
| 7 27 77  | 0.1 | 0.02 |     |      | 87 | 0.0 | 0.01 | 0.1 | 2.8 |      | 25 | 0.0 |     | 18  | 0.01 | 0.1 | 3.4 |     | 0.0 | 0.0 |
| 9 21 77  | 0.1 | 0.01 | 0.1 | 0.00 | 87 | 0.0 | 0.00 | 0.1 | 2.8 | 0.25 | 22 | 0.1 | 0.1 | 16  | 0.02 | 0.0 | 2.1 | 0.4 | 0.1 | 0.0 |
| 11 8 77  | 0.1 | 0.00 |     |      | 86 | 0.0 | 0.00 | 0.0 | 2.9 |      | 22 | 0.1 |     | 19  | 0.01 | 0.0 | 3.5 |     | 0.0 | 0.1 |
| 1 12 78  | 0.1 | 0.00 |     |      | 70 | 0.0 | 0.00 | 0.0 | 1.7 |      | 25 | 0.0 |     | 12  | 0.01 | 0.0 | 3.0 |     | 0.0 | 0.0 |
| 2 15 78  | 0.0 | 0.02 | 0.1 | 0.00 | 78 | 0.0 | 0.00 | 0.0 | 1.5 |      | 28 | 0.0 | 0.0 | 14  | 0.00 | 0.0 | 2.7 | 0.6 | 0.0 | 0.0 |
| 3 16 78  | 0.8 | 0.03 |     |      | 54 | 0.0 | 0.00 | 0.6 | 2.3 |      | 13 | 0.0 |     | 9.2 | 0.02 | 0.0 | 4.0 |     | 0.0 | 0.0 |
| 4 18 78  | 0.1 | 0.01 | 0.1 | 0.00 | 83 | 0.0 | 0.00 | 0.1 | 2.1 | 0.20 | 30 | 0.0 | 0.0 | 14  | 0.02 | 0.0 | 3.2 | 0.4 | 0.1 | 0.0 |
| 5 16 78  | 0.1 | 0.02 |     |      | 64 | 0.0 | 0.00 | 0.1 | 1.9 |      | 22 | 0.0 |     | 12  | 0.03 | 0.0 | 2.6 |     | 0.1 | 0.0 |
| 6 23 78  | 0.1 | 0.02 |     |      | 84 | 0.0 | 0.01 | 0.0 | 2.4 |      | 27 | 0.0 |     | 18  | 0.00 | 0.0 | 3.8 |     | 0.0 | 0.0 |
| 7 20 78  | 0.1 | 0.02 | 0.1 | 0.00 | 83 | 0.0 | 0.00 | 0.1 | 2.7 | 0.40 | 27 | 0.0 | 0.2 | 18  | 0.00 | 0.1 | 3.4 | 0.4 | 0.0 | 0.0 |
| 9 6 78   | 0.1 | 0.03 |     |      | 72 | 0.0 | 0.00 | 0.0 | 2.6 |      | 19 | 0.0 |     | 13  | 0.01 | 0.1 | 3.7 |     | 0.0 | 0.0 |
| 10 3 78  | 0.5 | 0.01 | 0.1 | 0.00 | 95 | 0.0 | 0.00 | 0.5 | 3.0 | 0.30 | 29 | 0.2 | 0.0 | 19  | 0.04 | 0.3 | 3.9 | 0.4 | 0.2 | 0.0 |
| 11 8 78  | 0.2 | 0.02 |     |      | 95 | 0.0 | 0.00 | 0.0 | 2.2 |      | 23 | 0.0 |     | 18  | 0.02 | 0.1 | 3.0 |     | 0.1 | 0.0 |
| 12 13 78 | 0.2 | 0.02 |     |      | 72 | 0.0 | 0.01 | 0.0 | 2.4 |      | 17 | 0.0 |     | 14  | 0.03 | 0.1 | 3.3 |     | 0.1 | 0.0 |
| 2 5 79   | 0.1 | 0.01 | 0.1 | 0.00 | 91 | 0.0 | 0.01 | 0.0 | 1.5 | 0.25 | 24 | 0.0 | 0.0 | 14  | 0.01 | 0.1 | 2.5 | 0.4 | 0.1 | 0.0 |
| 3 21 79  | 0.1 | 0.01 |     |      | 94 | 0.0 | 0.00 | 0.0 | 1.9 |      | 26 | 0.0 |     | 12  | 0.01 | 0.1 | 2.2 |     | 0.1 | 0.0 |
| 4 23 79  | 0.2 | 0.02 | 0.2 | 0.00 | 90 | 0.0 | 0.00 | 0.0 | 2.0 | 0.80 | 21 | 0.0 | 0.0 | 13  | 0.02 | 0.1 | 2.8 | 0.6 | 0.1 | 0.0 |
| 5 19 79  | 0.1 | 0.01 |     |      | 94 | 0.0 | 0.01 | 0.0 | 1.8 |      | 25 | 0.0 |     | 15  | 0.02 | 0.1 | 2.7 |     | 0.1 | 0.0 |
| 6 22 79  | 0.2 | 0.03 |     |      | 78 | 0.0 | 0.01 | 0.2 | 2.3 |      | 25 | 0.1 |     | 13  | 0.02 | 0.1 | 3.8 |     | 0.1 | 0.0 |
| 7 19 79  | 0.2 | 0.02 | 0.1 | 0.00 | 84 | 0.0 | 0.02 | 0.2 | 2.5 | 0.50 | 23 | 0.1 | 0.0 | 16  | 0.03 | 0.2 | 3.6 | 0.5 | 0.1 | 0.0 |
| 8 14 79  | 0.1 | 0.04 |     |      | 73 | 0.0 | 0.01 | 0.2 | 2.2 |      | 19 | 0.0 |     | 14  | 0.05 | 0.0 | 3.4 |     | 0.1 | 0.0 |

TABLE 71. WATER QUALITY FOR SITE 5202 WASHINGTON COUNTY, OHIO

| DATE     | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | SPEC TURB | DIS COND | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|----------|------------|-----------|----------|-------------|-----------|----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|----------|----------|-------|-------|----------|
| MO DA YR | DES C      | CFS       | MG/L     | ML/L        | JTU       | UM/CM    | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |          |          |       |       |          |
| 9 6 78   | 24         | 0.1       | 12       |             | 15        | 1060     | 710        | 1.08                 | 8.1      |             | 90   | 108 | 1  | 2.0 | 440      | 3.4      |          |       |       |          |
| 10 3 78  |            | 0.07      | 168      |             | 4         | 1200     | 934        | 1.02                 | 8.1      |             | 78   | 93  | 1  | 3.8 | 630      | 0.2      |          |       |       |          |
| 11 8 78  | 9          | 0.06      | 49       |             | 10        | 1080     | 894        | 1.02                 | 8.1      |             | 92   | 110 | 1  | 4.2 | 590      | 1.0      |          |       |       |          |
| 12 13 78 | 2          | 0.1       | 46       |             | 1         | 874      | 553        | 1.26                 | 8.1      |             | 89   | 107 | 1  | 2.4 | 320      | 1.7      |          |       |       |          |
| 2 6 79   | 0          | 0.2       | 62       |             | 3         | 1110     | 808        | 1.53                 | 8.0      |             | 130  | 156 | 1  | 4.6 | 440      | 1.9      |          |       |       |          |
| 3 21 79  | 9          | 0.3       | 58       |             | 9         | 1260     | 1130       | 1.31                 | 7.8      |             | 83   | 100 | 1  | 4.0 | 700      | 3.0      |          |       |       |          |
| 4 23 79  | 14         | 1.0       | 44       | 0.00        | 30        | 1120     | 868        | 1.30                 | 8.0      |             | 76   | 92  | 1  | 5.4 | 530      | 1.2      |          |       |       |          |
| 5 19 79  | 18         | 0.4       | 53       | 0.01        | 15        | 1290     | 990        | 1.26                 | 8.1      |             | 77   | 92  | 1  | 3.1 | 620      | 0.6      |          |       |       |          |
| 6 22 79  | 24         | 0.4       | 38       |             | 40        | 1180     | 858        | 1.04                 | 8.1      |             | 57   | 68  | 1  | 3.4 | 580      | 0.5      |          |       |       |          |
| 7 19 79  | 22         | 0.2       | 17       |             | 5         | 1460     | 1030       | 1.25                 | 8.1      |             | 69   | 82  | 1  | 4.4 | 660      | 0.2      | 0.0      | 0.18  | 0.80  | 0.00     |
| 8 3 79   | 24         | 0.03      | 27       |             | 25        | 1140     | 680        | 1.30                 | 8.2      |             | 100  | 119 | 1  | 3.8 | 400      | 1.2      |          |       |       |          |
| 8 14 79  | 21         | 0.15      | 17       | 0.01        | 20        | 1100     | 664        | 1.45                 | 8.2      |             | 102  | 121 | 1  | 3.5 | 380      | 1.2      | 0.2      | 0.21  | 0.35  | 0.00     |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 ms/l too high (most are 20 to 40 ms/l too high).

| DATE     | AL                   | B    | BA  | BE   | CA  | CO  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|----|------|-----|-----|-----|-----|-----|
| MO DA YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |    |      |     |     |     |     |     |
| 9 6 78   | 0.4                  | 0.04 |     |      | 130 | 0.0 | 0.00 | 0.2 | 3.4 |      | 34 | 0.2 |     | 17 | 0.03 | 0.2 | 2.2 |     | 0.1 | 0.0 |
| 10 3 78  | 0.3                  | 0.04 | 0.0 | 0.00 | 170 | 0.0 | 0.00 | 0.1 | 2.8 | 0.50 | 46 | 0.2 | 0.0 | 28 | 0.05 | 0.2 | 2.0 | 1.1 | 0.3 | 0.0 |
| 11 8 78  | 0.3                  | 0.03 |     |      | 170 | 0.0 | 0.00 | 0.1 | 2.4 |      | 43 | 0.4 |     | 19 | 0.04 | 0.2 | 1.9 |     | 0.2 | 0.0 |
| 12 13 78 | 0.2                  | 0.02 |     |      | 110 | 0.0 | 0.01 | 0.1 | 1.9 |      | 30 | 0.8 |     | 10 | 0.06 | 0.2 | 2.4 |     | 0.2 | 0.0 |
| 2 6 79   | 0.4                  | 0.01 | 0.0 | 0.00 | 200 | 0.0 | 0.00 | 0.0 | 2.0 | 1.0  | 46 | 1.3 | 0.0 | 18 | 0.05 | 0.2 | 3.0 | 0.7 | 0.1 | 0.0 |
| 3 21 79  | 0.9                  | 0.03 |     |      | 270 | 0.1 | 0.00 | 0.1 | 2.6 |      | 59 | 1.9 |     | 28 | 0.13 | 0.4 | 3.4 |     | 0.4 | 0.2 |
| 4 23 79  | 0.3                  | 0.04 | 0.1 | 0.00 | 190 | 0.0 | 0.00 | 0.0 | 2.6 | 0.95 | 47 | 1.4 | 0.0 | 33 | 0.07 | 0.1 | 2.7 | 1.4 | 0.2 | 0.1 |
| 5 19 79  | 0.4                  | 0.05 |     |      | 200 | 0.0 |      | 0.1 | 3.4 |      | 50 | 1.1 |     | 52 | 0.04 | 0.2 | 3.0 |     | 0.2 | 0.1 |
| 6 22 79  | 0.3                  | 0.04 |     |      | 170 | 0.0 | 0.00 | 0.1 | 3.1 |      | 43 | 0.4 |     | 15 | 0.03 | 0.1 | 2.9 |     | 0.2 | 0.1 |
| 7 19 79  | 0.3                  | 0.04 | 0.1 | 0.00 | 230 | 0.0 | 0.02 | 0.2 | 3.5 | 2.0  | 59 | 0.2 | 0.1 | 20 | 0.03 | 0.2 | 3.0 | 1.7 | 0.2 | 0.0 |
| 8 3 79   | 0.3                  | 0.04 |     |      | 150 | 0.0 | 0.00 | 0.0 | 2.8 |      | 37 | 0.2 |     | 12 | 0.02 | 0.2 | 1.8 |     | 0.2 | 0.0 |
| 8 14 79  | 0.3                  | 0.03 |     |      | 160 | 0.0 | 0.01 | 0.0 | 3.8 |      | 36 | 0.2 |     | 17 | 0.01 | 0.2 | 2.3 |     | 0.1 | 0.0 |

TABLE 72. WATER QUALITY FOR SITE 5205 WASHINGTON COUNTY, OHIO

| NEW YORK STATE WATERWAY DATA |    |            |           |          |             |      |           |           |                      |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
|------------------------------|----|------------|-----------|----------|-------------|------|-----------|-----------|----------------------|--------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|------|
| DATE                         |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO           | LAR PH | ACID-ITY | ALKA-LIMITY | HC03 | C03 | CL | SD4 | NO3 AS N | #NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH P04 |      |
| MO                           | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU UN/CM | MG/L      | MILLIGRAMS PER LITER |        |          |             |      |     |    |     |          |           |          |       |       |          |      |
| 6                            | 8  | 77         | 12        | 0.05     |             |      | 20        | 809       | 723                  | 1.05   | 6.7      |             | 37   | 45  | 0  | 1.9 | 480      |           |          |       |       |          |      |
| 7                            | 27 | 77         | 17        | 0.03     |             |      | 50        | 1110      | 843                  | 0.93   | 4.4      |             | 0    | 0   | 0  | 1.5 | 590      | 0.1       |          |       |       |          |      |
| 9                            | 21 | 77         | 16        | 0.03     |             |      | 10        | 1230      | 1110                 | 1.03   | 7.1      |             | 20   | 24  | 0  | 1.7 | 750      | 0.2       |          |       |       |          |      |
| 11                           | 8  | 77         | 16        | 0.02     | 66          |      | 35        | 1100      | 823                  | 0.87   | 7.3      |             | 30   | 36  | 0  | 2.2 | 580      | 0.2       |          |       |       |          |      |
| 2                            | 15 | 78         | 0         | 0.08     |             |      | 50        | 866       | 600                  | 1.11   | 7.9      |             | 48   | 57  | 0  | 1.5 | 390      | 0.1       |          |       |       |          |      |
| 3                            | 16 | 78         | 4         | 0.4      | 2220        |      | 2000      | 554       | 490                  | 0.87   | 3.9      |             | 0    | 0   | 0  | 1.3 | 350      | 0.3       |          |       |       |          |      |
| 4                            | 18 | 78         | 11        | 0.15     | 55          |      | 65        | 793       | 597                  | 1.21   | 7.5      |             | 30   | 36  | 0  | 1.4 | 380      | 0.2       |          |       |       |          |      |
| 5                            | 16 | 78         | 14        | 0.4      | 110*        |      | 110       | 653       | 472                  | 1.01   | 7.0      |             | 16   | 20  | 0  | 1.6 | 320      | 0.3       |          |       |       |          |      |
| 6                            | 23 | 78         | 24        | 0.25     | 85*         |      | 30        | 900       | 653                  | 0.99   | 7.2      |             | 0    | 0   | 0  | 1.8 | 460      | 0.3       |          |       |       |          |      |
| 7                            | 20 | 78         | 25        | 0.15     | 1150*       |      | 300       | 973       | 728                  | 1.00   | 7.9      |             | 34   | 41  | 0  | 1.6 | 490      | 0.1       |          |       |       |          |      |
| 9                            | 6  | 78         | 20        | 0.005    | 1360*       |      | 3200      | 1060      | 706                  | 0.81   | 7.1      |             | 16   | 19  | 0  | 3.8 | 500      | 0.4       |          |       |       |          |      |
| 10                           | 3  | 78         |           | 0.02     | 7970*       |      | 2400      | 1100      | 953                  |        | 7.3      |             | 16   | 20  | 0  |     | 680      | 0.1       |          |       |       |          |      |
| 11                           | 8  | 78         | 7         | 0.009    |             |      | 170       | 1020      | 793                  | 1.06   | 7.7      | -30         | 42   | 51  | 0  | 1.9 | 530      | 0.1       |          |       |       |          |      |
| 12                           | 13 | 78         | 2         | 0.07     | 316         |      | 140       | 688       | 527                  | 0.94   | 7.3      | -4          | 20   | 24  | 0  | 1.5 | 360      | 0.1       |          |       |       |          |      |
| 2                            | 5  | 79         |           | 0.08     | 319         |      | 80        | 746       | 494                  | 1.26   | 7.6      | -28         | 43   | 52  | 0  | 1.5 | 300      | 0.1       |          |       |       |          |      |
| 3                            | 21 | 79         | 9         | 0.15     | 82          |      | 70        | 860       | 695                  | 1.02   | 7.8      | -22         | 49   | 59  | 0  | 1.2 | 460      | 0.7       |          |       |       |          |      |
| 4                            | 23 | 79         | 16        | 0.2      | 68          | 0.05 | 110       | 788       | 630                  | 1.14   | 7.8      | -31         | 46   | 55  | 0  | 1.0 | 410      | 0.1       |          |       |       |          |      |
| 5                            | 19 | 79         | 17        | 0.06     | 38          | 0.00 | 65        | 877       | 623                  | 0.98   | 7.8      | -34         | 59   | 71  | 0  | 1.3 | 420      | 0.1       |          |       |       |          |      |
| 6                            | 22 | 79         | 24        | 0.06     | 110*        |      |           | 925       | 748                  | 0.89   | 7.5      | 0           | 18   | 22  | 0  | 1.3 | 530      | 0.1       |          |       |       |          |      |
| 7                            | 19 | 79         | 22        | 0.03     |             |      |           | 1180      | 854                  | 1.02   | 7.8      | -12         | 33   | 40  | 0  | 1.6 | 580      | 0.2       | 0.0      | 0.33  | 0.95  | 0.00     | 0.00 |
| 8                            | 14 | 79         | 17        | 0.04     |             |      |           | 1020      | 674                  | 1.23   | 7.8      | -12         | 32   | 39  | 0  | 1.7 | 430      | 0.2       | 0.0      | 0.29  | 0.60  | 0.15     | 0.01 |

\* Suspended Solids values followed by an asterisk are believed to be 5 to 80 mg/l too high (most are 20 to 40 mg/l too high).

| DATE     | AL  | B    | BA  | BE   | CA  | CD  | CU   | FE  | K   | LI   | MG | MN  | MO  | NA  | NI   | PB  | SI  | SR  | TI  | ZN  |
|----------|-----|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO DA YR |     |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6 8 77   | 0.2 | 0.02 |     |      | 130 | 0.1 | 0.00 | 2.2 | 2.7 |      | 44 | 16  |     | 7.9 | 0.06 | 0.1 | 6.8 |     | 0.2 | 0.1 |
| 7 27 77  | 3.2 | 0.01 |     |      | 140 | 0.2 | 0.02 | 1.9 | 4.0 |      | 47 | 23  |     | 8.1 | 0.12 | 0.2 | 11  |     | 0.0 | 0.2 |
| 9 21 77  | 0.3 |      | 0.0 | 0.00 | 210 | 0.2 | 0.01 | 0.9 | 3.5 | 0.55 | 63 | 30  | 0.0 | 8.3 | 0.11 | 0.2 | 12  | 0.5 | 0.2 | 0.2 |
| 11 8 77  | 0.2 | 0.00 |     |      | 150 | 0.0 | 0.00 | 0.1 | 3.0 |      | 34 | 17  |     | 8.5 | 0.03 | 0.0 | 5.7 |     | 0.0 | 0.0 |
| 2 15 78  | 0.1 | 0.02 | 0.0 | 0.00 | 110 | 0.0 | 0.00 | 2.0 | 1.7 |      | 38 | 13  | 0.0 | 6.6 | 0.03 | 0.0 | 5.3 | 0.6 | 0.0 | 0.0 |
| 3 16 78  | 5.6 | 0.04 |     |      | 68  | 0.2 | 0.02 | 3.1 | 2.0 |      | 34 | 9.3 |     | 4.0 | 0.11 | 0.0 | 5.7 |     | 0.1 | 0.2 |
| 4 18 78  | 0.1 | 0.01 | 0.0 | 0.00 | 110 | 0.1 | 0.01 | 2.1 | 2.8 | 0.30 | 45 | 19  | 0.0 | 6.4 | 0.09 | 0.0 | 6.4 | 0.4 | 0.1 | 0.0 |
| 5 16 78  | 0.2 | 0.01 |     |      | 78  | 0.1 | 0.00 | 2.7 | 2.0 |      | 31 | 9.4 |     | 5.3 | 0.08 | 0.0 | 6.9 |     | 0.1 | 0.1 |
| 6 23 78  | 0.2 | 0.03 |     |      | 120 | 0.0 | 0.00 | 0.1 | 3.1 |      | 37 | 8.8 |     | 6.5 | 0.05 | 0.1 | 6.3 |     | 0.1 | 0.0 |
| 7 20 78  | 0.2 | 0.01 | 0.0 | 0.00 | 130 | 0.1 | 0.00 | 0.3 | 3.8 | 0.50 | 41 | 12  | 0.3 | 6.9 | 0.04 | 0.2 | 7.8 | 0.4 | 0.2 | 0.0 |
| 9 6 78   | 0.9 | 0.03 |     |      | 110 | 0.1 | 0.01 | 4.2 | 5.1 |      | 31 | 9.9 |     | 6.8 | 0.07 | 0.3 | 8.8 |     | 0.3 | 0.1 |
| 10 3 78  | 0.4 | 0.01 | 0.0 | 0.00 | 170 | 0.1 | 0.01 | 3.2 | 3.9 | 0.35 | 46 | 16  | 0.1 | 7.4 | 0.06 | 0.2 | 7.5 | 0.4 | 0.2 | 0.0 |
| 11 8 78  | 0.4 | 0.02 |     |      | 160 | 0.0 | 0.01 | 3.4 | 2.5 |      | 42 | 13  |     | 5.9 | 0.07 | 0.2 | 6.3 |     | 0.1 | 0.0 |
| 12 13 78 | 0.4 | 0.01 |     |      | 89  | 0.1 | 0.01 | 7.2 | 2.0 |      | 29 | 10  |     | 4.6 | 0.10 | 0.3 | 5.9 |     | 0.3 | 0.1 |
| 2 5 79   | 3.1 | 0.00 | 0.0 | 0.00 | 100 | 0.1 | 0.01 | 3.1 | 1.7 | 0.55 | 32 | 9.2 | 0.0 | 4.8 | 0.06 | 0.2 | 4.7 | 0.3 | 0.2 | 0.0 |
| 3 21 79  | 0.3 | 0.02 |     |      | 130 | 0.1 |      | 2.5 | 2.4 |      | 40 | 12  |     | 5.8 | 0.07 | 0.1 | 4.9 |     | 0.2 | 0.2 |
| 4 23 79  | 0.2 | 0.02 |     |      | 120 | 0.1 | 0.00 | 2.2 | 2.1 |      | 39 | 11  |     | 5.9 | 0.05 | 0.1 | 4.3 |     | 0.2 | 0.0 |
| 5 19 79  | 0.2 | 0.00 |     |      | 100 | 0.1 | 0.02 | 0.8 | 2.3 |      | 38 | 9.8 |     | 5.4 | 0.07 | 0.2 | 4.9 |     | 0.2 | 0.0 |
| 6 22 79  | 0.3 | 0.02 | 0.1 | 0.00 | 120 | 0.1 | 0.01 | 1.0 | 3.7 | 0.55 | 40 | 14  | 0.0 | 6.6 | 0.05 | 0.1 | 7.3 | 0.3 | 0.1 | 0.0 |
| 7 19 79  | 0.2 | 0.02 | 0.0 | 0.00 | 160 | 0.1 | 0.03 | 0.9 | 4.3 | 1.0  | 45 | 15  | 0.1 | 8.3 | 0.04 | 0.2 | 6.2 | 0.6 | 0.2 | 0.0 |
| 8 14 79  | 0.2 | 0.03 |     |      | 140 | 0.1 | 0.00 | 0.6 | 3.3 |      | 41 | 14  |     | 6.5 | 0.07 | 0.2 | 7.4 |     | 0.3 | 0.0 |

TABLE 73. WATER QUALITY FOR SITE 5208 WASHINGTON COUNTY, OHIO

| DATE |    | WATER TEMP | EST DISCH | SUSP SOL | SETT MATTER | TURB | SPEC COND | DIS SOLID | NEUT RATIO | LAB PH               | ACID-ITY | ALKA-LINITY | HCO3 | CO3 | CL | SO4 | NO3 AS N | *NO3 AS N | NH3 AS N | TOT N | TOT P | ORTH PO4 |
|------|----|------------|-----------|----------|-------------|------|-----------|-----------|------------|----------------------|----------|-------------|------|-----|----|-----|----------|-----------|----------|-------|-------|----------|
| MO   | DA | YR         | DEG C     | CFS      | MG/L        | ML/L | JTU       | UM/CM     | MG/L       | MILLIGRAMS PER LITER |          |             |      |     |    |     |          |           |          |       |       |          |
| 6    | 8  | 77         | 12        | 0.02     |             |      | 20        | 1660      | 1190       | 1.13                 | 7.7      |             | 126  | 153 | 1  | 2.0 | 780      |           |          |       |       |          |
| 7    | 27 | 77         | 18        | 0.02     |             |      | 80        | 1430      | 979        | 1.34                 | 7.2      |             | 175  | 213 | 0  | 1.8 | 580      | 0.1       |          |       |       |          |
| 9    | 21 | 77         | 17        | 0.07     |             |      | 20        | 885       | 814        | 1.59                 | 7.9      |             | 164  | 198 | 1  | 2.6 | 440      | 0.0       |          |       |       |          |
| 11   | 8  | 77         | 15        | 0.008    |             |      | 35        | 1290      | 1130       | 1.11                 | 7.5      |             | 182  | 221 | 1  | 3.2 | 710      | 0.0       |          |       |       |          |
| 6    | 23 | 78         | 18        | 0.05     |             |      |           | 803       | 554        | 1.44                 | 8.0      |             | 74   | 89  | 1  | 1.8 | 320      | 0.2       |          |       |       |          |
| 7    | 20 | 78         | 22        | 0.15     |             |      |           | 674       | 467        | 1.83                 | 8.2      |             | 84   | 101 | 1  | 2.1 | 240      | 0.1       |          |       |       |          |
| 8    | 14 | 79         |           | 0.006    |             |      |           | 637       |            |                      | 7.8      | -180        | 198  | 240 | 1  | 1.2 | 280      |           |          |       |       |          |

| DATE | AL | B  | BA                   | BE   | CA  | CO   | CU  | FE  | K    | LI  | MG  | MN   | MO | NA  | NI  | PB  | SI   | SR  | TI  | ZN  |     |     |
|------|----|----|----------------------|------|-----|------|-----|-----|------|-----|-----|------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| MO   | DA | YR | MILLIGRAMS PER LITER |      |     |      |     |     |      |     |     |      |    |     |     |     |      |     |     |     |     |     |
| 6    | 8  | 77 | 0.2                  | 0.00 |     |      | 260 | 0.0 | 0.00 | 0.1 | 2.4 |      | 59 | 0.3 |     | 10  | 0.05 | 0.1 | 1.8 |     | 0.0 | 0.1 |
| 7    | 27 | 77 | 0.2                  | 0.01 |     |      | 220 | 0.0 | 0.01 | 0.2 | 2.8 |      | 58 | 0.6 |     | 11  | 0.02 | 0.2 | 3.2 |     | 0.0 | 0.0 |
| 9    | 21 | 77 | 0.2                  |      | 0.0 | 0.00 | 190 | 0.0 | 0.00 | 0.2 | 2.8 | 0.55 | 56 | 0.6 | 0.0 | 6.9 | 0.03 | 0.1 | 3.8 | 0.6 | 0.1 | 0.0 |
| 11   | 8  | 77 | 0.3                  | 0.00 |     |      | 230 | 0.0 | 0.00 | 0.2 | 3.0 |      | 54 | 1.6 |     | 13  | 0.02 | 0.0 | 3.5 |     | 0.1 | 0.0 |
| 6    | 23 | 78 | 0.1                  | 0.03 |     |      | 130 | 0.0 | 0.00 | 0.1 | 2.7 |      | 34 | 0.1 |     | 8.3 | 0.03 | 0.1 | 3.2 |     | 0.2 | 0.0 |
| 7    | 20 | 78 | 0.2                  | 0.02 | 0.1 | 0.00 | 120 | 0.0 | 0.00 | 0.1 | 3.3 | 0.55 | 32 | 0.4 | 0.3 | 8.7 | 0.01 | 0.1 | 3.2 | 0.4 | 0.1 | 0.0 |
| 8    | 14 | 79 | 0.8                  | 0.00 |     |      |     | 0.1 | 0.00 | 0.5 | 2.4 |      | 30 | 0.0 |     | 6.6 | 0.05 | 0.4 | 3.8 |     | 1.3 | 0.0 |

Dyer, Kenneth L. Stream water quality in the coal region  
of Ohio. Broomall, PA: Northeast. For. Exp. Stn.;  
1982: USDA For. Serv. Gen. Tech. Rep. NE-75. 138 p.

Data collected in 1977-79 from 19 small streams that  
drain unmined watersheds and 50 that drain areas  
where coal has been surface mined include common ions,  
alkalinity, acidity, pH, 16 trace elements, 5 nitrogen  
and phosphorous species, specific conductance, suspended  
solids, turbidity, settleable matter, water temperature,  
and estimated discharge.

ODC 116