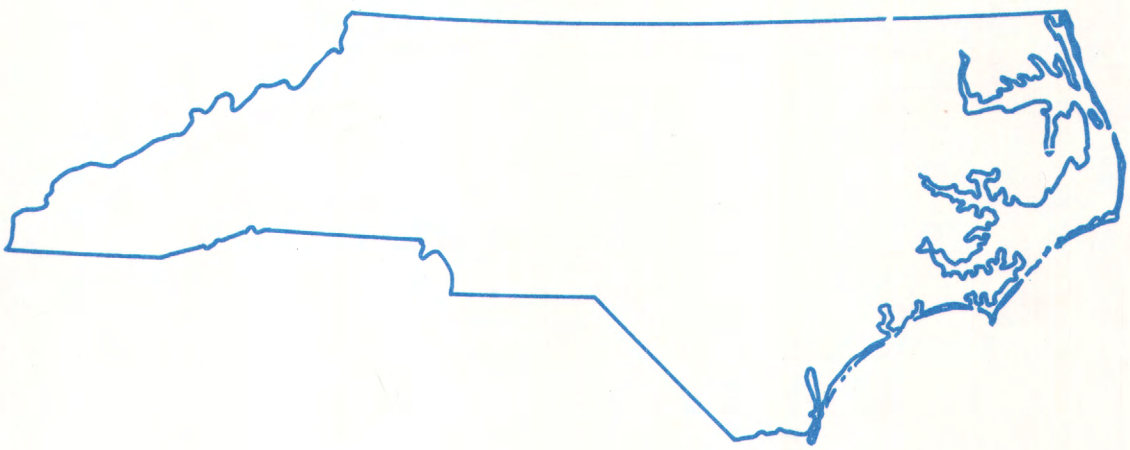
Water Resources Data North Carolina Water Year 1993

Volume 2. Ground-Water Records



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-93-2
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1993

1992

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1993

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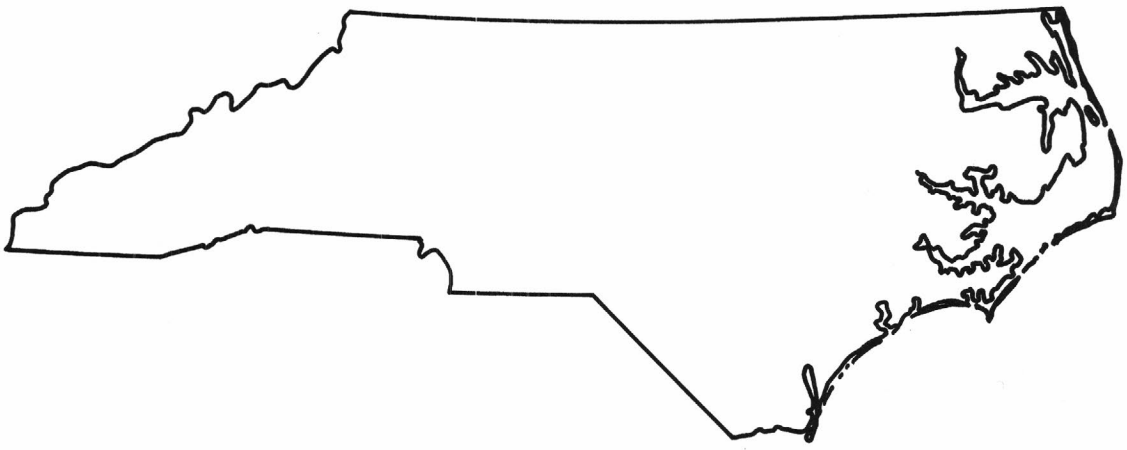
Water Resources Data North Carolina Water Year 1993

Volume 2. Ground-Water Records

by R.W. Coble, D.G. Smith, and B.C. Ragland



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-93-2
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, SECRETARY

GEOLOGICAL SURVEY

Gordon P. Eaton, Director

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District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 30728
Raleigh, NC 27622-0728

1994

PREFACE

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

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

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Amy E. Fogleman and Pamilee L. Breton edited much of the text of this report. Amy E. Fogleman, Bobby C. Ragland, and Douglas G. Smith assembled the report.

This report was prepared in cooperation with the State of North Carolina, other agencies, and under the general supervision of James F. Turner, District Chief; Michael W. Gaydos, Area Assistant Regional Hydrologist; and James L. Cook, Regional Hydrologist, Southeastern Region.

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Water-resources data for the 1993 water year for North Carolina consist of records of ground-water levels and water quality of ground water; records of stage, discharge and water quality of streams; and stage and contents of lakes and reservoirs. This report contains ground-water level data from 82 observation wells and ground-water quality data from 41 wells. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

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INTRODUCTION

Water-resources data for the 1993 water year for North Carolina consist of records of ground-water levels and water quality of ground water; records of stage, discharge and water quality of streams; and stage and contents of lakes and reservoirs. This report contains ground-water-level data from 82 observation wells and ground-water-quality data from 41 wells. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and other Federal agencies.

Records of ground-water levels were published from 1935 to 1974 in a series of Water-Supply Papers entitled "Ground-Water Levels in the United States." Water-Supply Papers may be consulted in the libraries of the principal cities and universities in the United States or may be purchased from U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Denver Federal Center, Box 25286, Mail Stop 517, Denver, Colorado 80225.

Ground-water-level data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water Data Report NC-93-2. Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

COOPERATION

Cooperative agreements between the U.S. Geological Survey and organizations within the State of North Carolina for the systematic collection of water-resources data began in 1895 and continued through 1909. After a lapse of 8 years, the State of North Carolina resumed cooperation in October 1918. Organizations that assisted in collecting the water-resources data contained in this report through cooperative agreements with the Survey are:

North Carolina Department of Environment, Health, and Natural Resources
Champion International Corp.
Mecklenburg County

The following Federal agency assisted in the data-collection program by furnishing funds or services:

U.S. Navy, Marine Corps

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

Most of North Carolina received higher-than-average amounts of precipitation during the first half of the 1993 water year. Although there were regional differences in the extent of the excess, November and March were abnormally wet months. In contrast, February was the only unusually dry month across the State, as indicated from data collected at key National Weather Service (NWS) stations (figs. 1 and 2). In November, the largest amounts of rain fell in the western part of the State -- up to 13 in. above average -- and in south-central regions. The Blue Ridge Province again received excessive amounts of precipitation in March, including upwards of 2 ft of snow from the so-called Storm of the Century on March 13 and 14. The Blue Ridge and Piedmont Provinces also received rainfall in amounts ranging from 3 to more than 8 in. during the last week of March. February, the only statewide rainfall-deficient month in the first half of the year, was most deficient in the eastern Piedmont and western Coastal Plain Provinces, as well as in the southern Blue Ridge.

The rainfall situation was generally reversed during the second half of the 1993 water year. Although coastal areas received near-average rainfall, the western Coastal Plain, the Piedmont, and the Blue Ridge Provinces received less-than-average amounts through the spring and summer. June was a particularly dry month; only 0.15 in. fell at Charlotte and 0.33 in. at Raleigh, 3.24 and 3.55 in. below average, respectively (fig. 2). July was also dry across the State, with many precipitation stations receiving less than one-quarter of their average amounts. Many areas received some temporary relief from the rainfall shortage from thunderstorms as the summer progressed, but the persistence of the Bermuda High off the Atlantic Coast resulted in a worsening agricultural drought by summer's end. Hurricane Emily, which brushed southern Hatteras Island on August 31, brought heavy rains only to mid-coastal areas, and did nothing to ease the rainfall shortage farther inland.

Despite the dry summer, plentiful rainfall during the previous fall and winter kept annual precipitation totals for the 1993 water year in North Carolina ranging from just a few inches below average to more than 10 in. above average. Regionally, northwestern and southeastern parts of the State received the most precipitation.

Ground Water

Ground-water levels in the surficial aquifer in the Coastal Plain and in the regolith in the Piedmont and Blue Ridge respond to climatic influences, as continual discharge to streamflow from the ground-water reservoir is offset by the periodic recharge by rainfall. Water levels in these unconfined aquifers are typically highest in the winter months, when evapotranspiration losses are lowest.

Ground-water-level fluctuations were for the most part typical during the 1993 water year. Statewide, water levels in climatic- and terrane-effects wells generally were only slightly lower at the end of the water year than they were at the beginning, indicating recharge to the ground-water reservoir was nearly equal to discharge from it during this year of near average rainfall.

Water levels in the Blue Ridge and Piedmont index wells (fig. 3) were above average throughout the water year; levels in the Blue Ridge well were near or at record high levels during the first half of the water year whereas those in the Piedmont well were at record highs throughout the entire year. In the Coastal Plain index well (fig. 3), water levels were about average during the first half of the water year and well below average for the last half.

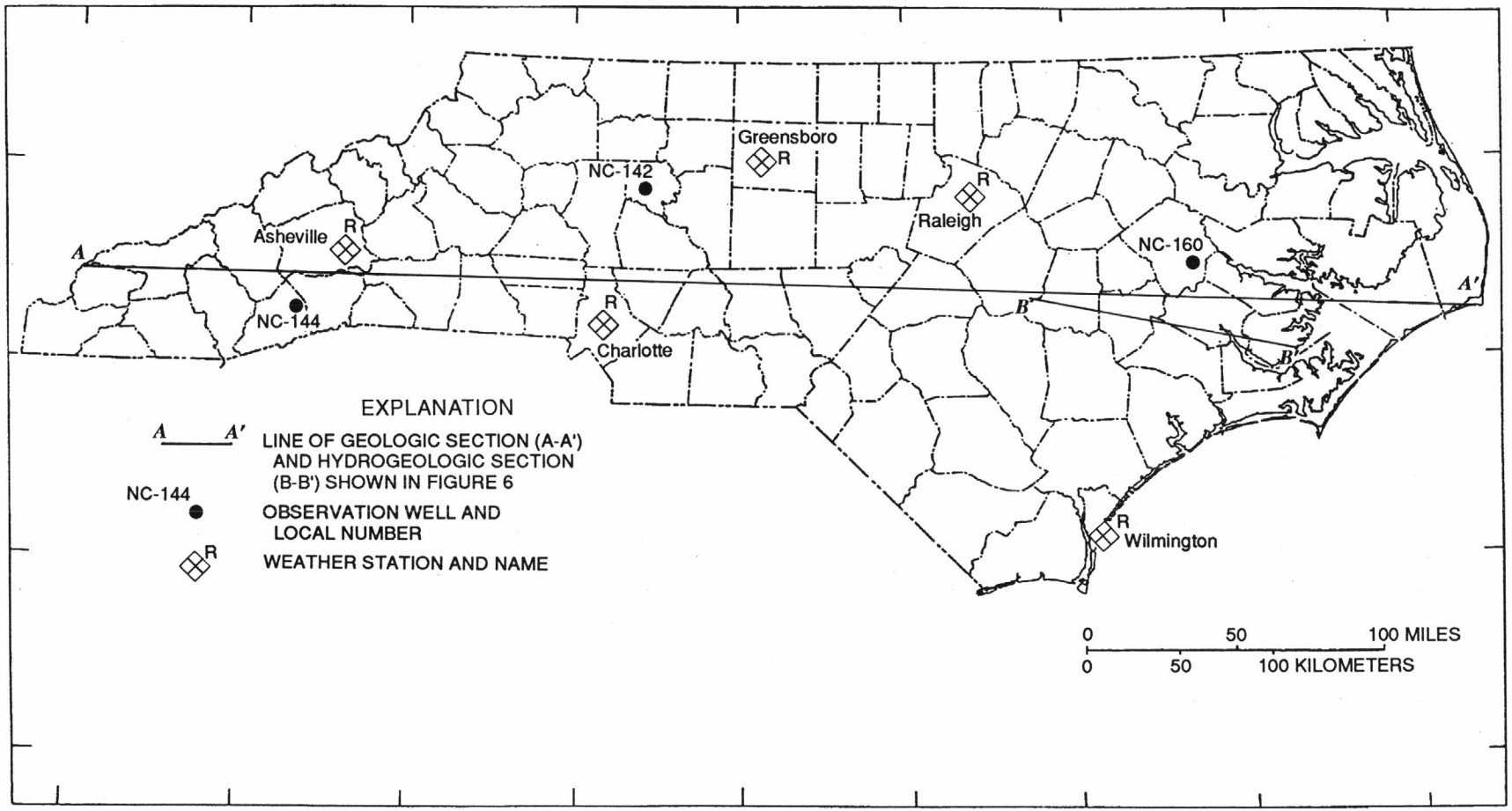


Figure 1.--Location of weather stations and index wells.

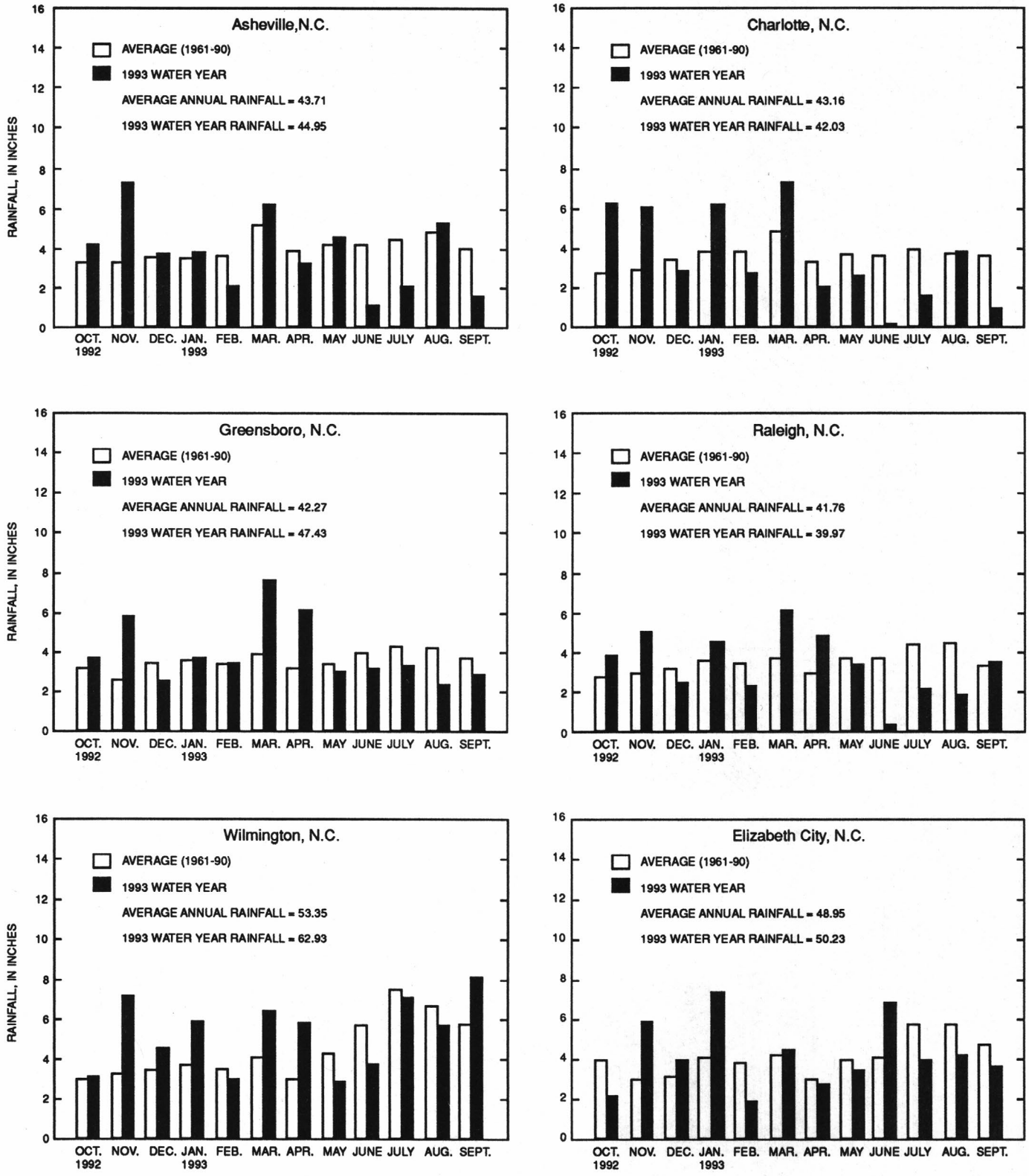


Figure 2.--Monthly rainfall at index stations for 1993 water year and average monthly rainfall for the period 1961-90 (Data from National Oceanic Atmospheric Administration reports).

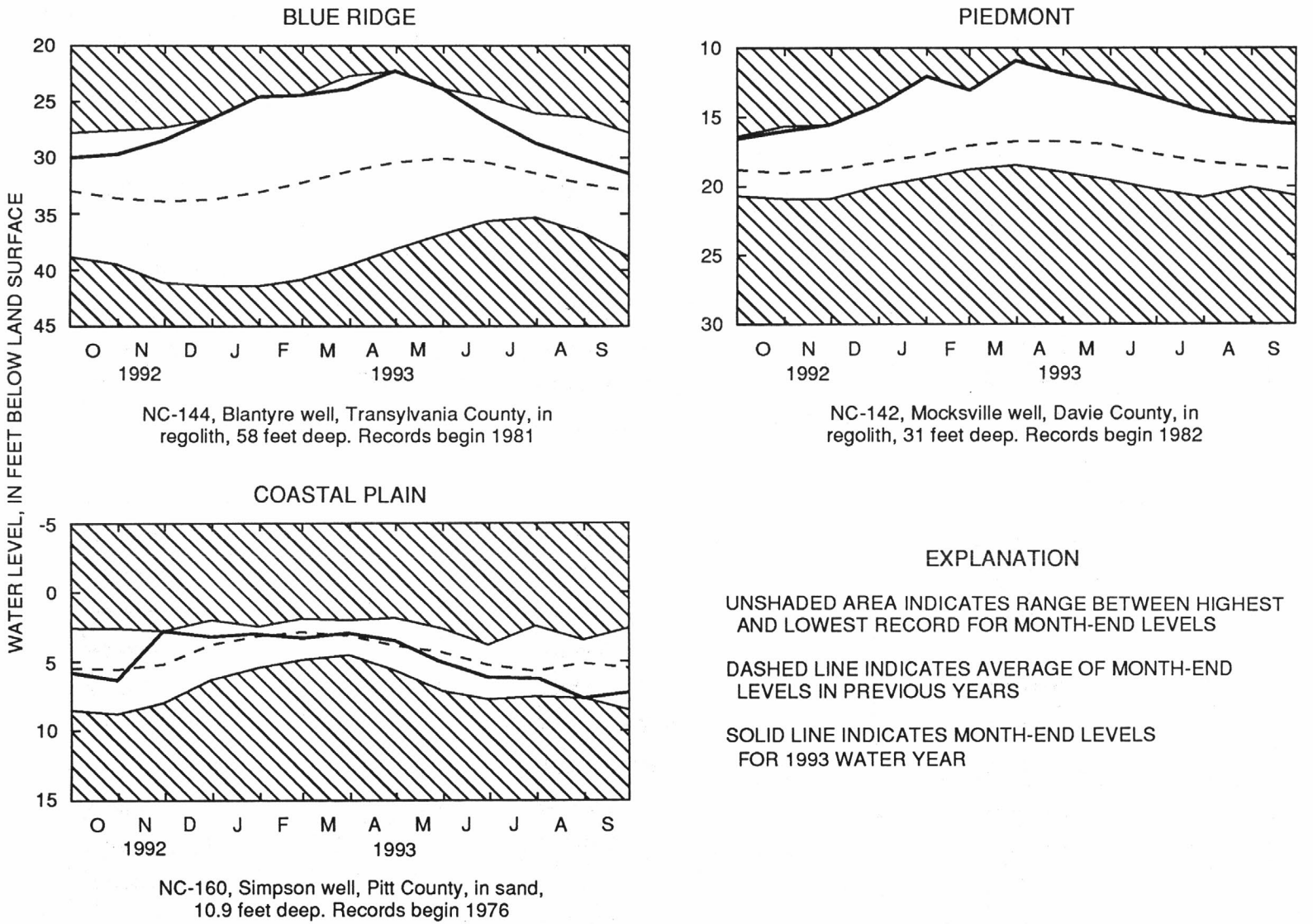


Figure 3.--Water levels in index observation wells in the Blue Ridge, Piedmont, and Coastal Plain Provinces.

Rains in the abnormally wet month of November resulted in high water levels in November and December in most of the climatic-effects wells but notably in wells in Bertie, Cherokee, Haywood, Jones, Pitt, Transylvania, Washington, and Wayne Counties. The effects of the dry February and wet March are also shown in the records of these wells.

Water levels in natural-effects wells across the State generally were high in late March and early April as a result of the heavy rains in late March which fully recharged the shallow aquifers. Water levels in these wells then declined as usual from early April at the beginning of the growing season to the end of the water year. However, water-level declines were greater than usual in many of these wells because of the rainfall shortage during most of the summer.

The large amount of ground-water stored in the shallow aquifers in late March and early April sustained streamflow at fairly high levels of baseflow, especially in late spring and early summer. It wasn't until the end of the water year that ground-water storage began to be seriously depleted, and then, only in those areas that had persistently below-average rainfall (T. J. Zembrzuski, U.S. Geological Survey, written communication, 1994).

Ground-water withdrawals in the Coastal Plain Provinces have resulted in declining water levels in some of the confined aquifers in some places for a number of years. This declining trend is evidenced by the long-term record from several observation wells that tap five of the major aquifers in eastern North Carolina, the Castle Hayne and Black Creek aquifers (fig. 4), and the Peedee, upper Cape Fear, and lower Cape Fear aquifers (fig. 5).

The record for observation well NC-13 (fig. 4) shows the continued depressed water levels in the Castle Hayne aquifer due to pumping, which began in the mid 1960's at a large mining and manufacturing operation in the eastern part of Beaufort County. Water-level fluctuations seen in this record reflect changes in the location of major pumping activity. The record of well NC-145, also in Beaufort County, shows a similar pattern. The areal cone of depression resulting from this pumpage covers more than 3,000 mi^2 (Coble and others, 1989). The limits of this regional cone in the Castle Hayne aquifer are shown by the stabilized water levels and natural water-level fluctuations in wells NC-137, NC-156, NC-159, and NC-169 in Beaufort, Washington, Hyde, and Pamlico Counties, respectively.

The record of observation well NC-139, in Carteret County, shows the effects of seasonal pumping from the Castle Hayne aquifer used to meet the increased demand for water in the coastal area during the summer months (fig. 4). The slight decline as seen in the long-term record indicates that annual recharge to the aquifer is less than the amount of water withdrawn. A Castle Hayne observation well in New Hanover County, NC-20, shows a similar, long-term gradual water-level decline.

Water levels in the Castle Hayne aquifer are not declining everywhere throughout the eastern Coastal Plain. This is especially true in the subcrop areas of the aquifer where it is not covered by extensive confining units (Coble and others, 1989). As an example, natural water-level fluctuations were noted in the aforementioned well NC-137 in Beaufort County. Water levels in Castle Hayne wells NC-52 in Onslow County and NC-181 in Brunswick County exhibit climatic-effects fluctuations. Even though NC-52 is near water-supply wells at the U.S. Marine Corps Camp Geiger, no effects of those withdrawals are seen in the long-term record. Short-term and minor pumping effects are seen at NC-181; however, long-term data show no downward trend.

Ground-water withdrawals of over 29 Mgal/d have resulted in water-level declines in the State's central Coastal Plain (Eimers, and others, 1990). The aquifers most affected in this 3,600-mi^2 area, which extends generally from Pitt County on the north to Onslow County on the south, are the Peedee, Black Creek, upper Cape Fear, and lower Cape Fear aquifers. Examples of the long-term effect of these withdrawals are seen in several wells shown in figures 4 and 5. Well NC-44 is near the city of New Bern well field where water has been withdrawn from the

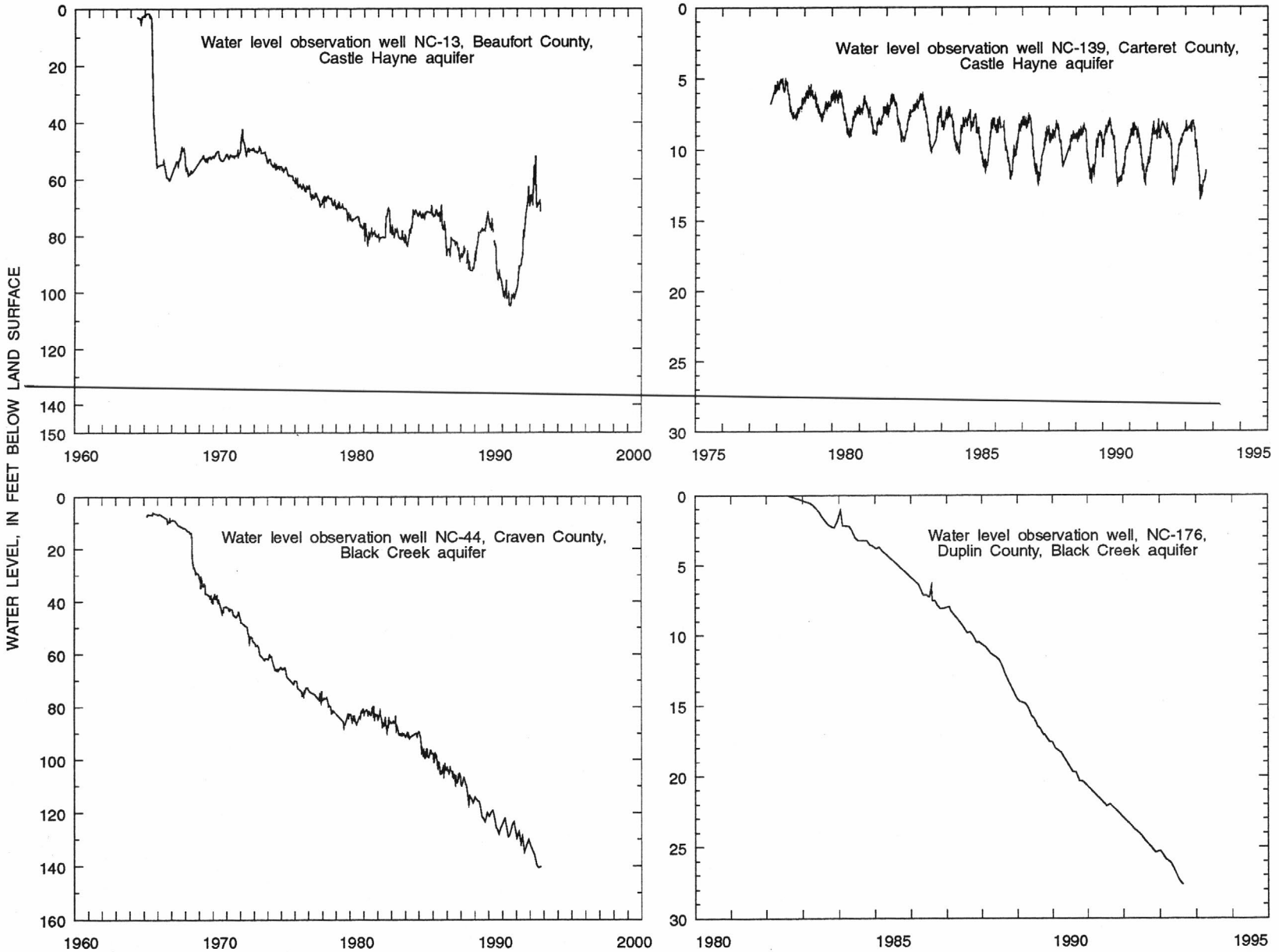


Figure 4.--Hydrographs of selected observation wells in the Castle Hayne and Black Creek aquifers.

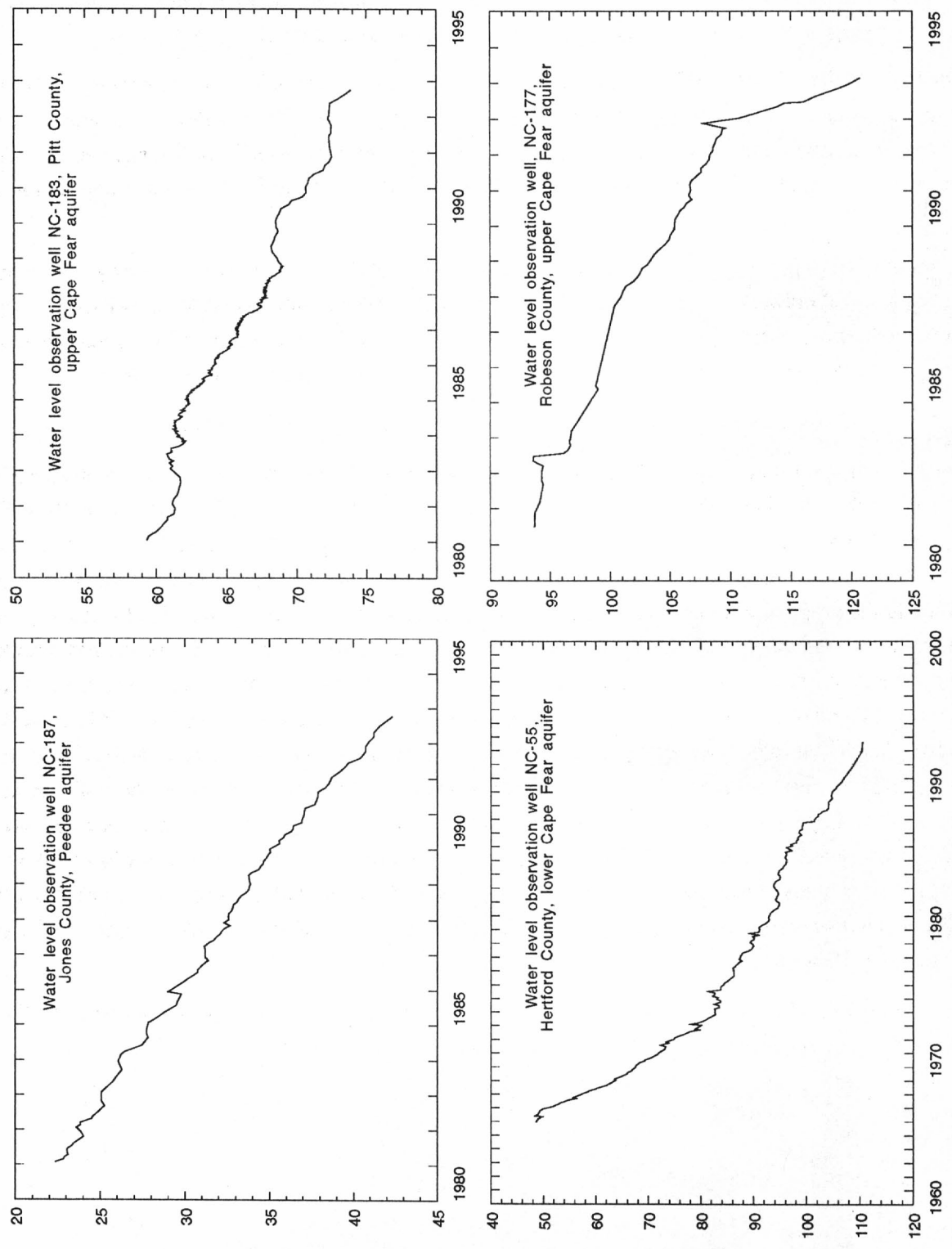


Figure 5.--Hydrographs of selected observation wells in the Peedee, upper Cape Fear, and lower Cape Fear aquifers.

Black Creek and upper Cape Fear aquifers since 1968. Well NC-183 shows the effect of pumpage from the upper Cape Fear aquifer in northern Pitt County. Major withdrawals for public supply in Onslow County in the southern part of the central Coastal Plain is from the Peedee and Black Creek aquifers. Hydrographs for well NC-187 (fig. 5) in Jones County north of major pumping areas and for well NC-176 (fig. 4) in Duplin County, several miles to the west, show the water-level declines resulting from those withdrawals. Other observation wells in Jones and Onslow Counties also show these effects, some of which are water-level declines of as much as 9 ft per year.

Withdrawals from the upper Cape Fear aquifer for public and industrial use in the Elizabethtown area in central Bladen County have caused water-level declines of about 1.3 ft per year in well NC-177 (fig. 5), which is in eastern Robeson County. Major withdrawals for industrial use from the same aquifer began in northwestern Bladen County in September 1993; as a result, the water level in NC-177 declined at the increased rate of 9 ft per year during water year 1993.

Water-level decline in the lower Cape Fear aquifer shown for well NC-55 in Hertford County (fig. 5) results primarily from major withdrawals in Virginia which began in the 1940's; these withdrawals have resulted in a regional cone of depression in that aquifer which extends several tens of miles into North Carolina (Coble and others, 1989). Records from wells in Bertie and Gates Counties show these declines in the upper Cape Fear aquifer.

OBJECTIVE CONCEPT FOR GROUND-WATER-LEVEL DATA

The ground-water-level data from observation wells in the statewide program and special project wells are published in this report. The statewide program is a joint program between the U.S. Geological Survey (USGS) and the North Carolina Department of Environment, Health, and Natural Resources (DEHNR). This program contains observation wells so located that the most significant data are obtained from the fewest number of wells in the major aquifers. Wells in the program are included in one of two networks based on meeting specific objectives (table 1). The first network, the natural-stresses network, has the objective of measuring the effects of natural stresses on ground-water storage; this network contains climatic-effects wells which show the effects of climate, such as rainfall and the beginning and end of the growing season, on ground-water storage in unconfined aquifers. This network also contains terrane-effects wells which are used to define the effects of different depths to the water table and topography and geology on ground-water storage in response to climatic stresses. The second network, the induced-stresses network, defines the effect of human-induced stress on the ground-water system; the major induced stress is withdrawal of ground water by pumping. Within the induced-stress network are local-effects wells which are near large-capacity pumping wells or well fields and measure daily or weekly water-level fluctuations. Areal-effects wells are also in the induced-stresses network and are used to determine the status of ground-water storage in an aquifer over a large area and to aid in determining the areal extent of major aquifers.

The particular effect each well in the statewide program measures is explained in the information header for each well. The headers for the special project wells contain a reference to those projects.

Table 1.--*Type, objective, and use of data from the North Carolina observation-well program*

[Adapted from Winner, 1981]

Type	Objective	Use of data
	Natural stresses	
Climatic effects	To define effects o0f climate on ground-water storage.	Hydrographs showing natural changes in storage.
Terrane effects	To define effects of climate on ground-water storage as modified by topography and geology.	Hydrographs showing natural changes in storage as modified by topography and geology.
	Induced stresses	
Local effects	To define effects of ground-water withdrawals on storage near points of withdrawal. To define the hydraulic characteristics of aquifers. To define effectiveness of confining beds in separating aquifers.	Maps showing potentiometric-surface depressions. Hydrographs showing changes in water levels with time. Graphs showing water levels during pumping conditions as a function of pumping rates.
Areal effects	To determine status of storage over the entire areal extent of the aquifer. To define regional continuity of aquifers.	Regional water-level maps. Maps showing net change in storage over a specific time period. Define recharge and discharge areas for areal extensive aquifers.

MAJOR AQUIFERS

With respect to ground-water hydrology, North Carolina is divided into two zones that are intimately related to the physiographic provinces of the State. The Piedmont and Blue Ridge Provinces (fig. 1) extend across the western 60 percent of the State and are, for the most part, underlain by fractured, igneous and metamorphic rocks (fig. 6). The fractured igneous and metamorphic rocks have low permeability but are, nevertheless, the major aquifers in the Piedmont and Blue Ridge. These rocks are covered almost everywhere by regolith, which is either a clayey or sandy saprolite consisting of weathered parent material, or sand and clayey sand alluvium. The regolith, although it is not a major aquifer, contains most of the ground water in storage and is a source of water to the underlying igneous and metamorphic rock aquifers. All observation wells, with the exception of one, in the Piedmont and Blue Ridge Provinces that were measured in the 1993 water year tapped the regolith; the exception taps granite.

The Coastal Plain Province covers the eastern 40 percent of North Carolina, where aquifers are within a wedge of sedimentary rock layers that dip and thicken to the southeast (fig. 6). The Coastal Plain sediments have been divided by Winner and Coble (1989) into 10 aquifers separated by confining units.

Ground water in the regolith in the Piedmont and Blue Ridge Provinces and in the surficial aquifer in the Coastal Plain generally is unconfined. Ground water in the other Coastal Plain aquifers generally is under confined conditions.

EXPLANATION OF RECORDS

Ground-Water-Level Data

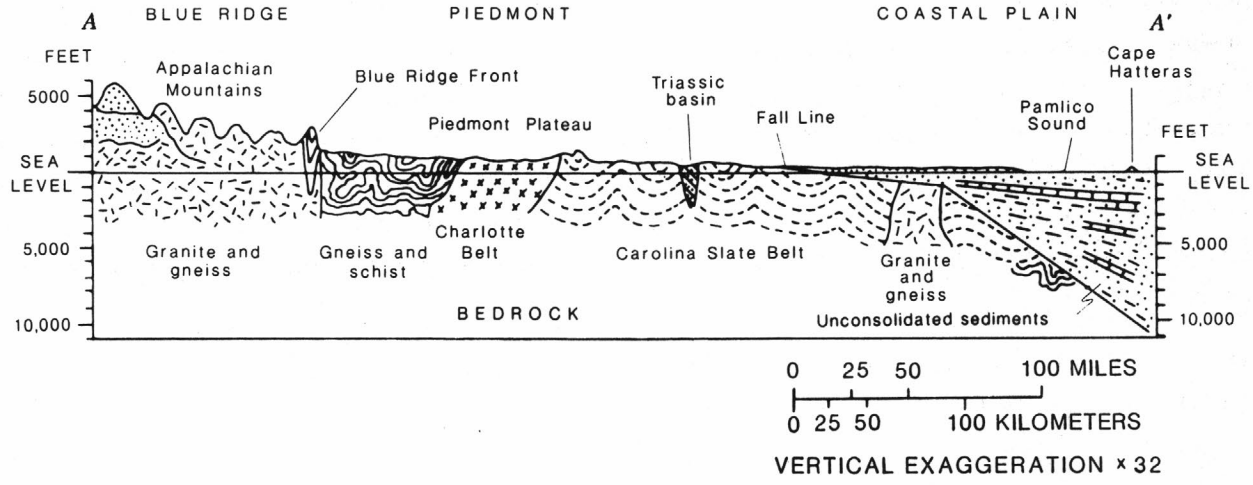
The ground-water records published in this report are for the 1993 water year that began October 1, 1992, and ended September 30, 1993. A calendar of the water year is provided on the inside of the front cover. The records contain water-level data and water-quality data for ground water. The locations of the wells where the data were collected are shown in figures 7 and 8. The following sections provide a detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Site Identification Numbers

Each well in this report is assigned a unique identification number. This number usually is assigned when a well is first established and is retained for that well indefinitely; all data for that well in USGS data bases are under that site identification number.

The site identification numbers for wells are assigned according to the latitude and longitude location of the well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells within a 1-second grid. This site identification number, once assigned, has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the well will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the well description.

Local well numbers in this report generally fall within two numbering systems. Wells that belong in the statewide North Carolina observation-well program are indicated by the prefix NC- followed by a sequential number, for example NC-160. Other wells such as those used in special projects, are indicated by a two-letter county prefix followed by a sequential number, such as ME-251 or Li-164 for wells in Mecklenburg and Lincoln Counties, respectively.



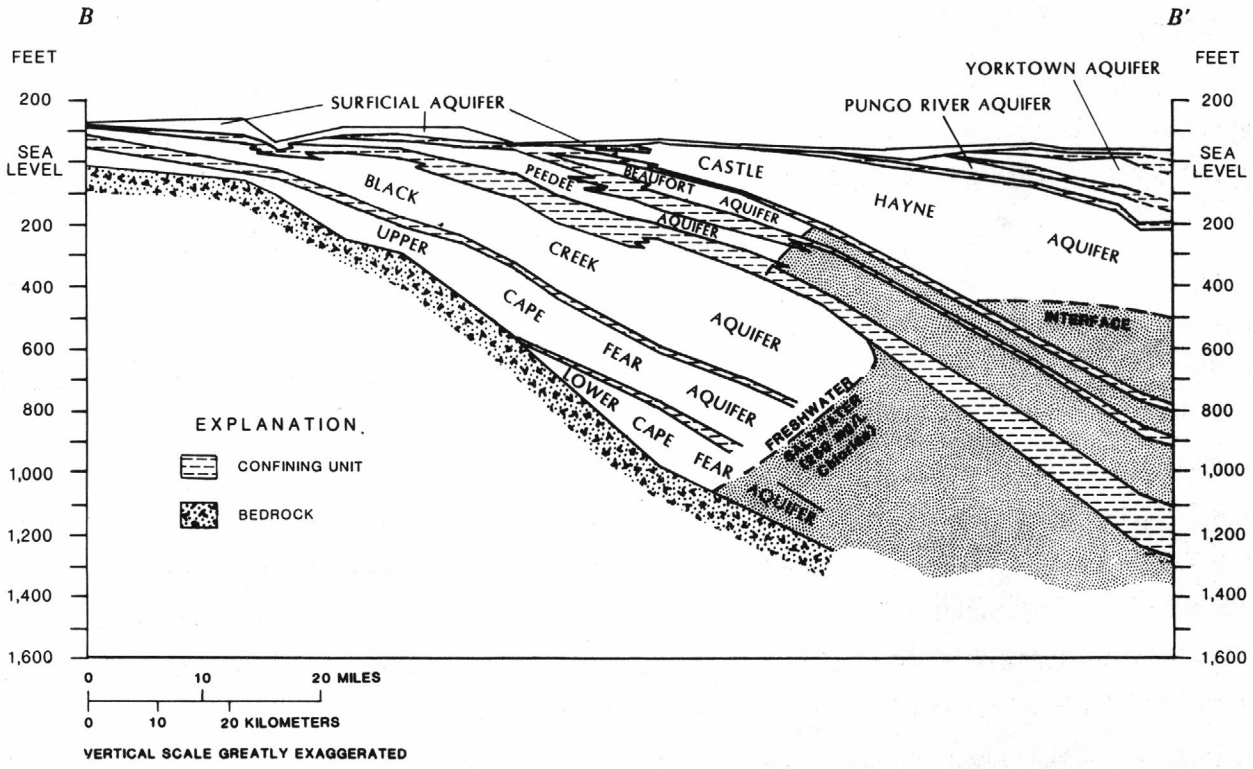


Figure 6.--Geologic section across North Carolina and hydrogeologic section of the Coastal Plain of North Carolina (Locations of lines of section *A-A'* and *B-B'* are shown on figure 1).

Data Collection and Computation

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

Water-level data are obtained from direct measurements with a steel tape, an electric tape, or from the punched tape of a water-level recorder. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum. Sea level is the plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude (referenced to sea level) of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Reported water levels in wells equipped with water-level recorders are the mean water level either for every day or for every fifth day and the day at the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, all measurements are reported to a hundredth of a foot.

Data Presentation

Water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local well number. Well locations are shown in figures 7 and 8; each well is identified on these maps by its local well number.

Each well record consists of three parts--the well description, data table of water levels observed during the water year, and for most wells, a hydrograph following the data table. The description of the well is presented first through use of descriptive headings preceding the tabular data. The following comments clarify information presented under the various headings.

Description

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

AQUIFER.--This entry designates by name and geologic age the aquifer open to the well. Names of aquifers in the Coastal Plain Province are those mentioned in the Major Aquifers section of this report. Aquifers in the Piedmont and Blue Ridge Provinces are listed as the rock type of the crystalline igneous or metamorphic rock or the regolith derived from the rock that the well taps.

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

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of casing, top of instrument shelf, and so on), and in relation to

land surface (such as 1.3 ft above land-surface datum). The altitude of the land-surface datum is described in feet above sea level; it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It may describe when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs is noted here also.

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

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

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). For some wells equipped with recorders, abbreviated tables are published with mean water-levels for only every fifth day and at the end of the month (eom); generally, complete tables of daily values are published for climatic-effects wells, and abbreviated tables are published for terrane-, local- and areal-effects wells. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for some wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements for these wells show the date of measurement and the measured water-level value.

Hydrographs

The hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current year, 10-year, and for some wells, period of record hydrographs are shown. Those hydrographs which display periodic water-level measurements are indicated by points which are connected with a dashed line to indicate the trend from one measurement to the next. Recorder data are graphed as a continuous line using the mean water level recorded for each day. Missing data are indicated by a blank space. Missing data result from recorder malfunctions, battery or clock failures, and mechanical problems related to the response to water-level movement in a well.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 21-24 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey North Carolina District office.

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

NOTICE: Values of dissolved and total selenium exceeding 5 mg/L in samples collected prior to 1975 are probably incorrect and should only be used with caution. Values of dissolved selenium greater than 1 mg/L collected prior to 1975 should also be considered questionable, although a fair percentage of them may, in fact, be correct.

Samples for biochemical oxygen demand (BOD), samples for indicator bacteria, samples for turbidity, and measurements of specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colorado, unless otherwise noted. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; and Book 5, Chap. A1, A3, and A4.

Remarks Codes

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

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

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter. Present data above the microgram per liter level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

References

Coble, R. W., Strickland, A. G., and Bailey, M. C., 1989, Ground-water level data for North Carolina, 1987: U.S. Geological Survey Open-File Report 89-68, 152 p.

Eimers, J. L., Lyke, W. L., and Brockman, A. R., 1990, Simulation of ground-water flow in aquifers in Cretaceous rocks in the central Coastal Plain, North Carolina: U.S. Geological Survey Water-Resources Investigations Report 89-4153, 101 p.

Strickland, A. G., Coble, R. W., Edwards, L. A., and Pope, B. F., 1992, Ground-water level data for North Carolina, 1988-90, U.S. Geological Survey Open-File Report 92-57, 167 p.

Winner, M. D., Jr., 1981, An observation-well network concept as applied to North Carolina: U.S. Geological Survey Water-Resources Investigations Report 81-13, 59 p.

ACCESS TO WATSTORE DATA

The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey. A variety of useful products ranging from data tables to complex statistical analyses can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station-Header File - Contains descriptive information on over 440,000 sites throughout the United States and it's territories where the U.S. Geological Survey collects or has collected data.
- Ground-Water Site-Inventory Data Base - Contains inventory data for over 900,000 wells, springs, and other sources of ground water. The data include site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.
- Water-Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radiochemical characteristics of surface water.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
National Center, Mail Stop 421
Reston, VA 22092

In addition to providing direct access to WATSTORE, the National Water Data Exchange (NAWDEX) services include data-search assistance, data dissemination, and data referrals. Data can be provided in various machine-readable formats on magnetic tape or 5 1/4-in. floppy diskette. The request for water data should be forwarded to the local Geological Survey District office:

District Chief
U.S. Geological Survey
P.O. Box 30728
Raleigh, NC 27622

If the District office does not have the facility to fulfill the request, it will be referred to the National Water Data Exchange (NAWDEX) office in Reston, Virginia.

DEFINITION OF TERMS

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

Confined aquifer is one which is completely filled with water and is overlain by a confining bed. Water in confined aquifers occurs at pressures greater than atmospheric pressure.

Unconfined aquifer is one which is only partially filled with water and the upper surface of the saturated zone (the water table) is free to rise and fall.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35 °C plus or minus 0.5 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 °C plus or minus 0.5 °C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confining bed is a layer of rock having very low hydraulic conductivity that hampers the movement of water into and out of the aquifers which lie above and below the confining bed.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

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

Land-surface datum (lsd) is a datum plane that approximates land-surface altitude at each ground-water observation well.

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

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

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

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

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

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

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

Sea level in this report refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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

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

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

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

Water table is the level in the saturated zone in an unconfined aquifer at which the pressure is equal to atmospheric pressure, usually considered to be the top of the saturated zone.

Water year in the Geological Survey reports is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1993, is called the "1993 water year."

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Denver Federal Center, Box 25286, Mail Stop 517, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficken, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. McCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing,* by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 41 pages.

3-A13. *Computation of continuous records of streamflow,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers,* by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F. A. Kilpatrick, R. E. Rathburn, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels of streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow,* by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley. USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction,* by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

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4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe, editors: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water- problems, Part 3: Design philosophy and programming details,* by L. J. Torak. USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

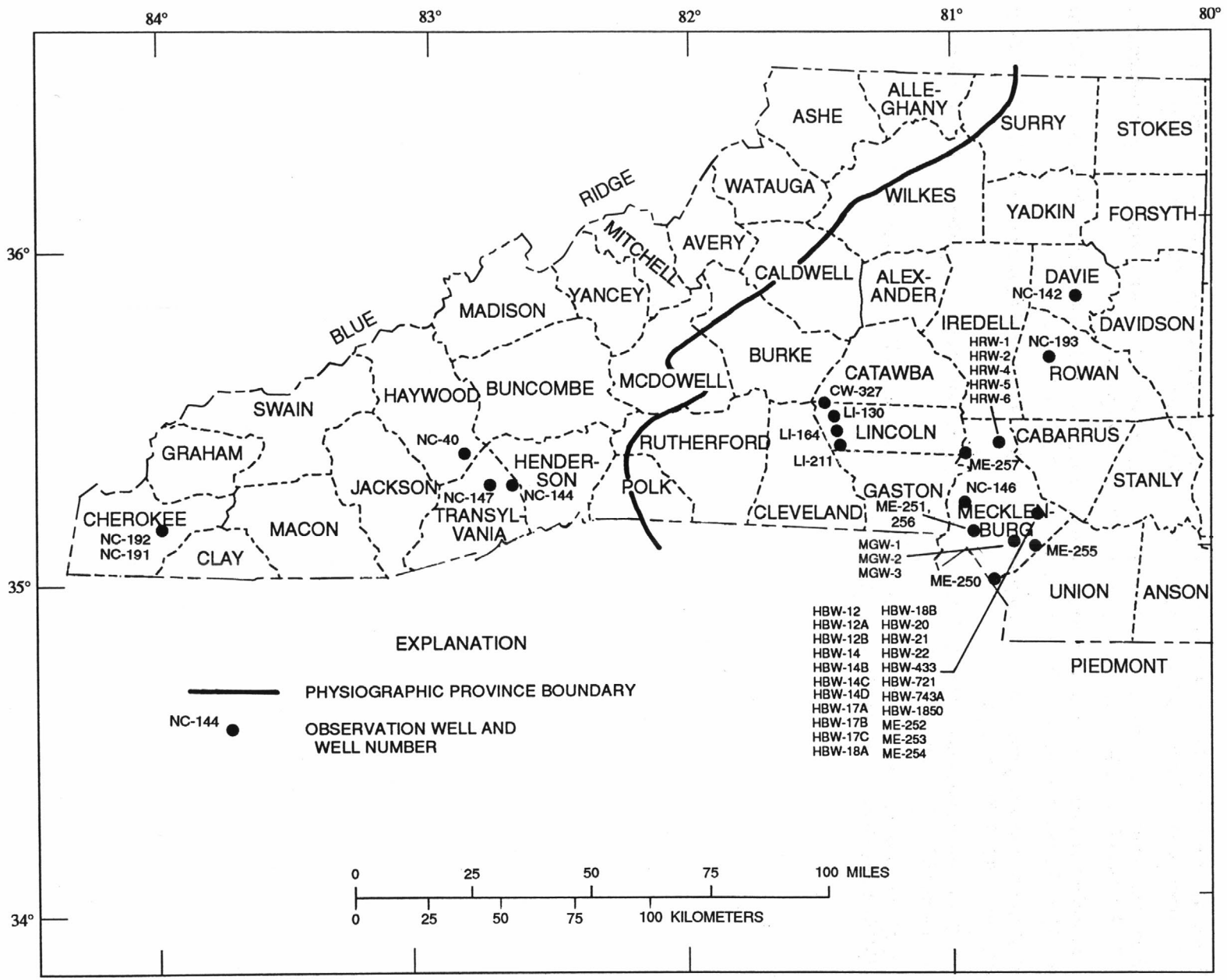


Figure 7.--Location of observation wells in the western part of North Carolina.

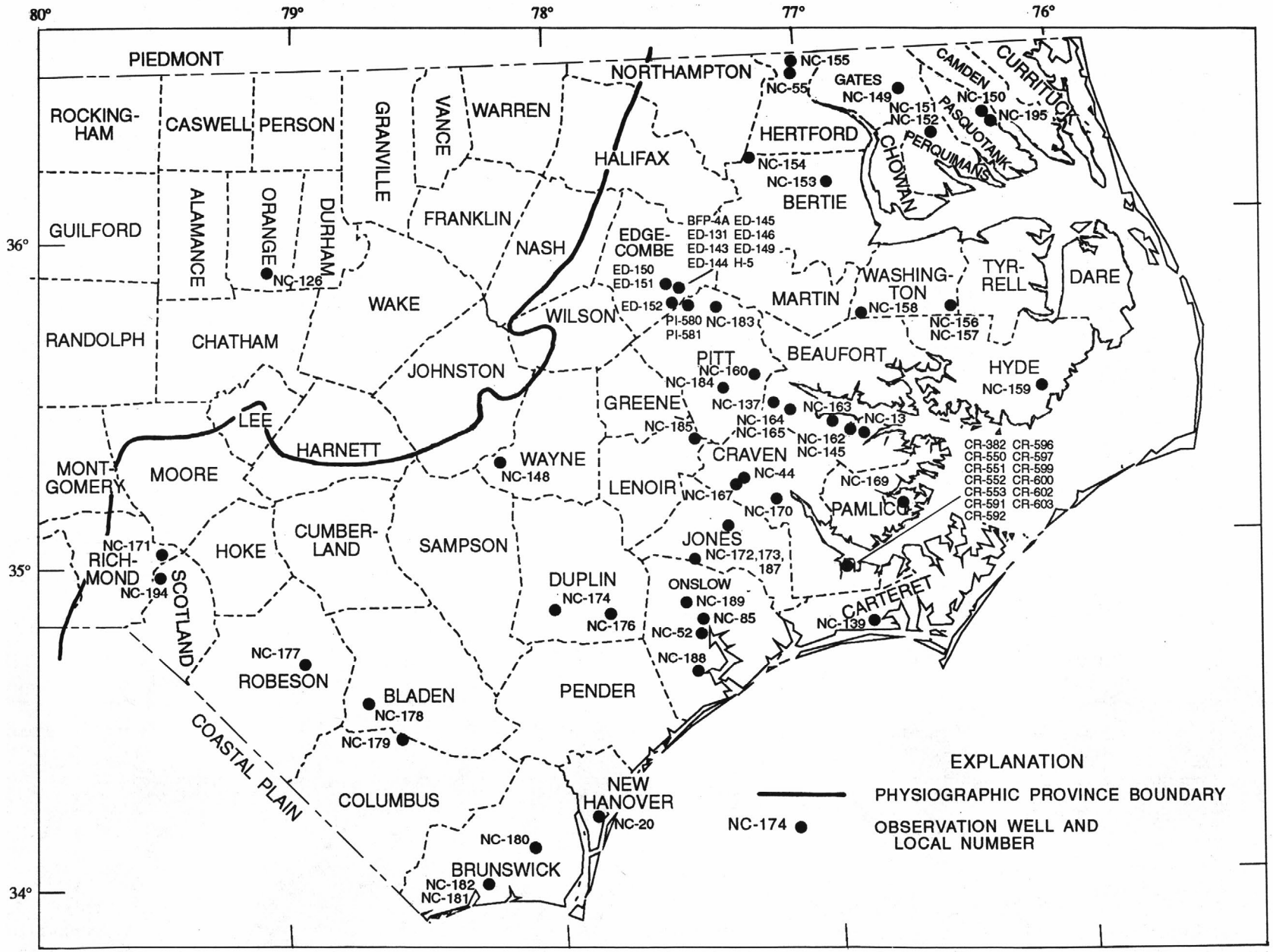


Figure 8.--Location of observation wells in the eastern part of North Carolina.

BEAUFORT COUNTY

351932076480001. Local number, NC-13.

LOCATION.--Lat 35°19'32", long 76°48'00", Hydrologic Unit 03020104, 1.5 mi north of Aurora, east of intersection of State Highway 306 and Secondary Road 1942. Owner: Texasgulf Chemicals Company.

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 168 ft, diameter 4 in., cased to 156 ft, open hole to 168 ft; measured depth 165.5 ft, September 1981.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval. Measured periodically with steel tape October 1992 to September 1993.

DATUM.--Land-surface datum is 10 ft above sea level (from topographic map). Measuring point: Bottom of angle iron bar, 2.33 ft above land-surface datum - revised from 0.36 ft below land-surface datum, Aug. 25, 1993.

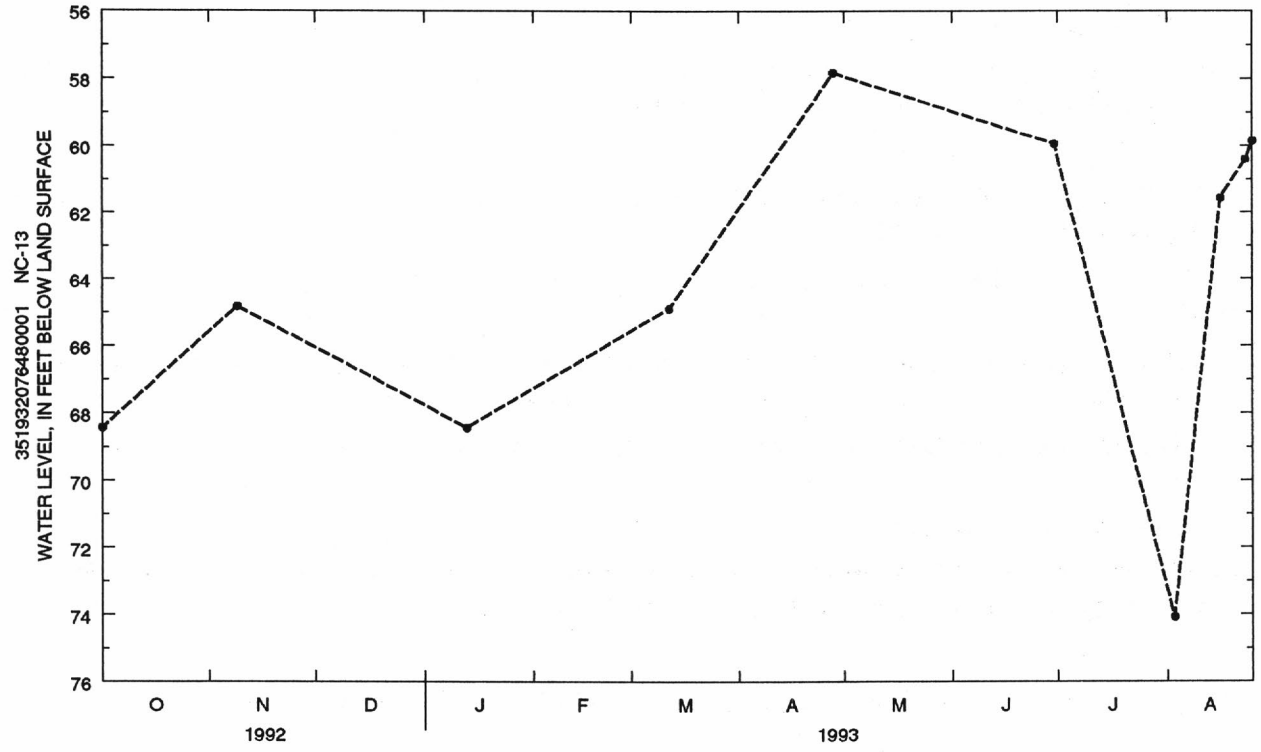
REMARKS.--Since 1965 water levels affected by nearby pumping associated with mining operations. Well is part of local-effects network.

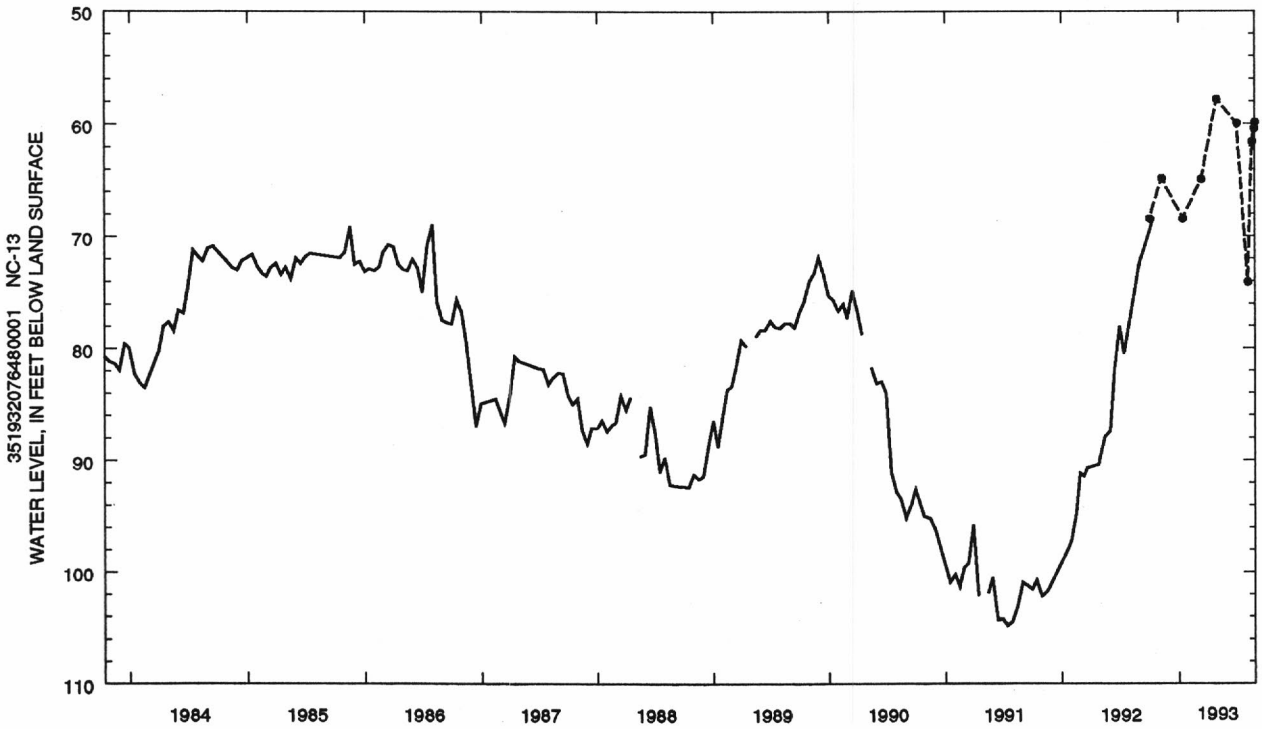
PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.38 ft below land-surface datum, Apr. 9, 1965; lowest water level recorded, 107.25 ft below land-surface datum, July 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	68.43	JAN 13	68.43	APR 28	57.83	AUG 3	74.08	AUG 23	60.41	AUG 25	59.86
NOV 9	64.83	MAR 12	64.90	JUN 30	59.95	AUG 16	61.57				


351932076480001 NC-13
WATER LEVEL, IN FEET BELOW LAND SURFACE
56
58
60
62
64
66
68
70
72
74
76
O
N
D
J
F
M
A
M
J
J
A
1992
1993


351932076480001 NC-13
WATER LEVEL, IN FEET BELOW LAND SURFACE
50
60
70
80
90
100
110
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352615077083401. Local number, NC-137; DEHNR Creeping Swamp Research Station well O21q1.

LOCATION.--Lat 35°26'15", long 77°08'38", Hydrologic Unit 03020202, 1 mi west of U.S. Highway 17 on State Highway 102, and 3 mi north of Wilmar. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 143 ft, diameter 4 in., cased to 72 ft, open hole to 143 ft; measured depth 141.6 ft, September 1981.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 56.84 ft above sea level (levels by DEHNR). Measuring point: Top of collar on casing, 0.8 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--January 1972 to current year.

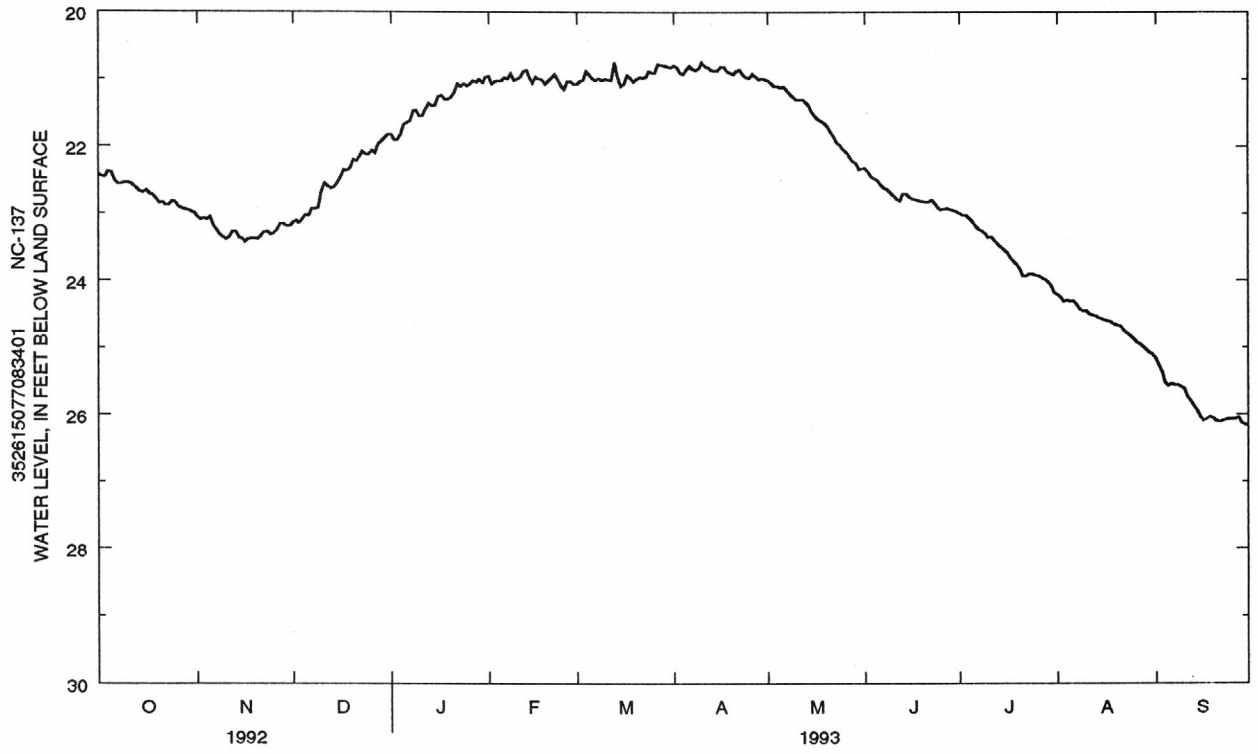
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.90 ft below land-surface datum, Feb. 3, 1972; lowest water level recorded, 26.34 ft below land-surface datum, Dec. 5, 6, 7, 13, and 14, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.39	23.06	23.03	21.67	21.03	20.94	20.86	21.12	22.50	23.12	24.31	25.57
10	22.54	23.39	22.67	21.55	21.00	21.00	20.75	21.30	22.73	23.36	24.46	25.62
15	22.69	23.38	22.54	21.39	21.06	21.10	20.88	21.48	22.75	23.54	24.58	26.04
20	22.85	23.39	22.20	21.28	21.03	21.00	20.92	21.69	22.83	23.83	24.68	26.09
25	22.84	23.31	22.12	21.10	21.15	20.91	20.98	22.05	22.94	23.92	24.87	26.07
EOM	23.00	23.19	21.83	20.97	21.07	20.83	21.00	22.33	22.97	24.18	25.10	26.16

WTR YR 1993 MEAN 22.59 HIGH 20.75 MAR 13 LOW 26.16 SEP 30


352615077083401 NC-137
WATER LEVEL, IN FEET BELOW LAND SURFACE
20
22
24
26
28
30
O
N
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J
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M
J
J
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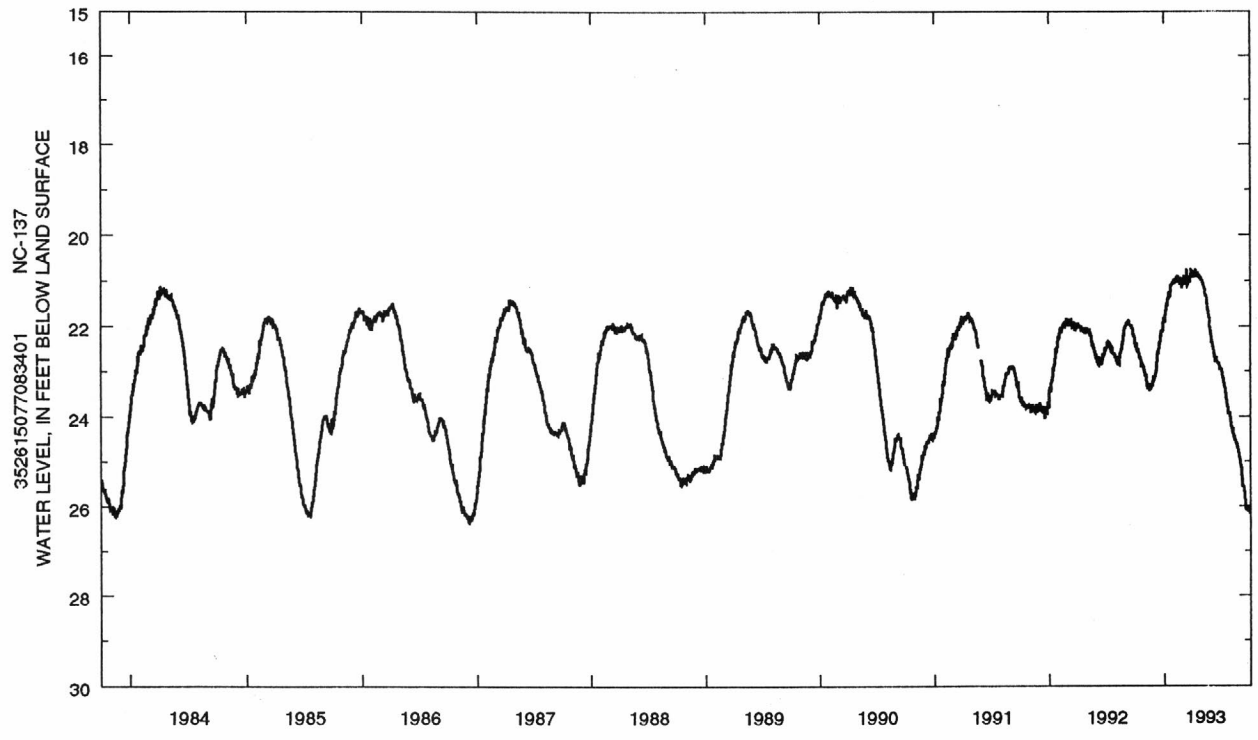
S
1992
1993


352615077083401 NC-137
WATER LEVEL, IN FEET BELOW LAND SURFACE
15
16
18
20
22
24
26
28
30
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352037076514101. Local Number, NC-145; DEHNR Bonnerton Research Station well P18v5.

LOCATION.--Lat 35°20'37", long 76°51'41", Hydrologic Unit 03020104, 1 mi south of Bonnerton on Secondary Road 1936. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 280 ft, diameter 4 in., cased to 169 ft, open hole to 280 ft; measured depth 278 ft, September 1981.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval. Measured periodically with steel tape October 1992 to September 1993.

DATUM.--Land-surface datum is 36.41 ft above sea level (levels by DEHNR) - revised from 36.64 ft above sea level, October 1987. Measuring point: Top of instrument shelf, 2.70 ft above land-surface datum - revised from 2.47 ft above land-surface datum, October 1987.

REMARKS.--Water level is affected by nearby pumping associated with mining operations. Well is part of local-effects network.

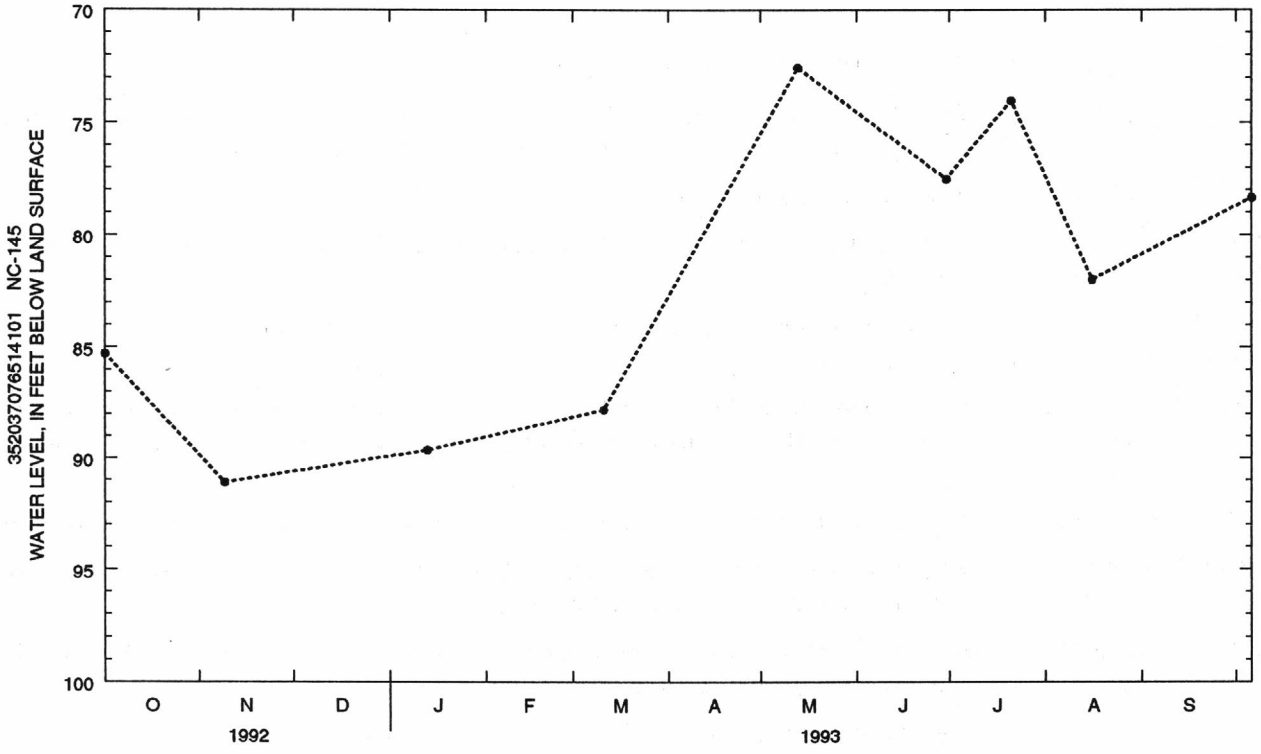
PERIOD OF RECORD.--June 1980 to current year. Continuous record began July 1984. Records from June 1980 to June 1984 are unpublished and available in the files of the Groundwater Section, DEHNR.

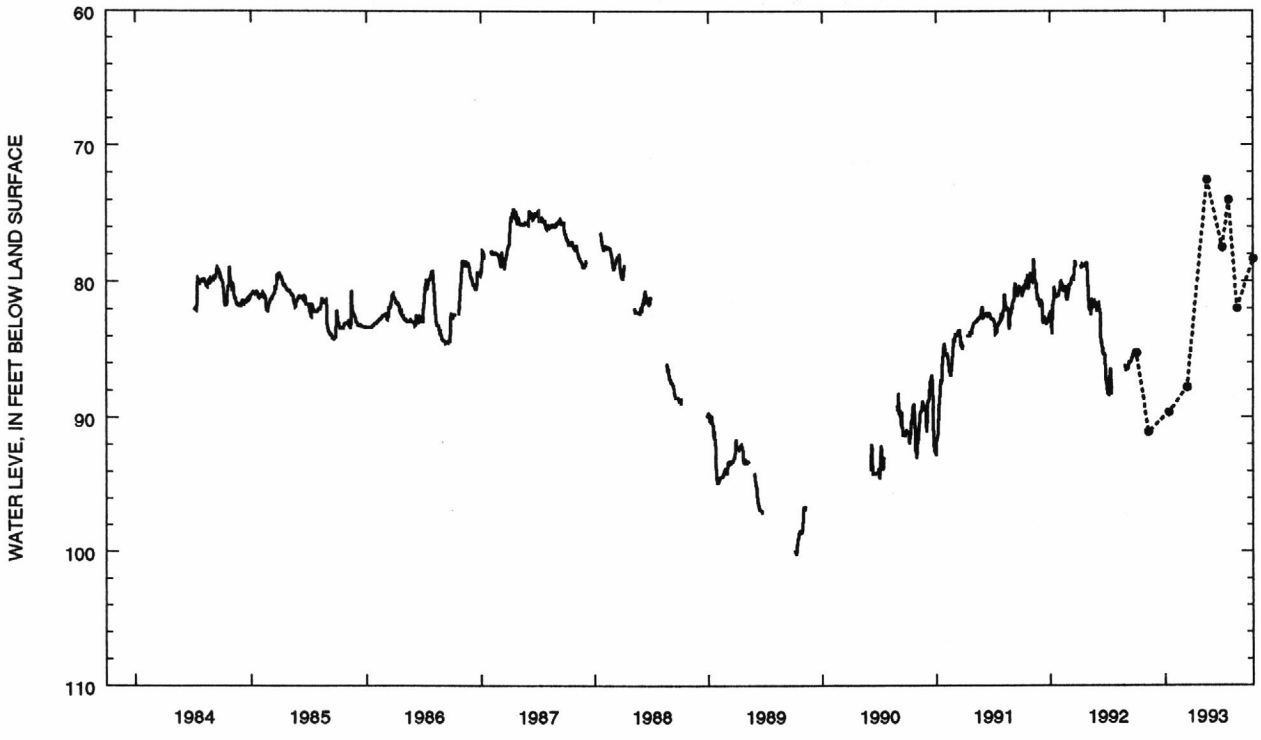
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 68.18 ft below land-surface datum, Oct. 26, 1982; lowest water level recorded, 100.32 ft below land-surface datum, Oct. 9 and 10, 1989.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-85-1, NC-86-1, and NC-87-1, should be adjusted by -0.23 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	85.30	JAN 13	89.64	MAY 13	72.55	JUN 30	77.50	JUL 21	74.02	AUG 16	81.98
NOV 9	91.10	MAR 11	87.80								


352037078514101 NC-145
WATER LEVEL, IN FEET BELOW LAND SURFACE
70
75
80
85
90
95
100
O
N
D
J
F
M
A
M
J
J
A
S
1992
1993


WATER LEVE, IN FEET BELOW LAND SURFACE
60
70
80
90
100
110
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352037076514106. Local number, NC-162; DEHNR Bonnerton Research Station well P18v6.

LOCATION.--Lat 35°20'37", long 76°51'41", Hydrologic Unit 03020104, 1 mi south of Bonnerton on Secondary Road 1936. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 86 ft, diameter 2.5 in., cased to 76 ft, screened interval from 76 to 86 ft; measured depth 83.4 ft, October 1986.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 37.09 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.07 ft above land-surface datum - revised from 2.72 ft above land-surface datum, October 1987.

REMARKS.--Water level is affected by nearby pumping associated with mining operations. Well is part of local-effects network.

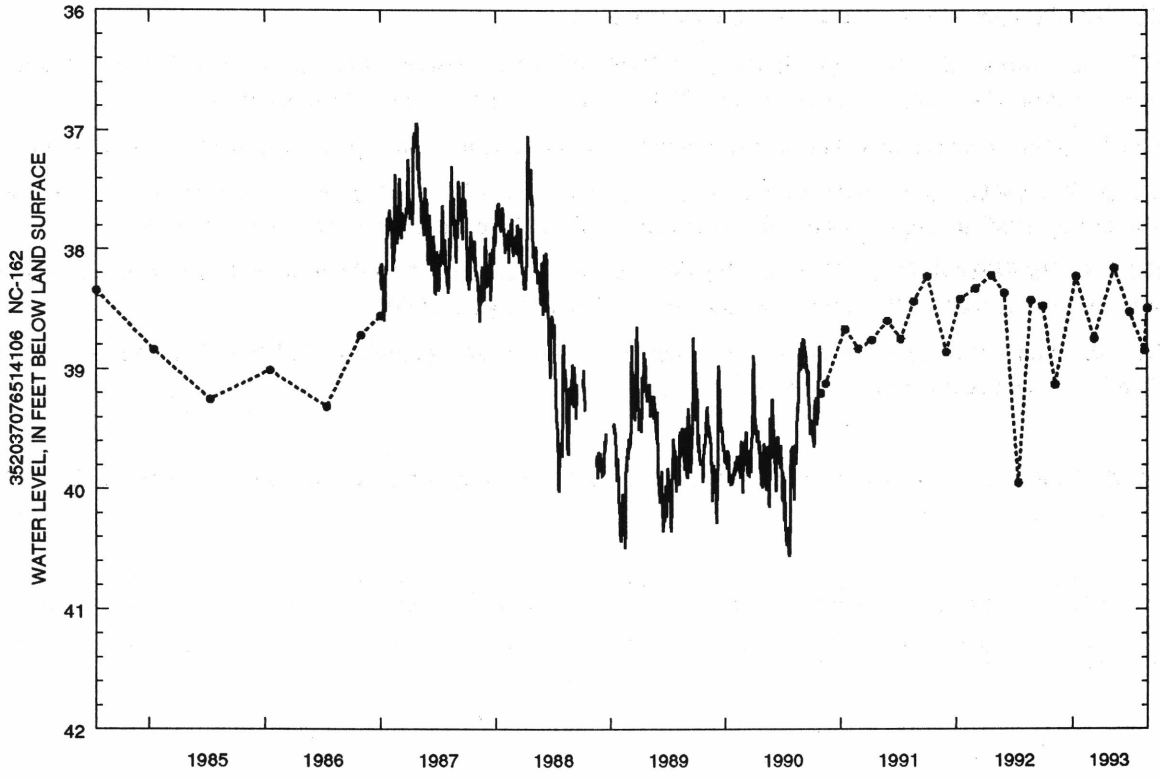
PERIOD OF RECORD.--June 1980 to current year. Continuous record December 1986 to November 1990. Records from June 1980 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.68 ft below land-surface datum, Mar. 8, 1983; lowest water level recorded, 40.58 ft below land-surface datum, July 21, 1990.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.35 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	38.48	JAN 13	38.23	MAY 13	38.16	JUN 30	38.53	AUG 16	38.85	AUG 25	38.50
NOV 9	39.13	MAR 11	38.75								


352037076514106 NC-162
WATER LEVEL, IN FEET BELOW LAND SURFACE
36
37
38
39
40
41
42
1985
1986
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352224076570403. Local number, NC-163; DEHNR Coxs Crossroads Research Station well P19m3.

LOCATION.--Lat 35°22'24", long 76°57'04", Hydrologic Unit 03020104, at North Carolina Department of Transportation Maintenance Yard near Coxs Crossroads, and 0.25 mi north of State Highway 32 on Secondary Road 1100. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 250 ft, diameter 4 in., cased to 81 ft, open hole to 250 ft, measured depth 236.5 ft, September 1981.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 25.38 ft above sea level (levels by DEHNR). Measuring point: Top of plastic sleeve on instrument shelf, 2.07 ft above land-surface datum (since July 1990).

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--June 1967 to current year. Continuous record began November 1986. Records from June 1967 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.14 ft below land-surface datum, Feb. 23, 1972; lowest water level recorded, 31.36 ft below land-surface datum, Feb. 4 and 5, 1989.

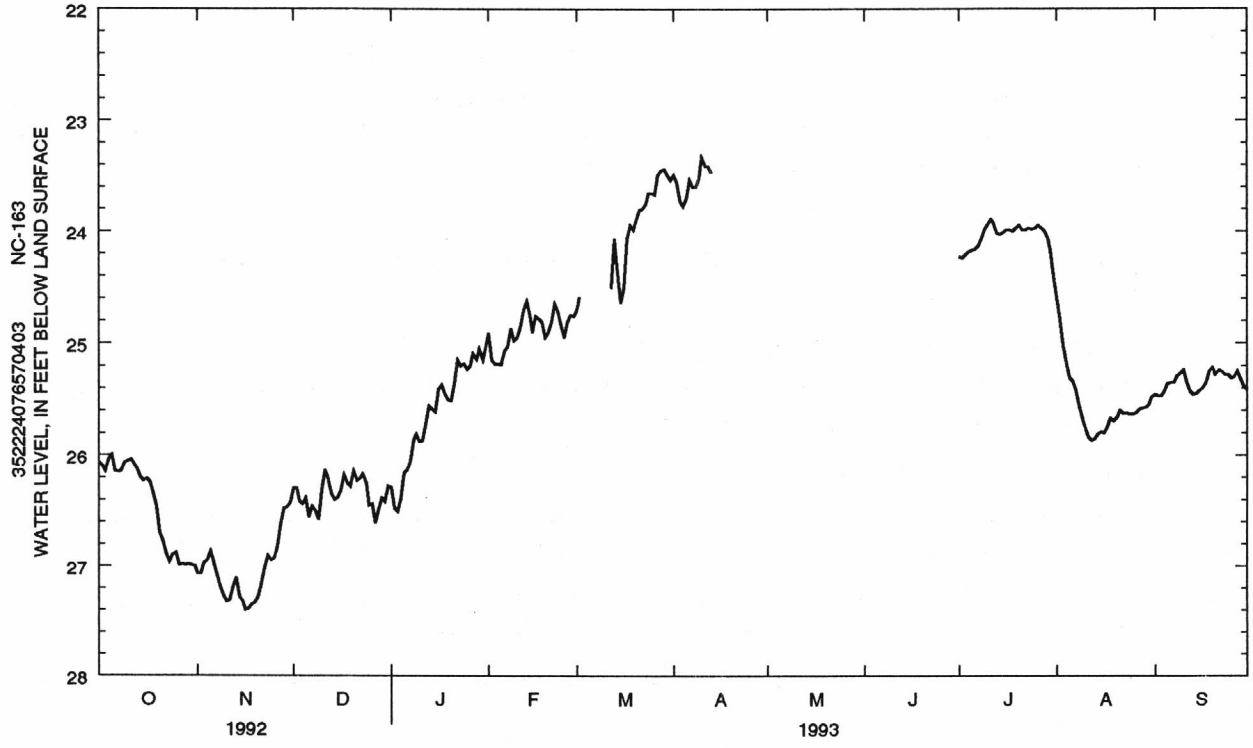
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.1 ft.

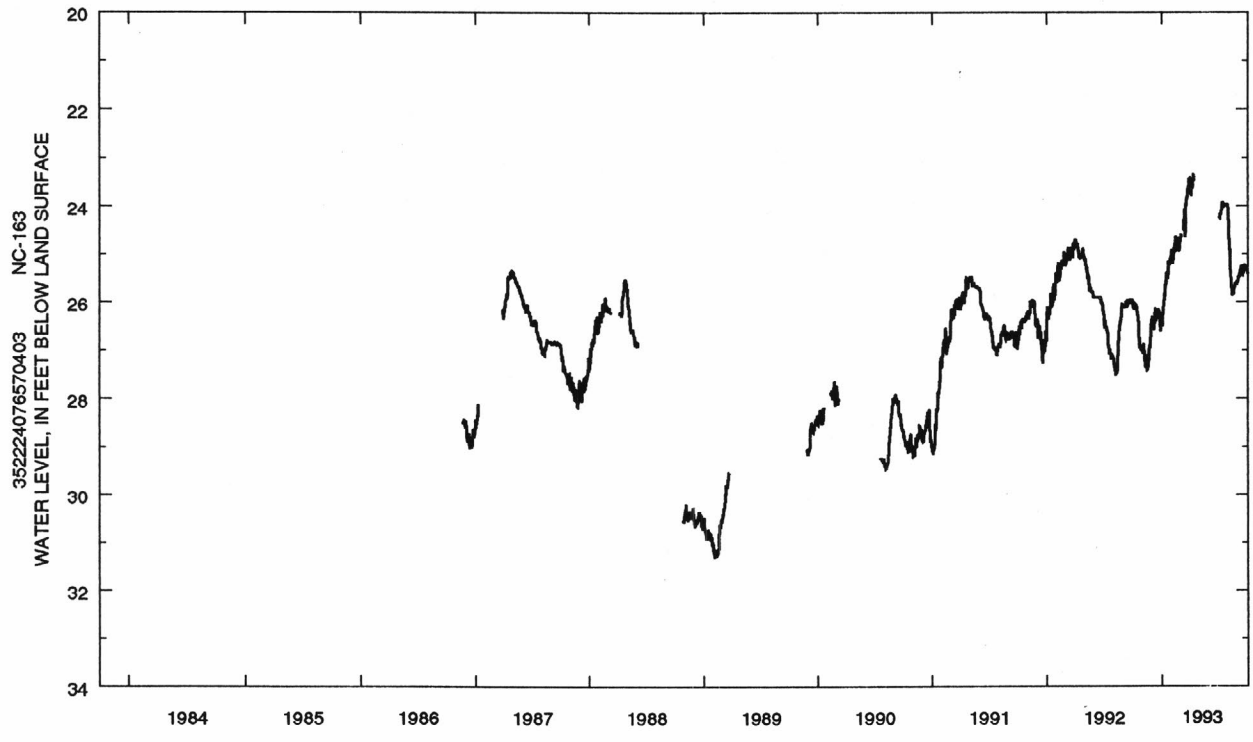
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.00	26.87	26.39	26.16	25.19	---	23.70	---	---	24.17	25.31	25.36
10	26.06	27.32	26.32	25.88	24.95	---	23.33	---	---	23.95	25.76	25.24
15	26.23	27.32	26.38	25.61	24.90	24.64	---	---	---	24.01	25.79	25.42
20	26.70	27.28	26.14	25.51	24.90	23.89	---	---	---	23.95	25.66	25.28
25	26.88	26.93	26.45	25.23	24.95	23.66	---	---	---	23.97	25.63	25.31
EOM	27.00	26.43	26.28	25.04	24.76	23.54	---	---	---	24.40	25.48	25.41

WTR YR 1993 MEAN 25.43 HIGH 23.33 APR 10 LOW 27.40 NOV 16


352224076570403 NC-163
WATER LEVEL, IN FEET BELOW LAND SURFACE
22
23
24
25
26
27
28
O
N
D
J
F
M
A
M
J
J
A
S
1992
1993


352224076570403 NC-163
WATER LEVEL, IN FEET BELOW LAND SURFACE
20
22
24
26
28
30
32
34
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352252077050707. Local number, NC-164; DEHNR Wilmar Research Station well P21k7.

LOCATION.--Lat 35°22'53", long 77°05'17", Hydrologic Unit 03020202, 0.5 mi east of intersection of Secondary Roads 1129 and 1130 on logging road, and 3.5 mi southeast of Wilmar. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 320 ft, diameter 6 in., cased to 290 ft, screened interval from 290 to 310 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 40.56 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.94 ft above land-surface datum.

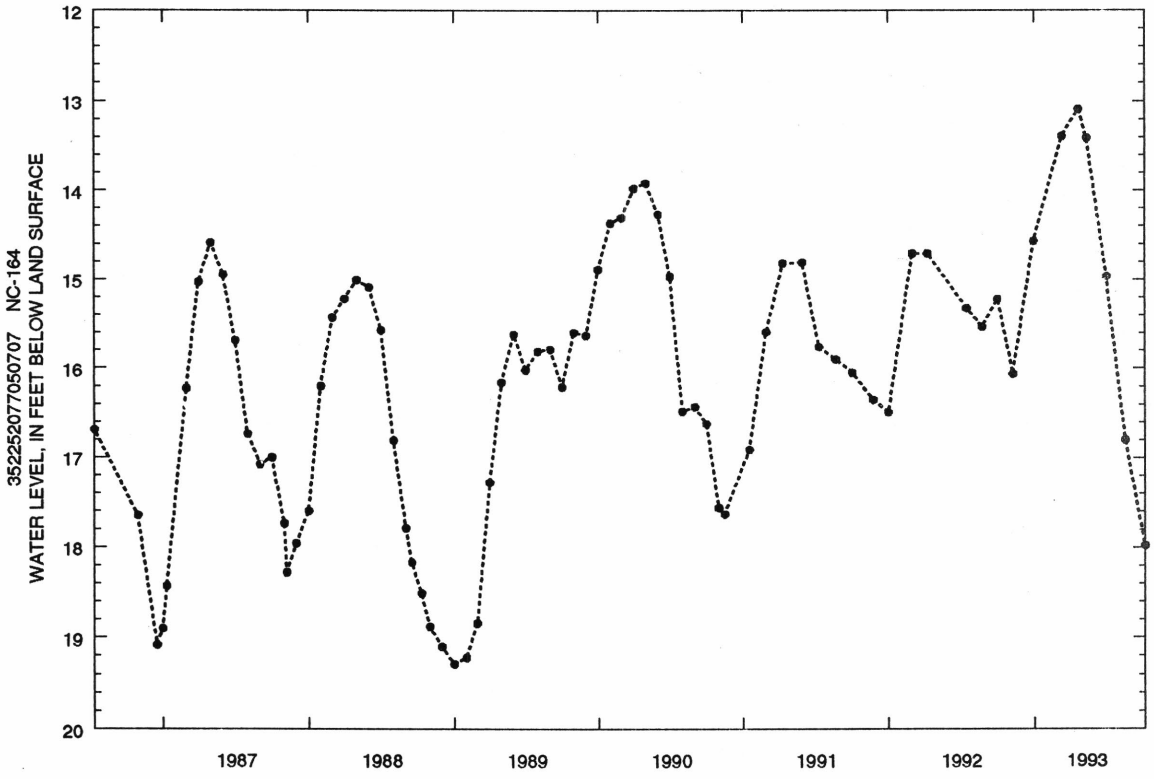
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--March 1969 to current year. Continuous record December 1986 to November 1990. Records from March 1969 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.03 ft below land-surface datum, Apr. 27, 1973; lowest water level recorded, 19.40 ft below land-surface datum, Jan. 11 and 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.22	DEC 31	14.57	APR 21	13.09	MAY 12	13.41	JUN 30	14.97	AUG 16	16.80
NOV 9	16.06	MAR 11	13.39								


352252077050707 NC-164
WATER LEVEL, IN FEET BELOW LAND SURFACE
12
13
14
15
16
17
18
19
20
1987
1988
1989
1990
1991
1992
1993

BEAUFORT COUNTY--Continued

352252077050709. Local number, NC-165; DEHNR Wilmar Research Station well P21k9.

LOCATION.--Lat 35°22'53", long 77°05'17", Hydrologic Unit 03020202, 0.5 mi east of intersection of Secondary Roads 1129 and 1130 on logging road, and 3.5 mi southeast of Wilmar. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Black Creek aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 712 ft, diameter 4 in., cased to 695 ft, screened interval from 695 to 705 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 41.63 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.74 ft above land-surface datum - revised from 2.91 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

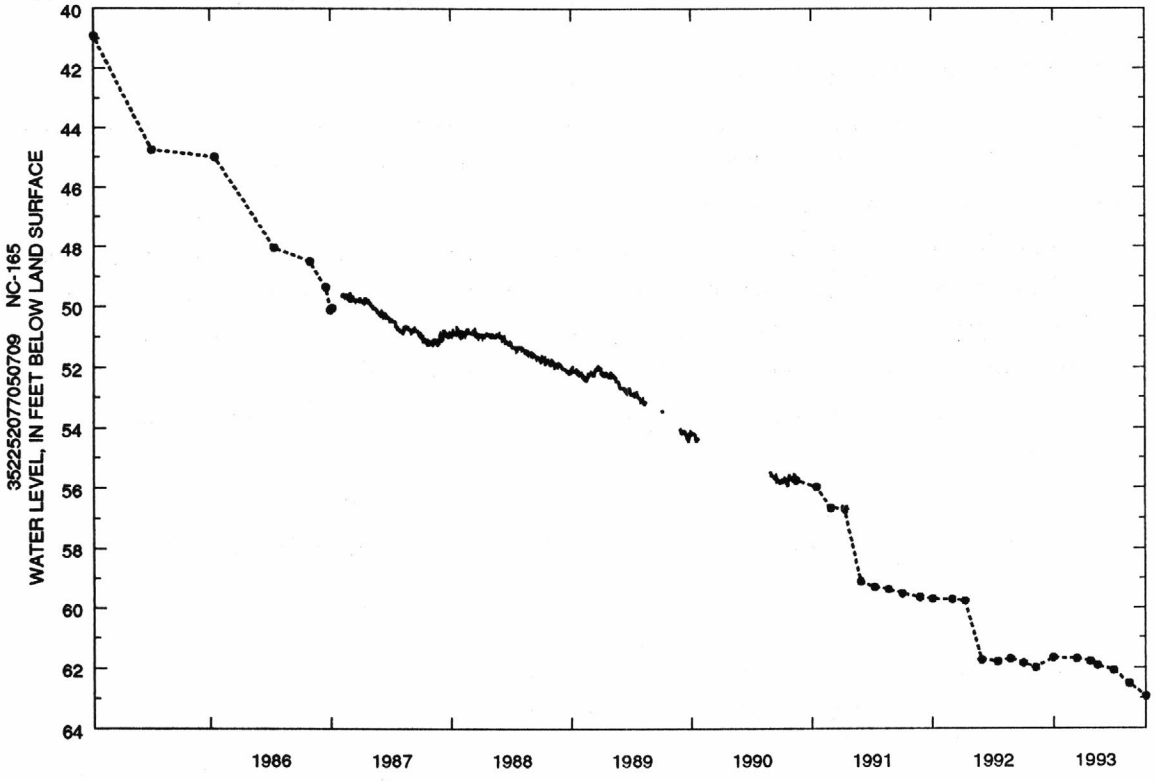
PERIOD OF RECORD.--March 1969 to current year. Continuous record December 1986 to November 1990. Records from March 1969 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.94 ft below land-surface datum, Mar. 11, 1969; lowest water level recorded, 61.79 ft below land-surface datum, July 16, 1992.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.17 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	61.85	DEC 31	61.67	APR 21	61.79	MAY 12	61.92	JUN 30	62.09	AUG 16	62.52
NOV 9	61.99	MAR 11	61.70								


352252077050709 NC-165
WATER LEVEL, IN FEET BELOW LAND SURFACE
40
42
44
46
48
50
52
54
56
58
60
62
64
1986
1987
1988
1989
1990
1991
1992
1993

BERTIE COUNTY

361002076562106. Local number, NC-153; DEHNR Cremo Research Station well G19b6.

LOCATION.--Lat 36°10'02", long 76°56'21", Hydrologic Unit 03010203, 0.75 mi south of Cremo, south of Secondary Road 1313 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 431 ft, diameter 6 in., cased to 400 ft, screened interval from 400 to 410 ft; measured depth 412 ft, October 1986.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 64.49 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.01 ft above land-surface datum.

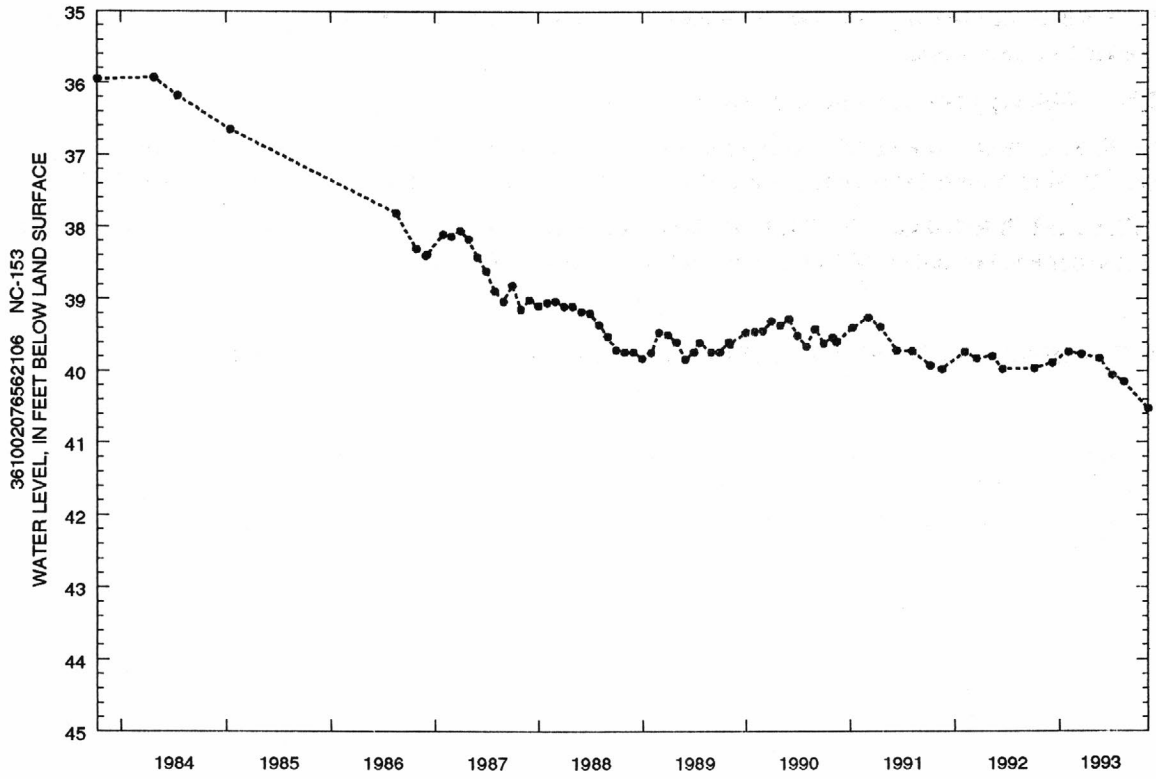
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--August 1974 to current year. Continuous record November 1986 to November 1990. Records from August 1974 to August 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 31.51 ft below land-surface datum, July 30, 1975; lowest water level recorded, 40.15 ft below land-surface datum, Aug. 11, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	39.96	FEB 1	39.73	MAR 17	39.76	MAY 18	39.82	JUL 2	40.06	AUG 11	40.15
DEC 7	39.88										


361002076562106 NC-153
WATER LEVEL, IN FEET BELOW LAND SURFACE
35
36
37
38
39
40
41
42
43
44
45
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

BERTIE COUNTY--Continued

361420077111407. Local number, NC-154; DEHNR Roxobel Research Station well F22b7.

LOCATION.--Lat 36°14'20", long 77°11'14", Hydrologic Unit 03010203, 3.8 mi northeast of Roxobel on Secondary Road 1249. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 12 ft, diameter 4 in., cased to 7 ft, screened interval from 7 to 12 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 74 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.05 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--November 1986 to current year.

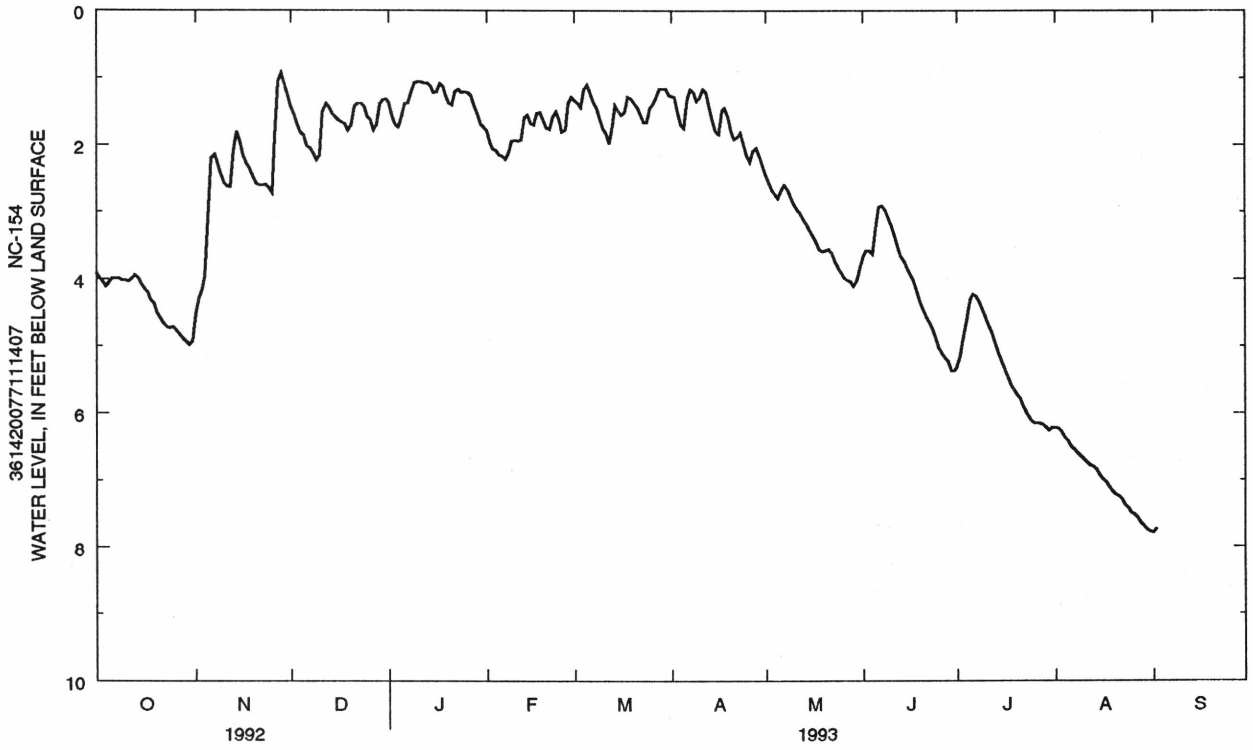
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.80 ft below land-surface datum, Oct. 20, 1989; lowest water level recorded, 9.31 ft below land-surface datum, Sept. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.91	4.52	1.44	1.37	1.79	1.33	1.27	2.45	3.67	5.30	6.22	7.79
2	3.98	4.28	1.54	1.56	1.97	1.37	1.29	2.57	3.58	5.13	6.23	7.72
3	4.04	4.15	1.69	1.69	2.06	1.44	1.50	2.68	3.58	4.85	6.28	---
4	4.10	3.96	1.81	1.73	2.09	1.17	1.69	2.75	3.63	4.62	6.35	---
5	4.06	2.92	1.85	1.58	2.15	1.10	1.74	2.80	3.26	4.32	6.42	---
6	3.99	2.20	2.02	1.38	2.16	1.23	1.32	2.67	2.93	4.23	6.49	---
7	3.99	2.14	2.05	1.37	2.22	1.36	1.17	2.60	2.91	4.25	6.54	---
8	3.99	2.27	2.12	1.22	2.12	1.45	1.21	2.68	2.98	4.34	6.59	---
9	4.02	2.44	2.23	1.07	1.94	1.61	1.34	2.78	3.09	4.46	6.64	---
10	4.02	2.56	2.15	1.05	1.93	1.75	1.29	2.88	3.22	4.58	6.69	---
11	4.04	2.62	1.51	1.05	1.94	1.83	1.17	2.97	3.37	4.70	6.73	---
12	4.00	2.63	1.38	1.07	1.92	1.98	1.22	3.03	3.53	4.81	6.78	---
13	3.94	2.08	1.43	1.07	1.59	1.71	1.44	3.11	3.66	4.96	6.80	---
14	3.98	1.80	1.52	1.11	1.55	1.41	1.64	3.19	3.74	5.11	6.84	---
15	4.07	1.95	1.58	1.22	1.67	1.50	1.80	3.28	3.83	5.23	6.92	---
16	4.14	2.16	1.63	1.21	1.69	1.55	1.84	3.36	3.92	5.35	6.99	---
17	4.20	2.27	1.65	1.08	1.52	1.51	1.48	3.46	4.02	5.47	7.03	---
18	4.30	2.35	1.68	1.12	1.51	1.29	1.45	3.56	4.16	5.57	7.10	---
19	4.37	2.47	1.78	1.26	1.64	1.30	1.60	3.59	4.32	5.67	7.17	---
20	4.50	2.57	1.70	1.37	1.74	1.37	1.78	3.58	4.44	5.72	7.22	---
21	4.58	2.60	1.43	1.40	1.76	1.44	1.91	3.56	4.56	5.79	7.25	---
22	4.65	2.60	1.38	1.20	1.58	1.54	1.88	3.62	4.64	5.90	7.29	---
23	4.71	2.59	1.38	1.17	1.50	1.65	1.82	3.74	4.74	6.00	7.38	---
24	4.73	2.65	1.42	1.22	1.63	1.66	1.99	3.83	4.87	6.08	7.42	---
25	4.71	2.72	1.57	1.21	1.80	1.45	2.16	3.91	5.03	6.14	7.49	---
26	4.77	1.87	1.63	1.22	1.77	1.38	2.26	3.99	5.11	6.15	7.51	---
27	4.83	1.05	1.78	1.27	1.38	1.28	2.08	4.02	5.18	6.15	7.57	---
28	4.88	.93	1.69	1.42	1.29	1.16	2.05	4.05	5.24	6.17	7.64	---
29	4.93	1.10	1.39	1.53	---	1.16	2.17	4.10	5.37	6.21	7.69	---
30	4.98	1.26	1.32	1.68	---	1.16	2.31	4.04	5.37	6.25	7.74	---
31	4.93	---	1.31	1.73	---	1.25	---	3.85	---	6.22	7.77	---

WTR YR 1993 MEAN 3.16 HIGH .93 LOW 7.79


361420077111407 NC-154
WATER LEVEL, IN FEET BELOW LAND SURFACE
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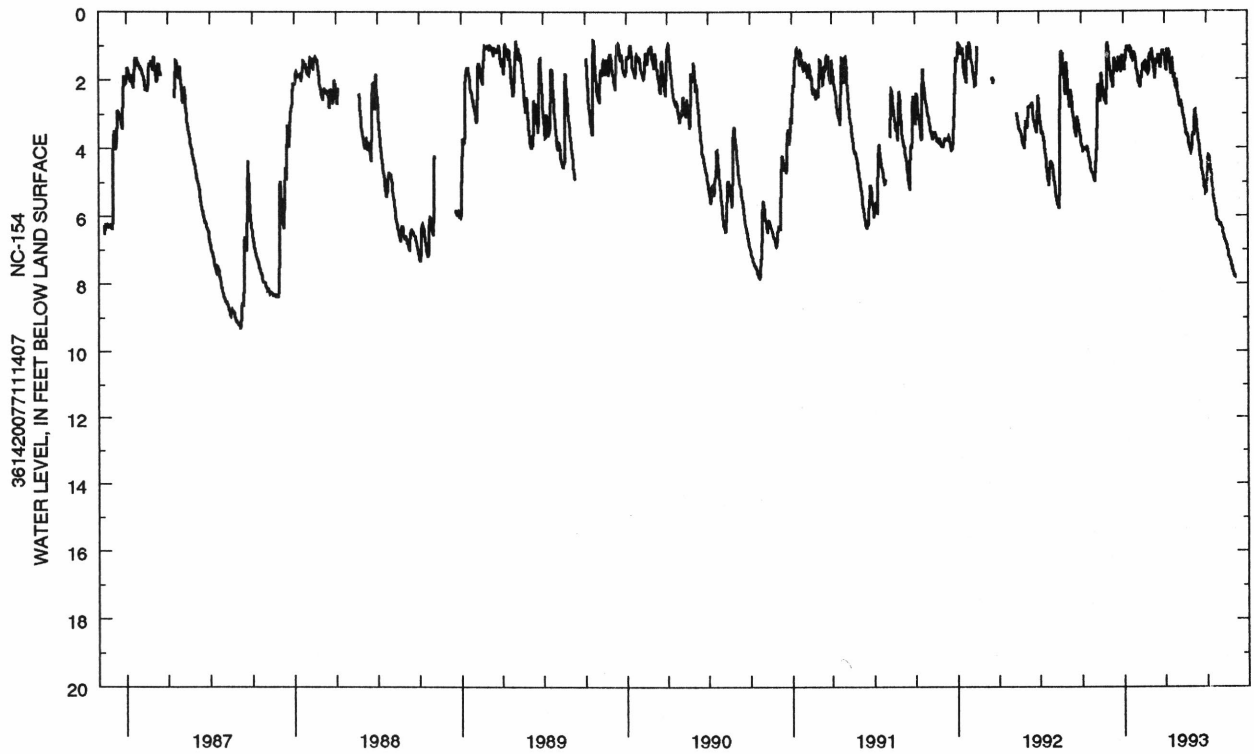
361420077111407 NC-154
WATER LEVEL, IN FEET BELOW LAND SURFACE
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BLADEN COUNTY

343027078451903. Local number, NC-178; DEHNR Bladenboro Research Station well Z41u3.

LOCATION.--Lat 34°30'27", long 78°45'19", Hydrologic Unit 03040206, 3 mi southeast of Bladenboro, south of State Highway 211 on Secondary Road 1172. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 110 ft, diameter 6 in., cased to 100 ft, screened interval from 100 to 110 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 116.45 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.78 ft above land-surface datum - revised from 2.89 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network. Records prior to January 1987 are from Bladenboro Research Station well Z41u4 which was adjacent to and of similar construction to well Z41u3.

PERIOD OF RECORD.--March 1976 to current year. Continuous record began January 1987. Records for well Z41u4 from March 1976 to December 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.73 ft below land-surface datum, Apr. 19, 1978; lowest water level recorded, 8.21 ft below land-surface datum, Sept. 4, 1993.

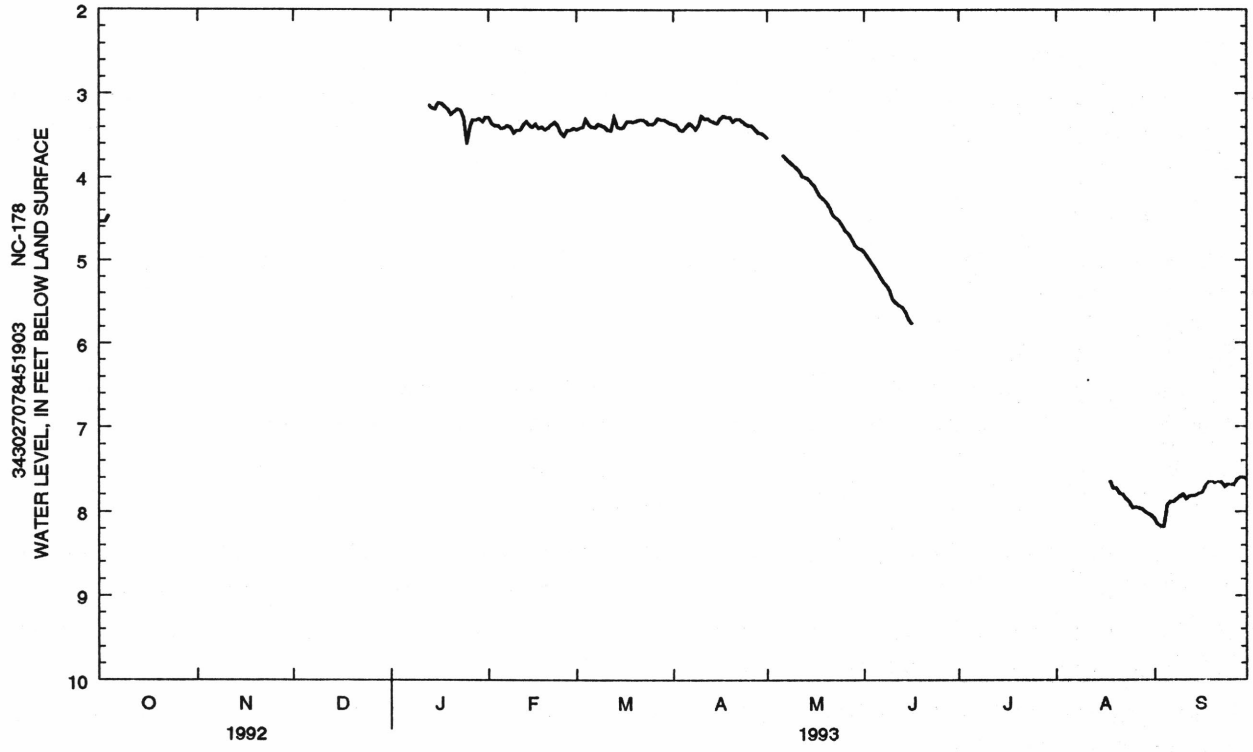
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.11 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	3.42	3.39	3.40	---	5.13	---	---	7.93
10	---	---	---	---	3.44	3.40	3.27	3.88	5.48	---	---	7.80
15	---	---	---	3.19	3.40	3.42	3.36	4.06	5.72	---	---	7.79
20	---	---	---	3.25	3.41	3.33	3.34	4.31	---	---	7.72	7.67
25	---	---	---	3.60	3.51	3.37	3.39	4.59	---	---	7.96	7.68
EOM	---	---	---	3.29	3.42	3.36	3.49	4.87	---	---	8.04	7.62

WTR YR 1993 MEAN 4.65 HIGH 3.11 JAN 16 LOW 8.18 SEP 3


343027078451903 NC-178
WATER LEVEL, IN FEET BELOW LAND SURFACE
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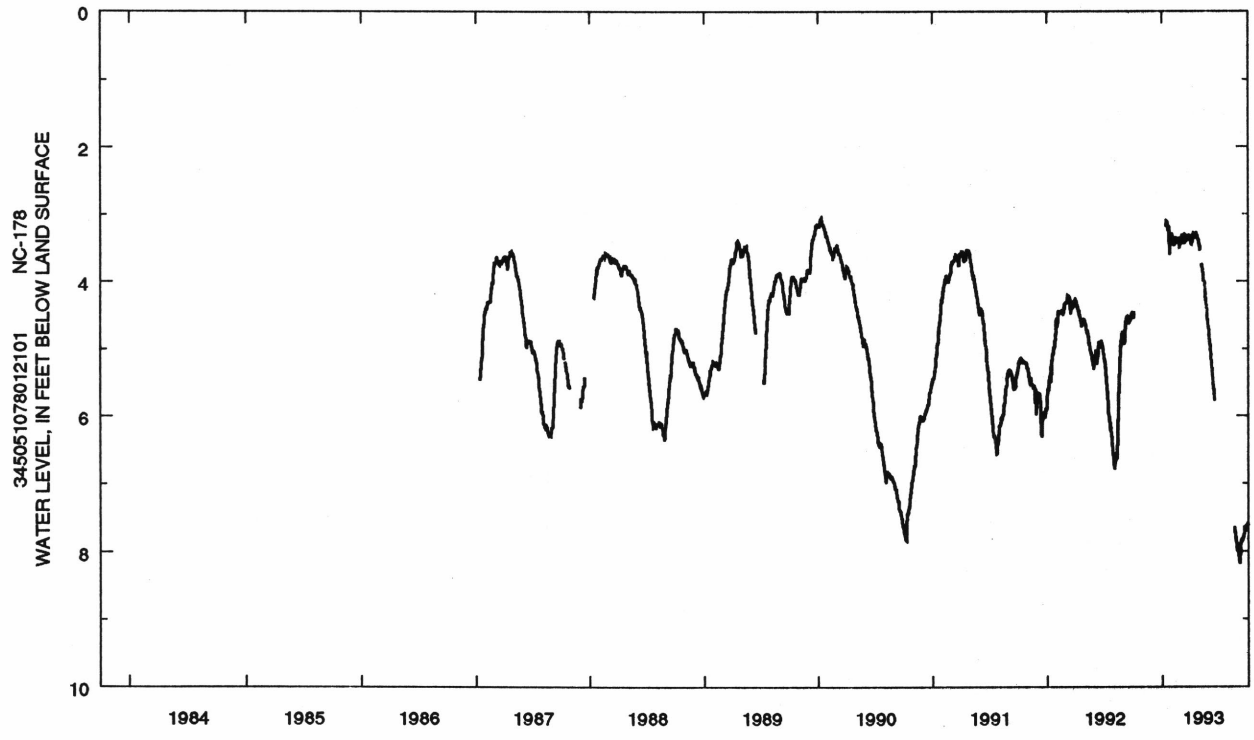
345051078012101 NC-178
WATER LEVEL, IN FEET BELOW LAND SURFACE
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BRUNSWICK COUNTY

340416078084202. Local number, NC-180; DEHNR Bolivia Research Station well FF33d2.

LOCATION.--Lat 34°04'16", long 78°08'42", Hydrologic Unit 03040207, in Bolivia at Town Hall on U.S. Highway 17. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 140 ft, diameter 4 in., cased to 92 ft, open hole to 140 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 40.97 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.70 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--April 1971 to current year. Continuous record began May 1987. Records from April 1971 to March 1987 are unpublished and available in the files of the Groundwater Section, DEHNR.

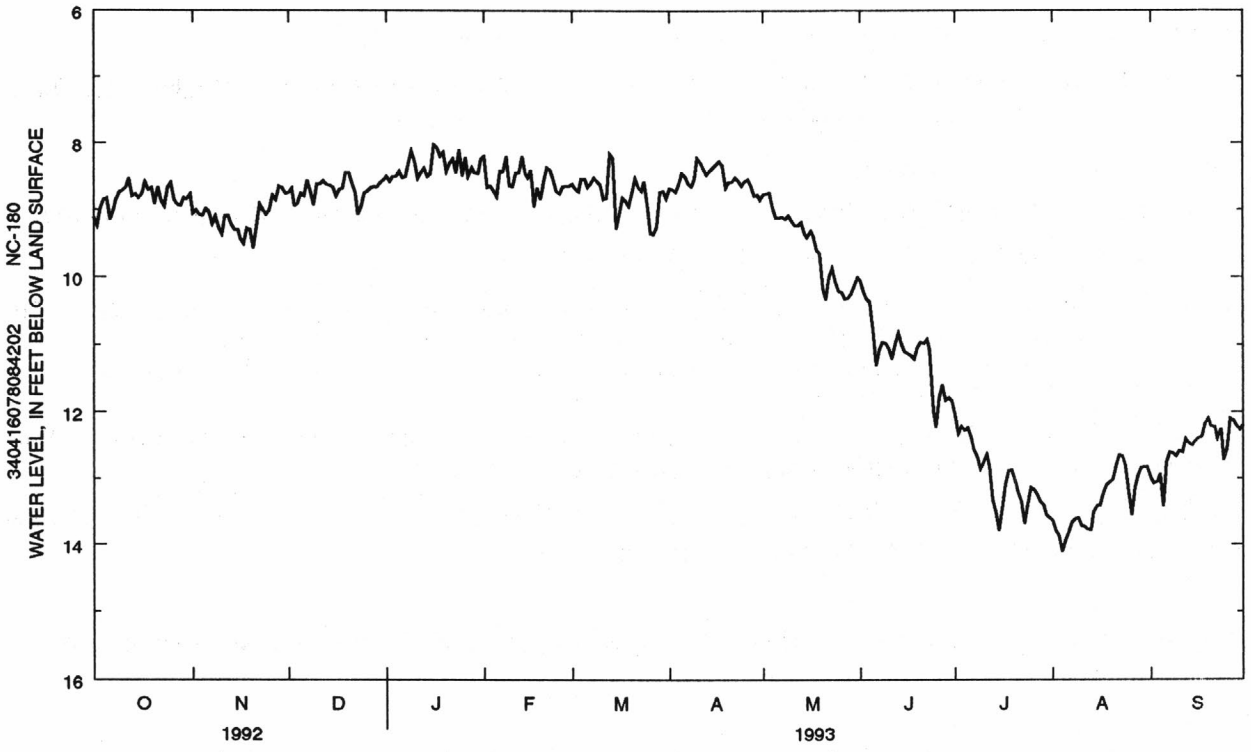
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.52 ft below land-surface datum, Aug. 14, 1973; lowest water level recorded, 14.54 ft below land-surface datum, Oct. 22, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.84	8.99	8.76	8.43	8.81	8.54	8.46	9.12	10.77	12.24	13.94	13.42
10	8.72	9.37	8.62	8.27	8.66	8.63	8.23	9.17	11.06	12.78	13.71	12.59
15	8.83	9.31	8.67	8.46	8.52	9.29	8.37	9.42	11.11	13.79	13.41	12.44
20	8.91	9.58	8.45	8.43	8.59	8.75	8.59	10.17	10.96	13.03	13.02	12.22
25	8.60	9.01	8.75	8.49	8.76	8.99	8.58	10.21	12.23	13.14	13.21	12.57
EOM	8.77	8.76	8.56	8.24	8.65	8.84	8.86	10.01	11.84	13.60	12.83	12.20

WTR YR 1993 MEAN 10.05 HIGH 8.03 JAN 16 LOW 14.11 AUG 4


340416078084202 NC-180
WATER LEVEL, IN FEET BELOW LAND SURFACE
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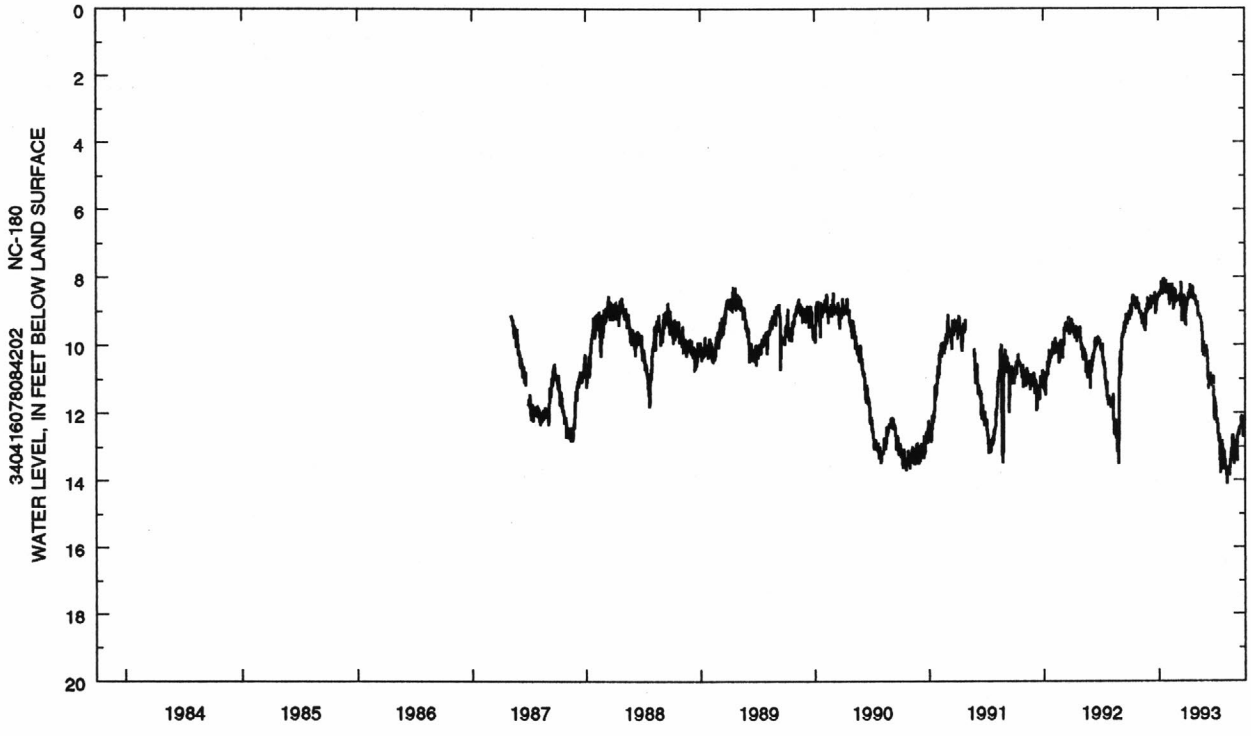
340416078084202 NC-180
WATER LEVEL, IN FEET BELOW LAND SURFACE
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BRUNSWICK COUNTY--Continued

335629078115406. Local number, NC-181; DEHNR Sunset Harbor Research Station well GG34s6.

LOCATION.--Lat 33°56'29", long 78°11'54", Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of State Highway 211 on Secondary Road 1112. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 102 ft, diameter 6 in., cased to 84 ft, open hole to 102 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 28.06 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.02 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--September 1974 to current year. Records from September 1974 to March 1986 are unpublished and available in the files of the Groundwater Section, DEHNR. U.S. Geological Survey periodic water-level measurements began December 1986 and continuous record began March 1987.

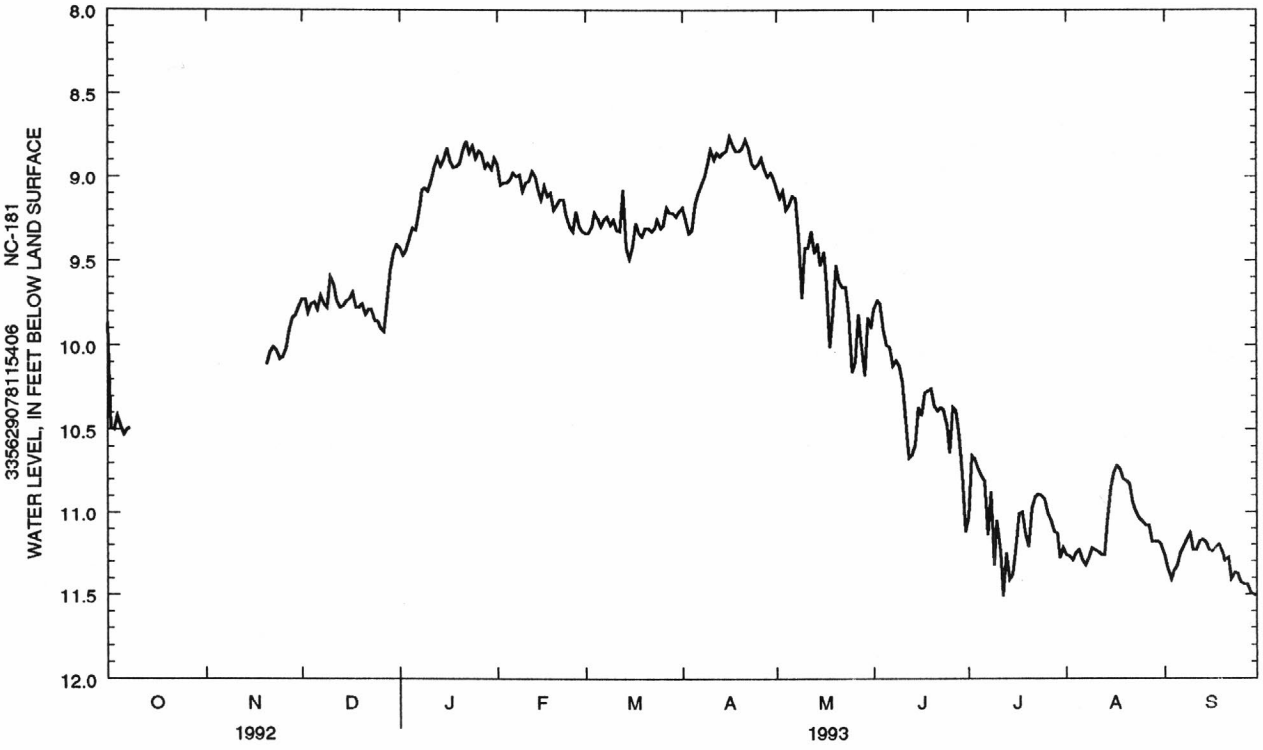
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Mar. 13, 1987; lowest water level recorded, 13.53 ft below land-surface datum, Aug. 1, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.48	---	9.75	9.31	9.02	9.26	9.17	9.17	10.00	10.78	11.23	11.33
10	---	---	9.60	9.09	9.04	9.26	8.84	9.43	10.22	11.05	11.23	11.23
15	---	---	9.74	8.90	9.14	9.49	8.85	9.53	10.37	11.38	10.85	11.23
20	---	10.11	9.76	8.92	9.17	9.31	8.83	9.53	10.36	11.21	10.81	11.30
25	---	10.07	9.86	8.89	9.33	9.31	8.93	10.16	10.64	10.92	11.06	11.43
EOM	---	9.77	9.41	8.89	9.33	9.21	9.01	9.90	11.12	11.22	11.20	11.51

WTR YR 1993 MEAN 9.97 HIGH 8.76 APR 16 LOW 11.51 JUL 12


335629078115406 NC-181
WATER LEVEL, IN FEET BELOW LAND SURFACE
8.0
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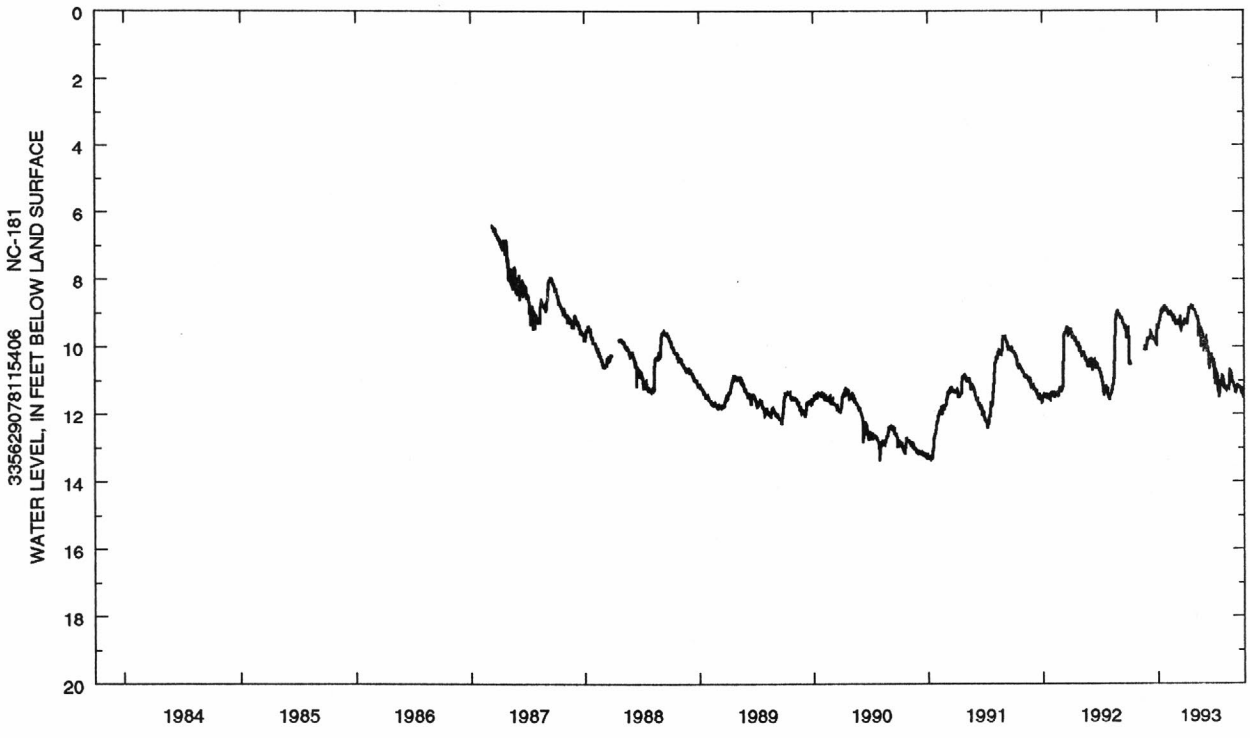
335629078115406 NC-181
WATER LEVEL, IN FEET BELOW LAND SURFACE
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BRUNSWICK COUNTY--Continued

335629078115406. Local number, NC-182; DEHNR Sunset Harbor Research Station well GG34s7.

LOCATION.--Lat 33°56'29", long 78°11'54", Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of State Highway 211 on Secondary Road 1112. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 15 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 28.06 ft above sea level (levels by DEHNR). Measuring point: Top of collar on casing, 2.65 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--January 1987 to current year.

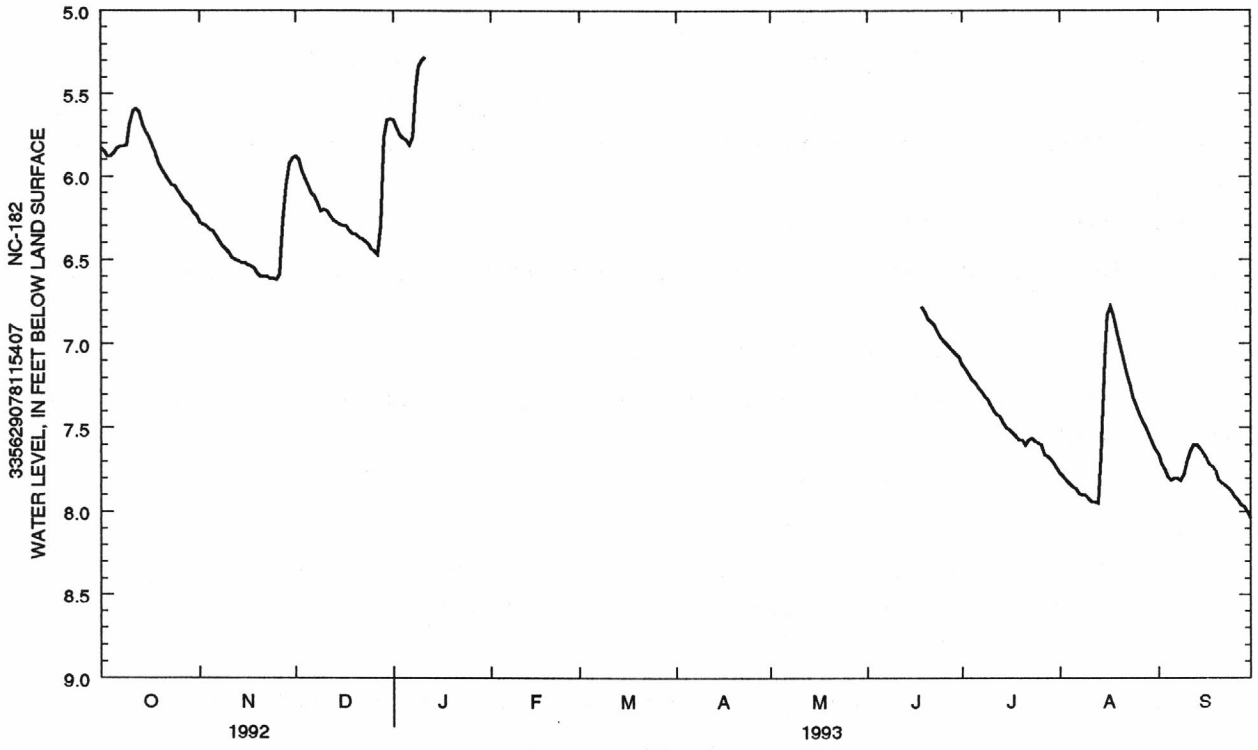
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.65 ft below land-surface datum, Apr. 15, 1987; lowest water level recorded, 9.80 ft below land-surface datum, Jan. 15 and 16, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.83	6.28	5.88	5.66	---	---	---	---	---	7.12	7.77	7.66
2	5.85	6.29	5.90	5.71	---	---	---	---	---	7.15	7.79	7.71
3	5.88	6.30	5.96	5.75	---	---	---	---	---	7.18	7.81	7.75
4	5.88	6.32	6.01	5.77	---	---	---	---	---	7.21	7.83	7.79
5	5.86	6.33	6.05	5.78	---	---	---	---	---	7.23	7.85	7.81
6	5.83	6.36	6.10	5.81	---	---	---	---	---	7.26	7.86	7.80
7	5.82	6.39	6.12	5.76	---	---	---	5.79	---	7.28	7.89	7.80
8	5.82	6.42	6.16	5.47	---	---	---	---	---	7.31	7.90	7.81
9	5.81	6.44	6.21	5.34	---	---	---	---	---	7.33	7.90	7.78
10	5.69	6.46	6.20	5.30	---	---	---	---	---	7.36	7.92	7.70
11	5.60	6.49	6.21	5.28	---	---	---	---	---	7.40	7.94	7.64
12	5.59	6.50	6.24	---	---	---	---	---	---	7.42	7.94	7.60
13	5.61	6.51	6.27	---	---	---	---	---	---	7.43	7.95	7.60
14	5.68	6.52	6.28	---	---	---	---	---	---	7.47	7.67	7.62
15	5.73	6.52	6.29	---	---	---	---	---	---	7.50	7.09	7.65
16	5.76	6.53	6.30	---	---	---	---	---	---	7.51	6.83	7.68
17	5.81	6.54	6.30	---	---	---	---	---	---	7.53	6.78	7.72
18	5.86	6.55	6.33	---	---	---	---	---	6.78	7.55	6.84	7.73
19	5.92	6.58	6.35	---	---	---	---	---	6.81	7.57	6.93	7.76
20	5.96	6.60	6.35	---	---	---	---	---	6.85	7.57	7.01	7.81
21	5.99	6.60	6.37	---	---	---	---	---	6.87	7.60	7.09	7.83
22	6.02	6.60	6.38	---	---	---	---	---	6.89	7.57	7.17	7.84
23	6.05	6.61	6.39	---	---	---	---	---	6.92	7.56	7.24	7.86
24	6.06	6.61	6.41	---	---	---	---	---	6.96	7.58	7.32	7.88
25	6.09	6.62	6.44	---	---	---	---	---	6.98	7.59	7.37	7.91
26	6.12	6.59	6.45	---	---	---	---	---	7.00	7.60	7.42	7.93
27	6.15	6.27	6.47	---	---	---	---	---	7.02	7.66	7.46	7.96
28	6.17	6.06	6.30	---	---	---	---	---	7.04	7.67	7.50	7.97
29	6.19	5.93	5.76	---	---	---	---	---	7.06	7.69	7.54	8.00
30	6.22	5.89	5.66	---	---	---	---	---	7.08	7.71	7.59	8.04
31	6.24	---	5.65	---	---	---	---	---	---	7.74	7.62	---

WTR YR 1993 MEAN 6.81 HIGH 5.28 LOW 8.04


335629078115407 NC-182
WATER LEVEL, IN FEET BELOW LAND SURFACE
5.0
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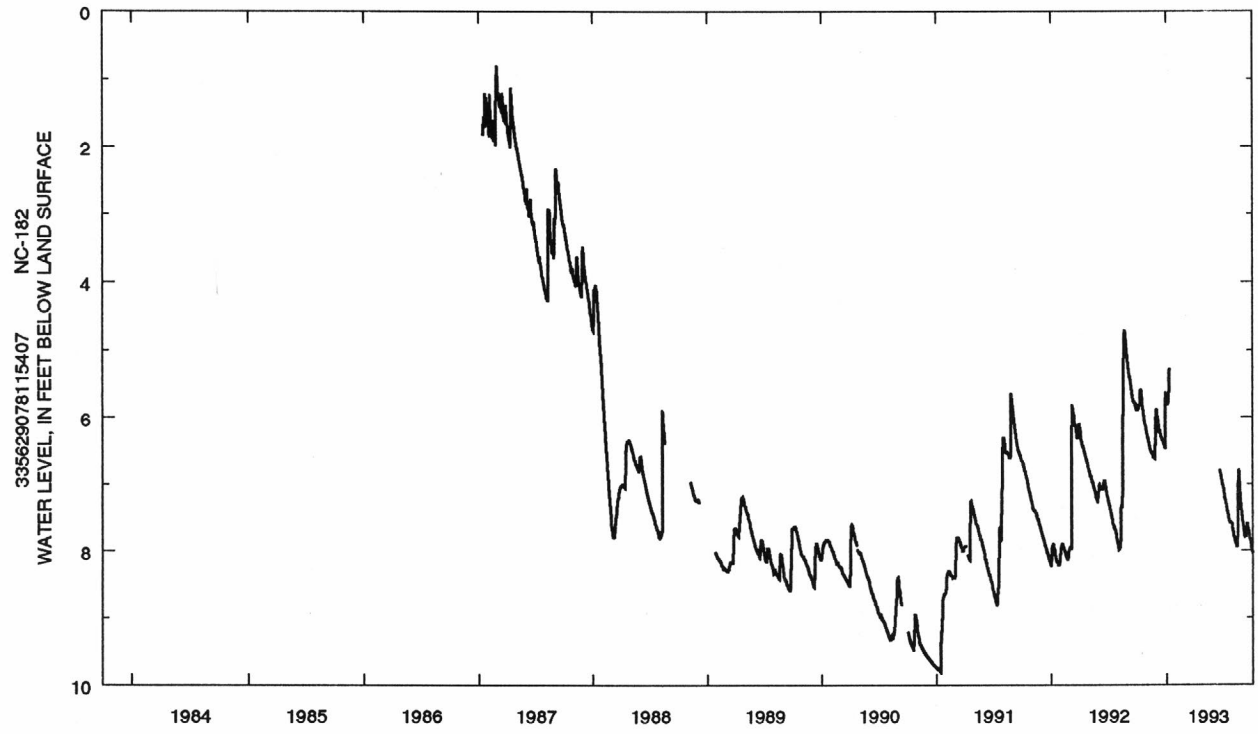
335629078115407 NC-182
WATER LEVEL, IN FEET BELOW LAND SURFACE
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CARTERET COUNTY

344323076451301. Local number, NC-139; DEHNR Camp Glenn Research Station well X17j5.

LOCATION.--Lat 34°43'23", long 76°45'13", Hydrologic Unit 03020106, on west edge of Morehead City, and south of U.S. Highway 70 at DEHNR Marine Fisheries Facility on north shore of Bogue Sound. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 238 ft, diameter 4 in., cased to 180 ft, open hole to 191 ft, hole collapsed from 191 to 238 ft.

INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.

DATUM.--Land-surface datum is 8.72 ft above sea level (levels by DEHNR). Measuring point: Top of collar on casing, 1.73 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--January 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.23 ft below land-surface datum, Dec. 7, 1976; lowest water level recorded, 14.10 ft below land-surface datum, July 15 and 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.78	9.30	9.21	8.45	8.53	8.13	7.96	8.97	10.30	12.78	13.32	12.88
10	9.64	9.48	8.78	8.21	8.44	8.23	8.00	9.75	10.84	13.59	13.02	12.20
15	9.71	9.28	8.59	8.29	8.43	9.09	8.33	9.41	10.51	13.80	12.73	12.35
20	9.73	8.96	8.66	8.70	8.42	8.81	8.41	9.49	11.50	12.53	12.29	11.90
25	9.32	9.03	8.77	8.51	8.68	8.37	8.75	10.14	11.75	13.07	12.39	11.54
EOM	9.31	9.02	8.71	8.60	8.54	8.03	8.51	10.23	11.96	13.23	12.35	11.53

WTR YR 1993 MEAN 9.98 HIGH 7.48 MAR 13 LOW 13.80 JUL 15


344323076451301 NC-139
WATER LEVEL, IN FEET BELOW LAND SURFACE
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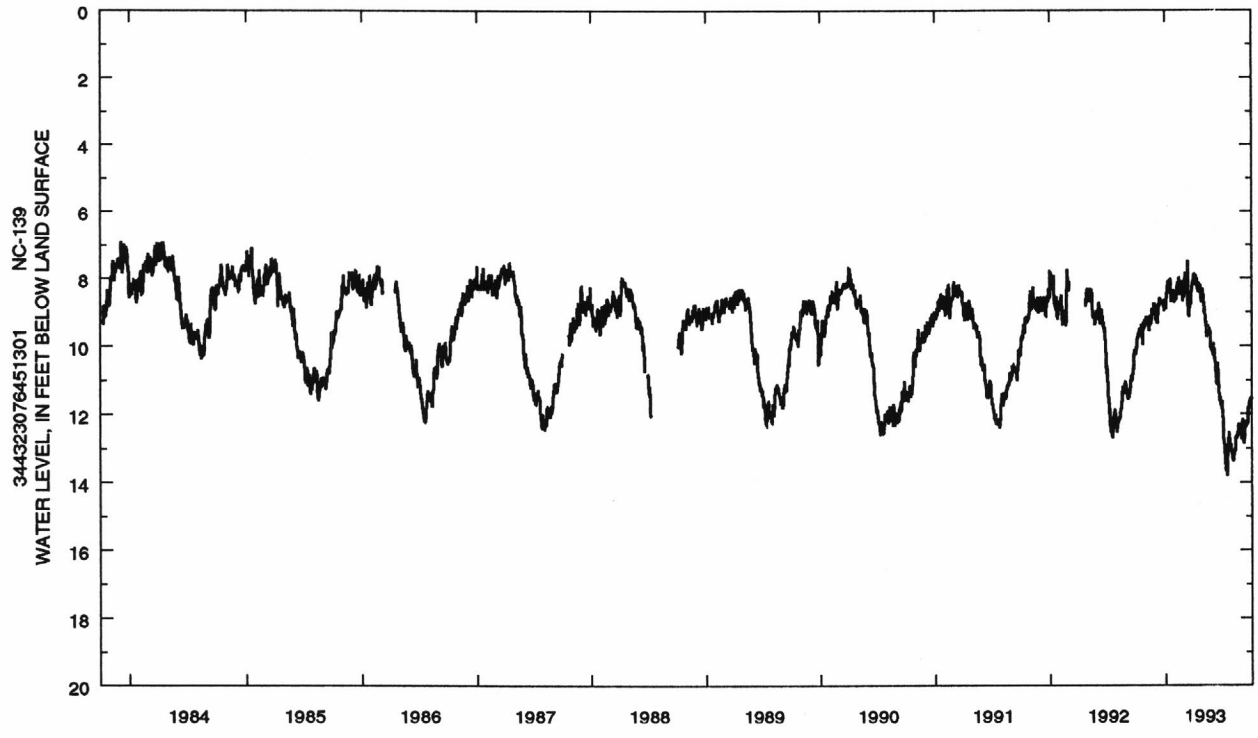
344323076451301 NC-139
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CATAWBA COUNTY

353413081280201. Local number, Cw-327.

LOCATION.--Lat 35°34'13", long 81°28'02", Hydrologic Unit 03050102, 170 ft west of Secondary Road 2047, 0.2 mi southeast of intersection of State Highway 10 and Secondary Road 2047. Owner: Arnold Cook.

AQUIFER.--Unconfined saprolite derived from mafic gneiss of Cambrian age.

WELL CHARACTERISTICS.--Dug residential well, depth 57.8 ft, diameter 3 ft, cased above land surface.

INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.

DATUM.--Land-surface datum is 1,322 ft above sea level. Measuring point: Floor of instrument shelter, 3.50 ft above land-surface datum.

REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.

PERIOD OF RECORD.--June 1991 to current year.

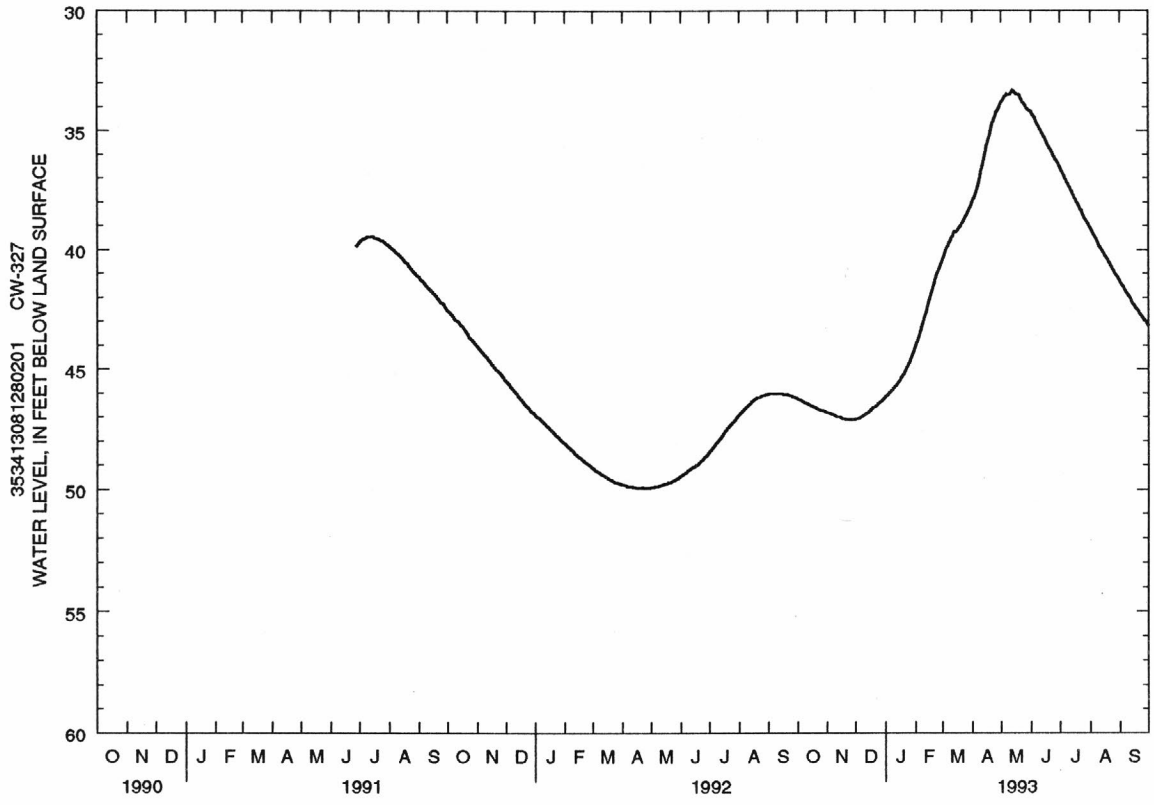
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 33.31 ft below land-surface datum, May 13 and 14, 1993; lowest water level recorded, 49.94 ft below land-surface datum, Apr. 20 and 21, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.31	46.87	47.04	45.99	43.59	39.96	37.58	33.56	34.47	36.90	39.42	41.63
10	46.42	46.97	46.92	45.77	42.90	39.57	36.73	33.48	34.91	37.32	39.84	41.97
15	46.54	47.03	46.78	45.52	42.13	39.26	35.85	33.41	35.30	37.75	40.17	42.32
20	46.63	47.10	46.59	45.20	41.43	38.99	35.04	33.52	35.73	38.13	40.52	42.61
25	46.72	47.11	46.42	44.78	40.84	38.61	34.38	33.89	36.13	38.56	40.89	42.90
EOM	46.80	47.10	46.19	44.17	40.52	38.09	33.88	34.17	36.46	39.03	41.29	43.19

WTR YR 1993 MEAN 41.02 HIGH 33.32 MAY 13 LOW 47.11 NOV 21


353413081280201 CW-327
WATER LEVEL, IN FEET BELOW LAND SURFACE
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CHEROKEE COUNTY

351117083545001. Local number, NC-191.

LOCATION.--Lat 35°11'17", long 83°54'50", Hydrologic Unit 06020002, 0.6 mi north of Marble, 100 ft west of Secondary Road 1377, in Marble. Owner: Coats American Company.

AQUIFER.--Saprolite derived from schist of Precambrian age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 108.5 ft, diameter 4 in., cased to 53 ft, screened interval from 53 to 83 ft, sand filter pack from 40 to 83 ft, backfilled with saprolite from 83 to 108.5 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 1,720 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.15 ft above land-surface datum.

REMARKS.--Well is part of terrane-effects network. Water-level measured by personnel of N.C. Department of Environment, Health, and Natural Resources Sept. 1985 to Sept. 1989.

PERIOD OF RECORD.--October 1989 to current year.

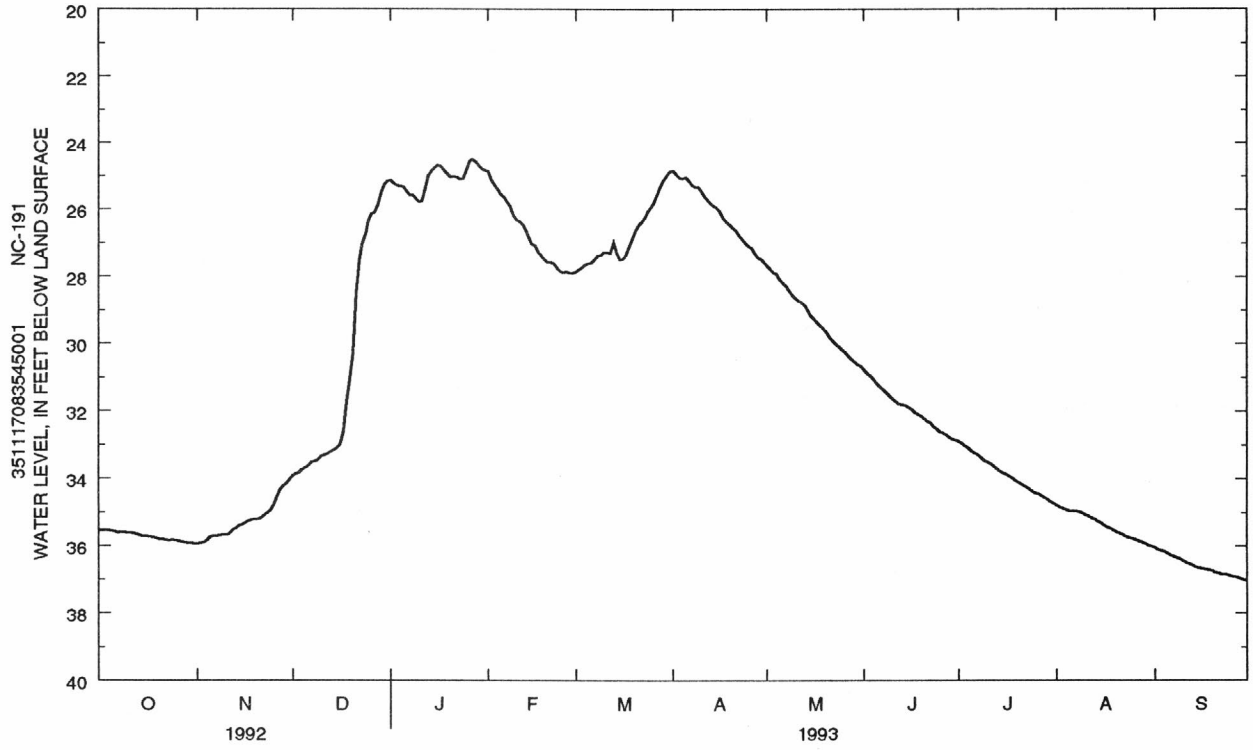
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.78 ft below land-surface datum, Feb. 17, 1990; lowest water level recorded, 37.05 ft below land-surface datum, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.54	35.95	33.93	25.15	24.88	27.86	24.86	27.68	30.79	32.90	34.78	36.04
2	35.55	35.93	33.86	25.23	25.12	27.80	24.96	27.77	30.89	32.96	34.83	36.09
3	35.55	35.91	33.84	25.29	25.28	27.74	25.06	27.88	30.96	33.02	34.87	36.13
4	35.55	35.85	33.76	25.31	25.41	27.65	25.08	27.93	31.05	33.09	34.91	36.16
5	35.56	35.75	33.69	25.33	25.56	27.62	25.04	28.08	31.17	33.17	34.95	36.21
6	35.58	35.72	33.64	25.47	25.64	27.60	25.15	28.18	31.28	33.24	34.96	36.26
7	35.61	35.71	33.53	25.58	25.78	27.50	25.27	28.26	31.36	33.30	34.96	36.31
8	35.60	35.70	33.50	25.58	25.93	27.39	25.33	28.41	31.44	33.37	34.97	36.34
9	35.60	35.68	33.47	25.68	26.18	27.37	25.33	28.54	31.55	33.46	35.02	36.38
10	35.62	35.67	33.36	25.78	26.32	27.30	25.45	28.64	31.64	33.51	35.06	36.43
11	35.62	35.65	33.32	25.77	26.37	27.30	25.62	28.73	31.72	33.56	35.11	36.49
12	35.64	35.55	33.27	25.42	26.45	27.31	25.72	28.78	31.78	33.62	35.16	36.53
13	35.66	35.49	33.22	25.01	26.65	27.01	25.82	28.85	31.80	33.70	35.20	36.58
14	35.69	35.41	33.16	24.87	26.87	27.31	25.90	29.00	31.82	33.78	35.25	36.62
15	35.71	35.37	33.10	24.76	27.04	27.50	25.96	29.16	31.88	33.83	35.31	36.65
16	35.71	35.34	32.99	24.69	27.09	27.49	26.07	29.28	31.95	33.87	35.37	36.66
17	35.73	35.28	32.62	24.73	27.27	27.34	26.26	29.38	32.03	33.93	35.42	36.69
18	35.75	35.24	31.73	24.85	27.38	27.11	26.38	29.47	32.10	33.99	35.46	36.70
19	35.77	35.22	31.07	24.95	27.51	26.87	26.46	29.54	32.16	34.05	35.52	36.73
20	35.80	35.21	30.28	25.05	27.57	26.63	26.55	29.66	32.23	34.11	35.57	36.77
21	35.82	35.18	28.49	25.03	27.57	26.48	26.63	29.80	32.30	34.17	35.61	36.80
22	35.83	35.10	27.54	25.05	27.62	26.38	26.77	29.92	32.35	34.23	35.66	36.83
23	35.84	35.03	27.07	25.11	27.76	26.25	26.90	30.01	32.45	34.29	35.71	36.83
24	35.83	34.94	26.74	25.08	27.86	26.07	27.00	30.09	32.54	34.36	35.76	36.86
25	35.84	34.80	26.36	24.83	27.89	25.93	27.11	30.19	32.60	34.42	35.78	36.89
26	35.87	34.56	26.16	24.57	27.87	25.79	27.16	30.27	32.65	34.44	35.81	36.91
27	35.89	34.35	26.09	24.51	27.90	25.56	27.31	30.38	32.71	34.50	35.85	36.94
28	35.90	34.22	25.89	24.59	27.90	25.34	27.45	30.48	32.79	34.56	35.88	36.97
29	35.92	34.14	25.53	24.68	---	25.15	27.49	30.56	32.84	34.62	35.92	37.00
30	35.93	34.03	25.28	24.82	---	25.02	27.56	30.63	32.86	34.67	35.97	37.03
31	35.94	---	25.16	24.83	---	24.88	---	30.69	---	34.73	36.00	---

WTR YR 1993 MEAN 31.14 HIGH 24.51 LOW 37.03


351117083545001 NC-191
WATER LEVEL, IN FEET BELOW LAND SURFACE
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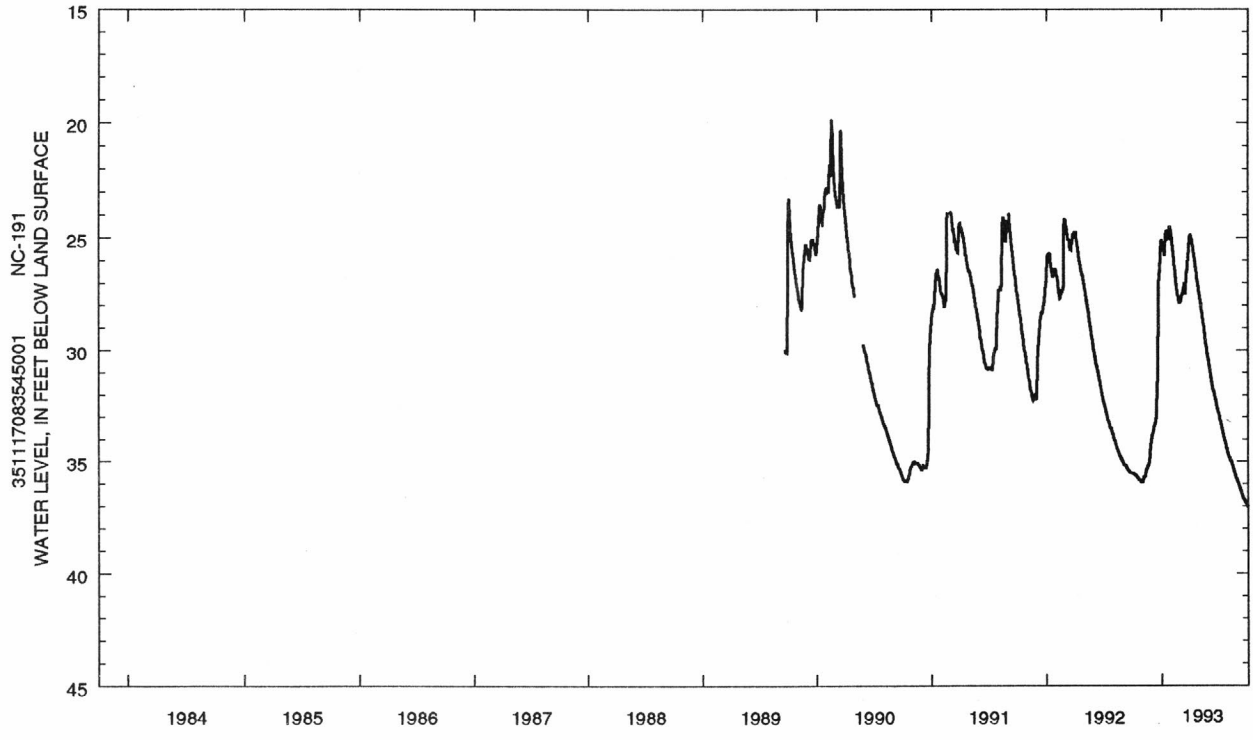
351117083545001 NC-191
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CHEROKEE COUNTY--Continued

351121083545002. Local number, NC-192.

LOCATION.--Lat 35°11'21", long 83°54'50", Hydrologic Unit 06020002, 0.7 mi north of Marble, 75 ft west of Secondary Road 1377, in Marble. Owner: Coats American Company.

AQUIFER.--Saprolite derived from schist of Precambrian age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 14 ft, screened interval from 14 to 24 ft, sand filter pack from 6 to 24 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 1,710 ft above sea level (from topographic map). Measuring point: Three saw cuts in top of casing, 3.35 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--October 1989 to current year.

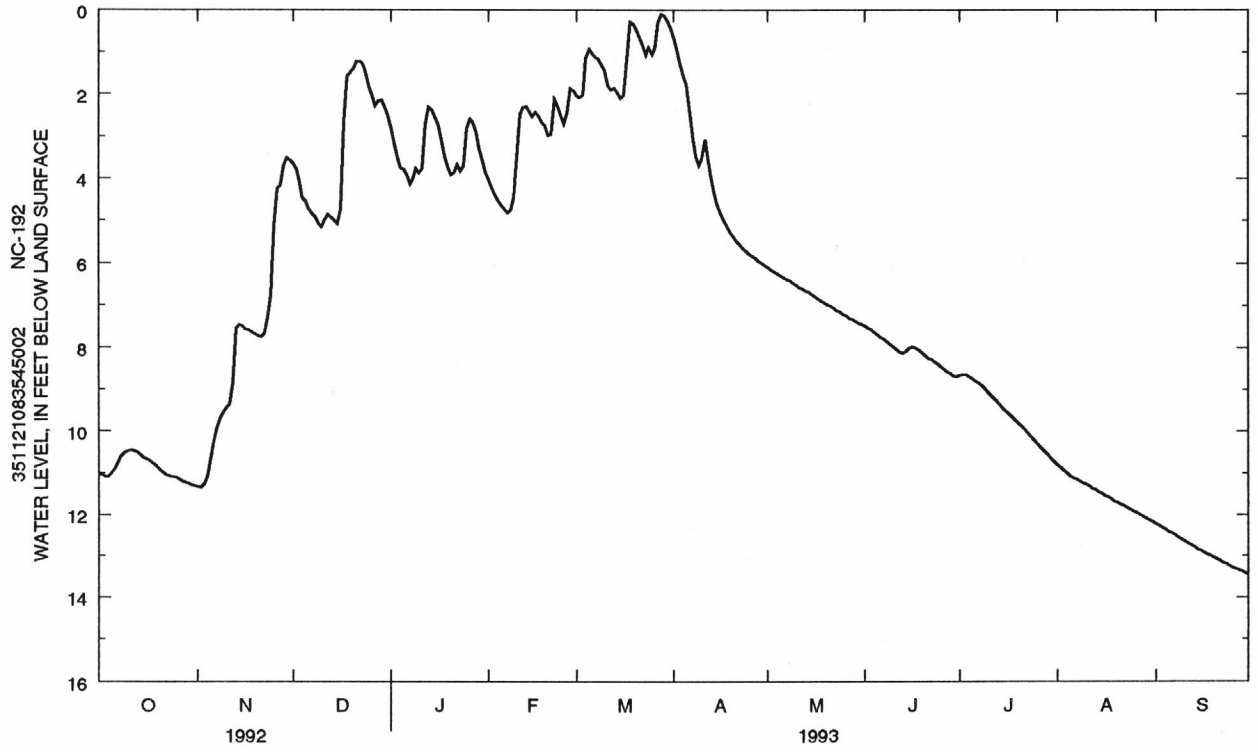
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.09 ft above land-surface datum, Mar. 28, 1993; lowest recorded, 13.47 ft below land-surface datum, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.02	11.34	3.66	2.80	4.04	2.04	.66	6.10	7.49	8.67	10.80	12.23
2	11.05	11.35	3.79	3.16	4.23	2.08	.94	6.15	7.54	8.66	10.87	12.27
3	11.09	11.28	4.05	3.50	4.40	2.03	1.28	6.20	7.58	8.66	10.94	12.32
4	11.10	11.09	4.48	3.76	4.54	1.16	1.56	6.25	7.63	8.70	11.01	12.36
5	11.01	10.66	4.56	3.79	4.65	.95	1.76	6.29	7.69	8.75	11.07	12.41
6	10.89	10.26	4.74	3.93	4.74	1.04	2.35	6.33	7.75	8.81	11.12	12.45
7	10.74	9.93	4.84	4.16	4.83	1.12	2.97	6.38	7.80	8.86	11.16	12.50
8	10.60	9.70	4.93	4.00	4.77	1.18	3.48	6.42	7.86	8.92	11.20	12.56
9	10.52	9.55	5.08	3.78	4.47	1.31	3.70	6.48	7.92	8.99	11.24	12.60
10	10.48	9.45	5.16	3.88	3.50	1.44	3.57	6.52	7.99	9.07	11.28	12.64
11	10.45	9.35	4.99	3.78	2.48	1.79	3.08	6.58	8.05	9.15	11.33	12.69
12	10.47	8.85	4.88	2.71	2.32	1.91	3.50	6.62	8.11	9.22	11.38	12.74
13	10.50	7.55	4.94	2.31	2.30	1.86	3.98	6.65	8.14	9.30	11.42	12.79
14	10.56	7.46	5.02	2.38	2.43	1.97	4.35	6.69	8.09	9.39	11.46	12.84
15	10.63	7.50	5.09	2.56	2.55	2.10	4.64	6.74	8.02	9.47	11.50	12.88
16	10.66	7.57	4.75	2.73	2.43	2.04	4.83	6.79	7.98	9.54	11.55	12.92
17	10.71	7.59	2.68	3.08	2.53	1.17	4.99	6.85	8.01	9.61	11.58	12.96
18	10.77	7.63	1.59	3.46	2.66	.29	5.14	6.89	8.06	9.69	11.63	13.00
19	10.84	7.68	1.50	3.73	2.75	.33	5.27	6.93	8.12	9.77	11.68	13.04
20	10.92	7.73	1.40	3.93	2.99	.48	5.38	6.97	8.20	9.84	11.72	13.08
21	10.98	7.75	1.23	3.89	2.96	.66	5.48	7.01	8.25	9.91	11.76	13.12
22	11.04	7.68	1.24	3.69	2.13	.85	5.57	7.06	8.29	10.00	11.80	13.16
23	11.07	7.30	1.28	3.84	2.28	1.08	5.65	7.11	8.34	10.08	11.84	13.19
24	11.09	6.76	1.54	3.71	2.52	.90	5.72	7.15	8.40	10.17	11.88	13.24
25	11.11	5.13	1.81	2.82	2.71	1.06	5.79	7.20	8.46	10.26	11.93	13.28
26	11.16	4.26	2.02	2.60	2.46	.92	5.84	7.24	8.51	10.34	11.97	13.31
27	11.20	4.18	2.28	2.67	1.87	.31	5.89	7.29	8.57	10.42	12.01	13.35
28	11.23	3.72	2.18	2.93	1.92	.10	5.95	7.33	8.63	10.49	12.05	13.38
29	11.26	3.52	2.15	3.28	---	.14	6.00	7.37	8.68	10.57	12.09	13.42
30	11.29	3.58	2.30	3.61	---	.26	6.05	7.42	8.70	10.65	12.14	13.46
31	11.32	---	2.52	3.85	---	.43	---	7.45	---	10.73	12.18	---

WTR YR 1993 MEAN 6.92 HIGH .10 LOW 13.46


351121083545002 NC-192
WATER LEVEL, IN FEET BELOW LAND SURFACE
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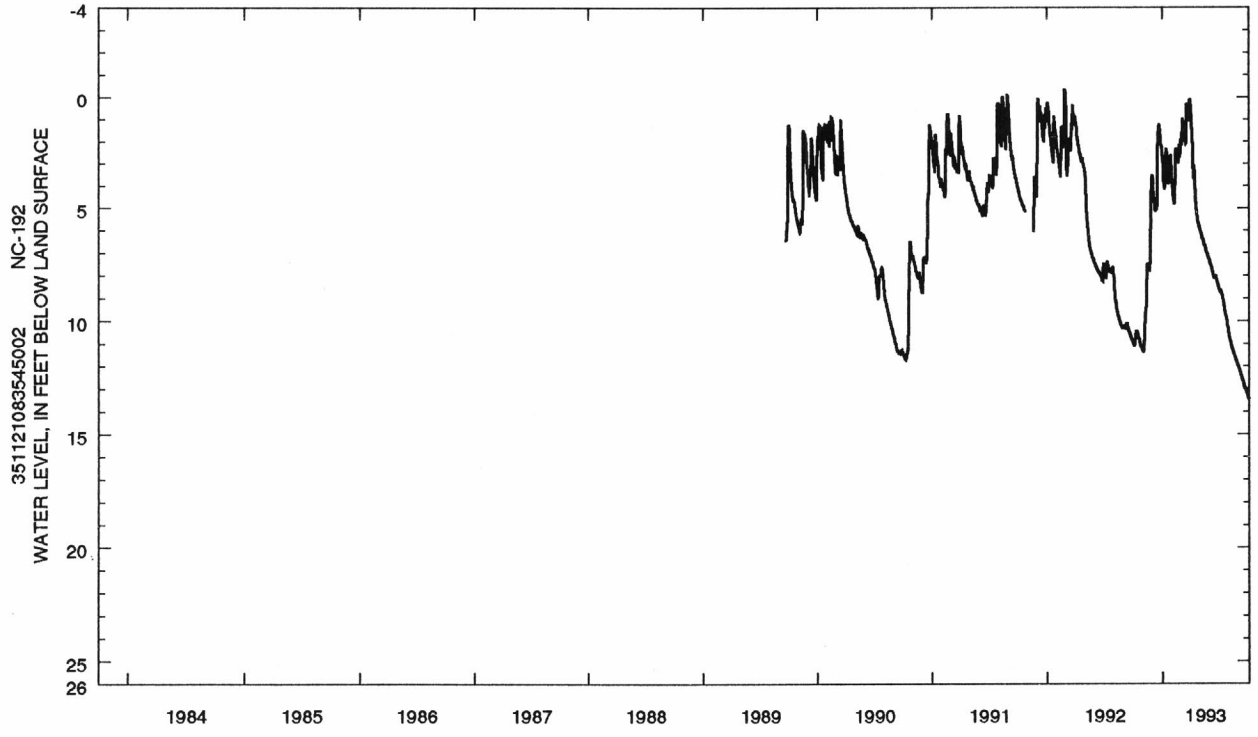
351121083545002 NC-192
WATER LEVEL, IN FEET BELOW LAND SURFACE
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COLUMBUS COUNTY

342508078360802. Local number, NC-179; DEHNR Carver Moore Research Station well AA39v2.

LOCATION.--Lat 34°25'08", long 78°36'08", Hydrologic Unit 03040206, 6.7 mi north of Hallsboro, east of Secondary Road 1001 at abandoned school on Secondary Road 1724. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 506 ft, diameter 4 in., cased to 496 ft, screened interval from 496 to 506 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 105.53 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.

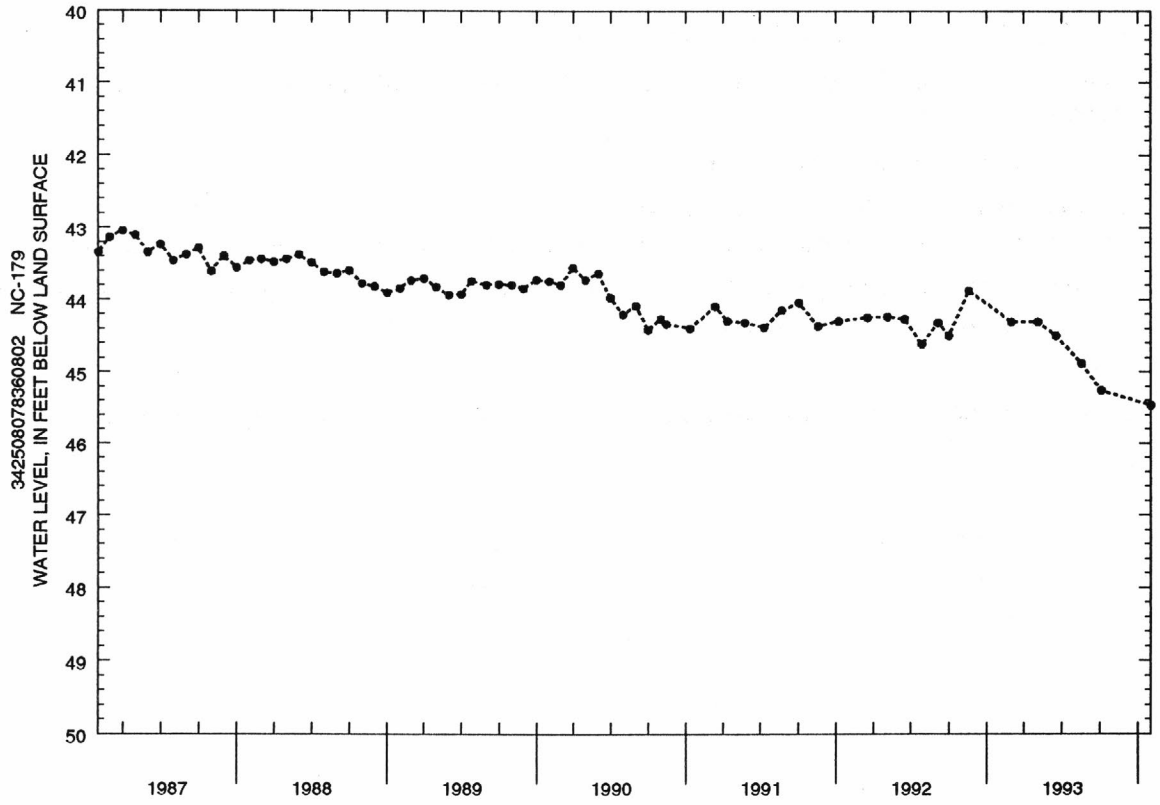
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--September 1975 to current year. Continuous record January 1987 to November 1990. Records from September 1975 to April 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.11 ft below land-surface datum, July 20, 1976; lowest water level recorded, 44.88 ft below land-surface datum, Aug. 17, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	44.50	MAR 2	44.31	MAY 5	44.31	JUN 17	44.50	AUG 17	44.88	NOV 19	43.88


340508078360802 NC-179
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1991
1992
1993

CRAVEN COUNTY

351049077175501. Local number, NC-44.

LOCATION.--Lat 35°10'49", long 77°17'55", Hydrologic Unit 03020202, 1.4 mi southeast of Cove City on Secondary Road 1005. Owner: City of New Bern.

AQUIFER.--Black Creek and upper Cape Fear aquifers of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 854 ft, diameter 2 in., cased to 705 ft, from 715 to 781 ft, and 786 to 828 ft; screened intervals from 705 to 715 ft, 781 to 786 ft, and 828 to 833 ft.

INSTRUMENTATION.--Beginning July 1988, measured every 8 weeks with chalked tape by USGS personnel.

DATUM.--Land-surface datum is 36.73 ft above sea level. Measuring point: Top of instrument shelf, 2.06 ft above land-surface datum.

REMARKS.--Water levels affected by pumping at nearby City of New Bern well field. Well is part of local-effects network.

PERIOD OF RECORD.--March 1965 to current year. Continuous record from March 1965 to June 1988.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.01 ft below land-surface datum, Aug. 25 and 26, 1965; lowest water level recorded, 140.66 ft below land-surface datum, Aug. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	132.03	JAN 27	132.53	MAR 16	134.33	APR 29	135.77	JUL 1	139.77	AUG 16	140.66
DEC 3	130.05										


351049077175501 NC-44
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1991
1992
1993

CRAVEN COUNTY--Continued

351019077184103. Local number, NC-167; DEHNR Cove City Research Station well R23x3.

LOCATION.--Lat 35°10'19", long 77°18'41", Hydrologic Unit 03020202, 0.6 mi east of Secondary Road 1001 on Secondary Road 1232, and 1 mi southeast of Cove City. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 1,000 ft, diameter 4 in., cased to 990 ft, screened interval from 990 to 1,000 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 46 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.24 ft above land-surface datum.

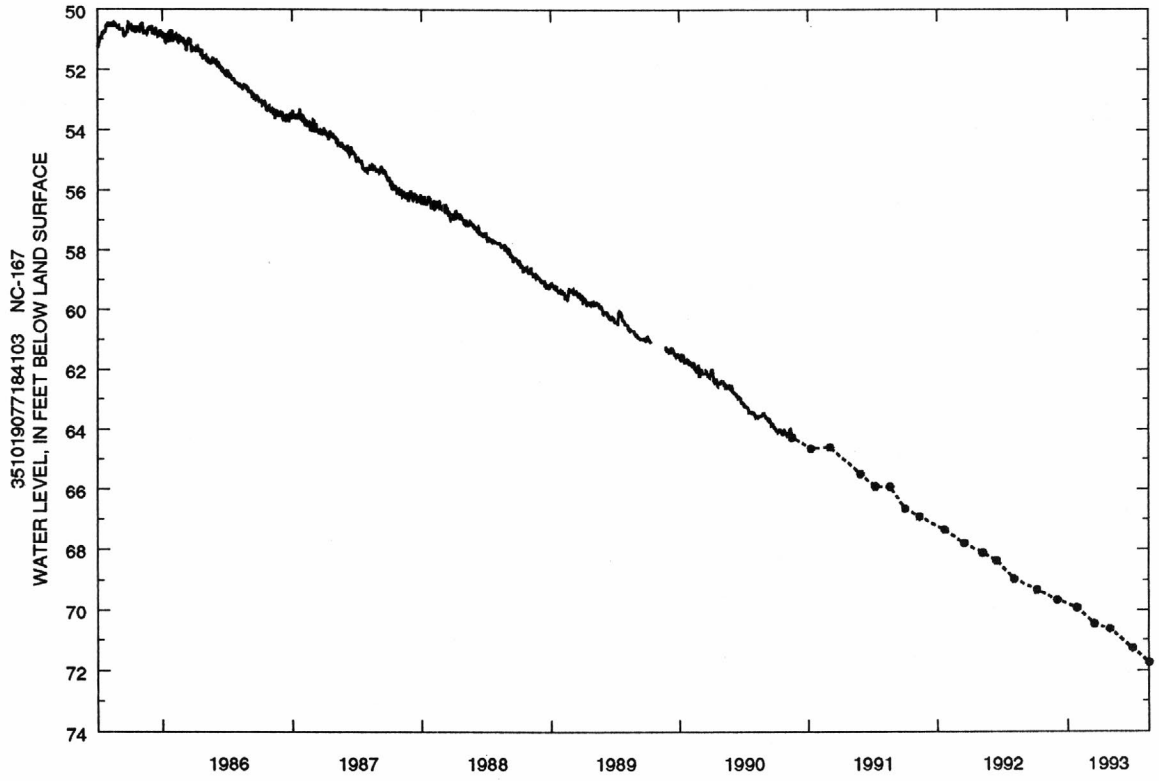
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--July 1985 to current year. Continuous record July 1985 to November 1990.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 50.29 ft below land-surface datum, Sept. 27, 1985; lowest water level recorded, 68.97 ft below land-surface datum, Aug. 4, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	66.64	JAN 21	67.35	MAR 17	67.79	MAY 7	68.11	JUN 15	68.36	AUG 4	68.97
NOV 12	66.91										


351019077184103 NC-167
WATER LEVEL, IN FEET BELOW LAND SURFACE
50
52
54
56
58
60
62
64
66
68
70
72
74
1986
1987
1988
1989
1990
1991
1992
1993

CRAVEN COUNTY--Continued

350816077101810. Local number, NC-170; DEHNR Clarks Research Station well S22j10.

LOCATION.--Lat 35°08'16", long 77°10'18", Hydrologic Unit 03020202, 0.8 mi southwest of Clarks, south of U.S. Highway 70 on Secondary Road 1225 at North Carolina Department of Transportation Rest Area. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Black Creek aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 730 ft, diameter 4 in., cased to 716 ft, screened interval from 716 to 726 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 28.64 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 1.70 ft above land-surface datum.

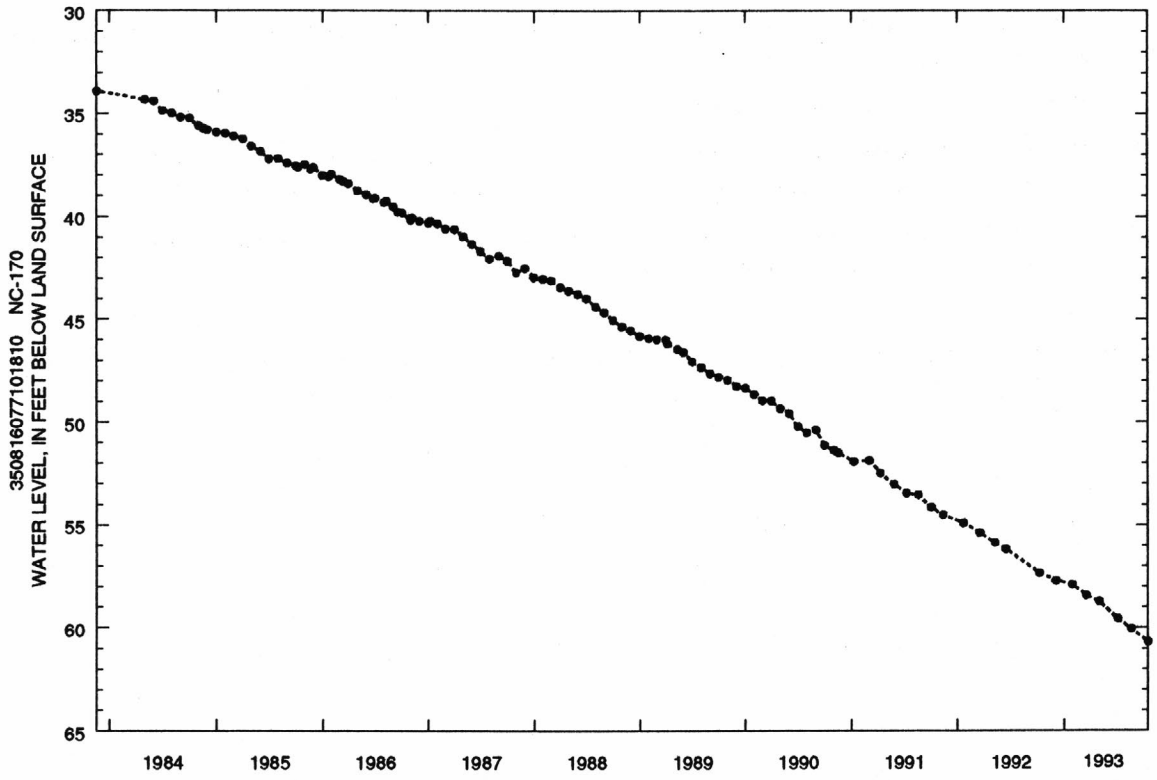
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--July 1979 to current year. Continuous record April 1984 to November 1990. Records July 1979 to November 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 25.14 ft below land-surface datum, July 18, 1979; lowest water level recorded, 60.05 ft below land-surface datum, Aug. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	57.33	JAN 27	57.89	MAR 16	58.42	APR 29	58.92	JUL 1	59.55	AUG 16	60.05
DEC 3	57.70										


350816077101810 NC-170
WATER LEVEL, IN FEET BELOW LAND SURFACE
30
35
40
45
50
55
60
65
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

CRAVEN COUNTY--Continued

345457076542701. Local number, Cr-382.

LOCATION.--Lat 34°54'57", long 76°54'27", Hydrologic Unit 03020204, 50 ft north of Slocum Road, 0.17 mi northeast of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corp Air Station, 2.3 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled public supply well, abandoned, diameter 6 in., cased to 275 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 15.6 ft above sea level. Measuring point: Floor of instrument shelter, 1.1 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, well 20.

PERIOD OF RECORD.--August 1986 to September 1992 (discontinued).

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

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.99	12.90	12.69	11.74	11.71	11.40	10.93	12.00	13.09	12.73	14.16	13.71
10	13.79	12.78	12.58	11.75	11.70	10.76	11.05	11.93	13.11	13.73	14.25	13.59
15	13.45	12.92	12.57	11.87	11.19	10.90	11.55	12.43	13.05	13.69	13.64	13.00
20	13.44	12.94	12.54	11.66	11.30	10.64	11.65	12.33	12.94	13.93	13.76	12.87
25	13.37	12.67	12.05	11.30	11.31	10.86	11.48	12.31	13.23	14.09	13.79	12.90
EOM	13.61	12.54	11.99	11.40	11.19	10.79	11.42	12.42	13.47	14.20	13.80	12.87

WTR YR 1987 MEAN 12.55 HIGH 10.54 MAR 19 LOW 14.45 JUL 23

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.08	13.72	13.36	13.20	13.33	13.24	13.05	12.36	12.30	12.28	13.74	12.88
10	13.89	13.86	13.73	13.30	13.17	13.04	11.90	12.38	13.22	13.15	13.75	12.83
15	13.51	13.56	14.01	13.11	12.30	13.22	11.87	12.83	13.11	13.99	13.12	12.33
20	13.00	13.58	14.11	12.86	13.01	13.13	12.44	12.98	12.90	14.54	13.56	12.22
25	13.08	13.92	13.65	12.75	13.18	13.02	12.07	13.10	13.26	13.60	13.43	12.15
EOM	13.22	12.86	13.38	12.89	12.75	13.10	12.32	12.19	13.03	13.95	12.81	12.41

WTR YR 1988 MEAN 13.11 HIGH 11.46 APR 13 LOW 14.66 JUL 21

CRAVEN COUNTY--Continued

345457076542701. Local number, Cr-382--Continued

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.44	12.33	13.25	13.12	12.64	12.18	12.63	11.99	13.08	---	---	12.91
10	12.38	12.55	13.22	13.17	12.65	11.97	12.01	11.65	12.93	---	---	13.13
15	12.63	12.57	12.98	12.25	12.48	11.98	11.81	11.81	12.98	---	---	13.85
20	12.50	12.64	12.95	12.35	12.33	11.95	11.80	11.80	13.56	---	13.96	13.58
25	12.43	12.62	11.87	12.98	12.35	11.82	11.80	12.74	---	---	13.81	13.30
EOM	12.48	13.17	12.39	12.65	12.21	11.74	11.86	12.85	---	13.47	13.29	13.06

WTR YR 1989 MEAN 12.59 HIGH 11.35 APR 27 LOW 14.24 AUG 18

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.86	13.20	13.47	13.10	12.86	12.73	12.56	12.53	13.57	15.33	---	15.17
10	12.49	13.29	12.90	12.65	12.62	13.00	12.10	12.72	13.74	---	---	14.98
15	12.73	13.41	12.20	12.45	12.94	13.21	12.27	12.94	13.90	---	---	14.80
20	12.96	13.27	12.57	12.66	13.11	13.29	12.66	12.38	14.45	---	---	14.72
25	12.97	13.47	12.56	13.03	12.32	13.11	12.72	12.85	14.62	---	15.50	14.81
EOM	12.60	13.82	12.70	13.03	12.75	13.04	12.48	13.44	15.13	---	15.23	14.71

WTR YR 1990 MEAN 13.29 HIGH 11.88 APR 11 LOW 15.63 JUL 3

CRAVEN COUNTY--Continued

345457076542701. Local number, Cr-382--Continued

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.03	14.38	---	13.22	---	---	12.88	13.38	13.94	14.41	---	---
10	14.98	14.21	13.85	13.08	---	---	13.08	13.74	14.13	14.78	---	---
15	15.16	14.50	13.94	12.85	---	12.89	12.86	13.71	14.63	14.54	---	---
20	15.23	14.47	13.97	---	---	13.06	13.53	13.50	14.39	14.97	---	---
25	14.51	14.36	13.41	---	---	12.82	13.38	13.46	14.20	14.95	---	---
EOM	14.82	14.36	13.16	---	---	12.92	13.27	14.02	14.29	---	---	---

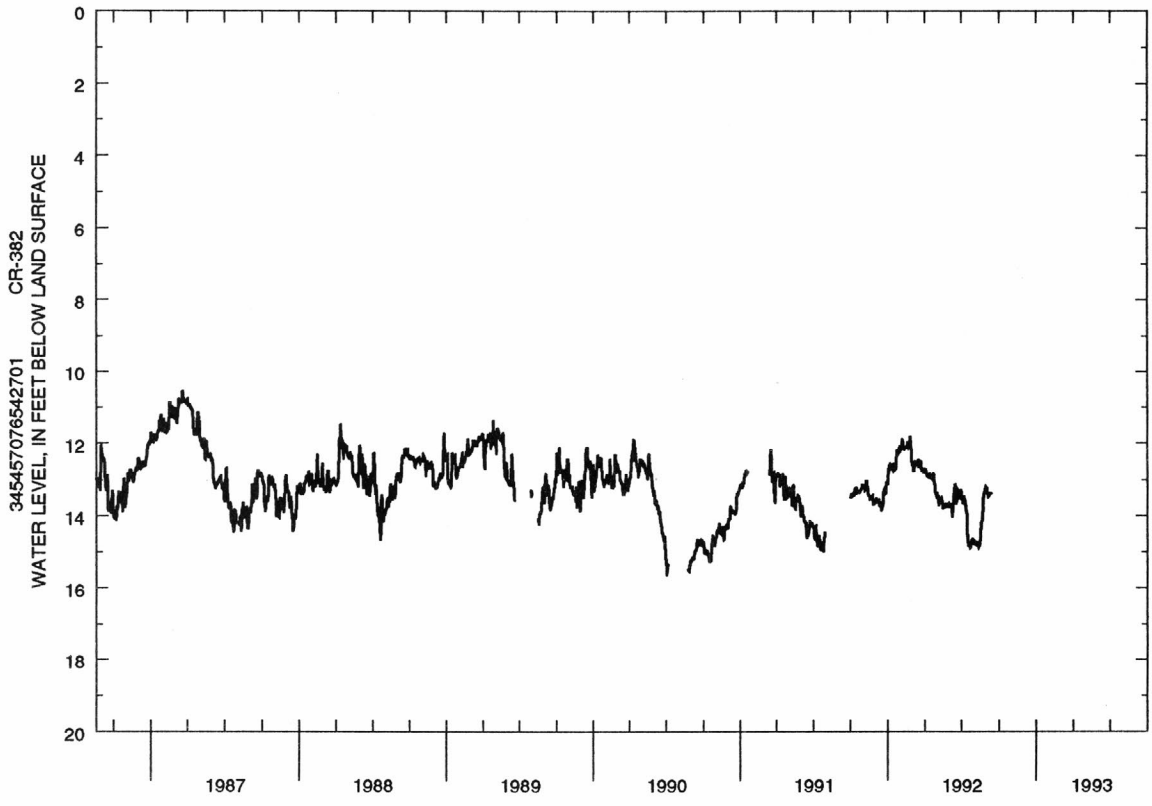
WTR YR 1991 MEAN 13.93 HIGH 12.17 MAR 18 LOW 15.28 OCT 17

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.45	13.28	13.65	12.63	12.02	12.77	12.80	13.54	13.69	13.64	14.76	13.47
10	13.36	13.04	13.58	12.59	12.14	12.53	12.93	13.56	13.77	13.67	14.74	13.38
15	13.34	13.44	13.71	12.61	12.14	12.52	12.95	13.71	13.11	14.37	14.85	---
20	13.29	13.51	13.75	12.71	12.04	12.51	12.84	13.70	13.38	14.81	14.18	---
25	13.34	13.55	13.42	12.25	11.94	12.78	13.06	13.70	13.54	14.74	13.41	---
EOM	13.15	13.63	13.11	12.06	12.41	12.69	13.44	13.68	13.37	14.73	13.29	---

WTR YR 1992 MEAN 13.30 HIGH 11.79 FEB 26 LOW 14.88 JUL 23


345457076542701 CR-382
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
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14
16
18
20
1987
1988
1989
1990
1991
1992
1993

CRAVEN COUNTY--Continued

345602076532403. Local number, Cr-550.

LOCATION.--Lat 34°56'02", long 76°53'24", Hydrologic Unit 03020204, 1,000 ft southeast of Roosevelt Boulevard, 1.9 mi northeast of intersection of Roosevelt Boulevard and Slocum Road on Cherrry Point U.S. Marine Corps Air Station, 3.8 mi north of Havelock. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled well, depth 480 ft, diameter 4 in.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 26.3 ft above sea level.

Measuring point: Floor of instrument shelter, 1.37 ft above land-surface datum.

REMARKS.--Well is part of the Cherry Point U.S. Marine Corps Air Station Hydrology Study, well Rs-3.

PERIOD OF RECORD.--October 1990 to December 1993 (discontinued).

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 4.20 ft above sea level, April 6, 1993; lowest water level recorded, 0.66 ft, above sea level, Sept. 3 and 4, 1993.

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.15	1.58	1.73	2.63	2.55	2.71	3.44	3.38	2.75	1.81	1.74	2.62
10	1.13	1.86	2.21	2.63	3.03	2.86	3.09	3.03	2.28	1.36	2.02	2.74
15	.91	1.53	2.19	2.79	2.65	2.69	3.45	2.99	1.90	1.63	2.08	2.69
20	.85	1.67	2.15	3.07	2.42	3.18	3.62	3.39	2.03	1.37	2.21	2.70
25	1.42	1.61	2.31	3.07	2.68	3.47	3.49	3.19	2.32	1.30	2.34	2.74
EOM	1.26	1.65	2.40	3.03	2.52	3.53	3.42	2.72	1.96	1.71	2.48	2.63

WTR YR 1991 MEAN 2.38 MAX 3.62 MIN .77

CRAVEN COUNTY--Continued

345602076532403. Local number, Cr-550--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.74	3.11	2.33	3.43	3.65	2.92	2.76	2.09	1.97	1.85	.88	1.51
10	2.83	3.58	2.30	3.40	3.66	2.98	2.58	1.95	1.84	1.13	.82	1.69
15	2.85	2.60	2.03	3.30	3.53	2.86	2.69	1.82	2.58	.68	.85	1.81
20	2.86	2.41	2.48	3.34	3.29	3.11	2.72	1.86	2.15	.86	1.31	1.59
25	2.84	2.37	2.77	3.28	3.38	2.92	2.48	1.79	2.02	.98	1.62	1.97
EOM	3.14	2.35	2.97	3.58	2.96	2.80	2.28	1.87	1.97	.91	1.73	2.05

WTR YR 1992 MEAN 2.37 MAX 4.06 MIN .60

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.30	2.00	2.32	3.05	2.92	3.06	3.70	2.77	2.14	1.87	1.27	.81
10	1.99	2.12	2.65	3.37	3.11	3.16	3.52	2.64	1.62	1.26	1.49	.97
15	1.85	2.18	2.79	3.44	3.05	2.63	3.27	2.64	1.70	.97	1.41	.86
20	1.96	2.28	2.67	3.12	3.02	3.05	3.17	2.57	1.35	1.43	1.28	1.31
25	2.00	2.31	2.90	2.96	3.00	3.05	2.82	2.27	1.19	1.75	1.08	1.26
EOM	1.94	2.50	2.75	2.88	3.06	3.18	3.00	2.28	1.48	1.49	1.00	1.14

WTR YR 1993 MEAN 2.28 MAX 4.12 MIN .68

CRAVEN COUNTY--Continued

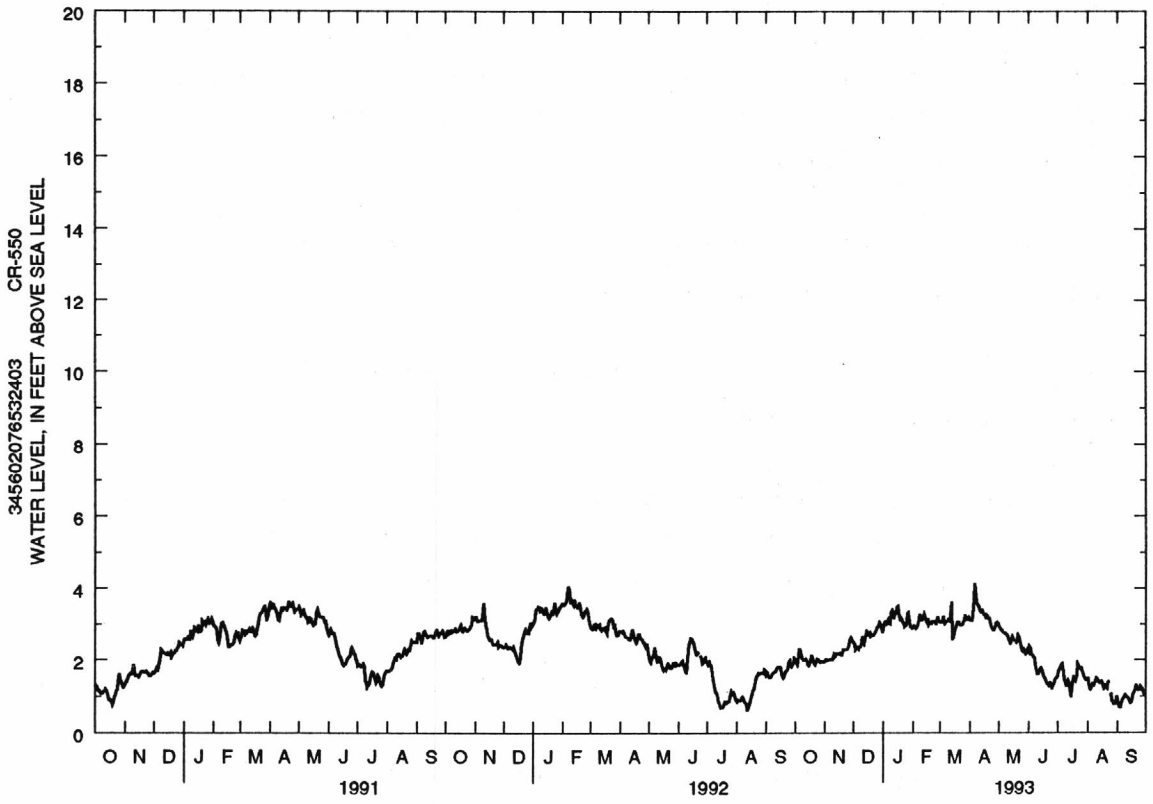
345602076532403. Local number, Cr-550--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.07	1.66	1.67	---	---	---	---	---	---	---	---	---
10	1.22	1.70	---	---	---	---	---	---	---	---	---	---
15	1.30	1.58	---	---	---	---	---	---	---	---	---	---
20	1.39	1.73	---	---	---	---	---	---	---	---	---	---
25	1.61	1.68	---	---	---	---	---	---	---	---	---	---
EOM	1.81	1.98	---	---	---	---	---	---	---	---	---	---

WTR YR 1994 MEAN 1.60 MAX 2.06 MIN 1.07


345602076532403 CR-550
WATER LEVEL, IN FEET ABOVE SEA LEVEL
20
18
16
14
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2
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O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1991
1992
1993

CRAVEN COUNTY--Continued

345602076532404. Local number, Cr-551.

LOCATION.--Lat 34°56'02", long 76° 53'24", Hydrologic Unit 03020204, 1,000 ft southeast of Roosevelt Boulevard, 1.9 mi northeast of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 3.8 mi north of Havelock. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Upper Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled well, depth 250 ft, diameter 6 in.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 26.3 ft above sea level. Measuring point: Floor of instrument shelter, 2.08 ft above land-surface datum.

REMARKS.--Well is part of the Cherry Point U.S. Marine Corps Air Station Hydrology Study, well RS-4.

PERIOD OF RECORD.--December 1990 to December 1993 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.17 ft above mean sea level, April 6, 1993; lowest water level recorded, 0.84 ft above mean sea level, Sept. 4, 1993.

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	2.77	2.68	2.86	3.58	3.53	2.91	1.95	1.91	2.77
10	---	---	2.36	2.78	3.17	2.99	3.25	3.18	2.43	1.51	2.18	2.89
15	---	---	2.33	2.93	2.77	2.83	3.58	3.15	2.05	1.80	2.24	2.85
20	---	---	2.31	3.21	2.55	3.32	3.74	3.55	2.19	1.51	2.37	2.87
25	---	---	2.47	3.23	2.81	3.62	3.63	3.34	2.47	1.46	2.52	2.89
EOM	---	---	2.56	3.17	2.65	3.68	3.58	2.87	2.10	1.86	2.64	2.77

WTR YR 1991 MEAN 2.75 MAX 3.74 MIN 1.41

CRAVEN COUNTY--Continued

345602076532404. Local number, Cr-551--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.88	3.20	2.40	3.64	3.85	3.11	2.94	2.28	2.13	1.99	1.02	1.66
10	2.97	3.66	2.51	3.60	3.86	3.17	2.75	2.12	2.03	1.29	.95	1.83
15	2.97	2.68	2.21	3.51	3.71	3.05	2.86	1.98	2.74	.83	.99	1.95
20	2.99	2.49	2.68	3.53	3.48	3.32	2.90	2.04	2.31	.99	1.47	1.73
25	2.95	2.44	2.95	3.49	3.59	3.09	2.66	1.97	2.16	1.12	1.76	2.10
EOM	3.24	2.41	3.18	3.77	3.15	2.98	2.44	2.04	2.12	1.04	1.87	2.20

WTR YR 1992 MEAN 2.52 MAX 4.23 MIN .74

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.46	2.16	2.48	3.21	3.10	3.06	3.73	2.76	2.33	2.05	1.46	1.00
10	2.13	2.29	2.82	3.54	3.10	3.15	3.51	2.63	1.80	1.46	1.67	1.15
15	1.98	2.34	2.96	3.61	3.05	2.65	3.26	2.64	1.87	1.15	1.60	1.06
20	2.10	2.46	2.84	3.31	3.01	3.04	3.16	2.76	1.54	1.62	1.45	1.50
25	2.13	2.49	3.08	3.17	3.01	3.06	2.81	2.44	1.36	1.93	1.26	1.46
EOM	2.12	2.67	2.87	3.05	3.05	3.18	3.00	2.46	1.67	1.68	1.20	1.34

WTR YR 1993 MEAN 2.40 MAX 4.09 MIN .87

CRAVEN COUNTY--Continued

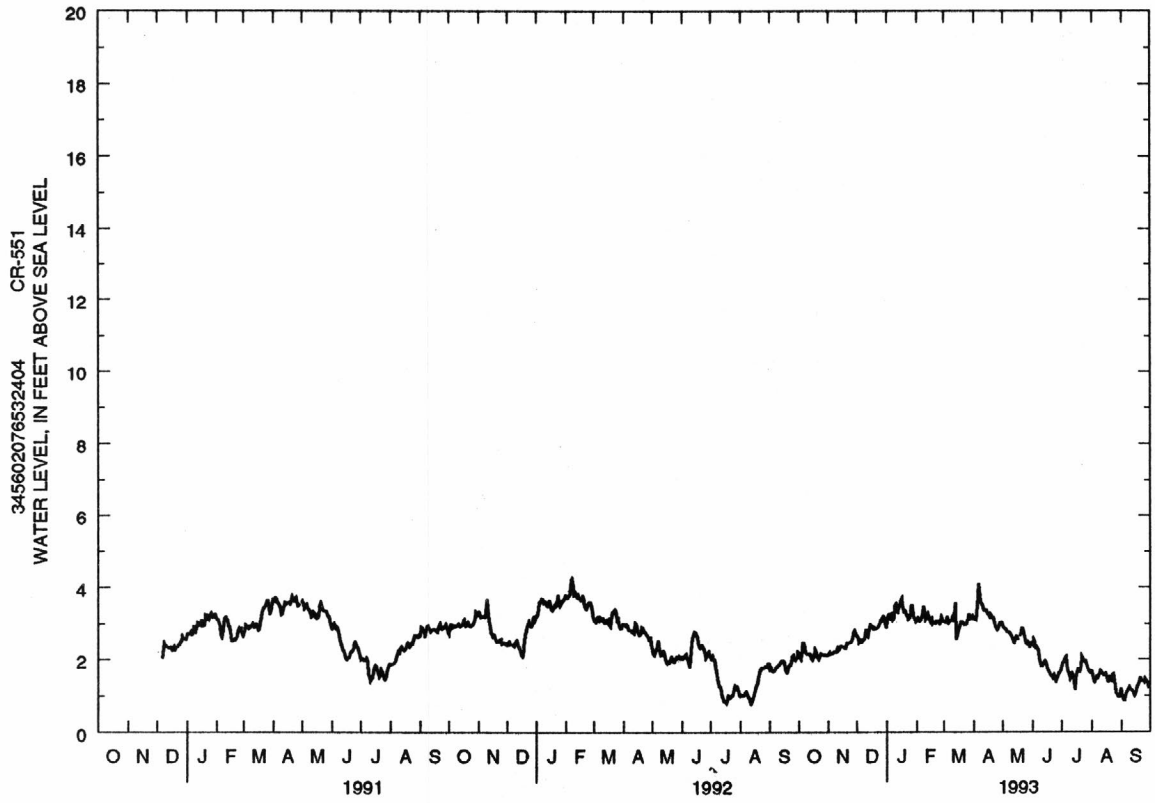
345602076532404. Local number, Cr-551--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.28	1.84	1.84	---	---	---	---	---	---	---	---	---
10	1.43	1.88	---	---	---	---	---	---	---	---	---	---
15	1.50	1.77	---	---	---	---	---	---	---	---	---	---
20	1.59	1.91	---	---	---	---	---	---	---	---	---	---
25	1.81	1.88	---	---	---	---	---	---	---	---	---	---
EOM	2.00	2.18	---	---	---	---	---	---	---	---	---	---

WTR YR 1994 MEAN 1.79 MAX 2.25 MIN 1.28


345602076532404 CR-551
WATER LEVEL, IN FEET ABOVE SEA LEVEL
20
18
16
14
12
10
8
6
4
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1991
1992
1993

CRAVEN COUNTY--Continued

345602076532405. Local number, Cr-552.

LOCATION.--Lat 34°56'02", long 76°53'24", Hydrologic Unit 03020204, 1,000 ft southeast of Roosevelt Boulevard, 1.9 mi northeast of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 3.8 mi north of Havelock. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Yorktown aquifer of Miocene and Pliocene age.

WELL CHARACTERISTICS.--Drilled well, depth 80 ft, diameter 6 in.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 26.1 ft above sea level. Measuring point: Floor of instrument shelter, 1.90 ft above land-surface datum.

REMARKS.--Well is part of the Cherry Point U.S. Marine Corps Air Station Hydrology Study, well RS-5

PERIOD OF RECORD.--August 1990 to December 1993 (discontinued).

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 9.69 ft above mean sea level, April 10, 1993; lowest water level recorded, 6.55 ft, above mean sea level, Sept. 15 and 16, 1993.

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.23	6.23	6.25	6.69	7.50	7.58	8.25	8.37	7.98	7.42	7.75	8.66
10	6.11	6.46	6.48	6.79	7.54	7.73	8.13	8.25	7.80	7.25	8.07	8.62
15	6.06	6.33	6.52	6.95	7.55	7.83	8.14	8.12	7.51	7.06	8.26	8.48
20	5.92	6.34	6.45	7.17	7.35	7.87	8.35	8.24	7.50	7.06	8.37	8.36
25	6.11	6.30	6.51	7.32	7.44	7.98	8.33	8.27	7.61	7.06	8.38	8.36
EOM	6.22	6.22	6.61	7.50	7.40	8.08	8.37	8.10	7.59	7.32	8.69	8.31

WTR YR 1991 MEAN 7.43 MAX 8.70 MIN 5.91

CRAVEN COUNTY--Continued

345602076532405. Local number, Cr-552--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.32	8.32	7.94	8.78	9.10	8.63	8.34	7.83	7.58	7.61	6.81	7.89
10	8.32	8.32	7.80	9.12	9.14	8.64	8.23	7.80	7.52	7.35	6.76	7.92
15	8.32	8.32	7.70	9.11	9.04	8.50	8.24	7.67	7.72	6.98	6.90	7.97
20	8.32	8.32	7.58	9.01	8.92	8.45	8.10	7.55	7.77	6.77	7.42	7.92
25	8.32	8.17	7.81	8.96	8.84	8.50	8.12	7.46	7.81	6.87	7.91	8.05
EOM	8.32	7.99	8.09	9.09	8.80	8.41	8.04	7.61	7.74	6.86	7.97	8.09

WTR YR 1992 MEAN 8.06 MAX 9.23 MIN 6.66

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.19	7.41	7.72	8.23	8.75	8.81	9.14	8.83	8.08	7.59	7.16	6.64
10	8.20	7.35	7.81	8.60	8.88	8.78	9.66	8.66	7.82	7.44	7.16	6.66
15	8.05	7.45	7.98	8.92	8.89	8.68	9.47	8.57	7.72	7.27	7.13	6.57
20	8.01	7.43	8.09	9.12	8.86	8.90	9.26	8.45	7.46	7.35	7.02	6.62
25	7.98	7.47	8.05	9.02	8.74	8.93	8.99	8.34	7.35	7.46	6.99	6.62
EOM	7.38	7.76	8.16	8.93	8.80	9.14	8.95	8.16	7.57	7.38	6.73	6.61

WTR YR 1993 MEAN 8.04 MAX 9.66 MIN 6.56

CRAVEN COUNTY--Continued

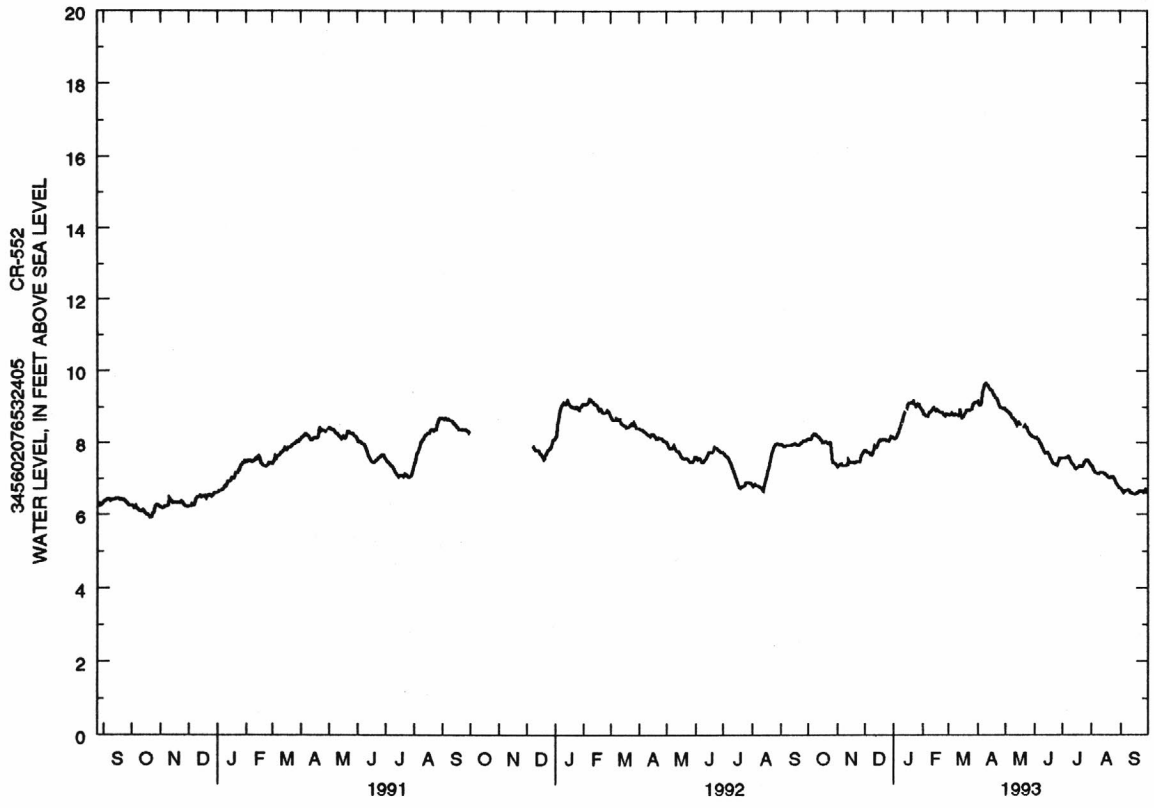
345602076532405. Local number, Cr-552--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.55	6.90	6.99	---	---	---	---	---	---	---	---	---
10	6.65	6.90	---	---	---	---	---	---	---	---	---	---
15	6.60	6.85	---	---	---	---	---	---	---	---	---	---
20	6.74	6.83	---	---	---	---	---	---	---	---	---	---
25	6.74	6.81	---	---	---	---	---	---	---	---	---	---
EOM	6.99	6.91	---	---	---	---	---	---	---	---	---	---

WTR YR 1994 MEAN 6.80 MAX 6.99 MIN 6.53


345602076532405 CR-552
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1991
1992
1993

CRAVEN COUNTY--Continued

345602076532406. Local number, Cr-553.

LOCATION.--Lat 34°56'02", long 76°53'24", Hydrologic Unit 03020204, 1,000 ft southeast of Roosevelt Boulevard, 1.9 mi northeast of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 3.8 mi north of Havelock. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Unconfined surficial sands of post-Miocene age.

WELL CHARACTERISTICS.--Bored monitoring well, depth 30 ft, diameter 6 in.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 26.1 ft above sea level. Measuring point: Floor of instrument shelter, 1.98 ft above land-surface datum.

REMARKS.--Well is part of the Cherry Point U.S. Marine Corps Air Station Hydrology Study, well RS-6.

PERIOD OF RECORD.--August 1990 to December 1993 (discontinued).

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 20.22 ft above mean sea level, April 10, 1993; lowest water level recorded, 14.90 ft, above mean sea level, Sept. 26 and 27, 1993.

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.83	13.88	---	14.25	16.17	16.61	17.18	17.36	16.72	16.79	18.50	18.56
10	13.72	14.16	14.35	14.52	16.23	16.75	17.08	17.10	16.60	16.55	18.66	18.47
15	13.58	14.21	14.28	14.87	16.16	16.97	16.91	16.97	16.38	16.30	18.82	18.14
20	13.47	14.16	14.23	15.36	16.03	16.95	17.11	17.21	16.64	16.27	18.94	17.99
25	14.15	14.03	14.35	15.73	16.12	16.82	17.32	17.28	17.02	16.76	18.75	17.91
EOM	13.94	14.03	14.34	16.02	16.02	17.21	17.39	17.00	16.97	17.45	19.08	17.79

WTR YR 1991 MEAN 16.23 MAX 19.43 MIN 13.44

CRAVEN COUNTY--Continued

345602076532406. Local number, Cr-553--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.02	17.84	17.60	19.66	19.09	18.51	17.97	17.12	17.17	16.99	16.22	17.56
10	18.71	18.00	17.58	19.48	18.73	18.69	17.78	17.04	17.37	16.73	16.03	17.50
15	18.38	17.94	17.42	19.50	18.64	18.19	17.63	16.89	17.27	16.39	16.86	17.22
20	18.55	17.74	17.27	19.18	18.66	18.06	17.49	16.75	17.31	16.31	18.28	17.00
25	18.25	17.64	17.20	19.06	18.71	17.96	17.54	16.63	17.79	16.44	18.37	---
EOM	18.07	17.53	17.99	19.46	18.84	18.19	17.29	17.05	17.18	16.27	17.84	---

WTR YR 1992 MEAN 17.76 MAX 19.67 MIN 15.88

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	16.12	17.49	18.15	18.57	19.08	19.16	18.45	17.21	---	---	15.45
10	---	15.96	17.59	19.24	19.06	18.70	20.15	18.11	17.24	---	---	15.39
15	---	16.62	18.08	19.30	19.01	19.10	19.47	18.32	16.66	---	---	15.18
20	---	16.59	17.97	19.47	18.84	19.42	19.17	18.15	---	---	---	15.07
25	---	16.47	17.81	19.36	18.52	19.45	18.70	18.02	---	---	15.82	14.93
EOM	16.21	17.64	18.08	18.95	18.77	19.58	18.92	17.69	---	---	15.57	15.03

WTR YR 1993 MEAN 17.88 MAX 20.17 MIN 14.91

CRAVEN COUNTY--Continued

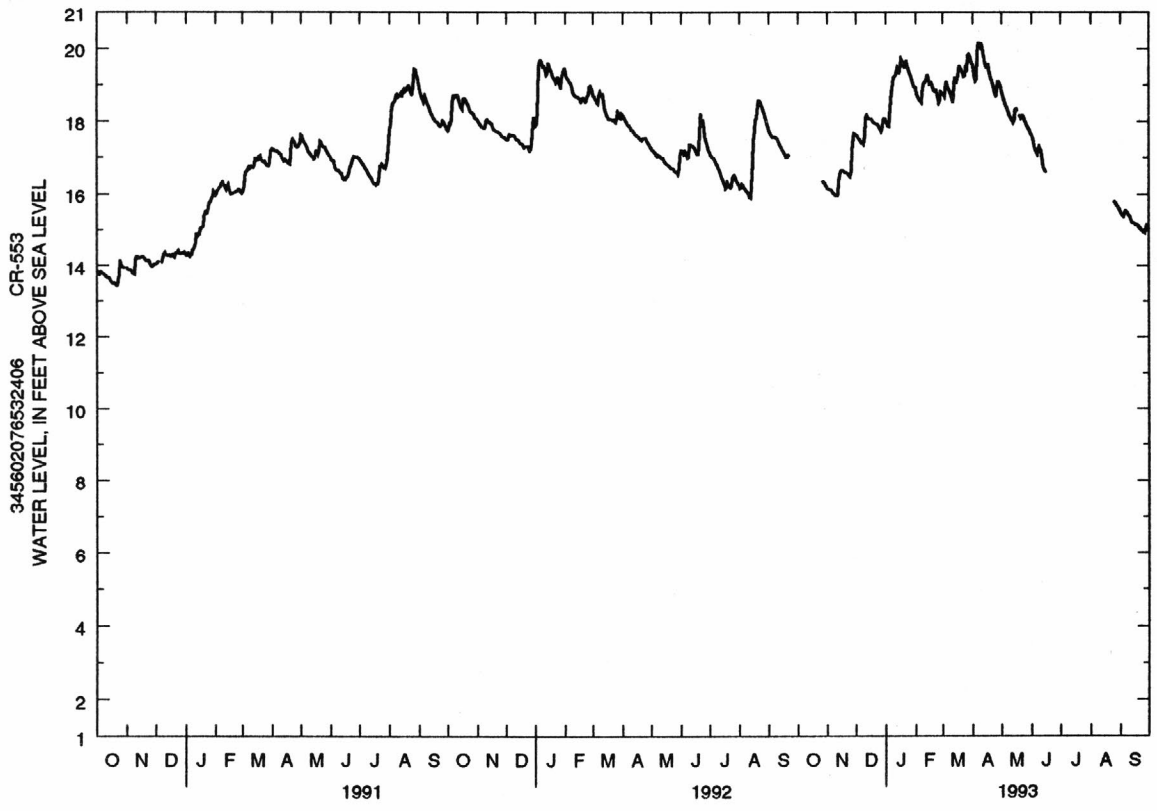
345602076532406. Local number, Cr-553--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.85	15.64	15.58	---	---	---	---	---	---	---	---	---
10	14.99	15.57	---	---	---	---	---	---	---	---	---	---
15	14.76	15.57	---	---	---	---	---	---	---	---	---	---
20	15.15	15.44	---	---	---	---	---	---	---	---	---	---
25	14.97	15.30	---	---	---	---	---	---	---	---	---	---
EOM	15.67	15.48	---	---	---	---	---	---	---	---	---	---

WTR YR 1994 MEAN 15.31 MAX 15.67 MIN 14.64


CR-553
345602076532406
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1991
1992
1993

CRAVEN COUNTY--Continued

345442076542503. Local number, Cr-591.

LOCATION.--Lat 34°54'42", long 76°54'25", Hydrologic Unit 03020204, 200 ft west of Roosevelt Boulevard, 0.33 mi southwest of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 2 mi north of Havelock. Owner: U.S. Marine Corp.

AQUIFER.--Unconfined surficial sands of post-Miocene age.

WELL CHARACTERISTICS.--Bored monitoring well, diameter 2 in., depth 38 ft, cased to 28 ft, screened from 28 to 38 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 23.5 ft above sea level. Measuring point: Floor of instrument shelter 1.77 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S1W3.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	9.48	9.01	8.73	9.61
10	---	---	---	---	---	---	---	---	9.40	8.95	9.02	9.64
15	---	---	---	---	---	---	---	9.40	9.30	8.90	9.35	9.60
20	---	---	---	---	---	---	---	9.37	9.20	8.82	9.39	9.57
25	---	---	---	---	---	---	---	9.41	9.10	8.81	9.43	9.50
EOM	---	---	---	---	---	---	---	9.50	9.09	8.74	9.54	9.39

WTR YR 1988 MEAN 9.25 MAX 9.64 MIN 8.72

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.31	8.93	8.57	8.45	8.52	8.73	9.47	10.13	9.60	9.26	---	9.06
10	9.21	8.84	8.59	8.47	8.49	8.84	9.53	10.06	9.56	9.15	---	8.95
15	9.10	8.78	8.53	8.48	8.47	8.95	9.86	9.97	9.44	9.04	---	8.91
20	9.06	8.73	8.48	8.52	8.51	8.98	10.23	9.89	9.39	9.07	9.28	8.94
25	9.00	8.69	8.50	8.53	8.62	9.24	10.28	9.78	9.40	9.03	9.28	8.92
EOM	8.94	8.64	8.47	8.51	8.66	9.46	10.27	9.66	9.31	---	9.16	9.17

WTR YR 1989 MEAN 9.09 MAX 10.31 MIN 8.44

CRAVEN COUNTY--Continued

345442076542503. Local number, Cr-591--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.45	9.30	8.88	9.67	9.61	9.41	9.97	9.62	9.20	8.72	---	8.15
10	9.51	9.24	9.20	9.75	9.58	9.39	10.03	9.52	9.10	8.64	---	8.12
15	9.52	9.16	9.44	9.72	9.49	9.35	10.03	9.40	9.02	8.58	---	8.09
20	9.51	9.06	9.52	9.74	9.45	9.33	9.88	9.31	8.95	8.53	---	8.02
25	9.41	8.98	9.49	9.74	9.38	9.29	9.76	9.24	8.86	8.48	8.25	7.94
EOM	9.39	8.95	9.58	9.64	9.41	9.69	9.68	9.25	8.78	8.41	8.20	7.93

WTR YR 1990 MEAN 9.20 MAX 10.09 MIN 7.93

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.91	7.87	7.88	7.88	8.64	8.82	9.01	9.04	8.75	8.90	9.46	10.40
10	7.88	7.96	7.89	7.92	8.74	8.86	9.05	9.02	8.66	8.81	9.61	10.32
15	7.85	7.91	7.88	8.02	8.75	8.94	9.01	8.96	8.60	8.73	9.68	10.17
20	7.79	7.93	7.88	8.29	8.76	8.94	9.07	8.91	8.67	8.71	9.73	10.02
25	7.84	7.90	7.87	8.42	8.78	8.90	8.98	8.89	8.87	8.87	9.81	9.94
EOM	7.88	7.87	7.90	8.61	8.71	8.96	9.02	8.81	8.93	9.05	10.42	9.82

WTR YR 1991 MEAN 8.73 MAX 10.42 MIN 7.79

CRAVEN COUNTY--Continued

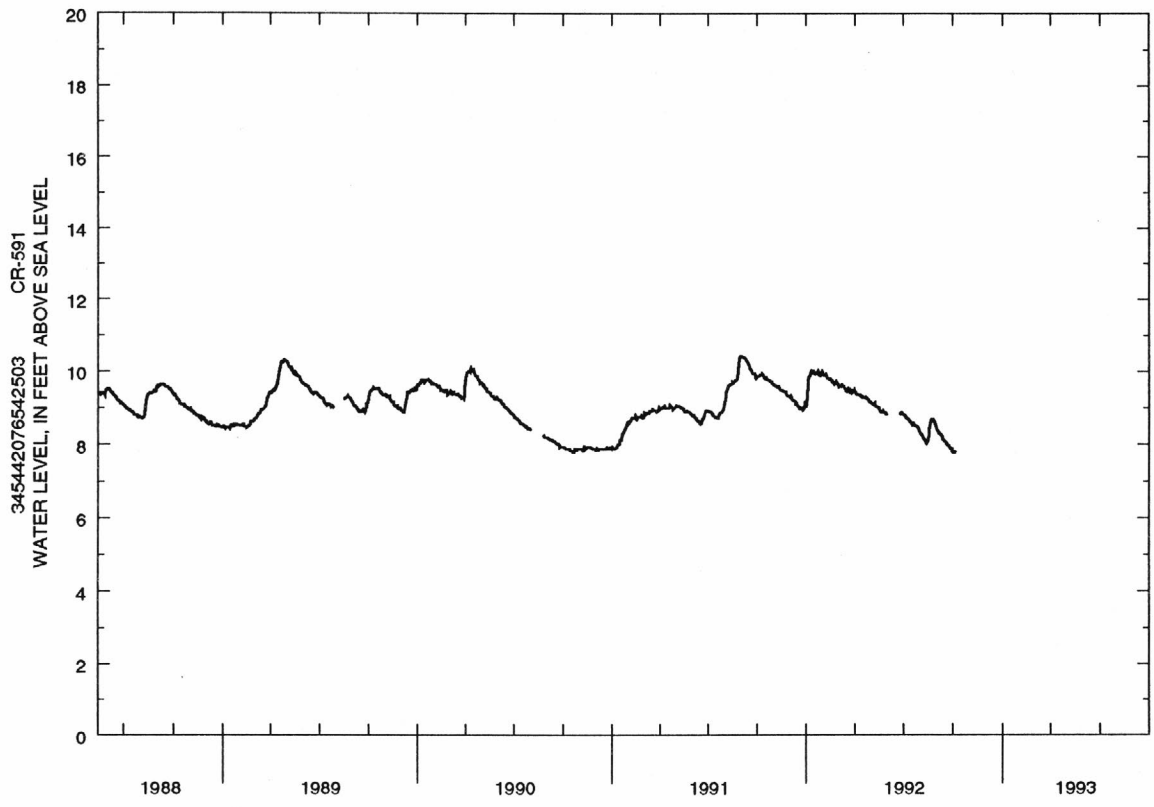
345442076542503. Local number, Cr-591--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.86	9.57	9.20	9.73	9.89	9.61	9.38	9.10	---	8.76	8.22	8.31
10	9.90	9.61	9.19	9.99	9.79	9.58	9.35	9.06	---	8.67	8.11	8.22
15	9.81	9.47	9.07	9.95	9.79	9.49	9.30	9.00	---	8.60	8.10	8.10
20	9.77	9.44	8.97	9.93	9.70	9.49	9.26	8.88	---	8.55	8.57	8.00
25	9.73	9.36	8.96	9.89	9.67	9.41	9.23	8.88	8.85	8.50	8.68	7.91
EOM	9.65	9.30	9.03	9.99	9.63	9.47	9.16	8.81	8.83	8.35	8.46	7.81

WTR YR 1992 MEAN 9.16 MAX 10.03 MIN 7.81


345442076542503 CR-591
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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1988
1989
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1991
1992
1993

CRAVEN COUNTY--Continued

345442076542504. Local number, Cr-592.

LOCATION.--Lat 34°54'42", long 76°54'25", Hydrologic Unit 03020204, 200 ft west of Roosevelt Boulevard and 0.33 mi southwest of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 2 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Yorktown aquifer of Miocene and Pliocene age.

WELL CHARACTERISTICS.--Drilled monitoring well, diameter 2 in., depth 88 ft, cased to 58 ft and from 68 to 78 ft, screened from 58 to 68 ft, and from 78 to 88 ft. Well has 8 in. protective casing seal installed to a depth of 40 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 23.3 ft above sea level. Measuring point: Floor of instrument shelter, 2.50 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S1W4.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	5.96	5.73	5.07	5.76
10	---	---	---	---	---	---	---	---	5.85	5.42	5.25	5.71
15	---	---	---	---	---	---	---	5.89	5.81	5.32	5.44	5.78
20	---	---	---	---	---	---	---	---	5.62	5.01	5.42	5.89
25	---	---	---	---	---	---	---	5.66	5.51	5.14	5.46	5.95
EOM	---	---	---	---	---	---	---	5.90	5.54	4.99	5.65	5.95

WTR YR 1988 MEAN 5.57 MAX 6.01 MIN 4.90

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.89	5.65	5.20	5.45	5.90	5.95	6.20	6.45	5.85	5.55	5.19	5.47
10	5.81	5.63	5.26	5.43	5.74	6.22	6.34	6.60	5.70	5.27	5.21	5.30
15	5.66	5.47	5.34	5.57	5.64	6.08	6.62	6.57	5.77	4.93	5.46	5.19
20	5.68	5.32	5.47	5.61	5.78	6.09	6.87	6.49	5.66	5.11	5.41	5.50
25	5.71	5.36	5.62	5.58	5.80	6.31	6.70	6.26	5.72	5.19	5.48	5.61
EOM	5.65	5.30	5.70	5.79	5.92	6.39	6.66	6.03	5.48	5.16	5.45	5.73

WTR YR 1989 MEAN 5.74 MAX 6.87 MIN 4.93

CRAVEN COUNTY--Continued

345442076542504. Local number, Cr-592--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.91	5.70	5.19	5.78	5.86	5.86	5.97	5.76	5.60	4.75	4.16	4.49
10	5.96	5.56	5.80	5.82	5.83	5.76	6.24	5.77	5.19	4.60	4.37	4.41
15	5.83	5.42	5.79	5.82	5.84	5.73	6.40	5.76	5.24	4.56	4.37	4.43
20	5.75	5.26	5.92	5.86	5.84	5.71	6.15	5.58	5.19	4.50	4.29	4.37
25	5.69	5.20	5.92	5.79	5.69	5.76	5.98	5.58	5.08	4.54	4.37	4.36
EOM	5.85	5.16	5.75	5.70	5.76	5.80	5.79	5.69	4.80	4.42	4.45	4.36

WTR YR 1990 MEAN 5.39 MAX 6.48 MIN 4.16

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.29	4.73	4.75	5.01	5.45	5.71	5.62	5.53	5.45	5.20	5.58	6.19
10	4.33	4.88	4.62	5.03	5.56	5.76	5.47	5.41	5.19	5.19	5.65	6.18
15	4.31	4.75	4.56	5.20	5.60	5.78	5.58	5.35	5.00	5.06	5.70	6.03
20	4.23	4.79	4.54	5.48	5.50	5.79	5.64	5.42	5.05	5.00	5.78	5.99
25	4.58	4.75	4.84	5.42	5.66	5.61	5.53	5.37	5.34	5.06	5.81	5.95
EOM	4.52	4.80	4.95	5.43	5.57	5.61	5.54	5.26	5.31	5.36	6.12	5.89

WTR YR 1991 MEAN 5.28 MAX 6.29 MIN 4.20

CRAVEN COUNTY--Continued

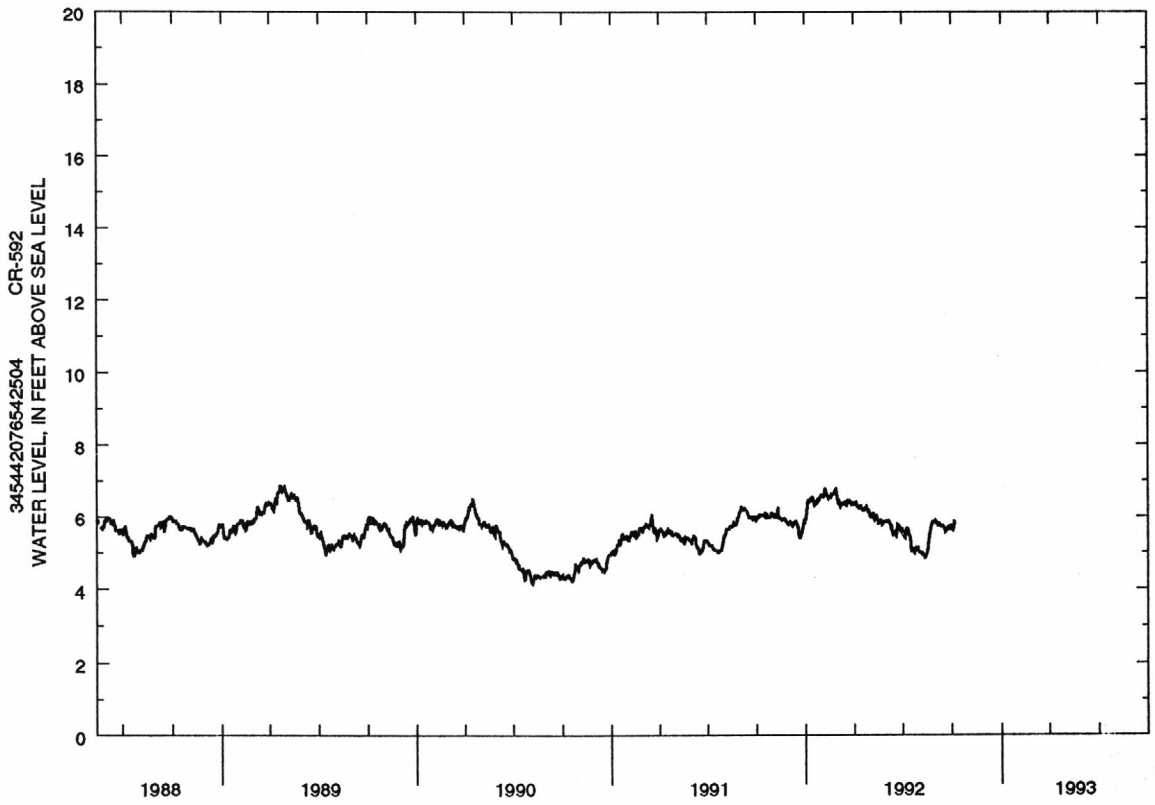
345442076542504. Local number, Cr-592--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.98	6.00	5.78	6.35	6.59	6.34	6.36	6.02	5.87	5.42	4.96	5.75
10	6.03	6.25	5.82	6.49	6.57	6.40	6.23	5.91	5.69	5.64	4.91	5.72
15	6.01	5.94	5.80	6.47	6.54	6.37	6.22	5.90	5.59	5.39	4.96	5.70
20	6.02	5.91	5.47	6.40	6.64	6.47	6.20	5.87	5.57	5.09	5.45	5.60
25	5.97	5.87	5.58	6.44	6.70	6.37	6.17	5.80	5.66	5.06	5.81	5.74
EOM	6.02	5.79	5.90	6.60	6.51	6.39	6.08	5.84	5.64	5.05	5.86	5.73

WTR YR 1992 MEAN 5.93 MAX 6.79 MIN 4.86


345442076542504 CR-592
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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1988
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CRAVEN COUNTY--Continued

345423076542501. Local number, Cr-596.

LOCATION.--Lat 34°54'23", long 76°54'25", Hydrologic Unit 03020204, 200 ft west of Roosevelt Boulevard, 0.57 mi south of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 1.7 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Yorktown aquifer of Miocene and Pliocene age.

WELL CHARACTERISTICS.--Drilled monitoring well, depth 95 ft, diameter 2 in., cased to 85 ft, screened from 85 to 95 ft. Well has 8 in. protective casing seal installed from land surface to a depth of 50 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 21.8 ft above sea level. Measuring point: Floor of instrument shelter, 2.15 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S2W1.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	5.82	5.80	4.98	5.60
10	---	---	---	---	---	---	---	---	5.75	5.38	5.15	5.65
15	---	---	---	---	---	---	---	---	5.73	5.30	5.42	5.83
20	---	---	---	---	---	---	---	---	5.55	4.84	5.23	5.89
25	---	---	---	---	---	---	---	5.54	5.49	5.12	5.30	5.91
EOM	---	---	---	---	---	---	---	5.76	5.44	4.80	5.59	5.75

WTR YR 1988 MEAN 5.48 MAX 5.99 MIN 4.65

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.74	5.58	5.16	5.48	6.07	5.98	6.20	6.47	5.84	5.43	5.14	5.27
10	5.70	5.57	5.15	5.45	5.85	6.28	6.39	6.66	5.59	5.20	5.16	5.20
15	5.53	5.27	5.34	5.58	5.64	6.12	6.73	6.64	5.66	4.78	5.43	5.10
20	5.59	5.15	5.54	5.64	5.81	6.07	6.98	6.57	5.52	4.98	5.37	5.40
25	5.61	5.24	5.65	5.64	5.83	6.37	6.77	6.33	5.70	5.14	5.41	5.51
EOM	5.57	5.22	5.74	5.97	5.96	6.46	6.69	6.07	5.40	5.11	5.35	5.66

WTR YR 1989 MEAN 5.72 MAX 6.98 MIN 4.78

CRAVEN COUNTY--Continued

345423076542501. Local number, Cr-596--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.81	5.56	5.10	5.74	5.88	5.88	6.00	5.70	5.49	4.75	4.22	4.57
10	5.86	5.40	5.65	5.80	5.88	5.82	6.27	5.72	5.11	4.58	4.36	4.48
15	5.69	5.23	5.64	5.86	5.92	5.76	6.41	5.74	5.20	4.58	4.41	4.45
20	5.64	5.10	5.83	5.84	5.94	5.75	6.14	5.54	5.21	4.53	4.31	4.40
25	5.61	5.09	5.89	5.72	5.68	5.71	5.98	5.54	5.08	4.48	4.47	4.39
EOM	5.66	5.04	5.75	5.61	5.76	5.75	5.78	5.61	4.79	4.42	4.49	4.39

WTR YR 1990 MEAN 5.36 MAX 6.50 MIN 4.22

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.33	4.71	4.66	---	---	---	5.55	5.47	5.52	5.24	5.73	6.34
10	4.40	4.86	4.54	---	---	---	5.40	5.31	5.23	5.27	5.72	6.34
15	4.37	4.75	4.44	---	---	5.80	5.51	5.27	4.96	5.17	5.77	6.16
20	4.32	4.80	---	---	---	5.80	5.57	5.35	5.12	5.07	5.84	6.12
25	4.62	4.73	---	---	---	5.57	5.48	5.33	5.42	5.17	5.91	6.10
EOM	4.58	4.77	---	---	---	5.54	5.45	5.21	5.31	5.52	6.27	5.97

WTR YR 1991 MEAN 5.29 MAX 6.44 MIN 4.28

CRAVEN COUNTY--Continued

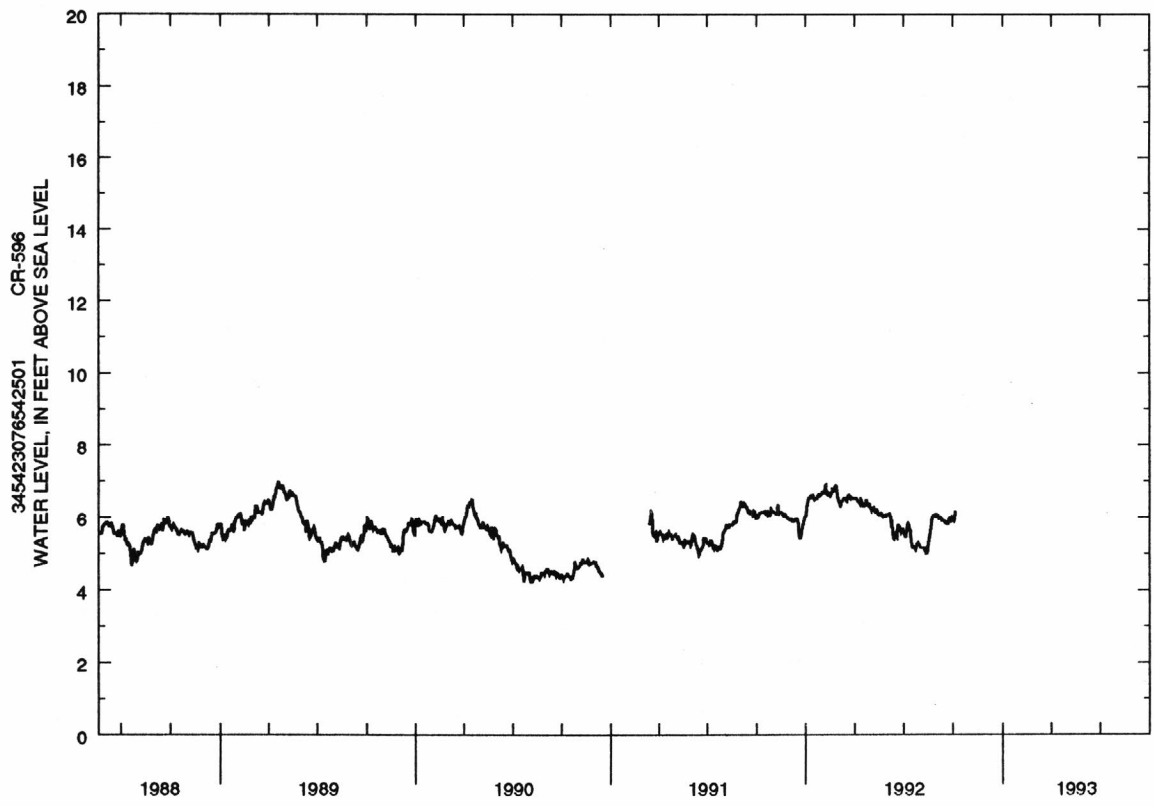
345423076542501. Local number, Cr-596--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.01	6.12	5.94	6.46	6.70	6.34	6.52	6.24	6.08	5.46	5.15	5.96
10	6.12	6.34	5.89	6.58	6.69	6.49	6.38	6.14	5.84	5.81	5.07	5.94
15	6.11	6.13	5.96	6.58	6.60	6.51	6.36	6.09	5.59	5.52	5.08	5.89
20	6.11	6.05	5.50	6.53	6.75	6.61	6.33	6.08	5.58	5.18	5.60	5.81
25	6.05	6.02	5.61	6.57	6.84	6.50	6.35	6.03	5.64	5.18	6.01	5.95
EOM	6.15	5.96	6.00	6.68	6.57	6.53	6.30	6.05	5.67	5.22	6.06	5.97

WTR YR 1992 MEAN 6.06 MAX 6.89 MIN 4.99


345423076542501 CR-596
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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CRAVEN COUNTY--Continued

345423076542502. Local number, Cr-597.

LOCATION.--Lat 34°54'23", long 76°54'25", Hydrologic Unit 03020204, 200 ft west of Roosevelt Boulevard, 0.57 mi southwest of intersection of Roosevelt Boulevard and Slocum Road on U.S. Marine Corps Air Station, 1.7 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Unconfined surficial sands of post-Miocene age.

WELL CHARACTERISTICS.--Bored monitoring well, depth 38 ft, diameter 2 in., cased to 28 ft, screened interval from 28 to 38 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 22.0 ft above sea level. Measuring point: Floor of instrument shelter, 1.95 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S2W2.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	12.98	12.37	11.96	13.40
10	---	---	---	---	---	---	---	---	12.84	12.29	12.52	13.43
15	---	---	---	---	---	---	---	---	12.68	12.13	12.95	13.29
20	---	---	---	---	---	---	---	---	12.56	12.00	12.84	13.17
25	---	---	---	---	---	---	---	12.89	12.49	12.08	12.92	13.01
EOM	---	---	---	---	---	---	---	13.09	12.47	11.99	13.12	12.88

WTR YR 1988 MEAN 12.70 MAX 13.43 MIN 11.95

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.79	12.23	11.85	11.64	11.80	12.12	13.05	13.72	12.96	12.50	12.60	12.53
10	12.74	12.08	11.81	11.61	11.77	12.35	13.07	13.61	12.94	12.39	12.55	12.42
15	12.54	11.99	11.76	11.71	11.69	12.49	13.92	13.49	12.83	12.24	12.82	12.32
20	12.45	11.95	11.74	11.85	11.74	12.48	14.45	13.49	12.70	12.43	12.94	12.37
25	12.37	11.97	11.72	11.87	11.93	12.95	14.11	13.30	12.76	12.44	12.87	12.37
EOM	12.30	11.94	11.65	11.87	12.02	13.22	13.91	13.09	12.58	12.30	12.72	12.90

WTR YR 1989 MEAN 12.52 MAX 14.60 MIN 11.61

CRAVEN COUNTY--Continued

345423076542502. Local number, Cr-597--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.33	12.93	12.44	13.68	13.27	13.14	---	---	---	---	---	11.88
10	13.38	12.86	13.02	13.81	13.27	13.12	---	---	---	---	---	11.79
15	13.31	12.76	13.32	13.71	13.11	12.98	---	---	---	---	---	11.75
20	13.12	12.69	13.33	13.55	13.09	---	---	---	---	---	---	11.64
25	12.98	12.56	13.32	13.43	13.07	---	---	---	---	---	11.95	11.55
EOM	12.96	12.48	13.41	13.27	13.12	---	---	---	---	---	11.90	11.48

WTR YR 1990 MEAN 12.88 MAX 13.84 MIN 11.48

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.40	11.53	11.46	11.62	12.84	13.00	13.24	13.21	12.91	13.18	14.65	14.97
10	11.34	11.54	11.59	11.66	12.89	13.14	13.15	13.06	12.79	13.00	14.75	14.66
15	11.29	11.63	11.59	11.86	12.88	13.12	13.00	12.96	12.64	12.86	14.43	14.36
20	11.23	11.64	11.55	12.21	12.77	13.07	13.02	12.87	12.86	12.89	14.58	14.11
25	11.38	11.54	11.65	12.45	12.71	12.96	13.03	12.89	13.42	13.28	14.66	13.97
EOM	11.57	11.44	11.65	12.74	12.68	13.14	13.00	12.84	13.42	13.60	15.62	13.81

WTR YR 1991 MEAN 12.81 MAX 16.14 MIN 11.21

CRAVEN COUNTY--Continued

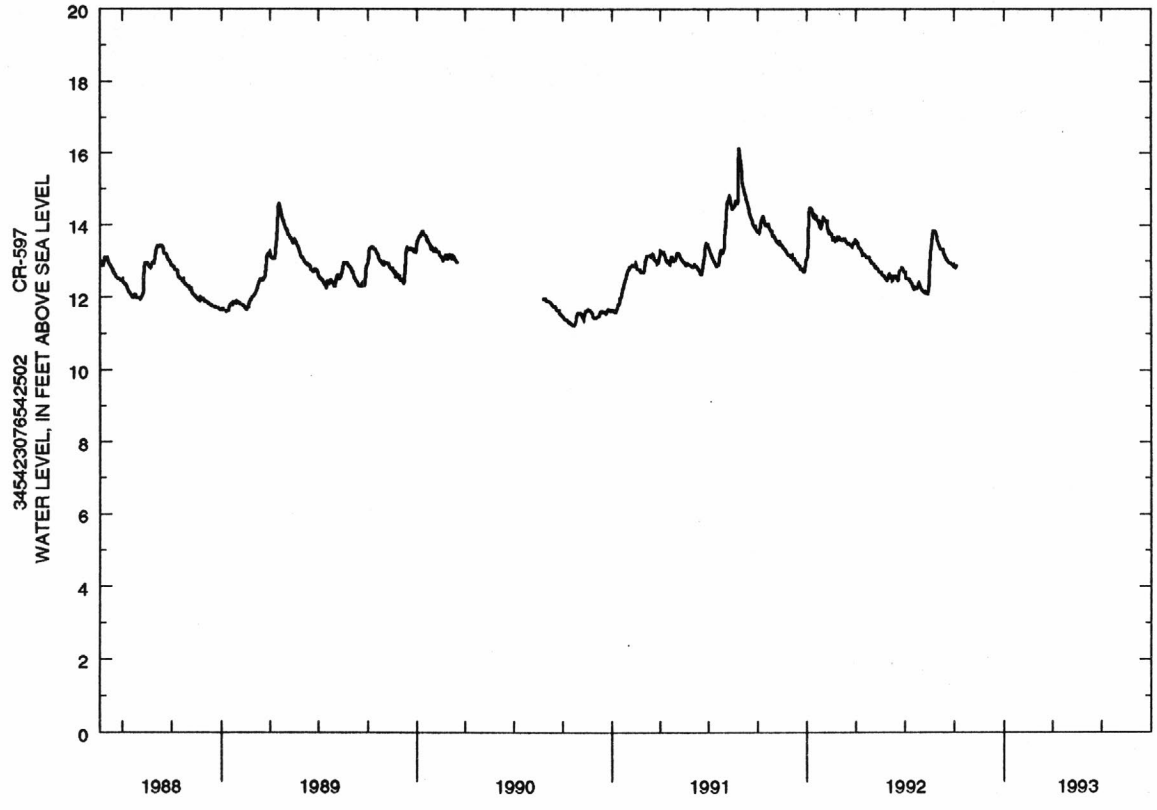
345423076542502. Local number, Cr-597--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.81	13.54	13.05	14.44	14.09	13.58	13.44	12.86	12.58	12.52	12.15	13.33
10	14.20	13.56	12.98	14.42	13.78	13.57	13.28	12.80	12.57	12.46	12.14	13.29
15	13.98	13.41	12.89	14.24	13.74	13.52	13.19	12.70	12.56	12.34	12.43	13.07
20	14.02	13.31	12.76	14.15	13.62	13.45	13.11	12.62	12.53	12.25	13.50	12.96
25	13.84	13.20	12.71	13.95	13.59	13.39	13.10	12.53	12.82	12.29	13.83	12.92
EOM	13.69	13.14	13.04	14.24	13.68	13.56	12.95	12.61	12.70	12.25	13.55	12.86

WTR YR 1992 MEAN 13.22 MAX 14.49 MIN 12.09


345423076542502 CR-597
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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1988
1989
1990
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1992
1993

CRAVEN COUNTY--Continued

345318076542001. Local number, Cr-599.

LOCATION.--Lat 34°53'18", long 76°54'20", Hydrologic Unit 03020204, 300 ft west of Roosevelt Boulevard, 1.76 mi south of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 0.5 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Yorktown aquifer of Miocene and Pliocene age.

WELL CHARACTERISTICS.--Drilled monitoring well, depth 90 ft, diameter 2 in., cased to 80 ft, screened interval from 80 to 90 ft. Well has 8 in. protective casing seal from land surface to 15 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 19.8 ft above sea level. Measuring point: Floor of instrument shelter, 2.54 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S3W1.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	4.22	3.99	3.84	4.30
10	---	---	---	---	---	---	---	---	4.10	3.91	3.94	4.39
15	---	---	---	---	---	---	---	---	4.05	3.84	4.06	4.37
20	---	---	---	---	---	---	---	4.24	4.02	3.83	3.97	4.37
25	---	---	---	---	---	---	---	4.10	3.98	3.83	4.10	4.33
EOM	---	---	---	---	---	---	---	4.20	3.97	3.84	4.23	4.38

WTR YR 1988 MEAN 4.08 MAX 4.39 MIN 3.83

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.31	4.19	3.78	3.98	4.32	4.37	4.54	4.83	4.31	4.07	4.05	4.10
10	4.35	4.11	3.88	4.10	4.15	4.70	4.62	4.81	4.14	3.97	4.14	4.01
15	4.17	3.96	3.91	4.19	4.05	4.62	4.96	4.83	4.13	3.73	4.31	3.91
20	4.15	3.93	3.95	4.13	4.24	4.54	5.11	4.80	4.03	3.89	4.28	4.11
25	4.17	3.97	4.01	4.19	4.21	4.78	5.00	4.63	4.21	4.05	4.19	4.21
EOM	4.17	3.88	4.02	4.23	4.32	4.68	4.95	4.49	4.06	4.02	4.09	4.40

WTR YR 1989 MEAN 4.26 MAX 5.12 MIN 3.72

CRAVEN COUNTY--Continued

345318076542001. Local number, Cr-599--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.37	4.40	3.82	4.33	4.41	4.35	4.65	4.26	4.14	3.74	3.55	---
10	---	4.23	4.41	4.35	4.36	4.41	4.64	4.16	3.94	3.65	3.59	---
15	---	4.13	4.33	4.31	4.31	4.28	4.66	4.18	4.00	3.51	3.53	---
20	4.33	3.95	4.45	4.42	4.42	4.32	4.59	4.01	3.96	3.51	3.59	---
25	4.32	3.92	4.52	4.33	4.13	4.31	4.33	4.19	3.85	3.52	---	---
EOM	4.43	3.92	4.38	4.27	4.20	4.60	4.30	4.23	3.77	3.65	---	---

WTR YR 1990 MEAN 4.16 MAX 4.71 MIN 3.38

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	3.74	4.05	4.19	4.22	4.34	4.18	4.19	4.51	4.87
10	---	---	3.60	3.79	4.10	4.26	4.01	4.20	4.09	4.15	4.52	4.90
15	---	---	3.57	3.90	4.06	4.39	4.07	4.08	3.93	4.11	4.53	4.76
20	---	---	3.51	4.04	3.98	4.34	4.30	4.27	4.12	4.06	4.58	4.67
25	---	---	3.64	4.02	4.17	4.16	4.18	4.18	4.36	4.06	4.62	4.69
EOM	---	---	3.70	4.04	4.06	4.12	4.28	4.05	4.30	4.32	4.83	4.60

WTR YR 1991 MEAN 4.19 MAX 4.94 MIN 3.48

CRAVEN COUNTY--Continued

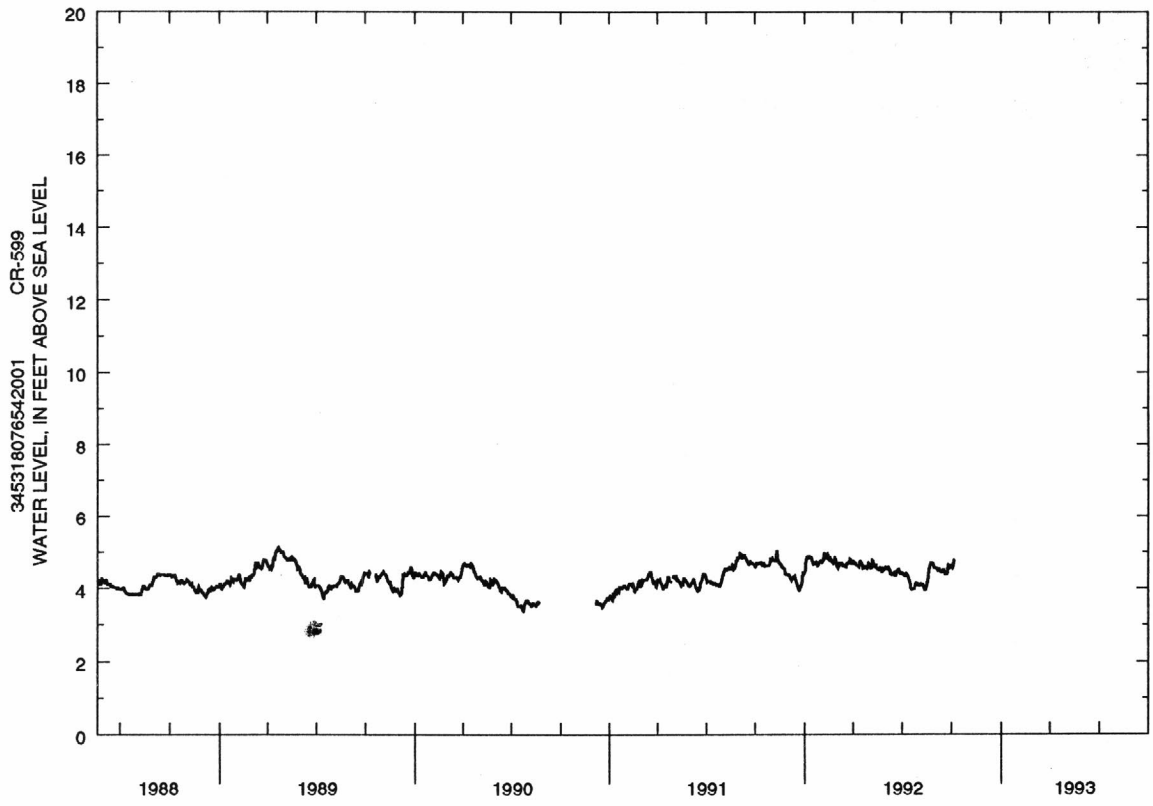
345318076542001. Local number, Cr-599--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.66	4.76	4.27	4.84	4.76	4.64	4.71	4.55	4.57	4.36	4.07	4.46
10	4.71	5.03	4.29	4.88	4.89	4.72	4.61	4.61	4.43	4.37	4.04	4.44
15	4.62	4.69	4.27	4.79	4.83	4.61	4.70	4.55	4.41	4.16	4.03	4.50
20	4.62	4.58	3.97	4.73	4.74	4.67	4.57	4.55	4.40	3.98	4.48	4.37
25	4.63	4.43	4.05	4.63	4.77	4.71	4.55	4.45	4.47	4.04	4.70	4.60
EOM	4.76	4.36	4.41	4.74	4.65	4.72	4.66	4.57	4.42	4.11	4.56	4.63

WTR YR 1992 MEAN 4.53 MAX 5.03 MIN 3.94


345318076542001 CR-599
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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CRAVEN COUNTY--Continued

345318076542002. Local number, Cr-600.

LOCATION.--Lat 34°53'18", long 76°54'20", Hydrologic Unit 03020204, 300 ft west of Roosevelt Boulevard, 1.76 mi south of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 0.5 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Unconfined surficial sands of post-Miocene age.

WELL CHARACTERISTICS.--Bored monitoring well, depth 48 ft, diameter 2 in., cased to 38 ft, screened interval from 38 to 48 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 19.9 ft above sea level. Measuring point: Floor of instrument shelter, 2.61 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S3W2.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	3.81	3.38	3.21	3.70
10	---	---	---	---	---	---	---	---	3.72	3.33	3.34	3.80
15	---	---	---	---	---	---	---	---	3.63	3.21	3.55	3.76
20	---	---	---	---	---	---	---	3.66	3.54	3.17	3.40	3.75
25	---	---	---	---	---	---	---	3.61	3.43	3.17	3.53	3.69
EOM	---	---	---	---	---	---	---	3.75	3.38	3.16	3.60	3.79

WTR YR 1988 MEAN 3.52 MAX 3.81 MIN 3.15

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.71	3.55	3.17	3.13	3.31	3.52	3.68	3.91	3.47	3.46	3.48	3.67
10	3.76	3.41	3.16	3.32	3.32	3.84	3.70	3.80	3.41	3.44	3.57	3.69
15	3.59	3.40	3.19	3.38	3.28	3.83	3.96	3.78	3.41	3.44	3.62	3.71
20	3.51	3.39	3.15	3.31	3.43	3.78	4.15	3.80	3.39	3.44	3.66	3.72
25	3.52	3.41	3.18	3.37	3.43	3.92	4.12	3.64	3.44	3.46	3.64	3.72
EOM	3.55	3.25	3.18	3.30	3.46	3.80	4.03	3.57	3.44	3.48	3.58	3.89

WTR YR 1989 MEAN 3.54 MAX 4.17 MIN 3.13

CRAVEN COUNTY--Continued

345318076542002. Local number, Cr-600--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.91	3.76	3.16	3.63	3.50	3.58	3.87	3.56	3.46	3.15	3.07	3.38
10	---	3.65	3.55	3.65	3.51	3.63	3.86	3.44	3.30	3.10	3.07	3.37
15	---	3.61	3.59	3.57	3.46	3.51	3.85	3.44	3.36	2.98	3.01	3.33
20	3.70	3.38	3.59	3.59	3.54	3.48	3.83	3.30	3.33	2.96	3.08	3.24
25	3.64	3.33	3.64	3.52	3.36	3.51	3.59	3.48	3.25	2.99	3.29	3.18
EOM	3.72	3.29	3.54	3.48	3.44	3.81	3.56	3.56	3.20	3.14	3.31	3.11

WTR YR 1990 MEAN 3.45 MAX 3.92 MIN 2.89

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.06	3.30	3.09	3.26	3.51	3.41	3.61	3.69	3.48	3.53	3.87	4.17
10	3.04	3.38	3.19	3.32	3.53	3.54	3.34	3.58	3.50	3.49	3.92	4.20
15	3.08	3.30	3.21	3.38	3.35	3.60	3.39	3.43	3.33	3.49	3.91	4.07
20	3.04	3.24	3.16	3.46	3.25	3.61	3.57	3.63	3.44	3.44	3.92	3.93
25	3.18	3.22	3.16	3.47	3.41	3.49	3.55	3.55	3.72	3.42	3.94	3.94
EOM	3.30	3.15	3.20	3.57	3.31	3.51	3.61	3.38	3.68	3.60	4.15	3.84

WTR YR 1991 MEAN 3.49 MAX 4.22 MIN 3.03

CRAVEN COUNTY--Continued

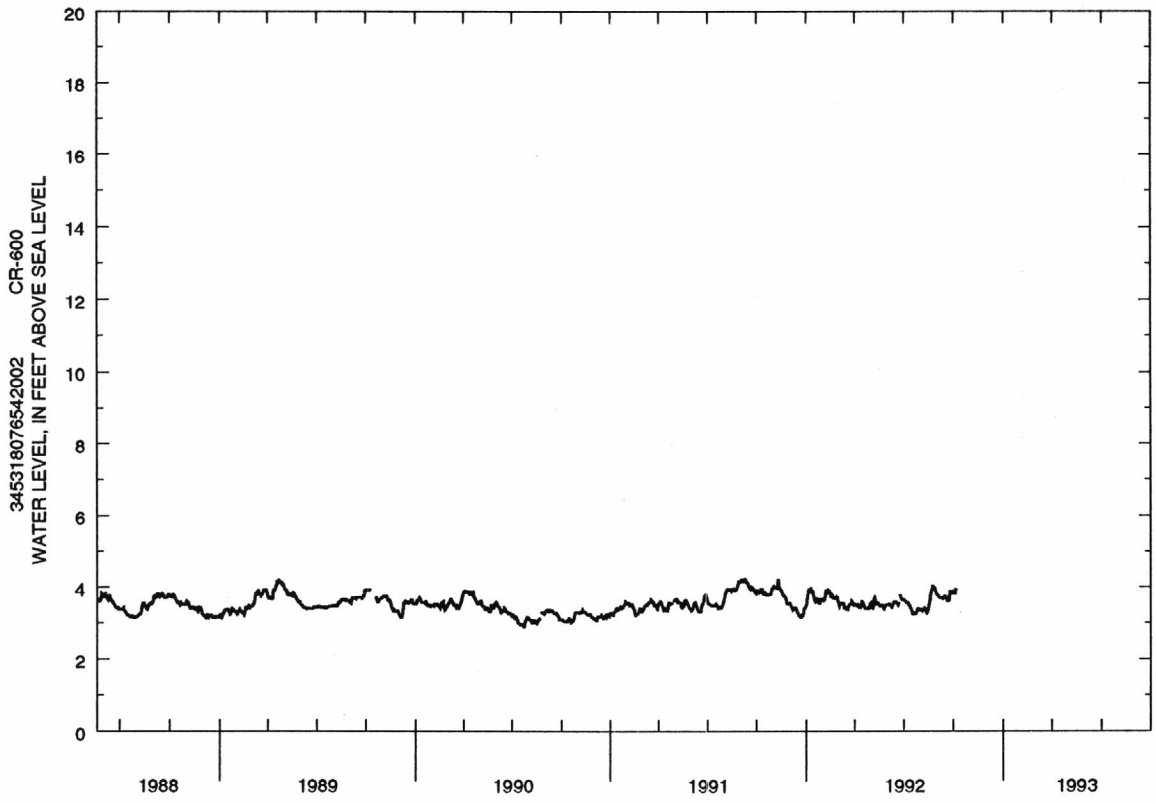
345318076542002. Local number, Cr-600--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.86	3.98	3.43	3.85	3.67	3.54	3.51	3.44	3.54	3.60	3.35	3.70
10	3.95	4.21	3.43	3.95	3.86	3.57	3.45	3.56	3.46	3.52	3.36	3.69
15	3.81	3.92	3.34	3.80	3.82	3.40	3.58	3.52	3.59	3.35	3.39	3.76
20	3.79	3.78	3.20	3.66	3.72	3.45	3.41	3.51	3.51	3.25	3.80	3.61
25	3.79	3.60	3.20	3.56	3.72	3.55	3.38	3.40	3.74	3.31	4.01	3.84
EOM	3.95	3.54	3.46	3.67	3.63	3.54	3.56	3.52	3.67	3.40	3.82	3.87

WTR YR 1992 MEAN 3.61 MAX 4.21 MIN 3.17


345318076542002 CR-600
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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CRAVEN COUNTY--Continued

345419076543601. Local number, Cr-602.

LOCATION.--Lat 34°54'19", long 76°54'36", Hydrologic Unit 03020204, 1,200 ft west of Roosevelt Boulevard, 0.68 mi southwest of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 1.6 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Yorktown aquifer of Miocene and Pliocene age.

WELL CHARACTERISTICS.--Drilled monitoring well, depth 90 ft, diameter 2 in., cased to 80 ft, screened interval from 80 to 90 ft. Well has 8 in. protective casing seal installed to 46 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 23.4 ft above sea level. Measuring point: Floor of instrument shelter, 2.14 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S4W1.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	5.54	5.52	5.11	5.30
10	---	---	---	---	---	---	---	---	5.55	5.11	5.12	5.43
15	---	---	---	---	---	---	---	---	5.38	5.09	5.13	5.63
20	---	---	---	---	---	---	---	---	5.22	5.10	4.93	5.58
25	---	---	---	---	---	---	---	5.19	5.22	5.09	5.04	5.65
EOM	---	---	---	---	---	---	---	5.41	5.16	5.10	5.35	5.50

WTR YR 1988 MEAN 5.28 MAX 5.75 MIN 4.93

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.51	5.21	4.82	5.16	5.82	5.69	5.94	6.08	5.48	5.17	4.94	5.13
10	5.33	5.23	4.86	5.19	5.45	5.95	6.07	6.15	5.41	5.05	4.96	5.12
15	5.09	5.16	4.97	5.24	5.34	5.83	6.36	6.15	5.30	4.96	5.14	5.13
20	5.23	5.16	5.15	5.29	5.47	5.82	6.69	6.08	5.24	4.93	5.14	5.14
25	5.21	5.12	5.32	5.31	5.43	6.02	6.42	5.90	5.44	4.92	5.14	5.23
EOM	5.21	4.88	5.36	5.71	5.64	6.10	6.35	5.61	5.17	4.89	5.13	5.34

WTR YR 1989 MEAN 5.43 MAX 6.69 MIN 4.76

CRAVEN COUNTY--Continued

345419076543601. Local number, Cr-602--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.48	5.28	4.69	5.48	5.65	5.55	5.59	5.70	5.68	5.67	3.89	4.28
10	5.56	5.26	4.91	5.50	5.73	5.48	5.85	5.68	5.69	4.30	4.10	4.16
15	5.38	5.22	5.24	5.46	5.70	5.46	6.00	5.68	5.68	4.28	4.11	4.16
20	5.37	5.15	5.30	5.54	5.70	5.42	5.81	5.67	5.68	4.22	4.01	4.12
25	5.34	5.15	5.45	5.44	5.55	5.37	5.66	5.66	5.67	4.18	4.21	4.07
EOM	5.35	5.10	5.39	5.31	5.49	5.42	5.68	5.67	5.67	4.10	4.27	4.09

WTR YR 1990 MEAN 5.19 MAX 6.12 MIN 3.89

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.07	4.42	4.42	4.79	5.12	5.57	5.37	5.21	5.29	5.02	5.53	6.06
10	4.14	4.52	4.22	4.83	5.29	5.60	5.39	5.07	5.04	5.04	5.47	6.05
15	4.09	4.42	4.16	4.95	5.36	5.59	5.39	5.02	5.05	4.97	5.48	5.90
20	4.04	4.44	4.22	5.21	5.32	5.53	5.41	5.09	5.06	4.85	5.57	5.88
25	4.42	4.44	4.65	5.14	5.52	5.37	5.37	5.03	5.20	4.94	5.67	5.81
EOM	4.23	4.45	4.77	5.15	5.43	5.37	5.20	4.95	5.04	5.31	5.99	5.74

WTR YR 1991 MEAN 5.07 MAX 6.24 MIN 3.99

CRAVEN COUNTY--Continued

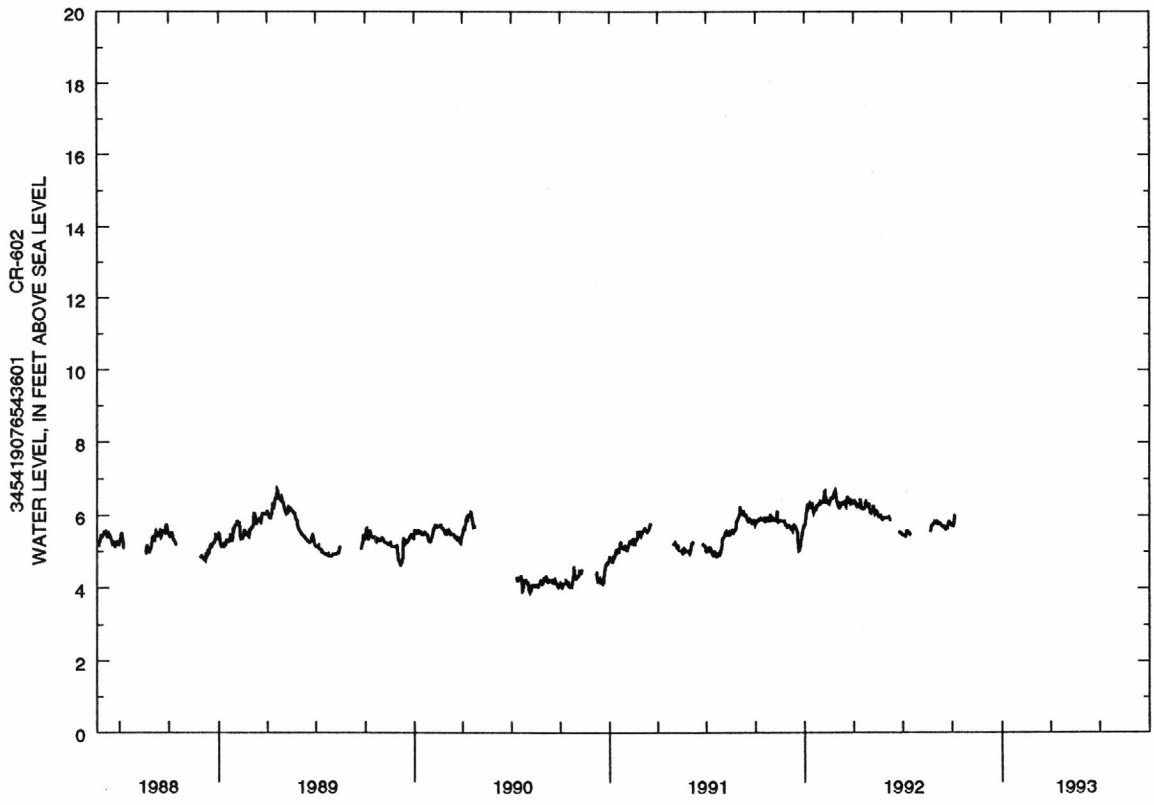
345419076543601. Local number, Cr-602--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	5.88	5.64	6.28	6.44	6.26	6.38	6.13	5.96	5.44	5.47	5.77
10	5.91	6.12	5.69	6.32	6.45	6.36	6.26	6.03	5.78	5.57	5.47	5.75
15	5.88	5.88	5.66	6.29	6.36	6.36	6.24	6.07	5.77	5.48	5.48	5.71
20	5.90	5.85	5.15	6.21	6.50	6.51	6.19	6.01	5.77	5.47	5.48	5.64
25	5.86	5.77	5.29	6.24	6.63	6.35	6.32	5.92	5.54	5.48	5.74	5.82
EOM	5.89	5.70	5.76	6.37	6.39	6.37	6.26	5.95	5.49	5.47	5.81	5.78

WTR YR 1992 MEAN 5.93 MAX 6.67 MIN 5.04


345419076543601 CR-602
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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CRAVEN COUNTY--Continued

345419076543602. Local number, Cr-603.

LOCATION.--Lat 34°54'19", long 76°54'36", Hydrologic Unit 03020204, 1,200 ft west of Roosevelt Boulevard, 0.68 mi southwest of intersection of Roosevelt Boulevard and Slocum Road on Cherry Point U.S. Marine Corps Air Station, 1.6 mi north of Havelock. Owner: U.S. Marine Corps.

AQUIFER.--Unconfined surficial sands of post-Miocene age.

WELL CHARACTERISTICS.--Bored monitoring well, depth 30 ft, diameter 2 in., cased to 20 ft, screened interval from 20 to 30 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 23.4 ft above sea level. Measuring point: Floor of instrument shelter, 2.06 ft above land-surface datum.

REMARKS.--Well is part of Cherry Point U.S. Marine Corps Air Station Hydrology Study, site S4W2.

PERIOD OF RECORD.--May 1988 to October 1992 (discontinued).

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	10.85	10.40	9.99	10.90
10	---	---	---	---	---	---	---	---	10.74	10.29	10.04	10.99
15	---	---	---	---	---	---	---	---	10.68	10.21	10.41	11.00
20	---	---	---	---	---	---	---	---	10.63	10.13	10.49	10.98
25	---	---	---	---	---	---	---	10.77	10.50	10.06	10.54	10.90
EOM	---	---	---	---	---	---	---	10.90	10.48	10.01	10.66	10.73

WTR YR 1988 MEAN 10.55 MAX 11.03 MIN 9.98

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.58	10.12	9.71	9.64	9.68	9.79	10.62	11.50	10.97	10.48	10.28	10.26
10	10.51	10.00	9.68	9.66	9.64	9.86	10.64	11.47	10.89	10.38	10.25	10.14
15	10.38	9.94	9.67	9.67	9.69	10.04	11.05	11.34	10.79	10.26	10.39	10.09
20	10.29	9.90	9.63	9.66	9.69	10.10	11.39	11.30	10.70	10.27	10.51	10.06
25	10.20	9.82	9.63	9.67	9.67	10.27	11.51	11.19	10.64	10.25	10.50	10.05
EOM	10.12	9.78	9.64	9.66	9.69	10.56	11.53	11.05	10.54	10.18	10.38	10.29

WTR YR 1989 MEAN 10.29 MAX 11.55 MIN 9.63

CRAVEN COUNTY--Continued

345419076543602. Local number, Cr-603--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.51	10.51	10.18	11.02	11.01	10.97	11.44	11.30	10.79	10.25	9.77	9.65
10	10.66	10.48	10.30	11.15	11.11	11.03	11.56	11.19	10.76	10.16	9.74	9.62
15	10.73	10.46	10.65	11.23	10.98	10.94	11.61	11.03	10.68	10.08	9.68	9.59
20	10.68	10.39	10.72	11.24	10.88	10.87	11.44	10.94	10.57	10.01	9.64	9.50
25	10.60	10.28	10.79	11.18	10.83	10.79	11.36	10.82	10.44	9.91	9.71	9.41
EOM	10.57	10.22	10.91	11.05	10.97	11.14	11.28	10.83	10.36	9.85	9.67	9.38

WTR YR 1990 MEAN 10.59 MAX 11.61 MIN 9.38

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.31	9.10	9.04	9.25	10.12	10.46	10.88	11.02	10.76	11.04	11.66	12.73
10	9.24	9.09	9.12	9.25	10.26	10.60	10.89	10.99	10.71	10.94	11.93	12.60
15	9.17	9.14	9.22	9.38	10.31	10.64	10.84	10.92	10.63	10.78	11.92	12.37
20	9.09	9.18	9.20	9.60	10.37	10.69	10.83	10.81	10.65	10.74	12.08	12.16
25	9.10	9.14	9.20	9.75	10.40	10.67	10.80	10.82	11.00	10.99	12.17	12.08
EOM	9.10	9.07	9.26	9.93	10.34	10.75	10.95	10.79	11.12	11.16	12.92	11.92

WTR YR 1991 MEAN 10.48 MAX 12.94 MIN 9.03

CRAVEN COUNTY--Continued

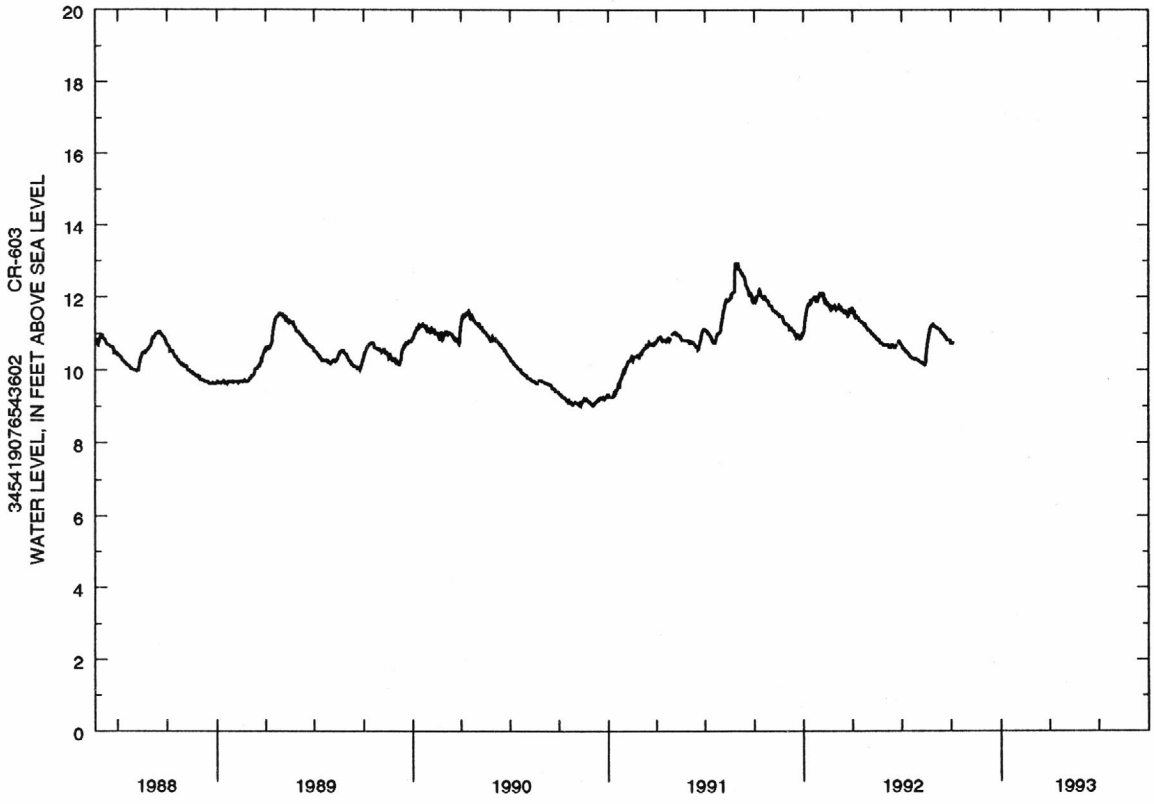
345419076543602. Local number, Cr-603--Continued

WATER-LEVEL ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.91	11.66	11.12	11.55	12.05	11.68	11.49	11.02	10.69	10.58	10.22	11.14
10	12.16	11.63	11.08	11.82	11.84	11.75	11.44	10.94	10.63	10.50	10.18	11.10
15	12.03	11.53	10.98	11.85	11.85	11.62	11.33	10.87	10.68	10.44	10.22	11.00
20	12.02	11.47	10.90	11.96	11.69	11.56	11.29	10.82	10.61	10.33	10.90	10.90
25	11.91	11.33	10.86	11.88	11.72	11.51	11.24	10.73	10.77	10.30	11.19	10.82
EOM	11.78	11.24	10.96	12.12	11.72	11.69	11.09	10.69	10.70	10.29	11.19	10.75

WTR YR 1992 MEAN 11.23 MAX 12.21 MIN 10.14


345419076543602 CR-603
WATER LEVEL, IN FEET ABOVE SEA LEVEL
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DAVIE COUNTY

355359080331701. Local number, NC-142.

LOCATION.--Lat 35°53'59", long 80°33'17", Hydrologic Unit 03040102, 0.5 mi northeast of Mocksville on U.S. Highway 158 at B. C. Brocks Community Center. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined weathered granite of Paleozoic age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 30.8 ft, diameter 6 in., cased to 30.8 ft, open end, backfilled with gravel from 20 to 30.8 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 835 ft above sea level (from topographic map). Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--In October 1982, well replaced nearby NC-110. Well is part of terrane-effects network.

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

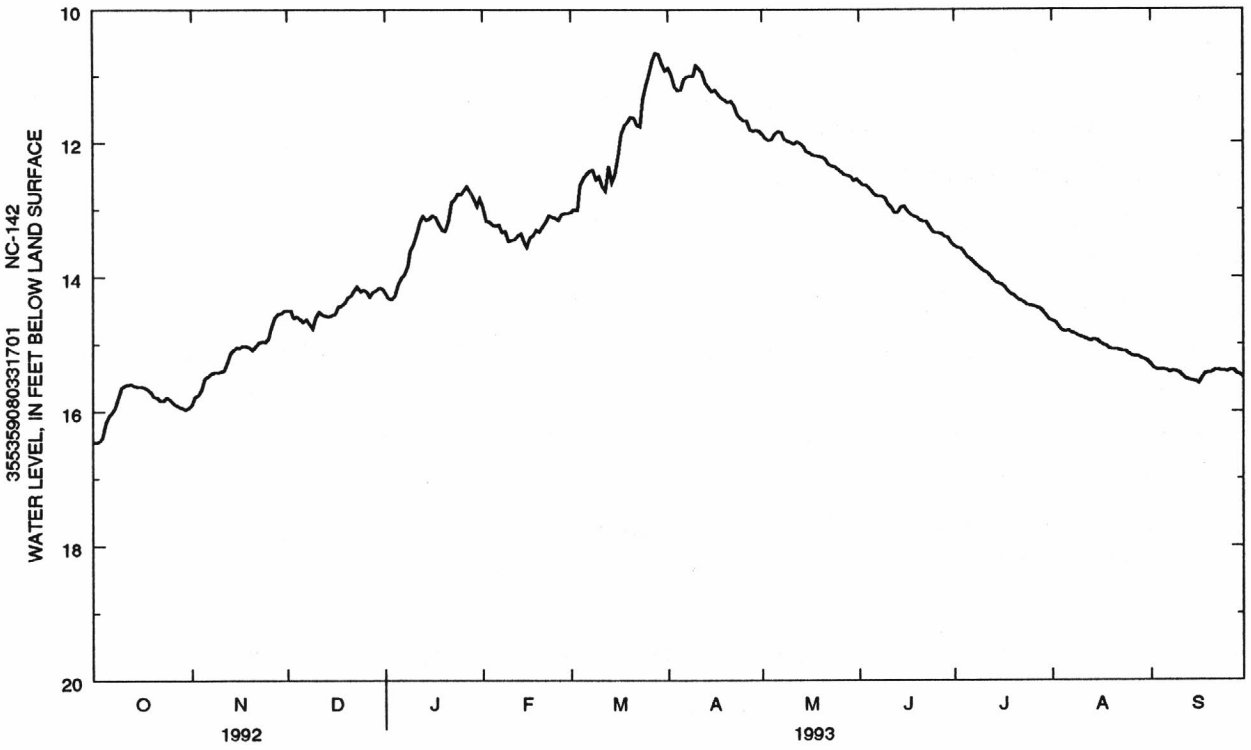
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.64 ft below land-surface datum, Mar. 28, 1993; lowest water level recorded, 20.98 ft below land-surface datum, Oct. 24, 25, and 26, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.46	15.89	14.50	14.25	12.96	13.04	10.89	11.88	12.59	13.54	14.66	15.30
2	16.46	15.78	14.51	14.32	13.17	13.00	10.98	11.94	12.64	13.57	14.68	15.36
3	16.45	15.75	14.62	14.33	13.18	13.01	11.16	11.97	12.64	13.58	14.74	15.38
4	16.38	15.68	14.59	14.28	13.23	12.64	11.22	11.96	12.68	13.64	14.80	15.38
5	16.17	15.50	14.63	14.11	13.25	12.52	11.21	11.87	12.73	13.70	14.81	15.38
6	16.07	15.47	14.67	14.02	13.23	12.48	11.05	11.84	12.79	13.73	14.80	15.39
7	16.01	15.44	14.64	13.96	13.34	12.43	11.01	11.85	12.80	13.78	14.83	15.42
8	15.95	15.42	14.70	13.85	13.32	12.41	11.00	11.95	12.80	13.83	14.85	15.40
9	15.77	15.42	14.77	13.62	13.47	12.55	11.00	11.98	12.83	13.87	14.87	15.41
10	15.65	15.41	14.60	13.52	13.46	12.51	10.85	12.00	12.92	13.91	14.89	15.43
11	15.61	15.39	14.52	13.38	13.45	12.66	10.91	12.03	12.97	13.93	14.91	15.48
12	15.60	15.27	14.56	13.20	13.39	12.72	10.95	11.99	13.05	13.96	14.93	15.51
13	15.59	15.13	14.58	13.10	13.36	12.35	11.10	12.02	13.05	14.02	14.95	15.53
14	15.62	15.09	14.59	13.16	13.49	12.60	11.17	12.06	12.97	14.07	14.93	15.54
15	15.63	15.05	14.57	13.14	13.56	12.48	11.24	12.13	12.95	14.09	14.94	15.55
16	15.63	15.06	14.55	13.09	13.42	12.21	11.21	12.16	13.02	14.11	14.98	15.58
17	15.64	15.03	14.45	13.12	13.39	11.88	11.28	12.19	13.08	14.15	15.01	15.50
18	15.67	15.03	14.43	13.22	13.31	11.75	11.33	12.20	13.10	14.22	15.03	15.44
19	15.70	15.05	14.39	13.31	13.33	11.69	11.36	12.21	13.12	14.26	15.07	15.43
20	15.78	15.09	14.30	13.32	13.26	11.62	11.40	12.22	13.16	14.28	15.08	15.43
21	15.79	15.04	14.28	13.18	13.19	11.64	11.38	12.25	13.18	14.33	15.08	15.39
22	15.84	14.98	14.20	12.89	13.09	11.74	11.45	12.32	13.18	14.35	15.09	15.39
23	15.84	14.96	14.14	12.85	13.11	11.76	11.58	12.35	13.25	14.38	15.10	15.40
24	15.79	14.97	14.22	12.76	13.13	11.36	11.64	12.36	13.33	14.42	15.11	15.40
25	15.82	14.92	14.19	12.77	13.16	11.11	11.68	12.40	13.35	14.43	15.14	15.41
26	15.88	14.74	14.22	12.70	13.07	10.98	11.68	12.44	13.35	14.44	15.17	15.39
27	15.90	14.61	14.29	12.66	13.06	10.78	11.81	12.48	13.37	14.46	15.18	15.39
28	15.93	14.55	14.23	12.75	13.06	10.66	11.83	12.49	13.41	14.48	15.18	15.44
29	15.95	14.54	14.20	12.83	---	10.68	11.82	12.51	13.42	14.52	15.21	15.46
30	15.97	14.51	14.16	12.95	---	10.82	11.83	12.57	13.50	14.57	15.23	15.49
31	15.94	---	14.17	12.84	---	10.92	---	12.54	---	14.64	15.25	---

WTR YR 1993 MEAN 13.76 HIGH 10.66 LOW 16.46


355359080331701 NC-142
WATER LEVEL, IN FEET BELOW LAND SURFACE
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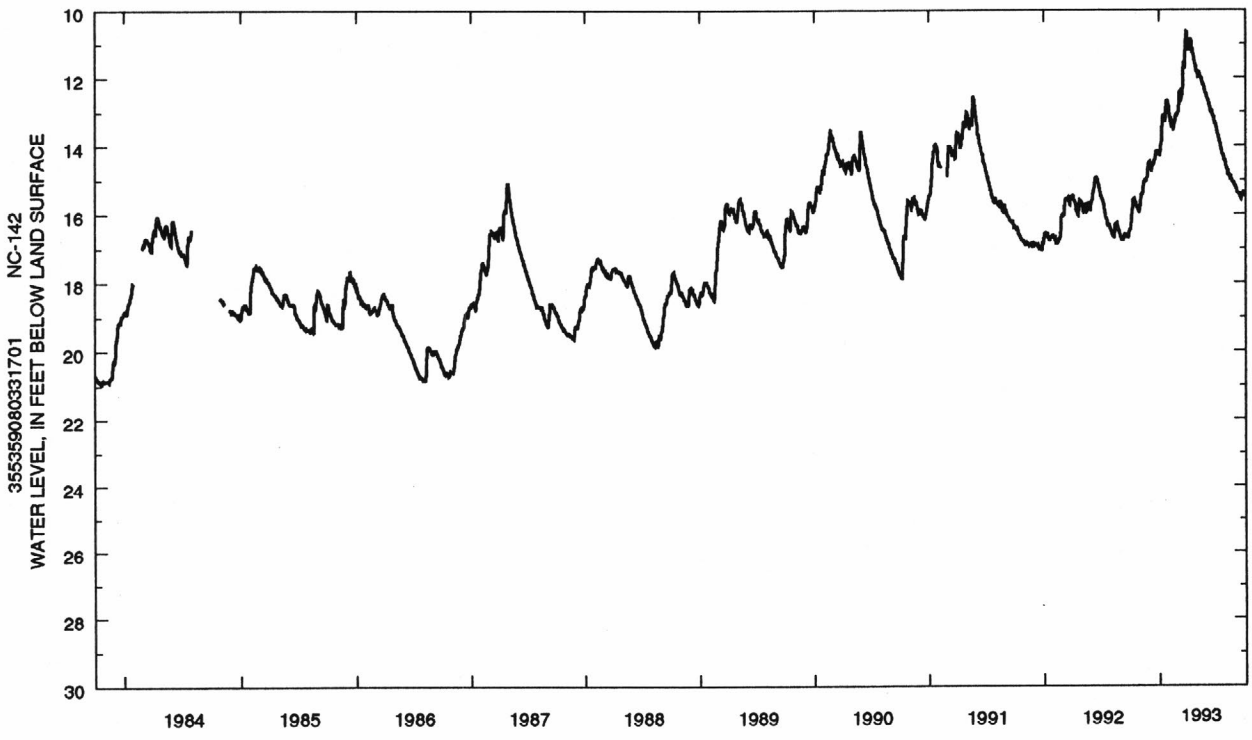
355359080331701 NC-142
WATER LEVEL, IN FEET BELOW LAND SURFACE
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DUPLIN COUNTY

345051078012101. Local number, NC-174; DEHNR Rose Hill Research Station well V32v1.

LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 98 ft, diameter 4 in., cased to 83 ft, screened interval from 83 to 98 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 85.89 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 1.75 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--March 1982 to current year. Continuous record began January 1987.

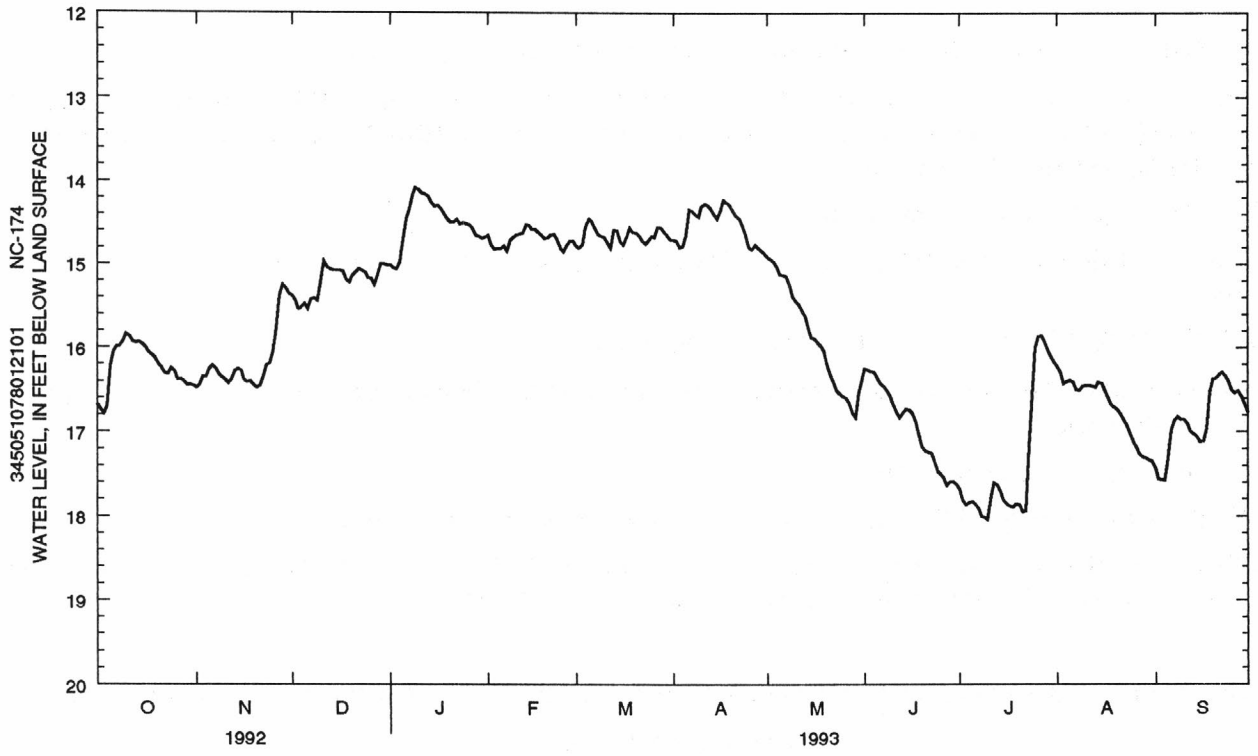
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.07 ft below land-surface datum, Jan. 9, 1993; lowest water level recorded, 19.93 ft below land-surface datum, Aug. 4 and 5, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.23	16.26	15.48	14.71	14.82	14.46	14.66	15.12	16.36	17.83	16.39	17.32
10	15.85	16.39	15.22	14.11	14.65	14.68	14.31	15.44	16.68	18.04	16.45	16.85
15	15.96	16.28	15.08	14.31	14.58	14.73	14.45	15.88	16.74	17.81	16.43	17.13
20	16.20	16.48	15.14	14.50	14.69	14.63	14.36	16.20	17.23	17.87	16.74	16.37
25	16.28	16.06	15.17	14.52	14.86	14.67	14.80	16.58	17.50	16.00	17.12	16.51
EOM	16.46	15.36	15.02	14.68	14.73	14.71	14.87	16.38	17.62	16.17	17.35	16.77

WTR YR 1993 MEAN 15.82 HIGH 14.09 JAN 9 LOW 18.04 JUL 10


345051078012101 NC-174
WATER LEVEL, IN FEET BELOW LAND SURFACE
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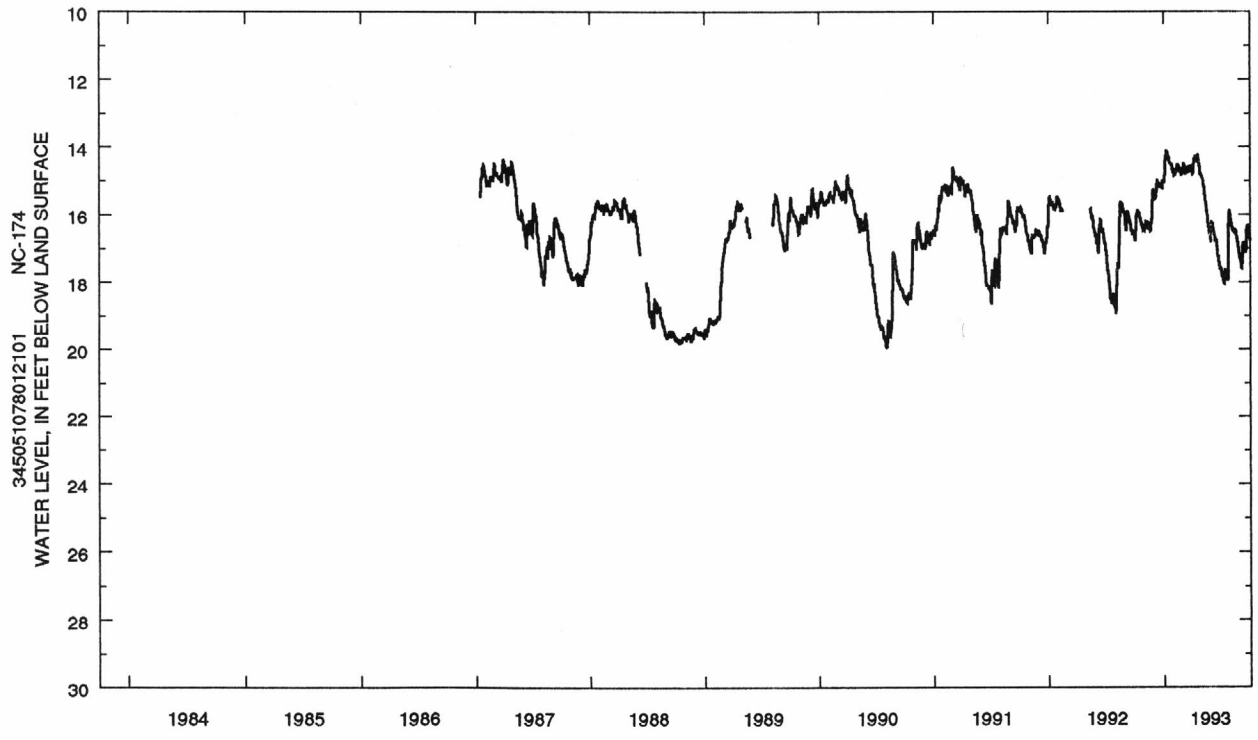
345051078012101 NC-174
WATER LEVEL, IN FEET BELOW LAND SURFACE
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DUPLIN COUNTY--Continued

344922077484706. Local number, NC-176; DEHNR Chinquapin Research Station well W29d6.

LOCATION.--Lat 34°49'22", long 77°48'47", Hydrologic Unit 03030007, 0.3 mi south of Chinquapin on State Highway 50 at Chinquapin Elementary School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Black Creek aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 822 ft, diameter 2.5 in., cased to 460 ft, screened interval from 460 to 470 ft, cemented from 486 to 822 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 42.60 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 5.30 ft above land-surface datum.

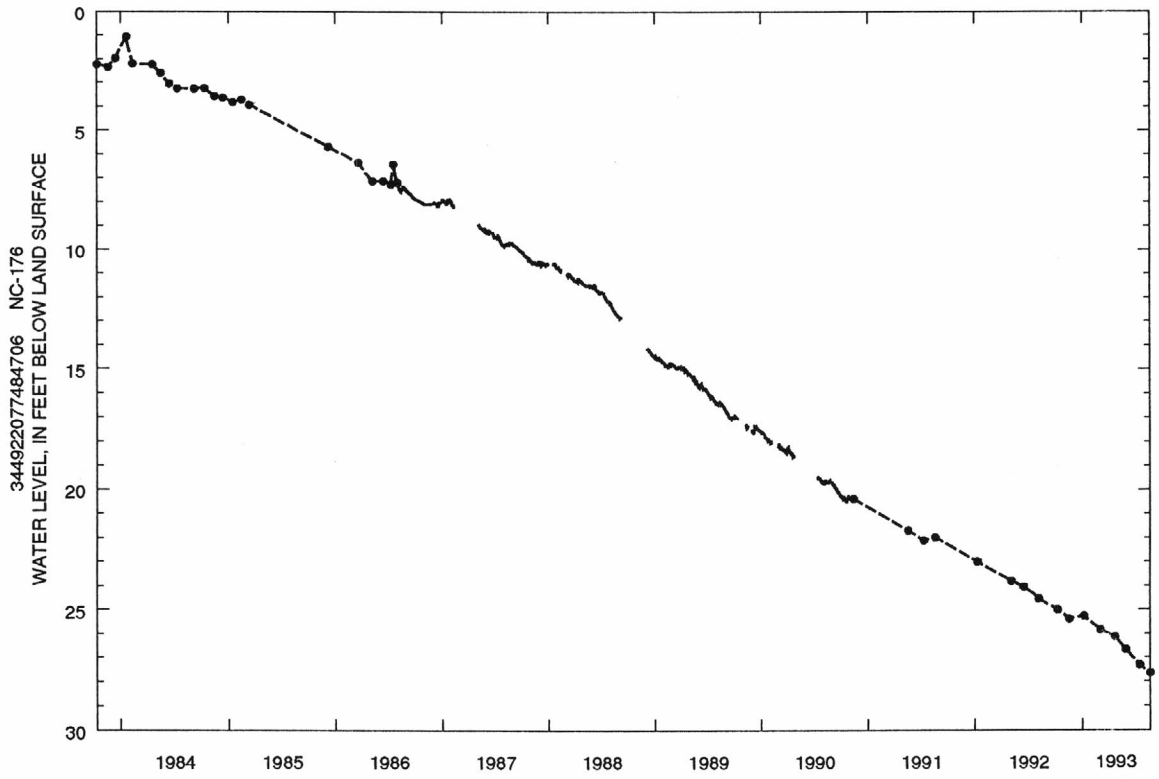
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--July 1980 to August 1993 (discontinued). Continuous record July 1986 to November 1990. Records from July 1980 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.76 ft above land-surface datum, July 17, 1980; lowest water level recorded, 27.65 ft below land-surface datum, Aug. 18, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	25.00	JAN 6	25.27	APR 21	26.14	MAY 27	26.67	JUL 13	27.32	AUG 18	27.65
NOV 17	25.39	MAR 2	25.85								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WATER LEVEL, IN FEET BELOW LAND SURFACE
344922077484706 NC-176

GATES COUNTY

362646076361405. Local number, NC-149; DEHNR Sunbury Research Station well C15s5.

LOCATION.--Lat 36°26'46", long 76°36'14", Hydrologic Unit 03010203, in northeast section of Sunbury, east of State Highway 32 on Secondary Road 1338. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 570 ft, diameter 4 in., cased to 555 ft, screened interval from 555 to 565 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 37.44 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.58 ft above land-surface datum - revised from 3.04 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

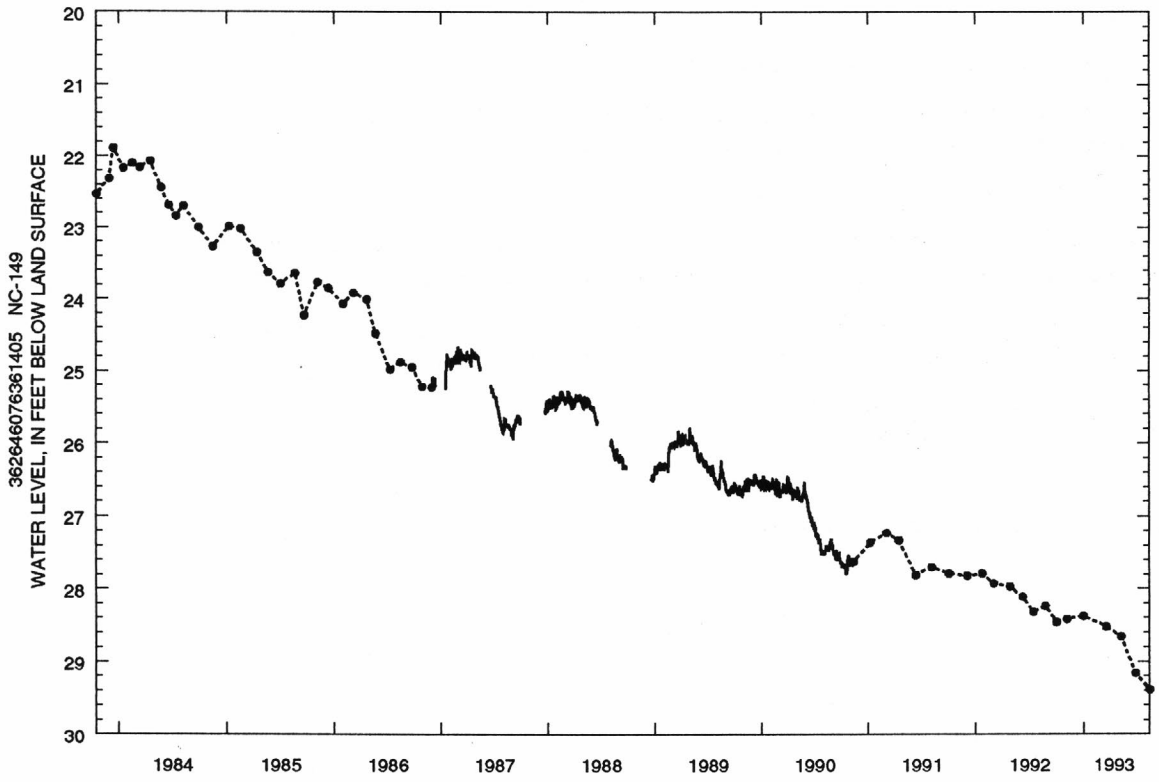
PERIOD OF RECORD.--October 1967 to current year. Continuous record November 1986 to November 1990. Records from October 1967 to September 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.37 ft below land-surface datum, Dec. 30, 1968; lowest water level recorded, 29.39 ft below land-surface datum, Aug. 11, 1993.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.54 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	28.46	DEC 31	28.38	MAR 17	28.52	MAY 7	28.66	JUN 25	29.16	AUG 11	29.39
NOV 6	28.42										


362646076361405 NC-149
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HAYWOOD COUNTY

352315082484401. Local number, NC-40.

LOCATION.--Lat 35°23'15", long 82°48'44", Hydrologic Unit 06010106, 2 mi south of Cruso on U.S. Highway 276 at Camp Hope. Owner: Champion International Corporation.

AQUIFER.--Unconfined saprolite derived from muscovite-biotite gneiss of Precambrian age.

WELL CHARACTERISTICS.--Dug observation well, depth 18.5 ft, diameter 12 in., cased to 18.5 ft, open end, backfilled with gravel from 4 to 18.5 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 3,148.26 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--December 1955 to current year.

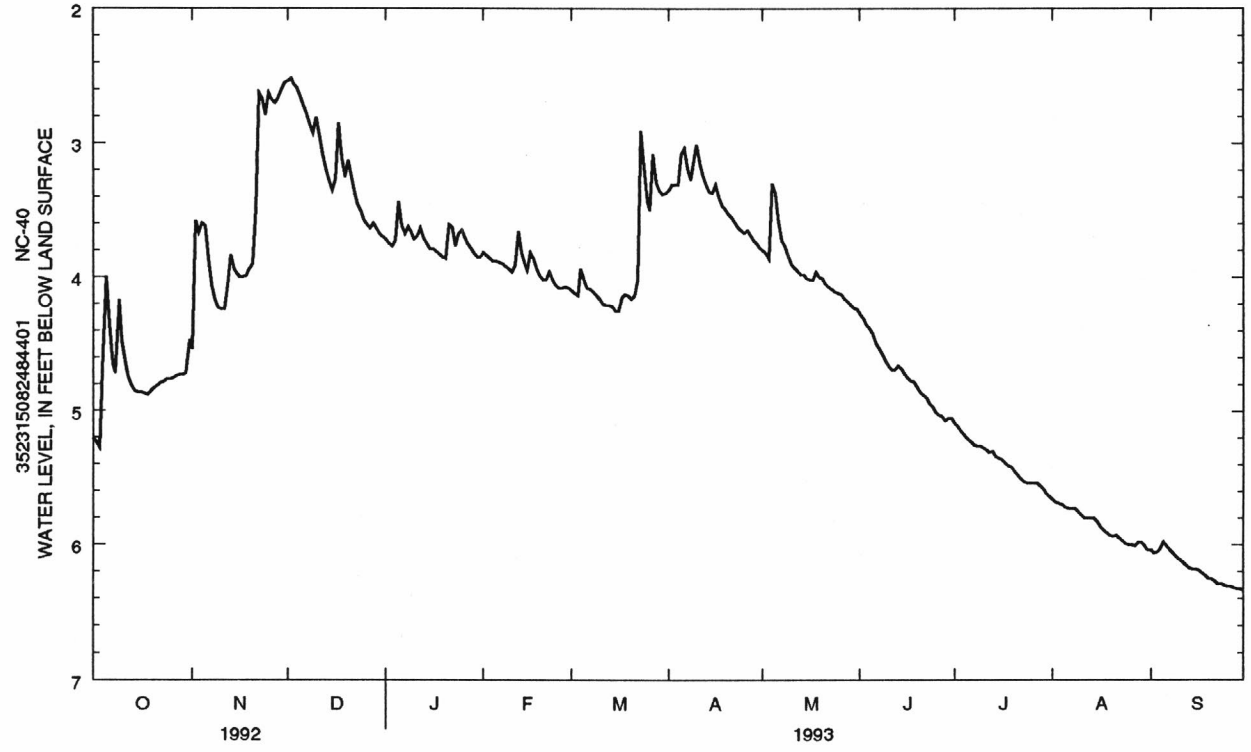
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.24 ft below land-surface datum, Mar. 12, 1977; lowest water level recorded, 6.90 ft below land-surface datum, Oct. 7, 8, and 9, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.21	4.54	2.54	3.72	3.82	4.10	3.35	3.80	4.27	5.09	5.66	6.04
2	5.24	3.58	2.52	3.75	3.84	4.12	3.31	3.82	4.31	5.12	5.68	6.06
3	5.28	3.67	2.56	3.77	3.86	4.14	3.31	3.86	4.35	5.15	5.69	6.05
4	4.56	3.60	2.59	3.73	3.88	3.94	3.31	3.30	4.38	5.18	5.70	6.03
5	4.00	3.62	2.65	3.44	3.88	4.03	3.08	3.37	4.42	5.21	5.72	5.98
6	4.35	3.86	2.72	3.62	3.89	4.08	3.04	3.59	4.49	5.23	5.73	6.01
7	4.65	4.06	2.78	3.68	3.90	4.09	3.19	3.73	4.53	5.25	5.73	6.04
8	4.72	4.17	2.86	3.63	3.92	4.11	3.27	3.77	4.57	5.26	5.73	6.06
9	4.17	4.23	2.93	3.66	3.94	4.14	3.12	3.84	4.62	5.26	5.75	6.09
10	4.48	4.24	2.81	3.72	3.96	4.16	3.01	3.90	4.66	5.27	5.78	6.11
11	4.65	4.24	2.94	3.70	3.91	4.20	3.16	3.93	4.69	5.29	5.80	6.13
12	4.75	4.06	3.08	3.64	3.66	4.21	3.24	3.95	4.69	5.31	5.80	6.15
13	4.81	3.84	3.19	3.71	3.82	4.21	3.31	3.98	4.66	5.30	5.80	6.17
14	4.85	3.94	3.28	3.75	3.90	4.22	3.36	3.98	4.68	5.34	5.80	6.18
15	4.86	3.98	3.35	3.79	3.95	4.25	3.37	4.01	4.72	5.35	5.83	6.18
16	4.86	4.00	3.27	3.79	3.82	4.25	3.31	4.02	4.75	5.36	5.86	6.19
17	4.87	4.00	2.85	3.81	3.86	4.15	3.40	4.02	4.77	5.39	5.89	6.21
18	4.88	3.99	3.11	3.83	3.94	4.13	3.46	3.96	4.78	5.41	5.91	6.23
19	4.85	3.94	3.25	3.85	3.99	4.14	3.49	4.00	4.82	5.42	5.93	6.25
20	4.83	3.90	3.13	3.86	4.02	4.16	3.53	4.01	4.86	5.45	5.94	6.25
21	4.81	3.49	3.25	3.61	4.02	4.14	3.55	4.05	4.88	5.48	5.93	6.27
22	4.79	2.63	3.37	3.63	3.96	4.02	3.59	4.07	4.90	5.51	5.95	6.29
23	4.78	2.67	3.45	3.77	4.02	2.91	3.63	4.09	4.94	5.53	5.97	6.29
24	4.76	2.79	3.51	3.68	4.06	3.12	3.65	4.11	4.97	5.54	5.99	6.30
25	4.76	2.63	3.57	3.65	4.08	3.43	3.67	4.12	5.01	5.54	6.00	6.31
26	4.75	2.68	3.61	3.71	4.08	3.50	3.65	4.13	5.03	5.54	6.00	6.31
27	4.74	2.70	3.64	3.75	4.07	3.08	3.69	4.16	5.04	5.54	6.01	6.32
28	4.73	2.66	3.60	3.79	4.08	3.29	3.73	4.18	5.07	5.56	5.98	6.33
29	4.73	2.60	3.64	3.82	---	3.35	3.75	4.21	5.05	5.58	5.98	6.33
30	4.72	2.55	3.68	3.85	---	3.38	3.78	4.23	5.05	5.62	6.01	6.34
31	4.47	---	3.70	3.85	---	3.37	---	4.24	---	5.64	6.04	---

WTR YR 1993 MEAN 4.38 HIGH 2.52 LOW 6.34


352315082484401 NC-40
WATER LEVEL, IN FEET BELOW LAND SURFACE
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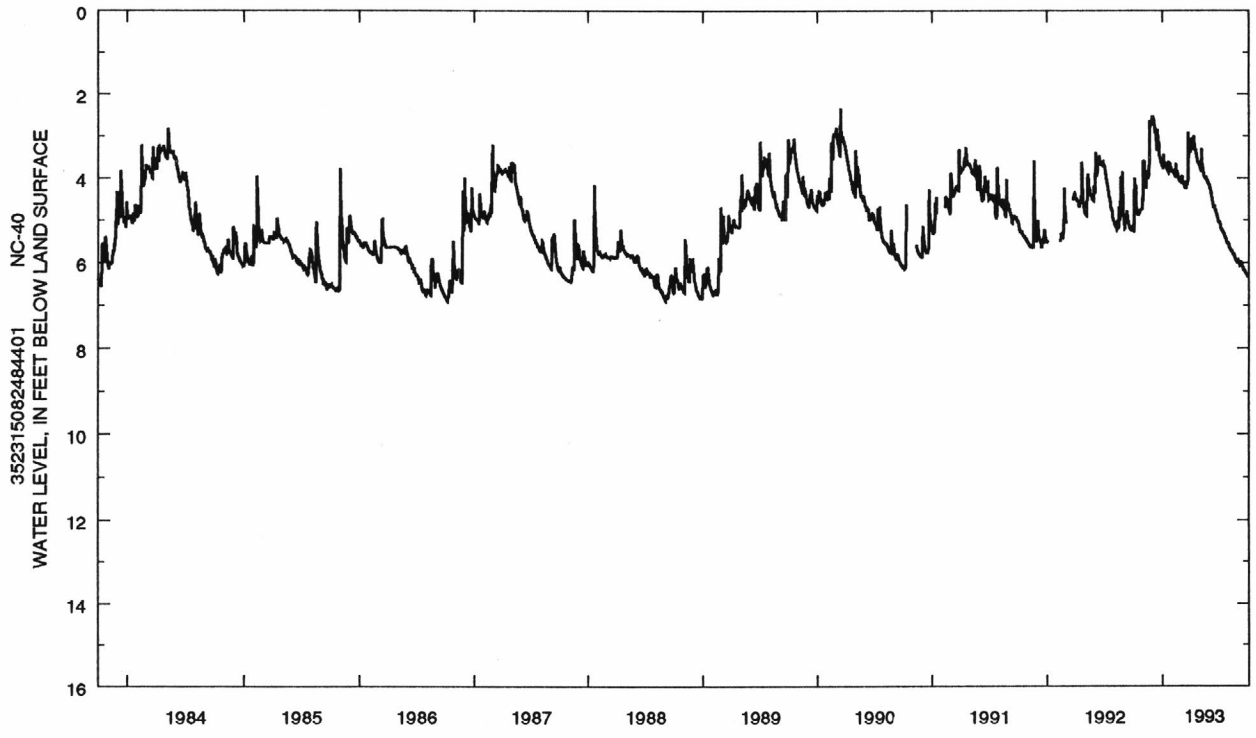
352315082484401 NC-40
WATER LEVEL, IN FEET BELOW LAND SURFACE
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HERTFORD COUNTY

362845077005501. Local number, NC-55.

LOCATION.--Lat 36°28'45", long 77°00'55", Hydrologic Unit 03010203, 1.7 mi southwest of Como, south of Secondary Road 1306 on Secondary Road 1307. Owner: Charles Deloatch.

AQUIFER.--Lower Cape Fear of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, depth 340 ft, diameter 2 in, screen depth unknown.

INSTRUMENTATION.--Measured annually with steel tape.

DATUM.--Land-surface datum is 28.40 ft above sea level. Measuring point: Top of instrument shelf, 2.79 ft above land-surface datum (since December 1975).

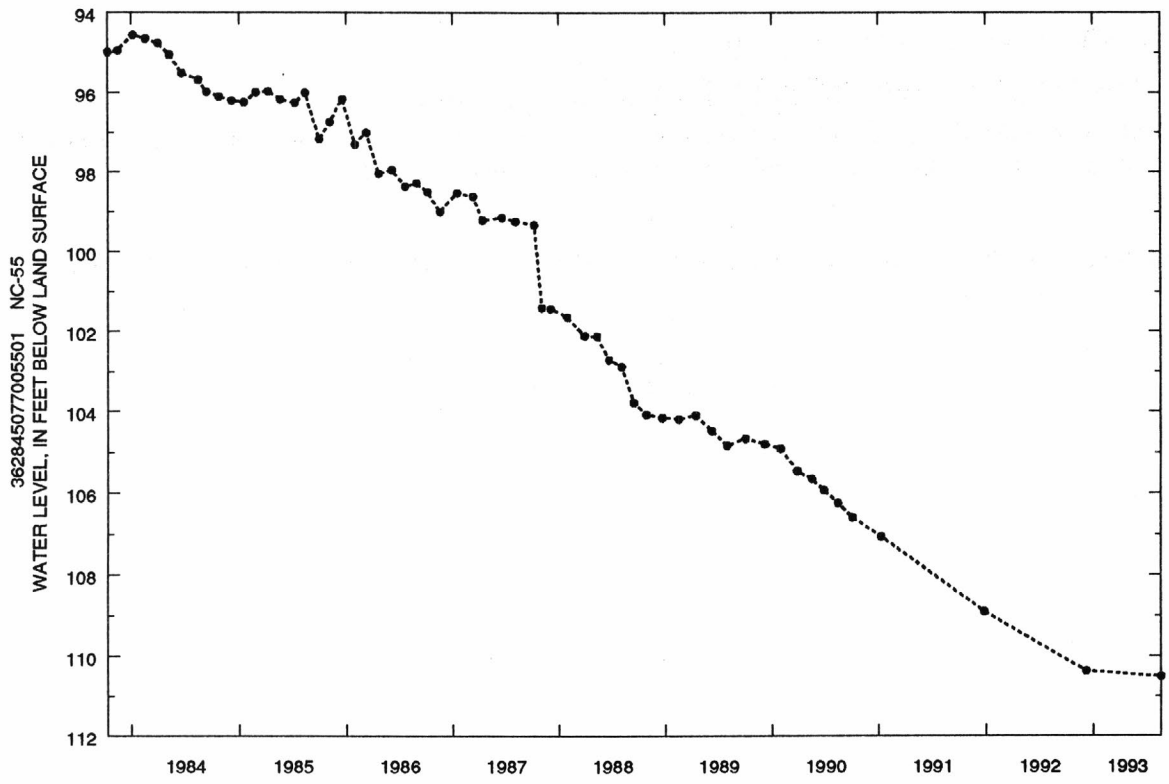
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--December 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 48.36 ft below land-surface datum, May 30 and 31, 1966; lowest recorded,106.24 ft below land-surface datum, August 14, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	110.37	AUG 17	110.51


362845077005501 NC-55
WATER LEVEL, IN FEET BELOW LAND SURFACE
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HERTFORD COUNTY--Continued

363026077001906. Local number, NC-155; DEHNR Como Research Station well B20u6.

LOCATION.--Lat 36°30'26", long 77°00'19", Hydrologic Unit 03010203, 0.5 mi northeast of Como, and northwest of U.S. Highway 258 on Secondary Road 1316. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 818 ft, diameter 4 in., cased to 560 ft, screened interval from 560 to 570 ft, cemented from 575 to 818 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 68.83 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum.

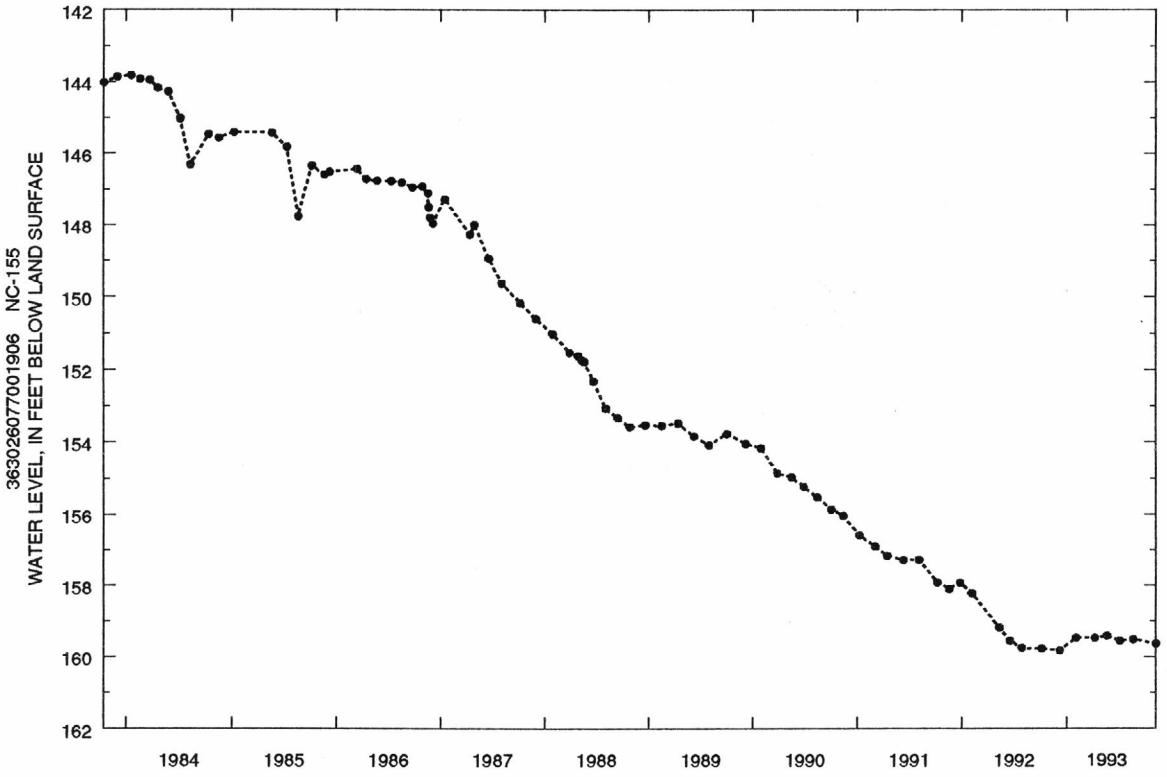
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--September 1981 to current year. Records from September 1981 to October 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 143.04 ft below land-surface datum, Feb. 9, 1983; lowest water level recorded, 159.83 ft below land-surface datum, Dec. 7, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	157.78	FEB 1	159.48	APR 7	159.48	MAY 19	159.42	JUL 2	159.56	AUG 17	159.52
DEC 7	159.83										


363026077001906 NC-155
WATER LEVEL, IN FEET BELOW LAND SURFACE
142
144
146
148
150
152
154
156
158
160
162
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

HYDE COUNTY

352527076123103. Local number, NC-159; DEHNR Hydeland Research Station well O10w3.

LOCATION.--Lat 35°25'27", long 76°12'31", Hydrologic Unit 03020105, 0.7 mi east of Secondary Road 1121 on Secondary Road 1122. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 700 ft, diameter 6 in., cased to 640 ft, open hole to 700 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 3.17 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 1.58 ft above land-surface datum - revised from 1.83 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network. Negative values of water levels in feet below land surface indicate groundwater levels that are above land surface.

PERIOD OF RECORD.--April 1975 to current year. Continuous record November 1986 to November 1990. Records from April 1975 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

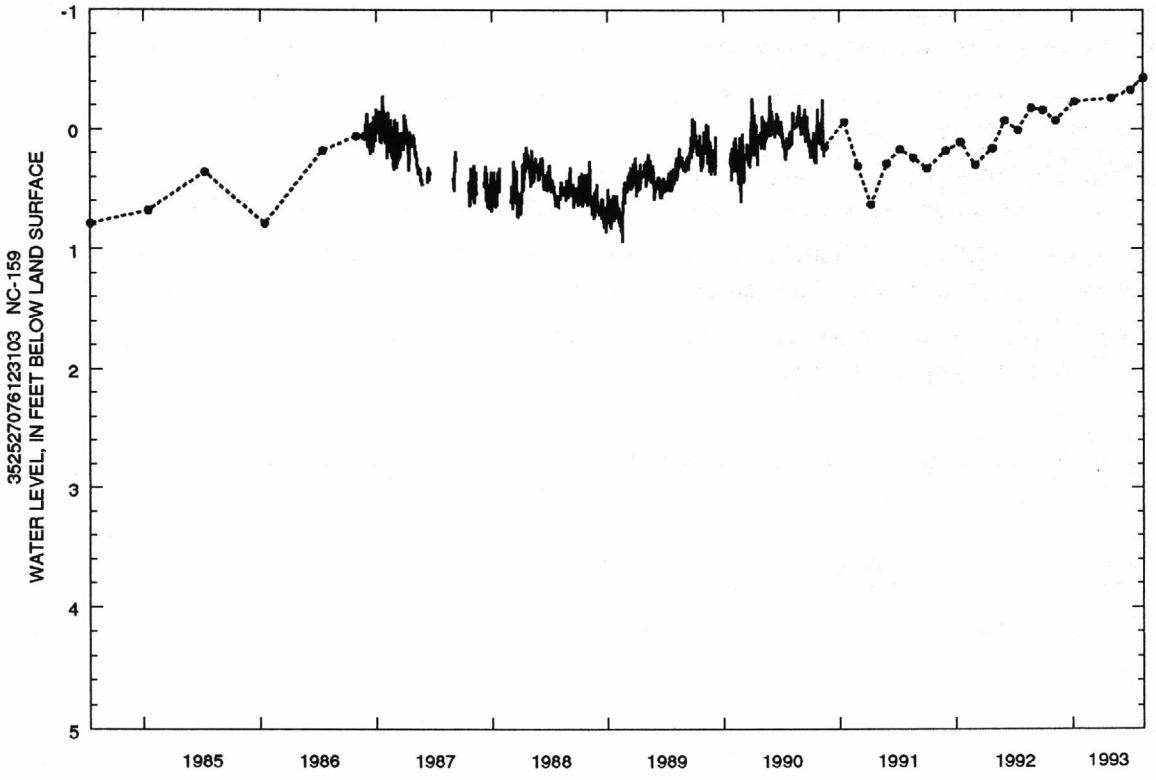
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.15 ft above land-surface datum, Mar. 18,1993; lowest water level recorded, 1.14 ft below land-surface datum, Sept. 14, 1982.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.25 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	LEVEL
OCT 1	-0.16	JAN 7	-0.23	MAY 10	-0.26	JUL 1	-0.33	AUG 9	-0.43	NOV 9	-0.07

See REMARKS.


352527076123103 NC-159
WATER LEVEL, IN FEET BELOW LAND SURFACE
-1
0
1
2
3
4
5
1985
1986
1987
1988
1989
1990
1991
1992
1993

JONES COUNTY

345809077301404. Local number, NC-172; DEHNR Comfort Research Station well U26j4.

LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Black Creek aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 545 ft, diameter 6 in., cased to 506 ft and from 516 to 535 ft, screened intervals from 506 to 516 ft and 535 to 545 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 68 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.40 ft above land-surface datum.

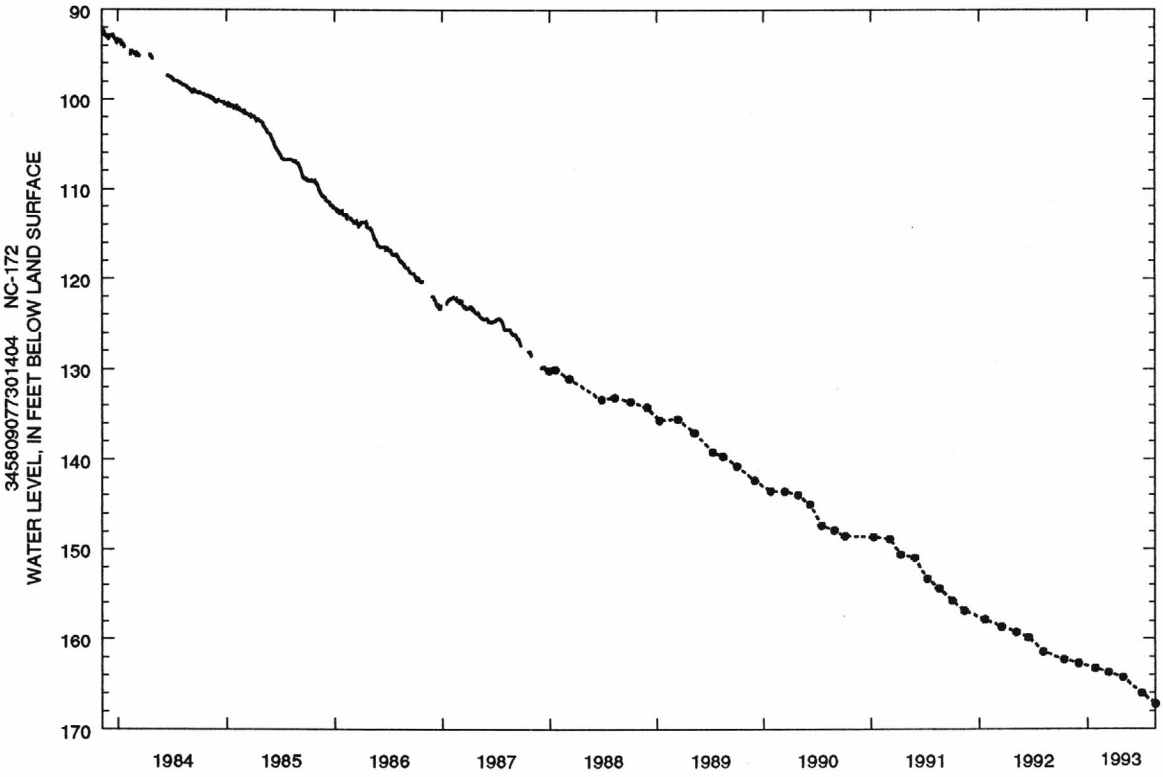
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--March 1980 to current year. Continuous record October 1983 to December 1987. Records from March 1980 to September 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 67.56 ft below land-surface datum, Mar. 18, 1980; lowest water level recorded, 167.21 ft below land-surface datum, Aug. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	162.32	JAN 26	163.27	MAR 12	163.72	APR 29	164.28	JUL 1	166.04	AUG 16	167.21
DEC 1	162.73										


345809077301404 NC-172
WATER LEVEL, IN FEET BELOW LAND SURFACE
90
100
110
120
130
140
150
160
170
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

JONES COUNTY--Continued

345809077301408. Local number, NC-173; DEHNR Comfort Research Station well U26j8.

LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 15 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 68 ft above sea level (from topographic map). Measuring point: Top of collar on casing, 2.35 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--January 1987 to current year.

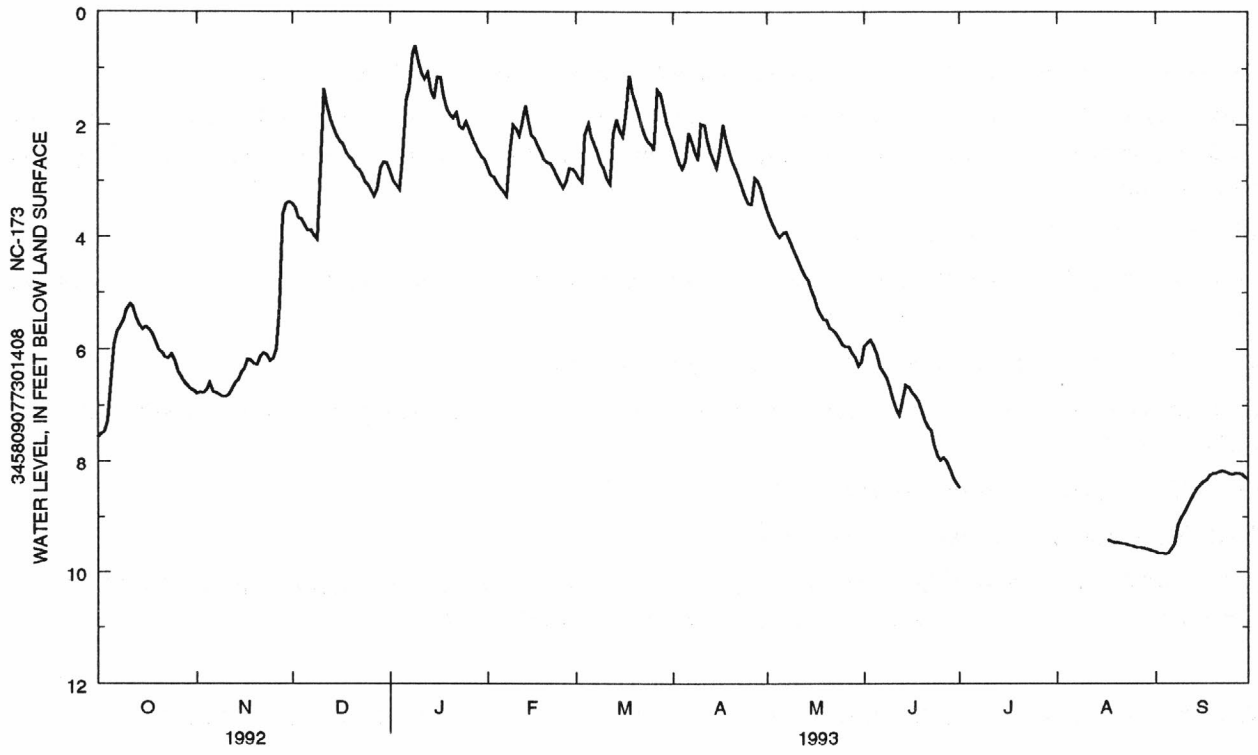
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.34 ft below land-surface datum, Aug. 14, 1991; lowest water level recorded, 9.72 ft below land-surface datum, Nov. 27 and 28, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.57	6.79	3.41	2.83	2.76	2.86	2.30	3.52	5.95	8.47	---	9.63
2	7.51	6.76	3.50	3.00	2.90	2.95	2.50	3.68	5.87	---	---	9.65
3	7.47	6.78	3.67	3.09	2.94	3.03	2.68	3.81	5.84	---	---	9.66
4	7.28	6.73	3.69	3.16	3.05	2.18	2.79	3.93	5.94	---	---	9.67
5	6.58	6.60	3.79	2.52	3.13	1.99	2.65	4.01	6.09	---	---	9.66
6	5.92	6.75	3.89	1.58	3.20	2.20	2.15	3.94	6.32	---	---	9.58
7	5.68	6.78	3.88	1.35	3.28	2.36	2.31	3.92	6.41	---	---	9.48
8	5.61	6.81	3.99	.75	2.51	2.50	2.50	4.05	6.50	---	---	9.15
9	5.48	6.85	4.06	.61	2.01	2.68	2.64	4.18	6.68	---	---	9.03
10	5.30	6.84	2.83	.88	2.08	2.79	1.99	4.32	6.89	---	---	8.92
11	5.20	6.81	1.37	1.08	2.20	2.97	2.01	4.45	7.06	---	---	8.81
12	5.25	6.71	1.67	1.19	1.94	3.06	2.26	4.58	7.18	---	---	8.69
13	5.44	6.60	1.90	1.08	1.67	2.16	2.49	4.70	6.92	---	---	8.58
14	5.56	6.54	2.06	1.39	1.97	1.91	2.64	4.78	6.64	---	---	8.49
15	5.64	6.41	2.19	1.54	2.19	2.12	2.78	4.93	6.67	---	---	8.42
16	5.60	6.35	2.30	1.15	2.24	2.21	2.47	5.10	6.76	---	---	8.37
17	5.65	6.18	2.36	1.17	2.38	1.77	2.00	5.26	6.83	---	9.42	8.33
18	5.73	6.19	2.50	1.51	2.49	1.13	2.28	5.37	6.93	---	9.44	8.25
19	5.86	6.26	2.58	1.72	2.63	1.44	2.49	5.46	7.09	---	9.46	8.21
20	6.01	6.27	2.64	1.83	2.67	1.62	2.67	5.49	7.27	---	9.46	8.21
21	6.05	6.14	2.75	1.89	2.70	1.83	2.80	5.62	7.38	---	9.47	8.18
22	6.15	6.07	2.80	1.79	2.79	2.04	2.95	5.66	7.45	---	9.49	8.17
23	6.16	6.10	2.87	2.03	2.91	2.20	3.13	5.73	7.69	---	9.50	8.19
24	6.09	6.21	3.03	2.08	3.03	2.30	3.29	5.82	7.90	---	9.52	8.22
25	6.21	6.17	3.07	1.95	3.13	2.37	3.41	5.92	7.97	---	9.53	8.24
26	6.40	6.00	3.18	2.09	3.02	2.45	3.43	5.95	7.93	---	9.55	8.22
27	6.49	5.23	3.28	2.22	2.78	1.38	2.96	5.96	8.00	---	9.56	8.22
28	6.59	3.62	3.15	2.37	2.79	1.45	3.02	6.07	8.13	---	9.57	8.23
29	6.65	3.41	2.78	2.47	---	1.70	3.16	6.15	8.29	---	9.58	8.28
30	6.71	3.38	2.67	2.58	---	1.97	3.34	6.30	8.39	---	9.60	8.32
31	6.74	---	2.68	2.62	---	2.15	---	6.22	---	---	9.61	---

WTR YR 1993 MEAN 4.77 HIGH .61 LOW 9.67


345809077301408 NC-173
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
2
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12
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F
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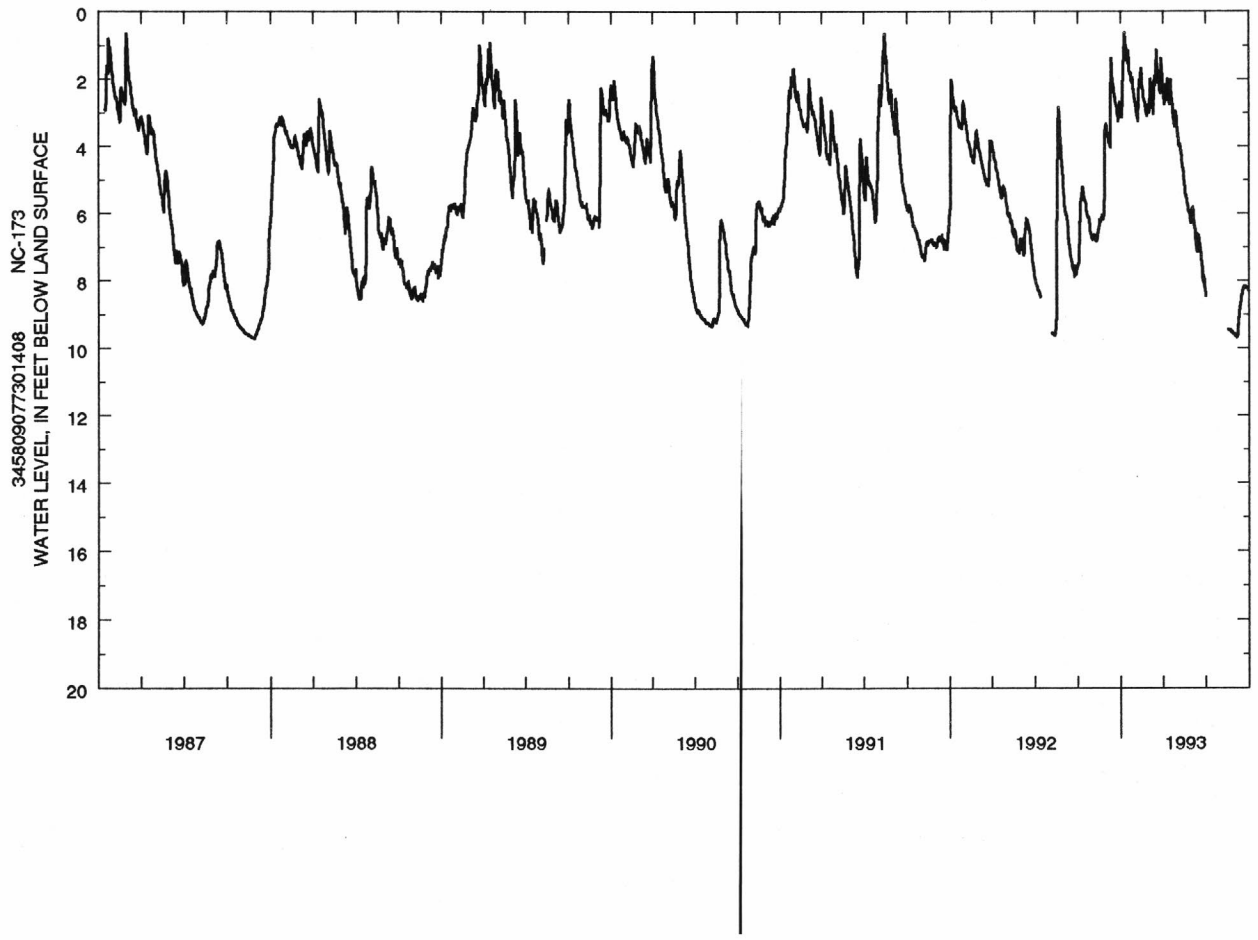
A
M
J
J
A
S
1992
1993


345809077301408 NC-173
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
2
4
6
8
10
12
14
16
18
20
1987
1988
1989
1990
1991
1992
1993

JONES COUNTY--Continued

345809077301405. Local number, NC-187; DEHNR Comfort Research Station well U26j5.

LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 284 ft, diameter 4 in., cased to 274 ft, screened interval from 274 to 284 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 68 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.3 ft above land-surface datum.

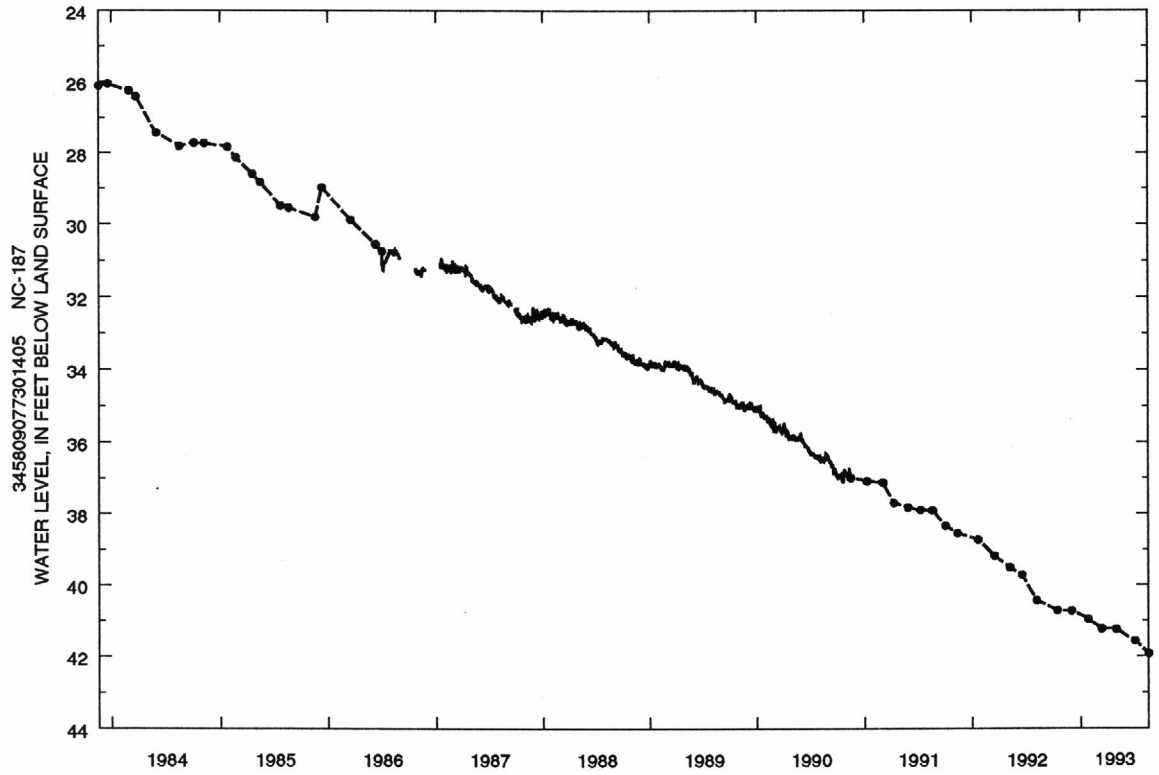
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--July 1980 to current year. Continuous record July 1986 to November 1990. Records from July 1980 to June 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.53 ft below land-surface datum, Oct. 29, 1980; lowest water level recorded, 41.92 ft below land-surface datum, Aug. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	40.72	JAN 26	40.96	MAR 12	41.23	APR 29	41.24	JUL 1	41.56	AUG 16	41.92
DEC 1	40.73										


345809077301405 NC-187
WATER LEVEL, IN FEET BELOW LAND SURFACE
24
26
28
30
32
34
36
38
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42
44
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

LENOIR COUNTY

351937077284201. Local number, NC-185; DEHNR Graingers Research Station well Q25d12.

LOCATION.--Lat 35°19'37", long 77°28'42", Hydrologic Unit 03020202, 1.6 mi northeast of Graingers on N.C. Highway 11 at E. I. du Pont de Nemours and Company's Kinston Plant. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 134 ft, diameter 4 in., cased to 124 ft, screened interval from 124 to 134 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 66 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.1 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

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

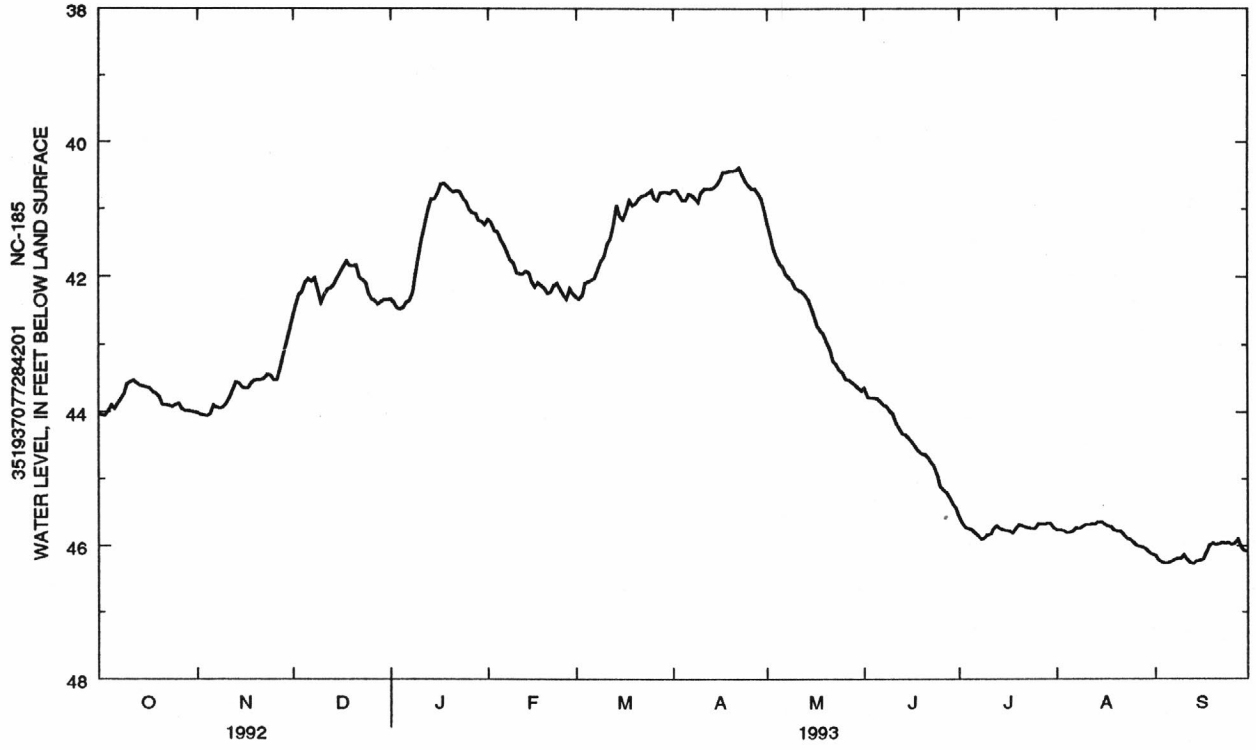
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.37 ft below land-surface datum, Apr. 22, 1993; lowest water level recorded, 60.61 ft below land-surface datum, July 31, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.90	44.03	42.09	42.46	41.46	42.08	40.88	41.81	43.80	45.76	45.80	46.26
10	43.59	43.88	42.39	41.70	41.94	41.71	40.76	42.17	44.03	45.84	45.69	46.14
15	43.62	43.64	42.03	40.86	42.07	41.11	40.65	42.44	44.39	45.76	45.65	46.22
20	43.78	43.52	41.85	40.72	42.25	40.92	40.44	42.96	44.63	45.69	45.78	45.98
25	43.89	43.52	42.25	40.90	42.27	40.72	40.66	43.42	45.10	45.74	45.94	45.98
EOM	44.00	42.78	42.34	41.24	42.26	40.77	40.99	43.69	45.44	45.73	46.12	46.08

WTR YR 1993 MEAN 43.31 HIGH 40.39 APR 22 LOW 46.27 SEP 13


351937077284201 NC-185
WATER LEVEL, IN FEET BELOW LAND SURFACE
38
40
42
44
46
48
O
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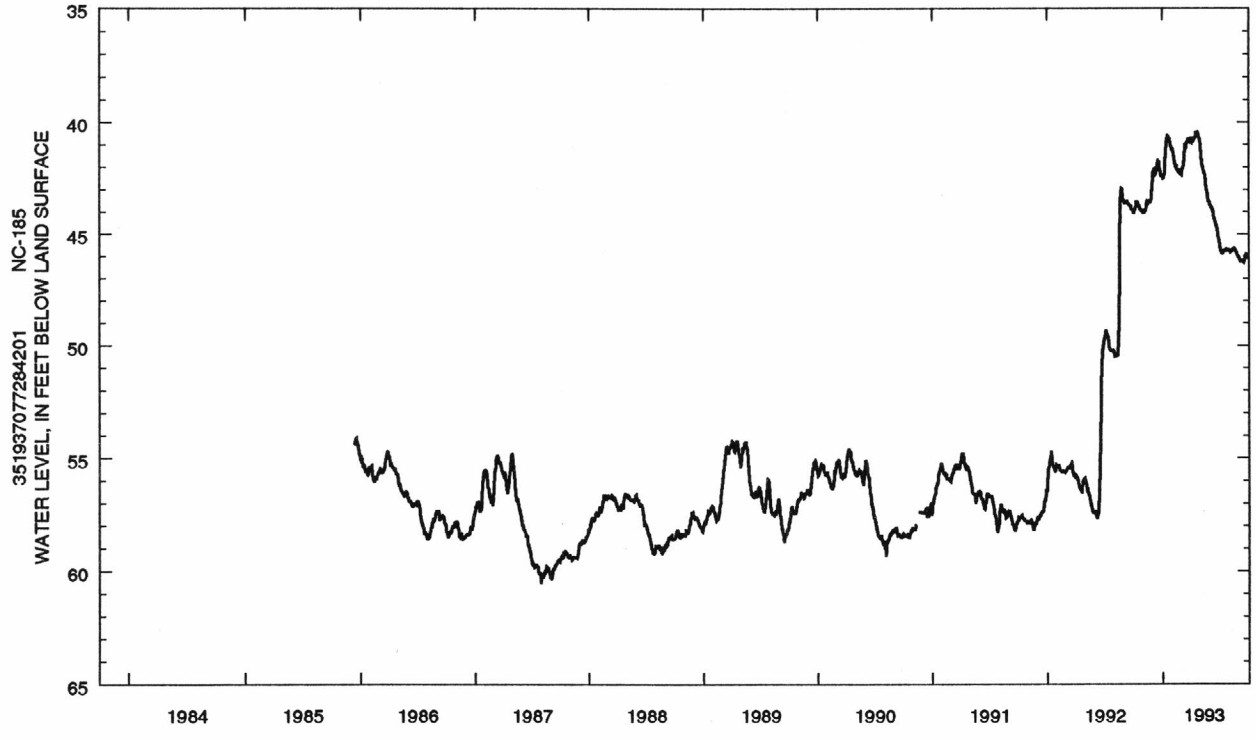
D
J
F
M
A
M
J
J
A
S
1992
1993


351937077284201 NC-185
WATER LEVEL, IN FEET BELOW LAND SURFACE
35
40
45
50
55
60
65
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

LINCOLN COUNTY

353217081265801. Local number, Li-130.

LOCATION.--Lat 35°32'17", long 81°26'58", Hydrologic Unit 03050102, 100 ft west of Secondary Road 1111, 350 ft south of intersection of Secondary Road 1111 and Secondary Road 1113. Owner: Sanford A. Yates.

AQUIFER.--Unconfined saprolite derived from mafic gneiss of Cambrian age.

WELL CHARACTERISTICS.--Dug residential well, depth 34.5 ft, diameter 4 ft, cased above land surface and from 20 to 34.5 ft below land-surface datum.

INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.

DATUM.--Land-surface datum is 1,060 ft above sea level. Measuring point: Floor of instrument shelter, 2.70 ft above land-surface datum.

REMARKS.--Well is part of the Appalachian Valleys-Piedmont Regional Aquifer Systems Analysis study.

PERIOD OF RECORD.--June 1991 to current year.

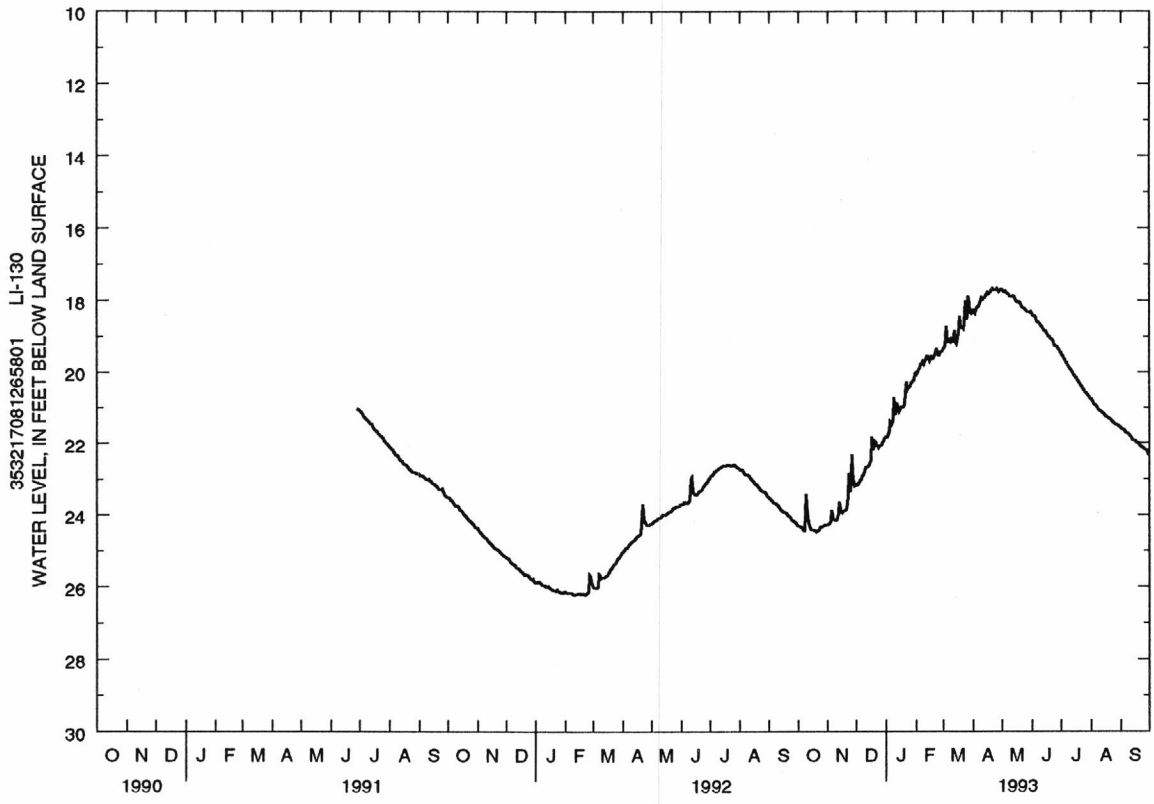
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.66 ft below land-surface datum, Apr. 21 and 26, 1993; lowest water level recorded, 26.24 ft below land-surface datum, Feb. 10, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.38	23.88	23.04	21.43	19.88	18.98	18.20	17.78	18.50	19.67	20.93	21.68
10	23.76	24.16	22.71	21.15	19.72	19.08	17.93	17.90	18.69	19.90	21.09	21.80
15	24.43	23.92	22.56	21.08	19.70	19.22	17.83	18.00	18.86	20.11	21.21	21.94
20	24.48	23.87	21.97	20.92	19.53	18.75	17.74	18.09	19.06	20.31	21.32	22.08
25	24.34	23.35	22.09	20.43	19.55	18.46	17.71	18.25	19.27	20.53	21.46	22.18
EOM	24.29	23.19	21.84	20.06	19.42	18.33	17.70	18.31	19.44	20.76	21.56	22.34

WTR YR 1993 MEAN 20.68 HIGH 17.68 APR 21 LOW 24.48 OCT 20


353217081265801 LI-130
WATER LEVEL, IN FEET BELOW LAND SURFACE
10
12
14
16
18
20
22
24
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28
30
O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1990
1991
1992
1993

LINCOLN COUNTY--Continued

352859081243101. Local number, Li-164.

LOCATION.--Lat 35°28'59", long 81°24'31", Hydrologic Unit 03050102, 250 ft east of Secondary Road 1150, 1,000 ft southeast of intersection of Secondary Road 1147 and Secondary Road 1150. Owner: Harvey Heavner.

AQUIFER.--Unconfined saprolite derived from mafic metaigneous rock of Cambrian age.

WELL CHARACTERISTICS.--Dug residential well, depth 48.0 ft, diameter 6 ft.

INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.

DATUM.--Land-surface datum is 1,022 ft above sea level. Measuring point: Floor of instrument shelter, 0.75 ft above land-surface datum.

REMARKS.--Well is part of the Appalachian Valleys-Piedmont Regional Aquifer Systems Analysis study.

PERIOD OF RECORD.--August 1991 to current year.

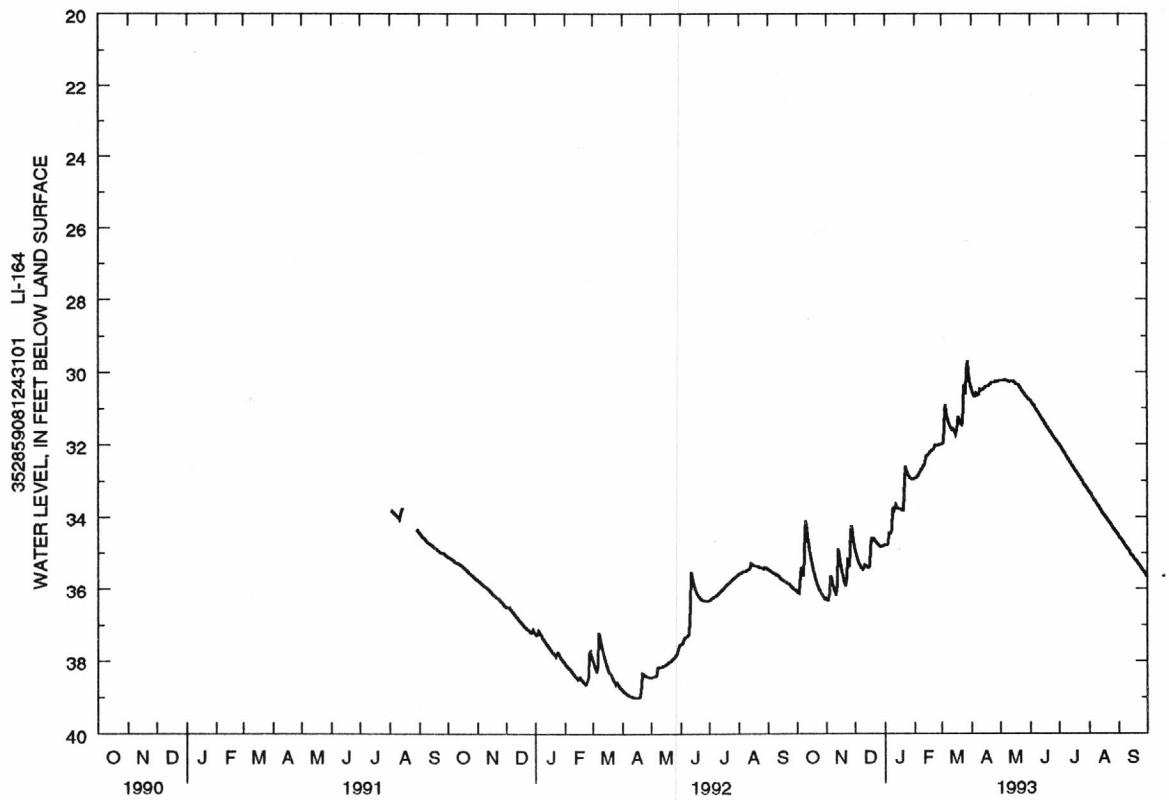
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 29.56 ft below land-surface datum, Mar. 27 and 28, 1993; lowest water level recorded, 39.00 ft below land-surface datum, Apr. 13-18, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.40	35.64	35.30	34.46	32.83	30.92	30.68	30.22	30.93	32.17	33.48	34.70
10	34.11	36.11	35.41	33.76	32.61	31.50	30.49	30.27	31.15	32.39	33.69	34.90
15	35.09	35.23	35.41	33.78	32.29	31.68	30.44	30.27	31.36	32.60	33.90	35.11
20	35.69	35.86	34.62	33.80	32.14	31.38	30.36	30.37	31.58	32.80	34.08	35.28
25	36.05	35.39	34.78	32.83	32.03	30.40	30.28	30.57	31.78	33.01	34.28	35.47
EOM	36.26	34.82	34.79	32.95	31.99	30.38	30.24	30.78	31.96	33.27	34.51	35.67

WTR YR 1993 MEAN 33.11 HIGH 29.70 MAR 28 LOW 36.31 NOV 2


352859081243101 LI-164
WATER LEVEL, IN FEET BELOW LAND SURFACE
20
22
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O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1990
1991
1992
1993

LINCOLN COUNTY--Continued

352516081183301. Local number, Li-211.

LOCATION.--Lat 35°25'16", long 81°18'33", Hydrologic Unit 03050102, 95 ft south of Secondary Road 1171, 0.25 mi west of intersection of Secondary Road 1177 and Secondary Road 1171, at Crouse. Owner: Geraldine Dellinger.

AQUIFER.--Cherryville Granite of Mississippian age.

WELL CHARACTERISTICS.--Drilled residential well, depth 92.5 ft, diameter 6 in., casing and screen depth unknown.

INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.

DATUM.--Land-surface datum is 865 ft above sea level. Measuring point: Floor of instrument shelter, 1.10 ft above land-surface datum.

REMARKS.--Well is part of the Appalachian Valleys-Piedmont Regional Aquifer Systems Analysis study.

PERIOD OF RECORD.--June 1991 to current year.

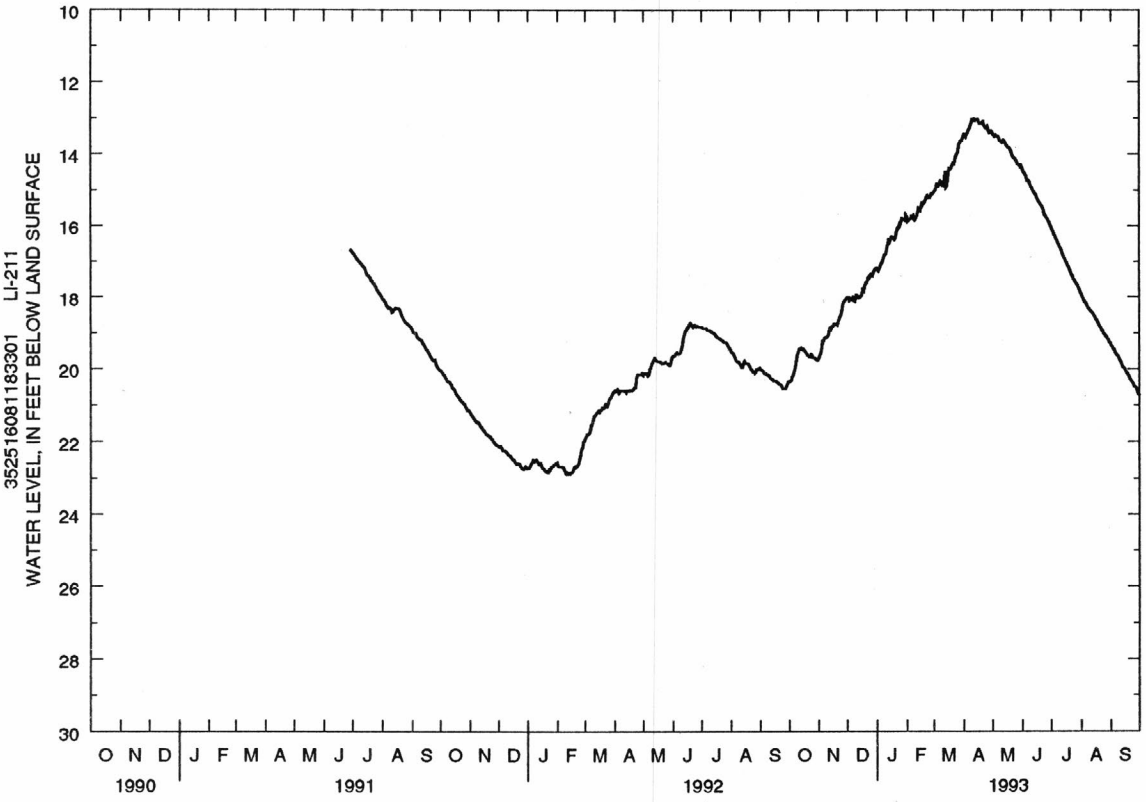
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.98 ft below land-surface datum, Apr. 15 and 16, 1993; lowest water level recorded, 22.90 ft below land-surface datum, Feb. 10, 14, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.17	19.23	18.09	17.08	15.81	14.89	13.40	13.50	14.62	16.30	18.15	19.54
10	19.58	19.10	17.94	16.80	15.81	14.76	13.06	13.66	14.90	16.60	18.36	19.77
15	19.49	18.83	17.98	16.39	15.58	14.88	13.03	13.75	15.13	16.93	18.57	20.02
20	19.64	18.80	17.60	16.34	15.29	14.31	13.15	13.93	15.41	17.22	18.81	20.27
25	19.66	18.42	17.38	16.00	15.22	14.01	13.29	14.18	15.72	17.54	19.05	20.48
EOM	19.77	18.03	17.19	15.71	15.10	13.56	13.37	14.34	15.99	17.88	19.29	20.74

WTR YR 1993 MEAN 16.73 HIGH 13.03 APR 15 LOW 20.74 SEP 30


352516081183301 LI-211
WATER LEVEL, IN FEET BELOW LAND SURFACE
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O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1990
1991
1992
1993

MECKLENBURG COUNTY

351730080524203. Local number, NC-146.

LOCATION.--Lat 35°19'16", long 80°52'39", Hydrologic Unit 03050101, 6 mi south of Huntersville in Hornets Nest Park. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.

WELL CHARACTERISTICS.--Drilled observation well, depth 17.1 ft, diameter 4 in., cased to 12.1 ft, screened interval from 12.1 to 17.1 ft, sand filter packed from 12.1 to 17.1 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 730 ft above sea level, from topographic map. Measuring point: Top of casing, 1.90 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--November 1984 to current year.

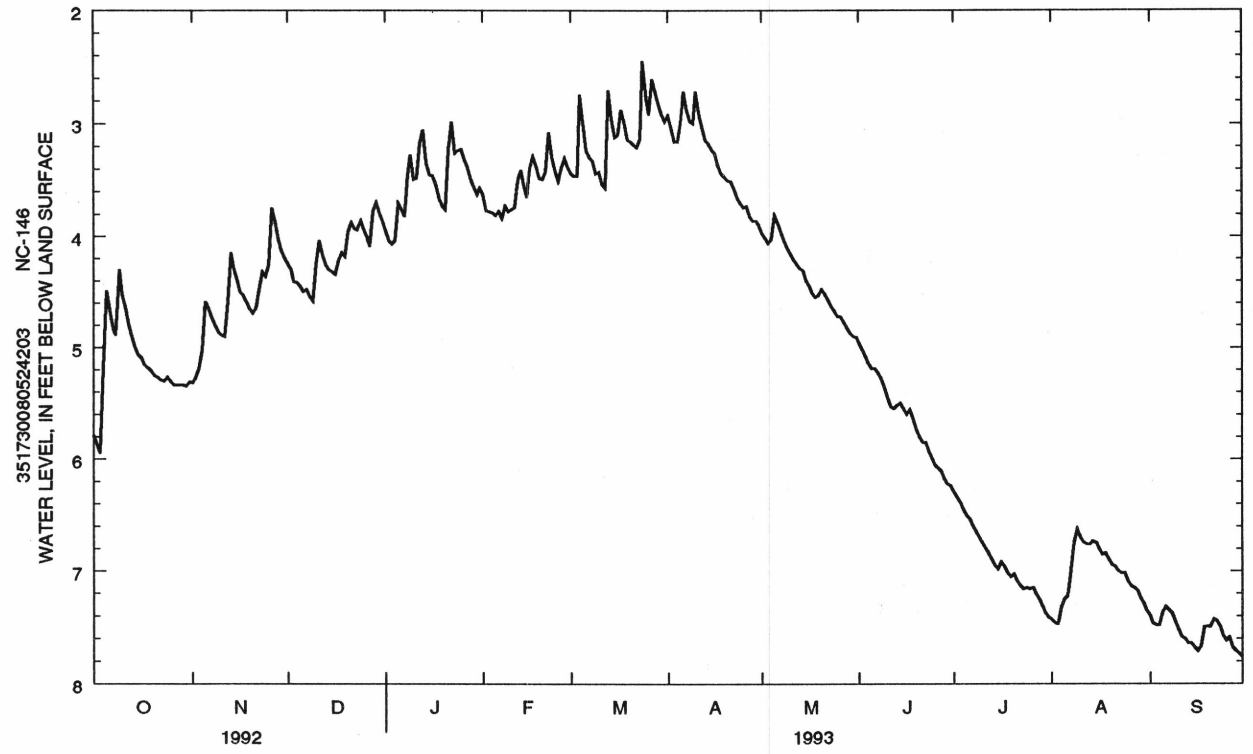
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.28 ft below land-surface datum, Mar. 24, 1993; lowest water level recorded, 7.91 ft below land-surface datum, Sept. 2 and 3, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.79	5.32	4.25	3.95	3.63	3.44	2.93	3.97	4.96	6.30	7.43	7.40
2	5.87	5.27	4.30	4.04	3.77	3.46	3.04	4.02	5.03	6.34	7.46	7.46
3	5.95	5.19	4.41	4.07	3.78	3.46	3.16	4.06	5.08	6.39	7.47	7.48
4	5.19	5.03	4.41	4.04	3.79	2.75	3.16	4.03	5.14	6.45	7.32	7.48
5	4.49	4.59	4.45	3.71	3.81	3.04	3.00	3.81	5.19	6.50	7.25	7.37
6	4.66	4.65	4.50	3.76	3.78	3.24	2.72	3.88	5.19	6.54	7.22	7.32
7	4.83	4.73	4.48	3.82	3.84	3.30	2.88	3.96	5.23	6.60	6.99	7.35
8	4.89	4.80	4.54	3.45	3.73	3.33	2.98	4.04	5.28	6.65	6.74	7.38
9	4.30	4.86	4.58	3.28	3.78	3.44	3.00	4.10	5.36	6.70	6.63	7.45
10	4.52	4.89	4.25	3.49	3.76	3.43	2.72	4.16	5.45	6.74	6.70	7.52
11	4.66	4.90	4.04	3.48	3.74	3.54	2.94	4.21	5.53	6.80	6.74	7.58
12	4.79	4.59	4.17	3.17	3.50	3.57	3.03	4.25	5.55	6.84	6.76	7.60
13	4.90	4.15	4.26	3.06	3.41	2.71	3.14	4.29	5.52	6.89	6.76	7.64
14	5.00	4.30	4.30	3.35	3.56	2.96	3.18	4.31	5.50	6.95	6.73	7.64
15	5.07	4.40	4.32	3.45	3.65	3.12	3.23	4.39	5.55	6.98	6.75	7.68
16	5.10	4.50	4.34	3.46	3.39	3.10	3.26	4.45	5.60	6.92	6.80	7.71
17	5.16	4.53	4.22	3.54	3.29	2.88	3.37	4.51	5.56	6.96	6.85	7.67
18	5.18	4.59	4.15	3.66	3.37	2.99	3.44	4.55	5.64	7.02	6.84	7.50
19	5.21	4.65	4.18	3.73	3.48	3.14	3.47	4.53	5.73	7.05	6.89	7.49
20	5.25	4.69	3.96	3.76	3.49	3.16	3.50	4.48	5.80	7.03	6.94	7.50
21	5.27	4.65	3.88	3.23	3.43	3.19	3.51	4.52	5.85	7.09	6.96	7.43
22	5.29	4.48	3.93	2.99	3.08	3.21	3.57	4.57	5.85	7.13	7.00	7.44
23	5.30	4.32	3.94	3.26	3.29	3.13	3.65	4.63	5.92	7.16	7.02	7.50
24	5.27	4.36	3.86	3.24	3.42	2.45	3.70	4.67	6.00	7.15	7.02	7.57
25	5.30	4.26	3.93	3.23	3.51	2.78	3.74	4.72	6.05	7.16	7.09	7.62
26	5.34	3.75	4.00	3.32	3.39	2.92	3.73	4.72	6.08	7.15	7.13	7.59
27	5.34	3.87	4.09	3.37	3.31	2.61	3.82	4.77	6.11	7.21	7.15	7.68
28	5.34	4.03	3.78	3.49	3.39	2.72	3.86	4.82	6.18	7.26	7.17	7.71
29	5.34	4.14	3.70	3.55	---	2.83	3.86	4.87	6.22	7.32	7.24	7.73
30	5.35	4.20	3.79	3.63	---	2.92	3.90	4.90	6.24	7.37	7.29	7.76
31	5.31	---	3.86	3.57	---	2.98	---	4.91	---	7.41	7.35	---

WTR YR 1993 MEAN 4.91 HIGH 2.45 LOW 7.76


351730080524203 NC-146
WATER LEVEL, IN FEET BELOW LAND SURFACE
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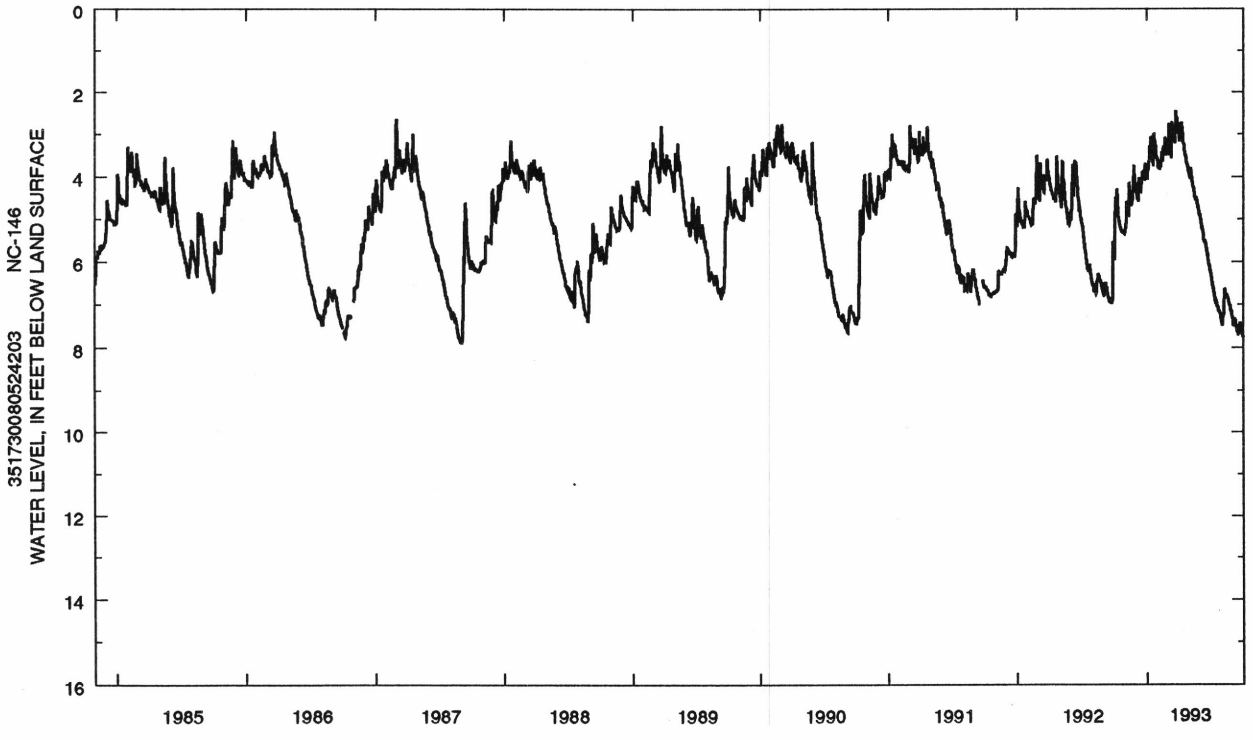
1993


351730080524203 NC-146
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1985
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1990
1991
1992
1993

MECKLENBURG COUNTY--Continued

350126080503903. Local number, Me-250.

LOCATION.--Lat 35°01'26", long 80°50'39", Hydrologic Unit 03050103, near Pineville. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from felsic metavolcanic rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 26.0 ft, diameter 4 in., cased 21.0 ft, screened 21.0 to 26.0 ft. Sand filter packed from 21.0 to 26.0 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 688.6 ft above sea level. Measuring point: Top of casing, 1.20 ft above land-surface datum.

REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, U.S. Hwy 521 well B-1A.

PERIOD OF RECORD.--December 1984 to current year.

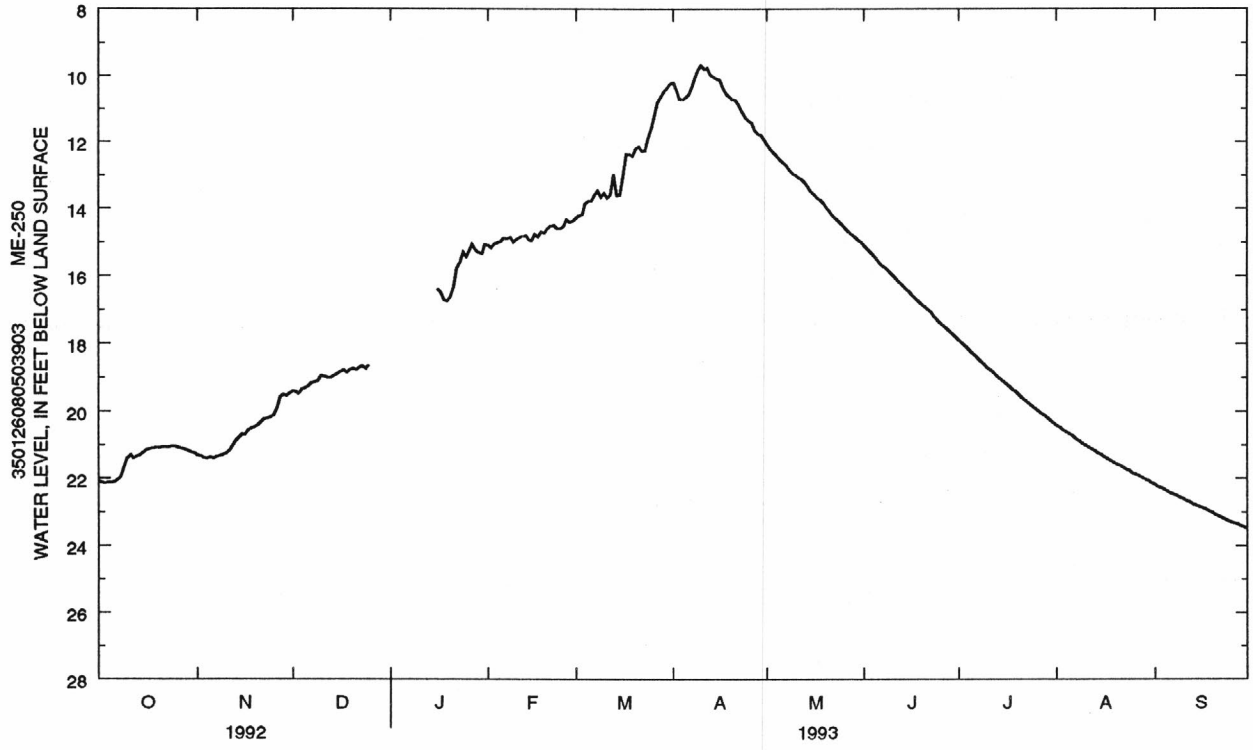
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.63 ft below land-surface datum, Apr. 10, 1993; lowest water level recorded, 24.38 ft below land-surface datum Nov. 19, 20, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.13	21.38	19.31	---	14.98	13.79	10.66	12.53	15.51	18.26	20.67	22.38
10	21.40	21.25	18.96	---	14.93	13.56	9.70	13.01	15.98	18.70	21.01	22.61
15	21.24	20.68	18.89	---	14.97	13.62	10.09	13.50	16.46	19.10	21.30	22.84
20	21.08	20.42	18.75	16.63	14.62	12.22	10.73	13.97	16.92	19.50	21.57	23.07
25	21.05	20.12	18.65	15.45	14.56	11.59	11.37	14.50	17.39	19.90	21.84	23.29
EOM	21.26	19.46	---	15.08	14.37	10.25	11.92	15.00	17.81	20.34	22.13	23.48

WTR YR 1993 MEAN 17.43 HIGH 9.70 APR 10 LOW 23.48 SEP 30


350126080503903 ME-250
WATER LEVEL, IN FEET BELOW LAND SURFACE
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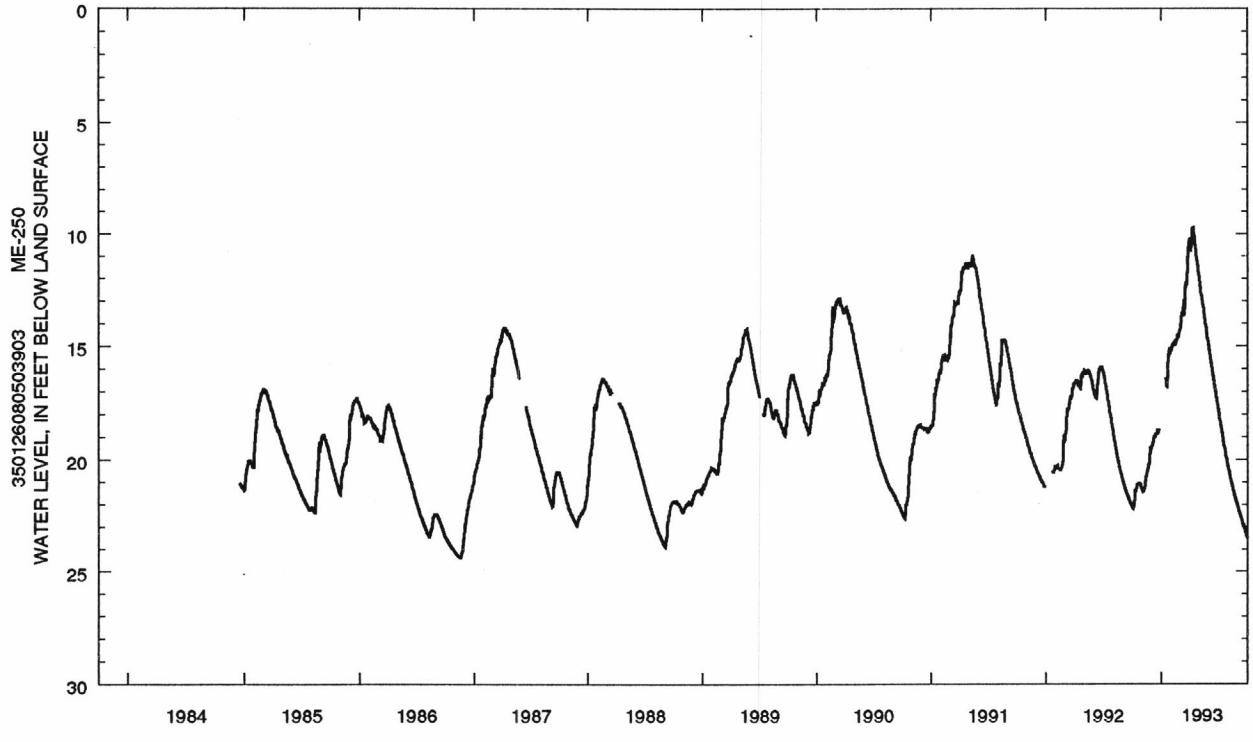
1992
1993


350126080503903 ME-250
WATER LEVEL, IN FEET BELOW LAND SURFACE
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25
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1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

MECKLENBURG COUNTY--Continued

351023080542703. Local number, Me-251.

LOCATION.--Lat 35°10'23", long 80°54'27", Hydrologic Unit 03050103, at York Road landfill, at Charlotte. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.

WELL CHARACTERISTICS.--Drilled observation well, depth 25.0 ft, diameter 4 in., cased to 20.0 ft, screened from 20.0 to 25.0 ft. Sand filter packed from 20.0 to 25.0 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 612.42 ft (revised) above sea level (levels by City of Charlotte). Measuring point: Top of casing, 0.50 ft above land-surface datum.

REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-B.

PERIOD OF RECORD.--October 1984 to current year.

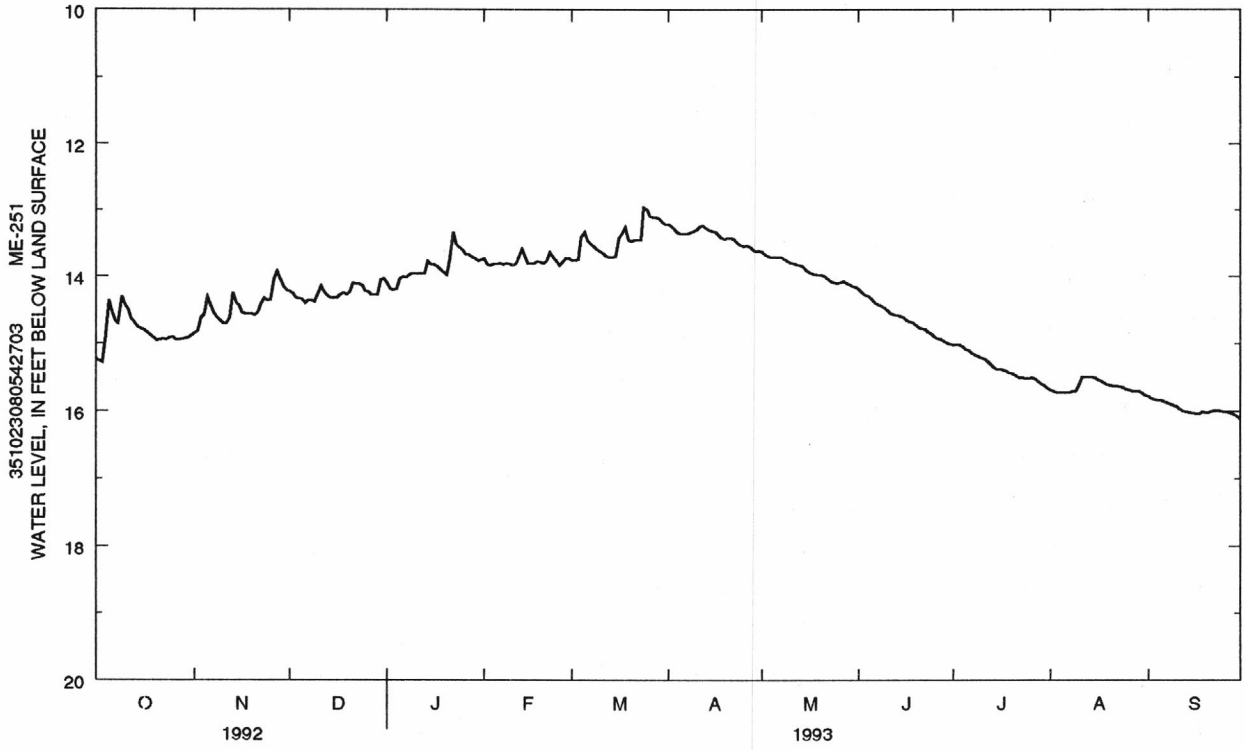
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.87 ft below land-surface datum, Mar. 24, 1993; lowest water level recorded, 16.49 ft below land-surface datum, Oct. 7, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.36	14.31	14.34	14.04	13.82	13.34	13.36	13.71	14.33	15.09	15.72	15.84
10	14.41	14.70	14.26	13.96	13.84	13.63	13.31	13.80	14.51	15.21	15.61	15.93
15	14.78	14.45	14.32	13.83	13.81	13.70	13.32	13.90	14.61	15.38	15.50	16.03
20	14.95	14.58	14.24	13.98	13.81	13.48	13.43	13.98	14.76	15.45	15.62	16.02
25	14.90	14.35	14.22	13.61	13.84	13.00	13.55	14.10	14.89	15.51	15.68	16.01
EOM	14.87	14.21	14.04	13.75	13.73	13.22	13.62	14.16	15.01	15.66	15.76	16.11

WTR YR 1993 MEAN 14.46 HIGH 12.96 MAR 24 LOW 16.11 SEP 30


351023080542703 ME-251
WATER LEVEL, IN FEET BELOW LAND SURFACE
10
12
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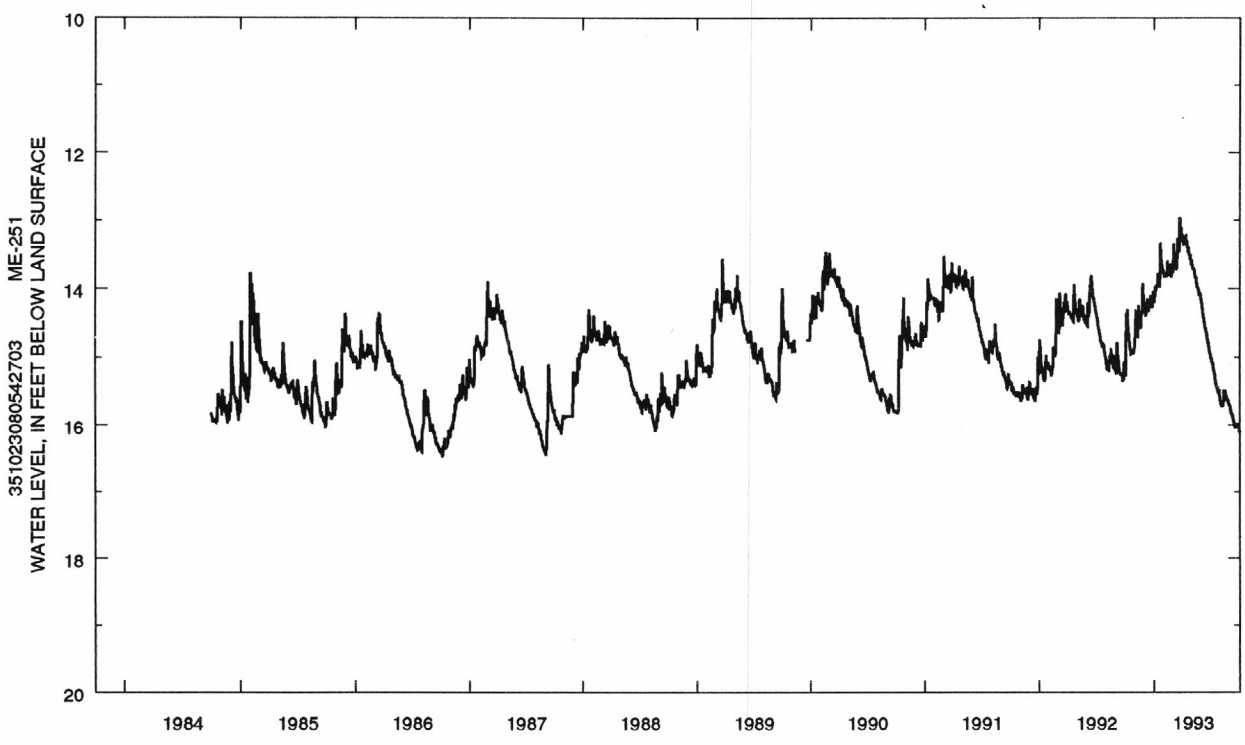
1992
1993


351023080542703 ME-251
WATER LEVEL, IN FEET BELOW LAND SURFACE
10
12
14
16
18
20
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

MECKLENBURG COUNTY--Continued

351331080411603. Local number, Me-252.

LOCATION.--Lat 35°13'31", long 80°41'16", Hydrologic Unit 03050103, at Harrisburg Road landfill, near Mint Hill. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.

WELL CHARACTERISTICS.--Drilled observation well, depth 57.6 ft, diameter 4 in., cased to 52.6 ft, screened from 52.6 to 57.6 ft. Sand filter packed from 52.6 to 57.6 ft. Land-surface elevation and, thus, well depth increased in 1990. See datum corrections and remarks below.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval Nov. 1984 through July 9, 1990, and Dec. 10, 1990, to present. Periodic measurements with chalked steel tape were made during interruption of continuous record, during period July 9, 1990, to Dec. 10, 1990.

DATUM.--Land-surface datum is 780.6 ft above sea level from Dec. 10, 1990, to present; was 756.3 ft from Nov. 1984 to July 9, 1990. Land-surface datum changed many times during the period from July 9 to Dec. 10, 1990, as a result of landfill activities. Measuring point: Top of casing, 1.50 ft above land-surface datum Nov. 1984 through July 9, 1990, and 1.40 ft from Dec. 10, 1990, to present.

REMARKS.--Well is part of the Charlotte-Mecklenburg landfill hydrology study, Harrisburg Road landfill well HBW 2101-A. Continuous record was interrupted July 9, 1990, when recorder was removed for landfill operations. Continuous record resumed Dec. 10, 1990. Land-surface datum has increased as the landfill has been filled. Use extremes for period of record with care, noting datum changes as described above. In this report, hydrographs of water-level data from this well are shown in feet above sea level to compensate for changes in land-surface datum.

PERIOD OF RECORD.--November 1984 to current year.

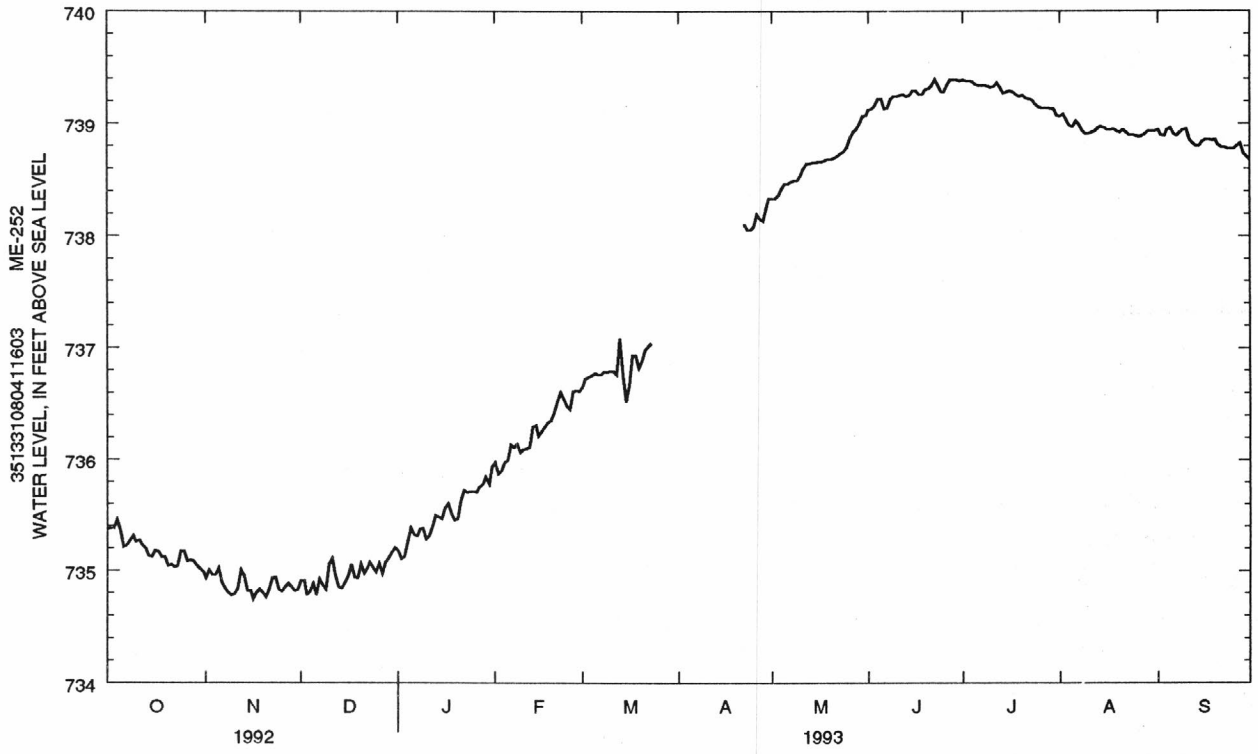
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 16.80 ft below land-surface datum, May 10, 1990; lowest water level recorded, 46.16 ft below land-surface datum, March 1, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.27	45.61	45.75	45.25	44.64	43.86	---	42.17	41.40	41.24	41.66	41.67
10	45.37	45.84	45.58	45.35	44.54	43.84	---	42.09	41.38	41.28	41.72	41.68
15	45.51	45.81	45.74	45.17	44.42	44.11	---	41.98	41.32	41.33	41.67	41.79
20	45.59	45.87	45.58	45.17	44.21	43.75	---	41.95	41.29	41.36	41.71	41.82
25	45.46	45.82	45.65	44.92	44.18	---	42.55	41.84	41.32	41.47	41.74	41.85
EOM	45.64	45.80	45.43	44.70	44.02	---	42.30	41.56	41.21	41.55	41.70	41.95

WTR YR 1993 MEAN 43.45 HIGH 41.20 JUN 27 LOW 45.89 NOV 16


351331080411603 ME-252
WATER LEVEL, IN FEET ABOVE SEA LEVEL
740
739
738
737
736
735
734
O
N
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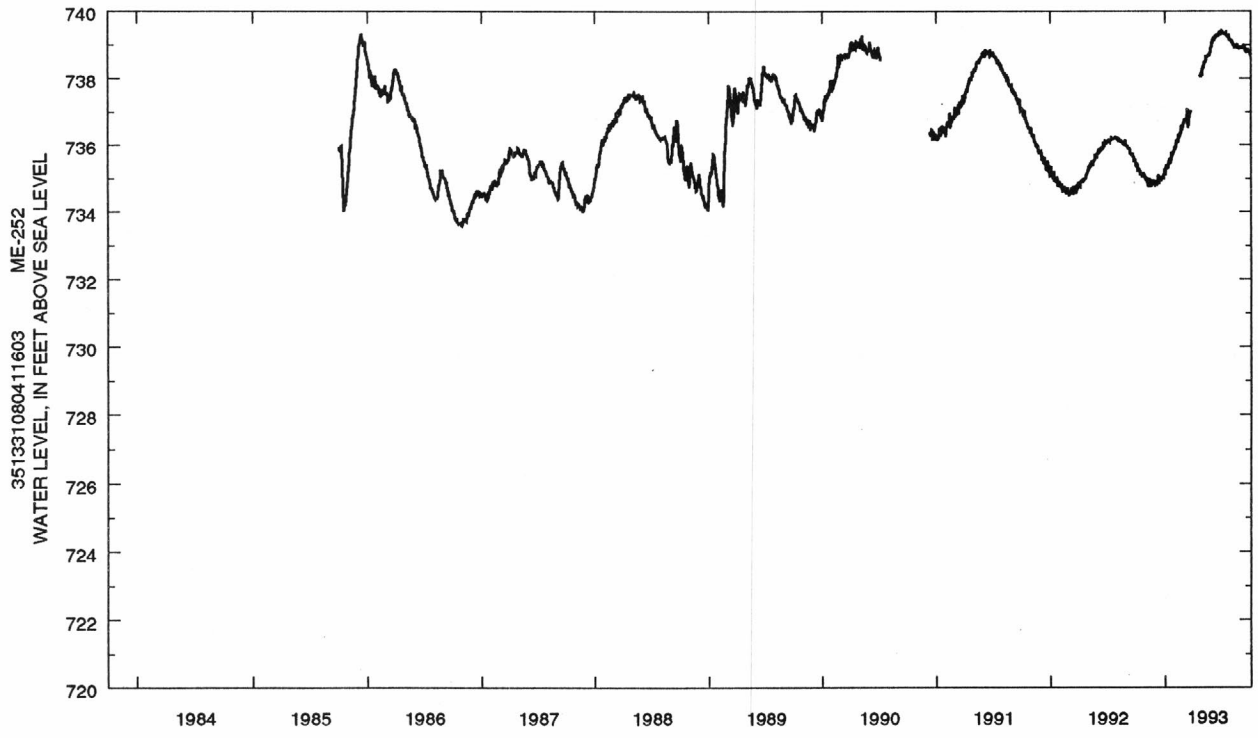
S
1992
1993


351331080411603 ME-252
WATER LEVEL, IN FEET ABOVE SEA LEVEL
740
738
736
734
732
730
728
726
724
722
720
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

MECKLENBURG COUNTY--Continued

351333080405501. Local number, Me-253.

LOCATION.--Lat 35°13'33", long 80°40'55", Hydrologic Unit 03050103, at Harrisburg Road landfill, near Mint Hill. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.

WELL CHARACTERISTICS.--Drilled observation well, depth 52.7 ft, diameter 4 in., cased to 42.7 ft, screened from 42.7 to 52.7 ft; Dec. 18, 1985. Sand filter packed from 42.7 to 52.7 ft. Land-surface elevation and, thus, well depth has increased several times since 1985. See datum corrections and remarks below.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 759.7 ft above sea level from Apr. 21, 1988, to present; and was 742.1 ft from Dec. 18, 1985, to Sept. 29, 1986; 748.3 ft from Sept. 29 to Dec. 19, 1986; 758.1 ft from Dec. 19, 1986, to Apr. 21, 1988. Measuring point to land-surface datum was -4.4 ft from Dec. 18, 1985, to Sept. 29, 1986; -3.2 ft from Sept. 29, 1986, to Oct. 6, 1986; 0.0 ft from Oct. 6, 1986, to Apr. 21, 1988; -3.4 ft from Apr. 21, 1988, to Dec. 10, 1990; -2.2 ft from Dec. 10, 1990, to present. Finished grade completed about Sept. 30, 1988.

REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2201. The land-surface datum has increased as the landfill has been filled. Use extremes for period of record with care, noting datum changes as described above. In this report, hydrographs of water-level data from this well are shown in feet above sea level to compensate for changes in land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.28 ft below land-surface datum, Mar. 21, 1986; lowest water level recorded, 32.96 ft below land-surface datum Feb. 16, 17, 1989.

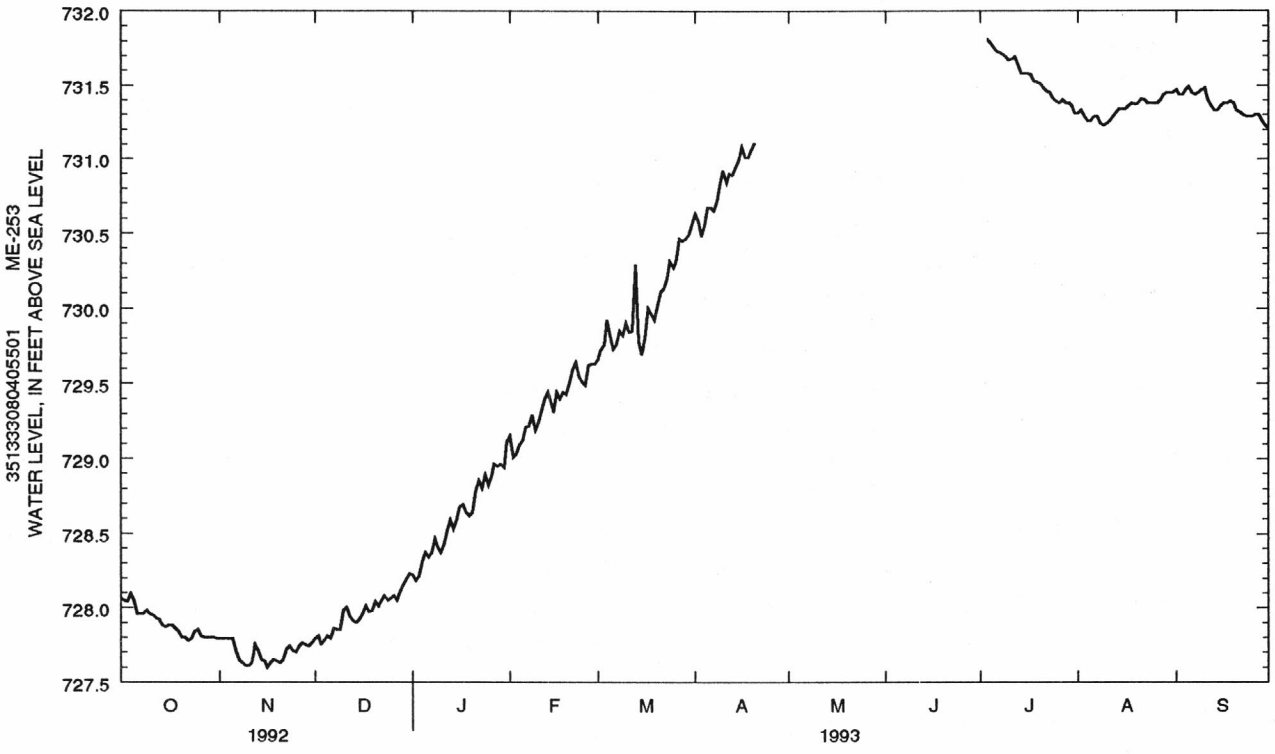
REVISIONS.--The elevation of land-surface datum published in previous annual-data reports has been revised to 759.7 ft above sea level.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.64	31.90	31.88	31.32	30.57	29.89	29.02	---	---	27.93	28.43	28.19
10	31.73	32.08	31.71	31.32	30.45	29.79	28.77	---	---	28.02	28.45	28.21
15	31.82	32.05	31.77	31.10	30.38	30.00	28.70	---	---	28.11	28.35	28.33
20	31.89	32.06	31.65	31.05	30.19	29.67	28.57	---	---	28.18	28.31	28.36
25	31.84	31.99	31.63	30.87	30.20	29.42	---	---	---	28.29	28.30	28.40
EOM	31.90	31.93	31.46	30.58	30.06	29.13	---	---	---	28.38	28.23	28.48

WTR YR 1993 MEAN 29.88 HIGH 27.79 JUN 4 LOW 32.09 NOV 16


351333080405501 ME-253
WATER LEVEL, IN FEET ABOVE SEA LEVEL
732.0
731.5
731.0
730.5
730.0
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727.5
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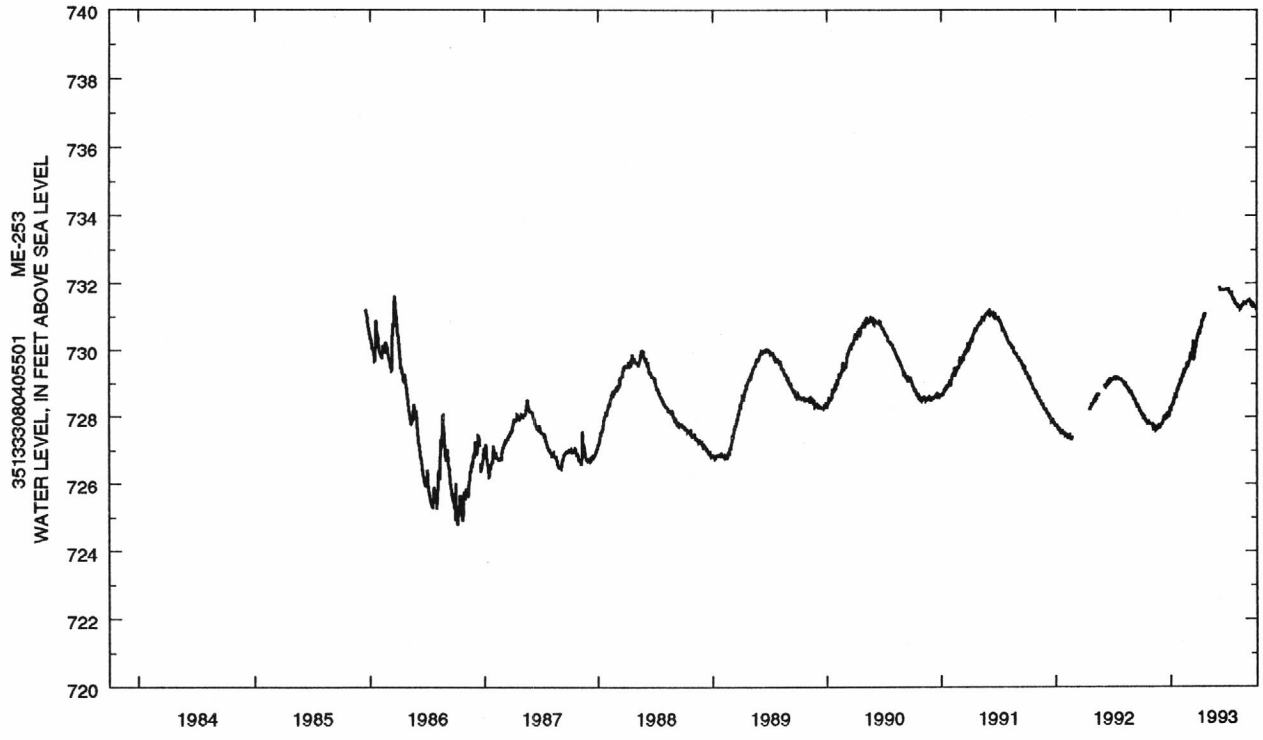
1992
1993


351333080405501 ME-253
WATER LEVEL, IN FEET ABOVE SEA LEVEL
740
738
736
734
732
730
728
726
724
722
720
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

MECKLENBURG COUNTY--Continued

351327080404401. Local number, Me-254.

LOCATION.--Lat 35°13'27", long 80°40'44", Hydrologic Unit 03050103, at Harrisburg Road landfill, near Mint Hill. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.

WELL CHARACTERISTICS.--Drilled observation well, depth 56 ft, diameter 4 in., cased 35.0 ft, screened from 35.0 to 55.0 ft. Sand filter packed from 35.0 to 55.0 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 768.0 ft above sea level, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.

REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2301.

PERIOD OF RECORD.--January 1986 to current year.

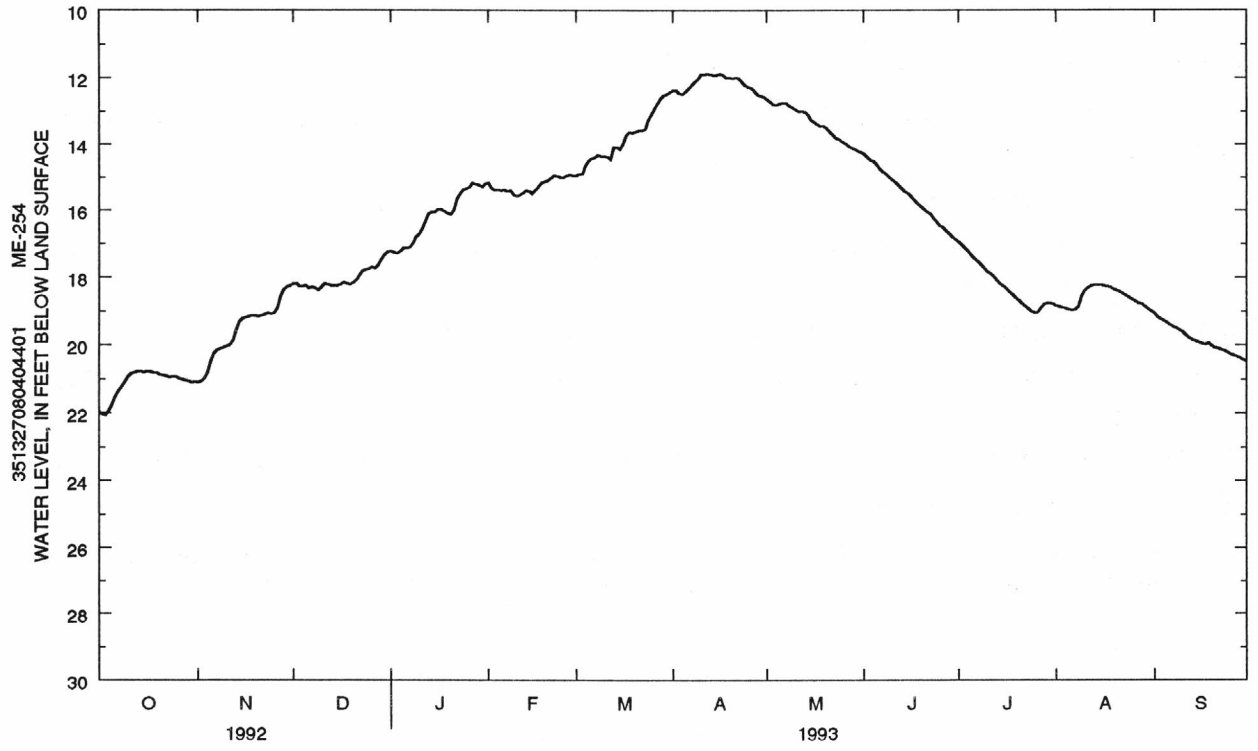
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.87 ft below land-surface datum, Apr. 16, 1993; lowest water level recorded, 24.37 ft below land-surface datum, Nov. 10-12, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.74	20.47	18.25	17.14	15.42	14.49	12.42	12.78	14.60	17.35	18.96	19.33
10	20.94	20.04	18.28	16.72	15.58	14.36	11.90	12.96	15.08	17.81	18.38	19.61
15	20.80	19.21	18.24	16.05	15.50	14.15	11.93	13.25	15.51	18.25	18.23	19.92
20	20.87	19.16	18.15	16.13	15.10	13.62	12.01	13.50	15.98	18.66	18.38	20.07
25	20.93	19.07	17.76	15.36	15.02	13.08	12.29	13.92	16.46	19.04	18.64	20.26
EOM	21.09	18.25	17.26	15.20	14.95	12.44	12.57	14.24	16.88	18.79	18.99	20.47

WTR YR 1993 MEAN 16.83 HIGH 11.88 APR 12 LOW 22.07 OCT 3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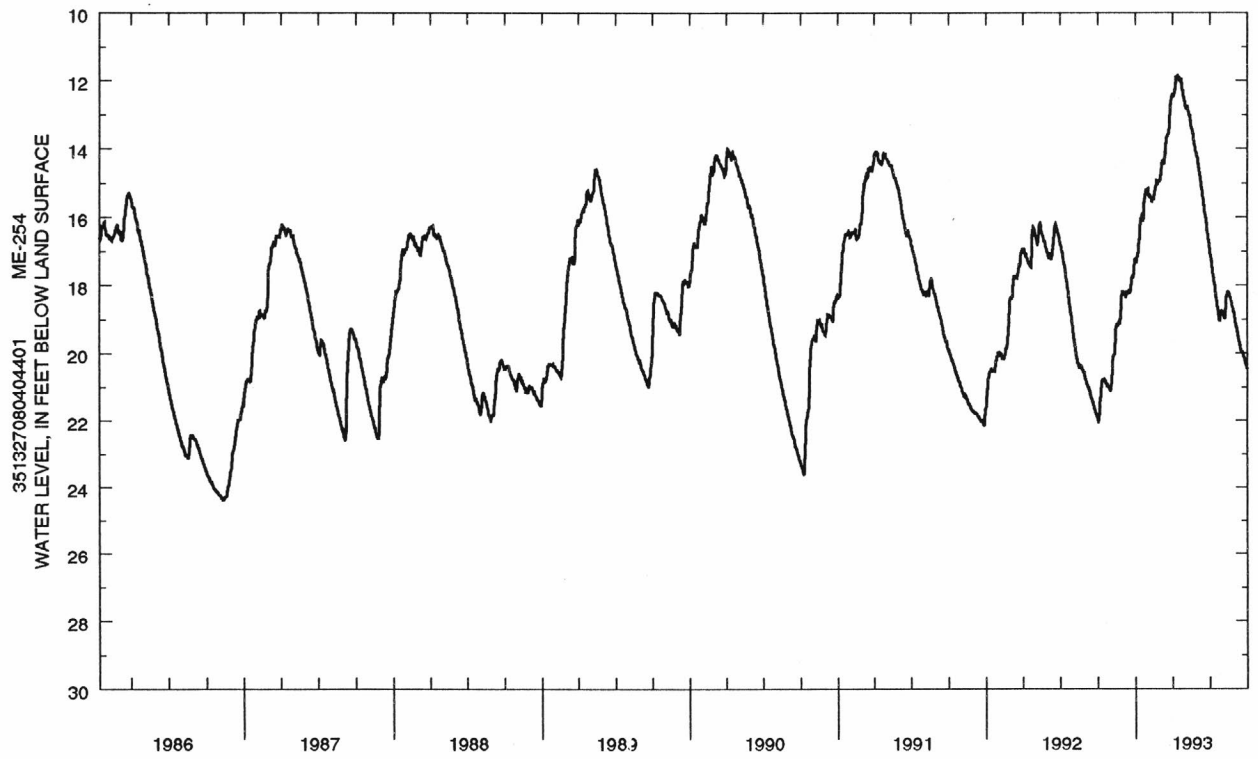
351327080404401 ME-254
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MECKLENBURG COUNTY--Continued

350639080405401. Local Number, Me-255

LOCATION.--Lat 35°06'39", long 80°40'54", Hydrologic Unit 35050103, near Matthews. Owner: U.S. Geological Survey.

ACQUIFER.--Unconfined saprolite derived from metavolcanic rock.

WELL CHARACTERISTICS.--Drilled observation well; construction depth 33.8 ft; measured depth in 1988, 33.18 ft; diameter 4 in., cased to 28.8 ft, screened interval from 28.8 to 33.8 ft. Sand filter packed from 28.8 to 33.8 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 730 ft above sea level, from topographic map. Measuring point: Top of casing 3.2 ft above land-surface datum.

REMARKS.--Well is part of Charlotte-Mecklenburg urban hydrology study, Ridge Road landfill well No. 1. Due to increase of mud in well bottom, dry depth since August 1988 is 33.18 ft below land surface datum.

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

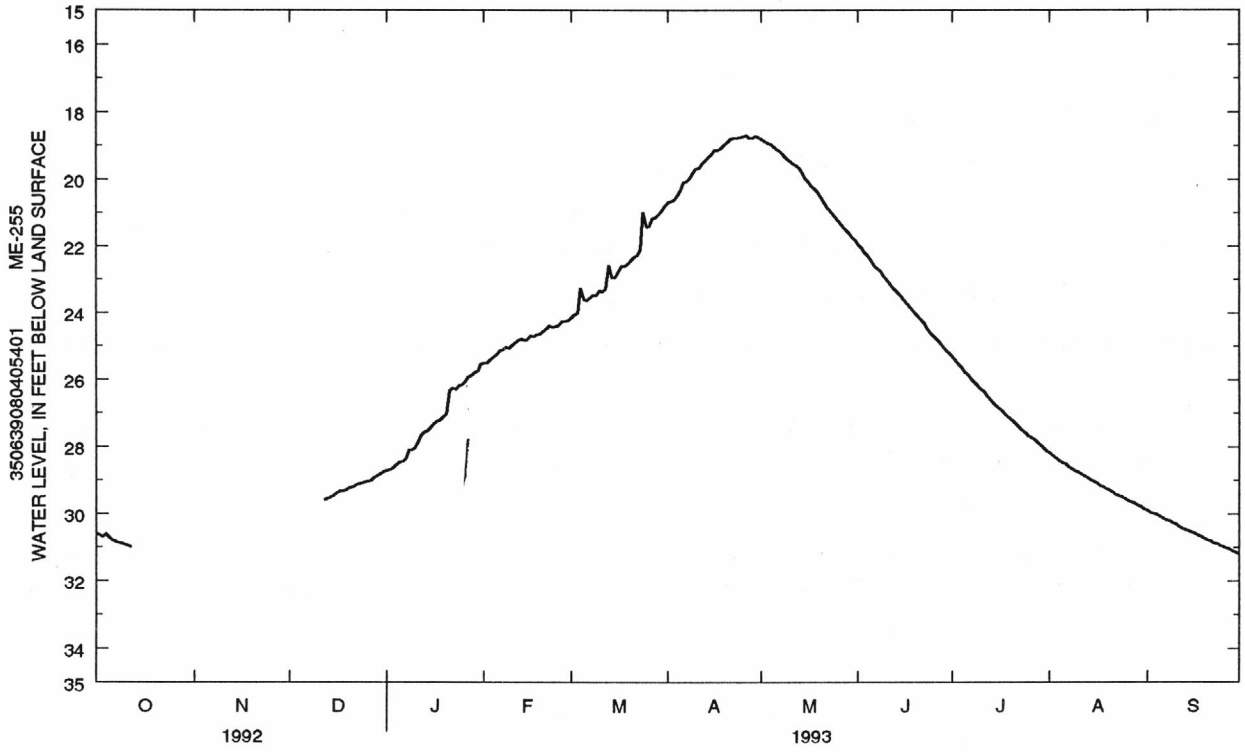
EXTREMES FOR PERIOD OF RECORD.--Highest water-level recorded, 18.67 ft below land-surface datum, Apr. 26, 1993; lowest water level recorded, 33.53 ft below land-surface datum, Nov. 3-14, 1986. Well was dry (water level below 33.18 ft), from Aug. 27, 1988, to Jan. 19, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.71	---	---	28.47	25.26	23.60	20.33	19.04	22.41	25.77	28.46	30.06
10	30.93	---	---	28.05	24.98	23.35	19.68	19.45	23.00	26.27	28.76	30.30
15	---	---	29.45	27.43	24.81	22.95	19.26	19.97	23.55	26.78	29.03	30.54
20	---	---	29.22	27.03	24.56	22.42	18.90	20.53	24.11	27.21	29.28	30.77
25	---	---	29.06	26.16	24.37	21.42	18.73	21.17	24.70	27.66	29.55	30.98
EOM	---	---	28.75	25.56	24.21	20.81	18.74	21.81	25.22	28.12	29.83	31.19

WTR YR 1993 MEAN 25.43 HIGH 18.69 APR 26 LOW 31.19 SEP 30


350639080405401 ME-255
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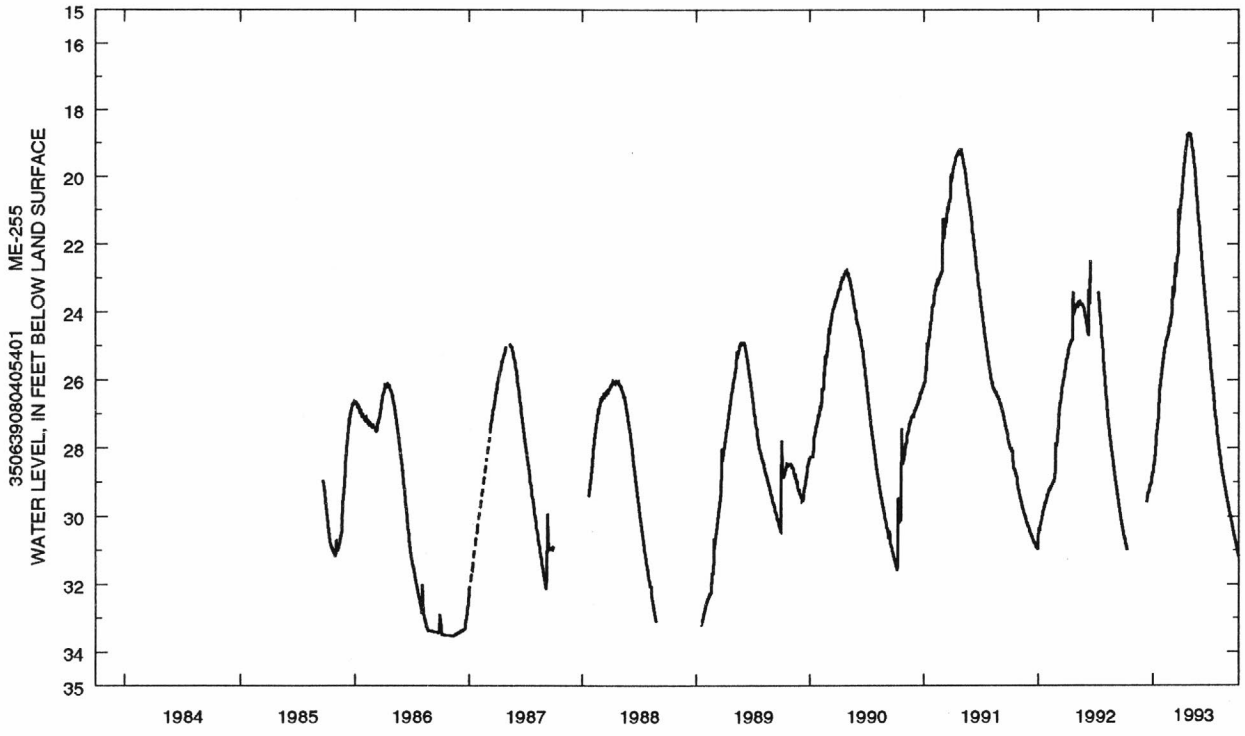
350639080405401 ME-255
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MECKLENBURG COUNTY--Continued

351003080544201. Local Number Me-256.

LOCATION.--Lat 35°10'03", long 80°54'42", Hydrologic Unit 03050103, near Charlotte. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from intrusive granite.

WELL CHARACTERISTICS.--Drilled observation well, depth 24.5 ft, diameter 3 in., cased to 19.5 ft, screened from 19.5 to 24.5 ft. Sand filter packed from 19.5 to 24.5 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 586.30 ft (revised) above sea level (levels by City of Charlotte). Measuring point: Top of casing, 1.70 ft above land-surface datum.

REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-6.

PERIOD OF RECORD.--June 1986 to current year.

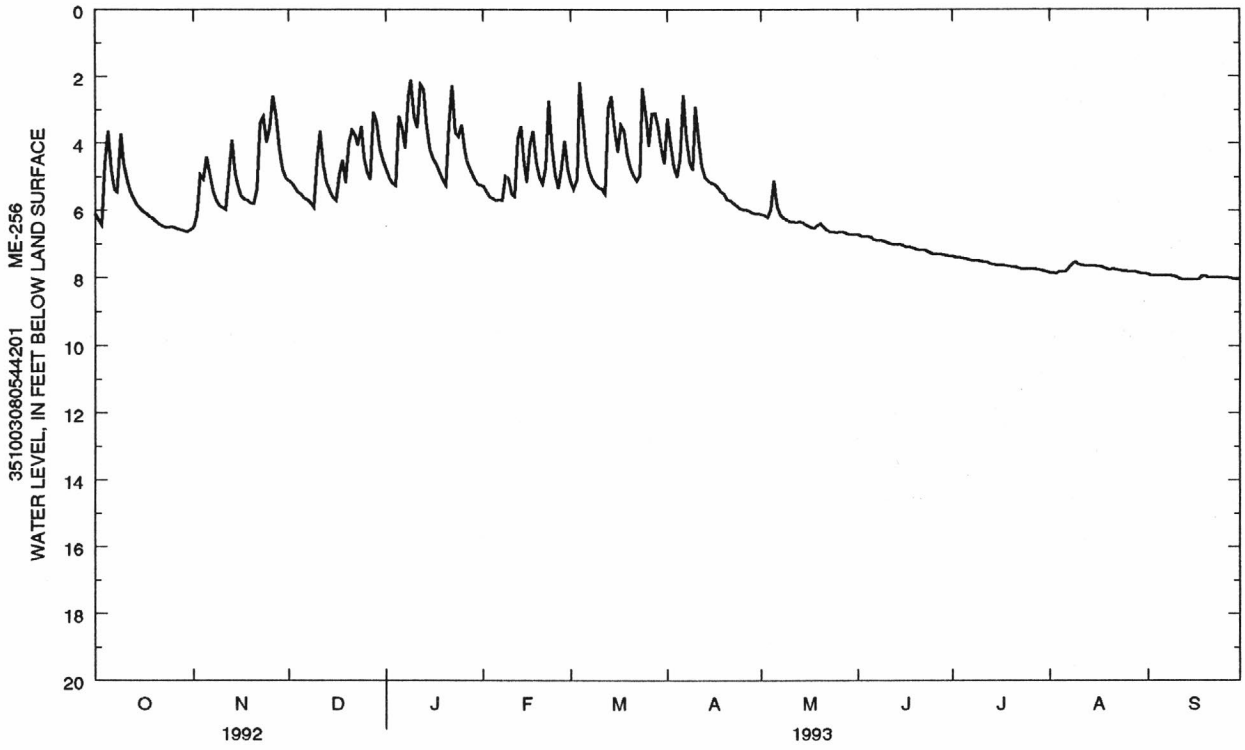
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.93 ft below land-surface datum, Aug. 14 and 15, 1991; lowest water level recorded, 8.49 ft below land-surface datum, Sept. 4 and 5, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.65	4.42	5.53	3.20	5.72	3.51	4.45	5.13	6.80	7.43	7.81	7.93
10	4.58	5.93	4.55	3.22	5.53	5.34	2.92	6.34	6.96	7.50	7.60	7.96
15	5.95	5.33	5.62	4.20	5.16	3.60	5.18	6.42	7.03	7.62	7.63	8.03
20	6.35	5.81	4.02	5.26	5.21	4.75	5.69	6.40	7.17	7.67	7.76	7.99
25	6.49	3.54	4.42	3.46	5.35	3.24	5.97	6.67	7.29	7.74	7.79	7.99
EOM	6.58	5.04	4.51	5.26	4.80	4.61	6.09	6.73	7.34	7.82	7.87	8.04

WTR YR 1993 MEAN 5.87 HIGH 2.12 JAN 9 LOW 8.04 SEP 13


351003080544201 ME-256
WATER LEVEL, IN FEET BELOW LAND SURFACE
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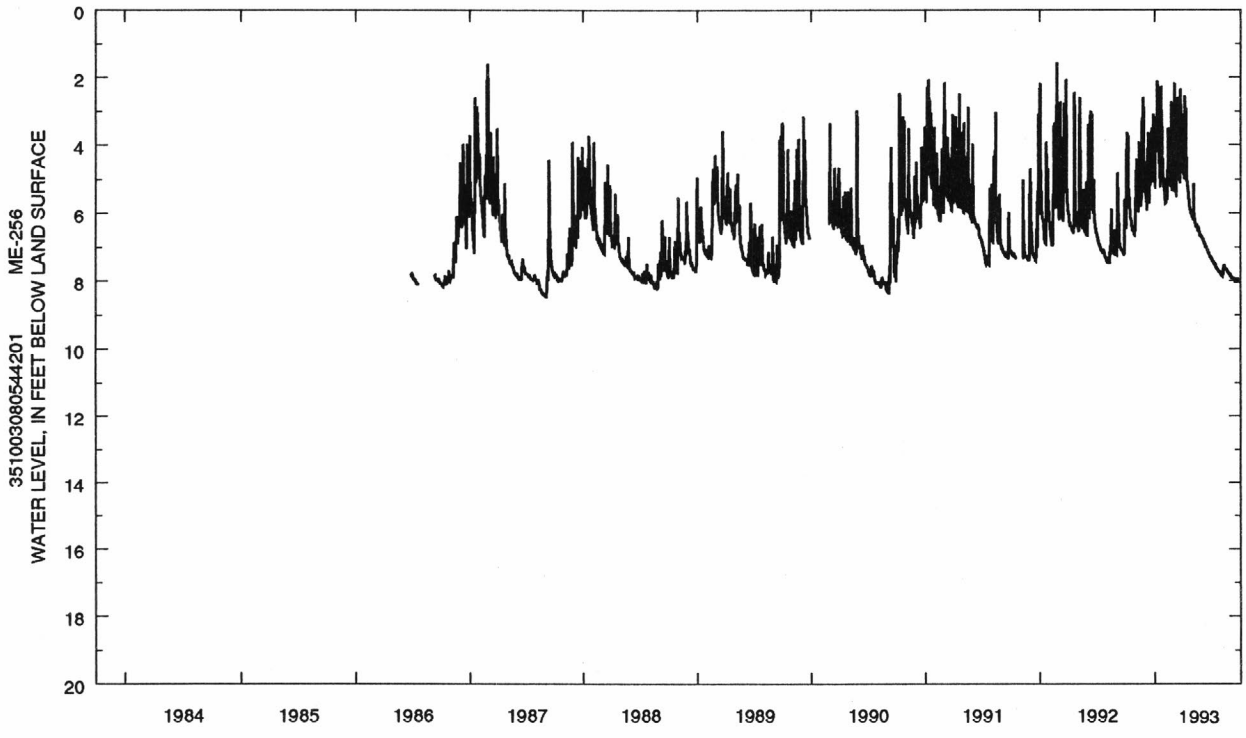
351003080544201 ME-256
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MECKLENBURG COUNTY--Continued

352422080560303. Local Number Me-257.

LOCATION.--Lat 35°24'22", long 80°56'03", Hydrologic Unit 03050101, near Huntersville. Owner: U.S. Geological Survey.

AQUIFER.--Weathered granite of Paleozoic age.

WELL CHARACTERISTICS.--Drilled observation well, depth 23.0 ft, diameter 4 in., casing to 20.5 ft with slotted well screen from 10.5 to 20.5 ft. Sand-filled around well screen, with clay above.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 734 ft above sea level, from topographic map. Measuring point: Top of casing, 1.40 ft above land-surface datum.

REMARKS.--Well constructed to determine ground-water level at proposed Stephens Road landfill site, SRW-N15A.

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

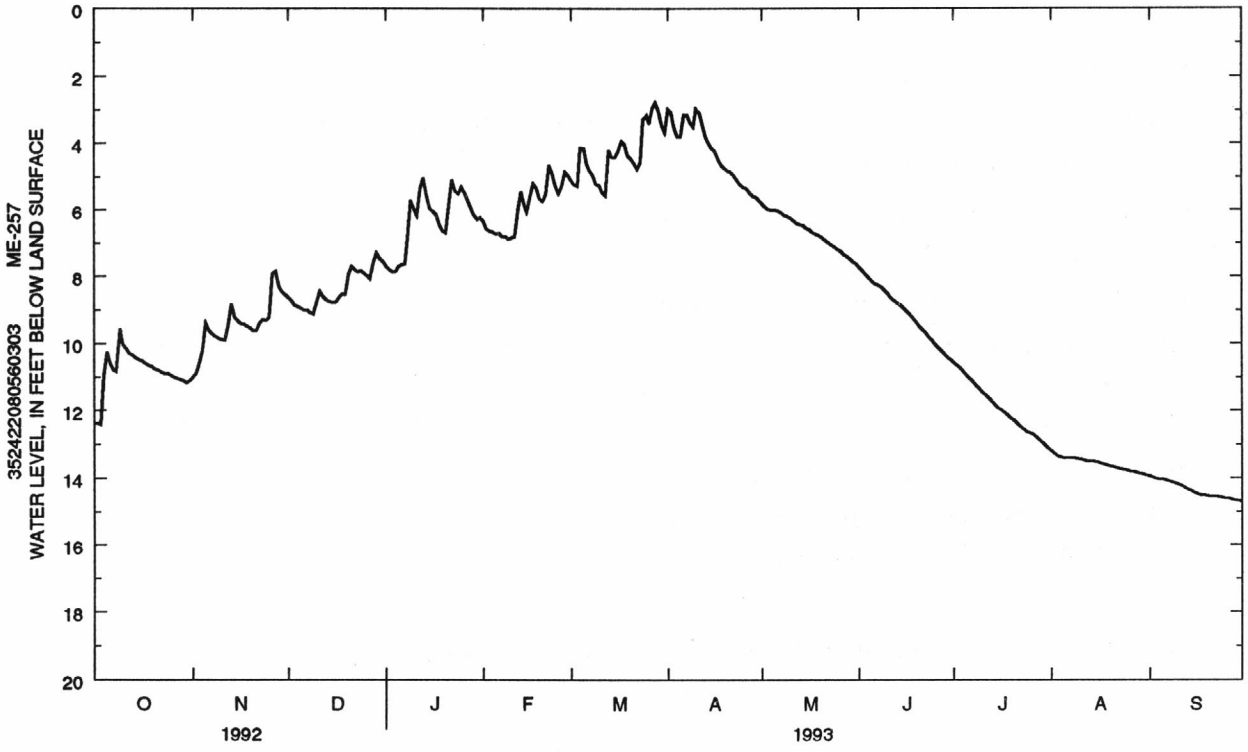
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.76 ft below land-surface datum, Mar. 28, 1993; lowest water level recorded, 14.73 ft below land-surface datum Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.26	9.42	8.96	7.72	6.74	4.18	3.81	6.01	8.14	10.95	13.40	14.04
10	10.01	9.88	8.79	5.97	6.86	5.28	2.99	6.26	8.52	11.45	13.45	14.18
15	10.48	9.33	8.77	5.99	6.08	4.44	4.17	6.56	8.95	11.92	13.52	14.43
20	10.76	9.62	7.94	6.71	5.74	4.48	4.84	6.84	9.50	12.29	13.66	14.55
25	10.95	9.23	7.90	5.33	5.53	3.19	5.33	7.20	10.02	12.67	13.77	14.61
EOM	11.11	8.56	7.56	6.25	4.97	3.69	5.71	7.63	10.48	13.12	13.92	14.71

WTR YR 1993 MEAN 8.78 HIGH 2.80 MAR 28 LOW 14.71 SEP 30


ME-257
352422080560303
WATER LEVEL, IN FEET BELOW LAND SURFACE
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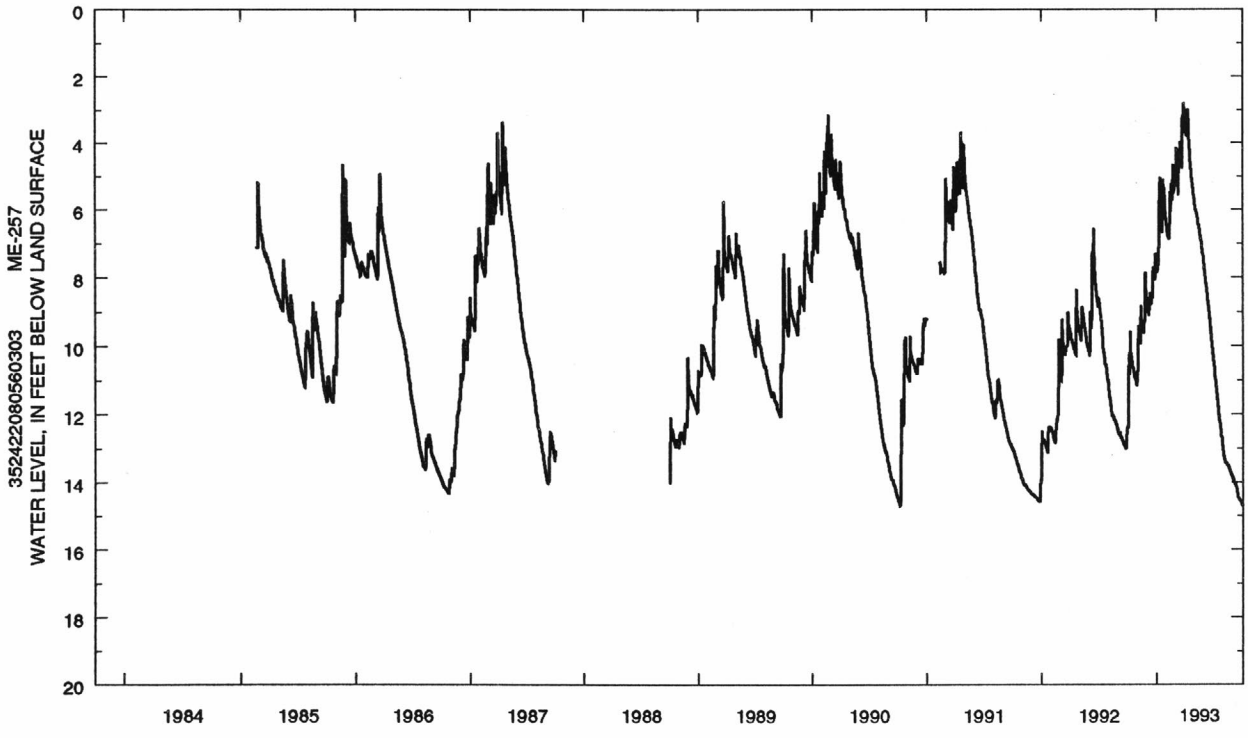
ME-257
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NEW HANOVER COUNTY

341000077524201. Local number, NC-20.

LOCATION.--Lat 34°09'53", long 77°52'48", Hydrologic Unit 03030001, southeast of Wilmington, 1 mi west of Secondary Road 1492 on Secondary Road 1516. Owner: Walter J. Hodder.

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 173 ft, diameter 3 in., cased and screened intervals unknown; measured depth 169 ft, September 1973.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 21 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.85 ft above land-surface datum (since March 11, 1976).

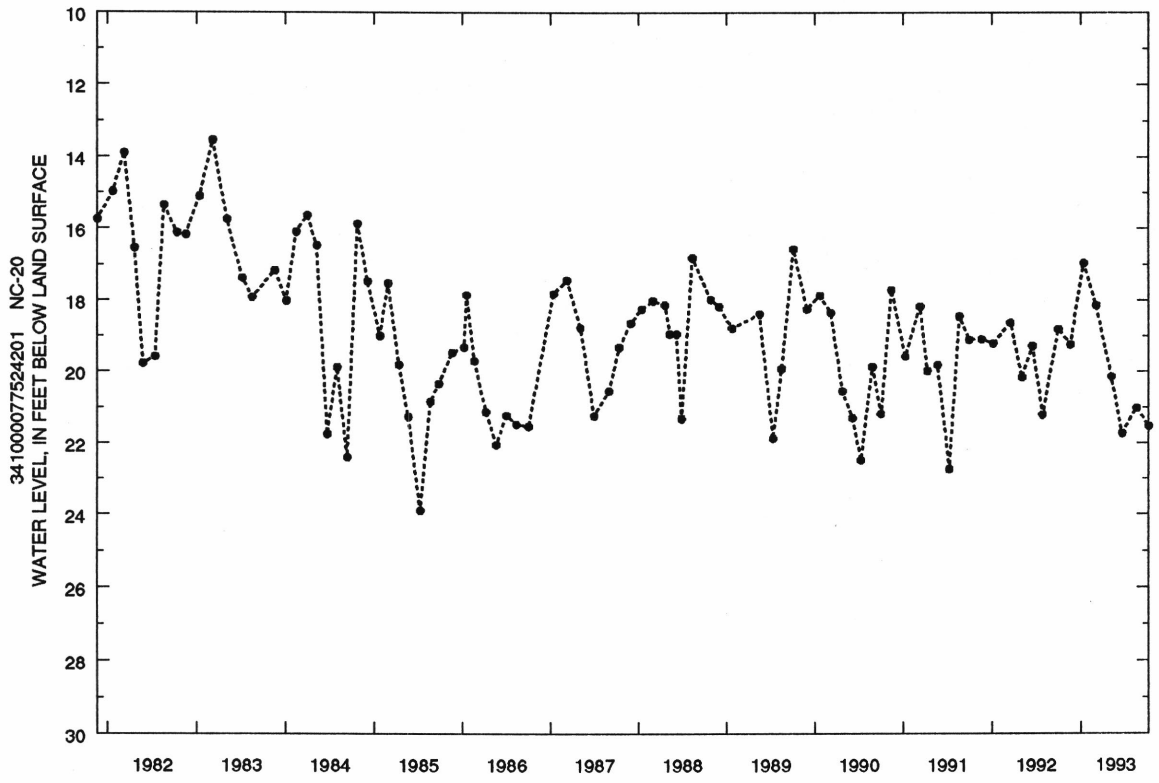
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--November 1963 to current year. USGS continuous record from December 1964 to November 1980.

EXTREMES FOR PERIOD OF RECORD.--Highest recorded water level, 9.42 ft below land-surface datum, June 10, 1966; lowest water level recored, 23.89 ft below land-surface datum, July 10, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	18.81	JAN 13	16.96	MAR 4	18.14	MAY 6	20.15	JUN 18	21.73	AUG 17	21.02
NOV 19	19.24										


341000077524201 NC-20
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ONSLOW COUNTY

344425077272501. Local number, NC-52.

LOCATION.--Lat 34°44'18", long 77°27'29", Hydrologic Unit 03030001, southwest of Jacksonville, 0.25 mi east of U.S. Highway 17 at U.S. Marine Corps Camp Geiger, and 2 mi south of U.S. Highway 258. Owner: U.S. Marine Corps.

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled abandoned supply well, drilled to 70 ft, diameter 18 in., cased to 23 ft, open hole to 70 ft; measured depth 68 ft, January 1974.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 17.0 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.83 ft above land-surface datum (since April 29, 1993).

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--January 1963 to current year.

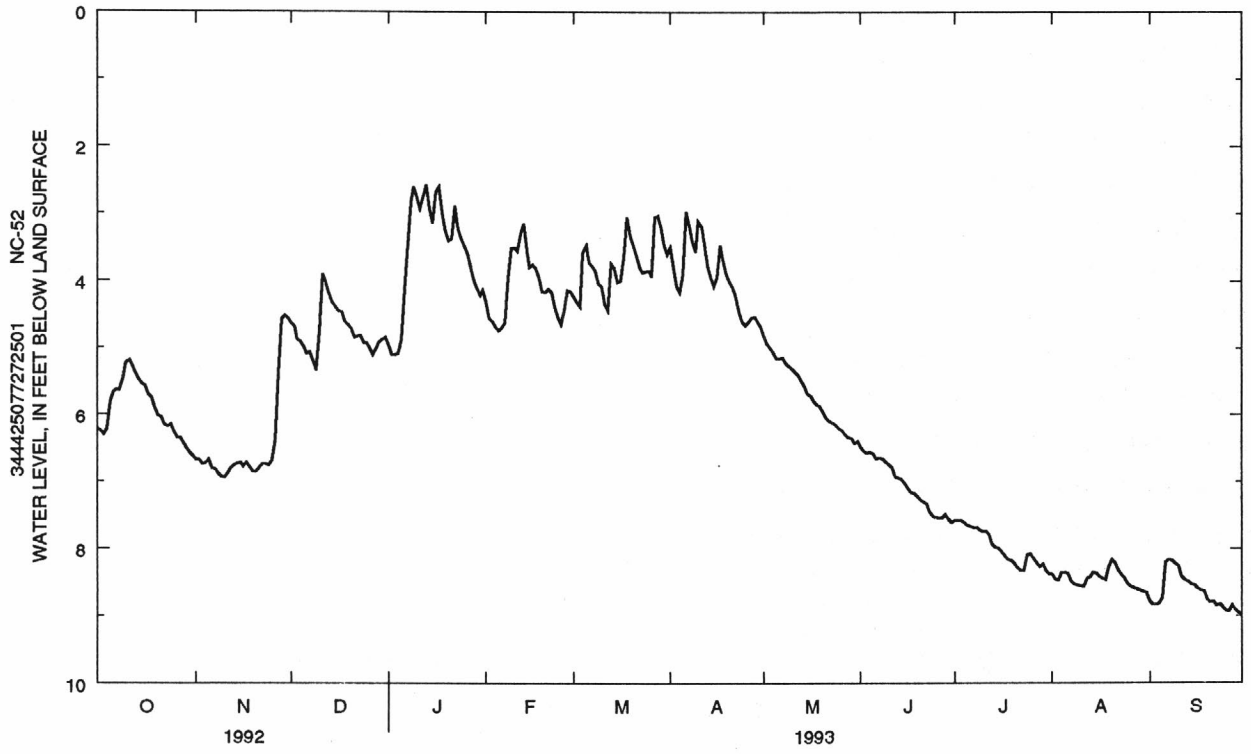
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.67 ft below land-surface datum, Sept. 14, 1984; lowest water level recorded, 10.44 ft below land-surface datum, Jan. 3, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.82	6.68	4.98	4.88	4.74	3.48	3.91	5.15	6.58	7.65	8.35	8.73
10	5.23	6.94	4.76	2.76	3.51	4.08	3.11	5.31	6.74	7.74	8.55	8.25
15	5.54	6.72	4.39	3.14	3.80	4.02	4.07	5.69	7.03	7.99	8.36	8.54
20	6.02	6.86	4.72	3.41	4.17	3.47	4.02	5.96	7.28	8.22	8.16	8.80
25	6.27	6.69	4.92	3.49	4.65	3.85	4.66	6.21	7.53	8.08	8.52	8.92
EOM	6.63	4.56	4.85	4.14	4.16	3.61	4.68	6.40	7.61	8.37	8.65	8.98

WTR YR 1993 MEAN 5.87 HIGH 2.58 JAN 13 LOW 8.98 SEP 30


344250077272501 NC-52
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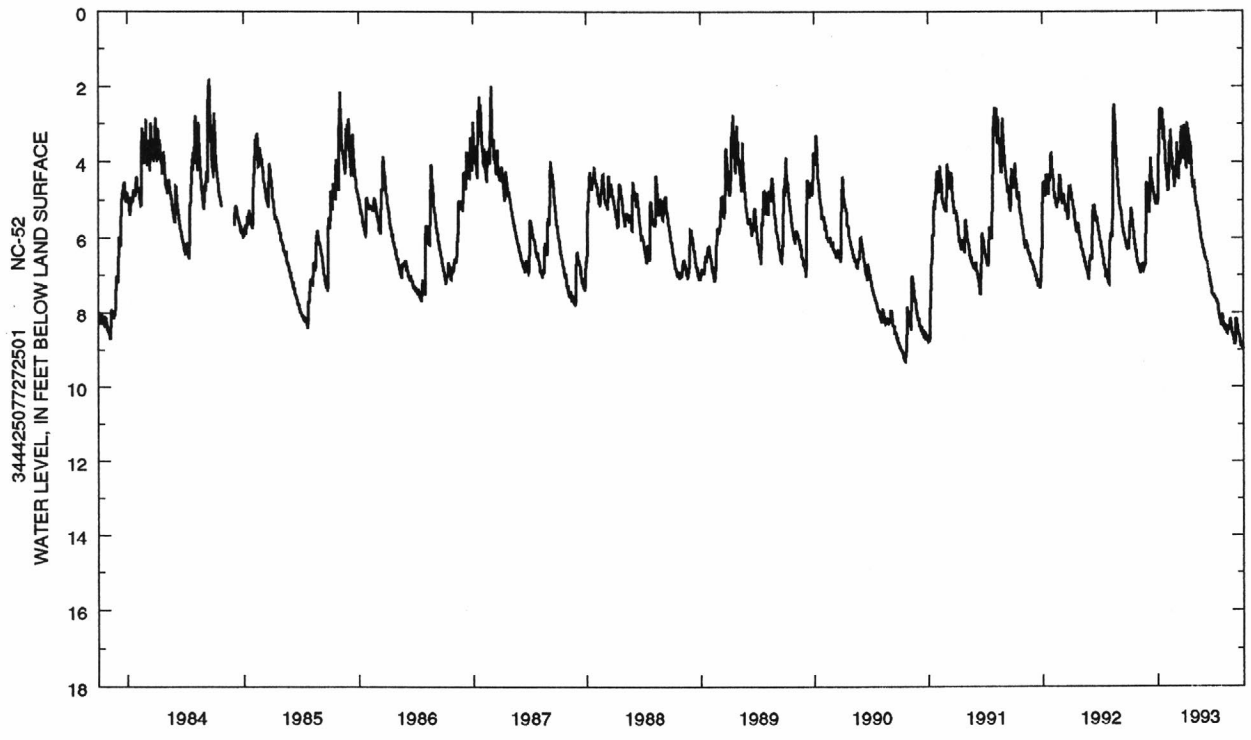
344250077272501 NC-52
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ONSLOW COUNTY--Continued

344525077254501. Local number, NC-85.

LOCATION.--Lat 34°45'25", long 77°25'45", Hydrologic Unit 03030001, in Jacksonville at electrical transformer substation, 0.15 mi north of U.S. Highway 17, and 0.4 mi east of New River. Owner: Carolina Power and Light Company.

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 240 ft (reported), diameter 8 in., cased and screened intervals unknown; measured depth 103 ft, January 1974.

DATUM.--Land-surface datum is 20 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.20 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--January 1963 to September 1993 (discontinued).

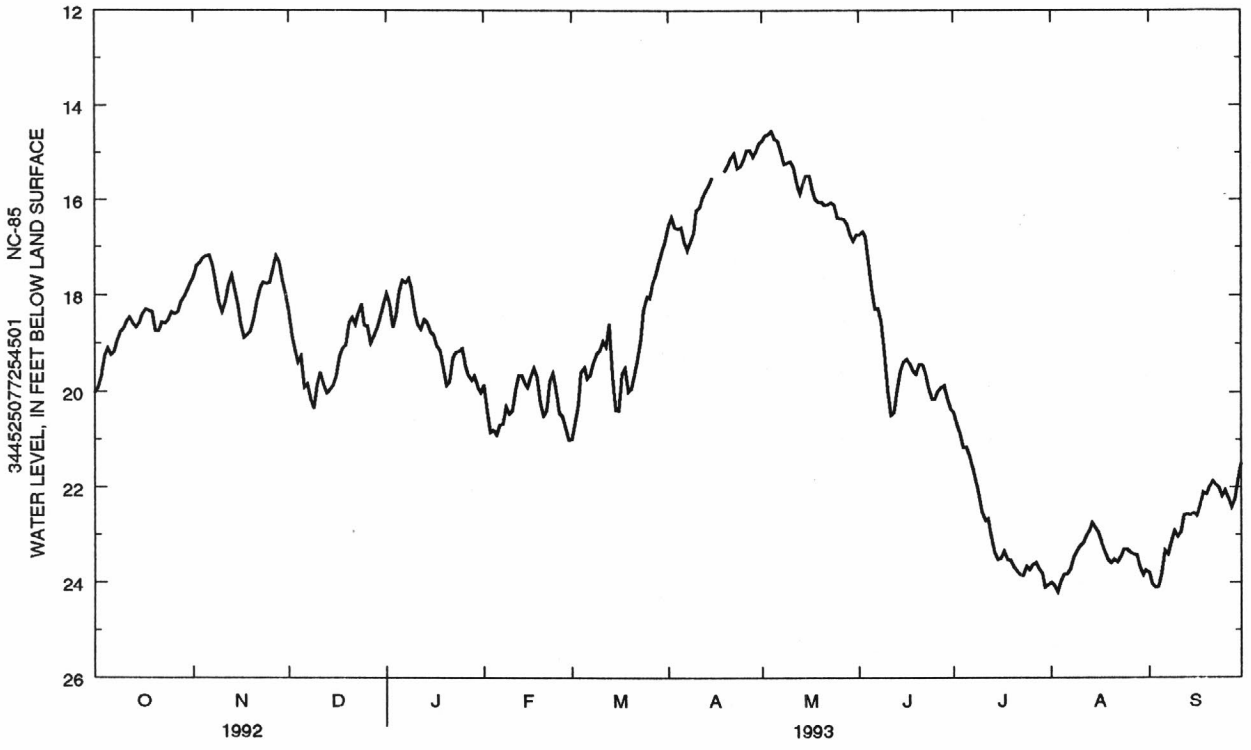
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.86 ft below land-surface datum, June 10, 1964; lowest water level recorded, 24.33 ft below land-surface datum, Aug. 2, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.11	17.18	19.27	17.92	20.89	19.49	16.59	14.70	17.85	21.15	23.82	23.80
10	18.71	18.35	19.85	18.30	20.39	19.14	16.23	15.18	19.95	22.51	23.24	23.04
15	18.57	18.22	19.87	18.76	19.91	20.37	15.53	15.49	19.37	23.52	22.87	22.55
20	18.74	18.51	18.57	19.86	20.49	19.92	15.27	16.05	19.43	23.66	23.58	22.01
25	18.34	17.75	18.63	19.10	20.44	18.02	15.15	16.38	20.14	23.73	23.30	22.07
EOM	17.73	17.99	18.21	20.01	21.00	16.86	14.81	16.74	20.35	24.05	23.75	21.49

WTR YR 1993 MEAN 19.50 HIGH 14.55 MAY 4 LOW 24.20 AUG 3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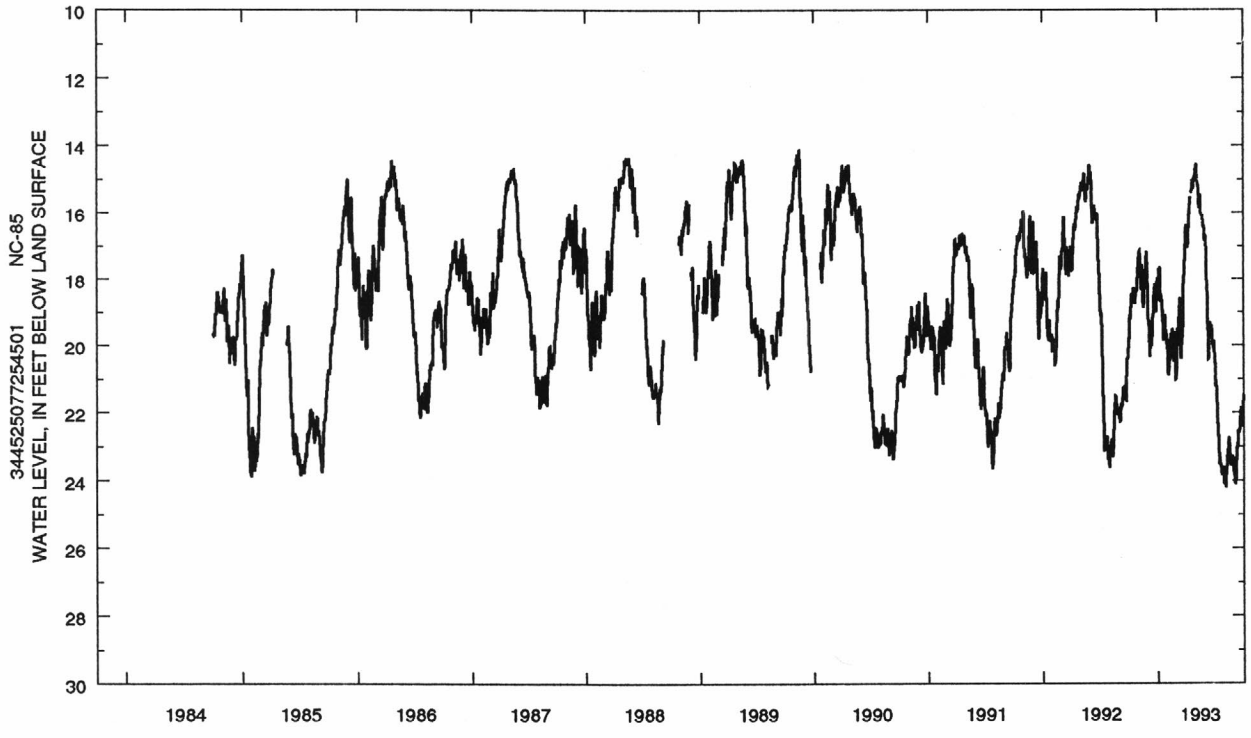
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ONSLOW COUNTY--Continued

343641077290104. Local number, NC-188; DEHNR Dixon Tower Research Station well Y25q4.

LOCATION.--Lat 34°36'41", long 77°29'01", Hydrologic Unit 03030001, 1.5 mi north of Dixon at North Carolina Division of Forest Resources Fire Tower on U.S. Highway 17. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 550 ft, diameter 4 in., cased to 524 ft, screened interval from 524 to 534 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 67.44 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.53 ft above land-surface datum.

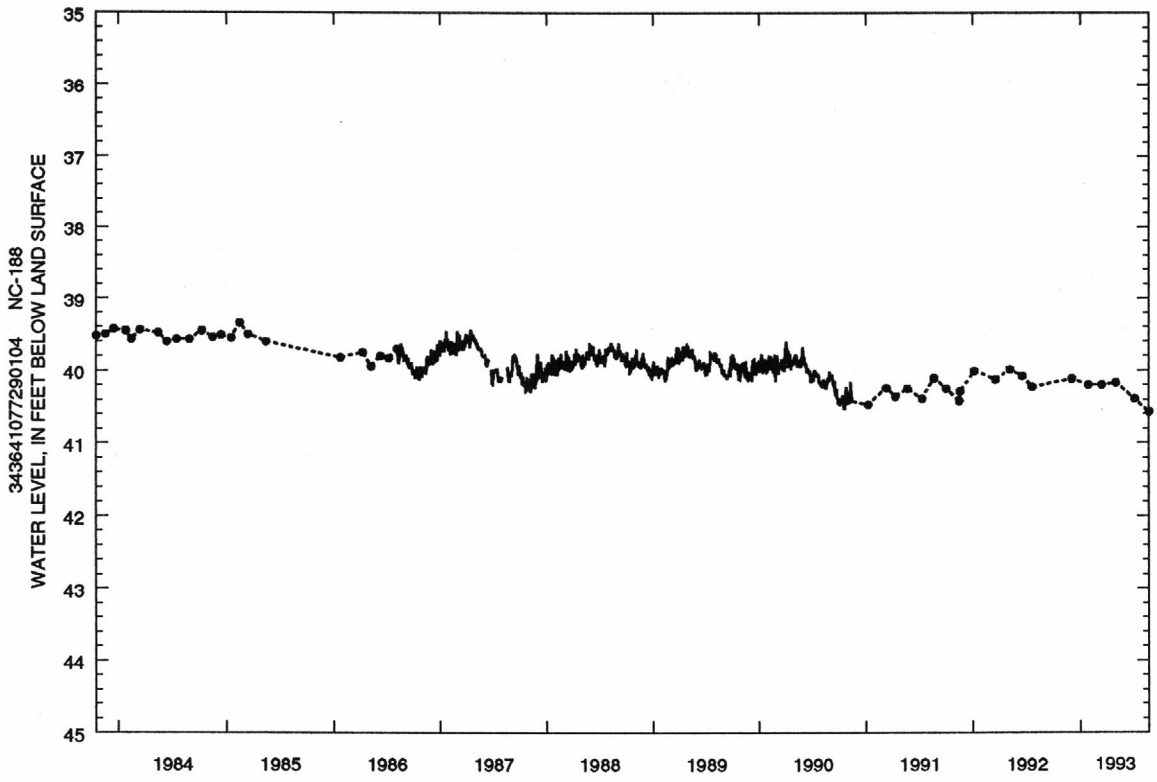
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--April 1982 to current year. Continuous record August 1986 to November 1990. Records from May 1983 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 38.86 ft below land-surface datum, May 12, 1983; lowest water level recorded, 40.57 ft below land-surface datum, Aug. 19, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 1	40.12	JAN 26	40.20	MAR 12	40.20	APR 29	40.17	JUL 1	40.39	AUG 19	40.57


343641077290104 NC-188
WATER LEVEL, IN FEET BELOW LAND SURFACE
35
36
37
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1984
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1988
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1991
1992
1993

ONSLOW COUNTY--Continued

344837077291607. Local number, NC-189; DEHNR Jacksonville 258 Well Field Research Station well W25f7.

LOCATION.--Lat 34°48'37", long 77°29'16", Hydrologic Unit 03030001, 1.4 mi northeast of U.S. Highway 258 and State Highway 24 on Wells Road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Black Creek aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 834 ft, diameter 4 in., cased to 824 ft, screened interval from 824 to 834 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 26.62 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.78 ft above land-surface datum.

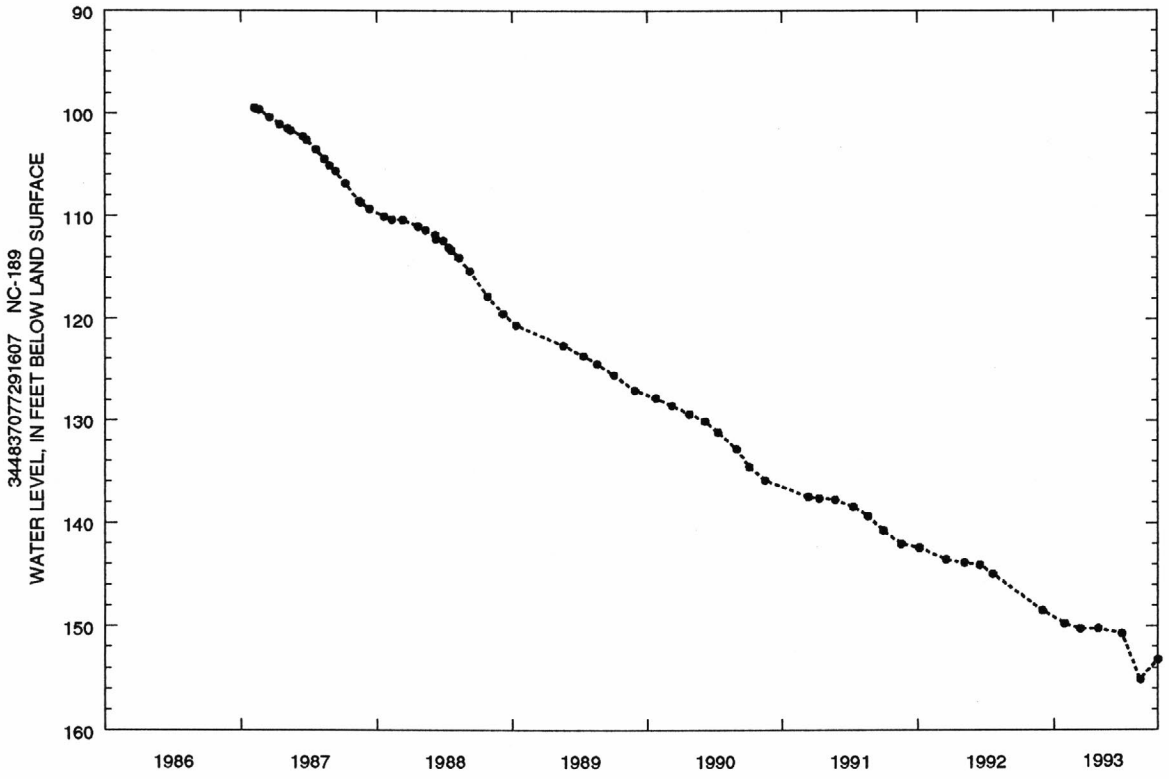
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--Continuous record from October 1986 to April 1988 are unreliable and unpublished.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 96.64 ft below land-surface datum, Oct. 15, 1986; lowest water level recorded, 152.12 ft below land-surface datum, Aug. 19, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 1	148.45	JAN 26	149.71	MAR 12	150.20	APR 29	150.19	JUL 1	150.69	AUG 19	152.12


344837077291607 NC-189
WATER LEVEL, IN FEET BELOW LAND SURFACE
90
100
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130
140
150
160
1986
1987
1988
1989
1990
1991
1992
1993

ORANGE COUNTY

355522079043001. Local number, NC-126.

LOCATION.--Lat 35°55'22", long 79°04'30", Hydrologic Unit 03030002, in Chapel Hill, west of University of North Carolina campus, southeast of intersection of Cameron Avenue and Ransom Street. Owner: Chi Psi Fraternity.

AQUIFER.--Unconfined saprolite derived from granite of Paleozoic age.

WELL CHARACTERISTICS.--Dug observation well, depth 48 ft, diameter 36 in., lined with rock; measured depth 46.2 ft, August 1986.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 511.50 ft above sea level. Measuring point: Top of shelf, 3.27 ft above land-surface datum (since July 21, 1981).

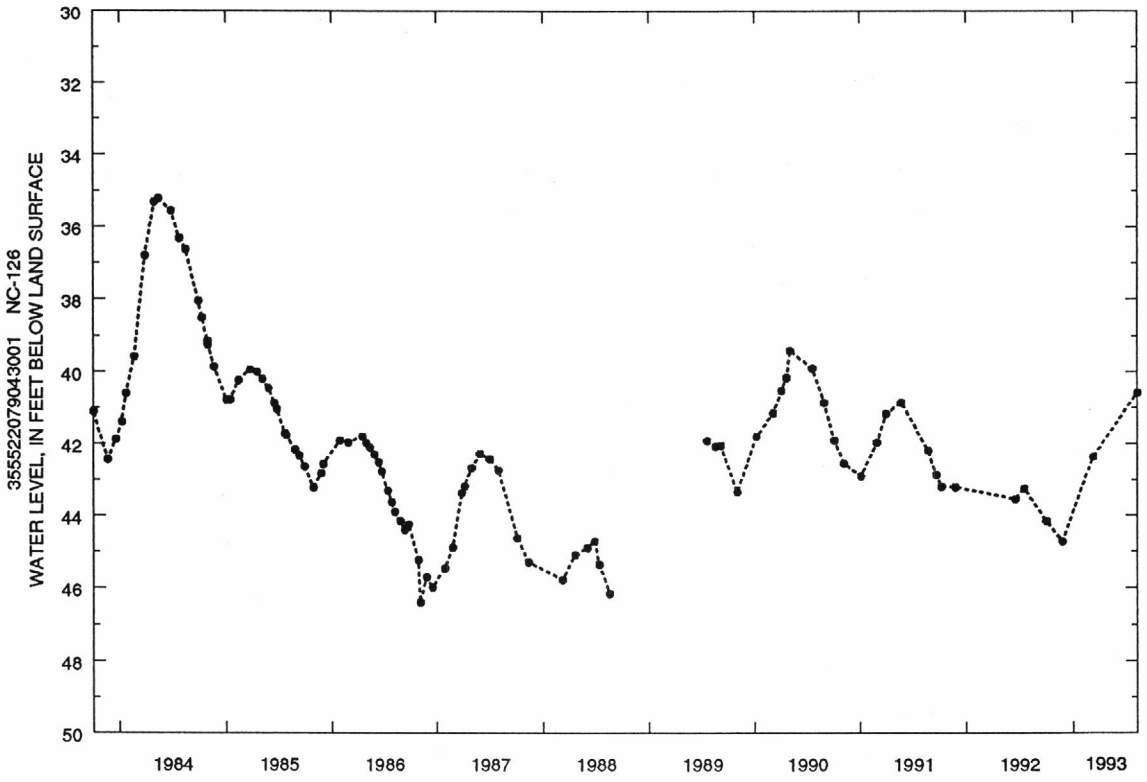
REMARKS.-- Well is part of terrane-effects network.

PERIOD OF RECORD.--August 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.22 ft below land-surface datum, May 14, 1984; lowest water level recorded, dry, Oct. 11 to Dec. 31, 1940, and Oct. 13 to Jan. 24, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	44.16	NOV 25	44.73	MAR 10	42.37	AUG 9	40.58


355522079043001 NC-126
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1984
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1987
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1989
1990
1991
1992
1993

PAMLICO COUNTY

350523076392206. Local number, NC-169; DEHNR Whortonsville Research Station well S15y6.

LOCATION.--Lat 35°05'23", long 76°39'22", Hydrologic Unit 03020204, 0.5 mi northeast of intersection of Secondary Roads 1321 and 1322, and 3.4 mi east of Merritt on Secondary Road 1321. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 290 ft, diameter 4 in., cased to 223 ft and from 228 to 270 ft, screened intervals from 223 to 228 ft and 270 to 275 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 7.54 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.53 ft above land-surface datum - revised from 2.64 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

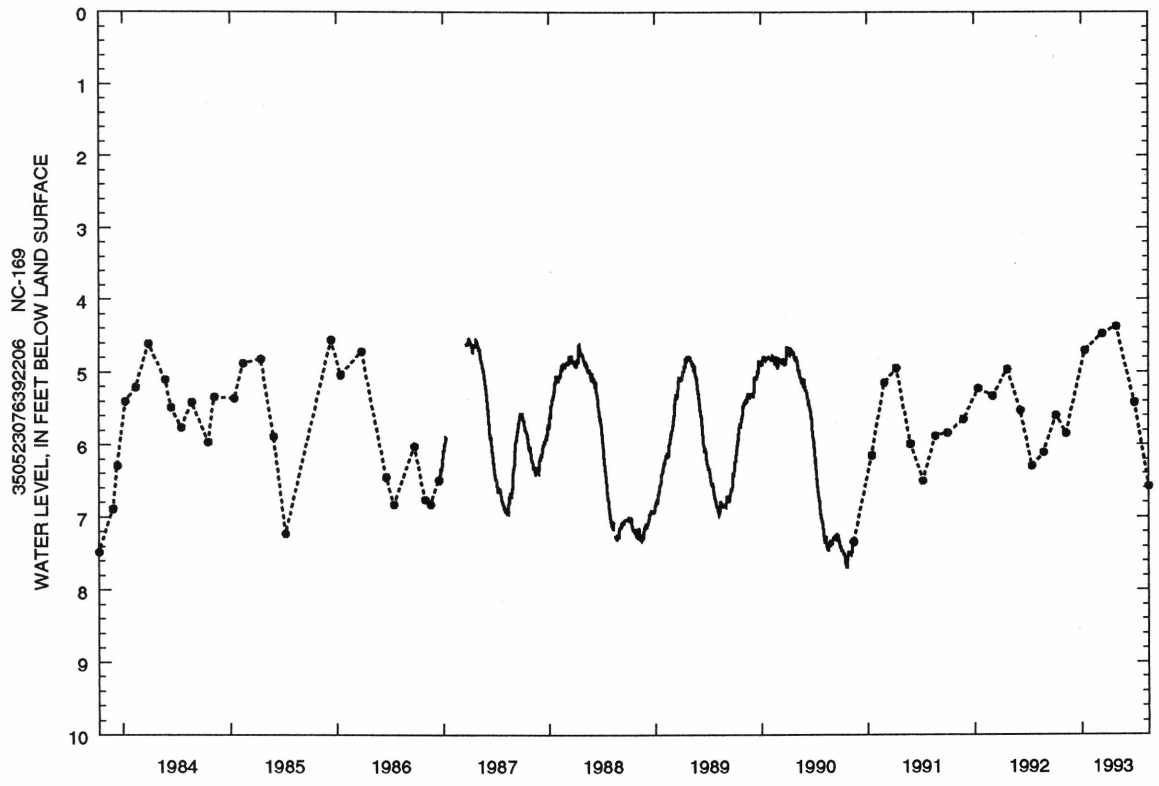
PERIOD OF RECORD.--February 1978 to current year. Continuous record December 1986 to November 1990. Records from February 1978 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.00 ft below land-surface datum, May 10, 1978; lowest water level recorded, 7.69 ft below land-surface datum, Oct. 20, 21, 22, and 23, 1990.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.11 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	5.60	JAN 12	4.71	MAR 12	4.48	APR 28	4.38	JUN 29	5.42	AUG 16	6.58
NOV 9	5.85										


350523076392206 NC-169
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

PASQUOTANK COUNTY

362050076163705. Local number, NC-150; DEHNR Elizabeth City Forest Service Research Station well D11v5.

LOCATION.--Lat 36°20'50", long 76°16'37", Hydrologic Unit 03010205, 4 mi northwest of Elizabeth City at North Carolina Division of Forest Resources Maintenance Yard, west of U.S. Highways 17 and 158 on Secondary Road 1338. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 500 ft, diameter 4 in., cased to 120 ft, screened interval from 120 to 130 ft, cemented from 130 to 500 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 7.14 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.48 ft above land-surface datum - revised from 3.13 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--July 1975 to current year. Records from July 1975 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR. U.S. Geological Survey continuous record began November 1986.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.22 ft below land-surface datum, June 26, 1979; lowest water level recorded, 8.32 ft below land-surface datum, Aug. 15, 1986.

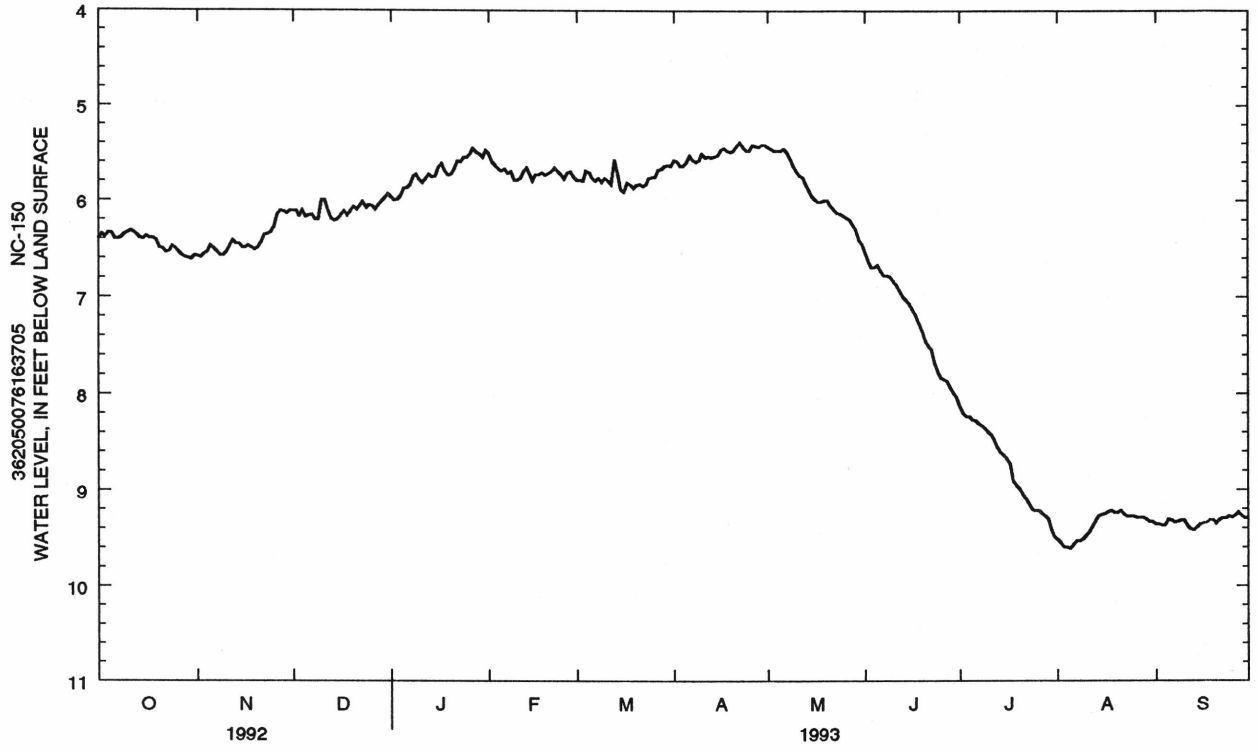
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.35 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.34	6.47	6.17	5.88	5.69	5.71	5.60	5.48	6.67	8.27	9.61	9.31
10	6.34	6.54	6.00	5.79	5.79	5.77	5.51	5.69	6.84	8.39	9.48	9.32
15	6.40	6.49	6.20	5.75	5.80	5.89	5.53	5.95	7.07	8.64	9.26	9.36
20	6.49	6.49	6.07	5.73	5.72	5.84	5.48	6.00	7.45	8.99	9.24	9.35
25	6.50	6.28	6.05	5.55	5.78	5.76	5.48	6.16	7.83	9.22	9.28	9.29
EOM	6.57	6.11	5.94	5.48	5.76	5.64	5.42	6.46	8.04	9.49	9.33	9.30

WTR YR 1993 MEAN 6.86 HIGH 5.39 APR 22 LOW 9.61 AUG 5


362050076163705 NC-150
WATER LEVEL, IN FEET BELOW LAND SURFACE
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11
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N
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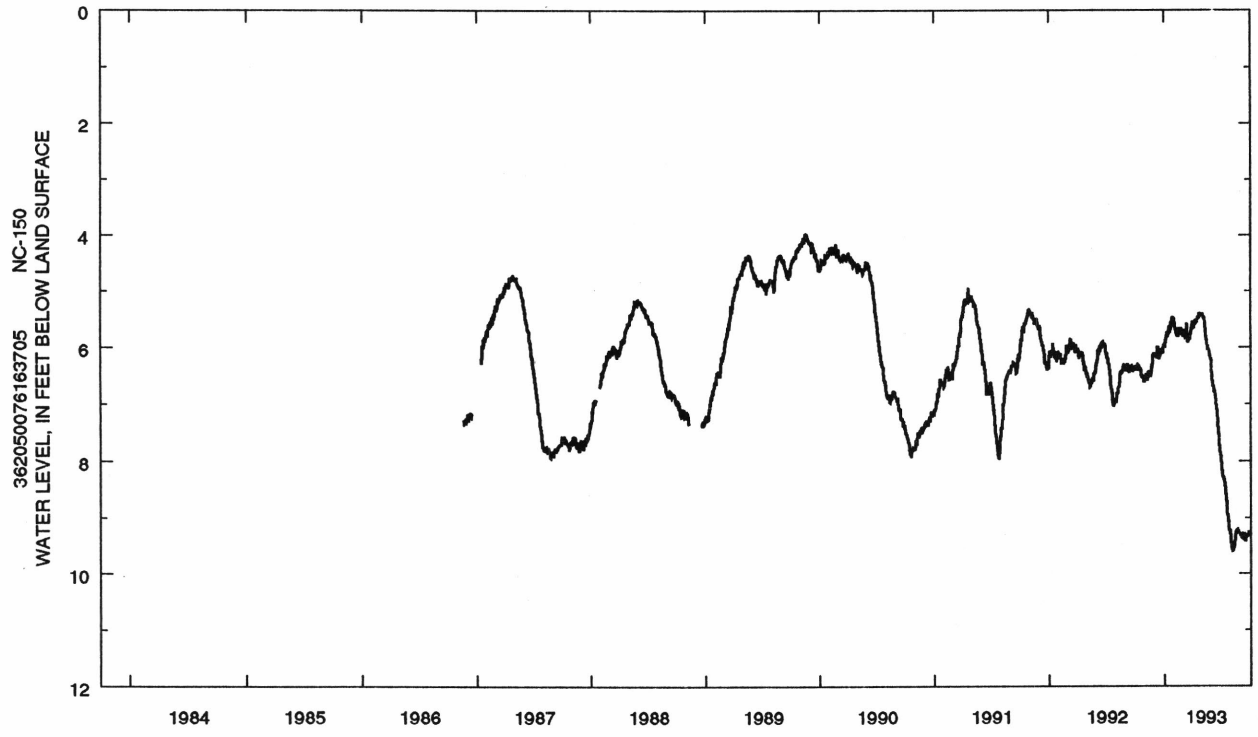
J
F
M
A
M
J
J
A
S
1992
1993


362050076163705 NC-150
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
2
4
6
8
10
12
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

PASQUOTANK COUNTY--Continued

361829076163201. Local number, NC-195.

LOCATION.--Lat 36°18'29", long 76°16'32", Hydrologic Unit 03010205, northwest of Elizabeth City, 1.2 mi west of Secondary Road 1307 on Secondary Road 1309. Owner: U.S. Geological Survey.

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Bored observation well, augered to 13.0 ft, diameter 4 in., cased to 2.4 ft, screened interval from 2.4 to 12.4 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 15 ft above sea level (from topographic map). Measuring point: Top of casing, 2.65 ft above land-surface datum.

REMARKS.--In October 1991, well replaced nearby NC-143. Well is part of climatic-effects network.

PERIOD OF RECORD.--October 1991 to current year.

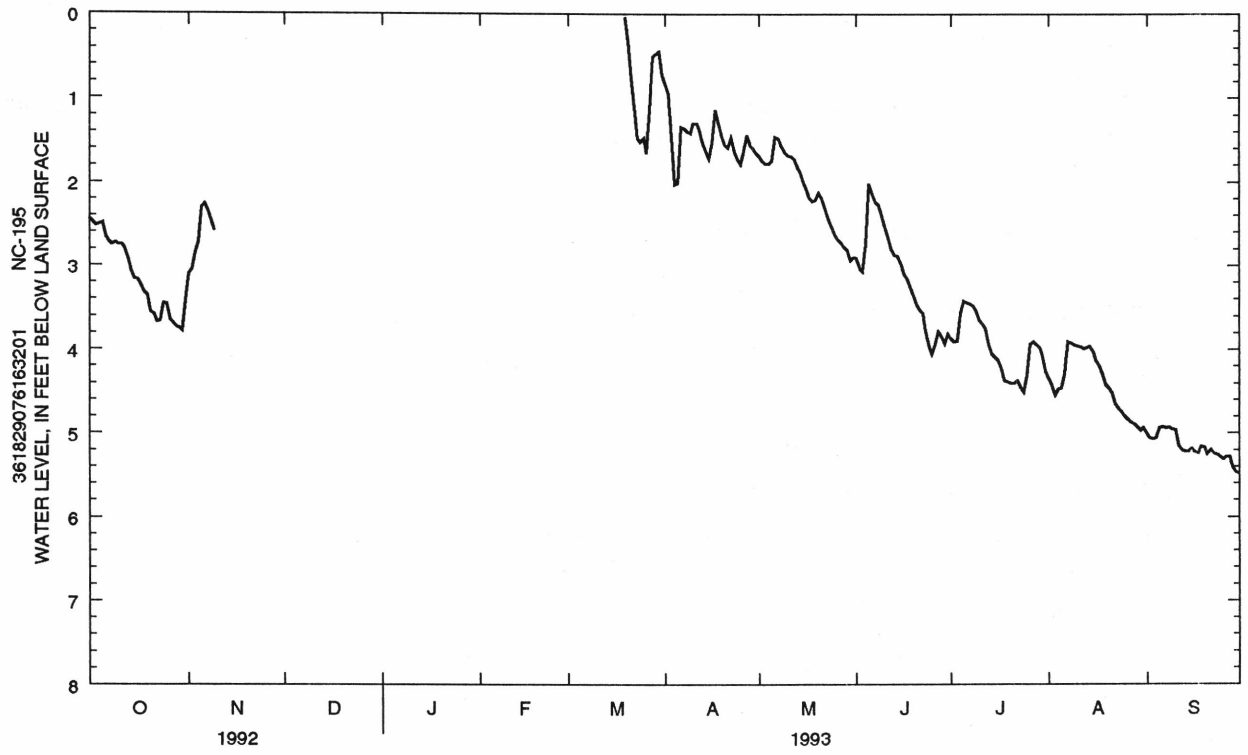
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.70 ft above land-surface datum, Jan. 4, 1992; lowest water level recorded, 5.54 ft below land-surface datum, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.44	3.10	---	---	---	---	.84	1.69	2.91	3.87	4.34	5.01
2	2.48	3.05	---	---	---	---	.95	1.75	3.04	3.91	4.43	5.06
3	2.52	2.86	---	---	---	---	1.46	1.78	3.07	3.90	4.55	5.07
4	2.51	2.72	---	---	---	---	2.03	1.78	2.74	3.57	4.47	5.05
5	2.49	2.31	---	---	---	---	2.01	1.75	2.02	3.43	4.46	4.94
6	2.66	2.26	---	---	---	---	1.35	1.46	2.14	3.44	4.28	4.92
7	2.72	2.35	---	---	---	---	1.36	1.48	2.24	3.46	3.91	4.94
8	2.75	2.46	---	---	---	---	1.40	1.57	2.28	3.48	3.92	4.93
9	2.73	2.58	---	---	---	---	1.42	1.64	2.40	3.55	3.95	4.95
10	2.75	---	---	---	---	---	1.30	1.68	2.54	3.64	3.96	4.96
11	2.75	---	---	---	---	---	1.30	1.69	2.66	3.70	3.97	5.15
12	2.80	---	---	---	---	---	1.39	1.72	2.80	3.75	3.99	5.20
13	2.91	---	---	---	---	---	1.53	1.81	2.87	3.94	3.98	5.22
14	3.07	---	---	---	---	---	1.63	1.88	2.89	4.05	3.96	5.22
15	3.16	---	---	---	---	---	1.72	1.98	2.97	4.09	4.04	5.19
16	3.17	---	---	---	---	---	1.53	2.09	3.09	4.13	4.14	5.23
17	3.24	---	---	---	---	---	1.14	2.19	3.16	4.23	4.20	5.24
18	3.32	---	---	---	---	---	1.30	2.23	3.25	4.37	4.28	5.16
19	3.36	---	---	---	---	.04	1.45	2.22	3.36	4.39	4.42	5.17
20	3.56	---	---	---	---	.33	1.56	2.13	3.47	4.40	4.46	5.25
21	3.58	---	---	---	---	.76	1.59	2.20	3.53	4.40	4.52	5.20
22	3.67	---	---	---	---	1.11	1.47	2.32	3.57	4.37	4.65	5.24
23	3.66	---	---	---	---	1.48	1.63	2.44	3.78	4.45	4.70	5.26
24	3.45	---	---	---	---	1.52	1.73	2.53	3.98	4.51	4.75	5.28
25	3.46	---	---	---	---	1.48	1.79	2.63	4.05	4.31	4.80	5.31
26	3.64	---	---	---	---	1.65	1.62	2.69	3.94	3.94	4.84	5.28
27	3.69	---	---	---	---	1.14	1.44	2.73	3.79	3.91	4.87	5.28
28	3.73	---	---	---	---	.51	1.56	2.78	3.85	3.95	4.89	5.42
29	3.75	---	---	---	---	.48	1.61	2.82	3.93	3.98	4.93	5.47
30	3.78	---	---	---	---	.45	1.65	2.94	3.82	4.07	4.97	5.48
31	3.35	---	---	---	---	.73	---	2.90	---	4.26	4.94	---

WTR YR 1993 MEAN 3.19 HIGH .04 LOW 5.48


361829076163201 NC-195
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
1
2
3
4
5
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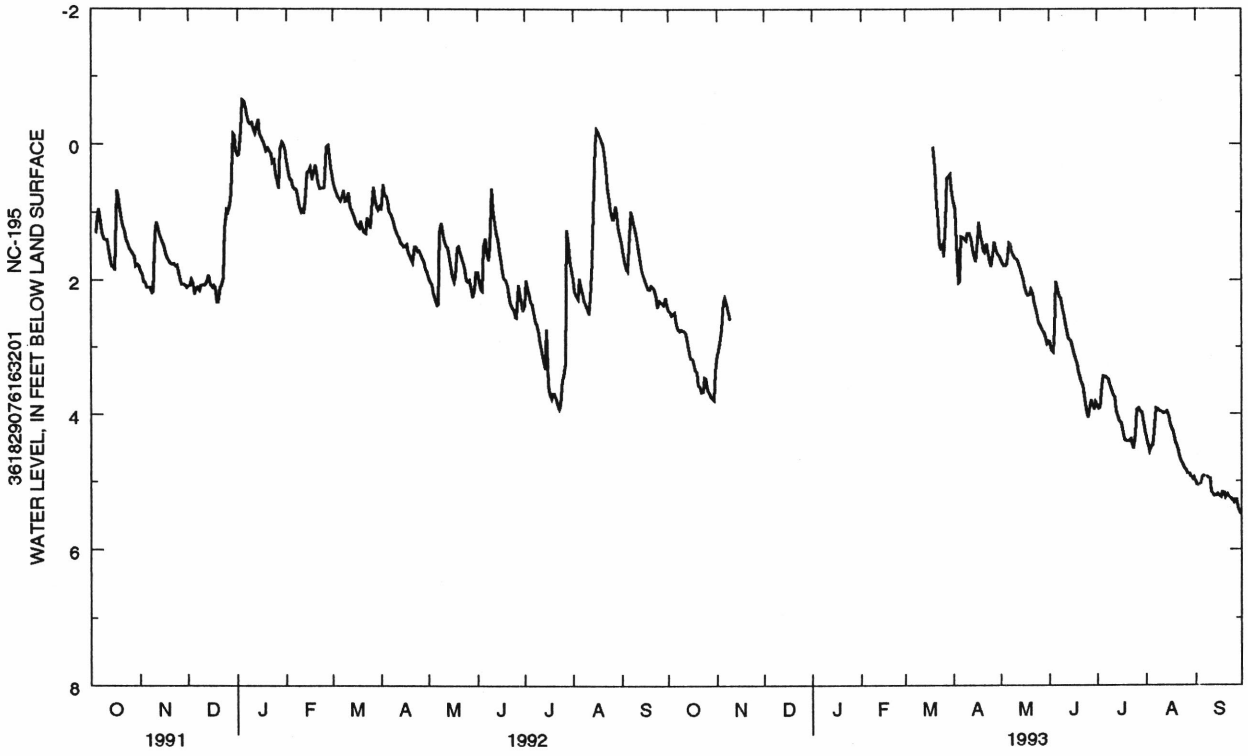
8
O N D J F M A M J J A S
1992
1993


361829076163201 NC-195
WATER LEVEL, IN FEET BELOW LAND SURFACE
-2
0
2
4
6
8
O N D J F M A M J J A S O N D J F M A M J J A S
1991
1992
1993

PERQUIMANS COUNTY

361744076274402. Local number, NC-151; DEHNR Parkville Research Station well E13m2.

LOCATION.--Lat 36°17'44", long 76°27'44", Hydrologic Unit 03010205, 3.5 mi west of Parkville, and west of Secondary Road 1223 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 1,019 ft, diameter 4 in., cased to 1,009 ft, screened interval from 1,009 to 1,019 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 16.82 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.02 ft above land-surface datum.

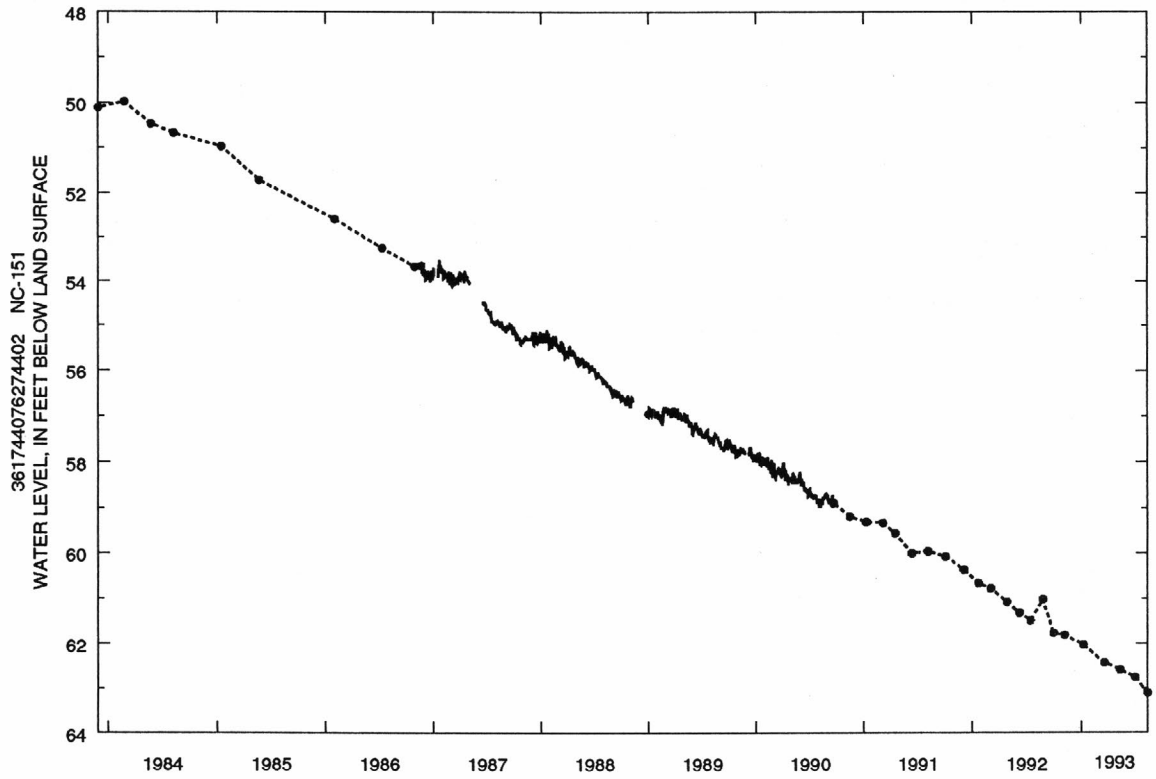
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--December 1977 to current year. Continuous record November 1986 to September 1990. Records from December 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 40.17 ft below land-surface datum, Dec. 7, 1977; lowest water level recorded, 63.11 ft below land-surface datum, Aug. 11, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	61.76	JAN 7	62.02	MAR 19	62.42	MAY 11	62.58	JUN 30	62.75	AUG 11	63.11
NOV 6	61.81										


361744076274402 NC-151
WATER LEVEL, IN FEET BELOW LAND SURFACE
48
50
52
54
56
58
60
62
64
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

PERQUIMANS COUNTY--Continued

361744076274403. Local number, NC-152; DEHNR Parkville Research Station well E13m3.

LOCATION.--Lat 36°17'44", long 76°27'44", Hydrologic Unit 03010205, 3.5 mi west of Parkville, west of Secondary Road 1223 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 351 ft, diameter 4 in., cased to 336 ft, open hole to 351 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 16.73 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum - revised from 3.49 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

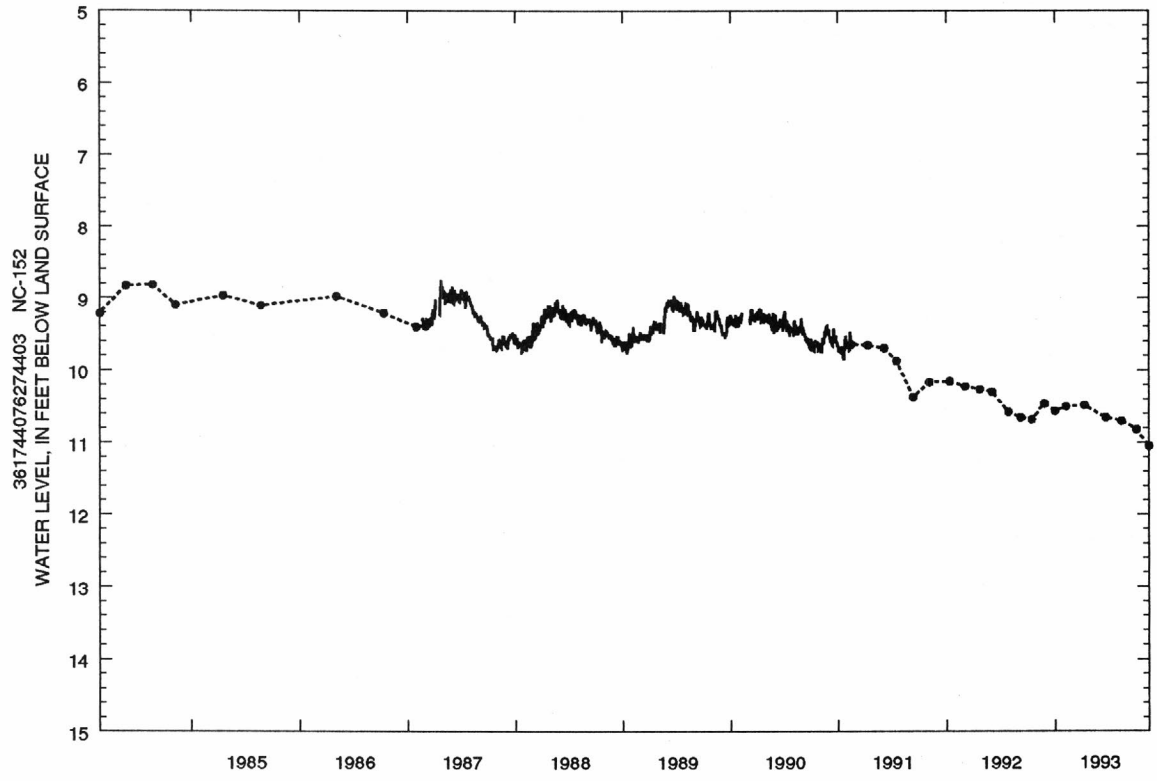
PERIOD OF RECORD.--December 1977 to current year. Continuous record November 1986 to November 1990. Records from December 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.46 ft below land-surface datum, Dec. 20, 1978; lowest water level recorded, 11.05 ft below land-surface datum, Aug. 11, 1993.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.49 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	10.56	JAN 7	10.48	MAR 19	10.65	MAY 11	10.70	JUN 30	10.82	AUG 11	11.05
NOV 6	10.50										


361744076274403 NC-152
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1985
1986
1987
1988
1989
1990
1991
1992
1993

PITT COUNTY

353219077153801. Local number, NC-160; USGS well PI-532.

LOCATION.--Lat 35°32'19", long 77°15'38", Hydrologic Unit 03020103, 2.7 mi southwest of Simpson in southeast corner of intersection of Secondary Roads 1755 and 1769. Owner: U.S. Geological Survey.

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Bored observation well, augered to 12 ft, diameter 6 in., cased to 5.9 ft, screened interval from 5.9 ft to 10.9 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 56.27 ft above sea level (levels by Soil Conservation Service). Measuring point: File cut on top of casing, 1.04 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--December 1976 to current year. Prior to October 1986, published as Local number, PI-532.

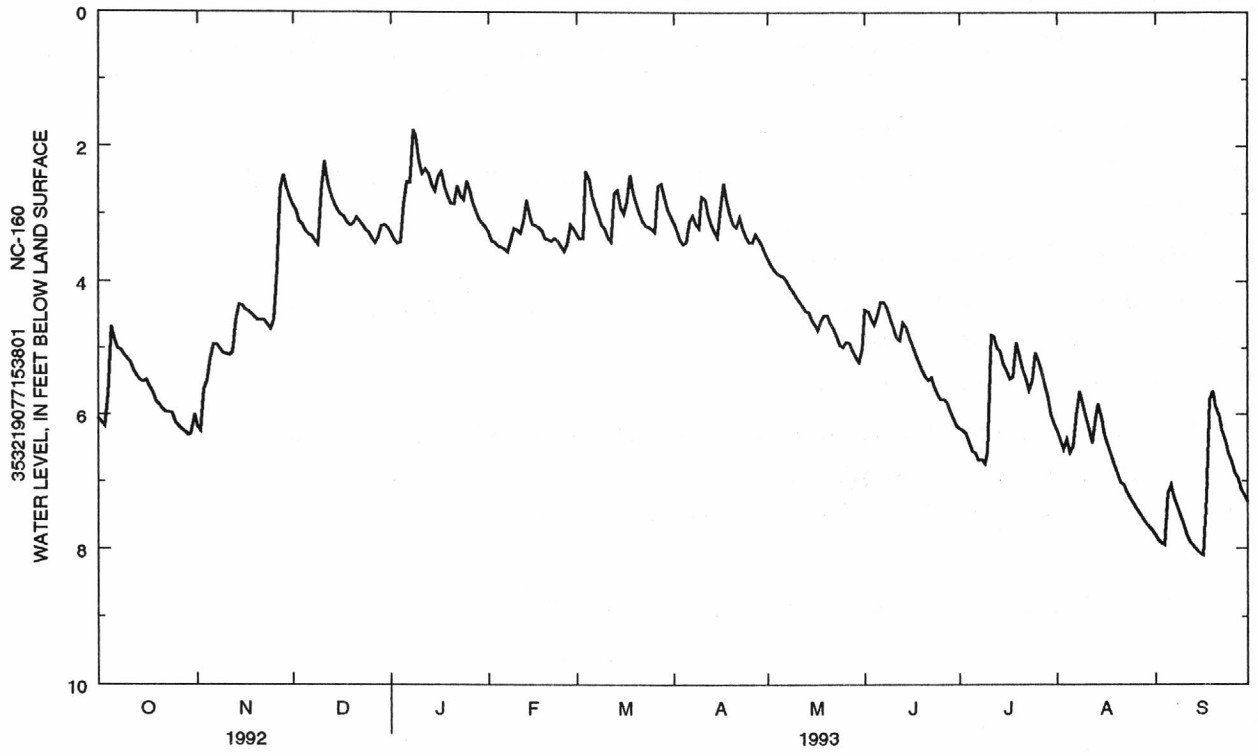
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.05 ft below land-surface datum, Sept. 14, 1984; lowest water level recorded, 8.84 ft below land-surface datum, Nov. 6, 7, and 8, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.06	6.17	2.87	3.29	3.28	3.30	3.13	3.66	4.42	6.21	6.24	7.80
2	6.11	6.24	2.96	3.38	3.40	3.36	3.25	3.75	4.45	6.24	6.38	7.87
3	6.17	5.62	3.10	3.44	3.42	3.36	3.38	3.82	4.55	6.29	6.52	7.92
4	5.71	5.49	3.15	3.42	3.47	2.37	3.45	3.88	4.64	6.42	6.37	7.94
5	4.67	5.16	3.25	2.86	3.49	2.51	3.42	3.91	4.51	6.55	6.57	7.18
6	4.87	4.94	3.31	2.53	3.52	2.73	3.11	3.92	4.30	6.58	6.48	7.06
7	5.01	4.94	3.32	2.54	3.56	2.89	3.03	3.99	4.30	6.69	6.00	7.26
8	5.02	5.01	3.40	1.76	3.39	3.02	3.15	4.07	4.39	6.68	5.65	7.38
9	5.11	5.08	3.46	1.86	3.22	3.16	3.21	4.14	4.54	6.74	5.84	7.52
10	5.15	5.09	2.68	2.23	3.24	3.22	2.75	4.23	4.68	6.55	6.04	7.65
11	5.22	5.11	2.23	2.41	3.29	3.35	2.79	4.29	4.84	4.80	6.22	7.81
12	5.32	5.06	2.54	2.34	3.10	3.41	3.00	4.36	4.88	4.82	6.43	7.90
13	5.41	4.58	2.72	2.41	2.80	2.70	3.15	4.44	4.61	4.99	6.07	7.96
14	5.48	4.34	2.85	2.57	3.02	2.66	3.26	4.46	4.68	5.05	5.84	8.02
15	5.50	4.35	2.94	2.67	3.15	2.90	3.34	4.56	4.83	5.24	6.08	8.07
16	5.47	4.41	3.01	2.46	3.17	3.00	2.91	4.65	4.95	5.33	6.30	8.09
17	5.58	4.44	3.04	2.38	3.20	2.81	2.55	4.72	5.09	5.46	6.46	7.25
18	5.66	4.48	3.12	2.60	3.25	2.43	2.83	4.58	5.21	5.43	6.60	5.78
19	5.80	4.53	3.17	2.74	3.36	2.71	3.02	4.50	5.32	4.91	6.75	5.65
20	5.85	4.57	3.14	2.85	3.38	2.86	3.16	4.50	5.42	5.10	6.88	5.87
21	5.91	4.57	3.06	2.86	3.40	3.00	3.20	4.62	5.47	5.30	7.02	6.03
22	5.96	4.57	3.11	2.59	3.36	3.11	3.06	4.71	5.44	5.45	7.05	6.24
23	5.96	4.64	3.16	2.74	3.40	3.18	3.22	4.82	5.57	5.63	7.15	6.41
24	5.98	4.70	3.25	2.79	3.48	3.19	3.34	4.95	5.70	5.49	7.25	6.58
25	6.11	4.57	3.28	2.52	3.55	3.23	3.42	4.98	5.77	5.07	7.32	6.71
26	6.17	3.83	3.36	2.68	3.45	3.27	3.42	4.90	5.77	5.19	7.40	6.88
27	6.22	2.65	3.43	2.83	3.16	2.59	3.31	4.92	5.81	5.35	7.47	6.95
28	6.26	2.43	3.34	2.98	3.22	2.56	3.38	5.04	5.94	5.56	7.55	7.12
29	6.30	2.63	3.18	3.07	---	2.75	3.46	5.13	6.06	5.75	7.62	7.21
30	6.29	2.77	3.16	3.15	---	2.93	3.56	5.21	6.16	5.99	7.68	7.31
31	6.00	---	3.20	3.19	---	3.04	---	5.01	---	6.13	7.71	---

WTR YR 1993 MEAN 4.56 HIGH 1.76 LOW 8.09


353219077153801 NC-160
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
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F
M
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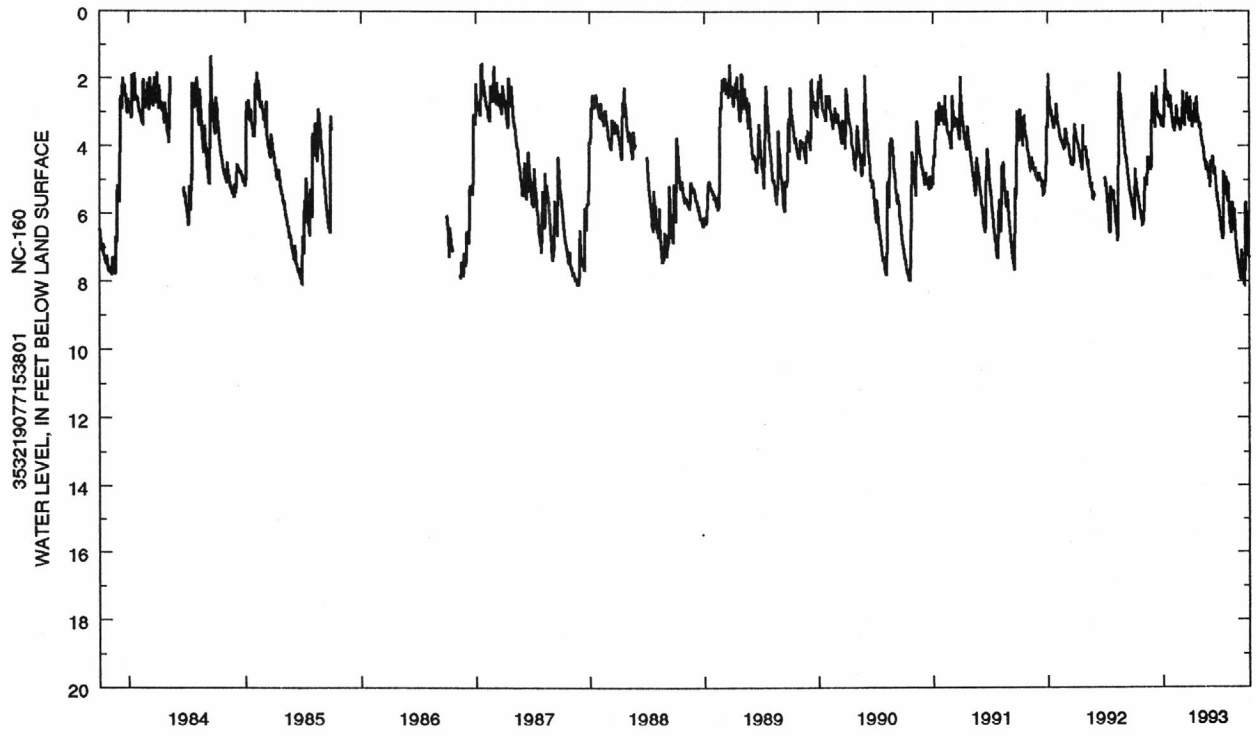
M
J
J
A
S
1992
1993


353219077153801 NC-160
WATER LEVEL, IN FEET BELOW LAND SURFACE
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1984
1985
1986
1987
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1989
1990
1991
1992
1993

PITT COUNTY--Continued

354457077215504. Local number, NC-183; DEHNR Bethel Research Station well L24b4.

LOCATION.--Lat 35°44'57", long 77°21'55", Hydrologic Unit 03020103, 4.2 mi south of Bethel on U.S. Highway 13 and State Highway 11 at North Pitt High School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 370 ft, diameter 4 in., cased to 360 ft, screened interval from 360 to 370 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 55.31 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 1.87 ft above land-surface datum.

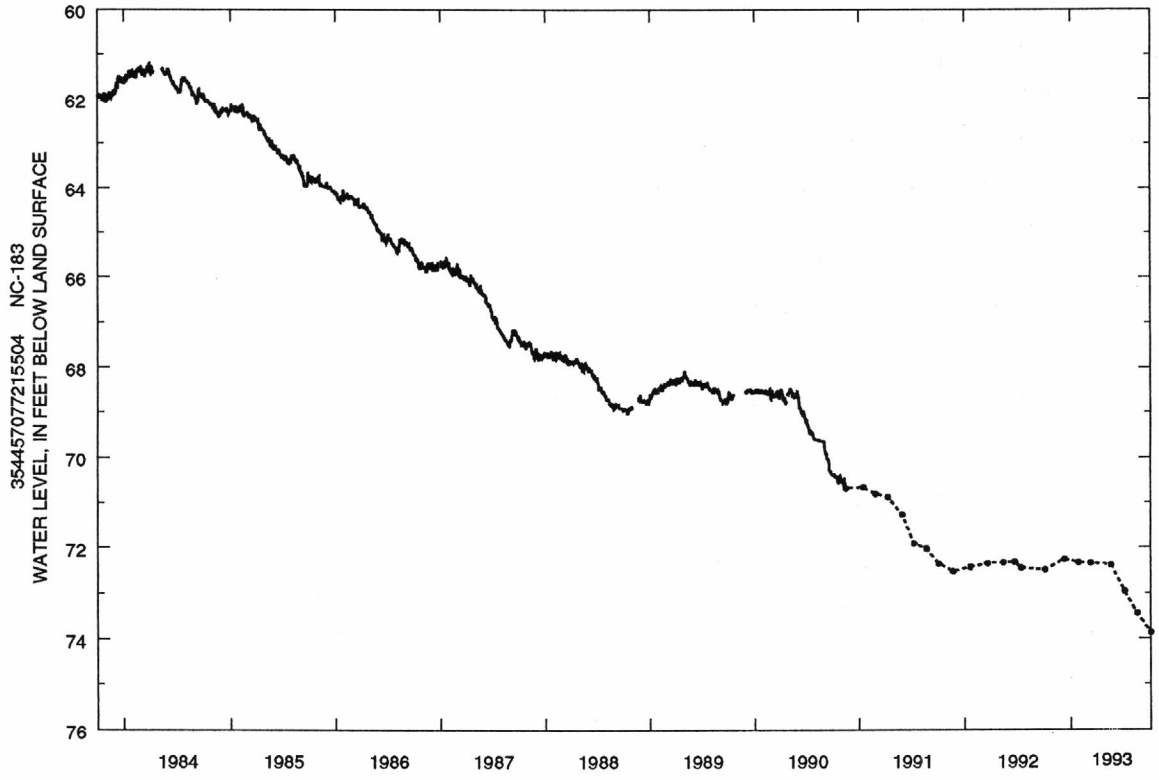
REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--April 1980 to current year. Continuous record October 1983 to November 1990. Records from April 1980 to September 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 56.33 ft below land-surface datum, Apr. 17, 1980; lowest water level recorded, 73.45 ft below land-surface datum, Aug. 19, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	72.49	JAN 28	72.33	MAR 11	72.34	MAY 20	72.39	JUL 6	72.96	AUG 19	73.45
DEC 11	72.26										


35445707721550 4 NC-183
WATER LEVEL, IN FEET BELOW LAND SURFACE
60
62
64
66
68
70
72
74
76
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

PITT COUNTY--Continued

353146077193403. Local number, NC-184; DEHNR Conley Research Station well N23p3.

LOCATION.--Lat 35°14'46", long 77°19'34", Hydrologic Unit 03020203, 0.2 mi west of State Highway 43 on Secondary Road 1711 at Conley High School, and 6 mi southeast of Greenville. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Peedee aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 132 ft, diameter 4 in., cased to 122 ft, screened interval from 122 to 132 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 69 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.63 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--June 1984 to current year.

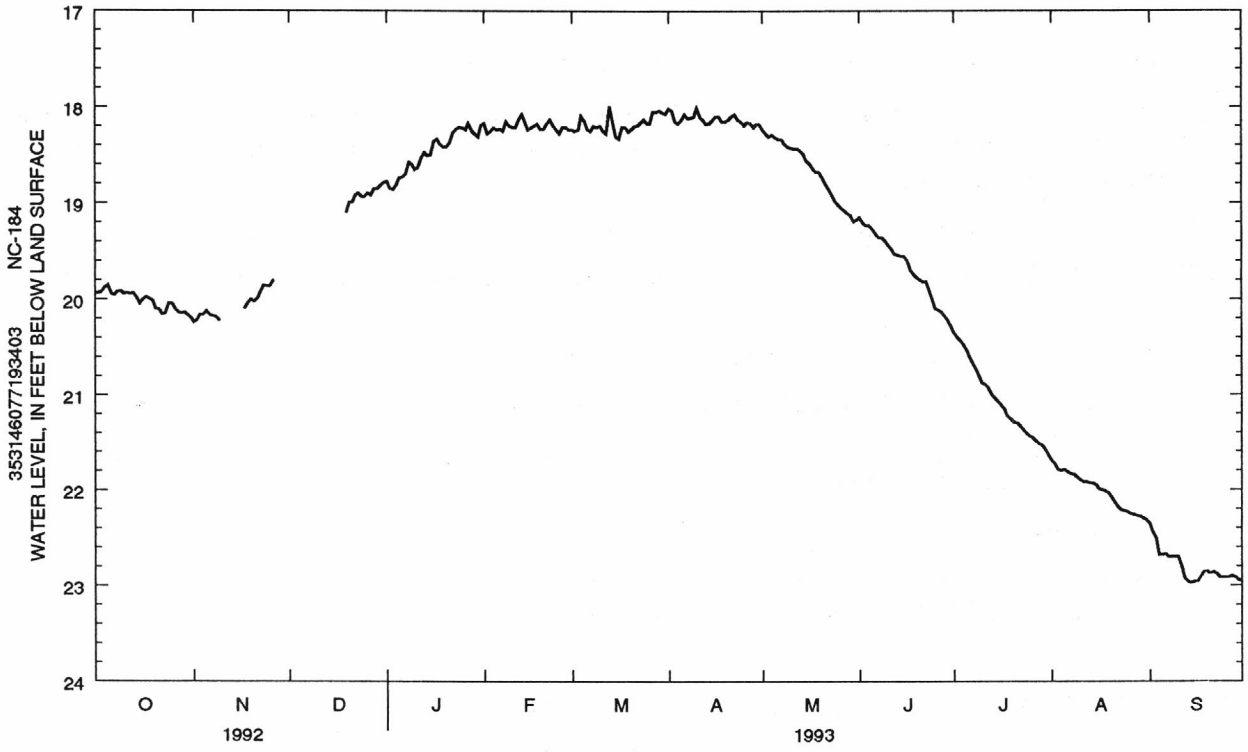
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.84 ft below land-surface datum, May 24, 1989; lowest water level recorded, 22.98 ft below land-surface datum, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.85	20.12	---	18.74	18.24	18.15	18.13	18.32	19.27	20.54	21.79	22.68
10	19.94	---	---	18.65	18.21	18.20	18.01	18.43	19.44	20.88	21.90	22.70
15	20.04	---	---	18.50	18.24	18.31	18.14	18.56	19.55	21.07	21.95	22.96
20	20.09	20.02	18.99	18.42	18.23	18.23	18.13	18.73	19.80	21.29	22.08	22.87
25	20.04	19.86	18.94	18.22	18.28	18.17	18.19	19.02	20.09	21.44	22.23	22.91
EOM	20.19	---	18.79	18.19	18.24	18.07	18.18	19.17	20.28	21.64	22.31	22.95

WTR YR 1993 MEAN 19.72 HIGH 17.99 MAR 13 LOW 22.97 SEP 14


353146077193403 NC-184
WATER LEVEL, IN FEET BELOW LAND SURFACE
17
18
19
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21
22
23
24
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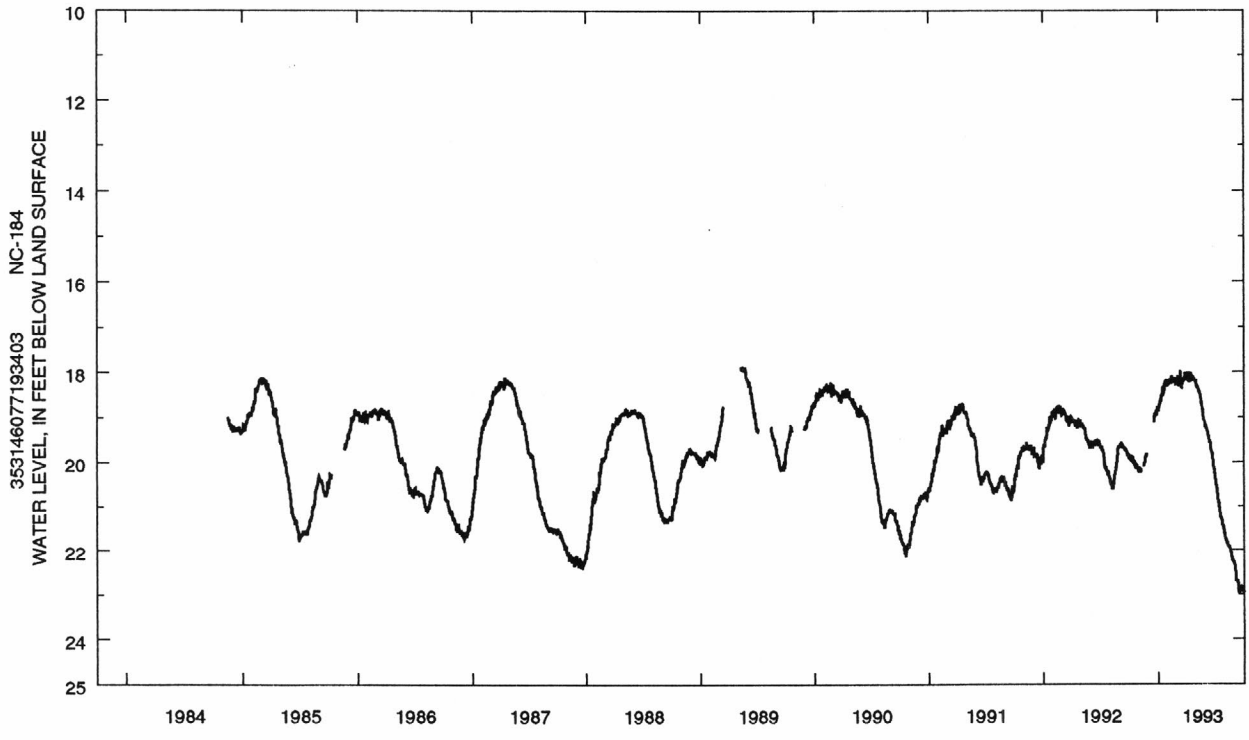
N
D
J
F
M
A
M
J
J
A
S
1992
1993


353146077193403 NC-184
WATER LEVEL, IN FEET BELOW LAND SURFACE
10
12
14
16
18
20
22
24
25
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

RICHMOND COUNTY

350122079325006. Local number, NC-171; DEHNR Hoffman Research Station well T50r6.

LOCATION.--Lat 35°01'22", long 79°32'50",Hydrologic Unit 03040203, 0.6 mi south of Hoffman on Secondary Road 1474. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Unconfined sands in the upper Black Creek aquifer.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 60 ft, diameter 4 in., cased to 45 ft, screened interval from 45 to 60 ft.

INSTRUMENTATION.--Digital recorder, 60-minute punch, January 1987 to November 1988; measured periodically with steel tape since November 1988.

DATUM.--Land-surface datum in 413 ft above sea level (from topographic map). Measuring point: Top of casing, 1.80 ft above land-surface datum (since January 1989).

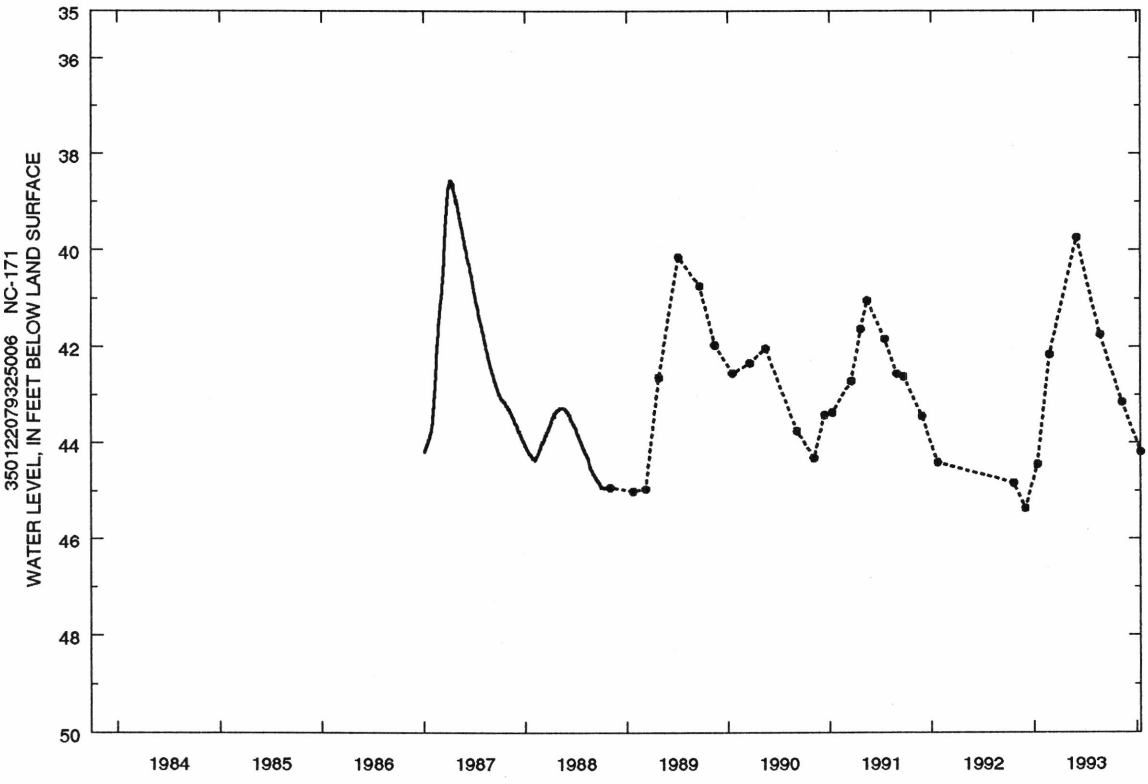
REMARKS.--Well is part of terrane-effects network.

PERIOD OF RECORD.--January 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.55 ft below land-surface datum, Apr. 8, 9, and 10, 1987; lowest water level, 45.36 ft below land-surface datum, Dec. 1, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	44.83	DEC 1	45.36	JAN 13	44.44	FEB 25	42.16	JUN 1	39.74	AUG 23	41.74


350122079325006 NC-171
WATER LEVEL, IN FEET BELOW LAND SURFACE
35
36
38
40
42
44
46
48
50
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

ROBESON COUNTY

343840078550009. Local number, NC-177; DEHNR Littlefield School Research Station well Y42f9.

LOCATION.--Lat 34°38'40", long 78°55'00", Hydrologic Unit 03040203, 6 mi east of Lumberton on State Highway 41 at Littlefield School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 468 ft, diameter 6 in., cased to 390 ft and from 395 to 429 ft and 434 to 444 ft, screened intervals from 390 to 395 ft, 429 to 434 ft, and 444 to 449 ft; measured depth 462 ft, December 1987.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 142 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.4 ft above land-surface datum.

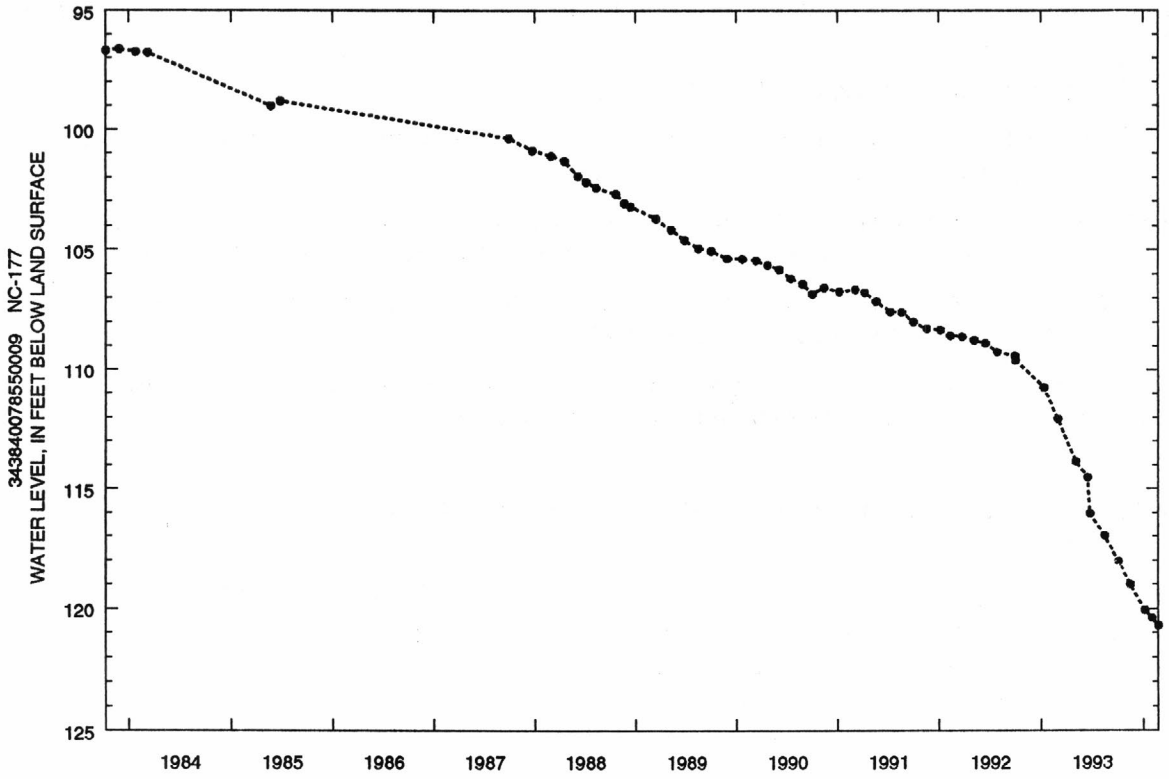
REMARKS.--Well is part of areal-effects network. Records prior to July 1985 are from Littlefield School Research Station well Y42f3 which was adjacent to and of similar construction to well Y42f9. Well Y42f3 was destroyed in September 1987.

PERIOD OF RECORD.--October 1970 to current year. Records for well Y42f3 from October 1970 to June 1985 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 76.40 ft below land-surface datum, Jan. 5, 1971; lowest water level recorded, 116.96 ft below land-surface datum, Aug. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	109.58	JAN 12	110.74	MAR 2	112.06	MAY 5	113.84	JUN 16	114.52	AUG 16	116.96


343840078550009 NC-177
WATER LEVEL, IN FEET BELOW LAND SURFACE
95
100
105
110
115
120
125
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

ROWAN COUNTY

354057080362601. Local number, NC-193; DEHNR well L63t1.

LOCATION.--Lat 35°40'57", long 80°36'26", Hydrologic Unit 03040102, 0.75 mi south of Secondary Road 1526 on Piedmont Research Station road and 30 ft east of road, and 2.75 mi south of Barber. Owner: NCDA (North Carolina Department of Agriculture), Piedmont Research Station.

AQUIFER.--Unconfined alluvial silt.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 9 ft, screened interval from 9 to 19 ft, sand filter pack from 7.2 to 24 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 678 ft above sea level (from topographic map). Measuring point: Two saw cuts in top of casing, 3.30 ft above land-surface datum.

REMARKS.--U.S. Geological Survey continuous record began Nov. 11, 1989. Well is part of climatic-effects network.

PERIOD OF RECORD.-- November 1989 to current year.

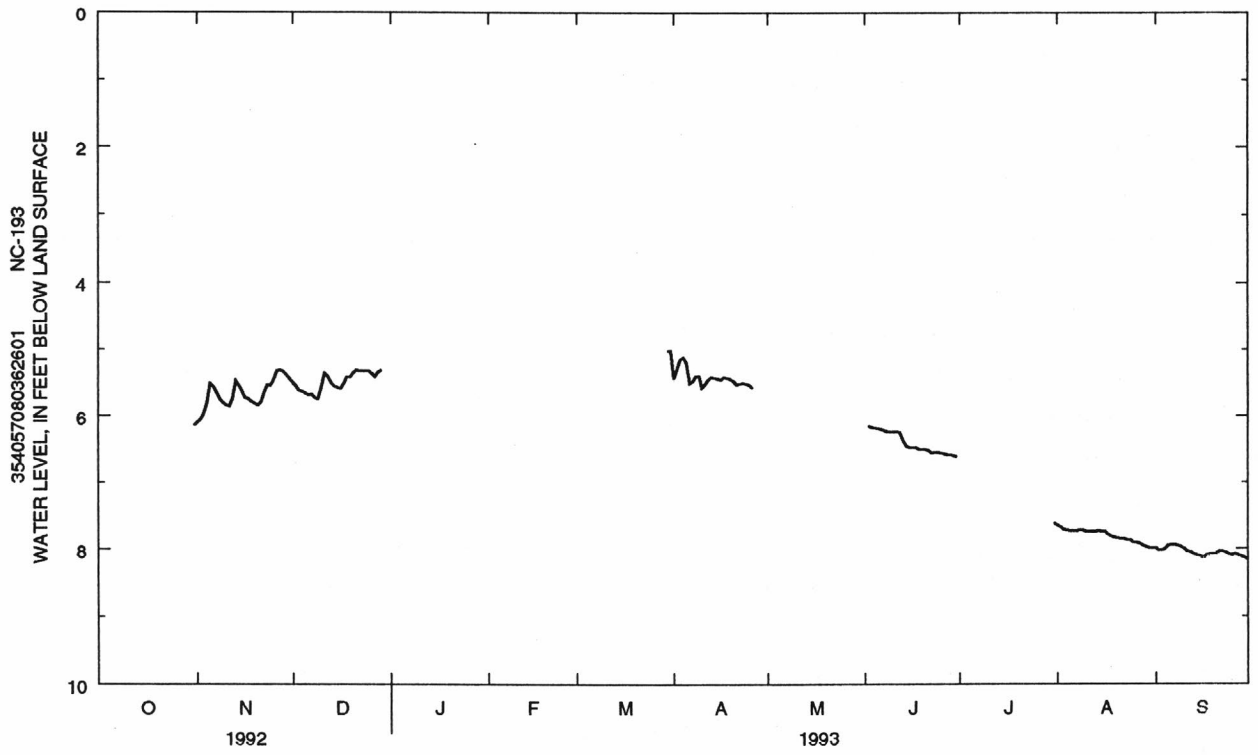
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.97 ft below land-surface datum, Mar. 30, 1993; lowest water level recorded, 8.16 ft below land-surface datum, Sept. 30, 1993.

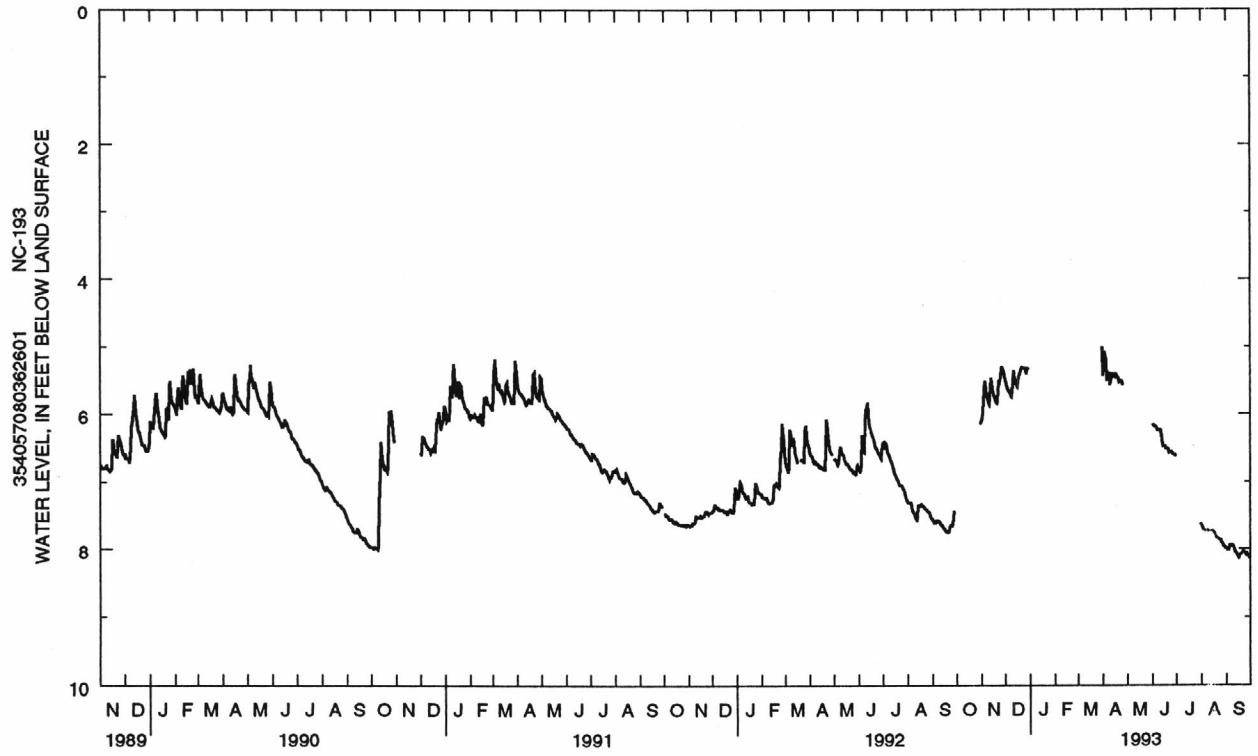
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.46	6.09	5.50	5.37	6.02	5.96	5.45	5.70	6.03	6.67	7.65	7.99
2	7.45	6.06	5.55	5.44	6.03	5.91	5.31	5.71	6.15	6.73	7.68	8.02
3	7.44	5.97	5.62	5.49	6.03	5.88	5.16	5.72	6.17	6.77	7.71	8.02
4	7.17	5.81	5.63	5.50	6.03	5.85	5.14	5.73	6.18	6.79	7.72	8.01
5	6.63	5.51	5.66	5.42	6.03	5.82	5.23	5.77	6.19	6.82	7.73	7.95
6	6.58	5.55	5.69	5.44	6.02	5.79	5.52	5.77	6.20	6.85	7.73	7.94
7	6.66	5.65	5.68	5.46	6.03	5.77	5.49	5.78	6.22	6.87	7.73	7.94
8	6.70	5.74	5.73	5.48	6.02	5.74	5.42	5.79	6.24	6.89	7.72	7.95
9	6.48	5.80	5.74	5.50	6.02	5.71	5.42	5.79	6.24	6.91	7.72	7.97
10	6.37	5.84	5.57	5.52	6.02	5.68	5.60	5.80	6.24	6.94	7.74	8.00
11	6.42	5.86	5.36	5.55	6.02	5.65	5.54	5.80	6.24	6.98	7.74	8.04
12	6.48	5.74	5.41	5.56	6.02	5.62	5.49	5.81	6.25	7.03	7.74	8.05
13	6.50	5.47	5.49	5.58	6.02	5.59	5.45	5.82	6.37	7.05	7.74	8.08
14	6.53	5.54	5.55	5.62	6.02	5.56	5.47	5.82	6.46	7.07	7.73	8.09
15	6.53	5.64	5.57	5.64	6.02	5.53	5.48	5.83	6.47	7.09	7.74	8.11
16	6.51	5.72	5.59	5.66	6.02	5.51	5.50	5.83	6.47	7.14	7.74	8.13
17	6.52	5.74	5.51	5.68	6.02	5.48	5.47	5.84	6.47	7.16	7.78	8.09
18	6.50	5.78	5.42	5.71	6.02	5.45	5.48	5.85	6.50	7.18	7.81	8.07
19	6.49	5.81	5.42	5.73	6.02	5.42	5.50	5.85	6.50	7.21	7.83	8.07
20	6.49	5.84	5.35	5.75	6.02	5.39	5.53	5.86	6.50	7.25	7.84	8.07
21	6.47	5.80	5.31	5.77	6.02	5.36	5.57	5.84	6.52	7.28	7.85	8.04
22	6.45	5.66	5.32	5.79	6.02	5.33	5.57	5.85	6.56	7.30	7.85	8.04
23	6.42	5.53	5.32	5.81	6.02	5.30	5.56	5.86	6.55	7.33	7.87	8.06
24	6.37	5.54	5.32	5.84	6.02	5.27	5.57	5.86	6.55	7.36	7.87	8.07
25	6.36	5.46	5.32	5.85	6.02	5.24	5.60	5.87	6.56	7.40	7.90	8.09
26	6.35	5.32	5.36	5.88	6.02	5.22	5.64	5.87	6.57	7.45	7.91	8.07
27	6.32	5.31	5.41	5.91	6.02	5.19	---	5.88	6.59	7.51	7.92	8.09
28	6.29	5.33	5.34	5.93	6.02	5.16	5.68	5.89	6.59	7.53	7.95	8.11
29	6.27	5.39	5.31	5.95	---	5.11	5.69	5.89	6.60	7.56	7.97	8.13
30	6.23	5.45	5.31	5.97	---	5.02	5.70	5.89	6.62	7.58	7.99	8.15
31	6.14	---	5.32	5.99	---	5.02	---	5.89	---	7.62	7.99	---

WTR YR 1993 MEAN 6.30 HIGH 5.02 LOW 8.15


354057080362601 NC-193
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
2
4
6
8
10
O N D J F M A M J J A S
1992
1993


354057080362601 NC-193
WATER LEVEL, IN FEET BELOW LAND SURFACE
0
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N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S
1989
1990
1991
1992
1993

SCOTLAND COUNTY

345812079313401. Local number, NC-194.

LOCATION.--Lat 34°58'17", long 79°31'41", Hydrologic Unit 03040204, in Sandhills Game Management Area, 0.15 mi west of Secondary Road 1328, 3.4 mi east of Marston, 4.8 mi south of Hoffman, and 6.1 mi southwest of Silver Hill. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined sands in the upper Black Creek aquifer.

WELL CHARACTERISTICS.--Drilled observation well, depth 35.6 ft, diameter 4 in., cased to 30.5 ft, screened interval from 30.6 to 35.6 ft. Annular space filled with native clayey sand from 0 to 30 ft below land surface.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 433 ft above sea level, from topographic map. Measuring point: Top of casing, 2.93 ft above land-surface datum.

REMARKS.--Well is part of Jordan Creek Acid Precipitation Study site, and serves as a terrain-effects well.

PERIOD OF RECORD.--September 1987 to current year.

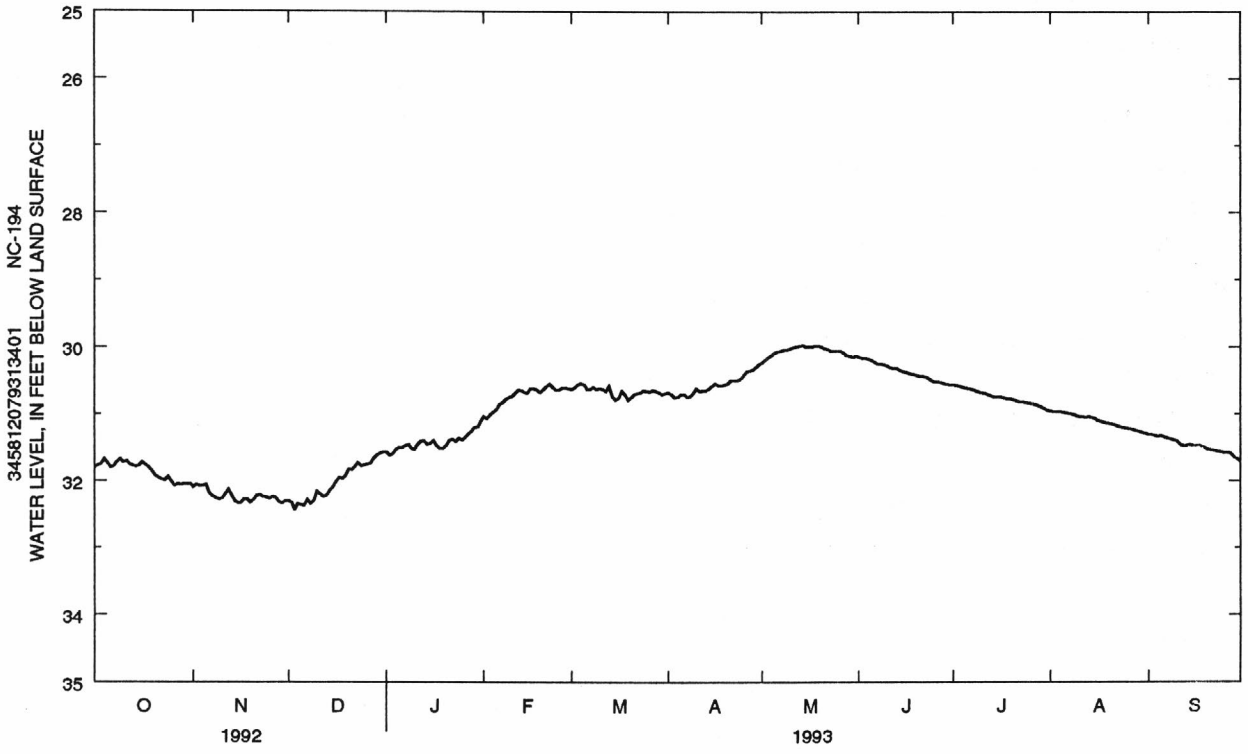
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 29.63 ft below land-surface datum, Aug. 23, 1989; lowest water level recorded, 33.08 ft below land-surface datum, Mar. 24, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.80	32.09	32.30	31.57	31.04	30.63	30.68	30.23	30.14	30.56	30.95	31.31
2	31.77	32.06	32.33	31.62	31.07	30.61	30.71	30.19	30.16	30.57	30.96	31.31
3	31.75	32.07	32.44	31.60	31.01	30.56	30.75	30.15	30.16	30.58	30.96	31.32
4	31.68	32.08	32.34	31.53	30.97	30.54	30.74	30.12	30.17	30.60	30.96	31.33
5	31.73	32.06	32.36	31.50	30.93	30.56	30.71	30.09	30.19	30.61	30.97	31.32
6	31.80	32.19	32.37	31.50	30.86	30.63	30.71	30.07	30.22	30.62	30.98	31.34
7	31.78	32.23	32.29	31.48	30.83	30.63	30.74	30.06	30.25	30.63	30.99	31.36
8	31.72	32.26	32.34	31.46	30.78	30.60	30.73	30.04	30.25	30.65	31.00	31.37
9	31.68	32.28	32.31	31.51	30.75	30.63	30.68	30.04	30.26	30.67	31.02	31.39
10	31.72	32.27	32.16	31.53	30.73	30.62	30.62	30.02	30.28	30.68	31.04	31.40
11	31.70	32.20	32.20	31.46	30.69	30.63	30.66	30.00	30.30	30.69	31.04	31.46
12	31.75	32.13	32.24	31.41	30.64	30.66	30.65	29.99	30.31	30.71	31.05	31.48
13	31.77	32.22	32.22	31.40	30.65	30.58	30.65	29.98	30.31	30.72	31.04	31.48
14	31.79	32.30	32.15	31.46	30.68	30.73	30.62	29.97	30.34	30.74	31.05	31.46
15	31.77	32.33	32.09	31.44	30.69	30.79	30.58	29.99	30.36	30.74	31.07	31.47
16	31.72	32.33	32.02	31.40	30.62	30.76	30.54	29.99	30.37	30.74	31.09	31.48
17	31.76	32.28	31.95	31.47	30.62	30.66	30.57	29.99	30.39	30.75	31.10	31.48
18	31.80	32.28	31.97	31.51	30.64	30.70	30.57	29.98	30.40	30.77	31.12	31.49
19	31.86	32.32	31.92	31.51	30.68	30.79	30.56	29.98	30.41	30.77	31.13	31.51
20	31.92	32.29	31.83	31.48	30.64	30.75	30.54	29.99	30.43	30.78	31.14	31.53
21	31.95	32.22	31.84	31.39	30.59	30.71	30.49	30.02	30.43	30.80	31.15	31.54
22	31.98	32.21	31.78	31.38	30.55	30.69	30.49	30.03	30.44	30.82	31.17	31.55
23	31.99	32.24	31.73	31.41	30.60	30.68	30.49	30.06	30.46	30.82	31.19	31.56
24	31.94	32.25	31.78	31.36	30.64	30.65	30.47	30.06	30.49	30.83	31.20	31.57
25	32.01	32.27	31.76	31.39	30.64	30.66	30.42	30.06	30.51	30.84	31.21	31.58
26	32.07	32.24	31.75	31.35	30.61	30.67	30.36	30.06	30.51	30.85	31.22	31.58
27	32.05	32.26	31.74	31.30	30.61	30.64	30.35	30.09	30.52	30.86	31.23	31.59
28	32.06	32.32	31.67	31.26	30.62	30.66	30.33	30.12	30.54	30.88	31.25	31.65
29	32.05	32.33	31.62	31.20	---	30.68	30.29	30.13	30.55	30.89	31.26	31.68
30	32.05	32.30	31.59	31.19	---	30.70	30.26	30.14	30.56	30.91	31.28	31.71
31	32.05	---	31.57	31.11	---	30.69	---	30.13	---	30.94	31.29	---

WTR YR 1993 MEAN 31.10 HIGH 29.97 LOW 32.44


345812079313401 NC-194
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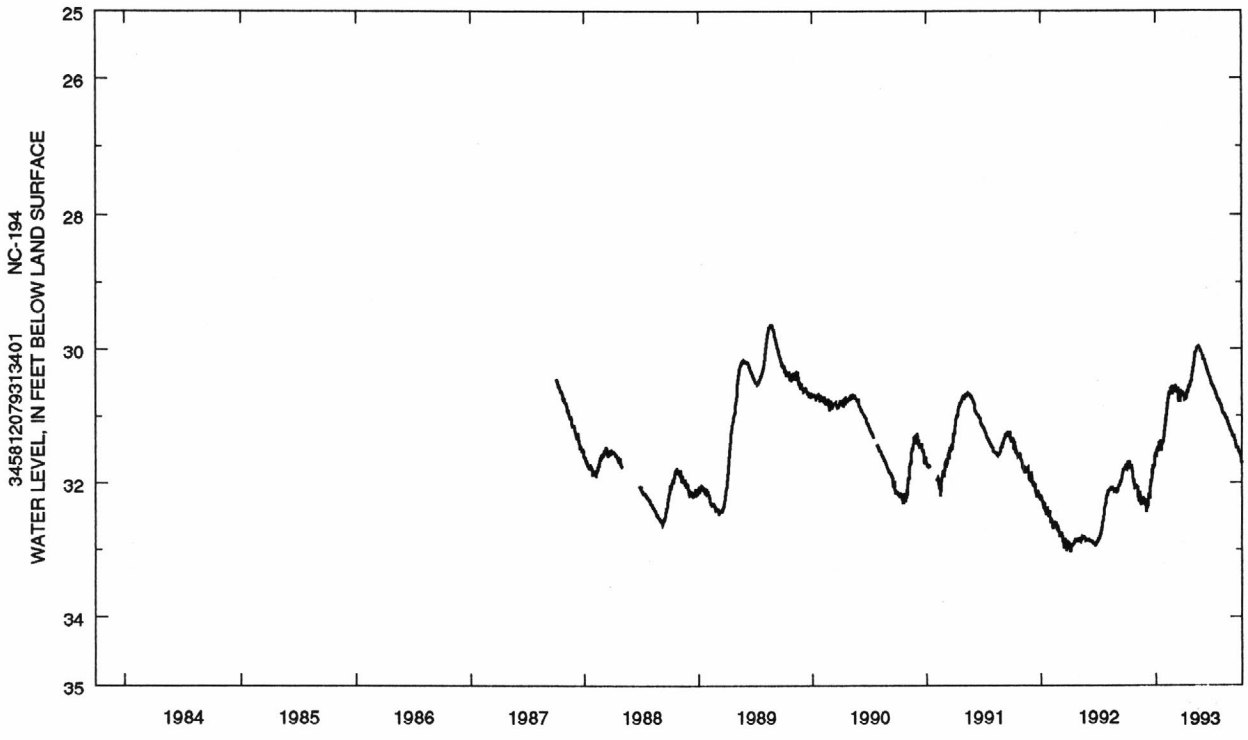
345812079313401 NC-194
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TRANSYLVANIA COUNTY

351808082374302. Local number, NC-144.

LOCATION.--Lat 35°18'08", long 82°37'43", Hydrologic Unit 06010105, at Blantyre, 0.25 mi northwest of U.S. Highway 64 on King Road (Secondary Road 1502). Owner: U.S. Geological Survey.

AQUIFER.--Unconfined saprolite derived from gneiss of Paleozoic age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 70 ft, diameter 4 in., cased to 58 ft, casing perforated from 15 to 58 ft, gravel filter pack from 5 to 58 ft, backfilled with gravel and saprolite from 58 to 70 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 2,147.11 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.

REMARKS.--In September 1984, well replaced nearby NC-127. Well is part of terrane-effects network.

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

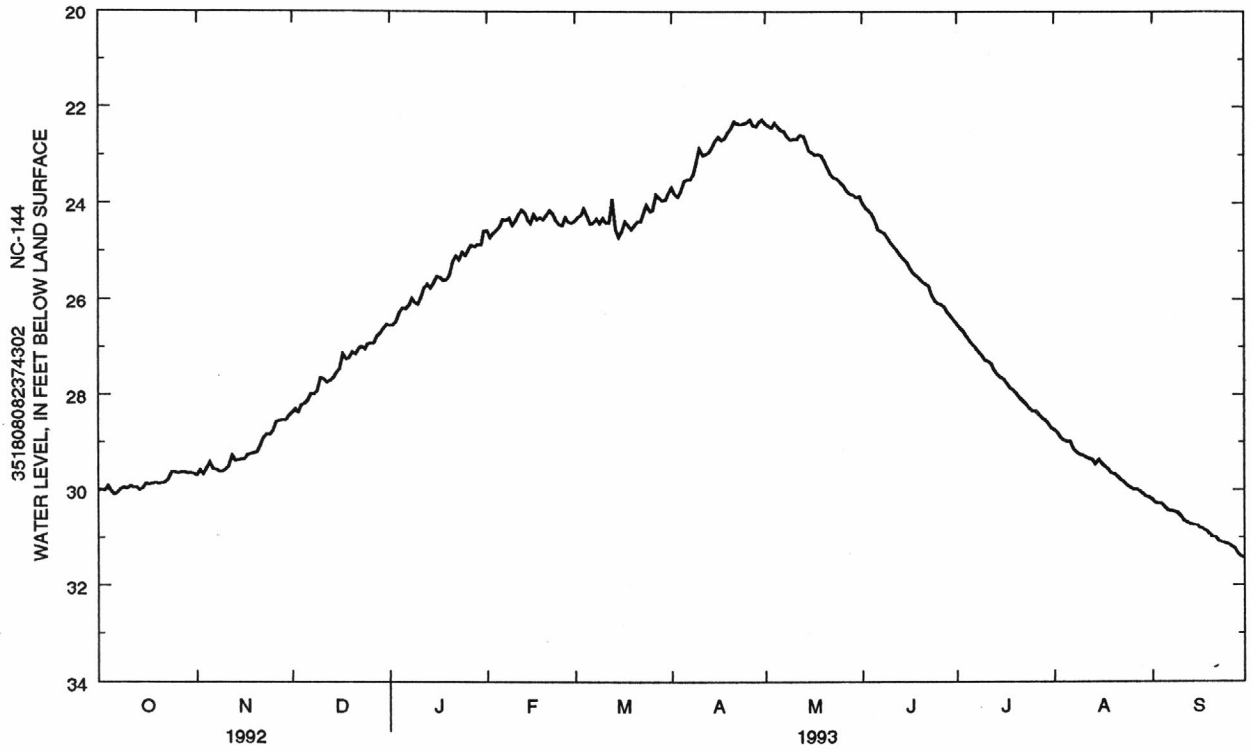
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 22.20 ft below land-surface datum, Apr. 26, 1993; lowest water level recorded, 37.95 ft below land-surface datum, Dec. 23 and 24, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.01	29.69	28.37	26.55	24.57	24.37	23.68	22.34	23.98	26.52	28.73	30.20
2	30.00	29.58	28.31	26.55	24.72	24.30	23.81	22.38	24.10	26.60	28.78	30.26
3	30.01	29.66	28.38	26.47	24.63	24.25	23.87	22.42	24.15	26.67	28.90	30.28
4	29.92	29.54	28.22	26.28	24.57	24.12	23.74	22.33	24.23	26.77	28.96	30.28
5	30.02	29.43	28.19	26.19	24.49	24.29	23.54	22.41	24.36	26.86	28.99	30.36
6	30.09	29.56	28.12	26.20	24.35	24.44	23.50	22.48	24.54	26.95	28.98	30.42
7	30.05	29.57	27.98	26.13	24.36	24.41	23.50	22.51	24.59	27.03	29.13	30.44
8	29.99	29.61	27.99	25.98	24.32	24.33	23.38	22.62	24.62	27.10	29.21	30.45
9	29.94	29.61	27.93	26.06	24.47	24.43	23.10	22.68	24.72	27.18	29.25	30.48
10	29.97	29.57	27.65	26.10	24.37	24.32	22.87	22.67	24.83	27.27	29.28	30.55
11	29.92	29.49	27.66	25.96	24.24	24.41	23.01	22.67	24.90	27.30	29.32	30.64
12	29.95	29.28	27.74	25.77	24.15	24.41	22.99	22.59	24.99	27.35	29.35	30.68
13	29.95	29.38	27.71	25.69	24.20	23.92	22.94	22.60	25.08	27.49	29.37	30.72
14	30.00	29.37	27.65	25.77	24.36	24.54	22.84	22.75	25.16	27.59	29.45	30.73
15	29.96	29.36	27.54	25.66	24.43	24.70	22.71	22.90	25.21	27.64	29.37	30.74
16	29.87	29.36	27.45	25.53	24.24	24.58	22.62	22.96	25.34	27.68	29.44	30.80
17	29.88	29.27	27.15	25.55	24.35	24.39	22.69	23.00	25.45	27.77	29.50	30.83
18	29.86	29.24	27.25	25.61	24.30	24.46	22.65	22.98	25.51	27.87	29.56	30.86
19	29.85	29.22	27.22	25.60	24.34	24.54	22.53	23.01	25.56	27.91	29.65	30.93
20	29.87	29.20	27.10	25.51	24.25	24.46	22.44	23.13	25.64	27.98	29.67	30.98
21	29.85	29.07	27.15	25.23	24.16	24.39	22.31	23.28	25.68	28.06	29.72	31.00
22	29.84	28.91	27.04	25.11	24.22	24.38	22.34	23.41	25.72	28.13	29.79	31.08
23	29.76	28.82	26.98	25.19	24.36	24.19	22.36	23.46	25.89	28.20	29.83	31.10
24	29.62	28.84	27.04	25.03	24.45	24.04	22.35	23.49	26.04	28.29	29.90	31.12
25	29.63	28.74	26.93	25.09	24.46	24.17	22.32	23.57	26.08	28.35	29.95	31.15
26	29.65	28.57	26.92	24.97	24.31	24.14	22.26	23.64	26.10	28.35	29.98	31.19
27	29.63	28.55	26.92	24.88	24.40	23.82	22.38	23.75	26.16	28.41	29.99	31.23
28	29.63	28.53	26.77	24.90	24.41	23.89	22.40	23.80	26.27	28.49	30.02	31.35
29	29.65	28.53	26.71	24.86	---	23.94	22.30	23.82	26.34	28.53	30.08	31.40
30	29.64	28.44	26.61	24.86	---	23.93	22.27	23.88	26.44	28.60	30.13	31.42
31	29.67	---	26.53	24.58	---	23.79	---	23.85	---	28.69	30.15	---

WTR YR 1993 MEAN 26.67 HIGH 22.26 LOW 31.42


351808082374302 NC-144
WATER LEVEL, IN FEET BELOW LAND SURFACE
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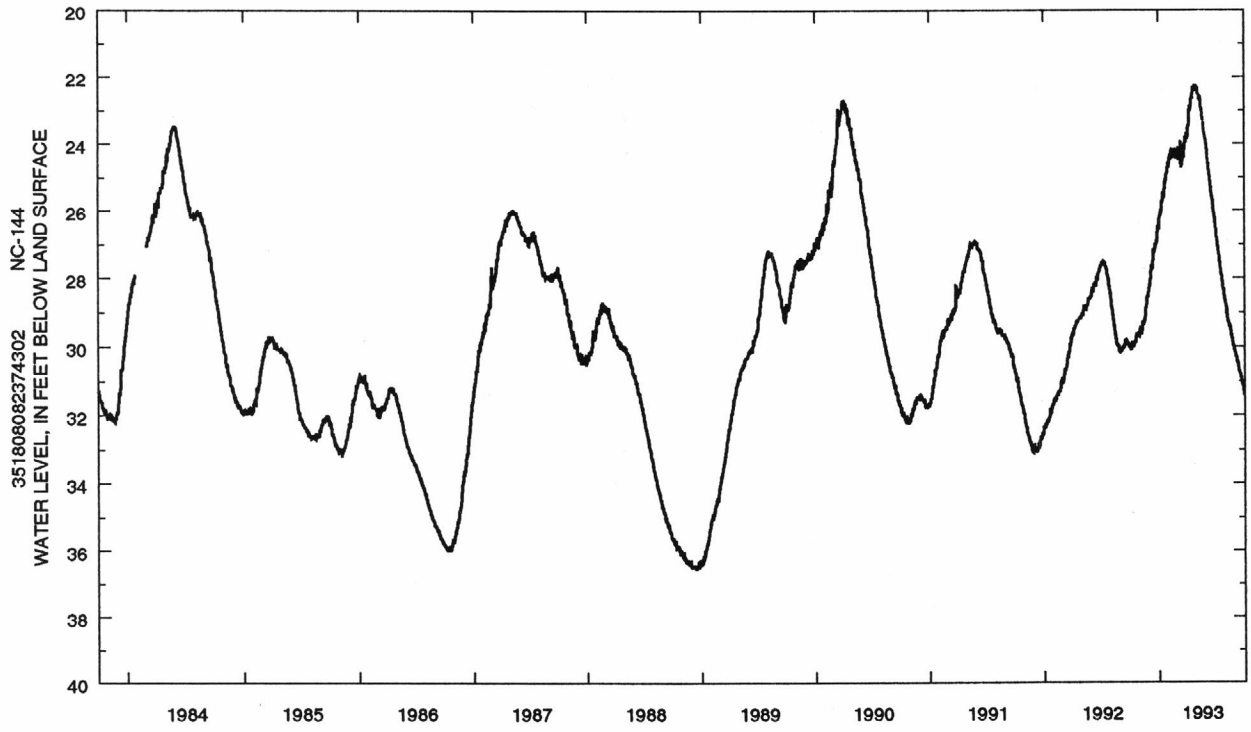
351808082374302 NC-144
WATER LEVEL, IN FEET BELOW LAND SURFACE
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TRANSYLVANIA COUNTY--Continued

351709082434101. Local number, NC-147.

LOCATION.--Lat 35°17'09", long 82°43'41", Hydrologic Unit 06010105, 3.5 mi north of Brevard on U.S. Highway 276, 700 ft northwest of U.S. Forest Service Ranger Station in Pisgah National Forest. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined alluvial sand.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 25 ft, diameter 4 in., cased to 11.6 ft, screened interval from 11.6 to 21.6 ft; measured depth 22.9 ft, June 1985.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 2,176.70 ft above sea level. Measuring point: Top of casing, 2.24 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

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

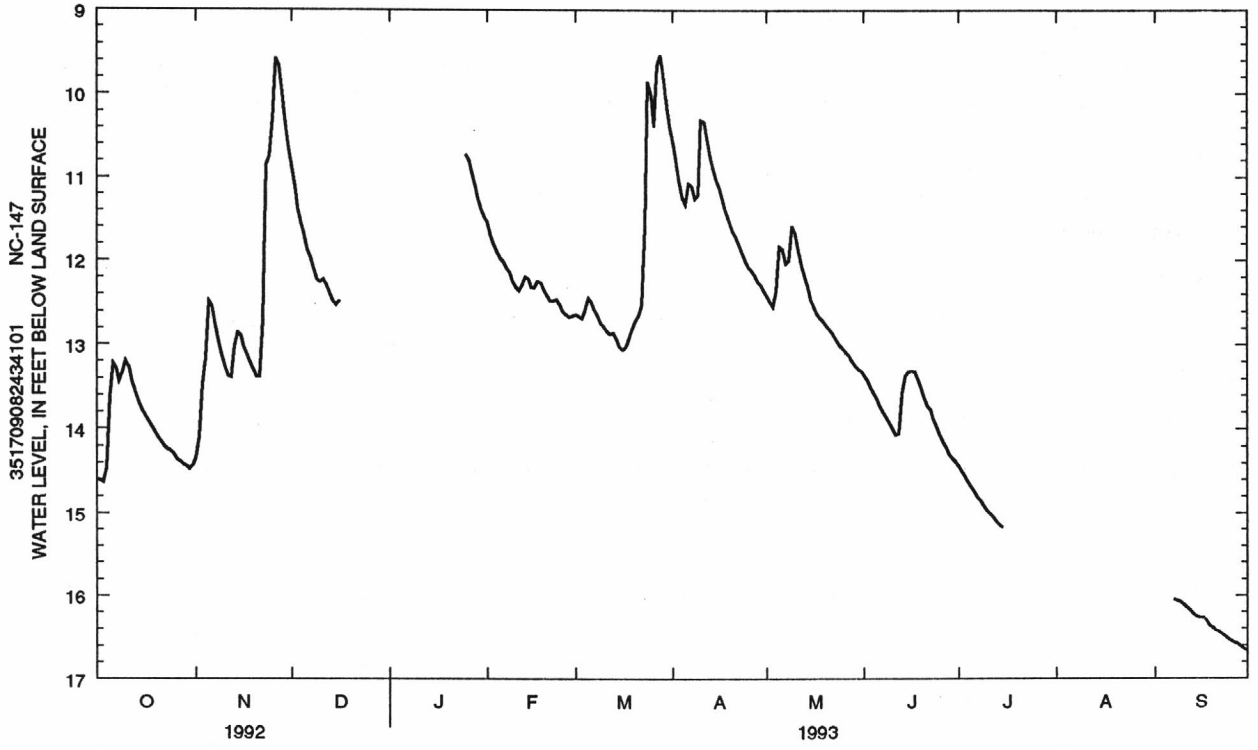
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.43 ft below land-surface datum, Oct. 2, 1989; lowest water level recorded, 17.66 ft below land-surface datum, Oct. 8 and 9, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.59	14.34	10.89	---	11.55	12.64	10.56	12.42	13.36	14.44	---	---
2	14.61	14.10	11.12	---	11.71	12.66	10.79	12.49	13.43	14.50	---	---
3	14.63	13.48	11.38	---	11.82	12.69	11.05	12.55	13.50	14.56	---	---
4	14.47	13.17	11.55	---	11.90	12.60	11.25	12.36	13.57	14.63	---	---
5	13.63	12.49	11.70	---	11.98	12.45	11.33	11.84	13.64	14.69	---	---
6	13.23	12.55	11.88	---	12.02	12.49	11.08	11.87	13.73	14.75	---	---
7	13.29	12.76	11.97	---	12.09	12.58	11.11	12.04	13.80	14.81	---	16.05
8	13.44	12.96	12.10	---	12.15	12.65	11.26	12.00	13.86	14.86	---	16.06
9	13.32	13.12	12.23	---	12.25	12.74	11.22	11.59	13.93	14.92	---	16.08
10	13.20	13.26	12.26	---	12.32	12.79	10.32	11.69	14.00	14.97	---	16.11
11	13.28	13.37	12.23	---	12.36	12.84	10.34	11.89	14.07	15.01	---	16.15
12	13.44	13.39	12.30	---	12.29	12.88	10.54	12.06	14.05	15.05	---	16.18
13	13.56	13.02	12.40	---	12.20	12.86	10.75	12.19	13.58	15.10	---	16.22
14	13.68	12.86	12.48	---	12.22	12.94	10.91	12.32	13.37	15.15	---	16.25
15	13.77	12.90	12.53	---	12.32	13.03	11.04	12.46	13.32	15.17	---	16.27
16	13.84	13.02	12.48	---	12.33	13.06	11.15	12.56	13.31	---	---	16.27
17	13.91	13.12	---	---	12.25	13.03	11.29	12.63	13.32	---	---	16.30
18	13.97	13.21	---	---	12.27	12.92	11.43	12.68	13.41	---	---	16.37
19	14.03	13.30	---	---	12.35	12.81	11.54	12.72	13.52	---	---	16.39
20	14.10	13.38	---	---	12.42	12.72	11.65	12.77	13.64	---	---	16.42
21	14.15	13.38	---	---	12.48	12.65	11.72	12.82	13.73	---	---	16.44
22	14.20	12.72	---	---	12.48	12.53	11.81	12.87	13.78	---	---	16.47
23	14.24	10.86	---	---	12.47	11.60	11.91	12.94	13.88	---	---	16.50
24	14.26	10.75	---	---	12.53	9.86	12.00	13.00	13.99	---	---	16.53
25	14.30	10.31	---	10.73	12.61	10.02	12.08	13.04	14.07	---	---	16.55
26	14.36	9.58	---	10.80	12.64	10.39	12.12	13.08	14.15	---	---	16.57
27	14.39	9.67	---	10.93	12.67	9.66	12.18	13.13	14.21	---	---	16.59
28	14.42	10.00	---	11.11	12.66	9.54	12.25	13.19	14.30	---	---	16.62
29	14.44	10.36	---	11.26	---	9.78	12.30	13.24	14.35	---	---	16.65
30	14.47	10.66	---	11.41	---	10.10	12.36	13.29	14.39	---	---	16.67
31	14.42	---	---	11.48	---	10.38	---	13.31	---	---	---	---

WTR YR 1993 MEAN 13.00 HIGH 9.54 LOW 16.67


351709082434101 NC-147
WATER LEVEL, IN FEET BELOW LAND SURFACE
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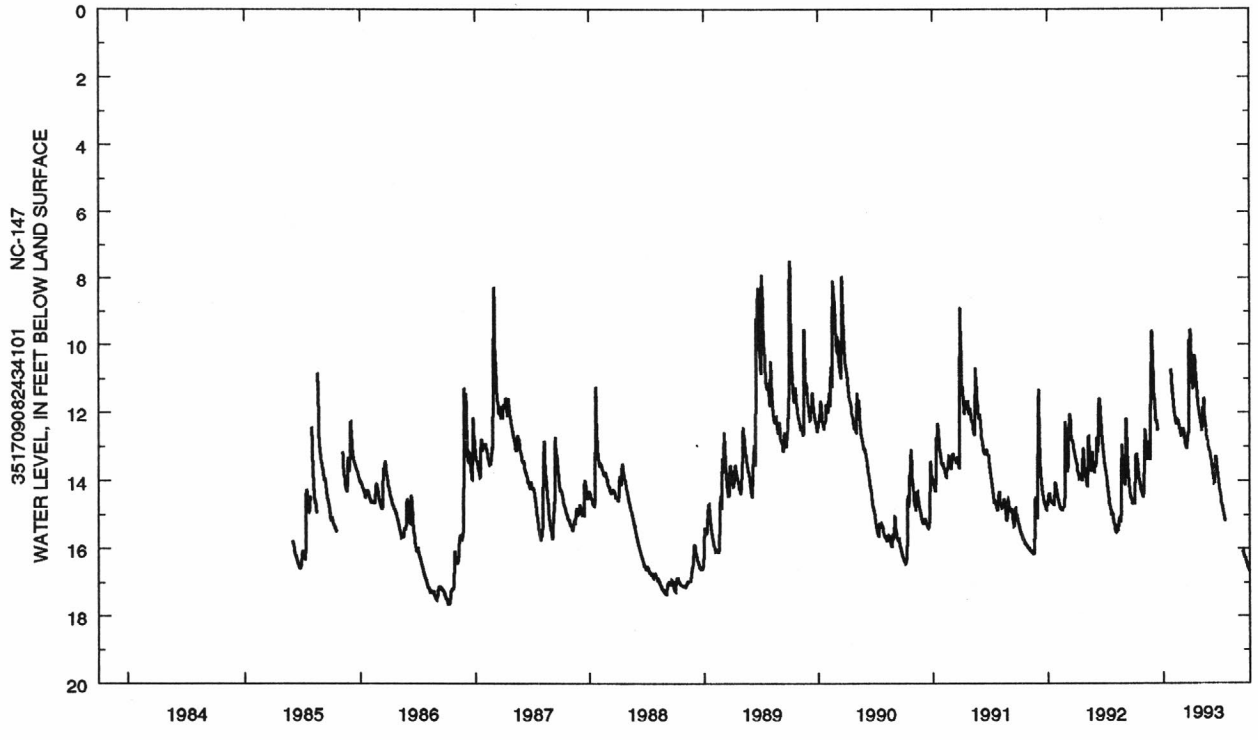
351709082434101 NC-147
WATER LEVEL, IN FEET BELOW LAND SURFACE
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WASHINGTON COUNTY

354351076260501. Local number, NC-156; DEHNR Lake Phelps Research Station well L13i1.

LOCATION.--Lat 35°43'51", long 76°26'05", Hydrologic Unit 03010205, on south shore of Lake Phelps, south of Secondary Road 1126 on Secondary Road 1183. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 510 ft, diameter 6 in., cased to 390 ft, open hole to 510 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 16.15 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.47 ft above land-surface datum - revised from 2.60 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

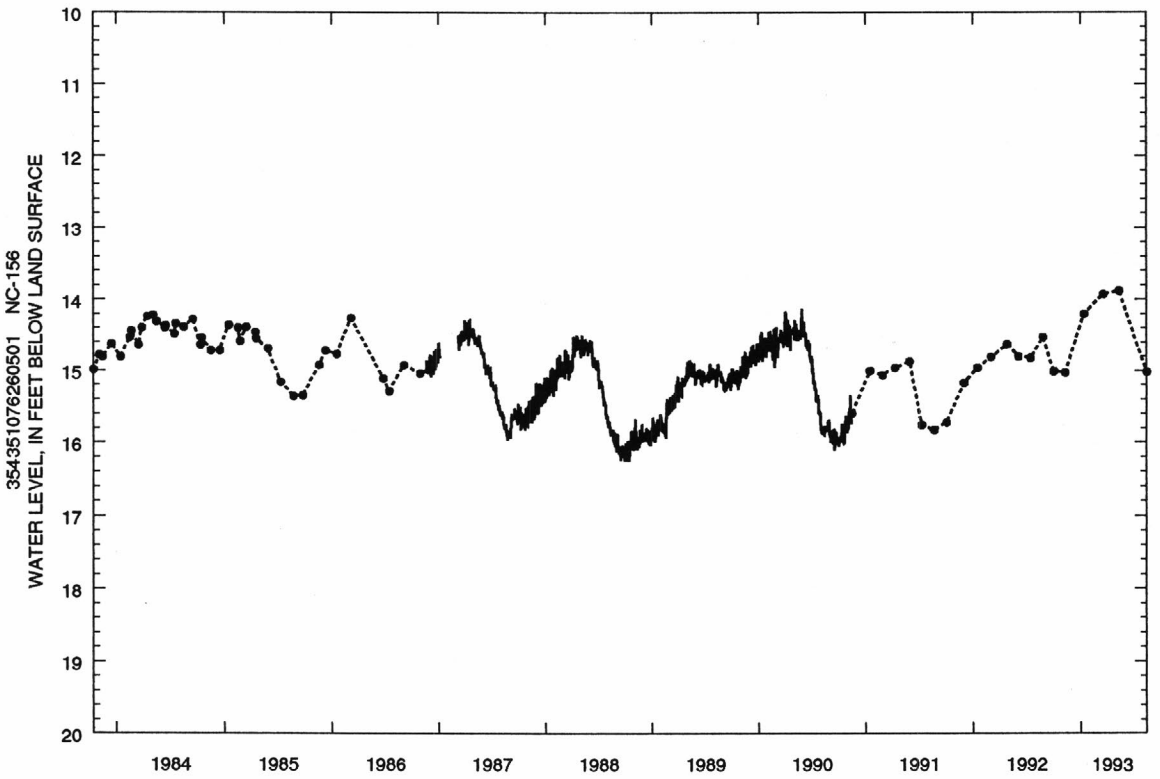
PERIOD OF RECORD.--August 1977 to current year. Continuous record November 1986 to November 1990. Records from August 1977 to September 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.14 ft below land-surface datum, May 16, 1978; lowest water level recorded, 16.29 ft below land-surface datum, Oct. 14, 1988.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.13 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.01	NOV 9	15.03	JAN 12	14.20	MAR 18	13.93	MAY 10	13.88	AUG 11	15.02


354351076260501 NC-156
WATER LEVEL, IN FEET BELOW LAND SURFACE
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WASHINGTON COUNTY--Continued

354351076260502. Local number, NC-157; DEHNR Lake Phelps Research Station well L13i2.

LOCATION.--Lat 35°43'51", long 76°26'05", Hydrologic Unit 03010205, on south shore of Lake Phelps, south of Secondary Road 1126 on Secondary Road 1183. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).

AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 130 ft, diameter 4 in., cased to 110 ft, screened interval from 110 to 120 ft; measured depth 120.2 ft, October 1986.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 16.35 ft above sea level (levels by DEHNR). Measuring point: Top of instrument shelf, 2.84 ft above land-surface datum - revised from 3.20 ft above land-surface datum, October 1987.

REMARKS.--Well is part of areal-effects network.

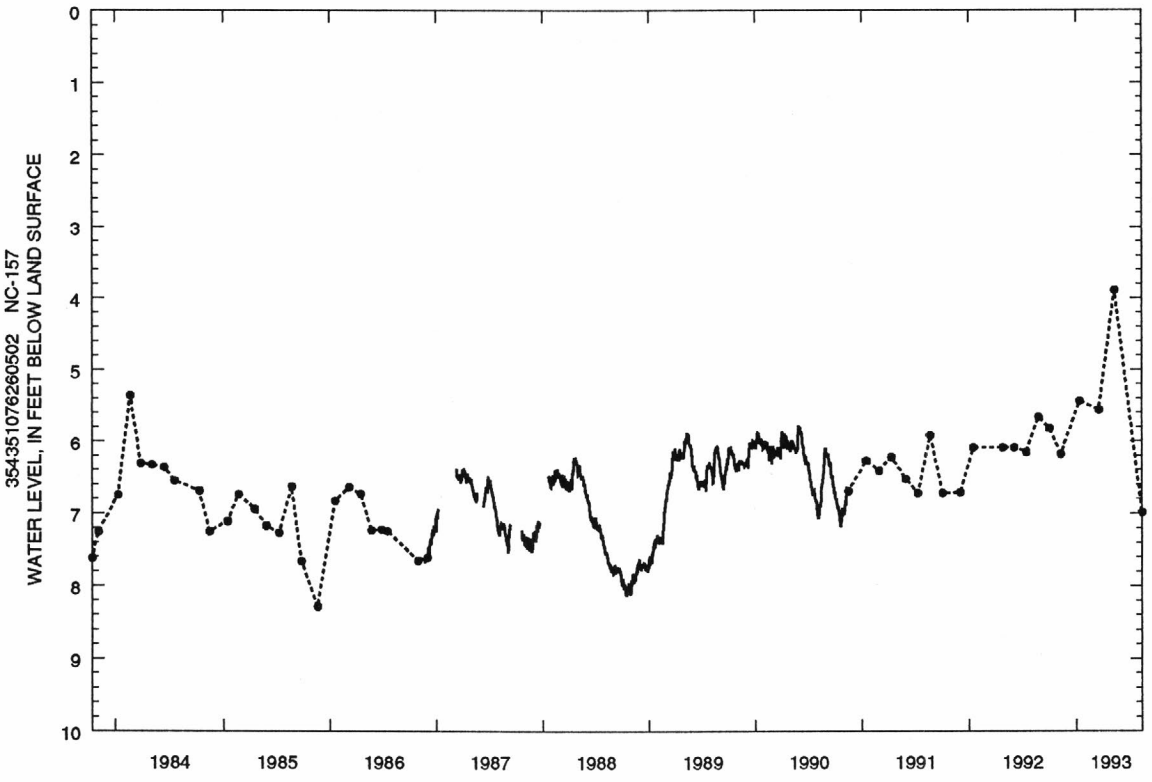
PERIOD OF RECORD.--October 1977 to current year. Continuous record November 1986 to November 1990. Records from October 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.89 ft below land-surface datum, May 10, 1993; lowest water level recorded, 9.35 ft below land-surface datum, Feb. 24, 1981.

REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.36 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	5.82	NOV 9	6.18	JAN 12	5.44	MAR 18	5.56	MAY 10	3.89	AUG 11	6.99


354351076260502 NC-157
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WASHINGTON COUNTY--Continued

354418076463601. Local number, NC-158.

LOCATION.--Lat 35°44'18", long 76°46'36", Hydrologic Unit 03020104, 2.4 mi west of State Highway 32 on Secondary Road 1101. Owner: U.S. Geological Survey.

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 15 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 35 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.49 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--December 1986 to current year.

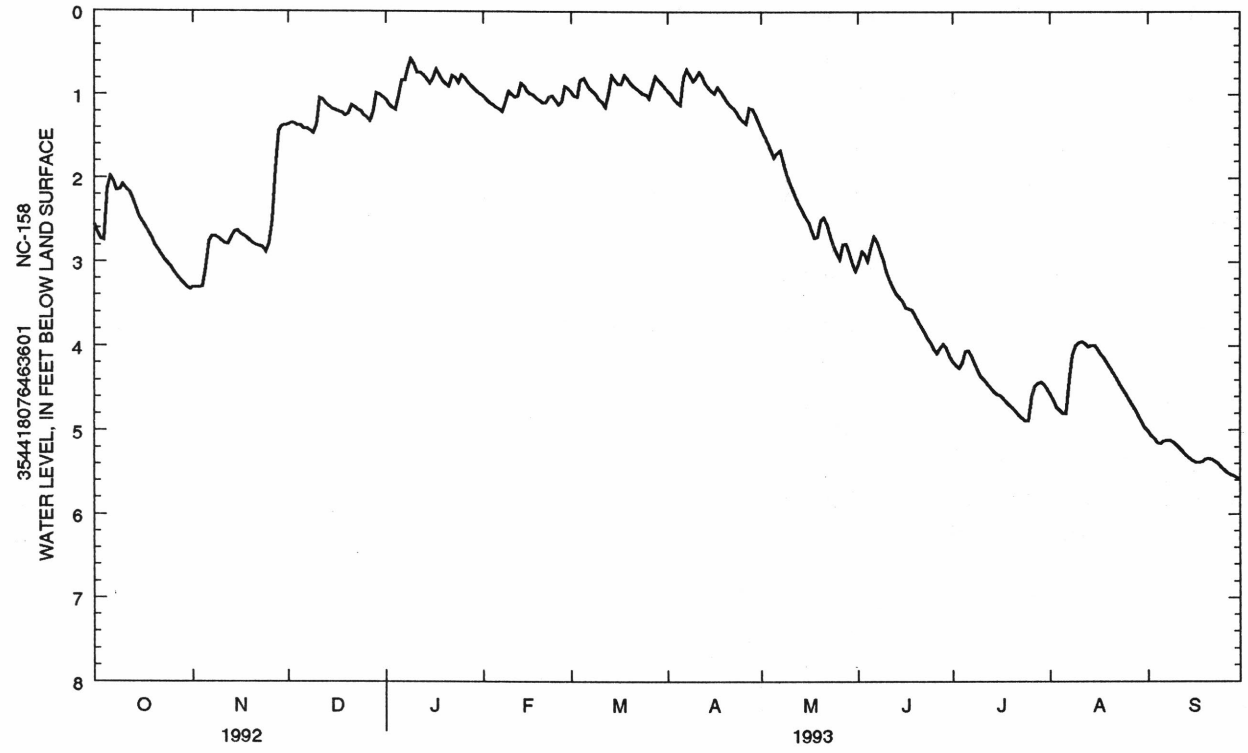
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.56 ft below land-surface datum, Jan. 9, 1993; lowest water level recorded, 5.60 ft below land-surface datum, Oct. 18, 19, 1988, and Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.56	3.31	1.36	1.06	1.01	.97	.95	1.41	3.03	4.18	4.57	5.01
2	2.65	3.31	1.34	1.12	1.06	1.01	.99	1.49	2.87	4.23	4.64	5.06
3	2.73	3.31	1.35	1.16	1.10	1.03	1.05	1.58	2.90	4.26	4.72	5.10
4	2.74	3.30	1.37	1.18	1.12	.82	1.10	1.66	2.99	4.20	4.76	5.15
5	2.13	3.07	1.37	1.01	1.15	.80	1.12	1.75	2.83	4.06	4.80	5.16
6	1.99	2.76	1.41	.82	1.17	.86	.79	1.70	2.70	4.05	4.80	5.13
7	2.05	2.70	1.41	.82	1.20	.92	.69	1.67	2.76	4.12	4.40	5.12
8	2.15	2.70	1.43	.66	1.09	.96	.76	1.81	2.87	4.21	4.11	5.12
9	2.14	2.72	1.46	.57	.96	1.00	.83	1.95	2.98	4.30	3.99	5.14
10	2.08	2.75	1.37	.63	1.00	1.06	.80	2.06	3.12	4.36	3.96	5.18
11	2.14	2.78	1.04	.73	1.03	1.09	.72	2.15	3.22	4.40	3.95	5.22
12	2.16	2.79	1.06	.73	1.01	1.15	.77	2.24	3.31	4.44	3.97	5.26
13	2.24	2.71	1.11	.76	.86	.99	.85	2.32	3.38	4.49	4.01	5.30
14	2.35	2.64	1.14	.81	.89	.77	.91	2.39	3.42	4.53	3.99	5.33
15	2.45	2.63	1.17	.86	.95	.82	.95	2.45	3.47	4.57	3.99	5.36
16	2.52	2.67	1.19	.80	.99	.87	.98	2.53	3.54	4.59	4.03	5.39
17	2.58	2.69	1.20	.69	1.00	.87	.91	2.62	3.56	4.62	4.09	5.39
18	2.65	2.71	1.22	.76	1.04	.76	.96	2.71	3.57	4.66	4.14	5.38
19	2.71	2.75	1.25	.83	1.07	.81	1.02	2.70	3.64	4.70	4.20	5.35
20	2.80	2.78	1.23	.87	1.10	.86	1.08	2.51	3.71	4.73	4.26	5.34
21	2.86	2.80	1.13	.90	1.10	.90	1.13	2.47	3.78	4.78	4.32	5.35
22	2.92	2.81	1.15	.77	1.03	.93	1.16	2.55	3.84	4.82	4.38	5.37
23	2.98	2.83	1.18	.79	1.01	.96	1.21	2.68	3.90	4.85	4.45	5.40
24	3.02	2.88	1.20	.85	1.07	.99	1.27	2.80	3.97	4.88	4.51	5.44
25	3.06	2.78	1.25	.76	1.12	1.00	1.32	2.89	4.03	4.88	4.57	5.47
26	3.12	2.50	1.27	.79	1.09	1.04	1.35	2.96	4.08	4.60	4.64	5.51
27	3.18	1.90	1.32	.84	.90	.91	1.16	2.79	4.02	4.47	4.70	5.53
28	3.22	1.44	1.21	.89	.92	.78	1.17	2.78	3.98	4.44	4.76	5.55
29	3.26	1.38	.98	.92	---	.82	1.24	2.89	4.02	4.43	4.84	5.57
30	3.30	1.37	1.00	.97	---	.86	1.32	3.02	4.12	4.45	4.91	5.59
31	3.33	---	1.03	.99	---	.91	---	3.10	---	4.50	4.97	---

WTR YR 1993 MEAN 2.53 HIGH .57 LOW 5.59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WATER LEVEL, IN FEET BELOW LAND SURFACE
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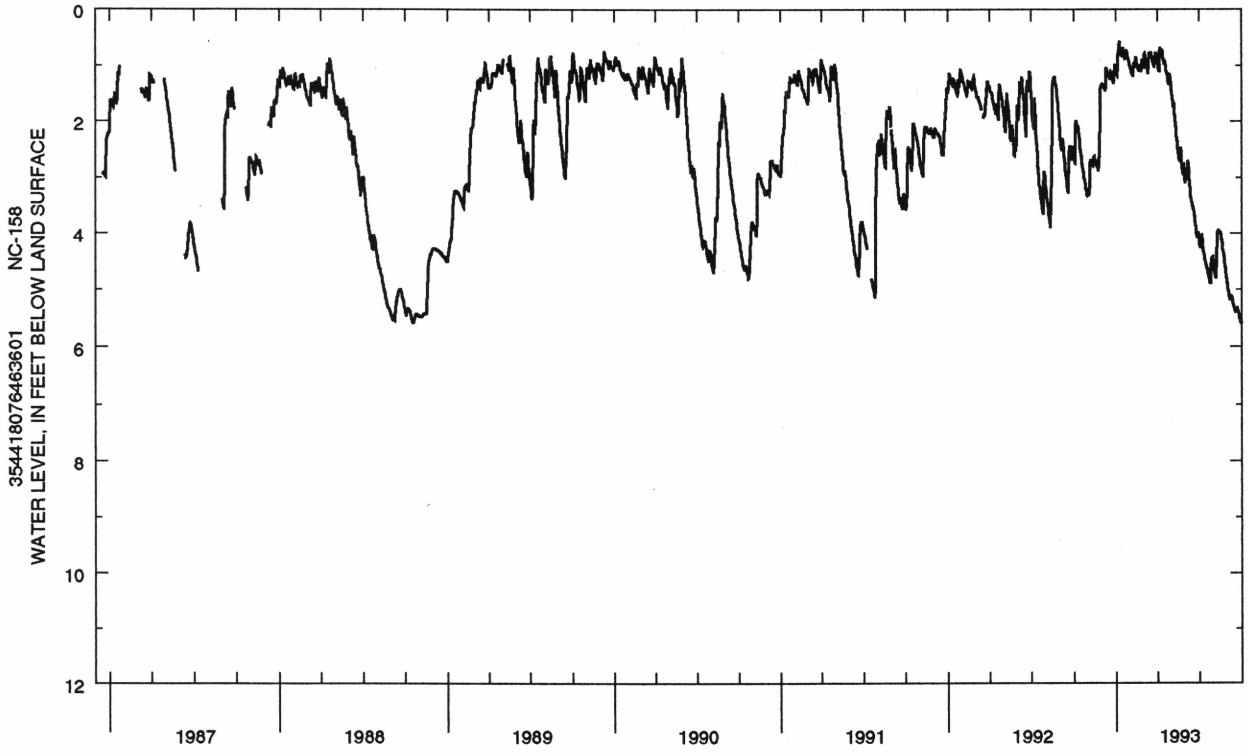
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WATER LEVEL, IN FEET BELOW LAND SURFACE
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WAYNE COUNTY

351849078163901. Local number, NC-148.

LOCATION.--Lat 35°18'49", long 78°16'39", Hydrologic Unit 03020201, 0.5 mi south of Johnston County line on Secondary Road 1009, and 6 mi west of Grantham. Owner: U.S. Geological Survey.

AQUIFER.--Surficial aquifer of post-Miocene age.

WELL CHARACTERISTICS.--Bored observation well, augered to 10.4 ft, diameter 3 in., cased to 5.4 ft, screened interval from 5.4 to 10.4 ft.

INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.

DATUM.--Land-surface datum is 190 ft above sea level (from topographic map). Measuring point: File cut on top of casing, 1.80 ft above land-surface datum.

REMARKS.--Well is part of climatic-effects network.

PERIOD OF RECORD.--February 1980 to current year. Records for June 17 to Sept. 30, 1987, published in Water Resources Data, North Carolina, NC-87-1, are unreliable and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.04 ft above land-surface datum, May 2, 1989; lowest water level recorded, 8.40 ft below land-surface datum, Sept. 19 and 20, 1983.

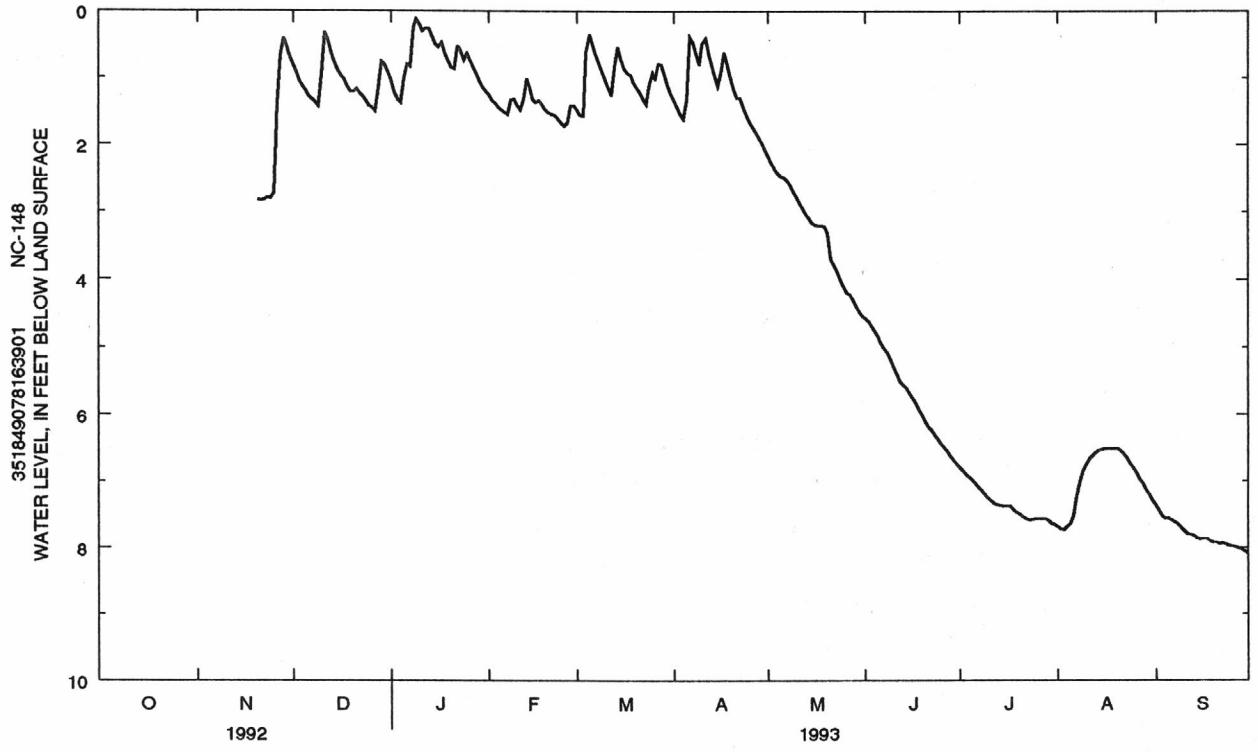
REVISED RECORD.--See PERIOD OF RECORD.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.82	1.05	1.26	1.49	1.34	2.17	4.57	6.80	7.69	7.37
2	---	---	.92	1.23	1.34	1.56	1.45	2.27	4.62	6.85	7.72	7.44
3	---	---	1.04	1.32	1.38	1.57	1.55	2.36	4.69	6.90	7.73	7.53
4	---	---	1.12	1.37	1.45	.62	1.62	2.43	4.76	6.94	7.69	7.56
5	---	---	1.19	1.02	1.49	.35	1.33	2.48	4.84	6.99	7.65	7.56
6	---	---	1.29	.81	1.52	.49	.39	2.49	4.94	7.05	7.52	7.59
7	---	---	1.32	.84	1.55	.65	.47	2.54	5.02	7.10	7.23	7.62
8	---	---	1.37	.25	1.33	.78	.65	2.61	5.09	7.15	7.01	7.65
9	---	---	1.43	.12	1.32	.91	.81	2.70	5.18	7.21	6.85	7.70
10	---	---	.96	.20	1.42	1.03	.49	2.79	5.29	7.26	6.75	7.75
11	---	---	.32	.31	1.49	1.15	.41	2.87	5.40	7.31	6.67	7.80
12	---	---	.45	.27	1.32	1.27	.60	2.96	5.50	7.34	6.62	7.81
13	---	---	.63	.27	1.02	.85	.80	3.05	5.56	7.36	6.57	7.83
14	---	---	.78	.38	1.16	.54	.97	3.10	5.60	7.37	6.54	7.87
15	---	---	.89	.49	1.32	.73	1.12	3.16	5.69	7.38	6.52	7.88
16	---	---	.97	.54	1.37	.87	.93	3.20	5.76	7.38	6.51	7.88
17	---	---	1.03	.48	1.34	.93	.62	3.21	5.84	7.38	6.51	7.88
18	---	---	1.13	.63	1.41	.96	.81	3.21	5.93	7.44	6.51	7.91
19	---	---	1.21	.75	1.49	1.08	1.00	3.22	6.02	7.48	6.51	7.92
20	---	2.83	1.21	.85	1.52	1.15	1.17	3.32	6.11	7.50	6.51	7.92
21	---	2.84	1.17	.87	1.55	1.23	1.30	3.70	6.19	7.54	6.54	7.94
22	---	2.83	1.24	.52	1.56	1.32	1.30	3.79	6.24	7.57	6.60	7.93
23	---	2.80	1.28	.60	1.62	1.40	1.44	3.89	6.31	7.59	6.66	7.95
24	---	2.81	1.35	.74	1.67	1.13	1.56	4.00	6.38	7.58	6.74	7.97
25	---	2.72	1.42	.64	1.72	.93	1.66	4.10	6.44	7.57	6.81	7.98
26	---	1.40	1.45	.75	1.68	1.04	1.74	4.19	6.49	7.57	6.89	7.99
27	---	.68	1.51	.84	1.42	.80	1.82	4.22	6.55	7.57	6.98	8.01
28	---	.41	1.15	.95	1.42	.81	1.91	4.30	6.63	7.57	7.05	8.03
29	---	.54	.77	1.05	---	.96	1.99	4.39	6.69	7.60	7.14	8.06
30	---	.70	.82	1.15	---	1.11	2.08	4.48	6.74	7.64	7.21	8.09
31	---	---	.92	1.20	---	1.25	---	4.54	---	7.66	7.29	---

WTR YR 1993 MEAN 3.60 HIGH .12 LOW 8.09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WATER LEVEL, IN FEET BELOW LAND SURFACE
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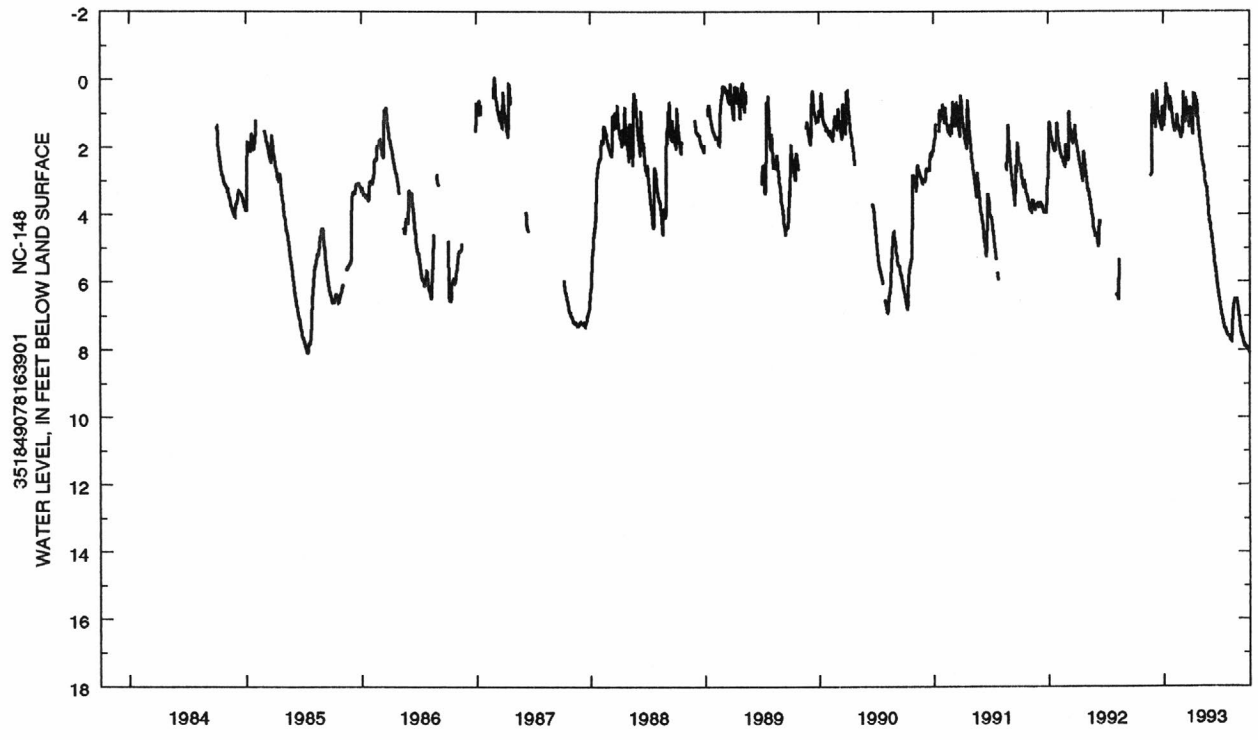
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Remarks Codes

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

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

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter. Present data above the microgram per liter level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

Data in the following table were collected as part of the Albemarle-Pamlico River Basin study for the National Water Quality Assessment Program. Geologic unit 211CPFRU, upper Cape Fear aquifer; 110QPLC, surficial sands.

EDGECOMBE COUNTY

LOCAL IDENTIFIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAN-DARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)
ED-152/D-2	354700077293301	211CPFRU	09-08-93	1130	--	--	362	7.4	18.5
BFP-4A	354740077293101	110QPLC	08-31-93	1500	3.46	0.07	390	4.4	22.0
ED-146/BFP-3A	354743077292801	110QPLC	08-12-93	1530	9.17	6.75	450	4.2	23.5
ED-149/BFP-3B	354743077292802	110QPLC	08-18-93	1230	11.29	7.12	444	4.4	22.0
ED-143/BFP-1A	354805077282901	110QPLC	08-28-93	1100	8.92	6.09	104	5.7	22.5
ED-144/BFP-2A	354805077285901	110QPLC	08-26-93	1530	7.20	5.19	228	5.7	24.0
ED-145/BFP-2B	354805077285902	110QPLC	08-27-93	1330	14.00	3.90	560	7.2	21.0
H-5	354836077290601	--	09-02-93	1100	28.00	12.00	143	6.0	22.0
ED-13 CONETOE MUN	354916077272801	211CPFRU	09-09-93	1300	180.00	--	425	7.7	18.0
ED-147/AFP-1B	354916077302401	110QPLC	08-17-93	1600	14.54	7.44	356	6.4	19.5
ED-150/AFP-2A	354921077292901	110QPLC	08-19-93	1630	13.92	7.17	312	5.0	19.5
ED-151/AFP-2B	354921077292902	110QPLC	08-19-93	1500	9.29	7.36	244	4.5	21.0

LOCAL IDENTIFIER	DATE	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS IT TOT FIELD MG/L AS CACO3 (39086)	SULFATE IT DIS-SOLVED (MG/L AS SO4) (00945)
ED-152/D-2	09-08-93	0.3	3.3	2.2	79	6.5	194	159	6.2
BFP-4A	08-31-93	0.4	31	16	3.0	5.4	0	0	100
ED-146/BFP-3A	08-12-93	0.7	33	18	3.6	7.7	0	0	110
ED-149/BFP-3B	08-18-93	0.7	38	17	3.8	8.7	0	0	100
ED-143/BFP-1A	08-28-93	1.7	2.2	1.0	5.1	1.6	15	12	8.3
ED-144/BFP-2A	08-26-93	0.1	24	3.1	4.5	3.5	34	28	55
ED-145/BFP-2B	08-27-93	1.1	91	5.1	17	2.9	353	289	0.60
H-5	09-02-93	0.2	14	2.3	6.6	1.6	52	43	7.3
ED-131 CONETOE MUN	09-09-93	0.3	2.8	1.7	93	6.6	207	170	13
ED-147/AFP-1B	08-17-93	2.7	16	6.0	4.3	6.5	50	41	39
ED-150/AFP-2A	08-19-93	7.5	35	4.2	2.0	9.1	2	2	59
ED-151/AFP-2B	08-19-93	7.1	26	3.5	1.2	7.1	0	0	65

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

EDGECOMBE COUNTY--Continued

LOCAL IDENTIFIER	DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
ED-152/D-2	09-08-93	15	0.50	33	<0.010	<0.050	0.260	0.20	0.220
BFP-4A	08-31-93	17	0.20	13	<0.010	13.0	0.030	0.40	<0.010
ED-146/BFP-3A	08-12-93	22	0.20	13	<0.010	15.0	0.010	0.40	<0.010
ED-149/BFP-3B	08-18-93	26	0.20	12	<0.010	15.0	0.020	0.40	<0.010
ED-143/BFP-1A	08-28-93	10	<0.10	8.0	<0.010	<0.050	0.090	<0.20	0.010
ED-144/BFP-2A	08-26-93	13	0.20	28	<0.010	<0.050	0.370	0.70	0.020
ED-145/BFP-2B	08-27-93	2.6	0.20	39	<0.010	<0.050	0.330	0.60	0.010
H-5	09-02-93	7.2	0.10	21	<0.010	<0.050	0.050	0.30	0.020
ED-131 CONETOE MUN	09-09-93	25	0.40	33	<0.010	0.140	0.260	0.30	0.160
ED-147/AFP-1B	08-17-93	6.2	0.10	10	<0.010	14.0	0.030	1.0	0.010
ED-150/AFP-2A	08-19-93	19	<0.10	6.9	0.020	12.0	0.050	<0.20	<0.010
ED-151/AFP-2B	08-19-93	7.7	0.20	11	<0.010	6.10	0.030	<0.20	<0.010

LOCAL IDENTIFIER	DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	DICHLOROBROMOMETHANE TOTAL (UG/L) (32101)	CARBONTETRACHLORIDE TOTAL (UG/L) (32102)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)
ED-152/D-2	09-08-93	0.230	0.050	25	2	0.4	<0.2	<0.2	<0.2
BFP-4A	08-31-93	<0.010	<0.010	44	38	5.2	<0.2	<0.2	<0.2
ED-146/BFP-3A	08-12-93	<0.010	<0.010	57	56	6.0	<0.2	<0.2	<0.2
ED-149/BFP-3B	08-18-93	<0.010	0.010	69	53	4.5	<0.2	<0.2	<0.2
ED-143/BFP-1A	08-28-93	<0.010	0.12	1800	26	2.8	<0.2	<0.2	<0.2
ED-144/BFP-2A	08-26-93	0.030	0.050	6400	43	7.4	<0.2	<0.2	<0.2
ED-145/BFP-2B	08-27-93	<0.010	<0.010	2100	62	3.5	<0.2	<0.2	<0.2
H-5	09-02-93	0.030	<0.010	1000	21	9.8	--	--	--
ED-131 CONETOE MUN	09-09-93	0.160	0.070	100	2	0.5	<0.2	<0.2	<0.2
ED-147/AFP-1B	08-17-93	0.010	--	69	21	9.6	--	--	--
ED-150/AFP-2A	08-19-93	<0.010	0.040	15	140	1.7	--	--	--
ED-151/AFP-2B	08-19-93	<0.010	0.020	23	100	1.0	--	--	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

EDGECOMBE COUNTY--Continued

LOCAL IDENTIFIER	DATE	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)
ED-152/D-2	09-08-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
BFP-4A	08-31-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-146/BFP-3A	08-12-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-149/BFP-3B	08-18-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-143/BFP-1A	08-28-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-144/BFP-2A	08-26-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-145/BFP-2B	08-27-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
H-5	09-02-93	--	--	--	--	--	<0.01	--	--
ED-131 CONETOE MUN	09-09-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
ED-147/AFP-1B	08-17-93	--	--	--	--	--	<0.01	--	--
ED-150/AFP-2A	08-19-93	--	--	--	--	--	<0.01	--	--
ED-151/AFP-2B	08-19-93	--	--	--	--	--	<0.01	--	--

LOCAL IDENTIFIER	DATE	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
ED-152/D-2	09-08-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
BFP-4A	08-31-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-146/BFP-3A	08-12-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-149/BFP-3B	08-18-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-143/BFP-1A	08-28-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-144/BFP-2A	08-26-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-145/BFP-2B	08-27-93	<0.2	<0.2	0.5	<0.2	1.3	<0.2	<0.2	<0.2
H-5	09-02-93	--	--	--	--	--	--	--	--
ED-131 CONETOE MUN	09-09-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ED-147/AFP-1B	08-17-93	--	--	--	--	--	--	--	--
ED-150/AFP-2A	08-19-93	--	--	--	--	--	--	--	--
ED-151/AFP-2B	08-19-93	--	--	--	--	--	--	--	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

EDGECOMBE COUNTY--Continued

LOCAL IDENTIFIER	DATE	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	1,2-TRANS-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4-TRICHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) (34566)
ED-152/D-2	09-08-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
BFP-4A	08-31-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-146/BFP-3A	08-12-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-149/BFP-3B	08-18-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-143/BFP-1A	08-28-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-144/BFP-2A	08-26-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-145/BFP-2B	08-27-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
H-5	09-02-93	--	--	--	--	--	--	--	--
ED-131 CONETOE MUN	09-09-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
ED-147/AFP-1B	08-17-93	--	--	--	--	--	--	--	--
ED-150/AFP-2A	08-19-93	--	--	--	--	--	--	--	--
ED-151/AFP-2B	08-19-93	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) (34571)	P,P' DDE DISSOLV (UG/L) (34653)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	NAPHTHALENE TOTAL (UG/L) (34696)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	VINYL CHLORIDE TOTAL (UG/L) (39175)
ED-152/D-2	09-08-93	<0.20	<0.01	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
BFP-4A	08-31-93	<0.20	<0.01	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-146/BFP-3A	08-12-93	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-149/BFP-3B	08-18-93	<0.20	<0.01	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-143/BFP-1A	08-28-93	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-144/BFP-2A	08-26-93	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-145/BFP-2B	08-27-93	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
H-5	09-02-93	--	<0.02	--	--	--	--	<0.00	--
ED-131 CONETOE MUN	09-09-93	<0.20	<0.01	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
ED-147/AFP-1B	08-17-93	--	<0.01	--	--	--	--	<0.00	--
ED-150/AFP-2A	08-19-93	--	<0.01	--	--	--	--	<0.00	--
ED-151/AFP-2B	08-19-93	--	<0.01	--	--	--	--	<0.00	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY

Data were collected as part of a study of water-quality in and around landfills in Charlotte and Mecklenburg County. Chemical samples were collected by the U.S. Geological Survey. Laboratory analyses, other than organics, were performed by the Mecklenburg County Department of Environmental Health Laboratory. Geologic Unit 000SPRL, saprolite; 300IMMG, metamorphosed quartz diorite.

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)
MCALPINE CREEK AT GREENWAY PARK LANDFILL									
MGW 1	350904080443301	000SPRL	04-28-93	783	29.20	13.45	1000	6.5	17.0
MGW 2	350904080443302	000SPRL	04-28-93	783	23.60	12.80	770	6.6	17.0
MGW 3	350904080443303	000SPRL	04-28-93	783	18.60	9.70	760	6.6	17.0
HARRISBURG ROAD LANDFILL									
HBW 721	351257080414101	--	06-07-93	--	--	--	54	6.5	21.0
HBW 17A	351258080412701	000SPRL	06-08-93	772	54.9	17.64	22	5.2	16.5
HBW 17B	351258080412702	000SPRL	06-08-93	772	44.7	16.97	39	5.0	16.0
HBW 17C	351258080412703	000SPRL	12-10-92	772	35.1	20.86	54	5.4	15.0
		000SPRL	03-10-93	772	35.1	16.98	56	4.5	16.0
		000SPRL	04-28-93	772	35.1	14.68	56	4.7	15.5
		000SPRL	06-08-93	772	35.1	17.07	63	4.9	16.0
		000SPRL	09-22-93	772	35.1	22.68	66	4.8	16.0
HBW 433	351330080410801	--	06-07-93	781	--	--	85	6.8	23.0
HBW 12	351330080415701	000SPRL	06-09-93	705	23.4	5.35	114	6.4	16.5
HBW 12A	351330080415702	000SPRL	06-09-93	704	16.5	4.07	154	6.1	17.0
HBW 12B	351330080415703	000SPRL	12-10-92	704	11.3	3.81	261	6.4	13.5
		000SPRL	03-11-93	704	11.3	3.13	261	6.4	10.5
		000SPRL	04-28-93	704	11.3	3.12	266	6.2	14.0
		000SPRL	06-09-93	704	11.3	3.84	277	6.0	17.5
		000SPRL	09-22-93	704	11.3	4.56	302	5.8	20.0
HBW 22	351331080421401	000SPRL	12-09-92	759	39.4	22.43	85	5.8	15.5
		000SPRL	02-19-93	759	39.4	--	--	--	--
		000SPRL	03-10-93	759	39.4	19.95	84	5.5	17.0
		000SPRL	04-29-93	759	39.4	18.73	88	5.6	17.0
		000SPRL	06-09-93	759	39.4	19.25	88	5.8	17.5
		000SPRL	09-22-93	759	39.4	22.73	90	5.6	16.5
HBW 21	351336080421301	000SPRL	12-09-92	721	29.2	22.97	110	6.4	16.0
		000SPRL	02-19-93	721	29.2	--	--	--	--
		000SPRL	03-11-93	721	29.2	11.05	109	6.5	15.5
		000SPRL	03-11-93	721	29.2	--	109	6.4	15.5
		000SPRL	04-28-93	721	29.2	10.04	156	6.3	15.5
		000SPRL	06-08-93	721	29.2	11.24	115	6.1	17.5
		000SPRL	09-22-93	721	29.2	13.57	116	5.9	17.0
HBW 14	351337080415002	--	06-09-93	--	23.0	5.79	149	6.2	16.5
HBW 14B	351337080415003	000SPRL	06-09-93	685	38.3	6.17	97	6.2	15.0
HBW 14C	351337080415004	000SPRL	06-09-93	685	29.9	5.70	111	6.2	16.0
HBW 14D	351337080415005	000SPRL	12-09-92	685	14.9	5.77	195	6.6	14.5
		000SPRL	03-11-93	685	14.9	4.90	190	6.6	12.0
		000SPRL	04-29-93	685	14.9	4.90	180	6.2	13.5
		000SPRL	06-09-93	685	14.9	5.84	178	6.1	16.5
		000SPRL	09-22-93	685	14.9	6.90	169	6.2	18.5
HBW 18A	351339080413201	000SPRL	12-09-92	709	30.1	14.75	327	6.3	16.5
		000SPRL	02-19-93	709	30.1	--	--	--	--
		000SPRL	04-28-93	709	30.1	13.95	366	6.3	16.5
		000SPRL	06-10-93	709	30.1	14.51	355	6.1	17.5
HBW 18B	351339080413202	000SPRL	03-11-93	709	19.9	14.83	715	6.3	16.0
		000SPRL	06-10-93	709	19.9	15.51	722	6.1	16.0
		000SPRL	09-22-93	709	19.9	15.90	586	6.1	17.0
HBW 1850	351340080413501	300IMMG	06-10-93	723	97.0	41.40	197	6.2	19.0
HBW 20	351342080413401	000SPRL	06-07-93	692	27.6	7.32	84	6.4	16.0
HBW 743A	351351080413701	--	12-10-92	--	--	--	92	7.4	6.0
		--	03-10-93	--	--	--	141	7.2	16.0
		--	03-11-93	--	--	--	--	--	--
		--	04-29-93	--	--	--	135	6.9	18.0
		--	06-07-93	--	--	--	135	6.8	19.5
		--	09-21-93	--	--	--	137	6.6	21.0
HOLBROOKS ROAD LANDFILL									
HRW 4	352402080485201	--	04-19-93	--	--	--	168	6.4	16.5
HRW 6	352403080490001	300IMMG	04-19-93	--	125.00	--	161	6.1	18.0
HRW 2	352415080484901	000SPRL	04-20-93	663	14.40	0.88	366	5.8	13.0
HRW 1	352415080485601	000SPRL	04-23-93	667	11.30	2.04	1270	6.5	11.5
HRW 5	352418080485101	000SPRL	04-23-93	663	11.80	2.15	563	6.4	12.0

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDENTIFIER	DATE	COLOR (PLATINUM-COBALT UNITS) (00080)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SULFATE (MG/L AS SO4) (00946)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, TOTAL (MG/L AS F) (00951)	RESIDUE AT 105 DEG. C, DISSOLVED (MG/L) (00515)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	ARSENIC TOTAL (UG/L AS AS) (01002)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued										
MGW 1	04-28-93	45	<10	<10	2.2	98	0.1	704	<0.050	<25
MGW 2	04-28-93	100	<10	<10	<1.0	22	0.4	524	0.060	<25
MGW 3	04-28-93	400	<10	<10	<1.0	10	0.1	454	<0.050	<25
HARRISBURG ROAD LANDFILL--Continued										
HBW 721	06-07-93	<5	--	--	<1.0	1.5	<0.1	72	1.28	<25
HBW 17A	06-08-93	10	--	--	<1.0	2.0	<0.1	28	0.060	<25
HBW 17B	06-08-93	20	--	--	3.3	2.1	<0.1	38	<0.050	<25
HBW 17C	12-10-92	15	<10	<10	1.3	4.0	<0.1	58	<0.050	<25
	03-10-93	10	<10	18	1.2	4.2	<0.1	48	0.050	<25
	04-28-93	50	<10	<10	<1.0	3.9	<0.1	66	<0.050	<25
	06-08-93	45	99	<10	9.2	3.9	<0.1	41	<0.050	<25
	09-22-93	15	<10	<10	4.3	4.1	<0.1	44	0.070	<25
HBW 433	06-07-93	5	--	--	<1.0	1.6	<0.1	85	<0.050	<25
HBW 12	06-09-93	>500	--	--	2.2	5.7	0.1	428	0.190	<25
HBW 12A	06-09-93	70	--	--	9.2	5.4	0.1	158	0.140	<25
HBW 12B	12-10-92	45	<10	<10	14	8.2	<0.1	176	<0.050	<25
	03-11-93	50	<10	<10	10	9.9	0.1	181	0.050	<25
	04-28-93	60	63	18	13	11	0.1	213	<0.050	<25
	06-09-93	40	180	<10	10	11	0.1	218	<0.050	<25
	09-22-93	20	<10	<10	7.3	15	0.2	214	0.050	<25
HBW 22	12-09-92	30	<10	<10	1.3	11	<0.1	73	<0.050	<25
	02-19-93	--	--	--	--	--	--	--	--	--
	03-10-93	25	<10	1000	2.4	12	<0.1	68	0.060	<25
	04-29-93	15	140	<10	1.1	11	<0.1	63	<0.050	<25
	06-09-93	45	91	<10	4.3	9.3	<0.1	91	<0.050	<25
	09-22-93	15	<10	<10	1.1	12	<0.1	60	0.070	<25
HBW 21	12-09-92	50	<10	<10	<1.0	3.8	<0.1	112	<0.140	<25
	02-19-93	--	--	--	--	--	--	--	--	--
	03-11-93	20	<10	<10	<1.0	2.6	<0.1	120	0.230	<25
	03-11-93	15	<10	<10	2.4	2.5	<0.1	111	0.210	<25
	04-28-93	60	<10	<10	2.2	2.9	<0.1	142	0.160	<25
	06-08-93	60	K90	<10	<1.0	3.0	<0.1	121	0.190	<25
	09-22-93	25	<10	K9	1.1	2.9	<0.1	108	0.220	<25
HBW 14	06-09-93	100	--	--	<1.0	2.2	0.2	97	<0.050	<25
HBW 14B	06-09-93	15	--	--	4.3	5.3	0.2	95	<0.050	<25
HBW 14C	06-09-93	30	--	--	2.2	2.1	0.2	111	<0.050	<25
HBW 14D	12-09-92	50	<10	<10	<1.0	11	0.5	149	--	<25
	03-11-93	100	<10	<10	<1.0	11	0.4	176	0.050	<25
	04-29-93	250	9	<10	<1.0	9.6	0.4	151	<0.050	<25
	06-09-93	50	91	<10	3.3	2.6	0.4	180	<0.050	<25
	09-22-93	--	<10	<10	--	--	--	--	--	--
HBW 18A	12-09-92	30	<10	<10	3.5	6.5	<0.1	214	0.050	<25
	02-19-93	--	--	--	--	--	--	--	--	--
	04-28-93	15	9	<10	4.3	7.6	<0.1	256	<0.050	<25
	06-10-93	40	<10	<10	2.2	7.5	<0.1	249	<0.050	<25
HBW 18B	03-11-93	60	<10	<10	4.8	27	<0.1	424	0.060	<25
	06-10-93	>500	--	--	5.3	20	<0.1	446	<0.050	<25
	09-22-93	35	<10	K9	6.3	17	<0.1	346	<0.050	<25
HBW 1850	06-10-93	25	--	--	1.1	2.3	<0.1	160	0.060	<25
HBW 20	06-07-93	50	--	--	<1.0	3.2	<0.1	101	<0.050	<25
HBW 743A	12-10-92	<5	<10	<10	<1.0	5.3	<0.1	104	0.280	<25
	03-10-93	<5	<5	--	<1.0	6.0	<0.1	115	0.270	<25
	03-11-93	--	--	--	--	--	--	--	--	--
	04-29-93	5	--	--	<1.0	4.7	0.1	148	0.260	<25
	06-07-93	<5	--	--	<1.0	4.7	0.1	115	0.270	<25
	09-21-93	<5	<10	K6000	<1.0	5.1	0.1	107	0.270	<25
HOLBROOKS ROAD LANDFILL--Continued										
HRW 4	04-19-93	10	--	--	18	7.2	0.1	163	0.170	<25
HRW 6	04-19-93	<5	--	--	1.1	5.2	<0.1	193	2.08	<25
HRW 2	04-20-93	10	--	--	4.3	8.1	<0.1	276	0.080	<25
HRW 1	04-23-93	650	--	--	<1.0	130	0.1	706	0.060	<25
HRW 5	04-23-93	400	--	--	1.1	65	<0.1	364	0.050	<25

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDEN-TIFIER	DATE	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued									
MGW 1	04-28-93	<100	<5	<25	<50	5300	7	8800	<1.0
MGW 2	04-28-93	200	<5	<25	<50	22000	22	11000	<1.0
MGW 3	04-28-93	700	<5	34	<50	85000	10	11000	<1.0
HARRISBURG ROAD LANDFILL--Continued									
HBW 721	06-07-93	<100	<5	<25	100	50	<5	<20	<1.0
HBW 17A	06-08-93	<100	<5	<25	<50	60	<5	50	<1.0
HBW 17B	06-08-93	<100	<5	<25	<50	2000	16	330	<1.0
HBW 17C	12-10-92	<100	<5	<25	70	830	<5	680	<1.0
	03-10-93	<100	<5	<25	<50	2000	<5	670	<1.0
	04-28-93	<100	<5	<25	<50	2900	<5	720	<1.0
	06-08-93	<100	<5	<25	<50	3200	17	560	<1.0
	09-22-93	<100	<5	25	<50	1800	<5	650	<1.0
HBW 433	06-07-93	<100	<5	<25	<50	50	<5	<20	<1.0
HBW 12	06-09-93	4200	<5	250	3200	82000	16	1500	<1.0
HBW 12A	06-09-93	<100	<5	<25	60	16000	10	460	<1.0
HBW 12B	12-10-92	<100	<5	<25	90	20000	<5	410	<1.0
	03-11-93	<100	<5	<25	<50	6600	<5	220	<1.0
	04-28-93	<100	<5	34	<50	13000	61	290	<1.0
	06-09-93	<100	<5	<25	<50	560	8	90	<1.0
	09-22-93	<100	<5	<25	<50	370	<5	90	<1.0
HBW 22	12-09-92	<100	<5	25	<50	1500	<5	50	<1.0
	02-19-93	--	--	--	--	--	--	--	--
	03-10-93	<100	<5	<25	<50	2900	<5	40	<1.0
	04-29-93	<100	<5	32	<50	2900	<5	20	<1.0
	06-09-93	100	<5	100	60	13000	8	130	<1.0
	09-22-93	<100	<5	43	<50	2800	<5	50	<1.0
HBW 21	12-09-92	<100	<5	<25	70	1800	<5	100	<1.0
	02-19-93	--	--	--	--	--	--	--	--
	03-11-93	<100	<5	<25	<50	5700	<5	50	<1.0
	03-11-93	<100	<5	<25	<50	3500	<5	40	<1.0
	04-28-93	<100	<5	31	70	13000	20	120	<1.0
	06-08-93	<100	<5	<25	90	19000	14	160	<1.0
	09-22-93	<100	<5	26	<50	4300	<5	50	<1.0
HBW 14	06-09-93	200	<5	<25	570	27000	38	450	<1.0
HBW 14B	06-09-93	<100	<5	<25	<50	1100	15	170	<1.0
HBW 14C	06-09-93	<100	<5	<25	<50	2900	8	440	<1.0
HBW 14D	12-09-92	<100	<5	43	160	20000	<5	160	<1.0
	03-11-93	<100	<5	<25	60	9200	<5	100	<1.0
	04-29-93	<100	<5	89	240	57000	49	250	<1.0
	06-09-93	100	<5	60	170	35000	28	250	<1.0
	09-22-93	--	--	--	--	--	--	--	--
HBW 18A	12-09-92	<100	<5	<25	<50	1200	<5	320	<1.0
	02-19-93	--	--	--	--	--	--	--	--
	04-28-93	<100	<5	<25	<50	570	160	230	<1.0
	06-10-93	<100	<5	26	180	12000	26	410	<1.0
HBW 18B	03-11-93	<100	<5	<25	650	35000	<5	720	<1.0
	06-10-93	1800	<5	400	8800	590000	420	4000	<1.0
	09-22-93	200	<5	96	1500	9300	35	930	<1.0
HBW 1850	06-10-93	<100	<5	<25	<50	4000	<5	50	<1.0
HBW 20	06-07-93	<100	<5	<25	<50	7500	<5	80	<1.0
HBW 743A	12-10-92	<100	<5	<25	<50	80	<5	<20	<1.0
	03-10-93	<100	<5	<25	<50	<50	<5	<20	<1.0
	03-11-93	--	--	--	--	--	--	--	--
	04-29-93	<100	<5	<25	<50	<50	<5	<20	<1.0
	06-07-93	<100	<5	<25	<50	<50	<5	<20	<1.0
	09-21-93	<100	<5	<25	<50	<50	<5	<20	<1.0
HOLBROOKS ROAD LANDFILL--Continued									
HRW 4	04-19-93	<100	<5	<25	<50	2100	<5	<20	<1.0
HRW 6	04-19-93	<100	<5	<25	1200	60	<5	<20	<1.0
HRW 2	04-20-93	<100	<5	<25	<50	350	<5	200	1.4
HRW 1	04-23-93	1000	<5	160	380	160000	180	18000	<1.0
HRW 5	04-23-93	200	<5	57	<50	55000	14	1700	<1.0

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDEN-TIFIER	DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	TOTAL ORGANIC HALO-GENS (MG/L) (99901)	TOTAL ORGANIC CARBON (MG/L) (99900)	ALDRIN, TOTAL (UG/L) (39330)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued									
MGW 1	04-28-93	<25	<5	<50	2.1	44	0.05	15	--
MGW 2	04-28-93	<25	<5	80	3.6	19	0.03	11	--
MGW 3	04-28-93	<25	<5	100	12	24	0.05	13	--
HARRISBURG ROAD LANDFILL--Continued									
HBW 721	06-07-93	<25	<5	<50	0.4	<5	<0.01	<1.0	--
HBW 17A	06-08-93	<25	<5	<50	4.7	15	<0.01	4.7	--
HBW 17B	06-08-93	<25	<5	50	3.1	11	<0.01	2.0	--
HBW 17C	12-10-92	<25	<5	90	11	<5	0.13	--	<0.010
	03-10-93	<25	<5	80	7.0	19	0.11	8.7	<0.050
	04-28-93	<25	<5	110	11	27	0.17	8.1	<0.050
	06-08-93	<25	<5	70	5.8	15	0.09	2.4	<0.050
	09-22-93	<25	<5	90	2.2	<5	0.16	<1.0	<0.050
HBW 433	06-07-93	<25	<5	630	0.5	<5	<0.01	<1.0	--
HBW 12	06-09-93	<25	<5	1800	--	<5	<0.01	1.0	--
HBW 12A	06-09-93	<25	<5	70	0.9	8	<0.01	2.3	--
HBW 12B	12-10-92	<25	<5	50	3.9	15	<0.01	--	<0.010
	03-11-93	<25	<5	110	1.1	11	<0.01	1.4	<0.050
	04-28-93	<25	<5	110	7.6	13	<0.01	3.1	<0.050
	06-09-93	<25	<5	<50	1.5	15	<0.01	1.3	<0.050
	09-22-93	<25	<5	60	0.5	<5	<0.01	1.2	<0.050
HBW 22	12-09-92	<25	<5	<50	8.7	13	0.03	--	<0.010
	02-19-93	--	--	--	--	--	--	--	--
	03-10-93	<25	<5	50	1.2	15	0.01	3.3	<0.050
	04-29-93	<25	<5	110	7.3	8	<0.01	5.6	<0.050
	06-09-93	<25	<5	70	3.3	10	0.02	2.8	<0.050
	09-22-93	<25	<5	90	2.0	15	0.01	1.3	<0.050
HBW 21	12-09-92	<25	<5	<50	3.8	11	<0.01	--	<0.010
	02-19-93	--	--	--	--	--	--	--	--
	03-11-93	<25	<5	70	2.0	9	<0.01	1.1	<0.050
	03-11-93	<25	<5	70	1.2	<5	<0.01	<1.0	<0.050
	04-28-93	<25	<5	90	5.4	19	<0.01	4.6	<0.050
	06-08-93	<25	<5	70	3.5	9	<0.01	2.1	<0.050
	09-22-93	<25	<5	70	1.0	8	<0.01	<1.0	<0.050
HBW 14	06-09-93	<25	<5	90	1.0	<5	<0.01	1.8	--
HBW 14B	06-09-93	<25	<5	<50	1.0	6	<0.01	4.2	--
HBW 14C	06-09-93	<25	<5	<50	1.4	<5	<0.01	1.3	--
HBW 14D	12-09-92	<25	<5	60	1.3	6	<0.01	--	<0.010
	03-11-93	<25	<5	80	1.2	15	<0.01	1.3	<0.050
	04-29-93	<25	<5	190	3.5	17	<0.01	3.8	<0.050
	06-09-93	<25	<5	100	0.8	<5	<0.01	3.0	<0.050
	09-22-93	--	--	--	--	--	<0.01	<1.0	--
HBW 18A	12-09-92	<25	<5	<50	6.1	13	0.03	--	<0.010
	02-19-93	--	--	--	--	--	--	--	--
	04-28-93	<25	<5	<50	12	15	0.02	7.0	<0.050
	06-10-93	<25	<5	100	9.0	25	0.02	4.8	<0.050
HBW 18B	03-11-93	<25	<5	140	3.2	15	0.03	4.6	<0.050
	06-10-93	<25	<5	840	8.0	27	0.05	8.5	--
	09-22-93	<25	<5	180	2.9	<5	0.02	3.7	<0.050
HBW 1850	06-10-93	<25	<5	1100	0.2	<5	<0.01	1.7	--
HBW 20	06-07-93	<25	<5	60	0.8	11	<0.01	2.6	--
HBW 743A	12-10-92	<25	<5	150	0.1	<5	<0.01	--	<0.010
	03-10-93	<25	<5	110	0.2	11	<0.01	<1.0	<0.050
	03-11-93	--	--	--	--	--	--	--	--
	04-29-93	<25	<5	<50	1.1	<5	<0.01	1.6	<0.050
	06-07-93	<25	<5	50	0.3	<5	<0.01	1.1	--
	09-21-93	<25	<5	<50	0.5	<5	<0.01	<1.0	<0.050
HOLBROOKS ROAD LANDFILL--Continued									
HRW 4	04-19-93	<25	<5	5900	0.3	<5	<0.01	1.8	<0.050
HRW 6	04-19-93	<25	<5	<50	0.3	<5	<0.01	<1.0	--
HRW 2	04-20-93	<25	<5	<50	2.5	6	0.21	1.7	--
HRW 1	04-23-93	<25	<5	320	39	49	0.13	16	--
HRW 5	04-23-93	<25	<5	160	3.8	22	0.01	5.6	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDEN-TIFIER	DATE	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA-CHLO-RIDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	DELTA BENZENE HEXA-CHLO-RIDE TOTAL (UG/L) (34259)	CHLOR-DANE, TOTAL (UG/L) (39350)	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDE, TOTAL (UG/L) (39320)	P,P' DDD, TOTAL (UG/L) (39310)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued									
MGW 1	04-28-93	--	--	--	--	--	--	--	--
MGW 2	04-28-93	--	--	--	--	--	--	--	--
MGW 3	04-28-93	--	--	--	--	--	--	--	--
HARRISBURG ROAD LANDFILL--Continued									
HBW 721	06-07-93	--	--	--	--	--	--	--	--
HBW 17A	06-08-93	--	--	--	--	--	--	--	--
HBW 17B	06-08-93	--	--	--	--	--	--	--	--
HBW 17C	12-10-92	--	--	<0.010	--	<0.1	--	--	--
	03-10-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	04-28-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-08-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	09-22-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 433	06-07-93	--	--	--	--	--	--	--	--
HBW 12	06-09-93	--	--	--	--	--	--	--	--
HBW 12A	06-09-93	--	--	--	--	--	--	--	--
HBW 12B	12-10-92	--	--	<0.010	--	<0.1	--	--	--
	03-11-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	04-28-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-09-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	09-22-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 22	12-09-92	--	--	<0.010	--	0.2	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	03-10-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	04-29-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-09-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	09-22-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 21	12-09-92	--	--	<0.010	--	<0.1	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	03-11-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	03-11-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	04-28-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-08-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	09-22-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 14	06-09-93	--	--	--	--	--	--	--	--
HBW 14B	06-09-93	--	--	--	--	--	--	--	--
HBW 14C	06-09-93	--	--	--	--	--	--	--	--
HBW 14D	12-09-92	--	--	<0.010	--	<0.1	--	--	--
	03-11-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	04-29-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-09-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	09-22-93	--	--	--	--	--	--	--	--
HBW 18A	12-09-92	--	--	<0.010	--	<0.1	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	04-28-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-10-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 18B	03-11-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-10-93	--	--	--	--	--	--	--	--
	09-22-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HBW 1850	06-10-93	--	--	--	--	--	--	--	--
HBW 20	06-07-93	--	--	--	--	--	--	--	--
HBW 743A	12-10-92	--	--	<0.010	--	<0.1	--	--	--
	03-10-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	03-11-93	--	--	--	--	--	--	--	--
	04-29-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
	06-07-93	--	--	--	--	--	--	--	--
	09-21-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HOLBROOKS ROAD LANDFILL--Continued									
HRW 4	04-19-93	<0.05	<0.05	<0.050	<0.10	<0.2	<0.10	<0.10	<0.10
HRW 6	04-19-93	--	--	--	--	--	--	--	--
HRW 2	04-20-93	--	--	--	--	--	--	--	--
HRW 1	04-23-93	--	--	--	--	--	--	--	--
HRW 5	04-23-93	--	--	--	--	--	--	--	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDEN-TIFIER	DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN-I WATER WHOLE REC (UG/L) (34361)	ENDO-SULFAN BETA TOTAL (UG/L) (34356)	ENDO-SULFAN SULFATE TOTAL (UG/L) (34351)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ENDRIN ALDE-HYDE TOTAL (UG/L) (34366)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE DIS-SOLVED (UG/L) (39421)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued									
MGW 1	04-28-93	--	--	--	--	--	--	--	--
MGW 2	04-28-93	--	--	--	--	--	--	--	--
MGW 3	04-28-93	--	--	--	--	--	--	--	--
HARRISBURG ROAD LANDFILL--Continued									
HBW 721	06-07-93	--	--	--	--	--	--	--	--
HBW 17A	06-08-93	--	--	--	--	--	--	--	--
HBW 17B	06-08-93	--	--	--	--	--	--	--	--
HBW 17C	12-10-92	<0.010	--	--	--	<0.010	--	<0.010	--
	03-10-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	04-28-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-08-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	09-22-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 433	06-07-93	--	--	--	--	--	--	--	--
HBW 12	06-09-93	--	--	--	--	--	--	--	--
HBW 12A	06-09-93	--	--	--	--	--	--	--	--
HBW 12B	12-10-92	<0.010	--	--	--	<0.010	--	<0.010	--
	03-11-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	04-28-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-09-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	09-22-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 22	12-09-92	0.080	--	--	--	<0.010	--	<0.010	--
	02-19-93	--	--	--	--	--	--	--	--
	03-10-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	04-29-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-09-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	09-22-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 21	12-09-92	<0.010	--	--	--	<0.010	--	<0.010	--
	02-19-93	--	--	--	--	--	--	--	--
	03-11-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	03-11-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	04-28-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-08-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	09-22-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 14	06-09-93	--	--	--	--	--	--	--	--
HBW 14B	06-09-93	--	--	--	--	--	--	--	--
HBW 14C	06-09-93	--	--	--	--	--	--	--	--
HBW 14D	12-09-92	<0.010	--	--	--	<0.010	--	<0.010	--
	03-11-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	04-29-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-09-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	09-22-93	--	--	--	--	--	--	--	--
HBW 18A	12-09-92	<0.010	--	--	--	<0.010	--	<0.010	--
	02-19-93	--	--	--	--	--	--	--	--
	04-28-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-10-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 18B	03-11-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-10-93	--	--	--	--	--	--	--	--
	09-22-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HBW 1850	06-10-93	--	--	--	--	--	--	--	--
HBW 20	06-07-93	--	--	--	--	--	--	--	--
HBW 743A	12-10-92	<0.010	--	--	--	<0.010	--	<0.010	--
	03-10-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	03-11-93	--	--	--	--	--	--	--	--
	04-29-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
	06-07-93	--	--	--	--	--	--	--	--
	09-21-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HOLBROOKS ROAD LANDFILL--Continued									
HRW 4	04-19-93	<0.020	<0.10	<0.10	<0.70	<0.060	<0.20	<0.050	<0.80
HRW 6	04-19-93	--	--	--	--	--	--	--	--
HRW 2	04-20-93	--	--	--	--	--	--	--	--
HRW 1	04-23-93	--	--	--	--	--	--	--	--
HRW 5	04-23-93	--	--	--	--	--	--	--	--

GROUND-WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

MECKLENBURG COUNTY--Continued

LOCAL IDEN-TIFIER	DATE	TOX-APHENE, DIS-SOLVED (UG/L) (39401)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	AROCLOR 1016 PCB TOTAL (UG/L) (34671)
MCALPINE CREEK AT GREENWAY PARK LANDFILL--Continued									
MGW 1	04-28-93	--	--	--	--	--	--	--	--
MGW 2	04-28-93	--	--	--	--	--	--	--	--
MGW 3	04-28-93	--	--	--	--	--	--	--	--
HARRISBURG ROAD LANDFILL--Continued									
HBW 721	06-07-93	--	--	--	--	--	--	--	--
HBW 17A	06-08-93	--	--	--	--	--	--	--	--
HBW 17B	06-08-93	--	--	--	--	--	--	--	--
HBW 17C	12-10-92	--	--	--	--	--	--	--	--
	03-10-93	<2.4	--	--	--	--	--	--	--
	04-28-93	<2.4	--	--	--	--	--	--	--
	06-08-93	<2.4	--	--	--	--	--	--	--
	09-22-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HBW 433	06-07-93	--	--	--	--	--	--	--	--
HBW 12	06-09-93	--	--	--	--	--	--	--	--
HBW 12A	06-09-93	--	--	--	--	--	--	--	--
HBW 12B	12-10-92	--	--	--	--	--	--	--	--
	03-11-93	<2.4	--	--	--	--	--	--	--
	04-28-93	<2.4	--	--	--	--	--	--	--
	06-09-93	<2.4	--	--	--	--	--	--	--
	09-22-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HBW 22	12-09-92	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	03-10-93	<2.4	--	--	--	--	--	--	--
	04-29-93	<2.4	--	--	--	--	--	--	--
	06-09-93	<2.4	--	--	--	--	--	--	--
	09-22-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HBW 21	12-09-92	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	03-11-93	<2.4	--	--	--	--	--	--	--
	03-11-93	<2.4	--	--	--	--	--	--	--
	04-28-93	<2.4	--	--	--	--	--	--	--
	06-08-93	<2.4	--	--	--	--	--	--	--
	09-22-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HBW 14	06-09-93	--	--	--	--	--	--	--	--
HBW 14B	06-09-93	--	--	--	--	--	--	--	--
HBW 14C	06-09-93	--	--	--	--	--	--	--	--
HBW 14D	12-09-92	--	--	--	--	--	--	--	--
	03-11-93	<2.4	--	--	--	--	--	--	--
	04-29-93	<2.4	--	--	--	--	--	--	--
	06-09-93	<2.4	--	--	--	--	--	--	--
	09-22-93	--	--	--	--	--	--	--	--
HBW 18A	12-09-92	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--
	04-28-93	<2.4	--	--	--	--	--	--	--
	06-10-93	<2.4	--	--	--	--	--	--	--
HBW 18B	03-11-93	<2.4	--	--	--	--	--	--	--
	06-10-93	--	--	--	--	--	--	--	--
	09-22-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HBW 1850	06-10-93	--	--	--	--	--	--	--	--
HBW 20	06-07-93	--	--	--	--	--	--	--	--
HBW 743A	12-10-92	--	--	--	--	--	--	--	--
	03-10-93	<2.4	--	--	--	--	--	--	--
	03-11-93	--	--	--	--	--	--	--	--
	04-29-93	<2.4	<0.5	--	--	--	--	--	--
	06-07-93	--	--	--	--	--	--	--	--
	09-21-93	<2.4	<0.5	<1.0	<0.5	<0.5	<0.5	<1.0	<0.5
HOLBROOKS ROAD LANDFILL--Continued									
HRW 4	04-19-93	<2.4	--	--	--	--	--	--	--
HRW 6	04-19-93	--	--	--	--	--	--	--	--
HRW 2	04-20-93	--	--	--	--	--	--	--	--
HRW 1	04-23-93	--	--	--	--	--	--	--	--
HRW 5	04-23-93	--	--	--	--	--	--	--	--

GROUND-WATER QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

Data in the following table were collected as part of the Albemarle-Pamlico River Basin study for the National Water Quality Assessment Program. Geologic unit 211CPFRU, upper Cape Fear aquifer; 110QPLC, surficial sands.

PITT COUNTY

LOCAL IDENTIFIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAN-DARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)
PI-580/CFP-1A	354649077294201	110QPLC	09-01-93	1530	14.54	7.56	280	5.0	20.0
PI-581/CFP-1B	354649077294202	110QPLC	09-03-93	1000	10.17	7.64	342	4.7	22.5

LOCAL IDENTIFIER	DATE	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS FIELD (MG/L AS HCO3) (00453)	ALKA-LINITY WAT DIS IT TOT FIELD (MG/L AS CACO3) (39086)	SULFATE IT DIS-SOLVED (MG/L AS SO4) (00945)
PI-580/CFP-1A	09-01-93	0.4	27	6.0	6.6	7.4	5	2	67
PI-581/CFP-1B	09-03-93	2.9	33	7.3	5.9	9.8	2	2	87

LOCAL IDENTIFIER	DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
PI-580/CFP-1A	09-01-93	22	0.20	12	<0.010	4.00	0.020	<0.20	<0.010
PI-581/CFP-1B	09-03-93	28	0.20	11	<0.010	4.90	0.020	<0.20	<0.010

LOCAL IDENTIFIER	DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)
PI-580/CFP-1A	09-01-93	<0.010	0.020	40	47	3.2	<0.2	<0.2	<0.2
PI-581/CFP-1B	09-03-93	<0.010	0.020	74	43	2.3	<0.2	<0.2	<0.2

GROUND-WATER QUALITY DATA, WATER YEAR OCTOBER 1992 THROUGH SEPTEMBER 1993

PITT COUNTY--Continued

LOCAL IDENTIFIER	DATE	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)
PI-580/CFP-1A	09-01-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2
PI-581/CFP-1B	09-03-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.20	<0.2

LOCAL IDENTIFIER	DATE	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
PI-580/CFP-1A	09-01-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
PI-581/CFP-1B	09-03-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

LOCAL IDENTIFIER	DATE	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	1,2-TRANS-DI CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)
PI-580/CFP-1A	09-01-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20
PI-581/CFP-1B	09-03-93	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20

LOCAL IDENTIFIER	DATE	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	P,P' DDE DISSOLV (UG/L) (34653)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	NAPHTH-ALENE TOTAL (UG/L) (34696)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)
PI-580/CFP-1A	09-01-93	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2
PI-581/CFP-1B	09-03-93	<0.20	<0.00	<0.2	<0.2	<0.2	<0.2	<0.00	<0.2

*U.S. GOVERNMENT PRINTING OFFICE:1994-541-888

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic–foot–per–second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre–foot (acre–ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first–order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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