Geology and Ground-Water Resources of the Scottsville Area Kentucky

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1528

Prepared in cooperation with the Commonwealth of Kentucky, Department of Economic Development and the Kentucky Geological Survey, University of Kentucky

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By WILLIAM B. HOPKINS

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GEOLOGY AND GROUND-WATER RESOURCES OF THE SCOTTSVILLE AREA, KENTUCKY

By William B. Hopkins

ABSTRACT

The Scottsville area includes about 240 square miles in south-central Kentucky, comprising about 215 square miles of Allen County and about 25 square miles of Barren County. The area is underlain by limestone, shale, and shaly, cherty limestone which range from Silurian to Mississippian in age. The bedrock is overlain by a mantle of residual and transported unconsolidated material of Pleistocene and Recent age.

Large supplies of fresh ground water can be obtained from the Louisville limestone of Silurian age wherever the connate sulfurous or saline water has been flushed from solutional openings of pre-Chattanooga age that are in the formation. The largest known springs in the Scottsville area flow from solutional openings in the Louisville. Part of the flow of one of these springs is used as a public supply for the city of Scottsville, and part of the flow of another is used for irrigation. Flows of two of the largest springs range from about 400 to 8,300 gpm (gallons per minute) for one spring and from 1,225 to 20,900 gpm for the other. Although only about 1 percent of the 1,199 springs inventoried issue from the Louisville limestone, they discharge nearly as much water as all other inventoried springs in the Scottsville area combined. Both the median and the average discharge of all inventoried springs is 5 gpm.

Little or no water for domestic or stock supplies is obtainable from the Chattanooga shale of Devonian age.

Small water supplies sufficient for domestic and stock use are obtainable from the Fort Payne chert of Mississippian age. More than 50 percent of the 902 wells and nearly 38 percent of the springs inventoried obtained their water from the Fort Payne. Water in the Fort Payne is in solutional openings at the contact between overlying soluble and underlying less soluble strata. Movement of water through these openings is rapid. Water levels in wells rise within a day after winter rains, but recede toward the preexisting level during the next 2 to 5 days.

Perched or semiperched water occurs in the Warsaw and St. Louis limestones of Mississippian age, usually in quantities insufficient for domestic use. More than 23 percent of the wells and more than 21 percent of the springs inventoried yield water from the Warsaw and St. Louis limestones. The water is in solutional openings but it is descending to the base of the Warsaw. At the base of the Warsaw limestone, quantities of water sufficient for domestic or stock supplies can be obtained but the water is apt to be sulfurous.

Small supplies of water, sufficient for domestic and stock use, are obtainable from the mantle rock of Pleistocene and Recent age. More than 16 percent of the

wells and nearly 40 percent of the springs inventoried yield water from the mantle rock.

Most ground water in the Scottsville area has a hardness of more than 220 ppm (parts per million). Most of the 79 water samples analyzed were of the calcium bicarbonate type, but some contained a large amount of sulfate and others contained a relatively large amount (more than 10 ppm) of nitrate. Samples high in nitrate come from wells that obtain water from the base of the mantle rock. The samples high in sulfate generally come from wells that obtain water from the shaly zone at the base of the Warsaw limestone or from openings in the Warsaw and other formations that lie beneath the zone of freely circulating water.

INTRODUCTION

PURPOSE AND SCOPE OF INVESTIGATION

This report on the source, occurrence, and quality of ground-water supplies in the Scottsville area, Kentucky, is one of a series on the ground-water resources in Kentucky being prepared by the U.S. Geological Survey in cooperation with the Department of Economic Development of Kentucky. In 1958 the cooperation was transferred from that department to the Kentucky Geological Survey. The index map, figure 1, shows the areas in Kentucky covered by reports and the areas where work is in progress. The purpose of this investigation is to obtain detailed information on the occurrence, use, and quality of ground water of a small area typical of the lower formations of the Mississippian Plateau region of Kentucky. The information will be used as a basis for further ground-water studies in the Mississippian Plateau.

The fieldwork for this report was supervised by G. E. Hendrickson and E. H. Walker, geologists, and the report was written under the supervision of Mr. Hendrickson while district geologist of the Ground Water Branch of the U.S. Geological Survey, Louisville, Ky. Chemical analyses were made under the direction of W. L. Lamar, who at the time was district chemist, U.S. Geological Survey, Columbus, Ohio.

LOCATION OF AREA

The Scottsville area is in the Mississippian limestone plateau of south-central Kentucky, a section of the Interior Low Plateaus physiographic province. It is bounded on the south by the Tennessee State line, on the east by longitude 86°, on the west by longitude 86°15′, and on the north by latitude 36°52′30″. It includes about 240 square miles, of which about 90 percent is in Allen County and 10 percent is in Barren County. Scottsville is the only incorporated

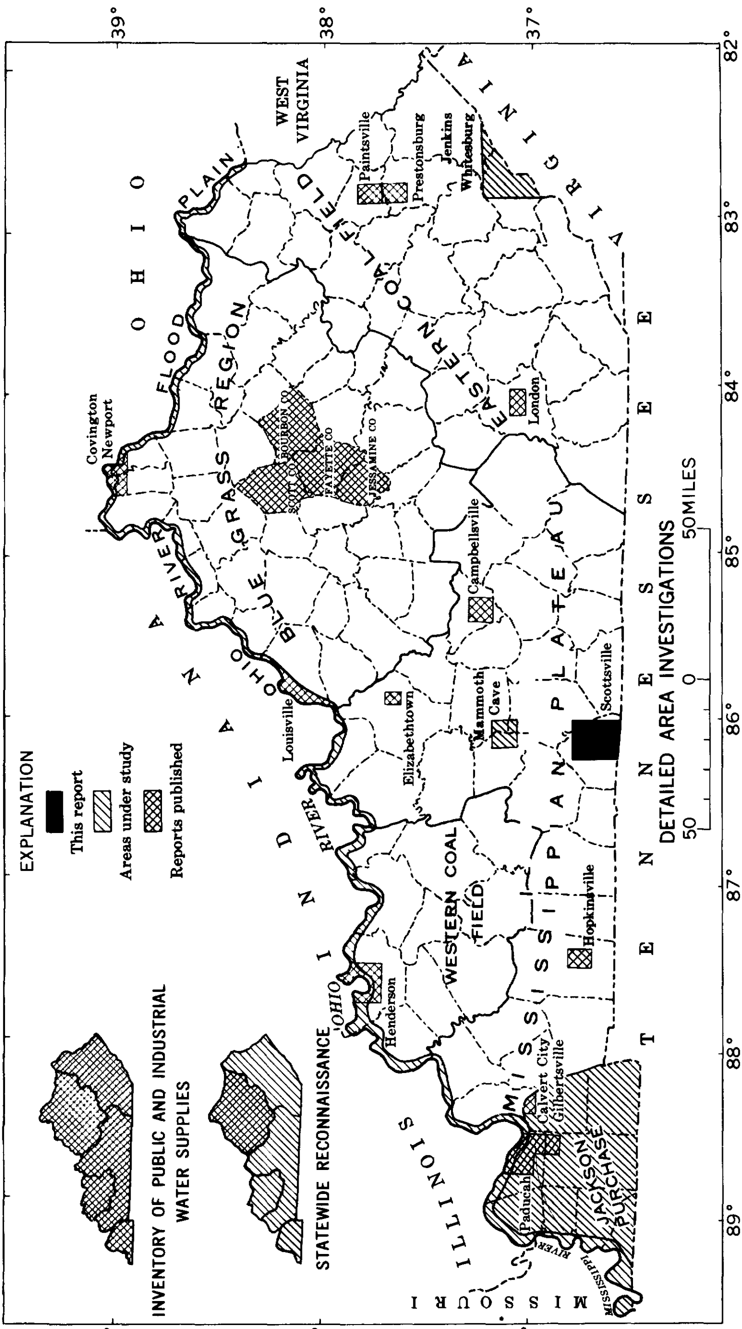

FIGURE 1.—Index map of Kentucky showing progress of ground-water investigations.

city in the area. Unincorporated towns include Austin, Gainesville, Holland, and Petroleum.

METHOD OF INVESTIGATION

As originally planned, the investigation was limited to the west half of the total area covered in this report. The east half of the Scottsville area was added in 1953 to include the pre-Chattanooga dolomitic limestones, which are important aquifers. The fieldwork was begun in July 1950 and consisted principally of inventorying wells and springs, obtaining water samples for chemical analysis, and selecting unused wells for observations of water levels. Philip U. Martin and John S. Benko inventoried most of the wells and springs in the west half of the area. The wells and springs in the east half were inventoried by the author and Richmond F. Brown.

Fieldwork included inventory of 902 wells and 1,199 springs, study of outcrops and drill cuttings, measurements of water levels in wells, measurements of discharge from springs, and collection of 79 samples of water for chemical analysis.

ACKNOWLEDGMENTS

Appreciation is expressed to all the individuals who gave information concerning their wells and springs, and especially to those who permitted repeated access to their properties for water-level and discharge measurements. The well drillers in the area supplied well logs and samples and other data pertinent to local stratigraphy and structure.

The geologic maps (pl. 1) accompanying this report are based largely on the map of the areal geology and structure of Allen County prepared by A. M. Miller (1919). Parts of the map (pl. 1) were revised by the author to make it conform with published topographic maps.

WELL-NUMBERING SYSTEM

Wells and springs inventoried by the U.S. Geological Survey in Kentucky are numbered according to a statewide grid of 5-minute meridians of longitude and 5-minute parallels of latitude. The wells and springs in a 5-minute quadrangle, or part thereof, are numbered consecutively in the order inventoried. Each quadrangle takes its number from the longitude and latitude of its southeast corner. Thus, well 8600–3640–1 in figure 2 is the first well inventoried and numbered in the quadrangle bounded on the east by longitude 86°00′ and on the south by latitude 36°40′. Springs are numbered in sequence with the wells but are listed in a separate table for convenience.

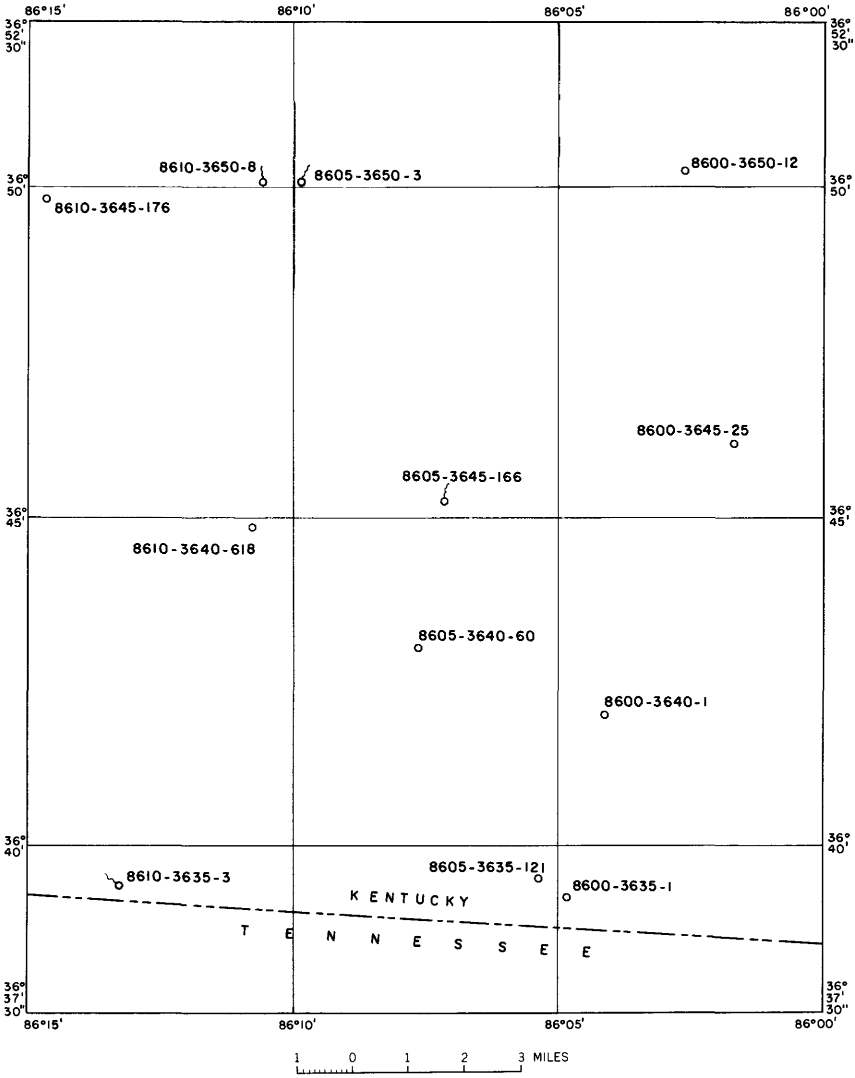

FIGURE 2.—Sketch of Scottsville area, Kentucky, showing system used for numbering wells and springs.

Localities of interest for geology and ground-water studies are designated in the report by numbers of the same type used for the wells and springs.

PREVIOUS INVESTIGATIONS

No previous detailed studies of ground water have been made in this area. A. M. Piper (1932) described the occurrence of ground water in an adjoining part of north-central Tennessee, southwest of the Scottsville area.

The geology of the Allen County area has been described by Shaw and Mather (1919) and by Miller (1919). Other publications that refer to the Allen County area are listed on pages 67–69.

GEOGRAPHY

DRAINAGE

The Scottsville area is drained by the Barren River and its tributaries. In Allen County these tributaries are Puncheon, Pinchgut, Long Hungry, Long, Rhoden, Walnut, Hurricane, Difficult, and Little Difficult Creeks and Bays and Trammel Forks. The tributaries draining the Barren County section are Glover, Dry, Caney, and Peter Creeks. Of these streams, Peter, Puncheon, and Long Creeks, Trammel Fork, and the Barren River are the only ones that do not originate within the Scottsville area as defined in this report. Their headwaters lie to the south and east.

GEOMORPHOLOGY

Erosion of a series of gently dipping shale and limestone strata has formed a terrain of late youth or early maturity, with narrow ridges, narrow flood plains, and hillsides that range from gentle to steep. Total relief in the area is about 500 feet. The lowest point is about 470 feet above sea level on the Barren River where it leaves the area. The highest point, about 970 feet above sea level, is about a mile east of Mount Carmel Church. The local relief is generally between 100 and 250 feet, from the valley bottoms to the upland ridges.

The Barren River is the master stream of the Scottsville area. Before its most recent period of downcutting it was a consequent stream upon an uplifted peneplain. As it cut down, its course was altered to accord in part with the pattern of joints in the rocks, as is shown by its many angular bends. According to Shaw and Mather (1919, p. 71), "the most prominent set of joints trends between N. 40° E. and N. 60° E." Several reaches of the Barren River and also of Long Creek approximate these directions.

The southeast quarter of the Scottsville area is underlain by shales and shaly limestones. This part of the area includes the steepest slopes, as well as the widest flood plains along tributaries of the Barren River. Elsewhere, the rocks are cherty, shaly limestone and comparatively pure limestone, which are more susceptible to chemical than to physical erosion. The hills are smaller and less steep than those in the southeast quarter. In the northwest quarter, limestones have been leached by ground water, forming a sinkhole (karst) topography. Although some sinks are more than 60 feet deep and about a quarter of a square mile in area, most are much smaller.

Dissection of the land surface has been greatest along the main stream, the Barren River, because the river carries more water, is older, and has penetrated the shales and shaly limestones which are more susceptible to mechanical erosion than are the overlying formations. Flood plains wide enough to permit cultivation are developed on the shaly limestones, shales, or limestones along the Barren River, Long Creek, and Trammel, West Bays, and Bays Fork.

CLIMATE

The climate of the Scottsville area is temperate humid continental. Summers are hot and humid; winters are generally mild, with many warm days. Figures 3 and 4 show graphically the annual precipita-

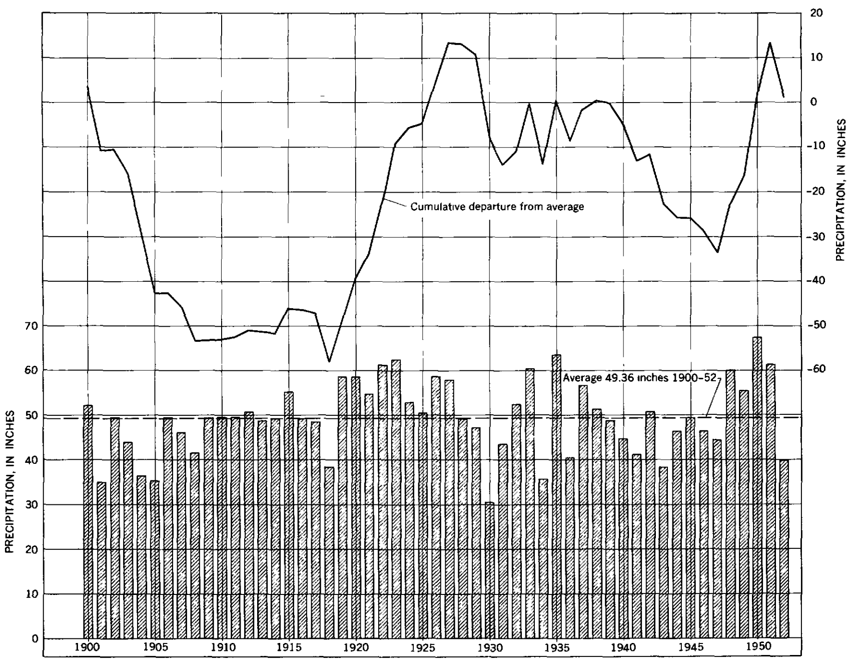

FIGURE 3.—Graphs showing annual precipitation and cumulative departure from average at Bowling Green, Ky. (From U.S. Weather Bureau records, 1900–52.)

tion and the monthly precipitation and temperature recorded at Bowling Green, Ky. Bowling Green is about 20 miles northwest of Scottsville, and the climate is similar to that of Scottsville.

The average annual precipitation recorded at Bowling Green by the U.S. Weather Bureau from 1900 to 1953 is 49.36 inches. The amount of rainfall recorded in the driest year (1930) was 30.50 inches; that in the wettest year (1950), 67.49 inches. The wettest month

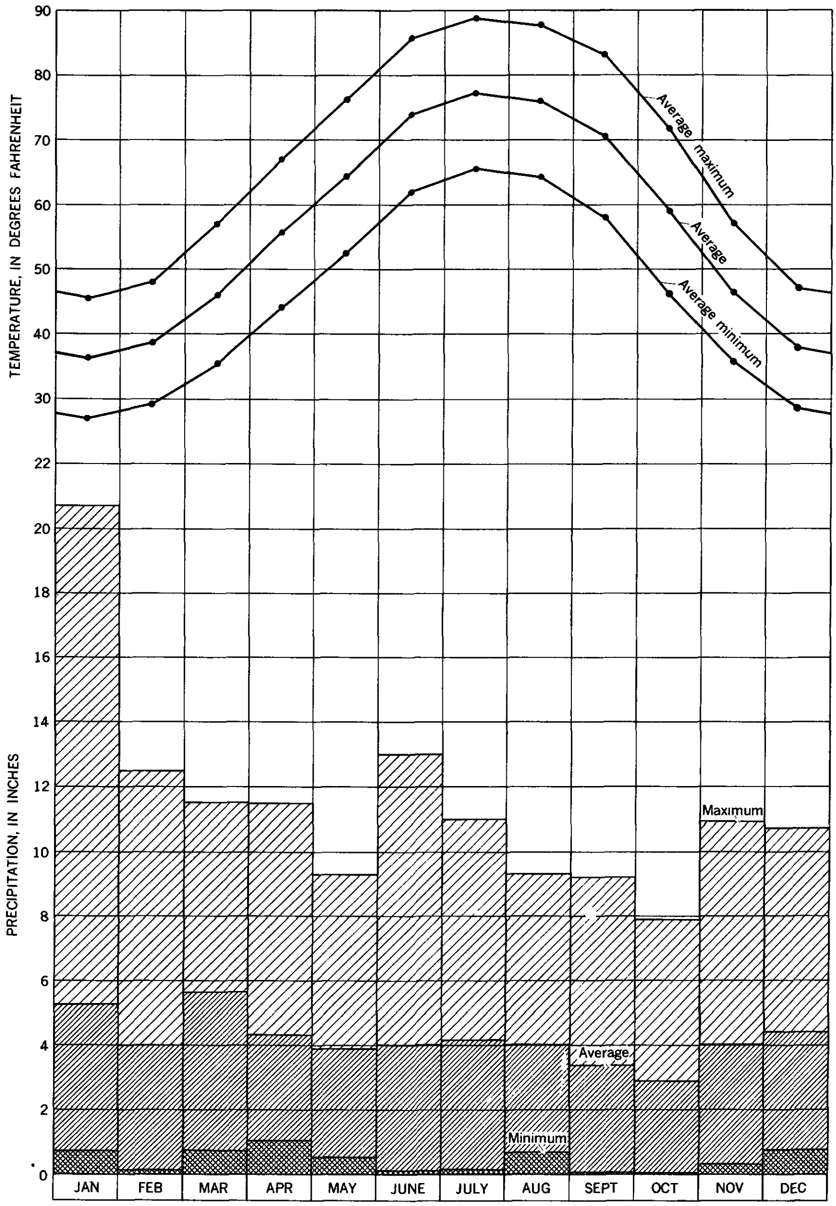

FIGURE 4.—Graphs showing monthly temperature and precipitation at Bowling Green, Ky. (From U.S. Weather Bureau records, 1880–1952.)

recorded was January 1937, with 20.70 inches, and the driest month was October 1924, with 0.03 inch. Spring and summer rains are generally intense, short thunderstorms. Steady rains which may last for several days are common during the fall and winter. Winter rains and above-freezing daytime temperatures prevent persistent snow cover.

The lowest temperature recorded at Scottsville was −14°F in February 1948, and the highest temperature recorded was 108°F in July 1952. The frost-free growing season generally extends from about the middle of April to near the end of October.

POPULATION AND CULTURE

According to the 1950 census, the population of Allen County is 13,787, of which 2,060 live in Scottsville. The rural population is 11,727, the density being 37.9 persons per square mile, or 17 acres per person. Of the 2,368 farms in the county, 1,777 or 75 percent had electricity in 1950.

Most of the farms are small and depend on tobacco and corn for their cash crops. Dairying and cutting of timber for local use and for railroad ties are economically important.

Industry in the Scottsville area is limited principally to the city itself. Scottsville has 2 weekly newspapers, 8 lumber companies, and a clothing factory. A quarry and a nitroglycerine plant are northwest of Scottsville, within 3 miles of the city limits.

TRANSPORTATION

Public transportation is supplied by the Louisville & Nashville Railroad, by buses, and by trucks. The railroad provides a semiweekly freight train and railway-express service by truck on weekdays from Gallatin, Tenn. Daily passenger and freight service is provided by scheduled buses to and from Glasgow and Bowling Green, Ky., and Gallatin, Tenn. Freight is hauled by truck on weekdays from these same towns. Federal and most State roads are paved; most county roads are maintained as all-weather gravel roads.

MINERAL RESOURCES

Mineral resources include oil, agricultural lime, soil, gravel, and water. Allen County once had a brickyard but operations have been discontinued. Commercial oil has been produced from several small fields in Allen County since before 1850, according to Orton (1891). Production from individual wells is small; however, many wells have been pumped at a rate of a few barrels a day for several years. Most of the petroleum is sulfurous.

A quarry 3½ miles northwest of Scottsville, which has been in operation since 1951, produces agricultural lime and road metal (crushed limestone). Two other quarries in the Scottsville area have been abandoned. Gravel for use as road metal is obtained from the beds of most small streams within the area. This gravel consists of chert and cherty limestone and contains some sand, silt, and mud. It is used on county roads and also on private farm roads.

Most of the farms in the area use wells or springs for their supplies of domestic and stock water. A few use cisterns. The city of Scottsville has used wells near West Bays Fork in the past, but the municipal supply is now (1954) obtained from Calvert Spring (8600–3640–3), 6 miles east of the city. The only industrial usage of water beyond the city mains is that of the nitroglycerine plant, which uses well 8610–3645–117 for its supply.

GEOLOGY

STRATIGRAPHY

Consolidated rocks exposed in the Scottsville area range in age from Silurian to Mississippian. The outcrop areas of the formations are shown on plate 1. A generalized stratigraphic section is shown in table 1. All the consolidated rocks are sedimentary in origin, and all were deposited in a marine environment. According to Freeman (1951), the oldest rocks reached by drilling are of Cambrian and Ordovician age. Only saline water has been obtained from these deeply buried rocks in this area; therefore they are not discussed in detail in this report. The exposed rocks include the Louisville limestone of Silurian age; the Sellersburg limestone and the Chattanooga shale of Devonian age; and the New Providence shale, the Fort Payne chert, the Warsaw limestone, and the St. Louis limestone of Mississippian age.

Unconsolidated material, present as a mantle over most of the area, covers the bedrock to a depth as much as 60 feet. This mantle of clay, cherty gravel, and soil, partly residual from the underlying sedimentary rocks and partly transported, is Pleistocene and Recent in age.

The drillers' logs in table 14 and the measured sections at the end of this report show the types of rocks in the Scottsville area.

ROCKS OF CAMBRIAN AND ORDOVICIAN AGE

Rocks of Cambrian and Ordovician age are everywhere beneath the surface in the Scottsville area. They do not crop out within the boundaries of the area but are exposed to the south and east, in Tennessee, and along the Cumberland River in Kentucky. At least five wells have been drilled into rocks of Ordovician age in different parts of Allen County. The deepest well drilled to a total depth of 1,367 feet below sea level, penetrated 57 feet of rocks of Cambrian age. The log of this well (Freeman, 1951, p. 114–118) shows at least 1,400 feet of strata consisting principally of dolomite and limestone of pre-Silurian age. An abstract of the log of this well, 8610–3645-347, is presented in table 14.

LIMESTONES OF SILURIAN AND DEVONIAN AGE

The water-bearing properties of the Silurian and Devonian rocks in the Scottsville area are believed to be the same, and consequently they are treated as one hydrologic unit in this report.

DISTRIBUTION

Limestones of Silurian and Devonian age crop out along the valleys of Puncheon, Pinchgut, Long Hungry, Long, Glover, and Trace Creeks, Trammel Fork, and the Barren River. They generally form steep walls along the valley sides and in places are exposed in the streambeds. The outcrop areas of these limestones are shown on plate 1. They underlie the Chattanooga shale throughout the area.

CHARACTER AND THICKNESS

The Silurian and Devonian rocks are generally dolomitic limestone, somewhat sandy in places. The sand is composed of quartz and calcite. Freeman (1951) describes the Silurian rocks as dominantly dolomite, with some shaly zones.

Specimens from the Silurian rocks near spring 8610–3635–28 are of a weakly effervescent sugary-textured massive, stylolitic dolomite. Small cavities, about 1 inch in their largest dimension, are lined with calcite. Weathered surfaces are pitted and rough and are dark gray. Fresh surfaces are pinkish or greenish tan.

Specimens from near Browns Ford are apparently from the overlying Devonian limestone. They are of a coarsely crystalline limestone, massive or thick-bedded, and are pale-greenish-blue on both fresh and weathered surfaces.

The contact between the Silurian or Devonian limestones and the overlying Chattanooga shale, where observed, is sharp. No transition zone was noted.

A thickness of 56 feet (Shaw and Mather, 1919, p. 47) of Silurian limestone which underlies the Chattanooga shale (limestone of Devonian age being absent) is exposed on the bank of the Barren River near the Holland-Fountain Run bridge, in quadrangle 8600–3640. According to Freeman (1951, p. 112-119), the total thickness of Silurian rocks in the Scottsville area is 277 feet.

Limestone of Devonian age is not present in the southeastern part of the Scottsville area. Where exposed along Rhoden Creek and the Barren River, the limestone is 2 to 5 feet thick. Freeman (1953, p.

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51) assigned 10 feet of dolomite and dolomitic limestone in test well 8610–3645–347 to the Sellersburg limestone of Devonian age.

Well logs and measured sections at the end of this report show the thickness and type of rocks characteristic of the Silurian in the Scottsville area.

AGE AND CORRELATION

Freeman (1951, p. 112–119) classes the Silurian rocks in this region as (from top to bottom) the Brownsport and Lego (here referred to as the Louisville limestone), Waldron, Laurel, Osgood, and Brassfield formations. The age of the exposed Silurian rocks, according to Shaw and Mather (1919), is Niagaran, or Middle Silurian. Of the Silurian rocks in the Scottsville area, only the Louisville limestone is exposed at the surface.

The Louisville limestone has been referred to by some authors as the Lego limestone member of the Wayne formation and as the Brownsport formation. These names are in general use in Tennessee. The Lego limestone member of the Wayne formation was named by Foerste (1903, p. 565, 578–582, and 694) for exposures near Lego, Decatur County, Tenn. He described the Lego as 30 to 45 feet of limestones between the Waldron shale and Dixon earthy limestone member of the Wayne in the Tennessee River valley. Generally no sharp line can be drawn between the Lego and the overlying Dixon. Lithologically the limestones forming the middle and lower parts of the Lego often resemble the Laurel dolomite so closely that where the intervening Waldron cannot be identified it is impossible to distinguish the Lego. Freeman (1951, p. 115 and 118) correlated 25 and 50 feet, respectively, of dolomite from wells in Allen County with the Lego. On the basis of fossil collections, Ulrich (Shaw and Mather, 1919, p. 41) correlated the Allen County exposure of Silurian limestone that underlies the black shale on Trammel Fork at the Kentucky-Tennessee State line with the Louisville limestone.

The Brownsport formation was named by Foerste (1903, p. 566–583 and 681–708) for exposures near Brownsport Furnace, Decatur County, Tenn. He described the formation as 120 feet of richly fossiliferous white limestones and calcareous clays overlying the Dixon earthy limestone member of the Wayne and forming the top of the Silurian section in the Tennessee River valley, where it unconformably underlies the Linden formation or the younger Hardin sandstone.

Shaw and Mather (1919, p. 47–48) referred the Devonian limestone in Allen County to the "Corniferous" limestone, which they regarded as the Boyle limestone of Foerste (1906, p. 10 and 92). Foerste regarded the Boyle limestone as the equivalent of the Sellersburg, Jeffersonville, and Geneva limestones of west-central Kentucky and southern Indiana. Shaw and Mather regarded as Devonian all pre-Chattanooga limestones exposed along the Barren River and Long Creek in the southeast quarter of the Scottsville area, as well as part of the limestone exposed along Trammel Fork near Big Spring. On the basis of fossils collected from the Devonian limestone near Browns Ford in quadrangle 8600–3645, Savage (1930, p. 25–26) classified the formation as of Hamilton (Middle Devonian) age and stated, "The Devonian limestone does not appear * * * along Barren River and its tributaries south of a point one or two miles below Browns Ford." Freeman (1951, p. 114, 118, and 542) assigned 10, 15, and 25 feet, respectively, of limestone and dolomite from three wells in Allen County to the Sellersburg.

The Sellersburg limestone was named by Kindle (1899, p. 8, 20, 110) for exposures near Sellersburg, Clark County, Ind., where it is overlain by the black New Albany shale and underlain by the Jeffersonville limestone.

SHALE OF DEVONIAN AGE

DISTRIBUTION

The Chattanooga shale of Devonian age overlies the Silurian and Devonian limestones throughout the Scottsville area, except where it has been removed by stream erosion. It is exposed, as shown on plate 1, along the sides of the valleys of Puncheon, Pinchgut, Long Hungry, Long, Rhoden, Tracy, Glover, and Dry Creeks, Trammel Fork, and the Barren River and in the bottom and along the sides of parts of Garrett, Rough, Snake, Caney, and Walnut Creeks.

The Chattanooga shale is more resistant to weathering than the overlying Fort Payne chert and locally forms benches on the hillsides. At spring 8605–3640–256 the shale extends as a bench about 8 feet beyond the slope formed by the overlying Fort Payne.

CHARACTER AND THICKNESS

The Chattanooga shale is a black or bluish-black carbonaceous, pyritic, slaty shale which is dense when fresh and becomes fissile when weathered. A thin dark limestone occurs in places in the upper part of the formation and is recognized in well cuttings. The shale consists of silt- and clay-sized particles of quartz, pyrite, and clay minerals. It is slightly radioactive. A pilot plant to extract the radioactive constituents has been established at Sligo, Tenn. The Chattanooga shale also contains petroleum (McFarlan, 1943, p. 385–386), but no commercial production has been achieved to date (1954). Natural gas is produced from the Chattanooga shale in Floyd, Boyd, Johnson, Pike, and Meade Counties, Ky., and in West Virginia (McFarlan, 1943, p. 294).

The thickness of the Chattanooga shale in the Scottsville area ranges from 25 to 50 feet. It is generally thickest in the northwestern part of the area.

AGE AND CORRELATION

The age of the Chattanooga shale has been in dispute for many years. Estimates of the age have ranged from Middle Devonian to Early Mississippian. Savage and Sutton (1931, p. 446–447) reported that near the mouth of Rodens Creek

> * * * a thickness of 25 or 30 feet of the black shale is well exposed, and contains numerous shells of *Lingula spatulata* and *Schizobolus truncatus* * * * the black shale here is of Genesee age and * * * no part * * * can be referred to the Mississippian system. [The fauna represented by] a collection of fossils from the upper portion of the shale * * * from a cherty horizon in a limestone layer about 20 feet above the base and 2½ feet below the top of the black shale, along a tributary of Trace Creek in the southeastern corner of the Scottsville quadrangle less than a mile from the locality * * * near the mouth of Rodens Creek * * * is characteristically Mississippian.

They conclude

> The black shale in some places in Allen County, Kentucky, and probably in adjacent areas is composite in character, containing a lower unit of upper Devonian age and an upper unit of lower Mississippian age. The two are separated by an erosional unconformity with much the greater portion of the sediment in the lower division * * *.

Klepser (1937, p. 370) regards the Chattanooga shale as having a different time of deposition in different regions.

The Chattanooga shale, named for exposures around Chattanooga, Tenn., was originally described by C. W. Hayes (1891, p. 143) as "of Devonian age, 0 to 35 feet thick. * * * In NW Georgia underlies Fort Payne chert (Carboniferous) and overlies Rockwood formation (Silurian)." At present, the Chattanooga shale of western Tennessee and Kentucky is classified by the U.S. Geological Survey as Devonian in age. It is equivalent, at least in part, to the New Albany shale of Indiana and northwestern Kentucky.

MISSISSIPPIAN SYSTEM

KINDERHOOK AND OSAGE SERIES

DISTRIBUTION

Rocks of the Kinderhook and Osage series lie unconformably on the Chattanooga shale in the Scottsville area. Klepser (1937) has subdivided these rocks in northeastern Tennessee and southern Kentucky into the New Providence shale and the overlying Fort Payne chert. This subdivision is used in the following discussion; however, inasmuch as the New Providence is not important as an aquifer, its water-bearing properties are not discussed separately in this report, and the New Providence and Fort Payne are shown as a single map unit on plate 1.

The New Providence shale, where present, unconformably overlies the Chattanooga shale. It crops out only in the southwest quarter of the Scottsville area along Trammel Fork and Garrett Creek, and at one exposure on Walnut Creek.

The Fort Payne chert rests on the New Providence shale where the shale unconformably overlies the Chattanooga shale throughout most of the Scottsville area. It forms the uplands in the eastern and southern parts of the area, and crops out only in the valley sides and valley bottoms in the remainder of the area, as shown on plate 1. The land surface on the Fort Payne chert is a well-dissected upland. Streams form a dendritic drainage pattern, and very little of the upland surface is undissected. Hillsides are steep near the streams and less steep near the upland ridges. The erosional surface on the Fort Payne chert is one of late youth or early maturity.

CHARACTER AND THICKNESS

The New Providence shale is composed of crinoidal debris in a limy, shaly matrix. It is recognizable in exposures by its characteristic green color as well as by crinoidal stem plates that litter the talus beneath the exposures.

The basal part of the Fort Payne chert is a shaly limestone, with some chert nodules and beds. The upper part is a less shaly limestone, but chert is more common. Near its top the Fort Payne is a cherty limestone containing layers of shaly or earthy limestone. Miller (1919) described the Fort Payne chert as "rather fine-grained siliceous limestones interbedded with drab, limy shales * * *. Large crinoid stems are rather common in the limestones."

Measured sections at the end of this report describe the changes in lithology of the Fort Payne chert in the Scottsville area.

AGE AND CORRELATION

The New Providence shale was named by Borden (1874, p. 161) for exposures near New Providence (now Borden), Clark County, Ind. The New Providence was described as 80 to 120 feet of fine greenish marly shale resting on a thin bed of ferruginous limestone containing crinoid stems (the Rockford limestone) and capped by a thin bed of crinoidal limestone. The formation has been identified in southern Kentucky by Klepser (1937); and in the Scottsville area by Shaw and Mather (1919) and by Miller (1919), who found below the base of the Fort Payne chert "a green shale with calcareous layers rich in crinoid stems" which carries "a typical New Providence fauna * * *."

The Fort Payne chert was named by Smith (1890, p. 155–156) from exposures at Fort Payne, De Kalb County, Ala. He described the Fort Payne as a series of cherty limestones somewhat analogous to the Knox dolomite. The lower part is more cherty than the upper in the Tennessee Valley, but south of the valley the entire formation shows (at least on the surface) only chert, and is generally very fossiliferous. Butts (1910) restricted the name Fort Payne chert to rocks of pre-Warsaw age. In southern Kentucky and eastern Tennessee the name is now applied to pre-Warsaw rocks that are underlain by the Chattanooga shale, Maury formation, or New Providence shale. In the Scottsville area the Fort Payne chert is unconformably underlain by the New Providence shale and the Chattanooga shale.

MERAMEC SERIES

In the Scottsville area the Meramec series consists of the Warsaw limestone and the overlying St. Louis limestone.

DISTRIBUTION

The Warsaw limestone overlies the Fort Payne chert in the northwestern part of the Scottsville area, as indicated on plate 1. It forms the ridgetops near Scottsville and Austin, and it constitutes the uplands and valley sides north and west of Scottsville. It is overlain in the northwest quarter of the area by the St. Louis limestone, which in the area of this report, is limited to the uplands.

Exposures of the Warsaw limestone are confined to the edges of stream valleys, to railroad and road cuts, and to a quarry. The surface underlain by the Warsaw limestone is a poorly dissected to well-dissected, youthful topography. Sinkholes are fairly common in the uplands beyond the heads of stream valleys. The St. Louis limestone is not exposed in the Scottsville area. The former presence of the St. Louis in the northwestern part of the area is indicated by many sinkholes and by a thick layer of clay and chert fragments containing St. Louis fossils, particularly *Lithostrotionella castelnaui.*

CHARACTER AND THICKNESS

Miller (1919) described the Warsaw limestone as

> about 100 feet thick consisting in the main of massive, crystalline limestone. Its prevailing color is blue. The crystalline character is due to its being composed largely of crinoid remains * * *. Interbedded with this limestone are some shale beds closely resembling those of the * * * Fort Payne. The presence of brachiopods in considerable number and variety and the absence of large stemmed crinoids is characteristic of this formation * * *. The soil formed from the Warsaw * * * is quite cherty. In the weathered products from the

top of the [Warsaw] is found a peculiar type of geode, lined on the inside with a chalcedony having a stalactitic structure.

Miller describes the St. Louis limestone as

represented * * * by a heavy deposit of chert waste. A conspicuous element of this is nodular flint * * * [resembling] croquet balls. Mingled with the latter, silicified masses of * * * *Lithostrotion basaltiforme* [*Lithostrotionella castelnaui*] * * * and *L. proliferum* are common.

The St. Louis outcrop is characterized by sinks. These extend down into the underlying Warsaw * * *. No outcrops of undecomposed St. Louis could be discovered * * *.

Table 2 and the measured sections at the end of this report show the changes in lithology of the Warsaw and St. Louis limestones in the Scottsville area. As table 2 shows, the Warsaw is relatively pure calcium carbonate at some places. Elsewhere, as shown in the measured sections, it is a shaly or earthy limestone containing chert nodules.

AGE AND CORRELATION

The Warsaw limestone was named by Hall (1857, p. 54–56) from exposures at Warsaw, Hancock County, Ill. As originally defined, the Warsaw limestone included the Spergen limestone. The Warsaw has been adopted by the U.S. Geological Survey as the basal formation of the Meramec series in the Mississippi Valley, overlain by the Salem limestone (formerly Spergen) and underlain by the Keokuk limestone. Of these units, only the Warsaw extends into the Scottsville area, although the top of the Warsaw cannot be conclusively identified.

Fossils are abundant in the Warsaw limestone. According to Miller (1919),

Especially diagnostic * * * [are] * * * the blastoid *Pentremites conoideus,* and the brachiopods *Productus magnus, Rhipidomella dubia, Spirifer washingtonensis,* and *Spirifer lateralis.* [This last is] especially characteristic of the base of the formation * * * vertical range less than ten feet, always present in considerable numbers at this horizon.

The location of the *Spirifer lateralis* zone was the basis for mapping the boundary between the Warsaw and the underlying Fort Payne chert shown on plate 1. Where this zone is not exposed, the boundary is interpolated between exposures on the basis of the regional dip of the formations as modified in part by local structure. Mapping of the contact between the Warsaw and the St. Louis limestones was not attempted.

The contact between the Warsaw limestone and the underlying Fort Payne chert is gradational, as can be seen from the measured sections at the end of this report. The two formations not only are conformable in the Scottsville area, but they indicate a time of continuous deposition. The *Spirifer lateralis* zone is regarded as the base of the Warsaw limestone throughout Kentucky.

The St. Louis limestone was named by Engelmann (1847, p. 119–120) from exposures at St. Louis, Mo. The St. Louis forms the uppermost bed of "carboniferous" or "mountain" limestone in eastern Missouri and southern Illinois. Ulrich and Smith (1905) restricted the name St. Louis limestone in the Mississippi Valley to those beds which overlie the Salem limestone (formerly Spergen) and underlie the Ste. Genevieve limestone. This is the commonly accepted definition of the St. Louis limestone.

Index fossils from the St. Louis limestone in the Scottsville area occur only in the chert waste produced by the decomposition of the limestone. As Miller (1919) indicated, they include the corals *Lithostrotion basaltiforme* [*Lithostrotionella castelnaui*] and *L. proliferum.*

Elsewhere in Kentucky, the St. Louis limestone unconformably overlies the Salem limestone, which in turn overlies the Warsaw limestone. The St. Louis presumably unconformably overlies the Warsaw limestone in the Scottsville area, but this contact was not observed in the field.

QUATERNARY SYSTEM

DISTRIBUTION

Overlying nearly all the consolidated rocks is a blanket of soil and unconsolidated weathered rock material known as mantle rock. It is primarily an insoluble residue that remains after the calcium carbonate and magnesium carbonate have been dissolved.

CHARACTER AND THICKNESS

The mantle rock may be divided into two types of sediments in the Scottsville area, that which is residual and that which is transported. The residual mantle rock occurs on the uplands and valley sides. The limy fraction of the parent rock has been removed, and the chert and clay which were disseminated more or less evenly through the rock have been concentrated. In places the residual mantle rock has a pseudobedding which is the image of the bedding of the parent rock. The cherty and shaly part of the parent rock is virtually in place, except for slumping and compaction which have served to close the spaces formerly occupied by the soluble materials. Transported mantle rock is in the stream valleys as gravel, sand, mud, and mixtures of these. The coarser parts of the transported mantle rock are principally cherty. The finer parts are clay and silt which, like the cherty parts, have been washed from the adjacent uplands and hillsides.

Probably 70 percent of the Scottsville area is underlain by residual mantle rock and almost 30 percent by transported mantle rock. Bedrock exposures, mostly in stream valleys, probably do not aggregate more than 1 percent of the total area.

The thickness of the mantle rock ranges from 0 to about 60 feet. It is greatest on the undissected tops of the upland ridges, especially in the area underlain by the Warsaw and St. Louis limestones.

AGE

The age of the mantle rock in the Scottsville area is indeterminate. It presumably postdates the peneplanation that produced the surface now represented by the upland ridges, and the transported mantle rock postdates at least the downcutting by the Barren River and its tributaries beneath that peneplain surface. Probably the mantle rock in the Scottsville area is mostly Pleistocene and Recent in age.

STRUCTURE

According to Shaw and Mather (1919, p. 23), Allen County

> occupies a saddle or low place on an anticline of very great extent or it may be considered to lie structurally between two very broad, low domes [the Nashville and Lexington domes.] However, the close proximity of the county to the Nashville dome places it not in the bottom of the saddle but on the southern side, which is rising toward the crest of the arch in Tennessee. The strata underlying this region therefore dip downward with considerable uniformity toward the north and northwest.

The dip is less than 1°—about 30 to 40 feet per mile.

Several small domes and linear anticlines and synclines are superimposed upon this broad structure. Except for the Gainesville dome, which is structurally about 80 feet high, nine of the minor structures in the Scottsville area have more than 20 feet of structural relief.

Plate 1 is a structure-contour map of the top of the Chattanooga shale, showing the location of minor structures and the location of wells and surface exposures which provide information concerning the position of the shale. The structure contours are projected beyond the present limits of the formation and thus do not show the effects of weathering and erosion. Altitudes of most of the wells and exposures were determined from topographic maps. A few altitudes were determined by use of an aneroid barometer. Logs of some of the wells used in construction of the structure map are given in table 14, and descriptions of three exposures where the altitudes of the Chattanooga shale were determined are included in the measured sections at the end of this report.

HISTORY

As the Scottsville area lies on the west side of the Cincinnati arch, its depositional history is similar to that of other areas on the arch; there were times of deposition of sediments that were interrupted by times of nondeposition and of erosion. In post-Cambrian time before the uplift of the Cincinnati arch, which occurred in Ordovician or Silurian time, the area was a part of the stable interior region and received mud and limy sediments, presumably from the landmass of Appalachia. These sediments were later consolidated into shale, limestone, and dolomite.

Deposition of mud and limy sediments occurred intermittently in Middle Silurian and Middle Devonian time. After the deposition and lithification of the dolomitic Sellersburg limestone of Middle Devonian age, the Scottsville area was uplifted and part of the Silurian and Devonian rocks were eroded (Twenhofel, 1931, p. 165). Solutional openings occur in these Silurian and Devonian limestones where they are exposed at the surface, and probably are present where they are covered by younger rocks (Shaw and Mather, 1919, p. 72–73). After this period of erosion, the area was again submerged and muds were deposited in Late Devonian and Mississippian time. These muds, after lithification, became the Chattanooga shale.

During Mississippian time, additional mud and limy sediments were deposited. Alternations of shale and limestone beds are common, but by the time rocks of late Warsaw and St. Louis age were being deposited, there was no longer enough mud to produce individual beds of shale in the Scottsville area. Instead, pure limestones were interbedded with somewhat shaly limestones, the mud being disseminated throughout the limestone. Chert, however, was deposited with and in these rocks as discontinuous layers and as nodules.

Rocks of the Chester series of the Mississippian system and of the Pennsylvanian system are not represented in the Scottsville area. Either they were never deposited here, or they have been removed. They were deposited to the northwest, in the Western Coal Field, and also to the east, in the Eastern Coal Field.

After deposition of the sediments, the entire Kentucky area was uplifted, and erosion began to form the present landscape. During subaerial erosion of the Scottsville area, leaching of the impure limestones has left a mantle of clay, chert, and gravel. This mantle rock overlies the consolidated rocks at most places on the uplands. It has also been washed into stream valleys, where it forms flood-plain deposits of clay, silt, sand, and gravel several feet thick.

WATER RESOURCES

HYDROLOGIC CYCLE

Continuous recirculation of water between the earth and the atmosphere is known as the hydrologic cycle. Rainwater and snowmelt run off directly into streams and then flow to lakes or the sea, and eventually evaporate into the atmosphere. Part of the precipitation is evaporated directly into the atmosphere from soil and water surfaces. Some water percolates into the soil, whence part of it is returned to the atmosphere by vegetation. The rest of the water moves downward, eventually reaching the water table and entering the ground-water reservoir. The ground water moves slowly through the reservoir to a point of liquid discharge such as a spring, a stream, a lake, or the ocean, or to a point where it is shallow enough to be discharged by evapotranspiration.

SURFACE WATER

Surface water is the water in streams, ponds, or lakes at the land surface. Surface water in the Scottsville area is derived from local precipitation and runoff, ground-water discharge, and inflow of streams whose headwaters lie beyond the area. Surface water in the Scottsville area is lost by evapotranspiration, flow out of the area, and seepage to the ground-water body. Small quantities are withdrawn for stock, domestic, and irrigation uses.

All the streams in the Scottsville area respond quickly to rainfall, producing small flash floods after heavy rains. They approach or reach pool stage during late summer. Discharge measurements have been made on the Barren River above Hurricane Creek since June 1939, and on West Bays Fork at Scottsville since October 1950. Discharge records are published annually by the U.S. Geological Survey.

GROUND WATER

SOURCE OF GROUND WATER

Ground water is the water that fills the openings in earth materials in the zone of saturation—the zone saturated with water under hydrostatic pressure. In the Scottsville area, most ground water is derived from local precipitation. Rain and snow fall on the land surface, and a part of that precipitation percolates through the openings in the earth materials until it reaches the water table. Streams that enter the Scottsville area, such as Trammel Fork and Long Creek, may lose water to the ground-water body when and where the water table adjacent to the streams is lower than the water surface of the streams.

OCCURRENCE

POROSITY OF AQUIFER

The rocks that form the outer crust of the earth all have open spaces, commonly called interstices or pores, which at some depth below the surface are filled with water under hydrostatic pressure. The zone where all of the pore spaces of a formation are so filled is called the zone of saturation. The water within this zone is defined as ground water, or phreatic water. The top of the zone of saturation is the water table. Water in the zone of aeration above the zone of saturation is termed vadose water. If water accumulates above the main zone of saturation, resting on impermeable rock through which it can pass only slowly, if at all, it is known as perched water. Under these circumstances, a part of the zone of aeration lies between the tight rock stratum and the main zone of saturation. If a local body of rock of low permeability holds up water above the zone of saturation in adjacent more permeable rock, but nevertheless is saturated down to the level of the main zone of saturation, the water in it is said to be semiperched. No sharp distinction can be made between semiperched conditions and unconfined conditions in which the rock is locally of lower permeability than average.

The size and shape of open spaces control the amount of water that can be stored in them and also control the rates at which water can move through them. Openings that are of importance to the occurrence of ground water are discussed in detail by Meinzer (1923b, p. 17–30).

The porosity of a rock is its property of containing interstices, or openings. Porosity is measured as the percentage of the total volume of rock or other material that is occupied by open spaces.

Primary porosity refers to open spaces, such as intergranular spaces in sands and gravels, that were retained when the rock was deposited or consolidated. Primary porosity in limestone is limited to spaces between crystals, oolites, or grains, and to such openings as may be preserved around or within shells that may constitute part of the limestone. However, these openings later may be enlarged by solutional activity of the water to produce secondary porosity.

Openings produced after a rock has been deposited are called secondary openings, and a rock having such openings has secondary porosity. When limestone becomes consolidated, minute crevices may form both parallel (bedding-plane openings) and perpendicular, or nearly perpendicular (joints), to the surfaces upon which the water can migrate, and they may be enlarged by solution. The openings ultimately may be cavernous, and they may follow a tortuous path, inasmuch as they depend upon both the orientation of bedding and joint planes and upon the relative solubilities of parts of the limestone. An opening enlarged principally by solutional action may extend from a soluble zone through one of lesser solubility to another of greater solubility. This process will produce conduits of differing size, in which may form subsurface cascades, detours, and siphons.

The regional dip of the rocks in the Scottsville area is to the northwest. Thus, water moving through the rocks tends to be deflected to the northwest. However, if its downdip progress is impeded, water will move in other directions wherever openings exist.

The local topography and orientation of joints within the rocks may be of more importance than the dip in controlling the direction of movement of water, especially if the joints account for nearly all the porosity of the rock. In the Scottsville area the strike of the most prominent joints, as noted by Shaw and Mather (1919, p. 71), is northeast, or nearly perpendicular to the prevailing direction of dip.

PERMEABILITY OF AQUIFER

Permeability is a rock's capacity to transmit fluids under pressure, according to Meinzer (1923a, p. 28). Hydrologically, rocks are impermeable if openings within them are too small or too disconnected to transmit much water under normal gradients. Most clay has a high porosity but the pore spaces are so small that water in them in the zone of aeration is retained by surface forces, and in the zone of saturation moves only very slowly. Uniform clays are plastic at moderate depth, and thus are incapable of maintaining open joint systems. Hence, as openings between the particles and openings through the clay as a unit are of microscopic size, clay is nearly impermeable.

Dense limestone has almost no interconnected primary pores; therefore, no significant amounts of water can pass through the solid rock. Limestone is fairly rigid, however, and it will retain joints that are produced by earth movements. The joints constitute but a small fraction of the total volume of the rock, even though they may have been enlarged by solution to conduits that are measured in feet or tens of feet. The enlarged joints will transmit water readily; hence, dense limestone is a rock having a low primary porosity and a permeability that may range from low to high.

ARTESIAN VERSUS WATER-TABLE CONDITIONS

Ground water may be either confined or uncónfined. Confined water rises in a well above the level at which it was tapped and is known as artesian water, whether or not the head is sufficient to make the well flow at the land surface. In the Scottsville area water in the unconsolidated materials—soil and residual and transported mantle—is generally unconfined (occurs under water-table conditions) and does not rise in wells, whereas water in most places in the consolidated limestones is confined under at least slight artesian pressure.

OPENINGS IN CONSOLIDATED ROCKS

In the Scottsville area the consolidated rocks are limestone, shale, and cherty, shaly limestone. Ground water in limestone generally occurs in joints and openings along bedding planes that have been enlarged by solution. Joints and openings along bedding planes in shale also contain some water, but these openings are enlarged little or not at all by solution and consequently transmit smaller amounts of water. Most of the water in cherty, shaly limestone is contained in openings which have been produced by leaching of the more soluble calcareous part of the rock. Perched or semiperched water bodies most likely occur in the cherty, shaly limestones than in the purer types, as the insoluble cherty or shaly zones may limit locally the downward movement of water through the rock.

LOUISVILLE AND SELLERSBURG LIMESTONES

Primary openings in the Louisville and Sellersburg limestones are intergranular and are unimportant with regard to water supplies. Secondary openings include joints and voids caused by recrystallization, and many have been enlarged by solution. Most of the joints in the Louisville and Sellersburg limestones have been somewhat enlarged by solution. Connate saline water in these limestones where they are buried is evidence that the openings containing the saline water are pre-Mesozoic and probably pre-Chattanoogan in age. If the openings were formed after the last retreat of the Mississippian seas, they should be filled with less mineralized water. The openings were probably formed before the last submersion of the area beneath a sea, and probably during the erosional interval between Sellersburg and Chattanooga time.

Surface exposures of the Louisville limestone indicate that the secondary openings are mostly interconnected and cavernous. At Calvert Spring (8600–3640–3), the nearly vertical opening in the Louisville from which the spring discharges is about 3½ feet across at the land surface, and more than 10 feet deep. Water flows into the opening through a nearly vertical enlarged joint. A probable extension of this joint was formerly exposed in a sinkhole about 200 feet from the spring mouth. There the joint opening was approximately 2 feet across. Big Spring (8610–3635–3) also flows from the Louisville limestone. It has flowed from several openings at various times in the past. Most of these openings are enlarged joints 1 to 2 feet wide.

All the large springs in the Silurian rocks are 20 to 40 feet below the top of the Louisville limestone, which indicates that this was the level to which large-scale solution had progressed before deposition of the overlying Chattanooga shale. According to Shaw and Mather (1919, p. 72–73), openings occur in the limestones where they are buried beneath the Chattanooga shale but these openings are generally filled with either oil or saline water.

CHATTANOOGA SHALE

Primary openings in the Chattanooga shale are intergranular and, as they are too small to allow substantial passage of water under normal gradients, these openings are unimportant with regard to water supplies. Secondary openings, which are those along joints and bedding planes, are little more than hairline cracks. As the shale is insoluble, neither the primary nor the secondary openings are readily enlarged by ground water.

The Chattanooga shale is of hydrologic importance in the Scottsville area because it is the lower boundary of fresh water, except in small areas where the underlying Silurian and Devonian limestones have been flushed of their connate water. The Chattanooga shale is readily identified in surface exposures and in drill cuttings, and it has been used in the past as a marker bed for both water and oil exploration. Inasmuch as drillers have saved samples and have described formations from the base of the Chattanooga downward, their data are of value to water-supply investigations only because they define the location of the lower limit of the Chattanooga.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

Primary openings in the New Providence shale and the Fort Payne chert, like those in the Silurian limestone, are intergranular and relatively unimportant with regard to water supplies. The most prominent openings in the formations are secondary. Joints and bedding-plane openings in the limestone parts of the formations have been enlarged by solution from hairline cracks to tubular, sometimes cavernous, passageways. Small caves are fairly common in the Fort Payne in the Scottsville area, especially in the upper part of the formation. Openings along joints and bedding planes in the shaly and cherty zones are less altered by ground water. These relatively insoluble zones have smaller openings than the more soluble beds.

WARSAW AND ST. LOUIS LIMESTONES

The most important openings in the Warsaw and St. Louis limestones, like those in the Fort Payne chert, are joints and bedding-plane openings that have been so enlarged by solution that they are principally tubular. Insoluble cherty and shaly beds, which are important in the Fort Payne, are progressively less abundant in the upper part of the Warsaw and virtually lacking in the St. Louis. Openings enlarged by solution are therefore better developed in the Warsaw and St. Louis limestones than in the underlying Fort Payne chert. The lower part of the Warsaw, however, is similar to the Fort Payne in that it contains fairly continuous beds of shale or shaly limestone. Openings through these shaly beds are limited to those along joint planes and to such solutional conduits as can be formed in the more calcareous parts of the beds. These openings are smaller than those in the overlying more nearly pure limestones.

Although the St. Louis and the upper part of the Warsaw limestone contain clay and chert, as shown by the insoluble residue left by solution of calcium carbonate from the formations, this insoluble fraction apparently does not occur in the form of distinct beds but is disseminated irregularly throughout the rocks. It impedes movement of water only where it is concentrated as a residual deposit.

OPENINGS IN UNCONSOLIDATED SEDIMENTS

Openings in the mantle rock are largely intergranular. In the residual deposits, these openings are likely to be small owing to the heterogeneity of grain size. The upper soil zone, however, may be porous and permeable owing to soil-forming processes, decay of roots, and burrowing by small animals. Where cultivation has not filled or sealed the openings, this upper soil zone will absorb and transmit water fairly readily.

Inasmuch as transported mantle rock has been sorted in transit; it is more uniform in grain size than the residual mantle rock. Intergranular openings generally are larger, and permeability greater, in the transported mantle rock.

RECHARGE

The ground-water body in the Scottsville area is recharged by three general methods: direct infiltration of local precipitation, infiltration from streams when and where the streams lie above the water table, and interformational leakage.

PRECIPITATION

During the growing season vegetation causes a soil-moisture deficiency that must be eliminated before any appreciable amount of water can descend to the water table. Although rains are fairly common during the summer, recharge to the ground-water body during this time is almost negligible. During the late fall and winter, after the soil moisture has been replenished, recharge from precipitation is much greater. Water levels in wells generally show a rise from October or November until April, and a decline from that time until after the first killing frost. This is illustrated by the hydrographs of wells 8605–3640–37, 8605–3640–60, 8610–3640–5, and 8610–3645–50, shown in figures 12, 13, and 14.

STREAM LOSSES

In humid areas the normal path of ground water is from the ground-water reservoir to perennial streams. However, if a stream flows over a permeable formation, and if it is temporarily or permanently above the water table in that formation, water will move from the stream and become part of the ground-water reservoir. The minor gullies at the edges of the uplands in the Scottsville area are partly filled with transported mantle rock through which water can pass into the underlying limestones. Surface runoff that is thus diverted may be a major source of recharge to the ground-water reservoir in much of the area.

Water levels in most streams rise about the water table during times of floods, and the stream recharges the ground-water body at these times. The water level in well 8610–3640–230, about 30 feet from the edge of West Bays Fork, is affected by floods in the creek. Figure 5 is a graph of the water level in this well and a graph of stream stage at a gage about 1 mile downstream.

The channels of Rhoden and Dry Creeks, and Trammel Fork are in places underlain by the Louisville limestone, and parts of all three streams are dry during much of the year. According to Meinzer (1923b, p. 58) such streams may be classed as perennial interrupted streams; that is, they contain perennial stretches with intervening intermittent stretches. The water leaves the surface channel, sinks into the valley fill or into the passages in the underlying limestone, joins the ground-water body, and then moves underground before it emerges in the stream. Surface water may also escape from streams that flow on the Louisville limestone by moving underground from one valley to the next in solution channels.

INTERFORMATIONAL LEAKAGE

Ground-water recharge may occur also by leakage of descending waters from overlying formations. In the pure limestones, particularly the St. Louis limestone and the upper part of the Warsaw limestone, solutional passages extend from one formation to the other.

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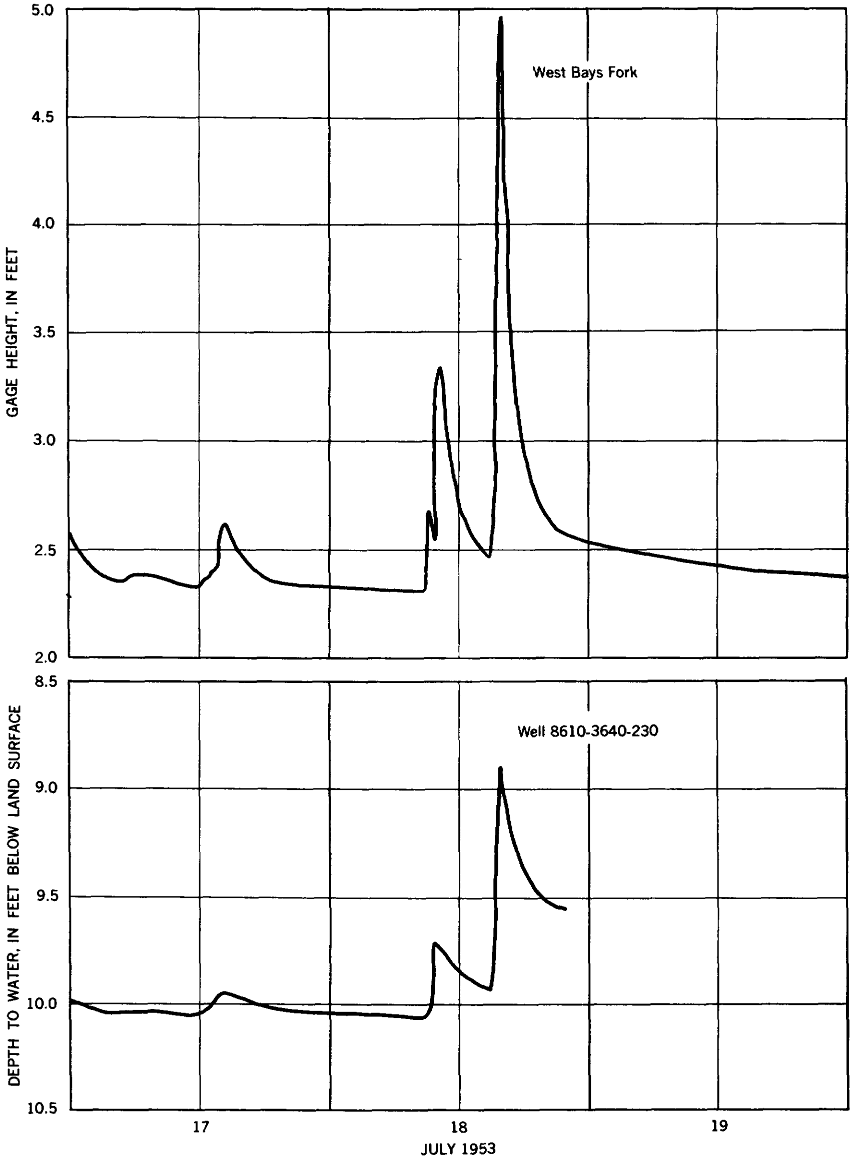

FIGURE 5.—Graph showing relation of water level in well to gage height of nearby stream.

These interformational passages do not generally extend into the Fort Payne chert because beds of shale and layers of chert at the base of the Warsaw limestone restrict the downward movement of the water.

The Chattanooga shale is nearly impermeable and serves as an effective limit to vertical leakage.

Interformational recharge in the Scottsville area may occur also by the rise of water under pressure through improperly plugged oil-test wells and the seepage of this water into the overlying formations. The water in the Silurian and Devonian rocks, where they are covered by the Chattanooga shale, is generally a sulfurous or saline water, associated in places with oil or gas. A few owners of wells drilled into the Fort Payne chert in former oil fields stated that the wells have become contaminated by salt or sulfurous water and are unusable. The city of Scottsville drilled a well in the old South Scottsville oil field. This well yielded ample quantities of water but the water was contaminated with oil and was therefore unusable for domestic or other public purposes.

CONSOLIDATED ROCKS

LOUISVILLE AND SELLERSBURG LIMESTONES

The Louisville and Sellersburg limestones are recharged in part by infiltration of precipitation through the overlying mantle rock, and in part by infiltration from streams. Recharge by infiltration of precipitation includes part of the water that falls on the outcrop area of the limestones and also part of the water that falls on and runs off the adjacent outcrops of the Chattanooga shale. The shale has a low permeability, whereas the underlying limestones have a relatively high permeability. The amount of recharge is unknown, and, as no wells obtaining water exclusively from the Louisville limestone were measured periodically, an estimate could not be made. The area in which the Louisville and Sellersburg limestones are either exposed at the surface or buried only by mantle rock is limited to small patches along valley sides and valley bottoms; therefore, the quantity of recharge by precipitation is probably slight in relation to precipitation on the Scottsville area as a whole.

The Louisville and Sellersburg limestones are highly permeable, at least where they crop out, and all streams that flow across them are perennial interrupted streams, except the Barren River. An unnamed tributary to Puncheon Creek, in the northeast quarter of 8600–3635, flows eastward across the Chattanooga shale and discharges over a small waterfall into a plunge pool in the underlying Louisville limestone. During the summer, all the water disappears into the limestone, recharging the ground-water supply. An outstanding example of a perennial interrupted stream is Long Creek in the northwest quarter of 8600-3640. The entire low flow of the creek disappears into the side of a cliff at a place designated on maps as "The Sink" and flows under a hill for a distance of about one-third of a mile, reappearing as a series of springs which discharge again into the channel of Long Creek. At one time Long Creek flowed around this hill, but the former channel is now abandoned except during periods of high flow.

Trammel Fork loses water over much of its course. On December 18, 1952, Big Spring (8610–3635–3), which discharges into Trammel Fork about 1½ miles north of the Tennessee State line, was gaged at about 5,000 gpm. At this time Trammel Fork was dry from Big Spring upstream to a point about half a mile north of the Tennessee State line. At the State line Trammel Fork was gaged and had a flow of about 2,000 gpm. Farther upstream the flow of Trammel Fork seemed to be greater but it was not gaged. Apparently Trammel Fork loses water to the underlying Louisville limestone until its valley becomes dry. At Big Spring the flow is returned to the surface, and from Big Spring downstream Trammel Fork is a perennial stream. Inasmuch as the volume of water issuing at Big Spring is much larger than the loss of water from Trammel Fork between the State line and the spring, it seems that Trammel Fork either has lost a large part of its flow by the time it reaches the State line or that intermittent streams, such as Florida Creek, contribute large quantities of water to the subsurface reservoir that supplies Big Spring.

Figure 6 shows a possible modification of this method of recharge to the Louisville and Sellersburg limestones. If two streams have breached the Chattanooga shale it is possible that water will flow (transversely) from the higher stream to the lower, beneath the intervening ridge, through channels within these limestones. Ground water may move in this manner in the southeast quarter of the Scottsville area. Well 8600–3645–25, which is on the edge of a ridge between Glover Creek and the Barren River, obtains fresh water from the Louisville limestone. The well was drilled through the lower part of the Fort Payne chert and the Chattanooga shale into the Louisville.

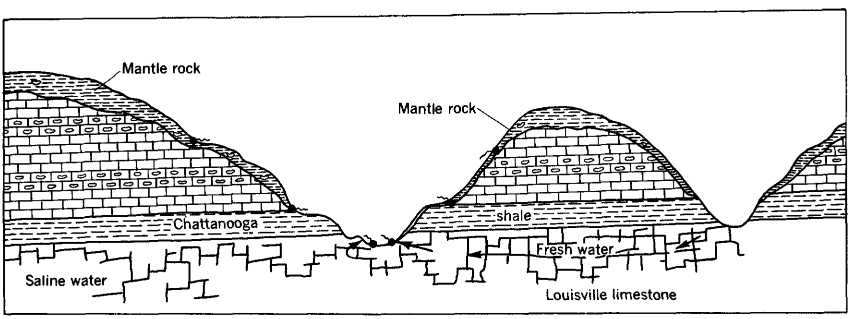

FIGURE 6.—Diagram showing possible movement of water from one valley to another under an intervening ridge. Water may pass from the bed of an influent stream (right) through solutional openings to emerge as springs or seeps in an effluent stream (left).

The springs that flow from the Louisville limestone 10 to 20 feet above Long Creek on the right, or east, bank tend to support the theory that water moves through the Louisville under intervening ridges. One of these springs (8605–3640–275) had a measured flow of 675 gpm on May 12, 1953. The outcrop area of the limestone along the creek probably is not large enough to provide such a flow.

An undetermined amount of recharge is derived from springs that flow from the base of the Fort Payne chert. Some of this flow crosses the outcrop of the Chattanooga shale and recharges the Louisville and Sellersburg limestones.

CHATTANOOGA SHALE

The Chattanooga shale is recharged by infiltration of precipitation and streamflow on the small outcrop area, and by interformational leakage from the mantle rock and the Fort Payne chert. Recharge to the Chattanooga shale from all sources is small in the Scottsville area except where the joints within the formation have been enlarged by slumping, as at outcrops.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

The New Providence shale and the Fort Payne chert are recharged mostly by infiltration of precipitation through the residual mantle, where the mantle rock rests directly on these formations, and by infiltration from intermittent streams that flow through the outcrop area. Inasmuch as the New Providence and Fort Payne are covered in most of their outcrop area by a residual soil and mantle rock to a depth as great as 50 feet, vegetation is heavy and recharge from precipitation is greatest during the seasons when plants are dormant. During this time the rate of recharge may be rapid, as shown by records from wells equipped with recording gages. On March 22–23, 1952, well 8610–3640–5 showed a rise of 10.40 feet in 22 hours in response to a rainfall of 3.5 inches. The rapid response of this well probably was caused in part to the proximity of an intermittent stream. Nevertheless, most wells that obtain water from the New Providence and Fort Payne show a response to dormant-season rainfall within 24 hours.

As the outcrop of the New Providence and Fort Payne formations is a well-dissected upland, much of the precipitation runs off. The runoff is concentrated into small valleys floored with transported mantle rock. Water that seeps from this transported mantle rock into the adjacent bedrock probably furnishes much of the recharge to the New Providence and Fort Payne.

Some of the ground water in the New Providence shale and Fort Payne chert is derived also from infiltration from perennial streams that flow through the outcrop area. This recharge is effective when and where the water level in the streams is higher than the water level in the rocks, and where conduits exist through which recharge may occur. Wells 8610–3640–40 and 8610–3640–232, which formerly were used by the city of Scottsville, are on the flood plain of West Bays Fork, and the rock they penetrate seems to be recharged at times by infiltration from the creek through solutional openings in the creek bottom. Water from these wells became muddy shortly after intense rains and remained muddy from 1 to 3 days; this fact indicates recharge from the creek.

Recharge to the Fort Payne chert by leakage from overlying consolidated rocks probably is negligible, as the contact between the Fort Payne and the overlying Warsaw limestone is marked by a fairly continuous shaly zone that impedes interformational leakage.

WARSAW AND ST. LOUIS LIMESTONES

The Warsaw and St. Louis limestones are recharged by infiltration of precipitation through the residual mantle rock where it rests directly on these formations. Because soil and mantle rock cover almost all the outcrop area, recharge is limited largely to the nongrowing season. However, where sinkholes are well developed, considerable recharge may occur even during the growing season when intense summer rains produce rapid surface runoff into the sinkholes. The hydrographs of wells 8610–3640–160 and 8610–3650–54 in figures 18 and 19 show water-level fluctuations which are produced partly by drainage from sinkholes into the Warsaw limestone.

The Warsaw and St. Louis limestones are restricted in general to the uplands and valley sides in the northwest quarter of the Scottsville area, and they form a sinkhole terrane which has been partly dissected by tributaries to Bays Fork and Sulphur, Difficult, and Little Difficult Creeks. Both the Warsaw and the St. Louis limestones lie above the levels of local perennial streams. However, recharge probably occurs from intermittent streams that flow through the area in which these limestones crop out. As the St. Louis limestone is the highest consolidated stratigraphic unit in the Scottsville area, interformational leakage to the Warsaw and St. Louis probably is derived only from the mantle rock.

MANTLE ROCK

The mantle rock is recharged by infiltration of precipitation and streamflow and by seepage from bedrock formations. Residual mantle rock on the uplands is recharged chiefly by precipitation, principally during the winter; residual mantle rock on hillsides is recharged principally by infiltration of surface runoff and by seepage from bedrock.

Some recharge to transported mantle rock occurs by percolation of ground water which is in transit from the consolidated rocks to the streams and which passes through the unconsolidated sediments in the stream valleys.

Recharge occurs also from streams that flow through the mantle deposits, at times when and places where the level of the streams is higher than that of the water in the sediments. As the intermittent streams lie above the water table, the amount of recharge thus obtained may be very large, and possibly is the most important component of recharge to the ground-water body in the Scottsville area.

Recharge to the mantle rock from streams tends to maintain water levels in wells that yield water from the mantle rock. It tends also to maintain discharge rates from springs fed by the mantle rock.

As no formations overlie the mantle rock, interformational recharge to the mantle rock occurs only in the valley bottoms and along hillsides where the older rocks are adjacent to and rise above the mantle rock. Probably this recharge to the mantle from the bedrock in hillsides and valleys is of large magnitude, and it may constitute most of the discharge from the consolidated rocks.

MOVEMENT

According to Meinzer (1923b, p. 42–43), "movements of subsurface water include percolation, flow of water through large openings, capillary migration, and circulation of water vapor." Capillary migration and circulation of water vapor are limited to the zone of aeration, whereas percolation and flow through large openings are not thus limited.

In chert, shale, and limestone, enlarged joints and bedding-plane openings are the major conduits for water. In the Scottsville area, for the most part, joints are nearly vertical, and bedding planes are nearly horizontal. Water will move down a joint until it reaches a point beyond which movement is impeded. It will then move laterally along another opening, possibly an open-bedding plane or enlarged joint, until it reaches either the land surface or another joint through which it can move downward again. Water under pressure (artesian water) will move in any direction, so long as it is down the hydraulic gradient, wherever openings can be found.

MOVEMENT IN CONSOLIDATED ROCKS

LOUISVILLE AND SELLERSBURG LIMESTONES

Water may move through any conduits in limestones that form a continuous path from an area of recharge to an area of discharge. Movement of water through conduits in the Louisville and Sellersburg limestones may be fairly rapid. At spring 8600–3640–3, a dye test was made to determine the direction and rate of subsurface flow. Approximately a quarter of a pound of fluorescein dye was introduced into a sink about 250 feet from the spring. The dye was mixed with 80 gallons of water. In 50 minutes it reached the spring and was discharged for about an hour, after which it was no longer visible.

In the Scottsville area fresh water generally occurs in the Louisville and Sellersburg limestones in their outcrop area. Salt water is usually present where the Louisville and Sellersburg are covered by the Chattanooga shale. Apparently the relatively impermeable shale restricts the circulation of ground water to such an extent that connate waters are not completely flushed out. Thus the movement of ground water seems rapid in the outcrop area of the Louisville and Sellersburg, but is very slow in areas where these limestones are covered by the Chattanooga shale.

A few exceptions to the general occurrence of saline waters below the Chattanooga shale have been reported. Wells 8610–3635–189 and 190 were drilled as oil-test wells and obtained fresh water from beneath the Chattanooga shale. No chemical analyses of these waters were made, however.

CHATTANOOGA SHALE

Water in the Chattanooga shale moves slowly because the openings in the shale are very small. Movement is through paper-thin openings along joints and minute intergranular openings.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

Water in the New Providence shale and the Fort Payne chert moves mostly through solutional openings in the limestone beds. Cherty and shaly beds in the formations retard downward percolation of ground water and deflect the water toward the numerous small springs along the valley walls in the outcrop area. Most of these springs issue along bedding planes. Because they generally mark the horizon at which a layer of porous or soluble limestone rests upon a layer of less soluble material, they may be regarded as contact springs.

Downward movement of water through the cherty and shaly beds of the Fort Payne is slow compared with movement through the limestone beds. A cascading waterfall from one level to another was observed in a cave near Gainesville. Similar cascades, although not necessarily in such large openings, may occur elsewhere in the formation.

Figure 7 is a diagram illustrating the modes of occurrence of ground water in the Fort Payne chert.

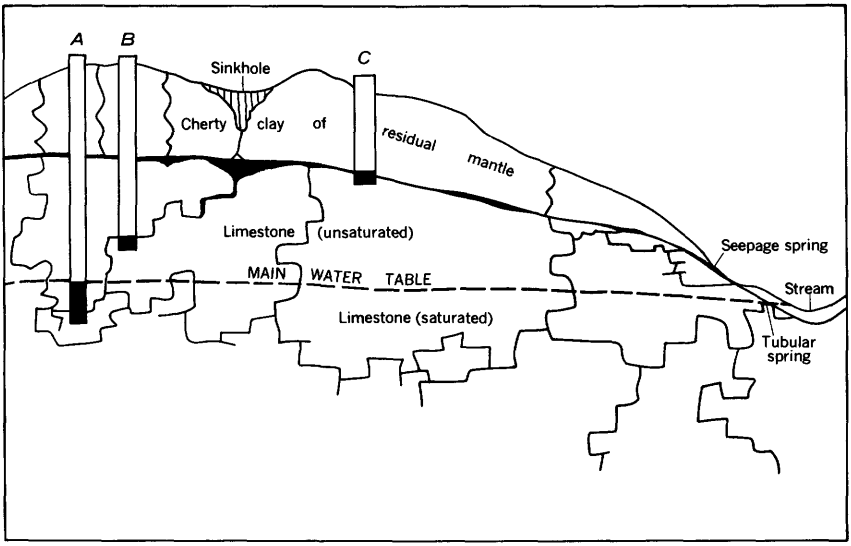

FIGURE 7.—Diagram illustrating the modes of occurrence of ground water in the Fort Payne chert. *A*, Well obtains water from solutional opening below main water table. *B*, Well obtains perched water from solutional opening above main water table. *C*, Well obtains perched water at contact between mantle rock and limestone.

WARSAW AND ST. LOUIS LIMESTONES

Water in the Warsaw moves downward through joints within the cherty and shaly beds, and through solutional openings enlarged from these joints in the limestone parts of the formation. Downward movement of water in the St. Louis limestone occurs almost exclusively along joints enlarged by solution. The water table in the Scottsville area lies below the base of the St. Louis limestone during most of the year; therefore, water moves downward through the St. Louis and to the upper surfaces of the nearly insoluble zones in the lower part of the Warsaw. The greatest concentration of water within the Warsaw seems to be at the top of the shaly zone immediately overlying the Fort Payne chert. This is indicated by the number of wells that obtain water from this zone and by the number of springs near it.

Horizontal movement of water in both formations is limited almost entirely to solutional openings that follow bedding planes and, in the lower part of the Warsaw, that follow the upper surfaces of nearly insoluble zones, such as shale or shaly limestone.

MOVEMENT IN MANTLE ROCK

After water passes through the soil zone, it moves downward through the mantle rock to bedrock and follows the bedrock surface or passes into openings in the bedrock itself. In the vicinity of Holland, Ky., water is usually reached at the contact between the mantle rock and bedrock.

Clay layers may prevent water in the mantle rock from migrating downward. Small perched water bodies form where these layers occur.

DISCHARGE

Ground water may be discharged from the zone of saturation in several ways. It may flow into streams through springs and seeps, it may be transpired by vegetation, it may be lost by direct evaporation where and when the capillary fringe intersects the land surface, or it may be removed from wells. Interformational leakage, which is discharge from one aquifer and recharge to another, has been discussed above in the section on recharge.

SPRINGS

Although only a few of the springs in the Scottsville area are developed as a source of water supply, they are important points of discharge. The discharge from most individual springs probably averages less than 5 gpm, but the total discharge from the 1,199 springs which were inventoried, and which are plotted on plate 2, is about 6,000 gpm. This figure is the estimated visible discharge of springs. It includes neither the ground water discharged by unseen seepage into streambeds, which accounts for much of the ground-water discharge in the Scottsville area, nor water that is transpired by plants growing near springs. In summer, these plants may transpire all the ground water that would be discharged by small springs. The amount of ground water thus discharged may be very large.

Springs in the Scottsville area are of three general types, defined according to the type of openings from which the water issues. Those springs whose water percolates from many small openings in permeable material are designated seeps, or seepage springs and those whose water flows from joints are designated joint springs. Springs whose water flows from somewhat rounded openings, such as solutional passages, are designated tubular springs. Because most of the joints from which springs flow in the Scottsville area have been enlarged by solution, joint and tubular springs are classified together as tubular springs. In general, seepage springs do not have a single recognizable opening. Most seepage springs issue from mantle rock, whereas most tubular and joint springs issue from bedrock. The inventoried springs in the Scottsville area are subdivided as to aquifers and types of openings in table 3. In table 4 they are subdivided as to aquifers and flows, and in table 5 they are listed by location, aquifer, elevation above streams, improvement, use, type of opening, and flow.

Most seepage springs issue from unconsolidated material, often at the contact between the unconsolidated mantle rock and the bedrock. Seepage springs may issue from bedrock, however. Table 6 lists the springs inventoried in the Scottsville area by type of opening and flow.

EVAPOTRANSPIRATION

Discharge of ground water by evapotranspiration is important in the Scottsville area only where the water table lies at or near the land surface, such as flood plains, areas of spring discharge, and swamps. Ground water that enters ponds which occupy depressions extending to the water table also may be discharged by evapotranspiration. Discharge of ground water by vegetation growing on flood plains may be great, as the depth to water normally is not more than 20 feet. Water may be discharged by plants in areas where springs discharge; in fact, many small springs and seeps in the Scottsville area stop flowing during the growing season because of evapotranspiration. Evaporation from lakes and swamps is slight, inasmuch as the only swamp in the area (excluding small patches along stream valleys) is not perennial, and few lakes or ponds intercept the water table. Impermeable sediment on the bottoms of most stock ponds insulate them from the water table. They obtain water from surface runoff or from discharge of springs that lie above the ponds.

Much more water is discharged by evapotranspiration from the soil without ever becoming ground water than is discharged by evapotranspiration from the ground-water reservoir. In the report area, evapotranspiration of soil moisture accounts for about 3/5 to 2/3 of the precipitation.

WELLS

Discharge of ground water through wells in the Scottsville area is very small compared with the natural discharge. On the basis of reported domestic use of water in other parts of Kentucky it is estimated that about 100,000 gpd (gallons per day) is pumped from wells in the Scottsville area. This is much less than the average discharge of any of several large springs in the area.

CONSOLIDATED ROCKS

LOUISVILLE AND SELLERSBURG LIMESTONES

Most of the natural discharge from the Louisville limestone takes place through springs. The largest springs in the Scottsville area are tubular and flow from the Louisville limestone. Big Spring (8610–3635–3) had a minimum measured discharge of 1,225 gpm, September 19, 1953, and a maximum measured discharge of 20,900 gpm, March 6, 1953. Calvert Spring (8600–3640–3) had a minimum measured discharge of about 400 gpm, August 17, 1953, and a maximum measured discharge of 8,300+ gpm, May 18, 1953; the estimated maximum discharge on that day was about 12,000 gpm. Spring 8600–3645–1 had a measured discharge of 2,860 gpm on April 7, 1953. These were the largest springs measured in the area. No contact springs discharging from the Louisville or Sellersburg limestones were found. As the formations are homogeneous, none would be expected. All the large springs issuing from the Louisville limestone are in the upper 40 feet of the formation. As indicated previously, interformational leakage from the Louisville and Sellersburg limestones is believed to be negligible.

Some water probably is discharged by evapotranspiration, inasmuch as the Louisville and Sellersburg limestones crop out in many stream valleys where the water table may be within reach of plant roots.

Discharge of ground water through wells in the Louisville and Sellersburg limestones is very small compared with the natural discharge from these rocks.

CHATTANOOGA SHALE

Spring discharge from the Chattanooga shale is negligible. Most of the water issuing from the few small seepage springs in the upper part of the formation is that which normally flows on top of the shale at the base of the Fort Payne chert. It enters fractures which are open only near steeply sloping surface exposures of the Chattanooga. These fractures are presumably produced by slumping of the shale at the exposures.

Probably most of the small discharge from the Chattanooga shale occurs by evapotranspiration. The top of the zone of saturation in the shale is generally near the surface where it is within reach of plant roots. During wet seasons the zone of saturation or the capillary fringe may extend to the surface in places.

Very little water is discharged from the Chattanooga shale through wells.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

Although most springs issuing from the New Providence and Fort Payne formations are small, in the aggregate they discharge a large amount of water. Four hundred fifty inventoried springs issuing from the Fort Payne have an aggregate discharge of about 2,250 gpm, an average of 5 gpm. Seepage to streams and to the mantle along hillsides probably accounts for most of the discharge from the formations.

Tubular springs are not restricted to any one zone or area within the Fort Payne. Contact springs occur most commonly at the base of soluble limestone strata in the formation, at the top of cherty or shaly zones. The discharge from contact springs is probably somewhat more variable than that of tubular springs.

Evapotranspiration discharge of water from the Fort Payne chert is limited, for the most part, to the vicinities of springs and seeps along the hillsides and valley bottoms. In the upland areas, the Fort Payne is buried too deeply under the mantle rock to lose much water by evapotranspiration. The amount of water lost to plants at spring sites during the growing season may exceed that lost as visible flow.

The amount of water discharged to wells from the New Providence shale and Fort Payne chert is small in comparison with natural discharge. Nevertheless, more water is discharged to wells from these rocks than from all other formations in the Scottsville area.

WARSAW AND ST. LOUIS LIMESTONES

Springs discharging from the Warsaw and St. Louis limestones are principally solutional types, as shown in table 3. Of 254 inventoried springs in the Warsaw and St. Louis limestones, 205, or about four-fifths, issue from solutional openings. The rest are seepage springs. Nearly all the springs in the Warsaw issue at or near insoluble zones in the limestone, principally the shaly zone at the base. The average discharge of springs issuing from the Warsaw and St. Louis limestones is small. As shown in table 4, more than half the springs discharge less than 5 gpm.

Evapotranspiration losses from the Warsaw and St. Louis limestones are probably small, as the formations are rather deeply buried under the mantle rock throughout most of the Scottsville area. Where sinkholes extend to or beneath the water table within the consolidated formations, some evapotranspiration may occur. Evapotranspiration may occur also where ground water is deflected into the mantle rock by the shale at the base of the Warsaw.

A small amount of water is discharged to wells from the Warsaw and St. Louis limestones.

MANTLE ROCK

Water is discharged from the mantle rock through seepage springs, by loss to the underlying bedrock, by evapotranspiration, and through wells. Evapotranspiration is an important process in the discharge of water from the mantle rock; however, most of the water so discharged is soil moisture, not ground water.

Springs emerging from the mantle rock are numerous. Of the 1,199 springs inventoried in the area, 475 or about 40 percent probably obtain part of their water from the mantle rock, as shown in table 5.

Many of these springs emerge on hillsides at the contact between the mantle rock and the underlying bedrock, and some undoubtedly obtain much of their water from the bedrock. Springs issuing from the mantle rock are generally small, though some discharge moderately large quantities in wet weather. Some are perennial, but many of the springs inventoried are merely wet-weather seeps. The flow of most springs yielding water from the mantle rock is not more than 1 gpm. More than 80 percent of the springs issuing from mantle rock have a reported flow of 5 gpm or less, as shown in table 4. Some of these mantle springs are used for watering stock and a few are used for domestic supplies; the majority are not used at all.

Water is lost to the bedrocks underlying the mantle rock where they are permeable and where the opportunity for discharge of the water elsewhere is such that the head of the water in the bedrock is lower than that of the water in the mantle rock. Loss from transported mantle rock to underlying consolidated formations may be the major source of recharge to these formations. Loss to the Chattanooga shale and to the shaly parts of the New Providence shale and the Fort Payne chert is slight compared with loss to the permeable limestones.

Discharge from alluvial deposits (transported mantle rock) takes place chiefly by evapotranspiration and seepage to the streams. The water table lies only a few feet below the surface of the alluvial deposits in the Scottsville area, and both cultivated crops and native vegetation probably obtain part of their water by tapping ground water in the deposits.

Some ground water discharges by evapotranspiration from the residual mantle where the water table is within reach of plant roots, probably near seeps and springs.

A very small amount of water is discharged from the mantle rocks to wells.

AVAILABILITY OF GROUND WATER

Wells in the Scottsville area are plentiful, averaging between 4 and 5 per square mile, but most yield only small supplies of water for domestic and stock uses. The 902 wells inventoried include about 80 percent of the wells in the area. Information was obtained concerning yields of 30 of the inventoried wells. Of these, 11 are capable of yielding more than 10 gpm, whereas the others yield much smaller amounts. Some wells were reported to yield less than 10 gpd.

AVAILABILITY OF GROUND WATER FROM CONSOLIDATED ROCKS

LOUISVILLE AND SELLERSBURG LIMESTONES

Few wells in the Scottsville area obtain fresh water from the Louisville or the Sellersburg limestone. Well 8600–3645–25 yielded fresh water from beneath the shale; however, the water had a high sulfate content and a sulfurous odor. Well 8610–3635–49, on the west side of the valley of Trammel Fork, was reported by the owner as having reached a stream of fresh water beneath the Chattanooga shale that was satisfactory for domestic use. Reports of fish having been bailed from this well indicate large solutional openings connecting with Trammel Fork. Well 8600–3640–32 yields water that is fresh but very hard and is high in iron content, from below a surface exposure of the Louisville limestone. This well is on the edge of a terrace adjacent to the Barren River. Well 8600-3635–13 yields water for domestic use from the Louisville on the east side of Puncheon Creek. The water is reportedly sulfurous but otherwise satisfactory for domestic use. The presence of hydrogen sulfide may be related to the presence of pyrite in the overlying black shale.

CHATTANOOGA SHALE

Wells penetrating the Chattanooga shale obtain most of their water at the contact between the shale and the overlying Fort Payne chert, rather than from the shale itself. The sulfurous odor of water obtained from these wells indicates, however, that some water may be discharged to wells from the Chattanooga shale. The sulfurous odor may be due to the decomposition of pyrite.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

Records of 483 wells drilled into the Fort Payne were obtained. The majority are between 25 and 75 feet deep, as shown in table 8. The median depth for all wells drilled into the Fort Payne is about 50 feet. The maximum yield of most wells that obtain water from the Fort Payne is not known. The best information available is that concerning wells 8610–3640–40 and 8610–3640–232, used by the city of Scottsville. These wells had a reported continuous yield of 40 gpm each. Reported yields of 15 wells that obtain water from the Fort Payne average about 11 gpm; their median yield is 3 gpm.

WARSAW AND ST. LOUIS LIMESTONES

Most wells in the Warsaw and St. Louis limestones yield small quantities of water, about 1 gpm or less. Fifty-six yield such small supplies that they are unused. If these wells were drilled to or somewhat below the level of the local streams they might yield larger quantities, although the water might be sulfurous. Water obtained from the Warsaw and the St. Louis limestones generally comes from perched or semiperched water bodies or from solutional openings through which water is moving. Well 8610-3645–105 is an unusual but not unique example. The well was drilled to a depth of 89.6 feet, and water was reached at about 45 feet. During the time that it was measured as an observation well, its water level was almost constant, as shown in figure 18. According to the owner, the well can be bailed dry in the evening but it will refill to its previous level by the following morning. Apparently, the static level in the well is determined by a large solutional opening through which water flows at a fairly constant rate. After the well is bailed, water enters it until its water level is restored to that of the conduit, after which flow is across the well. The water probably does not completely fill the conduit; otherwise artesian conditions would exist and the water level probably would show seasonal fluctuations similar to that in other artesian wells. This same type of phenomenon was noted in well 8610–3640–253, as shown on figure 8. This well obtains water from the upper part of the Fort Payne chert or lower part of the Warsaw limestone.

AVAILABILITY OF GROUND WATER FROM MANTLE ROCK

A very small amount of water is removed from the mantle rock through wells. Most of the 146 wells that yield water from the mantle rock in the Scottsville area probably obtain their water from a zone of saturation just above the bedrock. The yield is small, but it is generally adequate for domestic use. A few wells that obtain water from the mantle rock are drilled but most are dug. The storage capacity of the dug wells is generally sufficient to insure adequate water for domestic use at any one time, even though continuous pumping might show a yield of 1 gpm or less.

Well 8610–3635–44 is in valley fill. It was unused and was equipped with a recording gage. The well shows (fig. 16) a rapid rise in water level immediately after rains, and a slower rate of decline to a fairly stable base level during protracted dry spells. Differences in response to nearly equal rains may be due to differences in intensity of rainfall and to soil-moisture conditions previous to the rain.

USE OF GROUND WATER

SPRINGS

Springs in the Scottsville area are used in different ways, depending principally upon the location and yield of the springs and the needs and desires of the owners. Some springs are ponded for stock water, some are housed, some are piped to homes, a few are equipped with pumps and storage basins, 2 are equipped with hydraulic rams, and 2 were formerly equipped with cables and overhead bucket trolleys. Many are too small or too remote to be used. The city of Scottsville has developed one of the largest springs in the area, 8600–3640–3, by installing two 250-gpm turbine pumps at the spring and laying an 8-

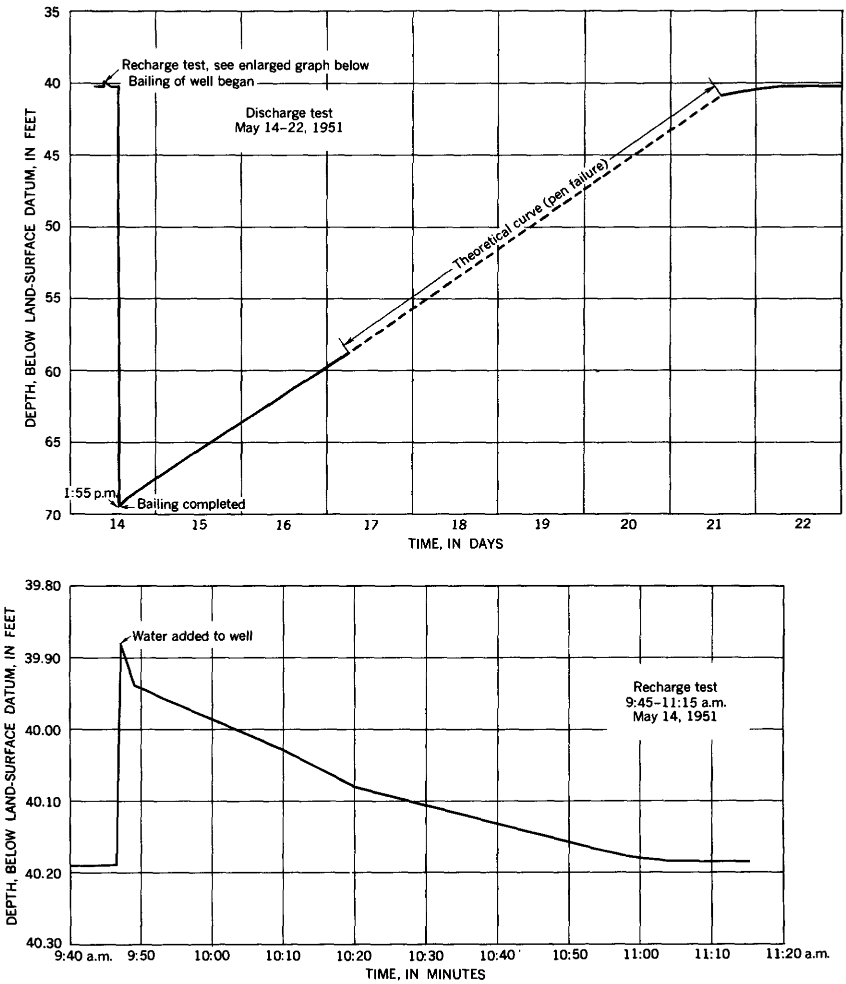

FIGURE 8.—Hydrographs of tests on well 8610–3640–253.

inch line 8 miles long from the spring to the city's standpipes. In 1954, part of the discharge from spring 8610–3635–3 was used for irrigation.

WELLS

The older wells in the area were dug through the mantle rock and into the underlying bedrock, sometimes with the aid of dynamite, and the walls were then lined with brick or stone. The wells generally are more than 24 inches in diameter, but several are 42 inches in diameter. Most dug wells are shallow. Only 20 of the 206 dug wells inventoried are known to be more than 50 feet deep. The water supply available from a dug well is generally small, because it is derived mostly from seepage from the mantle rock. Storage within the well may be fairly large but this will not increase the overall yield of the well. Wells dug nowadays are generally expensive and are more subject to contamination than wells of other types.

Most recent wells have been drilled by the percussion method. This method requires that a heavy string of tools be alternately raised and dropped upon the bottom of the hole to chip the rock so that it can be removed by means of a bailer, a section of pipe with a flap valve in the bottom. A drilled well generally reaches the first water below the top of the bedrock and is drilled 5 to 10 feet deeper to form a "basin" for storage of water in the well. The well generally is cased to bedrock and is left open in the rock. Drilled wells are of smaller diameter than dug wells, few in the area are more than 8 inches and most are 6 inches in diameter. A total of 696 drilled wells were inventoried in the Scottsville area. None were screened.

Table 7 presents data concerning types, depths, and uses of wells, and the relation of wells to aquifiers, topography, and surface formations.

Several methods of removing water from wells are used in the area. Of the wells inventoried, 577, or 64 percent, are pumped or bailed by hand. Wells having electric-power lift total 112, or 12.5 percent. Most wells with power pumps use either jet or cylinder electric pumps; one well is equipped with a windmill. The city of Scottsville uses deep-well turbine pumps on its municipal wells. Two wells which obtain sulfurous water from Silurian limestone flow at the surface. There are 210 wells, or about 23 percent of those inventoried, that are unused. Most unused wells were abandoned because of poor quality of water or insufficient supply. The wells are subdivided by depth, aquifer, and use in table 8. Figure 9 shows the wells listed as to depths and types, and figure 10 shows the types of power and the uses of the wells in the area.

CHEMICAL QUALITY OF GROUND WATER

Most of the rocks underlying the Scottsville area are limestone. The dominant chemical constituent of these rocks is calcium carbonate, calcium magnesium carbonate being an important additional constituent of the Silurian rocks. The chemical action of water upon limestone is particularly important in this area, inasmuch as the water-bearing openings in the limestones are formed by the solvent action of ground water, and the quality of the ground water is affected by this dissolving action. The typical water from limestone is slightly alkaline and moderately to very hard.

From the time water falls on the surface as rain or snow, its composition and quality change. Rainwater is very soft but contains

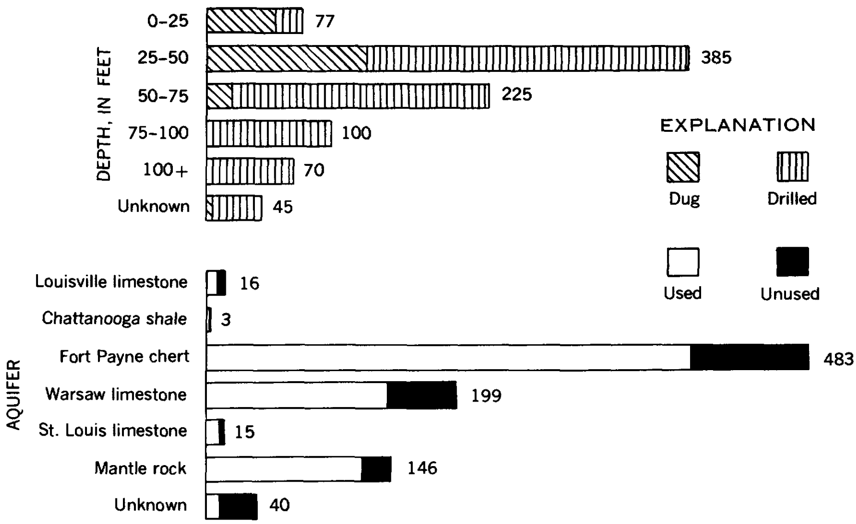

FIGURE 9.—Graphs showing wells in the Scottsville area, Kentucky, subdivided by depth and type and by aquifer.

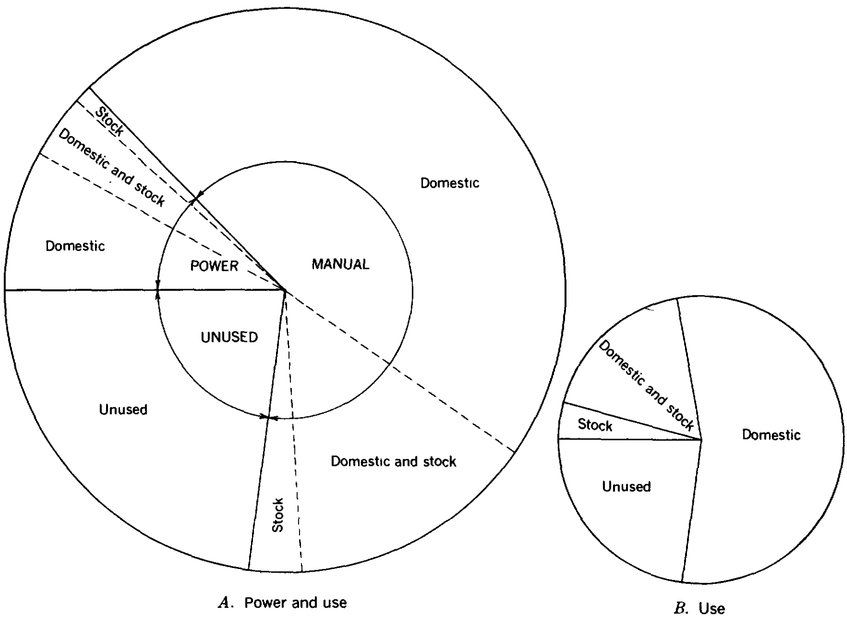

FIGURE 10.—Graphs showing wells in the Scottsville area, Kentucky, subdivided by type of power and use. *A*, Power and use; *B*, Use.

some gases, dust, smoke, and organic matter derived from the atmosphere. As water seeps through the openings in soil and in unconsolidated and consolidated rocks, it dissolves many substances. The type and amount of substances dissolved in ground water depend on the kinds of rock materials with which it comes in contact, the length of time of contact, and the climate. The concentration of dissolved substances generally increases with depth, because the water at depth circulates slowly and has been long in contact with rock minerals; moreover, at depth, some of the water may be that of the ancient seas in which the Paleozoic sedimentary rocks were deposited. The activities of man locally influence the quality of ground waters if sewage or industrial wastes gain entrance to the ground-water reservoir. Table 9 summarizes the sources and significance of dissolved mineral constitutents and physical properties of natural waters.

Most substances dissolved in ground water are in a dissociated state—that is, present as electrically charged particles known as ions. The principal ionic constituents in ground water are the positively charged metallic ions (cations) calcium, magnesium, sodium, and potassium and the negatively charged nonmetallic ions (anions) bicarbonate, sulfate, chloride, and nitrate. Other ions common in smaller amounts include iron, manganese, aluminum, fluoride, and boron. When water is evaporated, cations combine with anions to form complete chemical compounds, such as sodium chloride (common table salt). Bicarbonate decomposes, losing water and carbon dioxide, and forms carbonate salts with the metallic ions.

One important constituent, silica, is not ionized in most waters. Several minor constituents also may not be ionized under certain conditions.

As rainwater falls and then seeps down through the soil, it dissolves carbon dioxide from the atmosphere and the soil, and organic acids from the soil. The resulting weakly acidic solution is most active at the base of the soil or mantle rock where it first reaches bedrock. The carbonate minerals in a rock such as limestone dissolve, and the relatively insoluble constituents, clay and chert for the most part, remain to form the residual mantle. The water moves into the rock along bedding planes and joints, dissolves the rock, and increases the size of the openings. A summary of the chemistry of the process, together with a list of references on ground water in limestone, has been prepared by Swinnerton (1942).

METHODS OF EXPRESSING ANALYSES

PARTS PER MILLION

The amount of any substance or ion listed in an analysis is commonly given in parts per million by weight (ppm). Table 10 presents partial analyses of water from 36 wells and 28 springs and comprehensive analyses of water from 8 wells and 7 springs in the Scottsville area. Table 11 summarizes the quality of the water, giving the maximum, minimum, median, and average concentrations of the most important constitutents. In both these tables, chemical constituents are expressed in parts per million. The median of table 11 is the value in the middle of a series from high to low and is often more typical than the average, which may be influenced by a few abnormally high or low values.

EQUIVALENTS PER MILLION

Analyses of ground water are expressed also in chemical combining weights, or equivalents per million (epm), because chemical combination does not take place unit for unit as parts per million. For example, 22.997 ppm of sodium combines equivalently with 35.457 ppm of chloride.

Parts per million are converted to equivalents per million to show analyses graphically, as on plate 3. This conversion requires dividing the concentration in parts per million, of the constituent by the chemical equivalent weight of the constituent.

The sum of the cations expressed as equivalents per million should equal the sum of the anions within the limits of practical analytical procedure because the ions are in equilibrium. Therefore, in the bar graphs referred to above, the column of cations is of the same height as the column of anions. The order from bottom to top of the cations (left-hand column) is calcium, magnesium, and sodium (plus potassium). In partial analyses, calcium and magnesium were not differentiated. On the bar graphs of partial analyses, calcium and magnesium are indicated by two parallel vertical symbols. The anions (right-hand column) are, in order from bottom to top, bicarbonate (plus carbonate), sulfate, and chloride (plus nitrate and fluoride).

CHARACTERISTICS OF GROUND WATER

The substances dissolved in water give the water several characteristic properties important to those who use it.

The hydrogen ion concentration, as indicated by the pH, is useful as an index of the corrosiveness of water and the kind of treatment required. The pH scale extends from 0 to 14; at the midpoint, pH 7.0, the concentrations of the hydrogen ions and the hydroxyl ions are equal. The solution is described as neutral. A pH greater than 7.0 indicates more hydroxyl ions than hydrogen ions, and the solution is said to be alkaline (or basic). A pH less than 7.0 indicates more hydrogen ions than hydroxyl ions, and the solution is said to be acid.

Specific conductance is a measure of the ability of water to conduct an electric current. It is an indication of the amount of dissolved ionized solids in the water and a convenient means of following changes in mineral content.

The dissolved-solids content represents the quantity of substances in solution, including any organic matter and water of crystallization remaining after evaporation of the water at 180°C. The U.S. Public Health Service specifies that dissolved solids preferably should not exceed 500 ppm in drinking and culinary water used on interstate carriers, and recommends this standard for public water supplies in general.

Hard water is recognized by the large amount of soap needed to produce lather, by the scum of insoluble salts formed when the water is used with soap, and by the scale deposited when the water is heated. The hardness is due chiefly to salts of calcium and magnesium, although iron, aluminum, manganese, and free acid also cause hardness. The hardness caused by calcium and magnesium equivalent to the bicarbonate (and carbonate) in a water is called carbonate (temporary) hardness, which is removable by boiling. Hardness caused by other compounds of calcium and magnesium is noncarbonate (permanent) hardness. Hardness is expressed as parts per million, in terms of $CaCO_3$.

If water has a hardness of 60 ppm or less, it is described as soft. Moderately hard water has a hardness of 61 to 120 ppm; hard water, 121 to 200 ppm; and very hard water, more than 200 ppm.

Fluoride is of particular interest. About 1.0 ppm of fluoride in water decreases the incidence of tooth decay when the water is consumed by children during the years when the permanent teeth are forming (Dean and others, 1941). More than 1.5 ppm of fluoride in water is associated with dental fluorosis (mottled enamel) if the water is used for drinking by children (Dean, 1936). The highest concentration of fluoride in the samples analyzed from the Scottsville area was 0.9 ppm.

The temperature of ground water in the Scottsville area generally is about 57°F, which is near the average annual air temperature of the area. The average seasonal variation in temperature of water from Calvert Spring (8600–3640–3) and Big Spring (8610–3635–3) is about 6°F. Water in shallow dug wells may have a greater seasonal variation, due to the large surface area exposed to the air. Water temperatures tend to follow air temperatures but with a lag in time and reduction in amplitude of fluctuations between the extremes (Rorabaugh and others, 1953). The low temperatures of the springs were recorded in March; the high temperatures were recorded from July to September.

TYPES OF GROUND WATER IN THE SCOTTSVILLE AREA

Nearly all fresh ground water in the Scottsville area is of the calcium magnesium bicarbonate type, typical of limestone terranes.

Three general varieties can be differentiated on the basis of chemical quality—normal, high-sulfate, and high-nitrate waters. Most of the waters analyzed are of the normal variety. The bicarbonate concentration is about 90 percent of the total anion concentration, expressed in parts per million.

The second variety also is high in calcium, magnesium, and bicarbonate, but it has a high percentage of sulfate (SO_4). This water is found predominantly in the northwest quarter of the area, as shown on the map of quality-of-water data, plate 3; however, it does not constitute the only type of water found there. The waters high in sulfate include those of the greatest hardness and highest concentrations of fluoride and chloride.

The third variety is calcium magnesium bicarbonate water that is abnormally high in nitrate. Though high nitrate concentrations may occur in any given location, they occur more frequently in the section south and east of Holland, Ky., as shown on plate 3. Of 10 samples taken in this area, 6 contained more than 10 ppm of nitrate. Nitrate even exceeded bicarbonate in samples from wells 8610–3640–32 and 8605–3640–2. All these samples were obtained from wells that probably yield water from soil and mantle rock. None of the samples with high concentrations of nitrate were taken from springs. This high nitrate concentration may be due to contamination by organic wastes.

Saline waters in the Scottsville area are of the sodium chloride type.

LOUISVILLE AND SELLERSBURG LIMESTONES

Samples of water from springs in the Silurian rocks range from soft to hard, extreme values of hardness being 49 and 135 ppm. The average hardness was 94 and the median 95 ppm. The 3 wells in the Louisville and Sellersburg rocks that were sampled yielded very hard water, with values of 252, 212, and 1,130 ppm for hardness. The iron content ranged from 0.06 to 0.31 ppm for the springs and from 0.15 to 1.4 ppm for the wells. The average iron content of the spring water was 0.16 ppm and the median was 0.14 ppm. Water from the Louisville and Sellersburg rocks in general is lower in specific conductance than water from other aquifers in the area.

West of the drainage divide separating Bays Fork and Difficult Creek from Long Creek, Trammel Fork, and Barren River, all water from the Silurian rocks probably is saline or sulfurous.

Repeated samples have been taken at both Calvert Spring and Big Spring, 8600–3640–3 and 8610–3635–3, to determine any significant change in hardness or mineral content that can be correlated with either time or discharge. The results of these successive samplings are shown in table 4 and 12.

In analyses for both springs, the hardness varied approximately inversely with the flow of the spring, as shown by the following table:

Discharge and hardness of water from springs 8600–3640–3 and 8610–3635–3

Spring	Flow (gpm)	Hardness as $CaCO_3$ (ppm)	Date
8600–3640–3	500	135	Oct. 29, 1952
	[1] 600	128	Sept. 12, 1951.
	1, 860	66	June 1, 1953.
	3, 500	96	Feb. 21, 1953.
8610–3635–3	1, 700	122	Aug. 14, 1952.
	10, 000	88	June 1, 1953.
	20, 900	70	Mar. 6, 1953.

[1] Estimated.

The water from these springs was hardest during the late summer and fall. During the late winter and spring, some of the water discharged has been in storage for a short time and is less mineralized and softer than the water that it has replaced.

CHATTANOOGA SHALE

Three partial analyses were made of waters from the top of the Chattanooga shale. The analyses suggest that water that has been in contact with the shale may be a little softer than water from other formations in the area but may have a hydrogen sulfide odor. Nevertheless, the waters were of the bicarbonate type, similar to waters derived from limestone.

NEW PROVIDENCE SHALE AND FORT PAYNE CHERT

No water samples were obtained from the New Providence shale. Water samples from the Fort Payne chert ranged in hardness from 23 to 768 ppm. Water from wells in the Fort Payne ranges from soft to very hard. Iron content varies widely in concentration, the median being 0.23 ppm. Exact quantities are indicated in the chemical analyses in table 10. Water from springs in the Fort Payne is generally softer and is lower in dissolved solids than that from wells, even though the softest water analyzed was obtained from a well.

Most water from the Fort Payne chert is of the calcium bicarbonate type. Water obtained near the top of the formation is above average in sulfate content (pl. 3). The reason for the higher sulfate content seems to be the presence of a shaly zone that marks the boundary between the Fort Payne and the overlying Warsaw limestone. Crystals of sulfur have been found in this shaly zone at the base of a quarry, in 8610–3645.

WARSAW AND ST. LOUIS LIMESTONES

Eleven samples of water were taken for chemical analysis from the Warsaw limestone, 15 samples were taken from the zone marking the contact between the Fort Payne and Warsaw, 1 was taken from the contact between the Warsaw and the St. Louis limestone, and 1 was obtained from the St. Louis. Three of these samples contained some water derived from the mantle rock. Comprehensive analyses were made of one sample from each formation and each contact. The remaining 24 samples were taken for partial analysis. Most of the water sampled was very hard; hardness ranged from 51 to 1,380 ppm. The average hardness was 377 ppm and the median was 246 ppm. Except for the higher hardness and an objectionable sulfurous odor noted in a few of these samples, water from these limestones would be subject to the same limitations of usage as water from the other formations in the area. The water from the St. Louis limestone had the lowest pH and the highest silica content of the samples analyzed.

MANTLE ROCK

Water from the mantle rock, though moderately hard, is generally softer than that from the consolidated rocks. The iron content is lower than that of water from the consolidated rocks; however, the nitrate content may be high. Of the 7 wells in the Holland-Amos area that were sampled for chemical analysis, all but 1 yield water having a nitrate content above 10 ppm, and even that well was reported to be contaminated. All the wells sampled in this locality probably obtain their water from the mantle rock. The ground water in the mantle rock probably acquires nitrates from decaying plant and animal matter while percolating through the soil zone. However, water from most wells in the mantle rock is usable for most purposes.

HISTORY OF WATER DEVELOPMENT

SCOTTSVILLE WATER SUPPLY

Prior to 1921 the city of Scottsville had no municipal water supply but depended on individual wells and springs. In 1921, springs 8610–3640–1, 2, 3, and 4 were developed for the municipal supply. In 1946, wells 8610–3640–40 and 232 were drilled to augment, particularly during the summer, the supply furnished by the springs. These wells were drilled on the flood plain of West Bays Fork south of the city. They yielded water from the Fort Payne chert and apparently from infiltration from the creek itself. The combined supply, however, was still insufficient. In 1952 the city obtained Calvert Spring (8600–3640–3) and constructed a pipeline and pumphouse to utilize it. During 1953 the spring proved to be more than adequate; pumpage from it during the summer of 1953 exceeded 6 million gallons per month. The pumping system is so planned that the city can pump more than 10 million gallons per month from the new supply with no change in existing facilities. The previous water system is maintained on a standby basis for use if the city's needs should exceed the capacity of the new system for a short time, or if the new supply should be interrupted by equipment failure.

A joint through which water enters the city's spring was formerly exposed in a sinkhole about 200 feet from the spring orifice. This opening in the sinkhole has been roofed with concrete and the sink has been filled to prevent entry of surface water. A second sink is situated about 150 feet farther from the spring than the first. This sink has been dug out, a reinforced concrete roof has been poured in the bottom of the excavation, the sink has been refilled. A surface diversion drain has been installed to enable surface water to bypass the sink area.

RURAL USE OF WATER

Rural water supplies are used principally for domestic and stock supply. In 1954, nearly 75 percent of the farms in the Scottsville area had electricity, but only 13 percent of the wells inventoried were equipped with power pumps. Less than 2 percent of the springs were equipped with any mechanical lift.

Irrigation of crops is relatively new in the Scottsville area. Most of the water pumped for irrigation during 1954 came from streams or ponds, but it is anticipated that a few wells and part of the flow of the larger springs will be used for irrigation.

FLUCTUATIONS OF WATER LEVEL

Observed fluctuations in ground-water levels in the Scottsville area are due chiefly to natural causes and are cyclic in pattern. These causes include changes in atmospheric pressure and variations in the rate of recharge and discharge to the ground-water body.

RESPONSE TO ATMOSPHERIC-PRESSURE CHANGES

Daily fluctuations in water levels have been noted in some wells in which recording gages have been installed. These fluctuations correlate with changes in atmospheric pressure. Figure 11 shows an inverted microbarogram and a series of hydrographs from wells 8605–3640–37 and 8610–3640–5 for August 2 to 7, 1953. The microbarogram

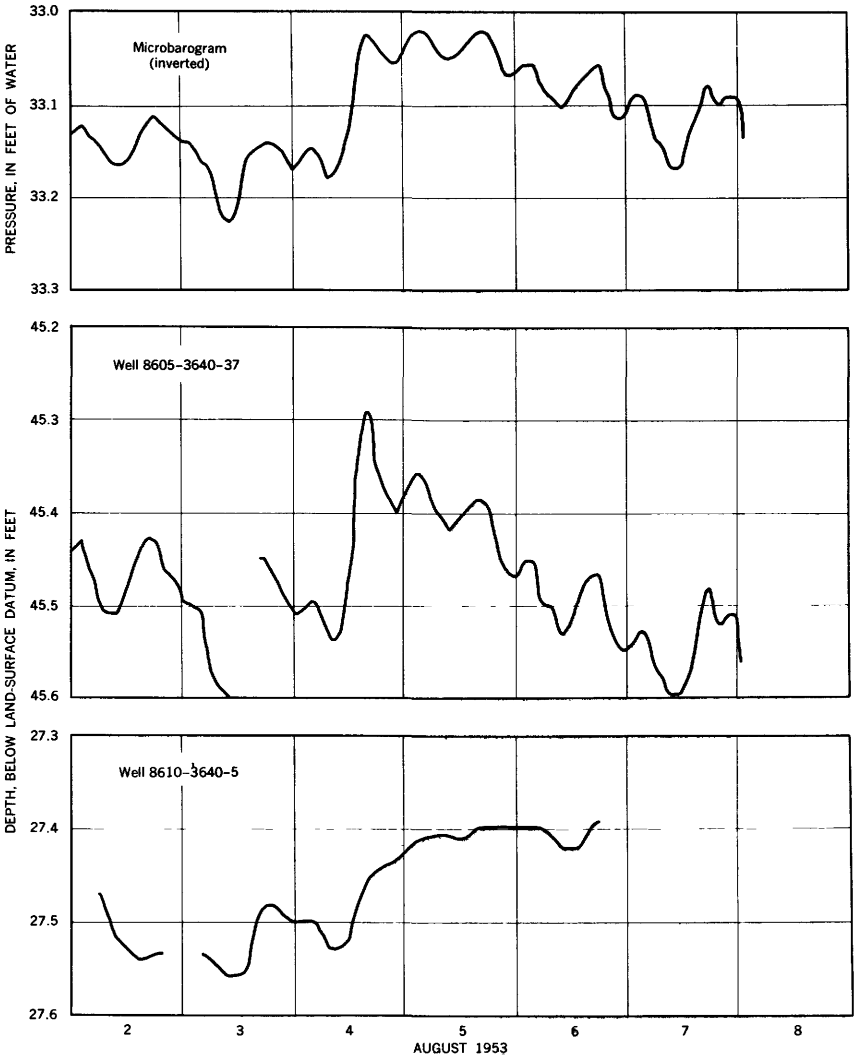

FIGURE 11.—Graph showing effect of atmospheric pressure on water levels in wells in the Scottsville area, Kentucky.

has been converted from inches of mercury to feet of water to correspond to the scale of the well hydrographs.

RESPONSE TO RAINFALL

Seasonal variations in water levels have been identified in most unused wells that were measured periodically during the investigation. These wells show a springtime rise in water level, followed by a gradual recession of levels to a low in the fall or early winter. Figures 12 to 15 are a group of hydrographs showing water-level fluctuations in several wells that tap the Fort Payne chert. Figure 16 is for wells that obtain water from the mantle, the Fort Payne chert, and the Louisville limestone, and figures 17–20 are for wells that obtain water from the Warsaw limestone.

During the winter, rainfall recharges the aquifer. During the summer, however, growing vegetation consumes most of the rainwater that enters the soil, and none but the heaviest rains are able to bring the soil to field capacity and cause ground-water recharge. However, intense rains on sinkhole terrane may produce sufficient surface runoff into sinks to cause a rise in water levels at any time. Direct evaporation from the soil also is much more effective during the summer than during the winter. This evaporation further lowers the soil moisture content. Evapotranspiration uses nearly all of the potential recharge from April until October, or until the first killing frost.

During the summer of 1952, from April 5 to October 15, nearly 16 inches of rainfall was recorded at Scottsville, yet wells 8605–3635–81, 8605–3640–2, 8610–3640–37, and 8610–3645–50 all showed marked declines in water levels during that period. From November 1952 to April 1953, inclusive, approximately 23 inches of precipitation was recorded, about 1½ times as much as during the preceding summer, and the water levels rose between 4 and 7 feet in these same wells. The hydrographs in figures 12, 13, 14, and 17 show these fluctuations of water levels.

Springs fluctuate in flow seasonally. As previously noted, spring 8600–3640–3 ranged from 400 gpm to 8,300+ gpm in 1953. Local residents have reported that some springs have an increased flow shortly before a storm, apparently owing to the low atmospheric pressure that precedes storms. A fluctuation in discharge of spring 8610–3635–28 was noted by members of a topographic party. The fluctuation probably was caused by changes in atmospheric pressure.

LONG-TERM TRENDS

Records to date (1954) are not long enough to show any long-term trends toward rise or decline of water levels in the Scottsville area. Local residents report that some springs no longer yield as much water as they did 20 years ago, and some report that the water levels in their wells are lower than they were several years ago. Unfortunately, there are no quantitative data to substantiate these reports. This apparent lowering of water levels may be due to subnormal rainfall in 1952 and 1953, or it may be due to the increased local drawdown produced by greater pumping from wells. There is no reason to suspect the existence of any long-term trend toward either higher or lower levels.

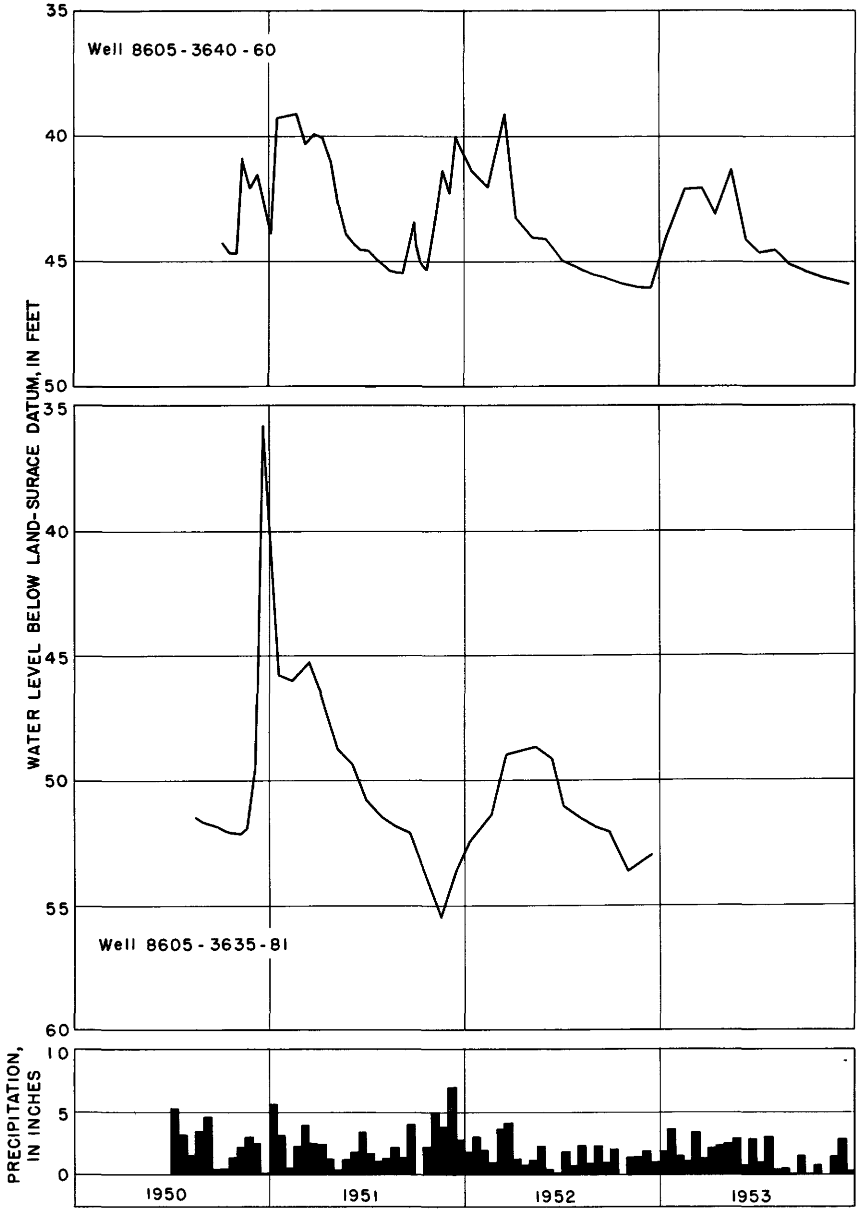

FIGURE 12.—Fluctuations of water level in observation wells 8605–3640–60 and 8605–3635–81 in the Fort Payne chert and semimonthly precipitation at Scottsville, Ky., 1950–53.

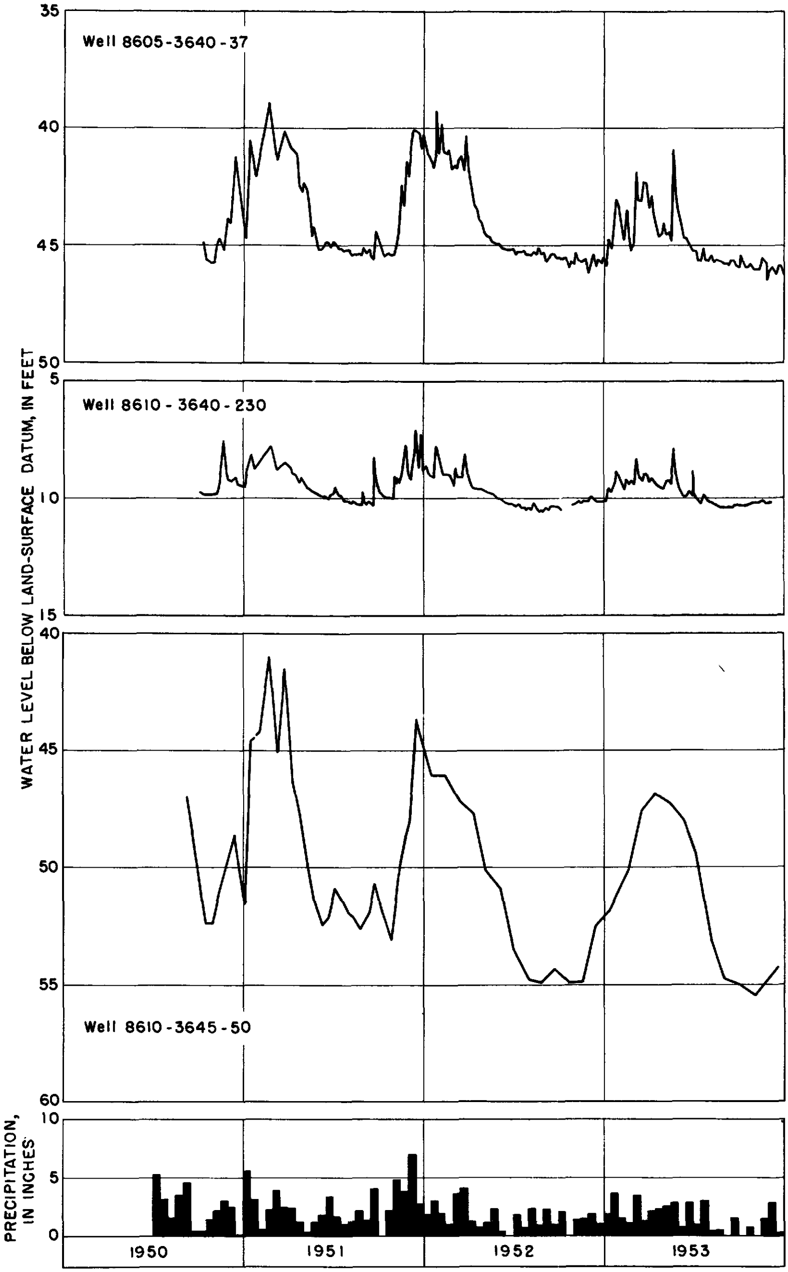

FIGURE 13.—Fluctuations of water level in observation wells 8605–3640–37, 8610–3640–230, and 8610–3645–50 in the Fort Payne chert and semimonthly precipitation at Scottsville, Ky., 1950–53.

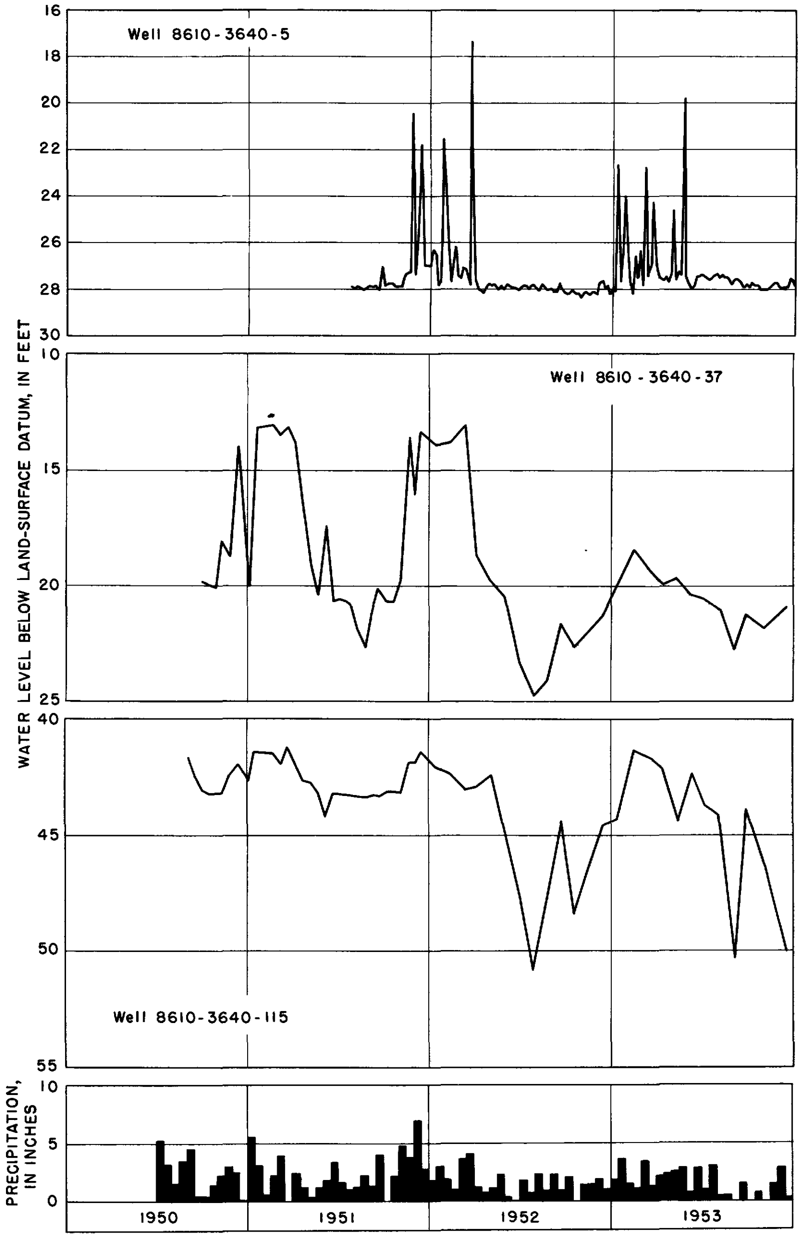

FIGURE 14.—Fluctuations of water level in observation wells 8610–3640–5, 8610–3640–37, and 8610–3640–115 in the Fort Payne chert and semimonthly precipitation at Scottsville, Ky., 1950–53.

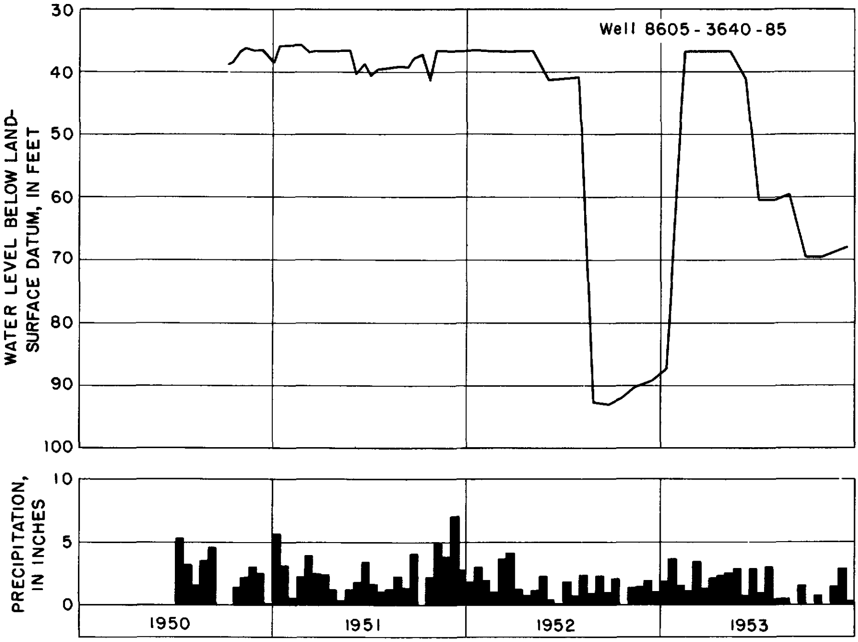

FIGURE 15.—Fluctuations of water level in observation well 8605–3640–85 in the Fort Payne chert and semimonthly precipitation at Scottsville, Ky., 1950–53.

POTENTIAL DEVELOPMENT OF GROUND-WATER SUPPLIES

Further development of ground-water supplies in the Scottsville area is limited in large part to the most productive aquifers—the Louisville limestone, the Fort Payne chert, and the lower part of the Warsaw limestone.

The area in which the Louisville crops out is small, but the Louisville contains the largest springs in the Scottsville area. About 50 percent of the minimum discharge of Calvert Spring (8600–3640–3) is used at present (1954). Part of the discharge of another, Big Spring (8610–3635–3), is used for irrigation. Several other springs of comparable size are known but they are used only for stock water or are unused.

Water probably could be obtained from wells drilled into the Louisville limestone near outcrops in the southeast quarter of the Scottsville area, and possibly between streams in which the Louisville is exposed. Well 8600–3645–25, on a ridge between Glover Creek and Barren River, was drilled through the Chattanooga shale and obtains water from the Louisville. The water has a sulfurous odor and a sulfate content slightly higher than the average for the Scottsville area. Test wells drilled to the Louisville limestone in the area between

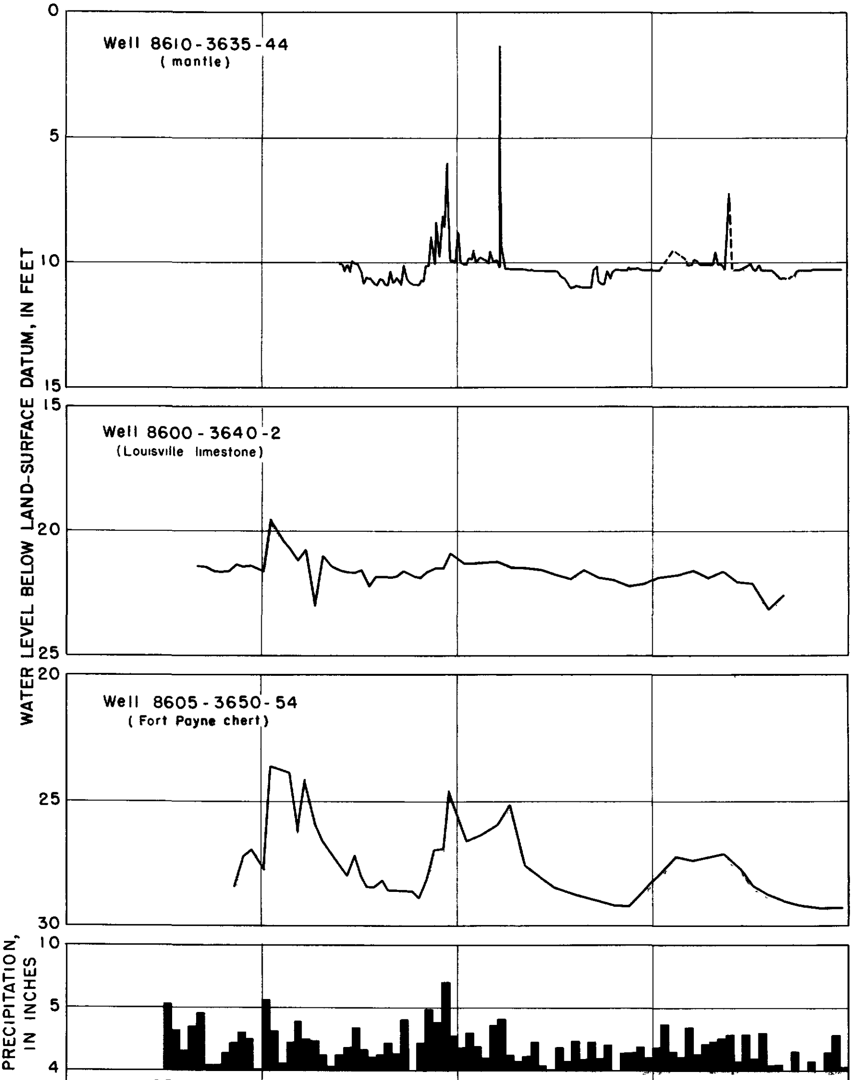

FIGURE 16.—Fluctuations of water level in observation wells in the mantle, Louisville limestone, and Fort Payne chert and semimonthly precipitation at Scottsville, Ky., 1950–53.

Puncheon Creek and the Barren River on the east and Long Creek on the west would help to determine whether fresh water flows through the formation when it is exposed in two places, one downslope from the other. These wells would have to be between 250 and 300 feet deep if they were drilled on top of the ridges. The occurrence of fresh water reported in the Louisville in well 8610–3635–190

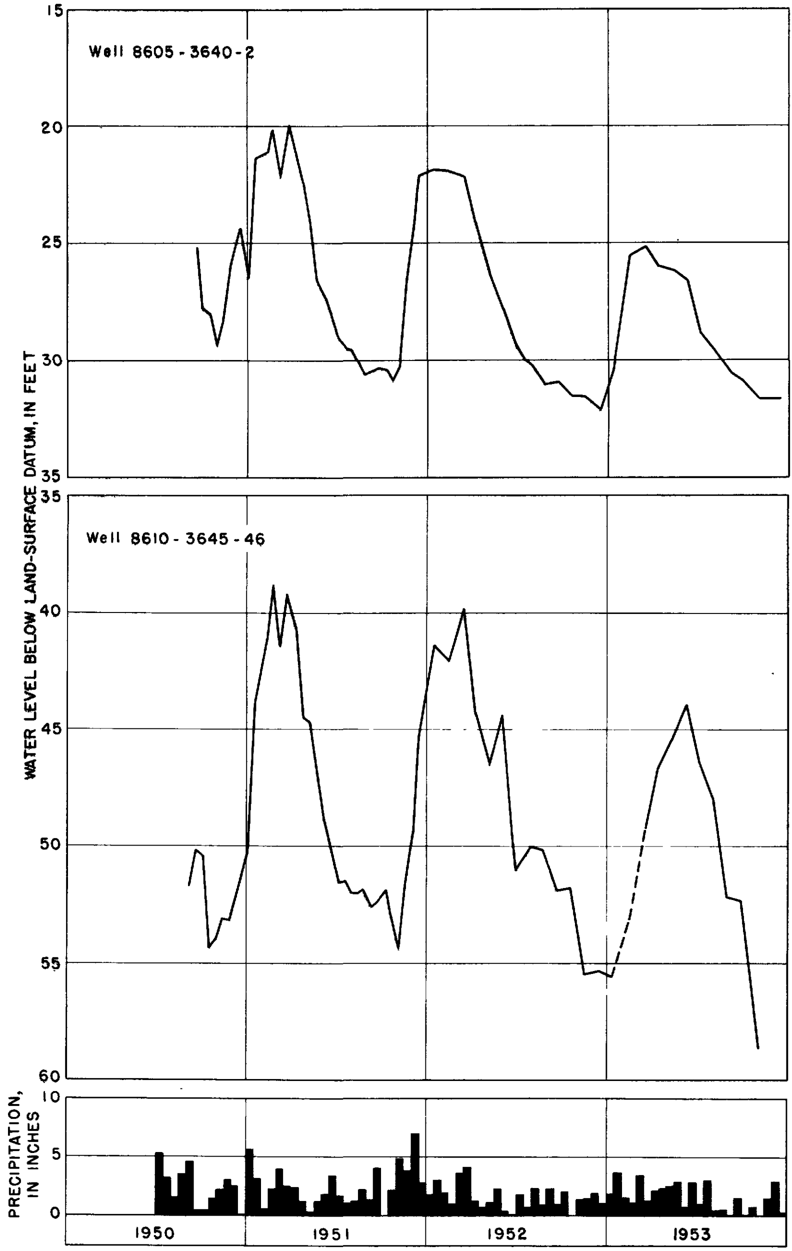

FIGURE 17.—Fluctuations of water level in observation wells 8605-3640-2 and 8610-3645-46 in the Warsaw limestone and semimonthly precipitation at Scottsville, Ky., 1950-53.

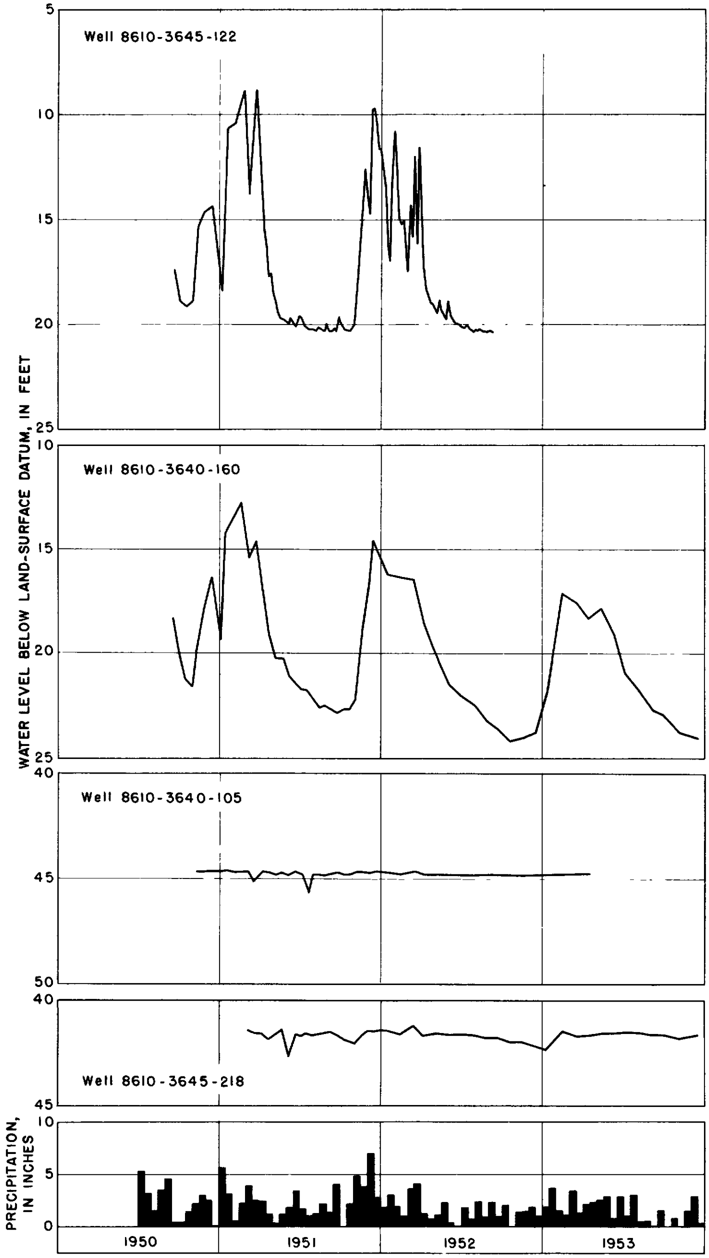

FIGURE 18.—Fluctuations of water level in observation wells 8610–3645–122, 8610–3640–160, 8610–3640–105, and 8610–3645–218 in the Warsaw limestone and semimonthly precipitation at Scottsville, Ky., 1950–53.

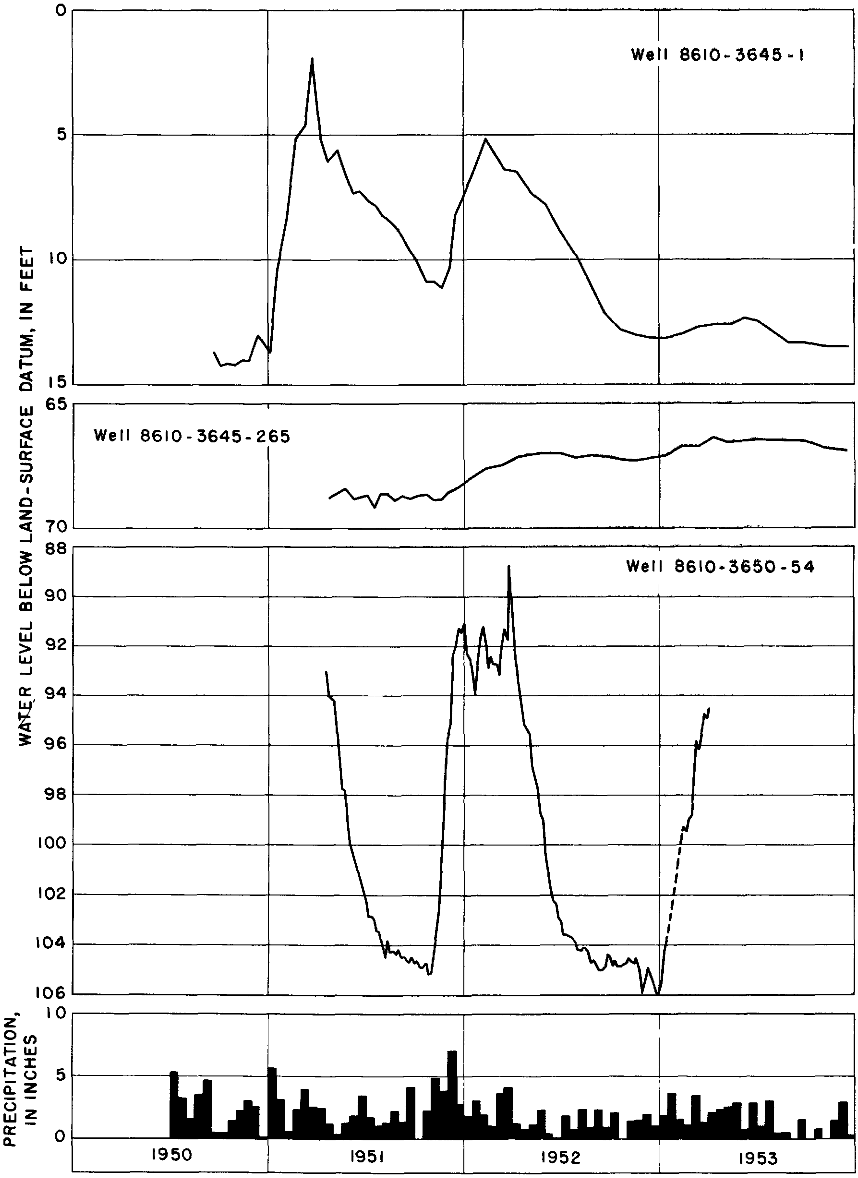

FIGURE 19.—Fluctuations of water level in observation wells 8610–3645–1, 8610–3645–265, and 8610–3650–54 in the Warsaw limestone and semimonthly precipitation at Scottsville, Ky., 1950–53.

indicates that fresh water can be obtained from the formation at some unknown distance beyond its westernmost outcrops.

If quantity of water constitutes the only requirement for a supply—that is, if hardness and salinity are unimportant—development of

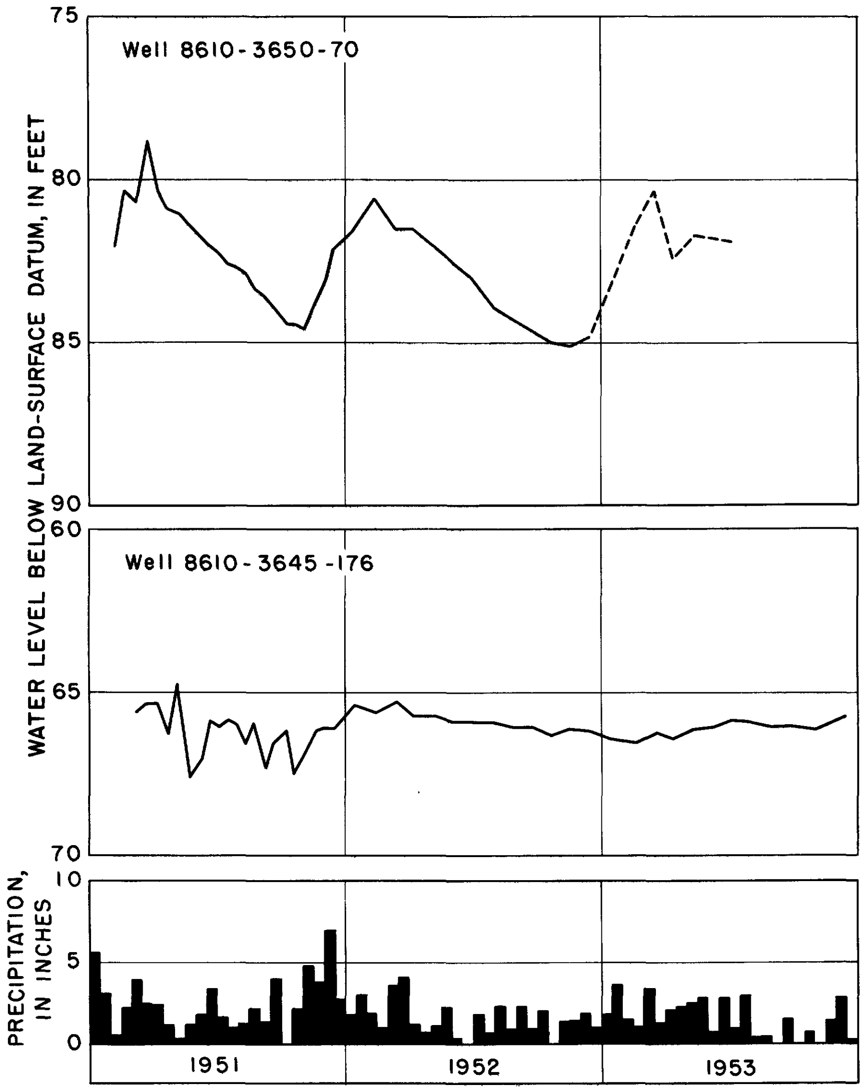

FIGURE 20.—Fluctuations of water level in observation wells 8610–3650–70 and 8610–3645–176 in the Warsaw limestone and semimonthly precipitation at Scottsville, Ky., 1950–53.

water from the Louisville and Sellersburg limestones in areas adjacent to oil fields is possible. Salty or sulfurous water is obtained from the limestone in these areas, as has been demonstrated by the number of oil-test wells that yielded saline water, sometimes with oil. Wells 8605–3635–43 and 8610–3645–101 are flowing wells that yield water from beneath the Chattanooga shale. In both wells the water has a strong sulfurous odor, and that from the latter well has 876 ppm of sulfate. The quantity of saline water that could be obtained is unknown. Near Concord Church a flowing well, which was not inventoried, produces an estimated 25 gpm. Well 8605–3635–43 flows half a gallon per minute; well 8610–3645–101 flows 20 gpm. These flows may be due to gas pressure.

Much of the water that flows from the Fort Payne chert through small springs is unused. These springs could be used to a greater degree if they were ponded or if pumps were installed. On the assumption that the estimates of flow for the springs inventoried are accurate, the average flow of the springs is about 5 gpm. This is equivalent to about 7,000 gpd, which would be sufficient for all the domestic and stock needs of most of the farms in the area. A flow of 5 gpm would furnish 1 acre-inch of water every 4 days for supplemental irrigation. Some of the springs issuing from the Fort Payne are being ponded for stock watering at present (1954).

Ponds should be so constructed that they do not flood the spring orifice. If such flooding occurred, it would create back pressure and reduce the flow to the spring. It could result in complete loss of flow if the water level within the aquifer were to rise to such a level that the water could discharge through another outlet. A few springs, for example 8610–3645–79, have been successfully ponded.

The city of Scottsville used a second method of obtaining greater water supplies from the Fort Payne chert; wells were drilled along the stream banks where the streams flow over the outcrop of the Fort Payne. Judging from the turbidity of the water for a few days after heavy rains, those wells yielding the largest supplies, about 40 gpm, penetrated solutional openings connecting either directly or indirectly with the stream. If the experience of the city of Scottsville with this type of supply is a reliable criterion, turbidity of the water after intense rains may be a problem in wells of this type elsewhere. It is unusual for any well that obtains water from the Fort Payne to yield more than 50 gpm.

Wells adequate for domestic and stock uses may generally be obtained by drilling to the local water table which, in the Scottsville area, is slightly above the level of nearby streams or by drilling to intercept perched water bodies. These perched water bodies are common above insoluble zones within the Fort Payne chert and at the base of the Warsaw limestone. Supplies from the perched water bodies are limited in comparison with those from the main ground-water body, which is reached near the level of the streams.

The chances for obtaining successful wells are poor in the outcrop area of the Warsaw limestone and in the northwestern part of the

Scottsville area where the St. Louis limestone overlies the Warsaw. These limestones are relatively pure, particularly above the base of the Warsaw, and water that enters them is not stopped by insoluble zones until it reaches the base of the Warsaw and then it migrates laterally to the land surface or to an opening through which the water may resume its vertical movement.

If wells are drilled to or below the level of the streams, sulfurous water may be tapped.

FUTURE INVESTIGATIONS

Quantitative evaluation of the ground-water resources in the Scottsville area would require much hydrologic study. The rates of infiltration of water into and through the residual and transported mantle rock are unknown. Test drilling, pumping tests, and water-table mapping would provide data on which to base estimates of recharge to, movement in, and discharge from these unconsolidated sediments. Such studies should also include provision for determining the amount of water that reaches the water table per inch of rainfall, for different rates, total amounts, and forms of precipitation and at different times of the year.

Most water in the Fort Payne chert beneath the zone of relatively rapid circulation is salty and, hence, little used at present. Test wells drilled to a depth below the zone of rapid circulation would permit sampling this near-static water to determine its quality and to determine possible methods of treatment to render the water usable for domestic, stock, irrigation, or industrial purposes. With the development of treatment techniques under the auspices of the Office of Saline Water of the Department of the Interior, some of this water might be converted.

More intensive study of the water in the Louisville and Sellersburg limestones would include a program of sampling water for chemical analysis and measuring changes in water level through a period of years. In the areas where oil is contained within the Louisville or Sellersburg limestones, the chemical quality of the associated water has not been tested adequately. The water may be usable by chemical industries either in its present state or after treatment. The salts left by evaporation also may have commercial value.

If the water beneath the Chattanooga rocks near or beyond the west boundary of the Scottsville area is practically static, the rocks may be usable for disposing of certain liquid industrial wastes.

SUMMARY

Ground water is obtained from wells and springs. Successful wells in the Scottsville area depend upon the rock formations and the topography at specific well sites. Sufficient water for domestic and stock supplies can be obtained from the residual and transported mantle rock and from the Fort Payne chert almost anywhere they occur, although yields, particularly from the residual mantle rock, may be low. Water also may be obtained in sufficient quantities for domestic and stock supplies from the Warsaw and St. Louis limestones, but about 1 well in 4 drilled in these rocks is unsuccessful. Little or no water is obtainable from the Chattanooga shale. The Louisville and Sellersburg limestones contain large quantities of fresh water in buried solution openings in and near their outcrop areas; elsewhere, the water is of unsuitable quality. Wells capable of producing more than 2 to 3 gpm are uncommon. The average discharge of springs inventoried was about 5 gpm.

The ground water in the Scottsville area is principally of the calcium magnesium bicarbonate type, but in places it contains objectionable quantities of sulfate, chloride, or nitrate. Where wells are drilled to depths below the zone of freely circulating waters—that is, much below the local stream level—the water reached is likely to be so saline or sulfurous that it is unusable for domestic or industrial supplies without treatment. Water from the Silurian or Devonian rocks beneath the Chattanooga shale is of such poor quality that it is not used.

Most ground water in the Scottsville area is used for domestic and stock supplies. There is only one industrial well. Use of water for irrigation has been increasing since 1952; irrigation supplies have been developed from one well, one spring, and several streams. Use of ground water for supplemental irrigation undoubtedly will increase in the future.

The storage capacity of dense limestone is small; its transmissibility may range from low to high. Generally enough large openings exist in the limestones of the Scottsville area that recharge to and discharge from ground water are rapid, even though fews wells intersect the large openings. Water levels in observation wells in the Fort Payne chert sometimes rise several feet within a day in response to a rain of 2 or 3 inches, and recede to or near the preexisting level within a few days.

Buried solutional openings may serve as important conduits for ground water. The openings that contain fresh water within the Louisville and Sellersburg limestones apparently are relics of pre-Chattanooga erosion. They seem to be cavernous and locally are interconnected to the extent that they transmit the entire flow of streams, such as Trammel Fork, Long Creek, and some smaller streams, for the greater part of the year.

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RECORDS OF WELLS, SPRINGS, AND MEASURED SECTIONS

Outcrops of the different rock units were examined and measured throughout the Scottsville area. The following sections are representative of the surface exposures of the consolidated rocks in the area.

Records of wells and springs are given in the tables at end of report. Table 12 is a compilation of data on wells inventoried in the area; table 13 is a similar compilation for springs; and table 14 consists of drillers' logs and geologists' logs of wells.

Measured section along road leading to Long Creek from Mount Gilead Church (Oak Forest Church) in 8605–3640

	Thickness (feet)
Fort Payne chert:	
Limestone, gray-buff, very fine grained, crystalline; abundant crinoid stems. 1- to 2-ft. beds with shale zones, mostly covered; exposures scattered.	--
Chattanooga shale:	
Shale, black, fissile, some thin bands of gray sandstone, weathered to olive color. Marcasite or pyrite occurs as small grains in the sand bands. Sandstone strongly cemented. (In gulch 100 yd. northwest of section, shale was 39 ft. thick.)	56
Louisville limestone:	
Limestone, light-yellow-brown; weathers dark brown and black; finely granular (possibly sandy) weathers to pitted surface. Thick-bedded and massive	14
Total	70+

Base of section. Base of limestone not exposed.

Measured section on the west side of Jewsharp Bend on Barren River, in 8600–3640

	Thickness (feet)
Fort Payne chert (783 ft above mean sea level):	
Limestone, thin-bedded, platy, cherty, in small, abundant, discontinuous exposures	105
Limestone, massive, thick-bedded, pitted surface, well-jointed at base. A 4-ft-high rock-shelter cave 3 to 5 ft deep at base. Two samples from this zone effervesce readily	23
Covered interval	8

	Thickness (feet)
Chattanooga shale:	
Shale, black. Probably occurs in underlying covered interval	12
Covered interval	33
Louisville limestone:	
Limestone, dolomitic, fine-grained, sandy, blue-gray; weathers to buff. Surface pitted. Stylolitic, some cherty nodules	15
Covered interval. Terrace	9.5
Limestone, blue-gray, weathers to buff, dolomitic, fine-grained, sandy. Small water seep at base in wet weather. Two samples from this stratum show very weak effervescence on fresh surfaces	7
Covered interval	30
Total	242.5
Base of section at river's edge.	

Measured section along road from road junction 0.6 mile north of Florida Creek in 8610–3635

[This section does not resemble the New Providence shale as exposed in the Louisville & Nashville Railroad cut approximately 1 mile south of Petroleum, Ky. There, the New Providence is very shaly, contains numerous crinoid stem plates and a few chert seams, and is definitely a clastic deposit]

Fort Payne chert (756 ft above mean sea level):	
Limestone, blue-gray and brown-gray, alternating layers, massive and shaly. Geodes small and common. Crinoid debris common. Chert layers scattered	25
Limestone, blue-gray, sandy, massive, interbedded with some thick layers of bluish, banded chert	6
Covered interval	10
Limestone, pale-greenish-brown, massive. Geodes (siliceous and calcareous) common. Weak effervescence to dilute acid	8
Limestone, cherty, thin-bedded, thicker bedded (to 1 ft) in upper part. Weathers to form angular fragments	11
Limestone, pale-brown, crystalline to clastic, cherty. Chert dominant. Silicified crinoid fragments noted	3
Covered interval at top. Limestone, thick- and thin-bedded, cherty beds noted, average thickness approximately 2 in. Shaly beds interspersed with more massive layers, which weather into thinner beds. Pale bluish-green. Cherty beds very fossiliferous, dominantly crinoidal débris. Geodes fairly common, small	7
Limestone, pale-green, mostly massive. Calcite geodes, pyrite in small cubes, silicified crinoid stem plates. Bryozoa	7.5
Limestone, bluish-green, thin-bedded, shaly. Horn corals, crinoidal fragments. Texture suboolitic, grainy; clastic in places. Green coloration accentuated in clayey pods and small lenses	2
Same as underlying, but more massive. Brachiopods and bryozoans. Massive and thin-bedded features change laterally	6
Limestone, bluish-green, thin-bedded, shaly. Horn corals, crinoidal fragments. Texture suboolitic, grainy; clastic in places. Green coloration accentuated in clayey pods and small lenses. Bryozoans noted in a 6-in. bed which breaks down forming thin-bedded limestone	8
Covered interval	2.5
Total	96.0
Base of section, top of Chattanooga shale. Shale is black when fresh, weathers to purple with iron stains. Highly fissile when weathered.	

Measured section, road cut between Sunset Spring and Mount Pleasant Church, southwest of Scottsville on U.S. Highway 231

	Thickness (feet)
Fort Payne chert (710 ft above mean sea level):	
Limestone, cream to gray, massive, finely crystalline. Small geodes common, chert seams, also shaly lenses up to 1 ft in thickness. Unit becomes shalier towards top	25
Limestone, shaly	1.5–4
Limestone, light-brown, fine- to medium-crystalline. Geodes in lower part up to 4 in. across. Geodes in upper 5 ft, 1.5–2 in. across. Stylolite seams. Chert veins very common, thickness variable, exceeding 6 in. in places, averaging about 2 in. Water seep in wet weather	22
Limestone, gray-brown, massive, medium crystalline. Crinoid fragments and stems abundant, somewhat recrystallized. A few chert bands noted. Surface weathered vertically along joints	6
Covered interval	3
Limestone, brownish, fine-grained. Crinoid fragments and stems abundant, corals common	3
Limestone, pale-blue gray, medium to coarsely crystalline. Crinoid fragments abundant, horn corals common. Interval marked by several 1–3 in. chert seams. Chert pale-brown to pale-blue, highly irregular in thickness. Limestone layers seldom more than 8 in. thick in this unit. Chert breaks very smoothly. Small geodes common	6
Total	66.5–69
Base of section, at Sunset Spring.	

Measured section, stream valley 0.1–0.2 mile southwest of point where Hartsville road leaves, West Bays Forks, south of waterworks in 8610–3640

	Thickness (feet)
Fort Payne chert (790 ft. above mean sea level):	
Limestone, flaggy, with geodes and pits on surface	13
Covered interval	12
Limestone, blue-green, medium-crystalline, with chert and crinoid fragments abundant in certain layers. Some 6-inch layers of clay (mud). Occasional horn corals noted. Chert in layers and geodes. Limestone is flaggy	15
Covered interval	20
Limestone, gray, slabby, medium-grained, geodiferous	5
Covered interval	4
Limestone, blue-gray, clastic. Composed principally of crinoid fragments. A chert layer at base, 2 in. thick	2
Limestone, massive, cherty, light-blue-brown	2
Limestone, blue, dense, cherty, easily fractured. Breaks into blocks about 2 by 2 by 3 in. Chert in nodules and geodes	3
Limestone, cream to buff, fine-grained, streaked with blue bands. Some chert nodules noted	5
Limestone, bluish-green, nearly lithographic, dense, shaly. Weathers brown on surface. Almost mudstone in part, with layers 2–4 in. thick. Geodes well distributed throughout	7.5
Total	88.5
Base of section.	

Measured section, abandoned quarry south of Scottsville at junction of West Bays Fork and U.S. Highway 231 in northeast quarter of 8610–3640

[This quarry is believed to lie entirely within the upper part of the Fort Payne chert]

	Thickness (feet)
Fort Payne chert (700 ft. above mean sea level):	
Limestone, weathers to light-brown or buff, shaly	7
Limestone, blue-green, massive. Contains geodes, blue chert seams and occasional crinoid stem plates	4
Shale or shaly limestone, blue-gray, with siliceous crinoid fragments. Grades into more massive limestone	3.5
Limestone, massive, fine-grained, blue-green. Chert in bands and lenses. Stylolite seams, also occasional shaly beds	14
Limestone, buff color, shaly, with silicified crinoid fragments and geodes	3
Limestone, blue, fine-grained, cherty. Chert in nodules and layers	16
Total	47.5
Base of section, quarry floor.	

Measured section, valley of Lancaster Creek along Old State Road in southeast quarter of 8615–3645

	Thickness (feet)
Fort Payne chert:	
Limestone, brown, silty, readily weathered. Exposures generally limited to streambed. Some limestone and chert bands, fossiliferous; crinoid stem fragments, some horn corals and brachiopods	10
Covered interval	10
Limestone, gray-white, fine- to medium-grained, with pink crystals of calcite, occasional fossil fragments, a few geodes about 1 in. in diameter. Weathers light blue. Some fine-grained, muddy-brown limestone strata up to 6 in. thick. Solutional activity noticeable	8
Limestone, pale-blue-gray, fine-grained. Somewhat cherty, massive blue-gray limestone in upper part. Contains geodes up to 3 in. in diameter. Platy weathering shown. Weathers to clay and clay-shale, yellowish-brown	34
Limestone, shaly, partly covered	8
Limestone, pale-gray, massive, finely crystalline. Weakly effervescent with dilute acid. Shaly streaks noted	3
Covered interval	13
Limestone, light-gray, massive, finely crystalline, with some geodes	1.5
Limestone, blue-gray, clastic, shaly, fossiligerous. Geodes common but not abundant. Chert in discontinuous thin bands. Upper 3 ft. very shaly, bryozoans abundant	20
Limestone, highly fossiliferous, with cream-colored chert beds. Joints closely spaced, fairly tight, with near-vertical dip	5.5
Limestone, shaly, very fine grained, blue. Weak effervescence with dilute acid. Weathers readily to angular blocks and cobbles, forms rock shelters by differential weathering. Crinoid stems fairly common, bryozoans noted. A 1 to 1.5-in. chert bed is 1 ft. from top, containing impressions of crinoid stems and stem fragments	11
Same as basal section, top is clastic limestone	3

Fort Payne chert—Continued	Thickness (feet)
Covered interval	2
Limestone, blue-gray, massive, fine-grained. Platy weathering parallel to exposure surface. Weak effervescence with dilute acid. Small geodes common. Clay streaks are apparent on fresh surfaces. Some shaly appearance noted where rock is weathered. Irregular joints noted in streambed (2 sets) nearly perpendicular to one another. Four- to six-foot shaly layers which weather to form rock shelters with an overhang of 3 ft. Abundant crinoidal debris is present but is confined to certain bedding planes	23
Total	152.0

Base of section.

Measured section, exposures at Old State Road ford across West Bays Fork, west of McLellan Stone Co. quarry in southwest quarter of 8610–3645

[This section is probably representative of the upper part of the Fort Payne chert and possibly of the basal part of the Warsaw limestone. A search was made for *Spirifer lateralis*, but no specimens were found]

Quarry floor, possibly Warsaw limestone (715 ft above mean sea level):	Thickness (feet)
Covered interval	16
Same as underlying unit	5
Covered interval	11
Limestone, gray, massive, coarsely crystalline. In some places thin-bedded on weathered surfaces. Crinoid fragments and brachiopods common to abundant, protruding from vertical limestone face. Vertical solution and grooving noted along joints. Little chert	7
Covered interval	3.5
Limestone, dove-colored, coarse- to medium-crystalline, massive, weathers platy. Chert lenses up to 6 in. thick, contain calcite inclusions, bryozoans. Crinoid stem plates locally abundant in limestone. Geodes common	2–3
Limestone, pale-brown, shaly to silty. Rock could be classed as a limy shale or siltstone. Very weakly effervescent in dilute acid. Calcite geodes fairly common, 2-4 in. in diameter. Chert lenses and layers ½ to 2 in. thick scattered in upper part	3
Total	47.5–48.5

Base of section, stream surface.

Measured section, road cut at intersection of Sulphur Creek with Halifax-Sinking Spring School road in 8610–3650

[This section crosses the contact between the Warsaw and Fort Payne according to Miller's map of Allen County]

Warsaw limestone (648 ft above mean sea level):	Thickness (feet)
Limestone, gray, massive, coarsely crystalline. Crinoid fragments abundant on weathered surfaces	2.5
Limestone, slightly more massive than underlying layer, otherwise similar	5
Limestone, fine-grained, weathers platy and smooth, some geodes	22

Warsaw limestone—Continued	Thickness (feet)
Limestone, weathers rough and gray, coarsely crystalline. Crinoidal fragments abundant	2.5
Covered interval	5.5
Limestone, gray, medium-coarse, cherty. Abundant fossile fragments	2.5
Covered interval	6
Limestone, gray, very fine crystalline. Fragments of brachiopods, also bryozoans	2.0
Covered interval. Possibly fine-grained, shaly limestone	11
Limestone, gray, medium-grained, thick-bedded. Effervesces freely with dilute acid. Large nodules of gray-pink chert. Probably base of Warsaw limestone	7
Covered interval. Probably Fort Payne chert	22
Total	88.0

Base of section and creek bank. Altitude of base, according to topographic map, is approximately 560 ft.

Measured section, stream valley 1 mile southeast of Crane Hill School, 1.7 miles west-southwest of Harrison School, tributary of Bays Fork, in 8610–3645

[This section crosses the contact between the Warsaw and Fort Payne, the basal part of it being Fort Payne chert]

Warsaw limestone (702 ft above mean sea level):	Thickness (feet)
Limestone, gray, medium-crystalline. Weathers slightly pink	5.5
Limestone, gray, crystalline, thin-bedded, platy, somewhat earthy	11
Shale, deep-brown (weathered), very fine grained, platy. Bryozoan imprints abundant	28.5
Covered interval	11
Limestone or siltstone, platy. Some geodes. Some more massive beds 3 ft above bottom. Gray crystalline limestone. Geodes missing below this point and scarce at this stratum	5.5
Covered interval	12
Shale and limestone, fine-grained. Brachiopols noted in limestone. Chert abundant in some layers	11
Limestone, shaly or silty. Shale beds up to 1 ft thick. Probably basal part of Warsaw limestone	5.5
Limestone, gray, coarsely crystalline. Crinoid fragments abundant. Some chert nodules, pink to gray. Beds average less than 1 ft thick with shaly partings. Chert is in nodules and also in layers. Probably top of Fort Payne chert	16.5
Limestone, shaly or silty, poorly exposed, fine-grained. Breaks with a conchoidal fracture. Gray, weathers to brown	10
Limestone, pale-brown where fresh, massive, coarsely crystalline. Pink chert abundant. Contains crinoid fragments. Chert occurs as a 4-in. layer	1.9
Limestone, platy, with chert layers and small chert geodes	1.8
Limestone, massive, fine-grained, flaggy, pale-brown where fresh, weathers darker brown. Some small geodes of chert, a few coarse fossil fragments. Effervesces freely with dilute acid	2
Total	122.2

Base of section, approximately 580 ft in altitude, according to topographic map.

Measured section, exposures in small valley at ford of Little Difficult Creek and road west of Clifton Church in 8610–3650

[This section crosses the contact between the Fort Payne and Warsaw, but no specimens of *Spirifer lateralis* were found]

Warsaw limestone (15 ft below road. 708 ft above mean sea level):	*Thickness (feet)*
Limestone, massive	11
Limestone, shaly, to brownish shale	10
Limestone, platy to massive	30
Covered interval	10
Limestone, somewhat more massive than underlying unit	15–20
Shale, brown, slightly calcareous, with a few geodes. Fine-grained thin-bedded limestone with crinoid and horn coral fragments, also brachiopods and bryozoans. Probably base of Warsaw limestone	2.5
Covered interval, with limestone fragments same as underlying unit. Probably top of Fort Payne chert	12
Limestone, blue-gray when fresh, coarsely crystalline, Crinoidal debris plentiful along bedding planes. Layers 6 to 8 in. thick. Joints well weathered in streambed, fairly closely spaced, intersecting at angles of about 45°	5
Same as underlying, with covered intervals	20
Covered interval	2
Limestone, fine- to medium-grained, crinoidal, gray. Geodes common to abundant. Appears to be Fort Payne chert	11
Total	128.5–133.5

Base of section in stream floor and along valley wall.

Measured section, Louisville & Nashville Railroad cut along track 0.1 mile west of intersection of railroad and U.S. Highway 231 in northwest quarter of 8610–3640

Warsaw limestone (795 ft above mean sea level):	*Thickness (feet)*
Limestone, massive. Small geodes fairly common. Limestone weathers to a light-blue-gray, weathers platy, parallel to exposure surface	4
Limestone, shaly and massive, thick- and thin-bedded, medium-to-dark blue. Contains geodes up to 3 in. in diameter. Water bearing in wet weather	3.5
Limestone, clayey, extra fine-grained, light-brown. Weathers readily	1.5
Limestone, grayish, massive. Forms pitted surface when weathered. This layer is slightly more resistant than underlying unit, forms slight overhang up to 2 ft. Small geodes present, but not common. Texture very sandy	1
Limestone, massive, weathers platy. Is somewhat more shaly on top 10 in	2
Limestone, gray to blue-gray, medium-crystalline, massive. Recrystallized to some extent. Marked by fossil debris, with more fossils in upper 6 in., including *Spirifer lateralis*, which puts this entire section within the lower part of the Warsaw limestone	3
Total	15.0

Base of section, railroad roadbed.

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Measured section, road cuts and stream valley on Crane Hill-Halifax Road in northwest quarter of 8610–3645

	Thickness (feet)
Top of section at road junction, 744 ft above mean sea level.	
Covered interval (presumably from the St. Louis limestone)	70
Warsaw limestone:	
Limestone, pale-blue, coarsely crystalline, massive, crossbedded in upper 1 ft. Bedding planes etched by weathering	3.5
Limestone, tan, thick-bedded. Bedding planes enlarged and irregular. Platy weathering. Dense	3
Same as above but brownish-blue, mottled. Blue in upper part	6
Limestone, blue, massive, finely crystalline. One-inch chert bed at base, discontinuous. Joint and bedding planes enlarged. Fossil debris common	1.5
Shale, limy, tan-cream in color	2
Limestone, medium-tan, shaly, massive. Platy weathering	3.5
Covered interval	7
Limestone, dark-blue, massive- to thick-bedded, finely crystalline, dense	2
Covered interval	4
Limestone, pale-tan, massive, shaly. Platy weathering. Upper 4 ft thinner bedded	7.5
Covered interval	6
Limestone, tan-brown, massive, silty, clastic(?). Platy weathering	5
Limestone, mottled-brown and blue, clastic, largely fossil fragments. Massive, becoming reddish and poorly cemented (granular) in upper foot	3
Covered interval, except for limy shale exposed weathered in ditch. Crumbly	7
Limestone, shaly, or limy shale, slabby. Some chert geodes, less than one-half inch in diameter	2
Covered interval	1
Limestone, gray-blue with red streaks, clastic, easily decomposed. Fossil fragments abundant, dominantly crinoidal debris. Superficial resemblance to zone 10 ft above	2
Limestone, brown, fine-grained. Chert nodules common	3
Limestone, massive, finely crystalline, blue. Contains some small brachiopods	3
Shale, limy, pale-blue, thin-bedded. Platy weathering. Geodes 1¼ in. diameter	2.5
Covered interval	11
Sandstone, blue, calcareous. Dominantly crinoidal plates (some more than one-fourth inch diameter, majority smaller). Chert nodules and blobs fairly common. *Spirifer lateralis* noted at top	3

Fort Payne chert:	Thickness (feet)
Limestone, medium-brown to light-purple, fine- to medium-crystalline, thick-bedded to massive. Bedding planes easily enlarged. Red-brown spots common on fresh surfaces, about 1/8 to 1/4 in. diameter. Occasional chert pockets up to 4 in. thick. *Heliophyllum*-like cup corals	9
Covered interval. Limy shale at top	5.5
Limestone, pale-blue, finely crystalline. Vertical joints enlarged in streambed, bedding planes also enlarged. Cherty bed about 3½ ft. up, 6 in. thick	5
Limestone, brown to light-tan, massive, silty, fine-grained. Forms streambed. Platy weathering. One-half inch geodes at top of zone	3
Total	181.0

Base of section on south-flowing intermittent tributary to Bays Fork, 0.4 miles west of bridge.

Table 1.—*Generalized section of stratigraphic units in the Scottsville area, Kentucky*[1]

System	Series	Stratigraphic unit	Thickness	Description	Water-bearing characteristics
Quaternary	Recent and Pleistocene	Soil and mantle rock	0–60	Clay, silt, gravel	Yield small quantities of water to dug and drilled wells; water hard and commonly high in nitrate
Carboniferous: Mississippian	Meramec	St. Louis limestone	0–(?)	Limestone, relatively pure	Yields range from nearly zero to several gallons per minute; water very hard
		Warsaw limestone	80–100	Limestone, shaly and cherty in lower part	Yield small to moderate quantities of water to wells and springs, particularly from lower part. Water is very hard and may have objectionable sulfate content
	Osage	Fort Payne chert	100–150	Limestone, cherty, shaly	Yield small to moderate quantities of water to wells and springs. Water ranges from hard to very hard
	Kinderhook	and New Providence shale		Limy shale, green	
Devonian	Upper Devonian	Chattanooga shale	25–50	Shale, dense, black, fissile	Yield no water, except very small quantities from joints at outcrops and at top of formation
	Middle Devonian	Sellersburg limestone	0–10	Limestone, porous	Yield large quantities of water to springs and wells where exposed; water ranges from soft to hard. Where buried, yield sulfurous or salty water
Silurian		Louisville limestone	140–180	Dolomitic limestone	
		Waldron shale	5–10	Shale	Yield no water to wells
		Laurel dolomite	25–40	Dolomitic limestone	
		Osgood formation	20	Dolomite, shaly	
		Brassfield limestone	25	Dolomite	
Ordovician	Upper Ordovician	Maysville group	255	Dolomite, limestone, shale	Not known to yield water to wells
		Eden group: Garrard sandstone			
		Eden group	155	Limestone, shale, phosphatic limestone	
	Middle Ordovician	Cynthiana formation			
		Lexington group	175	Limestone and shale	
		High Bridge group	765	Limestone and dolomite	
Ordovician and Cambrian		Knox dolomite	57+	Dolomite and bentonite	

[1]Stratigraphy below Louisville limestone from subsurface information.

Table 2.—*Physical and chemical analyses of rock samples of the Warsaw limestone from a quarry, Allen County, Ky.*

Ledge		Description	Physical tests			Chemical analyses (percent by weight)			
No.	Thickness (feet)		Specific gravity	Soundness	Percent wear	Calcium carbonate ($CaCO_3$)	Magnesium carbonate ($MgCO_3$)	Insoluble silica (SiO_2)	Metal content (R_2O_3)
	15	Dirt and weathered stone.	------	------	Waste	------	------	------	------
1-A	9	Crinoidal and bouldery.	2.55	7.0	22.5	94.8	1.4	2.5	0.9
1	18	-----do-------------	2.67	.3	23.3	93.5	2.2	2.8	1.1
2	4½	Gray and crystalline--	2.70	2.1	28.1	92.6	1.9	4.8	.7
3	15½	Blue and crystalline--	2.70	1.3	27.5	91.3	1.8	1.4	3.7
4	6	Medium and calcite crystal.	2.71	1.7	25.2	92.5	1.7	2.5	2.5
5	5	Coarse and rough textured.	2.67	2.1	29.4	93.3	1.4	2.0	1.6
6	1½	Porous and oil stained.	2.65	1.2	33.8	92.0	2.8	2.1	1.1
7	8	Rough textured and dirt stained.	2.69	.9	32.8	90.6	4.0	3.4	1.2
	------	Present floor--------	------	------	-----	------	------	-----	------
	4	Marl and shale ------	------	------	-----	------	------	-----	------

Table 3.—*Springs in the Scottsville area, Kentucky, subdivided by aquifer and type of opening*

Type of opening	Aquifer													
	Louisville limestone		Chattanooga shale		Fort Payne chert		Warsaw limestone		St. Louis limestone		Mantle rock		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Solutional (tubular)-	18	1.5	0	0	355	29.6	161	13.4	44	3.7	93	7.8	671	56.0
Minor (seeps) --	1	.1	1	.1	95	7.9	43	3.6	6	.5	382	31.8	528	44.0
Total---	19	1.6	1	0.1	450	37.5	204	17.0	50	4.2	475	39.6	1,199	100.0

Table 4.—*Springs in the Scottsville area, Kentucky, subdivided by flow and aquifer*

Aquifer	Flow (gallons per minute)				Total
	0–5	5–15	15–50	50+	
Louisville limestone--------------------	2	4	2	11	19
Chattanooga shale ----------------------	0	1	0	0	1
Fort Payne chert -----------------------	301	106	41	2	450
Warsaw limestone -----------------------	114	68	20	2	204
St. Louis limestone---------------------	21	23	6	0	50
Mantle rock ----------------------------	384	83	7	1	475
Total ----------------------------------	822	285	76	16	1,199

Table 5.—*Springs in the Scottsville area, Kentucky, subdivided by topographic situation, aquifer, elevation above streams, improvement, use, type of opening, and flow*

	Number	Percent
Topographic situation:		
Hillside	977	81.5
Valley bottom	222	18.5
Total	1,199	100.0
Aquifer:		
Louisville limestone	19	1.6
Chattanooga shale	1	.1
Fort Payne chert	450	37.6
Warsaw limestone	204	17.0
St. Louis limestone	50	4.2
Mantle rock	475	39.5
Total	1,199	100.0
Elevation above streams (feet):		
0–50	477	39.8
50–100	400	33.4
100–150	251	20.9
150–200	59	4.9
200+	12	1.0
Total	1,199	100.0
Improvement:		
Reservoir	161	13.4
Pond	13	1.1
Improvement—Continued		
Pump	18	1.5
None	1,007	84.0
Total	1,199	100.0
Use:		
Domestic	102	8.5
Domestic and stock	195	16.3
Stock	710	59.2
Unused	192	16.0
Total	1,199	100.0
Type of opening:		
Solutional (tubular)	671	56.0
Minor (seep)	528	44.0
Total	1,199	100.0
Contact springs	257	21.4
Flow (gallons per minute):		
0–5	822	68.6
5–15	285	23.8
15–50	76	6.3
50+	16	1.3
Total	1,199	100.0

Table 6.—*Springs in the Scottsville area, Kentucky, subdivided by flow and type of opening*

Type of opening	Flow (gallons per minute)								Total	
	0–5		5–15		15–50		50+			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Solutional (tubular)	389	32.6	198	16.5	69	5.7	15	1.2	671	56.0
Minor (seeps)	433	36.0	87	7.3	7	.6	1	.1	528	44.0
Total	822	68.6	285	23.8	76	6.3	16	1.3	1,199	100.0

Table 7.—*Wells in the Scottsville area, Kentucky, subdivided by topographic situation, type, depth, aquifer, surface, rock, use, and method of lift*

	Number	Percent
Topographic situation:		
Upland	649	72.0
Hillside	203	22.5
Valley bottom	50	5.5
Total	902	100.0
Type of well:		
Dug	206	22.8
Drilled	696	77.2
Total	902	100.0
Depth (feet):		
0–25	77	8.4
25–50	385	42.7
50–75	225	25.0
75–100	100	11.1
100+	70	7.8
Depth unknown	45	5.0
Total	902	100.0
Aquifer:		
Louisville limestone	16	1.8
Chattanooga shale	3	.3
Fort Payne chert	483	53.5
Warsaw limestone	199	22.1
St. Louis limestone	15	1.7
Mantle rock	146	16.2
Aquifer unknown	40	4.4
Total	902	100.0
Surface rock:		
Louisville limestone	10	1.1
Chattanooga shale	1	.1
Fort Payne chert	477	52.9
Surface rock: Cont.		
Warsaw limestone	363	40.3
St. Louis limestone	46	5.1
Mantle rock	5	.5
Total	902	100.0
Use and lift:		
Power, domestic	71	7.9
Power, domestic and stock	35	3.9
Power, stock	8	.9
Power, irrigation	1	.1
Hand, domestic	414	45.8
Hand, domestic and stock	135	15.0
Hand, stock	28	3.1
Unused	210	23.3
Total	902	100.0
Use:		
Domestic	485	53.8
Domestic and stock	170	18.8
Stock	36	4.0
Irrigation	1	.1
Unused	210	23.3
Total	902	100.0
Method of lift:		
Hand power	577	64.0
Other (electric, fuel, and other)	115	12.7
None (unused)	210	23.3
Total	902	100.0

Table 8.—*Wells in the Scottsville area, Kentucky, subdivided by depth, by aquifer, and by use or nonuse*

Aquifer	Depth (feet)						Total
	0–25	25–50	50–75	75–100	100+	Unknown	
Louisville limestone:							
Used	0	3	3	1	2	0	9
Unused	0	0	1	0	6	0	7
Total	0	3	4	1	8	0	16
Chattanooga shale:							
Used	0	1	0	1	0	0	2
Unused	0	0	0	0	0	1	1
Total	0	1	0	1	0	1	3
Fort Payne chert:							
Used	11	175	126	49	18	9	388
Unused	0	38	23	12	12	10	95
Total	11	213	149	61	30	19	483
Warsaw limestone:							
Used	6	59	49	23	8	1	146
Unused	1	18	14	7	8	5	53
Total	7	77	63	30	16	6	199
St. Louis limestone:							
Used	0	1	4	2	4	0	11
Unused	0	3	0	1	0	0	4
Total	0	4	4	3	4	0	15
Mantle rock:							
Used	49	74	1	0	0	0	124
Unused	10	10	0	0	0	2	22
Total	59	84	1	0	0	2	146
Aquifer unknown:							
Used	0	2	4	1	0	5	12
Unused	0	1	0	3	12	12	28
Total	0	3	4	4	12	17	40
Total:							
Used	66	315	187	77	32	15	692
Unused	11	70	38	23	38	30	210
Grand total	77	385	225	100	70	45	902

Table 9.—*Significance of dissolved mineral constituents and physical properties of natural waters*

Constituent or physical property	Source or cause	Significance
Silica (SiO_2)-----	Dissolved from nearly all rocks and soils. Generally in small amounts from 1 to 30 ppm. High concentrations, as much as 100 ppm, generally occur in highly alkaline waters.	Forms hard scale in pipes and boilers. Carried over in steam of high-pressure boilers to form deposits on blades of steam turbines. Inhibits deterioration of zeolite-type water softeners.
Iron (Fe)--------	Dissolved from nearly all rocks and soils. May be derived also from iron pipes, pumps, and other equipment. More than 1 or 2 ppm of soluble iron in surface waters generally indicates acid wastes from mine drainage or other sources.	On exposure to air, iron in ground water oxidizes to reddish-brown sediment. More than about 0.3 ppm stains laundry and utensils reddish brown. Objectionable for food processing, beverages, dyeing, bleaching, ice manufacture, brewing, and many other processes. Federal drinking-water standards state that iron and manganese together should not exceed 0.3 ppm. Larger quantities cause unpleasant taste and favor growth of iron bacteria.
Manganese (Mn)-	Dissolved from some rocks and soils. Not so common as iron. Large quantities often associated with high iron content and with acid waters.	Same objectionable features as iron. Causes dark-brown or black stain. Federal drinking-water standards provide that iron and manganese together should not exceed 0.3 ppm.
Calcium (Ca) and magnesium (Mg).	Dissolved from nearly all soils and rocks, but especially from limestone, dolomite, and gypsum. Calcium and magnesium found in large quantities in some brines. Magnesium occurs in large quantities in sea water.	Cause most of the hardness and scale-forming properties of water; soap consuming. (See Hardness.) Waters low in calcium and magnesium desired in electroplating, tanning, dying, and textile manufacturing.
Sodium (Na) and potassium (K).	Dissolved from nearly all rocks and soils. Found also in ancient brines, sea water, some industrial brines, and sewage.	Large amounts, in combination with chloride, give a salty taste. Moderate quantities have little effect on the usefulness of water for most purposes. Sodium salts may cause foaming in steam boilers and a high sodium ratio may limit the use of water for irrigation.
Bicarbonate (HCO_3) and carbonate (CO_3).	Action of carbon dioxide in water on carbonate rocks such as limestone and dolomite.	Bicarbonate and carbonate produce alkalinity. Bicarbonates of calcium and magnesium decompose in steam boilers and hot-water facilities to form scale and release corrosive carbon dioxide gas. In combination with calcium and magnesium cause carbonate hardness.
Sulfate (SO_4)----	Dissolved from rocks and soils containing gypsum, iron sulfides, and other sulfur compounds. Generally in mine waters and in some industrial wastes.	Sulfate in water containing calcium forms hard scale in steam boilers. In large amounts, sulfate in combination with other ions gives bitter taste to water. Some calcium sulfate is beneficial in the brewing process. Federal drinking-water standards recommend that the sulfate content should not exceed 250 ppm.

Table 9.—*Significance of dissolved mineral constituents and physical properties of natural waters*—Continued

Constituent or physical property	Source or cause	Significance
Chloride (Cl)	Dissolved from rocks and soils. Present in sewage and found in large amounts in ancient brines, sea water, and industrial brines.	In large amounts in combination with sodium gives salty taste to drinking water. In large quantities increases the corrosiveness of water. Federal drinking-water standards recommend that the chloride content should not exceed 250 ppm.
Fluoride (F)	Dissolved in small to minute quantities from most rocks and soils.	Fluoride in drinking water reduces the incidence of tooth decay when the water is consumed during the period of enamel calcification. However, it may cause mottling of the teeth, according to the concentration of fluoride, the age of the child, amount of drinking water consumed, and susceptibility of the individual. (See Maier, 1950, p. 1120-1132.)
Nitrate (NO_3)	Decaying organic matter, sewage, and nitrates in soil.	Concentrations much greater than the local average may suggest pollution. There is evidence that more than about 45 ppm of nitrate (NO_3) may cause a type of methemoglobinemia in infants, sometimes fatal. Water of high nitrate content should not be used in baby feeding. (See Maxcy, 1950, p. 265, App. D.) Nitrate is helpful in reducing intercrystalline cracking of boiler steel. It encourages growth of algae and other organisms which produce undesirable tastes and odors.
Dissolved solids	Chiefly mineral constituents dissolved from rocks and soils. Includes any orgainic matter and some water of crystallization.	Federal drinking-water standards recommend that the dissolved solids should not exceed 500 ppm. Waters containing more than 1,000 ppm of dissolved solids are unsuitable for many purposes.
Hardness as $CaCO_3$.	In most waters nearly all the hardness is due to calcium and magnesium. The hydrogen ion and all the metallic ions other than the alkali metals also cause hardness.	Causes consumption of soap before a lather will form, and deposition of soap curd on bathtubs. Hard water forms scale in boilers, water heaters, and pipes. Hardness equivalent to the bicarbonate and carbonate is called carbonate hardness. Any hardness in excess of this is called noncarbonate hardness. Waters having hardness up to 60 ppm are considered soft; 61 to 120 ppm, moderately hard; 121 to 200 ppm, hard; more than 200 ppm, very hard.
Specific conductance.	Ionized mineral constituents in the water.	Specific conductance is a measure of the capacity of the water to conduct an electric current. Varies with concentration and degree of ionization of the constituents. Varies with temperature; reported at 25°C.
Hydrogen-ion concentration (expressed as pH).	Acids, acid-generating salts, and free carbon dioxide lower the pH. Carbonates, bicarbonates, hydroxides, phosphates, silicates, and borates raise the pH.	A pH of 7.0 indicates neutrality of a solution. Values higher than 7.0 denote increasing alkalinity; values lower than 7.0 indicate increasing acidity. The pH is a measure of the activity of the hydrogen ions. Corrosiveness of water generally increases with decreasing pH. However, excessively alkaline waters also may attack metals.

Table 9.—*Significance of dissolved mineral constituents and physical properties of natural waters*—Continued

Constituent or physical property	Source or cause	Significance
Temperature		Affects usefulness of water for many purposes. For most uses, a water of uniformly low temperature is desired. Shallow wells show some seasonal fluctuation in water temperature. Ground water from moderate depths generally is nearly constant in temperature, which is near the mean annual air temperature of the area. In very deep wells the water temperature generally increases on the average about 1°F with each 50- to 100- foot increment of depth. Seasonal fluctuations in temperatures of surface waters are comparatively large, depending on the depth of water, but do not reach the extremes of air temperature.

Table 10.—*Chemical analyses of water from wells and springs in the*

[For location of wells and springs see pl. 2. Depth of well (ft): r, reported. Geologic chert; Wa, Warsaw limestone; Sl, St. Louis

Well	Depth of well (feet)	Geo-logic unit	Date of collec-tion	Tem-pera-ture (°F)	Silica (SiO_2)	Iron (Fe)	Manga-nese (Mn)	Cal-cium (Ca)	Magne-sium (Mg)	So-dium (Na)	Potas-sium (K)
8600-3635-											
12	Spring	Si	4–16–53	54	-----	0.16	-------	----	-------	----	------
22	r80	Q Fp	6– 3–53	60	-----	.15	-------	---	-------	----	------
8600-3640-											
1	47.0	Q Fp	6– 2–50	58	8.8	.25	-------	4.2	3.0	6.7	
3	Spring	Si	9–12–51	58	8.5	.14	0.00	32	12	1.5	1.5
			10–29–52	57	-----	.14	-------	----	-------	----	------
			2–21–53	51	7.0	.18	.00	26	7.3	1.9	.5
			6– 1–53	57	-----	.07	-------	----	-------	----	------
12	Spring	Si	4–16–53	56	6.2	.31	.00	25	7.8	1.2	.6
32	r90	Si	4–24–53	57	10	1.4	.00	70	19	22	2.2
33	44.0	Q Fp	4–28–53	61	-----	3.3	-------	----	-------	----	------
34	49.0	Q Fp	5–29–53	56	-----	.06	-------	----	-------	----	------
36	Spring	Si	5–29–53	58	-----	.06	-------	----	-------	----	------
46	Spring	-- do --	6– 3–53	55	-----	.09	-------	----	-------	----	------
48	r60	Fp	6– 3–53	58	-----	.10	-------	----	-------	----	------
8600-3645-											
1	Spring	Si	4– 8–53	54	7.5	.23	.00	28	8.0	1.2	.5
8	r95	Fp, Cg	6– 9–53	-----	-----	.21	-------	----	-------	----	------
11	Spring	Fp	6– 9–53	57	-----	.08	-------	----	-------	----	------
25	r135	Si	7–21–53	63	-----	;53	-------	----	-------	----	------
35	Spring	Fp, Cg	7–22–53	-----	-----	.20	-------	----	-------	----	------
8600-3650-											
5	Spring	Fp,	7–15–53	60	-----	.23	-------	----	-------	----	------
8605-3635-											
83	23.0	Q, Fp	3–21–52	65	-----	.10	-------	----	-------	----	------
121	30.0	Q, Fp	12– 5–51	55	-----	.92	-------	----	-------	----	------
136	Spring	Si	6– 3–53	58	-----	.10	-------	----	-------	----	------
8605-3640-											
2	32.6	Q, Wa	9–14–50	58	-----	.28	-------	----	-------	----	------
58	r82	Fp	12–14–50	58	9.2	1.5	-------	71	13	3.5	
88	Spring	Fp	11–30–51	58	-----	.83	-------	----	-------	----	------
253	Spring	Cg	5– 1–53	54	-----	.42	-------	----	-------	----	------
266	Spring	Q, Fp	5– 6–53	56	-----	.22	-------	----	-------	----	------
277	r55	Q, Fp	5–13–53	57	-----	.14	-------	----	-------	----	------
278	r76	Fp	5–22–53	61	-----	.12	-------	----	-------	----	------
8605-3645-											
8	Spring	Fp	9–14–50	59	-----	.17	-------	----	-------	----	------
32	Spring	Fp	12–14–50	58	-----	.46	-------	----	-------	----	------
36	44.8	Wa, Fp	12–14–50	57	-----	.45	-------	----	-------	----	------
71	68.6	Wa, Fp	12–14–50	58	-----	.56	-------	----	-------	----	------
101	Spring	Sl, Wa	12–14–50	59	10	.24	-------	51	5.6	1.3	
166	Spring	Fp	11–30–51	57	-----	.33	-------	----	-------	----	------
186	Spring	Fp	7– 1–53	57	-----	.03	-------	----	-------	----	------
189	r60	Wa	7– 2–53	65	-----	.11	-------	----	-------	----	------

Scottsville area, Kentucky. (Chemical constituents in parts per million)

unit. Si, Silurian limestone; De, Devonian limestone; Cg, Chattanooga Shale; Fp, Fort Payne limestone; Q, Quaternary (mantle rock)]

Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved (residue on evaporation at 180°C)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25°C)	pH	Color
						Calcium magnesium	Noncarbonate			
104	12	1.5	0.1	2.9	---------	92	----------	186	---	--------
118	3.1	6.8	.0	12	---------	110	----------	237	---	--------
6	4.9	7.0	.9	19	57	23	18	73.9	.1	1
138	11	1.8	.1	3.0	139	128	16	241	8.0	0
142	15	2.5	.0	3.4	---------	135	----------	265	---	--------
102	12	2.1	.1	4.0	106	96	11	207	7.7	3
116	6.6	1.9	.0	3.6	---------	66	----------	213	---	--------
101	9.3	1.6	.1	3.0	121	95	12	193	7.5	0
143	144	9.5	.2	19	370	252	136	581	7.5	0
216	3.7	7.2	.0	.0	---------	170	----------	367	---	--------
33	11	11	.0	35	---------	47	----------	188	---	--------
74	8.2	2.5	.1	1.3	---------	68	----------	260	---	--------
131	11	2.2	.0	6.0	---------	120	----------	239	---	--------
79	3.1	5.5	.0	10	---------	70	----------	163	---	--------
113	11	1.5	.1	1.6	120	103	10	208	7.7	0
238	20	8.8	.1	42	---------	234	----------	486	---	--------
74	1.9	5.5	.0	20	---------	56	----------	171	---	--------
220	46	3.5	.3	1.3	---------	212	----------	470	---	--------
102	1.6	2.5	.0	5.2	---------	85	----------	176	---	--------
130	2.3	5.5	.0	28	---------	128	----------	273	---	--------
144	20	3.0	2.0	.4	---------	129	----------	268	---	--------
42	28	12	.1	25	---------	66	----------	199	---	--------
52	2.7	2.2	.1	4.8	---------	49	----------	108	---	--------
80	2	68	.0	99	---------	161	----------	549	---	--------
260	14	5.5	.0	3.5	243	233	18	428	7.8	5
86	13	4.0	.2	4.0	---------	80	----------	183	---	--------
84	6.8	1.0	.1	.3	---------	68	----------	141	---	--------
59	4.3	1.2	.1	4.0	---------	46	----------	108	---	--------
18	15	44	.2	92	---------	96	----------	427	---	--------
227	14	3.2	.0	2.8	---------	204	----------	396	---	--------
133	9	3	.0	4.4	---------	118	----------	235	---	--------
144	18	6	.0	5.4	---------	143	----------	258	---	--------
279	15	12	.0	.4	---------	244	----------	432	---	--------
366	126	5	.0	.2	---------	410	----------	737	---	--------
162	8.4	2.5	.0	10	170	150	18	288	7.7	2
62	6.6	1	.1	4.5	---------	62	----------	118	---	--------
167	7.8	1.6	.0	3.7	---------	132	----------	256	---	--------
299	219	18	.2	21	---------	485	----------	925	---	--------

Table 10.—*Chemical analyses of water from wells and springs in the Scotts*

Well	Depth of well (feet)	Geologic unit	Date of collection	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)
8605-3650-											
10----	r65	Fp	12–14–50	58	-----	0.28	------	----	------	-----	------
38----	Spring	Q,Fp	12–14–50	57	-----	.82	------	----	------	-----	------
49----	57.4	Wa	12– 5–50	57	13	.41	------	104	35	4.0	
82----	106.3	Fp	6–25–53	60	-----	.08	------	----	------	-----	------
86----	r65	Wa(?)	7– 2–53	-----	-----	.05	------	----	------	-----	------
8610-3635-											
3----	Spring	Si	11–30–51	56	-----	.29	------	----	------	-----	------
			8–14–52	56	9.4	.10	0.00	33	9.7	2.7	1.0
			3– 6–53	52	-----	.30	------	----	------	-----	------
			6– 1–53	56	-----	.11	------	----	------	-----	------
8610-3640-											
1,2,3,4-	Springs	Fp	6– 1–50	60	5.2	.15	------	41	12	1.8	
32----	33.5	Fp	9–14–50	61	-----	----	------	----	------	-----	------
40----	r55	Fp	7–21–52	67	7.2	.17	.00	57	15	4.8	1.3
45----	Spring	Fp	9–14–50	57	-----	.31	------	----	------	-----	------
52----	Spring	Q,Fp	9–14–50	64	-----	.30	------	----	------	-----	------
69----	r20	Q,Wa,Fp	9–14–50	62	-----	.23	------	----	------	-----	------
106----	r92	Wa,Fp	9–14–50	70	-----	.11	------	----	------	-----	------
149----	Spring	Fp	9–14–50	57	-----	.19	------	----	------	-----	------
165----	50.7	Wa,Fp	9–14–50	60	-----	.22	------	----	------	-----	------
172----	r80	Fp	9–14–50	60	-----	.24	------	----	------	-----	------
174----	33.5	Wa,Fp	9–14–50	61	-----	.25	------	----	------	-----	------
190----	Spring	Wa,Fp	9–14-50	60	-----	.21	------	----	------	-----	------
428----	r47	Wa	10–29–52	56	-----	.16	------	----	------	-----	------
570----	r20	Q,Fp	10–29–52	57	-----	.13	------	----	------	-----	------
618----	r118	Wa,Fp	9– 8–51	58	11	.38	.00	348	68	23	6.9
8610-3645-											
1----	r24	Q,Wa	9–13–50	62	-----	.32	------	----	------	-----	------
10----	r80	Wa	9–14–50	65	-----	1.5	------	----	------	-----	------
18----	r35	Wa	9–14–50	59	-----	.24	------	----	------	-----	------
55----	r100	Wa,Fp	9–13–50	59	-----	25	------	----	------	-----	------
74----	r100	Wa,Fp	9–14–50	59	-----	.24	------	----	------	-----	------
79----	Spring	Wa,Fp	9–13–50	60	-----	.17	------	----	------	-----	------
81----	Spring	Wa,Fp	9–13–50	63	-----	1.1	------	----	------	-----	------
96----	r40	Wa,Fp	9–13–50	59	-----	.31	------	----	------	-----	------
97----	Spring	Fp	9–13–50	61	-----	1.4	------	----	------	-----	------
101----	r410	De,Si	9–13–50	60	-----	.15	------	----	------	-----	------
117----	r145	Fp	7–28–51	58	9.6	.80	.38	234	45	101	3.5
121----	25.0	Wa	9–14–50	63	-----	.28	------	----	------	-----	------
136----	80.0	Wa,Fp	9–13–50	61	-----	1.2	------	----	------	-----	------
148----	r25	Wa,Fp	12–14–50	58	-----	.39	------	----	------	-----	------
8610-3650-											
6----	Spring	Wa	12–14–50	58	-----	.42	------	----	------	-----	------
15----	r100+	Wa	12–14–50	58	-----	.64	------	----	------	-----	------
25----	69.9	Si	12– 5–50	57	17	.09	------	16	6.1	2.7	

ville area, Kentucky. (Chemical constituents in parts per million)—Continued

Bicarbondate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C	pH	Color
128	18	12	0.2	26	---------	146	----------	290	----	-------
240	31	4	.2	3.1	---------	236	----------	417	----	-------
260	185	4.0	.1	.6	488	402	190	684	7.9	5
309	13	3.5	.1	9.8	---------	278	----------	519	----	-------
308	121	5.0	.2	7.8	---------	400	----------	736	----	-------
90	15	6	.1	4.1	---------	84	----------	189	----	-------
129	18	3.8	.1	4.1	140	122	17	250	7.4	0
72	12	1.6	.1	5.9	---------	70	----------	147	----	-------
95	9.7	2.0	.0	3.4	---------	88	----------	184	----	-------
151	22	4.0	.2	3.5	168	152	28	291	7.6	2
20	6	25	.0	39	---------	51	----------	220	----	-------
174	62	9.0	.0	1.0	271	204	61	442	7.7	2
98	4	4	.0	.8	---------	83	----------	166	----	-------
128	8	5	.1	3.5	---------	112	----------	227	----	-------
206	242	12	.1	.0	---------	414	----------	772	----	-------
252	28	5	.0	15	---------	268	----------	513	----	-------
116	1	4	.0	22	---------	110	----------	232	----	-------
323	17	4	.0	9.6	---------	286	----------	530	----	-------
258	6	3	.1	.2	---------	213	----------	402	----	-------
260	20	9	.0	.0	---------	232	----------	434	----	-------
86	2	6	.0	7.7	---------	78	----------	171	----	-------
304	165	4.0	.1	.4	---------	398	----------	744	----	-------
135	4.5	5.0	.0	9.8	---------	100	----------	260	----	-------
266	919	18	.9	.6	1,619	1,150	930	1,150	7.2	2
98	7	10	.1	20	---------	95	----------	246	----	-------
331	235	6	.9	.0	---------	504	----------	873	----	-------
328	15	27	.0	61	---------	361	----------	730	----	-------
202	1,190	56	.3	.2	---------	1,380	----------	2,190	----	-------
318	496	.4	1.0		---------	778	----------	1,590	----	-------
272	8	4	.0	3.7	---------	236	----------	442	----	-------
120	4	5	.0	3.1	---------	102	----------	207	----	-------
188	21	4	.1	4.4	---------	173	----------	343	----	-------
140	3	4	.1	7.7	---------	116	----------	235	----	-------
308	876	89	.4	.1	---------	1,130	----------	1,960	----	-------
178	616	146	.4	2.0	1,320	768	623	1,682	7.8	1
84	8	30	.0	18	---------	79	----------	283	----	-------
------	910	90	.7	17	---------	716	----------	2,480	----	-------
154	160	62	.0	41	---------	341	----------	844	----	-------
242	22	2	.0	3.6	---------	200	----------	402	----	-------
254	30	3	.1	.2	---------	246	----------	415	----	-------
58	5.3	4.0	.0	15	97	66	17	154	6.2	2

Table 11.—*Summary of chemical analyses of ground water in the Scottsville area, Kentucky.*

[Chemical constituents in parts per million]

Characteristics and substances	Maximum	Minimum	Median	Average	Number of determinations
Silica (SiO_2)	17	5.2	9.2	9.3	15
Iron (Fe)	25	.03	.24	.70	78
Calcium (Ca)	348	4.2	41	76	15
Magnesium (Mg)	68	3.0	12	18	15
Sodium (Na)	101	1.2	2.7	17.7	9
Potassium (K)	6.9	.5	1.3	2	9
Bicarbonate (HCO_3)	366	6	138	163	78
Sulfate (SO_4)	1,190	1	12	92	79
Chloride (Cl)	146	1	5.0	14	79
Fluoride (F)	.9	.0	.1	.1	79
Nitrate (NO_3)	99	.0	4.0	11	79
Dissolved solids	1,619	57	168	362	15
Hardness as $CaCO_3$					
Calcium, magnesium	1,380	23	132	230	79
Noncarbonate	930	10	18	140	15
Specific conductance at 25°C (micromhos)	2,480	73.9	273	466	79
pH	8.0	6.2	7.7	---------	15

654110 O—62——7

Table 12.—*Records of wells in the Scottsville area, Kentucky*

[Well number: For location of wells, see pl. 2. Altitude above mean sea level: a, Aner
Si, Silurian limestone; De, Devonian limestone; Cg, Chattanooga shale, Fp, Fort Payne
Below land surface: b, Above land surface; r, Reported. Lift: Ba, Bailer; Ch, Chain;
Windmill. Use: D, Domestic; In, Industrial; Ir, Irrigation; O, Observation well; P,

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8600-3635-1	0.8 mile southeast of Amos.	Joe Hire			Upland	840
2	0.9 mile south-southeast of Amos.	T.H. Burton	Robert Marcum	Dec. 1952	do	840
3	1 mile south-southeast of Amos.	C.H. Turner			do	840
5	1.5 miles south-southeast of Amos.	Tommy Wix		1928	do	850
6	1.6 miles south-east of Amos.	do		1952	do	850
7	3.2 miles south-east of Amos.	H.O. Brawner		1910±	Upland ridge.	850
8	3.4 miles south-east of Amos.	do			Upland	840
10	4 miles southeast of Amos.	Bransford Wooten			do	840
11	4.1 miles south-east of Amos.	Comus Wooten		1949	do	840
13	4.8 miles east of Amos.	S.H. Carter		1943±	Terrace.	630
15	1.7 miles east of Amos.	Allen Carmack			Upland	840
18	2.2 miles east-southeast of Amos.	Jack Swindle			do	830
20	2.7 miles east-southeast of Amos.	Clyde Shockley			do	800
21	1 mile northeast of Amos.	Earl Wilson	Mr. Fishburn	May 1951	do	840
22	2.9 miles east-northeast of Amos.	Guy Harwood	E.C. Neil	1948	do	840

oid. Type of well: Dr, Drilled, Du, Dug. Depth of well: r, Reported. Geologic unit: chert; Wa, Warsaw limestone; Sl, St. Louis limestone; Q, Quarternary (mantle rock). Cy, Cylinder; E, Electric; Fl, Flowing; G, Gasoline; H, Hand; J, Jet; Pi, Piston; W, Public Supply; S, Stock; To, Oil test; U, Unused]

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Du	41.5	30	---------	Fp	20.12	4–14–53	Ba,H	D,S	Cased to 3 ft. Supplies 7 people, stock occasionally. Temperature 55°F.
Dr	57.5	6	Mantle and limestone.	Q,Fp	35.56	--do----	Ba,H	D	Reported cased to 40+ ft. Reported water at 47 ft at top of bedrock. Temperature 57°F.
Du. Dr.	r38	24-6	---do----	Q,Fp	28.53	--do----	Ba,H	D	Reported turbid in summer.
Du	36.0	24	---do----	Q	28.89	--do----	Ba,H	D	Nearly dry in summer.
Dr	r165	8	Limestone and shale.	Fp, Cg	99.89	--do----	Ba,H	D	Reported dry in extreme summers. Sulfurous when low.
Du	r60	------	Mantle and limestone.	Q	r55	4–16–53	Ba,H	D	Reported nearly dry in summer.
Du	r50	------	---------	Fp	r45	--do----	Ba,H	D	
Du	30.2	16	Mantle(?)	Q(?)	17.49	--do----	Ba,H	D	Temperature 55°F.
Du	39.0	24	---do----	Q	22.46	--do----	Ba,H	D,S	Reported hard. Temperature 56°F.
Dr	50.1	7	Limestone	Si	17.62	--do----	Ba,H	D	Reported very low in summer. Reported sulfurous.
Du	27.3	36	---------	Fp(?)	22.12	4–28–53	None	U	Reported low in summer.
Du	50.0	------	---------	Fp	44.24	--do----	Ba,H	D	Slightly turbid. Temperature 57°F.
Du	r50	------	---------	Fp	r48	--do----	Ba,H	D,S	
Du	35.4	36	Mantle ---	Q	28.38	6– 3–53	J,E	D	
Dr	r80	6	Mantle and limestone.	Q,Fp	r55	1948	Ba,H	D	Temperature 60°F. Chemical analysis in table 10.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8600-3635-						
24	4.7 miles east-northeast of Amos.	Cortez Stinson			Flood plain.	620
27	2.5 miles east of Amos.	Ewen B. McIntyre			Upland	825
8600-3640-						
1	Holland	J.S. Hagen		1900±	do	803
2	1.2 miles north-west of Holland.	Joe Collins			Valley terrace	590
5	2.1 miles north of Holland.	Ralston W. Bewley		1949	Top of ridge.	780
6	2.9 miles north-northeast of Holland.	W.E. Pitchford	James Morris	1952	do	760
8	3.4 miles north-northeast of Holland.	W.H. Pitchford	E.C. Neil	1944	do	760
11	3.8 miles north-east of Holland.	Roy J. Calvert		1908	do	760
13	4.1 miles north-east of Holland.	G.B Fraim	Mr. Marsh	1948	do	750
16	3.8 miles east-northeast of Holland.	do		1943	Side of hill.	680
18	3.9 miles north east of Holland.	Erby Woods			Top of ridge.	760
22	3.7 miles east-northeast of Holland.	N.S. Celsor		1953	do	760
23	3.4 miles east of Holland.	Bill Parish	Robert Marcum	April 1952	do	770
26	1.4 miles east of Holland.	Guy Celsor		1910±	do	690
29	1.6 miles north-east of Holland.	R.M. Crowder	Robert Marcum	Feb. 1953	do	800

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	10.0	24	Mantle---	Q	4.90	6- 3-53	None	U	
Dr	83.3	6	Limestone	Fp	65.17	---do---	Ba,H	D	
Du, Dr.	47.0	-------	Mantle---	Q,Fp	38.11	6- 2-50	Ba,H	D,S	Reportedly can barely be bailed down. Temperature 58°F. Chemical analysis in table 10.
Dr	63.0	6	Limestone	Si	21.44	8-31-50	None	O	Hydrograph in figure 16.
Dr	------	-------	---------	-----	------	---do---	J,E	D	
Dr	r68	-------	Limestone	Fp	r55	8- 1952	J,E	D,S	Reported cased to 53 ft. Reported capacity of pump, 6 gpm. Reported hard. Temperature 56°F.
Dr	77.2	6½	---do----	Fp	58.72	4-13-53	Ba,H	D	
Dr	65.0	6	---do----	Fp	51.23	4-16-53	Ba,H	D	Reported cased to 20 ft.
Dr	r85	6	---do----	Fp	------	--------	Cy,H	D	Reported cannot be pumped dry with present pump. Temperature 58°F.
Dr	------	6	Limestone and shale.	Fp, Cg	r61	4-21-53	Ba,H	U	Reported cased to 20 ft. Reported plugged at water level. Sulfurous.
Dr	63.8	6	Limestone	Fp	47.41	--------	Ba,H	D	Reported that water remains clear when nearby wells become turbid.
Dr	r105	6	---do----	Fp	------	--------	J,E	S	
Dr	r93	6	---do----	Fp	r78	4- 1952	J,E	D,S	Reported cased to 50 ft. Reported, two streams. Iron stain.
Du	50.0	24	---------	-----	46.16	4-23-53	Ba,H	D	Reported cased to 50 ft. Temperature 58°F.
Dr	128.8	6	Limestone	Fp	r105	--------	Ba,H	D	Reported 30 ft. to bedrock. Temperature 57°F.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8600-3640-						
30	1.3 miles northeast of Holland.	S.H. Downing		1910±	Top of ridge.	800
32	3.1 miles east of Holland.	T.C. Gray	Robert Marcum	1948	Edge of terrace.	570
33	1.3 miles south-southeast of Holland.	Rev. L.A. Stewart	James Marsh	1950	Upland ridge.	810
34	1.4 miles southeast of Holland.	Henry Hammock		1909	do	820
37	3 miles southeast of Holland.	Claude France		1952	Upland	810
40	0.5 mile northwest of Holland.	Mrs. Florence Dyson	Owen Mayhew	1948	do	800
41	2.1 miles northeast of Holland.	J.W. Hudson			do	790
43	0.2 mile south of Holland.	J.F. Turner			do	820
47	1.3 miles south-southeast of Holland.	Liga Parrish			do	810
48	2.1 miles south of Holland.	B.M. Parrish			Upland ridge.	840
49	3.6 miles southeast of Holland.	Johnny Shockley			Upland	780
50	3.1 miles east of Holland.	Omer Johnson	Pioneer Oil Co.	1950	Edge of ridge.	770
8600-3645-						
2	2.4 miles southeast of Maynard.	W.E. Jackson	Carter and Bostick.	1908	Top of ridge.	720
3	Maynard	A.B. Blankenship	Henry Hood	1952	Upland	800
4	0.5 mile south of Maynard.	V.A. Whitney	Robert Marcum	1949	do	760
6	0.9 mile south-southeast of Maynard.	M.F. Reneau		1918±	Side of ridge.	740

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	58.3	6	Limestone	-----	49.84	4-23-53	Ba,H	D	Reported muddy after rains. Temperature 57F.
Dr	r90	6	---do----	Si	70.20	--do-----	Ba,H	D	Unpleasant taste. Temperature 57°F. Chemical analysis in table 10.
Dr	44.0	6	Mantle and limestone.	Q,Fp	28.90	4-28-53	Ba,H	D	Contaminated. Temperature 61°F. Chemical analysis in table 10.
Du	49.0	20	---do-----	Q,Fp	18.31	5-29-53	Ba,H	D	Reported cased to 6 ft. Temperature 56°F. Chemical analysis in table 10.
Dr	61.5	6	Limestone	Fp	49.51	--do-----	Ba,H	D	Temperature 58°F.
Dr	r91	6	---do-----	Fp	------	---------	E	D	Reported weak stream.
Dr	42.3	6	Mantle----	Q	31.40	6- 2-53	Ba,H	D	Temperature 59°F.
Du	67.6	24	----------	-----	62.38	--do-----	Ba,H	D	Temperature 57°F.
Dr	60.8	7	Limestone	Fp	48.75	6- 3-53	Ba,H	D	
Du	r60	24x36	---do-----	Fp	r58	--do-----	Ba,H	D,S	Temperature 58°F. Chemical analysis in table 10.
Dr	r50	------	---do-----	Fp	r35	--do-----	Ba,H	D	
Dr	r595	------	Limestone, shaly.	Fp	------	---------	None	To	Plugged. Log in table 14.
Dr	56.0	5	Limestone	Fp	47.90	4-16-53	Ba,H	D	
Dr	46.3	6	Mantle----	Q,Fp	40.04	6- 5-53	Ba,H	D	Reported 30 ft to top of water-bearing material. Muddy after rains. Temperature 60°F.
Dr	r58	6	Limestone	Fp	r43	1949	Ba,H	D	Reported cased to 14 ft. Temperature 59°F.
Dr	135.4	8	---do-----	Fp	52.35	6- 5-53	Ba,H	D	Oil test well when drilled. Reported plugged back.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8600-3645-						
8	1.7 miles southeast of Maynard.	J. D. McIntyre	J. D. Marsh	1952	Upland ridge.	660
10	1 mile east of Maynard.	D. W. Cliburn	-------------	1951	Upland	740
12	0.6 mile north-northeast of Maynard.	E. A. Thomas	Mr. Newman	1911	do	750
15	4.2 miles north of Maynard.	Clyde Barton	-------------	1948	Upland ridge.	720
18	2.7 miles north of Maynard.	Herman Whitney	Robert Marcum	1940	Upland	720
21	3.1 miles east of Maynard.	Lewis Jones	-------------	1938±	Upland ridge.	750
22	3.5 miles east of Maynard.	Joe Rigdon	-------------	-----	do	780
23	3.8 miles south-southeast of Austin.	Arvel Graves	-------------	-----	Upland, head of slope.	760
25	3.9 miles south-southwest of Austin.	Mrs. Annie Pardue	Merdie Morris	1950	Side of hill.	670
26	0.5 mile west of Austin.	B. K. Harrison	Carter and Bostick.	1915	Upland	760
28	Austin	Mrs. T. R. Levisay	-------------	-----	do	760
29	0.5 mile northeast of Austin.	H. E. Long	Garner Jewell	1949	Upland ridge.	760
31	0.4 mile east-northeast of Austin.	G. B. Tracy	-------------	-----	Upland	780
32	0.8 mile southeast of Austin.	Clay Wells	-------------	-----	do	800
34	1 mile south of Austin.	Garland Reneau	-------------	-----	Upland ridge.	800
8600-3650-						
1	4.2 miles east of Gainesville.	J. T. Martin	-------------	-----	Side of hill.	540

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r95	------	Limestone, shaly.	Fp,Cg	r41	1952	J,E	D,S	Reported pumped dry. Chemical analysis in table 10. Log in table 14.
Dr	r58.	------	Limestone	Fp	r50	1951	Cy,H	D	Reported small supply, can be lowered by hand, recovers fairly quickly.
Dr	46.0	6	---do-----	Fp	31.30	6-17-53	Ba,H	D	Reported cased to 45 ft. Temperature 59°F.
Dr	r60	6	----------	-----	-------	--------	Pi,H	D,S	Reported cased to 52 ft.
Dr	r60+	------	----------	-----	-------	--------	Pi,H	U	Pump broken.
Dr	50.1	7	Limestone	Fp	31.29	7-21-53	Ba,H	D	Temperature 59°F.
Dr	r50	6	Mantle and limestone.	Q,Fp	32.76	--do----	Ba,H	D,S	Reported cased to 50 ft.
Dr	58.6	5-3/4	----------	Fp(?)	50.68	--do----	Ba,H	D	Reported cased to 35 ft.
Dr	r135	6	Limestone	Si	90.37	--do----	Ba,H	D	Reported cased to 28 ft. Sulfurous odor. Temperature 63°F. Chemical analysis in table 10.
Dr	r47	6	---do-----	Fp	r41	1915	Ba,H	D	Reported cased to 23 ft. Reported solutional opening at 41 ft.
Dr	------	6	---do-----	Fp(?)	-------	--------	Pi,H	D	
Dr	r70	8	---do-----	Fp	43.71	7-22-53	Ba,H	D	Reported 47 ft to top of water-bearing material. Reported cased to 22 ft. Reported small supply at about 25 ft. Reported low in 1952. Temperature 59°F.
Dr	r50	6	---do-----	Fp	-------	--------	Pi,H	D	
Du	27.8	18	Mantle----	Q	22.21	7-22-53	Ba,H	D	Reported cased to 6 ft. Reported dry in summer.
Dr	r100	6	Limestone	Fp	r95	---do---	Ba,H	D	Supplements cistern. Reported solutional opening at 95 ft.
Dr	24.2	6	Mantle and limestone.	Q,Fp	20.03	6-18-53	Ba,H	D	Temperature 58°F.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8600-3650-						
4	2.8 miles northwest of Austin.	Henry Jones	Lem Roberson	1942±	Top of ridge.	720
6	1.6 miles northwest of Austin.	H.L. Jones		1893	Upland ridge.	740
7	3.2 miles north-northeast of Austin.	H.C. Bush		Dec. 1933	Upland	700
9	3.2 miles north of Austin.	do			do	710
10	2.7 miles north of Austin.	W.M. Borders		1918	do	700
12	1.1 miles northwest of Austin.	Edward Wood	Garner Jewell and Rodney Jewell.	1948	do	750
13	1.4 miles north of Austin.	Louie Williams	Rodney Jewell	1949	Upland ridge.	700
8605-3635-						
3	0.4 mile southeast of Doddy School.	Lucy Luck			do	850
4	do	Lewis R. Williams			Upland	840
11	0.3 mile northeast of Mount Union Church.	James Jones			do	940
12	0.1 mile east of Mount Union Church.	P.A. Gilliam			do	930
14	0.4 mile east of Maple Grove Church.	Mural Meador			do	880
15	0.6 mile southeast of Maple Grove Church.	C.A. Meador			do	880
17	0.8 mile southeast of Maple Grove Church.	Gilbert Trammel			do	860

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r292	------	Limestone	Fp	r70	---------	Ba,H	U	Reported bailed without lowering when completed. Reported plugged back. Abstract log in table 14.
Du	r58	48	Mantle and limestone	Q,Fp	r56	---------	Cy,E	D,S	Reported static water level at 56.5 ft. Cannot be lowered.
Dr	r58	6	----------	Fp(?)	r55	---------	J,E	D	Reported static water level at 55 ft.
Dr	67.5	6	Limestone	Fp	46.56	7–16–53	Ba,H	U	
Dr	47.5	6	---do-----	Fp	41.25	--do-----	Ba,H	D	Reported 18 ft to top of water-bearing material. Reported cased to 18 ft. Reported yield, 12 gpd. Inadequate but permanent.
Dr	r61	6	---do-----	Fp	r49	1948	J,E	D	Reported 30 ft to top of water-bearing material. Reported cased to 30 ft.
Dr	r104	6	---do-----	Fp	r60	1949	J,E	D,S	Reported solutional opening at 60 ft. Reported cased to 40 ft. Reported oily taste occasionally.
Du	r62	40	----------	Fp	r45	4–19–51	Ba,H	D	
Du	42.8	36	----------	Fp	21.34	4–23–51	Ba,H	D	Reported dry in dry summer.
Dr	------	6	----------	-----	------	--------	Ba,H	D	
Du	r20	48	Mantle and limestone.	Q,Fp	r18	6–25–51	Ba,H	D	
Du	r32	42	Mantle----	Q	r25	7–10–51	Ba,H	D	
Du	r31	------	Base of Mantle.	Q	r20	--do----	Ba,H	D	
Du	r40	42	Mantle----	Q	r38	--do----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3635-						
18	0.9 mile southeast of Maple Grove Church.	Roy Morfey			Upland	870
19	do	do			do	870
23	1 mile southeast of Maple Grove Church.	Alton Napier			do	880
24	do	I.E. Napier			do	860
28	1.1 miles southeast of Maple Grove Church.	Orel Vance			do	870
31	0.5 mile southwest of Mount Union Church.	R. B. Trammel			do	870
32	do	do			do	850
43	0.9 mile northwest of Mount Union Church.	John Le Burneley			Side of hill.	800
52	0.4 mile west-northwest of Mount Union Church.	Lena Williams	Mr. Meadows		Upland	850
54	0.4 mile west of Mount Union Church.	Hubert Napier			Hill	850
57	0.4 mile west of Mount Union School.	Mrs. H. Law			Upland	930
58	0.4 mile west-southwest of Mount Union School.	John Austin			do	920
59	0.4 mile southwest of Mount Union School.	H. Austin			do	930
61	0.5 mile south-southwest of Mount Union School.	W.L. Law			do	870
62	0.7 mile south of Mount Union School.	A.B. Law			do	870
65	0.8 mile southeast of Mount Union School.	O.W. Napier			do	850
67	0.9 mile southeast of Mount Union School.	do			do	860

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Du	r45	42	----------	Fp	r39	7-10-51	Ba,H	D	
Du	r45	42	----------	Fp	r36	--do-----	Ba,H	D,S	
Du	r32	48	Mantle----	Q	------	--------	Ch,H	D	
Du	r35	------	Base of mantle.	Q	r29	7-10-51	Ba,H	D	
Du	r30	------	Mantle----	Q	r28	7-11-51	Ba,H	D	
Dr	r70	6	Limestone	Fp	36.77	--do-----	Ba,H	D	
Du	35.6	42	Mantle----	Q	27.15	--do----	Ba,H	D	
Dr	r200	8	Limestone	Si	(b)	7-31-51	Fl	To	Flows ½ gpm. Sulfurous odor. Temperature 61°F.
Dr	r50	6	---do-----	Fp	r44	--do-----	Ba,H	D	Reported casing partly caved.
Du	r40	42	Mantle---	Q	r38	--do-----	Ba,H	D	
Du	r18	42	---do-----	Q	r14	--do-----	Ba,H	D	Temperature 57°F.
Du	r16	42	---do-----	Q	r7	--do-----	Ba,H	D	
Du	r18	42	---do-----	Q	r14	--do-----	Ba,H	D	
Du	r60	48	----------	-----	------	--------	E	D,S	
Du	r40	36	----------	Fp	r35	7-31-51	E	D	
Du	r40	42	Mantle ---	Q	r28	--do----	Ba,H	D	
Du	r38	------	Limestone	Fp	r35	--do----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3635-						
70----	1 mile southeast of Mount Union School.	S.I. Napier--------	--------------	------	Upland	850
73----	0.8 mile north of Mount Union Church.	J.A. Keen---------	--------------	-----	--do---	900
75----	0.5 mile north-northeast of Mount Union Church.	Raymond Meador ---	--------------	-----	--do---	900
76----	------do---------	Fletcher Gilliam ---	--------------	-----	--do---	900
78----	0.3 mile northeast of Mount Union Church.	W.A. Mann--------	--------------	-----	--do---	920
80----	0.2 mile northeast of Mount Union Church.	Lester McGuffey ---	--------------	-----	--do---	920
81----	0.1 mile east-southeast of Mount Union Church.	Marlin Johnston----	--------------	-----	--do---	940
83----	Mount Union School.	Mount Union School-	--------------	-----	--do---	910
84----	0.2 mile southeast of Mount Union School.	J.M. Jones- -------	--------------	-----	--do---	860
85----	------do---------	------do---------	--------------	-----	--do---	850
88----	0.1 mile west-southwest of Mount Union School.	H.A. Oaks--------	--------------	-----	--do---	920
90----	0.2 mile east-northeast of Mount Union School.	Vadie Shaw--------	--------------	-----	--do---	860
92----	0.4 mile east-southeast of Mount Union School.	Bert Blankenship---	--------------	-----	--do---	860
96----	0.5 mile east of Mount Union School.	Wayne Cockerel----	--------------	-----	--do---	850
98----	0.2 mile north of Mount Union School.	Henry Clyburne ----	--------------	-----	--do---	890
100----	0.6 mile east of Mount Union School.	Wilbert Meador- ---	--------------	-----	--do---	850

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r34	42	Limestone	Fp	r30	7–31–51	Ba,H	D	
Dr	53	6	---do-----	Fp	45.34	8– 1–51	Ba,H	D	
Du	r20	40	----------	Fp	r17	--do-----	Ba,H	D	
Du	r30	42	----------	Fp	r25	--do-----	Ba,H	D	
Du	r26	36	----------	Fp	r23	--do-----	Ba,H	D	
Du	r21	36	Mantle----	Q	18.0	--do-----	Ba,H	D	
Dr	59.5	6	Limestone	Fp	51.53	8–3–51	Ba,H	O	Hydrograph in figure 12.
Du	23.0	32	Mantle----	Q, Fp	10.66	--do-----	Ba,H	P	Temperature 65°F. Chemical Analysis in table 10.
Dr	r71	6	Limestone	Fp	r36	--do-----	E	D	
Dr	r76	6	---do-----	Fp	47.1	--do-----	Ba,H	U	Iron content objectionable.
Dr	r26	6	Mantle ----	Q	r18	--do-----	Ba,H	D	
Du	33.8	42	----------	Fp	27.9	--do-----	Ba,H	D	
Du	r50	32	Limestone	Fp	r43	--do-----	Ba,H	D	Reported solutional opening at 50 ft.
Dr	r50	6	----------	Fp	r42	--do-----	Ba,H	D	Log in table 14.
Du	------	------	----------	Fp(?)	------	----------	----	U(?)	
Du	r42	36	Mantle----	Q	r37	8– 3–51	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3635-108	0.8 mile east of Mount Union School.	Carline Meador			Hill upland	830
110	0.9 mile east of Mount Union School.	Murl Pearson			do	830
111	0.3 mile north-northeast of Mount Union School.	G.T. Jones			do	870
113	0.5 mile north-northwest of Mount Union School.	W.L. Hurl			do	920
114	0.7 mile north of Mount Union School.	G.B. Keen			do	870
116	1 mile north-northwest of Mount Union School.	Garland Austin			do	900
117	0.9 mile north-northwest of Mount Union School.	J. C. Keen			do	900
119	0.8 mile north-northwest of Mount Union School.	Leslie Huntsman		1951	do	900
121	Northeast corner of Amos cross-roads.	T.G. Binnion			do	840
122	1.2 miles south-southwest of Amos.	H.W. Law		1923±	do	880
124	0.1 mile south-southwest of Amos.	Oather Loyd		1917±	do	840
125	do	do	Robert Marcum	Aug. 1952	do	840
126	0.2 mile south-southwest of Amos.	Bud Shuffitt	do	1952	Edge of upland	840
128	0.2 mile west of Amos.	Clarence White			Upland	830

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r36	24	---------	Fp	r32	8- 3-51	Ba,H	D	
Du	r60	30	Limestone	Fp	r53	--do-----	Ba,H	D,S	
Du	r50	42	Mantle----	Q	r42	--do-----	Ba,H	D,S	
Dr	r60	6	Limestone	Fp	r50	--do-----	Ba,H	D	
Dr	43	6	----------	Fp	29.58	--do-----	Ba,H	D	
Dr	r35	6	----------	Fp	r18	--do-----	Ba,H	D	
Du	r30	30	----------	Fp	r25	--do-----	Ba,H	D	
Du	r24	40	Mantle----	Q	r20	--do-----	Ba,H	D	
Du	30.0	18 x 30	---do-----	Q, Fp	.95	12- 5-51	Ba,H	D,P	Temperature 55°F. Chemical analysis in table 10.
Du	30	36	---do-----	Q, Fp (?)	26.36	5- 7-53	Ba,H	D	Reported can be drawn dry, recovers overnight. Temperature 56°F.
Du	40	------	---do-----	Q	5.73	--do-----	Cy,H	D	Reported insufficient in 1952.
Dr	r61	6	Limestone	Fp	22.23	--do-----	J,E	D	Reported 58 ft to top of water-bearing material. Reported cased to 58 ft. Reported has been pumped dry with ¼ hp jet electric pump.
Dr	r60	6	---do-----	Fp	r52	--do-----	Ba,H	D	
Du	34.7	48	Mantle and limestone	Q, Fp	28.93	5- 8-53	Ba,H	D,S	Iron taste. Temperature 55°F.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3635-						
130	0.9 mile northwest of Amos.	Mrs. Ora Tracy		1904±	Upland ridge.	820
132	1.2 miles west-northwest of Amos.	Oscar Mann	Robert Marcum	Oct. 1951	do	800
134	1.2 miles west of Amos.	L.R. Lawrence			Base of hill.	650
8605-3640-						
1	0.6 mile northwest of Bellwood School.	J.A. Brashear			Top of hill.	840
2	0.3 mile northwest of Bellwood School.	R.A. King			Upland	840
3	do	do			do	840
7	0.5 mile northeast of Bellwood School.	W.B. Hanes			do	870
8	0.7 mile northeast of Bellwood School.	Olen Brown			do	870
10	0.9 mile north of Bellwood School.	M.J. Howard			do	820
13	1.1 miles north of Bellwood School.	Harry Sears			do	840
23	0.6 mile west-northwest of Pleasant Field School.	Hoy Clino			do	830
24	0.8 mile northwest of Pleasant Field School.	Sid Neighbor			do	800
25	0.9 mile northwest of Pleasant Field School.	E.D. Napier			In valley.	770
26	do	E.C. Jones			do	780
28	0.4 mile west of Pleasant Field School.	Jerrel Minnicks			Upland	840

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r65	6	Mantle and limestone	Q,Fp	48.64	5–8–53	Ba,H	D	
Dr	r105	6	Limestone and shale	Fp, Cg	97.72	--do-----	Ba,H	D	Reported 21 ft to top of water-bearing material. Reported cased to 22 ft. Reported water at 80 ft top of shale. Log in table 14.
Dr	r35–40	4	Limestone	Si	r30	5–12–53	None	U	Reported formerly used for domestic purposes.
Du	29	40	Mantle----	Q	24.0	7–21–50	Ba,H	D	
Dr	32.6	6	Limestone	Q,Wa	27.9	--do-----	Ba,H	D,O	Reported 122 ft deep. Temperature 58°F. Chemical analysis in table 10. Hydrograph in figure 17.
Du	r30	40	Mantle----	Q	24.05	--do-----	Ba,H	D	Dry in dry summers.
Du	r27	36	---do-----	Q	r5	9–25–50	Ba,H	D	
Dr	r58	6	Limestone	Wa	r28	--do-----	E	D	
Dr	r66	6	---do-----	Fp	r46	--do-----	Ba,H	D	
Du	30.0	36	Mantle----	Q	15.95	--do-----	Ba,H	S	
Dr	r61	6	Limestone	Wa	32.47	9–28–50	Ba,H	D	
Dr	r90	6	---do-----	Fp	36.62	--do-----	Ba,H	D	
Dr	30.5	6	---do-----	Fp	25.33	--do-----	H	D,S	
Du	28.0	48	Mantle----	Q	23.18	--do-----	Ba,H	D	
Du	r53	42	----------	Fp	r48	--do-----	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-						
29	0.4 mile northeast of Bellwood School.	Jack Wilson			Upland	890
31	0.3 mile southwest of Pleasant Field School.	Robert Howard			do	840
32	0.4 mile southwest of Pleasant Field School.	Boy Jones			do	830
33	1 mile northwest of Pleasant Field School.	S.L. Fitzpatrick			In hollow.	750
35	0.9 mile northwest of Pleasant Field School.	V. Garmon			do	760
36	do	do			do	750
37	1.1 miles northwest of Pleasant Field School.	Lewis Howell			Side of hill.	760
39	0.4 mile southwest of Pleasant Hill Church.	F.H. Brown and J.E. Brown			Upland	860
42	0.3 mile south of Pleasant Hill Church.	do			do	840
43	0.7 mile west of Pleasant Field School.	Herbert Moore	Britt and Jackson.		do	800
44	0.9 mile south of Pleasant Hill Church.	J. Moore			do	850
46	1 mile south of Pleasant Hill Church.	F.E. Bradley			In valley.	840
47	1.2 miles south of Pleasant Hill Church.	Jim Barton			Upland	910
51	1.5 miles southeast of Pleasant Hill Church.	Hubert Ransom			do	810
54	1.5 miles east of Mount Carmel Church.	W.H. Long			do	840
58	0.7 mile southeast of Pleasant Hill Church.	J.R. Mayhew			do	840

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	28.4	------	Mantle----	Q	15.14	9–28–50	Ba,	D,S	
Dr	44	6	Limestone	Wa	17.57	--do-----	Ba,H	D	
Du	24	------	Mantle----	Q	r16	--do-----	E	D,S	
Dr	r50	6	Limestone	Fp	20.62	10– 1–50	None	U	Sulfurous.
Dr	r58	6	---do-----	Fp	r18	--do-----	Ba,H	D	
Du	r14	------	Mantle----	Q	------	---------	None	S	Reported polluted with surface water.
Dr	61	6	Limestone	Fp	44.87	10– 9–50	Ba,H	O	Sulfurous. Hydrograph in figure 13.
Dr	r70	6	---do-----	Wa	45.17	10– 2–50	None	U	
Du	8.1	12	---do-----	Wa	4.12	--do ----	E	D,S	Reported uses 400 gpd. Reported solutional opening at 8 ft.
Dr	r486	------	---do-----	-----	------	---------	-----	To	Log in table 14.
Du	31.5	------	Mantle----	Q	------	---------	Ba,H	D,S	
Du	7.5	------	---do-----	Q	5.9	10– 3–50	Ba,H	D,S	
Du	23.8	48	---do-----	Q	17.35	--do-----	Ba,H	D	
Dr	r50	6	Limestone	Fp	r43	--do-----	Ba,H	D,S	
Dr	34.0	6	---do-----	Fp	20.77	--do-----	Ba,H	D	
Dr	r82	6	---do-----	Fp	r60	--do-----	Cy,W	D,S	Reported solutional opening at 60 ft. Temperature 58°F. Chemical analysis in table 10.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-						
59	0.9 mile southeast of Pleasant Hill Church.	J.R. Mayhew			Side of hill.	870
60	0.9 mile east-southeast of Pleasant Hill Church.	do			Upland	850
61	1 mile southeast of Pleasant Hill Church.	Porter Matthews			do	860
62	0.8 mile east of Pleasant Field School.	J.R. Mayhew	F.E. Morgan	1950	do	820
63	0.2 mile north of Pleasant Field School.	Stella McDaniel			In hollow.	820
64	0.4 mile north of Pleasant Field School.	Charlie Bewley			Upland	820
65	do	do			do	820
66	0.8 mile north of Pleasant Hill Church.	Albert Mays			do	780
70	0.9 mile north of Pleasant Field School.	Eldon Hendricks			do	800
73	1.5 miles northwest of Pleasant Field School.	Rupert Miller			do	860
74	1.5 miles north-northwest of Pleasant Field School.	A.D. Wade			do	860
75	1.7 miles north-northwest of Pleasant Field School.	do			do	780
76	1.5 miles north-northwest of Pleasant Field School.	Virgil Burnley			do	840
78	1.4 miles north-northwest of Pleasant Field School.	James Burnley		1950	In hollow.	760
79	1.4 miles north of Pleasant Field School.	C.A. Sarver			Upland	810
81	1 mile west of Chestnut Point School.	Roscoe Dillahay			do	820

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	------	6	Limestone	Wa	r48	10– 3–50	None	U	Reported solutional openings at 48 and 60 ft.
Dr	79.7	6	---do-----	Fp	44.31	--do-----	None	O	Hydrograph in figure 12.
Dr	81.0	6	---do-----	Fp	35.53	--do-----	Ba,H	D	
Dr	r360	6	---do-----	-----	r145	--do-----	-----	To	Dry hole. Log in table 14.
Du	11.1	------	Mantle----	Q	4.03	10– 4–50	Ba,H	D,S	
Dr	r37	6	----------	Fp	21.97	--do-----	Ba,H	D	Reported sulfurous.
Dr	r50	6	Limestone	-----	Dry	--do-----	None	U	
Du	37.0	42	----------	Fp	33.38	--do-----	Ba,H	D	
Dr	63.0	6	Limestone	Fp	56.79	--do-----	Ba,H	U	Sulfurous odor.
Du	r23	42	Mantle----	Q	r21	--do-----	Ba,H	D,S	
Dr	84.5	------	Limestone	Wa	73.43	--do-----	Ba,H	D	
Du	r15	42	Mantle----	Q	r10	--do-----	None	U	
Dr	51.5	6	Limestone	Wa	44.62	10– 9–50	Ba,H	D	
Dr	------	------	----------	Fp	------	---------	Ba,H	D,S	
Dr	r59	6	Limestone	Fp	r50	10– 9–50	Ba,H	D	
Dr	58.6	6	---do-----	Wa	35.52	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet
8605-3640-						
82	0.7 mile west of Chestnut Point School.	John Neighbors			Side of hill.	780
83	0.6 mile west of Chestnut Point School.	Emmit Lyle			do	740
84	do	Melvin Wheat			In hollow.	730
85	0.4 mile southwest of Chestnut Point School.	Jim Cushenberry			Side of hill.	730
95	0.4 mile south-southeast of Chestnut Point School.	A.B. Miller			Upland	800
96	0.5 mile southeast of Chestnut Point School.	do			In broad sink-hole.	800
98	do	do			do	800
99	0.7 mile southwest of Mount Carmel Church.	Jesse Steenbergen			Upland	850
106	0.5 mile southwest of Mount Carmel Church.	Raymond Carver			do	860
107	Bellwood School.	F.E. Bradley			do	870
108	0.2 mile west of Mount Carmel Church.	Loren D. Howard			do	890
111	0.2 mile south of Mount Carmel Church.	Donie Hagan			Side of hill.	870
112	1.6 miles north-northwest of Pleasant Field School.	Cortez Gumm			Upland	820
114	0.3 mile northwest of Pleasant Field School.	J.E. Whitney			In hollow.	810
115	0.2 mile northwest of Pleasant Field School.	Stella McDaniel	Robert Marcum		Upland	840
116	0.4 mile north-northeast of Pleasant Hill Church.	Allen County Court			Side of hill.	790
118	0.7 mile east of Pleasant Hill Church.	W.A. Douglas			Upland	800

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	59.0	6	Limestone	Fp	39.7	10- 9-50	Ba,H	D,S	Reported solutional opening at 48 ft.
Dr	43.0	6	---do-----	Fp	29.88	10-30-50	Ba,H	D	
Dr	r30	6	----------	Fp	r12	10-10-50	Ba,H	D	
Dr	r105	6	Limestone	Fp	38.9	--do-----	Ba,H	D,O S	Sulfurous. Temperature 58°F. Hydrograph in figure 15.
Dr	96.6	6	---do-----	Fp	68	--do-----	Ba,H	U	
Dr	35.6	8	---do-----	Fp	14.2	--do-----	None	U	Used as drain for sinkhole.
Dr	(?)	6	---do-----	Fp	------	---------	None	U	Do.
Du	55	42	----------	Fp	r48	10-18-50	H	D,S	
Du	r45	42	Mantle----	Q	r38	--do-----	H	D	
Du	31.9	42	---do-----	Q	15.8	10-25-50	Ba,H	D	
Dr	36.7	6	----------	Wa	19.00	--do-----	Ba,H	D	
Dr	r32	6	----------	Fp	20.86	--do-----	Ba,H	D	
Dr	r45	6	Limestone	Wa	r35	10-30-50	E	D	
Dr	r65-100	6	---do-----	Fp	------	---------	----	D	
Dr	r45	6	---do-----	Wa	13.86	4-12-51	Ba,H	D	
Dr	------	6	---do-----	Fp	------	---------	H	D	
Dr	r63	6	---do-----	Fp	r49	4-12-51	E	D,S	Reported water at 52 ft.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-						
124	1 mile east-northeast of Pleasant Hill Church.	Robert Whitlow			Top of hill.	840
127	1 mile east of Pleasant Hill Church.	R.O. Kennedy			Side of hill.	820
128	0.6 mile northwest of Pleasant Field School.	Lewis Cole			Hill	790
129	0.6 mile north-northwest of Pleasant Field School.	do			do	830
130	0.5 mile northwest of Pleasant Field School.	Willie Lyles	Robert Marcum		Upland	800
131	0.4 mile northwest of Pleasant Field School.	Byrd Cole			Side of hill.	830
137	0.6 mile south-southeast of Mount Carmel Church.	John I. Stone			Upland	895
138	do	Hubert Likens and Sarah Likens.			do	880
140	0.7 mile south-southeast of Mount Carmel Church.	Earl Mitchel			do	910
141	0.8 mile south-southeast of Mount Carmel Church.	Nettie Thomas	E.C. Neil		do	880
142	0.7 mile southeast of Mount Carmel Church.	W.A. Carpenter			do	900
146	0.5 mile east-southeast of Mount Carmel Church.	J.W. McCoy			Top of hill.	960
147	0.2 mile northeast of Mount Carmel Church.	Ed Bradley			Upland	900
148	0.4 mile east of Mount Carmel Church.	Carline Jones			do	940
149	0.5 mile east of Mount Carmel Church.	Randall Hanes			do	950

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r50–60	6	Limestone	Fp	r30	4–12–51	-----	D	
Dr	49.5	6	---do----	Fp	26.25	--do-----	Ba,H	D	
Du	r36	40	Mantle---	Q	r28	4–18–51	E	S	Reported water from base of mantle.
Dr	r49	6	Limestone	Fp	r35	--do-----	Ba,H	S	
Dr	r50	6	---do----	Fp	r15	--do-----	Ba,H	D,S	
Dr	r60	6	---do----	Wa	r15	--do-----	None	U	
Du	22.0	36	Mantle---	Q	11.55	--do-----	Ba,H	D	
Du	12.8	48	---do----	Q	2.24	--do-----	Ba,H	D	
Dr	r30	6	---------	Wa	r20	--do-----	Ba,H	D,S	
Dr	r36	8	Limestone	Wa	11.98	--do-----	Ba,H	D,S	
Du	r26	36	Mantle---	Q	r20	--do-----	Ba,H	D	
Du	r40	40	---------	Wa	r30	--do-----	Ba,H	D,S	
Dr	47.0	6	Limestone	Wa	18.60	4–19–51	Ba,H	D	
Du	27.5	40	Mantle---	Q	17.60	--do-----	Ba,H	D	
Dr	47.0	6	Limestone	Wa	26.65	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-150	0.9 mile south-southeast of Mount Carmel Church.	Mrs. Josie Chandler			Upland	880
151	0.9 mile southeast of Mount Carmel Church.	W.E. Rather			do	880
152	1.3 miles east-southeast of Mount Carmel Church.	John Tinsley			do	820
160	0.1 mile northeast of Doddy School.	M.D. Mitchel			do	860
161	0.2 mile north-northwest of Doddy School.	L.B. Hudson			do	860
162	0.1 mile north-northwest of Doddy School.	Mrs. W. Oberhoffken			do	850
163	do	A. Chevalley			do	860
170	0.3 mile north of Doddy School.	Charles Elmore			do	860
171	0.3 mile north-northwest of Doddy School.	W.H. Boyd			do	860
173	0.4 mile north-northwest of Doddy School.	do			do	860
174	0.5 mile north-northwest of Doddy School.	V.W. Hudson			do	870
175	0.6 mile north-northwest of Doddy School.	Fernie Chandler	Robert Marcum		do	870
176	0.7 mile north-northwest of Doddy School.	W.M. Yokley			do	880
179	0.6 mile north-northwest of Doddy School.	V.J. Long			do	880
180	0.8 mile north-northwest of Doddy School.	O.D. Jones			do	880
181	0.7 mile north-northwest of Doddy School.	Billy Ray Marsh			do	880
182	0.7 mile northwest of Doddy School.	H. Hudson			do	870

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r60	6	Limestone	Fp	r40	4-19-51	Ba,H	D	
Dr	41.5	6	---do-----	Fp	31.70	--do-----	Ba,H	D	
Dr	r35	6	---do-----	Fp	r28	--do-----	Ba,H	D	
Dr	r79	6	---do-----	Fp	r23	--do-----	H	D	
Dr	r45	6	---do-----	Fp	r36	--do-----	Ba,H	D	
Dr	r60	6	---do-----	Fp	r45	4-23-51	J,E	D	
Dr	r77	6	---do-----	Fp	r40	--do-----	J,E	D,S	Reported water at 40 and 72 ft.
Dr	r70	6	---do-----	Fp	r50	--do-----	Ba,H	D	
Du	r54	42	----------	Fp	r48	--do-----	Ba,H	D	
Dr	72.0	6	Limestone	Fp	49.28	--do-----	Ba,H	D	
Du	r33	48	Mantle----	Q	r28	--do-----	Ba,H	D,S	
Dr	r43	6	Limestone	Fp(?)	r26	--do-----	Ba,H	D	
Du	20.0	36	Mantle----	Q	2.75	--do-----	Ba,H	D	
Du	r20	------	---do-----	Q	r13	--do-----	Ba,H	D	
Dr	r65	8	Limestone	Fp(?)	r45	--do-----	Ba,H	D	
Dr	r75	6	---do-----	Fp(?)	------	---------	-----	D	
Du	r40	36	Mantle----	Q	r20	4-23-51	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-						
184	0.8 mile west-northwest of Doddy School.	Estil Hanes			Upland	850
185	do	Bascomb Halloway			do	860
186	0.9 mile northwest of Doddy School.	Neal Turner			do	850
188	0.5 mile southeast of Mount Carmel Church.	W.G. Dorsey			Top of hill.	960
190	0.6 mile east of Pleasant Grove Church.	F.D. Glover			Upland	880
191	0.6 mile east-northeast of Pleasant Grove Church.	do			do	860
193	0.6 mile east of Pleasant Grove Church.	Warner Dalton			do	880
195	0.7 mile east of Pleasant Grove Church.	W.J. Wheat			do	880
199	0.8 mile south-southeast of Mount Carmel Church.	R. Dukes			do	880
200	do	do			In hollow.	860
202	0.1 mile southeast of Doddy School.	Jack Marsh			Upland	860
205	0.1 mile northwest of Pleasant Grove Church.	Elvis Douglas			do	840
210	0.3 mile northwest of Pleasant Grove Church.	M.N. Vinson			do	820
213	0.5 mile north-northwest of Pleasant Grove Church.	W. Vinson			do	880
216	0.9 mile west-northwest of Pleasant Grove Church.	Carl Minnicks			do	830
217	0.7 mile west-northwest of Pleasant Grove Church.	George Gilliam			do	850
218	do	do			do	840

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Results
Du	r45	------	Mantle----	Q	r10	--do-----	None	U	
Du	r53	40	----------	Fp	r43	--do-----	H	D	
Du	41.0	36	----------	Fp(?)	28.40	--do-----	Ba,H	D,S	
Du	r25	70	Mantle----	Q	r17	4–24–51	E	D	
Du	r20	36	---do-----	Q	r6	4–25–51	Ba,H	D	
Du	r19	40	---do-----	Q	r7	--do-----	Ba,H	D	
Du	r25	48	---do-----	Q	r5	4–24–51	Ba,H	D	
Dr	r40	6	----------	Wa	r15	4–25–51	Ba,H	D	
Dr	r33	6	----------	Wa	r21	--do-----	Ba,H	D	
Du	r15	36	Mantle----	Q	Fl	--do-----	Fl	S	Reported flow, 5 gpm.
Du	r95	6	Limestone	Fp	r70	4–19–51	Ba,H	D	
Dr	r76	6	---do-----	Fp	r53	5– 1–51	Ba,H	D	
Dr	r45	6	----------	Fp	r34	--do-----	Ba,H	D	
Dr	r75	6	Limestone	Wa	r65	5– 1–51	Ba,H	D	
Du	r65	42	----------	Fp	r45	5– 7–51	Ba,H	D	
Du	r30	------	Mantle----	Q	Fl	1–19–51	Fl	U	Reported flows in winter.
Du	r40	42	----------	Fp	r35	5– 7–51	None	U	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-						
223	0.7 mile east of Austin School.	Mrs. Sarah Dalton			Upland	860
224	0.5 mile east of Austin School.	O.O. Alexander			do	880
226	1 mile west of Doddy School.	W.E. Alexander			do	880
229	0.2 mile east of Austin School.	George Jones			do	870
230	Austin School	Allen County School Board.			do	870
231	0.1 mile east of Austin School.	N.P. Calvert			do	870
234	0.3 mile west-northwest of Austin School.	Clarence Gilliam			do	870
239	0.2 mile west of Austin School.	Delbert Blankenship			do	860
240	0.4 mile southwest of Austin School.	Sam Linville			do	830
241	0.5 mile east-southeast of Austin School.	J.W. Graves			do	870
242	do	do			do	870
243	0.6 mile east-southeast of Austin School.	do			do	860
244	1 mile southeast of Mount Carmel School.	Mrs. D. Slayton			Side of hill.	860
245	1.2 miles southeast of Mount Carmel Church.	Mrs. Laura Simmons.			Upland	900
246	1.7 miles southeast of Pleasant Field School.	Molly Brown	Arcie Keen	1952	Edge of upland.	900
247	2.7 miles northwest of Amos.	M.R. Mitchell		1945	Upland ridge.	820
249	2.5 miles northwest of Amos.	G.L. Lyles		1800's	Upland	840
254	2.2 miles southwest of Holland.	Prentice Law		1944	Upland ridge.	800
258	2 miles northwest of Holland.	L.E. Cliburn	John Eaton		Upland	790
259	2.1 miles west-northwest of Holland.	N.S. Shaw	James Marsh	July 1952	Upland ridge.	820

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r60	42	Mantle---	Fp	r54	5- 9-51	Ba,H	D	
Dr	r50	6	Limestone	Fp	r43	--do-----	Ba,H	U	Sulfurous odor.
Du	r27	60	Mantle---	Q	r17	--do-----	E	D	Pump capacity, 6 gpm.
Du	r55	42	---------	Fp	r51	--do-----	Ba,H	D	
Du	r55	42	---------	Fp	r25	--do-----	Ba,H	P	
Du	r20	36	Mantle---	Q	r12	5-16-51	Ba,H	D	
Du	r50	42	---------	Fp	r47	--do-----	Ba,H	D	
Dr	r35	6	---------	Fp	r30	6-25-51	Ba,H	D	Reported cased to 8 ft.
Du	r38	40	Mantle---	Q	28.18	7-10-51	Ba,H	D,S	
Dr	r24	6	Limestone	Fp	r12	8- 1-51	Ba,H	D	
Dr	r36	6	---do----	Fp	r12	--do-----	Ba,H	D	
Dr	r110	8	Limestone	Fp	r50	--do-----	None	S	Salty.
Dr	r76	6	---do----	Fp	r56	5- 1-51	Ba,H	D,S	
Du	r40	40	---do----	Wa	r34	--do-----	Ba,H	D	
Dr	r380	8	---do----	Fp	------	--------	None	To	Reported 47 ft to top of water-bearing material.
Dr	r72	6	Mantle and limestone.	Q,Fp	r59	1945	Ba,H	D	Reported can be lowered by bailing during summer.
Du	r65	------	Limestone	Fp	r61	--------	Ba,H	D,S	
Dr	r109	8	---do-----	Fp	93.02	5- 1-53	Ba,H	D	
Du	28.0	------	---do-----	Fp	14.41	4-16-53	-----	D	Reported occasionally dry in summers. Reported dug as cistern.
Dr	r74	6	---do-----	Fp	40.45	5- 5-53	Ba,H	D	Reported soil 41 ft deep. Reported cased to 41 ft. Reported yield, 10 gph. Muddy after rains.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3640-262	2.2 miles west-northwest of Holland.	Milburn Holland	James D. Marsh	1950	Upland ridge.	820
270	1.8 miles west of Holland.	Travis Kennedy			Upland	810
272	2.6 miles west-southwest of Holland.	C.C. Stinson			do	820
274	1.1 miles north-west of Amos.	Edmun Bradley		1925–30	do	800
276	3.3 miles east of Scottsville.	Everett Spencer	Henry Hood	1952	do	800
277	3.4 miles east of Scottsville.	M.H. Spencer	Mr. Davenport		do	800
278	3 miles northwest of Holland.	Jesse Calvert	Robert Marcum	1950	Upland ridge.	860
280	2.3 miles north-west of Holland.	Roy Calvert	Jack Barlow	1948	Upland	820
281	2.9 miles north-west of Holland.	Max Morgan		1930±	do	800
284	3.6 miles north-northwest of Holland.	Tommy Farley			do	810
285	3.3 miles north-northwest of Holland.	Lester Clay			do	800
287	1.4 miles north-west of Holland.	Ora Denton	Jack Barlow	1946	do	780
8605-3645-1	0.8 mile southeast of Harrison School.	Jesse York			do	800
4	1.2 miles east-southeast of Harrison School.	Tom Fisher			do	810

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	138.9	6	Limestone	Fp	79.99	5- 5-53	Ba,H	D	Reported drilled dry, filled with water later. Reported rose 40 ft first night after being bailed dry.
Dr	56.0	6	Mantle and limestone.	Q,Fp	51.41	5- 6-53	Ba,H	S	
Dr	51.0	6	Limestone	Fp	35.71	--do-----	Ba,H	D	
Dr	58.0	6	---do-----	Fp	47.69	5- 8-53	Ba,H	U	Source, base of Fort Payne chert.
Dr	r45	6	Mantle and limestone.	Q,Fp	r6-8	---------	Ba,H	D,S	Reported soil to 33 ft, mud cave 37-39 ft. Reported yield, 13 gpm.
Dr	r55	10	---do-----	Q,Fp	11.65	5-13-53	Ba,H	D,S	Reported cased to 45 ft. Temperature 57°F. Chemical analysis in table 10.
Dr	r76	6	Limestone	Fp	r40±	1950	J,E	D,S	Reported cased to 30 ft. Reported five dry holes on farm; possibly too shallow. Chemical Analysis in table 10.
Dr	r86±	6	---do-----	Fp	r75±	---------	J,E	D,S	Reported cased to 25 ft. Reported overnight pumping with ½ hp. pump will drain well.
Du	27.2	24	Mantle----	Q	15.52	5-22-53	Ba,H	D	
Dr	61.5	6	Limestone	Fp	42.75	6- 2-53	Ba,H	D,S	Sulfurous at bottom of well.
Dr	44.2	6	---do-----	Fp	27.92	--do-----	Ba,H	D,S	Temperature 58°F.
Dr	r154	------	---do-----	Fp	r139±	---------	Pi,E	S	Supplies 8,000 turkeys. Log in table 14.
Dr	53.6	6	---do-----	Sl	9.65	9-12-50	Ba,H	D	Reported hard.
Dr	r40	6	---do-----	Wa	r30	--do-----	H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3645-						
5	1.1 miles east-southeast of Harrison School.	Tom Fisher			Upland	810
7	1.4 miles southeast of Harrison School.	Henry Holland			do	800
13	At Chestnut Point School.	Allen County School Board.			do	790
14	0.1 mile east-southeast of Chestnut Point School.	Harsh Martin			do	780
15	3,000 ft east of Chestnut Point School.	Less Mays			do	800
16	0.3 mile east of Chestnut Point School.	D.C. Johnson			do	790
20	0.1 mile south of Bethlem Church.	Buford Perkins			In valley.	680
21	0.2 mile south-southeast of Bethlehem Church.	Reed Cushenberry			Side of hill.	720
22	0.4 mile southeast of Bethlehem Church.	Mrs. Pearl Sikes			In hollow.	780
23	0.2 mile southeast of Bethlehem Church.	do			do	730
25	0.5 mile southeast of Bethlehem Church.	Robert Farley			Side of hill.	810
26	0.6 mile southeast of Bethlehem Church.	Mrs. Pearl Sikes			do	820
27	0.8 mile southeast of Bethlehem Church.	R.C. Petty			Upland	850
34	1.5 miles east of Jefferson School.	E.M. Hogue			do	820
36	1.3 miles east-southeast of Jefferson School.	Hobart Lyles			do	820
37	1.6 miles southeast of Jefferson School.	Marvin Wood			do	840
38	1.6 miles east of Bethlehem Church.	Floyd Britt			Side of hill.	780

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r110	6	Limestone	Wa	r20	9-12-50	E	D	
Dr	r82	6	---do-----	Wa	r78	--do----	E	D,S	
Dr	43.8	6	---do-----	Fp	39.48	10-10-50	Ba,H	P	
Dr	66	6	---do-----	Fp	54.60	--do----	Ba,H	U	Reported sulfurous.
Dr	r200	6	---do-----	Fp	33.88	--do----	Ba,H	U	Reported salty.
Dr	31.3	6	---do-----	Fp	27.26	--do----	Ba,H	D	
Dr	r25	6	---do-----	Fp	10.3	10-12-50	Ba,H	D	
Dr	r55	6	---do-----	Fp	r35	--do----	Ba,H	D,S	
Dr	r100	6	---do-----	Fp	r65	--do----	Ba,H	D	Reported hard, sulfurous, and some oil present.
Dr	r75	6	---do-----	Fp	r60	--do----	H	S	
Dr	r50	6	---do-----	Wa	------	--------	H	D	
Du	16.9	------	Mantle----	Q	5.57	10-12-50	Ba,H	U(?)	
Dr	71.8	6	Limestone	Wa	40.56	--do----	Ba,H	D	
Dr	r72	6	---do-----	Wa	r58	--do----	Ba,H	D	
Dr	44.8	6	---do-----	Wa, Fp	29.25	--do----	Ba,H	D,S	Temperature 58°F. Chemical analysis in table 10.
Du	23.5	-------	Mantle----	Q	20.1	--do----	Ba,H	D	
Dr	52.8	6	Limestone	Fp	35.43	--do----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3645-						
41	0.8 mile east-northeast of Bethlehem Church.	Coy Meadows			Upland	820
42	1.4 miles east-northeast of Bethlehem Church.	W.E. Lamb			Side of hill.	810
44	1.2 miles south of Jefferson School.	Wm. Medley			Upland	860
49	South side of Tompkinsville Rd., 1.3 miles east of courthouse.	Leon Whitlow			do	800
52	South side of Tompkinsville Rd., 1.8 miles east of courthouse.	Rebecca Grubb			In valley.	700
53	North side of Tompkinsville Rd., 1.8 miles east of courthouse.	Toy Douglas			Side of hill.	710
58	0.5 mile south of Jefferson School.	Jim Fisher			Upland	820
62	0.4 mile south of Jefferson School.	B.H. Elmore			do	840
64	1.5 miles east of courthouse.	E.H. Douglas			do	780
67	1.4 miles east-northeast of courthouse.	Amy Spearman			do	760
71	1 mile northeast of Bethlehem Church.	Marvin Wood			do	840
84	0.8 mile north of Jefferson School.	H.H. Willoughby			do	680
86	0.9 mile north of Jefferson School.	do			do	750
92	1.1 miles northeast of Jefferson School.	C.F. Shipley			do	690

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	46.5	6	Limestone	Wa	16.50	10–12–50	Ba,H	D	
Dr	82.0	6	---do-----	Fp	59.72	--do-----	Ba,H	D	
Dr	66.2	6	---do-----	Wa	47.86	10–25–50	Ba,H	D	
Dr	r66.0	6	---do-----	Fp	------	---------	E	D,S	
Dr	r45	8	---do-----	Fp	11.20	10–26–50	Ba,H	D	
Dr	r27	6	----------	Fp	r10	--do-----	Ba,H	D	
Dr	r200	6	Limestone	Wa	r30	10–26–50	Ba,H	D	
Dr	r79	6	---do-----	Wa	40.30	--do-----	Ba,H	D	Reported black sulfurous water.
Dr	66.7	6	---do-----	Wa	56.90	10–31–50	Ba,H	D	
Dr	41.7	6	---do-----	Wa	37.19	--do-----	None	U	
Dr	68.6	6	---do-----	Wa, Fp	62.00	--do-----	Ba,H	D	Reported too hard for washing. Temperature 58°F. Chemical analysis in table 10.
Dr	r67	6	---do-----	Fp	34.50	11– 2–50	Ba,H	D	Reported 60 ft to top of water-bearing material.
Dr	r104	6	---do-----	Fp	r85	--do-----	H	U	Gassy taste.
Dr	r65	6	---do-----	Fp	r45	--do-----	Ba,H	D	Reported 47 ft to top of water-bearing material.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3645-						
99	1.7 miles northeast of Jefferson School.	G.H. Whitney			Upland	740
116	0.9 mile east-southeast of Jefferson School.	Z.M. Pitchford			Ridge	760
118	1 mile southeast of Jefferson School.	Burt Harston			Side of hill.	720
119	do	J.O. Centers			do	700
123	1.2 miles south-southeast of Jefferson School.	Marvin Wood			do	720
124	1.3 miles south-southeast of Jefferson School.	A.C. Roberts			do	740
125	do	B.C. Pitchford			do	720
126	1.2 miles south-southeast of Jefferson School.	Marvin Wood			do	750
127	1.3 miles south of Jefferson School.	Charlie Harston			Top of hill.	820
128	1.4 miles south of Jefferson School.	Charles Sikes			do	820
129	1.5 miles south of Jefferson School.	Luke Hicks			In hollow.	800
130	do	V.I. Whitney			Upland	800
134	1.7 miles south of Jefferson School.	Gilbert Petty			Small valley.	740
136	1.9 miles south of Jefferson School.	C.C. Greever			Valley	710
138	1.8 miles south of Jefferson School.	Jim Oliphant			Side of hill.	720
140	1.9 miles south of Jefferson School.	A.R. Boyd			do	710
141	1 mile east of Jefferson School.	Jess Hurt			Ridge	720
147	1.3 miles southeast of Jefferson School.	Jim Harston			Side of hill.	720
148	1.6 miles south-southeast of Harrison School.	J.C. Foster			do	710
149	do	A.W. Vaughn			do	730
161	0.5 mile southwest of Bethlehem Church.	W.R. Cushenberry			do	670
162	0.4 mile southwest of Bethlehem Church.	J.V. Cushenberry			In valley.	650

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	38.0	6	Mantle----	Q	24.00	11- 7-50	None	U	Reported 27 ft to top of water-bearing material.
Dr	51.5	6	Limestone	Wa	15.50	3-29-51	Ba,H	D	Muddy.
Dr	------	-----	----------	-----	------	---------	E	D,S	
Dr	r74	6	Limestone	Fp	r25	3-29-51	Ba,H	D,S	
Dr	65.0	6	---do-----	Fp	20.75	--do-----	Ba,H	D	
Dr	r65	6	---do-----	Fp	r40	--do-----	E	D	
Dr	r125	6	---do-----	Fp	r75	--do-----	Ba,H	U	Gassy and sulfurous.
Dr	r75	6	---do-----	Fp	r35	--do-----	E	D	
Dr	r40	6	---do-----	Wa	r30	--do-----	Ba,H	D	
Dr	r65	6	---do-----	Wa	r45	--do-----	-----	D	Reported sulfurous.
Du	r25	36	Mantle ---	Q	r15	--do-----	Pi,H	D	Reported muddy after rain.
Dr	r35	6	Limestone	Wa	r28	--do-----	Ba,H	D	
Dr	22.0	6	Mantle ---	Q	8.90	--do-----	Ba,H	D	
Dr	r28	6	----------	Fp	r18	--do-----	E	D,S	
Dr	r47	6	Limestone	Fp	r31	--do-----	Ba,H	D,S	
Dr	20.0	6	Mantle ---	Q,Fp	15.9	--do-----	-----	U	Reported sulfurous.
Dr	r90	6	Limestone	Fp	r50-75	4-10-51	-----	D	
Dr	r35	6	---do-----	Fp	r25	--do-----	Ba,H	D	
Dr	r35	6	---do-----	Fp	r25	--do-----	Ba,H	D	
Dr	r50	6	---do-----	Fp	r30	--do-----	Ba,H	D	
Dr	r42	6	---do-----	Fp	r12	--do-----	E	D,S	Reported water at 30 ft in limestone.
Dr	r40	------	---do-----	Fp	r20	4-24-51	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3645-						
163	0.7 mile southeast of Bethlehem Church.	Jesse Lane			Upland	850
164	0.6 mile southwest of Bethlehem Church.	R. Weaver			Upland ridge.	840
165	1.1 miles south of Bethlehem Church.	Wallace Carter	Duncan Barlow	1951	Side of hill.	720
167	2.2 miles west of Maynard.	H.C. Cornwell		1920±	Upland	800
168	1.1 miles west-southwest of Maynard.	Mrs. Pernie Tinsley		1910	do	800
170	0.6 mile west-southwest of Maynard.	J.R. Hogue	Robert Marcum	1949	do	790
172	1.4 miles west-southwest of Maynard.	Hollie Carver	Henry Hood	May 1953	do	800
173	3.6 miles north-northwest of Maynard.	W.B. Steenbergen			do	740
174	3.7 miles north-northwest of Maynard.	do		1942±	do	740
175	3 miles east-southeast of Gainesville.	Euke Harston			Head of valley.	710
184	3.1 miles north-northwest of Maynard.	Hade Jackson	Robert Marcum	1952	Upland ridge.	710
185	do	do	do	1952	do	710
188	3.3 miles southeast of Gainesville.	J.W. Moore	Francis Morgan	1951	Upland	800
189	3.2 miles southeast of Gainesville.	J.F. Hurt		1951	Upland ridge.	800
8605-3650-						
10	1.9 miles east of Gainesville.	B.J. Weaver			Ridge	670
19	do	V.H. Brunson			do	660
20	1.8 miles east of Gainesville.	do			Side of hill.	620

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r186	6	Limestone	------	Dry	4-24-51	None	U	
Dr	r100	6	----------	------	Dry	--do-----	None	U	
Dr	265.0	6	----------	------	------	---------	-----	To	Dry hole. Log in table 14.
Dr	r51	6	Mantle----	Q,Fp	27.58	6- 5-53	Ba,H	D,S	
Dr	r43	6	---do-----	Q,Fp	r41	--do-----	Ba,H	D	
Dr	60.3	7	Mantle and limestone	Q,Fp	37.47	6- 9-53	Ba,H	D	Reported cased to 39-40 ft. Temperature 59°F.
Dr	r35	6	---do-----	Q,Fp	8.87	6-17-53	Ba,H	D	Reported water at 25 and 32 ft. Reported slight reddish color. Temperature 58°F.
Dr	40.0	6	Limestone	Fp	34.84	6-18-53	None	U	Sulfurous.
Dr	50.9	6	---do-----	Fp	35.67	--do-----	Ba,H	D,S	
Dr	r23	-----	Mantle----	Q	------	---------	J,E	D,P	Reported cased to 18 ft.
Dr	96.3	6	Limestone	Fp	44.57	7- 1-53	Ba,H	D,S	Reported oily taste.
Dr	62.0	6	----------	Fp	39.10	--do-----	Ba,H	D	Reported natural gas taste.
Dr	r125	6	---do-----	Wa, Fp	Dry	---------	None	U	Reported 26 ft to top of water-bearing material.
Dr	r60	6	---do-----	Wa	------	---------	J,E	D	Not used for drinking. Temperature 65°F from pressure tank. Chemical analysis in table 10.
Dr	r65	6	---do-----	Fp	38.19	11- 7-50	Ba,H	D,S	Temperature 58°F. Chemical analysis in table 10.
Dr	r40	6	---do-----	Fp	r25	--do-----	Ba,H	D	
Dr	r70	6	---do-----	Fp	r55	--do-----	Ba,H	D,S	Reported unfit for drinking; hard and sulfurous.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3650-						
30	1.3 miles east-northeast of Gainesville.	J.C. Fisher and L. Fisher.			In hollow.	620
41	0.5 mile east of Gainesville.	H.D. Stark			Top of hill.	650
49	1.5 miles north-east of Gainesville.	John Shields			Upland	660
50	1.6 miles north-east of Gainesville.	do			Side of hill.	620
52	2.2 miles north-east of Gainesville.	Artie Shields			do	580
54	do	W.L. Shields			do	580
55	2.1 miles north-east of Gainesville.	do			In hollow.	560
59	2.3 miles north-east of Gainesville.	D.G. Carver			On ridge.	660
69	West side of Gainesville.	J.D. Steenbergen	Ed Harman		Side of hill.	550
72	0.9 mile south of Gainesville.	C.E. Wisdom			Ridge	710
82	2.8 miles east-southeast of Gainesville.	Herbert Shields		1931	Top of hill.	760
84	2.6 miles east-southeast of Gainesville.	Gilbert Pulliam			Terrace.	660
86	3.1 miles east of Gainesville.	S.D. Holder	Jess Fischer	1941	Upland	710
87	3.2 miles east of Gainesville.	Mrs. Laura Foster	Mr. Leath	Spring 1951	do	700
88	3 miles east-northeast of Gainesville.	Jim Woods			Top of hill.	710
89	2.7 miles east-northeast of Gainesville.	Arthur Hogue			Upland	670
90	2.6 miles east of Gainesville.	S.D. Holder		1937	do	680

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	39.5	8	Limestone	Fp	32.47	11- 7-50	None	U	
Dr	r112	6	---do-----	Fp	92.00	--do-----	Ba,H	D	
Dr	57.4	6	---do-----	Wa	43.64	11- 8-50	Ba,H	D	Temperature 57°F. Chemical analysis in table 10.
Dr	49.8	6	---do-----	Fp	40.15	--do-----	Ba,H	D	
Dr	40.3	6	---do-----	Fp	25.48	--do-----	None	U	
Dr	37.5	6	---do-----	Fp	28.40	--do-----	None	O	Hydrograph in figure 16.
Dr	11.3	8	---do-----	Fp	10.24	--do-----	None	To	
Dr	r115	6	---do-----	Fp	r80	--do-----	Ba,H	D,S	
Dr	r35	6	---do-----	Fp	r24	--do-----	H	D	Reported water at 24.5 ft.
Dr	r85	6	---do-----	Wa	r78	11-14-50	E	D	Reported water at 38, 65, and 78 ft. Some sulfur.
Dr	106.3	6	---do-----	Fp	93.14	6-25-53	Ba,H	D	Reported cased to 22 ft. Reported 6 ft to top of water-bearing material. Water at about 101 ft. Reported black and white sulfur. Temperature 60°F. Chemical analysis in table 10.
Dr	30.3	6	---do-----	Fp	29.69	--do-----	Ba,H	D	Reported cased to 30 ft. Reported water from mud cave, turbid.
Dr	r65	6	---do-----	Wa(?)	------	---------	J,E	D	Chemical analysis in table 10.
Dr	r48	------	---do-----	Wa	------	---------	E	D	Reported cased to 20 ft.
Dr	60.0	8	---do-----	Wa, Fp	53.23	7- 2-53	None	U	
Dr	36.0	6	---do-----	Wa	24.21	--do-----	Ba,H	D	Temperature 59°F.
Dr	r45	------	---do-----	Wa	r23	1937	H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8605-3650-						
91	3 miles east of Gainesville.	Dottie Centers		1923	Upland	730
92	2.8 miles east of Gainesville.	do	Foster Brothers	1949	do	730
8610-3635-						
1	0.7 mile southeast of Heath School.	Luther House			Side of hill.	690
2	0.6 mile southeast of Heath School.	do			Edge of valley.	660
13	1 mile east of Heath School.	M.F. Young			Top of hill.	820
16	1.2 miles east of Heath School.	King Sullivan			do	825
19	1.1 miles east-southeast of Heath School.	T.A. Sullivan			Side of hill.	810
21	1 mile east-southeast of Heath School.	Leonard Marsh			do	810
24	0.2 mile east of Heath School.	O.C. Cook			Floor of valley.	650
25	1.1 miles east-southeast of Heath School.	Walter Brown			do	710
27	0.2 mile northeast of Heath School.	G.W. Howell			do	650
30	0.4 mile west of Heath School.	Odean Meador			Top of hill.	820
35	0.4 mile west-northwest of Heath School.	Delbert Meador			Upland	790
36	1.2 miles east-northeast of Macedonia Church.	Cordell Wagoner			Side of hill.	680
37	do	do			do	710
38	1.1 miles east-northeast of Macedonia Church.	Cordell Wagoner			Side of hill.	700
39	1.5 miles east-northeast of Macedonia Church.	L.S. Wagoner			do	750
41	1.2 miles east-northeast of Macedonia Church.	Luther House			do	700

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r58	8	Limestone	Wa, Fp	r50	---------	J,E	D,S	Reported 300 ft oil test well.
Dr	r80	6	---do-----	Wa, Fp	r60	---------	H	To D	Reported water at 55 and 60 ft. Reported yield, 10 gph.
Dr	r65	6	---do-----	Si	r60	5- 9-51	E	D,S	
Dr	r40	------	---do-----	Si	------	---------	H	S	
Dr	r40	6	---do-----	Fp	r29	5- 9-51	-----	D,S	
Du	r40	36	Mantle----	Q	22.22	--do-----	-----	D,S	
Du	r28	38	---do-----	Q	r24	--do-----	-----	D,S	
Du	26.6	------	---do-----	Q	15.60	--do-----	-----	D,S	
Dr	r40	6	Limestone	Si	r27	--do-----	-----	D,S	
Dr	r30	6	---do-----	Fp	r22	5-16-51	-----	D,S	
Dr	r36	6	---do-----	Si	r18	--do-----	-----	D,S	
Dr	r50	6	---do-----	Fp	r45	--do-----	-----	D,S	
Dr	r50	6	---do-----	Fp	r45	--do-----	-----	D,S	
Du	r30	36	---do-----	Fp	r18	5-24-51	-----	D,S	
Du	r40	36	---do-----	Fp	r20	--do-----	Cy,H	D,S	
Du	r35	36	---do-----	Fp	r20	5-24-51	-----	U	
Du	26.8	36	---do-----	Fp	13.98	--do-----	-----	U	
Du	37.6	30	---do-----	Fp	24.40	--do-----	Cy,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentuckt*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3635-						
42	0.9 mile east-southeast of Macedonia Church.	B.C. Foster			Broad valley.	680
43	do	do			do	680
44	1.2 miles east-southeast of Macedonia Church.	do			Edge of broad valley.	660
49	0.8 mile east of Macedonia Church.	Oscar Meador			Side of hill.	740
50	0.1 mile south-southwest of Macedonia Church.	Silas Brown			do	840
54	0.7 mile west of Macedonia Church.	Amy O'Neal			do	820
57	0.6 mile west-southwest of Macedonia Church.	Dale Carter			do	800
61	At Macedonia Church.	Macedonia Church			Upland	850
62	0.2 mile north-northwest of Macedonia Church.	O.L. Burnley			Top of hill.	820
63	0.1 mile north of Macedonia Church.	do			do	840
64	0.2 mile north-northeast of Macedonia Church.	do			do	840
68	0.4 mile northeast of Macedonia Church.	Tom Brown			do	830
70	0.5 mile north-northeast of Macedonia Church.	do			do	820
74	0.4 mile north-northwest of Macedonia Church.	Meredith Foster			do	830
75	0.6 mile north-northwest of Macedonia Church.	E. Meador			do	820

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r65	6	Limestone	Si	r40	5-24-51	E	D,S	
Du	r21	36	Mantle---	Q	r17	--do----	-----	D,S	
Du	12.5	36	---do----	Q	9.18	--do----	None	D	Hydrograph in figure 16.
Dr	r109	6	Limestone	Si	------	--------	Cy,H	D,S	Reported fish found occasionally.
Dr	r36	6	---do----	Fp	r24	6- 7-51	-----	D,S	
Dr	r25	6	---do----	Fp	r20	6-14-51	-----	D,S	
Dr	------	------	---do----	Fp	------	--------	-----	U	
Du	------	------	---do----	Fp	------	--------	-----	P	
Du	r35	30	---do----	Fp	r25	6-14-51	-----	U	
Du	r35	30	---do----	Fp	r25	--do-----	-----	U	
Du	r35	30	---do----	Fp	r20	--do-----	E	D	Reported yield, 300 gph.
Du	37.2	30	Mantle---	Q	27.66	--do-----	Ba,H	D	
Du	r35	30	---do----	Q	r25	--do-----	-----	U	
Dr	------	6	Limestone	Fp	------	--------	-----	U	
Dr	r35	6	---do----	Fp	r29	6-14-51	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3635-						
77	0.9 mile north-northwest of Macedonia Church.	Willie D. Meador			Top of hill.	810
78	do	Lennie Carter			do	810
80	0.8 mile north-northwest of Macedonia Church.	Ezra Carter			do	810
81	1 mile north-northwest of Macedonia Church.	John Conyer			do	810
82	1 mile north-northwest of Macedonia Church.	do			do	810
83	do	Ezra Conyer			do	800
84	1.1 miles north-northwest of Macedonia Church.	O.L. Keen			do	800
85	1.3 miles north-west of Macedonia Church.	D.W. O'Neal			do	800
86	1.2 miles north-west of Macedonia Church.	R.C. Carter			do	800
87	1.4 miles north-west of Macedonia Church.	Mandy Brown			do	790
90	do	Hobart Carter			do	780
93	1.6 miles west of Heath School.	C. Calvert			do	770
95	0.9 mile southwest of Heath School.	Hubert Minner			do	810
97	0.7 mile southwest of Heath School.	Ed Meador			do	800
99	0.7 mile west-southwest of Heath School.	Bruce Bonds			do	800
100	0.6 mile west-southwest of Heath School.	Asbury Keene			do	800
101	do	John G. Hargett			do	800
102	do	Glen Hargett			do	800
103	0.5 mile west-southwest of Heath School.	Glenda Phillips			do	800

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Du	r40	30	Mantle---	Q	r27	6-14-51	Ba,H	D,S	
Dr	r46	6	Limestone	Fp	r29	--do-----	Ba,H	D,S	
Dr	r60	6	---do----	Fp	r39	--do-----	Ba,H	D,S	
Dr	r42	6	---do----	Fp	r39	--do-----	Ba,H	D,S	Reported adequacy poor.
Dr	r43	6	---do----	Fp	r39	--do-----	Ba,H	D,S	Do.
Du	r17	30	Mantle---	Q	r13	--do-----	Ba,H	D	
Dr	r37	6	Limestone	Fp	r29	--do-----	Ba,H	D,S	
Dr	r76	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Dr	r60	6	---do----	Fp	r44	--do-----	Ba,H	D,S	
Dr	r35	6	---do----	Fp	r20	--do-----	Ba,H	D,S	
Dr	r70	6	---do----	Fp	r39	6-21-51	Ba,H	D	
Dr	r80	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Du	29.7	30	Mantle---	Q	17.66	--do-----	Ba,H	D,S	
Dr	43.1	6	Limestone	Fp	27.45	--do-----	Ba,H	D	
Dr	r42	6	---do----	Fp	r39	--do-----	None	U	Reported adequacy and quality poor.
Dr	r25	6	---do----	Fp	r14	--do-----	Ba,H	D	
Dr	r65	6	---do----	Fp	r49	--do-----	Ba,H	D	
Dr	r35	6	---do----	Fp	r19	--do-----	Ba,H	D	
Dr	r40	6	---do----	Fp	r29	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3635-						
104	0.5 mile west-southwest of Heath School.	Wess Carter			Top of hill.	800
105	0.6 mile southwest of Heath School.	Mody Taylor			do	800
107	0.6 mile west-southwest of Heath School.	D.A. Guffey			do	800
108	0.7 mile west-southwest of Heath School.	Roy Meador			do	800
109	0.6 mile west-southwest of Heath School.	Jack Carter			do	810
110	0.8 mile west of Heath School.	Ed Meador			do	790
113	0.7 mile west-northwest of Heath School.	E. Rippy			do	770
114	0.8 mile west-northwest of Heath School.	W.M. Gregory			do	790
122	0.2 mile northwest of Maple Grove Church.	J.M. Dodson			Upland	860
125	0.3 mile west-northwest of Maple Grove Church.	Blonville Johnson			do	860
126	0.5 mile northwest of Maple Grove Church.	Jack Morris			do	850
128	0.6 mile west-northwest of Maple Grove Church.	Blonie Myers			Upland ridge.	870
130	0.9 mile northwest of Maple Grove Church.	Minnie McGuffey			Upland	840
131	do	Jim Sullivan			do	830
135	do	Carline Morris			do	840
142	0.7 mile north of Maple Grove Church.	Hosea Sullivan			Side of hill.	740
143	0.7 mile northeast of Maple Grove Church.	do			do	760
146	0.2 mile southeast of Maple Grove Church.	M.M. Johnson			Upland	880
148	0.1 mile east of Maple Grove Church.	Morris Cordell			do	860

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r60	6	Limestone	Fp	-------	---------	Cy,H	D,S	
Dr	40.5	6	---do-----	Fp	34.33	6-21-51	None	U	
Dr	r33	6	---do-----	Fp	r26	--do-----	Ba,H	D	
Dr	r29	6	---do-----	Fp	r22	--do-----	Ba,H	D	
Dr	r22	6	---do-----	Fp	r14	--do-----	Ba,H	D	
Du	r24	30	Mantle----	Q	r17.5	--do-----	Ba,H	D	
Dr	r27	6	Limestone	Fp	r18	--do-----	Ba,H	D,S	
Dr	r30	6	---do-----	Fp	r22	--do-----	Ba,H	D	
Du	r38	42	---do-----	Fp	r35	6-25-51	Ba,H	D	
Du	r40	36	Mantle----	Q	r28	--do-----	Ba,H	D	
Du	r35	48	Mantle and limestone.	Q,Fp	r31	--do-----	Ba,H	D	
Du	r50	42	Mantle----	Q	r47	--do-----	Ba,H	D	
Du	r32	42	---do-----	Q	r30	--do-----	Ba,H	D	
Du	r32	42	---do-----	Q	r30	--do-----	Ba,H	D	
Du	r45	48	---do-----	Q	r35	--do-----	Ba,H	D	
Dr	r24	6	---do-----	Q	19.32	7-10-51	Ba,H	D	
Dr	36.0	6	Limestone	Fp	21.12	--do-----	Ba,H	D	
Du	39	48	Mantle----	Q	r35	--do-----	Ba,H	D	
Dr	r35	6	Limestone	Fp	r25	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3635-						
149	0.4 mile west of Maple Grove Church.	Marcus Pardue			Upland	840
152	0.6 mile west of Maple Grove Church.	G.A. Moore			do	850
163	0.7 mile west of Maple Grove Church.	O.L. Parish			do	840
169	1 mile south of Maple Grove Church.	Curtis Brown			do	865
172	1 mile southwest of Maple Grove Church.	Lindie Collins			do	850
173	1 mile south of Maple Grove Church.	Roscoe Pardue			do	860
176	0.9 mile south of Maple Grove Church.	W.W. Blankenship			do	860
177	do	D.C. Blankenship			do	860
179	do	Robert Pardue			do	870
181	1 mile south of Maple Grove Church.	Lon Bonds			do	870
182	1.1 miles south of Maple Grove Church.	Dewey Creasey			do	880
184	0.6 mile west of Heath School.	Ray Gregory			do	810
187	1.2 miles northwest of Macedonia Church.	Byrd Brown	Mr. Kirksmith	1953	Upland, head of valley.	a781
188	0.3 mile west of Heath School.	Odean Meador			Top of ridge.	820
189	0.5 mile north-northeast of Macedonia Church.	James Brown	Mr. Rubottom(?)	1925±	Upland ridge.	
190	0.7 mile northwest of Macedonia Church.	Henry Carter	Mr. Kirksmith	1953	Base of hill.	a702
8610-3640-						
5	0.7 mile south-southeast of courthouse.	C. Braley			In hollow.	770

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r42	6	Limestone	Fp	r40	7-10-51	Ba,H	U	
Du	r54	42	---do-----	Fp	r46	--do-----	Ba,H	D	
Dr	r65	6	---do-----	Fp	r40	--do-----	Ba,H	D	
Dr	r65	6	---do-----	Fp	r55	7-11-51	Ba,H	D	
Du	51.0	40	---do-----	Fp	41.7	--do-----	None	U	
Du	r60	42	Mantle----	Q	r48	--do-----	Ba,H	D	
Du	r49	------	---do-----	Q	r35	--do-----	Ba,H	D	
Du	r42	42	---do-----	Q	r34	--do-----	Ba,H	D	
Du	r33	42	---do-----	Q	r28	--do-----	Ba,H	D	
Du	r49	------	---do-----	Q	r42	--do-----	Ba,H	D	
Dr	r55	6	Limestone	Fp	r37	--do-----	Ba,H	D	
Dr	r43	6	---do-----	Fp	r30	8- 3-51	Ba,H	U	Reported water from solutional opening.
Dr	r306	7	---do-----	Fp	-------	---------	None	To	Reported yield, 2 gpm. Log in table 14.
Dr	54.0	6	Limestone and shale.	Fp, Cg	49.35	7-28-53	None	U	Sulfurous taste.
Dr	r300	------	Limestone	Si	-------	---------	None	To	Oil-test well which struck fresh water below black shale. Well has been filled, plugged and abandoned.
Dr	r181	7	---do-----	Fp	-------	---------	None	To	Reported cased to 129 ft. Log in table 14.
Dr	r118	6	---do-----	Fp	27.52	7-19-50	None	0	Hydrograph in figure 14.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
7	0.5 mile east-southeast of courthouse.	J. Jenkins			Side of hill.	800
8	do	Lilly Simmons			do	760
9	0.4 mile east-southeast of courthouse.	Edgar Frost			do	790
10	0.4 mile southeast of courthouse.	Mr. Johnson			do	770
11	do	Herschell Minnix			do	750
12	East side of Louisville & Nashville railroad, 0.4 mile south-southeast of courthouse.	William Stratton			do	740
13	0.4 mile southeast of courthouse.	Ernest Dillahay			In hollow.	740
14	0.8 mile southeast of courthouse.	Macon Lumber Co			Upland	810
19	1.1 miles southeast of courthouse.	Mrs. Harper	Robert Marcum		Side of hill.	720
21	1.2 miles southeast of courthouse.	Therman Marsh			In hollow.	690
22	0.8 mile southeast of courthouse.	Mrs. Gammons			do	780
23	1.5 miles south-southeast of courthouse.	C.P. Patterson			Upland	810
32	0.4 mile south-southeast of courthouse.	Estil Scott			do	750
33	do	J.D. Gower			do	750
34	0.3 mile south of courthouse.	Willie Bimon			do	750
35	0.4 mile south of courthouse.	Jim Stratton			do	750
37	West side of Hartsville Rd., 0.1 mile south of Louisville & Nashville railroad trestle.	Durwood Kelly			Side of hill.	680
40	0.9 mile south of courthouse.	City of Scottsville		1948±	In hollow.	670
41	0.6 mile south-southeast of courthouse.	Sandy Lyle			Side of hill.	810

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r52	6	Limestone	Wa	21.1	7–20–50	None	U	Reported yield, 40 gpd.
Dr	------	6	---do-----	Fp	39.2	--do-----	None	U	
Dr	------	6	---do-----	Fp	49.2	--do-----	None	U	
Du	r40	42	Mantle---	Q	r30	--do-----	Ba,H	D	
Dr	------	-----	Limestone	Fp	39.25	--do-----	None	U	
Dr	------	-----	---do-----	Fp	29.2	--do-----	None	U	
Dr	------	6	---do-----	Fp	23.5	--do-----	None	U	
Dr	------	6	---do-----	Wa	18.08	--do-----	Ba,H	D	Reported saline.
Dr	r100	6	---do-----	Fp	None	--do-----	None	U	Dry.
Dr	r35	6	---do-----	Fp	r20	--do-----	H	D	
Dr	------	-----	---do-----	Fp	22.0	7–21–50	Ba,H	D	Reported nearly dry in average summer.
Dr	40.4	-----	---do-----	Fp	28.85	--do-----	Ba,H	S	Reported saline and hard.
Dr	33.5	6	---do-----	Fp	21.05	8– 1–50	Ba,H	S	Temperature 61°F. Chemical analysis in table 10.
Dr	56.5	6	---do-----	Fp	40.32	--do-----	Ba,H	D	
Dr	27.0	6	---do-----	Fp	-------	---------	Ba,H	U	Plugged at 27 ft.
Dr	r60	6	---do-----	Fp	37.78	8– 2–50	Ba,H	D	Reported supplies 4 to 6 families.
Dr	67.0	8	---do-----	Fp	18.22	--do-----	None	0	Reported yield, 50 gpm. Hydrograph in figure 14.
Dr	r55	6	---do-----	Fp	-------	---------	E	P	Chemical analysis in table 10.
Dr	r50	6	---do-----	Wa	33.38	7–19–50	Ba,H	U	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
43	0.7 mile southeast of courthouse.	D.Y Austin			Upland	820
44	do	Holiness People of Allen County.			do	810
61	0.7 mile northwest of Dover Church.	Willie Carter	Robert Marcum		do	820
62	0.8 mile northwest of Dover Church.	do	do		do	820
69	1.3 miles northeast of Mount Pleasant Church.	Luther Blankenship	Merl Austin		do	770
70	1.2 miles northeast of Mount Pleasant Church.	A.E. Carver	Austin-Tucker		do	820
72	250 ft north of pump station.	City of Scottsville	Wm. Mayhew		Side of hill.	700
73	1 mile northeast of Mount Pleasant Church.	E.W. Stovall			Upland	840
82	0.8 mile northeast of Mount Pleasant Church.	Rosa Holder			do	780
83	1 mile northwest of Shady Grove School.	E.G. Carver	Merl Austin		do	780
86	1.2 miles north-northwest of Shady Grove School.	do			do	790
90	Southeast of junction of Dover and Hartsville Rds.	Odell Tracy			do	820
91	0.3 mile west of Dover Church.	Ed Absher			do	820
95	0.6 mile southwest of Dover Church.	Jim Harrison	Merl Austin		do	780
98	do	Blond Hooten			do	780
99	0.7 mile southwest of Dover Church.	Orvil Austin			do	790
100	0.9 mile southwest of Dover Church.	J.E. Pitcock			do	800
103	50 ft south of Shady Grove School.	J.H. Jones			do	800
105	0.4 mile south of Shady Grove School.	Leon Livesay			do	760
106	0.3 mile northwest of Dover Church.	Coy Richardson			do	780
109	0.1 mile north of Shady Grove School.	J.G. Britt			do	790

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r85	6	Limestone	Fp	65.92	7-19-50	Ba,H	D	
Dr	r75	6	---do-----	Wa, Fp	r33	--do----	Ba,H	D	
Dr	r40	6	---do-----	Fp	23.30	8- 4-50	Ba,H	D	Reported 18 ft to top of bedrock.
Dr	r70	6	---do-----	Fp	r60	--do----	H	S	
Dr	r20	------	Mantle and limestone.	Q, Wa, Fp	r8	--do----	Ba,H	D,S	Reported 6 ft to bedrock. Temperature 62°F. Chemical analysis in table 10.
Dr	r70	6	Limestone	Wa	r50	--do----	Ba,H	D	
Dr	r140	6	---do-----	Fp	--------	--------	None	U	Reported plugged. Log in table 14.
Dr	r90-95	6	---do-----	Wa, Fp	77.86	8-7-50	Ba,H	D	
Dr	r60	------	---do-----	Fp	r60	--do----	E	D	
Dr	r46	6	---do-----	Fp	--------	--------	E	D	
Dr	52.2	6	---do-----	Fp	43.9	6- 8-50	Ba,H	D	
Dr	r60	------	---do-----	Fp	------	--------	H	D	Reported oil-test well plugged back to 60 ft for water well.
Du	34.0	------	Mantle----	Q	22.79	8- 8-50	Ba,H	D	
Dr	r60	------	Limestone	Fp	51.66	--do----	Ba,H	D	
Dr	75.6	6	---do-----	Fp	r65	--do----	Ba,H	D	
Dr	r75	------	---do-----	Fp	47.23	--do----	Ba,H	D	
Dr	r90	------	---do-----	Fp	72.65	--do----	Ba,H	D	
Du	r40	------	---do-----	Fp	34.40	--do----	Ba,H	D	Reported never dry.
Dr	r96	------	---do-----	Fp	r80	--do----	Ba,H	D	
Dr	r92	------	---do-----	Wa, Fp	r32	6- 9-50	J,E	D,S	Chemical analysis in table 10.
Dr	r36	6	Mantle----	Q	27.80	--do----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
112	0.2 mile northwest of Shady Grove School.	Mrs. Alice Britt			Upland	800
115	0.3 mile west of Shady Grove School.	J.E. Britt			do	780
116	0.8 mile west of Shady Grove School.	W.A. Jones			do	780
117	1 mile southeast of Mount Pleasant Church.	Goldman E. Brown			do	760
120	0.5 mile southeast of Mount Pleasant Church.	Vivian Brown			do	740
123	0.4 mile southeast of Mount Pleasant Church.	Mrs. T. Brown			do	740
124	0.3 mile southeast of Mount Pleasant Church.	L.W. Alderson			do	760
125	0.2 mile southwest of Shady Grove School.	Charles G. Oliver			do	790
132	0.3 mile southwest of Shady Grove School.	Fred Obles			do	780
133	do	do			do	780
134	0.4 mile southwest of Shady Grove School.	K.M. Wilson			do	760
136	1 mile southeast of Mount Pleasant Church.	Goldman E. Brown			do	770
138	1 mile southwest of Shady Grove School.	B.B. Piper			Side of hill.	660
151	0.8 mile north of White Plains School.	Johnny Patrick	Mr. Leath		Upland	790
152	0.6 mile north of White Plains School.	Francis Wright	do		do	780
153	0.5 mile north of White Plains School.	Willie Garrison			do	780
156	0.2 mile northeast of White Plains School.	Mrs. S.E. Biggerstall.			do	820
157	0.1 mile northeast of White Plains School.	R.W. Dobbs			do	800

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Results
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Du	r40	------	Mantle----	Q	r30–35	8–10–50	H	D	
Dr	54.9	6	Limestone	Fp	42.30	--do-----	Ba,H	D,O	Hydrograph in figure 14.
Dr	77.0	------	---do-----	Fp	66.00	--do-----	None	U	
Dr	64.0	6	---do-----	Fp	44.30	--do-----	----	U	
Dr	r80	6	---do-----	Fp	r20	--do-----	H	D	
Du	r35–40	42	Mantle----	Q	------	---------	E	D,S	
Dr	88.0	6	Limestone	Fp	13.25	8–10–50	None	U	
Dr	r60	6	---do-----	Fp	------	---------	H	D,S	
Dr	55.5	6	---do-----	Fp	40.14	8–11–50	Ba,H	D	
Dr	78.4	6	---do-----	Fp	16.30	--do-----	None	U	
Dr	r33	6	---do-----	Fp	25.90	--do-----	Ba,H	D,	
Du	r29	------	Mantle----	Q	r25	8–14–50	H	D	
Dr	r40	6	Limestone	Fp	------	---------	H	D	
Dr	r48	------	---do-----	Wa	r25	8–17–50	Ba,H	D	
Dr	r50	------	---do-----	Wa	r30	--do-----	----	U	
Dr	53.6	6	---do-----	Wa	20.90	--do-----	Ba,H	D	
Dr	r58	------	---do-----	Wa	r40	8–21–50	E	D	
Dr	r43	6	---do-----	Wa	r35	10–31–50	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-158	East side of U.S. Highway No. 31E, opposite old Franklin Rd.	E.P. Miller			Upland	810
160	0.5 mile north-northwest of White Plains School.	do			do	800
162	0.3 mile north-northwest of White Plains School.	do			do	820
164	0.9 mile southwest of White Plains School.	Marion Frost			do	810
165	1 mile southwest of White Plains School.	John Miller and Woodrow Miller.			do	780
167	1.1 miles southwest of White Plains School.	do			do	760
169	1.3 miles east of Hickory Hill Church.	F.E. Costello			do	770
172	0.2 mile south of Hickory Hill Church.	J.E. Lewis	Robert Marcum		Side of hill.	760
174	0.7 mile east of Briarfield School.	Marlow Johns			Upland	800
176	0.6 mile east-southeast of Briarfield School.	Herbert Knight			Side of hill.	760
181	0.5 mile southeast of Briarfield School.	Jack Fraim			Upland	750
187	700 ft northwest of Briarfield School.	Mrs. Toy Blankenship.	Robert Marcum		do	770
188	0.2 mile northwest of Briarfield School.	Harrison Glover			do	760
191	0.4 mile west of Briarfield School.	Rosa Hinton			do	760
193	0.6 mile west of Briarfield School.	W.W. Fraim			do	760
201	0.2 mile southwest of Briarfield School.	Henry Belcher			do	760
204	0.4 mile south of Briarfield School.	Ernest Pearson			do	760

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r55	------	Limestone	Wa	r49	8-21-50	Ba,H	D	
Dr	r80	8	---do-----	Wa	r25	--do----	None	O	Hydrograph in figure 18.
Dr	r80	------	---do-----	Wa	-------	--do----	None	U	
Dr	66.6	5	---do-----	Wa	57.31	8-21-50	Ba,H	D	
Dr	50.7	6	---do-----	Wa, Fp	40.40	--do----	Ba,H	D	Temperature 60°F. Chemical analysis in table 10.
Dr	38.0	6	---do-----	Wa	25.43	8-22-50	None	U	
Du	30.7	42	Mantle ---	Q	23.3	--do----	Ba,H	D	
Dr	r80	6	Limestone	Fp	58.77	--do----	Ba,H	D,S	Temperature 60°F. Chemical analysis in table 10.
Dr	33.5	6	---do-----	Wa, Fp	21.96	--do----	Ba,H	D	Temperature 61°F. Chemical analysis in table 10.
Dr	51.2	6	---do-----	Fp	36.10	--do----	Ba,H	D	
Dr	58.6	6	---do-----	Fp	51.7	--do----	Ba,H	D	
Dr	r55	6	---do-----	Wa	r43	8-23-50	Ba,H	D	
Dr	28.0	-----	Mantle ---	Q	20.5	--do----	Ba,H	D	
Dr	46.4	4½	Limestone	Wa, Fp	41.11	--do----	Ba,H	D,S	
Dr	31.0	6	---do-----	Wa, Fp	24.08	--do----	Ba,H	D	
Dr	77.3	12	---do-----	Fp	55.78	--do----	Ba,H	D	
Dr	------	-----	---------	------	-----	--------	H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
206	0.5 mile south-southwest of Briarfield School.	J. O'Neal			Upland	760
209	0.7 mile southwest of Briarfield School.	W.S. Wygal			Upland ridge.	720
210	0.8 mile southwest of Briarfield School.	do			do	740
212	0.8 mile south-southwest of Briarfield School.	Joe Foster	Curtis Tucker and O. Foster.		Upland slope.	720
216	0.7 mile north of Petroleum.	J.M. Foster			Side of hill.	630
218	0.5 mile east-northeast of Mount Pleasant Church.	Robert Lee Cox			Upland	780
221	0.6 mile north of Briarfield School.	William T. Frost			do	740
222	0.4 mile south of Briarfield School.	Lendon O'Neal			do	760
225	1 mile west of Mount Pleasant Church.	W.J. Stovall			do	750
227	0.5 mile southeast of White Plains School.	R.D. Pruitt			do	820
228	0.7 mile east-southeast of White Plains School.	Mike Chism			Side of hill.	780
230	0.5 mile south of courthouse.	City of Scottsville			Valley of stream	660
231	do	do			do	660
232	0.9 mile south of courthouse.	do			do	660
234	0.5 mile north of Dover Church.	Clarence Parish			Upland	800
235	0.5 mile north-northeast of Dover Church.	L.H. Napier			Hill	790
236	0.1 mile southeast of Dover Church.	Lesley Dukes			Upland	860

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	57.0	------	Limestone	Fp	-------	---------	E	D,S	Reported yields water from solution cavity.
Dr	r45	------	---do----	Fp	r32	8-28-50	Ba,H	D	
Dr	r45	------	---do----	Fp	r32	--do-----	Ba,H	S	
Dr	r50	------	---do----	Fp	r40	--do----	Ba,H	D	
Dr	r36	------	---do----	Fp	r20	--do----	E	D,S	Reported 20 ft to top of water-bearing material.
Dr	r42	------	---do----	Fp	r38	--do----	E	D,S	
Dr	92.4	6	---do----	Fp	84.62	--do----	E	D	
Dr	-----	------	---do----	Fp	58.65	--do----	Ba,H	D	
Dr	-----	------	---do----	Fp	-------	--------	H	D	
Dr	59.3	6	---do----	Wa	50.2	8-20-50	Ba,H	D	
Dr	21.2	5	Mantle ---	Q	9.00	--do----	Ba,H	D	
Dr	r50	10	Limestone	Fp	7.72	2-21-51	None	O	Hydrograph in figure 13.
Dr	r50	10	---do----	Fp	-------	--------	None	U	
Dr	r50	10	---do----	Fp	-------	--------	E	P,U	Formerly public supply.
Dr	26.5	6	Mantle ---	Q	12.49	9-15-50	None	U	
Dr	35.0	6	Limestone	Fp	16.84	--do----	None		
Dr	61.4	-----	---do----	Wa	50.74	--do----	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
237	0.4 mile southeast of Dover Church.	C.E. Douglas			Upland	860
238	0.2 mile southeast of Dover Church.	Harvey Roberts			Side of hill.	840
240	0.7 mile south of Dover Church.	Blondell Hooten			Upland ridge.	800
243	0.8 mile south of Dover Church.	L.O. Meador			Upland	800
245	1.1 miles south of Dover Church.	Elbert Britt			do	800
247	0.3 mile south-southeast of Dover Church.	Harvey D. Roberts			Side of hill.	810
249	0.5 mile southeast of Dover Church.	Ira Meador			Upland	880
250	0.5 mile east of Dover Church.	do			Side of hill.	860
251	0.6 mile east of Dover Church.	L.H. Napier	Ira Meador		Upland	880
253	1 mile east-northeast of Dover Church.	Dan Pitchford			do	840
254	1.1 miles east of Dover Church.	E. Stinson			do	860
255	0.9 mile east of Dover Church.	O.G. Pardue			do	880
256	0.7 mile east of Dover Church.	do			do	880
265	1.4 miles southeast of courthouse.	W.L. Whitney			Valley of stream	700
266	do	do			do	700
269	1.5 miles southeast of courthouse.	M.M. Tracy			do	740
273	1.6 miles southeast of courthouse.	Joe Shaw			do	720
274	do	T.J. Jones			Valley	740
276	1.2 miles east-southeast of courthouse.	Jack Read			Upland	850
277	1.3 miles east-southeast of courthouse.	A.P. Calvert			do	860
278	1.4 miles east-southeast of courthouse.	Dewey Shockley			do	860
279	0.7 mile southeast of Dover Church.	Noah Morris			Edge of upland.	860
285	do	Molly McGuffey			Side of hill.	830

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	41.0	6	Limestone	Wa	15.80	9–15–50	Ba,H	D,S	Temperature 61°F.
Dr	------	------	---do-----	Wa, Fp	------	---------	None	U	
Dr	55.6	6	---do-----	Fp	38.75	9–19–50	Ba,H	D,S	
Du	32.0	------	Mantle ---	Q	25.71	--do-----	Ba,H	D,S	
Du	37.5	42	---do-----	Q	29.74	--do-----	Ba,H	D,S	
Dr	------	------	Limestone	Wa, Fp	------	---------	None	U	
Dr	r115	6	---do-----	Wa, Fp	93.40	9–21–50	Ba,H	U	
Dr	r400	6	---do-----	Wa, Fp	r72	9–28–50	Pi,E	D,S	Reported drilled to 400 ft, plugged back.
Dr	r40	6	---do-----	Wa	r32	9–21–50	H	D	
Dr	102.0	6	---do-----	Wa, Fp	40.15	--do-----	None	O	
Du	r45	42	Mantle and limestone	Q, Wa	r38	9–24–50	Ba,H	D	
Dr	r67	6	Limestone	Wa	r37	9–25–50	Ba,H	D	
Dr	r75	6	---do-----	Wa, Fp	r55	--do-----	Ba,H	D	
Dr	27.0	6	---do-----	Fp	10.66	10– 2–50	H	U	
Dr	------	------	---do-----	Fp	------	---------	H	U	Sulfurous.
Dr	r45	6	---do-----	Fp	r30	10– 2–50	H	D,S	
Dr	14.0	6	---do-----	Fp	7.00	---------	E	D	Sulfurous.
Dr	r14	------	---do-----	Fp	r8	10– 3–50	Pi,H	D	Slightly sulfurous.
Du	34.0	42	Mantle ---	Q	31.08	10– 4–50	Ba,H	D,S	
Dr	r55	6	Limestone	Wa	r35	--do-----	Ba,H	D,S	
Dr	r85	6	---do-----	Wa	67.77	10– 9–50	Ba,H	D	
Dr	47.0	6	--do-----	Wa, Fp	38.44	10–17–50	Ba,H	D	
Dr	47.5	6	--do-----	Fp	34.30	--do-----	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
286	0.6 mile southeast of Dover Church.	Edward Krouse			Ridge	840
289	0.9 mile southeast of Dover Church.	V.A. Tracy			do	840
290	1.2 miles east of Shady Grove School.	Price Watkins			Side of hill.	800
292	1.4 miles east of Shady Grove School.	Drew Britt			Ridge	820
297	1.3 miles west-southwest of Bellwood School.	Harry Howell			do	780
299	1.2 miles south of Dover Church.	W.T. Howell			do	750
302	1.3 miles south of Dover Church.	do			Hollow	680
306	1.2 miles southwest of Mount Carmel Church.	I.S. Napier			Upland	800
308	0.8 mile southwest of Bellwood School.	Harry Heath			do	840
313	0.1 mile east-southeast of White Plains School.	W.M. DeBerry			do	820
314	0.2 mile southeast of White Plains School.	George Meyers			do	820
315	0.3 mile south of White Plains School.	Carl Brown			do	820
316	do	S.H. Sarver			do	810
317	0.6 mile south-southwest of White Plains School.	C. Johnson			Side of hill.	760
318	0.8 mile south-southwest of White Plains School.	H.M. Lyle			do	780
319	0.9 mile south-southwest of White Plains School.	M. Phillips			do	800
320	1.2 miles south-southwest of White Plains School.	M. Richardson			do	830

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water bearing material: Character	Principal water bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r30	42	Mantle----	Q	r22	10–17–50	Ba,H	D	
Dr	r72	6	Limestone	Fp	r50	--do------	Ba,H	D	Reported 61 ft to top of water-bearing material.
Dr	r40	6	---do-----	Fp	r27	--do------	Ba,H	D	
Du	37.0	42	Mantle----	Q	32.13	--do------	Ba,H	D	
Du	r45	42	Limestone	Fp	r37	--do------	Ba,H	D	
Dr	79.5	6	---do-----	Fp	71.95	--do------	Ba,H	D	
Dr	20.0	6	Mantle----	Q	11.15	--do------	Ba,H	D,S	
Dr	r50	6	Limestone	Fp	r32	10–18–50	Ba,H	D	
Du	44.2	42	---do-----	Wa, Fp	40.33	--do------	Ba,H	D	
Dr	35.0	6	Mantle----	Q	r24	3–21–51	Ba,H	D,S	
Dr	r35	6	---do-----	Q	10	--do------	None	U	
Dr	39.0	6	Limestone	Wa	28.00	--do------	None	U	
Dr	r38	6	---do-----	Wa	r25	--do------	E	D	
Dr	31.5	6	---do-----	Wa	9.60	--do------	None	U	
Dr	52.5	6	---do-----	Wa	32.80	--do------	Ba,H	D	
Dr	r41	6	---do-----	Wa	r24	--do------	Ba,H	D	
Dr	r86	6	---do-----	Wa	r60	--do------	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
321	1.3 miles south-southwest of White Plains School.	F. Lloyd			Ridge	830
322	0.7 mile north-northeast of Mount Pleasant Church.	H.M. Adcock			do	830
323	0.3 mile north-northeast of Mount Pleasant Church.	R.C. Marcum			do	800
324	do	do			do	790
325	do	do			do	800
326	do	do			do	800
328	0.1 mile north of Mount Pleasant Church.	C. Driver			do	780
329	do	H.V. Wolfe			do	770
330	1.4 miles south-west of Mount Pleasant Church.	H.V. Harris			Bottom of valley.	595
331	0.9 mile west-southwest of Mount Pleasant Church.	W.W. Foster			Side of hill.	620
337	0.2 mile west-southwest of Mount Pleasant Church.	J.E. Crowe			Upland ridge.	760
343	0.1 mile northeast of Mount Pleasant Church.	C.L. Avsbrooks			Upland	760
344	0.2 mile northeast of Mount Pleasant Chruch.	do			do	760
345	0.3 mile north of Mount Pleasant Church.	Hewitt Wolfe			do	750
350	do	Lela Wolfe			do	780
351	0.3 mile north-northeast of Mount Pleasant Church.	H.E. Sullivan			do	780
352	0.3 mile northeast of Mount Pleasant Church.	B.M. Thompson			do	770
355	1.2 miles east of Briarfield School.	Denton Reeves			Side of hill.	820

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	86.0	6	Limestone	Wa	63.70	3-21-51	Ba,H	D	
Dr	r186	8	---do----	Fp	r103	--do-----	E	D	
Dr	r85	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Dr	r80	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Dr	r75	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Dr	r85	6	---do----	Fp	r49	--do-----	Ba,H	D,S	
Dr	r65	6	---do----	Fp	41.00	--do-----	None	U	Reported poor quality. Oil noted.
Dr	r56	6	---do----	Fp	50.20	--do-----	Ba,H	D	
Dr	29.0	6	---do----	Fp	8.30	--do-----	Ba,H	D	
Dr	43.0	6	---do----	Fp	23.60	3-28-51	Ba,H	D	
Dr	48.0	6	---do----	Fp	37.30	--do-----	H	D,S	
Dr	62.9	6	---do----	Fp	56.70	3-29-51	None	U	
Dr	69.6	6	---do----	Fp	45.10	--do-----	None	U	Oil on Water.
Dr	37	6	---do----	Fp	26.00	--do-----	Ba,H	D	
Dr	48.0	6	---do----	Fp	39.60	--do-----	Ba,H	D	
Dr	r55	6	---do----	Fp	r43	--do-----	E	D	
Dr	r45	6	---do----	Fp	33.00	--do-----	None	U	Reported oil on water.
Dr	72.1	6	---do----	Wa	45.84	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-356	0.6 mile south of White Plains School.	H.M. Lyle			Side of hill.	760
357	do	do			Hollow	760
358	0.5 mile south of White Plains School.	Ralph Carver			Side of hill.	780
359	0.4 mile south-southeast of White Plains School.	J.H. Collins			do	810
360	0.2 mile east of White Plains School.	Leslie Burton			Upland	820
361	0.3 mile east of White Plains School.	do			do	800
362	0.2 mile southeast of White Plains School.	Dave Berry, Jr			do	820
363	0.5 mile northwest of Briarfield School.	Porter Blankenship			do	730
364	do	do			do	720
365	0.5 mile south of White Plains School.	C.B. Clifford			Side of hill.	780
366	0.3 mile southeast of White Plains School.	J.E. Sickles			do	820
367	do	do			do	820
368	0.4 mile southeast of White Plains School.	do			do	820
369	do	do			Wide valley.	820
372	0.5 mile east-southeast of White Plains School.	do			Side of hill.	780
376	0.5 mile east of White Plains School.	Leslie Burton			do	790
377	0.3 mile east of White Plains School.	E.B. Mayhew			Upland	820
379	0.4 mile northeast of White Plains School.	Robert Johnson			do	800
380	do	do			Side of hill.	790

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	26.0	6	Limestone	Wa	17.00	3–29–51	None	U	Reported oily.
Dr	r40	6	---do----	Wa	r27	--do-----	Pi,H	D	
Dr	r42	6	---do----	Wa	r16	August 1950	E	D	
Dr	r45	6	---do----	Wa	r24	3–29–51	E	D	
Dr	r40	6	---do----	Wa	r29	--do-----	Pi,H	D	
Dr	r42	6	---do----	Wa	r28	--do-----	Ba,H	S	Do.
Dr	r95	6	---do----	Wa	r75	--do-----	J,E	D	
Dr	75.0	6	---do----	Fp	59.90	3–23–51	Ba,H	D,S	
Dr	33.0	6	---do----	Fp	19.29	--do-----	None	U	
Dr	r45	6	---do----	Wa	r30	3–29–51	E	D	
Dr	r40	6	---do----	Wa	r30	4–10–51	Pi,H	U	Reported oily.
Dr	r105	6	---do----	Wa	r57	--do-----	None	U	Do.
Dr	r120	6	---do----	Wa,Fp	r65	5– 1–50	E	D,S	
Dr	47.0	10	---do----	Wa	32.83	4–10–51	None	U	
Dr	45.2	6	---do----	Wa	34.32	--do-----	None	U	
Dr	r65	6	---do----	Wa	r38	--do-----	None	U	
Dr	r60	6	---do----	Wa	r45	--do-----	E	D	
Dr	r100	6	---do----	Wa	r38	--do-----	Pi,H	D	
Dr	56.0	6	---do----	Wa	43.00	--do-----	None	U	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
381	0.5 mile northeast of White Plains School.	J.D. Cooper		1949	Side of hill.	770
382	do	Walter Lillard	Owen Mayhew	1950±	do	760
383	0.8 mile northeast of White Plains School.	W. McReynolds			do	700
385	do	Willie Perry			do	700
386	0.6 mile northeast of White Plains School.	D.R. Cooper			do	720
387	0.2 mile southeast of White Plains School.	R.J. Pennington			Upland	830
388	do	Carl A. Cline			do	830
389	0.1 mile south of Hickory Hill Church.	Mrs. John Ayers			Top of hill.	790
390	0.1 mile east of Hickory Hill Church.	Iza Ballard			Side of hill.	780
391	0.2 mile east of Hickory Hill Church.	W.R. Goodrum			Top of hill.	780
392	0.2 mile east-southeast of Hickory Hill Church.	Vern Frost			do	780
395	0.4 mile east of Hickory Hill Church.	Arthur Goodrum			Side of hill.	760
396	0.8 mile east of Hickory Hill Church.	Robert Williams			Upland	780
397	0.9 mile east of Hickory Hill Church.	Hazel Williams			Side of hill.	760
398	do	Homer Williams			do	770
399	1.2 miles east of Hickory Hill Church.	B.J. Pearson			Top of hill.	760
400	1.2 miles east of Hickory Hill Church.	do			do	770
402	0.8 mile west-northwest of White Plains School.	L.A. Williams			Edge of upland.	750

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r42	6	Limestone	Wa	r22	March 1949	E	D	
Dr	56.0	6	---do----	Wa	30.13	4-10-51	Ba,H	D,S	Reported yield, 100 gph. Log in table 14.
Dr	r85	6	---do----	Fp	r40	--do-----	E	D	Reported yield, 500 gph.
Dr	41.8	6	---do----	Fp	27.66	--do-----	Ba,H	D	
Dr	r50	6	---do----	Fp	r30	--do-----	E	D	
Dr	r82	6	---do----	Wa	r46	--do-----	E	D	Reported yield, 42 gpm.
Dr	r65	6	---do----	Wa	r49	--do-----	None	U	
Dr	64.8	6	---do----	Wa	53.65	4-12-51	Ba,H	D,S	
Dr	32.4	6	---do----	Wa	13.91	--do-----	Ba,H	D	
Dr	r72	6	---do----	Fp	r62	--do-----	E	D,S	
Dr	49.4	6	---do----	Wa	33.61	--do-----	None	U	Reported muddy.
Dr	47.5	6	---do----	Wa	30.23	--do-----	None	U	Do.
Dr	r60	6	---do----	Wa	r43	--do-----	E	D,S	Reported yield, 42 gpm.
Dr	r60	6	---do----	Fp	r35	--do-----	Pi,H	D,S	
Dr	r50	6	---do----	Wa	r35	--do-----	Ba,H	D	
Dr	r120	6	---do----	Fp	r99	--do-----	None	U	
Dr	r65	6	---do----	Fp	r49	--do-----	Ba,H	D	
Dr	53.6	6	---do----	Fp	49.26	4-19-51	Ba,H	S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-403	0.6 mile west-northwest of White Plains School.	L.A. Williams			Side of hill	750
405	0.4 mile west-northwest of White Plains School.	A.L. Blankenship			do	760
406	do	Haskell Mitchell			do	760
407	do	F. Mitchell			do	760
408	do	W.M. O'Neal			do	770
409	do	do			do	770
410	0.3 mile west-northwest of White Plains School.	James Frost			do	780
411	do	Haskell Lamb			do	780
412	0.2 mile west-northwest of White Plains School.	J.L. Shores			do	780
413	do	C.E. Lamb			do	780
414	0.2 mile west of White Plains School.	do			do	800
415	0.1 mile west of White Plains School.	R.D. Pruitt			do	800
416	0.1 mile west-northwest of White Plains School.	Curtis Foster			Upland ridge	810
417	0.1 mile northwest of White Plains School.	do			Ridge	810
418	0.1 mile west of White Plains School.	George Foster			do	820
419	0.1 mile southwest of White Plains School.	Wilson Carver			do	820
420	0.1 mile west-northwest of White Plains School.	Gilbert Mitchell			do	820
421	211 ft west-northwest of White Plains School.	Gilbert Douglass			do	820

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r76	6	Limestone	Fp	r56	4–19–51	Pi,H	D	Log in table 14.
Dr	81.3	6	---do----	Fp	51.65	--do-----	Ba,H	D	
Dr	r40	6	---do----	Wa	r30	--do-----	Pi,H	D	
Dr	r100	6	---do----	Fp	r75	--do-----	Pi,H	D	
Dr	95.5	6	---do----	Fp	71.85	--do-----	None	U	Reported polluted. Log in table 14.
Dr	r60	6	---do----	Fp	r50	--do-----	E	D	
Dr	r57	6	---do----	Wa	r50	--do-----	E	D	
Dr	r55	6	---do----	Wa	r45	--do-----	E	D	
Dr	r75	6	---do----	Fp	r60	4–25–51	E	D	
Dr	r78	6	---do----	Fp	r60	--do-----	None	U	Reported salty, Muddy. Log in table 14.
Dr	r35	6	---do----	Wa	r29	--do-----	E	D	
Dr	71.6	6	---do----	Wa	64.35	--do-----	None	U	Reported muddy.
Dr	28.6	6	---do----	Wa	12.59	--do-----	None	U	Reported salty, dry in summer.
Dr	55.3	6	---do----	Wa	34.04	--do-----	None	U	Reported salty, dry in summer, and muddy.
Dr	r50	6	---do----	Wa	r39	--do-----	Ba,H	D	
Dr	r65	6	---do----	Wa	r50	--do-----	Ba,H	D	Reported dry occasionally.
Dr	r55	6	---do----	Wa	r45	--do-----	E	D	
Dr	r50	6	---do----	Wa	r40	--do-----	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-422	106 ft west-northwest of White Plains School.	G. Young			Upland ridge.	820
423	53 ft west-northwest of White Plains School.	E. McDonald			do	820
424	264 ft southwest of White Plains School.	F.J. Halcomb			Side of hill.	820
425	264 ft south of White Plains School.	J.H. Stinson			do	820
426	0.1 mile southeast of White Plains School.	T.M. Gilliam			Ridge	820
427	1 mile south-southeast of White Plains School.	E. Jackson			Side of hill.	810
428	At White Plains School.	White Plains School			Ridge	830
429	0.1 mile southeast of White Plains School.	B.M. Chism			Side of hill.	820
430	do	Lloyd Bernard			do	820
431	do	do			do	800
432	0.2 mile southeast of White Plains School.	R.C. Pennington			do	820
433	0.2 mile east of Concord Church.	B.G. Brown			do	650
437	0.2 mile east-southeast of Hickory Hill Church.	A.T. Frost			do	770
440	0.7 mile southeast of Concord Church.	W.B. McGuffey			do	700
445	0.9 mile east-southeast of Concord Church.	M.C. Justice			Ridge	780
447	1.3 miles south-east of Concord Church.	S.L. Dalton			Top of hill.	800
454	0.8 mile east of Union Chapel.	A.M. Kendall			Upland	840
455	0.7 mile west of Austin School.	Burley Cline			do	850

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r45	6	Limestone	Wa	29.06	4-25-51	None	U	Reported muddy, salty. Log in table 14.
Dr	43.5	6	---do----	Wa	32.25	--do-----	Ba,H	D	
Dr	r45	6	---do----	Wa	r34	--do-----	E	D	
Dr	r68	6	---do----	Wa	r45	--do-----	E	D	
Dr	r40	6	---do----	Wa	r29	--do-----	None	U	
Dr	r90	6	---do----	Wa	r65	--do-----	E	D	
Dr	r47	6	---do----	Wa	r32	--do-----	E	P	Temperature 56°F. Chemical analysis in table 10.
Dr	r45	6	---do----	Wa	r33	--do-----	E	D	Reported yield, 40 gpm.
Dr	r45	6	---do----	Wa	r28	--do-----	E	D	
Dr	r72	6	---do----	Wa	r34	--do-----	None	U	
Dr	r38	6	---do----	Wa	r31	--do-----	E	D	
Dr	r50	6	---do----	Fp	r27	--do-----	Ba,H	D,S	
Dr	40.2	6	---do----	Wa	23.21	4-26-51	Ba,H	D,S	
Dr	r50	6	---do----	Fp	r34	5- 9-51	Ba,H	D	
Dr	47.8	6	---do----	Fp	35.60	--do-----	Ba,H	D,S	
Dr	r65	6	---do----	Fp	r47	--do-----	Ba,H	D	
Du	r50	42	---do----	Fp	r46	5- 7-51	Ba,H	D	
Du	r42	42	---do----	Fp	r38	5- 9-51	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
461	0.3 mile east-southeast of Concord Church.	Ray Dalton			Broad valley.	680
462	0.7 mile southeast of Concord Church.	Brian McGuffey			Side of valley.	660
463	1 mile southeast of Concord Church.	L.B. Huntsman			Top of hill.	790
465	0.6 mile northwest of Heath School.	B.D. Hawkins			do	780
467	1 mile northwest of Union Chapel.	C.T. Duke			do	800
474	0.9 mile west-northwest of Union Chapel.	B.J. Kendall			do	780
475	0.6 mile northwest of Union Chapel.	D.T. Myers			do	800
476	1 mile west of Union Chapel.	L.P. Duke			Side of hill.	770
481	0.3 mile west-southwest of Union Chapel.	M.A. Huntsman			do	790
485	0.1 mile west of Union Chapel.	D. Huntsman			Top of hill.	800
487	0.8 mile west-northwest of Union Chapel.	D.T. Myers			do	780
488	0.1 mile northwest of Union Chapel.	R.E. Spears			do	800
495	0.9 mile west-northwest of Heath School.	George L. Calvert			do	770
496	1 mile northwest of Heath School.	K.R. Hagan			do	790
499	1.1 miles west of Austin School.	H.M. Dalton			Upland	820
507	2 miles west-northwest of Concord Church.	Lena Ogles			Side of hill.	680
508	1.8 miles west-northwest of Concord Church.	Scott Huntsman			do	720
509	1.7 mile west-northwest of Concord Church.	William Mayhew			do	730
510	do	Owen E. Mayhew			do	760
511	do	do			do	760
512	1.6 miles west-northwest of Concord Church.	do			do	760

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r40	6	Limestone	Fp	r29	5- 9-51	Ba,H	D	
Dr	r30	6	---do-----	Fp	21.06	5-16-51	Ba,H	D,S	
Dr	r55	6	---do-----	Fp	r38	--do-----	Ba,H	D,S	
Dr	47.8	8	---do-----	Fp	37.77	7-28-53	Ba,H	D,S	
Dr	r60	6	---do-----	Fp	r44	5-24-51	Ba,H	D,S	
Dr	r60	6	---do-----	Fp	r46	--do-----	Ba,H	D	
Dr	r65	6	---do-----	Fp	r50	--do-----	Pi,H	D	
Dr	65.6	6	---do-----	Fp	58.06	--do-----	Ba,H	D,S	
Du	r45	30	---do-----	Fp	r41	5-25-51	Ba,H	D	
Dr	r78	6	---do-----	Fp	r70	--do-----	Ba,H	D	
Dr	r42	6	---do-----	Fp	r33	--do-----	Ba,H	D	
Dr	r60	6	---do-----	Fp	r49	6- 7-51	Ba,H	D,S	
Dr	r25	6	---do-----	Fp	r14	6-21-51	Ba,H	D	
Dr	r15	6	---do-----	Fp	r9	--do-----	Ba,H	D	
Dr	r49	6	---do-----	Fp	r45	6-25-51	Ba,H	D	
Dr	r60	6	---do-----	Fp	r44	6-26-51	Ba,H	D,S	
Dr	r50	6	---do-----	Fp	r28	--do-----	Ba,H	D	Reported yield, 100 gph. Log in table 14.
Dr	r50	6	---do-----	Fp	r43	--do-----	Ba,H	D,S	
Dr	34.8	10	---do-----	Fp	22.20	--do-----	None	U	
Dr	48.4	6	Mantle----	Q	27.84	--do-----	None	U	Reported yield, 100 gph. Log in table 14.
Dr	r50	6	Limestone	Fp	r33	--do-----	None	U	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
513	1.4 miles west-northwest of Concord Church.	Owen L. Mayhew			Side of 'hill.	780
514	do	Homer Carter			do	780
517	do	Owen E. Mayhew			do	780
519	1.3 miles north-west of Concord Church.	H.A. Sarver			Top of hill.	790
522	1.2 miles west-northwest of Concord Church.	Hoy L. Sarver			do	790
528	do	Oscar Foster			do	780
529	do	do			do	800
531	1.4 miles west-northwest of Concord Church.	B.K. Wolfe			Side of hill.	750
532	1.2 miles west of Concord Chruch.	L.J. Owen			Top of hill.	800
535	0.9 mile west of Concord Church.	F.M. Mitchell			do	800
536	1 mile west-southwest of Concord Church.	Forrest Foster			do	800
541	0.7 mile west of Concord Church.	C.C. McGuffey			do	790
542	do	do			do	800
543	0.8 mile west of Concord Church.	Lee Lafon			do	790
544	0.5 mile west-northwest of Concord Church.	J.A. Brown			Side of hill.	760
545	0.5 mile west of Concord Church.	do			do	760
546	0.4 mile west-northwest of Concord Church.	O.M. Duke			do	760
553	1 mile north-northeast of Concord Church.	Crickett Powell			do	650
557	1.4 miles northwest of Concord Church.	J. Stinson			do	760
560	Petroleum	Ralph Meador			Bottom of valley.	610
561	do	Porter Stamps			do	610
562	do	Cecil Rather			do	610
563	Southwest Petroleum.	H.P. Sarver			do	600
565	Southeast Petroleum.	Paul Norris			Side of hill.	660
566	South Petroleum	Burton Hanner			do	630

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	44.9	6	Limestone	Fp	35.30	6-26-51	Ba,H	D	
Dr	r45	6	---do-----	Fp	r35	6-27-51	Ba,H	D	
Dr	r30	6	---do-----	Fp	------	---------	Pi,H	D	
Dr	r26	6	---do-----	Fp	r19	6-26-51	Ba,H	D	
Dr	r45	6	---do-----	Fp	r34	--do-----	Ba,H	D	
Dr	r50	6	---do-----	Fp	r38	--do-----	Ba,H	D	
Dr	------	6	---do-----	Fp(?)	------	---------	E	D	
Dr	r60-70	8	---do-----	Fp	r47	6-26-51	None	To	
Dr	r60	6	---do-----	Fp	r49	--do-----	Ba,H	D	
Dr	r50	6	---do-----	Fp	r39	--do-----	Ba,H	D	
Dr	33.2	6	---do-----	Fp	22.73	--do-----	Ba,H	D	
Dr	r55	6	---do-----	Fp	r43	--do-----	Ba,H	D	
Dr	r50	6	---do-----	Fp	r44	--do-----	Ba,H	S	
Dr	r50	6	---do-----	Fp	r39	--do-----	None	U	
Du,Dr	r40	30x6	---do-----	Fp	r28	--do-----	Pi,H	D,S	
Dr	r60	6	---do-----	Fp	r50	--do-----	None	U	
Dr	r60	6	---do-----	Fp	r39	--do-----	None	U	Reported sulfurous.
Dr	r32	6	---do-----	Fp	r24	--do-----	Ba,H	D	
Dr	r40	6	---do-----	Fp	r33	--do-----	Ba,H	D	
Dr	18.7	6	Mantle---	Q	8.25	7-26-51	Ba,H	S	
Dr	r30	6	Limestone	Fp	r19	--do-----	Ba,H	D	Reported black and sulfurous.
Du	17.4	30	Mantle---	Q	7.26	--do-----	Pi,H	D	
Du	r15	30	---do----	Q	r8	--do-----	Ba,H	D	
Dr	18.4	6	---do----	Q	10.41	--do-----	Ba,H	D	
Q	14.9	30	---do----	Q	10.34	--do-----	Ba,H	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
567	Petroleum	Burton Hanner			Side of hill.	640
568	do	W.B. Ogles			do	640
569	East Petroleum	do			do	600
570	Petroleum School				do	620
571	Northeast Petroleum.	C.W. Sexton			do	640
572	do	do			do	660
573	North Petroleum	do			do	640
574	1.3 miles south-southwest of Mount Pleasant Church.	E.D. Wheeley			Top of hill.	740
576	do	J.H. Frazier			do	740
579	North Petroleum	Raymond Phillips			Bottom of valley.	620
580	North edge of Petroleum.	Roy Charlton			do	600
581	0.7 mile east-southeast of Union Chapel.	Raymond Dyer			Top of hill.	850
585	0.4 mile east of Union Chapel.	Ivy Kelly			Upland	840
587	0.2 mile east of Union Chapel.	Everett Jones			do	840
588	0.2 mile south-southeast of Union Chapel.	Marshall Wolf			do	790
590	0.5 mile south-southeast of Union Chapel.	Bascomb Brown			do	810
593	0.7 mile south-southwest of Union Chapel.	Jim Huntsman's heir's.			Side of hill.	700
594	0.3 mile east-southeast of Union Chapel.	Union Chapel School			Upland	830
595	0.3 mile east-northeast of Union Chapel.	W.E. Spears			do	840
597	0.4 mile north-northeast of Union Chapel.	Dave Rippy			do	800
598	0.6 mile north-northeast of Union Chapel.	E.A. Basham			do	780

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	32.3	6	Limestone	Fp	21.72	7–26–51	None	U	Reported sulfurous.
Dr	r50	6	---do-----	Fp	r24	--do-----	E	D	
Dr	r40	6	Limestone and shale (?)	Fp, Cg(?)	r23	--do-----	Ba,H	D	
Du	r20	30	Mantle and limestone	Q,Fp	14	--do-----	E	D	Temperature 57°F. Chemical analysis in table 10.
Dr	r60	10	Limestone	Fp	------	---------	Pi,H	To,S	Reported plugged at 60 ft.
Du	19.7	60	Mantle----	Q	12.01	7–26–51	Ba,H	D	Reported surface water seeps in.
Dr	27.2	6	Limestone	Fp	16.65	--do-----	Ba,H	D	
Du	34.1	------	---do-----	Fp	25.22	--do-----	Ba,H	D	
Dr	r40	6	---do-----	Fp	r29	--do-----	Ba,H	D	
Dr	r40	6	---do-----	Fp	------	---------	Pi,H	D	
Du	13.0	30	Mantle----	Q	9.00	7–26–51	Ba,H	D	
Dr	r80	------	Limestone	Fp	r65	8– 3–51	Ba,H	D	
Du	r47	42	Mantle----	Q	r37	--do-----	Ba,H	D	
Dr	57.0	6	Limestone	Fp	48.70	--do-----	Ba,H	D	
Du	33.9	30	Mantle----	Q	28.53	--do-----	Ba,H	U	
Du	r40	36	---do-----	Q	r38	--do-----	Ba,H	D	
Du	18.0	40	---do-----	Q	11.68	--do-----	Ba,H	D	
Dr	48.6	6	Limestone	Fp	38.58	--do-----	Ba,H	P,D	
Du	r50	------	---do-----	Fp	r48	--do-----	Ba,H	D	
Du	r60	------	---do-----	Fp	r10	--do-----	Ba,H	D,S	
Dr	r60	6	---do-----	Fp	------	---------	Ba,H	S	Plugged at present at 12 ft.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3640-						
602	0.5 mile north of Union Chapel.	Mrs. Etta Marsh			Upland	790
606	0.8 mile north of Union Chapel.	O.D. Marion			Valley terrace	660
607	0.6 mile north of Union Chapel.	Jack Huntsman			Upland	780
608	0.3 mile southeast of Union Chapel.	Jess Carter			do	820
610	0.6 mile east of Union Chapel.	R.M. Wilson			do	830
614	0.8 mile west-northwest of Heath School.	Cleo Calvert			Top of hill.	780
615	0.1 mile northwest of Union Chapel.	Nettie Spears	Duncan Barlow	1950	Upland	800
616	0.3 mile west of Union Chapel.	do	do	1950	do	790
617	0.8 mile southwest of courthouse.	J. Barlow	do	1950	Upland slope.	750
618	1.6 miles north-west of Pleasant Field School.	Jack Read	Jack Read		Top of hill.	850
619	1 mile east of Hickory Hill Church.	James Frost	Robert Marcum	1951	Upland	760
620	0.8 mile north of Dover Church.	H.C. Livesay	do	1951	Valley side near creek.	740
621	0.2 mile southeast of White Plains School.	Dr. O.L. Davis	do	1952	Upland near head of valley.	830
622	0.5 mile northwest of Union Chapel.	W.E. Spears	Don Todd	1953	Upland ridge.	810
8610-3645-						
1	North end of Third St.	B.E. Cooksey	do		Side of hill.	770
2	0.6 mile north of Scottsville Grade School.	Henry Rush	Mr. Withum		do	740
3	do	do	E. C. Neil		do	740
4	0.8 mile north of Scottsville Grade School.	Evert Barber			Edge of upland.	760

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r40	------	Limestone	Fp	r30	8- 7-51	Ba,H	D	
Du	r15	------	Mantle----	Q	r12	--do-----	Ba,H	D	
Du	r42	------	Limestone	Fp	r35	--do-----	Ba,H	D	
Du	r36	------	---do-----	Fp	r30	--do-----	Ba,H	D	
Dr	r47	6	---do-----	Fp	r32	8- 7-51	Ba,H	D	
Dr	r35	6	---do-----	Fp	r28	6-21-51	Ba,H	D	
Dr	260.0	6	---------	----	------	---------	None	To	Dry hole. Log in table 14.
Dr	322	6	---------	----	------	---------	None	To	Do.
Dr	340.0	6	---------	----	------	---------	None	To	Do.
Dr	r118	8	Limestone	Wa, Fp	r60	9- 8-51	E	Ir	Reported yield, 55 gpm. Slight sulfurous odor. Temperature 58°F. Chemical analysis in table 10.
Dr	r31	6	Mantle and limestone	Q	r26	9-19-51	None	S	
Dr	r42	6	Limestone	Fp	r10	3-12-52	Pi,H	D	Reported good water at 35 ft. Reported yield, 25 gpm. Sulfurous at 40 ft.
Dr	r98	6	---do-----	Wa	r49	1- 8-53	Cy,E	D	Reported yield, 2 gpm.
Dr	r320	------	---------	----	------	---------	None	To	Log in table 14.
Du	r24	30	Mantle and limestone	Q,Wa	9.90	7- 5-50	Ba,H	D,O	Temperature 62°F. Chemical analysis in table 10.
Dr	r41	6	Limestone	Fp	r10	--do-----	Pi,H	D	
Dr	r70	6	---do-----	Fp	r32	--do-----	E	D	Sulfurous taste. Log in table 14.
Dr	r65	6	---do-----	Wa	48.00	--do-----	Ba,H	D,S	Reported yield, 60 gpd. Reported sulfurous.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
5	1 mile north of Scottsville Grade School.	Carl Emery	Mr. Harper		Upland	770
6	1.1 miles north of Scottsville Grade School.	do	Mr. Wilson	1950	In hollow.	710
7	1.1 miles north of Scottsville Grade School.	do	George Harper		Upland	770
8	0.9 mile north of Scottsville Grade School.	J.L. Turner	Robert Marcum		do	770
9	do	do	do		do	770
10	1 mile north of Scottsville Grade School.	P.H. Conner			do	770
11	0.8 mile north of Scottsville Grade School.	R. King	J.D. Marr		Side of hill.	750
12	1.1 miles north of Scottsville Grade School.	W.H. Taylor	J. Barlow		Edge of upland.	760
15	Fourth and Cherry Sts.	H.H Read			In hollow.	730
16	200 ft southwest of Scottsville Grade School.	J.O. Cook			Side of hill.	760
17	100 ft west of Scottsville Grade School.	Randall Jackson			do	760
18	600 ft west of Scottsville Grade School.	G.W. Weaver			do	760
19	0.5 mile north-northwest of Scottsville Grade School.	A. Hobdy			do	770
20	Near northwest corner of East Main and Fourth Sts.	T.Y. Oliver			do	740
21	North side of East Main St. between Second and Third Sts.	R.H. Strausburg			do	740
22	Near northeast corner of East Main and Fourth Sts.	Mr. Hughes			do	740

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r25	6	Limestone	Wa	15.50	7- 5-50	Ba,H	D	Reported iron taste.
Dr	r316	6	---do-----	-----	------	---------	None	To	
Dr	r80	6	---do-----	Fp	r80	7- 5-50	None	U	
Dr	r75	6	---do-----	Fp	66.37	--- ----	Ba,H	D	Reported iron taste when low.
Dr	r60	6	---do-----	Wa	47.90	---do----	Ba,H	D	Reported muddy after rain.
Dr	r80	6	---do-----	Wa	------	---------	E	D,S	Reported use, 20 gpd. Temperature 65°F. Chemical analysis in table 10.
Dr	r65	6	---do-----	Wa	27.50	7- 5-50	Ba,H	D	
Dr	r141	6	---do-----	-----	------	---------	None	U	Reported plugged at 46 ft.
Dr	-----	6	---do-----	Fp	17.90	7- 7-50	Ba,H	U	Iron taste. Temperature 63°F.
Dr	-----	6	---do-----	-----	------	---------	None	U	Plugged.
Dr	r30	------	---do-----	Wa(?)	------	---------	H	D	Reported use, 1 gpd. Murky after rain.
Dr	r35	6	---do-----	Wa	------	---------	E	D	Temperature 59°F. Chemical analysis in table 10.
Dr	r100	6	---do-----	-----	------	---------	Pi,E	S	Iron present.
Dr	------	6	---------	-----	------	---------	H	U	Reported sulfurous taste.
Dr	------	------	---------	-----	------	---------	H	U	
Dr	------	------	---------	-----	------	---------	-----	U	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
23....	Houchen's Locker Plant, East Main St.	Houchen's Market...	Owen Mayhew ...	......	Valley, edge of creek.	740
24....	Southeast of Main Sixth St.	E.T. Barlitt........	Mr. Mayhew...	......	Side of hill.	760
28....	100 ft north of railroad depot.	Johnson Bros. Lumber Co.	....	......	..do..	780
30....	Southwest corner of Maple and Third Sts.	Methodist Church ...	....	......	..do..	760
31....	North side of Maple St., between Fourth and Fifth Sts.	T.Y. Lones........	....	......	..do..	760
32....	On southeast corner of Maple and Fifth Sts.	T.F. Pitchford	....	......	..do..	760
34....	South side of Maple St. 500 ft west of Maysville Rd.	Perkins Meador	Mr. Marsh....	......	..do..	790
35....	......do.........	Otis Meador........	....	......	..do..	800
36....	400 ft south of railroad depot.	C. Rowe...........	Mr. Mayhew...	......	..do..	760
37....	500 ft east of railroad depot.	L. Jackson	....	......	..do..	820
38....	0.3 mile south of Scottsville Grade School.	D.C. Sims	....	......	..do..	760
39....	......do.........	Ed Bradley	....	......	..do..	760
40....	500 ft south-southwest of Scottsville Grade School.	W.T. Gilliam.......	....	1919	..do..	750
41....	South side of Poplar St., between Seventh and Eighth Sts.	Nellie Londott......	....	......	Top of hill.	820
43....	Northeast corner of Ninth and Poplar Sts.	J.C. Sears.........	....	......	Side of hill.	780
44....	East side of Eighth St., between Poplar and East Main Sts.	U.Y. Bandy	....	......	..do..	800
45....	......do.........	S. Dennis..........	....	......	..do..	810
46....	Southeast corner of Poplar and Eighth Sts.	Mandi Durham	....	......	..do..	800

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	r50	------	Limestone	Fp	------	---------	J,E	In	Log in table 14.
Dr	------	------	---------	-----	------	---------	None	U	
Du	r20	------	Mantle----	Q	------	---------	None	U	Reported polluted.
Dr	------	------	---------	-----	------	---------	H	U	
Dr	48.0	6	Limestone	Fp	34.00	7-11-50	None	U	
Dr	r50	6	---do-----	Fp	r40	--do-----	None	U	Plugged at top.
Dr	r65	6	---do-----	Wa	29.50	--do-----	Ba,H	D	Reported water at 50 ft, sulfurous.
Dr	r45	6	---do-----	Wa	35.00	--do-----	Ba,H	D	
Dr	r30	6	---do-----	Fp	r25	--do-----	Pi,H	U	Reported oily taste.
Dr	------	6	---do-----	-----	------	---------	H	S	
Dr	33.0	6	---do-----	Fp	27.62	7-11-50	None	U	
Du	28.5	------	Mantle----	Q	25.65	7-12-50	None	U	
Dr	r60	6	Limestone	Fp	------	---------	H	U	
Dr	------	6	---do-----	-----	------	---------	None	U	Caved in.
Dr	------	6	---do-----	Wa	15.75	7-14-50	None	U	
Du	------	------	Mantle----	Q	2.40	--do-----	None	U	
Dr	-----	6	---do----	Wa	21.30	--do-----	None	U	
Dr	-----	6	Limestone	Wa, Fp	45.00	--do-----	None	O	Temperature 59°F. Hydrograph in figure 17.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
47	650 ft southeast of Scottsville Grade School.	Clarence Parish			Side of hill.	790
48	213 West Cherry St.	E.H. Read			Upland	730
49	217 West Cherry St.	J.S. Braswell			do	730
50	South side of West Main St., 500 ft west of courthouse.	Mrs. R.C. Huntsman			do	760
51	On West Cherry St., 200 ft east of Allen County High School.	L.P. Napier			do	740
52	502 West Cherry St.	E.C. Neil	E.C. Neil		Side of hill.	720
53	do	do	do		do	710
54	0.4 mile west-northwest of courthouse.	Mrs. J. Wilson			do	720
55	0.4 mile northwest of courthouse.	Allen Read			Top of hill.	760
60	0.2 mile west-northwest of courthouse.	C.R. Miller			Upland	730
61	South side of West Cherry St., 700 ft northwest of courthouse.	do			do	730
62	Northwest corner of West Main and Cemetery Sts.	Fannie Brown			do	740
63	Northwest corner of West Cherry and Court Sts.	T.W. Crow & Son			do	750
64	West side of North Court St., 500 ft north of courthouse.	Mrs. Annie Ayers			do	740
68	0.4 mile north of courthouse on west side of North Court St.	I.L. Horn			Side of hill.	760
74	1 mile west-northwest of courthouse.	O.J. Wooten			Top of hill.	730
75	do	Kenneth Lyle			Side of hill.	680

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	------	-----	Mantle----	Q	5.05	7–14–50	None	U	
Dr	r36	-----	Limestone	Fp	------	---------	E	Ir	
Dr	r32	6	---do-----	Fp	------	---------	H	U	
Dr	64.2	6	---do-----	Fp	46.94	9–27–50	None	O	Temperature 61°F. Hydrograph in figure 13.
Dr	------	6	---do----	-----	------	---------	E	S	Reported use, 30 gpd.
Dr	r56	6	---do-----	Fp	r40	7–26–50	None	U	Sulfurous.
Dr	r60	6	---do-----	Fp	r40	--do-----	None	U	Do.
Dr	75.8	6	---do-----	Fp	48.45	--do-----	None	U	Reported sulfurous at bottom, good at top. Temperature 60°F.
Dr	r100	6	---do-----	Wa, Fp	------	---------	H	S	Temperature 59°F. Chemical analysis in table 10.
Dr	------	------	---do----	-----	------	---------	H	U	
Dr	------	------	---do----	-----	------	---------	None	U	
Du	r25	------	Mantle----	Q	------	---------	None	U	
Dr	36.2	6	Limestone	Fp	13.45	7–28–50	None	U	
Dr	41.0	------	---do-----	Fp	13.90	---------	----	U	
Dr	r65	6	---do-----	Fp	r45	8– 1–50	None	U	
Dr	r100	6	---do-----	Wa, Fp	74.69	8– 8–50	E	D,S	Temperature 59°F. Chemical analysis in table 10. Log in table 14.
Dr	r50	6	---do-----	Fp	r29	8–14–50	J,E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
77	1.1 miles west-northwest of courthouse.	Mrs. Vallie Sexton			Side of hill.	700
78	1.3 miles west-northwest of courthouse.	C.J. Tinsley	E.C. Neil		Upland	760
96	0.3 mile east-northeast of Rough and Ready School.	Gaylon Pearson			do	700
101	1 mile north of Rough and Ready School.	Robert Burton			Bottom of valley.	570
105	1.5 miles south of Rough and Ready School.	Noel Creasy	Owen Mayhew		Upland	770
107	1.2 miles west of courthouse.	E.L. Pardue	Robert Marcum		do	770
111	0.5 mile south-southwest of Harrison School.	D.H. Walker			Side of hill.	740
112	do	do			Upland	760
117	1.4 miles north-northwest of courthouse.	Pringle Powder Co	Robert Marcum	1932	Side of hill.	710
118	1.5 miles north-northwest of courthouse.	do			In hollow.	660
120	0.4 mile east of Harrison School.	G.E. Bewley			Upland	800
121	0.5 mile east-southeast of Harrison School.	James Samson			do	800
122	do	do	R.C. Keen and Carter.		do	800
127	215 West Cherry St.	Mrs. R. Justice			do	720
128	1 mile east of courthouse.	Georgie Williams			Side of hill.	770
131	do	James Shropshire			do	760
133	Southwest corner of East Main and Second Sts.	Mrs. Kenneth Garrison.			Upland	750
134	1.2 miles east-northeast of courthouse.	Tom Emery			do	760
136	1.7 miles northwest of courthouse.	W.R. Spurlock			do	720

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	49.4	------	Limestone	Fp	27.80	8–14–50	Ba,H	D	
Dr	r65	6	---do----	Fp	r50	--do-----	E	D	
Dr	r40	------	---do----	Wa,Fp	------	---------	H	D,S	Temperature 50°F. Chemical analysis in table 10.
Dr	r410	------	---do----	De,Si	------	---------	Fl	U	Reported flow, 20 gpm. Sulfurous odor. Temperature 59°F. Chemical analysis in table 10.
Dr	89.6	6	---do----	Wa	44.77	8–17–50	Ba,H	D,O	Reported yield, 3 gph. Log in table 14. Hydrograph in figure 18.
Dr	r42	6	---do----	Wa	r40	--do-----	Ba,H	D	
Dr	r82	6	---do----	Fp	r60	8–30–50	H	S	Reported sulfurous.
Dr	r80	6	---do----	-----	------	---------	None	U	Reported sulfurous and oily.
Dr	r145	6	---do----	Fp	r70	9–11–50	E	In	Temperature 58°F. Chemical analysis in table 10.
Dr	r34	8	---do----	Fp	r30	--do-----	None	U	
Dr	r42	6	---do----	Wa	------	---------	Ba,H	D	
Dr	25.0	6	---do----	Wa	13.51	9–12–50	Ba,H	D	Temperature 63°F. Chemical analysis in table 10.
Dr	46.0	6	---do----	Wa	13.52	--do-----	None	O	Hydrograph in figure 18.
Du	25.4	40	Mantle---	Q	18.26	10– 1–50	Ba,H	U	
Du	18.6	40	---do----	Q	14.98	10–11–50	Ba,H	D	
Dr	37.8	6	Limestone	Fp	28.01	--do-----	Ba,H	U	
Dr	36.0	6	---do----	Fp	28.30	10–31–50	Ba,H	D	
Dr	56.4	6	---do----	Fp	29.17	--do-----	Ba,H	U	Reported hard.
Dr	80.0	6	---do----	Wa,Fp	56.68	9– 7–50	Ba,H	D,S	Temperature 61°F. Chemical analysis in table 10.

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-138	1.3 miles east-northeast of courthouse.	W.A. Carter			Upland	760
148	0.9 mile north-northeast of Harrison School.	Robert Welch			Side of hill.	680
149	0.4 mile north of Harrison School.	J.A. Welch			do	690
153	1.2 miles northeast of courthouse.	Yatmon Emery			do	760
154	0.7 mile northeast of Harrison School.	F.A. Thomason			Edge of valley bottom.	680
163	0.4 mile east of Halifax.	Hilbert Motley			Upland	760
176	0.2 mile northeast of Halifax.	Virgil Williams			do	740
192	0.8 mile northeast of Crane Hill School.	S.H. Massey			Side of hill.	610
201	0.3 mile north of Crane Hill School.	Marvin Neal			Top of hill.	690
202	do	C.O. Williams			do	740
218	0.1 mile south of Crane Hill School.	Otis Stovall			Edge of upland.	720
226	0.6 mile southwest of Crane Hill School.	Thurman Saylors			Upland ridge.	680
238	1.2 miles southeast of Crane Hill School.	G.H. Hughes			Side of hill.	660
248	0.7 mile west-southwest of Harrison School.	T.R. Wilson			Top of hill.	760
249	0.6 mile southwest of Harrison School.	do			do	760
253	1.4 miles east of Crane Hill School.	Luther Walker			do	740
263	0.4 mile northwest of Harrison School.	Jewell Pruitt			Upland	740
265	1.6 miles north of Harrison School.	G. Woods			do	800
268	1.8 miles north-northwest of Harrison School.	A.C. Ayers			do	770

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	57.0	6	Limestone	Fp	45.00	10–31–50	Ba,H	U	
Dr	r25	6	---do----	Wa,Fp	r15	11–28–50	H	D,S	Reported slightly sulfurous. Temperature 58°F. Chemical analysis in table 10.
Du	r18	42	Mantle---	Q	r15	--do----	-----	D	Reported hard.
Dr	r36	6	Limestone	Fp	r31	10–31–50	Ba,H	D,S	
Dr	r30	6	Mantle---	Q	r17	1– 8–51	Ba,H	D	Reported 17 ft to base of weathered zone.
Du	27.0	24	---do----	Q	3.08	1–24–51	Ba,H	D,S	
Dr	69.4	6	Limestone	Wa	65.60	3– 1–51	Ba,H	O,S	Sulfurous odor. Hydrograph in figure 20.
Dr	r80	8	---do----	Fp	r40	--do----	H	S	
Dr	r88	6	---do----	Wa	r35	--do----	Ba,H	D	
Dr	r88	-----	---do----	Sl	40.70	--do----	Ba,H	D,S	
Dr	74.0	6	---do----	Wa	41.41	--do----	Ba,H	O	Hydrograph in figure 18.
Dr	94.5	-----	---do----	Fp	89.60	--do----	----	U	Reported sulfurous.
Dr	r80	6	---do----	Fp	r40	--do----	E	D,S	
Dr	r109	6	---do----	Wa	74.20	3– 8–51	None	U	
Dr	87.5	6	---do----	Wa	49.40	--do----	Ba,H	D	
Dr	101.0	6	---do----	Wa	36.82	--do----	-----	U	
Du	40.5	30	---do----	Wa	36.00	--do----	None	U	
Dr	r96	6	---do----	Wa	68.00	3–12–51	None	O	Hydrograph in figure 19.
Dr	r80	6	---do----	Wa	r60	--do----	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
270	1.4 miles south of Sinking Spring School.	Less Burton			Upland	740
271	1.7 miles south of Sinking Spring School.	do			do	740
277	1.4 miles west of Scottsville.	Hubert Cline			do	780
278	do	B. Jackson			do	760
279	1.5 miles west of Scottsville.	E. C. Simmons			do	760
280	do	J. Perkins			do	760
281	1.6 miles west of Scottsville.	C. L. Chandler			do	750
283	1.7 miles west of Scottsville.	Oscar Lyles			do	740
284	1.2 miles northeast of Hickory Hill Church.	Glen Hardcastle			do	760
287	1.3 miles south-southeast of Rough and Ready School.	M. D. Wagoner	Owen Mayhew		do	750
288	1.1 miles south of Ready School. School.	A. T. Harris	do		do	770
289	do	do			do	760
290	0.9 mile south of Rough and Ready School.	W. E. Wagner			do	760
291	0.8 mile south of Rough and Ready School.	do			do	760
292	1.6 miles west of Scottsville.	E. W. Holland			do	770
299	1 mile south of Rough and Ready School.	C. T. Pitchford			do	780
300	1.2 miles south-southwest of Rough and Ready School.	M. F. Smith			do	750
305	0.8 mile south-southwest of Rough and Ready School.	B. L. Stamps	Jack Barlow	1947	do	740
306	do	do	do		do	740
307	0.9 mile south-southwest of Rough and Ready School.	Ira Williams			do	720

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r40	------	Limestone	Sl	r20	3-23-51	None	U	
Dr	r50	------	---do----	Sl	r30	--do-----	None	U	
Dr	80.5	6	---do----	Wa	51.86	3-26-51	Ba,H	D,S	Reported hard.
Dr	r72	6	---do----	Wa	r28	--do-----	H	D	
Dr	r68	6	---do----	Wa	r30	--do-----	E	D	
Dr	r70	6	---do----	Wa	r30	--do-----	E	D	
Dr	r60	6	---do----	Wa	25.55	--do-----	Ba,H	D	
Dr	r60	6	---do----	Fp	44.87	--do-----	Ba,H	D	Log in table 14.
Du	r30	36	Mantle---	Q	r10	3-26-51	E	D,S	
Dr	45.0	6	Limestone	Wa	16.20	--do-----	Ba,H	D,S	Do.
Dr	r85	------	---do----	Wa	r60	--do-----	H	D,S	Do.
Du	r12	36	Mantle---	Q	r0	--do-----	Ba,H	D,S	
Dr	r80	8	Limestone	Wa	r60	--do-----	None	To, U	Plugged to 80 ft.
Dr	r102	6	---do----	Fp	r92	--do-----	H	D,S	
Dr	62.5	6	---do----	Wa	40	3-27-51	Ba,H	U	Reported sulfurous.
Du	r30	48	Mantle---	Q	r20	--do-----	Pi,H	D,S	
Dr	r43	6	Limestone	Wa	r31	--do-----	E	D,S	
Dr	r80	6	---do----	-----	Dry	--do-----	None	U	Reported yield, 9 gpm. Log in table 14.
Dr	r74	6	---do----	Fp	r60	--do-----	None	U	Reported yield, 2 gpm. Reported sulfurous. Log in table 14.
Dr	r34	6	---do----	Wa	r20	--do-----	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3645-						
310	1.9 miles west of Scottsville.	Willis Long			In valley.	690
315	0.1 mile northwest of Rough and Ready School.	George Pruitt			Upland	720
321	0.6 mile southwest of Rough and Ready School.	M. Roberts			do	720
330	1.3 miles west-southwest of Crane Hill School.	Marshal Roberts			do	740
345	0.9 mile north of Harrison School.	Gardner Foster			do	740
346	2.1 miles north of Scottsville.	Earl Pitchford	Harry Read	1954	Edge of upland.	655
347	1.5 miles south-southeast of Halifax.	Mr. Motley	Jack Read	1940±	Bottom of valley.	545
8610-3650-						
1	0.7 mile east of Sinking Spring School.	G.B. Steenbergen	F. E. Morgan	Oct. 1950	On ridge.	710
10	1.5 miles north-northwest of Gainesville.	Stark Brothers			Upland ridge.	660
11	1.8 miles north-northwest of Gainesville.	Elizabeth Richey			do	670
15	1.3 miles northwest of Gainesville.	Mrs. F.V. Moody			Side of hill.	680
17	1 mile west-southwest of Gainesville.	G.B. Steenbergen			On ridge.	730
23	0.3 mile north of Settle.	Mrs. H.W. Tabor			Shallow sink on upland.	660
24	0.3 mile north-northeast of Settle.	do			Upland	660
25	0.3 mile west-southwest of Settle.	E.C. Weaver			do	700
30	1.1 miles southwest of Settle.	J.B. Williams			Edge of upland.	610
36	0.3 mile east of Sinking Spring School.	Hershel Powell			Upland	750

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Du	r24	42	Mantle---	Q	r12	3-28-51	Ba,H	D,S	
Dr	r135	6	Limestone	Wa	r100	--do----	H	D	
Du	r16	42	---do----	Wa	r15	--do----	None	U	
Dr	r68	6	---do----	Wa	r51	--do----	Ba,H	D,S	Reported sulfurous.
Dr	r72	6	---do----	Wa	r65	4-24-51	None	U	Do.
Dr	r330	8	---do----	De,Si	r180	8-21-54	None	To	Sulfurous and saline. Temperature 78°F. Log in table 14.
Dr	r1,912.	------	---------	-----	------	--------	None	To	Abstract log in table 14.
Dr	r480	6	Limestone	Wa, Fp	r90	--------	None	To	Log in table 14.
Du	r25	------	Mantle---	Q	r22	11-28-50	Ba,H	U	Reported inadequate.
Du	r32	------	Limestone	Wa	r28	--------	Ba,H	D,S	
Dr	r100+	8	---do----	Wa	33.30	11-29-50	Ba,H	D,S	Temperature 58°F. Chemical analysis in table 10.
Dr	73.0	6	---do----	Wa, Fp	55.00	--do----	Ba,H	D	
Du	20.4	42	---do----	Wa	19.40	12- 5-50	Ba,H	D,S	
Dr	r100+	6	---do----	Wa	21.94	--do----	Ba,H	D,S	
Dr	69.9	8	---do----	Sl	38.71	--do----	Ba,H	S	Temperature 57°F. Chemical analysis in table 10.
Dr	58.0	6	---do----	Wa	48.18	--do----	None	U	Cistern installed.
Dr	64.0	6	---do----	Sl	42.49	1- 9-51	Ba,H	D,S	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3650-						
37	0.5 mile northeast of Sinking Spring School.	Hershel Powell			Upland	780
38	0.7 mile north of Sinking Spring School.	C. Willoughby			do	720
43	1.3 miles north-northeast of Sinking Spring School.	J.H. Stovall			Upland ridge.	710
44	1.5 miles north of Sinking Spring School.	Toy Cockrell			Upland	710
45	1.7 miles north of Sinking Spring School.	Boss Weaver			do	700
49	0.3 mile east of Sinking Spring School.	Lawrence Herrington			do	750
54	1.3 miles southeast of Settle.	Jake Willoughby and Rondle Crabtree.			do	700
55	0.6 miles north-west of Sinking Spring School.	U.W. Williams			do	730
56	0.1 mile northwest of Sinking Spring School.	P.T. Tabor			do	780
57	0.5 mile northwest of Sinking Spring School.	A.B. Tabor			do	720
59	0.5 mile southeast of Settle.	Everett Andrews			Karst upland.	680
62	0.3 mile south-southeast of Settle.	G.E. McGuffey			do	680
63	do	do			do	640
65	0.5 mile west of Settle.	Eddie M. Geralds			Side of hill.	680
68	1.9 miles north of Sinking Spring School.	Velda Willoughby			Upland ridge.	650
70	0.9 mile southeast of Settle.	Everett Andrews			Karst upland.	700
71	0.8 mile southeast of Settle.	do			do	680
72	In Settle	Porter Gibson			do	710

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material: Character	Principal water-bearing material: Geologic unit	Water level: Below land surface (feet)	Water level: Date of measurement	Lift	Use	Remarks
Dr	99.3	8	Limestone	Sl,Wa	69.58	1- 9-51	Ba,H	D	
Dr	86.3	8	---do----	Wa	62.44	--do----	Ba,H	U	
Du	r20	48	Mantle ---	Q	r17	--do----	Ba,H	D,S	
Du	24.9	36	---do----	Q	20.74	--do----	Ba,H	U	
Dr	83.0	8	Limestone	Wa	60.50	--do----	Ba,H	D,S	
Dr	r150	8	---do----	Sl	r60	--do----	H	S	
Dr	120.0	6	---do----	Wa	93.95	1-11-51	None	O	Reported gas present. Hydrograph in figure 19.
Du	r45	36	---do----	Sl	r40	--do----	None	U	Reported oil contamination.
Dr	r100+	6	---do----	Sl	40.43	--do----	Ba,H	D,S, P	
Dr	------	8	---do----	-----	------	--------	Pi, G(?)	To,S	Plugged back.
Dr	r140	6	---do----	Wa	r80	1-11-51	H	S	
Dr	r67	6	---do----	Sl	r33	--do----	H	D,S	
Du	r27	42	---do----	Sl	r24	--do----	Ba,H	S	Reported aquifer is solution cavity at 24-27 ft.
Dr	r200+	8	---do----	Wa	r110	--do----	Ba,H	D	
Dr	r125+	6	---do----	Fp	r100	1-24-51	Ba,H	D	Reported sulfurous.
Dr	r110	8	---do----	Wa	r80	--do----	None	0	Sulfurous. Hydrograph in figure 20.
Dr	r80	8	---do----	Wa	r70	--do----	Pi,G	In	
Dr	r108	6	---do----	Sl	r78	--do----	E	D	

Table 12.—*Records of wells in the Scottsville area, Kentucky*—Continued

Well	Location	Owner or name	Driller	Date completed	Topographic situation	Altitude above mean sea level (feet)
8610-3650-						
73	1.1 miles west of Greenville School.	W.E. Weaver			Side of hill.	600
93	0.9 mile southeast of Greenville School.	I.J. Strait			Upland	730
94	1 mile southeast of Greenville School.	Willie Shockley			do	720
103	1.3 miles north of Halifax.	Bernice Oliver			Upland ridge.	690
116	0.9 mile southeast of Settle.	Everett Andrews and David Ford.	David T. Ford	1949	Karst upland.	690

Type of well	Depth of well (feet)	Diameter of well (inches)	Principal water-bearing material		Water level		Lift	Use	Remarks
			Character	Geologic unit	Below land surface (feet)	Date of measurement			
Dr	r60	6	Limestone	Wa	------	---------	None	U	
Dr	r80	6	---do----	Sl	r63	2–26–51	None	U	Gas present.
Dr	r125	6	---do----	Sl	r60	--do-----	Ba,H	D,S	
Dr	r90	8	---do----	Wa	r70	2–28–51	None	U	Reported sulfurous.
Dr	r400	6	---do----	Si	------	---------	Pi,G	U	Reported cased to 140 ft. Sulfurous and saline water from oil wells. Temperature at separator 84°F.

Table 13.—*Records of springs in the Scottsville area, Kentucky*

[Spring number: For location of springs, see pl. 4. Character: Co, Contact; Jo, Joint Planes; Se, Seep; So, Solution; Tu, Tubular. Geologic unit: Si, Silurian limestone; De, Devonian limestone; Cg, Chattanooga shale; Fp, Fort Payne chert; Wa, Warsaw limestones; Sl, St. Louis limestone; Q, Quaternary (mantle rock). Estimated rate of flow (gpm): m, Measured; r, Reported. Use: D, Domestic; In, Industrial; Ir, Irrigation; P, Public supply; S, Stock; U, Unused]

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geological unit		Estimated rate of flow (gpm)	Date			
8600-3635-													
4	1.1 miles southeast of Amos.	Luke Ray	820	2	Co,Tu	Mantle	Q	None	10	4–14–53	D	55	
9	3.5 miles southeast of Amos.	Coy Driver	820	2	Se	do	Q	Partly housed.	20	4–16–53	D	54	
12	5.7 miles southeast of Holland.	J.M. Roark	620	1	Tu	Limestone	Si	House and electric pump.	50+	do	D,S	54	Chemical analysis in table 10.
14	1.4 miles east of Amos.	Clarence Saddler.	820	1	Se	Mantle	Q	Pipe	m1-	4–28–53	D,S	57	
16	1.8 miles east of Amos.	Allen Carmack.	840	2	Co,Se	do	Q	Spout	m1+	do	D	57	
17	1.7 miles east of Amos.	Robert Bishop.	780	2	Co,Se	do	Q	None	r1–2	do	D,S	----	
19	2.2 miles east of Amos.	Jack Swindle.	800	1	Co,(?) Se	do	Q	do	40	do	D,S	54	
23	3.2 miles east-northeast of Amos.	C. O. Lones	640	3	So,Tu	Limestone	Si	Partly housed.	2	6– 3–53	D,S	57	
25	4.7 miles east of Amos.	Cortez Stinson.	610	1	So,Tu	do	Si	House and pump.	m30	do	D,S	57	Extremely muddy after rains.

26	3.4 miles east of Amos.	Less Shockley.	760	3	So, Tu	Limestone, cherty.	Fp	Pipe and trough.	m20	do	S	57	20 ft above black shale top.
8600-3640-													
3	0.5 mile south of Mount Gilead Church.	City of Scottsville (Calvert Spring).	580	1	So, Tu	Limestone	Si	House, pump, and piped to town.	m400–8,300+	1952–53	P	58	Pumps rated at 250 gpm. Chemical analysis in table 10. Recorder installed.
4	2.5 miles east of Holland.	Guy Comer	700+	1	Co, Se	Limestone and shale.	Fp, Cg	Pipe	r5	3–17–53	U	----	
7	1.6 miles east-northeast of Mount Gilead Church.	Estill Hughes.	760	1	So, Tu	Limestone	Fp	None	1/2	4–13–53	D	54	
9	1.8 miles north-northeast of Holland.	L.E. Fisher	560	10	Tu	do	Si	do	20	4–14–53	U	55	
12	2.8 miles northeast of Holland.	J.J. Pitchford.	550	1	So, Tu	do	Si	do	100	4–16–53	U	56	Collapsed sinkhole. Muddy after heavy rains. Chemical analysis in table 10.
14	3.3 miles northeast of Holland.	G.B. Fraim	560	1	Tu	do	Si	do	500	4–20–53	U	54	
15	do	Mrs. Doc Rich.	560	1	Tu	do	Si	do	1,800	do	U	54	
17	4.4 miles northeast of Holland.	G.B. Fraim	700	1	Tu	do	Fp	Pipe	2	do	D	57	
19	4.7 miles northeast of Holland.	Elmer Good	640	3	Co, Tu	Limestone and shale.	Fp	Pipe and settling pool.	4	4–21–53	D	56	Muddy after rain.
20	3.7 miles east-northeast of Holland.	Marvin Eaton.	700	3	Tu	Limestone	Fp	Fence and piped.	10	do	D	56	Used by two families.
21	3.4 miles east-northeast of Holland.	Jim Williams.	600	3+	So, Tu	Limestone and shale.	Fp	None	3–4	do	D	56	
24	3.5 miles east of Holland.	Bill Parish	720	2	So, Tu	Limestone	Fp	do	20	4–23–53	S	56	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geological unit		Estimated rate of flow (gpm)	Date			
8600-3640-													
25	2.7 miles east of Holland.	Joe McCoy	660	1	Tu	Limestone and clay.	Fp	Pool	1	4–25–53	D	55	Inadequate in dry summer.
27	1.2 miles east-southeast of Holland.		580	2	Tu	Limestone	Si	None	100	do	U	53	
28	0.5 mile northeast of Holland.	Curtis Stinson.	760	1	Tu	do	Fp	Pipe, concrete basin, and wall.	1	do	D	56	Used by two families.
31	2.4 miles east-northeast of Holland.	Gibbs Spring	570	3	Tu	do	Si	Rock wall	75	do	D	----	
35	1.3 miles southwest of Holland.	Henry Hammock.	760	7	Co, Se	Mantle and limestone.	Q, Fp	None	15	5–29–53	S	58	
36	2.2 miles southeast of Holland.	Ralph Johnson.	630	2	So, Tu	Limestone	Si	Pipes, troughs, and cooler.	m10	do	D,S	58	Chemical analysis in table 10.
38	2.9 miles south-southeast of Holland.	Claude France.	720	1	Co, So, Tu	Limestone and shale.	Fp, Cg	None	m10	do	S	57	
39	2.5 miles southeast of Holland.	H.B. Cook	650	1	So, Tu	Limestone	Si	do	m6-1/2	do	S	56	
42	2.5 miles northeast of Holland.	Henry Davasher.	700	1	So, Tu	do	Fp	Pipe spout and bucket carrier.	m1-1/2	6– 2–53	D	55	

44	0.2 mile south-southwest of Holland.	Henry Downing.	780	1	So, Tu	Limestone, cherty.	Fp	House, pump, and piped to buildings.	----	----	D,S	----	
45	1 mile southeast of Holland.	Bill Harwood.	770	1	Se	Mantle	Fp	Pipe	m3-1/3	6- 2-53	D	57	
46	0.9 mile north-west of Holland.	Claude Whitney.	600	1	Se	Limestone	Si	None	m13-1/3	do	S	55	Chemical analysis in table 10.
8600-3645-													
1	3.2 miles south-west of Austin.	A. D. Steenberger and Dewey.	540	1	So, Tu	do	Si	do	m2,860	4- 8-53	U	54	38 ft below black shale. Sulfurous. Chemical analysis in table 10.
5	0.7 mile south-east of Maynard.	V.A. Whitney.	740	1	Se	Mantle and limestone.	Q, Fp	do	m5	6- 5-53	S	57	
7	1 mile south-southeast of Maynard.	M.F. Reneau	700	1	Co, Se	Mantle	Q	do	m5	do	S	58	
9	1.8 miles south-southeast of Maynard.	J.O. McIntyre.	620	3	Co, Se	Limestone and shale.	Fp, Cg	Pipe	m4	6- 9-53	U	57	
11	1 mile east of Maynard.	D.W. Cliburn	680	1	So, Tu	Limestone, shaly.	Fp	None	m2-1/2	do	S	57	Chemical analysis in table 10.
13	0.7 mile north-northeast of Maynard.	E.A. Thomas	720	1	So, Tu	Limestone, cherty.	Fp	Pipe and tub.	m1	6-17-53	S	60	
14	1.6 miles north of Maynard.	A.M Whitney	700	1	So, Tu	Limestone	Fp	Electric pump, house and piped to buildings.	10	do	D,S	56	
16	4.1 miles north of Maynard.	Clyde Barton	680	3	Co, Se	Mantle and limestone.	Q, Wa	Pipe	m3	6-18-53	S	61	
17	2.4 miles north of Maynard.	Herman Whitney.	620	1	So, Tu	Limestone	Fp	Trough	m1/4	6-19-53	U	58	
19	2.5 miles north of Maynard.	do	660	2	Co, Se	Mantle and limestone.	Q, Fp	Walled	m2	do	S	58	
20	2.6 miles north of Maynard.	do	700	1	So, Tu	Limestone	Fp	House and pump.	m2	do	D	59	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geological unit		Estimated rate of flow (gmp)	Date			
8600-3645-													
24	3.9 miles south-southeast of Austin.	Arvel Graves	720	1	Co,Se	Limestone, cherty.	Fp	None	m2-1/2	7-21-53	S	59	
27	0.6 mile north-west of Austin.	B.K. Harrison.	680	1	So,Tu	Limestone, shaly.	Fp	do	m5	7-22-53	S	58	
30	0.5 mile north-east of Austin.	H.E. Long	740	1	So,Tu	Limestone	Fp	Wall, basin, pipe, and trough.	m3/4	do	S	59	
33	0.9 mile south-east of Austin.	Clay Wells	760	1	Co,Se	Mantle	Q	None	28	do	S	63	Probably diversion channel of creek. Muddy.
35	2.2 miles south-west of Austin.	Moss Bradshaw.	600	1	Co,Tu	Limestone and shale.	Fp, Cg	Piped to house, barn and milk cooler.	2	do	D,S	----	Chemical analysis in table 10.
8600-3650-													
2	4.2 miles east of Gainesville.	J.T. Martin	540	1	Co,Se	Mantle and limestone.	Q, Fp	Concrete house, pipe, and trough.	m1/2	6-18-53	S	63	
3	2.8 miles north-west of Austin.	Henry Jones	680	1	Tu	Limestone	Fp	House and piped to two farms.	m1	do	S	59	Supplies two families.

5---	2.1 miles northwest of Austin.	Rodney Jewell.	700	1	So, Tu	--do------	Fp	House and electric pump.	m1-2/3	7–15–53	D	60	Two dry holes on farm. Chemical analysis in table 10.
8---	3.1 miles north-northeast of Austin.	H.C. Bush---	660	2	Co, Se	Mantle and limestone.	Q, Fp	Pond--------	m3	7–16–53	S	61	
11---	2.6 miles north of Austin.	W.M. Borders.	640	1	Co, Se	--do------	Q, Fp	None--------	m1/5	--do------	S	60	
8605-3635-													
1---	0.3 mile southeast of Doddy School.	Lucy Luck--	790	Several.	Se	Mantle----	Q	--do--------	4	4–19–51	U	52	
2---	0.4 mile south-southeast of Doddy School.	--do--------	780	Several.	Tu	Limestone-	Fp	--do--------	3	--do------	U	54	
5---	0.7 mile southeast of Doddy School.	Aubry Miller.	760	1	Tu	--do------	Fp	--do--------	r6	4–23–51	D,S	----	
6---	1.1 miles north-northwest of Mount Union Church.	John L. Huntsman.	820	1	Tu	--do------	Fp	House ------	3	5–16–51	D	58	
7---	1 mile north-northwest of Mount Union Church.	--do--------	820	1	Co, Tu	Mantle----	Q	None -------	7	--do------	S	----	
8---	0.6 mile northeast of Maple Grove Church.	Louie Dukes-	770	1	Tu	Limestone-	Fp	Pipe--------	4	--do------	D	----	
9---	0.7 mile east-northeast of Maple Grove Church.	Melvin Hollaway.	770	1	Se	Mantle----	Q	--do--------	3	--do------	D	54	
10---	0.4 mile northeast of Maple Grove Church.	L.W. Sullivan	840	---	Se	--do------	Q	None -------	r2	6–25–51	S	----	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Imporvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geological unit		Estimated rate of flow (gpm)	Date			
8605-3635-13	0.1 mile northeast of Mount Union Church.	P.A. Gilliam	900	---	Co,Se	Mantle	Q	Pond	1	6-25-51	S	---	
16	0.7 mile southeast of Maple Grove Church.	Gilbert Trammel.	830	---	Se	do	Q	None	r2	7-10-51	S	---	
20	1 mile southeast of Maple Grove Church.	Roy Morfey	840	---	Se	do	Q	do	3	do	S	---	
21	0.9 mile southeast of Maple Grove Church.	do	820	---	Se	do	Q	do	r2	do	S	---	
22	0.8 mile southeast of Maple Grove Church.	do	810	Several.	Se	do	Q	do	r2	do	S	---	
25	1 mile southeast of Maple Grove Church.	I.E. Napier	830	---	Co,Se	do	Q	do	r2	do	S	---	
26	1.1 miles southeast of Maple Grove Church.	do	850	---	Co,Se	do	Q	do	r3	do	S	---	
27	1.2 miles southeast of Maple Grove Church.	do	890	---	Co,Se	do	Q	do	r2	do	S	---	

29---	1.1 miles south-east of Maple Grove Church.	Orel Vance--	850	---	Se	--do------	Q	None--------	r3	7-11-51	S	----	
30---	1.2 miles south-east of Maple Grove Church.	--do--------	860	---	Se	--do------	Q	--do--------	r2	--do------	S	----	
33---	0.5 mile west of Mount Union Church.	R.B. Trammel.	820	---	Se	--do------	Q	House-------	12	--do------	S	----	
34---	0.7 mile west of Mount Union Church.	--do--------	840	1	So, Tu	Limestone-	Fp	None--------	r5	--do------	U	----	
35---	0.5 mile west of Mount Union Church.	--do--------	830	Several.	Se	Mantle----	Q	--do--------	5	--do------	S	----	
36---	0.8 mile north-west of Mount Union Church.	Melvin Hollaway.	800	1	So, Tu	Limestone-	Fp	Wall--------	2	--do------	D	----	
37---	----do--------	--do--------	800	5	So, Tu	--do------	Fp	Cement wall-	2	--do------	U	----	Sulfurous.
38---	0.7 mile north-west of Mount Union Church.	--do--------	800	4	So, Tu	--do------	Fp	--do--------	3	--do------	S	----	Sulfurous. Reported salty.
39---	----do--------	Ura Mitchell-	780	1	Co, Se	Mantle----	Q	House-------	3	7-31-51	D, S	60	
40---	0.6 mile north-west of Mount Union Church.	--do--------	790	1	Co, Se	--do------	Q	--do--------	½	--do------	U	59	
41---	0.8 mile north-west of Mount Union Church.	John Le Burneley.	780	Several.	So, Tu	Limestone-	Fp	None--------	3	--do------	D	59	
42---	----do--------	--do--------	790	1	Se	Mantle----	Q	--do--------	1	--do------	U	----	
44---	0.9 mile north-west of Mount Union Church.	--do--------	780	1	Se(?)	Limestone-	Fp	--do--------	½	--do------	S	----	
45---	----do--------	--do--------	840	1		Mantle----	Q	--do--------	½	--do------	U	67	
46---	0.8 mile north-west of Mount Union Church.	--do--------	800	---	Se	--do------	Q	--do--------	1	--do------	S	----	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8605-3635-47	0.8 mile west-northwest of Mount Union Church.	John Le Burneley.	810	1	So, Tu	Limestone	Fp	None	2	7-31-51	S	60	
48	0.7 mile west of Mount Union Church.	K.E. Meadow	820	1	So, Tu	do	Fp	House	1	do	D	60	
49	do	do	840	Several.	Co, Se	Mantle	Q	None	10	do	S	----	
50	0.8 mile west-northwest of Mount Union Church.	do	840	Several.	Se	do	Q	do	----	----	U	----	
51	0.6 mile west-northwest of Mount Union Church.	do	800	1	Tu	Limestone	Fp	do	1/4	do	U	60	
53	0.2 mile north-west of Mount Union Church.	Paul Gilliam	900	1	Se	Mantle	Q	do	r1	do	U	----	

55---	0.4 mile west-southwest of Mount Union Church.	Hubert Napier.	830	1	Se	--do------	Q	--do--------	3	--do-----	D	61
56---	0.1 mile north-west of Mount Union Church.	W.H. Wolfe -	800	1	Se	--do------	Q	Crib--------	1	--do------	S	----
60---	0.3 mile south-southwest of Mount Union School.	H. Austin ---	840	1	So, Tu	Limestone	Fp	None--------	15	--do------	U	----
63---	0.6 mile south-southeast of Mount Union School.	A.B. Law ---	830	Sev-er-al.	Co, Se	--do------	Fp	--do--------	5	--do------	U	58
64---	0.7 mile south-east of Mount Union School.	--do-------	830	Sev-er-al.	Se	Mantle----	Q	--do--------	1	--do------	S	----
66---	0.8 mile south-southeast of Mount Union School.	--do-------	820	Sev-er-al.	Se	--do------	Q	--do--------	1	--do------	U	65
68---	0.9 mile south-east of Mount Union School.	O.W. Napier	850	1	Tu	Limestone	Fp	--do--------	r2	--do------	S	----
69---	0.8 mile east-southeast of Mount Union School.	--do-------	700	1	Tu	--do------	Fp	--do--------	r2	--do------	S	----
71---	1.1 miles east-southeast of Mount Union School.	S.I. Napier -	760	1	Tu	--do-------	Fp	--do--------	r2	--do------	S	----
72---	1.1 miles north-northeast of Mount Union Church.	J.W. Graves	840	Sev-er-al.	Co, Se	Mantle and limestone.	Q, Fp	--do--------	r4	8- 1-51	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3635-													
74	0.9 mile north-northeast of Mount Union Church.	J.A. Keen	840	1	Co, Se	Mantle	Q	None	r2	8- 1-51	S	---	
77	0.5 mile north-northeast of Mount Union Church.	Fletcher Gilliam.	840	1	Se	do	Q	Trough	1	do	S	61	
79	0.4 mile north-east of Mount Union Church.	W.A. Mann	890	1	Co, Se	do	Q	None	1	do	S	---	
82	0.1 mile south-east of Mount Union Church.	Marlin Johnson.	880	1	Co, Se	do	Q	do	r1/5	8- 3-51	S	---	
86	0.3 mile south-southeast of Mount Union School.	J.M. Jones	810	1	So, Tu	Limestone	Fp, Q	do	r30	do	S	---	
87	0.2 mile south-southeast of Mount Union School.	do	830	1	Co, Se	Mantle	Q	do	3	do	S	---	

89	0.2 mile west-southwest of Mount Union School.	H.A. Oaks	870	1	Co,Se	Mantle	Q	None	5	8– 3–51	S	
91	0.2 mile northeast of Mount Union School.	Vadie Shaw	820	1	Co,Se	do	Q	do	4	do	S	64
93	0.4 mile southeast of Mount Union School.	Bert Blankenship	820	1	Co,Se	do	Q	Pipe and trough.	5	do	S	
94	do	do	840	1	Se	do	Q	None	2	do	S	
95	0.5 mile southeast of Mount Union School.	do	810	1	Se	do	Q	do	2	do	S	
97	0.5 mile east of Mount Union School.	Wayne Cockerel.	800	1	Se	do	Q	do	2	do	S	
99	0.3 mile east-northeast of Mount Union School.	Henry Clyburne.	800	Several.	Se	do	Q	do	3	do	S	
101	0.7 mile east-southeast of Mount Union School.	Wilbert Meador.	790	Several.	Tu	Limestone	Fp	Spout and trough.	2	do	S	
102	0.8 mile east of Mount Union School.	do	820	1	Se	Mantle	Q	None	3	do	S	
103	do	do	770	1	Co,Se	Mantle and limestone.	Q, Fp	do	3	do	S	
104	0.7 mile east-northeast of Mount Union School.	E.F. Meador	740			Mantle	Q	do	12	do	D	
105	0.7 mile east of Mount Union School.	do	790				Q(?)	do	2	do	D	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3635-106	0.9 mile east of Mount Union School.	E.F. Meador	720	Several.	Se	Mantle	Q	None	3	8- 3-51	D,S	---	
107	0.7 mile northeast of Mount Union School.	do	770	1	Se	do	Q	do	2	do	D	---	
109	0.8 mile east of Mount Union School.	Carline Meador.	790	1	Se	do	Q	do	1	do	S	---	
112	0.6 mile northeast of Mount Union School.	G.T. Jones	800	1	Tu	Limestone	Fp	do	10	do	S	---	
115	0.8 mile north-northwest of Mount Union School.	G.B. Keen	820	1	Tu	do	Fp	Pipe and trough.	5	do	S	57	
118	0.9 mile north of Mount Union School.	J.C. Keen	840	1	Se	Mantle	Q	None	3	do	S	---	
120	0.5 mile northeast of Mount Union School.	G.T. Jones	820	1	Se	do	Q	Spout	5	do	S	---	

123	1.3 miles south-southwest of Amos.	H.W. Law	840	2	Co,Se	Mantle and limestone, cherty.	Q, Fp	None	m5	5- 7-53	S	55	
127	0.3 mile south-southwest of Amos.	Bob Shuffitt	820	1	So, Tu	Limestone	Fp	do	m15±	do	D	56	
129	0.4 mile north-west of Amos.	Clarence White.	780	1	So, Tu	do	Fp	do	m80	5- 8-53	D,S	55	
131	0.7 mile north-west of Amos.	New Salem Church.	800	1	So, Tu	do	Fp	Pipe	m7-1/2	do	P	56	
133	1.3 miles west-northwest of Amos.	Oscar Mann	700	1	Co,Se	Limestone and shale.	Fp, Cg	Pipe and trough.	m5	do	S	56	
135	1 mile west of Amos.	L.R. Lawrence.	700	2	Co,Se	do	Fp, Cg	Piped to house.	m7	5-12-53	D,S	56	
136	1.3 miles south-west of Amos.	John Dyer	640	1	So, Tu	Limestone	Si	None	m9-1/2	6- 3-53	D	58	Chemical analysis in table 10.
137	1.2 miles south-west of Amos.	do	640	1	So, Tu	do	Si	do	m75	do	S	64	
8605-3640-													
4	0.5 mile north-west of Bell-wood School.	W.E. Stinson	820	---	Se	Mantle	Q	do	1	9-22-50	S	---	
5	0.5 mile north of Bellwood School.	do	790	1	So, Tu	Limestone	Fp	do	20	do	S	---	
6	0.7 mile north of Bellwood School.	do	780	2	Se	Mantle	Q	do	3	do	S	---	
9	0.7 mile north-east of Bell-wood School.	Olen Brown	860	1	Se	do	Q	do	5	do	S	---	
11	0.7 mile north of Bellwood School.	M.J. Howard	830	1	Se	do	Q	do	3	do	S	---	
12	0.9 mile north of Bellwood School.	Ned Emberton	800	1	Se	do	Q	do	10	do	D,S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geological unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8605-3640-14	1.1 miles north of Bellwood School.	Harry Sears	820	---	Se	Mantle	Q	None	2	9–25–50	S	---	
15	1 mile north of Bellwood School.	do	800	Several.	Se	do	Q	do	9	do	S	---	
16	do	do	790	1	So, Tu	Limestone	Fp	do	8	do	S	---	
17	0.9 mile north of Bellwood School.	do	800	Several.	So, Tu	do	Fp	do	5	do	S	---	
18	0.3 mile southwest of Pleasant Field School.	Howard Jones and Boy Jones.	830	Several.	Se	Mantle	Q	Pond	---	---	S	---	
19	0.9 mile southwest of Pleasant Field School.	Boy Jones	820	1	Se	do	Q	None	2	9–28–50	S	---	
20	0.7 mile southwest of Pleasant Field School.	do	820	1	Se	do	Q	do	1	do	S	---	

21	0.8 mile southwest of Pleasant Field School.	Jerrel Minnicks.	790	Several.	Co,Se	do	Q	do	10	do	S	
22	do	Boy Jones	800		Co,Se	do	Q	do	2	do	S	
27	0.9 mile northwest of Pleasant Field School.	E.C. Jones and Sid Neighbor.	760	1	So,Tu	Limestone	Fp	do	13	do	S	59
30	0.3 mile northeast of Bellwood School.	Jack Wilson	850		Se	Mantle	Q	Pond			S	
34	1 mile northwest of Pleasant Field School.	S.L. Fitzpatrick.	740	1	Se	do	Q	None	2	10– 1–50	U	
38	1.2 miles northwest of Pleasant Field School.	Lewis Howell	760	Several.	Tu	do	Q	Walled			U	
40	0.3 mile south of Pleasant Hill Church.	F.H. Brown and J.E. Brown.	820	1	Se	do	Q	House	3	10– 2–50	S	
41	0.4 mile south of Pleasant Hill Church.	do	830	2	Se	do	Q	None	7	do	S	
45	1.1 miles south of Pleasant Hill Church.	F.E. Bradley	840	1	Se	do	Q	Pipe	2	10– 3–50	S	62
48	0.7 mile east of Mount Carmel Church.	Bernard Carver.	840	1	Co	do	Q	None	7	do	S	
49	1.2 miles east of Mount Carmel Church.	do	830	2	Co,Se	do	Q	None	14	do	S	
50	1.2 miles east of Mount Carmel Church.	Ira Simmons	800	1	So,Tu	Limestone	Fp	do	35	do	S	59

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3640-													
52	1.4 miles southeast of Pleasant Hill Church.	Molly Brown	850	2	Co, Tu	Mantle and limestone.	Q	None	5	10- 3-50	U	58	
53	1.5 miles southeast of Pleasant Hill Church.	J.T. Long	780	1	Se	Mantle	Q	do	6	do	D,S	---	
55	1.4 miles east of Mount Carmel Church.	W.H. Long	770	1	Se	do	Q	do	1	do	U	---	
56	1.5 miles east-southeast of Mount Carmel Church.	do	750	1	Tu	Limestone	Fp	do	1	do	U	62	
57	1.6 miles east-southeast of Mount Carmel Church.	do	750	1	So, Tu	do	Fp	do	10	do	S	60	
67	0.8 mile north of Pleasant Hill Church.	Albert Mays	750	1	So, Tu	do	Q	do	5	10- 4-50	S	59	
68	0.9 mile north of Pleasant Hill Church.	do	760	Several.	Se	Mantle	Q	do	5	do	S	---	

69---	0.8 mile north of Pleasant Hill Church.	--do-------	740	1	So, Tu	Limestone -	Q	--do--------	8	--do------	S	61	
71---	0.9 mile north of Pleasant Field School.	Eldon Hendricks.	760	1	Se	Mantle-----	Q	--do--------	5	--do------	D,S	60	
72---	1.4 miles east-southeast of County Courthouse.	J.T. Moore--	760	1	Se	--do-------	Q	--do--------	2	--do------	S	---	
77---	1.4 miles north of Pleasant Field School.	Virgil Burnley.	760	1	Se	--do-------	Q	--do--------	3	10– 9–50	S	---	
80---	1 mile west-southwest of Chestnut Point School.	C.A. Sarver -	790	1	Se	--do-------	Q	Wall--------	2	--do------	S	---	
86---	0.4 mile south-west of Chestnut Point School.	Jim Cushenberry	740	1	Se	--do-------	Q	None--------	2	10–10–50	S	59	
87---	0.3 mile west of Chestnut Point School.	--do--------	730	1	Co,Se	Mantle and limestone.	Q, Fp	--do--------	1	--do------	S	---	
88---	0.2 mile west of Chestnut Point School.	Blond Gross-	720	1	So, Tu	Limestone -	Fp	--do--------	35	--do------	D,S	58	Chemical analysis in table 10.
89---	0.1 mile south of Chestnut Point School.	Jim Cushenberry	740	1	Co,Se	Mantle-----	Q	--do--------	4	--do------	S	---	
90---	0.8 mile south-west of Chestnut Point School.	Everett Spencer.	720	1	-----	--do-------	Q	--do--------	----------	----------	S	---	
91---	0.8 mile south of Chestnut Point School.	--do--------	730	1	Co,Se	Mantle and limestone.	Q,Fp	Wall--------	2	10–10–50	U	61	
92---	1 mile south of Chestnut Point School.	James Whitlow.	740	1	Se	Mantle-----	Q	None--------	2	--do------	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3640-93	0.5 mile south of Chestnut Point School.	A.B. Miller	790	1	So, Tu	Limestone	Wa	None	2	10–10–50	D	59	
94	do	do	760	Several.	Se	Mantle	Q	do	5	do	S	----	
97	0.8 mile south of Chestnut Point School.	Ernest Chitwood.	760	1	Se	do	Q	do	1	do	S	----	
100	0.7 mile southwest of Mount Carmel Church.	Jesse Steenbergen	780	1	Se	do	Q	do	6	10–18–50	S	----	
101	do	do	760	1	Se	do	Q	do	2	do	S	----	
102	0.8 mile south-southwest of Mount Carmel Church.	do	770	Several.	Se	Limestone	Fp	do	1	do	U	----	
103	do	do	780	Several.	Se	Mantle	Q	do	2	do	S	----	
104	0.9 mile south-southwest of Mount Carmel Church.	do	780	Several.	Se	do	Q	do	5	do	U	----	

105	0.5 mile southwest of Mount Carmel Church.	Raymond Carver.	800	1	Se	do	Q	do	r4	do	S	----
109	0.3 mile south-southwest of Bellwood School.	Tucker Minix.	840	1	Co,Se	do	Q	do	r10	10-25-50	D,S	----
110	0.3 mile south of Bellwood School.	Loren Howard.	850	1	Se	do	Q	do	5	do	S	----
113	1.5 miles east-southeast of County Courthouse.	Cortez Gumm.	740	Several.	Se	do	Q	do	----	----	S	----
117	0.8 mile northeast of Pleasant Hill Church.	T.W. Crow	760	Several.	Se	do	Q	Wall	17	4-12-51	D,S	----
119	0.7 mile east of Pleasant Hill Church.	J.F. Burton	770	Several.	Co,Se	Mantle and limestone.	Q,Fp	House	5	do	D	52
120	0.6 mile east of Pleasant Hill Church.	do	780	Several.	Se	Mantle	Q	*None*	r12	do	S	----
121	do	W.A. Douglas	770	1	Co,Se	Mantle and limestone.	Q,Fp	do	r7	do	S	----
122	do	do	780	----	----	Limestone	Fp	do	----	----	S	----
123	0.5 mile east of Pleasant Hill Church.	do	780	----	----	do	Fp	do	----	----	D,S	----
125	0.4 mile north of Pleasant Hill Church.	Allen County Court.	760	1	So,Tu	do	Fp	do	r12	4-12-51	S	----
126	0.7 mile east of Pleasant Hill Church.	W.A. Douglas	770	----	----	do	Fp	do	----	----	S	----
132	0.4 mile south of Mount Carmel Church.	Mrs. N.R. Cherry.	820	1	So,Tu	do	Fp	do	5	4-18-51	D	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8605-3640-133	0.4 mile south-southeast of Mount Carmel Church.	Mrs. N.R. Cherry.	840	1	Se	Mantle	Q	None	r2	4-18-51	S	---	
134	0.4 mile south of Mount Carmel Church.	do	830	3	Co, Tu	Mantle and limestone.	Q	do	4	do	S	---	
135	0.5 mile south of Mount Carmel Church.	do	830	1	Co, Tu	do	Q, Fp	do	1	do	S	---	
136	0.4 mile south-southwest of Mount Carmel Church.	do	830	1	Co, Se	do	Q, Fp	do	5	do	S	---	
139	0.6 mile south-southeast of Mount Carmel Church.	Hubert Likens and Sarah Likens.	880	1	Se	Mantle	Q	do	1	do	D	---	
143	0.7 mile southeast of Mount Carmel Church.	W.A. Carpenter.	880	1	Co, Tu	Mantle and limestone.	Q, Wa	do	r5	do	S	---	

144	0.9 mile southeast of Mount Carmel Church.	do	850	1	Co, Tu	do	Q, Wa	do	r5	do	S	---
145	0.6 mile east-southeast of Mount Carmel Church.	J.W. McCoy	870	3	Co, Se	do	Q, Wa	do	9	do	S	---
153	0.8 mile east-southeast of Mount Carmel Church.	John Tinsley	820	1	So, Tu	Limestone	Fp	do	r10	4–19–51	S	---
154	1.1 miles east-southeast of Mount Carmel Church.	do	800	1	So, Tu	do	Fp	do	r10	do	S	---
155	1.3 miles east-southeast of Mount Carmel Church.	do	820	1	So, Tu	do	Fp	do	r14	do	D, S	---
156	1.4 miles east-southeast of Mount Carmel Church.	John Calvert	820	2	Co, Se	Mantle and limestone.	Q, Fp	Pipe	6	do	D, S	---
157	1.5 miles east-southeast of Mount Carmel Church.	do	800	1	Co, Se	do	Q, Fp	None	4	do	D, S	---
158	0.3 mile east of Doddy School.	Lucy Luck	790	Several.	Co, Tu	do	Q, Fp	do	10	do	S	---
159	0.2 mile east-northeast of Doddy School.	do	740	---	Se(?)	Limestone	Fp	do	r7	do	S	---
164	0.2 mile northwest of Doddy School.	A. Chevalley	820	Several.	So, Tu	do	Fp	Pipe	6	4–23–51	D, S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3640-													
165	0.1 mile west-northwest of Doddy School.	A. Chevalley	820	Several.	So, Tu	Limestone	Fp	None	4	4–23–51	S	----	
166	0.1 mile south-west of Doddy School.	do	810	Several.	Co, Se	Mantle and limestone.	Q, Fp	do	6	do	U	----	
167	0.4 mile north of Doddy School.	Charles Elmore.	810	1	Se	Mantle	Q	do	6	do	S	----	
168	0.3 mile north of Doddy School.	do	800	1	Se	do	Q	do	3	do	S	----	
169	0.3 mile north-east of Doddy School.	do	790	1	So, Tu	Limestone	Fp	do	4	do	S	----	
172	0.4 mile north-northwest of Doddy School.	W.H. Boyd	820	----	Co, Se	Mantle and limestone.	Q, Fp	do	r3	do	S	----	
177	0.8 mile north of Doddy School.	W.M. Yokley	820	Several.	So, Tu	Limestone	Fp	do	5	do	S	----	
178	1 mile north of Doddy School.	do	760	1	Co, Tu	Mantle and limestone.	Q, Fp	do	r5	do	S	----	

183	0.6 mile north-northwest of Doddy School.	H. Hudson	820	Several.	Co, Tu	do	Q, Fp	do	7	do	S	
187	1.1 mile north-west of Doddy School.	Neal Turner	780	1	Co, Se	do	Q, Fp	do	r6	do	U	
189	0.5 mile south-east of Mount Carmel Church.	W.G. Dorsey	930		Se	Mantle	Q	do	1	4–25–51	U	
192	0.4 mile east of Pleasant Grove Church.	F.D. Glover	830		Se	do	Q	do	r3	4–24–51	S	
194	0.3 mile east-southeast of Pleasant Grove Church.	Warner Dalton.	810	Several.	Co, Se, Tu.	Mantle and limestone.	Q, Fp	do	r7	4–25–51	U	
196	0.8 mile east of Pleasant Grove Church.	W.J. Wheat.	820	1	So, Tu	Limestone	Fp	do	r8	do	S	
197	0.9 mile east of Pleasant Grove Church.	do	800	1	So, Tu	do	Fp	do	r4	do	S	
198	1 mile east of Pleasant Grove Church.	do	780	1	Co, Tu	Mantle and limestone.	Q, Fp	do	4	do	S	
201	0.1 mile south of Doddy School.	Jack Marsh	800	1	Co, Tu	do	Q, Fp	do	2	4–19–51	S	53
203	0.2 mile south-east of Pleasant Grove Church.	Mrs. D. Slayton.	800	1	Co, Tu	do	Q, Fp	do	8	5– 1–51	U	54
204	0.1 mile north-east of Pleasant Grove Church.	do	820	1	Co, Tu	do	Q, Fp	do	5	do	S	
206	0.3 mile north-west of Pleastnt Grove Church.	Elvis Douglas	800	3	Co, Se, Tu.	do	Q, Fp	House	17	do	S	57
207	0.3 mile south-west of Pleasant Grove Church.	Sam Piper	780	1	So, Tu	Limestone	Fp	None	1	do	D	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3640-													
208	0.4 mile southwest of Pleasant Grove Church.	Sam Piper	770	1	Se	Mantle	Q	None			U		
209	0.4 mile west of Pleasant Grove Church.	William Wilson.	780	1	So, Tu	Limestone	Fp	do	r4	5- 1-51	D,S		
211	0.3 mile north-northwest of Pleasant Grove Church.	M.N. Vinson	830	1	Se	Mantle	Q	do	r4	do	S		
212	0.4 mile north-northwest of Pleasant Grove Church.	W. Vinson	840	2	Se	do	Q	do	8	do	D		
214	0.7 mile south of Mount Carmel Church.	Arnie Miller	820	1	So, Tu	Limestone	Fp	do	5	5- 7-51	D	56	
215	0.6 mile south of Mount Carmel Church.	do	830		Co,Tu	Mantle and limestone.	Q, Fp	do	r5	do	U		

219---	1 mile west-northwest of Pleasant Grove Church.	Carl Minix--	790	1	Co,Tu	--do------	Q,Fp	--do-------	r8	--do------	S	----
220---	0.8 mile west of Pleasant Grove Church.	--do--------	790	1	So, Tu	Limestone -	Fp	--do--------	r5	--do------	S	----
221---	----do---------	--do--------	800	----	Co,Tu	Mantle and limestone.	Q,Fp	--do--------	r8	--do------	S	----
222---	0.9 mile west of Pleasant Grove Church.	--do--------	760	Sev-er-al.	Co,Se	--do-------	Q,Fp	--do--------	3	--do------	U	----
225---	0.3 mile south of Pleasant Grove Church.	O.O. Alex-ander.	770	Sev-er-al.	Co,Tu	--do-------	Q,Fp	--do--------	r4	5– 9–51	U	----
227---	0.7 mile east of Austin School.	W.E. Alex-ander.	820	1	So,Tu	Limestone -	Fp	--do--------	r7	--do------	D	----
228---	0.3 mile north-east of Austin School.	Harley Johnson.	820	1	Co,Se	Mantle and limestone.	Q,Fp	Wall--------	r5	--do------	S	----
232---	0.3 mile south-west of Austin School.	Jim Huntsman.	810	1	Tu	Mantle-----	Q	None--------	8	5–16–51	D,S	----
233---	0.3 mile south-southwest of Austin School.	Louie Dukes-	830	2	Co,Tu	Mantle and limestone.	Q,Fp	--do--------	5	--do------	U	----
235---	0.3 mile north-northwest of Austin School.	Clarence Gilliam.	790	Sev-er-al.	Co	--do-------	Q,Fp	--do--------	r3	--do------	S	----
236---	0.5 mile north-northwest of Austin School.	--do--------	790	Sev-er-al.	Co,Se, Tu.	--do-------	Q,Fp	--do--------	r3	--do------	S	----
237---	0.7 mile north-northwest of Austin School.	--do--------	720	Sev-er-al.	Co,Se, Tu	--do-------	Q,Fp	--do--------	r3	--do------	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8605-3640-238	0.5 mile west-northwest of Austin School.	Harold West	810	1	So, Tu	Limestone	Fp	None	3	5-18-51	U	56	Strong sulfurous odor and taste.
248	2.7 miles northwest of Amos.	M.R. Mitchell.	800	1	So, Tu	Limestone and chert.	Fp	do	m30-35	4-30-53	S	57	
250	2.5 miles northwest of Amos.	G.L. Lyles (Hilburn Spring).	740	2	So, Tu	Limestone, cherty.	Fp	do	5	do	D	54	
251	2.6 miles northwest of Amos.	G.L. Lyles	750	1	Co, Se	Mantle and limestone.	Q, Fp	do	3	do	D, S	55	
252	2.5 miles northwest of Amos.	do	760	1	Co, Se	do	Q, Fp	Pipe	m6	do	D, S	54	
253	2.4 miles southwest of Holland.	J.B. Tracy	660	4	Co, Jo	Mantle and shale.	Cg	Piped to house.	m6	5- 1-53	D	54	Chemical analysis in table 10.
255	2.3 miles southwest of Holland.	Prentice Law	700±	1	So, Tu	Limestone	Fp	None	m1	do	U	55	
256	2.1 miles southwest of Holland.	do	720	2	Co, So, Tu.	Shale	Cg	Basin	m16	do	S	56	
257	2.1 miles north-northwest of Holland.	J.C. Hudson	750	1	So, Tu	Limestone	Fp	Pipe	1.5	4-14-53	D, S	56	

260	2.0 miles west-northwest of Holland.	N.S. Shaw	800	1	Co,Se	Limestone	Fp	None	m2	5-5-53	S	55	
261	1.9 miles west-northwest of Holland.	James Harris.	740	1	So,Tu	do	Fp	do	m45	do	D	56	Probably diversion channel of creek.
263	2.1 miles west of Holland.	James R. Wilson.	640	2	Co,Se	Limestone and shale.	Fp, Cg	Basin	m1-1/2	do	D	54	
264	2.3 miles west of Holland.	do	700	3-4	Co,Se	Mantle and limestone.	Q, Fp	Flume	m3	do	D	57	Used during high water.
265	2.7 miles west of Holland.	James Barton.	750	1	So,Tu	Limestone	Fp	None	m12	do	D	57	
266	1.9 miles west-northwest of Holland.	Roy G. Speakman.	760	1	Co,Se	Mantle and limestone.	Q, Fp	Partly walled	m2-1/2	5-6-56	D	56	Chemical analysis in table 10.
267	2.2 miles west of Holland.	Travis Kennedy.	720	1	Co,Se	do	Q, Fp	Pipe	m1	do	U	55	
268	2.0 miles west of Holland.	do	720	2	Co,Se	do	Q, Fp	None	m1-1/4	do	S	55	
269	1.9 miles west of Holland.	do	750	2	Co,Se	do	Q, Fp	do	m2	do	S	56	
271	2.3 miles west-southwest of Holland.	George Ransom.	760	3	So,Tu	Limestone, cherty.	Fp	Pipes and trough.	m1	do	D,S	55	
273	1.2 miles northwest of Amos.	M.O. Bradley	700	1	Co,Se	Limestone and shale.	Fp,Cg	None	m2	5- 8-53	U	57	Formerly domestic, equipped with trolley.
275	1.3 miles northwest of Amos.	do	650	2	So,Tu	Limestone	Si	do	m675	5-12-53	S	61	
279	2.9 miles west-northwest of Holland.	Jesse Calvert (Cave Spring).	760	3	Se,So, Tu.	do	Fp	do	m45	5-22-53	S	58	
282	3.3 miles northwest of Holland.	Allie Harris	740	3	Co,Tu	Mantle and limestone.	Q, Fp	Basin	m5	do	D	58	
283	3.6 miles northwest of Holland.	W.S. York	760	1	Co,Tu	do	Q, Fp	Flume	m2	6- 2-53	D	55	
286	3.2 miles north-northwest of Holland.	Lester Clay	760	1	Co,Se	do	Q, Fp	None	m1	do	S	61	In hog lot.

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3645-													
2	0.9 mile east-southeast of Harrison School.	W.T. Petty	760	1	Se	Mantle	Q	None	2	9-12-50	S	61	Dry in long droughts.
3	1 mile east-southeast of Harrison School.	Tom Fisher	770	1	So, Tu	Limestone	Wa	do	10	do	S	58	Fluctuation slight.
6	1.2 miles south of Jefferson School.	do	750	3	Se	Mantle	Q	do	----	----	S	---	
8	1.5 miles south-east of Harrison School.	Henry Holland.	740	4	So, Tu	Limestone	Fp	Pipe	60	9-12-50	D,S	59	Chemical analysis in table 10.
9	1.1 miles south-east of Harrison School.	Floyd Harrison.	760	1	Se	Mantle	Q	None	7	do	D,S	59	
10	do	do	780	1	Tu	do	Q	do	4	do	U	59	
11	0.7 mile west of Chestnut Point School.	C.P. Jones	760	1	Se	do	Q	do	2	10- 9-50	S	---	
12	do	do	710	1	So, Tu	Limestone	Fp	do	10	do	S	---	

17	0.2 mile west of Chestnut Point School.	Blond Gross.	740	1	Se	Mantle	Q	do	6	10–10–50	S		
18	1 mile north-northeast of Chestnut Point School.	Dale Hawkins.	760	6	Se	do	Q	do	3	10–11–50	S	59	
19	1.2 miles north-northeast of Chestnut Point School.	Howard Meg.	740	1	Se	do	Q	do	4	do	D,S		
24	0.4 mile south-east of Bethlehem Church.	Robert Farley.	780	1	Se	do	Q	do	1	10–12–50	S		
28	0.9 mile east-southeast of Bethlehem Church.	R.C. Petty	840	1	Se	Mantle and limestone.	Q,Sl	do	2	do	S		
29	0.8 mile east-southeast of Bethlehem Church.	do	810	1	So, Tu	Limestone	Wa	Wall	3	do	U	61	
30	1.6 miles north of Chestnut Point School.	Lee Braswell.	800	1	Se	Mantle	Q	None	1	do	S		
31	do	Asbury Tinsley.	770	1	Se	do	Q	do	3	do	D		
32	1.8 miles north-northeast of Chestnut Point School.	L.C. Braswell and C.J. Jones.	720	1	Co, Se	do	Fp	House	8–10	do	D,S	58	Chemical analysis in table 10.
33	1.7 miles north-northeast of Chestnut Point School.	Asbury Tinsley.	760	1	Co, Se	do	Q	None	2	do	S		
35	1.3 miles east-southeast of Jefferson School.	James F. Hogue.	780	1	Se	do	Q	do	2	do	D,S	62	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8605-3645-													
39	1.7 miles east of Bethlehem Church.	Floyd Britt	740	1	Se	Mantle	Q	House	7	10–12–50	D,S	----	
40	0.7 mile east of Bethlehem Church.	C.F. Wilkerson.	780	1	Se	do	Q	Pound	----	----	S	----	
43	1.1 miles east of Bethlehem Church.	Charlie Hurston.	820	1	So, Tu	Limestone	Sl	None	4	10–25–50	D,S	----	
45	1.3 miles south of Jefferson School.	William Medley.	780	1	Se	Mantle	Q	Wall	1/2	do	S	----	
46	0.7 mile southeast of Jefferson School.	Hillous Hogue	700	1	So, Tu	Limestone	Fp	Partly walled	10	do	D,S	59	
47	1 mile south of Jefferson School.	Lee Starks	770	1	Se	Mantle	Q	None	4	do	S	----	
48	do	Robert W. Starks.	800	1	Se	do	Q	do	1	do	D,S	----	

50---	North side of Tompkinsville Rd., 1.6 miles east of courthouse.	John O. Grubb.	730	1	Se	--do-------	Q	--do--------	2	10–26–50	D,S	----
51---	1.7 miles east of courthouse.	--do--------	710	5	Co,Se	--do-------	Q	--do--------	10	--do-------	S	----
54---	South side of Tompkinsville Rd., 1.9 miles east-northeast of courthouse.	Toy Douglas-	680	1	So, Tu	Limestone -	Fp	--do--------	1	--do-------	D,S	----
55---	1 mile northwest of Chestnut Point School.	--do--------	690	5	Co,Se	Mantle and limestone.	Q, Fp	--do--------	15	--do-------	S	----
56---	0.8 mile west-northwest of Chestnut Point School.	--do--------	720	1	Co,Se	Mantle-----	Q	--do--------	3	--do-------	S	----
57---	0.7 mile south-southeast of Jefferson School.	Tom Gillenwater.	780	1	So, Tu	Limestone -	Wa	--do--------	r4	--do-------	D,S	----
59---	0.9 mile south-west of Jefferson School.	Sally Atwood and Ernest Atwood.	710	1	So, Tu	--do-------	Wa	--do--------	r35	--do-------	S	----
60---	0.3 mile south of Jefferson School.	Jim Fisher--	770	1	So, Tu	--do-------	Wa	Pipe--------	3	--do-------	S	60
61---	0.4 mile south of Jefferson School.	--do--------	770	1	So, Tu	--do-------	Wa	None--------	5	--do-------	S	----
63---	0.3 mile south of Jefferson School.	Sally Stone --	810	1	So, Tu	--do-------	Sl	Wall--------	12	--do-------	D,S	----
65---	1.6 miles east-southeast of courthouse.	E.H. Douglas	720	5	Co,Se	Mantle-----	Q	None--------	1	10–31–50	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3645-													
66	0.1 mile north of Tompkinsville Rd., 1.3 miles east of courthouse.	Howard Schrum.	760	1	So, Tu	Limestone	Fp	Dug out	1	10–31–50	D,S	----	
68	0.5 mile north of Tompkinsville Rd., 1.6 miles east-northeast of courthouse.	Amy Spearman.	690	1	So, Tu	do	Fp	None	5	do	D,S	----	
69	do	do	690	1	Se	Mantle	Q	do	4	do	S	----	
70	0.7 mile north of Tompkinsville Rd., 1.5 miles northeast of courthouse.	do	680	1	Se	do	Q	do	1	do	S	----	
72	0.3 mile west of Jefferson School.	Jim Roper	820	----	So, Tu	Limestone	Sl	do	1	do	S	----	
73	0.4 mile northwest of Jefferson School.	do	730	5	So, Tu	do	Sl	Pipe	3	do	S	59	

74	0.6 mile northwest of Jefferson School.	Paul Harston.	740	5	Co,Se	Mantle	Q	None	4	do	S	----
75	0.4 mile east-southeast of Jefferson School.	Elbert Atwood.	670	5	Se	do	Q	do	2	11- 1-50	S	----
76	0.4 mile east of Jefferson School.	do	660	2	So,Tu	Limestone	Fp	do	15	do	S	59
77	0.3 mile east of Jefferson School.	Hubert Atwood.	660	5	Se	Mantle	Q	Dug out	8	do	D,S	----
78	0.4 mile east of Jefferson School.	do	640	5	Se	do	Q	None	5	do	S	----
79	0.7 mile northeast of Jefferson School.	Paul Harston.	650	1	Se	do	Q	do	2	do	S	----
80	0.7 mile north-northeast of Jefferson School.	do	630	2	Se	do	Q	do	8	do	S	61
81	1.2 miles south of Gainesville.	J. Cushenberry.	620	1	So,Tu	Limestone	Wa	do	10	do	U	----
82	1.6 miles north of Jefferson School, west side of Difficult Creek.	do	560	5	Se	Mantle	Q	do	3	do	S	----
83	1.6 miles north-northeast of Jefferson School.	Eugene Stovall.	620	---	Se	do	Q	Pond	----	----	S	----
85	0.9 mile north-northwest of Jefferson School.	H.H. Willoughby.	640	1	Se	do	Q	None	4	11- 2-50	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3645-													
87	0.7 mile north-northwest of Jefferson School.	H.H. Willoughby.	630	1	So, Tu	Limestone	Wa	Pipe	12	11- 2-50	D,S	59	
88	0.8 mile north-northwest of Jefferson School.	do	640	1	Se	Mantle	Q	None	2	do	D,S	---	
89	0.6 mile north-northwest of Jefferson School.	do	640	1	Se	do	Q	do	1	do	U	---	
90	0.9 mile north-northwest of Jefferson School.	do	620	1	Se	do	Q	do	r5	do	S	---	
91	0.6 mile north-northeast of Jefferson School.	do	680	5	Se, Tu	Limestone	Wa	do	2	do	S	---	
93	1.3 miles north-east of Jefferson School.	C. F. Shipley.	670	---	Co, Se	Mantle	Q	do	---	---	S	---	

94	1.1 miles north-northeast of Jefferson School.	do	600	---	Co,Se	do	Q	do			S	---	
95	1 mile north-east of Jefferson School.	do	610	---	Se	do	Q	do			S	---	
96	1.2 miles north of Jefferson School.	John Cushen-berry.	620	1	Se	do	Q	Pipe	1	11- 6-50	D,S	---	
97	do	do	600	1	Se	do	Q	do	3	do	D,S	---	
98	2.1 miles north-east of Jefferson School.	G.H. Whitney.	610	1	Se	do	Q	None	20	11- 7-50	D,S	---	
100	1.5 miles north-east of Jefferson School.	do	670	1	Co,Tu	Mantle and limestone.	Q,Wa	Wall	2	do	U	---	
101	1.7 miles north-west of Jefferson School.	L.L. Myers	660	5	So,Tu	Limestone	Sl,Wa	None	14–20	11–14–50	S	59	Chemical analysis in table 10.
102	1 mile north-west of Jefferson School.	R. O. Buchannon, Sr.	620	1	Se	Mantle	Q	do	r30	11–21–50	S	---	
103	0.9 mile north-west of Jefferson School.	R.O. Buchannon, Jr.	660	1	So,Tu	Limestone	Wa	do	r4	do	S	---	
104	0.5 mile south-west of Jefferson School.	F.A. Thomason.	780	---	So,Tu	do	Sl	do	17	1- 8-51	S	---	
105	1.3 miles north-west of Chestnut Point School.	W.A. Carter	720	1	Se	Mantle	Q	do	4	3- 8-51	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3645-106	1.3 miles northwest of Chestnut Point School.	W.A. Carter	700	1	So, Tu	Limestone	Fp	None	4	3-8-51	D,S	56	
107	1.2 miles northwest of Chestnut Point School.	do	690	3	Se	Mantle	Q	do	10	do	S	---	
108	0.9 mile northwest of Chestnut Point School.	John Oliphant.	760	1	Se	do	Q	do	7	do	S	---	
109	0.6 mile northwest of Chestnut Point School.	do	740	1	Co, Tu	do	Q	do	4	do	D,S	---	
110	do	James Ray	740	1	So, Tu	Limestone	Fp	do	75	do	D,S	---	
111	do	Donnie Grimes.	750	1	Co, Tu	Mantle and limestone.	Q, Fp	do	4	do	D,S	---	
112	0.5 mile northwest of Chestnut Point School.	do	750	1	Co, Tu	Mantle	Q	do	Small	do	U	---	

113	1 mile east of Jefferson School.	Z. M. Pitchford.	690	5	So, Tu	Limestone	Fp	do		11	3-29-51	D,S	
114	0.9 mile east of Jefferson School.	do	660	1	So, Tu	do	Fp	do		r7	do	S	
115	0.7 mile east-southeast of Jefferson School.	do	650	1	Tu	Mantle	Q	Spout		2	do	D	
117	1.1 miles southeast of Jefferson School.	Burt Harston.	700	5	Co, Tu	Mantle and limestone.	Q, Fp	House and pump.		14	do	D,S	
120	0.9 mile south-southeast of Jefferson School.	H. Foster	680	1	So, Tu	Limestone	Fp	Pipe and trough.		4	do	D,S	
121	1 mile southeast of Jefferson School.	Mrs. A. Whitney.	680	1	So, Tu	do	Fp	None		6	do	D,S	
122	0.9 mile southeast of Jefferson School.	H. Foster	670	1	So, Tu	do	Fp	do		r15	do	U	
131	1.7 miles south of Jefferson School.	V. L. Whitney	760	1	So, Tu	do	Wa	Pipe		5	do	D,S	
132	1.6 miles south of Jefferson School.	do	780	1	Se	do	Q	None		5	do	S	
133	1.6 miles south of Jefferson School.	Gene Harston	740	5	Se	do	Q	House		7	do	D,S	
135	1.8 miles south of Jefferson School.	Henry Holland.	730	1	So, Tu	Limestone	Wa	None		6	do	D,S	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geological unit	Improvements	Yield: Estimed rate of flow (gpm)	Yield: Date	Use	Tempaerature (°F)	Remarks
8605-3645-137	2 miles south of Jefferson School.	C. C. Greever	690	1	So, Tu	Limestone	Fp	None	27	3–29–51	D, S	---	
139	1.7 miles south of Jefferson School.	Jim Oliphant	770	----	Se	Mantle	Q	do	7	do	S	---	
142	1.1 miles east of Jefferson School.	Jess Hurt	760	----	So, Tu	Limestone	Fp	do	r10	4–10–51	S	---	
143	1.1 miles north-east of Jefferson School.	do	640	----	Co, So, Tu.	Mantle and limestone.	Q, Fp	do	r20	do	S	---	
144	1.3 miles north-east of Jefferson School.	do	640	----	So, Tu	Limestone	Fp	do	r20	do	S	---	
145	1.6 miles south-east of Jefferson School.	Jim Harston	740	1	So, Tu	do	Wa	do	r4	do	S	---	
146	1.4 miles south-southeast of Jefferson School.	do	710	----	So, Tu	do	Fp	do	4	do	S	---	

150---	1.2 miles southeast of Harrison School.	A.W. Vaughn.	740	----	Tu	Mantle ----	Q	--do-------	r7	--do-----	S	---
151---	1.6 miles south-southeast of Harrison School.	--do-------	680	----	So, Tu	Limestone -	Fp	--do-------	------------	---------	S	---
152---	1.8 miles south-southeast of Harrison School.	William Medley.	700	1	So, Tu	--do-------	Fp	--do-------	13	4–10–51	D	---
153---	----do--------	W.R. Cushen-berry.	690	----	So, Tu	--do-------	Fp	--do-------	r7	--do-----	S	---
154---	0.6 mile south of Bethlehem Church.	--do-------	720	1	Se	Mantle ----	Q	--do-------	r10	--do-----	S	---
155---	0.6 mile south-southwest of Bethlehem Church.	--do-------	700	----	So, Tu	Limestone -	Fp	--do-------	r7	--do-----	S	---
156---	----do--------	--do-------	680	----	So, Tu	--do-------	Fp	--do-------	r6	--do-----	S	---
157---	0.7 mile south-southwest of Bethlehem Church.	--do-------	660	----	So, Tu	--do-------	Fp	--do-------	r6	--do-----	S	---
158---	0.5 mile south-southwest of Bethlehem Church.	--do-------	700	----	So, Tu	--do-------	Fp	--do-------	r7	--do-----	S	---
159---	0.4 mile south-west of Bethlehem Church.	--do-------	700	----	So, Tu	--do-------	Fp	--do-------	r7	--do-----	S	---
160---	0.8 mile south-southwest of Bethlehem Church.	--do-------	630	----	So, Tu	--do-------	Fp	--do-------	r10	--do-----	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3645-													
166	4.1 miles east of Scottsville.	Durham Spring.	740	1	So, Tu	Limestone	Fp	None	50	11-30-51	U	57	Chemical analysis in table 10.
169	1.1 miles west of Maynard.	Mrs. Pernie Tinsley.	760	---	Se	Mantle	Q	do	r3-5	6- 5-53	D,S	---	
171	0.6 mile southwest of Maynard.	J.R. Hogue	760	3	Co, Se	Mantle and cherty limestone.	Q	do	m1/8	6- 9-53	S	68	
176	3.2 miles east-southeast of Gainesville.	Elster Lawson.	680	1	Co, Se	Mantle and limestone.	Q, Fp	Wall	m9-1/2	6-18-53	D,S	57	
177	1.9 miles west of Maynard.	Ralston Jackson.	760	1	So, Tu	Limestone	Fp	Pipe	m15+	6-19-53	D,S	58	
178	1.4 miles west of Maynard.	Maxie Jones	780	1	Co, So, Tu.	Mantle and cherty. limestone.	Q, Fp	Concrete basin.	m1+	do	D,S	58	
179	1.2 miles northwest of Maynard.	J.L. Wilson	740	2	Co, Tu	Mantle and limestone.	Q, Fp	Rock Basin	m2	do	D	57	
180	1.7 miles northwest of Maynard.	Jack Wilson	700	1	Co, Se	do	Q, Fp	None	m1-1/4	do	D	58	
181	2.4 miles north-northwest of Maynard.	Alonzo Woods.	580	5	Co, Se	Limestone and shale.	Fp, Cg.	Pipe and barrel.	m2-1/2+	do	D	61	

182	2.7 miles southeast of Gainesville.	Herbert Shields.	660	1	So, Tu	Limestone	Fp	None	m3	6-25-53	U	60	
183	3.4 miles northwest of Maynard.	J.W. York	740	2	Se, Tu	Limestone, shaley.	Wa	Partly walled.	m2-1/2	7- 1-53	D,S	59	
186	5.2 miles east-northeast of Scottsville.	W.B. Owens	620	1	Tu	do	Fp	None	m40	do	S	57	Chemical analysis in table 10.
187	3 miles north-west of Maynard.	George Tinsley.	630	1	So, Tu	Limestone	Fp	do	m20	do	S	57	
8605-3650-													
1	1.3 miles southeast of Gainesville.	Eugene Stovall.	710	2	Se	Mantle	Q	Pond	3	11-1-50	S	62	
2	do	do	710	Sev-er-al.	Co, Se	Mantle and limestone.	Q, Sl	None	2	do	S	---	
3	1.1 miles south-southwest of Gainesville.	J. Cushen-berry.	610	1	So, Tu	Limestone	Wa	do	10	do	U	---	
4	0.8 mile east-southeast of Gainesville.	Mrs. Turner	590	1	Se	Mantle	Q	do	4	11- 6-50	S	59	
5	1.1 miles east of Gainesville.	do	610	1	Co, Tu	Mantle and limestone.	Q, Fp	do	5	do	S	---	
6	0.8 mile south-east of Gainesville.	do	630	---	Se	Mantle	Q	Pond	---	do	S	---	
7	0.6 mile south-east of Gainesville.	Ewing Spencer.	550	1	Se	do	Q	Wall	6	do	D,S	---	
8	0.8 mile south-east of Gainesville.	do	580	---	Se	do	Q	None	r8	do	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3650-													
9	2 miles east-southeast of Gainesville.	B.J. Weaver	600	1	Co, Tu	Mantle and limestone.	Q, Fp	Wall	1-1/2	11- 7-50	D,S	----	
11	1.8 miles east of Gainesville.	do	620	1	Co, Tu	do	Q, Fp	do	2	do	S	----	
12	1.6 miles east of Gainesville.	do	610	2	Co, Se, Tu.	do	Q, Wa	Pipe	4	do	D,S	60	
13	1.7 miles east of Gainesville.	do	590	1	Co, Se	do	Q, Fp	None	r2	do	S	----	
14	do	do	610	1	Se	Mantle	Q	do	3	do	S	----	
15	1.6 miles east of Gainesville.	do	620	1	So, Tu	Limestone	Fp	do	4	do	S	----	
16	do	do	590	Many	Se	Mantle	Q	do	4	do	S	----	
17	1.5 miles east of Gainesville.	do	580	1	Se	do	Q	do	r3	do	S	----	
18	1.4 miles east of Gainesville.	do	580	1	Tu	Limestone	Fp	do	r6	do	U	----	
21	1.7 miles east of Gainesville.	V.H. Brunson	590	1	Se, Tu	Mantle	Q	Pipe and trough.	3	do	S	----	
22	1.9 miles east of Gainesville.	do	580	Many	Se	do	Q	None	15	do	S	----	
23	2 miles east of Gainesville.	do	620	Several.	Se	do	Q	do	8	do	S	----	

24---	1.6 miles east-southeast of Gainesville.	--do--------	620	1	Se	--do------	Q	--do-------	5	--do-----	S	----	
25---	1.7 miles east of Gainesville.	--do--------	570	1	Jo,So, Tu.	Limestone-	Fp	--do-------	10	--do-----	S	60	
26---	1.6 miles east of Gainesville.	--do--------	560	1	Co,Tu	Mantle and limestone.	Q,Fp	--do-------	1	--do-----	S	----	
27---	1.4 miles east of Gainesville.	--do--------	560	1	Tu	Limestone-	Fp	--do-------	1	--do-----	S	----	
28---	1.2 miles east of Gainesville.	J.C. Fisher and L. Fisher.	560	----	Se	Mantle ----	Q	--do-------	4	--do-----	D,S	----	
29---	1.3 miles east-northeast of Gainesville.	--do--------	660	1	So,Tu	Limestone-	Wa	Pipe-------	4	--do-----	U	59	
31---	1.3 miles east of Gainesville.	--do--------	580	1	So,Tu	--do------	Fp	House -----	7	--do-----	D,S	----	
32---	1.1 miles east of Gainesville.	--do--------	570	----	Se	Mantle----	Se	Pond -----	----------	----------	S	----	
33---	1.3 miles east of Gainesville.	--do--------	580	1	Tu	--do------	Q	None ------	1	11– 7–50	S	----	
34---	----do-------	Mrs. Turner-	570	1	So,Tu	Limestone-	Fp	--do-------	6	--do-----	S	58	
35---	0.9 mile east of Gainesville.	J.C. Fisher and L. Fisher.	550	----	Se	Mantle----	Q	--do-------	4	--do-----	S	----	
36---	0.6 mile north-east of Gainesville.	--do--------	530	----	Se	--do------	Q	--do-------	3	--do-----	D,S	----	
37---	0.9 mile north-east of Gainesville.	--do--------	550	----	Co,Se	--do------	Q	Wall-------	7	--do-----	S	----	
38---	0.4 mile south-southeast of Gainesville.	H.O. Stark --	550	----	Co,Se	Mantle and limestone.	Q,Fp	None ------	r7–10	--do-----	D,S	57	Chemical analysis in table 10.
39---	0.5 mile south-east of Gainesville.	--do--------	570	----	Co,Se	Mantle ----	Q	--do-------	r6	--do-----	S	----	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3650-													
40	0.4 mile southeast of Gainesville.	H.O. Stark	560	---	Co,Se	Mantle	Q	None	2	11- 7-50	S	---	
42	0.6 mile east of Gainesville.	do	560	---	Se	do	Q	do	2	do	S	---	
43	0.3 mile east of Gainesville.	do	560	---	Co,Se	Mantle and limestone.	Q	do	2	do	S	---	
44	1.3 miles northeast of Gainesville.	Artie Shields	610	Several.	Se	Mantle	Q	Pipe and trough.	3	11- 8-50	S	60	
45	1.3 miles north of Gainesville.	do	540	Several.	Se	do	Q	None	3	do	S	---	
46	1.1 miles north of Gainesville.	do	530	1	Co,Tu	Mantle and limestone.	Q,Fp	Rock wall	10	do	D,S	61	
47	1.2 miles northeast of Gainesville.	Whitney Sisters.	650	1	Co,Tu	do	Q,Wa	None	2	do	S	---	
48	do	Artie Shields	630	1	Co,Se	do	Q,Wa	Rock wall	2-4	do	S	---	
51	1.7 miles north-northeast of Gainesville.	Stark Brothers.	540	1	Co,Se	do	Q,Fp	None	r3	do	S	---	

53	2.3 miles northeast of Gainesville.	Artie Shields.	560	1	So, Tu	Limestone	Fp	do	15	do	S	62
56	2.2 miles northeast of Gainesville.	W.I. Shields	550	1	Co, Se	Mantle and limestone.	Q, Fp	Wall	2	do	S	---
57	2.3 miles northeast of Gainesville.	do	540	1	Se	Mantle	Q	None	6	do	S	---
58	2.2 miles northeast of Gainesville.	George D. Whitney.	590	1	So, Tu	Limestone	Fp	do	r20	do	D, S	---
60	1.4 miles east of Gainesville.	Woodrow Perkins.	640	---	Se	do	Wa	do	r2–4	do	S	---
61	0.6 mile north of Gainesville.	C.P. Williams.	530	1	So, Tu	do	Fp	Pipe and house.	4	11–13–50	D, S	60
62	0.9 mile north of Gainesville.	do	550	Several.	So, Tu	do	Fp	Pipe	3	do	S	58
63	0.3 mile south of Gainesville.	Ben Shipley	620	2	Co, Tu	Mantle and limestone.	Q, Wa	None	4	do	S	57
64	do	Ed Shipley	560	1	Co, Se	do	Q, Fp	do	2	do	S	---
65	0.1 mile south of Gainesville.	do	530	1	Co, Se	do	Q, Fp	do	10–20	do	D, S	58
66	0.4 mile north of Gainesville.	H. Grubbs	560	1	So, Tu	Limestone	Fp	do	25–30	do	S	60
67	0.2 mile north of Gainesville.	do	570	1	Co, Se	Mantle	Q	Wall	8	do	S	---
68	do	do	530	---	Se	do	Q	None	---	---	S	---
70	0.8 mile south-southwest of Gainesville.	James Wood	630	1	So, Tu	Limestone	Wa	Pipe and house.	10	11–14–50	D, S	59
71	do	do	620	1	So, Tu	do	Wa	None	4	do	D, S	---
73	0.8 mile south of Gainesville.	C.E. Wisdom	560	---	Co, Se	Mantle	Q	do	3	do	S	---
74	do	do	540	3	Co, Se	do	Q	do	4	do	S	---
75	0.3 mile west-northwest of Gainesville.	Buel Buchanon.	590	---	Co, Se	do	Q	do	r5	11–13–50	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8605-3650-													
76	1.3 miles north of Gainesville.	Stark Brothers.	540	---	Se	Mantle	Q	None	r10	11–28–50	S	---	
77	do	do	560	---	So, Tu	Limestone	Wa	do	r10	do	S	---	
78	1.2 miles north of Gainesville.	do	570	---	Co, Se	Mantle and limestone.	Q, Wa	do	---	---	S	---	
79	1.6 miles north of Gainesville.	Johnny Farley.	540	3	So, Tu	Limestone	Fp	Wall	15-20	11–28–50	D,S	60	Sulfurous.
80	1.8 miles north of Gainesville.	do	600	1	So, Tu	do	Wa	Pipe	2	do	D	---	
81	1.4 miles north of Gainesville.	Stark Brothers.	530	---	Se	Mantle	Q	None	r10	do	S	---	
83	2.2 miles southeast of Gainesville.	Gilbert Pulliam.	600	1	So, Tu	Limestone	Fp	do	m34	6–25–53	S	59	
85	3.6 miles east of Gainesville.	W.A. Spencer	570	1	So, Tu	do	Fp	Rock basin	m3/8	7– 2–53	D	57	
93	3 miles east of Gainesville.	Dottie Centers.	680	1	Co, Se	Mantle and limestone.	Q, Fp	Partial wall and pond.	m2	do	S	---	
8610-3635-													
3	0.4 mile east-southeast of Heath School.	Luther House.	640	1	So, Tu	Limestone	So, Tu	None	m1,225–21,000+	1953	S, Ir	55	Chemical analysis in table 10.

4	0.5 mile east-southeast of Heath School.	do	680	1	So, Tu	Mantle	Q	do	r2	5- 9-51	S	---
5	0.6 mile east-southeast of Heath School.	do	680	----	Se	do	Q	do	r2	do	S	---
6	0.9 mile south-east of Heath School.	Luther House.	750	----	Se	do	Q	do	r2	do	S	---
7	1 mile east-southeast of Heath School.	do	710	----	Co, Tu	Mantle and limestone.	Q, Fp	do	r2	do	S	---
8	1.2 miles east-southeast of Heath School.	do	790	----	Co, Tu	do	Q, Fp	do	r2	do	S	---
9	1.1 miles east-southeast of Heath School.	do	740	----	Se	Mantle	Q	do	r2	do	S	---
10	0.9 mile east-northeast of Heath School.	S.L. Dalton	760	1	Tu	do	Q	do	5	do	S	---
11	1 mile east-northeast of Heath School.	Louis Dalton	750	1	Tu	do	Q	do	4	do	D,S	---
12	0.9 mile east-northeast of Heath School.	do	730	1	Tu	do	Q	do	4	do	S	---
14	0.9 mile east of Heath School.	M. F. Young	790	1	Tu	do	Q	do	5	do	S	---
15	1 mile east of Heath School.	Dewey Young	780	1	Tu	do	Q	do	2	do	D,S	---
17	1.2 miles east-northeast of Heath School.	King Sullivan	760	Sev-er-al.	Se	do	Q	do	4	do	S	---
18	1.3 miles east-northeast of Heath School.	do	730	1	Tu	do	Q	do	10	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3635-20	1.1 miles east-southeast of Heath School.	T.A. Sullivan	750	1	Tu	Limestone	Fp	None	13	5- 9-51	S	---	
22	0.9 mile east of Heath School.	Leonard Marsh.	740	1	Se	Mantle	Q	do	2	do	S	---	
23	1 mile east-southeast of Heath School.	do	780	1	Tu	do	Q	do	4	do	S	---	
26	1.3 miles east-southeast of Heath School.	Walter Brown	740	1	Tu	do	Q	do	2	5-16-51	S	---	
28	0.3 mile north-east of Heath School.	G.W. Howell	640	1	Tu	Limestone	Si	do	5	do	S	---	
29	0.2 mile north-northwest of Heath School.	do	680	1	Tu	Mantle	Q	do	3	do	D,S	---	
31	0.3 mile west-southwest of Heath School.	Odean Meador.	780	1	Tu	do	Q	do	2	do	U	---	
32	0.5 mile west of Heath School.	do	780	1	Se	do	Q	do	2	do	S	---	

33	0.4 mile west of Heath School.	do	780	1	Tu	Limestone	Q	do		4	do	S	---	
34	0.5 mile west-northwest of Heath School.	Delbert Meador.	760	1	Tu	Mantle	Q	do		2	do	S	---	
40	1.7 miles east-northeast of Macedonia Church.	L.S. Wagoner	780	1	Tu	do	Q	Pipe and trough.		4	5–24–51	D,S	---	
45	1.5 miles east of Macedonia Church.	B.C. Foster	760	Several.	Se	do	Q	None		1	do	S	61	
46	1.6 miles east of Macedonia Church.	do	800	4	Tu	do	Q	do		1	do	S	61	
47	1.7 miles east of Macedonia Church.	do	780	Several.	Se, Tu	do	Q	do		4	do	S	61	Orange deposits.
48	1.4 miles east of Macedonia Church.	do	760	Several.	Se	do	Q	do		2	do	S	64	
51	0.1 mile east of Macedonia Church.	Silas Brown	800	1	Tu	do	Q	do		2	6– 7–51	S	---	
52	0.2 mile west-northwest of Macedonia Church.	do	780	1	Tu	Limestone	Fp	do		5	do	S	---	
53	0.1 mile north-west of Macedonia Church.	do	800	Several.	Se	Mantle	Q	do		2	do	S	---	
55	0.7 mile west of Macedonia Church.	Amy O'Neal	780	1	Tu	do	Q	do		r2	6–14–51	S	58	
56	0.8 mile west of Macedonia Church.	do	750	1	Tu	Limestone	Fp	do		2	do	S	57	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3635-													
58	0.6 mile west-southwest of Macedonia Church.	Dale Carter	760	1	Se	Mantle	Q	None	r2	6-14-51	U	---	
59	0.3 mile west of Macedonia Church.	Odell Brown	800	1	Tu	Limestone	Fp	do	4	do	D,S	---	
60	0.2 mile west-southwest of Macedonia Church.	do	760	1	Tu	Mantle	Q	do	2	do	S	---	
65	0.2 mile north-northeast of Macedonia Church.	O.L. Burnley	790	1	Tu	do	Q	do	1	do	S	---	
66	0.4 mile north-northeast of Macedonia Church.	do	780	1	Tu	Limestone	Fp	do	2	do	S	---	
67	0.3 mile north-east of Macedonia Church.	Nellie Thomas.	820	1	Tu	do	Fp	do	2	do	D	57	

69	0.5 mile northeast of Macedonia Church.	Tom Brown	770	1	Tu	Mantle	Q	do	1	do	S	58
71	0.6 mile north-northeast of Macedonia Church.	do	780	1	Tu	do	Q	do	1	do	U	---
72	0.7 mile north-northeast of Macedonia Church.	Alqua Carter	690	1	Tu	Limestone	Fp	Pipe	1	do	D,S	57
73	0.9 mile north-northeast of Macedonia Church.	do	700	Several.	Co,Se	Mantle	Q	None	1	do	U	---
76	0.6 mile north-northeast of Macedonia Church.	E. Meador	780	1	Tu	Limestone	Fp	do	4	do	S	58
79	1 mile north-northwest of Macedonia Church.	Lennie Carter.	770	1	Tu	do	Fp	do	r4	do	S	---
88	1.4 miles northwest of Macedonia Church.	Mandy Brown.	760	1	Tu	do	Q	do	r2	do	S	---
89	1.5 miles northwest of Macedonia Church.	do	740	Several.	Se	do	Q	do	r1	do	S	---
91	do	Hobart Carter.	720	1	Tu	do	Fp	do	r2	6–21–51	S	---
92	1.6 miles west of Heath School.	Hershell Carter.	720	1	Tu	do	Fp	do	r10	do	D,S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3635-													
94	1.8 mile west-southwest of Heath School.	Albert O'Neal.	640	1	Tu	Limestone	Fp	None	r5	6-21-51	D,S	---	
96	0.9 mile south-west of Heath School.	Hubert Minner.	770	1	Tu	Mantle	Q	do	r2	do	S	---	
98	0.7 mile south-west of Heath School.	Ed Meador	760	1	Tu	do	Q	do	r2	do	S	---	
106	0.5 mile south-west of Heath School.	Mody Taylor	790	1	Tu	Limestone	Fp	Pipe and trough.	15	do	U	59	
111	0.8 mile west of Heath School.	Ed Meador	760	1	Tu	Mantle	Q	None	r2	do	S	---	
112	0.8 mile west-southwest of Heath School.	do	770	1	Tu	Limestone	Fp	do	r5	do	S	---	
115	0.9 mile west of Heath School.	W.M. Gregory.	760	1	Tu	do	Fp	do	r2	do	S	---	

116	1 mile west-northwest of Heath School.	do	760	1	Tu	Mantle	Q	do	r2	do	S	---
117	0.8 mile north of Maple Grove Church.	W.H. Huntsman.	750	Several.	Tu	Limestone	Fp	Pipe	5	6-25-51	D,S	59
118	do	do	720	Several.	Co,Se	Mantle and limestone.	Q	None	3	do	S	---
119	do	do	720	Several.	So, Tu	Limestone	Fp	Pipe	6	do	S	58
120	0.7 mile northwest of Maple Grove Church.	do	730	---	Se	do	Fp	None	---	---	U	---
121	0.8 mile north-northwest of Maple Grove Church.	do	710	---	Se	do	Fp	do	---	---	U	---
123	0.3 mile northwest of Maple Grove Church.	J.M. Dodson.	840	---	Se	Mantle	Q	do	r2	6-25-51	S	---
124	0.2 mile north of Maple Grove Church.	do	840	---	Se	do	Q	do	r4	do	S	---
127	0.6 mile west of Maple Grove Church.	Blonie Myers	820	Many	Se	do	Q	do	r8	do	S	---
129	0.6 mile northwest of Maple Grove Church.	A.W. Myers	780	---	Se	do	Q	do	r2	do	S	---
132	0.8 mile west of Maple Grove Church.	Jim Sullivan.	770	1	Co, Tu	do	Q	Pipe and trough.	r4	do	S	---
133	do	do	750	---	Co, Tu	do	Q	None	r4	6- 6-51	S	---
134	0.3 mile northeast of Maple Grove Church.	L.W. Sullivan.	820	2	Co, Tu	do	Fp	do	r10	6-25-51	D,S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3635-136	1 mile northwest of Maple Grove Church.	Carline Morris.	770	----	Se	Mantle----	Q	None -------	r3	6–25–51	S	---	
139	0.8 mile north of Maple Grove Church.	Hosea Sullivan.	740	----	Se	--do------	Q	--do--------	2	7–10–51	U	---	
140	0.6 mile north of Maple Grove Church.	--do--------	760	1	Se	--do------	Q	Wall--------	4	--do-----	S	59	
141	0.6 mile northeast of Maple Grove Church.	--do--------	760	1	Tu	Limestone-	Fp	Pipe--------	2	--do-----	D	60	
144	----do--------	Jesse Ray Morris.	740	1	Se	Mantle----	Q	None -------	3	--do-----	S	---	
145	0.5 mile northeast of Maple Grove Church.	--do--------	760	----	Se	--do------	Q	--do--------	3	--do-----	S	---	
147	0.1 mile southeast of Maple Grove Church.	M.M. Johnson.	820	1	Tu	--do------	Q	--do--------	r6	--do-----	D,S	---	
150	0.4 mile west of Maple Grove Church.	Marcus Pardue.	820	1	Se	--do------	Q	--do--------	----------	---------	U	---	

151	0.6 mile south-west of Maple Grove Church.	do	800		Co,Se	do	Q	do			U	
153	0.5 mile west of Maple Grove Church.	G.A. Moore	820		Se	do	Q	do	r15	7-10-51	D,S	
154	0.6 mile west of Maple Grove Church.	do	810		Se	do	Q	do	r2	do	S	
155	do	do	810	1	Tu	Limestone	Fp	Pipe	r2	do	S	
156	0.7 mile west of Maple Grove Church.	do	820		Se	Mantle	Q	None	r2	do	S	
157	0.7 mile south-west of Maple Grove Church.	do	780		Co,Se	do	Q	do	r2	do	S	
158	0.7 mile west of Maple Grove Church.	O.L. Parish	810		Se	do	Q	do	r2	do	S	
159	do	do	790		Se	Limestone	Fp	do	r1	do	S	
160	do	do	770		Se	do	Fp	do	r1	do	S	
161	0.6 mile west of Maple Grove Church.	do	790		Tu	do	Fp	do	r2	do	S	
162	do	do	790	1	Tu	do	Fp	do	r2	do	S	
164	0.3 mile north-east of Maple Grove Church.	Mural Meador.	840		Se	Mantle	Q	do	r3	do	S	
165	0.5 mile south-east of Maple Grove Church.	C.A. Meador	850		Tu	Limestone	Fp	do	r10	do	S	
166	0.2 mile south of Maple Grove Church.	do	790	Many	Co,Se, Tu.	Mantle and limestone.	Q,Fp	do	r30	do	S	
167	0.7 mile south of Maple Grove Church.	Roy Morfey	820	1	Tu	Limestone	Fp	Pipe	r3	do	S	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3635-168	0.8 mile south of Maple Grove Church.	Roy Morfey	800	Several.	Co,Se	Mantle and limestone.	Q, Fp	None	r4	7-10-51	S	---	
170	do	Curtis Brown.	810	----	Se	Mantle	Q	do	r1	7-11-51	S	---	
171	0.9 mile south of Maple Grove Church.	do	830	----	Se	do	Q	do	r1	do	U	---	
174	1 mile south of Maple Grove Church.	Roscoe Pardue.	800	----	Tu	Limestone	Fp	do	r8	do	S	---	
175	do	do	840	----	Se	Mantle	Q	do	r8	do	S	---	
178	0.7 mile south of Maple Grove Church.	Lon Bonds	780	5	Tu	Limestone	Fp	Pipe	r2	do	D	---	
180	0.9 mile south of Maple Grove Church.	Robert Pardue.	840	1	Co,Se	Mantle	Q	None	r3	do	U	---	
183	0.1 mile northeast of Maple Grove Church.	W.L. Law	860	1	Se	do	Q	Dug out	r2	7-31-51	S	---	

8610-3640-1,2,3,4,	2 miles south of Louisville & Nashville railroad trestle on Hartsville Road.	City of Scottsville.	670	4	So	Limestone	Fp	Houses and pumps.	r60	January 1947	P,U	60	Chemical analysis in table 10. Formerly public supply.
6	0.7 mile south of courthouse.	C. Braley	740	1		do	Fp	House	3	7–19–50	U		
15	1 mile southeast of courthouse.	Clarice Cooksey.	750	2		do	Wa	Pipe and pool.	3	7–20–50	D,S		
16	1.1 miles southeast of courthouse.	Jesse Lane	740			do	Fp	Pipe	2	do	D		
17	do	do	730			do	Fp	None	2	do	U		Occasionally sulfurous.
18	1 mile southeast of courthouse.	Minnie Whitney.	770			do	Wa	do	2	do	U		
20	1.2 miles southeast of courthouse.	P.R. Jones	690			do	Fp	House			D		
24	1.1 miles north-northeast of Dover Church.	Nolon McCoy.	740		Se	Mantle	Q	None	1	7–21–50	D,S		
25	do	W.H. Bell	740	1	Se	do	Q	Wall	2	do	S		
26	0.8 mile east-northeast of Dover Church.	Herbert Moore.	780		Se	do	Q	None	1-1/2	do	S		
27	do	do	780		Se	do	Q	do	1	do	S		
28	1 mile east-northeast of Dover Church.	H. Moore	760	Several.	So,Tu	Limestone	Fp	Trough	1	do	U		
29	1.2 miles east-northeast of Dover Church.	do	780			do	Fp	House	4	do	D,S		

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-30	1.1 miles east of Dover Church.	Dan Pitchford.	810	-----	Se	Mantle	Q	Wall	1	7-21-50	D	---	
31	0.6 mile northwest of Bellwood School.	J.A. Brasher.	810	Several.	So, Tu	Limestone	Fp	None	1	do	S	---	
36	0.5 mile south of courthouse.	Ellis Walker	740	1	So, Tu	do	Wa	do	2	8- 2-50	D	---	Supplies several families.
38	0.2 mile south of Louisville & Nashville Railroad trestle.	Durwood Kelly.	680	-----	-----	do	Fp	Wall	4	do	D,S	---	
39	1.2 miles south of courthouse.	do	720	Many	So, Tu	do	Fp	None	12	do	U	---	
42	0.6 mile southeast of courthouse.	John Boyd	780	2	Se	do	Wa	Wall	1/2	7-19-50	D	---	
45	1.2 miles south of courthouse.	Mae Harrison.	720	Several.	So, Tu	do	Fp	do	3	8- 3-50	D	57	Chemical analysis in table 10.

46	do	Durwood Kelly.	750	Several.	So, Tu	do	Wa	None	3	do	U	--	
47	1.3 miles south of courthouse.	Mae Harrison	710	--	So, Tu	do	Fp	Spout	4	do	D	62	
48	1.3 miles south of Scottsville.	do	740	Several.	Co, Se Tu.	Mantle and limestone.	Q, Fp	None	3	do	U	58	
49	1.3 miles south of courthouse.	Dean Dukes	710	--	So, Tu	Limestone	Fp	do	6	do	S	56	
50	1.5 miles south of courthouse.	A. L. T. Hatler.	690	--	--	do	Fp	House	3	do	D, S	59	
51	1.1 miles south of courthouse.	Wayne Cockrill.	690	Several.	So, Tu	do	Fp	Spout	2	do	S	57	
52	1.2 miles north of Dover Church.	Jesse Marion.	750	--	Co, Se	Mantle and limestone.	Q, Fp	Piped to house and barn.	50–70	do	D, S	64	Chemical analysis in table 10.
53	1.1 miles north of Dover Church.	do	730	2	Se	Mantle	Q	None	40	do	U	--	
54	1 mile north of Dover Church.	do	690	--	So, Tu	Limestone	Fp	House	7	do	U	--	
55	1.3 miles north-northwest of Dover Church.	Dean Dukes	770	--	Se	Mantle	Q	None	3	do	U	--	
56	1.1 miles southeast of White Plains School.	Mrs. Molly Binnion.	750	--	So, Tu	Limestone	Fp	do	3	do	U	--	
57	1.1 miles north-northwest of Dover Church.	Dean Dukes	770	--	Co, Se	Mantle	Q	do	5	do	U	--	
58	1.5 miles south of courthouse.	do	750	--	Se	do	Q	do	2	do	U	--	
59	0.9 mile north of Dover Church.	Cleveland Carver.	730	--	So, Tu	Limestone	Fp	do	5	8–4–50	D, S	--	
60	0.6 mile north of Dover Church.	Harvey Carter.	750	--	So, Tu	do	Fp	Pipe	2	do	D, S	58	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
63	1 mile northwest of Dover Church.	Willie Carter	780	-----	So, Tu	Limestone	Wa	None	4	8- 4-50	S	---	
64	1.2 miles northwest of Dover Church.	do	780	-----	Se	do	Wa	do	7	do	S	---	
65	1.3 miles northeast of Mount Pleasant Church.	Gilbert Carver.	750	1	Co, Se	do	Fp	do	2	do	D	---	
66	do	Luther Blankenship.	760	-----	Se	do	Q	do	2	do	U	---	
67	1.5 miles northeast of Mount Pleasant Church.	do	780	-----	-----	do	Q	do	3	do	U	---	
68	1.3 miles northeast of Mount Pleasant Church.	do	780	-----	So, Tu	do	Wa	do	1	do	S	---	
71	1.1 miles northeast of Mount Pleasant Church.	A.E. Carver	760	-----	Se	Mantle	Q	do	3	do	S	---	

74	0.9 mile northeast of Mount Pleasant Church.	E.W. Stovall.	740	Several.	Se	do	Q	do	1	8- 7-50	S	---	Dry in summer.
75	0.9 mile north-northeast of Mount Pleasant Church.	Ed Welch	780	Several.	Se	Limestone	Wa	do	2	do	U	---	
76	0.8 mile northeast of Mount Pleasant Church.	Rosa Holder	760	1	Se	do	Wa	do	3	do	U	---	
77	1.1 miles northwest of Shady Grove School.	do	700	-----	-----	Mantle(?)	Q	Wall	2	do	S	---	
78	do	do	690	-----	So, Tu	Limestone	Fp	None	1	do	U	---	Iron spring.
79	0.7 mile east of Mount Pleasant Church.	do	690	-----	Se	Mantle	Q	do	2	do	U	---	
80	0.6 mile east of Mount Pleasant Church.	-----	700	-----	Co,Se	Limestone	Fp	do	7	do	U	---	
81	0.6 mile northeast of Mount Pleasant Church.	Rosa Holder	710	-----	Co,Se	Mantle	Q	do	2	do	U	---	
84	1 mile northwest of Shady Grove School.	E.G. Carver	750	-----	Co,Se	Limestone	Fp	Wall and pipe.	7	do	S	---	
85	do	do	690	-----	Se	Mantle	Q	None	4	do	U	---	
87	0.8 mile north of Dover Church.	H.C. Livesay	720	-----	So, Tu	Limestone	Fp	House	17	do	D,S	---	
88	0.9 mile north of Shady Grove School.	J.E. Pitcock	750	-----	So	do	Fp	Pipe	17	8- 8-50	D	57	
89	1 mile north of Shady Grove School.	do	750	-----	So, Tu	do	Fp	None	9	do	U	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
92	0.6 mile north of Shady Grove School.	L.P. Dukes	710	----	So, Tu	Limestone	Fp	None	5	8- 8-50	S	59	
93	----do	--do	730	----	So, Tu	--do	Fp	--do	1	--do	S	63	
94	0.7 mile northeast of Shady Grove School.	Odell Rippy	740	----	So, Tu	--do	Fp	Pool	3	--do	D,S	61	
96	0.6 mile southwest of Dover Church.	Jim Harrison.	750	----	Se	--do	Fp	None	1	--do	U	---	
97	----do	--do	750	----	So, Tu	--do	Fp	Pipe	2	--do	D,S	58	
101	0.2 mile east of Shady Grove School.	J.E. Pitcock	720	Many	So, Tu	--do	Fp	None	1	--do	S	62	
102	0.3 mile northeast of Shady Grove School.	--do	720	Several.	Se	Mantle	Q	--do	1	--do	S	60	
104	0.4 mile south of Shady Grove School.	Leon Livesay.	730	----	So, Tu	Limestone	Fp	Pipe and trough.	1	--do	S	61	
107	0.3 mile northeast of Dover Church.	Coy Richardson	760	Many	Se	Mantle	Q	None	4	8- 9-50	S	---	

108	0.5 mile northwest of Dover Church.	do	760	1	So, Tu	Limestone	Fp	House	4	do	U	61
110	0.2 mile northwest of Shady Grove School.	J.G. Britt	740	---	So, Tu	do	Fp	None	1	do	S	---
111	do	Mrs. Alice Britt.	710	---	So, Tu	do	Fp	do	3	do	U	---
113	0.4 mile northwest of Shady Grove School.	do	700	Several.	So, Tu	do	Fp	do	3/4	8–10–50	U	---
114	0.4 mile northwest of Shady Grove School.	do	700	---	Se	Mantle	Q	do	3	do	U	58
118	0.9 mile southeast of Mount Pleasant Church.	Goldman E. Brown.	690	Several.	So, Tu	Limestone	Fp	do	1-1/2	do	U	57
119	1.2 miles south southeast of Mount Pleasant Church.	do	690	Several.	So, Tu	do	Fp	Trough	3	do	S	60
121	0.6 mile southeast of Mount Pleasant Church.	Vivian Brown.	700	---	So, Tu	do	Fp	None	3	do	D,S	59
122	0.6 mile south of Mount Pleasant Church.	do	660	Many	Se, So, Tu.	do	Fp	Pipe	2	do	S	59
126	0.2 mile south of Shady Grove School.	Charles G. Oliver.	740	Several.	Co, Se	Mantle and limestone.	Q, Fp	None	3	8–11–50	U	63
127	do	do	720	---	Se	Limestone	Fp	do	1	do	U	---
128	0.3 mile south of Shady Grove School.	do	700	Several.	So, Tu	do	Fp	do	3	do	S	---
129	0.4 mile south-southwest of Shady Grove School.	do	700	---	Se	Mantle	Q	do	1	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
130	0.4 mile south-southwest of Shady Grove School.	Charles G. Oliver.	700	Several.	Tu	Limestone	Fp	None	1	8-11-50	U	60	
131	0.3 mile southwest of Shady Grove School.	do	710	Several.	Tu	do	Fp	do	1	do	U	60	
135	do	K. M. Wilson	760	----	Se	do	Fp	do	4	do	S	58	
137	0.7 mile southwest of Shady Grove School.	Virgil D. Miller.	650	----	Se	Mantle	Q	House	5	8-14-50	D	58	
139	1 mile southwest of Shady Grove School.	B. B. Piper	690	----	Se	do	Q	None	3	do	S	63	
140	1.2 miles southwest of Shady Grove School.	do	680	----	So, Tu	Limestone	Fp	do	1	do	U	60	
141	1.3 miles southwest of Shady Grove School.	do	650	----	Se	Mantle	Q	do	3	do	S	57	

142	do	do	640		Se	do	Q	do	2	do	U	62	
143	1.2 miles southwest of Shady Grove School.	do	650		Tu	Limestone	Fp	do	1	do	S	59	
144	1.1 miles southwest of Shady Grove School.	do	650	Several.	Se	do	Fp	do	1/2	do	U	59	
145	do	do	660	Several.	Se	Mantle	Q	do	2	do	U	59	
146	1 mile southwest of Shady Grove School.	do	630		So, Tu	Limestone	Fp	Wall	1	do	S	60	
147	0.8 mile southwest of Shady Grove School.	do	720	2	So, Tu	do	Fp	None	3	do	S	57	
148	0.9 mile southwest of Shady Grove School.	do	620		So, Tu	do	Fp	do	1	do	U	61	
149	do	do	640	1	So, Tu	do	Fp	Pipe and trough.	m10	do	D	58	Chemical analysis in table 10.
150	1 mile northeast of White Plains School.	Owne Patrick	710		So, Tu	do	Fp	None	2	8–17–50	U	59	
154	0.7 mile northeast of White Plains School.	Scottsville Country Club.	760		So, Tu	do	Wa	Pipe	1	do	U	58	
155	0.8 mile northeast of White Plains School.	do	740		So, Tu	do	Wa	None	1/2	do	U	---	
159	0.2 mile north-northwest of White Plains School.	E.P. Miller	780		Se	Mantle	Q	do	1	8–21–50	S	65	
161	0.5 mile north of White Plains School.	do	780		Se	do	Q	do	1	do	U	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
163	0.4 mile southwest of U.S. Highway 31E and Louisville & Nashville Railroad grade crossing.	Johnny Frost	740	----	So, Tu	Limestone	Wa	None	2	8–21–50	D	59	
166	1.1 miles southwest of White Plains School.	John Miller and Woodrow Miller.	730	----	Se	do	Wa	Pipe	2	8–22–50	S	59	
168	1.1 miles east of Hickory Hill Church.	F.E. Costello.	730	----	Se	Mantle	Q	None	1/2	do	U	---	
170	0.6 mile southeast of Hickory Hill Church.	Robert Frost	690	1	So, Tu	Limestone	Fp	do	2	do	U	58	
171	do	do	700	2	So, Tu	do	Wa	do	2	do	U	60	
173	0.2 mile southwest of Hickory Hill Church.	J.G. Lewis	730	Several.	Se	Mantle	Q	do	5	do	U	62	

175	0.8 mile east of Briarfield School.	Cecil Loyd	790	----	Se	Limestone	Wa	do	1/2	do	S	61	
177	0.6 mile east-southeast of Briarfield School.	Herbert Knight.	740	----	------	Mantle	Q	Pipe	1	do	S	59	
178	0.6 mile south-east of Briarfield School.	Hubert Wolf.	720	----	Co, Se	Mantle and limestone.	Q	None	1/2	do	U	---	
179	do	Herbert Knight.	720	----	So, Tu	Limestone	Fp	do	1	do	U	64	
180	0.6 mile east of Briarfield School.	Albert Huffines.	750	----	So, Tu	do	Wa	do	1/2	do	D	62	
182	0.4 mile south-east of Briar-field School.	Ernest Pearson.	700	1	So, Tu	do	Fp	do	3	do	S	59	
183	0.3 mile south-east of Briar-field School.	do	720	----	So, Tu	do	Fp	do	5	do	S	59	
184	0.2 mile north-west of Briar-field School.	Harrison Glover.	750	Sev-eral.	So, Tu	do	Wa	do	5	8–23–50	S	64	
185	800 ft north-west of Briar-field School.	Mrs. Toy Blankenship.	750	----	Co, Se	do	Wa	Cement basin	1/2	do	D	61	
186	700 ft north of Briarfield School.	Harrison Glover.	750	----	Se	do	Se	Spout	1	do	S	59	Occasionally dry.
189	0.3 mile north of Briarfield School.	do	700	----	Se	Mantle	Q	None	5	do	S	61	
190	0.5 mile north-northwest of Briarfield School.	Mrs. P. Blankenship.	700	Sev-eral.	So, Tu	Limestone	Wa, Fp	Pipe	4	do	D, S	60	Chemical analysis in table 10.

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openigns		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-192	0.4 mile west of Briarfield School.	Rosa Hinton	730	2	Se	Mantle	Q	None	1	8-23-50	S	62	
194	0.7 mile northwest of Briarfield School.	W.W. Fraim	670	----	Se	Limestone	Fp	do	1/2	do	S	61	
195	0.6 mile northwest of Briarfield School.	do	650	Several.	Se	do	Fp	do	2	do	S	64	
196	do	do	680	Several.	Se	do	Fp	do	1/2	do	U	67	
197	0.6 mile northwest of Briarfield School.	do	700	----	Se	do	Wa	do	1/2	do	S	66	
198	0.6 mile west of Briarfield School.	Rosa Hinton	720	----	Se	do	Wa	do	1	do	S	66	
199	do	do	710	Several.	Co, Tu	do	Wa	Pipe	4	do	S	64	
200	do	do	700	Many	Co, Tu	do	Wa	None	2	do	S	59	

202	0.3 mile southwest of Briarfield School.	Henry Belcher.	710	2	So, Tu	do	Fp	House	2	do	D, S	59
203	0.5 mile southwest of Briarfield School.	do	710	1	So, Tu	do	Fp	None	2	do	U	59
205	0.3 mile south of Briarfield School.	Ernest Pearson.	710	Several.	Se	Mantle	Q	do	2	8-28-50	S	---
207	0.6 mile south of Briarfield School.	J. O'Neal	700	1	So, Tu	Limestone	Fp	Wall	2	do	S	62
208	do	Ernest O'Neal.	710	2	So, Tu	do	Fp	None	2	do	S	62
211	0.8 mile southwest of Briarfield School.	W. S. Wygal	690	----	----	do	Fp	Pipe and basin.	4	do	S	59
213	0.8 mile south-southwest of Briarfield School.	Joe Foster	700	Several.	So, Tu	do	Fp	Pipe	2	do	S	63
214	1 mile south of Briarfield School.	Charlie Tucker.	620	1	So, Tu	do	Fp	do	2	do	D	61
215	0.9 mile south of Briarfield School.	do	620	----	Se	Mantle	Q	None	1	do	S	---
217	0.8 mile north of Petroleum.	J.M. Foster	670	----	Se	do	Q	do	2	do	S	59
219	0.5 mile northeast of Mount Pleasant Church.	Robert Lee Cox.	750	1	So, Tu	Limestone	Fp	do	1	do	S	61
220	0.6 mile east of Mount Pleasant Church.	do	730	Several.	So, Tu	do	Fp	Pipe and trough.	3	do	S	60
223	0.4 mile south of Briarfield School.	Lendor O'Neal.	710	----	Se	Mantle	Q	None	1	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
224	0.3 mile southwest of Briarfield School.	W.S. Wygal	720	---	Se	Mantle	Q	None	2	8–28–50	U	---	
226	0.7 mile southwest of Briarfield School.	W.J. Stovall	700	Several.	So, Tu	Limestone	Fp	--do	2	--do	S	61	
229	0.8 mile east-southeast of White Plains School.	Mike Chism	750	---	Co	--do	Wa	--do	2	8–29–50	D	---	
233	0.7 mile north of Dover Church.	Clarence Parish.	730	1	Co, Se	Mantle and limestone.	Q, Fp	Wall	3	9–15–50	D,S	58	
239	0.4 mile south of Dover Church.	Raymond Tinsley.	780	4	Tu	Limestone	Fp	Spout	4	9–19–50	D,S	59	
241	0.7 mile south of Dover Church.	Blondell Hooten.	750	1	Co, Tu	Mantle	Q	None	4	--do	D,S	59	
242	----do	--do	760	1	Se	--do	Q	--do	4	--do	S	59	
244	0.8 mile south of Dover Church.	L.O. Meador	730	2	Co,Tu	--do	Q	--do	11	--do	S	58	

246	0.6 mile southeast of Shady Grove School.	Ann Brown	740	Several.	So, Tu	Limestone	Fp	House and trough.	1	do	U	61
248	0.4 mile east of Dover Church.	C.E. Douglas	810	Several.	Co, Se	Mantle	Q	None	3	9–21–50	S	---
252	0.7 mile east-southeast of Dover Church.	L.H. Napier	810	1	Se	do	Q	do	3	do	S	62
257	0.9 mile southeast of Dover Church.	O.G. Pardue	770	Several.	Tu	Limestone	Fp	do	3	9–25–50	S	---
258	do	do	780	---	Se	Mantle	Q	do	2	do	S	---
259	0.8 mile east-southeast of Dover Church.	do	780	---	Se	do	Q	do	3	do	S	---
260	do	do	800	---	Se	do	Q	do	4	do	S	---
261	0.8 mile east of Dover Church.	do	820	1	Se	do	Q	do	4	do	S	---
262	1.3 miles southeast of Dover Church.	Louis Heath	770	1	So, Tu	Limestone	Fp	do	5	do	D,S	---
263	0.5 mile north-northeast of Dover Church.	L.S. Napier	770	2	Se	Mantle	Q	do	6	10– 1–50	S	---
264	1.3 miles east of courthouse.	John Shuffitt	730	2	Se	do	Q	Wall and pipe	6	10– 2–50	D,S	60
267	1.4 miles southeast of courthouse.	James Marsh.	750	Several.	Co, Se	do	Q	Pipe and tank	15	do	D,S	60
268	1.5 miles southeast of courthouse.	do	710	---	Se	do	Q	None	---	---	U	---
270	1.6 miles southeast of courthouse.	A.F. Vaughn	730	1	Co, Se	do	Q	do	2	10– 2–50	D,S	59
271	do	do	720	1	Se	do	Q	do	2	do	D,S	60

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Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-272	1.6 miles southeast of courthouse.	A.F. Vaughn	720	Several.	Co,Se	Mantle	Q	None	8	10- 2-50	D,S	59	
275	do	A.R. Boyd	720	1	Se	do	Q	Wall and piped to house.	5	10- 3-50	D,S	---	
280	0.7 mile southeast of Dover Church.	Noah Morris	790	Several.	Se	do	Q	None	6	10-17-50	S	---	
281	0.8 mile west of Bellwood School.	do	790	Several.	Co,Se	do	Q	do	2	do	S	---	
282	0.7 mile west of Bellwood School.	do	780	Many	Co,Se	do	Q	do	5	do	S	---	
283	do	do	780	Several.	Co,Se	do	Q	do	2	do	S	---	
284	do	do	760	Many	Co,Se	do	Q	do	2	do	S	---	
287	0.6 mile southeast of Dover Church.	Edward Krouse.	800	Several.	Co,Se	do	Q	do	r1/2	do	S	---	

288	0.7 mile south-southeast of Dover Church.	do	780	1	Co, Tu	do	Q	do	r2	do	S	
291	1.2 miles east of Shady Grove School.	Price Watkins.	770	1	Co, Tu	do	Q	Pipe	3	do	S	61
293	1.5 miles east of Shady Grove School.	Drew Britt	730	Many	Se	do	Q	None	4	do	S	
294	1.4 miles east of Shady Grove School.	do	760	Several.	Se	do	Q	do	2	do	S	
295	0.8 mile west-southwest of Bellwood School.	do	760			do	Q	do		do	S	
296	1.1 miles west-southwest of Bellwood School.	do	750			do	Q	do			D,S	
298	1.2 miles southwest of Bellwood School.	Harry Howell	740	1	Se	do	Q	do	r2	10–17–50	S	
300	1.1 miles south of Dover Church.	W. T. Howell	720	1	Co, Tu	do	Q	Pipe	2	do	S	
301	do	do	710	1	Co, Se	do	Q	None	r1	do	S	
303	1.2 miles south of Dover Church.	Robert Basham.	680	Many	Se	do	Q	do	8	do	S	
304	do	do	750	1	Se	do	Q	do	2	do	S	
305	1.6 miles south-southeast of Dover Church.	W.O. Wilson	700	1	Se	do	Q	Pipe	3	10–18–50	D,S	
307	1.2 miles southwest of Mount Carmel Church.	I.S. Napier	740	1	So, Tu	Limestone	Fp	None	4	do	S	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3640-309	0.7 mile southwest of Bellwood School.	Harry Heath	800	1	Co, So, Tu.	Mantle and Limestone.	Q, Fp	None	r2	10-18-50	S	---	
310	1.2 miles southwest of Bellwood School.	do	750	---	Co, Se	do	Q, Fp	do	r3	do	S	---	
311	0.9 mile east-northeast of White Plains School.	E. Oliver	740	1	Se	Mantle	Q	do	4	3-21-51	U	---	
312	do	do	690	1	Se	do	Q	House	11	do	D, S	---	
327	0.4 mile north-northeast of Mount Pleasant Church.	R. C. Marcum	770	1	Tu	Limestone	Wa	Wall and electric pump.	r10	do	D	---	
332	1.2 miles south-southwest of Briarfield School.	W. W. Foster	620	2	Tu	do	Fp	None	5	3-28-51	S	57	
333	1 mile south-southwest of Briarfield School.	Virgil B. Holmer.	650	1	Tu	do	Fp	Wall, piped to house.	7	do	D	---	

334	1 mile south of Briarfield School.	Charlie Tucker.	690	1	Se	Mantle	Q	Wall and piped to house.	5	do	D	57
335	0.9 mile south of Briarfield School.	do	690	1	Se	do	Q	Wall	3	do	S	----
336	0.3 mile west-southwest of Mount Pleasant Church.	J.E. Crowe	750	1	Se	do	Q	None	3	do	S	53
338	0.4 mile west-southwest of Mount Pleasant Church.	do	750	1	Se	do	Q	do	3	do	S	56
339	0.4 mile southwest of Mount Pleasant Church.	do	660	Several.	Co, So, Tu.	Mantle and limestone.	Q, Fp	do	4	3-21-51	S	----
340	0.1 mile southwest of Mount Pleasant Church.	do	720	1	Se	Mantle	Q	do	5	3-28-51	D,S	56
341	0.2 mile southwest of Mount Pleasant Church.	do	720	1	Se	do	Q	do	3	do	S	54
342	0.2 mile west-northwest of Mount Pleasant Church.	do	700	1	Se	do	Q	do	5	do	D	56
346	0.3 mile north-northwest of Mount Pleasant Church.	Hewitt Wolfe	720	1	Se	do	Q	do	3	3-29-51	S	54
347	0.4 mile north-northwest of Mount Pleasant Church.	J.E. Crowe	700	1	Tu	Limestone	Fp	do	6	do	S	55

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
348	0.3 mile north-northwest of Mount Pleasant Church.	J.E. Crowe	700	1	Tu	Limestone	Fp	None	7	3-29-51	S	54	
349	0.3 mile northwest of Mount Pleasant Church.	do	700	Several.	Se	Mantle	Q	do	4	do	S	55	
353	0.3 mile east-southeast of Mount Pleasant Church.	B.M. Thompson.	740	1	Se	do	Q	do	3	do	S	55	
354	0.6 mile northeast of Mount Pleasant Church.	do	750	1	Se	do	Q	do	3	do	S	55	
370	0.6 mile east-southeast of White Plains School.	J.E. Sickles	770	1	Se	do	Q	do	2	4-10-51	S	54	
371	do	do	750	2	Se	do	Q	do	2	do	S	53	

373	0.4 mile east of White Plains School.	Leslie Burton.	770	1	Se	do	Q	do	2	do	U	57	Oily.
374	0.5 mile east of White Plains School.	do	770	Several.	Se	do	Q	do	4	do	U	56	Do.
375	0.6 mile east of White Plains School.	do	750	1	Se	do	Q	do	2	do	U	53	
378	0.3 mile northeast of White Plains School.	Roy Giles	790	1	Co	Mantle and limestone.	Q, Wa	House and pipe.	10	do	D, S	54	
384	0.8 mile northeast of White Plains School.		710	1	Co	Mantle	Q	House	7	do	D	54	
393	0.3 mile east-southeast of Hickory Hill Church.	Vern Frost	750	1	Tu	Limestone	Wa	None	15	4-12-51	D, S		
394	0.4 mile east of Hickory Hill Church.	Arthur Goodrum.	750	1	Tu	do	Wa	do	10	do	S		
401	0.9 mile west-northwest of White Plains School.	L.A. Williams.	690	1	Tu	Mantle	Q	do	4	4-19-51	S	55	
404	0.6 mile west-northwest of White Plains School.	do	710	Several.	Co, Tu	Mantle and limestone.	Q, Wa	do	10	do	S	54	
434	0.5 mile east-southeast of Concord Church.	B.G. Brown	670	1	Tu	Mantle	Q	Piped to house.	10	4-25-51	D, S	54	
435	0.6 mile southeast of Concord Church.	do	660	Several.	Se	do	Q	None	10	do	S	54	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-436	0.8 mile east-southeast of Concord Church.	B.G. Brown	700	Many	-----	Limestone	Fp	None	5	4–25–51	S	54	
438	0.3 mile south-east of Concord Church.	Ray Dalton	640	1	Se	Mantle	Q	Pond	5	5– 9–51	S	59	
439	0.2 mile south-east of Concord Church.	do	640	1	Tu	do	Q	Piped to tank	4	do	S	54	
441	1 mile south-east of Concord Church.	Goldie Brown	700	1	Tu	do	Q	None	10	do	D,S	----	
442	1 mile east-southeast of Concord Church.	M.C. Justice	730	1	Tu	do	Q	do	3	do	S	----	
443	do	do	710	Several.	Se	Limestone	Fp	do	5	do	S	----	
444	do	do	670	1	Tu	Mantle	Q	do	2	do	S	----	

446	1.2 miles southeast of Concord Church.	A.D. Ennison	770	1	Tu	do	Q	do	4	do	D,S	----
448	1.3 miles east-southeast of Concord Church.	S.L. Dalton	740	1	Tu	do	Q	do	10	do	S	----
449	1.3 miles west of Pleasant Grove Church.	Carl Minix	750	1	Tu	Limestone	Fp	Pipe	r8	5–7–51	D	----
450	1.1 miles west of Pleasant Grove Church.	Marshal Woods.	730	1	Tu	do	Fp	do	r8	do	D	----
451	1 mile east of Union Chapel.	A.M. Kendall	740	1	Co, Tu	Mantle	Q	None	r6	do	U	----
452	0.9 mile east of Union Chapel.	do	760	----	Co, Tu	do	Q	do	r6	do	S	----
453	do	do	770	1	Co, Tu	do	Q	do	r6	do	S	----
456	0.7 mile west of Austin School.	Burley Cline	800	1	Se	do	Q	do	r3	5– 9–51	U	----
457	0.8 mile west of Austin School.	do	800	1	Se	do	Q	do	r5	do	U	----
458	1 mile west of Austin School.	do	740	5	Se	do	Q	do	r10	do	U	----
459	0.8 mile west of Austin School.	E. Mayberry	790	1	Tu	Limestone	Q	do	r5	do	U	----
460	0.8 mile west-southwest of Austin School.	do	770	1	----	Mantle and limestone.	Q, Fp	do	----	do	U	----
464	1 mile south-east of Concord Church.	L.B. Huntsman.	760	1	Tu	Mantle	Q	do	7	5–16–51	D,S	----
466	0.6 mile north-west of Heath School.	B.D. Hawkins	730	1	Tu	do	Q	do	----	----	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-468	1.3 miles northwest of Union Chapel.	C. T. Duke	700	1	Tu	Mantle	Q	None	2	5-24-51	S	----	
469	1.2 miles northwest of Union Chapel.	do	720	1	Tu	Limestone	Fp	do	2	do	S	----	
470	1.1 miles northwest of Union Chapel.	do	720	1	Tu	do	Fp	do	2	do	S	----	
471	1.1 miles west-northwest of Union Chapel.	do	700	1	Tu	Mantle	Q	do	1	do	S	----	
472	1 mile west-northwest of Union Chapel.	do	720	1	Tu	do	Q	do	2	do	S	----	
473	do	do	750	Several.	Se	do	Q	do	1	do	S	----	
477	1 mile west of Union Chapel.	L. P. Duke	730	1	Tu	do	Q	do	3	do	S	----	
478	0.7 mile northwest of Union Chapel.	D. T. Myers	720	1	Tu	Limestone	Fp	do	3	5-25-51	S	----	

479	0.5 mile west-northwest of Union Chapel.	do	720	1	Tu	do	Fp	do	2	do	S	---
480	0.5 mile west of Union Chapel.	Paul Pardue	690	1	Tu	Mantle	Q	do	2	do	D,S	---
482	0.3 mile west of Union Chapel.	M.A. Huntsman.	760	Several.	Se	do	Q	do	1	do	S	---
483	0.4 mile west of Union Chapel.	do	750	1	Tu	Limestone	Fp	do	4	do	S	---
484	0.3 mile southwest of Union Chapel.	do	720	1	Tu	do	Fp	do	2	do	S	---
486	0.7 mile west-southwest of Union Chapel.	Harley Pitcock.	660	1	Tu	do	Fp	House and pipe.	5	do	D,S	---
489	0.3 mile north of Union Chapel.	R.E. Spears	740	1	Tu	do	Fp	None	5	6- 7-51	S	---
490	1.7 miles west-southwest of Concord Church.	G.B. Taylor	680	1	Tu	do	Fp	Pipe	1	6-21-51	S	---
491	1.6 miles west-southwest of Concord Church.	do	660	1	Tu	do	Fp	do	2	do	D,S	---
492	1.5 miles west-southwest of Concord Church.	D.Anderson	680	1	Tu	do	Fp	None	r3	do	D,S	---
493	1.8 miles west-southwest of Concord Church.	Marshall Anderson.	630	1	Tu	do	Fp	Basin	3	do	U	---
494	do	do	660	Several.	Se	Mantle	Q	None	1	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
497	1 mile northwest of Heath School.	K.R. Hagan	720	1	Tu	Mantle	Q	None	r2	6-21-51	S	---	
498	1.2 miles west of Austin School.	H.M. Dalton	760	1	So, Tu	Limestone	Fp	Pipe	1	6-25-51	U	59	
500	1 mile west of Austin School.	do	770	1	Se	Mantle	Q	None	2	do	U	---	
501	1.2 miles west of Austin School.	do	780	---	---	Limestone	Fp	do	r3	do	U	---	
502	do	do	730	---	---	do	Fp	do	r3	do	U	---	
503	1.4 miles west of Austin School.	do	760	---	---	do	Fp	do	r2	do	U	---	
504	1.9 miles west-northwest of Concord Church.	W.B. Ogles	630	1	Tu	Mantle	Q	do	2	6-26-51	D,S	58	
505	do	Lena Ogles	650	1	Tu	Limestone	Fp	do	r2	do	S	---	
506	2 miles west-northwest of Concord Church.	do	640	1	Tu	do	Fp	Pond and piped to road.	2	do	D,S	---	

515	1.4 miles west-northwest of Concord Church.	Homer Carter.	720	1	Tu	Mantle	Q	None	r2	do	S	----
516	1.5 miles west-northwest of Concord Church.	do	690	1	Tu	do	Q	do	r2	do	S	----
518	1.5 miles northwest of Concord Church.	Owen E. Mayhew.	750	1	Tu	Limestone	Fp	do	r1	do	S	----
520	1.3 miles northwest of Concord Church.	H.A. Sarver	730	1	Tu	do	Fp	do	r1	do	S	----
521	1.2 miles west-northwest of Concord Church.	do	690	1	Tu	do	Fp	do	r1	do	S	----
523	1.2 miles northwest of Concord Church.	Hoy L. Sarver.	760	1	Tu	Mantle	Q	do	r2	do	S	----
524	1.1 miles northwest of Concord Church.	do	730	1	Tu	Limestone	Fp	do	r1	do	S	----
525	do	do	680	1	Tu	do	Fp	do	r2	do	S	----
526	1 mile north-west of Concord Church.	do	670	1	Tu	do	Fp	do	r2	do	S	----
527	1.3 miles west-northwest of Concord Church.	do	760	1	Tu	do	Fp	do	r3	do	S	----
530	do	B.K. Wolfe	740	1	Tu	do	Fp	do	r4	do	D,S	----
533	1.1 miles west-northwest of Concord Church.	L.J. Owen	760	1	Tu	do	Fp	do	r1	do	S	----

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
534	1.2 miles west of Concord Church.	L.J. Owen	750	1	Tu	Limestone	Fp	None	r3	6–26–51	S	---	
537	1 mile west-southwest of Concord Church.	Forrest Foster.	760	1	Tu	Mantle	Q	do	r4	do	S	---	
538	1.5 miles west-southwest of Concord Church.	Ed Richards	680	1	Tu	Limestone	Fp	do	r4	do	U	---	
539	1.4 miles west-southwest of Concord Church.	do	700	1	Tu	do	Fp	do	r1	do	U	---	
540	1.6 miles west-southwest of Concord Church.	do	700	1	Tu	do	Fp	do	r2	do	U	---	
547	0.4 mile west of Concord Church.	O.M. Duke	710	1	Tu	Mantle	Q	do	r2	do	D,S	---	

548	0.1 mile southwest of Concord Church.	J.S. Anderson.	650	1	Tu	Limestone	Fp	do	1	do	D	---
549	0.3 mile south-southwest of Concord Church.	do	710	Several.	Se	Mantle	Q	do	r1	do	S	---
550	0.2 mile south of Concord Church.	do	650	1	Tu	Limestone	Fp	do	r2	do	S	---
551	0.2 mile northeast of Concord Church.	Thurman Dalton.	650	1	Tu	do	Fp	Pipe	1	do	D,S	58
552	0.4 mile northeast of Concord Church.	Mary Dobbs	640	1	Tu	do	Fp	None	r2	do	D	---
554	0.9 mile northeast of Concord Church.	Crickett Powell.	700	1	Tu	Mantle	Q	do	r2	do	S	---
555	1 mile northeast of Concord Church.	do	680	1	Tu	Limestone	Fp	do	r2	do	S	---
556	1.1 miles northeast of Concord Church.	do	680	1	Tu	do	Fp	do	r2	do	S	---
558	1.4 miles northwest of Concord Church.	J. Stinson	700	1	Tu	do	Fp	do	r3	do	S	---
559	1.6 miles northwest of Concord Church.	Wade Sarver.	700	Several.	Se, Tu	do	Fp	do	r5	do	D,S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-													
564	Southwest Petroleum.	H.P. Sarver	600	1	Co, Tu	Limestone and shale.	Fp, Cg	None	2	7-26-51	S	---	
575	1.3 miles southwest of Mount Pleasant Church.	E.D. Wheeley	710	1	Co, Tu	Mantle	Q	Pipe	1/5	do	S	59	
577	1.2 miles southwest of Mount Pleasant Church.	J.H. Fraser	700	1	Tu	do	Q	None	5	do	S	57	
578	1.5 miles south-southwest of Mount Pleasant Church.	do	710	1	Tu	do	Q	do	1	do	S	60	
582	0.7 mile east-southeast of Union Chapel.	Raymond Dyer.	800	1	Se	do	Q	do	1	8- 3-51	U	---	
583	0.7 mile southeast of Union Chapel.	do	770	1	Se	do	Q	do	2	do	S	---	
584	0.5 mile southeast of Union Chapel.	do	760	1	Se	do	Q	do	2	do	S	---	

586	0.6 mile east-northeast of Union Chapel.	Ivy Kelly	750	Several.	Co,Se, Tu.	Mantle and limestone.	Q,Fp	do	r10	do	S	---
589	0.8 mile south-southeast of Union Chapel.	William R. Duke.	680	Several.	Co,Se, Tu.	do	Q,Fp	do	20	do	D	---
591	0.5 mile south-east of Union Chapel.	Bascomb Brown.	730	1	Se	Mantle	Q	do	2	do	S	---
592	0.4 mile south-southeast of Union Chapel.	do	720	1	Se	do	Q	do	3	do	S	---
596	0.4 mile north-east of Union Chapel.	W.E. Spears	780	1	Co,Se, Tu.	Mantle and limestone.	Q,Fp	do	1/2	do	D	---
599	0.6 mile north-northeast of Union Chapel.	E.A. Basham	730	1	Co,Se	do	Q,Fp	Hydraulic ram.	3	do	D	60
600	do	do	750	1	Se	Mantle	Q	Pipe and trough.	2	do	S	---
601	do	do	740	2	Se	do	Q	None	2	do	U	---
603	0.7 mile north of Union Chapel.	Mrs. Etta Marsh.	710	1	Co,Se	Mantle and limestone.	Q,Fp	do	2	8- 7-51	U	---
604	0.8 mile north of Union Chapel.	do	670	Several.	So,Tu	Limestone	Fp	Spout	5	do	D	63
605	0.5 mile north of Union Chapel.	do	730	1	Co,Se	do	Fp	None	2	do	U	---
609	0.4 mile south-east of Union Chapel.	B. Dukes	770	1	Co,Se	Mantle and limestone.	Q,Fp	Pipe	1	do	U	62
611	0.6 mile east of Union Chapel.	R.M. Wilson	780	1	Co,Tu	do	Q,Fp	None	1	do	S	---
612	0.7 mile east of Union Chapel.	do	770	Several.	Se	Mantle	Q	do	1/2	do	U	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3640-613	0.8 mile east-northeast of Union Chapel.	R.M. Wilson	760	Several.	Se	Mantle	Q	None	1/2	8- 7-51	U	---	
8610-3645-13	1.3 miles north of Scottsville Grade School.	A.E. Meador	730	Several.	Se	Limestone	Wa	do	2	7- 6-50	S	---	
14	do	do	730	Several.	So, Tu	do	Wa	Pipe	2	do	S	---	
25	East side of 1st St., 2 blocks south of Main St.	City of Scottsville.	720	Several.	So, Tu	do	Fp	House	20	7-25-50	P	---	
26	0.3 mile southeast of courthouse.	W.W. Thompson Co.	700	4	Tu	Mantle	Q	Wall	r3	7-10-50	In	---	
27	0.2 mile south of courthouse.	C.D. Whitney	680	1	So, Tu	Limestone	Fp	House	2	7-25-50	D,S	---	Muddy after heavy rain.
29	100 ft north of railroad depot.	Johnson Bros. Lumber Co.	780	---	---	Mantle	Q	House and pipe.	m2	7-10-50	U	---	

33	South side of Maple St., 700 ft west of Maysville Rd.	Fannie Brown.	780	2	Se	do	Q	Wall and pipe.	2	7–11–50	U	---	Dry in dry summers.
42	North side of Poplar St. between 8th and 9th Sts.	Robert Sears	780	---	Se	do	Q	do			S	---	
56	0.5 mile northwest of courthouse.	Allen Read	710	1	So, Tu	Limestone	Fp	None	2	7–27–50	S	---	
57	0.7 mile northwest of courthouse.	do	710	1	Tu	do	Fp	Wall	15	do	S	---	
58	do	do	650	---	Co, Se	Mantle and limestone.	Q, Fp	None	1-2	do	U	---	
59	do	do	650	Several.	Co, Tu	Limestone	Fp	do	25	do	U	---	
65	0.3 mile northwest of courthouse.	L. P. Napier	700	Several.	So, Tu	do	Fp	Pipe	7	8– 1–50	D	---	
66	0.2 mile northwest of courthouse.	Allen Read	690	2	Se	Mantle	Q	None	4	do	U	---	Contaminated.
67	0.2 mile north of courthouse.	Willie L. Smith.	700	Several.	Se	do	Q	do	3	do	U	---	
69	do	Sam Guy	700	Several.	So, Tu	Limestone	Fp	do	7	do	U	---	
70	0.5 mile north of courthouse.	Mrs. A. Hobdy.	740	Several.	Se	Mantle	Q	House	2	do	U	---	
71	0.2 mile north-northeast of courthouse.	Hubert Read	710	Several.	Se	do	Q	None	4	do	S	---	
72	0.7 mile west northwest of courthouse.	Roy C. Obles.	630	---	Tu	Limestone	Fp	Pipe	5	8– 7–50	D,S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Springs	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-													
73	1 mile west of courthouse.	Clarence Sexton.	710	---	So, Tu	Limestone	Fp	Piped to houses.	15	8- 7-50	D	---	Flows from cave.
76	1.1 miles west-northwest of courthouse.	Kenneth Lyle	700	---	Tu	do	Fp	House	1	8-14-50	S	62	
79	1.7 miles northwest of courthouse.	J.L. Turner	660	---	So, Tu	do	Wa, Fp	Pipe	11	do	D, S	60	Chemical analysis in table 10.
80	do	W.R. Spurlock.	670	2	So, Tu	do	Fp	do	1	do	S	63	
81	1 mile west of courthouse.	Clarence Sexton.	720	1	So, Tu	do	Wa, Fp	Piped to houses.	11	8-15-50	D, S	57	Flows from cave. Chemical analysis in table 10.
82	1.8 miles west-northwest of courthouse.	Barton Eakles.	710	---	So, Tu	do	Wa	None	1	do	D, S	---	
83	1.7 miles west of courthouse.	J.L. Turner	720	---	So, Tu	do	Wa	Pipe	3	do	U	60	
84	1 mile southeast of Rough and Ready School.	Hubert Gillick.	670	Several.	So, Tu	do	Fp	None	2	do	S	58	
85	1.8 miles northwest of courthouse.	do	740	---	Tu	do	Wa	do	1	do	S	62	

86---	1.2 miles west-northwest of courthouse.	J. L. Turner--	690	---	Se	Mantle----	Q	House-------	1	--do-----	D,S	61	
87---	1.3 miles west-northwest of courthouse.	--do--------	690	---	Tu	Limestone -	Fp	None -------	3	--do----	S	59	
88---	1.5 miles north-west of court-house.	--do--------	710	2	So, Tu	--do-------	Wa	--do--------	3	--do----	U	58	
89---	1.6 miles north-west of court-house.	W.R. Spur-lock.	690	---	So, Tu	--do-------	Wa	--do--------	1	--do----	U	63	
90---	1.4 miles north-west of court-house.	J.L. Turner--	680	---	So, Tu	--do-------	Fp	--do--------	1	--do----	U	57	
91---	1.6 miles north-west of court-house.	W.R. Spur-lock.	640	---	So, Tu	--do-------	Fp	--do--------	1	--do----	S	65	
92---	0.8 mile east-southeast of Rough and Ready School	J.L. Turner--	650	---	So, Tu	--do-------	Fp	--do--------	2	--do----	D,S	57	
93---	0.6 mile east-southeast of Rough and Ready School.	-----------	590	1	So, Tu	--do-------	Fp	--do--------	20	8–16–50	U	61	Cave.
94---	1.1 miles south-east of Rough and Ready School.	Hubert Gillick.	690	---	So, Tu	--do-------	Fp	--do--------	1/2	--do----	U	63	
95---	1.2 miles east-southeast of Rough and Ready School.	Baily Burnley	690	---	Se	Mantle-----	Q	--do--------	1	--do----	U	---	
97---	0.8 mile east-northeast of Rough and Ready School.	Gaylon Pearson.	570	---	So, Tu	Limestone -	Fp	--do--------	1	--do----	S	61	Chemical analysis in table 10.
98---	0.8 mile north of Rough and Ready School.	Robert Burton.	570	---	Se, So, Tu.	--do-------	Fp	House-------	4	--do----	D,S	58	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3645-													
99	0.6 mile north of Rough and Ready School.	Robert Burton.	600	---	Co, Se	Mantle and limestone.	Q, Fp	None	5	8-16-50	S	---	
100	0.9 mile north of Rough and Ready School.	do	580	---	So, Tu	Limestone	Fp	do	2	do	U	---	
102	0.9 mile northeast of Rough and Ready School.	do	560	---	So, Tu	do	Fp	do	1	do	U	62	
103	0.9 mile north of Rough and Ready School.	do	600	---	So, Tu	do	Fp	Pipe and trough.	2	do	S	67	
104	do	do	580	---	So, Tu	do	Fp	None	1	do	U	---	
106	1.6 miles south of Rough and Ready School.	Noel Creasy	740	---	So, Tu	do	Wa	do	3	8-17-50	U	57	
108	1.7 miles north of Scottsville Grade School.	E.O. Meadow	670	---	So, Tu	do	Fp	do	4	8-30-50	D	68	
109	1.8 miles north of Scottsville Grade School.	Marshall Read.	650	---	-------	Mantle	Q	do	2	do	S	---	

110	1 mile southwest of Harrison School.	Earl Pitchford.	600	1	So, Tu	Limestone	Fp	do	1/2	do	D	---	
113	0.5 mile south-southwest of Harrison School.	D.H. Walker	740	---	So, Tu	do	Wa	do	2	do	U	---	
114	1.3 miles north of courthouse.	E.H. Connor	720	---	Co	Mantle and limestone.	Q, Wa	do	4	9–11–50	D,S	---	
115	1.5 miles north of courthouse.	Robert Dorris.	720	2	Se	Mantle	Q	do	3	do	D,S	---	Dry in summer.
116	1.3 miles north of courthouse.	T. Rush	750	1	Co, Se	Mantle and limestone.	Q, Wa	do	3	do	D	---	
119	0.1 mile west of Harrison School.	Roy P. Hood	690	1	So, Tu	Limestone	Wa	Pipe and trough.	2	8–30–50	D,S	60	
123	0.5 mile southeast of Harrison School.	James Samson.	760	1	So, Tu	do	Wa	None	2	9–12–50	S	58	
124	do	do	760	1	So, Tu	do	Wa	do	3	do	S	59	Dry in summer.
125	0.7 mile southeast of Harrison School.	Jesse York	740	2	Se	Mantle	Q	do	3	do	S	60	
126	0.3 mile southeast of Harrison School.	Warner Motley.	740	1	So, Tu	Limestone	Wa	Trough	4	9–18–50	S	---	
129	0.9 mile east of courthouse.	C.L. Lambert.	760	1	Se	Mantle	Q	House	2	10–11–50	D,S	---	
130	do	W.E. Conner	740	1	Se	do	Q	None	r2	do	D,S	---	
132	1.2 miles east of courthouse.	Edward Douglas.	800	1	Co, Se	Mantle and limestone.	Q, Wa	Wall	r2	10–26–50	D,S	---	
135	1.5 miles east-northeast of courthouse.	W.A. Carter	700	1	So, Tu	Limestone	Fp	None	r10	10–31–50	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3645-137	1 mile west-northwest of courthouse.	O. J. Wooten	690	Many	Co,Se	Mantle and limestone.	Q,Fp	None	1	10–31–50	S	---	
139	1.5 miles southeast of Sinking Spring School.	L. L. Myers	680	1	So,Tu	Limestone	Wa	do	----------	---------	U	---	Underground stream exposed in collapsed sinkhole.
140	1.8 miles south-southeast of Sinking Spring School.	J. H. Buchanon.	760	Several.	Co, Se	Mantle and limestone.	Q,Sl	Pipe	10	11–21–50	S	---	
141	1.9 miles south-southeast of Sinking Spring School.	do	750	2	So,Tu	Limestone	Sl	None	25	do	S	59	
142	1 mile north-northeast of Harrison School.	K. C. Buchanon.	690	1	Se	Mantle	Q	do	3	do	S	---	
143	0.7 mile north of Harrison School.	Robert Welch.	670	1	So,Tu	Limestone	Wa	Pipe	25	11–28–50	S	59	
144	0.9 mile north of Harrison School.	do	710	1	Co	Mantle and limestone.	Q, Wa	Wall	3	do	S	---	

145	1 mile north-northeast of Harrison School.	Jacob Petty	700	1	Co, Tu	do	Q, Wa	None	r12	do	D,S	---
146	0.9 mile north-northeast of Harrison School.	do	690	1	Co, Se	do	Q, Wa	do	r7	do	D,S	---
147	do	do	690	1	Co, Se	do	Q, Wa	do	r7	do	S	---
150	0.9 mile north of Harrison School.	Robert Welch	730	1	Co	do	Q, Wa	do	2	do	U	---
151	1 mile south of Sinking Spring School.	Jesse Buchannon.	700	---	So, Tu	Limestone	Sl	do	r30	11-29-50	S	---
152	1.4 miles south of Sinking Spring School.	Finney Harmon.	720	1	Se	Mantle	Q	Wall	r5	do	D,S	---
155	0.8 mile north-east of Harrison School.	F.A. Thomason.	730	---	Se	do	Q	None	r5	1- 8-51	S	---
156	0.6 mile east of Harrison School.	James Samson.	720	Several.	Se	do	Q	do	8	do	S	---
157	1 mile north-northwest of Harrison School.	J.H. Beam	670	1	So, Tu	Limestone	Wa	Pipe	17	do	D,S	---
158	1.1 miles south-southeast of Sinking Spring School.	E. C. Johnson	690	1	Se	Mantle	Q	None	4	1- 9-51	S	---
159	do	do	660	1	So, Tu	Limestone	Sl	do	10	do	S	58
160	1.2 miles south of Sinking Spring School.	do	670	1	So, Tu	do	Sl	do	17	do	D,S	---
161	1.1 miles south of Sinking Spring School.	do	680	Several.	Co, Se	Mantle and limestone.	Q, Sl	do	12	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-162	0.8 mile northwest of Harrison School.	Anthony Hood.	680	1	So, Tu	Limestone	Wa	Trough	7	1- 8-51	U	58	
164	0.9 mile east-southeast of Halifax.	B.B. Matley and H. Matley.	650	---	Co, Tu	Mantle and limestone.	Q, Sl	None	r4	1-25-51	S	---	
165	1.3 miles east of Halifax.	do	680	1	So, Tu	Limestone	Sl	do	r7	do	D,S	---	
166	1.5 miles east of Halifax.	do	680	---	So, Tu	do	Sl	do	r6	do	S	---	
167	1.6 miles east of Halifax.	do	620	---	So, Tu	do	Wa	do	r6	do	S	---	
168	do	do	610	---	So, Tu	do	Wa	do	r6	do	S	---	
169	do	do	600	---	So, Tu	do	Wa	do	r6	do	S	---	
170	do	do	680	---	So, Tu	do	Sl	do	r6	do	S	---	
171	2 miles east of Halifax.	Mrs. G.F. Tabor.	660	---	So, Tu	do	Wa	do	---	---	U	---	
172	2.1 miles east of Halifax.	do	610	---	So, Tu	do	Wa	do	---	---	S	---	
173	1.9 miles east of Halifax.	do	640	---	So, Tu	do	Wa	do	---	---	S	---	

174---	1.1 miles east-northeast of Halifax.	Henry Strait.	610	1	So, Tu	--do-------	Wa	--do--------	r3	2-28-51	S	---
175---	1.1 miles east of Halifax.	--do--------	620	1	So, Tu	--do-------	Wa	--do--------	r11	2-28-51	S	---
177---	0.8 mile south-east of Halifax.	E.E. Buchannon.	600	2	So, Tu	--do-------	Wa	--do--------	4	3- 1-51	S	---
178---	1 mile south-east of Halifax.	--do--------	580	1	So, Tu	--do-------	Wa	Pipe -------	6.	--do-----	S	---
179---	----do--------	C.C. Corder.	590	1	Co, Tu	Mantle and limestone.	Q, Wa	None -------	r5	--do-----	S	---
180---	0.9 mile south-southeast of Halifax.	--do--------	670	1	Co, Se	--do-------	Q, Sl	--do--------	3	--do-----	S	---
181---	1 mile south-southeast of Halifax.	--do--------	670	1	Co, Se	--do-------	Q, Sl	Pipe -------	3	--do-----	D, S	---
182---	0.9 mile south-southeast of Halifax.	--do--------	660	1	So, Tu	Limestone -	Wa	--do--------	7	--do-----	D, S	---
183---	1 mile south-southeast of Halifax.	--do--------	570	1	So, Tu	--do-------	Wa	None -------	3	--do-----	S	---
184---	0.7 mile south-east of Halifax.	E.E. Buchannon.	640	1	So, Tu	--do-------	Wa	--do--------	r6	--do-----	S	---
185---	0.6 mile south of Halifax.	C.D. Hendrix	620	1	Co, Se	Mantle and limestone.	Q, Wa	--do--------	r5	--do-----	S	---
186---	----do--------	--do--------	660	1	Co, Se	--do-------	Q, Sl	--do--------	r5	--do-----	S	---
187---	1.1 miles south-east of Halifax.	W.H. Reynolds.	660	1	So, Tu	Limestone -	Sl	--do--------	r5	--do-----	S	---
188---	1.5 miles south-east of Halifax.	H.W. Reynolds.	620	Several.	So, Tu	--do-------	Wa	--do--------	r5	--do-----	S	---
189---	1.2 miles south-east of Halifax.	--do--------	600	1	Se	Mantle----	Q	--do--------	r3	--do-----	U	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-													
190	1 mile north of Crane Hill School.	N.S. Shaw	580	1	So, Tu	Limestone	Wa	None	6	3- 1-51	D,S	---	
191	1.1 miles north of Crane Hill School.	--do	600	Several.	So, Tu	--do	Wa	--do	r10	--do	S	---	
193	0.8 mile north-northeast of Crane Hill School.	S.H. Massey	550	2	So, Tu	--do	Fp	--do	25	--do	S	---	
194	0.9 mile north of Crane Hill School.	--do	550	1	Co, Tu	Mantle and limestone.	Q,Fp	--do	r14	3- 7-51	S	---	
195	1 mile northeast of Crane Hill School.	--do	600	1	So, Tu	Limestone	Wa	--do	r5	3- 1-51	S	---	
196	1.1 miles northeast of Crane Hill School.	--do	600	1	So, Tu	--do	Wa	--do	r14	--do	S	---	
197	0.7 mile northeast of Crane Hill School.	--do	630	1	So, Tu	--do	Wa	--do	r3	--do	S	---	

198	1.1 miles north-northeast of Crane Hill School.	F. Gibson	600	1	So, Tu	do	Fp	do	r10	do	S	---
199	1.2 miles northeast of Crane Hill School.	do	590	1	So, Tu	do	Fp	do	r20	do	S	---
200	0.7 mile north of Crane Hill School.	E.H. Reynolds.	590	1	So, Tu	do	Wa	Pipe	r8	do	D,S	---
203	0.7 mile north-northwest of Crane Hill School.	C.O. Williams.	650	1	So, Tu	do	Wa	None	r6	3- 2 51	S	---
204	1.1 miles northwest of Crane Hill School.	do	610	1	So, Tu	do	Wa	do	r6	do	S	---
205	1.2 miles northwest of Crane Hill School.	do	530	1	So, Tu	do	Fp	do	r15	do	S	---
206	1.3 miles west-northwest of Crane Hill School.	do	590	1	So, Tu	do	Wa	do	r7	do	S	---
207	0.9 mile northwest of Crane Hill School.	do	590	Many	So, Tu	do	Wa	do	r20	do	S	---
208	0.7 mile north-northwest of Crane Hill School.	do	620	1	So, Tu	do	Wa	do	r4	do	S	---
209	0.6 mile northwest of Crane Hill School.	do	630	1	So, Tu	do	Wa	do	r15	do	S	---
210	do	do	580	1	So, Tu	do	Wa	do	r3	do	S	---
211	0.4 mile northwest of Crane Hill School.	do	620	1	So, Tu	do	Wa	do	r8	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-													
212	0.3 mile west of Crane Hill School.	C.O. Williams.	670	1	So, Tu	Limestone	Wa	None	r8	3- 2-51	S	---	
213	0.3 mile east-northeast of Crane Hill School.	Marvin Neal	650	4	Co, Tu	Mantle and limestone.	Q, Wa	do	20	3- 7-51	S	---	
214	0.3 mile east of Crane Hill School.	do	630	Many	So, Tu	Limestone	Wa	do	35	do	S	---	
215	0.5 mile south-east of Crane Hill School.	do	690	Many	So, Tu	do	Wa	do	50	do	S	---	
216	0.3 mile south-east of Crane Hill School.	do	690	1	Co, Tu	Mantle and limestone.	Q, Sl	Pipe and wall.	22	do	D, S	---	
217	0.3 mile south-east of Crane Hill School.	Oney Willoughby.	700	2	Co, Tu	Mantle	Q	None	10	do	S	---	
219	0.2 mile south of Crane Hill School.	Otis Stovall	700	2	Co, Tu	Mantle and limestone.	Q, Sl	Wall	12	do	S	56	

220	0.2 mile southwest of Crane Hill School.	do	670	1	So, Tu	Limestone	Sl	None	5	do	S	---
221	0.1 mile southwest of Crane Hill School.	do	680	Several.	Co, Se	Mantle and limestone.	Q, Sl	do	5	do	S	---
222	0.2 mile west-southwest of Crane Hill School.	do	640	1	So, Tu	Limestone	Wa	do	5	do	S	---
223	0.3 mile west of Crane Hill School.	do	610	2	Co, Se	Mantle and limestone.	Q, Wa	do	10	do	S	56
224	0.4 mile south-southwest of Crane Hill School.	do	700	1	So, Tu	Limestone	Wa	do	r17	do	S	---
225	do	do	680	----	So, Tu	do	Wa	do	r12	do	S	---
227	0.5 mile southwest of Crane Hill School.	Thurman Saylors.	660	1	Co	Mantle and limestone.	Q, Wa	do	3	do	D,S	54
228	0.6 mile southwest of Crane Hill School.	do	620	1	So, Tu	Limestone	Wa	do	3	do	S	---
229	do	do	600	2	So, Tu	do	Fp	do	9	do	S	---
230	0.8 mile west of Crane Hill School.	do	580	1	So, Tu	do	Fp	do	r9	do	S	---
231	0.8 mile southwest of Crane Hill School.	do	610	1	So, Tu	do	Fp	do	17	do	S	58
232	0.7 mile southwest of Crane Hill School.	do	610	1	So, Tu	do	Fp	Wall	9	do	S	---
233	0.5 mile south of Crane Hill School.	Oney Willoughby.	690	1	Tu	Mantle	Q	None	3	do	S	---
234	0.5 mile southeast of Crane Hill School.	J.L. Williams.	670	----	So, Tu	Limestone	Wa	do	r17	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-235	0.6 mile south of Crane Hill School.	J.L. Williams.	700	----	Se	Mantle	Q	None	r3	3–7–51	S	---	
236	0.9 mile south of Crane Hill School.	E.E. Gardner.	650	1	So, Tu	Limestone	Wa	--do--	25	--do--	S	---	
237	1 mile south-east of Crane Hill School.	J.L. Brown.	690	Sev-er-al.	So, Tu	--do--	Wa	--do--	8	--do--	D,S	---	
239	1.3 miles southeast of Crane Hill School.	G.H. Hughes	620	1	So, Tu	--do--	Fp	--do--	r4	--do--	D,S	---	
240	1.2 miles southeast of Crane Hill School.	--do--	650	----	So, Tu	--do--	Wa	--do--	r20	--do--	S	---	
241	1.3 miles southeast of Crane Hill School.	E. H. Stovall	700	2	Co, Tu	Mantle and limestone.	Q, Wa	--do--	6	--do--	S	56	

242---	1.1 miles southeast of Crane Hill School.	--do--------	680	2	So, Tu	Limestone -	Wa	--do--------	12	--do-----	S	53
243---	1.4 miles south-southeast of Crane Hill School.	--do--------	630	1	So, Tu	--do-------	Fp	--do--------	7	--do-----	S	---
244---	1.2 miles southeast of Crane Hill School.	E.L. Stovall	730	1	So, Tu	--do-------	Wa	Wall--------	11	--do-----	S	56
245---	1.2 miles south-west of Harrison School.	Earl Oliver-	640	1	Tu	Mantle-----	Q	None--------	3	3- 8-51	D,S	55
246---	1.7 miles south-east of Crane Hill School.	Wade Willoughby	710	1	Se	--do-------	Q	--do--------	5	--do-----	S	---
247---	1.6 miles south-east of Crane Hill School.	--do--------	720	2	Co, Tu	--do-------	Q	--do--------	7	--do-----	S	56
250---	0.6 mile west of Harrison School.	T.R. Wilson	660	1	So, Tu	Limestone -	Wa	--do--------	6	--do-----	S	---
251---	----do--------	--do--------	640	1	Tu	Mantle-----	Q	--do--------	7	--do-----	S	---
252---	1.6 miles east of Crane Hill School.	D. Walker--	670	1	So, Tu	Limestone -	Wa	Pipe--------	7	--do-----	D,S	58
254---	1 mile east of Crane Hill School.	Hershel Hendrix.	650	3	So, Tu	--do-------	Wa	None -------	7	--do-----	D,S	---
255---	0.7 mile east of Crane Hill School.	--do--------	580	1	Co	Mantle------	Q	--do--------	9	--do-----	D,S	55
256---	0.7 mile east-northeast of Crane Hill School.	--do--------	620	Sev-er-al.	So, Tu	Limestone--	Wa	--do--------	5	--do-----	S	51

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-257	0.3 mile southwest of Harrison School.	T.R. Wilson	680	1	So, Tu	Limestone	Wa	Wall	4	3- 8-51	U	---	
258	1.1 miles east of Crane Hill School.	Henry Rush	630	1	So, Tu	do	Fp	House	---	---	D,S	54	
259	1.2 miles east of Crane Hill School.	do	690	1	So, Tu	do	Wa	None	15	3- 8-51	S	57	
260	1 mile east of Crane hill School.	do	670	Many	Se	Mantle	Q	do	5	do	S	---	
261	0.6 mile north of Harrison School.	Jewell Pruitt.	650	1	So, Tu	Limestone	Fp	Pipe and storage tank.	5	do	S	54	
262	0.8 mile northwest of Harrison School.	do	610	1	So, Tu	do	Fp	None	2	do	S	---	
264	0.9 mile north of courthouse.	N.F. Harper	690	Several.	Se	Mantle	Q	do	15	do	S	57	

266	1.4 miles north of Harrison School.	G. Woods	740	1	Se	do	Q	do	12	3-12-51	S	---
267	1.4 miles north-northwest of Harrison School.	A.C. Ayers	710	1	Se	do	Q	do	r7	do	S	---
269	1.3 miles south-southwest of Sinking Spring School.	Less Burthon	660	Several.	Co, Tu	Mantle and limestone.	Q, Sl	do	15	3-23-51	S	---
272	1.9 miles north-east of Crane Hill School.	P.E. Willoughby.	720	1	So, Tu	Limestone	Sl	Pipe and trough.	6	3-26-51	D,S	---
273	1.6 miles north-east of Crane Hill School.	do	680	1	So, Tu	do	Wa	None	7	do	S	---
274	1.2 miles west of Scottsville.	W.A. Willoughby.	750	1	So, Tu	do	Wa	Pipe and trough.	5	do	S	---
275	1.3 miles west of Scottsville.	do	750	1	So, Tu	do	Wa	Wall	7	do	D,S	---
276	1.2 miles west of Scottsville.	do	730	1	Co, Tu	Mantle and limestone.	Q, Wa	None	3	do	D,S	---
282	1.7 miles west of Scottsville.	Eldon Harrington.	740	1	Tu	Mantle	Q	do	r5	do	S	---
285	1.4 miles south-east of Rough and Ready School.	Glen Hard-castle.	650	Several.	So, Tu	Limestone	Fp	do	15	do	S	---
286	0.7 mile south-east of Rough and Ready School.	do	620	1	So, Tu	do	Fp	Wall	r27	do	S	---
293	1.7 miles west of Scottsville.	E.W. Holland.	740	1	Tu	Mantle	Q	None	r7	3-27-51	S	---
294	1 mile south of Rough and Ready School.	C.T. Pitchford.	760	1	Se	Limestone	Wa	Wall	3	do	S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3645-295	1 mile south of Rough and Ready School.	C.T. Pitchford.	720	1	Co, Tu	Mantle and limestone.	Q, Wa	None	3	3–27–51	S	---	
296	0.6 mile south of Rough and Ready School.	do	710	1	So, Tu	Limestone	Wa	do	1	do	S	---	
297	0.5 mile south of Rough and Ready School.	do	680	Several.	So, Tu	do	Fp	do	14	do	U	---	
298	do	B.L. Stamps	660	1	So, Tu	do	Fp	do	10	do	U	---	
301	1.2 miles south-southwest of Rough and Ready School.	M.F. Smith	750	Several.	So, Tu	do	Wa	do	14	do	S	---	
302	do	do	710	----	So, Tu	do	Wa	do	r25	do	S	---	
303	0.5 mile south-southeast of Rough and Ready School.	B.L. Stamps	640	Several.	So, Tu	do	Fp	do	r10	do	S	---	
304	0.5 mile south-east of Rough and Ready School.	do	620	Several.	So, Tu	do	Fp	do	r10	do	S	---	

308	1.9 miles west of Scottsville.	Willis Long	690	2	So, Tu	do	Fp	do	17	3-28-51	D,S	---
309	1.5 miles south-southeast of Rough and Ready School.	do	720	Several.	So, Tu	do	Wa	do	14	do	S	---
311	0.4 mile west-northwest of Rough and Ready School.	Mrs. Gladys Smith.	700	1	So, Tu	do	Wa	do	10	do	U	---
312	0.1 mile southwest of Rough and Ready School.	Mrs. Mattie Landers.	710	1	Co	Mantle	Q	Wall	3	do	D,S	---
313	0.1 mile southeast of Rough and Ready School.	C.E. Landers	650	1	So, Tu	Limestone	Fp	None	r10	do	S	---
314	0.2 mile east of Rough and Ready School.	do	630	----	So, Tu	do	Fp	do	r5	do	S	---
316	0.2 mile north-northwest of Rough and Ready School.	George Pruitt.	650	1	So, Tu	do	Wa	do	6	do	S	---
317	0.1 mile south of Rough and Ready School.	Sam Mann	720	1	So, Tu	do	Wa	Pipe and trough.	3	do	S	---
318	0.2 mile north-northeast of Rough and Ready School.	Mrs. Fred Commer.	650	1	So, Tu	do	Wa	None	5	do	S	---
319	0.4 mile north of Rough and Ready School.	do	600	1	So, Tu	do	Fp	do	7	do	D,S	---
320	0.3 mile east of Rough and Ready School.	Dewey Landers.	670	1	So, Tu	do	Wa	do	r17	do	D,S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3645-													
322	0.9 mile north-northwest of Rough and Ready School.	J.B. Pearson	660	1	So, Tu	Limestone	Wa	Pipe	17	3-28-51	S	---	
323	1.3 miles north-northwest of Rough and Ready School.	Marshal Roberts.	700	1	Tu	do	Wa	None	2	do	S	---	
324	do	do	650	1	So, Tu	do	Wa	Wall	5	do	S	---	
325	1.3 miles north of Rough and Ready School.	Marshal Roberts and J.B. Pearson.	580	2	So, Tu	do	Fp	None	9	do	S	---	
326	1.1 miles north of Rough and Ready School.	J.B. Pearson.	720	1	So, Tu	do	Sl	do	3	do	D	---	
327	1 mile west of Crane Hill School.	Marshal Roberts.	650	1	So, Tu	do	Wa	do	7	do	S	---	
328	1.3 miles west-southwest of Crane Hill School.	Mary Spears	720	1	Se	Mantle	Q	do	2	do	S	---	

329	1.5 miles west-southwest of Crane Hill School.	do	680	1	So, Tu	Limestone	Wa	do	r7	do	S	---
331	1.4 miles west of Crane Hill School.	Jess Carver	660	1	Se	Mantle	Q	do	3	do	S	---
332	1.4 miles west-northwest of Crane Hill School.	do	670	Several.	Se	Limestone	Wa	do	1	do	S	---
333	1.2 miles west-northwest of Crane Hill School.	do	600	2	So, Tu	do	Wa	Pipe	4	do	D,S	---
334	1.1 miles west-northwest of Crane Hill School.	do	600	1	Co, Tu	Mantle and limestone.	Q, Wa	do	3	do	S	---
335	0.8 mile west of Bethlem Church.	J. Reed	640	2	So, Tu	Limestone	Fp	House and pump.	4	4–12–51	D,S	---
336	1.1 miles north-east of Scotts-ville Grade School.	P. Hood	670	Several.	Co, Se	Mantle	Q	House	6	do	D,S	---
337	1 mile south-west of Bethlem Church.	do	700	---	Co, Tu	Mantle and limestone.	Q, Fp	None	r5	do	S	---
338	do	do	660	---	So, Tu	Limestone	Fp	do	r10	do	S	---
339	1.1 miles south-west of Bethlem Church.	F.E. Shockley.	670	Several.	Se	Mantle	Q	House	5	do	D,S	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3645-													
340	0.9 mile northeast of Scottsville Grade School.	T.J. Hurt	670	1	Se	Mantle	Q	None	5	4–12–51	U	---	
341	0.8 mile south of Harrison School.	E.A. Read	660	1	So, Tu	Limestone	Fp	Wall	5	4–18–51	U	---	Dry in summers of 1952 and 1953.
342	0.6 mile southwest of Bethlem Church.	W.R. Cushenberry.	710	----	So, Tu	do	Fp	None	r7	4–10–51	S	---	
343	0.7 mile southwest of Bethlem Church.	do	680	----	So, Tu	do	Fp	do	r7	do	S	---	
344	0.9 mile north of Harrison School.	M. Woods and O. Woods.	660	1	Co, Tu	Mantle and limestone.	Fp	Pipe	5	4–25–51	D	56	
8610-3650-													
2	0.8 mile west of Gainesville.	Buel Buchanon.	650	1	So, Tu	Limestone	Wa	do	3	11–13–50	D,S	---	
3	0.5 mile west of Gainesville.	do	630	Several.	So, Tu	do	Wa	None	3	do	S	---	

4	0.5 mile west-southwest of Gainesville.	do	580	1	So, Tu	do	Fp	do	15	do	S	---	
5	0.7 mile west of Gainesville.	do	650	Many	So, Tu	do	Wa	do	20	do	S	58	
6	0.7 mile west-northwest of Gainesville.	do	620	1	So, Tu	do	Wa	Pipe and trough.	12	do	S	58	Chemical analysis in table 10.
7	0.8 mile south-west of Gainesville.	James Wood	610	---	Co, Se	Mantle and limestone.	Q, Wa	None	2	11–14–50	S	---	
8	1.1 miles south-east of Sinking Spring School.	L. Long	710	1	So, Tu	Limestone	Sl	Spout	5	do	S	58	
9	1.6 miles north-northwest of Gainesville.	Virtel Stafford.	640	1	Se	Mantle	Q	None	2	11–28–50	S	---	
12	1.8 miles north-northwest of Gainesville.	Elizabeth Richey.	640	1	So, Tu	Limestone	Wa	do	r2	do	S	---	
13	do	do	570	1	Co, Jo, So, Tu	Mantle and limestone.	Fp	do	r6	do	S	---	
14	1.9 miles north-northwest of Gainesville.	E. Richey	560	---	Tu	Limestone	Fp	do	r20	do	S	---	
16	0.8 mile south-west of Gainesville.	Earl Shields	690	1	So, Tu	do	Sl	do	1	do	S	---	
18	1 mile south-west of Gainesville.	G.B. Steen-bergen.	620	---	So, Tu	do	Wa	Hydraulic ram.	r20	11–29–50	D, S	---	
19	0.9 mile south-west of Gainesville.	do	620	---	Co, Se	Mantle and limestone.	Q, Wa	None	r5	do	S	---	
20	0.8 mile south-west of Gainesville.	do	610	---	Co, Se	do	Q, Wa	do	r5	do	S	---	
21	1.1 miles south-west of Gainesville.	do	680	---	Co, Se	do	Q, Wa	do	r5	do	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3650-													
22	1.3 miles southwest of Gainesville.	Will Beam	740	1	Se	Mantle	Q	Pipe and trough.	3	11-29-50	S	---	
26	0.8 mile southwest of Settle.	J.C. Lynn	620	1	Tu	Limestone	Wa	do	15	12- 5-50	S	59	
27	0.6 mile south-southwest of Settle.	Nathan Harmon.	670	---	Tu	do	Sl	None	r1	do	S	---	
28	0.7 mile south-southwest of Settle.	do	640	1	Tu	do	Sl	do	r1	do	S	---	
29	0.8 mile south-southwest of Settle.	do	620	1	So, Tu	do	Wa	do	r20	do	S	---	
31	1 mile southwest of Settle.	J.B. Williams	560	1	So, Tu	do	Wa	do	r15	do	S	---	
32	1.1 miles southwest of Settle.	do	540	---	Tu	do	Wa	do	r6	do	S	---	
33	1.2 miles southwest of Settle.	do	520	---	So, Tu	do	Wa	do	r6	do	S	---	
34	0.8 mile northeast of Sinking Spring School.	J.L. Shields	650	1	So, Tu	do	Wa	Wall	12	1- 9-51	D,S	58	

35	0.6 mile northeast of Sinking Spring School.	Hershel Powell.	690	1	Co,Se	Mantle and limestone.	Q,Wa	None	4	--do--	S	56	
39	0.9 mile north of Sinking Spring School.	C. Willoughby	630	---	Co,Se	--do--	Q,Wa	--do--	r5	--do--	D,S	---	
40	0.7 mile north of Sinking Spring School.	--do--	650	Several.	Co,So, Tu	--do--	Q,Wa	--do--	40	--do--	U	57	Oil scum on pools.
41	0.9 mile north of Sinking Spring School.	W.H. Hendrix	680	1	Tu	Limestone	Wa	--do--	6	--do--	S	59	
42	1.1 miles north of Sinking Spring School.	--do--	660	1	Tu	--do--	Wa	Wall	3	--do--	S	---	
46	1.2 miles north-northwest of Sinking Spring School.	J.A. Allen	640	2	Tu	--do--	Wa	None	5	--do--	S	---	
47	1.3 miles north-northwest of Sinking Spring School.	--do--	630	2	Co,Se	Mantle and limestone.	Q,Wa	Pipe	1	--do--	S	---	
48	1.3 miles north of Sinking Spring School.	--do--	570	1	So, Tu	Limestone	Fp	None	10	--do--	S	---	Sulfurous.
50	0.6 mile south-southeast of Sinking Spring School.	John Farley	680	1	So, Tu	--do--	Sl	--do--	10	1–10–51	U	---	
51	0.6 mile south of Sinking Spring School.	Garnet Osborne.	630	1	So, Tu	--do--	Wa	--do--	8	--do--	D,S	55	
52	0.3 mile south of Sinking Spring.	--do--	660	Several.	Co,Se, Tu	Mantle and limestone.	Q,Wa	Wall	12	--do--	U	---	
53	0.5 mile south-southwest of Sinking Spring School.	Ila Irwin	670	1	So, Tu	Limestone	Sl	None	15	1–11–51	S	59	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gmp)	Date			
8610-3650-58	0.9 mile northwest of Sinking Spring School.	A.B. Tabor	700	Several.	Se	Mantle	Q	Trough	10	1-11-51	S	---	
60	1.1 miles east of Settle.	O.C. Hurt	540	1	So, Tu	Limestone	Fp	None	r5	do	S	---	
61	1 mile east of Settle.	Chester Pettie.	570	1	Tu	do	Wa	do	---	---	U	---	
64	0.6 mile northwest of Settle.	Albert Williams.	630	1	Tu	do	Sl	do	r45	1-11-51	S	---	
66	0.6 mile west of Settle.	Eddie M. Geralds.	660	1	Se	Mantle	Q	Dug out	9	do	S	56	
67	0.7 mile west of Settle.	John Brownfield.	640	1	Co, Tu	Mantle and limestone.	Q, Sl	None	r10	do	S	---	
69	1.8 miles north of Sinking Spring School.	Velda Willoughby.	600	1	So, Tu	Limestone	Wa	do	r2	1-24-51	D	---	
74	0.8 mile west-northwest of Greenville School.	W.E. Weaver.	620	1	So, Tu	do	Sl	do	r4	do	S	---	
75	1.3 miles west of Greenville School.	do	530	1	Tu	do	Sl	do	r9	do	S	---	

76	1.1 miles west of Greenville School.	do	540	1	Tu	do	Sl	do	r9	do	S	---	
77	1 mile west of Greenville School.	do	560	1	Tu	do	Sl	do	r9	do	S	---	
78	0.7 mile southwest of Sinking Spring School.	H.L. Morris.	660	---	Se	do	Sl	do	r10	do	S	---	
79	1 mile southwest of Sinking Spring School.	Conyard Tabor.	640	1	Co, Tu	Mantle and limestone.	Q, Wa	Rock wall	4	do	S	58	
80	1.4 miles west-southwest of Sinking Spring School.	Carl Hurt	590	1	So, Tu	Limestone	Wa	None	r8	do	S	---	Flows from cave.
81	do	do	560	Many	Co, Se	Mantle and limestone.	Q, Fp	do	r6	do	S	---	
82	1.7 miles west-southwest of Sinking Spring School.	S.B. Williams.	550	---	Co, Se	do	Q, Fp	do	r8	do	S	---	
83	1.8 miles west-southwest of Sinking Spring School.	do	550	---	Se	Mantle	Q	do	r10	do	S	---	
84	1.6 miles west of Sinking Spring School.	do	620	1	So, Tu	Limestone	Wa	do	r7	do	S	---	Do.
85	1.1 miles Southwest of Sinking Spring School.	---	580	---	So, Tu	do	Wa	do	r6	1–25–51	S	---	
86	0.5 mile northwest of Halifax.	V.N. Williams.	680	1	So, Tu	do	Sl	do	r8	1–24–51	S	---	
87	0.7 mile northwest of Halifax.	do	660	1	So, Tu	do	Sl	do	r7	do	S	---	

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings: Number	Openings: Character	Principal water-bearing material: Character of material	Principal water-bearing material: Geologic unit	Improvements	Yield: Estimated rate of flow (gpm)	Yield: Date	Use	Temperature (°F)	Remarks
8610-3650-88	1.1 miles north-west of Halifax.	V.N. Williams.	630	1	So,Tu	Limestone.		None	r6	1-24-51	U	---	
89	0.8 mile north-northwest of Halifax.	do	690	1	Se	Mantle	Q	do	r5	do	S	---	
90	1.4 miles north-northwest of Halifax.	Wesley Weaver.	580	3	So,Tu	Limestone.	Wa	do	30	do	S	---	
91	1.1 miles north-northwest of Halifax.	do	620	1	So,Tu	do	Sl	do	r8	do	S	---	
92	2 miles east-northeast of Halifax.	Conyard Tabor.	610	Several.	Co,Se	Mantle and limestone.	Q,Wa	do	5	1-25-51	S	---	
95	0.8 mile south-southeast of Greenville School.	I.J. Strait	660	----	So,Tu	Limestone.	Sl	do	r5	2-26-51	S	---	
96	1 mile south-southeast of Greenville School.	Willie Shockley.	590	----	Se	Mantle	Q	do	r4	do	S	---	

97	1.2 miles south-southeast of Greenville School.	do	600	1	So, Tu	Limestone	Wa	do	------	------	S	---
98	1 mile south of Greenville School.	do	550	Many	So, Tu	do	Wa	do	r75	2-26-51	S	---
99	1.2 miles north-east of Halifax.	W.H. Motley	580	1	So, Tu	do	Wa	do	r15	2-28-51	D	---
100	0.8 mile north-east of Halifax.	Henry Strait	650	1	So, Tu	do	Sl	do	r10	do	S	---
101	1.4 miles north-east of Halifax.	E.E. Buchannon and Son.	540	1	So, Tu	do	Fp	do	r25	do	S	---
102	1.3 miles north of Halifax.	Seagle Oliver	650	1	So, Tu	do	Sl	do	r5	do	D,S	---
104	1.4 miles north of Halifax.	C.T. Pruitt	650	1	So, Tu	do	Sl	do	r6	do	S	---
105	1.5 miles north-northeast of Halifax.	Bernice Oliver.	640	1	So, Tu	do	Sl	do	r5	do	S	---
106	1.1 miles south-west of Greenville School.	Clay Williams.	540	1	So, Tu	do	Wa	do	r10	do	S	---
107	1.4 miles south-west of Greenville School.	J.Q. Oliver	600	1	So, Tu	do	Wa	do	r4	do	D,S	---
108	1.7 miles south-west of Greenville School.	do	540	1	So, Tu	do	Wa	do	r10	do	U	---
109	1.7 miles west-southwest of Greenville School.	H.M. Williams.	510	1	So, Tu	do	Fp	do	r25	do	U	---

Table 13.—*Records of springs in the Scottsville area, Kentucky*—Continued

Spring	Location	Owner or name	Altitude above mean sea level (feet)	Openings		Principal water-bearing material		Improvements	Yield		Use	Temperature (°F)	Remarks
				Number	Character	Character of material	Geologic unit		Estimated rate of flow (gpm)	Date			
8610-3650-110	0.9 mile southwest of Greenville School.	Mrs. Georgie Williams.	520	1	So, Tu	Limestone	Fp	None	r40	2-28-51	U	---	Sulfurous.
111	0.9 mile west-southwest of Greenville School.	do	520	1	So, Tu	do	Wa	Pipe	5	do	D,S	---	
112	1 mile west-southwest of Greenville School.	do	520	----	Se	Mantle	Q	None	r5	do	U	---	
113	do	do	530	----	Se	do	Q	do	r5	do	U	---	
114	1.1 miles west-southwest of Greenville School.	do	540	----	Se	do	Q	do	r5	do	U	---	
115	do	do	530	----	Se	do	Q	do	r5	do	U	---	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*

	Thickness (feet)	Depth (feet)	Remarks

Well 8600-3640-50

Altitude of land surface: 770 ft above mean sea level. Type of record: Sample log.

	Thickness (feet)	Depth (feet)	Remarks
No record	125	125	
Devonian system:			
Chattanooga shale:			
Shale, black, carbonaceous; pyrite; gypsum	10	135	Base of Chattanooga shale.
Silurian system:			
Limestone, brown, crystalline; medium-well-rounded frosted quartz grains	5	140	
Limestone, buff to gray, sugary textured; pyrite	15	155	
Limestone, gray-green, very shaly	5	160	
Limestone, light-buff, granular	50	210	
Limestone, gray, very shaly, soft-drilling	10	220	
Shale, gray-green, calcareous; pyrite	6	226	
Shale, red; disseminated pyrite	9	235	
Limestone, light-buff, granular	10	245	
Limestone, crystalline, shaly	10	255	
Limestone, light, crystalline; shale	5	260	
Limestone, buff-gray, granular	145	405	
Limestone, dark-gray, fossiliferous	100	505	
Limestone, shaly	90	595	

Well 8600-3645-8

Altitude of land surface: 660 ft above mean sea level. Type of record: Driller's log (from owner) (as interpreted by author). Static water level: 41 ft below land surface (reported).

	Thickness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Soil	10	10	Mantle.
No record	35	45	
Devonian system:			
Chattanooga shale:			
Shale, black	50	95	
Bottom of hole (still in shale)	----------	95	

Well 8600-3650-4

Altitude of land surface: 720 ft above mean sea level. Type of record: Sample log (Adapted from Kentucky Geol. Survey Bull. 6, ser. 9, 1951, p. 544-545). Static water level: 70 ft below land surface (reported).

	Thickness (feet)	Depth (feet)	Remarks
No record	185	185	
Mississippian system:			
New Providence shale:			
Shale, pale-green, and cherty limestone	2	187	
Devonian system:			
New Albany shale:			
Shale, black	41	228	Chattanooga shale.
Sellersburg limestone:			
Dolomite and limestone	15	243	
Silurian system:			
Louisville limestone:			
Dolomite	49	292	

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Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

Well 8605-3635-96

Altitude of land surface: 850 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 42 ft below land surface.

	Thickness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Dirt	20	20	Mantle.
Limestone, blue,(water, 200 gph, at 30 ft)	10	30	
Limestone, white	20	50	
Bottom of hole	----------	50	Log assumed to be for well 8605-3635-96.

Well 8605-3635-132

Altitude of land surface: 800 ft above mean sea level. Type of record; Driller's log (from owner) (as interpreted by author). Static water level: 97.72 ft below land surface.

	Thickness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Soil	21	21	Mantle.
Mississippian system:			
Fort Payne chert:			
Limestone, cherty	59	80	
Devonian system:			
Chattanooga shale:			
Shale, black	20	100	
Silurian system:			
Limestone	5	105	
Bottom of hole	----------	105	

Well 8605-3640-43

Altitude of land surface: 800 ft above mean sea level. Type of record: Driller's log (as interpreted by author).

	Thickness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface material	33	33	Mantle.
Mississippian system:			
Warsaw limestone, Fort Payne chert, and New Providence shale:			
(Water, fresh, at 43 ft. Water, sulfurous, at 179 ft)	172	205	
Devonian system:			
Chattanooga shale:			
Shale, black	42	247	
Devonian and Silurian system:			
Sellerburg and Louisville limestone:			
Limestone	93	340	
Silurian system:			
Waldron shale:			
Shale	10	350	
Laurel dolomite:			
Limestone, blue-gray, dolomitic	37	387	
Osgood formation:			
Shales, calcareous	12	399	
Limestone, brown and greenish-gray, green at bottom, hard-drilling	86	485	
Brassfield limestone (Yellow Cap):			
Limestone, yellow, mottled	1	486	
Bottom of hole	----------	486	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8605-3640-62			
Altitude of land surface: 820 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 145 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	30	30	Mantle.
Mississippian system:			
Fort Payne chert and New Providence shale:			
Limestone (water at 145 ft)	175	205	
Devonian system:			
Chattanooga shale:			
Shale, black	45	250	
Sellersburg limestone:			
Caprock	10	260	
Silurian system:			
Louisville limestone:			
Sand, brown(?)	20	280	
Limestone, gray (water, salty, at 285 ft)	25	305	
Limestone, blue	10	315	
Limestone, black, soft drilling	5	320	
Limestone, brown (oil show at 330 ft)	20	340	
Limestone, blue-brown	10	350	
Limestone, blue	10	360	
Bottom of hole	-----------	360	
Well 8605-3640-287			
Altitude of land surface: 780 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 139 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Dirt (water, 60 gph, at 18 ft)	42	42	Mantle.
Mississippian system:			
Fort Payne chert:			
Limestone gray, hard-drilling (break at 83 ft; bad hole; break at 95 ft; lost water)	53	95	
Limestone, white, soft-drilling	31	126	
Break (water)	6	132	
New Providence shale:			
Limestone, blue-green, break	3	135	
Devonian system:			
Chattanooga shale:			
Shale, black	15	150	
Bottom of hole	-----------	150	Reported depth, 154 ft. Log assumed to be for well 8605-3640-287.
Well 8605-3645-165			
Altitude of land surface: 720 ft above mean sea level. Type of record: Sample log.			
No record	15	15	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Limestone, medium-light gray, sugary, texture, some with yellow iron stain; iron-stained and milky chert	10	25	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8605-3645-165—Continued			
Mississippian system—Continued			
Fort Payne chert—Continued			
Limestone, medium-light gray, sugary texured, dolomitic; milky chert	5	30	
Limestone and chert, finely intergrown	5	35	
Limestone, partly weathered to yellow brown	20	55	
Limestone, medium-light gray, sugary textured, dolomitic; milky chert; rare gypsum	40	95	
No record	25	120	
Limestone	5	125	
No record	5	130	
New Providence shale:			
Shale, glauconitic-green, calcareous; pyrite	7	137	
Devonian system:			
Chattanooga shale:			
Shale, brownish-black, carbonaceous, some calcareous inclusions; some frosted, well-rounded quartz grains	44	181	
Silurian system:			
Louisville limestone:			
Limestone, light-gray to light-buff, medium-grained, crystalline	5	186	
Limestone, medium-gray-buff, medium-grained, crystalline, dolomitic; medium-well-rounded clear sand grains; shaly at 220 ft	79	265	

Well 8610-3635-187

Altitude of land surface: 781 ft (aneroid) above mean sea level. Type of record: Driller's interpretation of sample log.

	Thickness (feet)	Depth (feet)	Remarks
Mississippian system:			
Warsaw limestone	40	40	
Fort Payne chert (water, fresh, at 58.5 ft)	50	90	
New Providence shale	55	145	
Devonian system:			
Chattanooga shale	38	183	
Sellerburg limestone:			
Limestone, gray, very coarse grained to medium grained, mottled; some white chert, with gypsum	3.5	186.5	
Limestone, gray, coarse- to medium-grained, argillaceous; hematite; some pyrite; gypsum	2	188.5	
Limestone, gray to bluish-gray, coarse- to medium-grained, slightly dolomitic, cherty, chrystalline calcite	3	191.5	
Silurian system:			
Louisville limestone:			
Dolomite, bluish-gray to light gray	6.5	198	
Dolomite, light-gray, medium- to fine-grained; some chert; fragments of calcite	3	201	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3635-187—Continued			
Silurian system—Continued			
Louisville limestone—Continued			
Dolomite, light-gray to light bluish-gray, medium- to fine-grained; some chert and calcite	4	205	
Dolimite, light-bluish-gray, coarse- to medium-grained, mottled (limonite); some chert; slightly pyritic	3	208	
Dolomite, brownish-gray, medium- to fine-grained; abundant chert, vitreous and opaque	2	210	
Dolomite	41	251	
Shale and dolomite	10	261	
Dolomite	2	263	
Waldron shale:			
Shale, greenish-gray, calcareous, silty	5	268	
Laurel dolomite:			
Dolomite, dark-bluish-gray, very coarse grained to medium grained	3	271	
Dolomite	35.5	306.5	
Dry hole	-----------	------	

Well 8610-3635-190

Altitude of land surface: 702 ft (aneroid) above mean sea level. Type of record: Driller's interpretation of sample log.

	Thickness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow	10	10	Mantle.
Mississippian system:			
New Providence shale:			
Shale, green (water at 27 and 44 ft)	44.5	54.5	
Devonian system:			
Chattanooga shale:			
Shale, black, fissile, carbonaceous, coarse- to medium-grained	38	92.5	
Sellersburg limestone:			
Limestone, brownish-gray, medium- to fine-grained, cherty; fragments of white silty gypsum	1	93.5	
Silurian system:			
Louisville limestone:			
Dolomite, bluish-gray, cherty	9	102.5	
Dolomite, brownish-gray, medium- to fine-grained	11	113.5	
Dolomite, brown, oil-stained (good show of oil with fresh water)	18	131.5	
Dolomite, gray, very fine grained, mottled; trace of chert; silty	3.5	135	
Dolomite, gray, very fine grained, very silty; crystalline sulfur (sulfurous water starting at 137 ft)	7	142	
No samples (water) ?	6	148	
Dolomite, tannish-gray, very fine grained; some shale	4	152	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3635-190—Continued			
Silurian system—Continued			
Waldron shale:			
Shale, greenish-gray, dolomitic, calcareous, argillaceous, silty; pyrite; trace of chert and sulfur	6.5	158.5	
Laurel dolomite:			
Dolomite, greenish-gray, medium- to fine-grained, silty	3.5	162	
Dolomite samples	19	181	
Bottom of hole	-----------	181	
Well 8610-3640-72			
Altitude of land surface: 700 ft above mean sea level. Type of record: Sample log.			
No record	20	20	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Limestone, light-brown, finely crystalline, with milky-white chert	5	25	
Limestone, sugary textured, less yellow chert; pyrite	10	35	
Limestone, light gray, sugary textured	25	60	
Limestone, light gray, sugary textured, increase in yellow limestone	5	65	
Limestone, 25 percent gray; gypsiferous	10	75	
Limestone; increase in dolomitic limestone	15	90	
Limestone, more pure	10	100	
Limestone; increase in gypsum	5	105	
Limestone, dolomitic	5	110	
Limestone, white, with chert; trace of green shale at base (New Providence shale)	27	137	
Devonian system:			
Chattanooga shale:			
Shale, black, pyritic; trace glauconite	3	140	Top of Chattanooga.
Bottom of hole	-----------	140	
Well 8610-3640-382			
Altitude of land surface: 760 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 30.13 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	6	6	Mantle.
No record of rock material (breaks to 37 ft, hard-drilling; water, 100 gph at 16 ft; water at 35 ft)	31	37	Probably Warsaw limestone.
No record	13	50	
Bottom of hole	-----------	50	Complete record not given here. Measured depth, 56.0 ft.

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-403			
Altitude of land surface: 750 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 56 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	25	25	Mantle.
Limestone, blue (water, 10 gph, at 45 ft)	25	50	
Flint, blue, hard-drilling	11	61	Probably cherty limestone.
Sandstone, soft-drilling (water, 100 gph, at 70 ft)	9	70	
No record	8	78	
Bottom of hole	----------	78	Reported depth, 76 ft. Log assumed to be for well 8610-3640-403.
Well 8610-3640-408			
Altitude of land surface: 770 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 71.85 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
No record (water, 75 gph, at 36 ft)	54	54	Mantle(?).
Limestone, gray (break and shelly at 67 ft)	13	67	
Limestone, blue (break and water at 70 ft)	13	80	
Limestone, gray	10	90	
Bottom of hole	----------	90	Measured depth, 95.5 ft. Log to be assumed to be for well 8610-3640-408.
Well 8610-3640-413			
Altitude of land surface: 780 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 60 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Dirt (water, 50 gph, at 18 ft)	18.5	18.5	Mantle.
No record of rock materials (water, little, at 31 ft; water, brisk, at 55 ft)	35.5	55	
Limestone, blue, hard-drilling (gas pocket at 63 ft)	15	70	
Bottom of hole	----------	70	Log assumed to be for well 8610-3640-413, owner C. E. Lamb, reported depth 78 ft. However, the driller's log showed the owner to be E. Y. Lamb and the depth to be 70 ft.

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-422			
Altitude of land surface: 820 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 29.06 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	24	24	Mantle.
Limestone, blue (water, 50 gph, at 27 ft)	23	47	
Bottom of hole	-----------	47	Log assumed to be for well 8610-3640-422, owner G. Young, reported depth 45 ft. However, the driller's log showed the owner to be Delbert Young and the depth to be 47 ft.
Well 8610-3640-508			
Altitude of land surface: 720 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 28 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Surface (gravel and water at top of rock)	20	20	Mantle.
No record of rock material (water, 100 gph, at 30 ft)	30	50	
Well 8610-3640-511			
Altitude of land surface: 760 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 27.84 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt (water, 100 gph, at 35 ft)	35	35	Mantle.
Limestone, white, hard-drilling	13	48	
Bottom of hole	-----------	48	Complete record not given here, measured depth, 48.4 ft.
Well 8610-3640-615			
Altitude of land surface: 800 ft above mean sea level. Type of record: Sample log.			
No record	55	55	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Dolomitic limestone, light-gray to buff, sugary textured; milky chert; trace of gypsum	15	70	
Limestone, finely intergrown with chert; dark-green shale; trace of pyrite	10	80	
Limestone or dolomite, greenish-gray, shaly	5	85	
Limestone or dolomite, greenish-gray to light buff	15	100	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-615—Continued			
Mississippian System—Continued			
Fort Payne chert—Continued			
Limestone, shaly, glauconitic at base	20	120	
Devonian system:			
Chattanooga shale:			
Shale, black to dark-brown, carbonaceous, pyritic	40	160	
Silurian system:			
Louisville limestone:			
Limestone, clear, medium-brown, medium-grained crystalline	2	162	
Limestone, white to light-buff, crystalline	5	167	
Limestone, white to light-buff, crystalline; trace of gypsum	10	177	
Dolomite, porous, and sugary textured, limestone	23	200	
No record	20	220	
Limestone, clear to light-buff, crystalline	15	235	
Limestone, clear to light-buff, crystalline; 50 percent brown oolitic limestone	10	245	
Limestone, buff to white	15	260	
Well 8610-3640-616			
Altitude of land surface: 790 ft above mean sea level. Type of record: Sample log.			
No record	25	25	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Limestone, light-gray-buff, medium-grained, sugary texture	5	30	
Limestone, light-gray-buff, medium-grained, sugary-textured; milky and iron-stained chert	5	35	
Limestone, white to yellow and orange, partly oolitic	10	45	
Limestone, buff, fine-grained	10	55	
Limestone, gray, fine-grained; milky or iron-stained chert	5	60	
Limestone, gray, fine-grained; milky chert	12	72	
Limestone, gray, fine-grained; milky chert; trace of gypsum	88	160	
Limestone, gray, fine-grained; milky chert; trace of gypsum; some greenish shaly limestone	5	165	
No record	5	170	
New Providence shale:			
Shale, light- and dark-green, calcareous, glauconitic	5	175	
Devonian system:			
Chattanooga shale:			
Shale, brown-black, carbonaceous, pyritic; some sandy fragments 185-190 ft	45	220	
Sellersburg(?) limestone:			
Limestone, brown-gray, mottled, medium-grained, crystalline; with clear medium well-rounded quartz	5	225	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-616—Continued			
Silurian system:			
Louisville limestone:			
Limestone, white-buff, medium-grained, sugary-textured; trace of pyrite	45	270	
Limestone, white-buff, medium-grained, sugary-testured; trace of pyrite; trace of shale	10	280	
Limestone, white-buff, medium-grained, sugary-textured; trace of pyrite; no shale	20	300	
Limestone, light-brown, sugary-textured; appearance of dark-brown oolites in light matrix	22	322	
Well 8610-3640-617			
Altitude of land surface: 750 ft above mean sea level. Type of record: Sample log.			
No record	60	60	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Limestone, medium-light gray, impure, sugary-textured; milky-white to clear, partly weathered, iron-stained chert	5	65	
Limestone, dark-gray, shaly; trace of gypsum	10	75	
Limestone, dark-gray, shaly and light-gray, sugary-textured	15	90	
Limestone, very light gray, granular; black grains dispersed throughout; increase of chert to 10 percent at base; weathered	20	110	
Limestone, greenish-gray, granular	15	125	
Limestone, buff, coarse, granular, porous	5	130	
No record	5	135	
Limestone, gray-buff, sugary-textured	55	190	
New Providence shale:			
Devonian system:			
Chattanooga shale:			
Limestone-shale, green, glauconitic; black, carbonaceous shale; pyrite; milky chert	5	195	Contact between New Providence and Chattanooga shales.
No samples	45	240	Chattanooga shale.
Silurian system:			
Louisville limestone:			
Shale, black-carbonaceous (trace); light-gray-buff, sugary-textured limestone; pyrite	5	245	
Limestone, granular, porous (gas odor)	5	250	
Limestone, greenish-gray, sugary-textured	50	300	
Limestone, greenish-gray, sugary-textured; brownish limestone	5	305	
Limestone, dark and shaly	5	310	
Limestone, greenish-gray, light and dark, sugary-textured	25	335	
Limestone, brownish, coarsely granular; pyrite	5	340	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-622			
Altitude of land surface: 810 ft above mean sea level. Type of record: Sample log.			
No record	33	33	Mantle(?).
Mississippian system:			
Fort Payne chert:			
Limestone, gray when fresh, cherty, very fine texture; rare pyrite	7	40	
Chert, pale gray; some limestone	10	50	
Limestone, mottled-gray and black, sugary-textured, cherty	25	75	
Limestone, white, somwhat mottled; fine- to medium-grained; white and yellow-stained chert; some pyrite	5	80	
Limestone, white, fine- to medium-grained; white and yellow-stained chert; some pyrite, less mottling	15	95	
Limestone, white, fine- to medium-grained, some white chert; iron stains	15	110	
Limestone, white, fine- to medium-grained, some white chert; iron stains; pyrite common as disseminated grains	5	115	
Limestone, greenish-blue, sugary-textured; chert common; silicified coral and crinoid stem	5	120	
Limestone, white, coarsely crystalline, also blue-green, sugary-textured, cherty limestone	5	125	
Limestone, pale-gray, sugary-textured; pyrite; chert	15	140	
New Providence shale:			
Limestone, pale-gray to pale-green, shaly; pyrite; chert	5	145	
Limestone, pale-green, shaly; pyrite; chert	20	165	
Limestone, pale-green, dark-green stains, shaly; abundant pyrite	10	175	
Devonian system:			
Chattanooga shale:			
Shale, black, pyritic, fine-grained; gray limestone at base	20	195	
Shale, black, pyritic; rare gray crystalline limestone	10	205	
Shale, black	11	216	
Sellersburg limestone:			
Limestone, white and pale-green, crystalline	4	220	
Limestone, white, crystalline; well-rounded quartz grains common; pyrite rare	5	225	
Silurian system:			
Louisville limestone:			
Limestone, gray-white, granular, fine-grained, pyrite common; some milky chert	25	250	
Limestone, gray-white, granular, fine-grained, pyrite common; some milky chert; some green shale	4	254	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3640-622—Continued			
Silurian system—Continued			
Louisville limestone—Continued			
Limestone, light-brown, sugary-textured, some dolomite crystals; pyrite	6	260	
Limestone, light-brown, sugary-textured, some dolomite crystals; pyrite; abundant milky chert; some oolitic chert	5	265	
Limestone, light-brown, sugary-textured, dolomite crystals, abundant clear gypsum; rare chert; some green shale	10	275	
Limestone, white, massive; gypsum and pyrite common	15	290	
Limestone, white, massive; gypsum and pyrite common; also sugary-textured, gray-blue limestone	5	295	
Limestone, white, coaresly crystalline; abundant pyrite; some gypsum	5	300	
Limestone, gray, sugar-textured, blue-gray shale; dolomitic limestone	5	305	
Shale, gray; white, sugary-textured, limestone; some pyrite	5	310	
Limestone, pale-brown, sugary-textured	10	320	
Well 8610-3645-3			
Altitude of land surface: 740 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 32 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
To rock (water, unlimited, at 25 ft)	28	28	Mantle.
Limestone, blue and gray	42	70	
Bottom of hole	----------	70	
Well 8610-3645-23			
Altitude of land surface: 740 ft above mean sea level. Type of record: Driller's log (as interpreted by author).			
Quaternary system:			
Recent and Pleistocene series:			
To rock	16	16	Mantle.
Limestone, blue, hard-drilling (water at 21 ft; water, unlimited, at 30 ft)	34	50	
Well 8610-3645-74			
Altitude of land surface: 730 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 74.69 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt (water, 72 gph, at 28 ft, bad crevice)	30	30	Mantle.
Limestone, blue (break at 43 ft; break, water, at 65–69 ft; break at 73 ft)	70	100	
Bottom of hole	----------	100	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3645-105			
Altitude of land surface: 770 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 44.77 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	24	24	Mantle.
No record	8	32	
Break	1	33	
No record (water, 3 gph, at 44 ft)	11	44	
Broken formation	16	60	
No record, soft-drilling	15	75	
No record	15	90	
Bottom of hole	----------	90	Measured depth, 89.6 ft.
Well 8610-3645-283			
Altitude of land surface: 740 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 44.87 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	25	25	Mantle.
Cave	5	30	
Limestone, blue	11	41	
Broken formation (water, 2 gph)	7	48	
Limestone, blue, soft-drilling	7	55	
Limestone, blue, hard-drilling	9	64	
Bottom of hole	----------	64	Reported depth, 60 ft. Log assumed to be for well 8610-3645-283.
Well 8610-3645-287			
Altitude of land surface: 750 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 16.20 ft below land surface.			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	28	28	Mantle.
Limestone, blue (water, 75 gph, at 31 ft)	17	45	
Bottom of hole	----------	45	
Well 8610-3645-288			
Altitude of land surface: 770 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 60 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Dirt	61	61	Mantle.
Limestone, blue (water at 68 ft; break at 76 ft, lost water; water, unlimited, at 85 ft)	24	85	
Bottom of hole	----------	85	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3645-305			
Altitude of land surface: 740 ft above mean sea level. Type of record: Driller's log (as interpreted by author).			
Quaternary system:			
Recent and Pleistocene series:			
Surface	26.5	26.5	Mantle.
No record (water show at 55 ft; water, 9 gpm, at 73 ft)	53.5	80	
Bottom of hole	-----------	80	
Well 8610-3645-306			
Altitude of land surface: 740 ft above mean sea level. Type of record: Driller's log (as interpreted by author). Static water level: 60 ft below land surface (reported).			
Quaternary system:			
Recent and Pleistocene series:			
Surface and boulders	33	33	Mantle.
No record (water show at 43 ft. Break with water, 1½–2 gpm, at 53–55 ft)	37	70	
Bottom of hole	-----------	70	Complete record not given here, reported depth, 74 ft.
Well 8610-3645-346			
Altitude of land surface: 665 ft above mean sea level. Type of record: Driller's log (as interpreted by author).			
No record	167	167	
Devonian system:			
Chattanooga shale:			
Shale, black	48	215	
No record	28	243	
Sand, water-bearing	5	248	
No record	82	330	
Bottom of hole	-----------	330	
Well 8610-3645-347			
Altitude of land surface: 545 ft above mean sea level. Type of record: Sample log (abstracted from Kentucky Geol. Survey Bull. 6, ser. 9, 1951, p. 114–116).			
No record	218	218	
Devonian system:			
Sellersburg limestone:			
Dolomite, dolomitic limestone	10	228	
Silurian system:			
Louisville limestone:			
Dolomite	132	360	
Dolomite, some gypsum	50	410	
Waldron shale:			
Dolomite and shale	10	420	
Laurel dolomite:			
Shale and dolomite	40	460	
Osgood formation:			
Dolomite, argillaceous	20	480	
Brassfield limestone:			
Dolomite	25	505	

Table 14.—*Drillers' logs and geologists' logs of wells in the Scottsville area, Kentucky*—Continued

	Thickness (feet)	Depth (feet)	Remarks
Well 8610-3645-347—Continued			
Ordovician system:			
Maysville group and Garrard sandstone of Eden group:			
Dolomite, limestone, shale	255	760	
Lower part of Eden group and Cynthiana formation:			
Limestone, shale, phosphatic limestone	155	915	
Lexington group:			
Limestone and shale	175	1,090	
High Bridge group:			
Limestone and dolomite	765	1,855	
Ordovician and Cambrian systems:			
Knox dolomite:			
Dolomite and bentonite	57	1,912	
Bottom of hole	----------	1,912	

Well 8610-3650-1

Altitude of land surface: 710 ft above mean sea level. Type of record: Sample log. Static water level: 90 ft below land surface (reported).

	Thickness (feet)	Depth (feet)	Remarks
No record	20	20	Mantle(?).
Mississippian system:			
Limestone, dark-gray, sugary-textured, cherty	10	30	
Limestone, more coarsely crystalline, some pure calcite; gypsum; cherty crinoid plates	25	55	
Limestone, yellow-brown, sugary-textured; quartz	5	60	
Limestone, gray, sugary-textured; some pyrite	45	105	
Limestone, light-gray to white crystals; some yellow limestone and chert	25	130	
Limestone, gray, sugary-textured; milky-white chert	10	140	
Limestone, predominantly light-gray white, crystalline	10	150	
Limestone, light-gray-white, crystalline; some gray sugary-textured limestone	10	160	
Limestone, light-gray-white, crystalline; some gray sugary-textured limestone; light-gray chert	30	190	
Limestone, light-brown to light-gray, sugary-textured; gypsum present	30	220	
Limestone, very light, sugary texture	120	340	
New Providence shale:			
Shale, gray-green, calcareous	15	355	
Devonian system:			
Chattanooga shale:			
Shale, dark-brown to black; pyrite	42	397	
Siltstone, calcareous, dark-brown	3	400	
Silurian system:			
Louisville limestone:			
Dolomite, brown-gray, sugary-textured, some crystals	10	410	
Dolomite, brown-gray, sugary-textured, some crystals; calcite in tiny veins	20	430	
Limestone, mottled gray-brown, sugary-textured, dolomitic	40	470	
Dolomite, light-brown to white	10	480	

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