SPRINGS IN ALABAMA

GEOLOGICAL SURVEY OF ALABAMA

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GEOLOGICAL SURVEY OF ALABAMA

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SPRINGS IN ALABAMA

By

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and
James D. Moore

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GEOLOGICAL SURVEY OF ALABAMA

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April 30, 1987

Honorable Guy Hunt
Governor of Alabama
Montgomery, Alabama

Dear Governor Hunt:

I have the honor to transmit herewith a report entitled "Springs in Alabama," by Robert V. Chandler and James D. Moore, which is published as Circular 134 of the Geological Survey of Alabama. This report describes the occurrence of springs in Alabama and provides flow and chemical-analyses data for a number of the state's springs.

There are thousands of springs in Alabama. Springs are sources of water for home, industrial, and municipal water supplies, and spring discharge sustains dry-weather streamflow.

Spring flows range from less than 1 gallon per minute to over 20,000 gallons per minute, or over 44.5 cubic feet per second. Eight springs in Alabama have been identified as having second-magnitude discharges, with average flows of 10 to 100 cubic feet per second.

The chemistry of natural spring water, in general, varies from region to region as the result of geologic, hydrologic, and climatic conditions. Chemical-analyses data indicate that a number of springs in the state may be acceptable in quality for public drinking water. The common water-quality problems of springs are high concentrations of iron, manganese, and total dissolved solids.

Respectfully,

Ernest A. Mancini

Ernest A. Mancini
State Geologist

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SPRINGS IN ALABAMA

By

Robert V. Chandler and James D. Moore

INTRODUCTION

There are thousands of springs in Alabama. Most of the major springs are in the northern part of the state where carbonate rocks--limestone, dolomite, and chert--are the major rock types. Minor springs are common in all areas of the state. Springs are important sources of water for a number of home, industrial, and municipal water supplies. Also, spring water sustains the dry-weather flow of streams and provides important fish and wildlife habitats. Most of the more popular springs of the state have been named. Their names (for example, "Bubbling Spring," "Blue Spring," "Healing Spring," "Coldwater Spring," and "Williams Spring") often reflect special spring features, locality, or the spring owner's name.

This report presents spring flow and chemical-analyses data for more than 440 springs located in 54 of Alabama's 67 counties (see apps. 1 and 2). Sources of information in the report include the water-resources reports and files of the Geological Survey of Alabama (GSA) and the U.S. Geological Survey (USGS). Additional information on the state's springs is available in the publications listed in the Selected References section and/or in the files of other state and federal agencies, i.e., the Alabama Department of Environmental Management (ADEM), and the Tennessee Valley Authority (TVA). General criteria for including a spring in this report were:

- a readily identifiable name and/or location,
- availability of corresponding springflow and chemical-analyses data, or
- importance as a historical, current, or potential water-supply source.

PREVIOUS PUBLICATIONS

In the late 1800's and early 1900's, the mineral springs of Alabama were commonly used as sources of water for therapeutic and medicinal purposes. Early publications on Alabama springs focused on their importance as sources of mineral water for resorts and bottled drinking water. Peale (1886) listed 20 spring-resort locations, Crook (1899) described five similar locations, and Day (1905) provided a list of seven commercial mineral springs and wells utilized in 1905. Additional information on mineral springs is presented in Smith and McCalley (1904), Matson (1912, 1913), Dole (1914, 1915, 1917), Ellis (1918, 1920, 1921), Ellis and Collins (1923), and Jones (1926).

Smith (1907), Fitch (1927), and Johnson (1933, pts. 1 and 2) provided descriptions and chemical-analyses data for a number of the state's important springs. Harris (1957) provided flow and partial chemical-analyses data for 95 springs located in Colbert and Lauderdale Counties in the northern Tennessee Valley area of the state; and Warman and Causey (1963) discussed the relationship of springflow to thrust faults in Calhoun County in east-central Alabama. A number of additional publications contain specific information for springs in Alabama. These reports are listed in the Selected References section.

SPRING NUMBERING SYSTEM

The spring numbering system used in this report follows the spring and well numbering system currently used by the USGS and GSA. The system of numbering is based on the Federal system of subdivision of public lands where each township in a county is divided into 36 sections numbered from 1 in the northeasternmost corner to 36 in the southeasternmost corner, and on a subdivision of the county into townships, each having an assigned letter, starting with A for the northeasternmost township. Springs and wells are numbered in consecutive order, i.e., B-1, B-2, B-3, etc., or using a recent GSA variation to the system (Shamburger and Moore, 1985), B-01, B-02, B-03, etc. Appendix 1

lists springs according to the county and this numbering system. Where numbers have been assigned to springs in previous publications, these numbers are shown in the remarks column of appendix 1.

THE HYDROLOGIC SYSTEM

CLIMATE

The climate of Alabama is classified as humid subtropical, with mild winters and hot summers and precipitation occurring in all months (Lineback, Peirce, and Turnage, 1974). Precipitation is the source of all natural springflow in Alabama. Most precipitation is in the form of rainfall, but light winter snows are common in the northern part of the state. No climatic data stations in the state have average monthly air temperatures below freezing (32°F). Cold waves or heat waves seldom last longer than a few days, and average annual air temperatures are within the moderate range (60° to 68°F). The highest temperatures are along the state's southern Gulf coastline, with temperatures decreasing inland toward northern Alabama. Average annual precipitation (fig. 1) ranges from 68 inches along the Gulf Coast to 48 to 56 inches in inland areas. The areas of lowest average precipitation are in the central parts of the state.

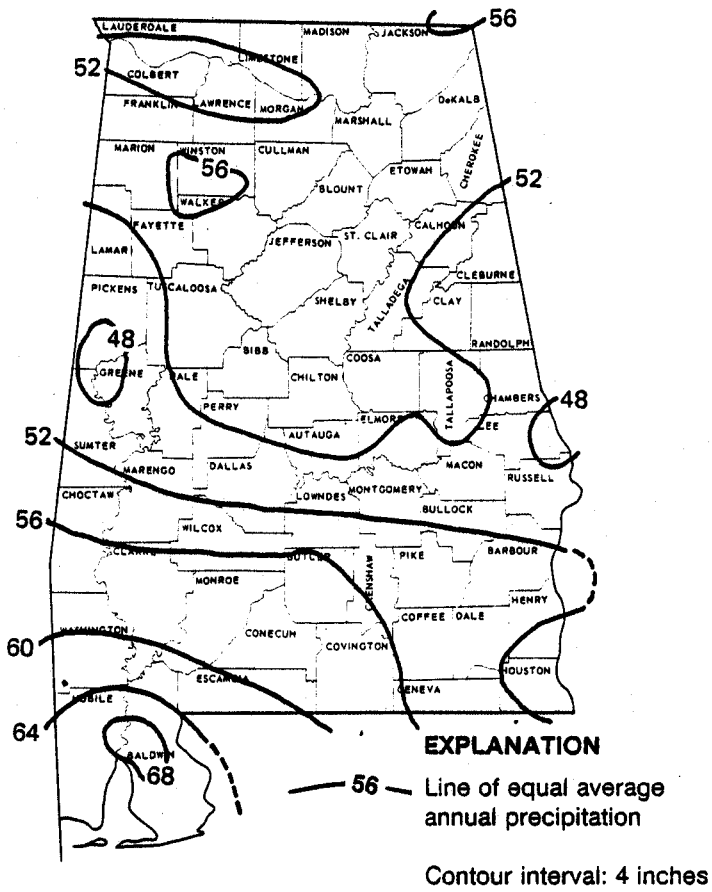

Figure 1.--Average annual precipitation, in inches, 1931-60 (after Lineback, Peirce, and Turnage, 1974).

HYDROLOGIC CYCLE

Water occurs in the hydrologic system in the forms of precipitation, surface and ground water in storage, runoff, and water vapor. The movement of water in this system is called the "hydrologic

cycle." The "hydrologic cycle" is visualized as originating with evaporation or water from the ocean's surface. Part of the water evaporated reenters the ocean directly as rain, and part is carried inland by winds in the form of clouds (or water vapor). Inland, the water falls to the land surface as rain, snow, sleet, or hail. There, it may evaporate, infiltrate the land surface and become a part of ground water, or the water may run off as surface water into streams, rivers, and lakes, eventually returning to the ocean. Ground water is in continual motion and moves in a downgradient direction, normally towards surface waters. Its movement is slow, measured in feet per day, with the water returning to the land surface naturally as springs or seeps along streams and lakes, or artificially through water-well discharge. The interaction and movement between surface and ground waters may take place rather freely. Surface water from streams and lakes can infiltrate the land surface and become part of the ground-water system, reentering the surface-water system through surface or underwater (submarine) springs and seeps.

GENERAL OCCURRENCE OF SPRINGS

A spring is definable as a place where ground water flows naturally from a rock or the soil onto the land surface or into a body of surface water (Gary, McAfee, and Wolf, 1972). The occurrence of springs depends upon the nature and relationship of rocks, especially permeable and impermeable strata, on the position of the land surface in relation to the water table, and on the topography of the area. These hydrogeologic-related factors differ throughout Alabama, and the magnitude and number of springs from region to region is variable (fig. 2). Numerous high-yield springs, with yields typically ranging from 100 to 4,490 gallons per minute (gpm), occur in the Tennessee Valley, Sequatchie Valley, and Valley and Ridge regions. Rocks in these areas consist mainly of limestone, chert, and dolomite and are often fractured or cavernous and readily transmit ground water to springs and wells.

Springs in the Piedmont (metamorphic and igneous rock) and Cumberland Plateau (consolidated sandstone, conglomerate, and shale) regions are less numerous than in the northern Alabama regions and generally have lower yields, typically in the range of 10 to 100 gpm. Most springs in the East Gulf Coastal Plain region discharge from sands, gravelly sands, or limestone and exhibit a wide range in flow, from less than 1 to more than 100 gpm. A few springs of very low magnitude discharge from the low-permeable clays, marl, and chalk in the Black Prairie Belt, Flatwoods, and Chunnennuggee Hills districts of the East Gulf Coastal Plain (fig. 2). These districts are distinguished hydrologically by low to very low dry-weather flow conditions of streams (Peirce, 1967).

SPRINGFLOW IN ALABAMA

MEASUREMENT OF SPRINGFLOW

Flow data for springs presented in this report are expressed in gallons per minute (gpm) or cubic feet per second (ft^3/sec). Modified USGS techniques (Carter and Davidian, 1968) and velocity-rated current meters were generally utilized in making the springflow measurements. Estimates of springflow were made by visual observation or by using standard hydrologic methods and flow-measuring equipment. Spring discharge is affected by a number of climatic, geologic, and hydrologic factors and by artificial controls. The variability in springflow can be exceedingly high, ranging to more than 100 percent. Estimates and measurements of springflow presented in this report range from zero to more than 10,000 gpm, reflecting the effects of the named factors.

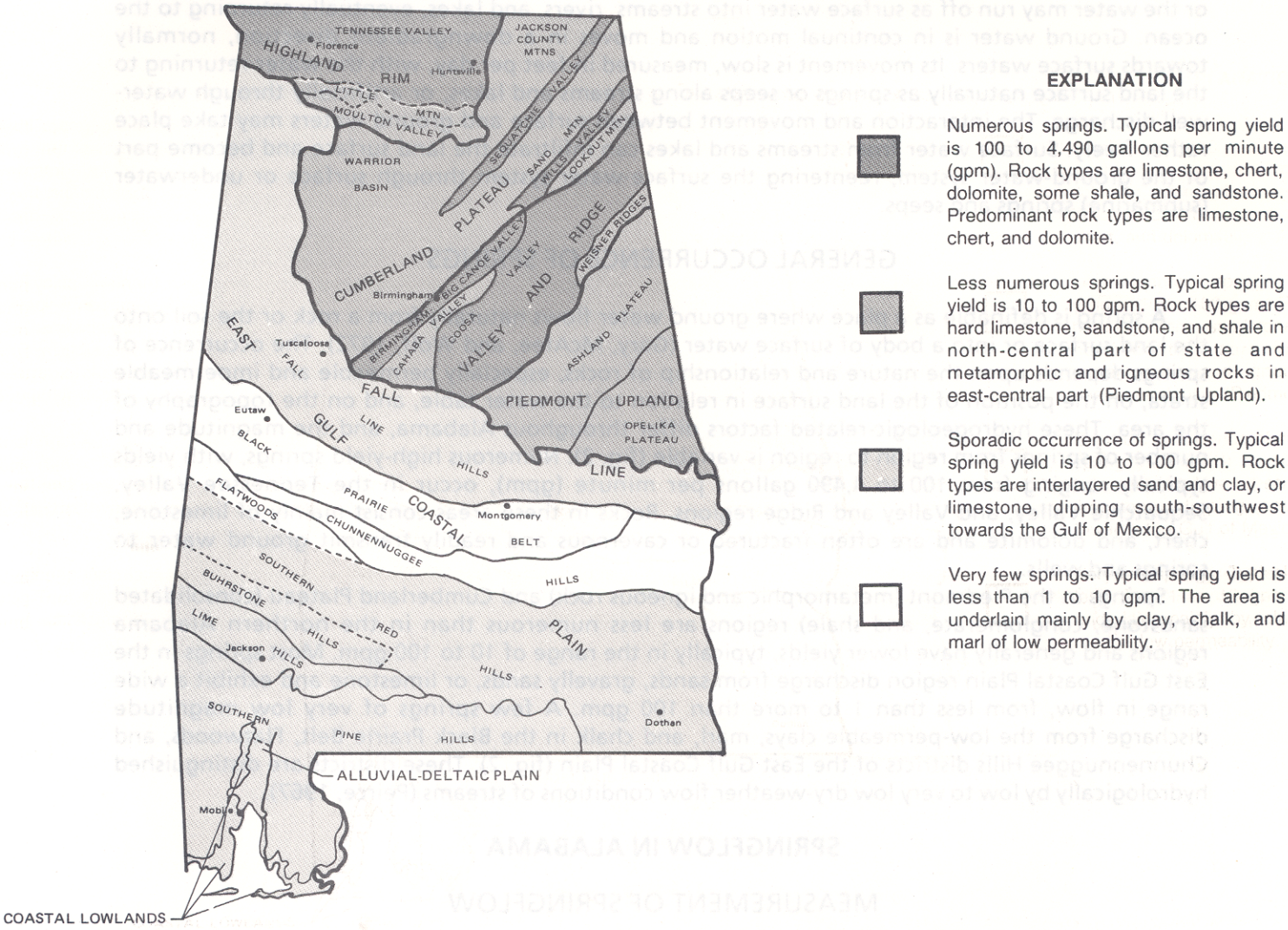

Figure 2.--General occurrence of springs in Alabama.

FLOW CLASSIFICATION OF SPRINGS

Springs may be classified according to magnitude of flow, aquifer type, water temperature, geologic structure, chemical quality of water, topography, lithology (Tolman, 1937), type of discharge (Harris, 1957), or therapeutic value of the water (Fitch, 1927). Meinzer's (1923) classification of springs (table 1), based on flow, is used in this report to classify springs. As a hydrological statistic, the average flow represents the theoretical upper limit of a spring's potential for development; its low flow represents the theoretical lower limit. Historic as well as recent flow data can be used to determine a spring's average flow. These types of data are presented in appendix 1. Locations and classifications of the springs listed in appendix 1 are shown on plate 1.

According to Meinzer's classification, there are no recognized first-magnitude springs in Alabama. Eight second-magnitude springs are present in the northern half of the state. Three of

Table 1.--Classification of springs according to flow (after Meinzer, 1923)

Magnitude	Discharge
First	Greater than 100 ft^3/sec
Second	10 to 100 ft^3/sec
Third	1 to 10 ft^3/sec
Fourth	100 gpm (gallons per minute) to 1 ft^3/sec (449 gpm)
Fifth	10 to 100 gpm
Sixth	1 to 10 gpm
Seventh	1 pt/min (pint per minute) to 1 gpm
Eighth	Less than 1 pt/min

these springs, Coldwater Spring (W-12) in Calhoun County, Tuscumbia Spring (M-20) in Colbert County, and Huntsville (Big) Spring (N-185) in Madison County, are considered to be the state's "major" springs (Warman and Causey, 1963). Coldwater Spring, discharging from a fracture system in rocks, is the most utilized spring in the state. The spring is a source of 18 mgd (million gallons per day) of municipal water for the city of Anniston. As defined by minimum flow, Coldwater Spring may be the largest spring in Alabama. Its measured flow for the period April 1957 to June 1959 is illustrated on figure 3, together with similar data for Tuscumbia Spring in Colbert County and Big Spring in Madison County. The average discharge of Coldwater Spring for this period was 32 mgd, that of Tuscumbia Spring was 44.2 mgd, and that of Big Spring at Huntsville was 12.6 mgd.

It is estimated that several hundred third-, fourth-, and fifth-magnitude springs occur in Alabama. Numerous smaller springs, of magnitudes six to eight, also exist in the state. Few data have been collected for these springs due to their limited importance as water supplies.

SPRINGFLOW VARIABILITY

The variability in the flow of a spring may be expressed as the ratio of the range in discharge of the spring to the average discharge, according to the formula: $V = 100(a-b)/c$, where V is the springflow variability, in percent; a is the maximum discharge; b is the minimum discharge; and c is the average discharge (Meinzer, 1923, p. 53-54). Variability in springflow is normally determined by using long-term records but can be estimated from a few springflow measurements, provided that those measurements represent wet- and dry-weather flows. Estimates and measurements of springflow provided in appendix 1 can be used to determine variability of flow for a specific spring. Springflow variability is dependent on the permeability of the rocks, the size of the recharge area, the amount of ground water in storage, the location of the water table, the rates and amounts of precipitation, and other factors. Variability of flow data are important in evaluating the dependability of springs as sources of water supplies.

The variabilities of springflow for three major springs mentioned in the preceding section, Coldwater Spring (W-12), Tuscumbia Spring (M-20), and Big Spring (N-185), are 30, 200, and 180 percent, respectively. Both Tuscumbia Spring and Big Spring flow from relatively shallow solution channels in the Tuscumbia Limestone of Mississippian age. The seasonal variation of discharge of these two springs is high, as is characteristic of most limestone springs. Recharge to the springs is derived principally from rainfall which infiltrates the land surface and moves rapidly through well-developed solution channels in limestone towards the springs. In comparison, the seasonal variation in the discharge of Coldwater Spring is low because of a stable source of ground water from extensive rock fractures.

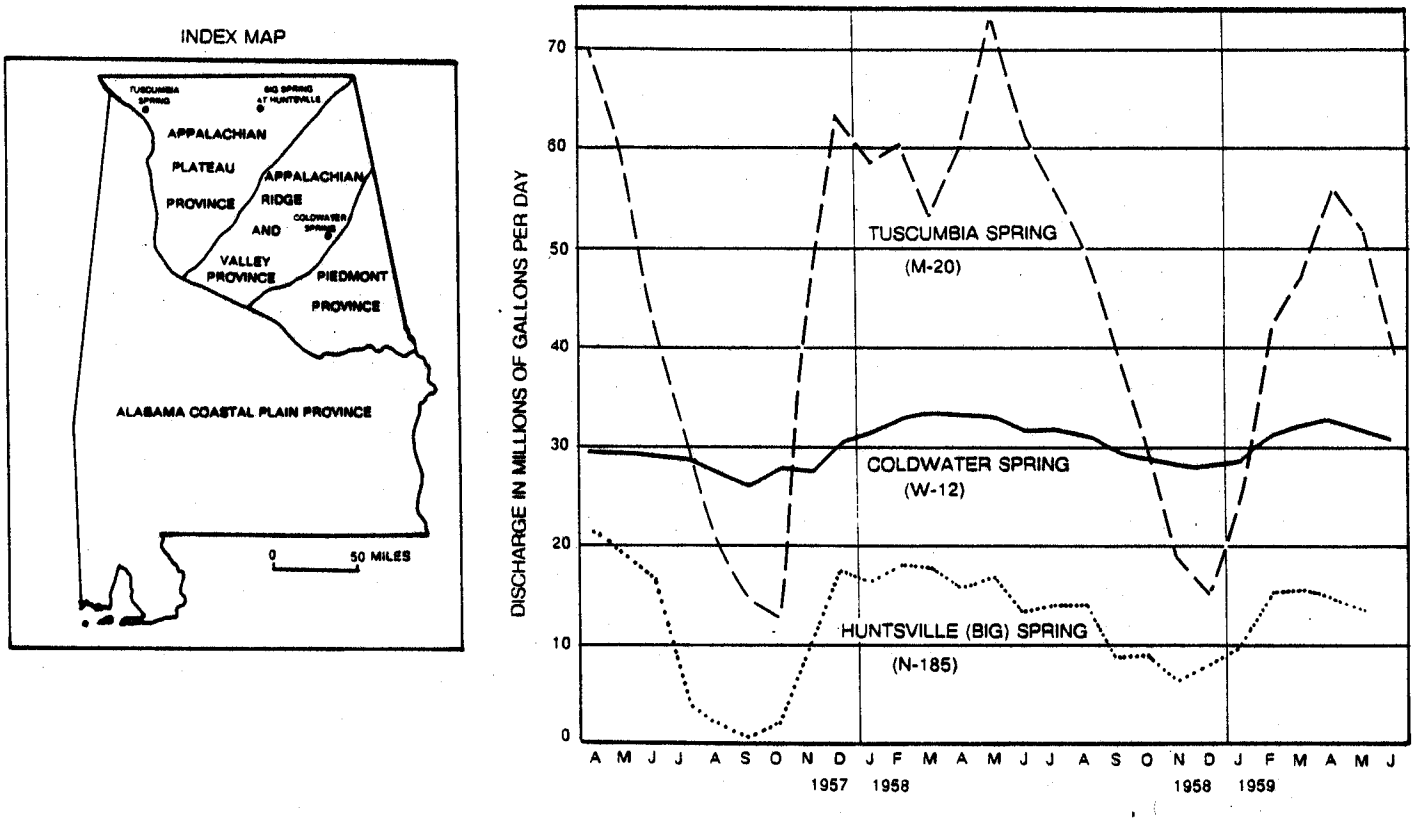

Figure 3.--Monthly average discharges of Coldwater Spring near Anniston, Calhoun County; Tuscumbia Spring at Tuscumbia, Colbert County; and Huntsville (Big) Spring at Huntsville, Madison County, April 1957 to June 1959 (after Warman and Causey, 1963).

SPRING RECHARGE AREA

The size and nature of a spring's recharge area are important hydrologic factors to be considered when evaluating the spring as a source of water supply. Recharge areas that have high infiltration rates may give rise to high-magnitude springs, or to a series of lesser magnitude springs, depending upon the geologic structure. An annual recharge of only 1 inch of water over an area of 1 square mile (mi^2) can produce springflow equal to 36 gpm (fig. 4). Barksdale and Moore (1976) estimated that annual recharge to water-bearing units in Alabama ranges from 6 inches in the east-central part of the state to 7.5 to 10 inches in other areas. Curtis (1953) estimated, from available hydrologic data, that the annual recharge rate for the northern Alabama Tennessee Valley region is 11.4 inches. Estimates of recharge areas for two major springs in the Tennessee Valley region have also been made. Johnson (1933, pt. 1), using available hydrologic data, estimated that the recharge area of Tuscumbia Spring (M-20) is 44 square miles (mi^2) and that the recharge area of Huntsville Spring (N-185) is 12 mi^2. John Scott (personal communication, 1986), USGS, indicated that the recharge area of Coldwater Spring (W-12) in Calhoun County may be 75 to 90 mi^2, assuming an annual recharge rate equal to 0.4 mgd/mi^2.

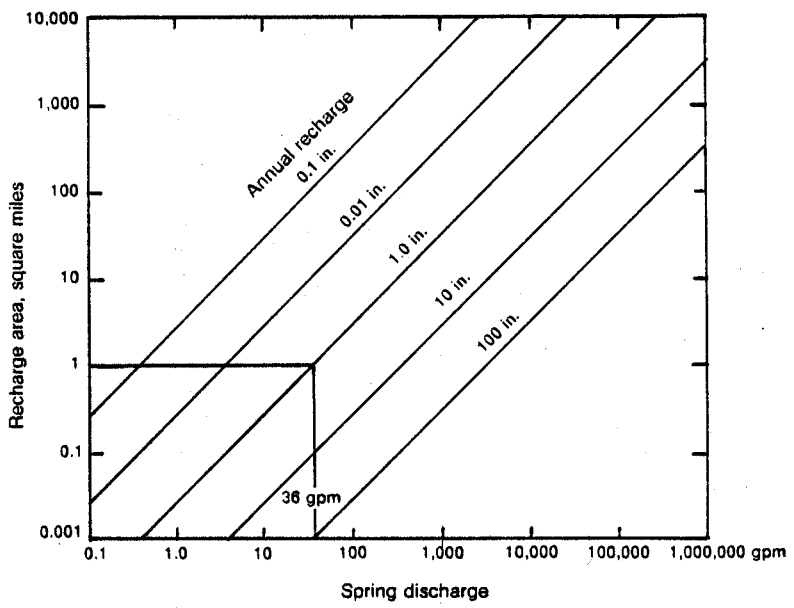

Figure 4.--Relationship of recharge area to spring discharge for various amounts of annual recharge (after Davis and DeWiest, 1966).

WATER CHEMISTRY OF SPRINGS

The chemistry of natural spring water, in general, varies from region to region as the result of geologic, hydrologic, and climatic conditions. Precipitation normally contains only small amounts of dissolved matter, but upon reaching the land surface, it begins to dissolve minerals from the soils and the rocks. The chemical quality of water infiltrating the land surface and becoming part of the ground-water zone depends upon the mineral composition of the soils and rocks with which the water comes in contact, the length of time the water is in contact with the soils and rocks, and the solvent ability of the water. The principal factor controlling the solvent action of this water is the amount of carbon dioxide (CO_2), which is absorbed from the atmosphere and from the soil-biosystem. A low pH of ground water is often indicative of a high CO_2 content in the water.

WATER SAMPLE ANALYSES

Water samples were collected from spring water-quality stations in 1985-86 and were chemically analyzed as a part of the study of Alabama springs. The chemical analyses included a determination of the concentrations of calcium, magnesium, sodium, potassium, silica, bicarbonate, carbonate, sulfate, chloride, fluoride, nitrate, selected trace elements, and total dissolved solids. The analyses were made at the GSA's Geochemical Laboratory located in Tuscaloosa, Alabama. The methods of analysis are those described in USEPA-600-4-79-020 (U.S. Environmental Protection Agency, 1979). Results of the chemical analyses of water samples from the springs for the period 1985-86 are listed in appendix 2 and are duplicated, in part, in appendix 1. The water temperature, specific conductance, pH, and instantaneous flow values provided in the appendices were determined in the field at the time of water-sample collection.

TEMPERATURE OF SPRING WATER

The temperature of ground water and spring water at a specific locality is relatively constant, varying only a few degrees during the year. The temperature generally is about the same as, or slightly higher than, the mean annual air temperature for that location. Areally, spring water temperatures range from a low of 57°F to 61°F in the Tennessee Valley region of Alabama to about 66°F to 77°F along the Gulf Coast. The only reference to a thermal spring is in Johnson (1933). The spring, Warm Spring (HH-01) in Talladega County, has a measured water temperature (68.5°F) that was 5° to 7°F higher than the average ground-water temperature for the area.

SPECIFIC CONDUCTANCE

Specific conductance is a key water-quality indicator. The specific conductance of water depends on the total concentration of the ionized constituents dissolved in the water. It is a measure of the ability of water to conduct an electrical current and represents the reciprocal of specific resistance. Specific conductance values are in micromhos per centimeter (µmhos/cm). Generally, the total dissolved solids of water, in milligrams per liter, can be estimated by multiplication of specific conductance with a factor of 0.65. Specific conductance values and corresponding total dissolved solids contents of water samples from springs are listed in appendix 1. The specific conductance of spring waters in Alabama generally ranges from less than 100 to more than 1,000 µmhos/cm. The lowest specific conductance values are generally associated with springflow from sands and sandstone. Extremely high specific conductance values may be indicative of saline or polluted water.

HYDROGEN-ION CONCENTRATION (pH)

Hydrogen-ion concentration (pH) is a measure of the relative acidity or alkalinity of water. A pH of 7.0 indicates that the water is neutral. A pH progressively less than 7.0 indicates increasing acidity in water, whereas a pH progressively greater than 7.0 indicates increasing alkalinity. Most spring waters have pH values ranging from about 6.0 to 8.5. The higher pH values generally are associated with limestone or carbonate-rock springs.

APPLICABLE WATER-QUALITY STANDARDS

The chemical quality of water may limit or prohibit the use of the water for home, industrial, business, farm, or municipal water supplies. Recommended limits for public drinking supplies are shown in table 2. Standards for other uses of water may be found in Wilcox (1955), American Water Works Association (1950), California State Water Quality Control Board (1963), and publications listed in the Selected References.

The results of recent chemical analyses of spring water samples are listed in appendix 2. A comparison of these analyses data with the public drinking-water standards listed in table 2 indicates that more than 90 percent of the springs may meet the drinking-water standards. The common

Table 2.--Public drinking water standards[1]

National Interim Primary Drinking Water Regulations

Arsenic	0.05 milligrams per liter (mg/L)
Barium	1.0 mg/L
Cadmium	0.010 mg/L
Chromium	0.05 mg/L
Lead	0.05 mg/L
Mercury	0.002 mg/L
Nitrate (as N)	10 mg/L
Selenium	0.01 mg/L
Silver	0.05 mg/L
Fluoride (Revised)	4 mg/L
Endrin	0.0002 mg/L
Lindane	0.004 mg/L
Methoxychlor	0.1 mg/L
Toxaphene	0.005 mg/L
2 , 4 - D	0.1 mg/L
2, 4, 5 - TP Silvex	0.01 mg/L
Coliform bacteria	< 1/100 milliliters
Radium - 226 + radium - 228	5 picoCuries/liter (pCi/l)
Gross alpha particle activity	15 pCi/l
Beta particle and photon radioactivity	4 millirem/year (annual dose equivalent)
Turbidity	1 Turbidity unit (Tu) (up to 5 Tu)
Trihalomethanes (the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane {bromoform} and trichloromethane {chloroform})	0.10 mg/L
Sodium Monitoring and Reporting	
Corrosion Monitoring and Distribution System Composition	

National Secondary Drinking Water Regulations

Chloride	250 mg/L
Color	15 color units
Copper	1 mg/L
Corrosivity	Noncorrosive
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5 - 8.5
Sulfate	250 mg/L
TDS	500 mg/L
Zinc	5 mg/L
Fluoride	2 mg/L

[1]Maximum established limits by the U.S. Environmental Protection Agency in 1986.

water-quality problems are high concentrations of iron, manganese, and total dissolved solids in spring waters. It should be noted that the parameters for which values are reported in appendix 2 do not include all of the parameters in the drinking-water standards. Specific analyses of spring water should be made when evaluating a spring for a specific use.

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APPENDIX 1

Basic data for springs in Alabama

Asterisk (*) beside spring number indicates chemical analysis of recent water sample in appendix 2 of this report; ft^3/s, cubic feet per second; gpm, gallons per minute; total dissolved solids in milligrams per liter; specific conductance in micromhos per centimeter (µmhos/cm).

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Calhoun	25	Limestone	56
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Clarke	33	Marion	64
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Appendix 1.--Basic data for springs in Alabama

Baldwin County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
VV-10	Magnolia Spring	SW¼ sec. 38, T. 7 S., R. 3 E.	Citronelle Formation	04/14/71	250	0.56	10	--	--	--	Historic spring. Source of commercial mineral water in 1905 (Day, 1905).
				08/10/72	1.5	.003	--	70	21	(43)	

Barbour County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*FF-8	Blue Spring	SE¼ sec. 14, T. 8 N., R. 25 E.	Clayton Formation	10/19/67	--	--	295	66	19	(239)	Located at Blue Spring State Park. Water-quality and flow-measurement station.
				10/21/68	2,990	6.65	--	--	--	--	
				04/17/69	3,040	6.76	--	--	--	--	
				04/09/70	3,740	8.32	--	--	--	--	
				07/01/70	3,270	7.29	--	--	--	--	
				05/09/73	--	--	--	--	--	137 (229)	
				02/17/84	1,250	2.79	--	64	18	144 (208)	
				05/03/84	--	--	--	68	20	132 (234)	
				10/24/84	3,780	8.42	--	68	20	170 (250)	
				10/24/85	898	2.0	--	69	21	134 (240)	
				05/22/86	310	.69	--	68	20	127 (212)	

Appendix 1 - Basic data for springs in Alabama - Continued

Bibb County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*C-01	Big Spring	SE¼ sec. 34, T. 21 S., R. 6 W.	Cambrian and Ordovician undifferentiated	09/20/29	99	0.22	--	65	18	140	No. 47 in Johnson (1933, pt. 2, table 2). Water-quality station.
				11/25/85	126	.28	--	66	19	127 (300)	
				05/13/86	81	.18	--	66	19	131 (185)	
E-1	Town Spring	SE¼ sec. 9, T. 22 S., R. 6 W.	Coker Formation	09/18/29	20	.04	434	--	--	--	No. 48 in Johnson (1933, pt. 2, table 2).
				12/28/67	30	.07	--	59	15	(159)	
I-01	Unnamed Spring	SW¼ sec. 15, T. 24 N., R. 11 E.	Conasauga Formation	10/07/64	3,530	7.87	--	--	--	--	Miscellaneous flow-measurement station.
				11/09/64	3,600	8.01	--	--	--	--	
				12/15/64	3,590	8.00	--	--	--	--	
				01/20/65	3,320	7.39	--	--	--	--	
				02/23/65	4,710	10.5	--	--	--	--	
				04/06/65	4,440	9.88	--	--	--	--	
				05/14/65	4,710	10.5	--	--	--	--	
				06/18/65	3,800	8.42	--	--	--	--	
				07/14/65	3,600	8.01	--	--	--	--	
				08/17/65	2,900	6.45	--	--	--	--	
				12/05/66	3,140	7.00	--	--	--	--	
				01/18/67	2,990	6.65	--	--	--	--	
				02/28/67	4,220	9.40	--	--	--	--	
				04/13/67	3,330	7.79	--	--	--	--	
				05/14/67	3,160	7.04	--	--	--	--	
				06/21/62	2,830	6.31	--	--	--	--	
				08/01/67	3,210	7.16	--	--	--	--	
				09/18/67	3,000	6.68	--	--	--	--	
I-02	Owen Spring	NE¼ sec. 30, T. 24 N., R. 11 E.	Knox Group undifferentiated	09/19/28	10	.02	--	65	18	196	No. 51 in Johnson (1933, pt. 2, table 2).
*L-1	Williams Spring	SW¼ sec. 1, T. 24 N., R. 8 W.	Knox Group undifferentiated	10/25/67	750	1.67	335	--	--	(239)	Water-quality station.
				11/25/85	727	1.62	--	66	19	133 (310)	
				05/13/86	606	1.35	--	65	18	128 (183)	
O-01	Town Spring	NW¼ sec. 25, T. 23 N., R. 9 E.	Coker Formation	09/19/29	10	.02	--	66	19	35	No. 52 in Johnson (1933, pt. 2, table 2).
P-01	Gary Springs	NE¼ sec. 20, T. 23 N., R. 10 E.	Rome Formation	09/19/29	3	.007	--	66	19	2,122	Former resort and mineral water spring. No. 54 in Johnson (1933, pt. 2, table 2).
Q-01	Battle Spring	NE¼ sec. 6, T. 23 N., R. 11 E.	Knox Group undifferentiated	09/19/29	10	.02	--	66	19	158	No. 56 in Johnson (1933, pt. 2, table 2).
*V-1	Lightseys Pond Spring	SE¼ sec. 1, T. 22 N., R. 9 E.	Knox Group undifferentiated	05/29/67	6,100	13.6	197	--	--	(252)	Water-quality and flow-measurement station.
				05/13/69	--	--	--	--	--	131 (242)	
				10/04/70	4,270	9.51	--	--	--	--	
				04/16/71	2,420	5.38	--	--	--	--	
				04/16/73	12,000	26.7	--	--	--	--	
				04/02/74	6,960	15.5	--	--	--	--	
				10/18/74	4,140	9.23	--	--	--	--	
				04/17/75	7,140	15.9	--	--	--	--	
				11/01/76	2,550	5.69	--	--	--	--	
				04/19/77	16,800	37.4	--	--	--	--	
				10/31/77	12,100	26.9	--	--	--	--	

Appendix 1 - Basic data for springs in Alabama - Continued

Bibb County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*V-1 Cont'd	Lightseys Pond Spring	SE¼ sec. 1, T. 22 N., R. 9 E.	Knox Group undifferentiated	11/02/78	12,200	27.2	--	--	--	--	--
				11/30/84	12,300	27.3	--	--	--	--	
				10/29/85	16,700	37.2	--	--	--	111 (201)	
				08/25/86	4,580	10.2	--	--	--	--	
V-5	Reid Griffin	SW¼ sec. 22, T. 22 N., R. 9 E.	Coker Formation	12/12/67	10	.02	--	63	17	(22)	--

Blount County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-4	Aldridge Spring	NE¼ sec. 24, T. 10 S., R. 1 E.	Fort Payne Chert	08/23/28	200	0.45	790	--	--	--	No. 27 in Johnson (1933, pt. 2, table 4).
				03/15/67	320	.71	--	61	16	(74)	
*D-5	Vanzandt or Blue Spring	SE¼ sec. 28, T. 10 S., R. 1 E.	Fort Payne Chert	08/23/28	300	.67	730	--	--	--	No. 25 in Johnson (1933, pt. 2, table 4). Water-quality and flow-measurement station.
				03/15/67	490	1.09	--	61	16	(121)	
				10/18/68	211	.47	--	59	15	(155)	
				04/14/69	418	.93	--	--	--	--	
				07/09/69	296	.66	--	--	--	--	
				10/09/69	278	.62	--	59	15	(155)	
				11/17/69	251	.56	--	--	--	(195)	
				01/15/70	364	.81	--	59	15	--	
				02/26/70	377	.84	--	58	14	(132)	
				04/21/70	593	1.32	--	61	16	--	
				05/26/70	391	.87	--	59	15	(120)	
				08/04/70	332	.74	--	61	16	(138)	
				09/01/70	242	.54	--	61	16	(145)	
				10/09/70	180	.40	--	61	16	(148)	
				11/16/70	220	.49	--	60	15.5	(153)	
				01/05/71	359	.80	--	61	16	(155)	
				02/17/71	453	1.01	--	58	14	(88)	
				03/26/71	602	1.34	--	59	15	(125)	
				05/25/71	507	1.13	--	59	15	(122)	
				06/27/71	413	.92	--	58	14.5	(145)	
				07/22/71	449	1.00	--	63	17	(141)	
				08/25/71	350	.78	--	61	16	(142)	
				09/22/71	413	.92	--	61	16	(150)	
				10/21/71	287	.64	--	59	15	(145)	
				11/30/71	247	.55	--	58	14.5	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Blount County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*D-5 Cont'd	Vanzandt or Blue Spring	SE¼ sec. 28, T. 10 S., R. 1 E.	Fort Payne Chert	02/23/72	480	1.07	--	58	14.5	(130)	No. 25 in Johnson (1933, pt. 2, table 4). Water-quality and flow-measurement station.
				04/11/72	391	.87	--	59	15	(125)	
				05/23/72	476	1.06	--	60	15.5	(140)	
				07/12/72	350	.78	--	61	16	(135)	
				08/23/72	337	.75	--	61	16	(145)	
				10/06/72	292	.65	--	61	16	(160)	
				11/08/72	251	.56	--	59	15	(160)	
				12/28/72	418	.93	--	60	15.5	(140)	
				02/20/73	512	1.14	--	58	14.5	(116)	
				03/27/73	584	1.30	--	59	15	(120)	
				05/01/73	574	1.28	--	63	17	(100)	
				06/06/73	507	1.13	--	61	16	(105)	
				07/12/73	382	.85	--	59	15	(140)	
				08/24/73	400	.89	--	--	--	--	
				09/25/73	332	.74	--	66	19	--	
				10/28/73	296	.66	--	60	15.5	(135)	
				11/27/73	278	.62	--	60	15.5	(160)	
				01/08/74	593	1.32	--	61	16	(140)	
				03/05/74	445	.99	--	61	16	(135)	
				03/28/74	467	1.04	--	--	--	--	
				05/10/74	530	1.18	--	60	15.5	--	
				06/19/74	471	1.05	--	61	16	--	
				07/05/74	341	.76	--	61	16	(112)	
				09/13/74	301	.67	--	60	15.5	(145)	
				11/09/76	377	.84	--	59	15	--	
				04/15/77	584	1.30	--	--	--	--	
				11/07/77	736	1.64	--	--	--	--	
				10/27/78	287	.64	--	62	16.5	(165)	
				10/30/79	364	.81	--	62	16.5	--	
				05/06/80	597	1.33	--	--	--	--	
				11/19/80	467	1.04	--	58	14.5	(132)	
				04/28/81	593	1.32	--	61	16	(132)	
				10/26/81	274	.61	--	60	15.5	(155)	
				04/15/82	633	1.41	--	60	15.5	(132)	
				11/02/82	265	.59	--	--	--	--	
				11/15/84	341	.76	--	--	--	--	
				11/07/85	440	.98	--	59	15	89 (170)	
I-5	Burgess Spring	SW¼ sec. 6, T. 11 S., R. 1 E.	Fort Payne Chert (?)	03/16/67	391	.87	--	61	16	(195)	--
I-6	Blountsville Spring	SE¼ sec. 7, T. 11 S., R. 1 E.	Fort Payne Chert	09/23/28	30	.07	710	61	16	107	No. 26 in Johnson (1933, pt. 2, table 4).
				03/15/67	90	.20	--	60	15.5	(89)	

Appendix 1.--Basic data for springs in Alabama - Continued

Blount County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*J-4	Big Spring	NW¼ sec. 28, T. 11 S., R. 1 W.	Tuscumbia Limestone	09/23/28	1,800	4.01	580	61	16	130	No. 28 in Johnson (1933, pt. 2, table 4). Water-quality and flow-measurement station.
				03/14/67	3,860	8.60	--	61	16	(204)	
				06/14/68	3540	7.89	--	60	15.5	(210)	
				10/15/68	2,490	5.55	--	--	--	--	
				10/27/68	2,390	5.32	--	63	17	(225)	
				05/08/69	3,390	7.55	--	61	16	--	
				11/06/69	2,360	5.26	--	52	11	(265)	
				03/27/70	3,670	8.17	--	61	16	--	
				10/05/70	2,200	4.90	--	--	--	(229)	
				04/21/71	3,780	8.41	--	61	16	--	
				04/19/73	3,700	8.24	--	--	--	--	
				04/08/74	3,650	8.12	--	65	18	--	
				10/22/74	2,470	5.51	--	61	16	(225)	
				04/03/75	3,860	8.58	--	61	16	(210)	
				05/15/75	--	--	--	60	15.5	121 (218)	
				11/05/76	2,690	5.98	--	--	--	--	
				04/21/77	3,990	8.89	--	61	16	(232)	
				10/29/78	2,380	5.32	--	62	16.5	(240)	
				10/31/79	2,730	6.08	--	62	16.5	--	
				05/08/80	7,990	17.8	--	59	15	--	
				10/18/80	3,200	7.12	--	58	14.5	(230)	
				05/01/81	4,440	9.89	--	62	16.5	(215)	
				10/26/81	2,180	4.86	--	61	16	(240)	
				04/16/82	3,880	8.64	--	61	16	(215)	
				11/02/82	3,030	6.75	--	--	--	--	
				11/15/84	1,940	4.31	--	--	--	--	
				11/07/85	3,230	7.19	--	59	15	127 (259)	
M-01	Faust Spring	sec. 15, T. 12 S., R. 2 W.	Parkwood and Pennington Formations undifferentiated	10/16/68	45	.10	--	--	--	--	Miscellaneous flow-measurement station.
				05/14/67	700	1.56	--	--	--	--	
				11/06/69	13	.03	--	--	--	--	
Q-1	Maynor Spring	NW¼ sec. 8, T. 12 S., R. 3 E.	Knox Group undifferentiated	03/14/67	15	.03	870	61	16	(164)	--
R-1	Head Spring	NW¼ sec. 6, T. 13 S., R. 3 E.	Pottsville Formation	03/14/67	30	.07	980	62	17	(62)	--
T-1	Gibson Spring	SW¼ sec. 11, T. 13 S., R. 1 E.	Knox Group undifferentiated	10/26/28	350	.78	750	61	16	123	No. 32 in Johnson (1933, pt. 2, table 4).
				03/14/67	370	.82	--	61	16	(206)	
T-2	Allgood Spring	NE¼ sec. 15, T. 13 S., R. 1 E.	Knox Group undifferentiated	03/14/67	190	.42	760	61	16	(173)	--
*T-3	Walker Spring	SE¼ sec. 30, T. 13 S., R. 1 E.	Knox Group undifferentiated	03/13/67	120	.27	592	58	14	(133)	Water-quality station.
				11/14/85	148	.33	--	63	17	108 (192)	
				06/05/86	162	.36	--	65	18	108 (167)	
V-1	Blount Springs	SW¼ sec. 6, T. 13 S., R. 2 W.	Tuscumbia Limestone and Fort Payne Chert	08/18/28	10	.02	580	--	--	--	Former resort and mineral spring (Fitch, 1927, p. 204-205).
				03/13/67	70	.16	--	57	14	(453)	

Appendix 1.--Basic data for springs in Alabama - Continued

Blount County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
BB-2	Weston Spring	SE¼ sec. 10, T. 14 S., R. 1 W.	Bangor Limestone	08/21/28 03/13/67	30 30	.07 .07	700 --	62 63	16.5 17	-- (247)	No. 33 in Johnson (1933, pt. 2, table 4).
BB-5	Village Spring	SE¼ sec. 33, T. 14 S., R. 1 W.	Knox Group undifferentiated	08/21/28	150	.33	650	62 61	16.5 16	137 246	No. 35 in Johnson (1933, pt. 2, table 4).

Butler County

Spring no	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
F-01	Butler Springs	SW¼ sec. 28, T. 10 N., R. 12 E.	Nanafalia Formation	--	--	--	--	--	--	--	Source of commercial mineral water in early 1900's (Smith, 1907, p. 265).

Calhoun County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
A-27	Smart Spring	SE¼ sec. 28, T. 12 S., R. 10 E.	Rome Formation	12/13/57	398	0.89	651	62	16.5	--	Special project station. Reported average discharge, 340 gpm (Warman and Causey, 1963).
A-29	Smith Spring	NE¼ sec. 35, T. 12 S., R. 10 E.	Conasauga Formation	12/13/57	203	.45	675	61	16	--	Special project station. Reported average discharge, 165 gpm (Warman and Causey, 1963).
F-42	Reed Spring	NW¼ sec. 27, T. 13 S., R. 7 E.	Newala and Longview Limestones undifferentiated	10/15/28 06/18/57	1,600 3,319	3.56 7.39	531	61.5 62.5	16 16.5	-- (201)	No. 47 in Johnson (1933, pt. 2, table 6).
F-55	Phillip Held	NW¼ sec. 33, T. 13 S., R. 7 E.	Newala and Longview Limestones undifferentiated	07/15/57	485	1.08	538	64	17.5	(225)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Calhoun County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*F-68	Seven Springs	SW¼ sec. 36, T. 13 S., R. 7 E.	Newala and Longview Limestones undifferentiated	10/14/28	400	.89	560	--	--	--	No. 52 in Johnson (1933, pt. 2, table 6). Water-quality and flow-measurement station.
				10/11/56	1,690	3.76	--	--	--	--	
				11/15/56	1,660	3.70	--	--	--	--	
				12/04/56	1,540	3.44	--	--	--	--	
				01/21/57	1,630	3.64	--	--	--	--	
				02/07/57	2,220	4.95	--	--	--	--	
				02/08/57	2,390	5.33	--	--	--	--	
				03/27/57	2,680	5.98	--	--	--	--	
				04/22/57	2,400	5.34	--	--	--	--	
				05/07/57	2,730	6.09	--	--	--	--	
				05/21/57	2,270	5.06	--	--	--	--	
				06/03/57	3,560	7.94	--	--	--	--	
				06/18/57	2,340	5.22	--	--	--	--	
				07/15/57	2,330	5.20	--	--	--	--	
				08/21/57	2,400	5.34	--	--	--	--	
				09/24/57	1,980	4.40	--	--	--	--	
				10/17/57	1,830	4.07	--	--	--	--	
				12/03/57	2,260	5.04	--	--	--	--	
				01/17/58	2,230	4.97	--	--	--	--	
				02/20/58	2,550	5.67	--	--	--	--	
				03/25/58	2,420	5.39	--	--	--	--	
				04/24/58	2,800	6.24	--	--	--	--	
				05/20/58	2,490	5.54	--	--	--	--	
				06/03/58	2,150	4.80	--	--	--	--	
				06/18/58	2,370	5.29	--	--	--	--	
				07/29/58	2,140	4.78	--	--	--	--	
				08/19/58	2,090	4.65	--	--	--	--	
				09/10/58	2,070	4.60	--	--	--	--	
				09/30/58	2,000	4.46	--	--	--	--	
				10/15/58	2,080	4.64	--	--	--	--	
				11/26/58	2,050	4.56	--	--	--	--	
				12/29/58	1,890	4.20	--	--	--	--	
				01/27/59	2,300	5.13	--	--	--	--	
				02/23/59	2,600	5.78	--	--	--	--	
				03/23/59	2,770	6.17	--	--	--	--	
				04/29/59	2,510	5.60	--	--	--	--	
				05/25/59	2,250	5.02	--	--	--	--	
				08/03/59	2,170	4.83	--	--	--	--	
				08/27/59	1,860	4.15	--	--	--	--	
				09/24/59	1,750	3.90	--	--	--	--	
				10/12/59	2,310	5.14	--	--	--	--	
				11/23/59	2,196	4.87	--	--	--	--	
				01/06/60	1,970	4.38	--	--	--	--	
				01/27/60	2,280	5.08	--	--	--	--	
				05/04/60	2,550	5,67	--	--	--	--	
				05/25/60	2,360	5.26	--	--	--	--	
				06/15/60	2,310	5.14	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Calhoun County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*F-68 Cont'd	Seven Springs	SW¼ sec. 36, T. 13 S., R. 7 E.	Newala and Longview Limestones undifferentiated	10/29/68	2,110	4.71	--	--	--	--	No. 52 in Johnson (1933, pt. 2, table 6). Water-quality and flow-measurement station.
				10/14/70	1,740	3.88	--	--	--	--	
				04/18/73	2,760	6.14	--	--	--	--	
				04/08/74	2,690	5.98	--	61	16	--	
				10/22/75	1,950	4.34	--	59	15	(225)	
				04/02/76	2,820	6.28	--	61	16	(205)	
				11/03/76	1,970	4.39	--	--	--	--	
				04/15/77	3,360	7.48	--	61	16	(178)	
				11/10/77	2,120	4.72	--	60	15.5	(225)	
				10/27/78	2,160	4.82	--	61	16	(220)	
				10/31/79	1,940	4.33	--	61	16	(227)	
				04/23/80	3,320	7.39	--	61	16	(157)	
				11/20/80	1,720	3.83	--	61	16	(224)	
				04/30/81	2,330	5.20	--	63	17	(215)	
				04/13/82	2,340	5.21	--	61	16	(220)	
				11/01/82	1,980	4.42	--	61	16	(225)	
				11/01/84	1,630	3.64	--	--	--	--	
				10/22/85	1,660	3.70	--	--	--	120 (221)	
				05/04/86	759	1.69	--	63	17	128 (195)	
*G-01	Websters Chapel Spring	NW¼ sec. 18, T. 13 S., R. 8 E.	Cambrian or Ordovician Dolomite	10/10/77	1,430	3.18	--	--	--	--	Water-quality station.
				10/26/78	997	2.22	--	--	--	--	
				11/26/85	148	.33	--	61	16	103 (240)	
				05/04/86	<4.5	<.01	--	66	19	107 (171)	
H-22	Wellborn Spring	NE¼ sec. 20, T. 13 S., R. 9 E.	Conasauga Formation	10/13/28	400	.89	700	--	--	--	No. 48 in Johnson (1933, pt. 2, table 6).
				07/24/57	297	.66	--	62	16.5	(225)	
H-45	Choccolocco Mountain Spring	SW¼ sec. 23, T. 13 S., R. 9 E.	Chilhowee Group	10/13/28	3	.007	1,286	61	16	--	Source is rock fractures. No. 49 in Johnson (1933, pt. 2, table 6).
				12/19/57	3	.007	--	--	--		
I-14	City Spring (Piedmont)	SE¼ sec. 6, T. 13 S., R. 10 E.	Cambrian or Ordovician Dolomite	10/13/28	700	1.56	684	62.7	17	110	No. 50 in Johnson (1933, pt. 2, table 6).
				07/12/57	428	.95	--	63	17	--	
K-50	Whites Gap Spring	NE¼ sec. 20, T. 14 S., R. 9 E.	Chilhowee Group	11/25/57	364	.81	997	64	17.5	--	Special project station. Reported average discharge, 400 gpm (Warman and Causey, 1963).
K-01	White's View Spring	NW¼ sec. 17, T. 14 S., R. 9 E.	Residuum of Chilhowee Group	10/14/28	15	.03	--	61.2	16	--	No. 58 in Johnson (1933, pt. 2, table 6).
K-02	Waterworks Spring	NE¼ sec. 19, T. 14 S., R. 9 E.	Residuum of Chilhowee Group	10/14/28	11	.02	--	62.3	17	25	No. 59 in Johnson (1933, pt. 2, table 6).

Appendix 1.--Basic data for springs in Alabama - Continued

Calhoun County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*L-1	Germania Spring	NE¼ sec. 1, T. 14 S., R. 8 E.	Conasauga Formation	10/14/28	1,000	2.23	627	63.3	17.5	--	Special project station. Reported average discharge, 2,000 gpm (Warman and Causey, 1963). Water-quality and flow-measurement station.
				07/12/57	1,880	4.19	--	65	18	(198)	
				10/15/57	1,640	3.65	--	--	--	--	
				06/29/59	2,120	4.72	--	--	--	--	
				07/15/59	1,860	4.15	--	--	--	--	
				08/14/59	1,820	4.06	--	--	--	--	
				09/16/59	1,570	3.49	--	--	--	--	
				10/26/59	1,340	2.99	--	--	--	--	
				12/16/59	1,300	2.90	--	--	--	--	
				02/02/60	2,170	4.84	--	--	--	--	
				02/29/60	2,270	5.06	--	--	--	--	
				04/21/60	2,500	5.56	--	--	--	--	
				01/06/65	1,550	3.46	--	--	--	--	
				12/07/65	1,040	2.32	--	--	--	--	
				12/29/65	1,030	2.29	--	--	--	--	
				04/09/74	2,730	6.07	--	61	16	--	
				10/22/74	1,330	2.97	--	61	16	--	
				04/02/75	2,820	6.28	--	61	16	--	
				11/03/76	1,370	3.05	--	--	--	--	
				04/15/77	2,950	6.58	--	61	16	(194)	
				11/10/77	2,480	5.53	--	61	16	(181)	
				10/26/78	1,060	2.35	--	--	--	--	
				10/31/79	2,000	4.45	--	--	--	--	
				04/23/80	3,110	6.93	--	--	--	--	
				11/20/80	1,880	4.18	--	--	--	--	
				04/30/81	2,140	4.76	--	63	17	(225)	
				10/22/81	1,450	3.24	--	64	17.5	(205)	
				04/13/82	2,680	5.97	--	--	--	(180)	
				11/02/82	1,580	3.51	--	65	18	(196)	
				04/29/83	2,640	5.88	--	59	15	101 (85)	
				10/29/84	1,600	3.57	--	--	--	--	
				10/22/85	1,320	2.94	--	65	18	107 (188)	
				05/14/86	76	.17	--	65	18	122 (190)	
L-13	Angell Spring	NW¼ sec. 6, T. 14 S., R. 8 E.	Cambrian or Ordovician Dolomite	10/14/28	800	1.78	577	62.3	16.5	--	No. 53 in Johnson (1933, pt. 2, table 6).
				10/05/56	0	0	--	--	--	--	
				07/12/57	738	1.64	--	--	--	--	
*L-21	Town, Big, or Jacksonville Spring	NE¼ sec. 14, T. 14 S., R. 8 E.	Conasauga Formation	10/14/28	1,000	2.23	651	63.3	17.5	--	Special project station. Reported average discharge, 1,150 gpm (Warman and Causey, 1963). Water-quality station.
				07/12/57	1,197	2.67	--	--	--	--	
				06/09/82	795	1.77	--	61	16	(222)	
				04/27/83	1,440	3.21	--	63	17	116 (200)	
				11/26/85	112	.25	--	65	18	119 (290)	
				05/14/86	0	0	--	66	19	110 (178)	
L-53	A. F. Glass	SE¼ sec. 29, T. 14 S., R. 8 E.	Conasauga Formation	07/25/57	320	.71	605	64	17.5	(282)	--
L-66	Fourmile Spring	SW¼ sec. 35, T. 14 S., R. 8 E.	Conasauga Formation	10/11/28	100	.22	730	62.6	17	--	No. 56 in Johnson (1933, pt. 2, table 6).
				07/24/57	--	--	--	63	17	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Calhoun County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
L-01	Joe McReynolds Spring	SW¼ sec. 36, T. 14 S., R. 8 E.	Shady Dolomite	10/11/28	500	1.11	--	64.2	18	105	No. 57 in Johnson (1933, pt. 2, table 6).
*M-91	McCullars Spring	SW¼ sec. 29, T. 14 S., R. 7 E.	Cambrian or Ordovician Dolomite	07/26/56	2,410	5.37	518	64	18	(221)	Special project station. Reported average discharge, 2,270 gpm (Warman and Causey, 1963). Water-quality and flow-measurement station.
				07/26/57	2,420	5.39	--	--	--	--	
				10/15/57	2,410	5.37	--	--	--	--	
				03/27/58	3,290	7.33	--	--	--	--	
				10/16/58	2,730	6.07	--	--	--	--	
				10/29/68	2,600	5.80	--	--	--	--	
				11/07/69	2,780	6.20	--	63	17	--	
				11/14/70	1,810	4.04	--	--	--	--	
				04/18/73	2,550	5.67	--	--	--	--	
				04/09/74	2,630	5.86	--	61	16	--	
				10/22/74	1,690	3.77	--	61	16	(220)	
				04/02/75	3,820	8.51	--	63	17	(195)	
				11/04/76	1,490	3.31	--	--	--	--	
				04/15/72	2,950	6.56	--	63	17	(230)	
				11/10/77	1,890	4.21	--	59	15	(250)	
				10/29/78	1,650	3.68	--	61	16	(234)	
				10/31/79	1,890	4.20	--	64	18	(230)	
				04/23/80	2,680	5.97	--	64	17.5	(210)	
				11/20/80	1,590	3.54	--	57	14	(223)	
				04/29/81	2,130	4.74	--	68	20	(220)	
				10/22/81	2,530	5.63	--	65	18.5	(235)	
				04/13/82	2,790	6.22	--	64	17.5	(225)	
				11/01/82	1,760	3.92	--	65	18	(232)	
				10/22/85	1,140	2.53	--	65	18	(211)	
M-111	Alexander Methodist Church	NE¼ sec. 34, T. 14 S., R. 7 E.	Conasauga Formation	07/11/57	1,108	2.47	558	62	16.5	(258)	--
M-120	Phillips Spring or Hebron Springs	SE¼ sec. 6, T. 14 S., R. 7 E.	Fort Payne Chert	10/14/28	3	.007	535	62.8	17	--	Depression Spring.
				10/23/57	67	.15	--	62	16.5	--	
N-27	R. L. Winn	SE¼ sec. 20, T. 14 S., R. 6 E.	Little Oak Limestone	07/11/57	75	.17	511	63	17	(241)	--
S-11	McElroy	SW¼ sec. 8, T. 15 S., R. 8 E.	Conasauga Formation	10/11/28	170	.38	661	63.8	17.5	150	No. 61 in Johnson (1933, pt. 2, table 6).
				07/25/57	--	--	--	64	17.5	--	
S-01	Wellborn Spring	SW¼ sec. 13, T. 15 S., R. 8 E.	Cambrian or Ordovician Dolomite	10/11/28	200	.45	--	62.4	17	97	No. 60 in Johnson (1933, pt. 2, table 6).
U-63	Talley Spring	SE¼ sec. 11, T. 16 S., R. 9 E.	Shady Dolomite	10/24/57	390	.87	704	--	--	--	Special project station. Reported average discharge, 470 gpm (Warman and Causey, 1963).
V-45	Boiling Spring	NW¼ sec. 27, T. 16 S., R. 8 E.	Shady Dolomite	10/13/28	1,000	2.23	622	61.3	16.5	109	No. 68 in Johnson (1933, pt. 2, table 6).
				07/13/55	1,700	3.79	--	--	--		
				07/26/57	1,700	3.79	--	--	--		
				10/14/57	2,200	4.90	--	--	--		
V-46	Oxford or Oxford Lake Spring	NE¼ sec. 29, T. 16 S., R. 8 E.	Shady Dolomite	10/10/28	225	.50	611	61.8	16.5	--	No. 67 in Johnson (1933, pt. 2, table 6).
				10/14/57	2,100	4.68	--	62	16.5	(180)	

Appendix 1.--Basic data for springs in Alabama - Continued

Calhoun County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
V-48	Mill Spring	SE¼ sec. 30, T. 16 S., R. 8 E.	Shady Dolomite	10/10/28 07/16/57	1,500 430	3.34 .96	-- --	63 --	17 --	(260) --	No. 66 in Johnson (1933, pt. 2, table 6).
*W-12	Coldwater Spring (City of Anniston)	SE¼ sec. 29, T. 16 S., R. 7 E.	Knox Group undifferentiated (?)	10/18/28 06/20/57 04/29/83 11/27/85 05/13/86	20,000 19,443 22,200 10,300 13,600	44.5 43.3 49.5 22.9 30.3	596 -- -- -- --	63.4 64 65 66 66	17.5 17.5 18 19 19	117 (202) 112 (185) 107 (240) 110 (166)	Major spring. Operated as continuous-record gaging station 02403500, Coldwater Spring near Anniston, Alabama, from July 1944 to March 1947, and April 1957 to current year. Average discharge for period of record through September 1984, 48.5 ft^3/s (21,800 gpm) (U.S. Geological Survey, 1985). No. 65 in Johnson (1933, pt. 2, table 6). Water-quality station.
X-9	Everett	NE¼ sec. 20, T. 16 S., R. 6 E.	Cambrian or Ordovician Dolomite	07/16/57	224	.50	639	65	18	(239)	--

Chambers County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-7	Ripville Gardens	SE¼ sec. 16, T. 23 N., R. 25 E.	Gneiss	07/25/69	10	0.02	614	68	20	(42)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Cherokee County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*D-4	Berry Spring	SW¼ sec. 17, T. 7 S., R. 11 E.	Cambrian or Ordovician Dolomite	02/14/62	3,300	7.35	693	59	15	(201)	Water-quality and flow-measurement station.
				05/15/68	2,020	4.50	--	59	15	(220)	
				10/15/68	390	.87	--	57.5	15.5	(225)	
				05/08/69	2,430	5.42	--	58	14	--	
				11/06/69	1,220	2.71	--	50	10	(300)	
				03/18/70	2,510	5.58	--	59	15	--	
				09/30/70	983	2.19	--	59	15	(189)	
				04/14/71	3,180	7.09	--	59	15	(205)	
				04/18/73	3,220	7.18	--	--	--	--	
				04/10/74	3,730	8.30	--	59	15	--	
				10/22/74	1,090	2.42	--	60	15.5	(255)	
				04/01/75	4,300	9.57	--	61	16	(200)	
				11/03/76	1,230	2.75	--	--	--	--	
				04/14/77	4,010	8.92	--	59	15	(200)	
				11/08/77	4,300	9.57	--	63	17	(248)	
				10/26/78	871	1.94	--	62	16.5	(262)	
				10/30/79	1,830	4.07	--	60	15.5	(255)	
				04/22/80	3,820	8.50	--	61	16	(196)	
				11/19/80	1,470	3.28	--	58	14.5	(261)	
				05/05/81	2,120	4.72	--	59	15	(242)	
				10/21/81	979	2.18	--	60	15.5	(260)	
				04/15/82	3,240	7.21	--	59	15	(235)	
				11/02/82	1,030	2.30	--	60	15.5	(270)	
				10/24/85	1,030	2.30	--	59	15	130 (270)	
				08/27/86	799	1.78	--	--	--	--	
F-16	Waterloo Spring	SE¼ sec. 21, T. 8 W., R. 10 E.	Cambrian or Ordovician Dolomite	09/17/28	500	1.11	628	58	14.5	124	No. 60 in Johnson (1933, pt. 2, table 7).
				02/14/62	2,500	5.57	--	59	15	(190)	
F-22	Erwin Spring	SE¼ sec. 33, T. 8 S., R. 10 E.	Cambrian or Ordovician Dolomite	09/17/28	460	1.02	590	58	14.5	--	No. 61 in Johnson (1933, pt. 2, table 7).
				02/14/62	800	1.78	--	59	15	(207)	
*G-9	Congo Spring	SW¼ sec. 34, T. 8 S., R. 9 E.	Tuscumbia Limestone and Fort Payne Chert	05/10/55	1,700	3.79	597	--	--	--	Water-quality and flow-measurement station.
				02/14/62	1,600	3.56	--	--	--	--	
				05/15/68	2,020	4.50	--	59	15	(254)	
				10/15/68	391	.87	--	60	15.5	(225)	
				05/08/69	2,430	5.42	--	57	14	--	
				11/06/69	1,220	2.71	--	50	10	(300)	
				03/18/70	2,510	5.58	--	59	15	--	
				09/30/70	983	2.19	--	59	15	(189)	
				04/14/71	3,180	7.09	--	59	15	(205)	
				04/18/73	3,220	7.18	--	59	15	--	
				04/10/74	3,730	8.30	--	59	15	--	
				10/22/74	1,090	2.42	--	62	16.5	(285)	
				04/01/75	1,960	4.36	--	59	15	(240)	
				11/03/76	1,180	2.63	--	--	--	--	
				04/14/77	1,880	4.19	--	58	14.5	(225)	
				06/30/77	1,480	3.29	--	--	--	--	
				11/08/77	2,110	4.69	--	64	17.5	(270)	
				10/26/78	961	2.14	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Cherokee County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*G-9 Cont'd	Congo Spring	SW¼ sec. 34, T. 8 S., R. 9 E.	Tuscumbia Limestone and Fort Payne Chert	10/30/79	1,500	3.34	--	60	15.5	(270)	Water-quality and flow-measurement station.
				04/22/80	2,110	4.69	--	61	16	(227)	
				11/19/80	1,540	3.44	--	58	14.5	(282)	
				05/05/81	1,680	3.75	--	60	15.5	(260)	
				10/21/81	1,080	2.40	--	60	15.5	(295)	
				04/15/82	2,150	4.79	--	--	--	--	
				11/02/82	1,240	2.76	--	60	15.5	(278)	
				10/29/84	2,280	5.08	--	--	--	--	
				10/24/85	1,280	2.86	--	61	16	152 (295)	
O-3	Bristow Spring	NE¼ sec. 3, T. 10 S., R. 8 E.	Tuscumbia Limestone and Fort Payne Chert	05/10/55	210	.47	612	--	--	--	--
				02/14/62	250	.56	--	61	16	(201)	
*R-01	Stanford Spring	SE¼ sec. 27, T. 11 S., R. 10 E.	Conasauga Formation	11/26/85	22	.05	--	63	17	125 (310)	Water-quality station.
				05/14/86	45	.10	--	65	18	125 (178)	
W-1	Sanford Spring	SW¼ sec. 3, T. 12 S., R. 10 E.	Knox Group undifferentiated	09/15/28	1,000	2.23	627	60	15.5	112	No. 67 in Johnson (1933, pt. 2, table 7).
				02/15/62	2,500	5.57	--	61	16	(201)	
X-4	Hendon Spring	NW¼ sec. 15, T. 12 S., R. 9 E.	Knox Group undifferentiated	09/15/28	850	1.89	655	60	15.5	106	No. 65 in Johnson (1933, pt. 2, table 7).
				02/15/62	480	1.07	--	61	16	--	

Chilton County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
G-01	Mineral Springs	SW¼ sec. 17, T. 23 N., R. 14 E.	Metamorphic rock (?)	--	--	--	--	--	--	--	Historic springs. Listed in Avrett (1968).

Choctaw County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
FF-01	Bladon Springs	NW¼ sec. 20, T. 9 N., R. 2 W.	Hatchetigbee Formation	< 1907	--	--	--	--	--	838; 832; 737; 900	Historic springs. Listed in Crook (1899), Smith (1907), and Fitch (1927). Located at Bladon Springs State Park.
				02/15/84	--	--	--	59	15	771 (1030)	

Appendix 1.--Basic data for springs in Alabama - Continued

Clarke County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
HH-4	Stave Creek Spring	NE¼ sec. 25, T. 7 N., R. 1 E.	Oligocene Series undifferentiated	09/14/66	10	0.02	85	67	19	(238)	--
*HH-6	Hoven Springs	SW¼ sec. 36, T. 7 N., R. 1 E.	Pliocene and Miocene Series; Oligocene Series	10/26/66	1,485	3.31	34	66	19	(144)	Water-quality and flow-measurement station.
				05/05/69	539	1.20	--	--	--	--	
				11/03/76	1,170	2.61	--	--	--	--	
				11/15/79	377	.84	--	--	--	--	
				11/04/80	1,560	3.48	--	--	--	--	
				10/30/81	1,140	2.54	--	--	--	--	
				04/14/82	1,120	2.50	--	--	--	--	
				11/01/84	1,580	3.52	--	68	20	(206)	
				11/06/85	1,250	2.78	--	66	19	92 (165)	
				06/18/86	1,090	2.43	--	68	20	92 (147)	
II-2	Gilmore Spring	SW¼ sec. 14, T. 7 N., R. 2 E.	Pliocene and Miocene Series, Oligocene Series	10/26/66	2,505	5.58	135	67	19	54	--
PP-7	Salt Mountain Spring	NE¼ sec. 33, T. 6 N., R. 2 E.	Oligocene Series	09/20/66	75	.17	64	66	19	(379)	--
SS-5	Oven Bluff Fishing Camp	NE¼ sec. 32, T. 5 N., R. 2 E.	Oligocene Series	09/21/66	50	.11	26	66	19	(199)	--

Clay County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
I-19	City of Ashland	NW¼ sec. 29, T. 20 S., R. 8 E.	Mica schist	12/17/68	30	0.07	1,055	70	21	(34)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Cleburne County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-2	Mrs. Pell Putnam	NW¼ sec. 10, T. 13 S., R. 11 E.	Chilhowee Group	07/22/70	188	0.42	814	60	15.5	128 (200)	--
D-4	Borden-Wheeler Springs	SE¼ sec. 10, T. 13 S., R. 11 E.	Chilhowee Group	07/22/70	70	.16	786	64	18	125 (231)	Former resort spring. Listed in Smith (1907, p. 80).
T-2	Bill Cavender	NE¼ sec. 29, T. 17 S., R. 11 E.	Mica schist	08/14/70	1	.002	1,350	59	15	(18)	--
T-3	Mrs. S. B. Lipman	NW¼ sec. 35, T. 17 S., R. 11 E.	Mica schist	09/01/70	1	.002	1,100	59	15	(52)	--
Y-01	Cheaha State Park	NE¼ sec. 4, T. 18 S., R. 8 E.	Quartzite	04/20/71	10	.02	--	--	--	(13)	--

Colbert County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-1	Spout Spring	NE¼ sec. 20, T. 2 S., R. 14 W.	Tuscaloosa Group undifferentiated	08/05/29	10	0.02	580	61.7	16.5	14	No. 40 in Johnson (1933, pt. 2, table 10).
E-4	Bethune Hollow Spring	SW¼ sec. 6, T. 3 S., R. 14 W.	Tuscaloosa Group undifferentiated	11/08/55	5	.01	550	58	14.5	(14)	--
*E-70	Buzzard Roost Spring	NW¼ sec. 32, T. 3 S., R. 14 W.	Tuscumbia Limestone	04/30/68	1,510	3.36	435	61	16	--	Water-quality and flow-measurement station.
				10/14/68	2,170	4.84	--	61	16	(285)	
				11/01/68	283	.63	--	61	16	(375)	
				05/07/69	1,510	3.37	--	61	16	--	
				11/05/69	305	.68	--	61	16	(470)	
				03/31/70	4,480	9.98	--	59	15	--	
				09/30/70	296	.66	--	61	16	--	
				04/20/71	1,490	3.31	--	--	--	--	
				04/24/73	7,090	15.8	--	59	15	--	
				04/09/74	3,090	6.88	--	60	15.5	--	
				10/22/74	207	.46	--	--	--	--	
				04/21/75	2,120	4.73	--	--	--	--	
				11/18/76	597	1.33	--	61	16	--	
				04/25/77	1,550	3.46	--	--	--	--	
				11/09/77	3,720	8.28	--	62	16.5	--	
				10/25/78	242	.54	--	--	--	--	
				04/05/79	1,600	3.56	--	--	--	--	
				05/01/80	1,710	3.81	--	59	15	(358)	
				11/04/80	224	.50	--	61	16	(419)	
				04/01/81	1,050	2.33	--	61	16	(387)	
				10/31/81	1,690	3.76	--	61	16	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Colbert County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*E-70 Cont'd	Buzzard Roost Spring	NW¼ sec. 32, T. 3 S., R. 14 W.	Tuscumbia Limestone	05/06/82	1,170	2.60	--	--	--	--	Water-quality and flow-measurement station.
				11/02/82	207	.46	--	--	--	--	
				10/31/84	1,170	2.60	--	--	--	--	
				10/21/85	427	.95	--	61	16	265 (464)	
F-7	Parker Spring	SE¼ sec. 7, T. 3 S., R. 13 W.	Tuscumbia Limestone	11/16/56	242	.54	420	61	16	(302)	Special project station. Estimated average discharge for period January 1956 to September 1959, 2,100 gpm (Harris and others, 1960).
H-15	Valley or TVA Spring	SW¼ sec. 18, T. 3 S., R. 10 W.	Fort Payne Chert	08/11/29	1,200	2.67	--	60.3	15.5	--	No. 42 in Johnson (1933, pt. 2, table 10).
				11/29/55	1,481	3.30	--	59	15	(221)	
I-5	Baker Bubbling Spring	SE¼ sec. 8, T. 3 S., R. 9 W.	Fort Payne Chert	10/26/55	85	.19	514	60	15.5	(132)	Special project station. Estimated average discharge for period March 1956 to November 1959, 140 gpm (Harris and others, 1960).
I-48	Pruitt Spring	NE¼ sec. 26, T. 3 S., R. 9 W.	Fort Payne Chert	09/15/55	1,000	2.23	515	63	17	(122) (119)	--
*M-20	Tuscumbia Springs or Big Spring (City of Tuscumbia)	NW¼ sec. 9, T. 4 S., R. 9 W.	Tuscumbia Limestone	08/06/29	200	.45	427	62.2	16.5	166	Major springs. Discharge from two openings. Operated as continuous-record gaging station 03590500, Tuscumbia Spring at Tuscumbia, Alabama, from November 1928 to April 1930 and January 1956 to September 1965. Average flow for period 1956-65, 65.1 ft^3/s (29,200 gpm) (U.S. Geological Survey, 1966). No. 48 in Johnson (1933, pt. 2, table 10). Water-quality station, and special project station (Alabama Geological Survey, 1986).
				12/28/55	7,300	16.3	--	--	--	--	
				01/08/74	37,700	84.0	--	59	15	192 (322)	
				09/17/85	18,400	41.0	--	63	17	256 (442)	
				10/01/85	15,900	35.4	--	61	16	259 (445)	
				11/12/85	22,200	49.4	--	63	17	287 (490)	
				02/06/86	8,710	19.4	--	59	15	341 (500)	
				03/19/86	26,400	58.9	--	59	15	300 (490)	
				03/21/86	28,200	62.7	--	59	15	284 (450)	
				05/28/86	22,400	50.0	--	63	17	252 (374)	
P-30	Williams Spring	SE¼ sec. 34, T. 4 S., R. 14 W.	Hartselle Sandstone	08/05/29	4	.009	620	62.2	16.5	393	No. 46 in Johnson (1933, pt. 2, table 10).
				09/27/55	1	.002	--	65	18	--	
P-01	Cherokee Spring	NW¼ sec. 1, T. 4 S., R. 14 W.	Pride Mountain Formation	08/03/29	50	.11	--	61.3	16	31	No. 44 in Johnson (1933, pt. 2, table 10).

Conecuh County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
BB-7	City of Castleberry	NW¼ sec. 23, T. 4 N., R. 10 E.	Pliocene and Miocene Series	09/03/65	15	0.03	212	69	20.5	167	--

Appendix 1.--Basic data for springs in Alabama - Continued

Covington County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
F-2	Town of Red Level	NW¼ sec. 11, T. 5 N., R. 14 E.	Lisbon Formation	09/02/65	>12.5	>0.03	--	--	--	114	--

De Kalb County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-2	Henry Kenimmer	SE¼ sec. 22, T. 3 S., R. 10 E.	Bangor Limestone	11/01/65	270	0.60	838	59	15	--	--
				03/06/67	3,200	7.13	--	58	14.5	(289)	
D-2	White Sulphur Springs	SW¼ sec. 10, T. 4 S., R. 10 E.	Fort Payne Chert	09/21/28	100	.22	900	--	--	--	Former mineral springs. Listed in Smith (1907) and Fitch (1927). No. 49 in Johnson (1933, pt. 2, table 13).
				11/01/65	25	.06	--	--	--	--	
D-6	Morgan Spring	SW¼ sec. 26, T. 4 S., R. 10 E.	Bangor Limestone	09/21/28	500	1.11	895	58	14.5	--	No. 50 in Johnson (1933, pt. 2, table 13).
				11/01/65	130	.29	--	--	--	--	
				03/06/67	410	.91	--	58	14.5	(262)	
J-1	Kaolin Spring	SW¼ sec. 3, T. 5 S., R. 10 E.	Bangor Limestone	09/21/29	225	.50	1,000	58	14.5	--	No. 51 in Johnson (1933, pt. 2, table 13).
				11/02/65	40	.09	--	--	--	--	
*J-3	Phillips Spring	SE¼ sec. 5, T. 5 S., R. 10 E.	Chickamauga Limestone	12/07/65	610	1.36	920	--	--	--	Water-quality and flow-measurement station.
				03/06/67	929	2.07	--	57	14	126 (230)	
				05/14/68	853	1.90	--	--	--	--	
				10/15/68	525	1.17	--	60	15.5	(250)	
				05/08/69	642	1.43	--	59	15	--	
				11/05/69	400	.89	--	50	10	(290)	
				03/18/70	503	1.12	--	57	14	--	
				10/02/70	449	1.00	--	59	15	(222)	
				04/14/71	817	1.82	--	59	15	(220)	
				04/17/73	929	2.07	--	59	15	--	
				04/10/74	970	2.16	--	59	15	--	
				10/21/74	674	1.50	--	59	15	(240)	
				04/01/75	1,360	3.02	--	60	15.5	(205)	
				11/02/76	736	1.64	--	--	--	--	
				04/14/77	1,130	2.52	--	59	15	(226)	
				11/08/77	1,150	2.56	--	62	16.5	(248)	
				10/25/78	660	1.47	--	59	15	(244)	
				11/01/79	606	1.35	--	60	15.5	(240)	
				04/22/80	1,120	2.50	--	60	15.5	(208)	
				12/04/80	718	1.60	--	60	15.5	(245)	
				05/08/81	669	1.49	--	61	16	(235)	
				10/20/81	611	1.36	--	59	15	(240)	
				11/21/81	808	1.80	--	--	--	--	
				11/06/85	422	.94	--	59	15	129 (275)	

Appendix 1.--Basic data for springs in Alabama - Continued

De Kalb County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*J-4	Gifford or Dixie Brown Spring	NW¼ sec. 8, T. 5 S., R. 10 E.	Knox Group undifferentiated	09/21/28	500	1.11	958	59	15	--	No. 52 in Johnson (1933, pt. 2, table 13).
				11/01/65	650	1.45	--	--	--	--	
				03/06/67	1,100	2.45	--	59	15	--	
				08/11/67	566	1.26	--	--	--	--	
				09/18/67	696	1.55	--	--	--	--	
J-12	Winston Spring	SW¼ sec. 29, T. 5 S., R. 10 E.	Fort Payne Chert	09/21/28	100	.22	1,000	59	15	149	No. 55 in Johnson (1933, pt. 2, table 13). Water-quality station.
				11/14/85	368	.82	--	61	16	150 (220)	
				06/05/86	314	.70	--	61	16	127 (184)	
M-1	Mary Ellis	SE¼ sec. 6, T. 6 S., R. 10 E.	Bangor Limestone	02/15/67	380	.85	1,040	56	13	(177)	--
*N-3	Allen Spring	NE¼ sec. 14, T. 6 S., R. 9 E.	Fort Payne Chert	09/21/28	900	2.00	930	60	15.5	165	No. 57 in Johnson (1933, pt. 2, table 13). Water-quality and flow-measurement station.
				11/02/65	480	1.07	--	--	--	--	
				03/06/67	3,700	8.24	--	58	14.5	137 (248)	
				05/14/68	2,260	5.04	--	--	--	--	
				10/15/68	584	1.30	--	61	16	(280)	
				05/08/69	2,240	5.00	--	57	14	--	
				11/05/69	498	1.11	--	48	9	(325)	
				03/18/70	2,130	4.74	--	59	15	--	
				10/02/70	597	1.33	--	59	15	(251)	
				04/14/71	3,210	7.15	--	58	14.5	(245)	
				04/17/73	3,430	7.64	--	58	14.5	--	
				04/10/74	3,490	7.77	--	58	14.5	--	
				10/21/74	521	1.16	--	58	14.5	--	
				04/01/75	4,530	10.1	--	59	15	--	
				11/03/76	723	1.61	--	--	--	--	
				04/14/77	3,970	8.85	--	58	14.5	(253)	
				11/08/77	4,530	10.1	--	61	16	(252)	
				10/25/78	427	.95	--	60	15.5	(276)	
				11/01/79	1,070	2.38	--	59	15	(290)	
				04/22/80	3,870	8.62	--	60	15.5	(236)	
				11/25/80	871	1.94	--	58	14.5	(318)	
				05/04/81	1,950	4.34	--	59	15	(235)	
				10/21/81	480	1.07	--	59	15	(280)	
				11/02/82	539	1.20	--	--	--	--	
				11/12/84	674	1.50	--	--	--	--	
				11/06/85	822	1.83	--	57	14	170 (350)	
N-4	Snodgrass Spring	NE¼ sec. 16, T. 6 S., R. 9 E.	Knox Group undifferentiated	09/22/28	925	2.06	875	59	15	121	No. 56 in Johnson (1933, pt. 2, table 13).
				11/02/65	940	2.09	--	--	--	--	
				03/06/67	1,500	3.34	--	58	14.5	121 (217)	
V-2	McCurdy Spring	NW¼ sec. 10, T. 7 S., R. 8 E.	Chickamauga Limestone	09/24/28	70	.16	900	60.5	16	--	No. 59 in Johnson (1933, pt. 2, table 13).
				11/03/65	10	.02	--	--	--	--	
W-1	Fort Payne Spring	NW¼ sec. 8, T. 7 S., R. 9 E.	Bangor Limestone	09/19/28	410	.91	875	62	16.5	240	No. 60 in Johnson (1933, pt. 2, table 13).
				03/06/67	870	1.94	--	58	14.5	211 (382)	

Appendix 1.--Basic data for springs in Alabama - Continued

De Kalb County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-2	Manitou Spring	NW¼ sec. 18, T. 7 S., R. 9 E.	Bangor Limestone	09/23/28	150	0.33	890	59	15	--	No. 61 in Johnson (1933, pt. 2, table 13).
				11/02/65	10	.02	--	--	--	--	
*GG-5	Reed Springs	NE¼ sec. 12, T. 9 S., R. 7 E.	Bangor Limestone	09/19/28	185	.41	715	--	--	--	No. 64 in Johnson (1933, pt. 2, table 13). Water-quality station.
				10/12/66	280	.62	--	58	14.5	(278)	
				11/14/85	58	.13	--	63	17	162 (330)	
				06/05/86	0	0	--	63	17	201 (289)	
GG-8	T. C. Cunningham	NE¼ sec. 22, T. 9 S., R. 7 E.	Bangor Limestone	11/08/65	150	.33	780	--	--	--	--
				03/06/67	1,290	2.87	--	58	14.5	119 (208)	

Elmore County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
G-2	Jake Lewis	SE¼ sec. 12, T. 19 N., R. 17 E.	Terrace deposits	08/28/69	150	0.33	275	61	16	(50)	--
H-6	Don Curlee	NW¼ sec. 24, T. 19 N., R. 18 E.	Terrace deposits	08/28/68	250	.56	283	68	20	(37)	--

Escambia County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*A-27	McCreary Spring	SE¼ sec. 19, T. 3 N., R. 13 E.	Terrace deposits	04/15/71	379	0.84	135	--	--	--	Water-quality and flow-measurement station.
				10/15/74	0	0	--	--	--	--	
				04/02/75	0	0	--	--	--	--	
				11/03/76	0	0	--	--	--	--	
				04/06/77	0	0	--	--	--	--	
				11/19/77	898	2.00	--	--	--	--	
				11/15/78	0	0	--	--	--	--	
				11/16/79	112	.25	--	--	--	--	
				11/28/80	0	0	--	--	--	--	
				11/15/81	332	.74	--	--	--	--	
				11/06/84	75	.17	--	--	--	--	
				11/19/85	148	.33	--	68	20	101 (240)	
				06/18/86	90	.20	--	72	22	104 (162)	

Appendix 1.--Basic data for springs in Alabama - Continued

Escambia County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-158	A. J. Lister	NW¼ sec. 18, T. 1 N., R. 9 E.	Citronelle Formation	12/27/71	105	0.23	125	68	20	(1,120)	Oil-field monitoring spring (1971-78). Monitoring records in GSA Water Resources Division files.
				01/31/72	70	.16	--	66	19	(800)	
				02/28/72	78	.17	--	68	20	(1,020)	
				03/29/72	55	.12	--	--	--	(1,510)	
				04/26/72	54	.12	--	66	19	(444)	
				05/24/72	87	.19	--	72	22	(1,320)	
				06/28/72	54	.12	--	74	23	(1,650)	
				09/27/72	34	.08	--	71	21.5	(609)	
				11/28/72	300	.67	--	--	--	(1,420)	
				01/02/73	50	.11	--	--	--	--	
				01/25/73	54	.12	--	66	19	(1,180)	
				04/04/73	70	.16	--	66	19	(13,000)	
				06/07/73	57	.13	--	70	21	(1,160)	
				09/12/73	35	.08	--	72	22	(1,140)	
				10/05/73	70	.16	--	71	21.5	(1,090)	
				11/26/73	70	.16	--	70	21	(1,130)	
				12/09/73	70	.16	--	68	20	(1,160)	
				01/31/74	70	.16	--	68	20	(1,040)	
				03/01/74	86	.19	--	66	19	(1,030)	
				05/02/74	6	.15	--	71	21.5	(917)	
				06/05/74	74	.16	--	71	21.5	(785)	
				08/08/74	70	.16	--	--	--	(850)	
				09/06/74	62	.14	--	71	21.5	(738)	
				10/03/74	70	.16	--	66	19	(713)	
				11/07/74	55	.12	--	67	19.5	(724)	
				12/03/74	70	.16	--	65	18.5	(967)	
				01/10/75	70	.16	--	69	20.5	(574)	
				02/14/75	105	.23	--	68	20	(565)	
				03/20/75	78	.17	--	68	20	(855)	
				05/02/75	70	.16	--	70	21	(608)	
				06/12/75	70	.16	--	70	21	(978)	
				07/17/75	70	.16	--	72	22	(674)	
				08/21/75	105	.23	--	72	22	(699)	
				10/20/76	60	.13	--	66	19	(460)	
				09/09/77	100	.22	--	72	22	(420)	
				02/08/78	100	.22	--	63	17	(440)	
				10/12/78	100	.22	--	70	21	(440)	
				11/15/78	50	.11	--	72	22	(290)	

Appendix 1.--Basic data for springs in Alabama - Continued

Escambia County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-170	A. J. Lister	NE¼ sec. 13, T. 1 N., R. 8 E.	Citronelle Formation	12/27/71	11	.02	125	68	20	(5,100)	Oil-field monitoring spring (1971-77). Monitoring records in GSA Water Resources Division files.
				01/31/72	11	.02	--	66	19	(4,280)	
				02/28/72	11	.02	--	64	18	(4,730)	
				04/26/72	11	.02	--	66	19	(4,560)	
				05/24/72	6	.01	--	71	21.5	(4,750	
				08/29/72	8	.02	--	--	--	(4,550)	
				09/27/72	2.7	.01	--	--	--	(4,300)	
				10/30/72	6	.01	--	71	21.5	(4,170)	
				11/28/72	9.5	.02	--	66	19	(3,800)	
				12/18/72	20	.04	--	66	19	(4,110)	
				01/25/73	8.4	.02	--	66	19	(3,710)	
				02/27/73	11	.02	--	65	18.5	(3,420)	
				04/04/73	17	.04	--	66	19	(4,000)	
				05/03/73	10.8	.02	--	70	21	(4,250)	
				06/07/73	12	.03	--	72	22	(4,220)	
				06/29/73	10.8	.02	--	77	25	(4,340)	
				09/12/73	8.4	.02	--	--	--	(4,030)	
				10/05/73	10.8	.02	--	71	21.5	(4,260)	
				10/30/73	6.0	.01	--	--	--	(4,080)	
				11/26/73	8.5	.02	--	72	22	(3,790)	
				12/19/73	7.2	.02	--	64	18	(3,830)	
				01/30/74	16.9	.04	--	68	20	(3,130)	
				02/28/74	11.5	.03	--	66	19	(3,840)	
				05/02/74	8.4	.02	--	72	22	(3,845)	
				06/04/74	11	.02	--	72	22	(3,776)	
				08/08/74	8.3	.02	--	--	--	(3,512)	
				09/06/74	8.5	.02	--	72	22	(3,930)	
				10/03/74	4.5	.01	--	70	21	(3,700)	
				11/07/74	3.9	.01	--	64	18	(3,590)	
				12/03/74	5.8	.01	--	61	16	(3,430)	
				01/10/75	8.4	.02	--	67	19.5	(3,170)	
				02/14/75	8.5	.02	--	66	19	(3,800)	
				03/20/75	10.8	.02	--	66	19	(2,970)	
				05/02/75	8.5	.02	--	70	21	(3,390	
				06/20/75	5.8	.01	--	72	22	(3,010)	
				07/17/75	7.2	.02	--	72	22	(3,174)	
				08/21/75	10.8	.02	--	74	23	(3,120)	
				09/30/75	11	.02	--	72	22	(3,350)	
				11/06/75	11	.02	--	70	21	(3,700)	
				12/03/75	6	.01	--	--	--	(3,200)	
				01/09/76	11	.02	--	59	15	(3,200)	
				01/29/76	11.2	.02	--	61	16	(3,650)	
				03/10/76	11	.02	--	66	19	(3,700)	
				04/29/76	8.4	.02	--	--	--	(4,000)	
				05/26/76	4	.01	--	72	22	(3,200)	
				07/08/76	14	.03	--	72	22	(3,800)	
				08/25/76	8.4	.02	--	72	22	(3,900)	

Appendix 1.--Basic data for springs in Alabama - Continued

Escambia County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-170 Cont'd	A. J. Lister	NE¼ sec. 13, T. 1 N., R. 8 E.	Citronelle Formation	09/23/76	8.4	0.02	--	68	20	(3,600)	Oil-field monitoring spring (1971-77). Monitoring records in GSA Water Resources Division files.
				10/20/76	3.8	.01	--	68	20	(3,310)	
				12/03/76	8	.02	--	59	15	(2,130)	
				12/29/76	8	.02	--	63	17	(3,100)	
				02/04/77	8	.02	--	61	16	(2,560)	
				03/17/77	8	.02	--	63	17	(2,650)	
				04/21/77	8	.02	--	66	19	(2,900)	
				05/19/77	10	.02	--	68	20	(3,000)	
				06/17/77	15	.03	--	75	24	(2,890)	
				09/09/77	10	.02	--	81	27	(2,020)	

Etowah County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-13	Yancey Spring	NE¼ sec. 11, T. 10 S, R. 6 E.	Knox Group undifferentiated	08/20/28	200	0.45	--	62	16.5	--	No. 43 in Johnson (1933, pt. 2, table 15).
C-24	Duck Springs	NW¼ sec. 22, T. 10 S., R. 6 E.	Knox Group undifferentiated	09/30/28	50	.11	598	61	16	--	No. 44 in Johnson (1933, pt. 2, table 15).
				05/23/60	300	.67	--	61	16	--	
*H-25	Cove Spring	SW¼ sec. 6, T. 11 S., R. 4 E.	Bangor Limestone (?)	11/09/76	691	1.54	855	--	--	--	Partial record station in 1964 and 1968. Operated as continuous-record gaging station 02454420, Cove Spring near Walnut Grove, Alabama, from October 1969 to September 1974. Average discharge for period 1969-74, 2.10 ft^3/s (943 gpm) (U.S. Geological Survey, 1974). Water-quality and flow-measurement station.
				04/15/77	1,360	3.03	--	--	--	--	
				11/07/77	1,720	3.84	--	--	--	--	
				10/26/78	763	1.70	--	--	--	--	
				10/30/78	885	1.97	--	--	--	--	
				10/30/79	876	1.95	--	--	--	--	
				05/06/80	1,230	2.73	--	58	14.5	(206)	
				11/19/80	665	1.48	--	59	15	(246)	
				04/28/81	1,230	2.74	--	59	15	(220)	
				10/21/81	786	1.75	--	--	--	(270)	
				11/03/82	674	1.50	--	--	--	--	
				10/31/84	768	1.71	--	--	--	--	
				11/14/85	1,210	2.70	--	61	16	140 (250)	
				06/05/86	584	1.30	--	61	16	160 (214)	

Appendix 1.--Basic data for springs in Alabama - Continued

Etowah County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
I-18	Joe Ross	NW¼ sec. 27, T. 11 S., R. 5 E.	Knox Group undifferentiated	05/23/60	450	1.00	543	61	16	(234)	--
I-22	Attalla Spring	SW¼ sec. 35, T. 11 S., R. 5 E.	Pride Mountain Formation	08/30/28 05/03/60	300 250	.67 .56	542 --	64 59	18 15	179 (197)	No. 47 in Johnson (1933, pt. 2, table 15).
J-24	Hooks Lake Spring	NW¼ sec. 25, T. 11 S., R. 6 E.	Knox Group undifferentiated	08/12/28	300	.67	552	61	16	176 --	No. 50 in Johnson (1933, pt. 2, table 15).
K-4	Boy Scouts Spring	SW¼ sec. 4, T. 11 S., R. 7 E.	Fort Payne Chert	08/10/28 10/15/59	200 10	.45 .02	574 --	60 60	15.5 15.5	138 --	No. 51 in Johnson (1933, pt. 2, table 15).
K-5	Chappell Spring	NE¼ sec. 8, T. 11 S., R. 7 E.	Fort Payne Chert	08/12/28 05/23/60	400 510	.89 1.14	580 --	59 59	15 15	-- --	No. 52 in Johnson (1933, pt. 2, table 15).
K-16	Anderson Spring	NE¼ sec. 20, T. 11 S., R. 7 E.	Knox Group undifferentiated	08/10/28 05/23/60	150 330	.33 .73	515 --	62 62	16.5 16.5	-- --	No. 53 Johnson (1933, pt. 2, table 15).
*N-16	Tawana Spring	SE¼ sec. 23, T. 12 S., R. 7 E.	Knox Group undifferentiated	11/26/85 05/14/86	1,690 770	3.76 1.71	570 --	66 63	19 17	111 (260) 112 (161)	Water-quality station.
*N-25	LaGard, Glenco, Big, or Jeffers Spring	NW¼ sec. 32, T. 12 S., R. 7 E.	Knox Group undifferentiated	08/13/28 05/23/60 11/26/85 05/14/86	500 1,600 1,690 0	1.11 3.56 3.76 0	543 -- -- --	61 61 65 63	16 16 18 17	-- (239) 136 (320) 137 (192)	No. 57 in Johnson (1933, pt. 2, table 15). Water-quality station.
N-26	Rock Spring	SW¼ sec. 33, T. 12 S., R. 7 E.	Knox Group undifferentiated	08/13/28 05/23/60	100 150	.22 .33	571 --	62 62	16.5 16.5	-- --	No. 59 in Johnson (1933, pt. 2, table 15).
O-2	Ice Company Spring	NW¼ sec. 3, T. 12 S., R. 6 E.	Knox Group undifferentiated	08/12/28 10/15/59	500 250	1.11 .56	515 --	61 --	16 --	117 --	No. 54 in Johnson (1933, pt. 2, table 15).
O-11	Country Club Spring	NE¼ sec. 21, T. 12 S., R. 6 E.	Conasauga Formation	08/12/28 09/02/59	200 200	.45 .45	511 --	62 --	16.5 --	144 --	No. 55 in Johnson (1933, pt. 2, table 15).
O-16	Spurlock Spring	SW¼ sec. 28, T. 12 S., R. 6 E.	Knox Group undifferentiated	08/13/28 05/24/60	75 30	.17 .07	590 --	60 --	15.5 --	--	No. 56 in Johnson (1933, pt. 2, table 15).

Fayette County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-6	J. M. Shores	NE¼ sec. 36, T. 13 S., R. 12 W.	Coker Formation	06/22/66	0.9	0.002	532	62	16.5	(23)	--
B-9	J. F. Kelly	SW¼ sec. 36, T. 13 S., R. 12 W.	Coker Formation	06/23/66	3.6	.01	474	63	17	(41)	--
D-6	C. C. Holliman	NE¼ sec. 32, T. 14 S., R. 13 W.	Gordo Formation	08/08/66	.1	.0002	463	63	17	(20)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Fayette County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-5	Housh Spring	NW¼ sec. 33, T. 14 S., R. 12 W.	Coker Formation	09/08/29 06/03/66	10 8	0.02 .02	420 --	64.6 --	18 --	-- --	No. 42 in Johnson (1933, pt. 2, table 17).
J-7	W. B. Newton	SW¼ sec 27, T. 15 S., R. 12 W.	Coker Formation	08/25/66	5	.01	380	63	17	(11)	--
K-3	Alvin Walton	SE¼ sec. 12, T. 15 S., R. 13 W.	Coker Formation	08/25/66	.5	.001	350	64	18	(18)	--
K-4	Henry S. Hall	SE¼ sec. 18, T. 15 S., R. 13 W.	Coker Formation	08/09/66	.5	.001	422	63	17	(18)	--
L-3	Elmer Watkins	SW¼ sec. 5, T. 16 S., R. 13 W.	Coker Formation	08/24/66	.12	.0003	373	64	18	(20)	--
L-8	Grady Newman	NW¼ sec. 20, T. 16 S., R. 13 W.	Coker Formation	06/13/65	2.4	.01	377	63	17	(20)	--
M-10	Wallace Spring	SW¼ sec. 19, T. 16 S., R. 12 W.	Coker Formation	09/10/29 08/09/66	3 1.3	.01 .003	341 --	63.4 --	17 --	-- --	No. 45 in Johnson (1933, pt. 2, table 17).
M-14	L. T. Hughs	NW¼ sec. 28, T. 16 S., R. 12 W.	Coker Formation	08/10/66	.5	.001	382	62	16.5	(12)	--
M-01	Cannon Spring	SW¼ sec. 7, T. 16 S., R. 12 W.	Coker Formation	09/10/29	10	.02	--	63.8	18	24	No. 43 in Johnson (1933, pt. 2, table 17).
N-4	Marshall Nolen	NW¼ sec. 19, T. 16 S., R. 11 W.	Coker Formation	08/25/66	1.2	.003	404	62	16.5	(24)	--
P-2	Albert Baird	SW¼ sec. 19, T. 16 S., R. 9 W.	Coker Formation	08/22/66	.5	.001	632	64	18	(36)	Coker Formation.
Q-6	J. W. Oswalt	NW¼ sec. 30, T. 17 S., R. 11 W.	Coker Formation	08/09/66	.1	.0002	452	63	17	(28)	Coker Formation.
R-1	Turner Spring	NE¼ sec. 6, T. 17 S., R. 12 W.	Coker Formation	09/10/29 06/13/66	5 2.3	.01 .01	337 --	63.9 62	17.5 16.5	-- (22)	No. 50 in Johnson (1933, pt. 2, table 17).
R-5	Dauphus Hughs	NW¼ sec. 26, T. 17 S., R. 12 W.	Coker Formation	08/09/66	<1	<.002	341	62	16.5	(34)	--
R-7	Newtonville School	SW¼ sec. 29, T. 17 S., R. 12 W.	Coker Formation	06/13/66	2	.004	421	63	17	(36)	--
S-9	George Hall	SW¼ sec. 36, T. 17 S., R. 13 W.	Coker Formation	08/08/66	.5	.001	373	63	17	(41)	--

Franklin County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-26	Good Spring	SW¼ sec. 9, T. 6 S., R. 11 W.	Bangor Limestone	11/12/59 03/16/65 08/18/65	26 211 49	0.06 .47 .11	720 -- --	62 -- --	16.5 -- --	-- -- --	--
B-125	Waco Spring	SW¼ sec. 3, T. 6 S., R. 11 W.	Tuscaloosa Group	11/13/59	5	.01	740	60	15.5	(69)	--
D-10	Frankfort School	SE¼ sec. 12, T. 6 S., R. 13 N.	Tuscaloosa Group	12/03/59 02/16/60 03/30/60 05/23/60 07/19/60	2 13 17 10 1	.004 .03 .04 .02 .002	800 -- -- -- --	59 -- -- -- --	15 -- -- -- --	-- -- -- -- --	--

Appendix 1.--Basic data for springs in Alabama - Continued

Franklin County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
J-4	Tile Spring	NW¼ sec. 9, T. 7 S., R. 12 W.	Bangor Limestone	08/08/29	3	0.01	700	62	16.5	--	No. 42 in Johnson (1933, pt. 2, table 19).
				12/01/59	130	.29	--	--	--	--	
J-5	Rockwood Spring	NW¼ sec. 15, T. 7 S., R. 12 W.	Bangor Limestone	08/08/29	200	.45	660	61.6	16.5	180	No. 43 in Johnson (1933, pt. 2, table 19).
				11/24/59	45	.10	--	--	--	--	
Q-01	Williams Spring	NW¼ sec. 18, T. 8 S., R. 14 W.	Tuscaloosa Group	08/07/29	3	.01	--	62.4	17	53	No. 44 in Johnson (1933, pt. 2, table 19).
*R-5	Good Spring	SE¼ sec. 16, T. 8 S., R. 15 W.	Tuscaloosa Group	07/07/60	35	.08	540	61.5	16.5	--	Water-quality station.
				11/12/85	27	.06	--	64	18	14 (16)	
				06/03/86	5	.01	--	63	17	15 (14)	

Geneva County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*J-1	Coffee Springs	SW¼ sec. 1, T. 2 N., R. 21 E.	Lisbon Formation	09/21/65	200	0.45	178	--	--	105	Former resort spring. Listed in Fitch (1927, p. 212). Water-quality and flow-measurement station.
				04/14/71	355	.79	--	--	--	--	
				04/02/74	0	0	--	--	--	--	
				10/22/74	233	.52	--	--	--	--	
				04/02/75	0	0	--	--	--	--	
				10/03/76	0	0	--	--	--	--	
				11/09/77	449	1.00	--	--	--	--	
				11/15/78	269	.60	--	--	--	--	
				11/16/79	242	.54	--	--	--	--	
				04/28/80	224	.50	--	--	--	--	
				11/05/80	224	.50	--	--	--	--	
				11/04/81	112	.25	--	--	--	--	
				04/20/82	224	.50	--	--	--	--	
				11/09/82	449	1.00	--	--	--	--	
				11/15/84	337	.75	--	--	--	--	
				11/19/85	485	1.08	--	73	23	94 (210)	
				06/10/86	530	1.18	--	77	25	104 (160)	

Appendix 1.--Basic data for springs in Alabama - Continued

Hale County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-3	Robert McCray	SE¼ sec. 4, T. 23 N., R. 5 E.	Gordo Formation	09/09/57	0.5	0.001	--	68	20	--	--
H-2	U.S. Forestry Service	NE¼ sec. 14, T. 22 N., R. 6 E.	Gordo Formation	11/26/63 07/04/86	1.3 3	.003 .01	294 --	-- --	-- --	-- --	Located at Payne Lake Park.

Henry County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-1	J. F. Belcher	NE¼ sec. 6, T. 8 N., R. 28 E.	Tallahatta and Hatchetigbee Formations undifferentiated	04/12/65	8	0.02	494	69	20.5	--	--
I-2	J. E. Cummings	NE¼ sec. 4, T. 7 N., R. 29 E.	Tallahatta and Hatchetigbee Formations undifferentiated	12/09/64	10	.02	312	66	19	--	--

Appendix 1.--Basic data for springs in Alabama - Continued

Houston County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*T-6	Bazemore Mill Spring	NW¼ sec. 25, T. 1 N., R. 28 E.	Crystal River and Moody's Branch Formation undifferentiated	04/13/66	6,200	13.8	141	--	--	--	Water-quality and flow-measurement station.
				05/07/66	1,930	4.30	--	--	--	--	
				04/14/71	4,850	10.8	--	--	--	--	
				04/04/74	4,760	10.6	--	--	--	--	
				12/03/74	902	2.01	--	--	--	--	
				04/01/75	5,750	12.8	--	--	--	--	
				11/02/76	3,420	7.61	--	--	--	--	
				06/30/77	3,540	7.88	--	--	--	--	
				11/08/77	8,080	18.0	--	--	--	--	
				11/14/78	705	1.57	--	--	--	--	
				11/15/79	4,380	9.76	--	--	--	--	
				04/28/80	4,940	11.0	--	--	--	--	
				10/14/80	2,210	4.92	--	--	--	--	
				04/07/81	3,740	8.33	--	--	--	--	
				05/20/81	0	0	--	--	--	--	
				11/05/81	0	0	--	--	--	--	
				10/29/81	0	0	--	--	--	--	
				11/20/85	0	0	--	72	22	134 (320)	
				06/11/86	0	0	--	73	23	132 (225)	

Jackson County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-1	Gildan Spring	SW¼ sec. 1, T. 1 S., R. 7 E.	Monteagle Limestone	04/12/71	650	1.45	630	54	12.5	(187)	--
				02/27/86	450	1.00	--	57	14	93 (171)	
C-2	Blue Spring	SE¼ sec. 2, T. 1 S., R 7 E.	Monteagle Limestone	04/12/71	750	1.67	620	54	12.5	(174)	--
				02/27/86	153	.34	--	57	14	90 (170)	
*C-4	Bridgeport Spring	NW¼ sec. 11, T. 1 S., R. 7 E.	Bangor Limestone	09/17/28	200	.45	860	56.8	13.5	138	No. 56 in Johnson (1933 pt. 2, table 21). Water-quality station.
				04/14/71	900	2.00	--	55	12.5	(164)	
				10/30/85	63	.14	--	61	16	117 (210)	
				02/27/86	0	0	--	55	13	85 (161)	
				05/27/86	0	0	--	64	18	103 (151)	
C-5	Blue Spring	SW¼ sec. 16, T. 1 S., R. 7 E.	Monteagle Limestone	04/04/71	7,000	15.6	620	--	--	--	--
				11/10/71	1,250	2.78	--	55	13	101 (197)	
				02/27/86	0	0	--	55	13	135 (247)	

Appendix 1.--Basic data for springs in Alabama - Continued

Jackson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-9	Widows Creek Spring	SW¼ sec. 35, T. 1 S., R. 7 E.	Knox Group undifferentiated	04/01/66	500	1.11	600	55	13	116 (199)	--
				03/11/86	100	.22	--	--	--	--	
E-2	Champion Spring	NW¼ sec. 15, T. 1 S., R. 6 E.	Tuscumbia Limestone	09/29/28	900	2.00	680	--	--	--	No. 54 in Johnson (1933, pt. 2, table 21).
				05/09/68	2,760	6.15	--	55	13	(198)	
				10/14/68	215	.48	--	--	--	--	
				05/07/69	2,040	4.54	--	--	--	--	
				11/05/69	275	.61	--	--	--	--	
				03/17/70	7,800	17.4	--	--	--	--	
				04/12/71	7,000	15.6	--	51	11	(178)	
				11/20/71	600	1.34	--	55	13	(211)	
				02/05/86	21,680	48.3	--	54	12	146 (260)	
E-3	Cave Spring	SW¼ sec. 35, T. 1 S., R. 6 E.	Tuscumbia Limestone	09/29/28	250	.56	630	59.3	15	166	No. 55 in Johnson (1933, pt. 2, table 21).
				04/12/71	1,050	2.34	--	54	12.5	(170	
				11/10/71	10	.02	--	55	13	131 (200)	
				02/05/86	705	1.57	--	--	14	172 (310)	
I-1	U.S. Plywood Champion Paper Co.	NE¼ sec. 2, T. 2 S., R. 3 E.	Tuscumbia Limestone	04/09/71	6,500	14.5	700	60	15.5	(219)	--
				11/10/71	5	.01	--	60	15.5	(350)	
				01/28/86	2,500	5.57	--	59	15	187 (340)	
I-2	Floyd Langston	SW¼ sec. 33, T. 2 S., R. 3 E.	Tuscumbia Limestone	04/09/71	7,000	15.6	680	60	15.5	(143)	--
				11/10/71	290	.65	--	59	15	(196)	
				01/28/86	150	.33	--	55	13	124 (220)	
J-7	Beason Spring	SW¼ sec. 30, T. 2 S., R. 4 E.	Tuscumbia Limestone	09/28/28	100	.22	660	--	--	--	No. 57 in Johnson (1933, pt. 2, table 21).
				04/09/71	1,100	2.45	--	55	13	(227)	
				11/10/71	25	.06	--	55	13	166 (238)	
				01/31/86	1,248	2.78	--	57	14	163 (290)	
L-1	J. D. McCrary	SW¼ sec. 9, T. 2 S., R. 6 E.	Tuscumbia Limestone	04/12/71	6,000	13.4	620	51	10.5	(190)	--
				11/10/71	1,900	4.23	--	57	14	(245)	
L-2	McCrary Spring	SW¼ sec. 9, T. 2 S., R. 6 E.	Tuscumbia Limestone	04/12/71	16,000	35.6	630	51	10.5	(153)	--
				11/10/71	5	.01	--	--	--	--	
				10/30/84	709	1.58	--	--	--	--	
				02/26/86	6,000	13.4	--	55	13	76 (149)	
L-4	Orec Steel	NW¼ sec. 14, T. 2 S., R. 6 E.	Monteagle Limestone	04/12/71	1,950	4.34	640	51	10.5	(117)	--
				02/26/86	2,800	6.24	--	55	13	68 (129)	
*N-2	Brown Spring	NE¼ Bengis Reservation, T. 2 S., R. 8 E.	Monteagle Limestone	04/01/66	1,940	4.33	620	58	14.5	(228)	Water-quality and flow-measurement station.
				06/13/68	2,040	4.54	--	58	14.5	(265)	
				10/14/68	233	.52	--	60	15.5	(330)	
				05/07/69	2,260	5.04	--	57	14	--	
				11/05/69	319	.71	--	51	10	(370)	
				03/17/70	4,670	10.4	--	49	9	--	
				10/02/70	251	.56	--	--	--	(319)	
				04/14/71	3,700	8.32	--	56	13.5	(213)	
				04/17/73	4,460	9.93	--	57	14	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Jackson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*N-2 Cont'd	Brown Spring	NE¼ Bengis Reservation, T. 2 S., R. 8 E.	Monteagle Limestone	04/10/74	5,930	13.2	--	--	--	--	Water-quality and flow-measurement station.
				10/24/74	871	1.94	--	--	--	--	
				11/02/76	1,940	4.33	--	--	--	--	
				04/14/77	6,510	14.5	--	61	16	(357)	
				11/08/77	9,830	21.9	--	61	16	(305)	
				10/25/78	175	.39	--	59	15	(335)	
				11/01/79	1,960	4.36	--	--	--	--	
				04/22/80	6,380	14.2	--	--	--	(227)	
				11/21/80	1,020	2.28	--	59	15	(322)	
				04/15/81	1,710	3.81	--	58	14.5	(357)	
				10/20/81	409	.91	--	60	15.5	(350)	
				11/01/82	540	1.20	--	--	--	--	
				10/25/84	5,570	12.4	--	--	--	--	
				11/06/85	979	2.18	--	57	14	184 (300)	
				02/27/86	4,330	9.64	--	57	14	134 (242)	
N-3	Mountain or Balm Spring	SW¼ sec. 7, T. 2 S., R. 8 E.	Bangor Limestone	09/23/29	30	.07	600	58.6	15	--	No. 58 in Johnson (1933, pt. 2, table 21).
				04/15/71	100	.22	--	54	13.5	(224)	
				03/18/86	139	.31	--	57	14	134 (238)	
N-7	Prince Spring	NE¼ sec. 18, T. 2 S., R. 8 E.	Monteagle Limestone	04/01/66	1,860	4.14	600	59	15	(256)	--
				04/14/71	1,650	3.67	--	58	14.5	(248)	
				03/13/86	826	1.84	--	--	--	210 (364)	
N-18	Norwood Spring	NW¼ sec. 26, T. 2 S., R. 8 E.	Monteagle Limestone	03/31/66	350	.79	620	--	--	--	--
				03/11/86	880	1.96	--	57	14	138 (230)	
O-1	Gross Spring	SW¼ sec. 10, T. 2 S., R. 9 E.	Monteagle Limestone	04/13/71	1,800	4.01	680	52	11	(101)	--
T-1	Houston Spring	NE¼ sec. 2, T. 3 S., R. 6 E.	Monteagle Limestone	04/08/71	1,450	3.23	630	56	13.5	(283)	--
				11/10/71	25	.06	--	--	--	--	
				02/26/86	400	.89	--	59	15	160 (296)	
T-2	Kyles Spring	NW¼ sec. 10, T. 3 S., R. 6 E.	Monteagle Limestone	04/07/71	18,500	41.2	610	52	11.5	(138)	--
				11/10/71	450	1.00	--	57	14	(200)	
				02/26/86	11,600	25.8	--	57	14	81 (151)	
T-4	Robinson Spring	NW¼ sec. 19, T. 3 S., R. 6 E.	Monteagle Limestone	04/08/71	20,000	44.5	620	53	12	(242)	--
				11/10/71	750	1.67	--	--	--	--	
				10/30/84	4,090	9.12	--	--	--	--	
				02/04/86	4,440	9.89	--	57	14	187 (330)	
T-5	H. T. Foster	NE¼ sec. 19, T. 3 S., R. 6 E.	Monteagle Limestone	04/08/71	14,000	31.2	620	54	12.5	(265)	--
				11/10/71	20	.04	--	61	16	(249)	
				02/04/86	1,880	4.19	--	52	11	235 (410)	
U-7	Selby Spring	NW¼ sec. 31, T. 3 S., R. 5 E.	Monteagle Limestone	04/13/71	1,500	3.34	660	55	13	(153)	--
				03/12/86	373	.83	--	55	13	97 (180)	
V-3	Blue Spring	NE¼ sec. 27, T. 3 S., R. 4 E.	Tuscumbia Limestone	04/09/71	7,500	16.7	640	61	16	(140)	--
				11/10/71	400	.89	--	59	15	(204)	
				02/20/86	12,200	27.1	--	55	13	81 (145)	

Appendix 1.--Basic data for springs in Alabama - Continued

Jackson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
X-3	Cole Spring	SE¼ sec. 18, T. 4 S., R. 3 E.	Tuscumbia Limestone	04/08/71	2,250	5.01	610	57	14	(265)	--
				01/27/86	200	.45	--	50	10	--	
X-4	Haley Spring	NE¼ sec. 21, T. 4 S., R. 3 E.	Tuscumbia Limestone	03/02/71	2,000	4.45	600	57	14	(209)	--
				01/28/86	660	1.47	--	55	13	199 (350)	
Y-2	Isabelle Spring	SE¼ sec. 15, T. 4 S., R. 4 E.	Monteagle Limestone	09/28/28	150	.33	630	58.2	14.5	138	No. 62 in Johnson (1933, pt. 2, table 21).
				04/08/71	2,400	5.35	--	57	14	(164)	
				05/27/71	862	1.92	--	56	13.5	109 (194)	
				01/30/86	--	--	--	53	12	116 (210)	
Z-2	Blue Spring	SE¼ sec. 19, T. 4 S., R. 5 E.	Monteagle Limestone	03/03/71	4,500	10.0	610	61	16	(238)	--
				03/12/86	6,310	14.1	--	57	14	160 (296)	
GG-3	Chisenhall Spring	NE¼ sec. 21, T. 5 S., R. 6 E.	Bangor Limestone	04/13/71	390	.87	600	54	12.5	(144)	--
				03/18/86	25	.06	--	--	--	--	
JJ-2	Blue Spring	SE¼ sec. 4, T. 5 S., R. 3 E.	Monteagle Limestone	11/10/71	2,650	5.90	600	61	16	(340)	--
				04/01/86	4,370	9.73	--	59	15	210 (390)	

Jefferson County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
I-1	Penny Spring	SW¼ sec. 29, T. 15 S., R. 1 W.	Knox Group undifferentiated	08/13/28	500	1.11	700	65	18.5	--	No. 95 in Johnson (1933, pt. 2, table 23). Miscellaneous flow-measurement station (1968-71, 1973-76).
				03/14/57	2,500	5.57	--	--	--	--	
				06/17/68	2,200	4.90	--	--	--	--	
				10/14/68	1,500	3.34	--	--	--	--	
				05/05/69	2,350	5.23	--	--	--	--	
				11/06/69	1,480	3.30	--	--	--	--	
				03/27/70	3,120	6.95	--	--	--	--	
				09/29/70	1,360	3.03	--	--	--	--	
				04/16/71	2,400	5.35	--	--	--	--	
				04/18/73	2,970	6.61	--	--	--	--	
				04/08/74	3,220	7.17	--	--	--	--	
				03/31/75	3,500	7.80	--	--	--	--	
				11/05/76	1,750	3.90	--	--	--	--	
				02/18/77	2,400	5.35	--	62	16.5	(268)	
				04/15/77	3,880	8.64	--	--	--	--	
				06/08/77	3,100	6.90	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Jefferson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
L-15	Pine Hill Sanitarium	SE¼ sec. 8, T. 16 S., R. 1 W.	Knox Group undifferentiated	03/02/77	210	0.47	790	58	14.5	(195)	--
				06/08/77	50	.11	--	--	--	--	
L-19	Harvey Spring	SW¼ sec. 20, T. 16 S., R. 1 W.	Ketona Dolomite	06/07/77	1,150	2.56	735	63	17	(285)	--
*M-5	Caldwell or Robinwood Spring	NW¼ sec. 27, T. 16 S., R. 2 W.	Knox Group undifferentiated	08/15/28	200	.45	605	--	--	--	No. 101 in Johnson (1933, pt. 2, table 23). Water-quality and flow-measurement station.
				03/13/57	300	.67	--	62	16.5	144 (278)	
				06/17/68	489	1.09	--	--	--	--	
				10/14/68	368	.82	--	66	19	(280)	
				05/09/69	1,090	2.43	--	61	16	--	
				11/06/69	355	.79	--	59	15	(350)	
				03/26/70	1,260	2.80	--	61	16	--	
				09/29/70	386	.86	--	--	--	--	
				04/17/71	1,320	2.95	--	60	15.5	--	
				04/18/73	718	1.60	--	--	--	--	
				04/08/74	862	1.92	--	63	17	--	
				03/31/75	1,550	3.45	--	59	15	--	
				06/17/76	665	1.48	--	66	19	--	
				11/05/76	422	.94	--	60	15.5	--	
				02/16/77	900	2.00	--	--	--	--	
				04/15/77	876	1.95	--	--	--	--	
				06/07/77	660	1.47	--	--	--	--	
				11/15/77	516	1.15	--	--	--	--	
				10/24/78	346	.77	--	--	--	--	
				12/31/79	395	.88	--	--	--	--	
				05/08/80	418	.93	--	--	--	--	
				07/29/80	651	1.45	--	--	--	--	
				04/23/81	669	1.49	--	--	--	--	
				10/28/81	395	.88	--	--	--	--	
				11/02/84	233	.52	--	--	--	--	
				10/22/85	1,050	2.34	--	63	17	166 (300)	
M-7	Tarrant Spring	NE¼ sec. 32, T. 16 S., R. 2 W.	Conasauga Formation	03/14/77	510	1.14	595	59	15	108 (180)	--
				06/07/77	240	.53	--	--	--		
M-8	Robinwood Spring No. 2	NW¼ sec. 33, T. 16 S., R. 2 W.	Knox Group undifferentiated	1957	500	1.11	555	--	--	322	--
M-10	Indian Valley Boy Scout Camp	NW¼ sec. 10, T. 16 S., R. 2 W.	Pride Mountain Formation	03/01/77	800	1.78	575	56	13	(99)	--
				04/06/77	40	.09	--	--	--	--	
M-13	Neaves Spring	SE¼ sec. 21, T. 16 S., R. 2 W.	Knox Group undifferentiated	02/17/77	40	.09	642	57	14	(171)	--
M-19	Unnamed	NW¼ sec. 34, T. 16 S., R. 2 W.	Knox Group undifferentiated	03/01/77	100	.22	585	62	16.5	(320)	--
M-21	Killough Spring	NE¼ sec. 26, T. 16 S., R. 2 W.	Knox Group undifferentiated	02/15/77	1,800	4.01	645	59	15	(322)	--
				06/07/77	1,720	3.83	--	--	--	--	
W-18	Brown Springs	NW¼ sec. 13, T. 17 S., R. 2 W.	Knox Group undifferentiated	02/28/77	10	.02	755	63	17	173 (278)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Jefferson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-19	James H. Dickson	SW¼ sec. 14, T. 17 S., R. 2 W.	Knox Group undifferentiated	02/28/77	470	1.05	655	62	16.5	(391)	--
W-24	Bill Pelkey	NE¼ sec. 26, T. 17 S., R. 2 W.	Bangor Limestone	03/11/77 06/07/77	120 20	.27 .04	720 --	-- --	-- --	--	--
W-26	Alabama Boys Industrial School	NE¼ sec. 2, T. 17 S., R. 2 W.	Ketona Dolomite	02/28/77 06/06/77	2,010 2,030	4.48 4.52	660 --	61 --	16 --	(361) --	--
W-27	Avondale Spring	SE¼ sec. 29, T. 17 S., R. 2 W.	Knox Group undifferentiated	08/17/28 02/23/77 06/06/77	80 1,380 250	.18 3.07 .56	660 -- --	64 63 --	17.5 17 --	203 176 (320) --	No. 105 in Johnson (1933, pt. 2, table 23).
W-01	Quarry Spring	NE¼ sec. 5, T. 17 S., R. 2 W.	Ketona Dolomite	09/04/28	500	1.11	--	63	17	204	No. 104 in Johnson (1933, pt. 2, table 28).
*Y-1	Rowan Springs	NW¼ sec. 20, T. 17 S., R. 1 E.	Chickamauga Limestone	02/28/57 04/02/77 06/07/77 11/15/85 06/06/86	375 800 420 0 99	.84 1.78 .94 0 .22	618 -- -- -- --	-- 63 -- 65 65	-- 17 -- 18 18	140 142 (238) -- 140 (320) 147 (235)	Water-quality station.
Y-6	Leeds or Leeds Mineral Spring	NE¼ sec. 22, T. 17 S., R. 1 E.	Floyd Shale	1927 04/13/77	360 30	.80 .07	635 --	62 --	16.5 --	-- --	No. 107 in Johnson (1933, pt. 2, table 23).
AA-14	Betty Deshazo	NE¼ sec. 1, T. 18 S., R. 1 W.	Ordovician undifferentiated	04/14/77 06/07/77	395 13	.88 .03	605 --	59 --	15 --	135 (210) --	--
DD-4	Hawkins Spring or Hawkins (Leeds mineral water) well	NW¼ sec. 24, T. 18 S., R. 4 W.	Conasauga Formation	08/06/28 03/08/77 06/06/77	200 300 150	.45 .67 .33	495 -- --	62 65 --	16.5 18 --	256 284 (450) --	Source of commercial mineral water in 1920's. Listed in (Smith (1907, p. 75-76). Partial failure of spring occurred on October 5, 1927 (Johnson, 1933, pt. 1, p. 235-37). No. 108 in Johnson (1933, pt. 2, table 23).
KK-10	Hercules, Inc.	SW¼ sec. 24, T. 19 S., R. 5 W.	Ketona Dolomite	02/09/77 06/06/77	90 15	.20 .03	460 --	60 --	15.5 --	(244) --	--
LL-11	Moore's Spring	NW¼ sec. 15, T. 19 S., R. 4 W.	Conasauga Formation	07/26/28 06/06/77	85 450	.19 1.00	515 --	64 63	17.5 17	-- (445)	No. 113 in Johnson (1933, pt. 2, table 23).
LL-12	Glenn Spring	SE¼ sec. 17, T. 19 S., R. 4 W.	Ketona Dolomite	03/25/77 06/08/77	1,750 550	3.90 1.22	495 --	61 --	16 --	134 (235) --	--
LL-13	Prince Spring	NE¼ sec. 18, T. 19 S., R. 4 W.	Knox Group undifferentiated	07/26/28 03/25/77 06/06/77	200 950 250	.45 2.12 .56	495 -- --	64 62 --	17.5 16.5 --	128 (221) -- --	No. 112 in Johnson (1933, pt. 2, table 23).
LL-01	Sellers Spring	SE¼ sec. 22, T. 19 S., R. 4 W.	Floyd Shale	08/29/28	.5	.001	--	63.1	17	142	No. 114 in Johnson (1933, pt. 2, table 23).
PP-10	Carl Bell	NW¼ sec. 5, T. 20 S., R. 4 W.	Knox Group undifferentiated	02/02/77 06/06/77	200 90	.45 .20	545 --	58 --	14.5 --	(220)	--
PP-01	Thompson Spring	NW¼ sec. 2, T. 20 S., R. 4 W.	Parkwood Formation	10/29/28	1	.002	--	65	18	127	No. 118 in Johnson (1933, pt. 2, table 23).

Appendix 1.--Basic data for springs in Alabama - Continued

Jefferson County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
QQ-12	Ethel Howard	SE¼ sec. 14, T. 20 S., R. 5 W.	Tuscumbia Limestone and Fort Payne Chert	12/29/76	45	.10	555	65	18	(96)	--

Lamar County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-2	Henson Spring	NE¼ sec. 13, T. 12 S., R. 15 W.	Coker Formation	06/21/66	4.5	0.01	356	61	16	(71)	--
B-5	Douglas Mays	SE¼ sec. 23, T. 12 S., R. 15 W.	Gordo Formation	06/24/66	6	.01	403	63	17	(16)	--
D-2	Mary C. Black	SE¼ sec. 14, T. 13 S., R. 16 W.	Eutaw Formation	06/23/66	.5	.001	433	65	18	(64)	--
E-6	St. Louis-San Francisco Railroad	NW¼ sec. 24, T. 13 S., R. 15 W.	Coker Formation	05/11/66	8	.02	374	63	17	(15)	--
E-11	Town of Sulligent	SE¼ sec. 32, T. 13 S., R. 15 W.	Gordo Formation	05/11/66	60	.13	330	61	16	(42)	--
G-3	J. A. Hawkins	NE¼ sec. 30, T. 14 S., R. 14 W.	Coker Formation	05/31/66	.2	.0004	342	75	24	(20)	--
G-5	Blooming Grove Church	NW¼ sec. 35, T. 14 S., R. 14 W.	Gordo Formation	05/31/66	17.8	.04	511	61	16	14 (11)	--
H-5	James T. Woods	NW¼ sec. 25, T. 14 S., R. 15 W.	Gordo Formation	05/31/66	17.2	.04	360	61	16	18 (23)	--
M-10	L. E. Hatch	NE¼ sec. 36, T. 16 S., R. 14 W.	Coker Formation	06/20/66	9.2	.02	313	63	17	(13)	--
R-9	Nazarene Church	NE¼ sec. 28, T. 17 S., R. 15 W.	Gordo Formation	06/09/66	7.2	.02	283	70	21	(24)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Lauderdale County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-14	Needmore or Moore Spring	NW¼ sec. 9, T. 1 S., R. 8 W.	Fort Payne Chert	07/25/29 12/28/55	150 290	0.33 .65	770 --	61.9 61	16.5 16	-- (189)	Special project station. Estimated average discharge for period May 1957 to May 1958, 600 gpm (Harris and others, 1963). No. 38 in Johnson (1933, pt. 2, table 25).
D-19	Butler Spring	NE¼ sec. 13, T. 1 S., R. 10 W.	Fort Payne Chert	09/21/55	35	.08	700	59	15	(152)	--
D-22	Crystal Spring	SE¼ sec. 15, T. 1 S., R. 10 W.	Fort Payne Chert	12/23/55	6	.01	600	59	15	(73)	--
D-46	Mint Spring	SE¼ sec. 28, T. 1 S., R. 10 W.	Fort Payne Chert	11/15/55	7	.02	550	61	16	(82)	--
E-50	Young Spring	NW¼ sec. 27, T. 1 S., R. 11 W.	Fort Payne Chert	12/28/55	670	1.49	580	59	15	--	Special project station. Estimated average discharge for period August 1957 to August 1985, 400 gpm (Harris and others, 1963).
M-10	Gravelly or Woodland Spring	NE¼ sec. 16, T. 2 S., R. 13 W.	Fort Payne Chert	07/27/29 12/29/55	100 5	.22 .01	480 --	59.6 58	15.5 14.5	-- (242)	Special project station. Estimated average discharge for period April 1956 to April 1959, 200 gpm (Harris and others, 1963). No. 40 in Johnson (1933, pt. 2, table 25).
M-29	Rock Spring	NW¼ sec. 27, T. 2 S., R. 13 W.	Tuscumbia Limestone	04/21/67 11/05/69 03/31/70 09/30/70 04/20/71 04/24/73 04/09/74 10/22/74 04/21/75 11/10/77 10/25/78	1,710 1,040 2,560 1,710 2,160 2,730 3,120 1,410 2,730 3,660 674	3.80 2.32 5.70 3.80 4.80 6.07 6.95 3.14 6.07 8.16 1.50	490 -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	Miscellaneous flow-measurement station (1967-71, 1973-75, 1977-78).
P-15	Bailey Springs	SW¼ sec. 10, T. 2 S., R. 10 W.	Fort Payne Chert	07/26/29 11/15/55	20 1	.04 .002	580 --	61.4 61	16 16	37 --	Historic springs. Source of commercial mineral water in 1905 (Day, 1905). Resort spring for approximately 50 years (Fitch, 1927). No. 44 in Johnson (1933, pt. 2, table 25).
Q-41	Stutz Spring	SE¼ sec. 19, T. 2 S., R. 9 W.	Fort Payne Chert	12/29/55	.5	.001	558	61	16	(73)	--
R-27	Green Spring	NW¼ sec. 14, T. 2 S., R. 8 W.	Fort Payne Chert	11/17/55	180	.40	602	60	15.5	(149)	--
R-60	Garner Spring	NW¼ sec. 29, T. 2 S., R. 8 W.	Fort Payne Chert	07/25/29 01/01/56	30 25	.07 .06	-- --	60.1 60	15.5 15.5	-- --	No. 46 in Johnson (1933, pt. 2, table 25).

Appendix 1.--Basic data for springs in Alabama - Continued

Lauderdale County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*S-39	Blowing Spring	NE¼ sec. 19, T. 2 S., R. 7 W.	Fort Payne Chert	11/16/55	540	1.20	560	60	15.5	--	Water-quality and flow-measurement station.
				05/01/68	373	.83	--	--	--	--	
				10/15/68	251	.56	--	--	--	--	
				05/09/69	413	.92	--	--	--	--	
				11/05/69	49	.11	--	57	14	(180)	
				09/30/70	63	.14	--	59	15	--	
				04/21/71	265	.59	--	61	16	--	
				04/23/73	732	1.63	--	58	14.5	--	
				10/21/74	76	.17	--	--	--	--	
				04/16/75	418	.93	--	58	14.5	--	
				11/04/76	247	.55	--	--	--	--	
				04/25/77	705	1.57	--	--	--	--	
				11/10/77	795	1.77	--	60	15.5	--	
				10/25/78	126	.28	--	--	--	--	
				10/30/79	310	.69	--	60	15.5	(97)	
				04/07/81	409	.91	--	--	--	(138)	
				10/22/81	72	.16	--	60	15.5	(152)	
				10/22/84	885	1.97	--	--	--	--	
				10/21/85	198	.44	--	59	15	68 (108)	
S-74	Big Spring	NW¼ sec. 30, T. 2 S., R. 7 W.	Fort Payne Chert	11/16/55	90	.20	595	60	15.5	(136)	Special project station. Estimated average discharge for period March 1956 to June 1957, 600 gpm (Harris and others, 1963).
T-20	Poplar Spring	NE¼ sec. 10, T. 3 S., R. 7 W.	Tuscumbia Limestone	07/25/29	200	0.45	520	60.9	16	--	Special project station. Estimated average discharge for period March 1956 to April 1959, 350 gpm (Harris and others, 1963). No. 52 in Johnson (1933, pt. 2, table 25).
				01/01/56	170	.38	--	60	15.5	--	
X-3	Sweetwater Spring	NE¼ sec. 1, T. 3 S., R. 11 W.	Fort Payne Chert	11/29/55	160	.36	540	62	16.5	(88)	Special project station. Estimated average discharge for period January 1956 to July 1958, 500 gpm (Harris and others, 1963).
X-5	Simpson Spring	SW¼ sec. 1, T. 3 S., R. 11 W.	Fort Payne Chert	12/29/55	120	.27	495	62	16.5	(120)	--
Y-18	Gravelly Spring	NE¼ sec. 32, T. 3 S., R. 12 W.	Tuscumbia Limestone	07/27/29	1,500	3.34	420	61.3	16	150	Special project station. Estimated average discharge for period January 1956 to July 1958, 5,000 gpm (Harris and others, 1963). No. 49 in Johnson (1933, pt. 2, table 25).
				12/29/55	1,100	2.45	--	60	15.5	(242)	
Y-01	Key Spring	NE¼ sec. 35, T. 3 S., R. 12 W.	Fort Payne Chert	07/22/29	2,000	4.45	--	61.2	16	166	No. 50 in Johnson (1933, pt. 2, table 25).

Appendix 1.--Basic data for springs in Alabama - Continued

Lawrence County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
G-6	McDonald Spring	NW¼ sec. 7, T. 4 S., R. 7 W.	Tuscumbia Limestone	08/20/29	50	0.11	540	61.9	16.5	--	No. 40 in Johnson (1933, pt. 2, table 27).
				05/19/60	50	.11	--	62	16.5	--	
				10/21/86	9	.02	--	64	18	--	
G-21	Swopes Pond or Swopes Lake Spring	SW¼ sec. 22, T. 4 S., R. 7 W.	Tuscumbia Limestone	08/19/29	300	.67	550	61.8	16.5	141	Inundated by Wheeler Lake. No. 41 in Johnson (1933, pt. 2, table 27).
				09/30/60	200	.45	--	62	16.5	--	
*G-39	Wheeler Spring	SE¼ sec. 34, T. 4 S., R. 7 W.	Tuscumbia Limestone	08/19/29	400	.89	595	62.4	16.5	--	No. 42 in Johnson (1933, pt. 2, table 27). Water-quality and flow-measurement station.
				09/28/60	400	.89	--	62	16.5	--	
				05/02/68	1,840	4.10	--	--	--	--	
				05/12/69	2,200	4.90	--	--	--	--	
				11/05/69	76	.17	--	--	--	(420)	
				03/31/70	359	.80	--	--	--	--	
				09/30/70	72	.16	--	--	--	(265)	
				04/20/71	1,710	3.80	--	62	16.5	(260)	
				04/24/73	2,410	5.37	--	58	14.5	--	
				04/09/74	3,590	7.99	--	--	--	--	
				10/22/74	121	.27	--	62	16.5	--	
				04/16/75	3,610	8.03	--	--	--	--	
				04/25/77	2,530	5.64	--	--	--	--	
				10/24/78	63	.14	--	--	--	--	
				10/31/79	1,490	3.32	--	61	16	(282)	
				07/29/80	480	1.07	--	--	--	--	
				11/10/80	198	.44	--	61	16	(390)	
				04/08/81	1,580	3.52	--	59	15	(293)	
				10/21/81	90	.20	--	59	15	(372)	
				11/01/82	135	.30	--	--	--	--	
				10/31/84	1,860	4.15	--	--	--	--	
				10/21/85	1,290	2.87	--	61	16	187 (342)	
				10/21/86	525	1.17	--	64	18	--	
J-7	Spout Spring	SE¼ sec. 9, T. 5 S., R. 7 W.	Hartselle Sandstone	08/21/29	20	.04	780	61.8	16.5	--	No. 43 in Johnson (1933, pt. 2, table 27).
				10/21/60	10	.02	--	60	15.5	--	
				10/21/86	0	0	--	--	--	--	
J-15	Sulphur Spring	NW¼ sec. 18, T. 5 S., R. 7 W.	Pride Mountain Formation	08/20/29	5	.01	680	63.1	17	--	No. 44 in Johnson (1933, pt. 2, table 27).
				10/24/60	20	.04	--	63	17	--	
O-35	Town Spring	SW¼ sec. 32, T. 6 S., R. 7 W.	Bangor Limestone	08/13/29	400	.89	630	62.6	17	178	--
				12/02/60	50	.11	--	63	17	--	
				10/22/86	36	.08	--	66	19	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Lee County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*J-6	Spring Villa Spring	SE¼ sec. 34, T. 19 N., R. 27 E.	Chewacla Marble	01/20/53	2,085	4.64	590	--	--	(225)	Source of commercial mineral water in 1905 (Day, 1905). Water-quality and flow-measurement station.
				04/09/68	700	1.56	--	62	17	(218)	
				10/31/84	3,780	8.41	--	73	23	142 (224)	
				10/31/85	727	1.62	--	66	19	116 (245)	
S-9	Blue Springs	NE¼ sec. 14, T. 18 N., R. 25 E.	Quartzite	02/05/68	250	.56	505	64	18	(34)	--

Limestone County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*A-1	Blowing Spring	NE¼ sec. 6, T. 1 S., R. 3 W.	Elkmont Formation	01/11/60	3,270	7.28	687	61	16	--	Water-quality and flow-measurement station.
				10/16/68	63	.14	--	59	15	(160)	
				05/09/69	1,060	2.36	--	58	14.5	--	
				11/05/69	27	.06	--	57	14	(220)	
				09/30/70	453	1.01	--	--	--	--	
				04/21/71	1,160	2.58	--	61	16	--	
				04/23/73	2,350	5.23	--	58	14.5	--	
				04/09/74	3,140	6.99	--	--	--	--	
				10/23/74	597	1.33	--	--	--	--	
				04/16/75	1,050	2.34	--	59	15	--	
				11/04/76	781	1.74	--	57	14	--	
				04/21/77	1,630	3.62	--	--	--	--	
				11/07/77	9,290	20.7	--	61	16	--	
				10/26/78	476	1.06	--	--	--	--	
				10/31/79	736	1.64	--	61	16	(148)	
				04/30/80	310	.69	--	--	--	--	
				11/07/80	377	.84	--	59	15	(183)	
				04/08/81	395	.88	--	58	14.5	(178)	
				10/20/81	90	.20	--	60	15.5	(180)	
				10/23/84	1,140	2.54	--	--	--	--	
				10/23/85	296	.66	--	59	15	87 (120)	
A-41	Wooley Spring	SW¼ sec. 36, T. 1 S., R. 5 W.	Fort Payne Chert	07/18/29	2	.004	741	62	16.5	--	No. 36 in Johnson (1933, pt. 2, table 29).
				01/13/60	20	.04	--	55	13	--	
B-01	Lerman Spring	SW¼ sec. 31, T. 1 S., R. 4 W.	Elkmont Formation	07/18/29	20	.04	--	60.4	15.5	107	No. 35 in Johnson (1933, pt. 2, table 29).
*B-02	Lerner Spring	SE¼ sec. 32, T. 1 S., R. 4 W.	Elkmont Formation	11/13/85	651	1.45	680	63	17	127 (220)	Water-quality station.
C-20	Booker Legg or Cedar Bluff Spring	SW¼ sec. 16, T. 1 S., R. 5 W.	Elkmont Formation	07/19/29	20	.04	589	58.4	14.5	149	No. 34 in Johnson (1933, pt. 2, table 29).
				05/15/59	40	.09	--	62	16.5	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Limestone County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-9	Salem Spring	SE¼ sec. 36, T. 1 S., R. 6 W.	Elkmont Formation	07/19/29 01/11/60	10 20	0.02 .04	578 --	62.3 --	16.5 --	-- --	No. 33 in Johnson (1933, pt. 2, table 29).
D-27	Corder Spring	SE¼ sec. 23, T. 1 S., R. 6 W.	Fort Payne Chert	07/19/29 02/08/60	10 75	.02 .17	695 --	61.3 60	16 15.5	-- (88)	No. 32 in Johnson (1933, pt. 2, table 29).
E-27	Cave Spring	NE¼ sec. 26, T. 2 S., R. 6 W.	Elkmont Formation	07/19/29 02/17/60	30 200	.07 .45	560 --	58.8 --	15 --	76 --	No. 37 in Johnson (1933, pt. 2, table 29).
F-6	Hillside Spring	NW¼ sec. 8, T. 2 S., R. 5 W.	Elkmont Formation	07/19/29 03/13/59	5 20	.01 .04	590 --	60.0 --	15.5 --	90 --	No. 41 in Johnson (1933, pt. 2, table 29).
F-7	Gypsy Spring	NW¼ sec. 8, T. 2 S., R. 5 W.	Elkmont Formation	07/19/29 03/13/59	20 20	.04 .04	600 --	60.3 --	15.5 --	-- --	No. 42 in Johnson (1933, pt. 2, table 29).
F-24	Dawson, Dupree, or Holmes Spring	SE¼ sec. 22, T. 2 S., R. 5 W.	Fort Payne Chert	07/19/29 03/19/59	100 80	.22 .18	688 --	59.7 --	15.5 --	-- --	No. 44 in Johnson (1933, pt. 2, table 29).
F-01	Smith Spring	NW¼ sec. 5, T. 2 S., R. 5 W.	Elkmont Formation	07/19/29	3	0.007	--	61.1	16	162	No. 40 in Johnson (1933, pt. 2, table 29).
G-7	Carl Witt	NE¼ sec. 6, T. 2 S., R. 4 W.	Fort Payne Chert	02/06/59	80	.18	715	57	14	(73)	--
G-13	Williams Spring	SE¼ sec. 7, T. 2 S., R. 4 W.	Fort Payne Chert	07/18/29 02/06/59	25 200	.06 .45	738 --	59.0 60	15 15.5	-- --	No. 45 in Johnson (1933, pt. 2, table 29).
*H-31	Old Limestone Church Spring	NE¼ sec. 31, T. 2 S., R. 3 W.	Elkmont Formation	01/20/60 10/23/85	500 0	1.11 0	718 --	62 --	16.5 --	-- --	Water-quality station.
J-34	Athens Spring	NE¼ sec. 8, T. 3 S., R. 4 W.	Fort Payne Chert	07/18/29 11/26/58	450 450	1.00 1.00	695 --	-- 61	-- 16	72 --	No. 46 in Johnson (1933, pt. 2, table 29).
P-29	Prior or Pryor Spring	SW¼ sec. 22, T. 4 S., R. 4 W.	Tuscumbia Limestone and Fort Payne Chert	07/20/29 03/13/59	800 2,500	1.78 5.57	567 --	61.2 65	16 18	-- --	No. 49 in Johnson (1933, pt. 2, table 29).
*Q-01	Green Briar spring	NE¼ sec. 26, T. 4 S., R. 3 W.	Tuscumbia Limestone	11/13/85 06/04/86	0 0	0 0	585 --	68 63	20 17	107 (180) 107 (154)	Water-quality station.
R-7	Mooresville Spring	NE¼ sec. 7, T. 5 S., R. 3 W.	Tuscumbia Limestone	07/20/29 01/22/60	1,200 3,100	2.67 6.90	556 --	-- 62	-- 16.5	-- (156)	No. 51 in Johnson (1933, pt. 2, table 29).

Macon County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-1	City of Notasulga	SW¼ sec. 5, T. 18 N., R. 24 E.	Precretaceous rocks	08/08/57	12	0.03	476	--	--	--	--

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-53	Watercress Spring	NE¼ sec. 27, T. 1 S., R. 2 E.	Fort Payne Chert	10/04/71	6,560	14.6	745	58	14.5	109 (192)	Miscellaneous flow-measurement station.
				10/31/73	5,840	13.0	--	58	14.5	109 (192)	
				11/04/74	6,290	14.0	--	61	16	107 (175)	
B-68	New Market Spring	NW¼ sec. 33, T. 1 S., R. 2 E.	Fort Payne Chert	10/31/73	--	--	730	59	15	81 (144)	Miscellaneous flow-measurement station.
D-69	Steger Spring	SW¼ sec. 23, T. 1 S., R. 1 W.	Fort Payne Chert	04/21/72	440	.98	780	--	--	--	Miscellaneous flow-measurement station.
				09/24/73	103	.23	--	--	--	--	
				11/06/74	148	.33	--	--	--	--	
H-14	Meridianville Spring	SW¼ sec. 19, T. 2 S., R. 1 E.	Fort Payne Chert	07/12/29	1,200	2.67	710	60.4	15.5	--	Miscellaneous flow-measurement station.
				10/04/71	750	1.67	--	--	--	--	No. 42 in Johnson (1933, pt. 2, table 31).
				11/06/74	840	1.87	--	--	--	--	
L-85	Murphey Spring	NE¼ sec. 11, T. 3 S., R. 2 E.	Fort Payne Chert	10/23/70	269	.60	690	--	--	--	Miscellaneous flow-measurement station.
				04/01/71	3,101	6.70	--	--	--	--	
				10/13/71	81	.18	--	--	--	--	
				10/20/71	31	.07	--	--	--	--	
				09/19/73	121	.27	--	--	--	(378)	
L-96	Beason Spring	NW¼ sec. 36, T. 3 W., R. 2 E.	Tuscumbia Limestone	10/23/70	58	.13	640	--	--	--	Miscellaneous flow-measurement station.
				10/19/71	732	1.63	--	--	--	--	
				09/21/73	211	.47	--	--	--	(372)	
				11/07/74	404	.90	--	--	--	--	
M-2	Boiling or Moore Spring	SE¼ sec. 1, T. 3 S., R. 1 E.	Fort Payne Chert	05/08/52	3,350	7.45	685	61	16	--	Miscellaneous flow-measurement station.
				06/18/52	2,520	5.62	--	62	16.5	--	No. 1 in LaMoreaux and others (1950).
				08/13/52	3,700	8.24	--	61	16	--	
				09/11/52	3,540	7.89	--	61	16	--	
				10/04/71	5,070	11.3	--	--	--	--	
				09/20/73	3,300	7.34	--	--	--	--	
				11/05/74	3,860	8.60	--	61	16	78 (128)	
*M-38	Acuff or Acuft Spring	NE¼ sec. 14, T. 3 S., R. 1 E.	Tuscumbia Limestone	07/10/29	1,500	3.34	655	60.3	15.5	--	No. 49 in Johnson (1933, pt. 2, table 31).
				07/10/49	1,500	3.34	--	60	15.5	--	No. 2 in LaMoreaux and others (1950).
				05/06/52	1,990	4.43	--	61	16	--	Water-quality station.
				06/18/52	440	.98	--	63	17	--	
				08/13/52	283	.63	--	65	18	--	
				09/10/52	602	1.34	--	62	16.5	--	
				10/20/52	1,280	2.85	--	61	16	--	
				12/05/52	4,480	9.97	--	61	16	--	
				01/15/53	6,390	14.23	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*M-38 - Cont'd	Acuff or Acuft Spring	NE¼ sec. 14, T. 3 S., R. 1 E.	Tuscumbia Limestone	02/25/53	8,580	19.12	--	59	15	--	No. 49 in Johnson (1933, pt. 2, table 31).
				03/20/53	2,900	6.45	--	61	16	--	No. 2 in LaMoreaux and others (1950).
				04/27/53	2,390	5.32	--	61	16	--	Water-quality station.
				05/29/53	2,230	4.96	--	61	16	--	
				06/18/53	849	1.89	--	59	15	--	
				07/17/53	633	1.41	--	61	16	--	
				08/14/53	377	.84	--	64	17.5	--	
				09/15/53	184	.41	--	63.5	17.5	--	
				10/09/53	54	.12	--	64	18	--	
				11/11/53	54	.12	--	59.5	15.5	--	
				12/15/53	3,710	8.27	--	61	16	--	
				01/25/54	10,100	22.5	--	61	16	105 (271)	
				02/22/54	2,640	5.89	--	61	16	--	
				10/20/71	1,250	2.78	--	--	--	--	
				07/01/77	606	1.35	--	61	16	120 (218)	
				11/05/85	2,092	4.66	--	61	16	210 (420)	
M-186	Dug Hill Spring	NW¼ sec. 25, T. 3 S., R. 1 E.	Tuscumbia Limestone	10/22/70	382	.85	680	--	--	--	Miscellaneous flow-measurement station.
				03/24/71	2,870	6.39	--	--	--	--	
				10/20/71	180	.40	--	--	--	--	
				09/19/73	94	.21	--	--	--	(417)	
				11/06/74	157	.35	--	--	--	--	
M-01	Cold Spring	SW¼ sec. 28, T. 3 S., R. 1 E.	Bangor Limestone	11/13/48	15	.03	1,480	54	12	58	No. 3 in LaMoreaux and others (1950).
M-02	Chase Spring	SW¼ sec. 8, T. 3 S., R. 1 E.	Pride Mountain Formation	07/10/29	5	.01	820	62.1	16.5	--	No. 48 in Johnson (1933, pt. 2, table 31).
				1929	25	.06	--	--	--	--	No. 5 in LaMoreaux and others (1950).
				07/10/49	5	.01	--	62	16.5	--	
M-03	College Spring	SW¼ sec. 7, T. 3 S., R. 1 E.	Pride Mountain Formation	07/10/29	2	.004	--	63	17	--	No. 47 in Johnson (1933, pt. 2, table 31).
				11/12/48	2	.004	--	63	17	--	No. 6 in LaMoreaux and others (1950).
N-14	Blue Spring	SE¼ sec. 11, T. 3 S., R. 1 W.	Tuscumbia Limestone	04/22/52	3,800	8.46	690	61	16	137 (234)	Special project station.
				05/28/52	988	2.20	--	61	16	--	
				07/05/52	0	0	--	--	--	--	
				09/02/52	0	0	--	61	16	--	
				10/14/52	624	1.39	--	61	16	--	
				12/05/52	1,190	2.66	--	60	15.5	--	
				01/14/53	4,432	9.87	--	60	15.5	--	
				02/25/53	6,060	13.5	--	59	15	--	
				04/24/53	2,200	4.91	--	60	15.5	--	
				05/27/53	2,570	5.73	--	60	15.5	--	
				06/18/53	1,400	3.11	--	60	15.5	--	
				07/16/53	418	.93	--	61	16	--	
				08/14/53	0	0	--	--	--	--	
				09/14/53	0	0	--	--	--	--	
				10/19/53	0	0	--	--	--	--	
				11/11/53	0	0	--	--	--	--	
				12/14/53	0	0	--	--	--	--	
				01/25/54	5,840	13.0	--	61	16	--	
				02/22/54	2,840	6.33	--	61.5	16.5	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
N-19	Harris Spring	NE¼ sec. 14, T. 3 S., R. 1 W.	Tuscumbia Limestone	04/23/52	988	2.20	685	61	16	--	Special project station.
				05/28/52	808	1.80	--	61	16	--	
				08/06/52	777	1.73	--	--	--	--	
				09/02/52	633	1.41	--	--	--	--	
				10/14/52	880	1.96	--	--	--	--	
				12/05/52	817	1.82	--	60	15.5	--	
				01/14/53	1,340	2.99	--	60	15.5	--	
				02/25/53	1,580	3.52	--	59	15	--	
				04/24/53	1,000	2.23	--	60	15.5	--	
				05/27/53	970	2.16	--	60	15.5	--	
				06/18/53	916	2.04	--	60	15.5	--	
				07/16/53	849	1.89	--	61	16	--	
				08/14/53	732	1.63	--	61	16	--	
				09/15/53	471	1.05	--	61	16	--	
				10/19/53	0	0	--	--	--	--	
				11/11/53	0	0	--	--	--	--	
				12/14/53	1,060	2.37	--	60.5	16	--	
				01/25/54	1,570	3.50	--	60.5	16	--	
				02/22/54	1,030	2.30	--	61	16	--	
				05/27/58	1,650	3.68	--	--	--	--	
				08/11/58	1,160	2.59	--	--	--	--	
				11/24/58	642	1.43	--	--	--	--	
				02/17/59	1,950	4.34	--	--	--	--	
				10/20/69	229	.51	--	--	--	--	
				10/20/70	0	0	--	--	--	--	
*N-185	Huntsville or Huntsville Big Spring	SW¼ sec. 36, T. 3 S., R. 1 W.	Tuscumbia Limestone	07/15/29	--	--	620	60.8	15.5	139	Major spring. Formerly, a source of water for the City of Huntsville (Moffett and Bossong, 1981). Operated as continuous-record gaging station 03575870, Huntsville Spring at Huntsville, Alabama, from December 1928 to March 1932, and from 1951 to 1965. Daily discharges for 1929 to 1932 water years published in U.S. Geological Survey Water-Supply Papers 683, 698, 713, and 728. Discharge from spring affected by pumpage from Huntsville's Dallas and Lincoln wells. Average discharge for period April 1957 to June 1959, 19.6 ft^3/s (8,820 gpm) (Warman and Causey, 1963). No. 45 in Johnson (1933, pt. 2, table 31). No. 4 in LaMoreaux and others (1950). Water-quality station.
				09/04/57	1,700	3.78	--	--	--	--	
				11/15/57	5,250	11.7	--	--	--	--	
				02/21/58	11,400	25.4	--	--	--	--	
				05/26/58	12,800	28.5	--	--	--	--	
				08/11/58	13,800	30.7	--	--	--	--	
				11/13/58	3,340	7.44	--	--	--	--	
				02/10/59	9,740	21.7	--	--	--	--	
				08/02/60	242	.54	--	--	--	--	
				10/20/61	898	2.00	--	--	--	--	
				08/05/65	2,050	4.56	--	--	--	--	
				10/06/65	660	1.47	--	--	--	--	
				11/03/65	382	.85	--	--	--	--	
				01/10/66	3,590	7.99	--	--	--	--	
				01/19/66	3,070	6.83	--	--	--	--	
				03/03/66	6,820	15.2	--	--	--	--	
				05/17/66	6,290	14.0	--	--	--	--	
				06/23/66	629	1.40	--	--	--	--	
				10/31/66	902	2.01	--	--	--	--	
				06/27/67	4,620	10.3	--	--	--	--	
				07/20/67	9,560	21.3	--	--	--	--	
				08/29/67	9,250	20.6	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*N-185 - Cont'd	Huntsville or Huntsville Big Spring	SW¼ sec. 36, T. 3 S., R. 1 W.	Tuscumbia Limestone	10/11/67	4,490	10.0	--	--	--	--	Major spring. Formerly, a source of water for the City of Huntsville (Moffett and Bossong, 1981). Operated as continuous-record gaging station 03575870, Huntsville Spring at Huntsville, Alabama, from December 1928 to March 1932, and from 1951 to 1965. Daily discharges for 1929 to 1932 water years published in U.S. Geological Survey Water-Supply Papers 683, 698, 713, and 728. Discharge from spring affected by pumpage from Huntsville's Dallas and Lincoln wells. Average discharge for period April 1957 to June 1959, 19.6 ft^3/s (8,820 gpm) (Warman and Causey, 1963). No. 45 in Johnson (1933, pt. 2, table 31). No. 4 in LaMoreaux and others (1950). Water-quality station.
				11/16/67	3,860	8.60	--	--	--	--	
				12/07/67	8,310	18.5	--	--	--	--	
				01/24/68	11,400	25.3	--	--	--	--	
				03/04/68	5,250	11.7	--	--	--	--	
				06/24/68	3,480	7.75	--	--	--	--	
				08/09/68	224	.50	--	--	--	--	
				10/16/68	557	1.24	--	--	--	--	
				03/10/69	7,720	17.2	--	--	--	--	
				09/08/69	1,110	2.47	--	--	--	--	
				10/31/69	319	.71	--	--	--	--	
				12/20/69	431	.96	--	--	--	--	
				01/26/70	5,520	12.3	--	--	--	--	
				04/03/70	12,200	27.2	--	--	--	--	
				05/07/70	10,800	24.0	--	--	--	--	
				07/06/70	2,230	4.96	--	--	--	--	
				08/13/70	1,600	3.56	--	--	--	--	
				09/09/70	453	1.01	--	--	--	--	
				10/13/70	382	.85	--	--	--	--	
				11/04/70	211	.47	--	--	--	--	
				12/07/70	139	.31	--	--	--	--	
				01/13/71	2,890	6.44	--	--	--	--	
				02/24/71	12,300	27.4	--	--	--	--	
				10/30/85	853	1.90	--	63	17	225 (390)	
				05/27/86	1,410	3.13	--	66	19	209 (308)	
O-3	Indian or Kelly Spring	NW¼ sec. 2, T. 3 S., R. 2 W.	Fort Payne Chert	07/12/29	3,500	7.80	750	63	17	--	No. 43 in Johnson (1933, pt. 2, table 31).
				10/10/69	1,600	3.56	--	--	--	--	
				10/19/70	1,490	3.32	--	--	--	--	
				04/01/71	6,560	14.6	--	--	--	--	
P-28	Williams Spring	NE¼ sec. 36, T. 4 W., R. 2 W.	Tuscumbia Limestone	07/13/29	1,200	2.67	565	60.5	16	--	No. 51 in Johnson (1933, pt. 2, table 31). Miscellaneous flow-measurement station.
				10/21/70	2,120	4.72	--	59	15	(239)	
				03/24/71	2,850	6.34	--	60	15.5	(340)	
				10/25/71	1,900	4.24	--	61	16	--	
				10/20/71	2,220	4.95	--	61	16	--	
				10/31/71	2,120	4.73	--	61	16	--	
				11/04/71	2,060	4.59	--	61	16	--	
				11/05/71	1,980	4.40	--	61	16	--	
				10/31/73	2,690	6.00	--	61	16	113 (193)	
				11/05/79	2,380	5.30	--	--	--	--	
				05/06/80	2,360	5.25	--	--	--	--	
				11/13/80	1,970	4.38	--	--	--	--	
				05/05/81	2,200	4.91	--	--	--	--	
				10/20/81	2,020	4.49	--	--	--	--	
				04/21/82	4,710	10.5	--	--	--	--	
				11/02/82	1,500	3.35	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
Q-161	Merrimack or Braham Spring	NE¼ sec. 11, T. 4 S., R. 1 W.	Tuscumbia Limestone	07/16/29	3,200	7.13	595	61.2	16	115	No. 53 in Johnson (1933, pt. 2, table 31).
				01/14/49	6,200	13.8	--	62	16.5	--	No. 10 in LaMoreaux and others (1950).
				04/08/52	3,170	7.07	--	61	16	--	Miscellaneous flow-measurement station.
				05/09/52	3,300	7.35	--	--	--	--	
				08/06/52	2,090	4.66	--	--	--	--	
				09/02/52	3,010	6.70	--	--	--	--	
				10/15/52	3,100	6.90	--	--	--	--	
				01/14/53	3,630	8.08	--	60.5	16	--	
				02/26/53	5,570	12.4	--	58	14.5	--	
				03/20/53	3,460	7.71	--	61	16	--	
				04/24/53	3,590	8.00	--	61	16	--	
				05/27/53	3,300	7.35	--	--	--	--	
				06/16/53	3,080	6.87	--	--	--	--	
				07/17/53	2,570	5.73	--	61	16	--	
				08/14/53	1,920	4.27	--	--	--	--	
				09/15/53	1,650	3.68	--	--	--	--	
				10/19/53	1,440	3.20	--	--	--	--	
				11/11/53	1,380	3.08	--	--	--	--	
				12/15/53	2,240	4.98	--	60	15.5	--	
				01/25/54	4,490	10.0	--	61.5	16.5	--	
				02/22/54	3,170	7.06	--	--	--	--	
				10/14/71	256	.57	--	--	--	--	
Q-169	Byrd Spring	NW¼ sec. 25, T. 4 S., R. 1 W.	Tuscumbia Limestone	01/14/49	3,725	8.30	570	61.5	16.5	140	No. 12 in LaMoreaux and others (1950).
				05/06/52	1,320	2.93	--	60	15.5	116 (182)	Miscellaneous flow-measurement station.
				06/18/52	1,060	2.37	--	--	--	--	
				08/13/52	916	2.04	--	62	16.5	--	
				09/10/52	911	2.03	--	62	16.5	--	
				10/15/52	2,340	5.22	--	61.5	16.5	--	
				12/05/52	3,450	7.69	--	59	15	--	
				01/15/53	4,850	10.8	--	--	--	--	
				02/26/53	5,610	12.5	--	60	15.5	--	
				03/19/53	2,390	5.33	--	60	15.5	--	
				04/24/53	1,670	3.72	--	61.5	16.5	--	
				05/27/53	2,800	6.24	--	62	16.5	--	
				06/17/53	1,330	2.96	--	60	15.5	--	
				07/17/53	822	1.83	--	61	16	--	
				08/14/53	772	1.72	--	62	16.5	--	
				09/15/53	606	1.35	--	62	16.5	--	
				10/19/53	359	.80	--	61.5	16.5	--	
				11/11/53	314	.70	--	--	--	--	
				12/15/53	1,840	4.09	--	61	16	--	
				02/22/54	1,480	3.30	--	62	16.5	--	
				10/14/71	1,540	3.43	--	63	17	257 (424)	
Q-01	West Huntsville Spring	SE¼ sec. 3, T. 4 S., R. 1 W.	Tuscumbia Limestone	07/16/29	300	.67	620	61.3	16	--	No. 52 in Johnson (1933, pt. 2, table 31).
				07/16/49	300	.67	--	61	16	--	No. 9 in LaMoreaux and others (1950).

Appendix 1.--Basic data for springs in Alabama - Continued

Madison County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
R-64	Esslinger Spring	SW¼ sec. 33, T. 4 S., R. 1 E.	Tuscumbia Limestone	10/23/70	665	1.48	600	--	--	--	Miscellaneous flow-measurement station.
				03/24/71	2,310	5.15	--	--	--	--	
				10/21/71	341	.76	--	--	--	--	
				09/19/73	54	.12	--	--	--	--	
				11/07/74	395	.88	--	--	--	(495)	
S-01	Grayson Spring	NW¼ sec. 21, T. 4 S., R. 2 E.	Pride Mountain Formation	10/19/71	5	.01	600	--	--	--	Miscellaneous flow-measurement station.
				09/19/73	5	.01	--	--	--	(385)	
U-3	Hering Cave or Cave Spring	NE¼ sec. 10, T. 5 S., R. 2 E.	Pride Mountain Formation	07/15/29	2,000	4.45	640	60.3	15.5	--	Spring in cave. No. 55 in Johnson (1933, pt. 2, table 31).
				01/15/53	8,580	19.1	--	--	--	--	
				08/14/53	0	0	--	--	--	--	
				10/22/70	233	.52	--	62	16.5	(131)	
U-01	Bethel Spring	SE¼ sec. 12, T. 5 S., R. 2 E.	Pride Mountain Formation	10/20/71	63	.14	620	--	--	--	Miscellaneous flow-measurement station.
				09/21/73	40	.09	--	--	--	(188)	
V-01	Bazelton Spring	SW¼ sec. 24, T. 5 S., R. 1 E.	Pride Mountain Formation	10/22/70	328	.73	590	--	--	--	Miscellaneous flow-measurement station.
				04/01/71	5,610	12.5	--	--	--	--	
				10/17/71	50	.11	--	--	--	--	
V-02	Rock Spring	NW¼ sec. 25, T. 5 S., R. 1 E.	Pride Mountain Formation	10/22/70	198	.44	580	--	--	--	Miscellaneous flow-measurement station.
				10/17/71	103	.23	--	--	--	--	
				04/26/72	4,580	10.2	--	--	--	--	
*Z-12	New Hope Spring	NW¼ sec. 11, T. 6 S., R. 2 E.	Bangor Limestone	12/15/29	1,200	2.67	575	61.6	16.5	--	No. 57 in Johnson (1933, pt. 2, table 31). Water-quality and flow-measurement station.
				01/16/52	3,480	7.76	--	--	--	207 (344)	
				08/14/53	656	1.46	--	--	--	--	
				10/23/69	1,800	4.01	--	--	--	--	
				04/20/70	20,200	45.0	--	--	--	--	
				04/23/70	8,170	18.2	--	--	--	--	
				10/23/70	1,670	3.72	--	--	--	--	
				04/01/71	9,380	20.9	--	--	--	--	
				10/19/71	1,140	2.54	--	--	--	--	
				09/21/73	602	1.34	--	--	--	(397)	
				11/13/79	8,440	18.8	--	59	15	(360)	
				05/06/80	2,860	6.37	--	--	--	--	
				11/13/80	602	1.34	--	--	--	--	
				05/05/81	1,640	3.66	--	--	--	--	
				10/20/81	638	1.42	--	61	16	(360)	
				04/21/82	4,710	10.5	--	--	--	--	
				11/01/82	813	1.81	--	--	--	--	
				10/30/84	2,820	6.28	--	--	--	--	
				11/05/85	2,410	5.37	--	59	15	244 (510)	

Appendix 1.--Basic data for springs in Alabama - Continued

Marion County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
A-14	Murphy Shirley	NE¼ sec. 30, T. 9 S., R. 11 W.	Gordo Formation	04/16/64	15	0.03	922	56	13	--	--
B-5	Hackleburg Spring	NE¼ sec. 17, T. 9 S., R. 12 W.	Gordo Formation	12/10/64	55	.12	857	--	--	26 (34)	--
B-7	Mixon Springs	SE¼ sec. 18, T. 9 S., R. 12 W.	Gordo Formation	05/13/64	100	.22	851	56	13	--	--
*C-01	Little Spring	SW¼ sec. 16, T. 9 S., R. 13 W.	Gordo Formation	11/12/85 06/03/86	242 148	.54 .33	790 --	63 65	17 18	21 (27) 27 (33)	Water-quality station.
E-5	Luther Childress	NE¼ sec. 16, T. 9 S., R. 15 W.	Gordo Formation	07/08/64	3	.01	492	61	16	--	--
O-11	Mrs. Kate Lawrence	SE¼ sec. 35, T. 11 S., R. 13 W.	Gordo Formation	06/29/64	100	.22	729	60	16	--	--
X-3	Pepsi Cola Bottling Co.	SW¼ sec. 10, T. 13 S., R. 12 W.	Terrace deposits	12/15/64	70	.16	509	--	--	25 (23)	--

Marshall County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-9	Cushion Spring	NE¼ sec. 36, T. 6 S., R. 2 E.	Pride Mountain Formation	08/26/29 12/04/61 03/07/62 07/18/62	25 70 430 90	0.06 .16 .96 .20	610 -- -- --	62 60 58 68	16.5 15.5 14.5 20	-- (136) -- --	No. 37 in Johnson (1933, pt. 2, table 34).
D-01	Unnamed Spring	NE¼ sec. 14, T. 6 S., R. 2 E.	Chickamauga Limestone	11/10/71 06/07/72	247 638	.55 1.42	-- --	-- --	-- --	-- --	--
E-2	R. A. Clay	SE¼ sec. 9, T. 6 S., R. 3 E.	Pride Mountain Formation	03/07/62 07/18/62	160 17	.36 .04	610 --	57 61	14 16	-- --	--
E-6	James C. Campbell	NE¼ sec. 13, T. 6 S., R. 3 E.	Pennington Formation	03/07/62 07/18/62	580 30	1.29 .07	920 --	58 59	14.5 15	(134) --	--
E-8	Davis Spring	NW¼ sec. 19, T. 6 S., R. 3 E.	Pride Mountain Formation	03/07/62 07/18/62	980 65	2.18 .14	590 --	54 56	12 13	-- (91)	--
F-1	Priscilla McCamy	SE¼ sec. 1, T. 6 S., R. 4 E.	Bangor Limestone	03/08/62 07/18/62	470 18	1.05 .04	680 --	58 60	14.5 15.5	-- (218)	--
F-30	Ross Hodges	SW¼ sec. 36, T. 6 S., R. 4 E.	Chickamauga Limestone	03/08/62 07/18/62	90 6	.20 .01	640 --	58 61	14.5 16	-- (407)	--
G-2	McCormick Spring	NE¼ sec. 20, T. 6 S., R. 5 E.	Chickamauga Limestone	08/27/28 10/27/61	1 1	.002 .002	620 --	65 64	18 17.5	-- (262)	No. 39 in Johnson (1933, pt. 2, table 34).
I-5	McDonald Spring	NE¼ sec. 6, T. 7 S., R. 4 E.	Bangor Limestone	10/01/28 11/16/61	25 50	.06 .11	820 --	59.3 60	15 15.5	160 (212)	No. 41 in Johnson (1933, pt. 2, table 34).

Appendix 1.--Basic data for springs in Alabama - Continued

Marshall County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
J-1	Honeycomb Spring	NE¼ sec. 1, T. 7 S., R. 3 E.	Bangor Limestone	08/26/28	200	0.45	600	62	16.5	--	No. 40 in Johnson (1933, pt. 2, table 34).
				03/07/62	4,400	9.80	--	55	13	(98)	
				07/18/62	400	.89	--	62	16.5	--	
K-1	Daniel Spring	NW¼ sec. 3, T. 7 S., R. 2 E.	Pride Mountain Formation	12/04/61	100	.22	580	60	15.5	(201)	--
				03/05/62	1,400	3.12	--	57	14	--	
				07/18/62	20	.04	--	61	16	--	
K-8	Tennessee Valley Authority	NW¼ sec. 14, T. 7 S., R. 2 E.	Pride Mountain Formation	12/04/61	150	.33	600	63	17	(168)	--
				03/07/62	310	.69	--	59	15	(214)	
				07/18/62	70	.16	--	--	--	--	
N-22	Mrs. Henry Wade	SE¼ sec. 36, T. 8 S., R. 2 E.	Chickamauga Limestone	03/09/62	130	.29	620	58	14.5	(296)	--
				07/23/62	0	0	--	--	--	--	
O-4	Taylor or Morton Spring	NE¼ sec. 7, T. 8 S., R. 3 E.	Bangor Limestone	08/25/28	200	.45	606	59.6	15.5	132	No. 42 in Johnson (1933, pt. 2, table 34).
				03/09/62	760	1.69	--	59	15	(123)	
				07/23/62	27	.06	--	60	15.5	--	
O-5	Smith Spring	NE¼ sec. 7, T. 8 S., R. 3 E.	Bangor Limestone	08/25/28	100	.22	620	59.8	15.5	--	No. 43 in Johnson (1933, pt. 2, table 34).
				03/09/62	780	1.74	--	58	14.5	(153)	
				07/23/62	8	.02	--	60	15.5	--	
O-26	Ward Spring	SW¼ sec. 27, T. 8 S., R. 3 E.	Bangor Limestone	03/08/62	1,000	2.23	640	59	15	(120)	--
				07/23/62	120	.27	--	62	16.5	--	
O-01	Loveless Spring	SE¼ sec. 12, T. 8 S., R. 3 E.	Bangor Limestone	08/28/28	500	1.11	--	59.8	15.5	95	No. 44 in Johnson (1933, pt. 2, table 34).
T-5	Clear Spring	SW¼ sec. 6, T. 9 S., R. 3 E.	Pride Mountain Formation	03/08/62	550	1.22	610	63	17	(197)	--
				07/23/62	150	.33	--	66	19	--	
U-2	L. C. Camp	NE¼ sec. 4, T. 9 S., R. 2 E.	Bangor Limestone	03/09/62	900	2.00	660	62	16.5	(115)	--
				07/23/62	280	.62	--	--	--	--	
U-3	Feemster Spring	SW¼ sec. 9, T. 9 S, R. 2 E.	Bangor Limestone	08/25/28	100	.22	710	61	16	--	No. 45 in Johnson (1933, pt. 2, table 34).
				03/09/62	460	1.02	--	60.5	16	--	
				07/23/62	370	.82	--	61	16	--	
U-4	A. C. Whitaker	NE¼ sec. 10, T. 9 S., R. 2 E.	Chickamauga Limestone	03/09/62	45	.10	615	61	16	--	--
				07/23/62	0	0	--	--	--	--	
U-11	Big Spring	SW¼ sec. 26, T. 9 S., R. 2 E.	Bangor Limestone	08/24/28	300	.67	650	62	16.5	--	No. 46 in Johnson (1933, pt. 2, table 34).
				08/18/61	3,200	7.13	--	61	16	(247)	
				03/08/62	5,400	12.0	--	61	16	(214)	
				07/23/62	3,100	6.90	--	62	16.5	--	
				11/05/69	2,350	5.23	--	--	--	--	
				03/27/70	6,020	13.4	--	--	--	--	
				11/14/84	2,860	6.38	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Mobile County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-6	Unnamed Spring	SE¼ sec. 36, T. 2 N., R. 1 W.	Miocene Series undifferentiated	08/01/72	2	0.004	--	79	26	29 (36)	--
C-4	Cherokee Mineral Spring	NW¼ sec. 33, T. 2 N., R. 2 W.	Miocene Series undifferentiated	08/03/72	1	.002	--	68	20	40 (38) 91.5	Historic spring. Listed in Smith (1907, p. 304).
W-9	Unnamed Spring	NW¼ sec. 3, T. 3 S., R. 2 W.	Miocene Series undifferentiated	08/03/72	2	.004	--	77	25	15 (14)	--
BB-2	Unnamed Spring	SE¼ sec. 17, T. 4 S., R. 2 W.	Miocene Series undifferentiated	08/01/72	.5	.001	--	83	28	18 (25)	--
BB-3	MacGregor Spring	SW¼ sec. 37, T. 4 S., R. 2 W.	Citronelle Formation	04/19/22 08/01/72	-- 2	-- .004	-- --	-- 77	-- 25	22.0 78 (109)	Source of commercial mineral water in 1905 (Day, 1905).

Monroe County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-6	W. J. Knight	NW¼ sec. 31, T. 10 N., R. 7 E.	High terrace deposits	06/01/67	1	0.002	258	--	--	(39)	--
O-01	Tunnel Springs	SW¼ sec. 14, T. 8 N., R. 8 E.	Tallahatta Formation	--	--	--	--	--	--	--	Historic springs. Two springs. Listed in Smith (1907, p. 277).

Morgan County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
I-38	Damascus Spring	SE¼ sec. 5, T. 6 S., R. 1 W.	Tuscumbia Limestone	08/21/29 04/21/58	50 20	0.11 .04	560 --	62.4 61	17 16	-- --	No. 49 in Johnson (1933, pt. 2, table 36).
I-108	Lacey's Spring	NW¼ sec. 12, T. 6 S., R. 1 W.	Pride Mountain Formation	08/21/29 05/01/58 04/13/60	40 500 450	.09 1.11 1.00	620 -- --	63.5 59 --	17.5 15 --	161 -- --	No. 50 in Johnson (1933, pt. 2, table 36).
I-143	Spout Spring	NW¼ sec. 19, T 6 S., R. 1 W.	Pride Mountain Formation	09/21/29 05/15/58	5 50	.01 .11	570 --	63.5 60	17.5 15.5	129 --	No. 51 in Johnson (1933, pt. 2, table 36).

Appendix 1.--Basic data for springs in Alabama - Continued

Morgan County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
I-266	Williams Cove Spring	SW¼ sec. 28, T. 6 S., R. 1 W.	Bangor Limestone	05/21/58	300	0.67	660	59	15	--	--
				04/13/60	600	1.34	--	--	--	--	
*K-1	Cave Spring	SE¼ sec. 4, T. 6 S., R. 3 W.	Tuscumbia Limestone	10/24/58	100	.22	600	58	14.5	--	Water-quality and flow-measurement station.
				04/04/60	3,800	8.46	--	--	--	--	
				05/03/68	2,540	5.66	--	58	14.5	(211)	
				05/12/69	1,730	3.86	--	58	14.5	(220)	
				10/15/69	337	.75	--	59	15	(258)	
				10/02/70	265	.59	--	62	16.5	--	
				04/21/71	3,570	7.94	--	57	14	(210)	
				04/23/73	3,480	7.76	--	58	14.5	--	
				04/09/74	6,820	15.2	--	58	14.5	--	
				10/23/74	476	1.06	--	--	--	--	
				04/07/75	7,450	16.6	--	57	14	--	
				11/04/76	1,490	3.31	--	57	14	--	
				04/21/77	2,500	5.56	--	--	--	--	
				10/24/78	148	.33	--	--	--	--	
				11/13/79	8,260	18.4	--	59	15	(157)	
				04/29/80	6,290	14.0	--	59	15	--	
				11/06/80	81	.18	--	58	14.5	(243)	
				04/10/81	4,240	9.45	--	59	15	(158)	
				10/20/81	0	0	--	56	13	(280)	
				04/12/82	2,740	6.10	--	--	--	--	
				11/02/82	94	.21	--	--	--	--	
				10/23/85	--	--	--	59	15	113 (211)	
Q-70	Peck Spring	NE¼ sec. 27, T. 7 S., R. 2 W.	Bangor Limestone	03/10/59	300	.67	618	58	14.5	--	--
				04/13/60	480	1.07	--	--	--	--	
*R-157	Hughes Spring	NW¼ sec. 24, T. 7 S., R. 1 W.	Bangor Limestone	08/08/58	500	1.11	600	62	16.5	(144)	Water-quality and flow-measurement station.
				04/13/60	4,100	9.13	--	--	--	--	
				05/02/68	3,490	7.78	--	56	13.5	(171)	
				10/16/68	274	.61	--	57	14	--	
				05/12/69	2,450	5.45	--	56	13	(173)	
				10/02/70	198	.44	--	61	16	--	
				04/21/71	2,980	6.63	--	61	16	(160)	
				04/23/73	3,500	7.80	--	--	--	--	
				04/09/74	12,600	28.1	--	56	13	--	
				10/23/74	400	.89	--	--	--	--	
				04/07/75	10,600	23.6	--	54	12	--	
				11/04/76	1,290	2.87	--	58	14.5	--	
				04/21/77	2,640	5.89	--	--	--	--	
				11/16/77	7,720	17	--	53	11.5	--	
				10/24/78	148	.33	--	--	--	--	
				11/13/79	10,100	22.5	--	57	14	(122)	
				04/28/80	10,400	23.1	--	55	13	--	
				11/06/80	786	1.75	--	58	14.5	(182)	
				04/09/81	2,820	6.29	--	58	14.5	(220)	
				10/20/81	153	.34	--	57	14	(270)	

Appendix 1.--Basic data for springs in Alabama - Continued

Morgan County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*R-157 - Cont'd	Hughes Spring	NW¼ sec. 24, T. 7 S., R. 1 W.	Bangor Limestone	04/12/82	8,080	18.0	--	--	--	--	Water-quality and flow-measurement station.
				11/02/82	139	.31	--	--	--	--	
				11/19/84	1,690	3.76	--	--	--	--	
				11/05/85	4,620	10.3	--	59	15	74 (148)	
R-166	Ryan Spring	SW¼ sec. 26, T. 7 S., R. 1 W.	Bangor Limestone	09/04/58	5	.01	600	62	16.5	--	--
				05/14/81	5	.01	--	58	14.5	(1,110)	
V-17	Copper Spring	SE¼ sec. 8, T. 8 S., R. 2 W.	Pottsville Formation	03/18/59	100	.22	1,018	51	10.5	--	--
				04/13/60	150	.33	--	--	--	--	
W-32	Cole Spring	SE¼ sec. 10, T. 8 S., R. 3 W.	Bangor Limestone	03/25/59	100	.22	762	61	16	(173)	--
				04/12/60	360	.80	--	--	--	--	
X-93	Blowing Spring	SW¼ sec. 23, T. 8 S., R. 4 W.	Bangor Limestone	04/08/59	100	.22	618	56	13.5	--	--
				04/12/60	100	.22	--	--	--	--	

Perry County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
J-2	C. A. Webb	NW¼ sec. 29, T. 20 N., R. 7 E.	Eutaw Formation	01/29/68	43	0.10	362	64	18	(61)	--

Pickens County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-1	Boyd Clemmons	SW¼ sec. 8, T. 18 S., R. 15 W.	Eutaw Formation	04/04/63	2.5	0.006	404	--	--	--	--

Appendix 1.--Basic data for springs in Alabama - Continued

Pike County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-10	Everette Singleton	NE¼ sec. 25, T. 11 N., R. 22 E.	Clayton Formation	04/29/65	10	0.02	--	--	--	--	--
X-3	Mitchell Barefoot	NE¼ sec. 16, T. 8 N., R. 23 E.	Clayton Formation	04/15/65	400	.89	332	--	--	156 (268)	--
X-6	Horace Tew	NE¼ sec. 27, T. 8 N., R. 23 E.	Clayton Formation	05/21/65	300	.67	--	--	--	--	--

Randolph County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-4	Bruce Gay	NE¼ sec. 23, T. 18 S., R. 12 E.	Phyllite	04/01/70	10	0.02	890	55	13	(22)	
B-01	Mt. Gilead School	SW¼ sec. 30, T. 18 S., R. 12 E.	Mica schist	02/08/52	<1	<.002	--	--	--	(20.5)	No. 334 in Baker (1957).
K-7	T. C. Kirby	SW¼ sec. 7, T. 20 S., R. 11 E.	Phyllite	03/31/70	10	.02	--	60	15.5	(24)	--
N-01	Louina School	SW¼ sec. 31, T. 21 S., R. 11 E.	Mica schist	02/19/52	<1	<.002	--	--	--	(20.7)	No. 336 in Baker (1957). Dry in fall.
N-02	Handley Chapel School	NW¼ sec. 4, T. 21 S., R. 11 E.	Phyllite	02/21/52	<1	<.002	--	--	--	(27.5)	No. 337 in Baker (1957).
U-01	County Line School	SW¼ sec. 18, T. 22 S., R. 10 E.	Phyllite	02/12/52	<5	<.01	--	--	--	(24.1)	No. 335 in Baker (1957).

Shelby County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-6	J. K. Whitfield	SE¼ sec. 33, T. 18 S., R. 2 E.	Newala and Longview Limestones undifferentiated	09/17/68	100	0.22	475	62	17	(251)	--
G-2	City of Vincent	NW¼ sec. 11, T. 19 s., R. 2 E.	Newala and Longview Limestones undifferentiated	09/17/68	715	1.59	430	67	19.5	110 (208)	--
J-12	Highland Spring	NW¼ sec. 32, T. 19 S., R. 2 W.	Newala and Longview Limestones undifferentiated	07/20/28 09/11/68	380 790	.85 1.76	470 --	63 64	17 18	-- (219)	No. 54 in Johnson (1933, pt. 2, table 40).

Appendix 1.--Basic data for springs in Alabama - Continued

Shelby County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
J-13	Indian Springs School	SE¼ sec. 32, T. 19 S., R. 2 W.	Newala and Longview Limestones undifferentiated	07/30/28 09/11/68	40 200	0.09 .45	465 --	63 66	17 19	-- 120 (223)	No. 55 in Johnson (1933, pt 2, table 40).
M-4	David Upton	NW¼ sec. 12, T. 20 S., R. 3 W.	Newala and Longview Limestones undifferentiated	11/07/68	350	.78	440	67	19.5	120 (224)	--
M-01	Lee Spring	SW¼ sec. 16, T. 20 S., R. 3 W.	Ketona Dolomite	08/08/28	5	.01	--	64.2	18	285	No. 58 in Johnson (1933, pt. 2, table 40).
P-2	J. F. Wall	SW¼ sec. 17, T. 20 S., R. 1 E.	Fort Payne Chert	09/13/68	150	.33	450	63	17	(238)	--
W-3	Buck Creek Spring	SW¼ sec. 2, T. 21 S., R. 3 W.	Newala and Longview Limestones undifferentiated	08/06/28 09/10/68	300 825	.67 1.84	-- --	64 67	17.5 19.5	-- 119 (220)	No. 59 in Johnson (1933, pt. 2, table 40).
W-6	Griffin Spring	NW¼ sec. 9, T. 21 S., R. 3 W.	Ketona Dolomite	08/08/28 11/19/68	10 10	.02 .02	440 --	64 --	17.5 --	-- --	No. 60 in Johnson (1933, pt. 2, table 40).
W-15	Groven C. Peters	NE¼ sec. 35, T. 21 S., R. 3 W.	Brierfield Dolomite	11/07/68	35	.08	480	67	19.5	(284)	--
AA-1	Stancel Spring	SE¼ sec. 1, T. 22 S., R. 3 W.	Brierfield Dolomite	09/11/68	0	0	460	64	18	(285)	--
AA-2	John F. Mather	SW¼ sec. 2, T. 22 S., R. 3 W.	Brierfield Dolomite	09/16/68	1,675	3.73	470	66	19	115 (210)	--
*AA-7	Shoal Creek or Little Spring	SE¼ sec. 20, T. 22 S., R. 3 W.	Brierfield Dolomite	08/07/28 09/10/68 11/25/85 05/13/86	250 1,075 440 296	.56 2.39 .98 .66	370 -- -- --	63.8 65 66 63	17.5 18.5 19 17	153 172 (321) 205 (480) 204 (326)	Water-quality station.
BB-5	City of Calera	SE¼ sec. 14, T. 22 S., R. 2 W.	Talladega Group	09/05/68	50	.11	520	--	--	(252)	--
CC-01	Shelby Springs	NW¼ sec. 7, T. 22 S., R. 1 W.	Talladega Group	08/06/28	25	.06	--	64	18	--	Historic springs. Listed in Smith (1907, p. 75). No. 71 in Johnson (1933, pt. 2, table 40).
DD-4	Kewahatchie Spring	NE¼ sec. 16, T. 22 S., R. 1 E.	Newala and Longview Limestones undifferentiated	08/05/28 12/16/66 09/11/68	200 947 520	.45 2.11 1.16	435 -- --	65 -- --	18.5 -- --	-- -- (242)	No. 72 in Johnson (1933, pt. 2, table 40).
*GG-3	Bay Springs	NW¼ sec. 21, T. 24 N., R. 15 E.	Newala and Longview Limestones undifferentiated	08/05/28 06/19/68 09/12/68 10/25/68 04/29/69 11/06/69 10/13/70 10/21/74 11/04/80 04/23/81	1,000 2,960 1,725 2,330 4,310 1,980 1,700 1,950 1,460 4,270	2.23 6.59 3.84 5.19 9.59 4.42 3.78 4.35 3.26 9.50	420 -- -- -- -- -- -- -- -- --	64 -- -- 66 59 61 66 -- -- --	18 -- -- 19 15 16 19 -- -- --	-- -- -- 138 (258) -- -- -- -- -- --	No. 74 in Johnson (1933, pt. 2, table 40). Water-quality and flow-measurement station.

Appendix 1.--Basic data for springs in Alabama - Continued

Shelby County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*GG-3 - Cont'd	Bay Springs	NW¼ sec. 21, T. 24 N., R. 15 E.	Newala and Longview Limestones undifferentiated	10/29/81	1,390	3.10	--	--	--	--	No. 74 in Johnson (1933, pt. 2, table 40). Water-quality and flow-measurement station.
				11/02/82	1,720	3.84	--	--	--	--	
				11/08/84	1,820	4.06	--	--	--	--	
				10/23/85	1,320	2.95	--	64	18	133 (260)	
JJ-2	Wilson Spring	SE¼ sec. 4, T. 24 N., R. 12 E.	Ketona Dolomite (?)	08/07/28	50	.11	395	64	18	--	No. 73 in Johnson (1933, pt. 2, table 40).
				10/15/68	0	0	--	64	18	(277)	

St. Clair County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*E-5	Muckleroy Spring	NE¼ sec. 22, T. 13 S., R. 3 E.	Bangor Limestone	06/08/61	1,500	3.34	605	58	14.5	--	Operated as continuous-record gaging station 02401387, Muckleroy Spring near Whitney, Ala., from April 1969 to September 1974. Average discharge for period 1969-74, 9.03 ft^3/s (4,050 gpm) (U.S. Geological Survey, 1974). Water-quality and flow-measurement station.
				11/09/76	647	1.44	--	--	--	--	
				04/15/77	7,810	17.4	--	--	--	--	
				12/24/78	494	1.10	--	61	16	(258)	
				10/30/79	3,360	7.49	--	--	--	--	
				04/24/80	7,090	15.8	--	62	16.5	(116)	
				04/29/81	2,380	5.29	--	59	15	(195)	
				10/22/81	570	1.27	--	59	15	(280)	
				11/02/82	718	1.60	--	--	--	--	
				11/02/84	902	2.01	--	--	--	--	
				10/22/85	1,890	4.20	--	59	15	133 (235)	
F-7	Mashburn or Moyers Spring	SW¼ sec. 26, T. 13 S., R. 4 E.	Knox Group undifferentiated	10/05/28	30	.07	532	60.1	15.5	--	No. 40 in Johnson (1933, pt. 2, table 38).
				10/27/60	75	.17	--	60	15.5	--	
				12/26/84	20	.04	--	59	15	(350)	
K-3	Ashville Spring	SW¼ sec. 5, T. 14 S., R. 4 E.	Knox Group undifferentiated	10/05/28	115	.26	544	61.3	16	168	No. 57 in Johnson (1933, pt. 2, table 38).
				06/08/61	670	1.49	--	60	15.5	(295)	
				1961	1,040	2.32	--	--	--	--	
				03/21/75	800	1.78	--	52	11	166 (332)	
				12/20/84	850	1.89	--	--	--	238 (370)	
				12/26/84	960	2.14	--	61	16	164 (305)	
L-9	Robertson Spring	SW¼ sec. 13, T. 14 S., R. 3 E.	Knox Group undifferentiated	09/06/28	250	.56	610	62.3	17	--	No. 53 in Johnson (1933, pt. 2, table 38).
				11/22/60	25	.06	--	--	--	--	
*M-8	Springville Springs	NW¼ sec. 31, T. 14 S., R. 2 E.	Knox Group undifferentiated	09/08/28	1,760	3.92	710	59.7	15	130	Special project station. Estimated average discharge for period October 1960 to June 1961, 1,500 gpm (Causey, 1963). No. 51 in Johnson (1933, pt. 2, table 38). Water-quality station.
				02/08/61	1,440	3.21	--	59	15	(238)	
				11/15/85	570	1.27	--	64	18	133 (350)	
				06/06/86	162	.36	--	61	16	14 (217)	

Appendix 1.--Basic data for springs in Alabama - Continued

St. Clair County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
O-1	Trevenor Spring	SW¼ sec. 1, T. 15 S., R. 1 E.	Knox Group undifferentiated	09/08/28 06/07/61	770 700	1.71 1.56	713 --	60 60	15.5 15.5	-- (232)	No. 58 in Johnson (1933, pt. 2, table 38).
P-1	St. Clair Sulphur or St. Clair Springs	NE¼ sec. 2, T. 15 S., R. 2 E.	Conasauga Formation	10/06/28 11/15/60	260 10	.58 .02	640 --	60.4 60	15.5 15.5	-- --	Historic springs. Listed in Fitch (1927, p. 210-211). No. 60 in Johnson (1933, pt. 2, table 38).
P-2	Big Spring	NW¼ sec. 2, T. 15 S., R. 2 E.	Conasauga Formation	10/06/28 06/08/61	215 240	.48 .53	632 --	62.5 61	16.5 16	-- --	No. 61 in Johnson (1933, pt. 2, table 38).
V-9	Pump Station Spring	NW¼ sec. 31, T. 16 S., R. 4 E.	Fort Payne Chert	10/07/28 02/08/61	500 300	7.11 .67	537 --	-- --	-- --	149 --	No. 67 in Johnson (1933, pt. 2, table 38).
W-8	Hinesman Spring	SW¼ sec. 26, T. 16 S., R. 3 E.	Fort Payne Chert	10/07/28 02/08/61	20 235	.04 .52	535 --	62.8 59	17 15	151 (248)	No. 65 in Johnson (1933, pt. 2, table 38).
*X-2	Town Spring	SE¼ sec. 4, T. 16 S., R. 2 E.	Knox Group undifferentiated	10/08/28 06/07/61 11/15/85 06/06/86	75 80 0 0	.17 .18 0 0	790 -- -- --	62.8 61 63 65	17 16 17 18	-- -- 133 (320) 135 (211)	No. 63 in Johnson (1933, pt. 2, table 38). Water-quality station.
X-01	Cook's Springs	SE¼ sec. 35, T. 16 S., R. 2 E.	Maury Formation and Fort Payne Chert	10/08/28	13	.03	580	63.1	17	--	Historic springs. Listed Fitch (1927, p. 205-207). No. 64 in Johnson (1933, pt. 2, table 38).
*Z-01	Weems Spring	SW¼ sec. 1, T. 17 S., R. 1 E.	Knox Group undifferentiated	11/15/85 06/06/86	0 0	0 0	670 --	66 66	19 19	137 (330) 119 (214)	Water-quality station.
Z-7	Cedar Grove Spring	NE¼ sec. 15, T. 17 S., R. 1 E.	Chickamauga Limestone (?)	06/07/61 04/12/77 06/06/77	400 540 410	.89 1.20 .91	648 -- --	62 62 --	16.5 16.5 --	-- 138 (239) --	--

Sumter County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
R-01	H. L. Jones' Spring	SE¼ sec. 6, T. 19 N., R. 1 W.	Demopolis Chalk	1907	<1	<.002	--	--	--	--	Historic spring. Flows from fracture in chalk. Listed in Smith (1907, p. 131-132).

Appendix 1.--Basic data for springs in Alabama - Continued

Talladega County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
C-16	Blue Eye Spring	SW¼ sec. 32, T. 16 S., R. 5 E.	Knox Group undifferentiated	10/14/28	300	0.67	468	62.4	16.5	--	No. 39 in Johnson (1933, pt. 2, table 42).
				04/02/68	550	1.22	--	61	16	--	
				02/27/86	408	.91	--	--	--	--	
*G-14	Cedar Spring	SW¼ sec. 28, T. 17 S., R. 6 E.	Knox Group undifferentiated	10/18/28	2,500	5.57	510	62.6	16.5	--	No. 41 in Johnson (1933, pt. 2, table 42). Water-quality and flow-measurement station.
				04/03/63	3,300	7.35	--	61	16	--	
				03/13/75	3,830	8.53	--	--	--	--	
				11/02/76	2,510	5.60	--	--	--	--	
				11/16/77	3,310	7.37	--	--	--	--	
				11/21/78	3,240	7.22	--	--	--	--	
				11/13/79	3,460	7.71	--	--	--	--	
				05/04/80	3,580	7.97	--	--	--	--	
				11/13/80	2,850	6.34	--	--	--	--	
				04/17/81	3,420	7.62	--	--	--	--	
				10/23/81	2,320	5.16	--	--	--	--	
				11/01/84	2,420	5.40	--	--	--	--	
				10/24/85	2,460	5.49	--	63	17	121 (260)	
				02/07/86	2,200	4.90	--	--	--	--	
				08/27/86	1,900	4.23	--	--	--	--	
H-4	Rushing Spring	NW¼ sec. 7, T. 17 S., R. 5 E.	Knox Group undifferentiated	10/14/28	3,900	8.69	461	62.3	16.5	--	Inundated by Logan Martin Lake. No. 40 in Johnson (1933, pt. 2, table 42).
				04/02/63	4,800	10.7	--	--	--	--	
H-5	Sam Houston Spring	NE¼ sec. 8, T. 17 S., R. 5 E.	Knox Group undifferentiated	04/02/63	1,400	3.12	474	--	--	--	--
				02/27/86	1,170	2.61	--	61	16	--	
L-12	William Pruitt Spring	NE¼ sec. 36, T. 18 S., R. 4 E.	Conasauga Formation	04/02/63	800	1.78	520	62	16.5	107 (188)	--
				02/27/86	654	1.46	--	--	--	--	
M-11	City Spring	SE¼ sec. 27, T. 18 S., R. 5 E.	Conasauga Formation	10/18/28	100	.22	533	64.3	18	--	No. 46 in Johnson (1933, pt. 2, table 42).
				03/19/63	500	1.11	--	--	--	--	
				04/03/63	1,100	2.45	--	--	--	--	
				01/24/86	0	0	--	--	--	--	
M-07	Spout Spring	NE¼ sec. 16, T. 18 S., R. 5 E.	Lenoir Limestone (?)	10/19/28	40	.09	--	62.5	17	--	No. 42 in Johnson (1933, pt. 2, table 42).
M-08	Shocco Springs	NW¼ sec. 16, T. 18 S., R. 5 E.	Chilhowee Group	10/19/28	5	.01	--	63.4	17.5	25	Former health resort spring. Listed in Fitch (1927, p. 213). No. 44 in Johnson (1933, pt. 2, table 42).
N-6	Robert McMellon Spring	NW¼ sec. 9, T. 18 S., R. 6 E.	Knox Group undifferentiated	09/18/62	400	.89	530	66	19	--	--
				02/27/86	613	1.37	--	--	--	--	
*R-2	Grogan Spring	SW¼ sec. 7, T. 19 S., R. 5 E.	Knox Group undifferentiated	04/03/63	1,470	3.28	490	63	17	--	Water-quality and flow-measurement station.
				10/01/73	1,100	2.45	--	--	--	--	
				03/31/75	2,030	4.52	--	--	--	--	
				11/02/76	1,070	2.39	--	--	--	--	
				11/01/84	844	1.88	--	--	--	--	
				10/23/85	373	.83	--	65	18	128 (210)	
				02/07/86	600	1.34	--	--	--	--	
				08/27/86	162	.36	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Talladega County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
V-7	City of Childersburg	SE¼ sec. 17, T. 20 S., R. 3 E.	Knox Group undifferentiated	10/23/62	500	1.11	417	--	--	(233)	Water from creek inundates spring.
*V-14	Tallasseehatchee Spring	SE¼ sec. 24, T. 20 S., R. 3 E.	Knox Group undifferentiated	04/02/63	2,200	4.90	416	62	16.5	--	Water-quality and flow-measurement station.
				03/31/75	2,150	4.79	--	--	--	--	
				11/02/76	189	.42	--	--	--	--	
				11/17/77	368	.82	--	--	--	--	
				11/21/78	1,250	2.79	--	--	--	--	
				11/13/79	1,600	3.57	--	--	--	--	
				05/04/80	2,800	6.25	--	--	--	--	
				11/13/80	889	1.98	--	--	--	--	
				04/17/81	2,000	4.45	--	--	--	--	
				11/15/84	377	.84	--	--	--	--	
				10/23/85	741	1.65	--	63	17	114 (260)	
				02/27/86	604	1.35	--	--	--	--	
V-17	Danville Knitting Mills	NE¼ sec. 28, T. 20 S., R. 3 E.	Knox Group undifferentiated	04/02/63	200	.45	421	62	16.5	142 (247)	--
				11/13/63	200	.45	--	--	--	--	
				02/27/86	214	.48	--	--	--	--	
W-1	Darby Spring	NW¼ sec. 1, T. 20 S., R. 4 E.	Shady Dolomite (?)	10/20/28	155	.35	508	62.6	17	--	No. 48 in Johnson (1933, pt. 2, table 42).
				04/03/63	1,200	2.67	--	63	17	123 (214)	
				02/04/86	0	0	--	--	--	--	
W-17	Johnny Jones	SW¼ sec. 29, T. 20 S., R. 4 E.	Knox Group undifferentiated	04/02/63	1,600	3.56	433	63	17	(255)	--
				02/27/86	816	1.82	--	--	--	--	
AA-16	J. Hickman	NW¼ sec. 22, T. 21 S., R. 4 E.	Knox Group undifferentiated	06/25/55	1,000	2.23	500	--	--	--	--
				02/28/86	324	.72	--	--	--	--	
AA-17	City or Noble Park Spring	NE¼ sec. 29, T. 21 S., R. 4 E.	Knox Group undifferentiated	10/20/28	100	.22	540	63.2	17	--	No. 50 in Johnson (1933, pt. 2, table 42).
				02/02/86	0	0	--	--	--	--	
										--	
DD-1	Avondale Mills	SE¼ sec. 24, T. 21 S., R. 1 E.	Kahatchee Mountain Group	12/19/62	50	.11	407	--	--	(282)	--
FF-1	W. D. Graham	SW¼ sec. 1, T. 22 S., R. 2 E.	Knox Group undifferentiated	01/08/63	200	.45	431	--	--	--	--
				04/02/63	500	1.11	--	--	--	--	
				02/25/86	224	.50	--	--	--	--	
FF-6	A. D. Waites	NW¼ sec. 12, T. 22 S., R. 2 E.	Knox Group undifferentiated	01/08/63	75	.17	479	--	--	(225)	--
				04/02/63	290	.65	--	--	--	--	
				02/24/86	4	.01	--	--	--	--	
FF-9	John M. Hightower	NW¼ sec. 14, T. 22 S., R. 2 E.	Knox Group undifferentiated	01/03/63	300	.67	457	63	17	(239)	--
				02/25/86	295	.66	--	--	--	--	
FF-10	Talladega Spring	NW¼ sec. 16, T. 22 S., R. 2 E.	Parkwood Formation	10/23/28	.5	.001	416	65.2	18.5	--	Former health resort spring. Listed in Fitch (1927, p. 211-212). No. 53 in Johnson (1933, pt. 2, table 42).
				01/03/63	.5	.001	--	--	--	(1,590)	
				02/24/86	0	0	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Talladega County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
GG-1	Gantts Spring	NE¼ sec. 2, T. 22 S., R. 3 E.	Sylacauga Marble Group	10/22/28 03/01/57 02/24/86	150 200 0	0.33 .45 0	595 -- --	63.5 61 --	17.5 16 --	-- (301) --	No. 54 in Johnson (1933, pt. 2, table 42).
GG-2	Alabama Marble Co.	NE¼ sec. 2, T. 22 S., R. 3 E.	Sylacauga Marble Group	03/01/57 02/24/86	-- 0	-- 0	565 --	-- --	-- --	(254) --	--
GG-5	Averett Spring	SW¼ sec. 6, T. 22 S., R. 3 E.	Sylacauga Marble Group	10/23/28 04/02/63 02/25/86	100 1,200 658	.22 2.67 1.47	447 -- --	63.1 62 --	17 16.5 --	-- (247) --	No. 52 in Johnson (1933, pt. 2, table 42).
HH-01	Warm Spring	NE¼ sec. 14, T. 22 S., R. 4 E.	Talladega Group	10/20/28	200	.45	--	68.5	20.5	--	Thermal spring. Described in Johnson (1933, pt. 1, p. 321). No. 55 in Johnson (1933, pt. 2, table 42).

Tallapoosa County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
B-2	L. O. Claybrook	NW¼ sec. 13, T. 24 N., R. 23 E.	Phyllite	01/24/70	1	0.002	749	54	12.5	(34)	--
G-4	U.S. Government	SE¼ sec. 15, T. 23 N., R. 23 E.	Alluvial and low terrace deposits	11/03/69	3	.01	557	60	15.5	(26)	--
K-1	Lake Hill Restaurant	SE¼ sec. 7, T. 22 N., R. 22 E.	Gneiss	12/16/69	2	.004	485	59	15	(43)	--
K-4	Wilmer Dean	SW¼ sec. 16, T. 22 N., R. 22 E.	Schist	12/16/69	5	.01	560	59	15	(105)	--
U-4	Joe Johnson	SE¼ sec. 19, T. 19 N., R. 22 E.	Alluvial and low terrace deposits	11/04/69	3	.01	342	60	15.5	(73)	--
W-4	Andrew Gantt	SE¼ sec. 21, T. 18 N., R. 22 E.	Tuscaloosa Group undifferentiated	01/27/70	107	.24	303	64	18	(43)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Tuscaloosa County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-7	Brookwood Spring	NE¼ sec. 30, T. 20 S., R. 7 W.	Coker Formation	09/16/28	15	0.03	555	65	18.5	14	No. 56 in Johnson (1933, pt. 2, table 44).
X-21	Rickey Spring	NW¼ sec. 35, T. 20 S., R. 6 W.	Knox Group undifferentiated	09/14/28	75	.17	--	64	18	117	No. 68 in Johnson (1933, pt. 2, table 44).
Y-13	Goethite Spring	SW¼ sec. 30, T. 20 S., R. 5 W.	Knox Group undifferentiated	09/14/28	200	.45	--	64.2	18	141	No. 60 in Johnson (1933, pt. 2, table 44).
*Y-14	Tannehill Spring	NE¼ sec. 32, T. 20 S., R. 5 W.	Conasauga Formation	10/12/71	840	1.87	450	--	--	--	Water-quality and flow-measurement station.
				03/15/77	3,050	6.79	--	--	--	--	
				03/22/77	3,400	7.57	--	--	--	--	
				06/06/77	2,030	4.52	--	--	--	--	
				11/03/77	2,910	6.49	--	--	--	--	
				11/22/78	507	1.13	--	--	--	--	
				11/13/79	1,490	3.31	--	--	--	--	
				04/09/80	3,230	7.20	--	--	--	--	
				11/04/80	1,800	4.02	--	--	--	--	
				04/20/81	2,800	6.24	--	--	--	--	
				11/08/82	543	1.21	--	--	--	--	
				11/16/84	894	1.99	--	--	--	--	
				10/29/85	705	1.57	--	63	17	130 (306)	
BB-20	Poplar Spring	SW¼ sec. 25, T. 21 S., R. 7 W.	Coker Formation	09/14/28	20	.04	--	65.6	18.5	--	No. 75 in Johnson (1933, pt. 2, table 44).
				05/18/52	--	--	--	63	17	(226)	
BB-21	Isom Spring	SE¼ sec. 19, T. 21 S., R. 7 W.	Coker Formation	09/14/28	2	.004	--	65.2	18.5	20	No. 74 in Johnson (1933, pt. 2, table 44).
EE-67	Pure Process Ice Co.	NW¼ sec. 22, T. 21 S., R. 10 W.	Terrace deposits	09/13/28	70	.16	149	66.3	19	256	No. 72 in Johnson (1933, pt. 2, table 44).
				12/21/55	20	.04	--	--	--	--	
EE-68	University Spring (University of Alabama)	SE¼ sec. 14, T. 21 S., R. 10 W.	Terrace deposits	09/13/28	100	.22	173	64.8	18	--	No. 70 in Johnson (1933, pt. 2, table 44).
				12/23/55	100	.22	--	--	--	--	
EE-69	Northport Spring	NW¼ sec. 16, T. 21 S., R. 10 W.	Terrace deposits	09/13/28	100	.22	162	65.7	18.5	27	No. 71 in Johnson (1933, pt. 2, table 44).
				12/22/55	60	.13	--	--	--	--	
*LL-16	Big Sandy (Creek) Spring	NW¼ sec. 25, T. 22 S., R. 8 W.	Knox Group undifferentiated (?)	04/19/44	7,360	16.4	272	--	--	--	Subaqueous spring. Water-quality and flow-measurement station.
				07/22/52	4,890	10.9	--	--	--	--	
				04/13/53	3,650	8.13	--	--	--	--	
				10/10/70	6,110	13.6	--	--	--	--	
				04/15/71	7,990	17.8	--	--	--	--	
				04/16/73	8,130	18.1	--	--	--	--	
				04/02/74	7,320	16.3	--	--	--	--	
				10/30/74	6,690	14.9	--	--	--	--	
				04/18/75	8,850	19.7	--	--	--	--	
				11/04/76	3,050	6.80	--	--	--	--	
				05/12/77	6,150	13.7	--	--	--	--	
				11/03/77	5,390	12.0	--	--	--	--	

Appendix 1.--Basic data for springs in Alabama - Continued

Tuscaloosa County - Continued

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
*LL-16 - Cont'd	Big Sandy (Creek) Spring	NW¼ sec. 25, T. 22 S., R. 8 W.	Knox Group undifferentiated (?)	11/01/78	6,110	13.6	--	--	--	--	Subaqueous spring. Water-quality and flow-measurement station.
				11/06/79	5,610	12.5	--	--	--	--	
				04/16/80	7,990	17.8	--	--	--	--	
				11/20/80	7,410	16.5	--	--	--	--	
				04/20/81	9,920	22.1	--	--	--	--	
				04/23/82	7,410	16.5	--	--	--	--	
				11/08/82	6,780	15.1	--	--	--	--	
				11/01/85	6,150	13.7	--	63	17	130 (271)	

Walker County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
F-01	Waterworks Spring	SE¼ sec. 24, T. 13 S., R. 10 W.	Pottsville Formation	08/31/29	100	0.22	--	62.2	16.5	186	No. 44 in Johnson (1933, pt. 2, table 46).
V-01	Benoit Spring	SE¼ sec. 10, T. 15 S., R. 6 W.	Pottsville Formation	09/02/29	2	.004	--	63.6	17.5	33	No. 49 in Johnson (1933, pt. 2, table 46).

Washington County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
D-3	Healing Springs	SE¼ sec. 25, T. 8 N., R. 4 W.	Miocene Series undifferentiated	04/18/67	4.4	0.01	128	67	19.5	(82)	Former health resort springs. Consists of 11 mineral springs. Source of commercial mineral water in 1905 (Day, 1905). Listed in Smith (1907, p. 299) and Fitch (1927, p. 207-208).
M-3	W. G. Hearn	NE¼ sec. 15, T. 6 S., R. 1 E.	Terrace deposits	07/06/66	1,000	2.23	135	67	19.5	(39)	--

Appendix 1.--Basic data for springs in Alabama - Continued

Wilcox County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
W-2	McTama School	NE¼ sec. 10, T. 11 N., R. 8 E.	Nanafalia Formation	07/28/67	1	0.002	398	64	18	(34)	--

Winston County

Spring no.	Spring name or owner	Location	Water-bearing unit	Estimated or measured discharge			Altitude of land surface (ft)	Temperature		Total dissolved solids (specific conductance)	Remarks
				Date	gpm	ft^3/s		°F	°C		
E-4	City of Haleyville	SW¼ sec. 29, T. 9 S., R. 10 W.	Tuscaloosa Group	10/29/65	83	0.18	900	--	--	26 (30)	--
E-11	City Spring	NE¼ sec. 32, T. 9 S., R. 10 W.	Pottsville Formation	08/28/29 10/29/65	200 635	.45 1.41	840 --	62.2 --	16.5 --	19 36 (40)	Five springs. No. 43 in Johnson (1933, pt. 2, table 48).
G-4	L. E. Taylor	NE¼ sec. 24 T. 10 S., R. 9 W.	Pottsville Formation	01/11/66	25	.06	--	61	16	--	--
G-01	Blue Spring	SW¼ sec. 1, T. 10 S., R. 9 W.	Pottsville Formation	08/30/29	20	.04	--	62.3	16.5	26	No. 45 in Johnson (1933, pt. 2, table 48).
H-01	Double Springs	NE¼ sec. 29, T. 10 S., R. 8 W.	Pottsville Formation	08/28/29	30	.07	--	63.1	17	70	No. 46 in Johnson (1933, pt. 2, table 48).

APPENDIX 2

Results of chemical analyses of water samples from spring water-quality stations, 1985-86

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	FF-8	FF-8	C-01	C-01	L-1	L-1
Location (County)	Barbour	Barbour	Bibb	Bibb	Bibb	Bibb
Date of collection	10/24/86	05/22/86	11/25/85	05/13/86	11/25/85	05/13/86
Time	1256	1105	0619	0822	0925	0924
Flow (ft^3/sec)	2.0	0.69	0.28	0.18	1.62	1.35
Specific conductance (µmhos/cm)	240	212	300	185	310	183
Temperature (°C)	21	20	19	19	19	18
Bicarbonate (mg/L)	130	150	140	140	150	140
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	110	120	110	110	120	110
pH	7.8	7.8	7.4	7.3	7.6	7.6
Silica (mg/L)	16	16	7.2	8.5	6.8	8.2
Calcium (mg/L)	45	45	44	44	36	34
Magnesium (mg/L)	1.5	1.2	.9	4.2	10	11
Sodium (mg/L)	1.0	1.8	1.7	1.4	1.4	1.1
Potassium (mg/L)	.4	1.0	.6	.5	.8	.7
Sulfate (mg/L)	2.2	4.5	3.2	1.5	2.0	ND
Chloride (mg/L)	.8	2.5	ND	1.8	.3	1.9
Fluoride (mg/L)	.06	.05	.05	.06	.05	.03
Nitrate as N (mg/L)	.70	.70	.13	.14	.39	.40
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	ND	--	ND	--	ND	--
Total Kjeldahl Nitrogen as N (mg/L)	ND	--	.90	--	.82	--
Phosphorus as P (mg/L)	.01	--	.01	--	.01	--
Orthophosphate as P (mg/L)	.01	--	.02	--	.01	--
Arsenic (µg/L)	<1	--	2	--	1	--
Barium (µg/L)	40	--	20	--	10	--
Cadmium (µg/L)	1	--	2	--	<1	--
Chromium (µg/L)	1	--	4	--	<1	--
Cobalt (µg/L)	1	--	1	--	ND	--
Iron (µg/L)	10	10	120	10	20	20
Lead (µg/L)	2	--	ND	--	ND	--
Manganese (µg/L)	<10	10	<10	10	<10	<5
Mercury (µg/L)	ND	--	ND	--	<.05	--
Selenium (µg/L)	ND	--	2	--	2	--
Silver (µg/L)	ND	--	<1	--	<1	--
Strontium (µg/L)	100	--	50	--	120	--
Zinc (µg/L)	ND	--	270	--	30	--
Total dissolved solids (mg/L)	134	127	127	131	133	128
Hardness as $CaCO_3$ (mg/L)	120	120	110	130	130	130

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	V-1	D-5	J-4	T-3	T-3	F-68
Location (County)	Bibb	Blount	Blount	Blount	Blount	Calhoun
Date of collection	10/29/85	11/07/85	11/07/85	11/14/85	06/05/86	10/22/85
Time	--	1130	1230	1215	1052	--
Flow (ft^3/sec)	37.2	0.98	7.19	0.33	0.36	3.70
Specific conductance (µmhos/cm)	201	170	259	192	167	221
Temperature (°C)	--	15	15	17	18	--
Bicarbonate (mg/L)	120	89	130	130	120	140
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	98	73	110	110	98	110
pH	7.6	7.0	7.4	7.4	7.0	7.5
Silica (mg/L)	6.6	6.2	6.0	6.3	8.0	6.0
Calcium (mg/L)	26	29	44	22	22	32
Magnesium (mg/L)	10	1.8	2.7	12	12	9.9
Sodium (mg/L)	2.5	1.2	2.0	.9	1.2	.8
Potassium (mg/L)	1.0	.6	.8	.2	.4	.3
Sulfate (mg/L)	1.7	2.0	3.0	ND	3.1	ND
Chloride (mg/L)	3.6	.7	.8	.1	1.0	.2
Fluoride (mg/L)	ND	.02	.03	.02	.01	.07
Nitrate as N (mg/L)	.19	.88	.90	.48	.31	.38
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	.01	.01	.02	.14	--	.01
Total Kjeldahl Nitrogen as N (mg/L)	.46	.44	.44	.14	--	ND
Phosphorus as P (mg/L)	ND	ND	ND	ND	--	ND
Orthophosphate as P (mg/L)	ND	ND	ND	ND	--	ND
Arsenic (µg/L)	ND	ND	ND	ND	--	ND
Barium (µg/L)	140	10	10	10	--	40
Cadmium (µg/L)	<1	1	<1	1	--	<1
Chromium (µg/L)	ND	<1	<1	<1	--	1
Cobalt (µg/L)	1	ND	1	1	--	ND
Iron (µg/L)	500	20	100	50	<5	20
Lead (µg/L)	1	1	ND	1	--	ND
Manganese (µg/L)	40	<10	<10	20	10	10
Mercury (µg/L)	.05	ND	ND	ND	--	ND
Selenium (µg/L)	ND	ND	ND	ND	--	ND
Silver (µg/L)	<1	ND	<1	ND	--	ND
Strontium (µg/L)	40	50	90	ND	--	10
Zinc (µg/L)	<10	20	50	10	--	10
Total dissolved solids (mg/L)	111	89	127	108	108	120
Hardness as $CaCO_3$ (mg/L)	110	80	120	110	100	120

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	F-68	G-01	G-01	L-1	L-1	L-21
Location (County)	Calhoun	Calhoun	Calhoun	Calhoun	Calhoun	Calhoun
Date of collection	05/14/86	11/26/85	05/14/86	10/22/85	05/14/86	11/26/85
Time	1207	1636	1140	1000	1225	1720
Flow (ft^3/sec)	1.69	0.33	<0.01	2.94	0.17	0.25
Specific conductance (µmhos/cm)	195	240	171	188	190	290
Temperature (°C)	17	16	19	18	18	18
Bicarbonate (mg/L)	150	120	120	120	140	140
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	120	98	98	98	130	110
pH	7.4	7.8	7.7	7.1	7.8	7.4
Silica (mg/L)	7.6	5.9	7.5	9.2	8.6	6.9
Calcium (mg/L)	32	27	27	22	24	24
Magnesium (mg/L)	10	.4	8.8	12	13	13
Sodium (mg/L)	.8	.8	.9	1.3	1.7	1.7
Potassium (mg/L)	.5	.4	.5	1.5	1.1	1.1
Sulfate (mg/L)	ND	ND	ND	.9	ND	ND
Chloride (mg/L)	1.6	ND	1.6	.1	2.7	.9
Fluoride (mg/L)	.02	.01	.03	.06	.02	.07
Nitrate as N (mg/L)	.25	.33	.28	.18	.50	.58
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	ND	--	.03	--	ND
Total Kjeldahl Nitrogen as N (mg/L)	--	.10	--	.10	--	.66
Phosphorus as P (mg/L)	--	ND	--	.01	--	ND
Orthophosphate as P (mg/L)	--	ND	--	.01	--	ND
Arsenic (µg/L)	--	1	--	ND	--	<1
Barium (µg/L)	--	40	--	<10	--	10
Cadmium (µg/L)	--	<1	--	1	--	<1
Chromium (µg/L)	--	<1	--	1	--	ND
Cobalt (µg/L)	--	ND	--	ND	--	1
Iron (µg/L)	<5	10	40	20	10	10
Lead (µg/L)	--	1	--	1	--	ND
Manganese (µg/L)	ND	<10	20	10	<5	10
Mercury (µg/L)	--	ND	--	ND	--	ND
Selenium (µg/L)	--	ND	--	ND	--	ND
Silver (µg/L)	--	<1	--	<1	--	ND
Strontium (µg/L)	--	ND	--	20	--	10
Zinc (µg/L)	--	<10	--	<10	--	10
Total dissolved solids (mg/L)	128	103	107	107	122	119
Hardness as $CaCO_3$ (mg/L)	120	100	100	110	110	110

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	L-21	M-91	W-12	W-12	D-4	G-9
Location (County)	Calhoun	Calhoun	Calhoun	Calhoun	Cherokee	Cherokee
Date of collection	05/14/86	10/22/85	11/27/85	05/13/86	10/24/85	10/24/85
Time	1238	1050	0800	1607	--	1430
Flow (ft^3/sec)	0	2.53	22.9	30.3	2.30	2.86
Specific conductance (µmhos/cm)	178	211	240	166	270	295
Temperature (°C)	19	18	19	19	15	16
Bicarbonate (mg/L)	120	130	120	120	150	170
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	98	110	98	98	120	140
pH	7.9	7.0	7.6	7.7	7.8	7.7
Silica (mg/L)	11	6.0	9.6	12	5.4	5.6
Calcium (mg/L)	21	27	23	23	39	53
Magnesium (mg/L)	12	14	11	11	10	3.9
Sodium (mg/L)	1.3	1.0	1.2	1.1	.1	.7
Potassium (mg/L)	1.5	.4	1.5	1.4	.4	.3
Sulfate (mg/L)	2.0	ND	.4	ND	.1	1.7
Chloride (mg/L)	1.4	.4	.2	1.4	.8	.8
Fluoride (mg/L)	.01	.02	.02	.01	.05	.09
Nitrate as N (mg/L)	.08	.21	.20	.23	1.05	.58
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	.04	.01	--	.01	ND
Total Kjeldahl Nitrogen as N (mg/L)	--	.12	.16	--	.24	.02
Phosphorus as P (mg/L)	--	ND	.01	--	ND	ND
Orthophosphate as P (mg/L)	--	ND	.01	--	ND	ND
Arsenic (µg/L)	--	ND	ND	--	ND	ND
Barium (µg/L)	--	ND	10	--	20	<10
Cadmium (µg/L)	--	ND	<1	--	2	2
Chromium (µg/L)	--	1	ND	--	<1	<1
Cobalt (µg/L)	--	ND	ND	--	ND	ND
Iron (µg/L)	10	360	ND	10	10	20
Lead (µg/L)	--	1	ND	--	ND	ND
Manganese (µg/L)	ND	20	<10	<5	<10	<10
Mercury (µg/L)	--	ND	ND	--	ND	ND
Selenium (µg/L)	--	ND	ND	--	ND	ND
Silver (µg/L)	--	1	ND	--	<1	ND
Strontium (µg/L)	--	30	30	--	70	140
Zinc (µg/L)	--	10	<10	--	30	<10
Total dissolved solids (mg/L)	110	114	107	110	134	152
Hardness as $CaCO_3$ (mg/L)	100	130	100	100	140	150

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	R-01	R-01	HH-6	HH-6	E-70	M-20
Location (County)	Cherokee	Cherokee	Clarke	Clarke	Colbert	Colbert
Date of collection	11/26/85	05/14/86	11/06/85	06/18/86	10/21/85	11/12/85
Time	1436	0932	1045	1030	0930	1640
Flow (ft^3/sec)	0.05	0.10	2.78	2.43	0.95	49.4
Specific conductance (µmhos/cm)	310	178	165	147	464	490
Temperature (°C)	17	18	19	20	16	17
Bicarbonate (mg/L)	150	140	86	84	270	240
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	120	110	71	69	220	200
pH	7.4	7.5	6.9	7.0	7.2	7.2
Silica (mg/L)	5.8	7.7	8.2	8.0	7.3	6.9
Calcium (mg/L)	28	28	30	29	93	82
Magnesium (mg/L)	14	15	1.8	1.8	2.8	3.0
Sodium (mg/L)	1.0	.9	2.4	2.3	1.4	21
Potassium (mg/L)	.5	.4	.2	.4	1.2	3.8
Sulfate (mg/L)	ND	ND	1.6	3.0	4.6	17
Chloride (mg/L)	.4	1.6	2.0	3.0	4.2	23
Fluoride (mg/L)	.02	<.01	.05	<.01	.08	1.25
Nitrate as N (mg/L)	.38	.50	.73	.66	3.95	2.53
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	ND	--	ND	--	.07	ND
Total Kjeldahl Nitrogen as N (mg/L)	.46	--	.10	--	.46	.20
Phosphorus as P (mg/L)	ND	--	ND	--	.01	.02
Orthophosphate as P (mg/L)	ND	--	ND	--	ND	.02
Arsenic (µg/L)	<1	--	ND	--	ND	ND
Barium (µg/L)	ND	--	20	--	20	40
Cadmium (µg/L)	<1	--	1	--	<1	<1
Chromium (µg/L)	<1	--	1	--	1	<1
Cobalt (µg/L)	1	--	ND	--	ND	1
Iron (µg/L)	<5	10	30	10	30	20
Lead (µg/L)	ND	--	2	--	ND	ND
Manganese (µg/L)	<10	<5	<10	10	10	<10
Mercury (µg/L)	<.05	--	ND	--	ND	.10
Selenium (µg/L)	ND	--	1	--	ND	ND
Silver (µg/L)	ND	--	ND	--	ND	1
Strontium (µg/L)	10	--	60	--	120	140
Zinc (µg/L)	20	--	50	--	30	10
Total dissolved solids (mg/L)	125	125	92	92	265	287
Hardness as $CaCO_3$ (mg/L)	130	130	83	80	240	220

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	M-20	J-3	J-4	J-4	N-3	GG-5
Location (County)	Colbert	De Kalb	De Kalb	De Kalb	De Kalb	De Kalb
Date of collection	05/28/86	11/06/85	11/14/85	06/05/86	11/06/85	11/14/85
Time	1016	--	1652	1442	1400	1543
Flow (ft^3/sec)	50.0	0.94	0.82	0.70	1.83	0.13
Specific conductance (µmhos/cm)	374	275	220	184	350	330
Temperature (°C)	17	15	16	16	14	17
Bicarbonate (mg/L)	210	150	160	150	180	200
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	170	120	120	120	150	160
pH	7.3	7.4	7.9	7.5	7.1	7.4
Silica (mg/L)	7.6	6.2	5.8	7.2	6.0	6.1
Calcium (mg/L)	72	31	60	31	57	34
Magnesium (mg/L)	2.7	13	3.2	12	5.0	7.2
Sodium (mg/L)	17	1.4	.5	.8	2.3	1.9
Potassium (mg/L)	3.2	1.7	.1	.3	.7	.6
Sulfate (mg/L)	13	ND	ND	ND	3.6	2.9
Chloride (mg/L)	20	.5	.5	.6	2.4	2.8
Fluoride (mg/L)	.74	.03	.02	<.01	.05	.05
Nitrate as N (mg/L)	2.69	.24	.20	.20	.05	1.72
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	.44	.02	--	.38	ND
Total Kjeldahl Nitrogen as N (mg/L)	--	1.66	.13	--	.86	ND
Phosphorus as P (mg/L)	--	ND	ND	--	.01	.01
Orthophosphate as P (mg/L)	--	ND	ND	--	ND	ND
Arsenic (µg/L)	--	ND	ND	--	ND	ND
Barium (µg/L)	--	ND	40	--	10	100
Cadmium (µg/L)	--	1	1	--	1	1
Chromium (µg/L)	--	<1	<1	--	1	ND
Cobalt (µg/L)	--	<1	ND	--	1	ND
Iron (µg/L)	60	10	310	ND	60	20
Lead (µg/L)	--	1	2	--	2	3
Manganese (µg/L)	50	<10	40	<5	50	<10
Mercury (µg/L)	--	ND	ND	--	ND	ND
Selenium (µg/L)	--	ND	ND	--	ND	ND
Silver (µg/L)	--	ND	ND	--	<1	ND
Strontium (µg/L)	--	60	20	--	210	130
Zinc (µg/L)	--	120	10	--	20	10
Total dissolved solids (mg/L)	252	129	150	127	170	162
Hardness as $CaCO_3$ (mg/L)	190	130	180	130	160	120

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	GG-5	A-27	A-27	H-25	H-25	N-16
Location (County)	De Kalb	Escambia	Escambia	Etowah	Etowah	Etowah
Date of collection	06/05/86	11/19/85	06/18/86	11/14/85	06/05/86	11/26/85
Time	1349	1045	1050	1423	1148	1537
Flow (ft^3/sec)	0	0.33	0.20	2.70	1.30	3.76
Specific conductance (µmhos/cm)	289	240	162	250	214	260
Temperature (°C)	17	20	22	16	16	19
Bicarbonate (mg/L)	200	110	100	150	180	130
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	160	90	82	120	150	110
pH	7.6	7.7	7.7	7.7	7.2	7.5
Silica (mg/L)	7.6	5.5	6.6	5.8	7.2	6.2
Calcium (mg/L)	68	36	35	51	51	28
Magnesium (mg/L)	3.3	.9	.9	2.2	2.3	10
Sodium (mg/L)	2.1	1.5	1.6	1.3	1.5	1.5
Potassium (mg/L)	1.0	.3	.3	.1	.4	.5
Sulfate (mg/L)	5.2	ND	8.0	ND	3.2	ND
Chloride (mg/L)	3.8	1.6	1.4	1.1	1.9	.5
Fluoride (mg/L)	.03	<.02	.03	.05	.03	.03
Nitrate as N (mg/L)	2.40	.15	.11	.94	.92	.14
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	.01	--	.04	--	ND
Total Kjeldahl Nitrogen as N (mg/L)	--	.20	--	.02	--	.44
Phosphorus as P (mg/L)	--	ND	--	ND	--	ND
Orthophosphate as P (mg/L)	--	ND	--	ND	--	ND
Arsenic (µg/L)	--	ND	--	ND	--	1
Barium (µg/L)	--	10	--	10	--	80
Cadmium (µg/L)	--	ND	--	1	--	<1
Chromium (µg/L)	--	1	--	<1	--	<1
Cobalt (µg/L)	--	ND	--	ND	--	ND
Iron (µg/L)	10	350	ND	70	<5	10
Lead (µg/L)	--	<1	--	1	--	ND
Manganese (µg/L)	10	30	10	<10	10	<10
Mercury (µg/L)	--	ND	--	ND	--	ND
Selenium (µg/L)	--	ND	--	ND	--	ND
Silver (µg/L)	--	ND	--	ND	--	ND
Strontium (µg/L)	--	80	--	70	--	10
Zinc (µg/L)	--	20	--	20	--	20
Total dissolved solids (mg/L)	201	101	104	140	160	111
Hardness as $CaCO_3$ (mg/L)	180	94	91	140	140	110

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	N-16	N-25	N-25	R-5	R-5	J-1
Location (County)	Etowah	Etowah	Etowah	Franklin	Franklin	Geneva
Date of collection	05/14/86	11/26/85	05/14/86	11/12/85	06/3/86	11/19/85
Time	1048	1608	1112	1445	1433	1556
Flow (ft^3/sec)	1.71	3.76	0	0.06	0.01	1.08
Specific conductance (µmhos/cm)	161	320	192	16	14	210
Temperature (°C)	17	18	17	18	17	23
Bicarbonate (mg/L)	130	160	160	7	6	91
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	110	130	130	6	5	75
pH	7.8	7.6	7.3	5.4	5.5	7.7
Silica (mg/L)	7.6	5.8	7.5	6.6	8.2	11
Calcium (mg/L)	28	37	36	1.2	1.1	29
Magnesium (mg/L)	10	10	10	.4	.4	2.0
Sodium (mg/L)	.8	1.0	.9	.8	.6	1.7
Potassium (mg/L)	.4	.4	.4	.3	.3	.6
Sulfate (mg/L)	ND	1.0	ND	ND	ND	.8
Chloride (mg/L)	1.0	.05	1.6	.3	.7	1.4
Fluoride (mg/L)	.01	.01	<.01	ND	ND	.05
Nitrate as N (mg/L)	.12	.44	.41	.12	.08	.65
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	ND	--	ND	--	ND
Total Kjeldahl Nitrogen as N (mg/L)	--	.11	--	ND	--	.37
Phosphorus as P (mg/L)	--	ND	--	ND	--	ND
Orthophosphate as P (mg/L)	--	ND	--	ND	--	ND
Arsenic (µg/L)	--	<1	--	ND	--	ND
Barium (µg/L)	--	50	--	<10	--	ND
Cadmium (µg/L)	--	<1	--	<1	--	ND
Chromium (µg/L)	--	<1	--	ND	--	3
Cobalt (µg/L)	--	1	--	1	--	1
Iron (µg/L)	10	10	10	40	20	80
Lead (µg/L)	--	1	--	1	--	1
Manganese (µg/L)	<5	<10	<5	10	10	ND
Mercury (µg/L)	--	ND	--	<.05	--	ND
Selenium (µg/L)	--	ND	--	ND	--	ND
Silver (µg/L)	--	<1	--	1	--	ND
Strontium (µg/L)	--	ND	--	40	--	120
Zinc (µg/L)	--	10	--	<10	--	20
Total dissolved solids (mg/L)	112	136	137	14	15	94
Hardness as $CaCO_3$ (mg/L)	110	130	130	5	4	80

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	J-1	T-6	T-6	C-4	C-4	N-2
Location (County)	Geneva	Houston	Houston	Jackson	Jackson	Jackson
Date of collection	06/10/86	11/20/86	06/11/86	10/30/85	05/27/86	11/06/85
Time	1514	1334	1230	1350	1350	1040
Flow (ft^3/sec)	1.18	0	0	0.14	0	2.18
Specific conductance (µmhos/cm)	160	320	225	210	151	300
Temperature (°C)	25	22	23	16	18	14
Bicarbonate (mg/L)	90	120	130	120	100	180
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	74	98	110	98	82	150
pH	7.6	7.6	8.2	7.9	7.8	7.2
Silica (mg/L)	12	4.3	4.6	7.2	6.4	5.5
Calcium (mg/L)	28	45	43	33	28	60
Magnesium (mg/L)	2.0	1.4	1.2	6.0	4.8	5.0
Sodium (mg/L)	2.3	2.2	2.2	2.0	1.5	1.7
Potassium (mg/L)	.7	.5	.5	.5	.8	1.0
Sulfate (mg/L)	8.4	ND	ND	8.0	10	15
Chloride (mg/L)	3.0	3.5	4.0	.6	1.4	1.6
Fluoride (mg/L)	.04	<.02	<.01	.05	.05	.06
Nitrate as N (mg/L)	.64	4.05	2.96	.14	.06	1.24
Nitrite as N (mg/L)	ND	ND	ND	ND	.01	ND
Ammonia as N (mg/L)	--	.02	--	.01	--	.01
Total Kjeldahl Nitrogen as N (mg/L)	--	.50	--	.19	--	.40
Phosphorus as P (mg/L)	--	ND	--	ND	--	ND
Orthophosphate as P (mg/L)	--	ND	--	ND	--	ND
Arsenic (µg/L)	--	ND	--	ND	--	ND
Barium (µg/L)	--	10	--	40	--	20
Cadmium (µg/L)	--	ND	--	<1	--	1
Chromium (µg/L)	--	1	--	<1	--	1
Cobalt (µg/L)	--	1	--	ND	--	ND
Iron (µg/L)	<5	10	10	120	10	20
Lead (µg/L)	--	ND	--	<1	--	2
Manganese (µg/L)	ND	ND	<5	10	<5	<10
Mercury (µg/L)	--	ND	--	ND	--	ND
Selenium (µg/L)	--	ND	--	ND	--	ND
Silver (µg/L)	--	<1	--	ND	--	ND
Strontium (µg/L)	--	50	--	140	--	150
Zinc (µg/L)	--	30	--	20	--	20
Total dissolved solids (mg/L)	104	134	132	117	103	184
Hardness as $CaCO_3$ (mg/L)	78	120	110	110	90	170

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	M-5	Y-1	Y-1	S-39	G-39	J-6
Location (County)	Jefferson	Jefferson	Jefferson	Lauderdale	Lawrence	Lee
Date of collection	10/22/85	11/15/85	06/06/86	10/21/85	10/21/85	10/31/85
Time	1615	1347	1247	1600	1500	1015
Flow (ft^3/sec)	2.34	0	0.22	0.44	2.87	1.62
Specific conductance (µmhos/cm)	300	320	235	108	342	245
Temperature (°C)	17	18	18	15	16	19
Bicarbonate (mg/L)	200	160	130	70	190	120
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	160	130	110	57	160	98
pH	7.2	7.6	6.1	6.9	7.4	7.6
Silica (mg/L)	6.2	6.0	8.0	5.4	6.6	12
Calcium (mg/L)	37	47	41	14	66	25
Magnesium (mg/L)	19	1.7	9.6	3.7	2.0	12
Sodium (mg/L)	1.3	1.1	1.5	.8	2.3	2.0
Potassium (mg/L)	.3	.5	.4	1.1	.4	1.8
Sulfate (mg/L)	.3	.3	2.8	.8	.8	2.4
Chloride (mg/L)	1.2	2.1	18	2.2	36	.6
Fluoride (mg/L)	.04	.02	<.01	.04	.06	.07
Nitrate as N (mg/L)	.49	.60	.44	1.26	2.63	.24
Nitrite as N (mg/L)	ND	ND	ND	ND	.01	ND
Ammonia as N (mg/L)	.03	ND	--	.01	.05	.09
Total Kjeldahl Nitrogen as N (mg/L)	.14	ND	--	.37	.30	.62
Phosphorus as P (mg/L)	ND	ND	--	ND	ND	ND
Orthophosphate as P (mg/L)	ND	ND	--	ND	ND	ND
Arsenic (µg/L)	4	ND	--	<1	<1	ND
Barium (µg/L)	ND	40	--	10	<10	30
Cadmium (µg/L)	<1	ND	--	<1	<1	ND
Chromium (µg/L)	<1	<1	--	ND	<1	ND
Cobalt (µg/L)	ND	ND	--	ND	<1	ND
Iron (µg/L)	320	180	ND	20	10	80
Lead (µg/L)	ND	2	--	ND	5	<1
Manganese (µg/L)	<10	120	<5	10	20	<10
Mercury (µg/L)	ND	ND	--	ND	ND	<.05
Selenium (µg/L)	ND	ND	--	ND	ND	ND
Silver (µg/L)	<1	ND	--	ND	ND	ND
Strontium (µg/L)	40	60	--	10	130	<10
Zinc (µg/L)	10	30	--	40	40	<10
Total dissolved solids (mg/L)	166	140	147	68	187	116
Hardness as $CaCO_3$ (mg/L)	170	120	140	50	170	110

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	A-1	B-02	H-31	Q-01	Q-01	M-38
Location (County)	Limestone	Limestone	Limestone	Limestone	Limestone	Madison
Date of collection	10/22/85	11/13/85	10/23/85	11/13/85	06/04/86	11/05/85
Time	0830	1150	1015	1030	1428	1500
Flow (ft^3/sec)	0.66	1.45	ND	0	0	4.66
Specific conductance (µmhos/cm)	120	220	100	180	154	420
Temperature (°C)	15	17	17	20	17	16
Bicarbonate (mg/L)	79	110	74	80	84	210
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	65	90	61	66	69	170
pH	7.0	7.2	6.4	6.8	6.9	7.1
Silica (mg/L)	6.0	5.9	6.1	6.2	7.6	5.8
Calcium (mg/L)	24	41	21	30	28	69
Magnesium (mg/L)	4.9	4.2	1.9	4.6	4.2	5.5
Sodium (mg/L)	.7	1.7	.5	1.5	1.1	2.8
Potassium (mg/L)	.6	1.0	.9	.5	.6	1.1
Sulfate (mg/L)	3.1	8.5	.3	ND	ND	8.8
Chloride (mg/L)	1.5	3.0	1.0	6.2	5.8	2.9
Fluoride (mg/L)	.04	.02	.0	<.02	.01	.07
Nitrate as N (mg/L)	1.68	1.61	.9	4.18	3.98	2.39
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	.02	ND	.0	ND	--	.10
Total Kjeldahl Nitrogen as N (mg/L)	.16	.09	.2	ND	--	.72
Phosphorus as P (mg/L)	.01	.02	ND	ND	--	ND
Orthophosphate as P (mg/L)	ND	.01	ND	ND	--	ND
Arsenic (µg/L)	1	ND	1	ND	--	ND
Barium (µg/L)	10	20	<10	20	--	10
Cadmium (µg/L)	<1	<1	ND	<1	--	1
Chromium (µg/L)	ND	<1	ND	<1	--	1
Cobalt (µg/L)	1	1	<1	1	--	1
Iron (µg/L)	10	40	150	110	ND	10
Lead (µg/L)	ND	1	ND	1	--	ND
Manganese (µg/L)	10	<10	110	20	10	10
Mercury (µg/L)	ND	ND	ND	ND	--	ND
Selenium (µg/L)	ND	<1	ND	ND	--	ND
Silver (µg/L)	ND	ND	ND	ND	--	ND
Strontium (µg/L)	80	100	50	50	--	150
Zinc (µg/L)	10	30	10	20	--	60
Total dissolved solids (mg/L)	87	127	72	107	107	210
Hardness as $CaCO_3$ (mg/L)	80	120	61	94	88	200

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	N-185	N-185	Z-12	C-01	C-01	K-1
Location (County)	Madison	Madison	Madison	Marion	Marion	Morgan
Date of collection	10/30/85	05/27/86	11/05/85	11/12/85	06/03/86	10/23/85
Time	1649	1715	--	1345	1345	--
Flow (ft^3/sec)	1.90	3.13	5.37	0.54	0.33	--
Specific conductance (µmhos/cm)	390	308	510	27	33	211
Temperature (°C)	17	19	15	17	18	15
Bicarbonate (mg/L)	210	200	230	8	10	120
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	190	160	190	7	8	98
pH	7.2	7.3	7.2	5.4	6.2	6.9
Silica (mg/L)	8.3	7.2	6.1	6.6	8.4	4.8
Calcium (mg/L)	73	63	91	1.2	3.6	39
Magnesium (mg/L)	7.1	6.3	4.6	1.0	1.0	2.0
Sodium (mg/L)	3.3	3.5	2.9	1.5	1.3	1.4
Potassium (mg/L)	.5	1.0	.7	.4	.6	1.5
Sulfate (mg/L)	11	12	8.4	ND	ND	2.7
Chloride (mg/L)	4.8	6.4	5.6	1.0	1.8	2.2
Fluoride (mg/L)	.09	.08	.07	ND	ND	.04
Nitrate as N (mg/L)	3.03	2.54	2.57	1.30	1.28	.52
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	.01	--	.01	ND	--	.03
Total Kjeldahl Nitrogen as N (mg/L)	.24	--	.34	.02	--	.40
Phosphorus as P (mg/L)	.01	--	.01	ND	--	ND
Orthophosphate as P (mg/L)	.01	--	.01	ND	--	ND
Arsenic (µg/L)	<1	--	ND	ND	--	<1
Barium (µg/L)	50	--	20	20	--	10
Cadmium (µg/L)	<1	--	<1	<1	--	<1
Chromium (µg/L)	1	--	<1	1	--	<1
Cobalt (µg/L)	ND	--	ND	1	--	<1
Iron (µg/L)	170	10	ND	30	30	220
Lead (µg/L)	ND	--	1	1	--	ND
Manganese (µg/L)	40	10	20	10	10	30
Mercury (µg/L)	ND	--	ND	ND	--	ND
Selenium (µg/L)	ND	--	ND	ND	--	ND
Silver (µg/L)	ND	--	ND	1	--	ND
Strontium (µg/L)	170	--	160	30	--	90
Zinc (µg/L)	40	--	20	<10	--	20
Total dissolved solids (mg/L)	225	209	244	21	27	113
Hardness as $CaCO_3$ (mg/L)	210	180	250	7	13	110

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	R-157	AA-7	AA-7	GG-3	E-5	M-8
Location (County)	Morgan	Shelby	Shelby	Shelby	St. Clair	St. Clair
Date of collection	11/05/85	11/25/85	05/13/86	10/23/85	10/22/85	11/15/85
Time	1100	1036	1029	1315	0745	0949
Flow (ft^3/sec)	10.3	0.98	0.66	2.95	4.20	1.27
Specific conductance (µmhos/cm)	148	480	326	260	235	350
Temperature (°C)	15	19	17	18	15	18
Bicarbonate (mg/L)	65	210	190	160	140	160
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	53	170	160	130	110	130
pH	7.5	7.6	7.6	7.7	7.2	7.6
Silica (mg/L)	4.2	6.0	7.4	6.6	5.3	6.0
Calcium (mg/L)	21	52	51	31	45	31
Magnesium (mg/L)	2.9	17	17	15	2.9	12
Sodium (mg/L)	2.2	2.1	2.0	.4	2.3	1.2
Potassium (mg/L)	1.6	2.2	2.4	.2	.8	.4
Sulfate (mg/L)	4.8	18	24	ND	2.2	ND
Chloride (mg/L)	1.9	1.0	4.0	.4	1.6	.7
Fluoride (mg/L)	.05	.05	.04	.03	.06	.02
Nitrate as N (mg/L)	.68	.72	.68	.12	.91	.56
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	ND	ND	--	.02	.01	.01
Total Kjeldahl Nitrogen as N (mg/L)	.40	.09	--	.28	.05	.32
Phosphorus as P (mg/L)	ND	ND	--	ND	ND	.01
Orthophosphate as P (mg/L)	ND	ND	--	ND	ND	ND
Arsenic (µg/L)	ND	1	--	ND	1	2
Barium (µg/L)	30	10	--	ND	<10	20
Cadmium (µg/L)	<1	<1	--	<1	<1	1
Chromium (µg/L)	<1	<1	--	ND	<1	3
Cobalt (µg/L)	ND	ND	--	ND	ND	ND
Iron (µg/L)	40	10	10	30	50	160
Lead (µg/L)	1	ND	--	ND	ND	1
Manganese (µg/L)	10	<10	ND	20	<10	ND
Mercury (µg/L)	ND	.05	--	ND	ND	ND
Selenium (µg/L)	ND	2	--	ND	2	ND
Silver (µg/L)	ND	ND	--	ND	ND	ND
Strontium (µg/L)	60	30	--	70	120	ND
Zinc (µg/L)	<10	10	--	220	<10	ND
Total dissolved solids (mg/L)	74	205	204	133	133	133
Hardness as $CaCO_3$ (mg/L)	65	200	200	140	120	57

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	M-8	X-2	X-2	Z-01	Z-01	G-14
Location (County)	St. Clair	St. Clair	St. Clair	St. Clair	St. Clair	Talladega
Date of collection	06/06/86	11/15/85	06/06/86	11/15/85	06/06/86	10/24/85
Time	0920	1053	1010	1327	1213	0750
Flow (ft^3/sec)	0.36	0	0	0	0	5.49
Specific conductance (µmhos/cm)	217	320	211	330	214	260
Temperature (°C)	16	17	18	19	19	17
Bicarbonate (mg/L)	170	150	160	150	120	140
Carbonate (mg/L)	0	0	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	140	120	130	120	98	110
pH	7.8	8.0	8.1	7.6	6.4	7.7
Silica (mg/L)	7.6	5.9	7.5	6.9	8.5	6.8
Calcium (mg/L)	34	35	29	42	41	28
Magnesium (mg/L)	14	14	15	9.6	3.0	14
Sodium (mg/L)	1.2	1.0	1.2	1.3	1.5	.3
Potassium (mg/L)	.4	.5	.5	.4	.4	.3
Sulfate (mg/L)	ND	.6	ND	ND	2.3	.1
Chloride (mg/L)	1.2	.6	1.4	1.6	2.3	.4
Fluoride (mg/L)	.01	.05	.03	.03	.02	.03
Nitrate as N (mg/L)	.46	.44	.40	.28	.15	.57
Nitrite as N (mg/L)	ND	ND	ND	ND	ND	ND
Ammonia as N (mg/L)	--	.01	--	ND	--	.09
Total Kjeldahl Nitrogen as N (mg/L)	--	.08	--	ND	--	.50
Phosphorus as P (mg/L)	--	ND	--	.01	--	ND
Orthophosphate as P (mg/L)	--	ND	--	ND	--	ND
Arsenic (µg/L)	--	ND	--	ND	--	<1
Barium (µg/L)	--	10	--	40	--	10
Cadmium (µg/L)	--	1	--	ND	--	5
Chromium (µg/L)	--	<1	--	<1	--	<1
Cobalt (µg/L)	--	ND	--	2	--	ND
Iron (µg/L)	<5	50	ND	20	ND	20
Lead (µg/L)	--	1	--	3	--	<1
Manganese (µg/L)	<5	<10	10	<10	10	<10
Mercury (µg/L)	--	ND	--	ND	--	ND
Selenium (µg/L)	--	ND	--	ND	--	ND
Silver (µg/L)	--	ND	--	<1	--	ND
Strontium (µg/L)	--	ND	--	90	--	30
Zinc (µg/L)	--	10	--	20	--	<10
Total dissolved solids (mg/L)	144	133	135	137	119	121
Hardness as $CaCO_3$ (mg/L)	140	150	130	140	120	130

Appendix 2.--Results of chemical analyses of water samples from spring water-quality stations, 1985-86 - Continued

[Spring numbers correspond to those shown on plate 1 and in appendix 1. Analyses values in milligrams per liter (mg/L) or micrograms per liter (µg/L), except as noted. Flow in cubic feet per second (ft^3/sec). ND, not detected in sample. Additional analysis data for springs in Alabama are contained in water-resources publications listed in Selected References section.]

Spring number	R-2	V-14	Y-14	LL-16
Location (County)	Talladega	Talladega	Tuscaloosa	Tuscaloosa
Date of collection	10/23/85	10/23/85	10/29/85	11/01/85
Time	1635	1530	--	1331
Flow (ft^3/sec)	.83	1.65	1.57	13.7
Specific conductance (µmhos/cm)	210	260	306	271
Temperature (°C)	18	17	17	17
Bicarbonate (mg/L)	150	140	180	150
Carbonate (mg/L)	0	0	0	0
Alkalinity as $CaCO_3$ (mg/L)	120	110	150	120
pH	7.6	7.7	7.6	7.6
Silica (mg/L)	6.2	6.5	7.6	6.8
Calcium (mg/L)	29	29	53	32
Magnesium (mg/L)	16	13	5.7	12
Sodium (mg/L)	.3	.3	1.1	1.4
Potassium (mg/L)	.3	.3	1.3	.7
Sulfate (mg/L)	.1	ND	11	.5
Chloride (mg/L)	.4	.8	.6	1.0
Fluoride (mg/L)	.04	.03	.06	.02
Nitrate as N (mg/L)	.43	.31	.10	.28
Nitrite as N (mg/L)	ND	ND	ND	ND
Ammonia as N (mg/L)	ND	ND	ND	ND
Total Kjeldahl Nitrogen as N (mg/L)	.31	.04	.10	ND
Phosphorus as P (mg/L)	ND	ND	ND	ND
Orthophosphate as P (mg/L)	ND	ND	ND	ND
Arsenic (µg/L)	ND	<1	ND	ND
Barium (µg/L)	<10	ND	20	20
Cadmium (µg/L)	<1	<1	ND	ND
Chromium (µg/L)	ND	1	ND	ND
Cobalt (µg/L)	ND	ND	ND	ND
Iron (µg/L)	10	320	180	10
Lead (µg/L)	ND	<1	<1	1
Manganese (µg/L)	<10	50	20	<10
Mercury (µg/L)	ND	ND	<.05	ND
Selenium (µg/L)	ND	ND	ND	ND
Silver (µg/L)	ND	ND	1	1
Strontium (µg/L)	30	20	120	40
Zinc (µg/L)	<10	10	<10	<10
Total dissolved solids (mg/L)	128	114	170	130
Hardness as $CaCO_3$ (mg/L)	140	130	160	130

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