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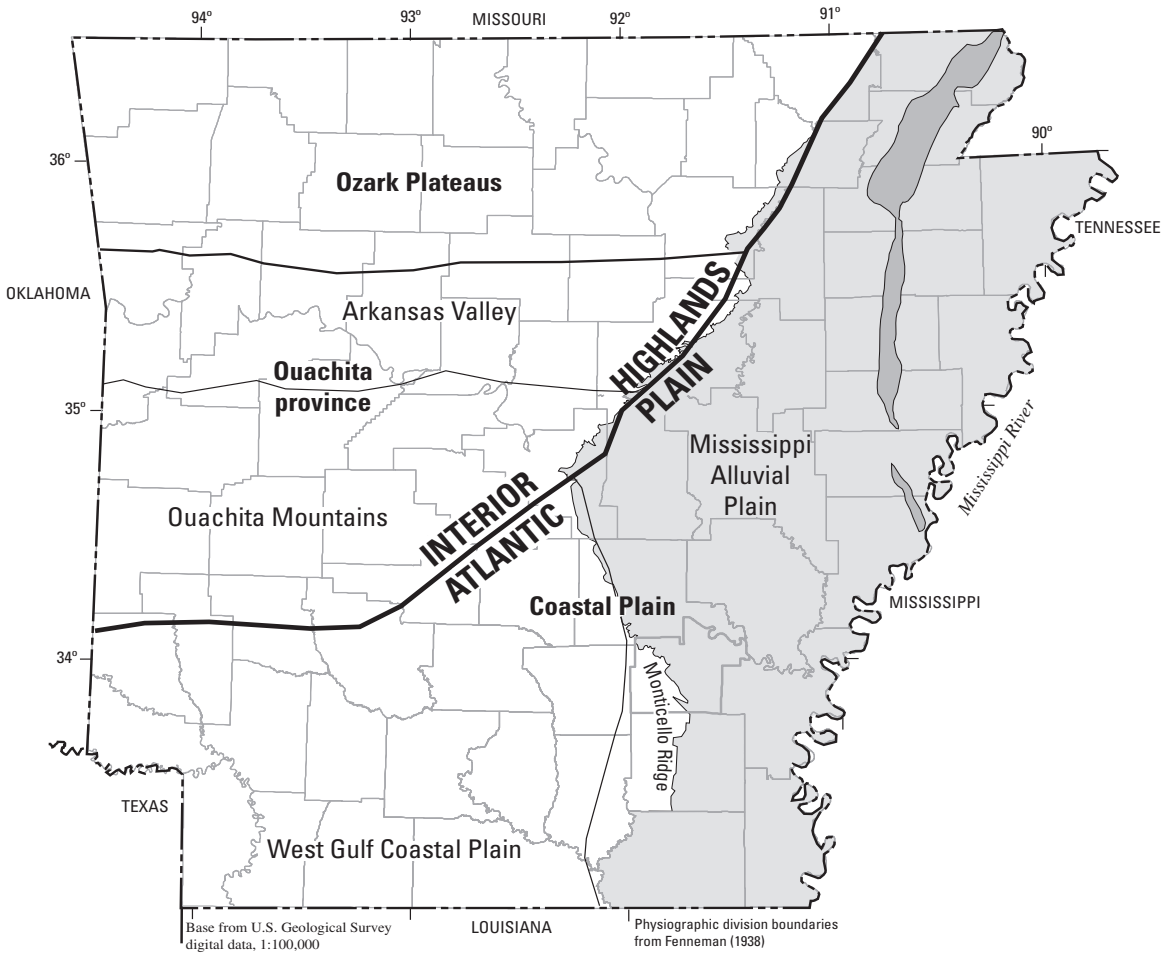
Water Levels and Selected Water-Quality Conditions in the Mississippi River Valley Alluvial Aquifer in Eastern Arkansas, 2006



Scientific Investigations Report 2008–5092

U.S. Department of the Interior
U.S. Geological Survey

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By T.P. Schrader

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U.S. Department of the Interior
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Conversion Factors and Datums

Multiply	By	To obtain
	Length	
inch (in.)	2.54	centimeter (cm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
square mile (mi^2)	2.590	square kilometer (km^2)
	Flow rate	
foot per year (ft/yr)	0.3048	meter per year (m/yr)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
million gllons per day (Mgal/d)	3.7854×10^6	liters per day (L/d)

Temperature in degrees Celsius (˚C) may be converted to degrees Fahrenheit (˚F) as follows: ˚F = (1.8 x ˚C) + 32

Temperature in degrees Fahrenheit (˚F) may be converted to degrees Celsius (˚C) as follows: ˚C =(˚F-32)/1.8

Vertical coordinate information is referenced to the National Geodetic Vertical Datum of 1929 (NGVD of 1929).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD of 1983).

Altitude, as used in this report, refers to distance above the vertical datum.

Specific conductance is given in microsiemens per centimeter at 25 degrees Celsius (µS/cm at 25˚C).

Water Levels and Selected Water-Quality Conditions in the Mississippi River Valley Alluvial Aquifer in Eastern Arkansas, 2006

By T.P. Schrader

Abstract

During the spring of 2006, the U.S. Geological Survey, in cooperation with the Arkansas Natural Resource Commission and the Arkansas Geological Survey, measured water levels in 707 wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas. Ground-water levels are affected by ground-water withdrawals resulting in depressions. In 2006, the lowest water-level altitude was 76 feet above the National Geodetic Vertical Datum of 1929 in the center of Arkansas County. The highest water-level altitude was 289 feet above the National Geodetic Vertical Datum of 1929 in northeastern Clay County on the west side of Crowleys Ridge. Two large depressions in the potentiometric surface are located in Arkansas, Lonoke, and Prairie Counties and west of Crowleys Ridge in Craighead, Cross, Lee, Monroe, Poinsett, St. Francis, and Woodruff Counties.

The elongated depression in Arkansas, Lonoke, and Prairie Counties has changed in areal extent or depth when compared to previous conditions of the aquifer. The area in Arkansas County at the southeastern half of the depression has not expanded horizontally during recent years, although the center of the depression has deepened. The area in Lonoke and Prairie Counties in the northwestern half of the depression has expanded horizontally in the deeper part of the depression. The 90-foot contour has expanded north and east in Lonoke County when compared with the 2004 potentiometric surface. Along the west side of Crowleys Ridge the 2006 potentiometric-surface map shows very little change in the area of this depression, although the deeper areas within the depression have expanded.

A map showing the difference in water level was constructed using 645 differences in water-levels measured in 633 wells during 2002 and 2006. The difference in measured water levels from 2002 to 2006 ranged from -24.0 feet to 25.0 feet, with a mean of -2.0 feet. The largest decline of -24.0 feet occurred in Poinsett County and the largest rise of 25.0 feet occurred in Randolph County. Out of the 645 differences, 481 were declines (74.6 percent), 12 were no difference (values of 0.0 ft) (1.8 percent), and 152 were rises (23.6 percent).

Long-term water-level trends were evaluated using hydrographs from 152 wells completed in the Mississippi River Valley alluvial aquifer for the period 1982 to 2006. The mean annual rise or decline in water level for the entire study area was -0.32 feet per year with a range of –1.28 to 0.77 feet per year. Independence and White Counties are the only counties with a mean annual rise from 1982 to 2006. Mean annual declines between -0.50 feet per year and 0.00 feet per year occurred in Arkansas, Ashley, Chicot, Clay, Craighead, Crittenden, Drew, Jefferson, Lee, Mississippi, Monroe, Phillips, Poinsett, Prairie, Pulaski, Randolph, and Woodruff Counties. Mean annual declines between -1.00 feet per year and -0.50 feet per year occurred in Cross, Desha, Greene, Jackson, Lincoln, Lonoke, and St. Francis Counties.

The analysis of long-term water-level changes in Arkansas, Lonoke, and Prairie Counties shows the elongation of the depression in these three counties. Both Arkansas and Prairie Counties have two different rates of annual decline for the two hydrographs shown for each county. Water levels in the two wells near the Arkansas and White Rivers either have risen or declined at a slower rate than in the three wells in the center, northern, and western part of the depression. These rates of water-level change indicate that this depression is expanding in an elongated direction north and west into Lonoke and Prairie Counties. The depression west of Crowleys Ridge has five wells with hydrographs in or near the depression that can be used to characterize the rates of water-level change within the depression.

Water samples were collected from 65 wells completed in the Mississippi River Valley alluvial aquifer and measured onsite for specific conductance and temperature. Specific conductance ranged from 267 microsiemens per centimeter at 25 degrees Celsius at a well in Clay County to 2,960 microsiemens per centimeter at 25 degrees Celsius at a well in Chicot County. Four areas of relatively high specific conductance (greater than or equal to 1,000 microsiemens per centimeter at 25 degrees Celsius) occurred in Arkansas, Chicot, Craighead, and Prairie Counties.

Introduction

The Mississippi Alluvial Plain (fig. 1) encompasses an area of approximately 32,000 square miles and includes parts of Arkansas and nearby States. Approximately 54 percent of the Mississippi Alluvial Plain covers the eastern one-third of Arkansas. The Mississippi River Valley alluvial aquifer (herein referred to as the alluvial aquifer) underlies the Mississippi Alluvial Plain in eastern Arkansas. Within Arkansas, the alluvial aquifer extends from the Missouri State line south to the Louisiana State line, and from the Mississippi River west to the Fall Line (the physiographic boundary between the Atlantic Plain and the Interior Highlands) and the Monticello Ridge (a topographic feature in southeastern Arkansas), and near the western Ashley County line (fig. 1).

Agricultural land use in eastern Arkansas has increased since 1900 with production consisting predominately of rice, soybeans, cotton, and, in recent years, aquaculture, all of which are highly dependent on the availability of water. Eastern Arkansas receives sufficient precipitation to support these crops, receiving an average 46 to 54 inches of precipitation annually (Freiwald, 1984). However, during a critical portion of the growing season from late spring through early summer, most precipitation in eastern Arkansas falls as rain from widely scattered thunderstorms. Increasingly farmers are relying on ground water for agriculture and aquaculture.

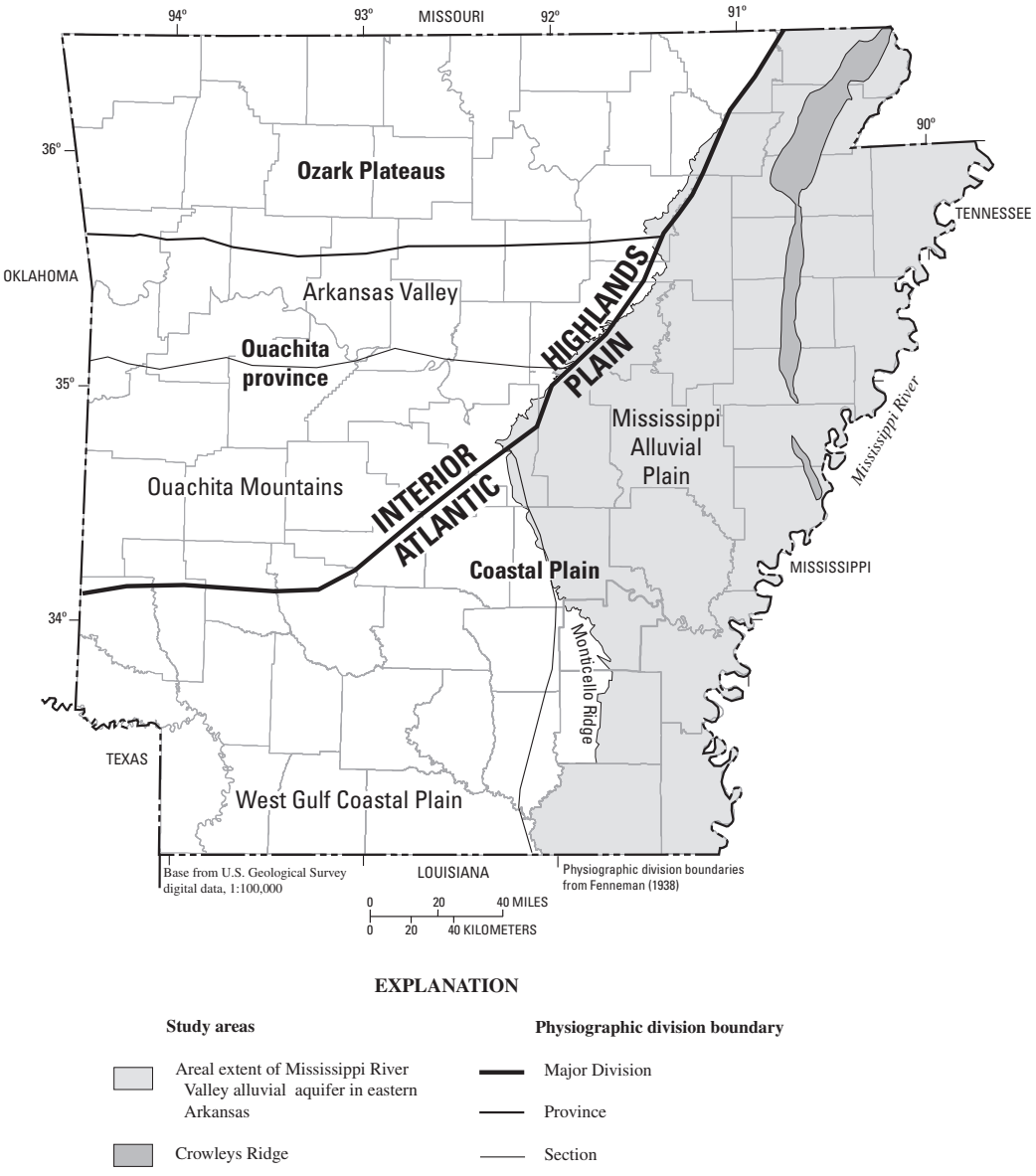


Figure 1. Location of study area.

In 2005, estimated water withdrawals from the alluvial aquifer in Arkansas totaled about 7,252 million gallons per day (Mgal/d) (Terrance Holland, U.S. Geological Survey, written commun., 2007); estimated withdrawals were about 1,063 Mgal/d in 1965 (fig. 2) (Halberg and Stephens, 1966). Starting in 1970 and continuing in 5-year intervals through 2000, estimated water withdrawals from the alluvial aquifer in Arkansas totaled about 1,287 Mgal/d, 2,211 Mgal/d, 3,697 Mgal/d, 3,534 Mgal/d, 4,360 Mgal/d, 5,056 Mgal/d, and 6,585 Mgal/d (Halberg, 1972; Halberg, 1977; Holland and Ludwig, 1981; Holland, 1987; Holland, 1993; Holland, 1999; Holland, 2004). Since 1965 withdrawals from the alluvial aquifer have increased from about 1,063 Mgal/d to about 7,252 Mgal/d in 2005, an increase of about 582 percent. Withdrawals have more than doubled in the last 20 years, about a 105 percent increase since 1985.

During the spring of 2006, the U.S. Geological Survey (USGS), in cooperation with the Arkansas Natural Resource Commission (ANRC) and the Arkansas Geological Survey, measured water levels in 707 wells completed in the alluvial aquifer in eastern Arkansas. The U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS) measured water levels in 358 wells completed in the alluvial aquifer and provided these data to the ANRC. These data were made available to the USGS and were incorporated into the database used to develop a potentiometric-surface map of the alluvial aquifer for the spring of 2006. In the spring of 2006, a total of 720 water-level measurements (362 by the USGS and 358 by the NRCS) were collected from 707 wells. Because the USGS and NRCS both measure water levels in 13 wells, a total of 720 measurements were made in 707 wells. During the summer of 2006, water samples from 65 wells completed in the alluvial aquifer were measured for specific conductance and temperature. These measurements provided information for a database of selected water-quality data for the alluvial aquifer.

The purpose of this report is to describe the status and trends of water levels, specific conductance, and temperature in the alluvial aquifer. The report includes maps, long-term hydrographs, and data tables. Scheduled monitoring and evaluation of conditions in the alluvial aquifer provide information necessary for resource management.

The well-numbering system used in this report is based upon the locations of the wells according to the Federal land survey used in Arkansas. The component parts of a well number are the township number; the range number; the section number; three letters which indicate respectively, the quarter section, the quarter-quarter section, and the quarter-quarter-quarter section in which the well is located; and a sequence number of the well in the quarter-quarter-quarter section. The letters are assigned counterclockwise, beginning with "A" in the northeast quarter or quarter-quarter or quarter-quarter-quarter section in which the well is located. For example, well 01S03W04BBD16 (fig. 3) is located in Township 1 South,

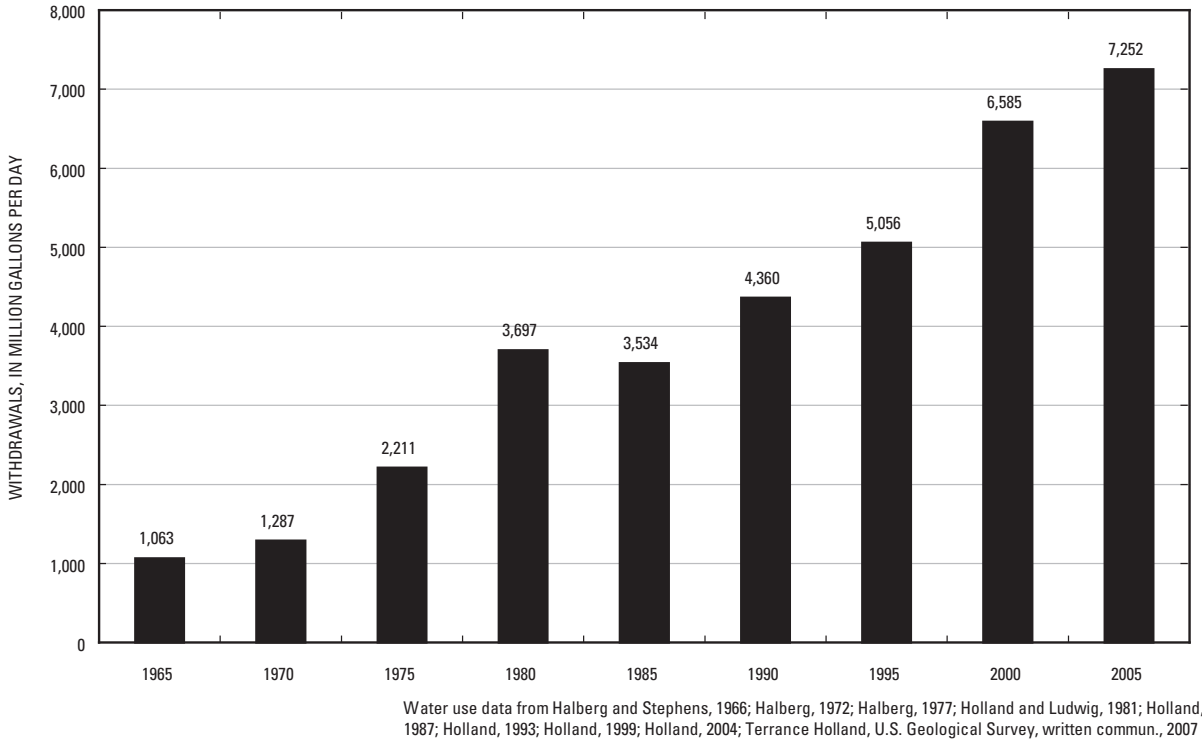


Figure 2. Estimated withdrawals from the Mississippi River Valley alluvial aquifer in Arkansas, 1965 to 2005.

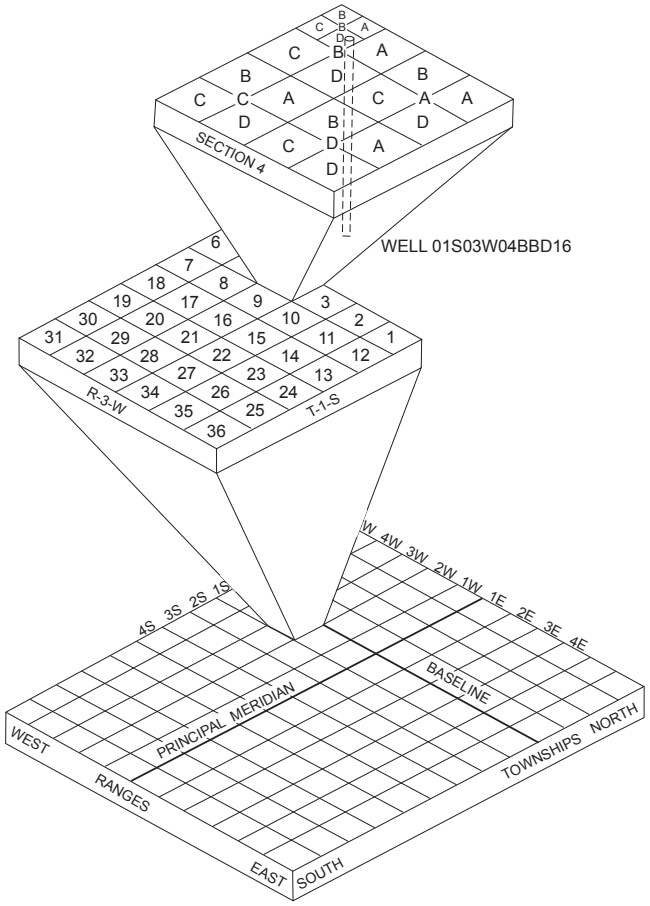


Figure 3. Well-numbering system.

Range 3 West, and in the southeast quarter of the northwest quarter of the northwest quarter of section 4. This well is the 16th well in this quarter-quarter-quarter section of section 4 from which data were collected.

Methods

Personnel from the USGS and the NRCS measured water levels from February 2006 to May 2006 from wells completed in the alluvial aquifer. Measurements by USGS personnel were made with steel or electric tapes graduated in hundredths of a foot, whereas measurements by NRCS personnel were in tenths of a foot or whole feet. The steel and electric tapes used by USGS personnel were calibrated during January 2006 prior to collecting measurements from wells. Calibration of steel and electric tapes was performed by comparing the field steel or electric tape to a standardized steel tape used only for calibration.

Well locations were measured using Global Positioning System receivers to acquire the horizontal coordinate information (latitude and longitude), based on the North American Datum of 1983. Land-surface altitude, feet above National Geodetic Vertical Datum of 1929 (NGVD of 1929), was determined for each well by superposition of the wells latitude and longitude on a topographic map and is accurate to about one-half the topographic contour interval of 5 or 10 feet (ft). Herein, all water-level and land-surface altitudes are referenced to NGVD of 1929.

One method for calculating the annual rise or decline is to take the difference between the final and initial water levels and divide by the period of time. This method is determined from two measurements and calculated values are dependent solely on the final and initial water levels. Linear regression is a second method that can be used with a hydrograph of water level in relation to time to calculate the annual rise or decline in water level. Linear regression is more robust because it includes all the measurements to determine the trend line, resulting in a value that is dependent on all water levels during the period of record. The slope, β_1, of the line is the annual rise or decline in water level. The intercept, β_0, would be the water level in the year 1900, the origin for the graph. This requires the assumption that the pumping rate was constant throughout the period of pumping. This condition is not commonly met or the data are not available to demonstrate that this has occurred. The predevelopment water level will not be discussed as this condition can not be demonstrated. The R^2 term is the coefficient of determination, correlation coefficient, or the fraction of variance explained by regression. The R^2 value gives the proportion of the total variability that can be accounted by the independent variable (Helsel and Hirsch, 1992). Values of R^2 can range from 0.00 to 1.00. A high value of R^2 can indicate a linear change in water level. A low value of R^2 can indicate sporadic change in water level.

There are five assumptions associated with linear regression: (1) Y is linearly related to X, (2) data used to fit the linear regression are representative of data of interest, (3) variance of the residuals is constant and does not depend on X or on anything else, (4) the residuals are independent, and (5) the residuals are normally distributed. The assumption of a normal distribution is involved only when testing hypotheses, requiring the residuals from the regression equation to be normally distributed (Helsel and Hirsch, 1992).

Specific conductance was measured in ground water from selected wells using specific-conductance meters with temperature compensation. Specific-conductance meters were calibrated twice daily by comparing the measurement of the specific conductance meter of two specific conductance calibration standards. Most of the wells sampled were irrigation wells sampled during pumping; specific conductance and temperature were monitored for 5 minutes or until the readings stabilized before values were recorded. For public supply and industrial wells, a minimum of three well volumes were purged and then specific conductance and temperature were

monitored for 5 minutes or until the readings stabilized before values were recorded.

Aquifer Description

The alluvial aquifer comprises alluvial and terrace deposits of Quaternary age (Ackerman, 1996). Lithologically, the Quaternary alluvial and terrace deposits are similar, consisting of unconsolidated sediments that grade from gravel and coarse sand in the lower sections to silt and clay in the upper sections (Boswell and others, 1968). Because coarse sediments are contained in the lower sections of the alluvial and terrace deposits, the aquifer is capable of sustaining high yielding wells (Ackerman, 1996). Finer sediments in the upper sections of the alluvial and terrace deposits form a confining unit above much of the aquifer. This confining unit is thin or has been completely removed by erosion in some areas, especially near large rivers within the study area (Gonthier and Mahon, 1993). Channel fill, point bar, and backswamp deposits associated with present or former channels of large rivers have produced abrupt changes in lithology and result in large spatial variations in the hydraulic properties of the aquifer (Joseph, 1999).

Sedimentary rocks and unconsolidated sediments of Tertiary age or older underlie the alluvial aquifer and have been modified by geologic processes into an undulating surface (Mahon and Poynter, 1993). In most areas, these rocks and sediments are less permeable than the overlying alluvial and terrace deposits of Quaternary age and form the confining unit below the alluvial aquifer (Boswell and others, 1968).

In the northern half of the study area, the alluvial and terrace deposits of Quaternary age are separated by Crowleys Ridge (fig. 1), an erosional remnant of Tertiary-age deposits trending north-south from the Missouri-Arkansas border to northeastern Phillips County. Crowleys Ridge is a prominent topographic feature on the otherwise low-relief surface of the Mississippi Alluvial Plain and forms a physical barrier to ground-water flow in the alluvial aquifer.

Water Levels

Water-level measurements collected in wells completed in the alluvial aquifer (appendix 1) were used to produce a regional potentiometric-surface map (plate 1). A difference in water-level map from 2002 to 2006 (plate 2), was produced by subtracting water-level measurements in 2006 from measurements in 2002. Data from wells that have water-level measurements with a minimum 25-year period of record were used to produce hydrographs shown on figure 4. The water-level changes shown in the hydrographs indicate long-term changes in hydrologic conditions. Long-term water-level changes shown by the hydrographs reflect the development of the cones of depression in the potentiometric surface.

Potentiometric Surface

The potentiometric-surface map (plate 1) shows the altitude at which water would have stood in tightly cased wells completed in the alluvial aquifer. The map on plate 1 is based on 720 water-level measurements (362 by USGS and 358 by NRCS) made in 707 wells during the spring of 2006 (appendix 1). The USGS and NRCS both measure water levels from the same 13 wells. The surface was mapped using the altitude of the water levels measured in the wells and is represented on the map by contours that connect points of equal altitude. The general direction of ground-water flow is perpendicular to the contours in the direction of decreasing potentiometric-surface altitude.

Ground-water levels are affected by ground-water withdrawals within the study area, often resulting in depressions. The depressions or other areas of reduced water level are shaded on plate 1. In 2006, the lowest water-level altitude was 76 ft in the center of Arkansas County. The highest water-level altitude was 289 ft in northeastern Clay County on the west side of Crowleys Ridge.

Previous reports described three large depressions in the alluvial aquifer potentiometric surface (Stanton and others, 1998; Joseph, 1999; Schrader, 2001; Reed, 2004; Schrader, 2006). A large, elongated area of depression extended across Arkansas, Lonoke, and Prairie Counties. Two shallower depressions were documented in Lee, Monroe, St. Francis, and Woodruff Counties, and in Craighead, Cross, and Poinsett Counties.

The elongated depression in Arkansas, Lonoke, and Prairie Counties has two areas that have changed in horizontal area or depth when compared to previous conditions of the aquifer. The area in Arkansas County at the southeastern half of the depression has not expanded horizontally from recent years, although the center of the depression has deepened. The Arkansas and White Rivers that bound Arkansas County on the southwestern and eastern county lines are hydrologically connected and provide recharge to the alluvial aquifer. A comparison of measured water-level altitudes from 1998 to 2006 at the lowest measurement point in the depression in central Arkansas County indicates that water levels rose from 1998 to 2002. The lowest measured water-level altitudes in the alluvial aquifer in Arkansas County in 1998, 2000, and 2002 were 78, 86, and 80 ft, respectively (Joseph, 1999; Schrader, 2001; Reed, 2004). The lowest measured water-level altitude in 2004 showed a decline of 10 ft to 76 ft since 2002 (Schrader, 2006). In 2006, the lowest water-level altitude was 76 ft, the same as in 2004.

The area in Lonoke and Prairie Counties in the northwestern half of the depression has expanded horizontally in the deeper part of the depression. The 90-foot contour has expanded north and east in Lonoke County, when compared to the 2004 potentiometric surface (Schrader, 2006). In 2000, this depression (within the 90-foot contour) was elongated from southwest to northeast from Lonoke County into Prairie County. Between 2000 and 2004, the area decreased to a small

oval near the center of Lonoke County. The lowest measured water-level altitudes in Lonoke County show little change in 2002, 2004, and 2006 with altitudes of 88 ft, 89 ft, and 90 ft, respectively (Reed, 2004; Schrader, 2006).

Along the west side of Crowleys Ridge, two previously documented areas of depression expanded and coalesced into a single depression by 2002 (Reed, 2004). The 2006 potentiometric-surface map shows little change in the area of this depression, although the deeper areas within the depression have expanded. The 2006 potentiometric-surface map shows that the area enclosed by the 150-foot contour is similar in area to the 2004 potentiometric-surface map. The two areas enclosed by 140-foot contours have changed when compared with the 2004 potentiometric-surface map. The area in Lee, Monroe, St. Francis, and Woodruff Counties is similar in area to the 2004 potentiometric-surface map. The area in Cross and Poinsett Counties in 2004 has expanded north into Craighead County and east to intersect with Crowleys Ridge in the 2006 potentiometric-surface map. The 130-foot contour is shown in southwestern Poinsett, southwestern St. Francis, eastern Monroe, and northwestern and southwestern Lee Counties. The 130-foot contours in southwestern Poinsett, eastern Monroe, and southwestern Lee Counties have not been shown in previous potentiometric-surface maps. The 130-foot contour in southwestern St. Francis and northwestern Lee Counties expanded in 2006. The lowest water-level measurement in the depression in Lee, Monroe, St. Francis, and Woodruff Counties has declined to 123 ft (from 125 ft in 2004) in northwestern Lee County.

In central Drew County, near the western boundary of the study area, a cone of depression was first noted in the 2002 potentiometric-surface map (Reed, 2004). The area enclosed by the 130-foot contour expanded in 2004 and the water level in the center of the cone declined by 8 ft to 118 ft (Schrader, 2006). In 2006, the area has decreased to approximately the same area as in the 2002 potentiometric-surface map.

Three areas of reduced water level were noted by Schrader (2001) in southeastern Arkansas—one in eastern Lincoln County, a second that extends from southern Desha County into northern Chicot County, and a third that extends from western Chicot County into eastern Ashley County. The area of reduced water level in southern Desha and northern Chicot Counties was first evident in the 1998 potentiometric surface (Joseph, 1999) and had expanded horizontally and vertically by 2000 (Schrader, 2001). This area expanded southward by 2002 but had not appreciably deepened. The potentiometric surface in this area showed very little change between 2002 and 2004 (Schrader, 2006). In the 2006 potentiometric surface, this area has expanded further north into Desha County and south into Chicot County. The expansion may be partially explained by better definition from additional data extending south into Chicot County. The areas in eastern Lincoln County and in western Chicot and eastern Ashley Counties were not evident in 1996 and 1998. The area in eastern Lincoln County expanded into northwestern Desha County and continued to deepen through 2004, with an altitude of 118 ft (Schrader, 2006) at its deepest point. In 2006, this area has expanded westward in Lincoln County, with a measured altitude of 119 ft at its deepest point. The area in western Chicot and eastern Ashley Counties showed very little change in the 2004 potentiometric surface from the 2002 potentiometric surface (Schrader, 2006). In 2006, the depth of this area has not increased and is approximately the same as in the 2004 potentiometric surface.

A potentiometric area of reduced water level in Greene County noted in 1998 by Joseph (1999), and in 2000 by Schrader (2001), deepened by 2002 (Reed, 2004). This area contracted in 2004 (Schrader, 2006). In 2006, this area has expanded and deepened since 2004.

Six depressions are shown in the 2006 potentiometric-surface map that are not shown in previous alluvial aquifer potentiometric surfaces. A depression at the Prairie and White County line is enclosed by a 130-foot contour. In the 2004 potentiometric surface, the 130-foot contour line shows a small lobe extending northeast from the larger depression (Schrader, 2006). In the 2006 potentiometric surface, the 130-foot contour line is approximately oval shaped and separate from the larger depression. A second depression at the Craighead and Mississippi County line is enclosed by a 220-foot contour. Four small depressions are located in northern Desha, southeastern Jefferson, northern Lee, and northeastern St. Francis Counties. Continued monitoring of the potentiometric surface will determine if these depressions are the result of short-term variations or long-term changes in the hydrologic conditions in the alluvial aquifer.

The regional direction of ground-water flow is generally to the south and east except where flow is affected by ground-water withdrawals; however, the flow direction is affected over substantial areas by depressions. Ground-water flow is indicated by the black arrows shown on plate 1. West of Crowleys Ridge, depressions in Arkansas, Lonoke, and Prairie Counties capture ground-water flow from all directions. The flow along large sections of the Arkansas, Mississippi, and White Rivers is away from the rivers. East of Crowleys Ridge water flows from north to south along Crowleys Ridge and northeast to southwest along the Mississippi River. South of the Arkansas River the flow is towards the southeast, except in northwestern Desha County where flow is towards the area of reduced water level.

Water-Level Difference from 2002 to 2006

A map showing the difference in water level (plate 2) was constructed using 645 differences in water levels measured in 633 wells during 2006 (appendix 2) and 2002 (Reed, 2004). Differences in water level were calculated by subtracting the 2006 depth-to-water measurement from the 2002 depth-to-water measurement. Positive values indicate a rise and negative values indicate a decline in water level. Rises in water level are indicated on plate 2 with blue triangles pointing upward; declines in water level are indicated with red triangles point-

ing downward. The triangles are scaled to the value of rise or decline.

The difference in measured water levels from 2002 to 2006 ranged from -24.0 ft to 25.0 ft, with a mean of -2.0 ft. The largest decline of -24.0 ft occurred in Poinsett County and the largest rise of 25.0 ft occurred in Randolph County. Out of the 645 differences on plate 2, 481 were declines (74.6 percent), 12 were no difference (values of 0.0 ft) (1.8 percent), and 152 were rises (23.6 percent). The three areas that have the greatest density of declines are west of Crowleys Ridge, eastern Craighead and Mississippi Counties, and in eastern Lonoke and Prairie Counties.

Five areas are dominated by rises in measured water levels. The largest area is in western and southern Arkansas, southeastern Jefferson, and northern Desha Counties adjacent to the Arkansas River. Another area is in eastern Cross and northern Crittenden Counties. Three small areas with water-level rises are located in western Lonoke County, southeastern White County, and adjacent to the eastern boundary of Crowleys Ridge in Craighead and Greene Counties.

Long-Term Water-Level Changes

Long-term water-level changes were evaluated using hydrographs from 152 wells in the alluvial aquifer for the period 1982 to 2006. Linear regression was used to calculate the trend in water-level change for each well for this period. The slope of the trend line represents the mean annual rise or decline in water level during the 25-year period. Negative values denote a decline in water level. The minimum 25-year period is used to show long-term trends not dominated by short-term variations in climate and localized pumping rates on water levels in a single well. The hydrographs were grouped by county. Table 1 shows the number of wells, the range of values for the annual rise or decline in water level, the mean, and the median for each county. The mean annual rise or decline in water level for the entire study area was -0.32 feet per year (ft/yr) with a range of –1.28 to 0.77 ft/yr. Selected hydrographs are shown in figure 4 (wells A-CC, plate 1).

Long-term water-level changes vary substantially across the study area. Independence and White Counties are the only counties with a mean annual rise from 1982 to 2006. The rise in Independence County is determined from the data of one well. Mean annual declines between -0.50 ft/yr and 0.00 ft/yr occurred in Arkansas, Ashley, Chicot, Clay, Craighead, Crittenden, Drew, Jefferson, Lee, Mississippi, Monroe, Phillips, Poinsett, Prairie, Pulaski, Randolph, and Woodruff Counties. Mean annual declines between -1.00 ft/yr and -0.50 ft/yr occurred in Cross, Desha, Greene, Jackson, Lincoln, Lonoke, and St. Francis Counties.

The analysis of long-term water-level changes (1982-2006) in Arkansas, Lonoke, and Prairie Counties shows the elongation of the depression in these three counties. Arkansas and Prairie Counties have two different rates of annual decline for the two hydrographs shown for each county. In Arkansas County, well 04S03W32BCB1 (fig. 4A) shows an annual water-level decline of about 0.80 ft/yr since 1982. Well A is located near the center of the depression in Arkansas County and generally shows a water-level decline during the 70-year period of record. Well 07S04W01DDD1 (fig. 4B) has an annual water-level rise of about 0.11 ft/yr since 1982. Well B is located near the Arkansas River and shows a relatively stable water level for the 79-year period. The water level in the Arkansas River is maintained by a lock and dam system and can be a source of water for the alluvial aquifer in southern and western Arkansas County. In Prairie County, well 02N04W32CCB1 (fig. 4X) is near the depression and the White River. This well has an annual water-level decline of about 0.29 ft/yr since 1982. Well 04N05W07CDC1 (fig. 4W) is located in the northern part of Prairie County and has an annual decline of about 0.66 ft/yr since 1982. These two hydrographs show that the rate of decline in the northern part of the depression is more than two times greater than the rate of decline near the White River. Well 02S07W10CCB1 (fig. 4Q), near the western edge of the depression in Lonoke County, shows an annual water-level decline of about 0.88 ft/yr since 1982 and shows a nearly continuous water-level decline during the 49 years of record. In Arkansas, Lonoke, and Prairie Counties, water levels in the two wells near the Arkansas and White Rivers either have risen or declined at a slower rate than in the three wells in the center, northern, and western part of the depression. These rates of water-level change indicate that this depression is expanding in an elongated direction north and west into Lonoke and Prairie Counties.

Water-level declines in neighboring counties are further evidence of the expansion of the depression centered in Arkansas, Lonoke, and Prairie Counties. In Jefferson County, well 03S08W24BBC1 (fig. 4N) has an annual water-level decline of about 0.69 ft/yr during the period 1982 to 2006. In Monroe County, well 03N01W20ABA1 (fig. 4S) has an annual water-level decline of about 0.66 ft/yr during the period 1982 to 2006. Long-term declines in these outlying wells indicate that the depression is expanding.

The depression west of Crowleys Ridge has five wells with hydrographs in or near the depression that can be used to characterize the rates of water-level change within the depression. Wells 07N01E05CDA1 (fig. 4H) in Cross County, 11N02E26AAB1 (fig. 4U) in Poinsett County, and 04N01W28CDD1 (fig. 4AA) in St. Francis County are in the depression and have annual declines of about 1.02 ft/yr, 1.28 ft/yr, and 0.62 ft/yr, respectively, since 1982. For the period of record, well H in Cross County, since 1946, and well U in Poinsett County, since 1958, have the largest declines in the alluvial aquifer, about 48.8 ft and 56.1 ft, respectively. Wells 14N02E18BDD1 (fig. 4F) in Craighead County and 02N01E23BAA2 (fig. 4O) in Lee County near the outskirts of the depression have annual water-level declines of about 0.99 ft/yr and 0.55 ft/yr, respectively, since 1982.

Table 1. Range, mean, median, and correlation coefficient, R^2, of annual rise-decline in water level by county for wells in the Mississippi River Valley alluvial aquifer, 1982-2006.

[Annual rise or decline in water level for each well is calculated using linear regression; negative value indicates decline; positive value indicates rise]

County	Number of wells	Range of annual rise-decline in water level (feet/year)	Mean annual rise-decline in water level (feet/year)	Median annual rise-decline in water level (feet/year)	Range of R^2 values for trend line
Arkansas	27	-0.80 to 0.77	-0.12	-0.15	0.00 to 0.80
Ashley	9	-0.33 to 0.11	-0.14	-0.18	0.03 to 0.72
Chicot	3	-0.40 to -0.11	-0.26	-0.26	0.19 to 0.71
Clay	7	-0.55 to -0.01	-0.21	-0.15	0.01 to 0.93
Craighead	5	-0.99 to 0.18	-0.37	-0.18	0.10 to 0.94
Crittenden	6	-0.62 to -0.15	-0.37	-0.35	0.24 to 0.93
Cross	5	-1.24 to -0.33	-0.94	-1.02	0.75 to 0.97
Desha	5	-0.80 to -0.07	-0.50	-0.62	0.19 to 0.87
Drew	4	-0.29 to -0.15	-0.24	-0.26	0.53 to 0.94
Greene	5	-0.73 to -0.11	-0.53	-0.66	0.13 to 0.85
Independence	1	0.07	0.07	0.07	0.01
Jackson	5	-0.84 to -0.29	-0.68	-0.77	0.66 to 0.98
Jefferson	6	-0.69 to -0.18	-0.32	-0.24	0.33 to 0.92
Lee	5	-0.58 to -0.26	-0.49	-0.55	0.26 to 0.92
Lincoln	3	-0.84 to -0.33	-0.57	-0.55	0.67 to 0.85
Lonoke	5	-1.06 to -0.51	-0.80	-0.88	0.34 to 0.98
Mississippi	8	-0.22 to 0.00	-0.09	-0.09	0.00 to 0.47
Monroe	8	-0.55 to -0.01	-0.28	-0.27	0.00 to 0.90
Phillips	3	-0.29 to -0.07	-0.18	-0.18	0.07 to 0.71
Poinsett	5	-1.28 to 0.03	-0.37	-0.18	0.02 to 0.96
Prairie	10	-0.66 to 0.00	-0.31	-0.29	0.00 to 0.89
Pulaski	1	-0.33	-0.33	-0.33	0.58
Randolph	1	-0.26	-0.26	-0.26	0.74
St. Francis	7	-0.95 to -0.04	-0.56	-0.62	0.13 to 0.98
White	3	0.11 to 0.29	0.19	0.18	0.20 to 0.62
Woodruff	5	-0.58 to 0.00	-0.19	-0.11	0.00 to 0.87

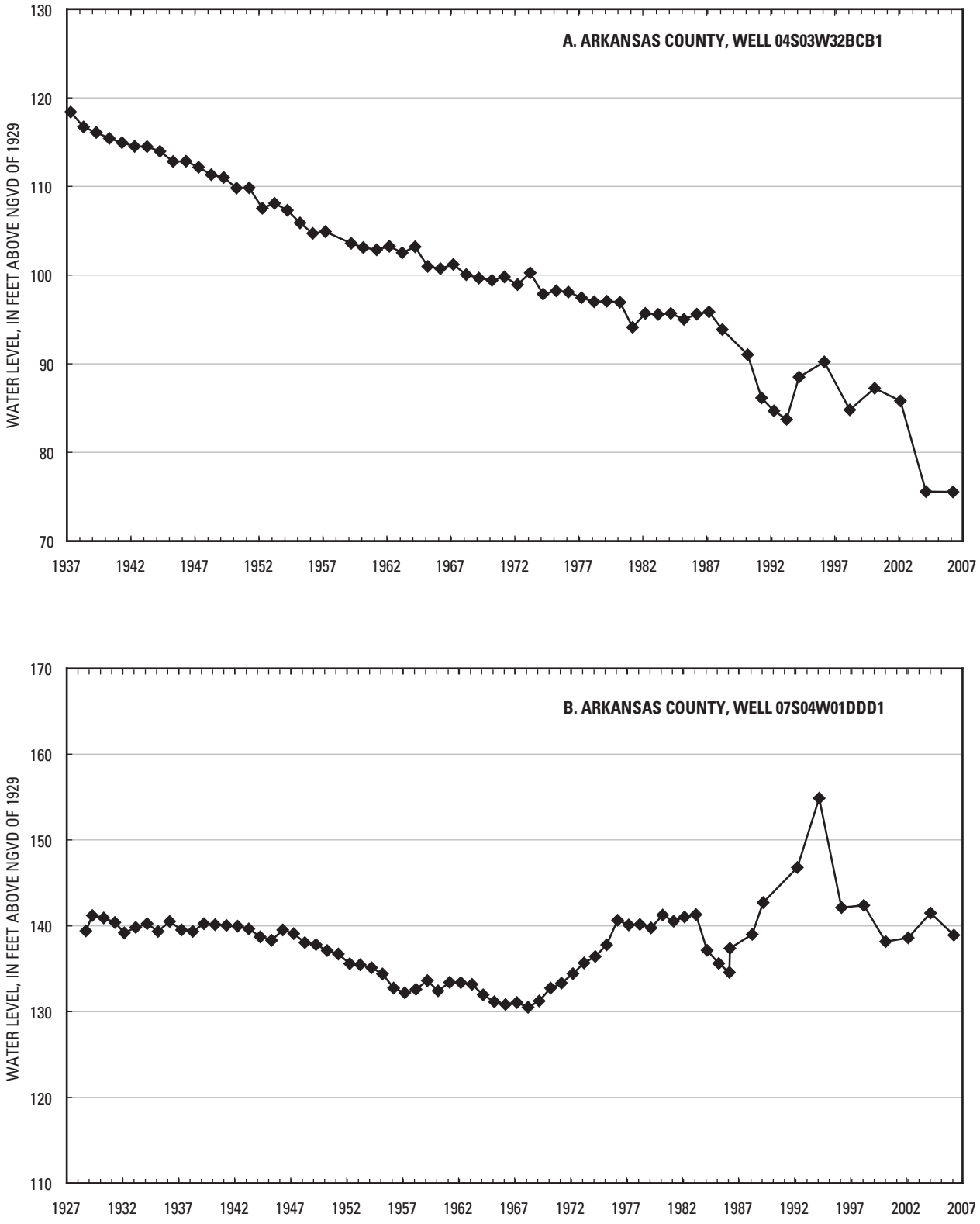


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.

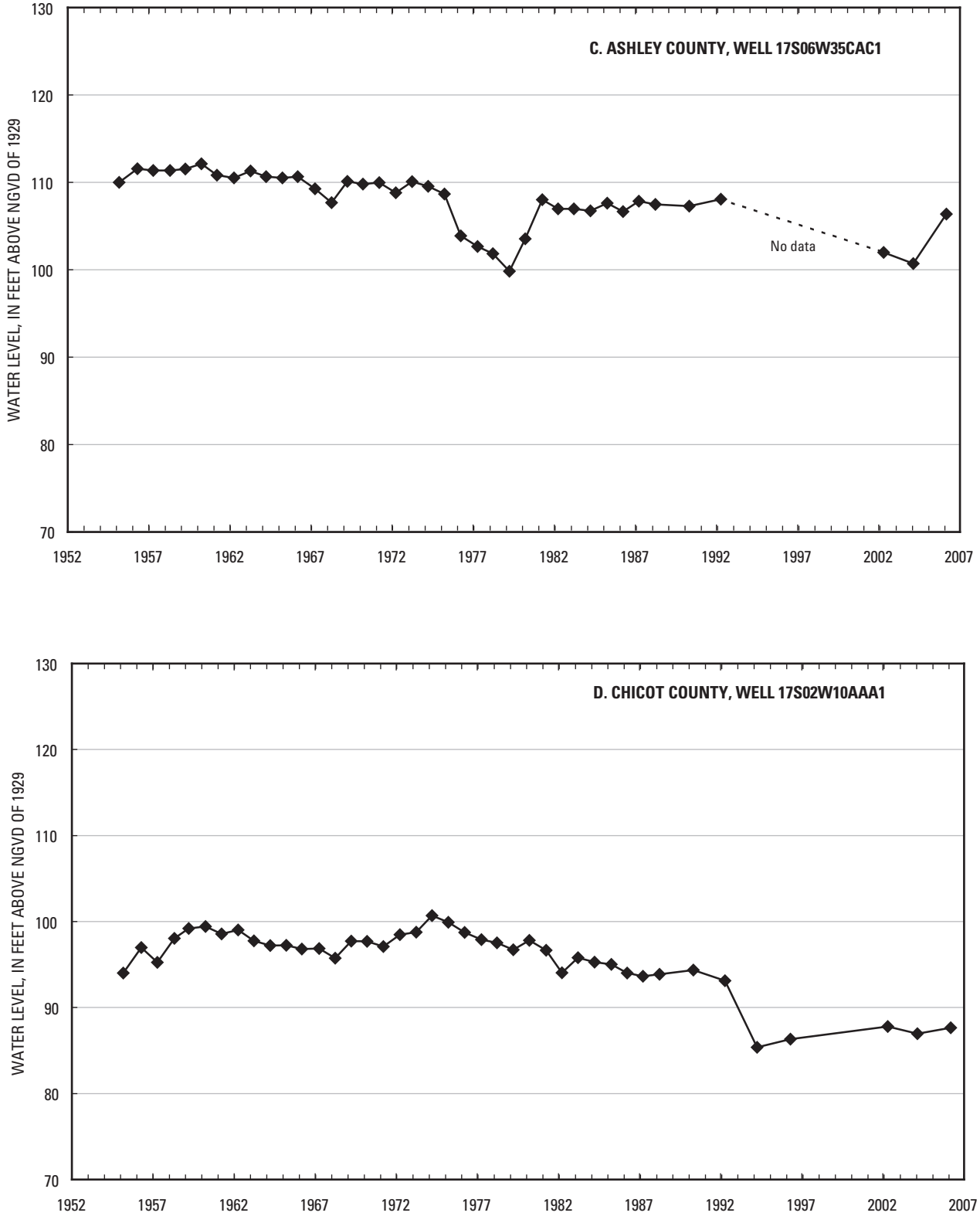


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

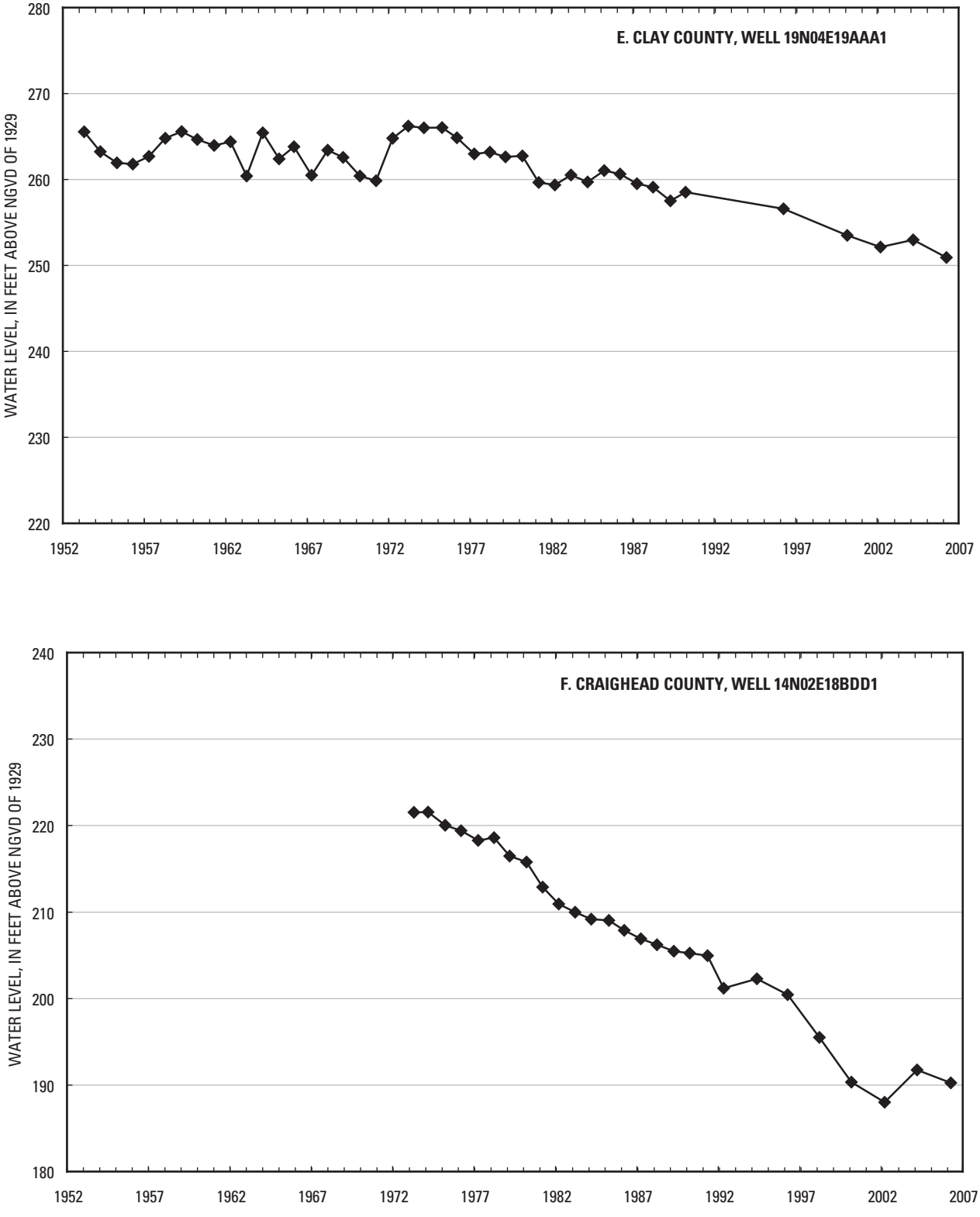


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

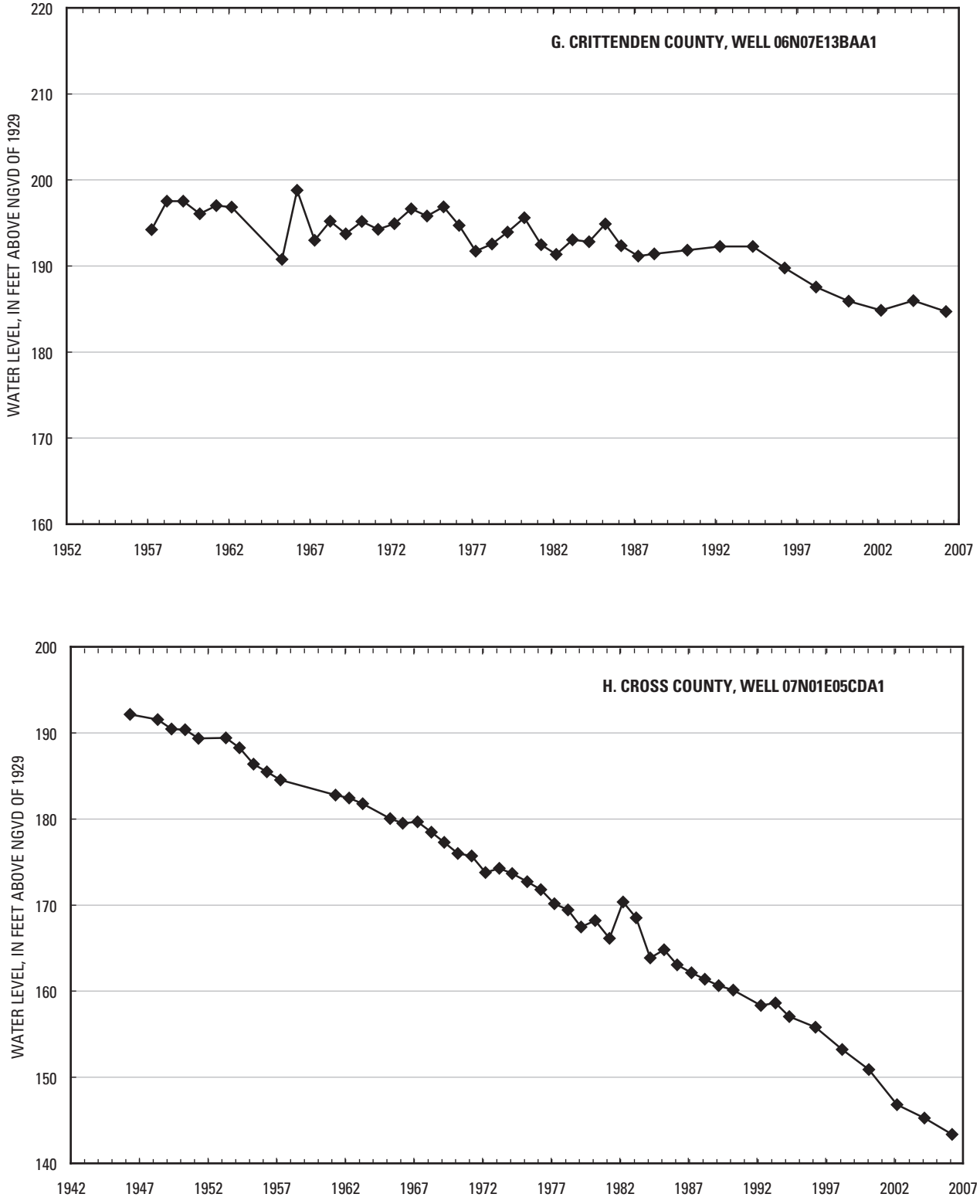


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

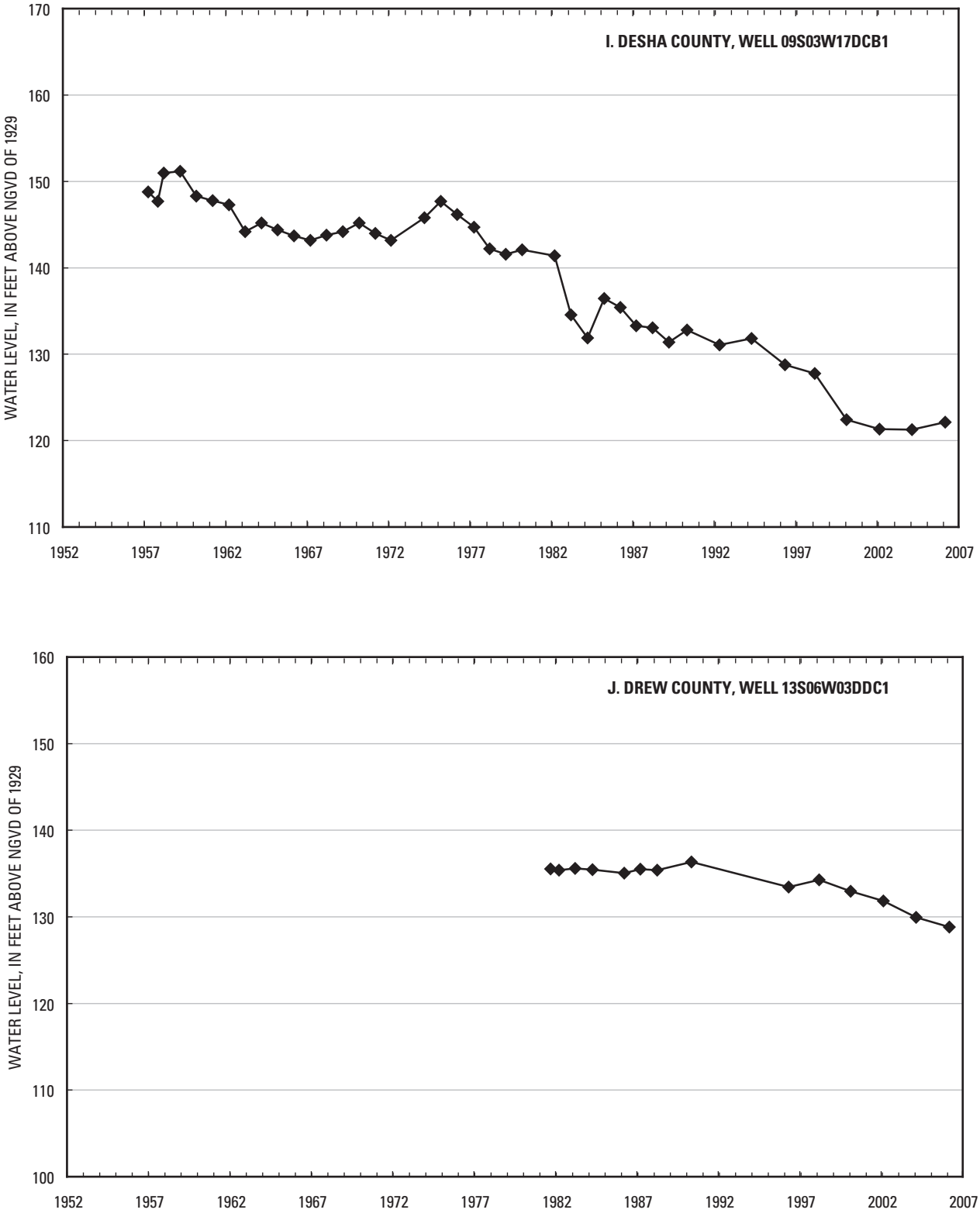


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

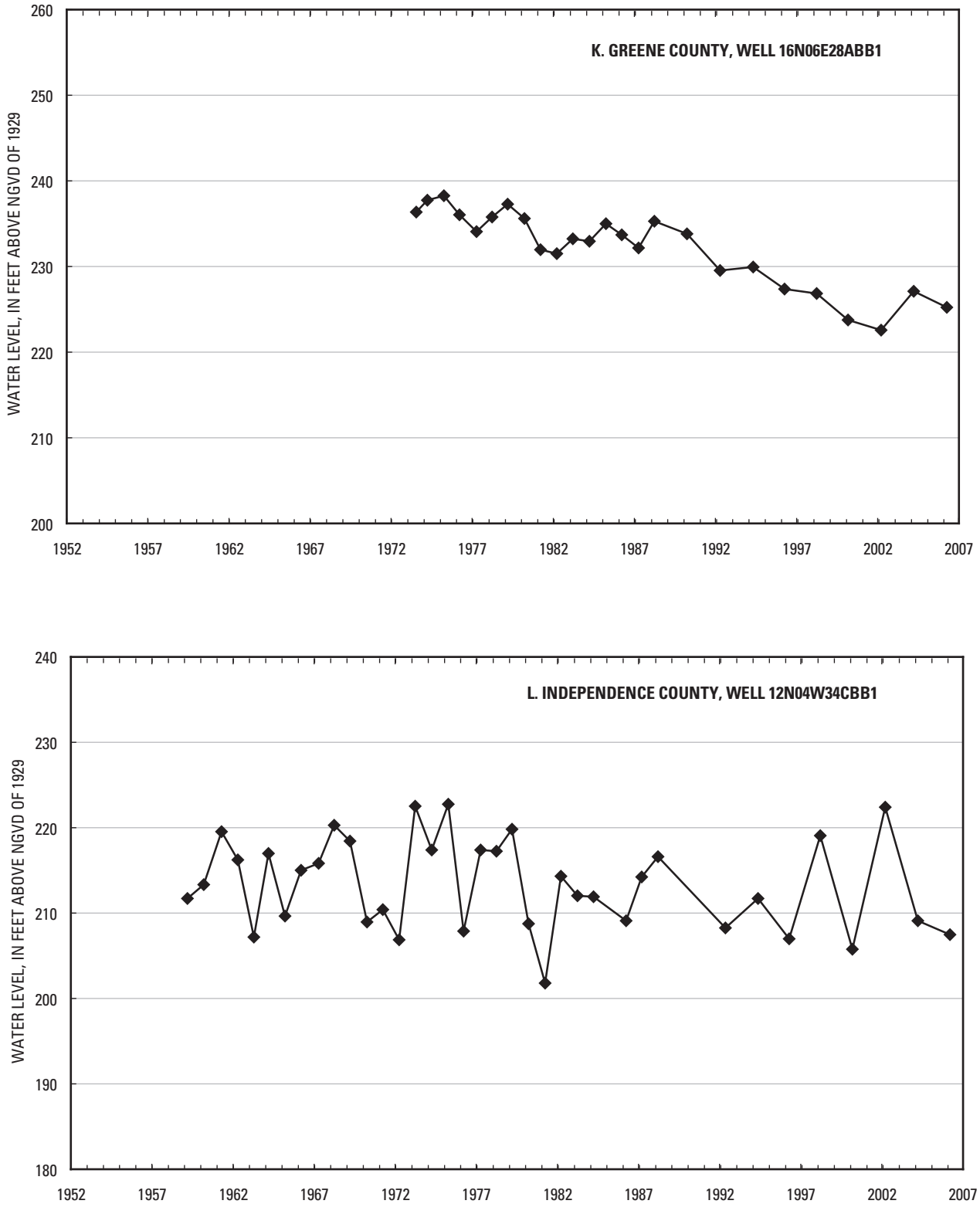


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

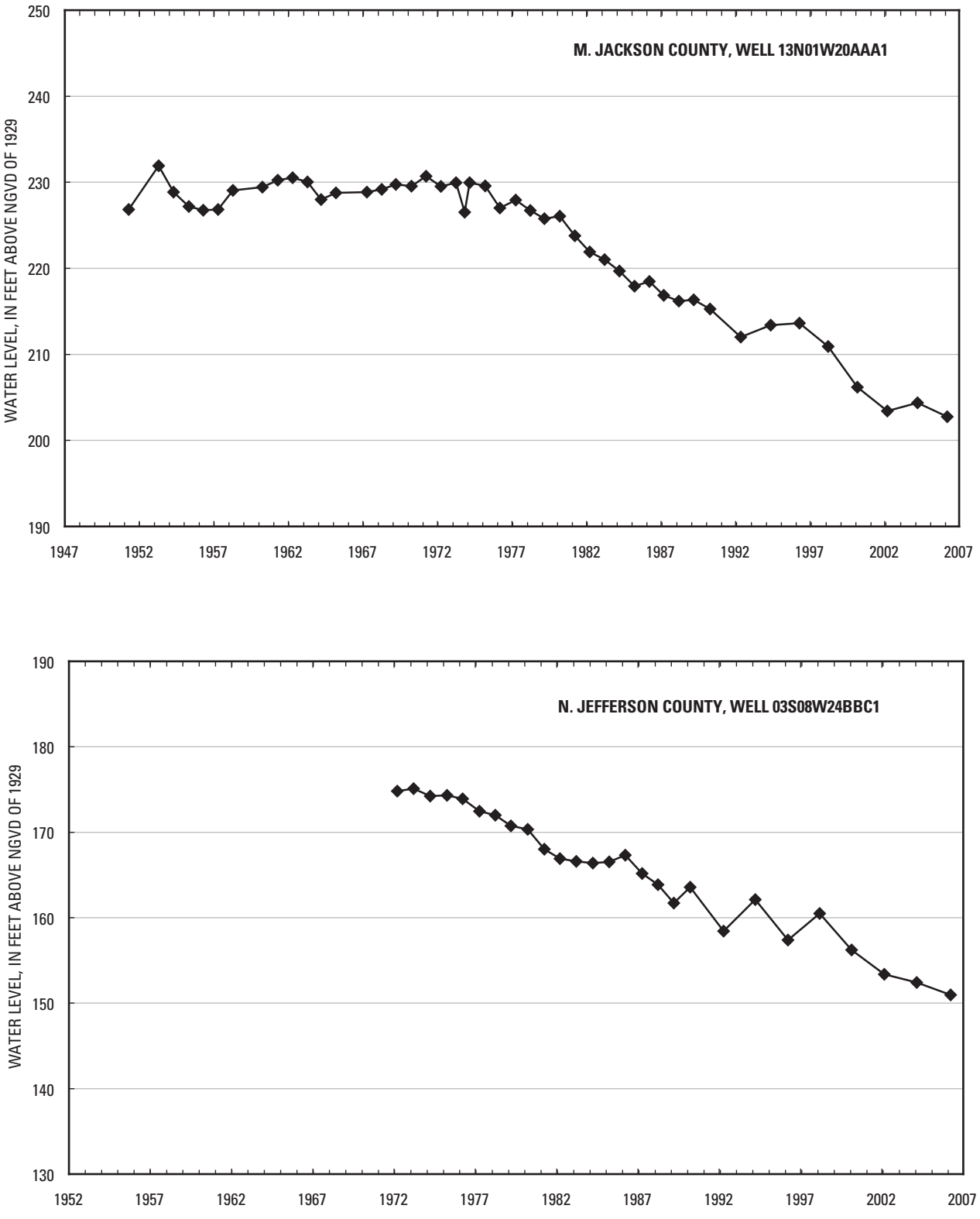


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

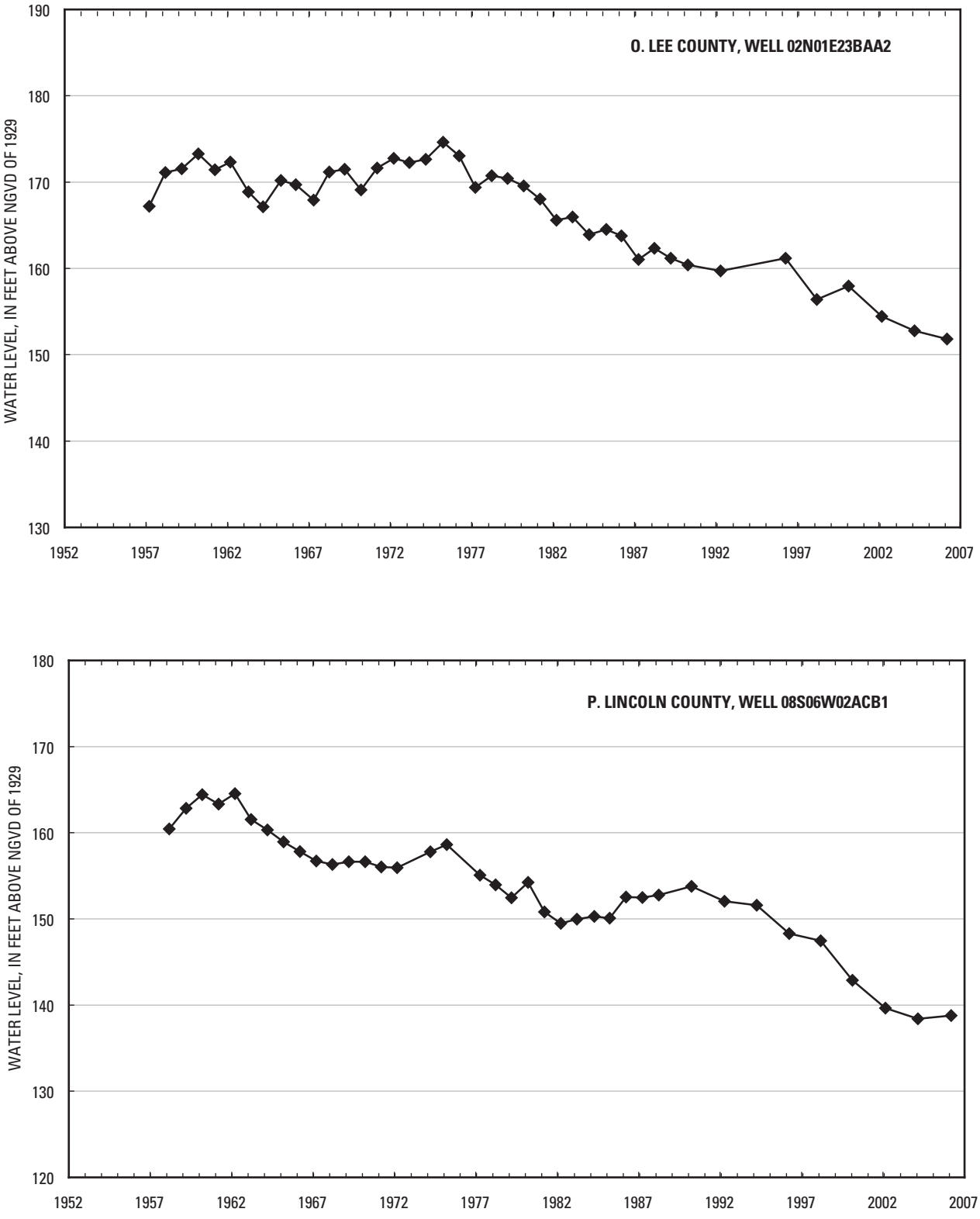
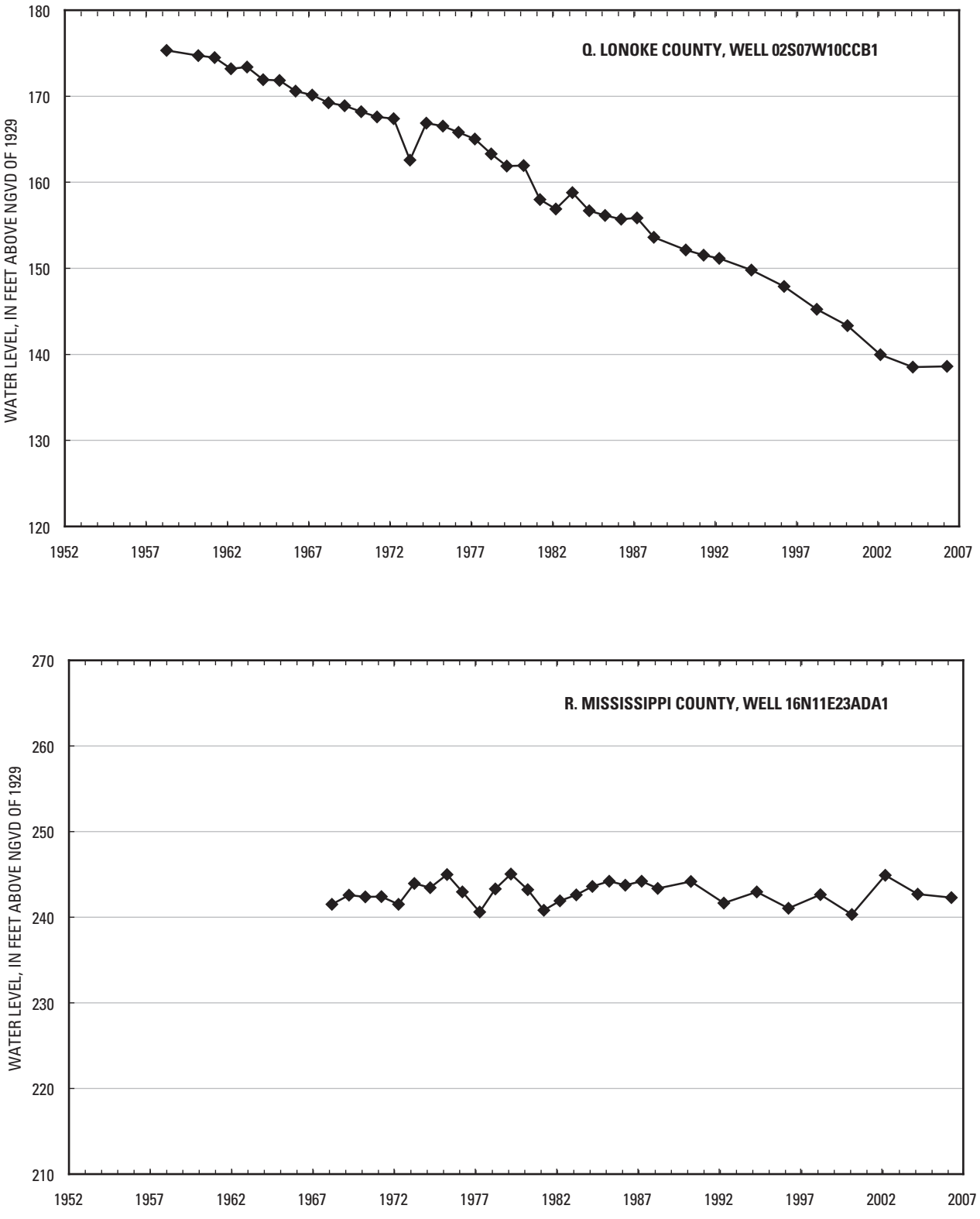


Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued



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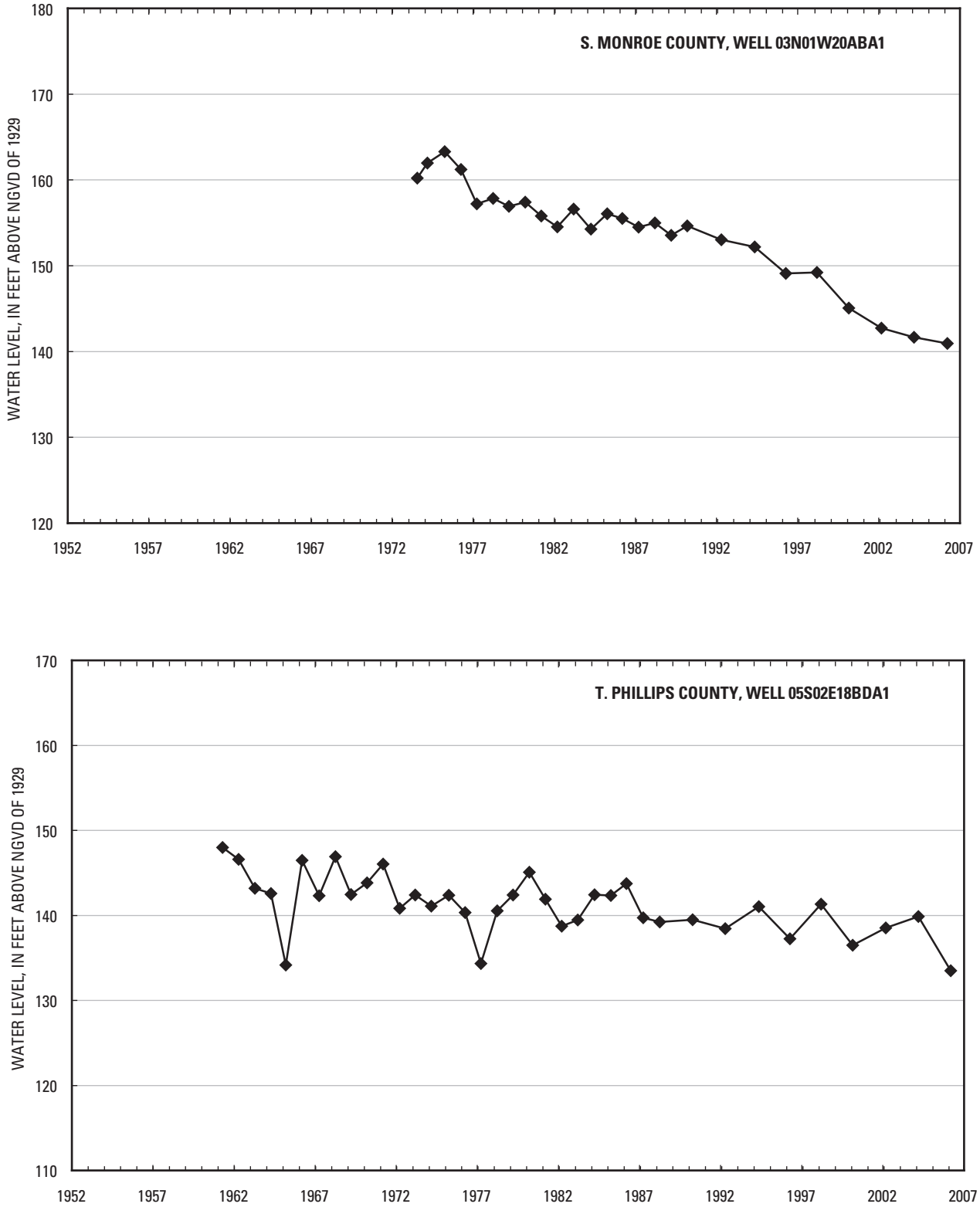

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

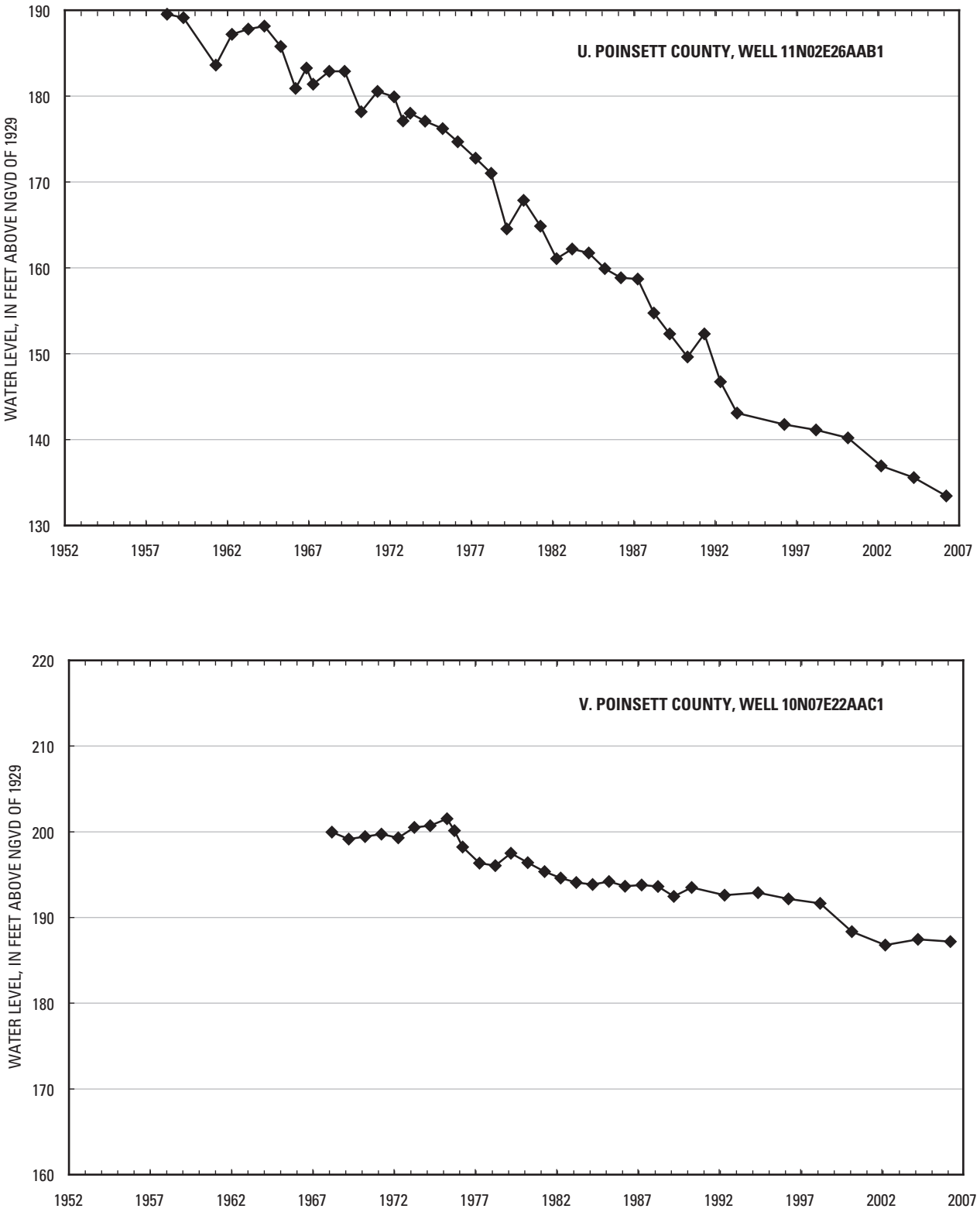

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

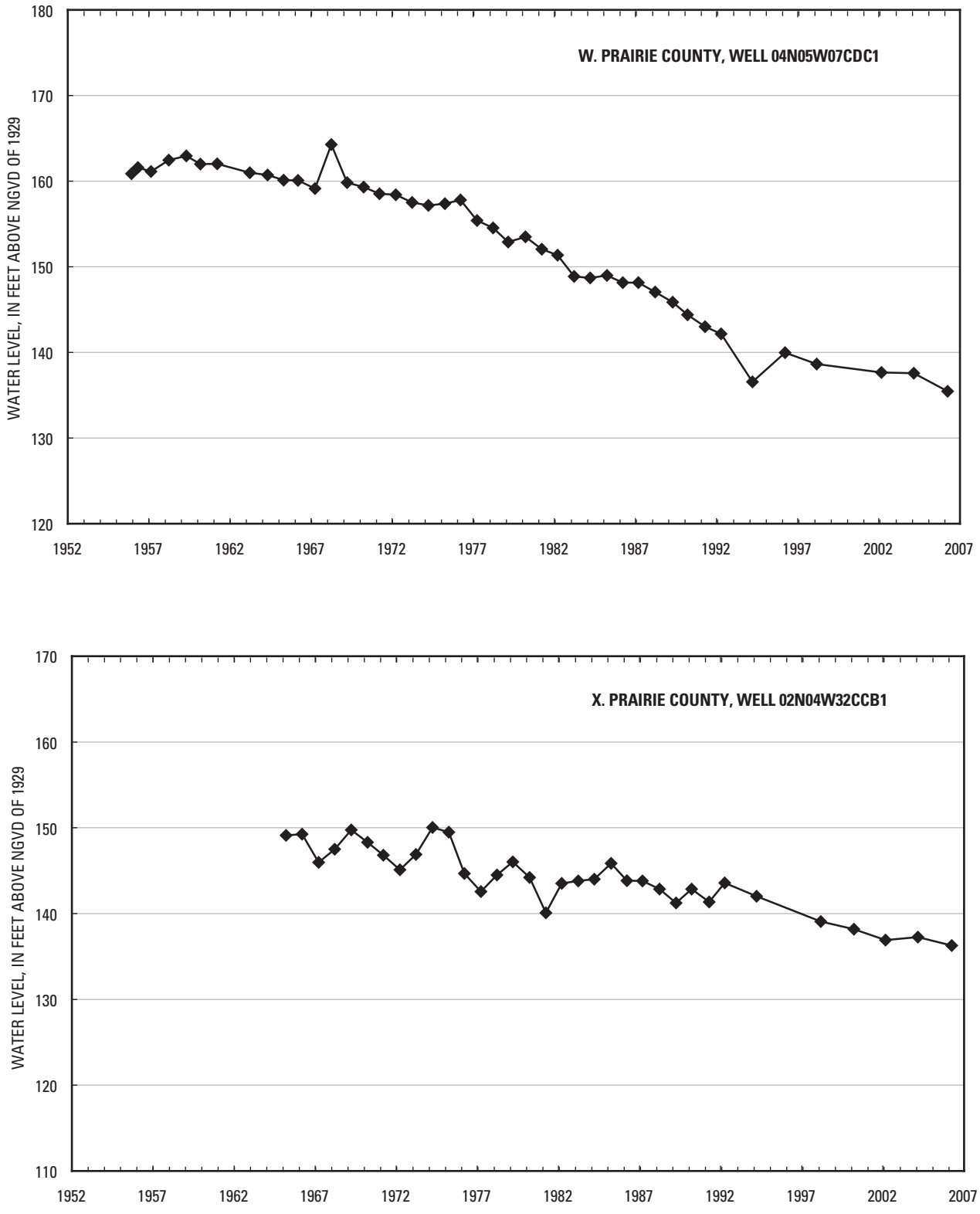

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

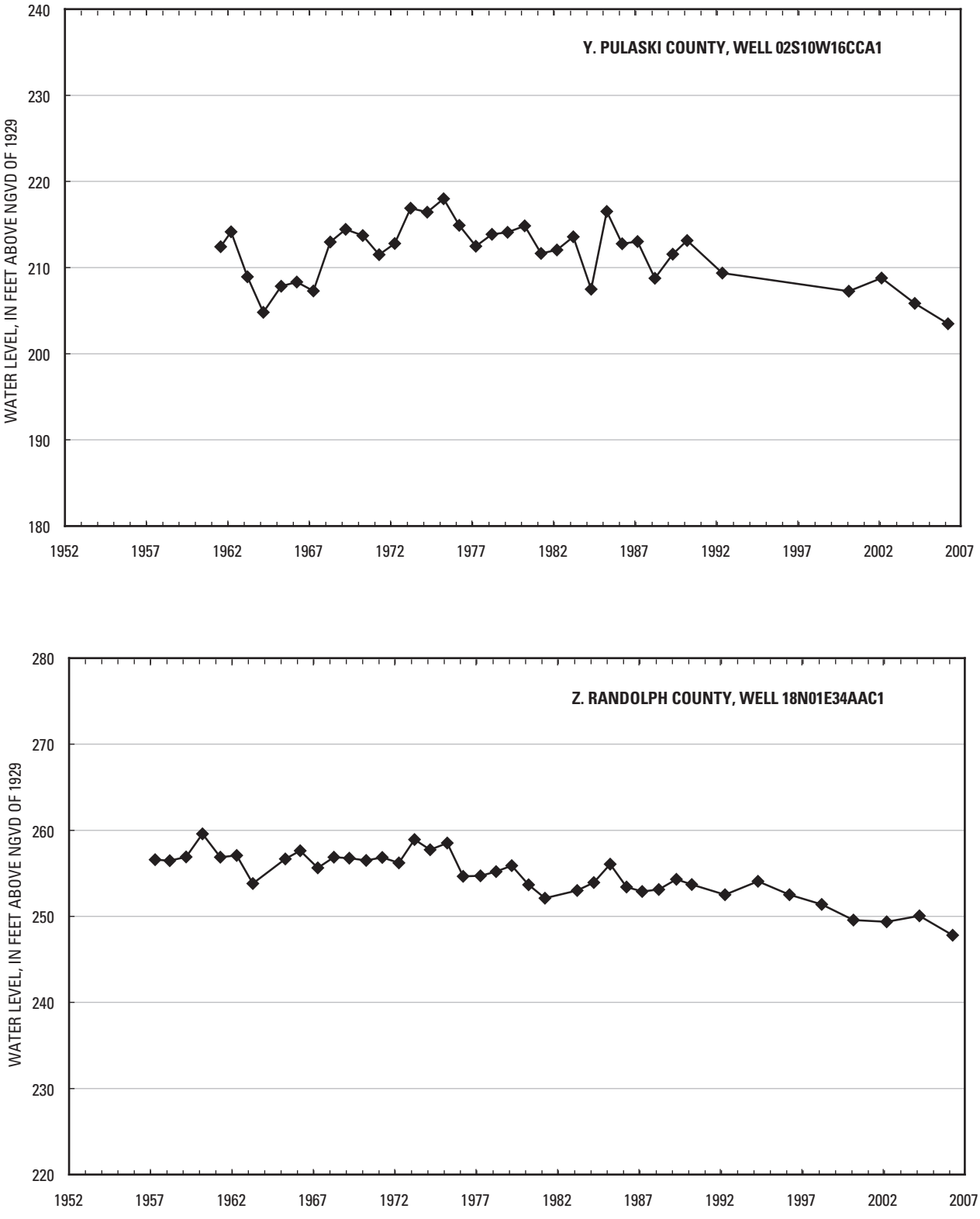

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

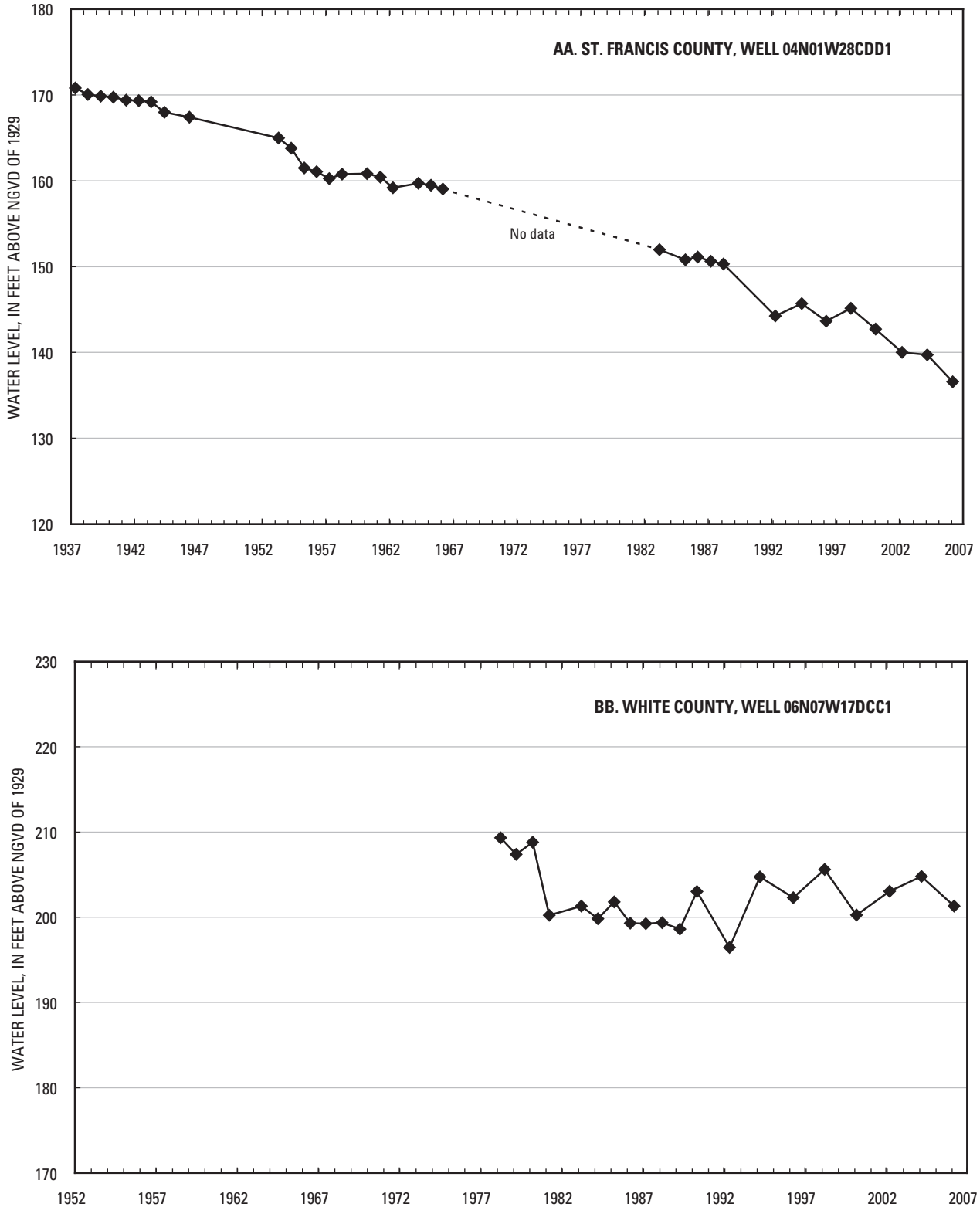

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

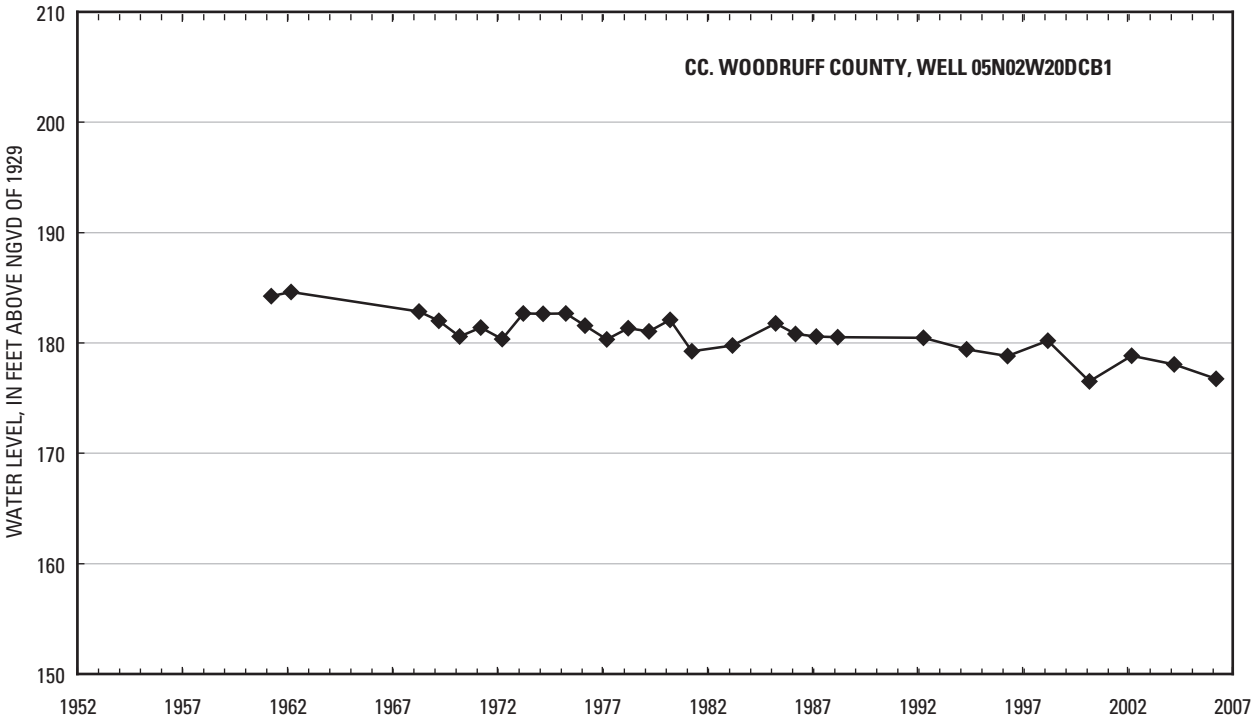

Figure 4. Water-level hydrographs (A to CC) for selected wells in the Mississippi River Valley alluvial aquifer.—Continued

Water-Quality Conditions

Water samples were collected from 65 wells completed in the alluvial aquifer and measured onsite for specific conductance and temperature (appendix 3). Specific conductance ranged from 267 microsiemens per centimeter at 25 degrees Celsius (μS/cm) at a well in Clay County to 2,960 μS/cm at a well in Chicot County (appendix 3). The majority of the values are in the 401-600 and 601-800 μS/cm ranges (fig. 5). Four areas of relatively high specific conductance (greater than or equal to 1,000 μS/cm) occur in Arkansas, Chicot, Craighead, and Prairie Counties. Other values in Chicot County are as low as 376 μS/cm.

Generally, the occurrences of higher specific conductance in the alluvial aquifer probably are caused by movement of water containing elevated concentrations of dissolved solids from sources at depth (Bryant and others, 1985). Water with higher concentrations of dissolved solids may have moved upward where the confining units are thin or absent, along faults, or through unplugged or deteriorated casings of abandoned oil and gas test wells (Fitzpatrick, 1985). Morris and Bush (1986) cite two possible sources of high dissolved-solids concentrations—a zone of ground-water stagnation present in the alluvial aquifer caused by localized restricted horizontal or vertical flow, and upward movement of water with higher dissolved-solids concentration from deeper formations in response to pumping.

Summary

The Mississippi River Valley alluvial aquifer is increasingly relied upon for agriculture and aquaculture in eastern Arkansas. Since 1965, withdrawals from the alluvial aquifer have increased from about 1,063 Mgal/d to about 7,252 Mgal/d in 2005, an increase of about 582 percent. Withdrawals have more than doubled in the last 20 years, about a 105 percent increase since 1985.

Ground-water levels are affected by ground-water withdrawals within the study area, resulting in depressions. In 2006, the lowest water-level altitude was 76 ft in the center of Arkansas County. The highest water-level altitude was 289 ft in northeastern Clay County on the west side of Crowleys Ridge. The elongated depression in Arkansas, Lonoke, and Prairie Counties has two areas that have changed in horizontal extent or depth when compared to previous conditions of the

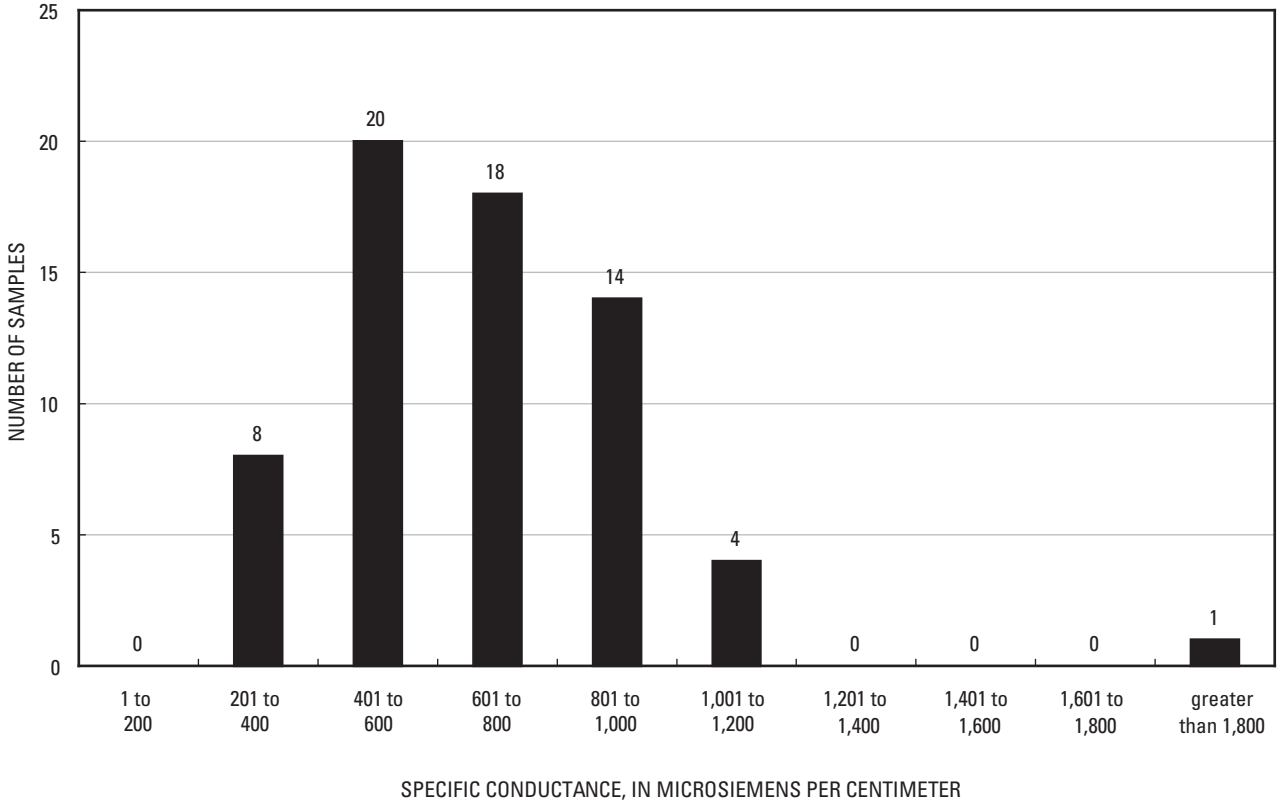

Figure 5. Distribution of specific conductance in samples from wells completed in the Mississippi River Valley alluvial aquifer, 2006.

alluvial aquifer. The area in Arkansas County at the southeastern half of the depression has not expanded horizontally from recent years, although the center of the depression has deepened. The Arkansas and White Rivers, which bound Arkansas County on the southwestern and eastern county lines, are hydrologically connected and provide recharge to the alluvial aquifer. The area in Lonoke and Prairie Counties in the northwestern half of the depression has expanded horizontally in the deeper part of the depression. The 90-foot contour has expanded north and east in Lonoke County when compared with the 2004 potentiometric surface.

Along the west side of Crowleys Ridge, the two previously documented areas of depression expanded and coalesced into a single depression by 2002. The 2006 potentiometric-surface map shows little change in the area of this depression, although the deeper areas within the depression have expanded. The area in Lee, Monroe, St. Francis, and Woodruff Counties was similar in area to the 2004 potentiometric-surface map. The area in Cross and Poinsett Counties in 2004 has expanded north into Craighead County and east to intersect with Crowleys Ridge in the 2006 potentiometric-surface map.

Three areas of reduced water level were identified in previous work in southeastern Arkansas—one in eastern Lincoln County, a second that extends from southern Desha County into northern Chicot County, and a third that extends from western Chicot County into eastern Ashley County. The area of reduced water level in southern Desha and northern Chicot Counties has expanded further north into Desha County and south into Chicot County in 2006. The area in eastern Lincoln County has expanded into northwestern Desha County and westward in Lincoln County in 2006, with a measured altitude of 119 ft as in 2004. In 2006, the depth of the area in western Chicot and eastern Ashley Counties has not increased and is approximately the same as in the 2004 potentiometric surface. An area of reduced water level in Greene County has expanded and deepened.

Six depressions are shown in the 2006 potentiometric-surface map that are not shown in previous alluvial aquifer potentiometric surfaces. A depression at the Prairie and White County line, a second depression at the Craighead and Mississippi County line, and four small depressions are located in northern Desha, southeastern Jefferson, northern Lee, and northeastern St. Francis Counties. Continued monitoring of the potentiometric surface will determine if these depressions are the result of short-term variations or long-term changes in the hydrologic conditions in the alluvial aquifer.

The regional direction of ground-water flow is generally to the south and east except where flow is affected by ground-water withdrawals; however, the flow direction is affected over substantial areas by depressions. West of Crowleys Ridge, depressions in Arkansas, Lonoke, and Prairie Counties capture ground-water flow from all direction. The flow along large sections of the Arkansas, Mississippi, and White Rivers is away from the rivers.

A map showing the difference in water level was constructed using 645 differences in water levels measured in 633 wells during 2006 and 2002. The difference in measured water levels from 2002 to 2006 ranged from -24.0 ft to 25.0 ft, with a mean of -2.0 ft. The largest decline of -24.0 ft occurred in Poinsett County and the largest rise of 25.0 ft occurred in Randolph County. Out of the 645 differences, 481 were declines (74.6 percent), 12 were no difference (values of 0.0 ft) (1.8 percent), and 152 were rises (23.6 percent). The three areas that have the most declines are west of Crowleys Ridge, eastern Craighead and Mississippi Counties, and in eastern Lonoke and Prairie Counties. Five areas are dominated by rises in measured water levels. The largest area is in western and southern Arkansas, southeastern Jefferson, and northern Desha Counties adjacent to the Arkansas River. Other areas are in eastern Cross and northern Crittenden Counties, western Lonoke County, southeastern White County, and adjacent to the eastern boundary of Crowleys Ridge in Craighead and Greene Counties.

Long-term water-level trends were evaluated using hydrographs from 152 wells in the alluvial aquifer for the period 1982 to 2006. The mean annual rise or decline in water level for the entire study area was -0.32 ft/yr with a range of –1.28 to 0.77 ft/yr. Independence and White Counties are the only counties with a mean annual rise from 1982 to 2006. Mean annual declines between -0.50 ft/yr and 0.00 ft/yr occurred in Arkansas, Ashley, Chicot, Clay, Craighead, Crittenden, Drew, Jefferson, Lee, Mississippi, Monroe, Phillips, Poinsett, Prairie, Pulaski, Randolph, and Woodruff Counties. Mean annual declines between -1.00 ft/yr and -0.50 ft/yr occurred in Cross, Desha, Greene, Jackson, Lincoln, Lonoke, and St. Francis Counties.

The analysis of long-term water-level changes (1982 to 2006)in Arkansas, Lonoke, and Prairie Counties shows the elongation of the depression in these three counties. Arkansas and Prairie Counties have two different rates of annual decline for the two hydrographs shown for each county. Water levels in the two wells near the Arkansas and White Rivers have risen or declined at a slower rate than in the three wells in the center, northern, and western part of the depression. These rates of water-level change indicate that this depression is expanding in an elongated direction north and west into Lonoke and Prairie Counties. The depression west of Crowleys Ridge has five wells with hydrographs in or near the depression that can be used to characterize the rates of water-level change within the depression.

Water samples were collected from 65 wells completed in the alluvial aquifer and measured onsite for specific conductance and temperature. Specific conductance ranged from 267 µS/cm at a well in Clay County to 2,960 µS/cm at a well in Chicot County. Four areas of relatively high specific conductance (greater than or equal to 1,000 µS/cm) occur in Arkansas, Chicot, Craighead, and Prairie Counties.

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Appendixes 1-3

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Arkansas County								
02S04W11DBB1	343233	912415	USGS	152	213.04	100.70	112	4/10/2006
02S05W15AAB1	343213	913127	USGS	180	213	105.10	108	4/10/2006
03S02W27ABB1	342448	911251	USGS	87	197	67.53	129	4/06/2006
03S03W05CCD1	342737	912132	USGS	150	201	98.18	103	4/10/2006
03S03W27BBC1	342455	911944	USGS	120	195	91.65	103	4/10/2006
03S04W02BBB1	342831	912454	USGS	116	197.63	92.23	105	4/10/2006
03S04W03DCA16	342753	912515	USGS	126	205	100.45	105	5/02/2006
03S04W03DCA6	342753	912517	USGS	122.3	204	99.73	104	4/10/2006
03S04W03DDA1	342750	912460	USGS	127	202	100.05	102	4/10/2006
03S05W03CCC1	342752	913227	USGS	110	215	104.40	111	4/10/2006
03S06W35ADD1	342411	913652	USGS	--	190	52.89	137	4/07/2006
04S01W04ACD2	342233	910733	USGS	52.4	155	5.74	149	4/06/2006
04S01W31DCB1	341753	910949	USGS	130	179	52.65	126	4/06/2006
04S02W11AAA1	342209	911123	USGS	--	195.08	69.10	126	4/06/2006
04S02W29CCC1	341846	911539	USGS	140	191	86.52	104	4/06/2006
04S03W17ADD1	342102	912058	USGS	--	200	107.72	92	4/10/2006
04S03W32BCB1	341820	912202	USGS	--	192	116.45	76	4/10/2006
04S04W02ABB1	342313	912424	USGS	155	200	108.63	91	4/10/2006
04S04W35ABC1	341835	912437	NRCS	--	193	106	87	4/12/2006
04S05W16CDC1	342045	913321	USGS	120	201	69.35	132	4/07/2006
04S05W24DAA1	342001	912930	USGS	150	198	90.01	108	4/10/2006
04S06W15DBB1	342122	913827	USGS	100	190	33.06	157	4/07/2006
05S01W16BAB1	341552	910729	USGS	--	183	51.05	132	4/06/2006
05S02W16ABD1	341552	911358	USGS	154	190	83.30	107	4/06/2006
05S04W07CCC1	341555	912932	USGS	120	194	74.27	120	4/06/2006
05S04W32BBA1	341316	912822	USGS	--	191	57.42	134	4/06/2006
05S06W02DDD1	341724	913651	USGS	60	182.93	20.64	162	4/07/2006
05S06W07DDC1	341642	914130	USGS	32	180.48	2.39	178	4/07/2006
06S02W23DCD1	340853	911206	USGS	--	188	69.74	118	4/06/2006
06S03W10BBA1	341136	911954	USGS	155	184	81.98	102	4/06/2006
06S03W27AAA1	340858	911913	USGS	132	183.14	66.68	116	4/06/2006
07S02W04BBB1	340707	911452	USGS	--	176	42.20	134	4/06/2006
07S02W17BBA1	340530	911539	USGS	95	184	54.51	129	4/06/2006
07S03W18CCD1	340435	912316	USGS	--	186.18	42.41	144	4/06/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Arkansas County—Continued								
07S03W32BBC1	340240	912216	USGS	128	176.92	24.72	152	4/06/2006
07S04W01DDD1	340625	912327	USGS	155	186	47.10	139	4/06/2006
08S02W08ACA1	340041	911506	USGS	--	179	45.13	134	4/06/2006
08S03WT2299	340147	912203	USGS	158	178	21.47	157	4/06/2006
Ashley County								
15S04W23DBD1	332247	912852	USGS	--	128	32.00	96	3/15/2006
15S04W26DCC1	332232	912902	USGS	64.1	127	31.09	96	3/15/2006
15S07W21CBA1	332316	915001	USGS	27.4	210	6.60	203	3/15/2006
16S06W08CAA1	331941	914438	USGS	105	185	78.28	107	3/15/2006
16S06W27BAB1	331729	914240	USGS	115	182	83.84	98	3/15/2006
17S04W03ABB1	331528	913010	USGS	105	124	30.22	94	3/15/2006
17S04W15DDC1	331252	912954	USGS	57	116	26.50	90	3/15/2006
17S04W21ABA1	331252	913108	USGS	--	117	23.56	93	3/15/2006
17S06W01ADD1	331518	913956	USGS	144	182	83.58	98	3/15/2006
17S06W35CAC1	331049	914136	USGS	140	179	72.62	106	3/15/2006
18S05W11CCD1	330841	913538	NRCS	75	118	22.8	95	3/25/2006
18S05W22DDA1	330712	913555	NRCS	100	125	21.0	104	3/25/2006
18S08W01AAB1	331015	915225	USGS	128	181	86.63	94	3/15/2006
18S08W28DDD2	330625	915528	USGS	156	163.26	84.96	78	5/09/2006
19S04W06BAB2	330504	913329	USGS	98	110	23.67	86	3/15/2006
19S05W08ACA1	330405	913815	NRCS	--	111	17.3	94	3/25/2006
19S05W16ABB1	330323	913718	NRCS	100	116	24.0	92	3/25/2006
19S05W22DCD1	330139	913615	NRCS	--	107	23.2	84	3/25/2006
19S06W07BCC1	330404	914608	USGS	--	134.7	31.04	104	3/15/2006
Chicot County								
13S03W27AAA1	333253	912310	NRCS	--	138	46	92	3/27/2006
13S03W34BAA1	333110	912539	USGS	100	133	40.32	93	3/16/2006
13S03W34CAA1	333136	912336	USGS	75	132	37.08	95	3/16/2006
13S03W35BAC1	333154	912246	USGS	90	134	39.58	94	3/16/2006
14S02W09BDD1	332859	911729	NRCS	--	133	29	104	3/27/2006
14S02W18BBDD1	332859	912038	NRCS	--	129	32	97	4/05/2006
14S03W07BBD1	333011	912620	USGS	77	134	26.56	107	3/16/2006
14S03W32CDB2	332613	912551	USGS	90	134	34.86	99	3/16/2006
15S02W20DDC1*	332227	911920	USGS	70	126	27.91	98	3/16/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Chicot County—Continued								
15S02W20DDC1*	332227	911920	NRCS	70	126	29	97	3/22/2006
16S03W11ADC1	331920	912234	USGS	--	118	28.93	89	3/16/2006
17S01E17CDA1	331259	910716	USGS	110	118	20.25	98	3/16/2006
17S01E18ADA1	331326	910758	USGS	--	121	11.04	110	3/16/2006
17S01W06BCC1	331501	911505	USGS	100	115	21.03	94	3/16/2006
17S02W10AAA1	331429	911712	USGS	90	114	26.35	88	3/16/2006
17S03W18CBC1	331257	912736	NRCS	--	117	33	84	3/22/2006
17S03W28DBA1	331127	912441	USGS	95	110	24.33	86	3/16/2006
18S01W19DAB1	330709	911423	USGS	--	110	13.07	97	3/15/2006
18S01W33BAD1	330543	911245	NRCS	--	116	18	98	3/22/2006
18S03W22ABA2	330728	912341	USGS	85.5	103	10.56	92	3/15/2006
19S01W17BCC1	330250	911406	USGS	120	106	19.76	86	3/15/2006
19S03W14ABB1	330304	912251	USGS	95	111	23.74	87	3/15/2006
Clay County								
18N08E03DAB1	361323	901153	USGS	105	257	7.89	249	4/18/2006
18N08E11BAA1	361253	901117	NRCS	100	259	7	252	4/12/2006
19N03E24AAA1	361655	904157	USGS	--	278	20.12	258	4/18/2006
19N04E11DAA1	361805	903621	NRCS	--	280	23	257	4/12/2006
19N04E19AAA1	361654	904050	USGS	--	282	31.07	251	4/18/2006
19N04E19BAA1	361649	904125	NRCS	100	279	22	257	4/12/2006
19N05E15BBD1	361716	903152	NRCS	110	289	34	255	4/12/2006
19N06E18DBC1	361642	902815	NRCS	--	297	37	260	4/13/2006
19N07E25BCB1	361519	901700	NRCS	--	268	18	250	4/12/2006
19N08E08DCA1	361729	901402	NRCS	--	270	7	263	4/12/2006
19N09E19CDC1	361539	900908	NRCS	--	265	8	257	4/12/2006
20N03E25BAA1	362112	904225	NRCS	100	288	22	266	4/13/2006
20N04E03ADA1	362425	903725	NRCS	--	290	16	274	4/13/2006
20N04E06BB1	362444	904131	USGS	110	290	19.97	270	4/18/2006
20N05E22CAD1	362118	903132	NRCS	--	290	31	259	4/12/2006
20N05E30CAC1	362003	903454	NRCS	--	283	18	265	4/12/2006
20N05E34DBA1	361939	903117	USGS	110	285	29.31	256	4/18/2006
20N06E09BBA1	362327	902620	NRCS	--	290	22	268	4/12/2006
20N06E28CCD1	362005	902630	NRCS	--	290	29	261	4/12/2006
20N08E22BDC1	362111	901220	NRCS	--	275	9	266	4/12/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Clay County—Continued								
20N08E24DDA1	362057	900934	USGS	110	276	9.75	266	4/18/2006
20N09E09ABC1	362306	900642	NRCS	--	279	8	271	4/12/2006
20N09E33DDC1	361904	900628	NRCS	--	270	7	263	4/12/2006
21N03E15CBC1	362738	904453	NRCS	90	292	11	281	4/13/2006
21N03E36CDD1	362450	904214	NRCS	--	290	19	271	4/13/2006
21N04E09DBC1	362828	903853	NRCS	--	291	13	278	4/13/2006
21N05E17ABB1	362755	903329	USGS	105	298	23.23	275	4/17/2006
21N05E22BAB1	362704	903132	NRCS	105	288	7	281	4/13/2006
21N06E11BBB1	362839	902421	NRCS	100	296	15	281	4/13/2006
21N06E28BB1	362605	902608	USGS	130	292.5	19.19	273	4/17/2006
21N07E01DDC1	362835	901607	NRCS	90	303	26	277	4/13/2006
21N08E03CDB1	362848	901217	NRCS	--	308	19	289	4/13/2006
21N08E18CCC1	362651	901550	USGS	110	324	38.64	285	4/17/2006
21N08E36ABB1	362502	900958	USGS	90	283	4.05	279	4/18/2006
21N09E31BDA1	362447	900851	NRCS	100	284	7	277	4/12/2006
Craighead County								
13N01E03AAA1	354739	905753	NRCS	135	240	54.7	185	3/01/2006
13N01E21CAB	354434	905945	NRCS	120	240	62.0	178	3/01/2006
13N01E23CAB1	354430	905736	NRCS	118	245	68.5	177	3/01/2006
13N01E23DAA1	354435	905652	USGS	118	242	71.02	171	4/19/2006
13N02E02AAB1	354731	905032	NRCS	130	251	92.2	159	3/01/2006
13N02E03AAA1	354733	905129	NRCS	105	250	86.9	163	3/01/2006
13N03E23CDA1	354419	904434	NRCS	135	249	79.6	169	3/02/2006
13N03E28CDB1	354322	904652	NRCS	121	250	109.0	141	3/02/2006
13N03E29AAA1	354403	904713	USGS	122	251	103.76	147	4/19/2006
13N03E35AAA1	354308	904401	NRCS	150	249	94.0	155	3/02/2006
13N04E12ABB1	354635	903656	USGS	110	231	23.82	207	4/19/2006
13N04E15DBA1	354521	903857	NRCS	130	230	26.6	203	3/02/2006
13N04E26BCC1	354340	903829	NRCS	100	225	26.5	199	3/02/2006
13N05E02CCC1	354648	903202	NRCS	120	230	12.9	217	3/02/2006
13N05E06DCC1	354637	903547	NRCS	110	229	20.0	209	3/02/2006
13N05E22BAD1	354449	903243	USGS	--	226	15.39	211	4/19/2006
13N05E24BAC1	354451	903045	NRCS	120	225	12.2	213	3/02/2006
13N06E21AAA1	354450	902701	NRCS	150	222	10.0	212	3/02/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Craighead County—Continued								
13N07E02CAB1	354642	901901	NRCS	120	226	5.0	221	3/02/2006
13N07E05ABB1	354716	902158	NRCS	100	225	5.5	220	3/02/2006
13N07E20BBA1	354440	902216	USGS	22.3	223.2	5.42	218	4/19/2006
13N07E35BCD1	354233	901837	NRCS	120	221	12.3	209	3/02/2006
14N01E03ACB1	355246	905816	NRCS	96	249	50.9	198	3/01/2006
14N01E10BAB1	355204	905828	NRCS	96	246	51.1	195	3/01/2006
14N01E31DCA1	354817	910121	NRCS	126	251	59.1	192	3/01/2006
14N02E18BDD1	355041	905419	USGS	120	242	51.76	190	4/19/2006
14N02E22AAA1	355007	905129	NRCS	132	255	74.8	180	3/01/2006
14N05E25ABB1	354921	903025	USGS	--	238	21.54	216	4/19/2006
14N06E06BAA1	355234	902934	NRCS	120	240	22.4	218	3/02/2006
14N06E27AAB1	354911	902559	USGS	30.3	225.93	3.1	223	4/19/2006
14N07E14DDC1	354956	901831	NRCS	120	230	13.5	217	3/02/2006
14N07E26DBB1	354834	901843	USGS	100	228	9.76	218	4/19/2006
15N02E12DCB1	355626	904930	NRCS	120	250	34.5	216	3/01/2006
15N03E19ADA1	355502	904802	USGS	116	262	49.16	213	4/19/2006
15N03E31ADA1	355314	904807	NRCS	150	270	63.9	206	3/01/2006
15N05E22BAB1	355513	903241	NRCS	197	260	34.8	225	3/02/2006
15N06E04BAD1	355744	902706	NRCS	104	239	15.5	224	3/02/2006
15N06E20DDD1	355426	902739	USGS	--	234	11.22	223	4/19/2006
15N07E10DAB1	355622	901934	NRCS	106	235	9.8	225	3/02/2006
15N07E10DBA1	355628	901944	USGS	120	236	9.44	227	4/19/2006
15N07E35DCB1	355241	901831	NRCS	120	231	14.6	216	3/02/2006
Crittenden County								
04N07E21AAD1	345644	902121	USGS	82.1	202	13.49	189	3/30/2006
05N07E08BDC1	350407	902234	NRCS	110	204	22.8	181	4/27/2006
05N07E28CBA1	350121	902140	USGS	--	201	19.43	182	3/30/2006
05N07E34BAB1	350059	902030	USGS	100	203	19.46	184	3/30/2006
05N07E34CDD1	350010	902028	NRCS	110	205	19.0	186	4/26/2006
05N08E11CCD2	350345	901308	USGS	63	211	28.32	183	3/30/2006
06N07E13BAA1	350850	901808	USGS	130	205	20.28	185	3/30/2006
06N07E14ABA1	350848	901858	NRCS	110	211	20.4	191	4/26/2006
07N06E29CBC1	351152	902914	NRCS	120	210	39.1	171	4/26/2006
07N07E31CCC1	351042	902359	USGS	110	207	34.92	172	3/30/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Crittenden County—Continued								
07N08E04BBD1	351538	901505	NRCS	120	224	19.1	205	4/25/2006
07N09E05CDD1	351453	900934	USGS	120	214	16.94	197	3/30/2006
08N06E01DCC1	352021	902408	NRCS	120	215	32.0	183	4/25/2006
08N06E06DDB1	352030	902920	NRCS	120	214	30.2	184	4/25/2006
08N07E13CCC2	351828	901812	USGS	100	221	29.2	192	3/30/2006
08N07E14DAA2	351854	901833	USGS	--	219	29.98	189	3/30/2006
08N07E32DAA1	351618	902146	NRCS	110	215	29.0	186	4/25/2006
08N08E06ABB1	352103	901644	NRCS	110	223	29.0	194	4/25/2006
09N07E02CDB1	352537	901905	NRCS	130	225	31.7	193	4/25/2006
09N07E10DDA1	352448	901925	USGS	60	221	27.85	193	3/30/2006
09N07E31BAB1*	352160	902327	USGS	110	221	32.40	189	3/30/2006
09N07E31BAB1*	352160	902327	NRCS	110	221	31.8	189	4/25/2006
09N08E04CDC1	352527	901444	NRCS	120	225	24.1	201	4/25/2006
Cross County								
06N02E04DCD1	350953	905322	NRCS	--	217	79	138	4/27/2006
06N02E11BDB1	350934	905132	NRCS	--	220	62	158	4/26/2006
06N02E12AAA1	350934	904952	NRCS	--	235	78	157	4/26/2006
06N04E01BBB1	351044	903739	NRCS	--	205	37	168	5/04/2006
06N05E03AAD1	351028	903218	NRCS	100	208	39	169	5/04/2006
06N05E05AAA1	351042	903432	NRCS	130	205	30	175	5/04/2006
07N01E05CDA1	351518	910049	USGS	140	217	73.64	143	3/29/2006
07N01E05DCA1	351514	910033	NRCS	160	215	73	142	4/26/2006
07N01E06AAB1	351556	910132	NRCS	--	218	72	146	4/24/2006
07N01E06CAA1	351530	910154	NRCS	--	220	73	147	4/24/2006
07N01E11AAA1	351501	905705	USGS	120	217	76.58	140	3/29/2006
07N01E22BBB1	351321	905913	NRCS	100	215	68	147	4/24/2006
07N01E33BBA1	351134	910010	NRCS	--	215	68	147	4/24/2006
07N02E02BBB1	351601	905144	NRCS	--	227	75	152	4/26/2006
07N02E02DCC1	351512	905112	NRCS	--	224	80	144	4/27/2006
07N02E10ABB1	351504	905217	NRCS	--	230	84	146	4/27/2006
07N02E12BBC1	351447	905040	NRCS	100	225	80	145	4/27/2006
07N02E15DAA1	351330	905149	NRCS	--	218	79	139	4/27/2006
07N02E29AAA1	351223	905404	NRCS	--	220	69	151	4/26/2006
07N02E29CCC1	351142	905152	NRCS	--	220	70	150	4/26/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Cross County—Continued								
07N02E29DDC1*	351138	905409	USGS	100	220	72.26	148	3/29/2006
07N02E29DDC1*	351138	905409	NRCS	100	220	70	150	4/24/2006
07N03E05ADA1	351549	904739	USGS	160	254	124.05	130	3/29/2006
07N03E32DCC1	351045	904810	USGS	--	251	96.38	155	3/29/2006
07N04E03BDA1	351546	903925	NRCS	--	205	29	176	5/01/2006
07N04E04DBB1	351534	904021	NRCS	--	201	30	171	5/01/2006
07N04E07AAA1	351510	904207	NRCS	--	223	45	178	5/01/2006
07N04E27BDA1	351220	903926	NRCS	--	203	27	176	5/03/2006
07N05E02AAB1	351600	903103	NRCS	--	210	41	169	5/04/2006
07N05E16ACA1	351358	903352	NRCS	--	210	33	177	5/04/2006
07N05E19CCC1	351238	903645	USGS	--	207	37.27	170	3/29/2006
07N05E24CCC1	351232	903121	NRCS	110	205	34.9	170	4/26/2006
07N05E25ABA1	351229	903045	USGS	140	205	36.71	168	3/29/2006
07N05E32DDC1	351053	903500	NRCS	--	205	38	167	5/04/2006
08N01E02CDD1	352023	905736	NRCS	--	226	84	142	4/27/2006
08N01E05DBB1	352044	910038	NRCS	--	223	76	147	4/24/2006
08N01E16DBB1	351855	905933	NRCS	140	225	84	141	4/27/2006
08N01E17CAD1	351852	910046	NRCS	--	220	74	146	4/24/2006
08N01E32CBB1	351622	910048	NRCS	--	221	71	150	4/24/2006
08N02E12DCC1	351938	905002	NRCS	--	230	88	142	4/27/2006
08N02E17AAA1	351923	905354	NRCS	--	225	85	140	4/27/2006
08N02E29CBA1	351715	905438	NRCS	--	225	80	145	4/27/2006
08N03E15BBB1	351942	904620	NRCS	--	265	112	153	4/27/2006
08N04E34CCD1	351605	903945	NRCS	--	205	28	177	5/01/2006
08N05E17CAA1	351904	903508	NRCS	--	211	30	181	5/04/2006
08N05E32ADD1	351632	903440	USGS	--	204	29.57	174	3/29/2006
09N01E04ACD1	352608	905914	NRCS	140	225	88	137	4/24/2006
09N01E33BBA1	352204	905959	NRCS	120	225	79	146	4/26/2006
09N01E33BBA2	352203	910001	USGS	--	225	81.10	144	3/29/2006
09N01E36AAB1	352155	905605	NRCS	160	225	85	140	4/27/2006
09N01E36BBB1	352200	905650	NRCS	90	226	85	141	4/27/2006
09N02E17AAB1	352438	905359	NRCS	100	232	94	138	4/27/2006
09N02E20AAA1	352402	905342	NRCS	120	231	94	137	4/27/2006
09N02E30CBB1	352243	905551	NRCS	--	225	87	138	4/27/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Cross County—Continued								
09N02E32BBB1	352213	905444	NRCS	--	226	94	132	4/28/2006
09N03E03ACA1	352630	904529	NRCS	--	250	106	144	4/27/2006
09N03E17CDD1	352422	904753	NRCS	--	245	99	146	4/27/2006
09N03E17DDC1	352409	904726	USGS	160	251	105.65	145	3/29/2006
09N03E18ABC1	352448	904851	NRCS	--	235	98	137	4/27/2006
09N04E01AAC1	352622	903648	NRCS	--	205	15	190	5/04/2006
09N04E03DBB1	352614	903918	NRCS	120	215	25	190	5/04/2006
09N04E33ABC1	352204	904020	NRCS	--	216	37	179	5/04/2006
09N05E10ACC1	352511	903249	NRCS	120	210	23	187	5/04/2006
09N05E15CBC1	352413	903302	NRCS	--	210	23	187	5/04/2006
09N05E32BCB1	352151	903525	NRCS	--	206	30	176	5/04/2006
09N05E32BDB1	352151	903512	USGS	--	210	30.63	179	3/29/2006
Desha County								
07S01E19ABA1	340428	910303	NRCS	120	154	21	133	4/12/2006
08S03W33ABD1	335803	912338	USGS	60	165.04	7.24	158	3/17/2006
09S01W08BDA1	335608	911234	NRCS	--	156	28	128	4/07/2006
09S01W15CBB1	335501	911055	NRCS	--	152	36	116	4/07/2006
09S02W26DDC1	335257	911530	USGS	94	149.27	29.33	120	5/09/2006
09S03W05BAC1	335704	912506	NRCS	--	161	42	119	4/07/2006
09S03W13BAB1	335500	911922	NRCS	--	156	32	124	4/07/2006
09S03W17DCB1	335448	912457	USGS	126	155.08	32.95	122	3/17/2006
09S04W06BCA1	335756	913243	USGS	--	161	34.92	126	3/17/2006
10S01W23CDA1	335305	911032	NRCS	--	151	26	125	4/07/2006
10S02W11ADD1	335045	911517	NRCS	--	146	28	118	4/07/2006
10S02W24DBC1	334850	911453	USGS	70	143	25.53	117	3/17/2006
10S03W26CAA1	334806	912145	USGS	96	155	44.80	110	3/17/2006
10S04W03ABB1	335208	912931	USGS	100	165	33.71	131	5/18/2006
10S04W03BAB1	335209	912948	USGS	100	166	35.09	131	5/18/2006
10S04W11DDA1	335031	912802	USGS	100	155	31.50	124	5/18/2006
10S04W12DBB1	335102	912729	USGS	99	152	28.95	123	5/18/2006
11S02W15ADD1	334446	911635	NRCS	--	144	34	110	4/07/2006
11S03W16CBA1	334439	912433	NRCS	--	155	31	124	4/07/2006
11S03W31BBA1	334228	912651	USGS	--	148	35.14	113	3/17/2006
12S01W33BAA1	333718	911205	USGS	95	135	23.92	111	3/17/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Desha County—Continued								
13S02W17ADA1	333421	911858	NRCS	--	138	45	93	4/07/2006
13S02W27CAC1	333224	911735	USGS	120	133	30.83	102	3/17/2006
13S02W32DBD1	333126	911917	NRCS	--	135	43	92	4/07/2006
13S03W10DAA1	333506	912302	USGS	86	140	47.12	93	3/17/2006
13S03W11CAB1	333503	912241	NRCS	--	142	51	91	4/07/2006
Drew County								
11S04W08DBA1	334532	913136	USGS	70	160	25.14	135	3/16/2006
11S05W08CCC1	334546	913837	USGS	153	185	36.48	149	3/16/2006
12S04W03ABB1	334134	912946	USGS	--	155	24.23	131	3/16/2006
12S04W25DBB1	333739	912738	NRCS	90	149	34	115	4/13/2006
13S04W09ACD1	333512	913034	NRCS	90	145	19	126	4/13/2006
13S04W28CDD1	333206	913100	USGS	65	139	17.63	121	3/16/2006
13S04W33BAA1	333206	913100	USGS	130	138	18.14	120	3/16/2006
13S05W29ADA1	333248	913747	USGS	--	185	40.50	145	3/16/2006
13S06W03DDC1	333545	914202	USGS	110	191	62.17	129	3/16/2006
13S06W21DAA1	333324	914258	NRCS	142	207	74	133	4/13/2006
14S04W03ADD1	333050	912929	NRCS	92	141	27	114	4/13/2006
14S04W05CBA1	333047	913218	NRCS	90	131	14	117	4/13/2006
14S04W05CBC1	333042	913226	NRCS	90	131	15	116	4/13/2006
14S04W22CAA1	332805	912957	NRCS	100	135	13	122	4/13/2006
14S05W23DCB1	332802	913512	USGS	42	161	29.77	131	3/16/2006
15S04W13DAD1	332338	912730	NRCS	--	131	38	93	4/06/2006
Greene County								
16N03E03BA1	360316	904516	USGS	100	260	30.73	229	4/18/2006
16N03E05BBB1	360316	904750	NRCS	105	257	30.5	227	4/11/2006
16N03E16DDD1	360049	904547	NRCS	100	258	26.8	231	4/11/2006
16N03E29ACC1	355926	904722	NRCS	100	257	31.5	226	4/11/2006
16N06E09ABB1	360215	902651	NRCS	90	261	49.9	211	4/11/2006
16N06E21BAA1	360031	902705	NRCS	130	249	27.1	222	4/11/2006
16N06E28ABB1	355938	902657	USGS	--	251	25.76	225	4/18/2006
17N03E02BDB1	360832	904413	USGS	115	266	32.60	233	4/18/2006
17N04E07AD1	360718	904122	NRCS	100	273	42.6	230	4/11/2006
17N04E30CDC1	360409	904218	USGS	100	265	37.39	228	4/18/2006
17N06E15ABC1	360631	902546	NRCS	168	268	31.1	237	4/11/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Greene County—Continued								
17N07E03CCC1	360744	901951	NRCS	87	246	5.8	240	4/11/2006
17N07E18ABB1	360638	902235	USGS	--	245	8.86	236	4/18/2006
17N07E29CBC1	360419	902201	NRCS	80	245	6.3	239	4/11/2006
18N04E04AAC1	361356	903854	NRCS	127	273	32.6	240	4/11/2006
18N04E21CBD1	361052	903725	USGS	--	294	55.63	238	4/18/2006
18N06E23ABB1	361109	902402	NRCS	145	280	14.9	265	4/11/2006
18N07E17BAB1	361203	902105	NRCS	100	262	11.3	251	4/11/2006
18N07E20BBA1	361110	902113	USGS	--	257	10.92	246	4/18/2006
19N03E26AD1	361601	904258	USGS	100	281	29.50	252	4/18/2006
19N03E33DDD1	361418	904516	NRCS	100	276	36.0	240	4/11/2006
19N05E34AAD1	361437	903102	NRCS	130	282	34.2	248	4/11/2006
Independence County								
11N04W02ABB1	353650	912416	NRCS	--	227	10.2	217	4/04/2006
12N04W14DD1	353929	912236	USGS	60	231	27.03	204	3/23/2006
12N04W34CBB1	353720	912513	USGS	--	231	23.51	207	3/23/2006
12N05W36AAA1	353738	912827	USGS	--	236	25.64	210	3/23/2006
14N03W12CAB1	355152	911541	NRCS	--	230	2.8	227	4/04/2006
14N03W14CBB1	355101	911703	NRCS	--	235	2.4	233	4/04/2006
14N03W14DAA2	355107	911602	USGS	--	230	4.89	225	3/23/2006
14N03W14DBB1	355106	911640	USGS	65	230	5.93	224	3/23/2006
Jackson County								
09N01W15DDD1	352357	910433	NRCS	90	220	54.6	165	4/20/2006
09N01W22ADD1	352332	910433	USGS	125	215	61.72	153	3/27/2006
09N01W30BAC1	352258	910813	NRCS	120	218	44.5	174	4/20/2006
09N02W32BBB1	352215	911344	NRCS	100	220	34.0	186	4/20/2006
09N02W32CBB1	352152	911348	USGS	117	220	30.29	190	3/27/2006
10N01W05ADD1	353132	910702	NRCS	--	227	47.3	180	4/20/2006
10N01W10ABA1	353055	910445	NRCS	135	223	59.2	164	4/20/2006
10N02W29ABB1	352829	911312	USGS	--	227	27.94	199	3/27/2006
11N01W26AAD1*	353330	910323	USGS	95	227	67.06	160	3/24/2006
11N01W26AAD1*	353330	910323	NRCS	95	227	66.2	161	4/20/2006
11N01W29AAD1	353339	910635	USGS	97	225	39.07	186	3/24/2006
11N02W25BBD1	353322	910855	NRCS	100	221	26.0	195	4/20/2006
11N03W05CAB1	353655	912008	NRCS	95	225	21.1	204	4/12/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Jackson County—Continued								
11N03W06DAB1	353655	912009	USGS	100	223	22.23	201	3/24/2006
12N01W11BCB1	354127	910416	NRCS	110	233	38.2	195	4/12/2006
12N01W30CCC2	353812	910821	NRCS	140	227	33.0	194	4/12/2006
12N01W36CBC1	353724	910317	NRCS	120	236	52.9	183	4/12/2006
12N02W25ABB2	353910	910852	USGS	--	234	33.24	201	3/24/2006
13N01W20AAA1	354514	910627	USGS	147	242	39.26	203	3/27/2006
13N03W15CDD1	354526	911749	USGS	--	232	16.93	215	3/27/2006
13N03W15DCB1	354540	911718	NRCS	80	238	17.9	220	4/12/2006
13N03W36ABB1	354337	911532	NRCS	110	241	16.6	224	4/12/2006
14N01W08AAA1	355216	910623	NRCS	80	252	36.0	216	4/12/2006
14N01W09AAA1	355220	910515	USGS	--	251	42.43	209	3/27/2006
14N01W19BBB1	355032	910823	NRCS	100	246	32.0	214	4/12/2006
14N01W26BCB1	354922	910407	NRCS	110	247	43.3	204	4/12/2006
14N01W33CCD1	354759	910610	NRCS	100	245	39.3	206	4/12/2006
14N02W22BBC1	355026	911145	NRCS	100	250	28.0	222	4/12/2006
Jefferson County								
03S08W24BBC1	342620	914953	USGS	135	202	51.03	151	4/03/2006
03S09W06DDA1	342840	920037	USGS	--	225	37.94	187	4/03/2006
03S09W14BCD1	342712	915713	NRCS	--	220	56.0	164	4/06/2006
03S09W22AAA1	342640	915728	NRCS	100	218	40.7	177	4/06/2006
03S09W29CBD1	342517	920023	USGS	--	216	29.11	187	4/03/2006
03S09W36ACC1	342428	915555	NRCS	--	214	27.9	186	4/07/2006
03S10W25BCA2	342537	920242	NRCS	--	216	18.8	197	4/06/2006
03S10W26BBB2	342427	920250	NRCS	--	215	15.7	199	4/06/2006
04S07W35DDB1	341836	914347	NRCS	--	185	27.3	158	4/06/2006
04S08W13DCB1	342123	914926	USGS	110	204	48.34	156	4/03/2006
04S09W02CBD1	342325	915717	NRCS	110	212	33.3	179	4/06/2006
04S09W32DDA1	341859	920009	NRCS	--	212	23.0	189	4/06/2006
05S06W31CAA1	341330	914206	USGS	--	189.22	19.85	169	4/04/2006
05S07W29DDD1	341411	914654	NRCS	110	194	14.2	180	4/06/2006
05S08W12DAA1	341712	914907	USGS	101	194.25	18.98	175	4/03/2006
06S05W15BCA1	341023	913245	USGS	120	177.14	18.58	159	4/04/2006
06S06W23AAD1	341007	913712	USGS	107	189.01	21.23	168	4/04/2006
06S07W14BAA1	341125	914426	USGS	110	199	16.07	183	4/04/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

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Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Jefferson County—Continued								
07S07W16BAA1	340722	914828	NRCS	--	190	28.0	162	4/06/2006
07S08W06BAA1	340859	915647	USGS	160	202.31	18.65	184	4/04/2006
Lawrence County								
15N01E11ADD1	355657	905638	NRCS	100	255	44.4	211	4/18/2006
15N01E26DDA1	355402	905639	USGS	100	251	51.93	199	4/17/2006
15N01W03BAB1	355831	910441	NRCS	105	259	36.2	223	4/18/2006
15N01W35CBB1	355336	910356	USGS	--	250	44.98	205	4/17/2006
16N01E11DAC2	360203	905639	USGS	--	262	46.76	215	4/17/2006
16N01E35AAA1	355908	905632	NRCS	105	256	49.2	207	4/18/2006
16N01W30DDC1	355937	910723	NRCS	105	255	21.6	233	4/18/2006
16N02E09AAD1	360219	905212	NRCS	110	261	40.3	221	4/18/2006
16N02E34CBB1	355831	905208	NRCS	100	255	48.1	207	4/18/2006
17N01E02BBA1	360901	905707	NRCS	90	260	15.0	245	4/18/2006
17N01W36AAB1	360435	910158	NRCS	85	257	13.1	244	4/18/2006
17N02E04DCA1	360758	905224	NRCS	110	270	40.9	229	4/18/2006
17N02E19CDC1	360516	905449	USGS	105	265	38.94	226	4/17/2006
17N02E25CBD1	360423	904948	NRCS	100	265	38.1	227	4/18/2006
Lee County								
01N01E04AAB1	344358	910015	NRCS	140	175	29.3	146	5/02/2006
01N01E09CCC1	344215	910054	NRCS	140	182	32.5	150	5/02/2006
01N01E24CBD1	344033	905729	NRCS	140	185	16.3	169	5/03/2006
01N02E01ADD1	344330	905016	NRCS	140	207	28.0	179	5/02/2006
01N02E11BAB1	344255	905208	NRCS	140	202	32.0	170	4/22/2006
01N02E12ABB1	344254	905040	NRCS	140	206	27.0	179	5/02/2006
01N02E22CBA1	344056	905318	NRCS	140	200	28.5	172	5/02/2006
01N02E33CBB1	343858	905434	NRCS	140	186	16.0	170	5/02/2006
01N02E33CCB1	343851	905433	NRCS	140	185	14.0	171	5/02/2006
01N03E02BBC1	344339	904601	USGS	168	236.43	48.57	188	3/21/2006
01N03E27ADD1	343952	904605	NRCS	120	204	16.0	188	5/02/2006
01N03E35BBA1	343923	904549	USGS	120	202	10.24	192	3/21/2006
02N01E21BAA1	344633	910005	NRCS	140	185	35.3	150	5/02/2006
02N01E23BAA2	344632	905820	USGS	137	202	50.18	152	3/21/2006
02N01W12BAA1	344828	910330	USGS	95	185	43.52	141	3/21/2006
02N01W34DDC1	344410	910520	NRCS	140	180	52.0	128	5/02/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Lee County—Continued								
02N02E08ADC1	344807	905339	USGS	120	201	43.46	158	3/21/2006
02N02E21ABC1	344622	905358	USGS	120	200	37.73	162	3/21/2006
02N02E22BBB1	344628	905327	NRCS	140	200	28.0	172	5/02/2006
02N02E36DDC1	344355	905020	NRCS	140	205	26.5	179	5/02/2006
02N03E08AAD1	344811	904838	USGS	100	211	43.89	167	3/21/2006
02N03E09DDD1	344723	904707	NRCS	120	220	51.0	169	5/02/2006
02N03E29CAD1	344500	904846	NRCS	140	220	50.0	170	5/02/2006
02N04E03ABD1	344855	903954	NRCS	140	192	24.5	168	5/03/2006
02N04E15DAC1	344637	903950	USGS	60	192	17.62	174	3/21/2006
03N01E16CBA1	345222	910040	USGS	110	202	63.57	138	3/21/2006
03N01E32BCC1	344951	910150	NRCS	140	200	62.0	138	5/02/2006
03N02E12CDC1	345239	905053	NRCS	140	210	41.0	169	5/02/2006
03N02E13BBA1	345237	905107	USGS	65	212	49.98	162	3/22/2006
03N02E21CBC1	345111	905428	NRCS	140	209	54.0	155	5/02/2006
03N02E29DAD1	345014	905430	USGS	135	205	42.71	162	3/21/2006
03N03E05CDD1	345327	904837	NRCS	110	204	49.5	155	5/01/2006
03N03E18DAB1	345206	904919	NRCS	140	196	29.0	167	5/02/2006
03N03E32CAB1	344933	904926	USGS	116	204	49.92	154	3/22/2006
03N04E07CBB1	345245	904312	NRCS	140	200	30.0	170	5/01/2006
03N05E14DDA1	345148	903203	USGS	120	193	13.56	179	3/21/2006
03N05E26ADC1	345020	903215	NRCS	140	185	7.0	178	5/03/2006
Lincoln County								
07S06W03CCA2	340828	914114	NRCS	110	190	19	171	4/12/2006
07S07W36CBD1	340411	914529	NRCS	123	183	38	145	4/12/2006
08S04W06ABD1	340341	913116	NRCS	95	171	20	151	4/12/2006
08S04W08BBB2	340254	913101	USGS	65.2	171	21.87	149	3/20/2006
08S04W29ABC1	340021	913044	NRCS	100	176	41	135	4/12/2006
08S04W31CBA1	335901	913150	USGS	99	161.9	32.63	129	3/20/2006
08S05W12AAD1	340246	913214	NRCS	83	165	22	143	4/12/2006
08S05W21DCD1	340027	913533	NRCS	120	169	35	134	4/12/2006
08S05W32DCC1	335840	913644	NRCS	100	172	43	129	4/12/2006
08S06W02ACB1	340339	913958	USGS	68	181.03	42.25	139	3/20/2006
08S07W05DDD1	340301	914903	USGS	97	190	29.96	160	3/20/2006
09S04W06CBB1	335721	913252	NRCS	110	163	40	123	4/12/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Lincoln County—Continued								
09S05W14ABC1	335553	913439	USGS	98	172.5	37.21	135	3/20/2006
09S05W17BCB1	335552	913820	USGS	97	171	41.09	130	3/20/2006
09S05W19CCC1	335428	913941	NRCS	110	171	31	140	4/12/2006
09S06W04BCD1	335821	914346	USGS	62.6	181	38.12	143	3/20/2006
09S06W04BDD1	335759	914335	NRCS	100	178	36	142	4/12/2006
09S06W23CDB1	335440	914136	USGS	70	175	29.73	145	3/20/2006
10S05W06DCC1	335155	913908	USGS	65	175	29.92	145	3/20/2006
Lonoke County								
01N08W03DDA1	344411	915050	NRCS	--	229	139.2	90	4/17/2006
01N09W07DAA1	344337	920030	NRCS	--	240	47.0	193	4/17/2006
01N09W13DAB1	344235	915517	USGS	150	226	86.74	139	4/13/2006
01N10W15CDA1	344236	920415	NRCS	100	240	24.7	215	4/17/2006
01S06W31ABB1	343459	914131	USGS	120	200	78.73	121	4/13/2006
01S06W32BBB1	343501	914056	NRCS	--	201	77.0	124	4/17/2006
01S07W12ABA1	343834	914230	USGS	140	207	69.93	137	4/13/2006
01S08W24CDD1	343606	914912	USGS	127	210	81.0	129	4/13/2006
01S09W02DDD1	343857	915624	NRCS	--	230	83.0	147	4/17/2006
01S09W36CCC1*	343435	915619	USGS	95	220	62.51	157	4/13/2006
01S09W36CCC1*	343435	915619	NRCS	95	220	62.5	158	4/17/2006
01S10W01ACB1	343927	920215	USGS	--	236	45.92	190	4/13/2006
02N07W07DAA1	344845	914707	NRCS	--	232	140.2	92	4/17/2006
02N07W16BAB1	344815	914540	USGS	184	240	137.64	102	4/13/2006
02N08W16ABC1	344806	915114	USGS	170	230	128.39	102	4/13/2006
02N08W23CAB1	344659	915118	NRCS	--	229	129.7	99	4/17/2006
02N09W02BDB1	344955	915841	USGS	140	251	126.04	125	4/13/2006
02N10W15ACC1	344807	920353	NRCS	135	241	31.5	210	4/17/2006
02S07W05CDC1	343326	914715	NRCS	--	205	70.4	135	4/17/2006
02S07W10CCB1	343246	914525	USGS	--	201	62.39	139	4/13/2006
02S07W20ACD1	343112	914655	NRCS	--	201	60.6	140	4/17/2006
02S08W13BBB1	343232	914935	USGS	--	200	59.85	140	4/13/2006
02S08W34DBB1	343003	915150	USGS	--	214	66.62	147	4/13/2006
02S09W26DC1	343019	915643	NRCS	100	216	50.0	166	4/17/2006
02S09W30CDD1	343014	920116	USGS	80	226	39.44	187	4/13/2006
03N07W08BDB1	345407	914638	USGS	125	250	96.48	154	2/09/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Lonoke County—Continued								
03N07W15DBC2	345253	914417	USGS	144.5	227	82.43	145	4/13/2006
03N07W29ADA1	345129	914558	USGS	120	234	94.22	140	2/09/2006
03N07W29CDD1	345057	914632	NRCS	157	232	95.0	137	4/17/2006
03N07W35CDC2	344957	914332	USGS	--	232	116.1	116	4/13/2006
03N08W03BAA1	345519	915054	USGS	162	260	94.87	165	2/09/2006
03N08W03CCC1	345430	915123	USGS	162	260	101.86	158	2/09/2006
03N08W05CCC1	345429	915323	USGS	130	257	81.08	176	2/09/2006
03N08W08ABA1	345427	915248	USGS	150	258	93.11	165	2/09/2006
03N08W10ACB1	345415	915053	USGS	150	250	91.04	159	2/09/2006
03N08W10ADD1	345401	915023	USGS	165	250	89.88	160	2/10/2006
03N08W11ABD1	345419	914936	USGS	160	260	103.86	156	2/10/2006
03N08W11ACA1	345413	914934	USGS	144	256	101.53	154	2/10/2006
03N08W21BCC1	345220	915220	USGS	155	247	81.66	165	4/13/2006
03N08W29BBB1	345147	915333	USGS	152.2	249	112.33	137	2/09/2006
03N08W29BCC1	345125	915333	USGS	150	250	128.81	121	2/09/2006
03N08W32ABB1	345057	915257	USGS	154	250	118.35	132	5/02/2006
03N08W32ABB2	345057	915259	USGS	154	250	118.68	131	4/13/2006
03N08W34ADD1	345035	915028	USGS	130	240	122.50	118	2/09/2006
04N08W05ACA1	350020	915247	USGS	138	238	45.64	192	2/10/2006
04N08W10BDD1	345917	915055	USGS	130	218	26.15	192	2/10/2006
04N08W15BCB2	345833	915121	USGS	104	225	34.86	190	4/13/2006
04N08W16DCC1	345757	915154	USGS	155	225	46.78	178	2/10/2006
04N08W26AAD1	345652	914917	USGS	130	246	72.86	173	2/09/2006
04N08W28CAC1	345620	915216	USGS	140.5	235	55.00	180	2/09/2006
04N08W28CAD1	345626	915204	USGS	115	249	70.26	179	2/09/2006
04N08W28CCC1	345615	915225	USGS	137	240	60.39	180	2/09/2006
04N08W36DBB1	345541	914914	USGS	130	259	93.71	165	2/09/2006
Mississippi County								
10N08E21ABA1	352852	901415	NRCS	110	224	25	199	4/18/2006
10N08E21BDC1	352830	901407	NRCS	100	224	25	199	4/18/2006
10N08E22ABA2	352851	901312	USGS	100	224	24.04	200	4/20/2006
10N09E08ACC1	352949	900926	USGS	110	230	15.84	214	4/20/2006
11N09E34BBB1	353218	900715	USGS	94	235	16.70	218	4/20/2006
11N10E09BCB1	353530	900202	NRCS	110	236	20	216	4/14/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Mississippi County—Continued								
12N08E08BCB1	354047	901559	USGS	120	225	10.07	215	4/20/2006
12N08E28DDB1	353707	901406	NRCS	120	225	20	205	4/18/2006
12N09E12ABC1	354054	900449	NRCS	120	232	17	215	4/14/2006
12N10E04CAA1	354124	900136	NRCS	120	235	20	215	4/14/2006
12N10E07BCD1	354036	900404	NRCS	110	234	22	212	4/14/2006
12N10E21DBA1	353842	900122	NRCS	110	236	17	219	4/14/2006
13N08E24ABB1	354428	901112	NRCS	120	230	9	221	4/18/2006
13N09E30CCD1	354248	901029	USGS	--	230	12.88	217	4/20/2006
13N10E34DBB1	354218	900024	USGS	98	235	8.58	226	4/20/2006
14N08E12DAB1	355104	901052	USGS	--	235	8.38	227	4/19/2006
14N08E20DAA1	354921	901458	NRCS	110	225	5	220	4/18/2006
14N08E26CC1	354803	901235	NRCS	100	230	5	225	4/18/2006
14N10E18ABC1	355022	900345	USGS	101	236	13.02	223	4/19/2006
14N11E03BCB1	355158	895433	USGS	128	247	5.26	242	4/20/2006
14N11E17CCB1	354955	895639	NRCS	120	240	8	232	4/10/2006
14N11E33CAA1	354727	895508	NRCS	120	240	15	225	4/10/2006
15N08E08DBC2	355605	901526	USGS	120	236	11.97	224	4/19/2006
15N10E21ABC1	355447	900135	NRCS	120	240	13	227	4/13/2006
15N12E01BCD1	355704	894601	NRCS	100	258	11	247	4/13/2006
16N10E28BBD1*	355906	900156	NRCS	120	238	14.5	224	4/13/2006
16N10E28BBD1*	355906	900156	USGS	120	238	11.35	227	4/20/2006
16N11E23ADA1	355947	895231	USGS		255	12.70	242	4/20/2006
Monroe County								
01N01W21CDC2	344037	910707	USGS	150	181	36.57	144	4/04/2006
01N02W12CBC1	344242	911032	USGS	110	182	39.21	143	4/04/2006
01N03W23BAC1	344124	911743	NRCS	100	170	16	154	4/14/2006
01N03W24BBB1	344135	911651	USGS	125	185	28.63	156	4/04/2006
01N04W33BBB2	343960	912649	USGS	--	218	95.15	123	4/04/2006
01S01W13CDD1	343611	910341	USGS	135	178	20.37	158	4/04/2006
01S01W16DB	343615	910632	NRCS	100	175	22	153	4/14/2006
01S01W18DCD1	343618	910849	USGS	110	178	23.05	155	4/04/2006
01S02W20BBB1*	343613	911456	USGS	100	170	13.35	157	4/04/2006
01S02W20BBB1*	343613	911456	NRCS	100	170	12	158	4/14/2006
01S03W20BBA1*	343538	912118	USGS	140	210	73.73	136	4/04/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Monroe County—Continued								
01S03W20BBA1*	343538	912118	NRCS	140	210	79	131	4/14/2006
01S04W01BAB1	343906	912317	USGS	160	210	68.70	141	4/04/2006
02N01W19ADD1	344624	910814	NRCS	80	188	53	135	4/14/2006
02N01W19BBA1	344645	910912	USGS	75	191	54.27	137	4/05/2006
02N03W35BCA1	344455	911745	NRCS	100	188	34	154	4/14/2006
02S01W01BCD1	343305	910408	NRCS	100	176	19	157	4/14/2006
02S02W01BCA1	343322	911031	USGS	--	171	12.13	159	4/04/2006
02S02W11DAC1	343209	911101	USGS	110	164	10.16	154	4/04/2006
03N01W20ABA1	345201	910723	USGS	--	189	48.07	141	4/05/2006
03N02W31ADC1	344958	911447	USGS	95	190	38.53	151	4/05/2006
03N03W36AAA1	345027	911547	USGS	120	176	22.20	154	4/05/2006
04N02W01BCC1	345929	911004	NRCS	100	175	39.5	136	4/13/2006
04N02W05BBB1	345957	911311	NRCS	100	188	15	173	4/13/2006
04N02W27CDD3	345540	911150	USGS	181	200	45.50	155	4/05/2006
04N02W28DDD3	345535	911221	USGS	137	192	32.19	160	4/05/2006
04N02W30BBB1	345628	911525	USGS	119	185.16	14.53	171	4/05/2006
Phillips County								
01S01E20DDB1	343529	910058	NRCS	114	185	26.0	159	4/10/2006
01S02E09CBB1*	343719	905434	USGS	110	185	14.29	171	3/21/2006
01S02E09CBB1*	343719	905434	NRCS	110	185	14.8	170	4/10/2006
01S02E32BCC1	343350	905526	NRCS	120	200	37.0	163	4/10/2006
01S03E02ADD1	343814	904511	NRCS	120	200	16.6	183	4/10/2006
01S03E10ABB1	343741	904634	NRCS	120	205	18.0	187	4/10/2006
01S03E20BDD1	343533	904846	NRCS	120	210	33.0	177	4/10/2006
01S04E05DCD1*	343802	904151	USGS	120	230	48.91	181	3/21/2006
01S04E05DCD1*	343802	904151	NRCS	120	230	49.0	181	4/10/2006
02S01E28CCB1	342916	910058	USGS	108	174	17.95	156	3/21/2006
02S02E29DDD1	342901	905444	NRCS	125	180	27.6	152	4/10/2006
02S02E33ACC1	342824	905412	NRCS	120	177	26.0	151	4/10/2006
02S03E15ACD1	343110	904621	USGS	112	174	13.78	160	5/08/2006
02S03E34BCD1	342828	904653	NRCS	120	165	18.0	147	4/12/2006
02S04E27AAC1*	342932	904001	USGS	175	179	8.59	170	3/21/2006
02S04E27AAC1*	342932	904001	NRCS	175	179	10.0	169	4/10/2006
03S02E35DDA1	342256	905130	USGS	50	163	21.23	142	3/21/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Phillips County—Continued								
03S03E04DAA1	342735	904710	USGS	36	171	19.29	152	3/21/2006
03S04E02CAA1*	342732	903918	USGS	120	176	16.16	160	3/21/2006
03S04E02CAA1*	342732	903918	NRCS	120	176	17.0	159	4/10/2006
04S01E01AAD1	342238	905700	NRCS	120	156	22.0	134	4/12/2006
04S01E14CDD1	342014	905837	NRCS	120	155	15.0	140	4/12/2006
04S01E23CCA1	341931	905853	USGS	--	156	13.4	143	3/21/2006
04S02E01DBB1	342220	905053	NRCS	--	163	15.6	147	4/12/2006
05S02E18BDA1	341535	905628	USGS	130	156	22.5	134	3/21/2006
Poinsett County								
10N01E02AAA	353205	905654	NRCS	100	235	98	137	4/13/2006
10N01E14CC1	352910	905814	USGS	150	231	92.41	139	3/28/2006
10N01E16CCB1	352922	910005	USGS	120	225	74.99	150	3/28/2006
10N01E32CBB1	352657	910053	NRCS	120	222	74	148	4/13/2006
10N01E33ACB1	352746	905931	NRCS	153	220	77	143	4/13/2006
10N02E13BCC1	352949	905026	USGS	167	237	103.24	134	3/28/2006
10N02E15CAA1	352940	905209	NRCS	160	237	104.5	133	4/12/2006
10N02E20BAB1	352906	905418	NRCS	155	237	112.5	125	4/13/2006
10N03E13BCB1	352958	904352	NRCS	155	275	142	133	4/13/2006
10N03E14DAB1	352947	904405	USGS	--	263	118.63	144	3/28/2006
10N03E19BCB1	352905	904907	NRCS	--	239	99.5	140	4/12/2006
10N03E26BBD1	352816	904449	NRCS	140	257	113.5	144	4/13/2006
10N03E35CDD1	352656	904436	USGS	--	275	124.43	151	3/28/2006
10N04E35BBA1	352745	903831	NRCS	100	212	21	191	4/17/2006
10N05E15BDD1	352937	903253	USGS	--	207	14.76	192	3/29/2006
10N06E28ABC1	352804	902723	NRCS	150	210	20	190	4/17/2006
10N07E22AAC1	352847	901935	USGS	--	215	27.80	187	3/29/2006
10N07E28CBB1	352733	902128	NRCS	105	217	28.5	189	4/17/2006
11N01E17DDC1	353437	910015	NRCS	100	232	78	154	4/13/2006
11N01E17DDD1	353437	910013	USGS	100	230	78.61	151	3/28/2006
11N01E26AA1	353340	905653	USGS	140	236	94.72	141	3/28/2006
11N01E34AAA	353256	905759	NRCS	100	229	88.5	141	4/13/2006
11N02E26AAB1	353350	905034	USGS	158	241	107.55	133	3/28/2006
11N02E30BBB1	353352	905540	NRCS	140	239	102.5	137	4/17/2006
11N02E34CBA1	353238	905222	NRCS	130	240	109	131	4/13/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Poinsett County—Continued								
11N03E10DDA1	353546	904457	USGS	145	243	104.78	138	3/28/2006
11N03E17AAB1	353535	904714	NRCS	--	242	105	137	4/17/2006
11N03E18BAB1	353538	904852	USGS	157	243	105.34	138	3/28/2006
11N04E36ABA1	353251	903654	NRCS	100	211	18	193	4/17/2006
11N05E26BDB1	353318	903213	NRCS	--	213	12	201	4/17/2006
11N07E18CAB1	353435	902320	USGS	100	217	15.37	202	3/29/2006
11W04E13DDA1	353445	903632	NRCS	--	211	15	196	4/17/2006
12N01E07CDA1	354054	910141	USGS	120	236	53.97	182	3/28/2006
12N01E22DAB1	353922	905809	NRCS	115	235	74	161	4/13/2006
12N02E25DCC1	353820	904944	NRCS	145	245	112	133	4/13/2006
12N02E34CCC1	353724	905230	NRCS	180	245	112.5	133	4/13/2006
12N03E01CBD1	354154	904329	NRCS	190	250	93	157	4/17/2006
12N03E04DAD1*	354158	904600	USGS	120	247	103.52	143	3/28/2006
12N03E04DAD1*	354158	904600	NRCS	120	247	104	143	4/17/2006
12N03E35ADD1	353745	904352	NRCS	160	246	103	143	4/17/2006
12N03E36ACB1	353749	904319	USGS	120	250	98.57	151	3/28/2006
12N04E08CDA	354053	904112	NRCS	100	250	88	162	4/17/2006
12N05E16ABA1	354039	903333	NRCS	140	221	12	209	4/17/2006
12N05E34ABA1	353805	903230	USGS	100	215	10.65	204	3/28/2006
12N07E04BAA1	354202	902060	USGS	60	223	6.93	216	3/29/2006
12N07E10CBB1	354042	902022	NRCS	100	220	10	210	4/17/2006
Prairie County								
01N06W05CCB1	344353	914049	USGS	155	220	117.80	102	4/11/2006
01N06W29DDD1	344018	913951	USGS	155	235	116.55	118	4/11/2006
01S04W28BDB1	343523	912630	USGS	112	205	97.28	108	4/11/2006
01S05W14BBC1	343722	913109	USGS	118	211	108.15	103	4/11/2006
01S05W31DDA1	343417	913432	USGS	120	206	103.60	102	4/11/2006
02N04W02BCB1	344916	912419	USGS	140	188	20.27	168	4/11/2006
02N04W32CCB1	344436	912738	USGS	--	221	84.72	136	4/11/2006
02N05W06BAB1	344958	913421	USGS	145	221	89.19	132	4/11/2006
02N05W13AAB1	344805	912854	USGS	130	223	81.74	141	4/11/2006
02N05W29DDB2	344545	913309	USGS	135	228	118.84	109	4/11/2006
02N06W17ABB1	344809	913959	USGS	180	235	124.26	111	4/11/2006
02S06W14BBB1	343213	913729	USGS	105	201	74.29	127	4/11/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
Prairie County—Continued								
03N04W03AAC1	345439	912424	USGS	106	187	28.30	159	4/11/2006
03N05W03BDD2	345444	913115	USGS	110	207	67.70	139	4/11/2006
03N06W01BCB1	345455	913601	USGS	115	216	79.08	137	4/11/2006
03N06W19BDD1	345207	914110	USGS	105	221	86.73	134	4/12/2006
04N04W07ADC1	345850	912733	USGS	110	195	26.73	168	4/11/2006
04N05W07CDC1	345043	913441	USGS	--	212	76.54	135	4/12/2006
04N06W05CCC1	345934	914018	USGS	100	206	78.35	128	4/11/2006
04N07W03DCB1	345942	914412	USGS	100	255	87.33	168	4/12/2006
04N07W28BBA1	345701	914545	USGS	110	258	95.77	162	4/12/2006
05N05W14DCD1	350252	913034	USGS	--	205	39.62	165	4/12/2006
05N05W28DDA1	350119	913228	NRCS	85	191	63.0	128	4/23/2006
Pulaski County								
01S10W29CC1	343538	920708	USGS	100	239	18.02	221	4/03/2006
02S10W14DC1	343205	920334	USGS	60	225	24.90	200	4/03/2006
02S10W16CCA1	343217	920549	USGS		230.76	27.27	203	4/03/2006
Randolph County								
18N01E28AAD1	361040	905820	NRCS	120	265	22	243	4/24/2006
18N01E34AAC1	360943	905729	USGS	--	266	18.18	248	4/17/2006
18N02E03DAD1	361336	905043	NRCS	120	280	56	224	4/24/2006
18N02E17CBB1	361204	905356	NRCS	--	265	23	242	4/24/2006
18N02E20BDA1	361125	905332	NRCS	110	274	42.5	232	4/24/2006
18N02E22DCD1	361046	905105	USGS	110	273	37.47	236	4/17/2006
18N02E34BCC1	360933	905150	NRCS	100	265	31	234	4/24/2006
19N02E09ABD1*	361826	905157	USGS	80	266	11.23	255	4/17/2006
19N02E09ABD1*	361826	905157	NRCS	80	266	18	248	4/25/2006
19N02E22DAB1	361622	905049	NRCS	90	266	15.5	251	4/24/2006
20N02E01ADD1	362424	904811	USGS	65	280	13.93	266	4/17/2006
20N02E12BAA1	362352	904848	NRCS	60	281	12	269	4/25/2006
20N02E14DAB1	362232	904930	NRCS	100	274	14	260	4/25/2006
20N02E21CDD1	362117	905107	NRCS	110	270	12	258	4/25/2006
20N03E28BA1	362114	904538	USGS	--	276	12.86	263	4/17/2006
20N03E33CCA1	361941	904552	NRCS	--	287	26	261	4/24/2006
St. Francis County								
04N01E13ADA1	345755	905638	USGS	--	206	60.34	146	3/22/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
St. Francis County—Continued								
04N01W20BBB1	345716	910759	NRCS	140	200	59	141	5/15/2006
04N01W25DBD1	345549	910303	NRCS	140	199	76	123	5/15/2006
04N01W28CDD1	345535	910634	USGS	--	208	71.42	137	3/22/2006
04N02E16ACD1	345733	905341	NRCS	140	209	41	168	5/15/2006
04N02E19BBB1	345701	905633	USGS	72.2	209	60.16	149	3/22/2006
04N02E27AAA1	345604	905220	NRCS	140	211	48	163	5/15/2006
04N03E21DAD1	345623	904655	USGS	--	236	58.14	178	3/22/2006
04N04E15ABA1	345752	903948	NRCS	120	201	34	167	5/15/2006
04N05E22BBB1	345651	903357	USGS	--	200	27.02	173	3/22/2006
05N01E06CDA1	350437	910218	NRCS	--	211	71	140	5/15/2006
05N01E15BCB1	350303	905942	USGS	94.1	209	67.19	142	3/22/2006
05N01E27BBA1	350136	905929	USGS	--	209	66.93	142	3/22/2006
05N02E20ADC1	350157	905437	USGS	79	211	54.79	156	3/22/2006
05N03E20AAA2	350214	904801	USGS	153.45	250	103.87	146	3/22/2006
05N05E19DCA1	350128	903630	USGS	110	203	32.77	170	3/22/2006
05N05E33BCC1	350004	903506	NRCS	120	196	29	167	5/15/2006
05N06E34CAB1	350026	902657	USGS	110	200	27.69	172	3/22/2006
06N01E33ACA2	350552	905942	USGS	--	211	67.14	144	3/22/2006
06N02E13DCA1	350813	905003	USGS	--	231	73.85	157	3/22/2006
06N02E15BDD1	350842	905247	USGS	75	214.64	60.15	154	3/22/2006
06N02E16CCC1	350804	905403	NRCS	120	216	66.5	150	5/15/2006
06N02E24AAA1	350755	905002	USGS	147	232	71.46	161	3/22/2006
06N05E22ACC1	350723	903252	USGS	--	200	40.63	159	3/22/2006
06N06E17DDC1	350749	902830	NRCS	--	202	34	168	5/15/2006
06N06E20ABB2	350747	902841	USGS	150	200	36.75	163	3/22/2006
White County								
05N07W09AAA1	350447	914441	USGS	29.5	205	14.32	191	3/23/2006
05N07W10CCC1	350400	914436	USGS	80	203	9.01	194	3/23/2006
06N06W04BAA1	351047	913910	USGS	70	220	35.47	185	3/23/2006
06N06W04BAD1	351037	913903	NRCS	--	215	40.8	174	4/25/2006
06N06W13DBB1	350918	913552	NRCS	--	213	47.3	166	4/25/2006
06N06W18BBC1	350851	914152	USGS	--	210	18.13	192	3/23/2006
06N06W18BCA1	350835	914150	NRCS	--	210	20.3	190	4/25/2006
06N06W34AAB1	350624	913754	USGS	--	213	60.63	152	3/23/2006

Appendix 1. Information pertaining to water levels measured in wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, spring 2006.—Continued

[USGS, U.S. Geological Survey; NRCS, Natural Resources Conservation Service; --, no data; NGVD of 1929, National Geodetic Vertical Datum of 1929; Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Source of data	Depth of well (feet)	Land-surface datum altitude (feet above NGVD of 1929)	Depth to water (feet below land-surface datum)	Water-level altitude (feet above NGVD of 1929)	Date of measure-ment
White County—Continued								
06N07W17DCC1	350822	914635	USGS	90	217	15.70	201	3/23/2006
06N08W13ABA1	350908	914824	USGS	60	228	13.60	214	3/23/2006
06N08W26DDB1	350640	914931	USGS	89	230	14.47	216	3/23/2006
07N05W01AAA1	351553	912858	USGS	--	205	17.52	187	3/23/2006
07N05W32BAB1	351137	913406	USGS	80	213.7	32.64	181	3/23/2006
08N04W06CCB1	352028	912847	USGS	74	214	20.50	194	3/23/2006
08N05W32CBC1	351616	913417	USGS	--	199	4.17	195	3/23/2006
Woodruff County								
04N03W03AB1	350021	911820	USGS	100	185	14.61	170	3/28/2006
05N01W13CDC1	350244	910331	NRCS	135	210	74.6	135	4/05/2006
05N01W31CCC1	350106	910900	NRCS	140	210	59.1	151	4/05/2006
05N02W20DCB1	350208	911356	USGS	--	192	15.25	177	3/28/2006
05N03W25DDB1	350133	911531	NRCS	120	190	12.7	177	4/05/2006
05N04W12DBA1	350427	912211	USGS	92	186	6.16	180	3/27/2006
06N01W06BAB1	351048	910835	USGS	--	202	34.53	167	3/28/2006
06N01W11CBC1	350910	910542	NRCS	80	220	65.8	154	4/05/2006
06N02W19AAA1	350802	911419	NRCS	130	225	45.5	180	4/05/2006
06N03W15BAB1	350903	911807	USGS	111	188.79	6.63	182	3/27/2006
06N03W31BCB1	350623	912144	USGS	--	185	2.86	182	3/27/2006
06N04W22BDA1	350807	912428	NRCS	120	186	5.9	180	4/05/2006
07N01W04ACB1	351541	910626	NRCS	125	225	60.9	164	4/05/2006
07N03W06BAC1	351607	912109	NRCS	100	211	24.4	187	4/05/2006
07N03W19AAA1	351335	912025	USGS	100	202.59	12.95	190	3/27/2006
07N03W31BBA1	351152	912103	NRCS	120	195	11.9	183	4/05/2006
08N01W06DDD1	352028	910747	USGS	--	218	44.57	173	3/28/2006
08N02W27DDB1	351711	911107	NRCS	60	213	27	186	4/05/2006
08N02W31DDD1	351611	911411	USGS	40	194.55	4.02	191	3/28/2006
08N03W31AAD1	351655	912028	USGS	110	212	21.95	190	3/27/2006
08N04W27AAA1	351757	912341	USGS	--	200	13.10	187	3/27/2006
09N03W28ABB1	352310	911845	NRCS	120	220	19.6	200	4/05/2006
09N03W29AAD1	352258	911921	USGS	--	220	22.53	197	3/27/2006
09N03W32ACA1	352205	911936	NRCS	120	217	21.6	195	4/05/2006

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Arkansas County							
02S04W11DBB1	343233	912415	3/7/2002	100.48	4/10/2006	100.7	-0.2
02S05W15AAB1	343213	913127	4/2/2002	110.72	4/10/2006	105.1	5.6
03S02W27ABB1	342448	911251	3/7/2002	69.8	4/06/2006	67.53	2.3
03S03W05CCD1	342737	912132	4/2/2002	96.54	4/10/2006	98.18	-1.6
03S03W27BBC1	342455	911944	4/2/2002	90	4/10/2006	91.65	-1.7
03S04W02BBB1	342831	912454	4/2/2002	91.3	4/10/2006	92.23	-0.9
03S04W03DCA16	342753	912515	3/6/2002	99.1	5/02/2006	100.45	-1.4
03S04W03DCA6	342753	912517	4/2/2002	105.66	4/10/2006	99.73	5.9
03S06W35ADD1	342411	913652	3/7/2002	53.29	4/07/2006	52.89	0.4
04S01W04ACD2	342233	910733	3/7/2002	6.48	4/06/2006	5.74	0.7
04S01W31DCB1	341753	910949	3/6/2002	54.4	4/06/2006	52.65	1.8
04S02W11AAA1	342209	911123	3/7/2002	67.37	4/06/2006	69.1	-1.7
04S02W29CCC1	341846	911539	3/6/2002	83.66	4/06/2006	86.52	-2.9
04S03W17ADD1	342102	912058	3/6/2002	106.18	4/10/2006	107.72	-1.5
04S03W32BCB1	341820	912202	3/6/2002	106.18	4/10/2006	116.45	-10.3
04S04W02ABB1	342313	912424	3/6/2002	108.07	4/10/2006	108.63	-0.6
04S04W35ABC1	341835	912437	4/22/2002	107	4/12/2006	106	1.0
04S05W16CDC1	342045	913321	3/7/2002	71.1	4/07/2006	69.35	1.8
04S05W24DAA1	342001	912930	3/7/2002	90.43	4/10/2006	90.01	0.4
04S06W15DBB1	342122	913827	3/7/2002	31.24	4/07/2006	33.06	-1.8
05S01W16BAB1	341552	910729	3/6/2002	48.84	4/06/2006	51.05	-2.2
05S02W16ABD1	341552	911358	3/6/2002	73.91	4/06/2006	83.3	-9.4
05S04W07CCC1	341555	912932	3/7/2002	76.51	4/06/2006	74.27	2.2
05S04W32BBA1	341316	912822	3/7/2002	59.36	4/06/2006	57.42	1.9
05S06W02DDD1	341724	913651	3/7/2002	20.12	4/07/2006	20.64	-0.5
05S06W07DDC1	341642	914130	3/7/2002	9.36	4/07/2006	2.39	7.0
06S02W23DCD1	340853	911206	3/6/2002	73.54	4/06/2006	69.74	3.8
06S03W10BBA1	341136	911954	3/6/2002	83.12	4/06/2006	81.98	1.1
06S03W27AAA1	340858	911913	3/6/2002	67.69	4/06/2006	66.68	1.0
07S02W04BBB1	340707	911452	3/6/2002	31.12	4/06/2006	42.2	-11.1
07S02W17BBA1	340530	911539	3/6/2002	55.04	4/06/2006	54.51	0.5
07S03W18CCD1	340435	912316	3/6/2002	43.37	4/06/2006	42.41	1.0
07S03W32BBC1	340240	912216	3/6/2002	25.96	4/06/2006	24.72	1.2
07S04W01DDD1	340625	912327	3/6/2002	47.41	4/06/2006	47.1	0.3
08S02W08ACA1	340041	911506	3/6/2002	43.02	4/06/2006	45.13	-2.1

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Arkansas County—Continued							
08S03WT2299	340147	912203	3/6/2002	25.47	4/06/2006	21.47	4.0
Ashley County							
15S04W26DCC1	332232	912902	2/26/2002	30.68	3/15/2006	31.09	-0.4
16S06W08CAA1	331941	914438	2/26/2002	75.53	3/15/2006	78.28	-2.8
16S06W27BAB1	331729	914240	4/30/2002	81.66	3/15/2006	83.84	-2.2
17S04W03ABB1	331528	913010	4/30/2002	27.02	3/15/2006	30.22	-3.2
17S04W15DDC1	331252	912954	2/26/2002	24.22	3/15/2006	26.5	-2.3
17S04W21ABA1	331252	913108	4/30/2002	19.21	3/15/2006	23.56	-4.3
17S06W01ADD1	331518	913956	2/26/2002	81.25	3/15/2006	83.58	-2.3
17S06W35CAC1	331049	914136	4/30/2002	77.03	3/15/2006	72.62	4.4
18S05W11CCD1	330841	913538	4/29/2002	20	3/25/2006	22.8	-2.8
18S05W22DDA1	330712	913555	4/29/2002	16	3/25/2006	21	-5.0
18S08W01AAB1	331015	915225	2/26/2002	86.18	3/15/2006	86.63	-0.5
18S08W28DDD2	330625	915528	2/13/2002	85.63	5/09/2006	84.96	0.7
19S04W06BAB2	330504	913329	2/26/2002	22.23	3/15/2006	23.67	-1.4
19S05W08ACA1	330405	913815	4/29/2002	13	3/25/2006	17.3	-4.3
19S05W16ABB1	330323	913718	4/29/2002	19	3/25/2006	24	-5.0
19S05W22DCD1	330139	913615	4/29/2002	18	3/25/2006	23.2	-5.2
19S06W07BCC1	330404	914608	2/26/2002	31.43	3/15/2006	31.04	0.4
Chicot County							
13S03W27AAA1	333253	912310	3/21/2002	46	3/27/2006	46	0.0
13S03W34BAA1	333110	912539	2/25/2002	37.82	3/16/2006	40.32	-2.5
13S03W34CAA1	333136	912336	2/25/2002	34.91	3/16/2006	37.08	-2.2
13S03W35BAC1	333154	912246	2/25/2002	35.71	3/16/2006	39.58	-3.9
14S02W09BDD1	332859	911729	3/27/2002	28	3/27/2006	29	-1.0
14S02W18BBDD1	332859	912038	3/27/2002	29	4/05/2006	32	-3.0
14S03W07BBD1	333011	912620	2/25/2002	24.19	3/16/2006	26.56	-2.4
14S03W32CDB2	332613	912551	2/25/2002	34.69	3/16/2006	34.86	-0.2
15S02W20DDC1*	332227	911920	3/21/2002	29	3/22/2006	29	0.0
15S02W20DDC1*	332227	911920	2/25/2002	28.02	3/16/2006	27.91	0.1
16S03W11ADC1	331920	912234	2/26/2002	27.34	3/16/2006	28.93	-1.6
17S01E17CDA1	331259	910716	2/26/2002	25.83	3/16/2006	20.25	5.6
17S01E18ADA1	331326	910758	2/26/2002	17.03	3/16/2006	11.04	6.0
17S01W06BCC1	331501	911505	2/25/2002	21.79	3/16/2006	21.03	0.8
17S02W10AAA1	331429	911712	4/30/2002	26.2	3/16/2006	26.35	-0.2

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Chicot County—Continued							
17S03W18CBC1	331257	912736	3/21/2002	33	3/22/2006	33	0.0
17S03W28DBA1	331127	912441	2/25/2002	23.26	3/16/2006	24.33	-1.1
18S01W19DAB1	330709	911423	2/25/2002	13.35	3/15/2006	13.07	0.3
18S01W33BAD1	330543	911245	3/28/2002	12	3/22/2006	18	-6.0
18S03W22ABA2	330728	912341	4/30/2002	11.43	3/15/2006	10.56	0.9
19S01W17BCC1	330250	911406	2/25/2002	18.62	3/15/2006	19.76	-1.1
19S03W14ABB1	330304	912251	2/25/2002	22.1	3/15/2006	23.74	-1.6
Clay County							
18N08E03DAB1	361323	901153	3/27/2002	4.68	4/18/2006	7.89	-3.2
18N08E11BAA1	361253	901117	4/15/2002	7.7	4/12/2006	7	0.7
19N03E24AAA1	361655	904157	3/27/2002	19.22	4/18/2006	20.12	-0.9
19N04E11DAA1	361805	903621	4/15/2002	22.6	4/12/2006	23	-0.4
19N04E19AAA1	361654	904050	3/27/2002	29.85	4/18/2006	31.07	-1.2
19N04E19BAA1	361649	904125	4/15/2002	21.9	4/12/2006	22	-0.1
19N05E15BBD1	361716	903152	4/15/2002	31.7	4/12/2006	34	-2.3
19N06E18DBC1	361642	902815	4/15/2002	34	4/13/2006	37	-3.0
19N07E25BCB1	361519	901700	4/15/2002	14.4	4/12/2006	18	-3.6
19N08E08DCA1	361729	901402	4/15/2002	26.3	4/12/2006	7	19.3
19N09E19CDC1	361539	900908	4/15/2002	5.8	4/12/2006	8	-2.2
20N03E25BAA1	362112	904225	4/15/2002	23.3	4/13/2006	22	1.3
20N04E03ADA1	362425	903725	4/15/2002	18.2	4/13/2006	16	2.2
20N04E06BB1	362444	904131	3/27/2002	19.75	4/18/2006	19.97	-0.2
20N05E22CAD1	362118	903132	4/15/2002	26.7	4/12/2006	31	-4.3
20N05E30CAC1	362003	903454	4/15/2002	16.1	4/12/2006	18	-1.9
20N05E34DBA1	361939	903117	3/27/2002	27.25	4/18/2006	29.31	-2.1
20N06E09BBA1	362327	902620	4/15/2002	19.8	4/12/2006	22	-2.2
20N06E28CCD1	362005	902630	4/15/2002	26.5	4/12/2006	29	-2.5
20N08E22BDC1	362111	901220	4/15/2002	6.5	4/12/2006	9	-2.5
20N09E09ABC1	362306	900642	4/15/2002	4	4/12/2006	8	-4.0
20N09E33DDC1	361904	900628	4/15/2002	5.5	4/12/2006	7	-1.5
21N03E15CBC1	362738	904453	4/15/2002	8.9	4/13/2006	11	-2.1
21N03E36CDD1	362450	904214	4/15/2002	19.3	4/13/2006	19	0.3
21N04E09DBC1	362828	903853	4/15/2002	10.1	4/13/2006	13	-2.9
21N05E17ABB1	362755	903329	3/27/2002	23.55	4/17/2006	23.23	0.3
21N05E22BAB1	362704	903132	4/15/2002	6.1	4/13/2006	7	-0.9

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Clay County—Continued							
21N06E11BBB1	362839	902421	4/15/2002	14.5	4/13/2006	15	-0.5
21N06E28BB1	362605	902608	3/27/2002	19.05	4/17/2006	19.19	-0.1
21N07E01DDC1	362835	901607	4/15/2002	21.5	4/13/2006	26	-4.5
21N08E18CCC1	362651	901550	3/27/2002	37.45	4/17/2006	38.64	-1.2
21N08E36ABB1	362502	900958	5/2/2002	1	4/18/2006	4.05	-3.1
21N09E31BDA1	362447	900851	4/15/2002	2	4/12/2006	7	-5.0
Craighead County							
13N01E03AAA1	354739	905753	4/3/2002	55.2	3/01/2006	54.7	0.5
13N01E21CAB	354434	905945	4/3/2002	60	3/01/2006	62	-2.0
13N01E23CAB1	354430	905736	4/3/2002	66	3/01/2006	68.5	-2.5
13N01E23DAA1	354435	905652	3/26/2002	68.84	4/19/2006	71.02	-2.2
13N02E02AAB1	354731	905032	4/3/2002	82.4	3/01/2006	92.2	-9.8
13N02E03AAA1	354733	905129	4/3/2002	84.4	3/01/2006	86.9	-2.5
13N03E23CDA1	354419	904434	4/3/2002	78.3	3/02/2006	79.6	-1.3
13N03E28CDB1	354322	904652	4/3/2002	102.5	3/02/2006	109	-6.5
13N03E29AAA1	354403	904713	3/26/2002	101.45	4/19/2006	103.76	-2.3
13N03E35AAA1	354308	904401	4/3/2002	89	3/02/2006	94	-5.0
13N04E12ABB1	354635	903656	3/26/2002	25.48	4/19/2006	23.82	1.7
13N04E15DBA1	354521	903857	3/28/2002	27.7	3/02/2006	26.6	1.1
13N04E26BCC1	354340	903829	3/28/2002	29	3/02/2006	26.5	2.5
13N05E02CCC1	354648	903202	3/25/2002	13	3/02/2006	12.9	0.1
13N05E06DCC1	354637	903547	3/25/2002	20.9	3/02/2006	20	0.9
13N05E22BAD1	354449	903243	3/26/2002	13.58	4/19/2006	15.39	-1.8
13N05E24BAC1	354451	903045	3/25/2002	7.8	3/02/2006	12.2	-4.4
13N07E02CAB1	354642	901901	3/28/2002	4	3/02/2006	5	-1.0
13N07E05ABB1	354716	902158	3/28/2002	6.5	3/02/2006	5.5	1.0
13N07E20BBA1	354440	902216	3/26/2002	1.95	4/19/2006	5.42	-3.5
13N07E35BCD1	354233	901837	3/28/2002	7.8	3/02/2006	12.3	-4.5
14N01E03ACB1	355246	905816	4/1/2002	49.8	3/01/2006	50.9	-1.1
14N01E10BAB1	355204	905828	4/1/2002	48	3/01/2006	51.1	-3.1
14N01E31DCA1	354817	910121	4/1/2002	56.5	3/01/2006	59.1	-2.6
14N02E18BDD1	355041	905419	3/26/2002	53.98	4/19/2006	51.76	2.2
14N02E22AAA1	355007	905129	4/1/2002	71.4	3/01/2006	74.8	-3.4
14N05E25ABB1	354921	903025	3/26/2002	19.53	4/19/2006	21.54	-2.0
14N06E06BAA1	355234	902934	3/25/2002	22.5	3/02/2006	22.4	0.1

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Craighead —Continued							
14N06E27AAB1	354911	902559	3/26/2002	0.65	4/19/2006	3.1	-2.5
14N07E14DDC1	354956	901831	3/28/2002	5.5	3/02/2006	13.5	-8.0
14N07E26DBB1	354834	901843	3/26/2002	3.1	4/19/2006	9.76	-6.7
15N02E12DCB1	355626	904930	4/3/2002	30.2	3/01/2006	34.5	-4.3
15N03E19ADA1	355502	904802	3/26/2002	43.43	4/19/2006	49.16	-5.7
15N05E22BAB1	355513	903241	3/25/2002	35.8	3/02/2006	34.8	1.0
15N06E04BAD1	355744	902706	3/25/2002	14.6	3/02/2006	15.5	-0.9
15N06E20DDD1	355426	902739	3/26/2002	9.28	4/19/2006	11.22	-1.9
15N07E10DAB1	355622	901934	3/28/2002	6	3/02/2006	9.8	-3.8
15N07E10DBA1	355628	901944	3/26/2002	6	4/19/2006	9.44	-3.4
15N07E35DCB1	355241	901831	3/28/2002	8	3/02/2006	14.6	-6.6
Crittenden County							
04N07E21AAD1	345644	902121	3/26/2002	10.06	3/30/2006	13.49	-3.4
05N07E08BDC1	350407	902234	4/18/2002	21.7	4/27/2006	22.8	-1.1
05N07E28CBA1	350121	902140	3/26/2002	18.32	3/30/2006	19.43	-1.1
05N07E34BAB1	350059	902030	3/26/2002	15.09	3/30/2006	19.46	-4.4
05N07E34CDD1	350010	902028	4/17/2002	9.6	4/26/2006	19	-9.4
05N08E11CCD2	350345	901308	3/21/2002	27	3/30/2006	28.32	-1.3
06N07E13BAA1	350850	901808	3/26/2002	20.15	3/30/2006	20.28	-0.1
06N07E14ABA1	350848	901858	4/12/2002	20.8	4/26/2006	20.4	0.4
07N06E29CBC1	351152	902914	4/18/2002	38.6	4/26/2006	39.1	-0.5
07N07E31CCC1	351042	902359	3/26/2002	32.46	3/30/2006	34.92	-2.5
07N08E04BBD1	351538	901505	4/18/2002	19.5	4/25/2006	19.1	0.4
07N09E05CDD1	351453	900934	3/26/2002	14.47	3/30/2006	16.94	-2.5
08N06E01DCC1	352021	902408	4/18/2002	33	4/25/2006	32	1.0
08N06E06DDB1	352030	902920	4/19/2002	32.3	4/25/2006	30.2	2.1
08N07E13CCC2	351828	901812	3/26/2002	29.47	3/30/2006	29.2	0.3
08N07E14DAA2	351854	901833	3/26/2002	30.08	3/30/2006	29.98	0.1
08N07E32DAA1	351618	902146	4/18/2002	21.9	4/25/2006	29	-7.1
08N08E06ABB1	352103	901644	4/19/2002	28.8	4/25/2006	29	-0.2
09N07E02CDB1	352537	901905	4/17/2002	34.6	4/25/2006	31.7	2.9
09N07E10DDA1	352448	901925	3/26/2002	28.15	3/30/2006	27.85	0.3
09N07E31BAB1*	352160	902327	4/18/2002	33.6	4/25/2006	31.8	1.8
09N07E31BAB1*	352160	902327	3/26/2002	32.32	3/30/2006	32.4	-0.1
09N08E04CDC1	352527	901444	4/19/2002	28	4/25/2006	24.1	3.9

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Cross County							
06N02E11BDB1	350934	905132	4/18/2002	61	4/26/2006	62	-1.0
06N02E12AAA1	350934	904952	4/18/2002	80	4/26/2006	78	2.0
07N01E05CDA1	351518	910049	3/21/2002	70.18	3/29/2006	73.64	-3.5
07N01E05DCA1	351514	910033	4/18/2002	72	4/26/2006	73	-1.0
07N01E06CAA1	351530	910154	4/18/2002	69	4/24/2006	73	-4.0
07N01E11AAA1	351501	905705	3/21/2002	73.35	3/29/2006	76.58	-3.2
07N01E33BBA1	351134	910010	4/18/2002	70	4/24/2006	68	2.0
07N02E29DDC1	351138	905409	3/21/2002	68.42	3/29/2006	72.26	-3.8
07N03E05ADA1	351549	904739	3/21/2002	110.71	3/29/2006	124.05	-13.3
07N03E32DCC1	351045	904810	3/2/2002	95.95	3/29/2006	96.38	-0.4
07N04E04DBB1	351534	904021	4/18/2002	30	5/01/2006	30	0.0
07N05E19CCC1	351238	903645	3/21/2002	36.48	3/29/2006	37.27	-0.8
07N05E24CCC1	351232	903121	4/18/2002	36.6	4/26/2006	34.9	1.7
07N05E25ABA1	351229	903045	3/21/2002	35.16	3/29/2006	36.71	-1.6
08N01E16DBB1	351855	905933	4/18/2002	84	4/27/2006	84	0.0
08N02E12DCC1	351938	905002	4/18/2002	89	4/27/2006	88	1.0
08N02E17AAA1	351923	905354	4/18/2002	83	4/27/2006	85	-2.0
08N04E34CCD1	351605	903945	4/18/2002	31	5/01/2006	28	3.0
08N05E32ADD1	351632	903440	3/21/2002	31.98	3/29/2006	29.57	2.4
09N01E04ACD1	352608	905914	4/18/2002	85	4/24/2006	88	-3.0
09N01E33BBA2	352203	910001	3/21/2002	77	3/29/2006	81.1	-4.1
09N01E36AAB1	352155	905605	4/18/2002	83	4/27/2006	85	-2.0
09N02E20AAA1	352402	905342	4/18/2002	91	4/27/2006	94	-3.0
09N02E30CBB1	352243	905551	4/18/2002	86	4/27/2006	87	-1.0
09N03E17CDD1	352422	904753	4/18/2002	102	4/27/2006	99	3.0
09N03E17DDC1	352409	904726	3/21/2002	103.32	3/29/2006	105.65	-2.3
09N05E32BCB1	352151	903525	4/18/2002	37	5/04/2006	30	7.0
09N05E32BDB1	352151	903512	3/21/2002	31.95	3/29/2006	30.63	1.3
Desha County							
07S01E19ABA1	340428	910303	4/18/2002	13	4/12/2006	21	-8.0
08S03W33ABD1	335803	912338	3/4/2002	6.14	3/17/2006	7.24	-1.1
09S01W08BDA1	335608	911234	4/11/2002	23	4/07/2006	28	-5.0
09S01W15CBB1	335501	911055	4/11/2002	37	4/07/2006	36	1.0
09S02W26DDC1	335257	911530	2/27/2002	30.35	5/09/2006	29.33	1.0
09S03W05BAC1	335704	912506	4/11/2002	43	4/07/2006	42	1.0

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Desha County —Continued							
09S03W13BAB1	335500	911922	4/11/2002	31	4/07/2006	32	-1.0
09S03W17DCB1	335448	912457	3/4/2002	33.74	3/17/2006	32.95	0.8
09S04W06BCA1	335756	913243	3/4/2002	32.78	3/17/2006	34.92	-2.1
10S01W23CDA1	335305	911032	4/11/2002	27	4/07/2006	26	1.0
10S02W11ADD1	335045	911517	4/11/2002	27	4/07/2006	28	-1.0
10S02W24DBC1	334850	911453	2/27/2002	25.62	3/17/2006	25.53	0.1
10S03W26CAA1	334806	912145	2/27/2002	42.94	3/17/2006	44.8	-1.9
11S02W15ADD1	334446	911635	4/11/2002	32	4/07/2006	34	-2.0
11S03W16CBA1	334439	912433	4/11/2002	32	4/07/2006	31	1.0
11S03W31BBA1	334228	912651	2/27/2002	31.47	3/17/2006	35.14	-3.7
12S01W33BAA1	333718	911205	2/27/2002	25.7	3/17/2006	23.92	1.8
13S02W17ADA1	333421	911858	4/11/2002	43	4/07/2006	45	-2.0
13S02W27CAC1	333224	911735	2/27/2002	30.38	3/17/2006	30.83	-0.5
13S02W32DBD1	333126	911917	4/11/2002	38	4/07/2006	43	-5.0
13S03W10DAA1	333506	912302	2/27/2002	44.2	3/17/2006	47.12	-2.9
13S03W11CAB1	333503	912241	4/11/2002	46	4/07/2006	51	-5.0
Drew County							
11S04W08DBA1	334532	913136	2/27/2002	23.98	3/16/2006	25.14	-1.2
11S05W08CCC1	334546	913837	2/27/2002	35.05	3/16/2006	36.48	-1.4
12S04W03ABB1	334134	912946	2/27/2002	22.92	3/16/2006	24.23	-1.3
12S04W25DBB1	333739	912738	4/9/2002	28	4/13/2006	34	-6.0
13S04W09ACD1	333512	913034	4/9/2002	16.4	4/13/2006	19	-2.6
13S04W28CDD1	333206	913100	2/26/2002	18.09	3/16/2006	17.63	0.5
13S04W33BAA1	333206	913100	2/26/2002	18.09	3/16/2006	18.14	-0.1
13S05W29ADA1	333248	913747	5/1/2002	46.04	3/16/2006	40.5	5.5
13S06W03DDC1	333545	914202	2/26/2002	59.16	3/16/2006	62.17	-3.0
13S06W21DAA1	333324	914258	4/1/2002	81	4/13/2006	74	7.0
14S04W03ADD1	333050	912929	4/9/2002	24	4/13/2006	27	-3.0
14S04W05CBA1	333047	913218	4/10/2002	13	4/13/2006	14	-1.0
14S04W05CBC1	333042	913226	4/10/2002	14	4/13/2006	15	-1.0
14S04W22CAA1	332805	912957	4/9/2002	16	4/13/2006	13	3.0
14S05W23DCB1	332802	913512	2/27/2002	22.7	3/16/2006	29.77	-7.1
Greene County							
16N03E03BA1	360316	904516	3/28/2002	28.81	4/18/2006	30.73	-1.9
16N03E05BBB1	360316	904750	4/11/2002	26.9	4/11/2006	30.5	-3.6

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Greene County—Continued							
16N03E16DDD1	360049	904547	4/11/2002	26	4/11/2006	26.8	-0.8
16N03E29ACC1	355926	904722	4/11/2002	29.8	4/11/2006	31.5	-1.7
16N06E09ABB1	360215	902651	4/5/2002	52.1	4/11/2006	49.9	2.2
16N06E21BAA1	360031	902705	4/5/2002	29.8	4/11/2006	27.1	2.7
16N06E28ABB1	355938	902657	3/27/2002	28.42	4/18/2006	25.76	2.7
17N03E02DCC1	360806	904352	4/11/2002	29.6	4/11/2006	20.2	9.4
17N04E07AD1	360718	904122	4/11/2002	38.8	4/11/2006	42.6	-3.8
17N04E30CDC1	360409	904218	3/28/2002	34.96	4/18/2006	37.39	-2.4
17N06E15ABC1	360631	902546	4/5/2002	35.2	4/11/2006	31.1	4.1
17N07E03CCC1	360744	901951	4/5/2002	4.1	4/11/2006	5.8	-1.7
17N07E18ABB1	360638	902235	3/27/2002	5.48	4/18/2006	8.86	-3.4
17N07E29CBC1	360419	902201	4/5/2002	1.7	4/11/2006	6.3	-4.6
18N04E04AAC1	361356	903854	4/11/2002	28.6	4/11/2006	32.6	-4.0
18N04E21CBD1	361052	903725	3/27/2002	53.04	4/18/2006	55.63	-2.6
18N07E17BAB1	361203	902105	4/5/2002	6.4	4/11/2006	11.3	-4.9
18N07E20BBA1	361110	902113	3/27/2002	3.77	4/18/2006	10.92	-7.2
19N03E26AD1	361601	904258	3/27/2002	27.7	4/18/2006	29.5	-1.8
19N03E33DDD1	361418	904516	4/11/2002	33.3	4/11/2006	36	-2.7
19N05E34AAD1	361437	903102	4/11/2002	36.8	4/11/2006	34.2	2.6
Independence County							
11N04W02ABB1	353650	912416	4/10/2002	9.1	4/04/2006	10.2	-1.1
12N04W14DD1	353929	912236	3/27/2002	15.74	3/23/2006	27.03	-11.3
12N04W34CBB1	353720	912513	3/27/2002	8.6	3/23/2006	23.51	-14.9
12N05W36AAA1	353738	912827	3/27/2002	12.62	3/23/2006	25.64	-13.0
14N03W12CAB1	355152	911541	4/10/2002	1	4/04/2006	2.8	-1.8
14N03W14CBB1	355101	911703	4/10/2002	13.5	4/04/2006	2.4	11.1
14N03W14DAA2	355107	911602	3/27/2002	0.7	3/23/2006	4.89	-4.2
14N03W14DBB1	355106	911640	3/27/2002	1.5	3/23/2006	5.93	-4.4
Jackson County							
09N01W15DDD1	352357	910433	4/8/2002	58	4/20/2006	54.6	3.4
09N01W22ADD1	352332	910433	3/21/2002	59.07	3/27/2006	61.72	-2.6
09N01W30BAC1	352258	910813	4/3/2002	42.6	4/20/2006	44.5	-1.9
09N02W32BBB1	352215	911344	4/3/2002	31.5	4/20/2006	34	-2.5
09N02W32CBB1	352152	911348	3/21/2002	29.92	3/27/2006	30.29	-0.4
10N01W05ADD1	353132	910702	3/28/2002	44.8	4/20/2006	47.3	-2.5

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Jackson County—Continued							
10N01W10ABA1	353055	910445	3/28/2002	55.7	4/20/2006	59.2	-3.5
10N02W29ABB1	352829	911312	3/21/2002	27.93	3/27/2006	27.94	-0.0
11N01W26AAD1*	353330	910323	3/28/2002	63.7	4/20/2006	66.2	-2.5
11N01W26AAD1*	353330	910323	3/21/2002	64.77	3/24/2006	67.06	-2.3
11N01W29AAD1	353339	910635	3/27/2002	39.52	3/24/2006	39.07	0.5
11N02W25BBD1	353322	910855	3/28/2002	25.1	4/20/2006	26	-0.9
11N03W06DAB1	353655	912009	3/21/2002	10.15	3/24/2006	22.23	-12.1
12N01W11BCB1	354127	910416	3/28/2002	37.3	4/12/2006	38.2	-0.9
12N01W30CCC2	353812	910821	3/28/2002	32.9	4/12/2006	33	-0.1
12N01W36CBC1	353724	910317	3/28/2002	48.9	4/12/2006	52.9	-4.0
12N02W25ABB2	353910	910852	3/21/2002	36.86	3/24/2006	33.24	3.6
13N01W20AAA1	354514	910627	3/21/2002	38.59	3/27/2006	39.26	-0.7
13N03W15CDD1	354526	911749	3/21/2002	14.77	3/27/2006	16.93	-2.2
13N03W15DCB1	354540	911718	4/2/2002	11.3	4/12/2006	17.9	-6.6
13N03W36ABB1	354337	911532	4/3/2002	16.2	4/12/2006	16.6	-0.4
14N01W08AAA1	355216	910623	4/3/2002	34.5	4/12/2006	36	-1.5
14N01W09AAA1	355220	910515	3/27/2002	40.36	3/27/2006	42.43	-2.1
14N01W19BBB1	355032	910823	4/3/2002	31.2	4/12/2006	32	-0.8
14N01W26BCB1	354922	910407	4/3/2002	43.1	4/12/2006	43.3	-0.2
14N01W33CCD1	354759	910610	3/28/2002	38.2	4/12/2006	39.3	-1.1
14N02W22BBC1	355026	911145	4/3/2002	24.5	4/12/2006	28	-3.5
Jefferson County							
03S08W24BBC1	342620	914953	3/5/2002	48.62	4/03/2006	51.03	-2.4
03S09W06DDA1	342840	920037	3/5/2002	36.79	4/03/2006	37.94	-1.1
03S09W22AAA1	342640	915728	5/2/2002	38.5	4/06/2006	40.7	-2.2
03S09W29CBD1	342517	920023	3/5/2002	25.9	4/03/2006	29.11	-3.2
03S09W36ACC1	342428	915555	5/2/2002	38	4/07/2006	27.9	10.1
03S10W25BCA2	342537	920242	5/3/2002	18	4/06/2006	18.8	-0.8
03S10W26BBB2	342427	920250	5/3/2002	17.5	4/06/2006	15.7	1.8
04S07W35DDB1	341836	914347	4/26/2002	26.5	4/06/2006	27.3	-0.8
04S08W13DCB1	342123	914926	3/5/2002	43.7	4/03/2006	48.34	-4.6
04S09W02CBD1	342325	915717	5/2/2002	32	4/06/2006	33.3	-1.3
04S09W32DDA1	341859	920009	5/3/2002	18	4/06/2006	23	-5.0
05S06W31CAA1	341330	914206	3/5/2002	15.41	4/04/2006	19.85	-4.4
05S07W29DDD1	341411	914654	4/26/2002	13.5	4/06/2006	14.2	-0.7

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Jefferson County—Continued							
05S08W12DAA1	341712	914907	3/5/2002	16.71	4/03/2006	18.98	-2.3
06S05W15BCA1	341023	913245	3/5/2002	20.2	4/04/2006	18.58	1.6
06S06W23AAD1	341007	913712	3/5/2002	19.26	4/04/2006	21.23	-2.0
06S07W14BAA1	341125	914426	3/5/2002	15.14	4/04/2006	16.07	-0.9
07S07W16BAA1	340722	914828	4/26/2002	29	4/06/2006	28	1.0
07S08W06BAA1	340859	915647	3/5/2002	19.64	4/04/2006	18.65	1.0
Lawrence County							
15N01E11ADD1	355657	905638	4/11/2002	40.8	4/18/2006	44.4	-3.6
15N01E26DDA1	355402	905639	3/27/2002	49.55	4/17/2006	51.93	-2.4
15N01W03BAB1	355831	910441	4/15/2002	37.5	4/18/2006	36.2	1.3
15N01W35CBB1	355336	910356	3/27/2002	43.05	4/17/2006	44.98	-1.9
16N01E11DAC2	360203	905639	3/27/2002	44.16	4/17/2006	46.76	-2.6
16N01E35AAA1	355908	905632	4/10/2002	41.8	4/18/2006	49.2	-7.4
16N01W30DDC1	355937	910723	4/15/2002	22	4/18/2006	21.6	0.4
16N02E09AAD1	360219	905212	4/12/2002	38	4/18/2006	40.3	-2.3
16N02E34CBB1	355831	905208	4/10/2002	42	4/18/2006	48.1	-6.1
17N01E02BBA1	360901	905707	4/15/2002	11.4	4/18/2006	15	-3.6
17N01W36AAB1	360435	910158	4/9/2002	12.3	4/18/2006	13.1	-0.8
17N02E04DCA1	360758	905224	4/12/2002	37.5	4/18/2006	40.9	-3.4
17N02E19CDC1	360516	905449	3/27/2002	38.44	4/17/2006	38.94	-0.5
17N02E25CBD1	360423	904948	4/12/2002	34.1	4/18/2006	38.1	-4.0
Lee County							
01N01E04AAB1	344358	910015	4/10/2002	25	5/02/2006	29.3	-4.3
01N01E09CCC1	344215	910054	4/12/2002	28	5/02/2006	32.5	-4.5
01N01E24CBD1	344033	905729	4/12/2002	13.3	5/03/2006	16.3	-3.0
01N02E01ADD1	344330	905016	4/17/2002	25	5/02/2006	28	-3.0
01N02E11BAB1	344255	905208	4/17/2002	22	4/22/2006	32	-10.0
01N02E12ABB1	344254	905040	4/10/2002	27	5/02/2006	27	0.0
01N02E22CBA1	344056	905318	4/17/2002	25	5/02/2006	28.5	-3.5
01N02E33CBB1	343858	905434	4/12/2002	11.5	5/02/2006	16	-4.5
01N02E33CCB1	343851	905433	4/12/2002	10	5/02/2006	14	-4.0
01N03E02BBC1	344339	904601	3/14/2002	53.46	3/21/2006	48.57	4.9
01N03E27ADD1	343952	904605	4/17/2002	10.5	5/02/2006	16	-5.5
01N03E35BBA1	343923	904549	3/14/2002	12.87	3/21/2006	10.24	2.6
02N01E21BAA1	344633	910005	4/12/2002	30.8	5/02/2006	35.3	-4.5

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Lee County—Continued							
02N01E23BAA2	344632	905820	3/14/2002	47.57	3/21/2006	50.18	-2.6
02N01W12BAA1	344828	910330	3/20/2002	40.55	3/21/2006	43.52	-3.0
02N01W34DDC1	344410	910520	4/10/2002	44.5	5/02/2006	52	-7.5
02N02E08ADC1	344807	905339	3/14/2002	40.01	3/21/2006	43.46	-3.5
02N02E21ABC1	344622	905358	3/14/2002	38.2	3/21/2006	37.73	0.5
02N02E22BBB1	344628	905327	4/10/2002	32	5/02/2006	28	4.0
02N02E36DDC1	344355	905020	4/17/2002	25	5/02/2006	26.5	-1.5
02N03E08AAD1	344811	904838	3/20/2002	44.45	3/21/2006	43.89	0.6
02N03E09DDD1	344723	904707	4/18/2002	48.5	5/02/2006	51	-2.5
02N03E29CAD1	344500	904846	4/10/2002	44	5/02/2006	50	-6.0
02N04E03ABD1	344855	903954	4/16/2002	23	5/03/2006	24.5	-1.5
02N04E15DAC1	344637	903950	3/20/2002	18.57	3/21/2006	17.62	1.0
03N01E16CBA1	345222	910040	3/20/2002	60.66	3/21/2006	63.57	-2.9
03N01E32BCC1	344951	910150	4/10/2002	59	5/02/2006	62	-3.0
03N02E12CDC1	345239	905053	4/16/2002	45	5/02/2006	41	4.0
03N02E13BBA1	345237	905107	3/20/2002	48.76	3/22/2006	49.98	-1.2
03N02E21CBC1	345111	905428	4/16/2002	52.5	5/02/2006	54	-1.5
03N02E29DAD1	345014	905430	3/14/2002	43.13	3/21/2006	42.71	0.4
03N03E05CDD1	345327	904837	4/9/2002	44	5/01/2006	49.5	-5.5
03N03E18DAB1	345206	904919	4/16/2002	30	5/02/2006	29	1.0
03N03E32CAB1	344933	904926	3/14/2002	48.8	3/22/2006	49.92	-1.1
03N04E07CBB1	345245	904312	4/16/2002	31.5	5/01/2006	30	1.5
03N05E14DDA1	345148	903203	3/20/2002	13.96	3/21/2006	13.56	0.4
03N05E26ADC1	345020	903215	4/16/2002	6.5	5/03/2006	7	-0.5
Lincoln County							
07S06W03CCA2	340828	914114	4/19/2002	13	4/12/2006	19	-6.0
07S07W36CBD1	340411	914529	4/19/2002	41	4/12/2006	38	3.0
08S04W06ABD1	340341	913116	4/19/2002	17	4/12/2006	20	-3.0
08S04W08BBB2	340254	913101	3/4/2002	19.76	3/20/2006	21.87	-2.1
08S04W29ABC1	340021	913044	4/19/2002	42	4/12/2006	41	1.0
08S04W31CBA1	335901	913150	3/4/2002	31.48	3/20/2006	32.63	-1.2
08S05W12AAD1	340246	913214	4/19/2002	21	4/12/2006	22	-1.0
08S05W21DCD1	340027	913533	4/19/2002	36	4/12/2006	35	1.0
08S05W32DCC1	335840	913644	4/19/2002	44	4/12/2006	43	1.0
08S06W02ACB1	340339	913958	3/4/2002	41.39	3/20/2006	42.25	-0.9

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Lincoln County—Continued							
08S07W05DDD1	340301	914903	3/2/2002	28.68	3/20/2006	29.96	-1.3
09S04W06CBB1	335721	913252	4/19/2002	32	4/12/2006	40	-8.0
09S05W14ABC1	335553	913439	3/4/2002	36.62	3/20/2006	37.21	-0.6
09S05W17BCB1	335552	913820	3/4/2002	39.69	3/20/2006	41.09	-1.4
09S05W19CCC1	335428	913941	4/19/2002	34	4/12/2006	31	3.0
09S06W04BCD1	335821	914346	3/4/2002	38.85	3/20/2006	38.12	0.7
09S06W04BDD1	335759	914335	4/19/2002	38	4/12/2006	36	2.0
09S06W23CDB1	335440	914136	3/4/2002	29.27	3/20/2006	29.73	-0.5
10S05W06DCC1	335155	913908	3/4/2002	28.92	3/20/2006	29.92	-1.0
Lonoke County							
01N08W03DDA1	344411	915050	4/19/2002	129.5	4/17/2006	139.2	-9.7
01N09W07DAA1	344337	920030	4/17/2002	49.2	4/17/2006	47	2.2
01N09W13DAB1	344235	915517	4/2/2002	85.75	4/13/2006	86.74	-1.0
01N10W15CDA1	344236	920415	4/17/2002	30.8	4/17/2006	24.7	6.1
01S06W31ABB1	343459	914131	3/18/2002	78.37	4/13/2006	78.73	-0.4
01S06W32BBB1	343501	914056	4/17/2002	79.3	4/17/2006	77	2.3
01S07W12ABA1	343834	914230	3/18/2002	67.3	4/13/2006	69.93	-2.6
01S08W24CDD1	343606	914912	3/18/2002	79.35	4/13/2006	81	-1.7
01S09W02DDD1	343857	915624	4/17/2002	88.5	4/17/2006	83	5.5
01S09W36CCC1	343435	915619	3/18/2002	60.76	4/13/2006	62.51	-1.8
01S10W01ACB1	343927	920215	3/18/2002	46	4/13/2006	45.92	0.1
02N07W07DAA1	344845	914707	4/17/2002	132.6	4/17/2006	140.2	-7.6
02N07W16BAB1	344815	914540	3/22/2002	135.09	4/13/2006	137.64	-2.5
02N08W16ABC1	344806	915114	3/22/2002	118.4	4/13/2006	128.39	-10.0
02N08W23CAB1	344659	915118	4/19/2002	133.5	4/17/2006	129.7	3.8
02N09W02BDB1	344955	915841	4/2/2002	118.84	4/13/2006	126.04	-7.2
02S07W05CDC1	343326	914715	4/19/2002	66.9	4/17/2006	70.4	-3.5
02S07W10CCB1	343246	914525	3/8/2002	61.03	4/13/2006	62.39	-1.4
02S07W20ACD1	343112	914655	4/19/2002	58.7	4/17/2006	60.6	-1.9
02S08W13BBB1	343232	914935	3/8/2002	57.08	4/13/2006	59.85	-2.8
02S08W34DBB1	343003	915150	3/8/2002	60.67	4/13/2006	66.62	-6.0
02S09W30CDD1	343014	920116	3/8/2002	36.56	4/13/2006	39.44	-2.9
03N07W08BDB1	345407	914638	4/16/2002	92.71	2/09/2006	96.48	-3.8
03N07W15DBC2	345253	914417	3/22/2002	79.22	4/13/2006	82.43	-3.2
03N07W29ADA1	345129	914558	4/16/2002	87.3	2/09/2006	94.22	-6.9

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Lonoke County—Continued							
03N07W35CDC2	344957	914332	3/22/2002	113.25	4/13/2006	116.1	-2.8
03N08W03BAA1	345519	915054	4/15/2002	88.18	2/09/2006	94.87	-6.7
03N08W03CCC1	345430	915123	4/15/2002	96.38	2/09/2006	101.86	-5.5
03N08W05CCC1	345429	915323	4/15/2002	77.23	2/09/2006	81.08	-3.8
03N08W08ABA1	345427	915248	4/15/2002	90.43	2/09/2006	93.11	-2.7
03N08W10ACB1	345415	915053	4/15/2002	84.12	2/09/2006	91.04	-6.9
03N08W10ADD1	345401	915023	4/15/2002	82.29	2/10/2006	89.88	-7.6
03N08W11ABD1	345419	914936	4/16/2002	97.5	2/10/2006	103.86	-6.4
03N08W11ACA1	345413	914934	4/17/2002	94.92	2/10/2006	101.53	-6.6
03N08W21BCC1	345220	915220	3/22/2002	79.35	4/13/2006	81.66	-2.3
03N08W29BBB1	345147	915333	4/15/2002	108.95	2/09/2006	112.33	-3.4
03N08W29BCC1	345125	915333	4/15/2002	124.06	2/09/2006	128.81	-4.8
03N08W32ABB2	345057	915259	3/19/2002	115.68	4/13/2006	118.68	-3.0
03N08W34ADD1	345035	915028	4/15/2002	113.3	2/09/2006	122.5	-9.2
04N08W05ACA1	350020	915247	4/16/2002	44.08	2/10/2006	45.64	-1.6
04N08W10BDD1	345917	915055	4/15/2002	24.56	2/10/2006	26.15	-1.6
04N08W16DCC1	345757	915154	4/15/2002	43.18	2/10/2006	46.78	-3.6
04N08W19BBB1	345753	915432	4/15/2002	5.27	2/10/2006	12.47	-7.2
04N08W26AAD1	345652	914917	4/15/2002	66.89	2/09/2006	72.86	-6.0
04N08W28CAC1	345620	915216	4/15/2002	50.88	2/09/2006	55	-4.1
04N08W28CAD1	345626	915204	4/15/2002	66.36	2/09/2006	70.26	-3.9
04N08W28CCC1	345615	915225	4/15/2002	56.53	2/09/2006	60.39	-3.9
04N08W31CBB2	345547	915439	4/15/2002	30.42	2/09/2006	28.68	1.7
04N08W36DBB1	345541	914914	4/15/2002	87.5	2/09/2006	93.71	-6.2
Mississippi County							
10N08E21ABA1	352852	901415	4/10/2002	26.4	4/18/2006	25	1.4
10N08E21BDC1	352830	901407	4/10/2002	25	4/18/2006	25	0.0
10N08E22ABA2	352851	901312	3/26/2002	23.2	4/20/2006	24.04	-0.8
10N09E08ACC1	352949	900926	3/26/2002	14.64	4/20/2006	15.84	-1.2
11N09E34BBB1	353218	900715	3/26/2002	17.12	4/20/2006	16.7	0.4
11N10E09BCB1	353530	900202	4/10/2002	14.8	4/14/2006	20	-5.2
12N08E08BCB1	354047	901559	3/26/2002	6.44	4/20/2006	10.07	-3.6
12N08E28DDB1	353707	901406	4/10/2002	12	4/18/2006	20	-8.0
12N09E12ABC1	354054	900449	4/11/2002	8.7	4/14/2006	17	-8.3
12N10E04CAA1	354124	900136	4/11/2002	9.4	4/14/2006	20	-10.6

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Mississippi County—Continued							
12N10E07BCD1	354036	900404	4/11/2002	11.5	4/14/2006	22	-10.5
12N10E21DBA1	353842	900122	4/10/2002	14.9	4/14/2006	17	-2.1
13N08E24ABB1	354428	901112	4/10/2002	11	4/18/2006	9	2.0
13N09E30CCD1	354248	901029	3/25/2002	6.91	4/20/2006	12.88	-6.0
13N10E34DBB1	354218	900024	3/25/2002	6.1	4/20/2006	8.58	-2.5
14N08E12DAB1	355104	901052	3/25/2002	3.85	4/19/2006	8.38	-4.5
14N08E20DAA1	354921	901458	4/10/2002	4	4/18/2006	5	-1.0
14N08E26CC1	354803	901235	4/10/2002	4	4/18/2006	5	-1.0
14N10E18ABC1	355022	900345	3/25/2002	9.25	4/19/2006	13.02	-3.8
14N11E03BCB1	355158	895433	3/25/2002	3.87	4/20/2006	5.26	-1.4
14N11E17CCB1	354955	895639	4/11/2002	7.9	4/10/2006	8	-0.1
14N11E33CAA1	354727	895508	4/11/2002	7.8	4/10/2006	15	-7.2
15N08E08DBC2	355605	901526	3/26/2002	7.87	4/19/2006	11.97	-4.1
15N10E21ABC1	355447	900135	4/10/2002	9	4/13/2006	13	-4.0
15N12E01BCD1	355704	894601	4/11/2002	12.6	4/13/2006	11	1.6
16N10E28BBD1*	355906	900156	4/10/2002	8	4/13/2006	14.5	-6.5
16N10E28BBD1*	355906	900156	3/25/2002	5.28	4/20/2006	11.35	-6.1
16N11E23ADA1	355947	895231	3/25/2002	10.1	4/20/2006	12.7	-2.6
Monroe County							
01N01W21CDC2	344037	910707	3/13/2002	33.87	4/04/2006	36.57	-2.7
01N02W12CBC1	344242	911032	5/1/2002	36.21	4/04/2006	39.21	-3.0
01N03W23BAC1	344124	911743	4/10/2002	13	4/14/2006	16	-3.0
01N03W24BBB1	344135	911651	3/13/2002	31.11	4/04/2006	28.63	2.5
01N04W33BBB2	343960	912649	3/13/2002	93.82	4/04/2006	95.15	-1.3
01S01W13CDD1	343611	910341	3/12/2002	20.08	4/04/2006	20.37	-0.3
01S01W16DB	343615	910632	4/10/2002	16.5	4/14/2006	22	-5.5
01S01W18DCD1	343618	910849	3/13/2002	23.25	4/04/2006	23.05	0.2
01S02W20BBB1*	343613	911456	4/10/2002	11	4/14/2006	12	-1.0
01S02W20BBB1*	343613	911456	3/12/2002	11.57	4/04/2006	13.35	-1.8
01S03W20BBA1*	343538	912118	4/10/2002	78.5	4/14/2006	79	-0.5
01S03W20BBA1*	343538	912118	3/13/2002	73.16	4/04/2006	73.73	-0.6
01S04W01BAB1	343906	912317	3/13/2002	76.91	4/04/2006	68.7	8.2
02N01W19ADD1	344624	910814	4/17/2002	48	4/14/2006	53	-5.0
02N01W19BBA1	344645	910912	3/13/2002	51.15	4/05/2006	54.27	-3.1
02N03W35BCA1	344455	911745	4/10/2002	29	4/14/2006	34	-5.0

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Monroe County—Continued							
02S01W01BCD1	343305	910408	4/10/2002	20	4/14/2006	19	1.0
02S02W01BCA1	343322	911031	3/13/2002	11.54	4/04/2006	12.13	-0.6
02S02W11DAC1	343209	911101	5/1/2002	6.53	4/04/2006	10.16	-3.6
03N01W20ABA1	345201	910723	3/13/2002	46.28	4/05/2006	48.07	-1.8
03N02W31ADC1	344958	911447	3/13/2002	37.9	4/05/2006	38.53	-0.6
03N03W36AAA1	345027	911547	3/13/2002	18.91	4/05/2006	22.2	-3.3
04N02W01BCC1	345929	911004	4/17/2002	37	4/13/2006	39.5	-2.5
04N02W05BBB1	345957	911311	4/17/2002	13	4/13/2006	15	-2.0
04N02W27CDD3	345540	911150	3/13/2002	45.15	4/05/2006	45.5	-0.4
04N02W28DDD3	345535	911221	3/13/2002	32.82	4/05/2006	32.19	0.6
04N02W30BBB1	345628	911525	3/13/2002	14.9	4/05/2006	14.53	0.4
Phillips County							
01S01E20DDB1	343529	910058	4/16/2002	16.8	4/10/2006	26	-9.2
01S02E09CBB1*	343719	905434	4/16/2002	9.5	4/10/2006	14.8	-5.3
01S02E09CBB1*	343719	905434	3/14/2002	9.49	3/21/2006	14.29	-4.8
01S02E32BCC1	343350	905526	4/16/2002	31.6	4/10/2006	37	-5.4
01S03E02ADD1	343814	904511	4/16/2002	14.7	4/10/2006	16.6	-1.9
01S03E10ABB1	343741	904634	4/16/2002	13	4/10/2006	18	-5.0
01S03E20BDD1	343533	904846	4/16/2002	29	4/10/2006	33	-4.0
01S04E05DCD1*	343802	904151	4/16/2002	43	3/21/2006	48.91	-5.9
01S04E05DCD1*	343802	904151	5/1/2002	47.2	4/10/2006	49	-1.8
02S01E28CCB1	342916	910058	3/14/2002	18.37	3/21/2006	17.95	0.4
02S02E29DDD1	342901	905444	4/16/2002	23.5	4/10/2006	27.6	-4.1
02S02E33ACC1	342824	905412	4/16/2002	22.7	4/10/2006	26	-3.3
02S03E15ACD1	343110	904621	3/14/2002	11.49	5/08/2006	13.78	-2.3
02S03E34BCD1	342828	904653	4/18/2002	18.4	4/12/2006	18	0.4
02S04E27AAC1*	342932	904001	4/18/2002	8.5	4/10/2006	10	-1.5
02S04E27AAC1*	342932	904001	3/14/2002	8	3/21/2006	8.59	-0.6
03S02E35DDA1	342256	905130	3/14/2002	20.71	3/21/2006	21.23	-0.5
03S03E04DAA1	342735	904710	5/1/2002	19.72	3/21/2006	19.29	0.4
03S04E02CAA1*	342732	903918	4/18/2002	11	4/10/2006	17	-6.0
03S04E02CAA1*	342732	903918	5/1/2002	12	3/21/2006	16.16	-4.2
04S01E01AAD1	342238	905700	4/18/2002	17	4/12/2006	22	-5.0
04S01E14CDD1	342014	905837	4/18/2002	12.1	4/12/2006	15	-2.9
04S01E23CCA1	341931	905853	3/14/2002	13.45	3/21/2006	13.4	0.0

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Phillips County—Continued							
04S02E01DBB1	342220	905053	4/18/2002	12.2	4/12/2006	15.6	-3.4
05S02E18BDA1	341535	905628	3/14/2002	17.47	3/21/2006	22.5	-5.0
Poinsett County							
10N01E02AAA	353205	905654	4/4/2002	93	4/13/2006	98	-5.0
10N01E14CC1	352910	905814	3/25/2002	87.48	3/28/2006	92.41	-4.9
10N01E16CCB1	352922	910005	3/25/2002	70.82	3/28/2006	74.99	-4.2
10N01E32CBB1	352657	910053	4/4/2002	50	4/13/2006	74	-24.0
10N01E33ACB1	352746	905931	4/4/2002	74	4/13/2006	77	-3.0
10N02E13BCC1	352949	905026	3/25/2002	99.21	3/28/2006	103.24	-4.0
10N02E20BAB1	352906	905418	4/4/2002	99	4/13/2006	112.5	-13.5
10N03E14DAB1	352947	904405	3/25/2002	114.62	3/28/2006	118.63	-4.0
10N03E35CDD1	352656	904436	3/25/2002	121.67	3/28/2006	124.43	-2.8
10N04E35BBA1	352745	903831	4/3/2002	20	4/17/2006	21	-1.0
10N05E15BDD1	352937	903253	3/26/2002	11.45	3/29/2006	14.76	-3.3
10N07E22AAC1	352847	901935	3/26/2002	28.2	3/29/2006	27.8	0.4
11N01E17DDC1	353437	910015	4/4/2002	76	4/13/2006	78	-2.0
11N01E17DDD1	353437	910013	3/25/2002	74.6	3/28/2006	78.61	-4.0
11N01E26AA1	353340	905653	3/25/2002	92.03	3/28/2006	94.72	-2.7
11N01E34AAA	353256	905759	4/4/2002	84	4/13/2006	88.5	-4.5
11N02E26AAB1	353350	905034	3/25/2002	104.07	3/28/2006	107.55	-3.5
11N02E30BBB1	353352	905540	4/4/2002	98	4/17/2006	102.5	-4.5
11N02E34CBA1	353238	905222	4/4/2002	94	4/13/2006	109	-15.0
11N03E10DDA1	353546	904457	3/25/2002	102	3/28/2006	104.78	-2.8
11N03E18BAB1	353538	904852	3/25/2002	101.5	3/28/2006	105.34	-3.8
11N04E36ABA1	353251	903654	4/3/2002	19	4/17/2006	18	1.0
11N07E18CAB1	353435	902320	3/26/2002	14.34	3/29/2006	15.37	-1.0
12N01E07CDA1	354054	910141	3/25/2002	52.5	3/28/2006	53.97	-1.5
12N01E22DAB1	353922	905809	4/4/2002	72	4/13/2006	74	-2.0
12N02E25DCC1	353820	904944	4/4/2002	108	4/13/2006	112	-4.0
12N02E34CCC1	353724	905230	4/4/2002	109	4/13/2006	112.5	-3.5
12N03E01CBD1	354154	904329	4/4/2002	91	4/17/2006	93	-2.0
12N03E04DAD1*	354158	904600	4/4/2002	102	4/17/2006	104	-2.0
12N03E04DAD1*	354158	904600	3/25/2002	100.81	3/28/2006	103.52	-2.7
12N03E36ACB1	353749	904319	3/25/2002	95.66	3/28/2006	98.57	-2.9
12N04E08CDA	354053	904112	4/4/2002	86	4/17/2006	88	-2.0

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Poinsett County—Continued							
12N05E16ABA1	354039	903333	4/3/2002	10	4/17/2006	12	-2.0
12N05E34ABA1	353805	903230	3/26/2002	9.5	3/28/2006	10.65	-1.2
12N07E04BAA1	354202	902060	3/26/2002	4.24	3/29/2006	6.93	-2.7
Prairie County							
01N06W05CCB1	344353	914049	3/12/2002	116.15	4/11/2006	117.8	-1.6
01S04W28BDB1	343523	912630	3/12/2002	83.17	4/11/2006	97.28	-14.1
01S05W14BBC1	343722	913109	3/12/2002	108.14	4/11/2006	108.15	0.0
01S05W31DDA1	343417	913432	3/12/2002	95.34	4/11/2006	103.6	-8.3
02N04W02BCB1	344916	912419	3/11/2002	20.65	4/11/2006	20.27	0.4
02N04W32CCB1	344436	912738	3/12/2002	84.08	4/11/2006	84.72	-0.6
02N05W06BAB1	344958	913421	3/11/2002	88.4	4/11/2006	89.19	-0.8
02N05W13AAB1	344805	912854	3/12/2002	76.2	4/11/2006	81.74	-5.5
02N05W29DDB2	344545	913309	3/12/2002	116.89	4/11/2006	118.84	-2.0
02N06W17ABB1	344809	913959	3/12/2002	122.18	4/11/2006	124.26	-2.1
02S06W14BBB1	343213	913729	3/12/2002	75.65	4/11/2006	74.29	1.4
03N04W03AAC1	345439	912424	3/11/2002	25.92	4/11/2006	28.3	-2.4
03N05W03BDD2	345444	913115	3/11/2002	64.12	4/11/2006	67.7	-3.6
03N06W01BCB1	345455	913601	3/11/2002	77.39	4/11/2006	79.08	-1.7
03N06W19BDD1	345207	914110	3/11/2002	83.73	4/12/2006	86.73	-3.0
04N04W07ADC1	345850	912733	3/11/2002	24.52	4/11/2006	26.73	-2.2
04N05W07CDC1	345043	913441	3/11/2002	74.33	4/12/2006	76.54	-2.2
04N06W05CCC1	345934	914018	3/11/2002	61.02	4/11/2006	78.35	-17.3
04N07W03DCB1	345942	914412	3/11/2002	85.93	4/12/2006	87.33	-1.4
04N07W28BBA1	345701	914545	3/11/2002	93.08	4/12/2006	95.77	-2.7
05N05W14DCD1	350252	913034	3/11/2002	36	4/12/2006	39.62	-3.6
Pulaski County							
01S10W29CC1	343538	920708	3/5/2002	17.13	4/03/2006	18.02	-0.9
02S10W14DC1	343205	920334	3/5/2002	25.97	4/03/2006	24.9	1.1
02S10W16CCA1	343217	920549	3/5/2002	21.98	4/03/2006	27.27	-5.3
Randolph County							
18N01E28AAD1	361040	905820	4/18/2002	15.7	4/24/2006	22	-6.3
18N01E34AAC1	360943	905729	3/28/2002	16.63	4/17/2006	18.18	-1.6
18N02E03DAD1	361336	905043	4/18/2002	32.4	4/24/2006	56	-23.6
18N02E17CBB1	361204	905356	4/18/2002	16.1	4/24/2006	23	-6.9
18N02E20BDA1	361125	905332	4/18/2002	32.5	4/24/2006	42.5	-10.0

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Randolph County—Continued							
18N02E22DCD1	361046	905105	3/28/2002	36.34	4/17/2006	37.47	-1.1
18N02E34BCC1	360933	905150	4/18/2002	56	4/24/2006	31	25.0
19N02E09ABD1	361826	905157	4/17/2002	1.4	4/25/2006	18	-16.6
19N02E22DAB1	361622	905049	4/17/2002	0.3	4/24/2006	15.5	-15.2
20N02E01ADD1	362424	904811	3/28/2002	9.44	4/17/2006	13.93	-4.5
20N02E12BAA1	362352	904848	4/17/2002	4.3	4/25/2006	12	-7.7
20N02E14DAB1	362232	904930	4/17/2002	8.9	4/25/2006	14	-5.1
20N02E21CDD1	362117	905107	4/17/2002	6.2	4/25/2006	12	-5.8
20N03E28BA1	362114	904538	3/28/2002	11.75	4/17/2006	12.86	-1.1
20N03E33CCA1	361941	904552	4/17/2002	21.7	4/24/2006	26	-4.3
St. Francis County							
04N01E13ADA1	345755	905638	3/21/2002	56.87	3/22/2006	60.34	-3.5
04N01W20BBB1	345716	910759	4/16/2002	57	5/15/2006	59	-2.0
04N01W25DBD1	345549	910303	4/16/2002	68	5/15/2006	76	-8.0
04N01W28CDD1	345535	910634	4/1/2002	68	3/22/2006	71.42	-3.4
04N02E16ACD1	345733	905341	4/16/2002	49	5/15/2006	41	8.0
04N02E19BBB1	345701	905633	4/1/2002	56.08	3/22/2006	60.16	-4.1
04N02E27AAA1	345604	905220	4/16/2002	46	5/15/2006	48	-2.0
04N03E21DAD1	345623	904655	4/1/2002	59.23	3/22/2006	58.14	1.1
04N04E15ABA1	345752	903948	4/18/2002	32	5/15/2006	34	-2.0
04N05E22BBB1	345651	903357	3/22/2002	28.48	3/22/2006	27.02	1.5
05N01E06CDA1	350437	910218	4/16/2002	67	5/15/2006	71	-4.0
05N01E15BCB1	350303	905942	4/1/2002	61.34	3/22/2006	67.19	-5.8
05N01E27BBA1	350136	905929	3/21/2002	63.63	3/22/2006	66.93	-3.3
05N02E20ADC1	350157	905437	4/1/2002	53.57	3/22/2006	54.79	-1.2
05N03E20AAA2	350214	904801	3/21/2002	104.55	3/22/2006	103.87	0.7
05N05E19DCA1	350128	903630	3/22/2002	34.23	3/22/2006	32.77	1.5
05N05E33BCC1	350004	903506	4/18/2002	28	5/15/2006	29	-1.0
05N06E34CAB1	350026	902657	3/22/2002	28.05	3/22/2006	27.69	0.4
06N01E33ACA2	350552	905942	4/1/2002	64.42	3/22/2006	67.14	-2.7
06N02E13DCA1	350813	905003	4/1/2002	73.11	3/22/2006	73.85	-0.7
06N02E15BDD1	350842	905247	4/1/2002	52.23	3/22/2006	60.15	-7.9
06N02E16CCC1	350804	905403	4/16/2002	63	5/15/2006	66.5	-3.5
06N02E24AAA1	350755	905002	4/1/2002	70.26	3/22/2006	71.46	-1.2
06N05E22ACC1	350723	903252	4/1/2002	46.7	3/22/2006	40.63	6.1

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
St. Francis County—Continued							
06N06E20ABB2	350747	902841	3/21/2002	34	3/22/2006	36.75	-2.8
White County							
05N07W09AAA1	350447	914441	4/1/2002	19.1	3/23/2006	14.32	4.8
05N07W10CCC1	350400	914436	4/1/2002	7.68	3/23/2006	9.01	-1.3
06N06W04BAA1	351047	913910	4/1/2002	37.97	3/23/2006	35.47	2.5
06N06W04BAD1	351037	913903	4/16/2002	41	4/25/2006	40.8	0.2
06N06W13DBB1	350918	913552	4/16/2002	48.5	4/25/2006	47.3	1.2
06N06W18BBC1	350851	914152	4/1/2002	19	3/23/2006	18.13	0.9
06N06W18BCA1	350835	914150	4/16/2002	21.5	4/25/2006	20.3	1.2
06N06W34AAB1	350624	913754	4/1/2002	59.86	3/23/2006	60.63	-0.8
06N07W17DCC1	350822	914635	4/1/2002	13.94	3/23/2006	15.7	-1.8
06N08W13ABA1	350908	914824	4/1/2002	8.2	3/23/2006	13.6	-5.4
06N08W26DDB1	350640	914931	4/1/2002	12.62	3/23/2006	14.47	-1.9
07N05W01AAA1	351553	912858	3/29/2002	15	3/23/2006	17.52	-2.5
07N05W32BAB1	351137	913406	4/1/2002	27.76	3/23/2006	32.64	-4.9
08N04W06CCB1	352028	912847	3/29/2002	16.02	3/23/2006	20.5	-4.5
08N05W32CBC1	351616	913417	3/29/2002	0.6	3/23/2006	4.17	-3.6
Woodruff County							
04N03W03AB1	350021	911820	3/20/2002	12.13	3/28/2006	14.61	-2.5
05N01W13CDC1	350244	910331	3/25/2002	71.6	4/05/2006	74.6	-3.0
05N01W31CCC1	350106	910900	3/25/2002	57.3	4/05/2006	59.1	-1.8
05N02W20DCB1	350208	911356	3/20/2002	13.17	3/28/2006	15.25	-2.1
05N03W25DDB1	350133	911531	3/25/2002	12.7	4/05/2006	12.7	0.0
05N04W12DBA1	350427	912211	3/20/2002	3.11	3/27/2006	6.16	-3.1
06N01W06BAB1	351048	910835	3/20/2002	32.8	3/28/2006	34.53	-1.7
06N02W19AAA1	350802	911419	3/25/2002	46.5	4/05/2006	45.5	1.0
06N03W15BAB1	350903	911807	3/20/2002	4.38	3/27/2006	6.63	-2.3
06N03W31BCB1	350623	912144	3/20/2002	0.98	3/27/2006	2.86	-1.9
07N01W04ACB1	351541	910626	3/26/2002	60	4/05/2006	60.9	-0.9
07N03W06BAC1	351607	912109	3/27/2002	25.15	4/05/2006	24.4	0.8
07N03W19AAA1	351335	912025	3/20/2002	11.75	3/27/2006	12.95	-1.2
07N03W31BBA1	351152	912103	3/27/2002	9.4	4/05/2006	11.9	-2.5
08N01W06DDD1	352028	910747	3/20/2002	41.9	3/28/2006	44.57	-2.7
08N02W27DDB1	351711	911107	3/26/2002	27	4/05/2006	27	0.0
08N02W31DDD1	351611	911411	3/20/2002	2.51	3/28/2006	4.02	-1.5

Appendix 2. Information pertaining to the difference in water levels measured in 2002 and 2006 in the Mississippi River Valley alluvial aquifer in eastern Arkansas.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); *, control wells for duplicate measurements by USGS and NRCS]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	2002 water-level date	2002 depth to water (feet below land-surface datum)	2006 water-level date	2006 depth to water (feet below land-surface datum)	Water-level difference 2002 to 2006 (feet)
Woodruff County—Continued							
08N03W31AAD1	351655	912028	3/20/2002	24.29	3/27/2006	21.95	2.3
08N04W27AAA1	351757	912341	3/20/2002	3.21	3/27/2006	13.1	-9.9
09N03W28ABB1	352310	911845	3/26/2002	19.9	4/05/2006	19.6	0.3
09N03W29AAD1	352258	911921	3/20/2002	21.42	3/27/2006	22.53	-1.1
09N03W32ACA1	352205	911936	3/26/2002	19	4/05/2006	21.6	-2.6

Appendix 3. Specific conductance and temperature data collected from wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, summer 2006.

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); uS/cm, microsiemens per centimeter at 25 degrees Celsius]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Date	Specific conductance (µS/cm)	Temperature (degrees Celsius)
Arkansas County					
02S04W14CD1	343100	912445	6/21/2006	887	19.5
04S03W17ADD1	342102	912058	6/21/2006	1,080	19.5
04S06W16BD1	342130	914000	6/21/2006	720	20.0
05S04W07CCC1	341555	912932	6/21/2006	1,010	19.6
Ashley County					
15S04W23DBD1	332247	912852	6/19/2006	612	19.2
17S07W05CDD1	331502	915050	6/19/2006	689	19.7
18S08W01AAB1	331015	915225	6/19/2006	583	19.8
Chicot County					
13S03W35BAC1	333154	912246	6/20/2006	376	23.6
17S01W06BCC1	331501	911505	6/20/2006	797	19.2
17S03W09ADA1	331415	912426	6/20/2006	2,960	20.3
Clay County					
19N08E02ABB1	361859	901104	6/28/2006	371	16.8
19N08E28BB1	361519	901318	6/28/2006	356	16.7
20N08E24DDA1	362057	900934	6/28/2006	362	17.0
21N04E34DDC1	362445	903729	6/28/2006	267	17.9
Craighead County					
13N03E29AAA1	354403	904713	6/28/2006	1,140	18.2
15N06E19AAB1	355517	902857	6/27/2006	513	19.2
16N07E32ADD1	355813	902138	6/27/2006	407	18.9
Crittenden County					
06N07E13BAA1	350850	901808	6/27/2006	516	18.5
07N07E31CCC1	351042	902359	6/27/2006	496	18.0
Cross County					
07N01E05CDA1	351518	910049	6/27/2006	961	19.0
09N01E33BBA1	352204	905959	6/27/2006	566	18.7
09N05E32BDB1	352151	903512	6/27/2006	569	18.5
Desha County					
09S04W06BCA1	335756	913243	6/20/2006	877	20.6
10S03W26CAA1	334806	912145	6/20/2006	826	19.4
Drew County					
11S04W08DBA1	334532	913136	6/19/2006	380	21.1
14S04W27AA1	332734	912925	6/19/2006	637	19.8
Greene County					
16N06E28ABB1	355938	902657	6/28/2006	819	17.8

Appendix 3. Specific conductance and temperature data collected from wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, summer 2006.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); uS/cm, microsiemens per centimeter at 25 degrees Celsius]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Date	Specific conductance (µS/cm)	Temperature (degrees Celsius)
Jackson County					
09N02W32CBB1	352152	911348	6/28/2006	426	18.4
10N02W29ABB1	352829	911312	6/28/2006	299	18.7
14N01W09AAA1	355220	910515	6/28/2006	460	18.1
Jefferson County					
03S09W18CC2	342656	920139	6/20/2006	642	20.2
03S09W31DDA1	342415	920049	6/20/2006	608	24.6
04S08W13DCB1	342123	914926	6/20/2006	527	20.0
06S06W23AAD1	341007	913712	6/20/2006	675	19.7
Lawrence County					
16N02E05BA1	360326	905352	6/28/2006	599	18.1
Lee County					
01N03E23CCC1	344025	904604	6/22/2006	692	19.2
03N03E32CAB1	344933	904926	6/22/2006	540	18.8
Lincoln County					
08S04W19CC1	340021	913205	6/19/2006	843	19.4
09S06W04BCD1	335821	914346	6/19/2006	372	19.1
09S07W01DC1	335714	914637	6/19/2006	548	19.9
Lonoke County					
01N07W29BBB1	344114	914720	6/21/2006	458	20.7
02N07W02BBA1	344957	914338	6/21/2006	415	20.9
02S08W13BBB1	343232	914935	6/21/2006	712	20.0
Mississippi County					
12N08E20DAD1	353842	901458	6/27/2006	411	19.4
Monroe County					
01N02W12CBC1	344242	911032	6/22/2006	985	19.2
01N04W33BB2	343958	912646	6/22/2006	743	19.4
01S04W01BAB1	343906	912317	6/22/2006	712	19.4
03N03W36AAA1	345027	911547	6/22/2006	806	18.9
Phillips County					
02S01E28CCB1	342916	910058	6/22/2006	606	19.5
Poinsett County					
10N03E14DAB1	352947	904405	6/27/2006	558	19.9
10N03E35CDD1	352656	904436	6/27/2006	532	19.4
11N02E26AAB1	353350	905034	6/27/2006	787	19.2
11N07E18CAB1	353435	902320	6/27/2006	537	19.1

Appendix 3. Specific conductance and temperature data collected from wells completed in the Mississippi River Valley alluvial aquifer in eastern Arkansas, summer 2006.—Continued

[Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83); uS/cm, microsiemens per centimeter at 25 degrees Celsius]

Station name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Date	Specific conductance (µS/cm)	Temperature (degrees Celsius)
Prairie County					
01S04W28BD1	343521	912624	6/22/2006	952	19.6
02N05W06BAB1	344958	913421	6/22/2006	1,000	19.7
02N05W29DDB2	344545	913309	6/22/2006	886	19.1
Pulaski County					
02S10W14DC1	343205	920334	6/21/2006	830	20.3
Randolph County					
18N01E34AAC1	360943	905729	6/28/2006	761	17.7
St. Francis County					
04N01E13DDA1	345708	905638	6/22/2006	714	19.5
04N01W24DA1	345649	910247	6/22/2006	892	19.5
06N02E13DCA1	350813	905003	6/23/2006	755	19.1
White County					
06N06W34AAB1	350624	913754	6/23/2006	843	18.0
Woodruff County					
06N01W10AB1	350945	910513	6/23/2006	925	19.1
07N01W32CCD1	351046	910741	6/23/2006	589	18.3
08N03W31AAD1	351655	912028	6/23/2006	668	18.5

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U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
ARKANSAS NATURAL RESOURCES COMMISSION and the
ARKANSAS GEOLOGICAL SURVEY

SCIENTIFIC INVESTIGATIONS REPORT 2008–5092

Potentiometric surface of the alluvial aquifer, spring 2006—PLATE 1

Schrader, T.P., 2008, Water levels and selected water-quality conditions in the Mississippi River Valley alluvial aquifer in eastern Arkansas, 2006

EXPLANATION

Potentiometric depression and other areas of reduced water level

— 140 — Potentiometric contour—Shows altitude at which water level would have stood in tightly cased wells. Dashed where approximately located. Hachures indicate depression. Contour interval 10 feet. Datum is National Geodetic Vertical Datum of 1929. Measurements made during the spring of 2006

F.190 **Well completed in Mississippi River Valley alluvial aquifer**—Letter, when present, corresponds to hydrograph in figure 4. Value is water-level altitude above the National Geodetic Vertical Datum of 1929

Direction of ground-water flow

NOTE: The potentiometric contours are generalized to portray synoptically the head in a dynamic hydrologic system, not taking into account the variation in well depth, non-simultaneous measurements of water level, or various effects of pumping, and may not conform exactly with individual measurement of water level.

0 10 20 30 40 MILES
0 10 20 30 40 KILOMETERS

Base from U.S. Geological Survey digital data, 1:500,000

Potentiometric Surface of the Mississippi River Valley Alluvial Aquifer, Spring 2006

By
T.P. Schrader

2008

U.S. DEPARTMENT OF THE INTERIOR
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ARKANSAS NATURAL RESOURCES COMMISSION and the
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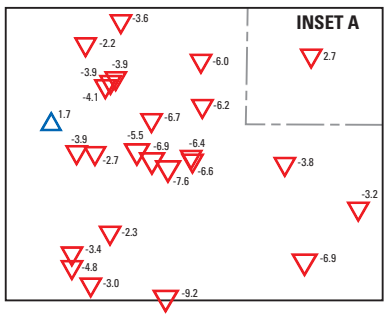
SCIENTIFIC INVESTIGATIONS REPORT 2008–5092
Difference in water level in the alluvial aquifer—PLATE 2
Schrader, T.P., 2008, Water levels and selected water-quality conditions in the Mississippi River Valley alluvial aquifer in eastern Arkansas, 2006



EXPLANATION

Well completed in Mississippi River Valley alluvial aquifer—Value is rise in water level from 2002 to 2006, in feet. Symbols are scaled to value, smallest positive value increasing to largest positive value

Well completed in Mississippi River Valley alluvial aquifer—Value is decline in water level from 2002 to 2006, in feet. Symbols are scaled to value, smallest negative value increasing to largest negative value

Well completed in Mississippi River Valley alluvial aquifer—No difference in water level from 2002 to 2006, in feet

0 10 20 30 40 MILES
0 10 20 30 40 KILOMETERS

Base from U.S. Geological Survey digital data, 1:500,000

Difference in Water Level from 2002 to 2006 in the Mississippi River Valley Alluvial Aquifer in Eastern Arkansas

By
T.P. Schrader
2008