Department of Natural Resources
MARYLAND GEOLOGICAL SURVEY
Kenneth N. Weaver, Director

BASIC DATA REPORT NO. 18

GROUND-WATER AND SURFACE-WATER DATA FOR WASHINGTON COUNTY, MARYLAND

Compiled by

Mark T. Duigon, James R. Dine,
and
Michael D. Tompkins

Prepared in cooperation with the
Department of the Interior
United States Geological Survey

1989

CONVERSION OF MEASUREMENT UNITS

The following factors may be used by those readers who wish to convert the inch-pound units published in this report to International System (SI) units.

Multiply inch-pound unit	*By*	*To obtain International System unit*
inch (in.)	25.40	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)
acre	0.4047	hectare (ha)
gallon (gal)	3.785	liter (L)
million gallons (Mgal)	3,785	cubic meter (m^3)
gallon per minute (gal/min)	0.06309	liter per second (L/s)
gallon per day (gal/d)	0.003785	cubic meter per day (m^3/d)
million gallons per day (Mgal/d)	0.04381	cubic meter per second (m^3/s)
gallon per minute per foot [(gal/min)/ft]	0.2070	liter per second per meter [(L/s)/m]
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
ton	907.2	kilogram (kg)

Chemical concentration and water temperature are given in SI units. Chemical concentration is given in milligrams per liter (mg/L), micrograms per liter (μg/L), micrograms per gram (μg/g), or micrograms per kilogram (μg/kg), except as noted. Radioactivity is expressed in terms of disintegrations per second, irrespective of radionuclide species (1 picocurie per liter [pCi/L] = 3.7×10^{-2} disintegrations per second). Water temperature in degrees Celsius (°C) can be converted to degrees Fahrenheit (°F) using the following equation:

$$°F = 1.8(°C) + 32$$

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

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GROUND-WATER AND SURFACE-WATER DATA FOR WASHINGTON COUNTY, MARYLAND

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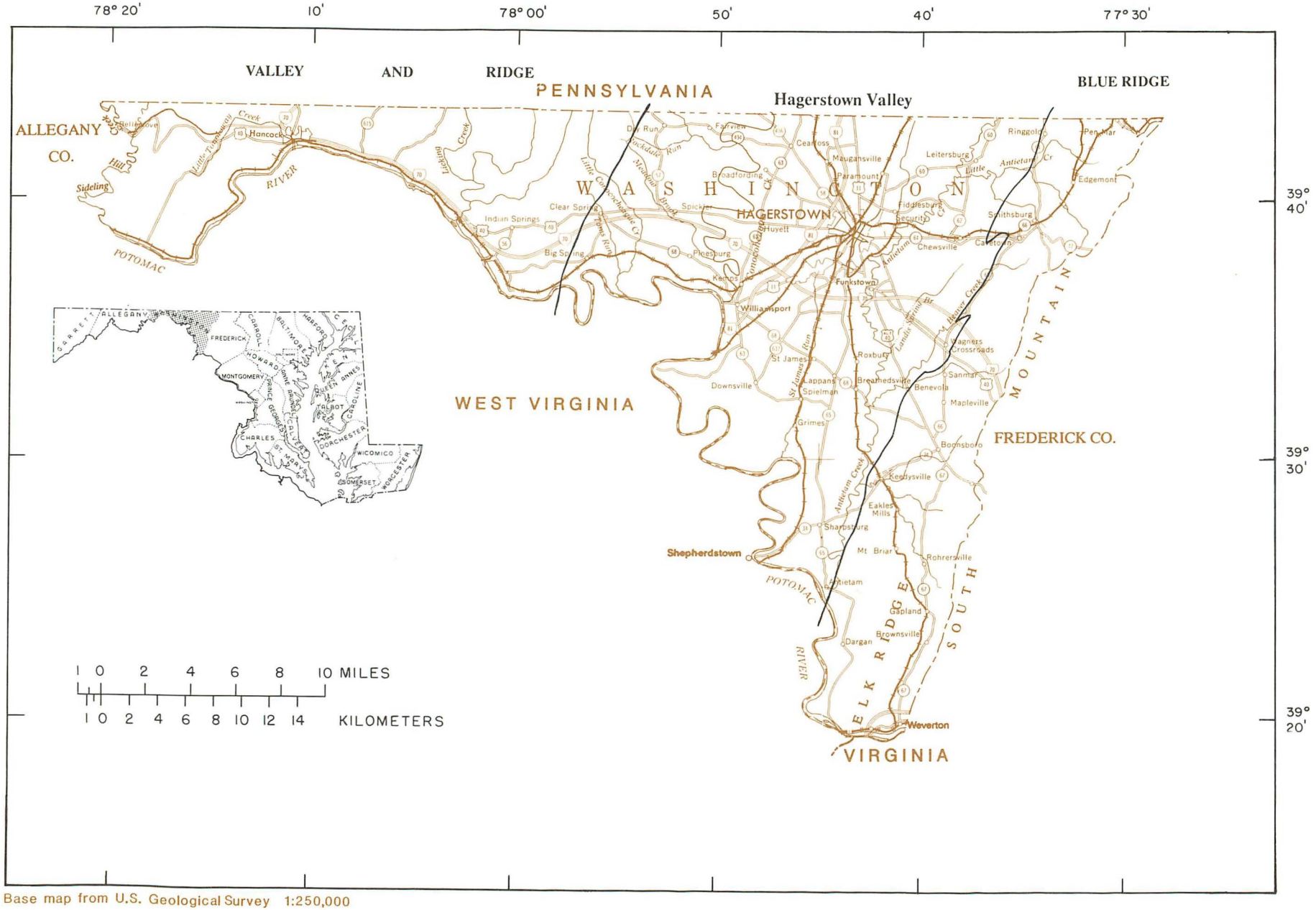
ABSTRACT

This report presents hydrologic data compiled for Washington County, Maryland. Locations and descriptions of more than 2,500 wells and 262 springs are provided, along with water levels measured in 50 wells, geophysical logs of 11 wells, and chemical analyses of 267 wells and springs. Surface-water information includes drainage-basin characteristics for 34 sites along 30 streams, chemical analyses of water and bottom materials, and sediment-load and particle-size data. Water-appropriation data from ground- and surface-water sources also are presented.



Base map from U.S. Geological Survey 1:250,000

Figure 1. Location of Washington County.

INTRODUCTION

Location and Setting

Washington County is located in west-central Maryland (fig. 1). It is bounded on the north by Pennsylvania and on the south and southeast by West Virginia and Virginia. Allegany County lies to the west across Sideling Hill Creek, and Frederick County lies to the east—that boundary generally following the crest of South Mountain. The county is over 46 mi (miles) long along its northern border (the Mason-Dixon line), but less than 2 mi wide where the Potomac River bends near Hancock. The land area comprises about 462 mi^2 (square miles) (295,680 acres) and water comprises about 9 mi^2, for a total of 471 mi^2 (301,440 acres). Much of the county remains under agricultural use, although there is a moderate amount of industrial development, particularly in the vicinity of Hagerstown, the county seat. The population of Washington County was 113,086 in 1980, up 8.9 percent from 1970 (Maryland Department of State Planning, 1981). Nearly one third of that population lived in Hagerstown.

Washington County includes parts of two physiographic provinces. The eastern area of the county, consisting of South Mountain and Elk Ridge, is part of the Blue Ridge province and is underlain by metamorphosed igneous and sedimentary rocks making up an overturned anticline. The rest of the county is part of the Valley and Ridge province, underlain by sedimentary rocks having varied resistance to erosion; these rocks have been folded and eroded to form a series of even-crested ridges alternating with valleys. The broadest valley, in the eastern part of this province, is also known as the Hagerstown Valley, the Maryland segment of the Great Valley. The geologic units for which data are presented in this report are listed in table 1. The abbreviations used in several tables of this report are standard codes incorporated by the U.S. Geological Survey, Water Resources Division, as part of their national ground-water data base.

Purpose and Scope

This report provides an updated and supplemental compilation of hydrologic data pertaining to Washington County. This report presents the data; a companion report (Duigon and Dine, in preparation) analyzes the availability and quality of the water resources of the county. The types of data include locations and descriptions of wells and springs; stream-station and drainage-basin characteristics; water-quality analyses of wells, springs, and streams; and water-use information.

Previous Investigations

The natural resources of Washington County were described by Cloos and others (1951). Ground-water and surface-water resources were described in more detail by Slaughter and Darling (1962). A soil survey for the county was issued in 1962 (Matthews and others). Nutter (1973) investigated the hydrology of the carbonate rocks in the Hagerstown Valley. An updated geologic map of the county was compiled by Edwards (1978).

Table 1.—Explanation of geologic unit codes

110ALVM	Alluvium	354RSHL	Rose Hill Formation
110TRRC	Terrace gravel	357TCRR	Tuscarora Sandstone
110MNWS	Colluvium	361JUNT	Juniata Formation
231DIBS	Diabase	361MRBG	Martinsburg Formation
337PRSL	Purslane Sandstone	364CBBG	Chambersburg Limestone
337RCKL	Rockwell Formation	364STPL	St. Paul Group
340DVNN	Devonian System	367PBGS	Pinesburg Station Dolomite
341HMPR	Hampshire Formation	367RCKR	Rockdale Run Formation
341CMNG	Chemung Formation	367SNNG	Stonehenge Limestone
341PRKD	Parkhead Sandstone	371CCCG	Conococheague Limestone
341WDMN	Woodmont Formation	371ELBK	Elbrook Limestone
344RMNY	Romney Formation	377WSBR	Waynesboro Formation
347ORSK	Oriskany Sandstone	377TMSN	Tomstown Formation
347HDBG	Helderberg Formation and Keyser Limestone	377ANTM	Antietam Formation
		377HRPR	Harpers Formation
351TNLY	Tonoloway Limestone	377WVRN	Weverton Formation
351WLCK	Wills Creek Shale	377LUDN	Loudoun Formation
352BMBG	Bloomsburg Formation	400CTCN	Catoctin Formation
354MCKZ	McKenzie Formation and Rochester Shale	400MTRL	Metarhyolite (Catoctin Formation)
354KEFR	Keefer Sandstone	400GBGG	Gneiss complex

Acknowledgments

This study was completed in cooperation with the U.S. Geological Survey, Water Resources Division. Numerous property owners kindly granted permission to make measurements on their wells, springs, and streams, and some property owners also provided information useful to the study.

WELL AND SPRING RECORDS

Approximately 1,350 of the nearly 2,800 wells and springs described in this report were inventoried during the period 1985-86. Data for the remaining sites were compiled from Slaughter and Darling (1962), Nutter (1973), and the Maryland Geological Survey and the U.S. Geological Survey. The stratigraphic nomenclature used to identify the geologic units associated with the wells and springs described herein follows that of the Washington County geologic map (Edwards, 1978). Codes for these units are explained in table 1. Well and spring construction, topographic setting, and yield data are presented in tables 2, 3, and 4.

The locations of the wells and springs described in tables 2 and 3 are shown on maps at the end of this report. An index map of the 7½-minute-quadrangle topographic maps used to derive these maps is provided in figure 5. Wells and springs are identified using a grid system based on every fifth minute of latitude and longitude (fig. 6). The first pair of letters of a site-identification number is an abbreviation for the county (WA for Washington), and the second pair of letters refers to the row and column of the 5-minute quadrangle. The number is a sequential number for that quadrangle. Thus, well WA Ac 25 is the 25th site inventoried in the 5-minute quadrangle located in the first row from the north, third column from the west, in Washington County. [Note: Wells WA Bk 33 and WA Bk 34 appear to be in Frederick County rather than Washington County, according to the map for quadrangle Bk. A discrepancy in the position of the county boundary line was discovered during the site inventory. Although originally defined as following the ridge of South Mountain, the line was redefined to follow a survey run in 1824, which is not reflected by the present topographic maps.]

The State of Maryland has required a permit for the construction of water wells since 1945. The permit application numbers are included in table 2. Wells drilled since 1973 have metal tags bearing these numbers affixed to the casings. Construction, well log, and yield data submitted by the driller upon completion of a well are kept on file at the Maryland Geological Survey and have provided much of the information in table 2.

Water levels were measured periodically in 50 wells (table 5). Water-level measurements have been collected from seven of these wells for more than 10 years. Most measurements were made at 4- to 6-week intervals, but continuous recorders were in operation for various periods on eight wells. A water-level recorder installed on well WA Ch 106 is shown in figure 2.

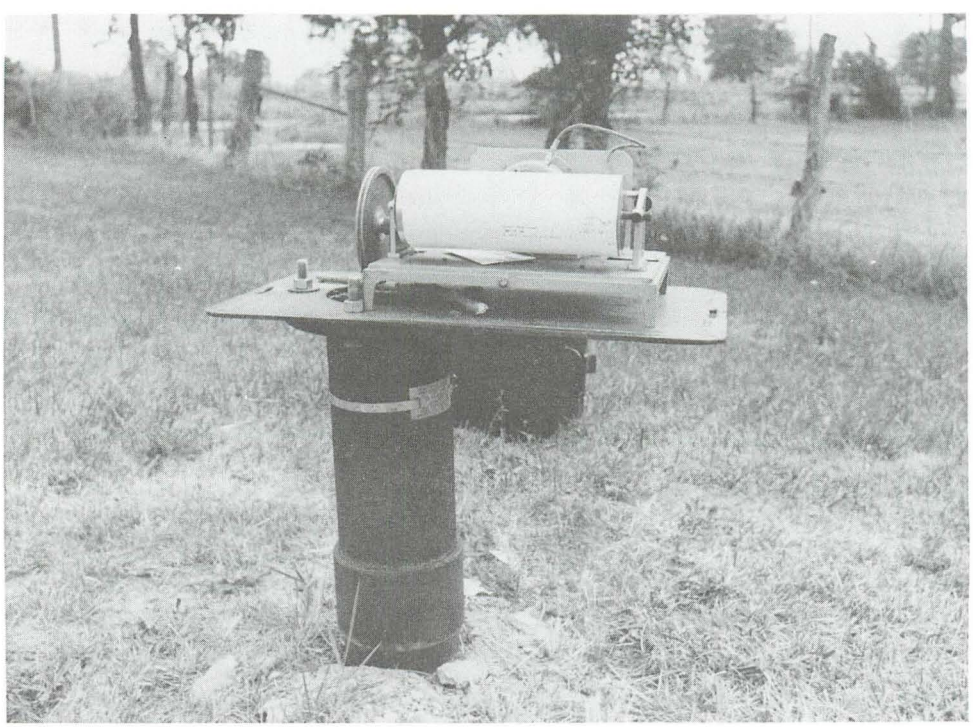


Figure 2. A typical water-level recorder.

Geophysical logs are shown for 11 wells (fig. 3; see pages 231-235) representing eight geologic formations. These may be used in conjunction with lithologic logs (table 6) for geohydrological analyses.

STREAM AND DRAINAGE-BASIN DATA

Information on streamflow and drainage-basin characteristics is presented for stations located on 30 streams, including two stations along the Potomac River (fig. 4; table 7). Discharge records at some of these stations were obtained from continuously recorded stream stage; monthly mean and annual mean streamflow are presented in table 8. Discharges at partial-record stations (table 9) were obtained either by current-meter measurements made under low-flow conditions, or calculated from maximum recorded stage using standard hydraulic equations. Daily streamflow data, too voluminous to be included in this report, are on file with the U.S. Geological Survey and are published annually [U.S. Geological Survey, 1967-71, 1972-75, 1976 to present (1988)]. Physical characteristics of the drainage basins were obtained from 1:24,000-scale topographic maps having contour intervals of 20 ft.

WATER APPROPRIATION AND PUMPAGE DATA

The Maryland Water Resources Administration (WRA) issues permits to individuals and companies that use water for purposes other than domestic, farming, or irrigation. Large quantities of water used must be reported to the WRA if in excess of an average of 10,000 gallons per day. Ground-water appropriation data are listed in table 10, and surface-water appropriation data are listed in table 11.

WATER-QUALITY DATA

Ground-water quality depends upon the interaction of seeping water with atmospheric gases, soil, and rock or sediment. The water quality is affected by the amount of time it is in contact with these materials and by mixing with ground water from other zones. It may also be affected by human activities such as waste disposal, industry, and agriculture. Samples from 228 wells and springs were analyzed for common physical properties and inorganic constituents (table 12); 162 wells and springs were also sampled for trace metals (table 13). Eight wells and springs were sampled for pesticides (table 14), and some additional organic materials were measured (table 15). Radiochemical analyses are presented for nine wells and springs (table 16).

The quality of stream water depends on the relative amounts of ground water and overland runoff, as further influenced by interaction with the atmosphere and with streambottom sediments. Water quality during base-flow periods may be identical to that of the aquifer feeding the stream. Common physical properties and inorganic constituents are shown in table 17 for 29 stations where samples were collected. Some constituents may be adsorbed by sediments that may collect on the stream bottom. For chemical species only momentarily present in the water column, bottom materials may provide a record of past occurrences. Table 18 presents analyses of trace elements recovered from bottom materials, and table 19 contains analyses of pesticides recovered from bottom materials. Suspended-sediment transport past the gaging station on Conococheague Creek at Fairview is presented in table 20; particle-size distributions of suspended sediment at this site and at Antietam Creek near Sharpsburg are presented in table 21.

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Cloos, Ernst, and others, *1951, The physical features of Washington County: Maryland Department of Geology, Mines and Water Resources, 333 p.*

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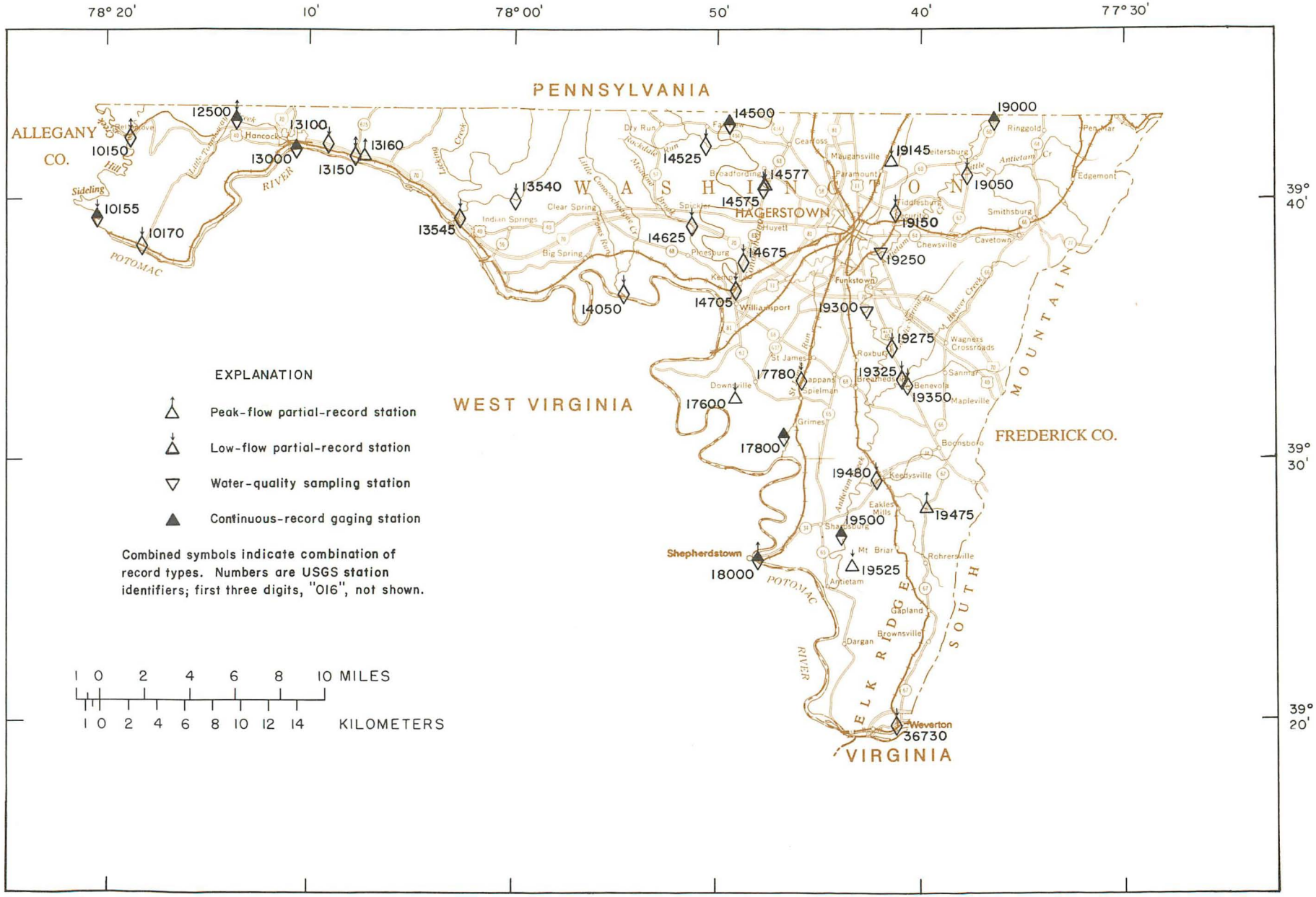
Matthews, E. D., and others, *1962, Soil survey of Washington County, Maryland: U.S. Department of Agriculture, Soil Conservation Service, 136 p.*

Nutter, L. J., *1973, Hydrogeology of the carbonate rocks, Frederick and Hagerstown valleys, Maryland: Maryland*



Base map from U.S. Geological Survey 1:250,000

Figure 4. Locations of stream stations.

Geological Survey, Report of Investigations No. 19, 70 p.

Slaughter, T. H., and Darling, J. M., *1962, The water resources of Allegany and Washington Counties: Maryland Department of Geology, Mines and Water Resources, Bulletin 24, 408 p.*

U.S. Geological Survey, *1967-71, Water resources data for Maryland and Delaware, 1966-1970—part 1. Surface-water records: Towson, Maryland, U.S. Geological Survey Water-Data Reports (published annually).*

_____ *1972-75, Water resources data for Maryland and Delaware, 1971-74—part 1. Surface-water records: U.S. Geological Survey Water-Data Reports MD-DE-71-1 to MD-DE-74-1 (published annually).*

_____ *1976-88, Water resources data for Maryland and Delaware, water years 1975-87: U.S. Geological Survey Water-Data Reports MD-DE-75-1 to MD-DE-87-1 (published annually).*

Table 2.—Records of selected wells

EXPLANATION OF CODES

Topographic Setting		Use of Water		Finish		Other Data Available	
C	Stream channel	A	Air conditioning	O	Open end	G	Geophysical logs
D	Depression	B	Bottling	P	Perforated	C	Cuttings
F	Flat	C	Commercial	S	Screen	O	Observation well
G	Flood plain	F	Fire	W	Walled	Q	Water quality
H	Hilltop	H	Domestic	X	Open hole		
S	Hillside	I	Irrigation	Z	Gravel-filled		
T	Terrace	J	Industrial, cooling				Method
U	Undulating	N	Industrial				
V	Valley flat	P	Public supply			E	Estimated
W	Upland draw	R	Recreation			R	Reported
		S	Stock			S	Measured
		T	Institution			D	Dry
		U	Unused			F	Flowing
		Z	Other				

For geologic unit codes, refer to table 1

Table 2.—Records of selected wells

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Aa 1	--	SWAIN, JOHN	--	--	650	V	12.6	H	341CMNG
WA Aa 2	--	WHEELER, JOHN B	--	--	650	V	85	H	341CMNG
WA Aa 3	--	--	--	--	720	S	27.8	U	341CMNG
WA Aa 4	WA-73-1596	WHEELER, ALBERTA	H LUCAS	09-16-1976	650	G	65	H	341CMNG
WA Aa 5	WA-81-0427	WALLS, HAROLD	GLENN FORD	03-24-1983	645	V	63	H	341CMNG
WA Ab 2	WA-00-2018	YANTZ, ARTHUR	R BARNHART	11-10-1947	650	V	80	H	341CMNG
WA Ab 4	WA-01-2104	HOFFMAN, MARSHALL	H BUSER	06-28-1953	855	H	200	C,H	341HMPR
WA Ab 5	WA-01-1312	DILLON, R S	R ROBISON	11-15-1952	990	S	158	H	341HMPR
WA Ab 6	--	DIEHL, BRANT	--	1927	1,590	H	128	U	337PRSL
WA Ab 8	--	CREEK, WILLIAM	--	--	900	S	85	H	341HMPR
WA Ab 9	WA-01-8803	YOUNKER, HERMAN E	R BARNHART	05-07-1955	600	C	95	H	341WDMN
WA Ab 10	WA-01-7005	MCCUSKER, ROBERT	R BARNHART	11-27-1954	680	S	125	H	341PRKD 341WDMN
WA Ab 11	WA-02-2002	ROBEY, WARREN B	K L TEACH	02-22-1956	710	S	160	H	341PRKD
WA Ab 12	--	SWAIN, FRANK	CARPENTER	1956	950	S	140	H	341HMPR
WA Ab 13	--	SWAIN, FRANK	--	--	950	S	--	U	341HMPR
WA Ab 15	WA-01-0882	HILL, PORTER	R BARNHART	09-13-1952	870	S	120	H	341HMPR
WA Ab 16	--	MCCUSKER, LESTER	--	--	870	H	90	H	341CMNG
WA Ab 18	--	DILLON, R S	--	--	1,005	S	125	H	341HMPR
WA Ab 19	WA-01-0414	DYER, F R	R BARNHART	06-18-1958	970	S	120	H	341HMPR
WA Ab 20	WA-01-7004	BOWMAN, ANNIE	R BARNHART	04-08-1955	910	S	90	H	341CMNG
WA Ab 21	--	MCCUSKER, PAUL	R BARNHART	08-15-1958	885	H	75	H	341CMNG
WA Ab 22	WA-00-8322	BIVENS, CLARA	D WINGERT	08-20-1951	590	V	100	H	344RMNY
WA Ab 23	WA-01-9174	BENNETT, FLORENCE	R BARNHART	06-11-1955	580	V	75	H	341WDMN
WA Ab 24	WA-02-0403	HOFFMAN, MARSHALL	R BARNHART	09-14-1955	620	V	50	H	341PRKD
WA Ab 25	WA-01-9636	UNGER, JOHN	R BARNHART	07-01-1955	670	S	146	H	341WDMN
WA Ab 26	WA-01-5763	MAZINGO, JAMES	H YANKEY	07-15-1954	970	F	100	H	341HMPR
WA Ab 27	--	SWAIN, GEORGE	--	1935	700	S	35	H	341PRKD
WA Ab 28	--	EXLINE, PAUL	PA SAND & GL	08 - 1957	610	V	25	H	344RMNY
WA Ab 29	WA-00-6526	CADDIE, JOHN	H YANKEY	08-24-1950	535	S	28	H	344RMNY
WA Ab 31	--	RITZ, WILLIAM	--	1900	995	S	69	H	341HMPR
WA Ab 32	--	BERNARD, SAMUEL N	--	1930	895	S	85	H	341HMPR
WA Ab 33	--	FLOWERS, LONNIE	R BARNHART	1950	850	H	125	H	341CMNG
WA Ab 35	--	DILLON, R S	--	--	890	H	110	H	341HMPR
WA Ab 36	--	MIMSON, VERN	--	--	775	S	65	H	341WDMN
WA Ab 37	--	MITCHELL, GEORGE	--	--	790	H	73.4	H	341CMNG
WA Ab 38	--	MCCUSKER, AVERY	--	--	740	S	125	H	341CMNG
WA Ab 39	--	MCCUSKER, AUSTIN	--	1925	720	H	110	H	344RMNY
WA Ab 42	WA-73-3321	MURRAY, JOHN C	H LUCAS	07-31-1980	635	V	120	H	344RMNY
WA Ab 43	WA-73-0280	FLOWERS, HAROLD	H LUCAS	05-24-1973	820	S	400	H	341CMNG
WA Ab 44	WA-73-2632	HOVERMALE, MICHAEL J	R ARDINGER	12-15-1978	885	H	180	H	341CMNG
WA Ab 45	WA-81-0344	TRUE, JAMES	H LUCAS	01-23-1983	860	S	80	H	341CMNG
WA Ab 46	WA-73-0589	FREDERICKS, WESLEY C	H LUCAS	04-27-1974	970	H	260	H	341HMPR
WA Ab 47	WA-73-1232	MCMAHON, DENNIS	H LUCAS	10-10-1975	950	S	300	H	341HMPR
WA Ab 48	WA-73-3086	SHAW, STANLEY	H LUCAS	04-15-1980	960	H	140	H	341HMPR
WA Ab 49	WA-73-0250	MANN, BELVIN L	H LUCAS	04-13-1973	970	H	225	H	341HMPR
WA Ab 50	WA-67-0021	WULZER, JOSEPH	R BRADLEY	08-08-1966	980	S	180	H	341HMPR
WA Ab 51	WA-73-2551	BIVENS, ROGER	R ARDINGER	11-02-1978	940	S	205	U	341HMPR
WA Ab 52	WA-73-2918	ZILER, SYLVESTER W	H LUCAS	09-01-1979	830	S	140	H	341CMNG
WA Ab 53	WA-73-1914	MANN, MARGARET	H LUCAS	06-13-1977	965	S	280	H	341HMPR
WA Ab 54	WA-73-2743	WOLFORD, MICHAEL	H LUCAS	04-11-1979	1,125	S	160	H	341HMPR
WA Ab 55	WA-05-2677	HENDERSHOT, ROBERT	GLENN FORD	07-12-1963	1,200	S	126	H	341HMPR
WA Ab 56	WA-73-3259	ST PAULS LUTH CH	H LUCAS	01-08-1980	850	H	100	H	341CMNG
WA Ab 57	WA-81-0433	THOMPSON, ROBERT	GLENN FORD	04-29-1983	670	V	113	H	341CMNG
WA Ab 58	WA-66-0134	THOMPSON, ROBERT	JOHN SHAFF	10-16-1965	665	V	145	U	341CMNG
WA Ab 59	WA-81-0207	CRUNKLETON, JAMES	H LUCAS	07-19-1982	930	H	180	H	341HMPR
WA Ab 60	WA-72-0204	DIEHL, JAMES F	W LAMBERSON	03-28-1972	925	H	285	H	341HMPR
WA Ab 61	WA-73-0183	PEKNY, JOSEPH	W LAMBERSON	01-30-1973	930	H	125	H	341HMPR
WA Ab 62	WA-73-1687	SIPES, BERNARD	LEO FORD	03-09-1977	900	S	121	H	341HMPR
WA Ab 63	WA-81-0045	BISHOP, LLOYD	H LUCAS	08-05-1981	960	H	260	H	341HMPR
WA Ab 64	WA-73-1182	SIPES, EARNEST	H LUCAS	10-23-1975	950	H	380	H	341HMPR
WA Ab 65	WA-73-1686	WALTERS, MYRTLE M	LEO FORD	12-05-1976	935	S	122	H	341HMPR
WA Ab 66	WA-73-1307	GOLDEN, MAPLE C	LEO FORD	12-03-1975	970	H	227	H	341HMPR
WA Ab 67	WA-73-0974	MCCARTY, JAMES	H LUCAS	01-21-1975	965	S	280	H	341HMPR
WA Ab 68	WA-73-1129	HOFFMAN, PAUL	H LUCAS	07-14-1975	1,005	F	300	H	341HMPR
WA Ab 69	WA-73-1992	KERNS, DANNY	H LUCAS	08-27-1977	980	F	240	H	341HMPR
WA Ab 70	WA-73-0926	BROWERS, MARIE	H LUCAS	11-07-1974	1,120	S	200	H	341HMPR
WA Ab 71	WA-81-0424	FLOWERS, MICHEAL T	H LUCAS	04-06-1983	850	S	260	H	341HMPR
WA Ab 72	WA-81-0332	BIVINS, D S	H LUCAS	11-10-1982	640	F	180	H	341WDMN
WA Ab 73	WA-81-0232	MELLOTT, GREGORY	D H WOODWARD	06-17-1982	680	S	250	H	341PRKD
WA Ab 74	WA-04-4919	STOTLER, CHARLES H	W LUCAS	12-28-1962	960	F	166	C,H	341HMPR
WA Ab 75	WA-81-0273	MANN, BELVIN L	H LUCAS	09-10-1982	1,060	S	300	H	341HMPR
WA Ab 76	WA-81-0577	STOTLER, MERVAL	A&H DRILLING	09-28-1983	780	S	280	H	341CMNG
WA Ab 77	WA-81-0530	LOCKE, CARLTON	H LUCAS	08-17-1983	860	S	180	H	341HMPR
WA Ab 78	WA-81-0927	TOVORNIK, EDWARD	A&H DRILLING	01-09-1985	945	S	65	H	341CMNG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
12.6	36	W	4.12	S	06-17-1958	--	--	--	--	--	--	--	WA Aa 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Aa 2
27.8	48	W	8.85	S	06-17-1958	--	--	--	--	--	--	O	WA Aa 3
22	6	X	12	R	09-16-1976	10	50	12	0.26	1	09-16-1976	--	WA Aa 4
19.5	6	X	5	R	03-24-1983	20	63	5	.34	1	03-24-1983	--	WA Aa 5
76	6	X	12	R	11-10-1947	5	25	12	.38	2	11-10-1947	--	WA Ab 2
34	6	X	3	R	06-28-1953	3	60	3	.05	--	06-28-1953	--	WA Ab 4
14	6	X	40	R	11-15-1952	25	80	40	.62	3	11-15-1952	Q	WA Ab 5
--	6	-	61.83	S	06-17-1958	--	--	--	--	--	--	--	WA Ab 6
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ab 8
50	6	X	20	R	05-07-1955	13	40	20	.65	1	05-07-1955	--	WA Ab 9
--	6	-	50	R	11-27-1954	10	105	50	.18	1	11-27-1954	--	WA Ab 10
40	6	X	70	R	02-22-1956	6	90	70	.30	1	02-22-1956	--	WA Ab 11
--	6	-	50	R	06-18-1958	--	--	--	--	--	--	--	WA Ab 12
--	6	-	36.87	S	06-18-1958	--	--	--	--	--	--	--	WA Ab 13
--	6	-	30	R	09-13-1952	90	--	30	--	--	09-13-1952	--	WA Ab 15
--	6	-	20	E	06-18-1958	--	--	--	--	--	--	--	WA Ab 16
--	6	-	40	E	06-18-1958	--	--	--	--	--	--	--	WA Ab 18
27.5	6	X	40	R	08-23-1952	3	--	40	--	--	08-23-1952	--	WA Ab 19
--	6	-	52.64	S	06-18-1958	3	40	20	.15	--	04-08-1955	--	WA Ab 20
25	6	X	--	-	--	--	--	--	--	--	--	--	WA Ab 21
7	6	X	38	R	08-20-1951	15	100	38	.24	.3	08-20-1951	--	WA Ab 22
--	6	-	20	R	06-11-1955	4	--	20	--	1	06-11-1955	--	WA Ab 23
--	6	-	6	R	09-14-1955	10	20	6	.71	1	09-14-1955	--	WA Ab 24
--	6	-	20	R	07-01-1955	3	60	20	.07	1	07-01-1955	--	WA Ab 25
12	6	X	40	R	07-15-1954	10	100	40	.17	--	07-15-1954	--	WA Ab 26
--	--	-	.5	S	06-19-1958	--	--	--	--	--	--	--	WA Ab 27
14	8	X	6	E	08 - 1957	--	--	--	--	--	--	--	WA Ab 28
15	6	X	5	R	08-24-1950	15	6	6	--	.2	08-24-1950	--	WA Ab 29
--	6	-	30.47	S	06-25-1958	--	--	--	--	--	--	--	WA Ab 31
--	6	-	20	E	06-25-1958	--	--	--	--	--	--	Q	WA Ab 32
--	6	-	25	E	06-25-1958	--	--	--	--	--	--	--	WA Ab 33
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ab 35
--	6	-	15	E	06-25-1958	--	--	--	--	--	--	--	WA Ab 36
--	6	-	46.15	S	06-25-1958	--	--	--	--	--	--	--	WA Ab 37
--	6	-	40	E	06-25-1958	--	--	--	--	--	--	--	WA Ab 38
--	6	-	30	E	06-25-1958	--	--	--	--	--	--	--	WA Ab 39
20	6	X	25	R	07-31-1980	10	100	25	.13	1	07-31-1980	--	WA Ab 42
45	6	X	75	R	05-24-1973	10	350	75	.04	5	05-24-1973	--	WA Ab 43
69	6	X	50	R	12-15-1978	10	180	50	.08	3	12-15-1978	--	WA Ab 44
39	6	X	35	R	01-23-1983	6	60	35	.24	1	01-23-1983	--	WA Ab 45
41	6	X	60	R	04-27-1974	7	180	60	.06	2	04-27-1974	--	WA Ab 46
34	6	X	75	R	10-10-1975	6	260	75	.03	1	10-10-1975	--	WA Ab 47
25	6	X	40	R	04-15-1980	6	120	40	.07	1	04-15-1980	--	WA Ab 48
30.5	6	X	75	R	04-13-1973	8	190	75	.07	2	04-13-1973	--	WA Ab 49
22.5	6	X	30	R	08-08-1966	5	180	30	.03	.5	08-08-1966	--	WA Ab 50
21	6	X	50	R	11-02-1978	10	205	50	.06	2	11-02-1978	--	WA Ab 51
33	6	X	50	R	09-01-1979	10	120	50	.14	1	09-01-1979	--	WA Ab 52
40	6	X	85	R	06-13-1977	6	240	85	.04	1	06-13-1977	--	WA Ab 53
30	6	X	50	R	04-11-1979	5	150	50	.05	1	04-11-1979	--	WA Ab 54
79	6	X	40	R	07-12-1963	5.5	126	40	.06	.8	07-12-1963	--	WA Ab 55
40	6	X	40	R	01-08-1980	15	80	40	.37	1	01-08-1980	O	WA Ab 56
--	6	-	30	R	04-29-1983	3	113	30	.04	1	04-29-1983	--	WA Ab 57
22	6	X	40	R	10-16-1965	6	40	40	--	2	10-16-1965	--	WA Ab 58
40	6	X	60	R	07-19-1982	15	160	60	.15	1	07-19-1982	--	WA Ab 59
35	6	X	50	R	03-28-1972	12	270	50	.05	1	03-28-1972	--	WA Ab 60
75	6	X	60	R	01-30-1973	5	105	60	.11	1	01-30-1973	--	WA Ab 61
20	6	X	38	R	03-09-1977	4	121	38	.05	1	03-09-1977	--	WA Ab 62
38	6	X	150	R	08-05-1981	5	240	150	.06	1	08-05-1981	--	WA Ab 63
34	6	X	100	R	10-23-1975	4	340	100	.02	2	10-23-1975	--	WA Ab 64
26	6	X	64	R	12-05-1976	5	122	64	.09	1	12-05-1976	--	WA Ab 65
20	6	X	76	R	12-03-1975	10	227	76	.07	2	12-03-1975	--	WA Ab 66
40	6	X	60	R	01-21-1975	4	240	60	.02	1	01-21-1975	--	WA Ab 67
40	6	X	40	R	07-14-1975	12	280	40	.05	2	07-14-1975	--	WA Ab 68
44	6	X	40	R	08-27-1977	6	200	40	.04	1	08-27-1977	--	WA Ab 69
32	6	X	60	R	11-07-1974	12	180	60	.10	2	11-07-1974	--	WA Ab 70
40	6	X	85	R	04-06-1983	15	200	85	.13	1	04-06-1983	--	WA Ab 71
35	6	X	80	R	11-10-1982	12	160	80	.15	1	11-10-1982	Q	WA Ab 72
24	6	X	70	R	06-17-1982	15	250	70	.08	3	06-17-1982	--	WA Ab 73
34	6	X	46	R	12-28-1962	6	125	46	.08	10	12-28-1962	--	WA Ab 74
38	6	X	90	R	09-10-1982	6	260	90	.04	1	09-10-1982	--	WA Ab 75
21	6	X	21	R	09-28-1983	5	280	21	.02	2	09-28-1983	--	WA Ab 76
40	6	X	60	R	08-17-1983	6	160	60	.06	1	08-17-1983	--	WA Ab 77
21	6	X	10	R	01-09-1985	15	65	10	.27	3	01-09-1985	Q	WA Ab 78

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ab 79	WA-81-0863	STUMPF, CARL	H LUCAS	11-01-1984	1,190	S	185	H	341HMPR
WA Ab 80	WA-70-0169	MT OLIVET PRES CHURCH	GERALD CLARK	11-29-1969	965	H	258	H	341HMPR
WA Ab 81	WA-81-0961	KEEFER, PEGGY	SOMERSET DRL	03-05-1985	1,530	H	322	H	337PRSL
WA Ab 82	--	LONG RIDGE CHAPEL	--	--	850	H	232	H	341PRKD
WA Ab 83	WA-81-1248	FLOWERS, REED	SOMERSET DRL	12-16-1985	840	S	247	H	341HMPR
WA Ab 84	WA-81-1397	MCCARTY, CHRISTOPHER	H LUCAS	06-11-1986	1,010	S	380	H	341HMPR
WA Ac 1	--	CREAGER, SUSAN	--	--	440	S	86.2	U	344RMNY
WA Ac 2	--	DILLON, R S	--	1943	645	S	140	H	347HDBG
WA Ac 3	WA-02-1850	DILLON, R S	R BARNHART	05-14-1956	585	V	154	C	351WLCK
WA Ac 4	WA-02-5071	DILLON, R S	R BARNHART	11-27-1956	490	S	50	H	344RMNY
WA Ac 5	WA-01-7299	FLOWERS, JAMES	R BARNHART	01-22-1955	705	H	125	H	341WDMN
WA Ac 6	WA-01-7714	FLOWERS, JAMES	R BARNHART	05-28-1958	720	H	125	H	341WDMN
WA Ac 7	--	DEVILBISS, CLARENCE	--	--	750	H	110	H	341PRKD
WA Ac 9	--	DORRIER, CLARENCE	--	--	455	S	11.8	H,S	354MCKZ
WA Ac 14	WA-00-1509	CROUSE, W	R BARNHART	06-13-1947	470	S	90	U	351TNLY
WA Ac 15	WA-00-0831	SHIFFLET, IRA	R BARNHART	10-23-1946	540	S	147	U	351WLCK
WA Ac 16	WA-00-0878	SHIFFLET, IRA	R BARNHART	11-09-1946	540	S	112	H	351WLCK
WA Ac 17	--	MILLER, M	--	--	660	S	185	H	352BMBG
WA Ac 18	WA-00-0718	CASPAR, JOHN	R BARNHART	08-31-1946	625	S	97	H	352BMBG
WA Ac 19	--	WILFONG, G H	--	--	690	H	80	H	351WLCK
WA Ac 24	--	LOCHER, JOHN	G L DEHAVEN	1946	465	V	120	C,H	354MCKZ
WA Ac 25	--	LOCHER, JOHN	--	--	470	V	85	H	352BMBG
WA Ac 26	--	LOCHER, JOHN	--	--	510	S	60	I	354MCKZ
WA Ac 27	--	THOMPSON, WILLIAM	--	--	480	S	110	H	351WLCK
WA Ac 28	--	DILLON, R S	--	--	900	S	60	H	351WLCK
WA Ac 29	--	DILLON, R S	--	--	890	S	80	H	351WLCK
WA Ac 30	WA-02-4908	FLING, LUDWELL O	K L TEACH	10-15-1956	720	H	130	H	344RMNY
WA Ac 31	WA-02-8066	APPLE, JESSE	J W AMBROSE	08-20-1957	520	S	75	H	344RMNY
WA Ac 32	--	MICHAEL, ELMO	--	--	560	S	100	H	344RMNY
WA Ac 33	--	HEPBURN, E W	R ROBISON	1956	560	S	105	C	351TNLY
WA Ac 34	--	HEPBURN, E W	R ROBISON	1955	505	S	310	I	351TNLY
WA Ac 35	--	HEPBURN, E W	R ROBISON	1953	600	S	103	I	351WLCK
WA Ac 36	--	HEPBURN, E W	R ROBISON	1953	600	S	80	U	351TNLY
WA Ac 37	--	DANIELS, MARSHALL	--	--	500	S	80	U	341WDMN
WA Ac 38	WA-00-0299	ROBISON, B W	W TEACH	04-11-1946	460	F	65	H	344RMNY
WA Ac 39	--	TOWN OF HANCOCK	T B HARPER	1912	495	F	440	U	347ORSK
WA Ac 40	WA-01-9974	EXLINE, ELMER	R BARNHART	08-02-1955	535	S	63	H	344RMNY
WA Ac 41	WA-01-1052	DILLON, R S	R BARNHART	10-10-1952	605	S	85	H	351WLCK
WA Ac 42	WA-03-5100	BOY SCOUTS OF AMERICA	J M HOFFMAN	05-23-1959	560	H	330	P	352BMBG
WA Ac 43	--	C & O CANAL NATL PARK	J M HOFFMAN	12-17-1968	425	G	125	U	354RSHL
WA Ac 44	WA-73-2605	JOHNSON, ELMER	H LUCAS	03-29-1979	540	S	45	H	344RMNY
WA Ac 45	WA-70-0321	SNOW, GEORGE W	W LAMBERSON	06-24-1970	540	V	105	H	344RMNY
WA Ac 46	WA-73-3076	COHILL, ROGER	D H WOODWARD	03-26-1980	640	H	200	U	351WLCK
WA Ac 48	WA-73-1682	MELLOTT, LYNN	H LUCAS	11-22-1976	620	S	145	H	344RMNY
WA Ac 49	WA-73-1482	GAYNOR, LUCINDA	H LUCAS	07-06-1976	640	H	300	H	344RMNY
WA Ac 50	WA-73-2041	DIVELBLISS, CHARLES	H LUCAS	09-20-1977	585	S	100	H	344RMNY
WA Ac 51	WA-73-0366	SKIDMORE, DOUGLAS	H LUCAS	08-29-1973	480	F	120	H	354MCKZ
WA Ac 52	WA-73-0480	ROSS, LEWIS	H LUCAS	11-15-1973	490	S	123	H	354MCKZ
WA Ac 53	WA-73-2313	TOWN OF HANCOCK	H LUCAS	06-07-1979	500	F	420	U	344RMNY
WA Ac 54	WA-67-0207	S C OF HOUSE OF JACOB	R BRADLEY	03-09-1967	415	S	80	H	351TNLY
WA Ac 55	WA-73-1688	HAYNES, TIMOTHY	JOHN SHAFF	12-29-1976	595	S	175	H	351WLCK
WA Ac 56	WA-73-1324	BISHOP, JOHN	H LUCAS	02-11-1976	590	H	280	H	351WLCK
WA Ac 57	WA-73-1868	FLOWERS, LARRY	H LUCAS	05-23-1977	640	F	160	H	351WLCK
WA Ac 58	WA-73-1604	SILVER, RAYMOND	JOHN SHAFF	10-22-1976	620	S	250	H	354MCKZ
WA Ac 59	WA-73-0350	GOLDEN, LESTER	GLENN FORD	08-30-1974	880	S	440	H	351WLCK
WA Ac 60	WA-66-0325	REED, GERALD	J M HOFFMAN	06-14-1966	655	S	225	H	344RMNY
WA Ac 61	WA-81-0838	CALDWELL, GEORGE	A&H DRILLING	09-13-1984	890	S	485	H	351WLCK
WA Ac 62	WA-81-0429	GRACE PRESBYTERIAN CH	H LUCAS	05-09-1985	640	H	220	U	351WLCK
WA Ac 63	WA-81-1010	MURPHY, ROGER L	LEO FORD	05-07-1985	560	S	350	H	344RMNY
WA Ac 64	WA-81-0155	H B MELLOTT ESTATE INC	A&H DRILLING	02-22-1982	590	H	205	N	351TNLY
WA Ad 1	WA-00-6048	HANCOCK DR IN THEATRE	H YANKEY	06-19-1950	415	V	60	U	341CMNG
WA Ad 2	--	HANCOCK DR IN THEATRE	--	1955	415	V	--	H	341CMNG
WA Ad 3	WA-00-9573	MILLER, CLIFFORD	R BARNHART	04-08-1952	450	S	90	H	341PRKD
WA Ad 4	WA-02-3620	KRETZER, WILMER	W MARTIN	06-23-1956	415	V	69	C	341CMNG
WA Ad 5	WA-01-6693	HEPBURN ORCHARDS INC	J M HOFFMAN	10 - 1954	440	V	251	C	341HMPR
WA Ad 6	WA-00-9112	BRANTON, CHET	R BARNHART	03-25-1952	480	S	130	U	341HMPR
WA Ad 7	WA-01-0322	DANIELS, MARSHALL	G WACHTER	08-29-1952	450	S	203	C	341HMPR
WA Ad 8	WA-00-4213	MILLS, H L	J M HOFFMAN	06-27-1949	450	V	70	C	341PRKD
WA Ad 9	WA-00-8382	NEUBERT, JOHN A	H YANKEY	08-23-1951	610	S	90	H	341CMNG
WA Ad 10	WA-00-2692	BARNHART, ROBERT J	W TEACH	05-25-1949	690	H	130	H	341CMNG
WA Ad 11	WA-00-0300	STANLEY, OTIS	W TEACH	04-05-1946	485	S	150	H	341CMNG
WA Ad 12	--	LEATHERMAN, W J	--	--	670	H	125	H	341HMPR

Casing Depth (ft)	Casing Diameter (in.)	Casing Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
40	6	X	80	R	11-01-1984	6	170	80	0.07	2	11-01-1984	--	WA Ab 79
24.5	6	X	70	R	11-29-1969	4	245	70	.02	2	11-29-1969	O,Q	WA Ab 80
223	6	X	250	R	03-05-1985	30	322	250	.42	1	03-05-1985	Q	WA Ab 81
--	6	-	71.09	S	06-14-1985	--	--	--	--	--	--	O	WA Ab 82
48	6	X	62.14	S	12-24-1985	7	237	80	.04	8	12-16-1985	G	WA Ab 83
20	12	-	62.14	S	12-24-1985	--	--	--	--	--	--	--	WA Ab 83
40	6	X	60	R	06-11-1986	6	360	60	.02	1	06-11-1986	--	WA Ab 84
--	4	-	54.03	S	10-02-1946	--	--	--	--	--	--	O	WA Ac 1
--	6	-	--	-	--	--	--	--	--	--	--	Q	WA Ac 2
22	6	X	30	R	05-14-1956	17	110	30	.21	2	05-14-1956	Q	WA Ac 3
15	6	X	4	R	11-27-1956	6	30	4	.23	1	11-27-1956	--	WA Ac 4
--	6	-	50	R	01-22-1955	--	--	--	--	--	--	Q	WA Ac 5
--	6	-	43.46	S	05-28-1958	12	40	20	.60	1	05-28-1958	--	WA Ac 6
--	6	-	55	R	05-28-1958	--	--	--	--	--	--	--	WA Ac 7
11.8	48	W	7.11	S	05-28-1958	--	--	--	--	--	--	--	WA Ac 9
80	6	X	17.85	S	05-28-1958	9	30	10	.45	1	06-13-1947	--	WA Ac 14
30	6	X	75	R	10-23-1946	4	120	75	.09	2	10-23-1946	--	WA Ac 15
30	6	X	50	R	11-09-1946	5	95	50	.11	2	11-09-1946	--	WA Ac 16
25	6	X	90	R	05-29-1958	--	--	--	--	--	--	--	WA Ac 17
--	6	-	40	R	08-31-1946	10	87	40	.21	1	08-31-1946	--	WA Ac 18
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ac 19
--	8	-	30.60	S	06-09-1958	--	--	--	--	--	--	--	WA Ac 24
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ac 25
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ac 26
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ac 27
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ac 28
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ac 29
27	6	X	75	R	10-15-1956	5	75	75	--	1	10-15-1956	--	WA Ac 30
24	6	X	20	R	08-20-1957	5	70	20	.10	1	08-20-1957	--	WA Ac 31
--	--	-	30	E	06-09-1958	--	--	--	--	--	--	--	WA Ac 32
--	6	-	F	-	06-10-1958	25	--	--	--	--	1956	--	WA Ac 33
--	6	-	F	-	06-10-1958	70	--	--	--	--	1955	--	WA Ac 34
--	6	-	19.67	S	06-10-1958	20	--	--	--	--	1953	--	WA Ac 35
--	6	-	.67	S	06-10-1958	--	--	--	--	--	--	--	WA Ac 36
--	--	-	20	R	06-10-1958	--	--	--	--	--	--	--	WA Ac 37
20	6	X	20	R	04-11-1946	20	--	20	--	--	04-11-1946	--	WA Ac 38
430	8	X	38.18	S	06-13-1958	200	--	--	--	--	1912	--	WA Ac 39
--	6	-	30	R	08-02-1955	30	55	30	1.20	1	08-02-1955	--	WA Ac 40
--	6	-	25	R	10-10-1952	1200	35	25	120.0	1	10-10-1952	--	WA Ac 41
63.7	6	X	99	R	05-23-1959	12	275	99	.07	24	05-23-1959	--	WA Ac 42
41	6	X	28.26	S	04-01-1969	10	--	--	--	--	12-17-1968	C,Q	WA Ac 43
27	6	X	0	R	03-29-1979	12	40	0	.30	1	03-29-1979	Q	WA Ac 44
35	6	X	10	R	06-24-1970	50	95	10	.59	1	06-24-1970	--	WA Ac 45
64	6	X	70	R	03-26-1980	6	200	70	.05	2	03-26-1980	O	WA Ac 46
24	6	X	35	R	11-22-1976	20	125	35	.22	1	11-22-1976	--	WA Ac 48
28	6	X	80	R	07-06-1976	12	280	80	.06	1	07-06-1976	--	WA Ac 49
20	6	X	20	R	09-20-1977	30	90	20	.43	1	09-20-1977	--	WA Ac 50
33	6	X	60	R	08-29-1973	10	90	60	.33	2	08-29-1973	--	WA Ac 51
32	6	X	15	R	11-15-1973	24	80	15	.37	2	11-15-1973	--	WA Ac 52
40	8	X	20	R	06-07-1979	150	400	20	.39	2	06-07-1979	O	WA Ac 53
45	6	X	5	R	03-09-1967	6	80	5	.08	.5	03-09-1967	--	WA Ac 54
42	6	X	32	R	12-29-1976	18	50	32	1.0	3	12-29-1976	--	WA Ac 55
38	6	X	90	R	02-11-1976	10	260	90	.06	1	02-11-1976	--	WA Ac 56
40	6	X	60	R	05-23-1977	4	140	60	.05	2	05-23-1977	--	WA Ac 57
58	6	X	46	R	10-22-1976	25	90	46	.57	3	10-22-1976	--	WA Ac 58
108	6	X	13	R	08-30-1974	8	440	13	.02	2	08-30-1974	--	WA Ac 59
48	6	X	140	R	06-14-1966	20	190	140	.40	.5	06-14-1966	--	WA Ac 60
130	6	X	205	R	09-13-1984	3	485	205	.01	2	09-13-1984	--	WA Ac 61
45	6	X	60	R	05-09-1983	12	200	60	.09	1	05-09-1983	O	WA Ac 62
284	6	X	28	R	05-07-1985	30	350	28	.09	1	05-07-1985	--	WA Ac 63
21	6	X	60	R	02-22-1982	--	--	--	--	--	--	--	WA Ac 64
13	6	X	30	R	06-19-1950	10	30	30	--	.3	06-19-1950	--	WA Ad 1
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ad 2
22	6	X	10	R	04-08-1952	--	--	--	--	--	--	Q	WA Ad 3
50	6	X	24	R	06-23-1956	11	--	--	--	4	06-23-1956	--	WA Ad 4
--	6	-	65	R	10 - 1954	8	240	65	.05	1	10 - 1954	--	WA Ad 5
19	6	X	30	R	03-25-1952	6	130	30	.06	1	03-25-1952	--	WA Ad 6
20	6	X	85	R	08-29-1952	4	115	85	.13	--	08-29-1952	--	WA Ad 7
21	6	X	10	R	06-27-1949	20	20	10	2.0	1	06-27-1949	--	WA Ad 8
14.50	6	X	60	R	08-23-1951	10	80	60	.50	1.5	08-23-1951	--	WA Ad 9
41	6	X	40	R	05-25-1949	5	60	40	.25	3	05-25-1949	--	WA Ad 10
58	6	X	60	R	04-05-1946	6	61	60	6.0	--	04-05-1946	--	WA Ad 11
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ad 12

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ad 13	--	STOTLEMEYER, CHARLES K	--	1937	745	H	130	H	341HMPR
WA Ad 14	--	FULTON, STANLEY	--	--	730	H	80	H	341HMPR
WA Ad 15	WA-02-8065	WELLER, JAMES	W AMBROSE	08-16-1957	740	H	85	H	341HMPR
WA Ad 16	--	TRAILS, MARSHALL	--	--	530	S	135	H	341CMNG
WA Ad 17	--	GLADHILL, M E	--	--	680	S	70	H	341CMNG
WA Ad 18	WA-01-5653	EDDY, JAMES H	W AMBROSE	07-15-1954	760	H	82	H	341CMNG
WA Ad 19	WA-00-2693	WELLER, EDITH	W TEACH	06-10-1949	720	H	100	H	341CMNG
WA Ad 20	WA-00-2691	WILSON, WALTER E	W TEACH	06-02-1949	790	H	92	H	341CMNG
WA Ad 21	WA-01-0163	ALTON, ROBERT	G WACHTER	07-10-1952	750	S	61	H	341HMPR
WA Ad 22	WA-02-3045	KEEFER, NELLIE M	W MARTIN	05-14-1956	630	S	89	H	341CMNG
WA Ad 23	--	MCCARTY, JOHN	--	1950	760	W	65	H	341HMPR
WA Ad 24	--	FULTON, STANLEY	--	--	770	H	140	H,S	341HMPR
WA Ad 25	WA-01-0162	WILSON, WALTER E	G WACHTER	06-09-1952	755	H	81	H	341HMPR
WA Ad 26	--	WEIRMAN, ROBERT	G L DEHAVEN	1947	640	S	103	H	340DVNN
WA Ad 27	--	SNYDER, J E	W TEACH	05 - 1958	700	S	140	H	344RMNY
WA Ad 29	WA-01-2866	WELLER, OSCAR	W TEACH	07-07-1953	530	S	50	H	344RMNY
WA Ad 30	WA-00-2966	YOUNKER, JAMES L	W TEACH	09-15-1949	510	W	42	H,S	344RMNY
WA Ad 31	--	HULL, RICHARD E	W TEACH	1955	590	S	145	H	340DVNN
WA Ad 32	WA-03-0115	HULL, RICHARD R	W TEACH	03-17-1958	575	S	115	H	341WDMN
WA Ad 33	WA-02-3311	GROVE, RAY A	K L TEACH	05-24-1956	595	S	70	H	344RMNY
WA Ad 34	--	MOATS, BEN	--	1950	550	S	60	H	344RMNY
WA Ad 35	WA-00-5049	GOLDEN, ELSIE E	W TEACH	01-20-1950	590	S	70	H	347HDBG
WA Ad 36	--	KEEFER, EMMETT	--	--	540	S	28	H	344RMNY
WA Ad 37	WA-02-8661	MCCORMICK, LEO	W MARTIN	10-03-1957	580	S	96	U	341WDMN
WA Ad 38	--	MD STATE HIGHWAY ADMIN	SCHULTZ	1915	465	S	122	U	341WDMN
WA Ad 39	--	SHAFFER	--	1938	470	S	80	H	341WDMN
WA Ad 40	WA-01-2868	MOATS, RAYMOND	W TEACH	07-17-1953	450	S	70	U	341WDMN
WA Ad 41	--	MOATS, RAYMOND	PRATER & NIE	1895	450	S	57	U	341WDMN
WA Ad 42	--	EGOLF, GEORGE	RAMSBURG	1916	470	S	33	H	344RMNY
WA Ad 43	WA-00-1252	EVERETT, WILLIAM	W TEACH	03-20-1947	480	S	70	H	--
WA Ad 44	WA-01-1561	SHAFFER, L M	R BARNHART	02-01-1953	495	S	109	S	341WDMN
WA Ad 45	--	SHAFFER, L M	SCHULTZ	1945	605	H	185	H	341WDMN
WA Ad 46	--	MD STATE HIGHWAY ADMIN	--	--	460	S	107.8	U	341CMNG
WA Ad 47	WA-05-2152	C&O CANAL NATL PARK	J M HOFFMAN	07-06-1963	405	S	105.3	H	341WDMN
WA Ad 48	WA-73-1695	GANOE, LENA	K L TEACH	05-03-1977	540	S	95	H	344RMNY
WA Ad 49	WA-73-3195	WELLER, JOSEPH K	GERALD CLARK	08-19-1980	440	S	100	H	341WDMN
WA Ad 50	WA-81-0288	SMITH, WILLIAM D	A&H DRILLING	09-15-1982	510	V	105	H	344RMNY
WA Ad 51	WA-73-3447	GOLDEN, ELZY E	K L TEACH	04-20-1981	675	H	125	H	344RMNY
WA Ad 52	WA-81-0408	LONG, ELVIN S	A&H DRILLING	03-29-1983	685	H	185	H	341WDMN
WA Ad 53	WA-73-1337	HORNBAKER, RUTH	H LUCAS	02-13-1976	680	H	180	H	341WDMN
WA Ad 54	WA-73-3486	HORNBAKER, MARK	H LUCAS	07-01-1981	665	H	180	H	341WDMN
WA Ad 55	WA-73-1464	LANEHART, HARRY	H LUCAS	06-12-1976	750	S	160	H	341CMNG
WA Ad 56	WA-73-3005	HUTCHINSON, ROGER	A&H DRILLING	11-28-1979	750	H	245	H	341CMNG
WA Ad 57	WA-81-0169	STOROSH, BILL	H LUCAS	03-24-1982	775	H	120	H	341CMNG
WA Ad 58	WA-73-2184	ORCHARDS OF MARVANIA	GERALD CLARK	01-11-1978	780	H	203	H	341HMPR
WA Ad 59	WA-81-0430	TRAIL, MERLE L	A&H DRILLING	03-30-1983	600	S	145	H	341CMNG
WA Ad 60	WA-73-0575	KEEFER, LESTER	W LAMBERSON	03-15-1974	700	H	125	H	341CMNG
WA Ad 61	WA-81-0027	HAINES, JAMES W	H LUCAS	07-23-1981	800	H	180	H	341HMPR
WA Ad 62	WA-73-2100	WELLER, GLADYS	H LUCAS	10-27-1977	760	H	160	H	341HMPR
WA Ad 63	WA-73-0371	ORCHARDS OF MARVANIA	GERALD CLARK	07-30-1973	770	H	183	H	341HMPR
WA Ad 64	WA-73-2044	ORCHARDS OF MARVANIA	GERALD CLARK	10-05-1977	770	H	198	H	341HMPR
WA Ad 65	WA-73-2043	SWAIN, ADOLPH	GERALD CLARK	10-04-1977	770	S	209	H	341HMPR
WA Ad 66	WA-73-2276	MELICK, BERTHA M	H LUCAS	04-22-1978	780	H	140	H	341HMPR
WA Ad 67	WA-73-2277	MOON, STELLA M	H LUCAS	04-21-1978	760	H	125	H	341HMPR
WA Ad 68	WA-73-3440	POOLE, CHESTER	A&H DRILLING	04-05-1981	760	H	100	H	341HMPR
WA Ad 69	WA-73-2476	LIPINSKI, STEVE	GERALD CLARK	08-15-1978	740	S	264	H	341HMPR
WA Ad 70	WA-81-0223	DESHONG, BENJAMIN	A&H DRILLING	06-07-1982	740	H	185	H	341HMPR
WA Ad 71	WA-73-3457	WEAVER, RODNEY	H LUCAS	05-04-1981	715	H	180	H	341HMPR
WA Ad 72	WA-73-2838	LANEHART, LEROY	H LUCAS	06-25-1979	765	H	220	H	341HMPR
WA Ad 73	WA 73-2692	STOTTLEMYER, ROBERT	D H WOODWARD	03-09-1979	735	H	300	H	341HMPR
WA Ad 74	WA-81-0173	DONEGAN, CHARLES	D H WOODWARD	03-25-1982	740	H	375	I	341HMPR
WA Ad 75	WA-73-1878	HARRIS, ROBERT	H LUCAS	05-24-1977	700	H	200	H	341HMPR
WA Ad 76	WA-73-2365	WARD, CLIFFORD G	GERALD CLARK	06-16-1978	560	S	193	H	341HMPR
WA Ad 77	WA-73-0406	DANNER, FRED	H LUCAS	08-31-1973	470	V	142	H	341CMNG
WA Ad 78	WA-73-2521	DEMORY, FRANK	R ARDINGER	09-19-1978	705	H	100	H	341HMPR
WA Ad 79	WA-73-2919	SHIVES, FRANCIS	H LUCAS	08-31-1979	670	H	120	H	341HMPR
WA Ad 80	WA-70-0313	LYNN, JULIAN	W LAMBERSON	07-01-1970	680	H	205	H	341HMPR
WA Ad 81	WA-81-0307	SMITH, HILDEBERT	H LUCAS	07-08-1982	645	S	160	H	341HMPR
WA Ad 82	WA-73-1463	SMITH, HILDEBERT	H LUCAS	06-07-1976	645	S	160	H	341HMPR
WA Ad 83	WA-73-3475	STABLE, JAMES	A&H DRILLING	05-27-1981	645	H	180	H	341CMNG
WA Ad 84	WA-73-3445	RADER, DANNY	D H WOODWARD	06-30-1981	730	H	425	I	341HMPR
WA Ad 85	WA-73-3257	ORCHARD RIDGE CHURCH	H LUCAS	01-06-1980	700	H	180	H	344RMNY
WA Ad 86	WA-81-0589	YOUNKER, JAMES	A&H DRILLING	09-26-1983	500	S	60	H	344RMNY
WA Ad 87	WA-81-0620	HELMICK, JEFFREY	H LUCAS	11-09-1983	785	H	200	H	341HMPR
WA Ad 88	WA-81-0698	HULL, LOYE D	A&H DRILLING	04-10-1984	760	H	265	H	341HMPR

Casing Depth (ft)	Casing Diameter (in.)	Casing Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
--	6	-	60	R	06-10-1958	--	--	--	--	--	--	--	WA Ad 13
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ad 14
19	6	X	22	R	08-16-1957	5	--	--	--	--	08-16-1957	--	WA Ad 15
--	6	-	77.34	S	06-10-1958	--	--	--	--	--	--	--	WA Ad 16
--	6	-	15	R	06-10-1958	--	--	--	--	--	--	--	WA Ad 17
33	6	X	38	R	07-15-1954	2	80	38	0.05	3	07-15-1954	--	WA Ad 18
59	6	X	40	R	06-10-1949	8	55	40	.53	3	06-10-1949	--	WA Ad 19
48	6	X	20	R	06-02-1949	6	30	20	.60	3	06-02-1949	--	WA Ad 20
16	6	X	14	R	07-10-1952	2	40	14	.08	--	07-10-1952	--	WA Ad 21
42	6	X	30	R	05-14-1956	8	40	30	.80	2	05-14-1956	--	WA Ad 22
--	8	-	20.59	S	06-11-1958	--	--	--	--	--	--	--	WA Ad 23
--	6	-	30	R	06-11-1958	--	--	--	--	--	--	--	WA Ad 24
16	6	X	18.73	S	06-11-1958	4	47	17	.13	--	06-09-1952	--	WA Ad 25
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ad 26
--	6	-	45.26	S	06-11-1958	--	--	--	--	--	--	--	WA Ad 27
24	6	X	10	R	07-07-1953	5	--	10	--	1	07-07-1953	--	WA Ad 29
20	6	X	10	R	09-15-1949	10	--	10	--	1.5	09-15-1949	--	WA Ad 30
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ad 31
25	6	X	60	R	03-17-1958	6	--	60	--	1	03-17-1958	--	WA Ad 32
40	6	X	45	R	05-24-1956	5	50	45	1.0	1	05-24-1956	--	WA Ad 33
--	6	-	15	R	06-12-1958	--	--	--	--	--	--	--	WA Ad 34
20	6	X	30	R	01-20-1950	10	40	30	1.0	1	01-20-1950	--	WA Ad 35
--	6	-	8	E	06-12-1958	--	--	--	--	--	--	--	WA Ad 36
19	6	X	40	R	10-03-1957	10	60	40	.50	1	10-03-1957	--	WA Ad 37
18	8	X	79.65	S	06-26-1958	28	--	80	--	--	1915	--	WA Ad 38
--	6	-	68	R	1957	--	--	--	--	--	--	--	WA Ad 39
--	6	-	20	R	07-23-1958	--	--	--	--	--	--	--	WA Ad 40
16	6	X	17	R	1895	--	--	--	--	--	--	--	WA Ad 41
--	6	-	7.52	S	07-23-1958	--	--	--	--	--	--	--	WA Ad 42
25	6	X	32	R	03-20-1947	6	40	32	.75	1	03-20-1947	--	WA Ad 43
--	6	-	8	R	02-01-1953	40	50	8	.95	1	02-01-1953	--	WA Ad 44
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ad 45
--	6	-	55.09	S	04-06-1959	--	--	--	--	--	--	--	WA Ad 46
33	6	X	18.64	S	07-26-1963	12	60.87	18.64	.28	24	07-27-1963	Q	WA Ad 47
36	6	X	30	R	05-03-1977	40	40	30	4.0	1	05-03-1977	--	WA Ad 48
22	6	X	22	R	08-19-1980	30	60	22	.79	1	08-19-1980	--	WA Ad 49
21	6	X	3	R	09-15-1982	100	105	3	.98	2	09-15-1982	--	WA Ad 50
62	6	X	30	R	04-20-1981	20	75	30	.44	1	04-20-1981	--	WA Ad 51
20	6	X	70	R	03-29-1983	20	185	70	.17	2	03-29-1983	--	WA Ad 52
35	6	X	75	R	02-13-1976	12	160	75	.14	1	02-13-1976	Q	WA Ad 53
58	6	X	60	R	07-01-1981	6	160	60	.06	1	07-01-1981	--	WA Ad 54
32	6	X	50	R	06-12-1976	15	140	50	.17	1	06-12-1976	--	WA Ad 55
35	6	X	60	R	11-28-1979	10	245	60	.05	2	11-28-1979	--	WA Ad 56
38	6	X	50	R	03-24-1982	10	100	50	.20	1	03-24-1982	--	WA Ad 57
26	6	X	38	R	01-11-1978	11	203	38	.07	1	01-11-1978	--	WA Ad 58
21	6	X	35	R	03-30-1983	5	105	35	.07	2	03-30-1983	--	WA Ad 59
22	6	X	30	R	03-15-1974	6	110	30	.07	1	03-15-1974	--	WA Ad 60
38	6	X	80	R	07-23-1981	5	160	80	.06	1	07-23-1981	--	WA Ad 61
40	6	X	50	R	10-27-1977	8	140	50	.09	1	10-27-1977	--	WA Ad 62
33	6	X	100	R	07-30-1973	50	163	100	.79	2	07-30-1973	--	WA Ad 63
20	6	X	49	R	10-05-1977	20	178	49	.16	2	10-05-1977	--	WA Ad 64
24	6	X	55	R	10-04-1977	50	120	55	.77	1.5	10-04-1977	--	WA Ad 65
40	6	X	25	R	04-22-1978	12	120	25	.13	1	04-22-1978	--	WA Ad 66
60	6	X	40	R	04-21-1978	6	105	40	.09	1	04-21-1978	--	WA Ad 67
21	6	X	30	R	04-05-1981	10	100	30	.14	1	04-05-1981	--	WA Ad 68
30	6	X	100	R	08-15-1978	12	245	100	.08	12	08-15-1978	--	WA Ad 69
45	6	X	40	R	06-07-1982	20	185	40	.14	2	06-07-1982	--	WA Ad 70
40	6	X	75	R	05-04-1981	6	150	75	.08	1	05-04-1981	--	WA Ad 71
32	6	X	50	R	06-25-1979	6	200	50	.04	1	06-25-1979	Q	WA Ad 72
20	6	X	20	R	03-09-1979	2	300	20	.01	2	03-09-1979	--	WA Ad 73
42	6	X	100	R	03-25-1982	50	375	100	.18	3	03-25-1982	--	WA Ad 74
29	6	X	60	R	05-24-1977	4	180	60	.03	2	05-24-1977	--	WA Ad 75
54	6	X	90	R	06-16-1978	15	193	90	.15	1	06-16-1978	--	WA Ad 76
38	6	X	42	R	08-31-1973	6	100	42	.10	3	08-31-1973	Q	WA Ad 77
63	6	X	50	R	09-19-1978	15	100	50	.30	1	09-19-1978	--	WA Ad 78
31	6	X	50	R	08-31-1979	5	100	50	.10	1	08-31-1979	--	WA Ad 79
54	6	X	50	R	07-01-1970	15	185	50	.11	1	07-01-1970	--	WA Ad 80
38	6	X	120	R	07-08-1982	12	140	120	.60	1	07-08-1982	--	WA Ad 81
26	6	X	80	R	06-07-1976	12	140	80	.20	1	06-07-1976	--	WA Ad 82
69	6	X	60	R	05-27-1981	15	180	60	.12	2	05-27-1981	--	WA Ad 83
21	6	X	19	R	06-30-1981	40	425	19	.10	4	06-30-1981	--	WA Ad 84
50	6	X	64.03	S	07-30-1985	8	160	60	.08	1	01-06-1980	O	WA Ad 85
21	6	X	5	R	09-26-1983	100	60	5	1.82	2	09-26-1983	--	WA Ad 86
40	6	X	50	R	11-09-1983	6	180	50	.05	1	11-09-1983	--	WA Ad 87
40	6	X	43	R	04-10-1984	16	265	45	.07	2	04-10-1984	--	WA Ad 88

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ad 89	WA-81-0669	MILLS, MELVIN	A&H DRILLING	02-20-1984	745	H	265	H	341HMPR
WA Ad 90	WA-81-0481	KOCHERA, MICHAEL	D H WOODWARD	06-02-1983	740	S	200	H	341HMPR
WA Ad 91	WA-81-0504	REEDER, THEODORE	A&H DRILLING	07-06-1983	625	S	145	H	347ORSK
WA Ad 92	WA-81-0612	SHIPLEY, RODNEY	A&H DRILLING	11-01-1983	770	H	220	H	341HMPR
WA Ad 93	WA-81-0707	WILLIS, CLAYTON	RANDY CLARK	05-08-1984	780	H	120	H	341CMNG
WA Ad 94	WA-03-4205	LOG CABIN INN	K L TEACH	04-14-1959	450	V	94	C	341PRKD
WA Ad 95	WA-81-0812	RINEHART, CARL	H LUCAS	08-13-1984	665	H	210	H	341WDMN
WA Ad 96	WA-81-0878	HULL, RALPH M	A&H DRILLING	10-16-1984	550	S	125	H	344RMNY
WA Ad 97	WA-03-7570	TIMBER RIDGE INN	J M HOFFMAN	08 - 1959	480	V	205	U	341CMNG
WA Ad 98	WA-04-5368	HANCOCK TRUCK STOP	GERALD CLARK	12-06-1961	420	F	102	C	341CMNG
WA Ad 99	WA-81-1390	TIMBER RIDGE INN	D H WOODWARD	05-30-1986	485	H	250	C,H	341CMNG
WA Ad 100	WA-81-0451	LANEHART, ROGER	A&H DRILLING	05-05-1983	760	S	160	H	341HMPR
WA Ae 2	WA-02-2362	HAINES, LEONARD F	W TEACH	02-28-1956	650	S	45	H	354MCKZ
WA Ae 3	WA-00-4187	KIDWELL, MINNIE M	W TEACH	07-02-1949	620	S	90	H	351WLCK
WA Ae 4	WA-01-6519	SHOEMAKER, WILLIAM A	W TEACH	09 - 1954	510	F	53	U	344RMNY
WA Ae 5	--	SHOEMAKER, WILLIAM A	--	1943	510	F	50	H	344RMNY
WA Ae 6	--	SHOEMAKER, LOWELL	W TEACH	1949	570	S	98	H	344RMNY
WA Ae 7	--	TILLOU, J H	--	1915	660	S	187	H,S	344RMNY
WA Ae 8	WA-02-4871	WELLER, DONALD	J M HOFFMAN	10 - 1956	660	S	125	H	341WDMN
WA Ae 9	--	WELLER, ELIZABETH	--	1930	570	S	110	H	341WDMN
WA Ae 10	WA-02-4976	BARNHART, HARRY	J M HOFFMAN	10 - 1956	720	H	146	H	344RMNY
WA Ae 11	WA-02-5091	BARNHART, WEBSTER	J M HOFFMAN	10 - 1956	640	H	84	H	341WDMN
WA Ae 12	WA-00-2285	PITTMAN, HERBERT	W TEACH	02-18-1949	470	S	85	H,S	341WDMN
WA Ae 13	WA-01-3408	MOATS, LEROY	K L TEACH	10 - 1953	720	H	85	H	344RMNY
WA Ae 14	--	DILLON, R S	TEACH	--	570	V	40	H	341CMNG
WA Ae 15	--	DILLON, R S	TEACH	1953	570	V	96	I	341CMNG
WA Ae 16	WA-00-3519	REVELL, B H	W TEACH	12-20-1949	450	S	70	H	344RMNY
WA Ae 17	WA-00-3357	MCCARTY, NEVEN L	W TEACH	12-19-1949	450	S	60	H	341WDMN
WA Ae 18	WA-01-1703	SHIVES, WAYNE O	K L TEACH	06 - 1953	415	V	50	H	344RMNY
WA Ae 19	WA-02-7867	WARNER, JAMES E	W TEACH	07-27-1958	405	V	45	H	344RMNY
WA Ae 21	WA-00-3520	WELLER, BUD V	W TEACH	12-26-1949	445	S	77	H	344RMNY
WA Ae 22	--	MILLS, ALBERT C	--	--	530	S	75	H	344RMNY
WA Ae 23	--	BEARD, JAMES	--	1920	585	H	80	H	344RMNY
WA Ae 24	--	BEARD, THEODORE R	--	--	595	S	90	H	344RMNY
WA Ae 25	--	SHIVES, FRANK	--	--	485	S	40	H	344RMNY
WA Ae 26	--	WELLER, CLIFFORD	--	--	470	S	80	H	344RMNY
WA Ae 31	--	GILLEY, U D	--	--	575	S	48.5	U	344RMNY
WA Ae 32	WA-81-0072	WINTERS, GLEN	GERALD CLARK	09-17-1981	570	S	201	H	347ORSK
WA Ae 33	WA-81-0066	MOATS, PAUL	H LUCAS	09-24-1981	736	H	260	H	344RMNY
WA Ae 34	WA-81-0243	REED, JEFFREY	D H WOODWARD	07-01-1982	605	H	250	H	344RMNY
WA Ae 35	WA-81-0410	MILLS, TIMOTHY	D H WOODWARD	03-23-1983	500	S	125	H	344RMNY
WA Ae 36	WA-67-0244	UNGER, WOODROW D	A&H DRILLING	05-08-1967	725	H	205	H	344RMNY
WA Ae 37	WA-81-0487	WARD, CHARLES R	H LUCAS	06-24-1983	705	H	180	H	344RMNY
WA Ae 38	WA-73-3423	WELLER, DONALD L	H LUCAS	03-25-1981	725	H	320	H	344RMNY
WA Ae 39	WA-73-2706	KEEFER, GEORGE	R ARDINGER	04-11-1979	720	H	260	H	344RMNY
WA Ae 40	WA-73-2201	WELLER, LARRY	R ARDINGER	02-20-1978	730	H	157	H	344RMNY
WA Ae 41	WA-66-0340	MASON, FRANK	K L TEACH	08-31-1966	710	S	105	S	344RMNY
WA Ae 42	WA-73-1517	MASON, DANIEL	H LUCAS	07-16-1976	730	H	100	H	344RMNY
WA Ae 43	WA-81-0531	YOUNKER, ROBERT L	JOHN SHAFF	08-23-1983	510	F	225	H	344RMNY
WA Ae 44	WA-73-3268	MOATS, PAUL	H LUCAS	01-07-1980	735	H	100	H	344RMNY
WA Ae 45	WA-81-0810	ZEPP, WILLIAM	A&H DRILLING	08-13-1984	630	S	105	H	341WDMN
WA Ae 46	WA-73-2585	BARNHART, WEBSTER	R ARDINGER	11-06-1978	560	H	405	H	341WDMN
WA Ae 47	WA-81-0642	BARKDOLL	D H WOODWARD	12-02-1983	585	H	500	H	344RMNY
WA Ae 48	WA-73-1033	CAMP HARDING CO PARK	W LAMBERSON	04-22-1975	410	S	285	H	347HDBG
WA Ae 49	WA-81-0934	BURDETTE, JOSEPH	JOHN SHAFF	01-09-1985	720	H	200	H	344RMNY
WA Ae 50	--	COON RIDGE WILDLIFE AR	--	1920	550	S	42	U	344RMNY
WA Af 1	WA-02-9287	ROWLAND, LEWIS	J M HOFFMAN	11 - 1957	640	V	28	H	351WLCK
WA Af 2	--	CAMP SINGEWALD	--	--	950	S	--	R	354RSHL
WA Af 3	--	REPP, JOHN	--	--	645	F	135.3	U	110MNWS
WA Af 4	--	EICHELBERGER, H	--	--	635	S	183	H	371ELBK
WA Af 5	WA-01-1591	SNYDER, RUSSELL B	K L TEACH	01-12-1953	640	S	102	H	361MRBG
WA Af 8	--	MALLOT, JAMES	ALAN ROWLAND	1957	640	S	--	H	354MCKZ
WA Af 9	WA-00-8484	WILLIAMS, PEARL	W TEACH	09-01-1951	670	S	60	H	354MCKZ
WA Af 12	--	BRAGUNIER, C G	--	--	760	S	15.3	H,S	361MRBG
WA Af 16	WA-00-0886	MIZELL, RUSSELL F	C E PIKE	10-23-1946	690	S	150	H,S	352BMBG
WA Af 18	WA-03-1606	WILKINSON, GEORGE	K L TEACH	08-05-1958	680	S	90	U	371ELBK
WA Af 19	WA-03-4812	SUFFECOOL, GUY F	J M HOFFMAN	05 - 1959	570	S	240	H,S	371CCCG
WA Af 20	--	--	--	--	570	S	200	H,S	371CCCG
WA Af 24	WA-81-0729	HENSON, THEODORE L	JOHN SHAFF	05-14-1984	630	S	200	H	351WLCK
WA Af 25	WA-81-0352	BRAGUNIER, GEORGE A	A&H DRILLING	12-09-1982	840	S	105	H	361MRBG
WA Af 26	WA-73-1302	MARLER, BLESTER V	K L TEACH	12-06-1975	915	S	150	H	361MRBG
WA Af 27	WA-73-1855	PINE, LLOYD P	H LUCAS	05-11-1977	880	S	140	H	361MRBG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
25	6	X	55	R	02-20-1984	10	265	55	0.05	2	02-20-1984	--	WA Ad 89
42	6	X	30	R	06-02-1983	10	200	30	.06	2	06-02-1983	--	WA Ad 90
40	6	X	50	R	07-06-1983	10	145	50	.11	2	07-06-1983	--	WA Ad 91
125	5												
21	6	X	30	R	11-01-1983	30	220	30	.16	2	11-01-1983	--	WA Ad 92
100	5												
33	6	X	30	R	05-08-1984	15	80	30	.30	2	05-08-1984	--	WA Ad 93
18	6	X	40	R	04-14-1959	8	50	40	.80	1	04-14-1959	--	WA Ad 94
60	6	X	65	R	08-13-1984	30	200	65	.22	1	08-13-1984	--	WA Ad 95
42	6	X	90	R	10-16-1984	7	125	90	.20	2	10-16-1984	--	WA Ad 96
42	6	X	90	R	08 - 1959	15	200	90	.14	1	08 - 1959	--	WA Ad 97
49	6	X	30	R	12-06-1961	12	70	30	.30	2	12-06-1961	--	WA Ad 98
46	6	X	40	R	05-30-1986	70	250	40	.33	3	05-30-1986	--	WA Ad 99
21	6	X	40	R	05-05-1983	10	160	40	.08	1	05-05-1983	--	WA Ad 100
26	6	X	--	-	--	7	--	--	--	--	02-28-1956	--	WA Ae 2
13	6	X	30	R	07-02-1949	20	50	30	1.0	1	07-02-1949	--	WA Ae 3
24	6	X	30	R	09 - 1954	5	--	30	--	1	09 - 1954	--	WA Ae 4
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ae 5
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ae 6
--	--	-	30	R	06-12-1958	--	--	--	--	--	--	--	WA Ae 7
45	6	X	40	R	10 - 1956	7	120	40	.09	1	10 - 1956	--	WA Ae 8
--	6	-	20	R	06-12-1958	--	--	--	--	--	--	--	WA Ae 9
20	5	X	75	R	10 - 1956	5	140	75	.08	1	10 - 1956	--	WA Ae 10
41	5	X	40	R	10 - 1956	10	70	40	.33	1	10 - 1956	--	WA Ae 11
24	6	X	27.77	S	06-12-1958	10	50	30	.50	1	02-18-1949	--	WA Ae 12
28	6	X	4.52	S	06-26-1958	2	--	--	--	1	10 - 1953	--	WA Ae 13
--	6	-	4.52	S	06-26-1958	--	--	--	--	--	--	--	WA Ae 14
--	6	-	F	-	06-26-1958	--	--	--	--	--	--	Q	WA Ae 15
27	6	X	20	R	12-20-1949	10	25	20	2.0	1	12-20-1949	--	WA Ae 16
32	6	X	40	R	12-19-1949	40	--	40	--	1	12-19-1949	--	WA Ae 17
23	6	X	23.66	S	07-15-1958	33	30	--	--	2	06 - 1953	--	WA Ae 18
10	6	X	20	R	07-27-1958	5	25	20	1.0	1	07-27-1958	--	WA Ae 19
30	6	X	36	R	12-26-1949	5	42	36	.83	2	12-26-1949	--	WA Ae 21
--	6	-	20	R	07-15-1958	--	--	--	--	--	--	--	WA Ae 22
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ae 23
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ae 24
--	6	-	10	E	07-15-1958	--	--	--	--	--	--	--	WA Ae 25
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ae 26
--	6	-	32.52	S	04-05-1985	--	--	--	--	--	--	O	WA Ae 31
24	6	X	60	R	09-17-1981	20	180	60	.17	1	09-17-1981	Q	WA Ae 32
40	6	X	100	R	09-24-1981	5	200	100	.05	1	09-24-1981	--	WA Ae 33
64	6	X	53	R	07-01-1982	20	250	53	.10	4	07-01-1982	--	WA Ae 34
21	6	X	30	R	03-23-1983	25	125	30	.26	2	03-23-1983	--	WA Ae 35
28	6	X	50	R	05-08-1967	3	110	50	.05	.5	05-08-1967	--	WA Ae 36
41	6	X	40	R	06-24-1983	8	160	40	.07	1	06-24-1983	--	WA Ae 37
40	6	X	80	R	03-25-1981	15	300	15	.05	1	03-25-1981	--	WA Ae 38
51	6	X	40	R	04-11-1979	30	260	40	.14	5	04-11-1979	--	WA Ae 39
22	6	X	35	R	02-20-1978	8	--	35	--	.5	02-20-1978	--	WA Ae 40
36	6	X	80	R	08-31-1966	10	90	80	1.0	1	08-31-1966	--	WA Ae 41
40	6	X	45	R	07-16-1976	7	80	45	.20	1	07-16-1976	--	WA Ae 42
21	6	X	23	R	08-23-1983	5	194	23	.03	3	08-23-1983	--	WA Ae 43
40	6	X	40	R	01-07-1980	8	80	40	.20	1	01-07-1980	--	WA Ae 44
37	6	X	25	R	08-13-1984	100	100	25	1.33	3	08-13-1984	--	WA Ae 45
21	6	X	65	R	11-06-1978	.5	405	65	<.00	2	11-06-1978	--	WA Ae 46
72	6	X	110	R	12-02-1983	15	500	110	.04	4	12-02-1983	--	WA Ae 47
30	6	X	30	R	04-22-1975	15	260	30	.07	1	04-22-1975	--	WA Ae 48
50	6	X	38	R	01-09-1985	25	66	38	.89	3	01-09-1985	--	WA Ae 49
--	6	-	6.58	S	11-27-1985	--	--	--	--	--	--	O	WA Ae 50
28	6	O	8.33	S	06-04-1958	20	25	10	1.33	--	11 - 1957	--	WA Af 1
--	6	-	12.26	S	10-15-1958	2	--	--	--	--	10 - 1958	--	WA Af 2
135	48	W	49.03	S	11-20-1958	--	--	--	--	--	--	--	WA Af 3
--	6	-	39.66	S	11-20-1958	--	--	--	--	--	--	--	WA Af 4
74	6	X	20	R	01-12-1953	20	--	20	--	--	01-12-1953	--	WA Af 5
--	48	W	10	E	1957	--	--	--	--	--	--	--	WA Af 8
30	6	X	45	R	09-01-1951	5	55	45	.50	2	09-01-1951	--	WA Af 9
15.3	60	W	12.14	S	11-20-1958	--	--	--	--	--	--	Q	WA Af 12
11	6	X	31	R	10-23-1946	2	35	31	.50	1	10-23-1946	--	WA Af 16
90	6	O	80.02	S	11-20-1958	5	45	40	1.0	1	08-05-1958	--	WA Af 18
55	5	X	53.57	S	07-21-1959	2.5	235	50	.01	1	05 - 1959	Q	WA Af 19
25	6	X	30	E	07 - 1957	--	--	--	--	--	--	--	WA Af 20
60	6	X	58	R	05-14-1984	15	86	58	.54	2	05-14-1984	--	WA Af 24
21	6	X	35	R	12-09-1982	20	105	35	.29	2	12-09-1982	--	WA Af 25
68	6	X	30	R	12-06-1975	30	40	30	3.0	1	12-06-1975	--	WA Af 26
40	6	X	50	R	05-11-1977	11	120	50	.16	1	05-11-1977	--	WA Af 27

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Af 28	WA-73-2973	LEE, LARRY	A&H DRILLING	12-19-1979	650	S	120	H	371ELBK
WA Af 29	WA-04-8356	FUNKHOUSER, LUTHER	J M HOFFMAN	08 - 1962	670	S	305	H	361MRBG
WA Af 30	WA-73-2877	ROWLAND, DALE	A&H DRILLING	08-22-1979	695	S	300	H	361MRBG
WA Af 31	WA-73-2198	WASH CO SPORTSMEN CLUB	ROY HARLEY	04-06-1978	780	H	158	H	354MCKZ
WA Af 32	WA-73-1183	MYERS, DONALD	H LUCAS	08-26-1975	770	S	140	H	354MCKZ
WA Af 33	WA-73-0458	MELLOTT, RONALD	D H WOODWARD	11-09-1973	755	S	100	H	354MCKZ
WA Af 34	WA-73-1946	HIGGINS, RAYMOND	H LUCAS	10-08-1977	840	S	100	H	361MRBG
WA Af 35	WA-73-2746	EVERITTS, GREGORY H	D H WOODWARD	04-24-1979	740	H	100	H	352BMBG
WA Af 36	WA-81-0590	INDIAN SPRGS WORK CTR	A&H DRILLING	09-26-1983	715	S	90	H	361MRBG
WA Af 37	WA-73-0636	RIDGLEY	W LAMBERSON	05-22-1974	950	S	105	H	361MRBG
WA Af 38	WA-81-1132	WEAVER, HERMAN	H LUCAS	08-21-1985	680	H	165	H	371ELBK
WA Af 39	WA 73-3435	WILKINSON, GEORGE	A&H DRILLING	04-06-1981	675	S	125	H	371ELBK
WA Af 40	WA-81-0787	TRUMPOWER, GREGORY	A&H DRILLING	07-27-1984	660	S	100	H	371ELBK
WA Af 41	WA 81-0840	KEEFER, MERLE E	D H WOODWARD	09-13-1984	650	S	250	H	371ELBK
WA Af 42	WA-81-0861	PHILLIPS, HAROLD	JOHN SHAFF	10-15-1984	645	S	125	H	371ELBK
WA Af 43	WA-81-1047	TRUMPOWER, DENVER	A&H DRILLING	06-12-1985	640	H	145	H	371ELBK
WA Af 44	WA-05-5161	A T AND T COMPANY	J M HOFFMAN	02-25-1965	1,200	S	700	C	357TCRR
WA Af 45	WA-05-3239	A T AND T COMPANY	J M HOFFMAN	10-29-1963	1,200	S	500	U	357TCRR
WA Ag 3	WA-00-3843	CARBAUGH, JACOB	J M HOFFMAN	05-16-1949	545	F	67	H,S	367RCKR
WA Ag 4	WA-01-6907	CARBAUGH, JACOB	J M HOFFMAN	11-16-1954	540	S	180.3	H	367RCKR
WA Ag 5	WA-01-4423	ANKENEY, JACOB	K L TEACH	03 - 1954	570	S	120	H	367RCKR
WA Ag 6	--	ANKENEY, JACOB	--	--	560	S	144	H	367RCKR
WA Ag 7	--	ANKENEY, JACOB	--	--	563	S	19.1	H	367RCKR
WA Ag 8	WA-02-1037	HAWBAKER, ALICE	J PROVARD	11-27-1955	682	F	58	H	371CCCG
WA Ag 9	WA-01-5742	HASTINGS, ROBERT	K L TEACH	1954	659	H	73	H,S	371ELBK
WA Ag 10	--	HASTING, ROBERT	--	--	680	H	26	H,S	110MNWS
WA Ag 11	WA-02-0022	FAITH, ADRIAN	J W AMBROSE	08-25-1955	720	S	201	H	371ELBK
WA Ag 13	WA-00-8085	BURKETT, TOM	R ROBISON	06-12-1951	725	S	45	H	371ELBK
WA Ag 14	--	HOSE, WALTER	--	--	605	S	30.7	H	371ELBK
WA Ag 15	WA-01-7228	MANNING, RONALD	J M HOFFMAN	01 - 1955	605	F	101	H	371CCCG
WA Ag 16	WA-01-8046	STRITE, ADRIAN	W TEACH	03 - 1955	605	H	175	H	371CCCG
WA Ag 18	WA-00-1253	YETTER, DANIEL E	W TEACH	03-29-1947	605	S	200	H	371ELBK
WA Ag 19	--	YETTER, DANIEL B	--	--	605	S	33.7	H	371ELBK
WA Ag 20	--	STRITE, CHARLES E	--	--	570	U	25.7	H,S	371CCCG
WA Ag 21	--	STRITE, CHARLES E	--	--	605	S	32	H	371CCCG
WA Ag 22	--	SIEBERT, FRANKLIN S	--	--	575	F	32	U	371CCCG
WA Ag 25	WA-03-2831	MCMULLAN, H W	J M HOFFMAN	11 - 1958	605	S	66	H	361MRBG
WA Ag 26	WA-00-0184	SECREST, DANIEL S	C E PIKE	03-12-1946	525	F	150	H,S	364STPL
WA Ag 27	--	SECREST, DANIEL S	--	--	530	F	49.7	S	364STPL
WA Ag 28	WA-01-5601	CAMPION, MARY	C R COWAN	07-31-1954	525	V	154	H	367SNNG
WA Ag 32	WA-69-0031	FORSYTHE, DONALD	J M HOFFMAN	08-07-1968	648	H	184	H	371CCCG
WA Ag 33	WA-69-0175	REED, ROBERT	J M HOFFMAN	01-03-1969	640	S	160	H	371CCCG
WA Ag 34	WA-69-0318	FIERY, ROBERT	ELDON FUNK	07-31-1969	520	H	260	H	364CBBG
WA Ag 35	WA-66-0016	DITTO, JAMES S	YORK DRLG	07-20-1965	540	V	163	S	371CCCG
WA Ag 36	WA-73-0602	RALSTON, JOHN	C A CROMWELL	05-09-1974	530	F	100	H	364STPL
WA Ag 37	WA-73-0616	SWEITZER, JOHN	W LAMBERSON	04-02-1974	530	F	325	H	364STPL
WA Ag 38	WA-73-0197	HARE, STANLEY	W LAMBERSON	02-02-1973	530	H	305	H	364STPL
WA Ag 39	WA-73-0252	HOSE, RONALD	D H WOODWARD	09-08-1973	530	F	200	H	364STPL
WA Ag 40	WA-73-1674	MCPHEARSON, RICHARD	JOHN SHAFF	10-20-1976	535	H	100	H	364STPL
WA Ag 41	WA-73-0219	BARNHART, SAM	D H WOODWARD	08-08-1973	535	F	250	H	364STPL
WA Ag 42	WA-73-1184	DODGE, JAMES	W LAMBERSON	09-04-1975	505	S	325	H	367RCKR
WA Ag 43	WA-73-1803	CARBUGH, JOHN	H LUCAS	04-07-1977	525	H	260	H	367RCKR
WA Ag 44	WA-73-1292	HULL, PRATHER	H LUCAS	11-27-1975	525	S	150	H	367RCKR
WA Ag 45	WA-73-0788	MILLER, EDWARD	W LAMBERSON	10-11-1974	535	S	405	H	367PBGS
WA Ag 46	WA-73-0655	SHANK, RONALD K	W LAMBERSON	06-13-1974	530	S	185	H	367PBGS
WA Ag 47	WA-72-0210	PRINTZ, JOHN	W LAMBERSON	04-11-1972	520	S	410	H	364CBBG
WA Ag 48	WA-72-0278	MOATS, CARL	ROBERT CLINE	06-12-1972	530	S	180	H	364STPL
WA Ag 49	WA-71-0078	YONKERS, RICHARD	W LAMBERSON	09-30-1970	550	H	245	H	364STPL
WA Ag 50	WA-72-0236	EUGENE, THOMAS	JOHN SHAFF	06-04-1972	540	H	225	H	364STPL
WA Ag 51	WA-73-1009	PAYLOR, RICHARD	W LAMBERSON	03-07-1975	515	H	65	H	367RCKR
WA Ag 52	WA-73-0179	KOONTZ, DONALD	ROBERT CLINE	03-08-1973	520	S	140	H	364CBBG
WA Ag 53	WA-73-0853	BALL, ALFRED	W LAMBERSON	02-24-1975	520	S	245	H	364STPL
WA Ag 54	WA-73-0364	HOFFMAN, JOHN R	W LAMBERSON	08-03-1973	525	S	385	H	364STPL
WA Ag 55	WA-73-1125	HENDERSHOT, CARL	D H WOODWARD	09-01-1975	440	S	150	H	364STPL
WA Ag 56	WA-73-0588	BISHOP, MARVIN	H LUCAS	04-08-1974	440	S	140	H	367SNNG
WA Ag 57	WA-73-0164	MICHAEL, RONALD	W LAMBERSON	01-15-1973	520	H	105	H	361MRBG
WA Ag 58	WA-73-1656	SUFFECOOL, SAMUEL H	K L TEACH	11-10-1976	570	S	250	H	367SNNG
WA Ag 59	WA-73-1643	HAWBAKER, DAVID	H LUCAS	11-10-1976	530	V	85	H	367RCKR
WA Ag 60	WA-73-3330	FRAZIER, NORMAN	K L TEACH	06-22-1981	540	S	75	H,S	367RCKR
WA Ag 61	WA-81-0154	MILLER, IRA M	A&H DRILLING	02-12-1982	535	S	225	H	367RCKR
WA Ag 62	WA-72-0120	MONGAN, DONALD	D H WOODWARD	12-09-1971	545	F	275	H	367RCKR
WA Ag 63	WA-73-1276	STEVENS, DONALD J	D H WOODWARD	12-02-1975	545	F	110	H	367RCKR

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
103	6	X	60	R	12-19-1979	60	120	60	1.0	2	12-19-1979	--	WA Af 28
43	6	X	70	R	08 - 1962	1.5	295	70	.01	.5	08 - 1962	--	WA Af 29
48	6	X	20	R	08-22-1979	4.5	300	20	.02	5	08-22-1979	--	WA Af 30
77	6	X	30	R	04-06-1978	12	158	30	.09	1.5	04-06-1978	--	WA Af 31
81	6	X	60	R	08-26-1975	15	120	60	.25	1	08-26-1975	--	WA Af 32
77	6	X	55	R	11-09-1973	10	80	55	.40	2	11-09-1973	Q	WA Af 33
45	6	X	30	R	10-08-1977	15	90	30	.25	1	10-08-1977	--	WA Af 34
42	6	X	40	R	04-24-1979	30	100	40	.50	1	04-24-1979	--	WA Af 35
23	6	X	23	R	09-26-1983	100	90	23	1.49	2	09-26-1983	O	WA Af 36
21	6	X	--	-	07-10-1985	20	70	5	.31	1	05-22-1974	--	WA Af 37
65	6	X	70	R	08-21-1985	6	150	70	.07	1	08-21-1985	--	WA Af 38
105	6	X	50	R	04-06-1981	50	125	50	.67	2	04-06-1981	--	WA Af 39
42	6	X	20	R	07-27-1984	100	100	20	1.25	3	07-27-1984	--	WA Af 40
190	6	X	45	R	09-13-1984	30	250	45	.15	3	09-13-1984	--	WA Af 41
59	6	X	68	R	10-15-1984	25	82	68	1.79	3	10-15-1984	--	WA Af 42
50	6	X	50	R	06-12-1985	50	145	50	.53	2	06-12-1985	--	WA Af 43
125	5												
54	8	X	100	R	02-25-1965	30	160	100	.50	24	02-25-1965	--	WA Af 44
42	6	X	--	-	--	6	--	--	--	.5	10-29-1963	--	WA Af 45
21	6	X	24	R	05-16-1949	10	40	24	.62	1	05-16-1949	--	WA Ag 3
5	6	X	80	R	11-16-1954	.1	--	80	--	--	11-16-1954	--	WA Ag 4
61	6	X	40	E	11-13-1958	2	--	--	--	1	03 - 1954	--	WA Ag 5
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ag 6
19.1	48	W	18.37	S	11-13-1958	--	--	--	--	--	--	--	WA Ag 7
42	6	X	33.42	S	11-13-1958	20	40	28	1.67	3	11-27-1955	--	WA Ag 8
21	6	X	60	R	11-18-1958	5	--	60	--	1	1954	--	WA Ag 9
26	48	W	10	E	11-18-1958	--	--	--	--	--	--	--	WA Ag 10
42	6	X	62.75	S	11-18-1958	8	115	52	.13	2	08-25-1955	--	WA Ag 11
12	6	X	27	R	06-12-1951	15	--	27	--	1	06-12-1951	--	WA Ag 13
30.7	48	W	30.17	S	11-20-1957	--	--	--	--	--	--	--	WA Ag 14
8	6	X	18.15	S	11-20-1958	.5	101	14	.01	.5	01 - 1955	--	WA Ag 15
13	6	X	--	-	--	10	--	--	--	1	03 - 1955	--	WA Ag 16
18	6	X	154	R	03-29-1947	5	162	154	.62	1	03-29-1947	--	WA Ag 18
33.7	48	W	D	S	11-21-1958	--	--	--	--	--	--	--	WA Ag 19
25.7	48	W	2.50	S	06-26-1986	--	--	--	--	--	--	--	WA Ag 20
32	48	W	15.35	S	11-21-1958	--	--	--	--	--	--	--	WA Ag 21
32	48	X	9.90	S	11-21-1958	--	--	--	--	--	--	--	WA Ag 22
33	6	X	35	R	11 - 1958	20	50	35	1.33	.5	11 - 1958	--	WA Ag 25
6	6	X	28	R	03-12-1946	2	--	28	--	.5	03-12-1946	--	WA Ag 26
49.7	48	W	38.13	S	04-21-1959	--	--	--	--	--	--	--	WA Ag 27
25	6	X	24	R	07-31-1954	10	--	24	--	3	07-31-1954	--	WA Ag 28
25	6	X	60	R	08-07-1968	3	150	60	.03	.5	08-07-1968	--	WA Ag 32
27	6	X	40	R	01-03-1969	3	80	40	.07	.5	01-03-1969	--	WA Ag 33
20	6	X	45	R	07-31-1969	2	--	45	--	--	07-31-1969	--	WA Ag 34
28	6	X	--	-	--	12	140	--	--	2	07-20-1965	--	WA Ag 35
43	6	X	30	R	05-09-1974	25	95	30	.38	1	05-09-1974	--	WA Ag 36
25	6	X	35	R	04-02-1974	2	250	35	.01	1	04-02-1974	--	WA Ag 37
23	6	X	35	R	02-02-1973	1	300	35	.004	1	02-02-1973	--	WA Ag 38
50	6	X	35	R	09-08-1973	10	100	35	.15	1	09-08-1973	--	WA Ag 39
32	6	X	8	R	10-20-1976	30	19	8	2.73	3	10-20-1976	--	WA Ag 40
20	6	X	40	R	08-08-1973	3	200	40	.02	1	08-08-1973	--	WA Ag 41
65	6	X	55	R	09-04-1975	4	305	55	.02	1	09-04-1975	--	WA Ag 42
31	6	X	175	R	04-07-1977	4	240	175	.06	1	05-03-1977	--	WA Ag 43
31	6	X	60	R	11-27-1975	4	130	60	.06	1	11-27-1975	--	WA Ag 44
21	6	X	60	R	10-11-1974	2	380	60	.01	1	10-11-1974	--	WA Ag 45
46	6	X	60	R	06-13-1974	5	170	60	.05	1	06-13-1974	--	WA Ag 46
25	6	X	50	R	04-11-1972	1	400	50	.003	1	04-11-1972	--	WA Ag 47
20	6	X	35	R	06-12-1972	50	180	35	.34	1	06-12-1972	--	WA Ag 48
45	6	X	50	R	09-30-1970	15	215	50	.09	1	09-30-1970	--	WA Ag 49
20	6	X	18	R	06-04-1972	6	71	18	.11	3	06-04-1972	--	WA Ag 50
30	6	X	15	R	03-07-1975	15	60	15	.33	1	03-07-1975	--	WA Ag 51
21	6	X	50	R	03-08-1973	50	140	50	.56	1	04-18-1973	--	WA Ag 52
30	6	X	30	R	02-24-1975	10	220	30	.05	1	02-24-1975	--	WA Ag 53
25	6	X	60	R	08-03-1973	1	285	60	.004	1	08-03-1973	--	WA Ag 54
29	6	X	40	R	09-01-1975	20	75	40	.57	1	09-01-1975	--	WA Ag 55
65	7	X	25	R	04-08-1974	20	100	25	.27	2	04-08-1974	--	WA Ag 56
107	6												
50	6	X	40	R	01-15-1973	10	90	40	.20	1	01-15-1973	--	WA Ag 57
23	6	X	40	R	11-10-1976	30	100	40	.50	1	11-10-1976	--	WA Ag 58
25	6	X	25	R	11-10-1976	10	65	25	.25	1	11-10-1976	--	WA Ag 59
25	6	X	30	R	06-22-1981	12	55	30	.48	1	06-22-1981	--	WA Ag 60
21	6	X	36	R	02-12-1982	2.50	225	36	.01	2	02-12-1982	--	WA Ag 61
43	5												
20	6	X	18	R	12-09-1971	6	200	18	.03	1	12-09-1971	--	WA Ag 62
56	6	X	25	R	12-02-1975	20	60	25	.57	2.5	12-02-1975	--	WA Ag 63

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ag 64	WA-72-0277	BOWERS, PAUL M	ROBERT CLINE	06-12-1972	535	F	70	H	367PBGS
WA Ag 65	WA-81-0630	SECREST, DANIEL S	JEFF C PYLE	11-15-1983	530	F	165	H	364STPL
WA Ag 66	WA-81-0994	HART, ROBERT	D H WOODWARD	04-09-1985	545	H	125	H	364STPL
WA Ag 67	WA-73-2548	SCHNEBLY, SETH	R ARDINGER	10-09-1978	250	F	200	H	367RCKR
WA Ag 68	WA-73-0644	FIERY, LESTÉR	C A CROMWELL	05-13-1974	545	H	100	H,S	361MRBG
WA Ag 69	WA-73-1656	SUFFECOOL, SAMUEL H	K L TEACH	11-10-1976	570	S	425	U	367SNNG
WA Ag 70	WA-81-0557	FIREY, TOM	H LUCAS	09-21-1983	530	S	120	H	364CBBG
WA Ag 71	WA-73-3298	H B MELLOTT ESTATE INC	A&H DRILLING	08-10-1983	480	H	365	N	364CBBG
WA Ag 72	WA-73-0535	SWEITZOR, JOHN	W LAMBERSON	12-21-1973	535	F	305	U	364STPL
WA Ag 73	WA-73-0272	MCPHEARSON, B L	W LAMBERSON	05-29-1973	535	H	65	U	364STPL
WA Ag 74	WA-73-0424	DURST, JAMES E	W LAMBERSON	09-07-1973	520	U	380	H	367RCKR
WA Ag 75	WA-73-1073	KLINE, HAROLD	W LAMBERSON	05-29-1975	530	F	165	H	367RCKR
WA Ag 76	WA-73-2065	NELSON, DARRELL	D H WOODWARD	10-21-1977	585	F	100	H	371CCCG
WA Ag 77	WA-73-2575	MILLS, H E	H LUCAS	10-21-1978	590	F	140	H	371CCCG
WA Ag 78	WA-73-3202	FAITH, ELWOOD	A&H DRILLING	09-25-1980	770	S	405	H	371ELBK
WA Ag 79	WA-73-2604	BLAIR, JAMES	R ARDINGER	11-16-1978	725	S	325	H	371CCCG
WA Ag 80	WA-73-2241	EICHELBERGER, RICHARD	ROY HARLEY	09-28-1978	775	S	405	U	371CCCG
WA Ag 81	WA-73-1565	HORNBAKER, DAVID	H LUCAS	08-30-1976	640	F	105	H	371CCCG
WA Ag 82	WA-73-2795	WEAVER, GREG	R ARDINGER	06-13-1979	550	S	145	H	371CCCG
WA Ag 83	WA-73-1775	MAUK, THOMAS W	ROY HARLEY	03-10-1977	595	S	250	H	371CCCG
WA Ag 84	WA-73-2612	GREEN, ROBERT T	H LUCAS	12-16-1978	520	S	440	H	367PBGS
WA Ag 85	WA-72-0251	MYERS, ROBERT E	W LAMBERSON	06-17-1972	520	S	365	H	367PBGS
WA Ag 86	WA-70-0071	HAWBAKER, RICHARD	S H PALMER	10-25-1969	660	F	97	H	371CCCG
WA Ag 87	WA-73-0056	FRENCH, LOLA	W LAMBERSON	10-06-1972	645	F	85	H	371ELBK
WA Ag 88	WA-81-0033	DORSEY, MARK	K L TEACH	08-13-1981	570	S	200	H	371CCCG
WA Ag 89	WA-81-1100	YETTER, DANIEL J	A&H DRILLING	04-18-1985	785	S	100	U	371CCCG
WA Ag 90	WA-81-0318	OLIVER, JOHN R	A&H DRILLING	10-16-1982	705	S	165	H	371CCCG
WA Ag 91	WA-81-0374	OLIVER, JOHN R	A&H DRILLING	01-17-1983	695	S	325	H	371CCCG
WA Ag 92	WA-81-0714	LOHMAN, OSCAR	A&H DRILLING	05-18-1984	575	H	145	H	371CCCG
WA Ag 93	WA-73-1116	HAWBAKER, GARY	H LUCAS	07-03-1975	605	F	180	H	371CCCG
WA Ag 94	WA-81-0422	HEBB, GRAY	A&H DRILLING	04-05-1983	730	S	145	H	371CCCG
WA Ag 95	WA-73-0510	SNYDER, RODGER	C A CROMWELL	06-06-1974	670	F	200	H	371CCCG
WA Ag 96	WA-73-2374	BECKLEY, DONALD	H LUCAS	06-27-1978	520	S	340	H	367SNNG
WA Ag 97	WA-73-3307	HOFFMAN, JOHN R	A&H DRILLING	08-20-1980	525	F	245	H	364STPL
WA Ag 98	WA-73-0294	LOHMAN JR, OSCAR	JOHN SHAFF	07-14-1973	545	H	225	U	367RCKR
WA Ag 99	WA-81-1110	YETTER, DANIEL J	A&H DRILLING	07-24-1985	785	S	185	H	371CCCG
WA Ag 100	WA-81-0976	FARROW, GARY	A&H DRILLING	03-28-1985	545	F	205	H,S	367PBGS
WA Ag 101	--	CLARK, RAY	--	--	615	S	234	U	371CCCG
WA Ag 102	WA-73-0353	FAITH, ELWOOD	W LAMBERSON	07-14-1973	665	S	115	H	371CCCG
WA Ag 103	WA-81-0163	BAKER, FREDERICK E	D H WOODWARD	03-16-1982	535	H	300	H	367RCKR
WA Ag 104	WA-73-2514	WHORTEN, DAVE	R ARDINGER	11-15-1978	675	F	165	H	371CCCG
WA Ag 105	WA-81-1218	DOWNS, ANDREW	A&H DRILLING	11-18-1985	575	S	105	H	371CCCG
WA Ag 106	WA-73-2452	COBB, ROBERT	H LUCAS	08-18-1978	560	H	85	H	361MRBG
WA Ag 107	WA-73-1102	KRAMER, K	W LAMBERSON	06-11-1975	475	S	445	H	367PBGS
WA Ag 108	WA-73-3234	BURTNER, MICHAEL P	K L TEACH	09-16-1980	465	W	250	H	367PBGS
WA Ag 109	WA-81-0910	WORTHINGTON, LINDA	D H WOODWARD	11-28-1984	460	S	350	H	--
WA Ag 110	WA-73-1106	SNOOK, EDWARD	D H WOODWARD	08-20-1975	465	H	175	H	364STPL
WA Ag 111	WA-81-1402	FAITH, KENNETH	H LUCAS	06-26-1986	655	U	500	H	371CCCG
WA Ag 112	WA-81-1331	STRITE, DAVID	D H WOODWARD	04-18-1986	560	V	700	H	367SNNG
WA Ag 113	WA-81-1316	BURTNER, DANIEL G	A&H DRILLING	04-10-1986	490	S	185	H	364STPL
WA Ah 1	--	MARTIN, DONALD	J M HOFFMAN	--	590	F	50	U	367RCKR
WA Ah 2	WA-02-5743	MARTIN, DONALD	W MARTIN	05-25-1957	590	F	80	H	367RCKR
WA Ah 3	WA-02-5637	MARTIN, DONALD	J M HOFFMAN	12 - 1956	590	F	173	U	367RCKR
WA Ah 4	--	MARTIN, DONALD	J M HOFFMAN	1936	585	F	180	U	367RCKR
WA Ah 5	--	MARTIN, DONALD	W MARTIN	1957	585	F	180	U	367RCKR
WA Ah 6	--	MARTIN, DONALD	J M HOFFMAN	1942	585	F	330	U	367RCKR
WA Ah 7	--	MARTIN, DONALD	W MARTIN	1957	583	F	760	U	367RCKR
WA Ah 8	WA-01-5599	MCCAULEY, LLOYD A	J W AMBROSE	06-26-1954	545	H	55	H	361MRBG
WA Ah 12	WA-00-1426	CHARLES, S H	J M HOFFMAN	05-26-1949	550	F	68	H	361MRBG
WA Ah 13	WA-01-8299	ANGLE, KENNETH L	W TEACH	04-04-1955	560	S	103	H	361MRBG
WA Ah 14	WA-00-0315	BUCHANAN, CLYDE	W TEACH	04-18-1946	545	H	85	H	361MRBG
WA Ah 15	WA-00-5107	DURBORAW, ELLSWORTH	C E PIKE	01-25-1950	522	S	65	H	361MRBG
WA Ah 16	WA-00-5106	BARNHARDT, SAMUEL	C E PIKE	01-18-1950	527	S	60	H	361MRBG
WA Ah 17	WA-01-5530	SMITH, GRAYSON W	J M HOFFMAN	06 - 1954	545	H	85	H	361MRBG
WA Ah 18	WA-01-6971	FAULDER, ARNETTA	D FRENCH	11-10-1954	526	S	80	S	361MRBG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
19	6	X	35	R	06-12-1972	25	70	35	0.71	1	06-12-1972	--	WA Ag 64
20	6	X	--	-	--	12	160	--	--	1	11-15-1983	Q	WA Ag 65
42	6	X	30	R	04-09-1985	30	125	30	.32	3	04-09-1985	--	WA Ag 66
42	6	X	20	R	10-09-1978	15.5	200	20	.09	2	10-09-1978	--	WA Ag 67
20	6	X	35	R	05-13-1974	25	95	35	.42	2	05-13-1974	--	WA Ag 68
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ag 69
40	6	X	50	R	09-21-1983	6	100	50	.12	1	09-21-1983	--	WA Ag 70
29	6	X	65	R	08-10-1983	20	140	50	.22	2	11-04-1980	Q	WA Ag 71
						15	365	65	.05	2	08-10-1983	--	WA Ag 71
45	6	X	D	R	01-01-1974	1	240	40	.005	1	12-21-1973	--	WA Ag 72
45	6	X	25	R	05-29-1973	20	55	25	.67	1	05-29-1973	--	WA Ag 73
108	5	X	40	R	09-07-1973	50	375	40	.15	1	09-07-1973	--	WA Ag 74
55	6	X	30	R	05-29-1975	20	155	30	.16	1	05-29-1975	--	WA Ag 75
85	5												
22	6	X	40	R	10-21-1977	65	40	40	--	1	10-21-1977	--	WA Ag 76
25	6	X	50	R	10-21-1978	10	130	50	.12	1	10-21-1978	--	WA Ag 77
63	6	X	50	R	09-25-1980	1	405	50	.003	2	09-25-1980	--	WA Ag 78
21	6	X	45	R	11-16-1978	2	325	45	.01	1	11-16-1978	--	WA Ag 79
85	6	X	60	R	09-28-1978	1	405	60	.003	4	09-28-1978	--	WA Ag 80
150	5												
23	7	X	30	R	08-30-1976	20	85	30	.36	1	08-30-1976	--	WA Ag 81
75	6												
117	6	X	50	R	06-13-1979	35	145	50	.37	2	06-13-1979	--	WA Ag 82
20	6	X	55	R	03-10-1977	3	180	55	.02	2	03-10-1977	--	WA Ag 83
20	6	X	75	R	12-16-1978	2	420	75	.01	1	12-16-1978	--	WA Ag 84
21	6	X	40	R	06-17-1972	1	310	40	.004	1	06-17-1972	--	WA Ag 85
61	6	X	40	R	10-25-1969	8	80	40	.20	1	10-25-1969	--	WA Ag 86
45	6	X	35	R	10-06-1972	25	70	35	.71	1	10-06-1972	--	WA Ag 87
72	6	X	27	R	08-13-1981	60	100	27	.82	1	08-13-1981	--	WA Ag 88
21	6	X	25	R	04-18-1985	30	100	25	.40	3	04-18-1985	--	WA Ag 89
75	5												
35	6	X	65	R	10-16-1982	20	165	65	.20	2	10-16-1982	--	WA Ag 90
85	5												
75	6	X	55	R	01-17-1983	7.5	325	55	.03	2	01-17-1983	--	WA Ag 91
35	6	X	60	R	05-18-1984	20	145	60	.24	2	05-18-1984	--	WA Ag 92
90	5												
20	6	X	20	R	07-03-1975	15	160	20	.11	2	07-03-1975	--	WA Ag 93
60	6	X	60	R	04-05-1983	50	125	60	.77	2	04-05-1983	--	WA Ag 94
120	5												
21	6	X	20	R	06-06-1974	3	200	20	.02	4	06-06-1974	--	WA Ag 95
24	6	X	70	R	06-27-1978	12	320	70	.05	1	06-27-1978	--	WA Ag 96
21	6	X	25	R	08-20-1980	38	245	25	.17	2	08-20-1980	--	WA Ag 97
19	6	X	26	R	07-14-1973	15	81	26	.27	3	07-14-1973	--	WA Ag 98
50	6	X	70	R	07-24-1985	20	185	70	.17	2	07-24-1985	--	WA Ag 99
110	5												
21	6	X	40	R	03-28-1985	10	205	40	.06	2	03-28-1985	--	WA Ag 100
--	6	-	15.59	S	01-24-1986	--	--	--	--	--	--	O	WA Ag 101
105	6	X	20	R	07-14-1973	40	110	20	.44	1	07-14-1973	--	WA Ag 102
64	6	X	65	R	03-16-1982	12	300	65	.05	3	03-16-1982	--	WA Ag 103
65	6	X	50	R	11-15-1978	10	165	50	.09	2	11-15-1978	--	WA Ag 104
21	6	X	40	R	11-18-1985	35	105	40	.54	2	11-18-1985	--	WA Ag 105
30	6	X	35	R	08-18-1978	12	70	35	.34	1	08-18-1978	--	WA Ag 106
25	6	X	25	R	06-11-1975	3	400	25	.01	1	06-11-1975	--	WA Ag 107
70	6	X	55	R	09-16-1980	8	180	55	.06	1	09-16-1980	--	WA Ag 108
62	6	X	70	R	11-28-1984	15	350	70	.05	3	11-28-1984	--	WA Ag 109
20	6	X	38	R	08-20-1975	8	150	38	.07	1	08-20-1975	--	WA Ag 110
60	6	X	100	R	06-26-1986	1	450	100	.003	2	06-26-1986	--	WA Ag 111
42	6	X	30	R	04-18-1986	7	700	30	.01	6	04-18-1986	--	WA Ag 112
25	6	X	60	R	04-10-1986	10	185	60	.08	2	04-10-1986	--	WA Ag 113
--	6	-	35.60	S	08-01-1957	--	--	--	--	--	--	--	WA Ah 1
10	6	X	2.7	S	08-01-1957	5	35	30	1.0	2	05-25-1957	Q	WA Ah 2
--	6	-	31.93	S	08-01-1957	--	--	--	--	--	--	--	WA Ah 3
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ah 4
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ah 5
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ah 6
--	6	-	23	R	1957	--	--	--	--	--	--	--	WA Ah 7
36.5	6	X	21	R	06-24-1954	15	43	21	.68	2	06-26-1954	Q	WA Ah 8
32	6	X	43	R	05-26-1949	5	25	10	.33	1	05-26-1949	--	WA Ah 12
31	6	X	--	-	--	10	--	--	--	1	04-04-1955	--	WA Ah 13
30	6	X	35	R	04-18-1946	10	--	35	--	--	04-18-1946	--	WA Ah 14
23	6	X	32	R	01-25-1950	15	51	32	.79	.5	01-25-1950	--	WA Ah 15
20	6	X	29	R	01-18-1950	15	45	29	.94	.5	01-18-1950	--	WA Ah 16
42	6	X	30	R	06 - 1954	20	60	30	.67	.5	06 - 1954	--	WA Ah 17
47.5	6	X	40	R	11-10-1954	10	50	40	1.0	.5	11-10-1954	--	WA Ah 18

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ah 19	WA-01-7246	MEYERS, LESTER	W TEACH	11-30-1954	505	F	100	H	364STPL
WA Ah 20	WA-00-9768	DEVILBISS, GLENN A	J M HOFFMAN	04-10-1952	510	F	94	H	364CBBG
WA Ah 21	WA-00-4290	MASON, STUART H	W TEACH	07-27-1949	565	F	55	H	361MRBG
WA Ah 22	WA-00-6720	HENSON, ALFRED	W TEACH	09-28-1950	550	F	65	H	361MRBG
WA Ah 23	WA-00-4291	SOURS, M T	W TEACH	07-04-1949	547	F	52	H	361MRBG
WA Ah 24	WA-00-3537	HOFFMAN, BRUCE	C E PIKE	01-06-1949	520	S	90	H	361MRBG
WA Ah 25	--	WOLFORD, MRS HARRY	--	--	521	S	77.2	U	361MRBG
WA Ah 26	WA-02-2005	HORST, JOHN R	J M HOFFMAN	01 - 1956	500	S	80	H	361MRBG
WA Ah 27	WA-00-0962	WOLFORD, MARION	C E PIKE	11-16-1947	510	S	65	H	361MRBG
WA Ah 28	WA-00-0963	WOLFORD, HARRY I	C E PIKE	11-23-1946	510	S	68	U	361MRBG
WA Ah 29	WA-00-3881	MOWEN, ALVEY	C E PIKE	04-15-1949	500	S	78	H	361MRBG
WA Ah 30	WA-01-0152	BOY SCOUTS OF AMERICA	J M HOFFMAN	06-10-1952	400	S	97	R	361MRBG
WA Ah 31	WA-00-3104	B & P ORDER OF EAGLES	J M HOFFMAN	09 - 1949	440	S	50	H	361MRBG
WA Ah 34	WA-02-7560	SELBERT, SAMUEL C	W MARTIN	07-18-1957	557	F	151	H	367RCKR
WA Ah 35	WA-02-2416	AIREY, HARRY A	J M HOFFMAN	03 - 1956	561	F	136	H	367RCKR
WA Ah 36	WA-03-2617	CUNNINGHAM, CLYDE J	J M HOFFMAN	11 - 1958	521	F	186	U	367RCKR
WA Ah 37	WA-03-0713	BISHOP, JONAS H	J PROVARD	05-16-1958	562	S	57	H	361MRBG
WA Ah 38	WA-03-1598	THOMAS, LEON A	J M HOFFMAN	07 - 1958	450	F	48	H	361MRBG
WA Ah 39	WA-03-2579	SUMMERS, ALFRED E	J M HOFFMAN	10 - 1958	505	S	61	S	361MRBG
WA Ah 40	--	SUMMERS, ALFRED E	--	1925	480	S	46	H	361MRBG
WA Ah 41	WA-03-1604	LIGHTNER, GEORGE	W TEACH	07-23-1958	520	S	100	H	361MRBG
WA Ah 42	WA-03-1305	MARTIN, JOHN D	J M HOFFMAN	06 - 1958	565	S	65	H	361MRBG
WA Ah 43	WA-03-1802	MYERS, LESTER L	J W AMBROSE	08-08-1958	560	S	70	H	361MRBG
WA Ah 44	WA-01-9981	HAUPT, HAROLD	J M HOFFMAN	05-10-1952	525	S	94	H	361MRBG
WA Ah 45	--	MCMULLAN, H W	J M HOFFMAN	--	525	S	80	S	361MRBG
WA Ah 46	--	GIBNEY, CHARLES A	--	- 1927	510	F	130	C	367RCKR
WA Ah 47	--	GIBNEY, CHARLES A	--	1930	510	F	120	C	367RCKR
WA Ah 48	WA-02-7330	GIBNEY, CHARLES A	M LANDIS	07-20-1957	510	F	50	C,H	367RCKR
WA Ah 49	WA-00-6291	WANTZ, HIRAM	J M HOFFMAN	08-02-1950	560	S	105	H,S	361MRBG
WA Ah 52	WA-02-8457	PECK, DANIEL	M LANDIS	10-12-1957	545	F	95	H	367RCKR
WA Ah 53	--	LORSHMAN, C W	--	--	420	S	36.4	H,S	361MRBG
WA Ah 54	WA-01-2935	SLOAN, HARRY	C E PIKE	07-24-1953	480	S	51	H	361MRBG
WA Ah 55	WA-02-1530	EDWARDS, CLAUDE	J M HOFFMAN	11 - 1955	570	F	200	U	367RCKR
WA Ah 56	WA-02-1530	EDWARDS, CLAUDE	J M HOFFMAN	12 - 1955	570	F	135	U	367RCKR
WA Ah 57	WA-02-9909	MARTIN, RAYMOND D	K L TEACH	02-08-1958	515	F	50	S	367RCKR
WA Ah 58	--	MARTIN, RAYMOND	--	--	510	F	35	H,S	367RCKR
WA Ah 59	WA-02-9470	ROHRER, R C	J M HOFFMAN	12 - 1957	540	S	156	H	367RCKR
WA Ah 60	WA-02-5159	KEENER, CLINTON	M LANDIS	11 - 1958	530	F	220	U	367RCKR
WA Ah 61	WA-02-5159	KEENER, CLINTON	M LANDIS	12-04-1956	530	F	75	H	367RCKR
WA Ah 63	WA-02-5574	MARTIN, RAYMOND	K L TEACH	12-06-1956	515	V	25	U	367RCKR
WA Ah 68	WA-01-4091	MILLER, MRS AMOS A	K L TEACH	02 - 1954	560	S	120	H	367RCKR
WA Ah 69	WA-01-4267	CLARK, OSCAR	J M HOFFMAN	02 - 1954	565	F	140	H	367RCKR
WA Ah 70	--	HORST, JOSEPH S	--	--	602	F	330	U	367RCKR
WA Ah 71	--	HORST, JOSEPH S	TEACH	08 - 1958	610	F	60	H,I	367RCKR
WA Ah 72	WA-03-5340	MARTIN, RICHARD E	J M HOFFMAN	07-06-1959	541	F	200	U	367RCKR
WA Ah 73	WA-03-5450	MARTIN, RICHARD E	J M HOFFMAN	07 - 1959	537	F	79	S	367RCKR
WA Ah 74	--	MARTIN, RICHARD	--	--	539	F	180	H	367RCKR
WA Ah 77	--	EBY, ISAAC M	J M HOFFMAN	--	555	S	240	U	367RCKR
WA Ah 78	WA-06-8559	NOLAND, JAMES F	J M HOFFMAN	08-08-1968	520	H	85	H	364CBBG
WA Ah 79	WA-70-0017	CHAS A GIBNEY FLORIST	W LAMBERSON	07-25-1969	512	F	145	I	367RCKR
WA Ah 80	WA-70-0018	GIBNEY, CHARLES	W LAMBERSON	07-28-1969	505	F	305	U	364CBBG
WA Ah 81	WA-06-8840	MARTAIN, RICHARD	J M HOFFMAN	12-24-1968	563	H	85	H	367RCKR
WA Ah 82	WA-06-9409	POWERS, DENNIS	J M HOFFMAN	06-15-1969	567	F	200	U	367RCKR
WA Ah 83	WA-69-0324	POWERS, DENNIS	J M HOFFMAN	06-16-1969	567	F	165	H	367RCKR
WA Ah 84	WA-69-0331	SNYDER, RAY	J M HOFFMAN	06-25-1969	465	V	85	H	364STPL
WA Ah 85	WA-69-0101	CREEK, MITCHELL	J M HOFFMAN	10-07-1968	490	H	285	U	367RCKR
WA Ah 86	WA-69-0101	CREEK, MITCHELL	J M HOFFMAN	10-10-1968	490	H	200	H	367RCKR
WA Ah 87	WA-69-0023	ROLLAND, STEPHEN	M E HOLTZMAN	08-23-1968	563	H	82	H	367RCKR
WA Ah 88	WA-70-0320	CANFIELD, JOHN E	W LAMBERSON	07-20-1970	470	F	80	U	364STPL
WA Ah 89	WA-70-0320	CANFIELD, JOHN E	W LAMBERSON	07-20-1970	470	F	125	H	364STPL
WA Ah 90	WA-69-0157	MARTAIN, HOGE	J M HOFFMAN	11-19-1968	525	F	220	U	364CBBG
WA Ah 91	WA-69-0157	MARTAIN, HOGE	W LAMBERSON	11-20-1968	525	F	165	H	364CBBG
WA Ah 92	WA-69-0335	LIPKA, ANDREW J	M E HOLTZMAN	07-24-1969	563	F	197	H	367RCKR
WA Ah 93	WA-73-0041	SNYDER, WILLIAM	W LAMBERSON	09-15-1972	520	H	165	H	361MRBG
WA Ah 94	WA-73-0212	ROFF, DONALD	W LAMBERSON	03-13-1973	545	H	105	H	361MRBG
WA Ah 95	WA-73-0130	WOLFORD, ARVEL	W LAMBERSON	03-14-1973	550	H	105	H	361MRBG
WA Ah 96	WA-73-0160	ROBINSON, DONALD	D H WOODWARD	02-28-1973	560	S	125	H	361MRBG
WA Ah 97	WA-73-0030	ENGLISH, J E	W LAMBERSON	09-13-1972	545	H	245	H	367PBGS
WA Ah 98	WA-73-0203	TIMMONS, DOUGLAS	C A CROMWELL	03-15-1973	545	H	75	H	367PBGS
WA Ah 99	WA-73-1363	ELLIOTT, ROY L	W LAMBERSON	03-01-1976	540	H	165	H	361MRBG
WA Ah 100	WA-73-1554	GOLDIZEN, PAUL	H LUCAS	08-21-1976	495	H	100	H	361MRBG
WA Ah 101	WA-73-1555	GOLDIZEN, PAUL	H LUCAS	08-23-1976	490	H	65	H	361MRBG
WA Ah 102	WA-73-1556	GOLDIZEN, PAUL	H LUCAS	08-23-1976	490	H	150	H	361MRBG
WA Ah 103	WA-73-1557	GOLDIZEN, PAUL	H LUCAS	08-24-1976	485	H	100	H	361MRBG
WA Ah 104	WA-73-1558	GOLDIZEN, PAUL	H LUCAS	08-24-1976	485	H	85	H	361MRBG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
18	6	X	50	R	11-30-1954	6	--	50	--	1	11-30-1954	--	WA Ah 19
43	6	X	20	R	04-10-1952	20	30	20	2.0	1	04-10-1952	--	WA Ah 20
19	6	X	15	R	07-27-1949	6	40	35	1.20	1.5	07-27-1949	--	WA Ah 21
26	6	X	55	R	09-28-1950	10	10	5	2.0	1	09-28-1950	--	WA Ah 22
14	6	X	38	R	07-04-1949	5	14	10	1.25	1	07-04-1949	--	WA Ah 23
43	6	X	40	R	01-06-1949	10	45	40	2.0	.5	01-06-1949	--	WA Ah 24
--	6	-	47.72	S	10-28-1958	--	--	--	--	--	--	--	WA Ah 25
35	6	X	35	R	01 - 1956	2.5	75	35	.06	1	01 - 1956	--	WA Ah 26
45	6	X	3	R	11-16-1947	2	45	3	.05	.5	11-16-1947	--	WA Ah 27
50	6	X	8	R	11-23-1946	5	39.5	8	.16	.5	11-23-1946	--	WA Ah 28
30	6	X	38	R	04-15-1949	10	52	38	.71	.5	04-15-1949	--	WA Ah 29
21	6	X	40	R	06-10-1952	10	80	40	.25	5	06-10-1952	--	WA Ah 30
22	6	X	5	R	09 - 1949	10	30	5	.40	1	09 - 1949	--	WA Ah 31
9	6	X	10	R	07-18-1957	1	70	10	.02	1	07-18-1957	--	WA Ah 34
8	6	X	30	R	03 - 1956	4.5	130	30	.04	1	03 - 1956	--	WA Ah 35
--	--	X	D	R	11 - 1958	0	--	--	--	--	11 - 1958	--	WA Ah 36
21	6	X	15	R	05-16-1958	20	30	15	1.33	2	05-16-1958	--	WA Ah 37
28	6	X	30	R	07 - 1958	8	45	30	.53	.5	07 - 1958	--	WA Ah 38
20	6	X	30	R	10 - 1958	20	50	30	1.0	.5	10 - 1958	--	WA Ah 39
--	6	-	20.37	S	04-15-1959	--	--	--	--	--	--	--	WA Ah 40
38	6	X	50	R	07-23-1958	5	50	30	.25	1	07-23-1958	--	WA Ah 41
24	6	X	30	R	06 - 1958	30	40	30	3.0	.5	06 - 1958	--	WA Ah 42
40	6	X	18.91	S	04-15-1959	10	40	30	1.0	1	08-08-1958	--	WA Ah 43
36	6	X	45	R	05-10-1952	20	65	45	1.0	.5	05-10-1952	--	WA Ah 44
--	6	-	25	E	04-16-1959	--	--	--	--	--	--	--	WA Ah 45
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ah 46
--	6	-	12.32	S	04-16-1959	--	--	--	--	--	--	--	WA Ah 47
14	6	X	11.61	S	04-16-1959	24	--	15	--	.5	07-20-1957	--	WA Ah 48
15	6	X	20	R	08-02-1950	--	--	--	--	--	--	--	WA Ah 49
3	6	X	10	E	04-17-1959	--	--	--	--	--	--	--	WA Ah 52
36.4	48	W	15.37	S	04-11-1959	--	--	--	--	--	--	--	WA Ah 53
20	6	X	3	R	07-24-1953	15	38	3	.43	.25	07-24-1953	--	WA Ah 54
--	--	X	D	R	11 - 1955	0	--	--	--	--	11 - 1955	--	WA Ah 55
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ah 56
17	6	X	2.21	S	02-06-1968	6	25	20	1.20	1	02-08-1958	--	WA Ah 57
--	--	W	5.45	S	04-22-1959	--	--	--	--	--	--	--	WA Ah 58
23	6	X	30	R	12 - 1957	1	140	30	.01	.5	12 - 1957	--	WA Ah 59
--	6	-	--	-	--	100	--	--	--	12	11 - 1958	--	WA Ah 60
75	6	X	14.62	S	12-04-1956	1.7	75	25	.03	1	12-04-1956	--	WA Ah 61
1	6	X	4.95	S	12-06-1956	6	--	5	--	1	12-06-1956	--	WA Ah 63
18	6	X	20	E	04-22-1959	14	--	--	--	1	02 - 1954	--	WA Ah 68
--	6	-	20	R	02 - 1954	1	140	20	.01	.5	02 - 1954	--	WA Ah 69
--	6	-	100	E	06-17-1959	--	--	--	--	--	--	--	WA Ah 70
12	6	X	25	E	08 - 1958	--	--	--	--	--	--	--	WA Ah 71
--	--	-	--	-	--	4	--	--	--	--	07-06-1959	--	WA Ah 72
9	6	X	35	R	07 - 1959	60	50	35	4.0	15	07 - 1959	Q	WA Ah 73
--	6	-	50	E	07-21-1959	--	--	--	--	--	--	--	WA Ah 74
3	6	X	15.16	S	02-07-1968	--	--	--	--	--	--	--	WA Ah 77
18	6	X	60	R	08-08-1968	20	80	60	1.0	1	08-08-1968	--	WA Ah 78
--	6	-	40	R	07-25-1969	20	112	40	.28	1	07-25-1969	--	WA Ah 79
55	6	X	60	R	07-28-1969	2	180	60	.02	1	07-28-1969	--	WA Ah 80
22	6	X	40	R	12-24-1968	10	65	40	.40	.5	12-24-1968	--	WA Ah 81
--	--	X	D	R	06-15-1969	0	--	--	--	--	06-15-1969	--	WA Ah 82
19	6	X	20	R	06-16-1969	.5	110	20	.01	1	06-16-1969	--	WA Ah 83
21	6	X	30	R	06-25-1969	50	70	30	1.25	.5	06-25-1969	--	WA Ah 84
18	6	X	--	-	--	--	--	--	--	--	--	--	WA Ah 85
19	6	X	30	R	10-10-1968	1.5	145	30	.01	.5	10-10-1968	--	WA Ah 86
29	6	X	21	R	08-23-1968	5	80	21	.08	6	08-23-1968	--	WA Ah 87
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ah 88
42	6	X	23.27	S	08-11-1970	50	115	30	.59	1	07-20-1970	--	WA Ah 89
--	--	X	D	R	11-19-1968	0	--	--	--	--	11-19-1968	--	WA Ah 90
18	6	X	50	R	11-20-1968	50	150	50	.50	.5	11-20-1968	--	WA Ah 91
40	6	X	50	R	07-24-1969	15	147	50	.15	9	07-24-1969	--	WA Ah 92
75	6	X	30	R	09-15-1972	15	150	30	.12	1	09-15-1972	--	WA Ah 93
42	6	X	20	R	03-13-1973	16	100	20	.20	1	03-13-1973	--	WA Ah 94
41	6	X	20	R	03-14-1973	50	90	20	.71	1	03-14-1973	--	WA Ah 95
25	6	X	20	R	02-28-1973	20	40	20	1.0	1	02-28-1973	--	WA Ah 96
25	6	X	25	R	09-13-1972	4	225	25	.02	1	09-13-1972	--	WA Ah 97
21	6	X	15	R	03-15-1973	30	70	15	.55	2	03-15-1973	--	WA Ah 98
35	6	X	30	R	03-01-1976	30	140	30	.27	1	03-01-1976	--	WA Ah 99
23	6	X	40	R	08-21-1976	3	80	40	.07	1	08-26-1976	--	WA Ah 100
24	6	X	24	R	08-23-1976	10	50	25	.40	1	08-23-1976	--	WA Ah 101
25	6	X	30	R	08-23-1976	6	130	30	.06	1	08-23-1976	--	WA Ah 102
21	6	X	50	R	08-24-1976	5	80	50	.17	1	08-24-1976	--	WA Ah 103
32	6	X	40	R	08-24-1976	6	75	40	.17	1	08-24-1976	--	WA Ah 104

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ah 105	WA-73-1559	GOLDIZEN, PAUL	H LUCAS	08-24-1976	480	H	100	H	361MRBG
WA Ah 106	WA-73-1388	GOLDIZEN, PAUL	JOHN SHAFF	04-01-1976	485	S	75	H	361MRBG
WA Ah 107	WA-73-1389	GOLDIZEN, PAUL	JOHN SHAFF	04-02-1976	485	H	150	H	361MRBG
WA Ah 108	WA-73-1038	GOLDIZEN, PAUL	W LAMBERSON	05-06-1975	490	H	65	H	361MRBG
WA Ah 109	WA-73-0493	HAMBY, TERRY	D H WOODWARD	11-02-1973	535	H	125	H	361MRBG
WA Ah 110	WA-73-2687	RIDER, DAVID R	D H WOODWARD	05-14-1979	540	H	165	H	361MRBG
WA Ah 111	WA-81-0077	RESSLER, THOMAS E	D H WOODWARD	09-28-1981	530	H	125	H	361MRBG
WA Ah 112	WA-73-1525	UNION RESCUE MISSION	W LAMBERSON	07-20-1976	445	S	125	H	361MRBG
WA Ah 113	WA-72-0054	HAMILTON, JOHN	W LAMBERSON	08-24-1971	525	F	105	H	361MRBG
WA Ah 114	WA-73-0948	KENNER, DONALD	C A CROMWELL	12-04-1974	570	F	225	H	367RCKR
WA Ah 115	WA-73-0553	PEREZ, ALBERTO	W LAMBERSON	02-05-1974	530	F	125	H	361MRBG
WA Ah 116	WA-73-1267	KEENER, DONALD	C A CROMWELL	01-16-1976	570	F	225	H	367RCKR
WA Ah 117	--	KEENER, DONALD	--	--	570	F	--	U	367RCKR
WA Ah 118	WA-68-0193	OWLS CLUB	W LAMBERSON	05-05-1968	525	H	110	H	361MRBG
WA Ah 119	WA-73-1158	FAIRVIEW METHODIST CH	D H WOODWARD	08-13-1975	545	H	400	T	361MRBG
WA Ah 120	WA-73-0798	BROADFORDING CH OF GOD	W LAMBERSON	09-02-1974	505	H	105	H	361MRBG
WA Ah 121	WA-73-1346	BROADFORDING BRETH CH	W LAMBERSON	03-03-1976	560	H	125	H	361MRBG
WA Ah 122	WA-73-2487	MT TABOR CHURCH	D H WOODWARD	08-29-1978	560	H	105	H	361MRBG
WA Ah 123	WA-73-0515	ANITA LYNNE HOME INC	W LAMBERSON	12-06-1973	565	H	365	T	361MRBG
WA Ah 124	WA-73-2540	RUTH, L J	R ARDINGER	10-03-1978	490	U	300	H	364STPL
WA Ah 125	WA-73-2505	BOND, EDNA	R ARDINGER	09-20-1978	505	S	180	H	361MRBG
WA Ah 126	WA-73-0265	MCCOY, RICHARD	W LAMBERSON	04-20-1973	515	H	125	H	361MRBG
WA Ah 127	WA-73-1575	WEBB, RICHARD A	D H WOODWARD	10-06-1976	505	H	100	H	361MRBG
WA Ah 128	WA-81-0113	MARTIN, DAVID H	D H WOODWARD	11-11-1981	510	F	100	H	361MRBG
WA Ah 129	WA-73-2193	MARTIN, HARRY	D H WOODWARD	02-02-1978	545	H	105	H	361MRBG
WA Ah 130	WA-73-2005	ITNYRE, STEVEN K	D H WOODWARD	09-07-1977	530	H	125	H	361MRBG
WA Ah 131	WA-73-1362	GRAY, DAVID L	W LAMBERSON	03-03-1976	540	H	105	H	361MRBG
WA Ah 132	WA-73-1876	MARTIN, ELLIS R	D H WOODWARD	05-17-1977	565	H	145	H	361MRBG
WA Ah 133	WA-73-1179	WRIGHTSON, MICHAEL	JOHN SHAFF	08-19-1975	564	H	150	H	361MRBG
WA Ah 134	WA-73-0786	WHITE, BRADLEY	C A CROMWELL	11-07-1974	475	V	200	H	364STPL
WA Ah 135	WA-73-3153	NOTT, BARRY	A&H DRILLING	06-18-1980	475	V	265	H	364STPL
WA Ah 136	WA-73-2380	GROVE, DUANE A	JOHN SHAFF	06-30-1978	465	H	100	H	361MRBG
WA Ah 137	WA-73-3205	GROVE, DONALD L	K L TEACH	08-27-1980	450	H	125	H	361MRBG
WA Ah 138	WA-73-0851	KEYSER, DANIEL P	W LAMBERSON	01-29-1975	560	U	425	H	367RCKR
WA Ah 139	WA-73-1345	WILKINS, THOMAS	W LAMBERSON	03-08-1976	530	S	345	H	367RCKR
WA Ah 140	WA-73-0504	JOHN R OLIVER CO	W LAMBERSON	11-30-1973	545	H	265	H	367RCKR
WA Ah 141	WA-73-0634	JOHN R OLIVER CO	W LAMBERSON	04-29-1974	550	S	365	H	367RCKR
WA Ah 142	WA-73-1936	LORSHBAUGH, CARL W	D H WOODWARD	08-01-1977	555	U	500	H	367RCKR
WA Ah 143	WA-73-2336	WELCH, JAMES E	R ARDINGER	06-21-1978	555	S	400	H	367RCKR
WA Ah 144	WA-73-3041	HORST, NOAH E	K L TEACH	02-07-1980	530	S	200	H	367RCKR
WA Ah 145	WA-81-1224	CAUFFMAN, LEROY C	ROBERT CLINE	01-21-1986	530	U	73	H	367RCKR
WA Ah 146	WA-69-0261	HENDERSHOT, WARREN M	S H PALMER	05-24-1969	570	H	70	H	361MRBG
WA Ah 147	WA-73-1244	SHANK, RICKIE	W LAMBERSON	10-15-1975	475	V	245	H	364STPL
WA Ah 148	WA-73-1936	LORSHBAUGH, CARL	D H WOODWARD	08-01-1977	555	U	500	U	367RCKR
WA Ai 1	WA-00-0720	SHOWALTER, MARTIN W	W TEACH	08-14-1946	705	F	35	H,S	367RCKR
WA Ai 2	--	SHOWALTER, MARTIN W	W TEACH	1946	700	F	185	U	367RCKR
WA Ai 3	--	SHOWALTER, MARTIN W	W TEACH	1933	700	F	349	U	367RCKR
WA Ai 4	WA-01-7260	MARTIN, SUSAN M	J PROVARD	12-06-1954	625	F	79	H	371CCCG
WA Ai 5	WA-02-9587	HULL, R C	J M HOFFMAN	12-29-1957	630	F	80	H	371CCCG
WA Ai 6	--	MAUGANSVILLE ELEM SCH	--	1936	620	F	175	T	367RCKR
WA Ai 7	WA-02-4862	HORST SINCLAIR	M LANDIS	10-02-1956	620	F	48	C	367RCKR
WA Ai 8	WA-02-8008	FAIRCHILD AIRCRAFT CO	KOHL BROS	10-29-1957	690	F	491	U	367RCKR
WA Ai 9	WA-02-3509	FAIRCHILD AIRCRAFT CO	J M HOFFMAN	07 - 1956	705	H	400	N	367RCKR
WA Ai 11	WA-00-9084	FAIRCHILD AIRCRAFT CO	KOHL BROS	12-20-1951	600	F	305	N	367SNNG
WA Ai 13	--	SHOWALTER, WALTER	W TEACH	1942	685	F	38.4	H,S	367RCKR
WA Ai 14	--	SHOWALTER, WALTER	HUYETT	1920	680	F	82	U	367RCKR
WA Ai 15	WA-01-0515	THE MARTIN CO	W TEACH	07-31-1952	625	S	76	S	367RCKR
WA Ai 16	WA-03-0100	FOUNTAIN HEAD CNTRY CL	W MARTIN	12-12-1958	625	S	300	I,R	371CCCG
WA Ai 17	--	COOK, ROGER	J M HOFFMAN	1947	600	H	58	H,S	367SNNG
WA Ai 18	WA-01-6859	BOUTELLE, R S	C R COWAN	11-02-1954	600	H	83	H	367SNNG
WA Ai 19	--	MARTIN, MENNO A	--	--	700	H	184	H	367RCKR
WA Ai 21	WA-02-7442	WALTERDORF, JOHN	J M HOFFMAN	07 - 1957	595	F	190	H	367SNNG
WA Ai 22	WA-02-7556	PARKS, RAYMOND W	J M HOFFMAN	10 - 1957	590	F	211	H	367SNNG
WA Ai 23	--	STRAIN, LEE	--	--	600	F	--	U	367SNNG
WA Ai 24	WA-03-4127	PARADISE MENNONITE SCH	J M HOFFMAN	04 - 1959	620	F	146	T	371CCCG
WA Ai 25	WA-02-2567	EBY, DANIEL M	J M HOFFMAN	06-21-1956	620	F	119	H	367RCKR
WA Ai 26	WA-02-2567	EBY, DANIEL M	J M HOFFMAN	07 - 1956	620	F	119	S	367RCKR
WA Ai 27	WA-03-0316	GROVER, DONALD	J M HOFFMAN	05 - 1958	630	S	180	H	371CCCG
WA Ai 28	WA-01-5320	STITES, J D	J M HOFFMAN	06 - 1954	570	V	41	H	367RCKR
WA Ai 29	WA-01-4898	LEFLER, H B	J M HOFFMAN	04-23-1954	585	V	71	I,R	371CCCG
WA Ai 30	WA-02-0145	SHANK, CALVIN H	J M HOFFMAN	09 - 1955	605	H	360	C,H	367SNNG
WA Ai 31	--	DILLER, NORMAN M	--	--	680	S	220	H	367RCKR
WA Ai 32	WA-02-2004	DILLER, NORMAN M	J M HOFFMAN	02 - 1956	680	S	230	H,S	367RCKR
WA Ai 33	WA-02-6487	SHAFFER, CHARLES P	W TEACH	04-29-1957	640	S	138	H	367RCKR
WA Ai 34	--	COSNER, A S	A S COSNER	05 - 1959	625	H	19	I	367RCKR

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
23	6	X	40	R	08-24-1976	8	80	40	0.20	1	08-24-1976	--	WA Ah 105
30	6	X	20	R	04-01-1976	5	31	20	.45	3	04-06-1976	--	WA Ah 106
40	6	X	26	R	04-02-1976	8	53	26	.30	3	04-02-1976	--	WA Ah 107
20	6	X	30	R	05-06-1975	10	45	30	.67	1	05-06-1975	--	WA Ah 108
29	6	X	30	R	11-02-1973	18	100	30	.26	1	11-02-1973	--	WA Ah 109
63	6	X	55	R	05-14-1979	18	165	55	.16	2	05-14-1979	--	WA Ah 110
55	6	X	55	R	09-28-1981	20	125	55	.29	2	09-28-1981	--	WA Ah 111
25	6	X	25	R	07-20-1976	40	100	25	.53	1	07-20-1976	--	WA Ah 112
55	6	X	--	-	--	30	--	--	--	1	08-24-1971	--	WA Ah 113
20	6	X	30	R	12-04-1974	2	220	30	.01	3	12-04-1974	--	WA Ah 114
22	6	X	10	R	02-05-1974	40	100	10	.44	1	02-05-1974	--	WA Ah 115
20	6	X	15	R	01-16-1976	2	220	15	.01	3	01-16-1976	--	WA Ah 116
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ah 117
22	6	X	45	R	05-05-1968	50	100	45	.91	.5	05-05-1968	--	WA Ah 118
46	6	X	45	R	08-13-1975	2	300	45	.01	3	08-13-1975	--	WA Ah 119
75	6	X	40	R	09-02-1974	20	85	40	.44	1	09-02-1974	--	WA Ah 120
30	6	X	30	R	03-03-1976	40	95	30	.62	1	03-03-1976	--	WA Ah 121
21	6	X	30	R	08-29-1978	25	105	30	.33	1	08-29-1978	--	WA Ah 122
60	6	X	30	R	12-06-1973	6	250	30	.03	1	12-06-1973	--	WA Ah 123
42	6	X	40	R	10-03-1978	1.5	300	40	.01	6	10-03-1978	--	WA Ah 124
42	6	X	50	R	09-20-1978	5	180	50	.04	8	09-20-1978	--	WA Ah 125
66	6	X	30	R	04-20-1973	30	105	30	.40	1	04-20-1973	--	WA Ah 126
30	6	X	30	R	10-06-1976	30	50	30	1.50	2	10-06-1976	--	WA Ah 127
25	6	X	15	R	11-11-1981	20	100	15	.24	2	11-11-1981	--	WA Ah 128
40	6	X	30	R	02-02-1978	15	60	30	.50	1	02-02-1978	--	WA Ah 129
30	6	X	30	R	09-07-1977	21	50	30	1.05	3	09-07-1977	--	WA Ah 130
40	6	X	35	R	03-03-1976	60	85	35	1.20	1	03-03-1976	--	WA Ah 131
42	6	X	30	R	05-17-1977	10	75	30	.22	2	05-17-1977	--	WA Ah 132
27	6	X	17	R	08-19-1975	7	64	17	.15	3	08-19-1975	--	WA Ah 133
37	6	X	45	R	11-07-1974	4	115	45	.06	2	11-07-1974	--	WA Ah 134
42	6	X	20	R	06-18-1980	4	265	20	.02	2	06-18-1980	--	WA Ah 135
33	6	X	21	R	06-30-1978	12	57	21	.33	3	06-30-1978	--	WA Ah 136
50	6	X	20	R	08-27-1980	30	75	20	.55	1	08-27-1980	--	WA Ah 137
20	6	X	40	R	01-29-1975	1	365	40	.003	1	01-29-1975	--	WA Ah 138
25	6	X	35	R	03-08-1976	1	145	35	.01	1	03-08-1976	--	WA Ah 139
24	6	X	30	R	11-30-1973	10	250	30	.05	1	11-30-1973	--	WA Ah 140
25	6	X	45	R	04-29-1974	2	285	45	.01	1	04-29-1974	--	WA Ah 141
22	6	X	20	R	08-01-1977	.5	400	20	.001	12	08-01-1977	--	WA Ah 142
22	6	X	25	R	06-21-1978	1	400	25	.003	.5	06-21-1978	--	WA Ah 143
21	6	X	100	R	02-07-1980	8	150	100	.16	1	02-07-1980	--	WA Ah 144
60	6	X	21	R	01-21-1986	25	73	21	.48	1	01-21-1986	--	WA Ah 145
24.5	6	X	35	R	05-24-1969	10	50	35	.67	1	05-24-1969	--	WA Ah 146
25	6	X	25	R	10-15-1975	5	210	25	.03	1	10-15-1975	--	WA Ah 147
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ah 148
14	6	X	20.02	S	03-07-1951	5	--	20	--	1	08-14-1946	Q	WA Ai 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ai 2
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ai 3
10	6	X	49	R	12-06-1954	20	--	49	--	2	12-06-1954	Q	WA Ai 4
18	6	X	30	R	12-29-1957	30	50	30	1.50	.5	12-29-1957	--	WA Ai 5
--	--	-	37.5	R	1957	18	--	--	--	--	1957	--	WA Ai 6
15	6	X	12	R	10-02-1956	32	--	12	--	1	10-02-1956	--	WA Ai 7
40	12	X	28.38	S	04-07-1959	20	200	40	.12	2	10-29-1957	C	WA Ai 8
23	6	X	22.66	S	03-17-1959	3.5	390	25	.01	1	07 - 1956	--	WA Ai 9
15	8	X	14	R	12-20-1951	385	80	14	5.83	24	12-20-1951	--	WA Ai 11
--	6	-	23.78	S	10-10-1958	17	--	--	--	--	10-10-1958	--	WA Ai 13
--	--	-	33.47	S	10-10-1958	--	--	--	--	--	--	--	WA Ai 14
--	--	-	60	R	07-31-1952	--	--	--	--	--	--	--	WA Ai 15
60	12	X	48	S	09-17-1958	370	198	48	2.47	24	09-17-1958	--	WA Ai 16
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ai 17
20	6	X	24	R	11-02-1954	18	--	24	--	1.5	11-02-1954	--	WA Ai 18
--	--	-	--	-	--	3.5	--	--	--	--	09-17-1958	Q	WA Ai 19
35	6	X	45	R	07 - 1957	1.5	185	45	.01	1	07 - 1957	--	WA Ai 21
30	6	X	45	R	10 - 1957	1	200	45	.01	1	10 - 1957	--	WA Ai 22
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ai 23
11	6	X	30.50	S	04-10-1959	15	130	30	.15	1	04 - 1959	--	WA Ai 24
26	6	X	40	R	06-21-1956	10	110	40	.14	.5	06-21-1956	--	WA Ai 25
37	6	X	37.42	S	06-21-1959	15	110	30	.19	.5	07 - 1956	--	WA Ai 26
41	6	X	40	R	05 - 1958	15	100	40	.25	1	05 - 1958	--	WA Ai 27
21	6	X	16.39	S	06-15-1959	30	--	21	--	.5	06 - 1954	--	WA Ai 28
28	6	X	51.74	S	06-16-1959	30	50	45	6.0	.5	04-23-1954	--	WA Ai 29
51	6	X	35	R	09 - 1955	8	340	35	.03	2	09 - 1955	--	WA Ai 30
--	6	-	50	E	06-17-1959	--	--	--	--	--	--	--	WA Ai 31
9	6	X	60	R	02 - 1956	.16	230	60	<.00	.5	02 - 1956	--	WA Ai 32
24	6	X	80	R	04-29-1957	6	85	80	1.20	1	04-29-1957	--	WA Ai 33
12	8	X	13.87	S	06-17-1959	20	--	--	--	--	05 - 1959	--	WA Ai 34

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ai 35	WA-03-3575	LITTLE, JOHN W	J M HOFFMAN	03 - 1959	640	H	156	H	367RCKR
WA Ai 36	WA-01-8882	JONES, HOWARD	W TEACH	05-09-1955	620	F	370	H	367RCKR
WA Ai 37	WA-02-7228	KROUT, GLENN L	J M HOFFMAN	06 - 1959	620	U	110	H	367RCKR
WA Ai 38	WA-01-9864	DILLER, J ELMER	J M HOFFMAN	07 - 1955	565	U	152	H,S	367SNNG
WA Ai 39	WA-69-0317	SHOWALTER, CLARENCE H	ELDON FUNK	06-25-1969	710	F	85	H	367RCKR
WA Ai 40	WA-70-0328	SOCKS, TERRY L	W LAMBERSON	07-01-1970	625	S	185	H	371CCCG
WA Ai 41	WA-69-0220	HECK, ROBERT	J M HOFFMAN	03-27-1969	630	S	265	U	371CCCG
WA Ai 42	WA-69-0220	HECK, ROBERT	J M HOFFMAN	03-28-1969	630	S	225	H	371CCCG
WA Ai 43	WA-70-0184	MARTIN, IVAN L	RAY TOMS	12-10-1969	605	S	60	H,S	371CCCG
WA Ai 47	WA-66-0194	HAGER DRIVE-IN THEATRE	C A CROMWELL	02-02-1966	550	V	125	U	367SNNG
WA Ai 48	WA-67-0029	HAGER DRIVE-IN THEATRE	C A CROMWELL	08-05-1966	550	V	152	C	367SNNG
WA Ai 51	--	SHOWALTER, CLARENCE H	--	--	700	U	185	U	367RCKR
WA Ai 52	WA-65-0162	STATE LINE MOTEL	J M HOFFMAN	12-14-1964	635	F	65	C	367RCKR
WA Ai 53	WA-81-1162	STATE LINE MOTEL	LF EASTERDAY	09-12-1985	630	F	120	C	367RCKR
WA Ai 54	WA-81-1159	CITICORP-NUS CORP	LF EASTERDAY	09-07-1985	705	U	70	U	367RCKR
WA Ai 55	WA-73-1718	SHUCK, MARTIN S	D H WOODWARD	02-10-1977	720	F	305	H	367RCKR
WA Ai 56	WA-73-1716	PRIEST, RUSSELL W	JOHN SHAFF	05-08-1977	680	F	50	H	367SNNG
WA Ai 57	WA-73-0880	HORST, PHARES	D H WOODWARD	12-10-1974	665	H	280	H	367SNNG
WA Ai 58	WA-81-0054	ALPHIN, THURMAN S	D H WOODWARD	08-26-1981	635	V	300	H	367SNNG
WA Ai 59	WA-81-0909	ESHLEMAN, JOHN	D H WOODWARD	12-04-1984	625	F	450	H	371CCCG
WA Ai 60	WA-81-0983	MARTIN, ELTON J	D H WOODWARD	03-29-1985	590	S	150	H	367SNNG
WA Ai 61	WA-73-0417	PRIEST, STEPHEN	D H WOODWARD	09-21-1973	595	U	50	H	367SNNG
WA Ai 62	WA-73-2501	BEARD, DAVID M	D H WOODWARD	09-27-1978	595	F	125	H	367SNNG
WA Ai 63	WA-72-0202	HERBST, T C	D H WOODWARD	07-03-1972	590	F	175	H	367SNNG
WA Ai 64	WA-73-0141	MARTIN, NOAH	W LAMBERSON	01-11-1973	650	S	120	H	367SNNG
WA Ai 65	WA-71-0259	BETTER FOODS MILL	W LAMBERSON	06-02-1971	575	F	65	N	367RCKR
WA Ai 66	WA-73-2880	BOYLE, JOHN	D H WOODWARD	08-09-1979	635	S	575	H	367SNNG
WA Ai 67	WA-73-3178	TAYLOR, HAROLD N	A&H DRILLING	07-15-1980	620	F	225	H,I	371CCCG
WA Ai 68	WA-00-5322	SHANK, NEVIN	W TEACH	02-04-1950	580	F	100	H	367RCKR
WA Ai 69	WA-73-0128	SHANK, NEVIN	C A CROMWELL	10-11-1972	575	F	300	S	367RCKR
WA Ai 70	WA-73-1813	CHURCH OF CHRIST	JOHN SHAFF	07-07-1977	550	F	450	H	367RCKR
WA Ai 71	WA-72-0030	JOHN R OLIVER CO	W LAMBERSON	08-05-1971	540	F	240	U	367SNNG
WA Ai 72	WA-81-0830	JOHN R OLIVER CO	D H WOODWARD	08-24-1984	530	F	125	U	367SNNG
WA Ai 73	WA-81-0831	JOHN R OLIVER CO	D H WOODWARD	08-27-1984	530	F	100	U	367SNNG
WA Ai 74	WA-65-0221	LEAMAN'S PETS	YORK DRLG	06-10-1965	530	S	260	C	367SNNG
WA Ai 75	WA-81-0267	LOVELL'S NURSERY	D H WOODWARD	09-01-1982	540	S	300	C,H,I	367SNNG
WA Ai 76	WA-72-0201	LONG MEADOW ANIMAL HOS	W LAMBERSON	04-02-1972	555	S	295	C	367SNNG
WA Ai 77	WA-73-1716	PRIEST, RUSSELL W	JOHN SHAFF	05-08-1977	680	F	550	U	367SNNG
WA Ai 78	WA-73-2880	BOYLE, JOHN	D H WOODWARD	08-09-1979	635	S	500	U	367SNNG
WA Ai 79	WA-73-2187	ALPHIN, THURMAN S	D H WOODWARD	02-01-1978	635	V	225	H	367SNNG
WA Ai 80	WA-73-3325	ALPHIN, THURMAN S	D H WOODWARD	04-06-1981	635	V	575	H	367SNNG
WA Ai 81	WA-73-1685	WAY OF TRUTH INDUST	JOHN SHAFF	11-16-1976	615	F	175	N	367RCKR
WA Ai 82	WA-72-0200	HAR-TRU CORPORATION	W LAMBERSON	03-25-1972	620	F	435	C,I	367RCKR
WA Ai 83	WA-73-0913	CENTRAL TRANSPORT	D H WOODWARD	12-09-1974	640	F	100	C	367RCKR
WA Ai 84	WA-73-2631	F & S GARAGE	D H WOODWARD	12-08-1978	630	F	200	C	367RCKR
WA Ai 85	WA-70-0057	SHAWLEY'S SUP LP GAS	JOHN SHAFF	08-28-1969	630	F	250	C	367RCKR
WA Ai 86	WA-73-3156	POWERS, JAMES	D H WOODWARD	06-16-1980	620	F	68	H	367RCKR
WA Ai 87	WA-73-0744	KEENER, DONALD	C A CROMWELL	08-12-1974	630	F	150	H	367RCKR
WA Ai 88	WA-73-0593	KEENER, DONALD	C A CROMWELL	04-03-1974	630	F	250	H	367RCKR
WA Ai 89	WA-73-2739	ROUTSON, WAYNE L	C A CROMWELL	04-30-1979	630	F	100	H	367RCKR
WA Ai 90	WA-73-1189	ROSENBURG, C G	C A CROMWELL	01-20-1976	635	F	125	H	367RCKR
WA Ai 91	WA-73-1511	KEENER, DONALD	C A CROMWELL	03-14-1978	630	F	80	H	367RCKR
WA Ai 92	WA-73-3325	ALPHIN, THURMAN S	D H WOODWARD	04-06-1981	635	V	575	U	367SNNG
WA Ai 93	WA-81-0537	STOUFFER, WILLIAM	D H WOODWARD	08-29-1983	555	F	150	H	367SNNG
WA Aj 1	--	BROOK LANE PSYCH CTR	--	1949	575	V	30	U	371CCCG
WA Aj 2	WA-01-8851	BROOK LANE PSYCH CTR	J M HOFFMAN	09 - 1955	600	S	144	U	371CCCG
WA Aj 3	WA-01-9508	BROOK LANE PSYCH CTR	J M HOFFMAN	--	625	S	200	T	371CCCG
WA Aj 4	--	LEITERSBURG SCHOOL	--	--	625	S	--	T	371CCCG
WA Aj 5	--	EXXON CORPORATION	TEACH	04 - 1958	570	S	173	U	371CCCG
WA Aj 6	WA-01-7539	DUBEL, HARRY	K L TEACH	10-23-1954	700	S	153	H	371CCCG
WA Aj 7	WA-01-8852	BITNER, RILEY	J M HOFFMAN	06 - 1955	600	H	101	H	371CCCG
WA Aj 8	WA-02-4583	SHOOP, WILLIAM R	C R COWAN	10-01-1956	600	S	91	H	371CCCG
WA Aj 9	WA-02-5401	MCELVAINE, DONALD	J M HOFFMAN	12 - 1956	645	S	70	H	371CCCG
WA Aj 10	WA-02-7975	HORST, ADIN	W MARTIN	09-17-1957	600	F	100	H	371CCCG
WA Aj 11	WA-02-4045	SAGI, PAUL	W AMBROSE	08-28-1956	620	H	50	H	371CCCG
WA Aj 12	WA-02-1268	LEATHERMAN, BREWER M	W TEACH	12-04-1955	545	S	160	H	371CCCG
WA Aj 13	WA-02-8305	HELSLEY, A B	ELVIN SMITH	09-16-1957	605	H	94	H	371CCCG
WA Aj 14	WA-03-0074	RISHELL, GEORGE	J M HOFFMAN	07 - 1959	605	H	145	H	371CCCG
WA Aj 15	WA-03-0884	FLEIGH, WILLIAM C	J M HOFFMAN	06 - 1958	590	S	210	H	371CCCG
WA Aj 16	WA-01-7101	STRITE, MARSHALL C	J M HOFFMAN	12 - 1954	560	H	155	H,S	371CCCG
WA Aj 17	WA-02-8010	CLEVENGER, S C	M LANDIS	08-17-1957	650	F	87	H	371CCCG
WA Aj 18	WA-01-7878	POOLE, DAVID K JR	W MARTIN	03-05-1955	565	F	133	H,S	371CCCG
WA Aj 19	--	MILMAR PLASTICS INC	WELDO FUNT	1950	595	S	175	C	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
27	6	X	20	R	03 - 1959	3	150	20	0.02	1	03 - 1959	--	WA Ai 35
12	6	X	250	R	05-09-1955	1	350	250	.01	1	05-09-1955	--	WA Ai 36
5	6	X	28	R	06 - 1959	4	100	28	.06	1	06 - 1959	--	WA Ai 37
8	6	X	45	R	07 - 1955	20	85	45	.50	1	07 - 1955	--	WA Ai 38
20	6	X	20	R	06-25-1969	8	--	20	--	--	06-25-1969	--	WA Ai 39
25	6	X	30	R	07-01-1970	100	170	30	.71	1	07-01-1970	--	WA Ai 40
--	--	X	D	R	03-27-1969	0	--	--	--	--	03-27-1969	--	WA Ai 41
51	6	X	70	R	03-28-1969	10	216	70	.07	.5	03-28-1969	--	WA Ai 42
20	6	X	25	R	12-10-1969	50	--	25	--	1	12-10-1969	--	WA Ai 43
17	6	X	28	R	02-02-1966	17	--	28	--	3	02-02-1966	--	WA Ai 47
16	6	X	45	R	08-05-1966	15	--	45	--	3	08-05-1966	--	WA Ai 48
--	6	-	16.85	S	02-06-1968	--	--	--	--	--	--	--	WA Ai 51
26	6	X	--	-	--	50	--	--	--	--	12-14-1964	--	WA Ai 52
28	6	X	22	R	09-12-1985	9	120	22	.09	3	09-12-1985	--	WA Ai 53
20	6	X	--	-	--	--	--	--	--	--	--	--	WA Ai 54
25	6	X	25	R	02-10-1977	3	300	25	.01	2	02-10-1977	--	WA Ai 55
21	6	X	12	R	05-08-1977	22	28	12	1.37	3	05-08-1977	--	WA Ai 56
21.5	6	X	20	R	12-10-1974	3	200	20	.02	3	12-10-1974	--	WA Ai 57
21	6	X	50	R	08-26-1981	10	300	50	.04	2	08-26-1981	--	WA Ai 58
30	6	X	45	R	12-04-1984	3	450	45	.01	4	12-04-1984	--	WA Ai 59
20	6	X	25	R	03-29-1985	50	150	25	.40	4	03-29-1985	--	WA Ai 60
20	6	X	8	R	09-21-1973	25	12	8	6.25	1	09-21-1973	--	WA Ai 61
21	6	X	25	R	09-27-1978	100	100	25	1.33	2	09-27-1978	--	WA Ai 62
62	5												
21	6	X	32	R	07-03-1972	5	150	32	.04	1	07-03-1972	--	WA Ai 63
26	6	X	25	R	01-11-1973	25	110	25	.29	1	01-11-1973	--	WA Ai 64
55	6	X	20	R	06-02-1971	20	60	20	.50	1	06-02-1971	--	WA Ai 65
47	6	X	100	R	08-09-1979	1	575	100	.002	3	08-09-1979	--	WA Ai 66
100	6	X	60	R	07-15-1980	25	225	60	.15	2	07-15-1980	--	WA Ai 67
31	6	X	35	R	02-04-1950	10	--	35	--	1	02-04-1950	--	WA Ai 68
31	6	X	30	R	10-11-1972	15	290	30	.06	3	10-11-1972	--	WA Ai 69
21	6	X	18	R	07-07-1977	20	114	18	.21	3	07-07-1977	--	WA Ai 70
20	6	X	30	R	08-05-1971	50	230	30	.25	1	08-05-1971	--	WA Ai 71
125	4	O	14	R	08-24-1984	2	125	14	.02	1	08-24-1984	--	WA Ai 72
100	4	X	16	R	08-27-1984	3	100	16	.04	1	08-27-1984	--	WA Ai 73
12	6	X	--	-	--	1	155	--	--	4	06-10-1965	Q	WA Ai 74
27	6	X	35	R	09-01-1982	15	300	35	.06	3	09-01-1982	--	WA Ai 75
35	6	X	60	R	04-02-1972	50	235	60	.29	1	04-02-1972	--	WA Ai 76
--	--	X	D	R	05-08-1977	0	--	--	--	--	05-08-1977	--	WA Ai 77
--	--	X	D	R	08-09-1979	0	--	--	--	--	08-09-1979	--	WA Ai 78
21	6	X	45	R	02-01-1978	20	85	45	.50	2	02-01-1978	--	WA Ai 79
22	6	X	--	-	--	1	575	--	--	3	04-06-1981	--	WA Ai 80
21	6	X	18	R	11-16-1976	15	56	18	.39	3	11-16-1976	--	WA Ai 81
25	6	X	40	R	03-25-1972	2	380	40	.01	1	03-25-1972	--	WA Ai 82
20	6	X	20	R	12-09-1974	20	50	20	.67	2	12-09-1974	--	WA Ai 83
21	6	X	20	R	12-08-1978	4	200	20	.02	3	12-08-1978	--	WA Ai 84
22	6	X	35	R	08-28-1969	5	200	35	.03	3	08-28-1969	--	WA Ai 85
50	6	X	11	R	06-16-1980	20	68	11	.35	2	06-16-1980	--	WA Ai 86
21	6	X	35	R	08-12-1974	10	140	35	.10	1	08-12-1974	--	WA Ai 87
22	6	X	20	R	04-03-1974	5	250	20	.02	3	04-03-1974	--	WA Ai 88
31	6	X	40	R	04-30-1979	50	90	40	1.0	2	04-30-1979	--	WA Ai 89
21	6	X	20	R	01-20-1976	20	120	20	.20	1	01-20-1976	--	WA Ai 90
21	6	X	20	R	03-14-1978	25	75	20	.45	2	03-14-1978	--	WA Ai 91
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ai 92
34	6	X	40	R	08-29-1983	25	150	40	.23	2	08-29-1983	--	WA Ai 93
--	6	-	--	-	--	--	--	--	--	--	--	Q	WA Aj 1
37	6	X	25	R	09 - 1955	9	140	25	.08	.5	09 - 1955	Q	WA Aj 2
15	6	X	22	R	09 - 1955	50	50	22	1.79	.5	09 - 1955	--	WA Aj 3
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Aj 4
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Aj 5
--	--	-	100	R	10-23-1954	15	--	100	--	1	10-23-1954	--	WA Aj 6
22	6	X	80	R	06 - 1955	20	82	80	10.0	.5	06 - 1955	--	WA Aj 7
4	6	X	48	R	10-01-1956	24	--	48	--	3	10-01-1956	--	WA Aj 8
12	6	X	8.75	S	06-05-1958	6	65	15	.12	.5	12 - 1956	Q	WA Aj 9
69	6	X	53	R	09-17-1957	20	58	53	4.0	2	09-17-1957	--	WA Aj 10
48	6	X	40	R	08-28-1956	10	--	40	--	1	08-28-1956	--	WA Aj 11
22	6	X	100	R	12-04-1955	6	--	100	--	1	12-04-1955	--	WA Aj 12
14	6	X	20	R	09-16-1957	2	55	20	.06	2	09-16-1957	--	WA Aj 13
13	6	X	40	R	07 - 1958	6	80	40	.15	1	07 - 1958	--	WA Aj 14
						5	140	60	.06	.5	08-00-1959		
11	6	X	70	R	06 - 1958	18	210	70	.13	.5	06 - 1958	--	WA Aj 15
3	6	X	55	R	12 - 1954	2	155	55	.02	1	12 - 1954	--	WA Aj 16
10	6	X	62.29	S	06-17-1959	8	--	64	--	--	08-17-1957	--	WA Aj 17
129	6	X	76.02	S	06-18-1959	10	95	87	1.25	4	03-05-1955	--	WA Aj 18
24	6	X	30	E	07-17-1959	--	--	--	--	--	--	--	WA Aj 19

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Aj 20	--	ESHLEMAN, MARTIN	--	--	670	H	78.4	U	371CCCG
WA Aj 21	--	NEWCOMER, JOHN N	--	--	640	S	25	H	371ELBK
WA Aj 22	WA-05-4748	NEWCOMER, JOHN N	YORK DRLG	10-25-1963	670	S	140	U	371ELBK
WA Aj 23	WA-70-0025	NEWCOMER, JOHN N	JOHN SHAFF	09-09-1969	685	H	150	S	371ELBK
WA Aj 24	WA-70-0161	NEWCOMER, JOHN N JR	JAMES KOHLER	11-25-1969	650	H	235	S	371ELBK
WA Aj 25	WA-70-0160	BUHRMAN, HOWARD R	JAMES KOHLER	11-20-1969	675	H	265	H	371ELBK
WA Aj 26	WA-69-0257	ROGERS, JOSEPHINE C	C A CROMWELL	05-10-1969	590	S	258	H	371CCCG
WA Aj 27	WA-69-0338	MYERS, PRESTON	J M HOFFMAN	07-04-1969	585	S	125	H	371CCCG
WA Aj 28	WA-69-0219	ABBOTT, JAMES L	J M HOFFMAN	04-01-1969	560	S	85	H	371CCCG
WA Aj 29	WA-70-0282	COLLINS CUSTOM HOMES	W LAMBERSON	05-22-1970	575	S	105	H	371CCCG
WA Aj 30	WA-69-0346	DOYLE, FRANKLIN	J M HOFFMAN	07-19-1969	600	H	205	H	371CCCG
WA Aj 31	WA-69-0109	KERSLANE, RICHARD	C A CROMWELL	09-30-1968	585	S	165	H	371CCCG
WA Aj 32	WA-66-0201	WORKING, H R	YORK DRLG	12-21-1965	540	S	84	H,N	371CCCG
WA Aj 33	WA-69-0019	HETZER, C WILLIAM	J M HOFFMAN	07-23-1968	540	S	265	H	371CCCG
WA Aj 34	WA-69-0017	PEN MAR TRAILER SALES	J M HOFFMAN	11-01-1968	565	S	245	C	371CCCG
	WA-69-0148								
WA Aj 35	WA-67-0206	COLUMBUS CLUB	J M HOFFMAN	02-23-1967	565	S	185	C	371CCCG
WA Aj 36	WA-67-0228	JERRY'S SNACK BAR	JAMES KOHLER	04-27-1967	550	V	95	C	371CCCG
WA Aj 37	WA-69-0100	MIDDLEKAUFF, HUGH JR	J M HOFFMAN	10-01-1968	590	H	203	H	371CCCG
WA Aj 38	WA-66-0211	HORST, ADIN H	YORK DRLG	01-20-1966	605	S	180	S	371CCCG
WA Aj 39	WA-66-0127	HAGER DRIVE-IN THEATRE	J M HOFFMAN	10-18-1965	555	F	225	U	371CCCG
WA Aj 40	WA-66-0127	HAGER DRIVE-IN THEATRE	J M HOFFMAN	10-21-1965	555	F	265	U	371CCCG
WA Aj 41	WA-66-0127	HAGER DRIVE-IN THEATRE	J M HOFFMAN	11-03-1965	555	F	185	U	371CCCG
WA Aj 42	WA-69-0099	SNYDOR, RONNIE E	C A CROMWELL	09-27-1968	670	H	145	H	371CCCG
WA Aj 43	WA-70-0098	SNODDERLY, PHILLIP R	C A CROMWELL	05-04-1970	690	H	207	H	371CCCG
WA Aj 44	WA-69-0141	BARR, HAROLD	J M HOFFMAN	11-21-1968	750	H	185	H	377WSBR
WA Aj 45	WA-69-0056	DIFFENDAL, RAYMOND	J M HOFFMAN	07-29-1970	615	S	85	H	371ELBK
WA Aj 46	WA-69-0074	REID, RUSSEL	J M HOFFMAN	09-28-1968	725	H	260	H	371CCCG
WA Aj 47	WA-67-0080	MARTIN, LEROY L	YORK DRLG	09-30-1966	605	S	207	H,S	371CCCG
WA Aj 48	--	MAIETTA, FRANK	--	--	540	V	--	U	371CCCG
WA Aj 49	WA-73-0859	STOUFFER, H E	D H WOODWARD	12-18-1974	665	H	295	H	371CCCG
WA Aj 50	WA-73-1607	THOMAS, DONALD L	D H WOODWARD	10-14-1976	690	H	400	H	371CCCG
WA Aj 51	WA-73-3438	EBERSOLE, RICHARD L	A&H DRILLING	04-07-1981	610	H	120	H	371CCCG
WA Aj 52	WA-73-1785	KLINE, JAMES	D H WOODWARD	04-12-1977	605	F	175	H	371CCCG
WA Aj 53	WA-73-2118	MICHAEL, SUZANNE	D H WOODWARD	11-09-1977	610	U	125	H	371CCCG
WA Aj 54	WA-73-1089	SMITH, ROY JR	C A CROMWELL	07-16-1975	585	S	240	H	371CCCG
WA Aj 56	WA-73-2572	RONALD, HENRY	R ARDINGER	10-23-1978	620	S	345	H	371CCCG
WA Aj 57	WA-73-1934	WINTERS, ROBERT	D H WOODWARD	07-18-1977	620	S	445	U	371CCCG
WA Aj 58	WA-73-1934	WINTERS, ROBERT	D H WOODWARD	07-18-1977	620	S	405	H	371CCCG
WA Aj 59	WA-73-0902	JENKINS, W L	W LAMBERSON	11-08-1974	630	S	285	H	371CCCG
WA Aj 60	WA-66-0276	WAYSIDE BAPTIST CHURCH	W TEACH	05-11-1966	605	S	160	H	371CCCG
WA Aj 61	WA-73-0847	WAYSIDE BAPTIST CHURCH	C A CROMWELL	10-09-1974	605	S	257	H	371CCCG
WA Aj 62	WA-73-2179	DANCING CRAB INN	D H WOODWARD	01-31-1978	605	F	205	C	371CCCG
WA Aj 63	WA-73-2489	HORST, RALPH E	D H WOODWARD	09-02-1978	615	V	245	H	367SNNG
WA Aj 64	WA-73-3143	MARTIN, HAROLD E	JOHN SHAFF	05-22-1980	620	S	300	H	371CCCG
WA Aj 65	WA-73-0971	DAVIS	W LAMBERSON	02-25-1975	610	H	345	H	371CCCG
WA Aj 66	WA-81-1215	KLINE, RALPH	A&H DRILLING	11-26-1985	580	F	105	H	371CCCG
WA Aj 67	WA-04-9854	PETROLANE	J M HOFFMAN	12-07-1963	565	F	246	C	371CCCG
WA Aj 68	WA-73-1969	PRINTERS INK	D H WOODWARD	06-07-1977	570	F	100	C	371CCCG
WA Aj 69	WA-73-0958	SPANGLER, WALTER	D H WOODWARD	05-20-1975	605	F	400	H	371CCCG
WA Aj 70	WA-81-0460	POST, KAREN	D H WOODWARD	05-10-1983	580	S	275	H	371CCCG
WA Aj 71	WA-73-2320	MILLER, HARRY J	C A CROMWELL	06-14-1978	580	U	110	H	371CCCG
WA Aj 72	WA-81-0853	GUDGEON, LEE	D H WOODWARD	09-25-1984	560	S	300	H	371CCCG
WA Aj 73	WA-73-1266	CROUSE, RICHARD	W LAMBERSON	11-13-1975	555	S	105	H	371CCCG
WA Aj 74	WA-04-1958	HORST, LEWIS M	P E KOHLER	03-01-1961	605	H	260	U	371CCCG
WA Aj 75	WA-73-3399	HORST, LEWIS M	D H WOODWARD	02-18-1981	615	U	75	H	371CCCG
WA Aj 76	WA-73-2903	SMALL, ROBERT C	D H WOODWARD	09-13-1979	645	S	300	H	371CCCG
WA Aj 77	WA-81-0441	HARBAUGH, MICHAEL R	A&H DRILLING	08-10-1983	640	H	245	H	371CCCG
WA Aj 78	WA-73-1296	GARDINER, MICHAEL	W LAMBERSON	12-11-1975	585	H	265	H	371CCCG
WA Aj 79	WA-73-1271	HORST	D H WOODWARD	11-03-1975	620	S	85	H	371CCCG
WA Aj 80	WA-81-1088	STRITE, CALVIN E	JOHN SHAFF	07-25-1985	595	S	150	H	371CCCG
WA Aj 81	WA-73-1097	MCKEE, OAKIE L	D H WOODWARD	08-28-1975	565	S	250	H	371CCCG
	WA-73-1220								
WA Aj 82	WA-81-0684	MULLENIX, VALERIE C	A&H DRILLING	03-19-1984	570	S	305	H	371CCCG
WA Aj 83	WA-73-2375	MULLENIX, VALERIE C	D H WOODWARD	06-27-1978	575	S	160	H	371CCCG
WA Aj 84	WA-73-2126	HIXON, GERALD L	K L TEACH	01-05-1978	580	H	250	H	371CCCG
WA Aj 85	WA-73-2166	MARTIN, MENNO A	R ARDINGER	01-02-1978	540	S	217	H	371CCCG
WA Aj 86	WA-73-1540	MILLS, JOHN W	C A CROMWELL	10-28-1976	620	H	150	H	371CCCG
WA Aj 87	WA-73-1574	BURGER	D H WOODWARD	09-24-1976	605	H	375	H	371CCCG
WA Aj 88	WA-73-2405	THURSTON, GILBERT	D H WOODWARD	07-26-1978	550	S	285	H	371CCCG
WA Aj 89	WA-81-0782	COLLINS, DONALD P	A&H DRILLING	08-17-1984	520	S	225	H	371CCCG
WA Aj 90	WA-81-0328	ENGSTROM, GEORGE	D H WOODWARD	11-03-1982	515	H	125	H	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
--	6	-	27.64	S	07-17-1959	--	--	--	--	--	--	--	WA Aj 20
25	48	W	20	R	1969	--	--	--	--	--	--	--	WA Aj 21
17	6	X	51.28	S	02-17-1970	7.5	120	--	--	--	10-25-1963	--	WA Aj 22
39	6	X	40	R	09-09-1969	12	97	40	0.21	3	09-09-1969	--	WA Aj 23
42	6	X	67	R	11-25-1969	11	161	67	.12	2	11-25-1969	--	WA Aj 24
20	6	X	70	R	11-20-1969	8	142	70	.11	2	11-20-1969	--	WA Aj 25
15.5	6	X	--	-	--	1.5	--	--	--	2	05-10-1969	--	WA Aj 26
46	6	X	77	R	07-04-1969	10	110	77	.30	.5	07-04-1969	--	WA Aj 27
44	6	X	40	R	04-01-1969	20	73	40	.61	.5	04-01-1969	--	WA Aj 28
45	6	X	50	R	05-22-1970	12	90	50	.30	1	05-22-1970	--	WA Aj 29
27	6	X	35	R	07-19-1969	2	190	35	.01	.5	07-19-1969	--	WA Aj 30
17	6	X	--	-	--	8	45	--	--	1	09-30-1968	--	WA Aj 31
43	6	X	--	-	--	15	--	--	--	1	12-21-1965	--	WA Aj 32
28	6	X	60	R	07-23-1968	5	200	60	.04	.5	07-23-1968	--	WA Aj 33
35	6	X	85	R	11-01-1968	20	55	25	.67	.5	07-16-1968	--	WA Aj 34
						.5	--	85	--	.5	11-01-1968	--	WA Aj 34
30	6	X	50	R	02-23-1967	20	165	50	.17	.5	02-23-1967	--	WA Aj 35
65	6	X	31	R	04-27-1967	10	48	31	.59	2	04-27-1967	--	WA Aj 36
25	6	X	80	R	10-01-1968	20	192	80	.18	.5	10-01-1968	--	WA Aj 37
47	6	X	--	-	--	8	--	--	--	2	01-20-1966	--	WA Aj 38
--	--	X	D	R	10-18-1965	0	--	--	--	--	10-18-1965	--	WA Aj 39
--	--	X	D	R	10-21-1965	0	--	--	--	--	10-21-1965	--	WA Aj 40
54	6	X	D	R	11-03-1965	0	--	--	--	--	11-03-1965	--	WA Aj 41
18	6	X	--	-	--	8	40	--	--	2	09-27-1968	--	WA Aj 42
21	6	X	45	R	05-04-1970	2	200	45	.01	6	05-04-1970	--	WA Aj 43
60	6	X	100	R	11-21-1968	50	170	100	.71	.5	11-21-1968	--	WA Aj 44
20	6	X	30	R	08-28-1968	60	80	30	1.20	.5	08-28-1968	--	WA Aj 45
65	6	X	40	R	09-28-1968	1.5	80	40	.04	.5	09-28-1968	--	WA Aj 46
16	6	X	--	-	--	30	--	--	--	.5	09-30-1966	--	WA Aj 47
--	48	W	23.32	S	08-20-1985	--	--	--	--	--	--	O	WA Aj 48
38	6	X	40	R	12-17-1974	20	100	40	.33	3	12-18-1974	--	WA Aj 49
25	6	X	35	R	10-14-1976	1	275	35	.004	1	10-14-1976	--	WA Aj 50
24	6	X	40	R	04-07-1981	30	120	40	.37	2	04-07-1981	--	WA Aj 51
42	6	X	40	R	04-12-1977	7	100	40	.12	2	04-12-1977	--	WA Aj 52
60	6	X	40	R	11-09-1977	7	75	40	.20	3	11-09-1977	--	WA Aj 53
110	5												
21	6	X	35	R	07-16-1975	3	235	35	.01	3	07-16-1975	--	WA Aj 54
25	6	X	30	R	10-23-1978	1	345	30	.003	3	10-23-1978	--	WA Aj 56
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Aj 57
23	6	S	35	R	07-18-1977	1	375	35	.003	12	07-18-1977	--	WA Aj 58
22	6	X	40	R	11-08-1974	3	230	40	.02	1	11-08-1974	--	WA Aj 59
30	6	X	100	R	05-11-1966	8	120	100	.40	1	05-11-1966	--	WA Aj 60
21	6	X	45	R	10-09-1974	20	250	45	.10	2	10-09-1974	--	WA Aj 61
21	6	X	25	R	01-31-1978	15	160	25	.11	2	01-31-1978	--	WA Aj 62
21	6	X	35	R	09-02-1978	50	245	35	.24	3	09-02-1978	--	WA Aj 63
44	6	X	46	R	05-22-1980	5	214	46	.03	3	05-22-1980	--	WA Aj 64
25	6	X	40	R	02-25-1975	3	305	40	.01	1	02-25-1975	--	WA Aj 65
21	6	X	40	R	11-26-1985	20	105	40	.31	2	11-26-1985	--	WA Aj 66
47	6	X	200	R	12-07-1963	2	230	200	.07	.8	12-07-1963	--	WA Aj 67
42	6	X	20	R	06-07-1977	75	--	20	--	7	06-07-1977	--	WA Aj 68
32	6	X	20	R	05-20-1975	1	300	20	.004	2	05-20-1975	--	WA Aj 69
35	6	X	60	R	05-10-1983	30	275	60	.14	3	05-10-1983	--	WA Aj 70
54	6	X	40	R	06-14-1978	30	105	40	.46	1	06-14-1978	--	WA Aj 71
55	6	X	65	R	09-25-1984	10	300	65	.04	2	09-25-1984	--	WA Aj 72
25	6	X	35	R	11-13-1975	20	100	35	.31	1	11-13-1975	--	WA Aj 73
35	6	X	67	R	03-01-1961	8	160	67	.09	2	03-01-1961	--	WA Aj 74
21	6	X	30	R	02-18-1981	30	75	30	.67	2	02-18-1981	--	WA Aj 75
25	6	X	21	R	09-13-1979	12	300	21	.04	3	09-13-1979	--	WA Aj 76
25	6	X	85	R	08-10-1983	35	145	85	.58	2	04-11-1983	--	WA Aj 77
105	5					5	245	85	.03	2	08-10-83		
50	6	X	70	R	12-11-1975	10	250	70	.06	1	12-11-1975	--	WA Aj 78
25	6	X	20	R	11-03-1975	22	40	20	1.10	1.5	11-03-1975	--	WA Aj 79
25	6	X	28	R	07-25-1985	20	34	28	3.33	3	07-25-1985	--	WA Aj 80
23	6	X	75	R	08-28-1975	12	100	40	.20	1	06-18-1975	--	WA Aj 81
105	4					15	125	75	.30	2	08-28-1975		
35	6	X	70	R	03-19-1984	6	305	70	.03	2	03-19-1984	--	WA Aj 82
21	6	X	40	R	06-27-1978	50	160	40	.42	3	06-27-1978	--	WA Aj 83
80	5												
21	6	X	100	R	01-05-1978	10	175	100	.13	1	01-05-1978	--	WA Aj 84
23	6	X	25	R	01-02-1978	22	217	25	.11	1	01-02-1978	--	WA Aj 85
45	6	X	18	R	10-28-1976	15	38	18	.75	3	10-28-1986	--	WA Aj 86
22	6	X	100	R	09-24-1976	50	150	100	1.0	2	09-24-1976	--	WA Aj 87
40	6	X	50	R	07-26-1978	32	75	50	1.28	1	07-26-1978	--	WA Aj 88
23	6	X	25	R	08-17-1984	6	225	25	.03	2	08-17-1984	--	WA Aj 89
21	6	X	30	R	11-03-1982	40	125	30	.42	2	11-03-1982	--	WA Aj 90

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Aj 91	WA-81-0730	KROPKA, RICHARD J	JOHN SHAFF	06-13-1984	520	S	200	H	371CCCG
WA Aj 92	WA-73-1858	WISHARD, LINDA	JOHN SHAFF	06-03-1977	580	S	425	H	371CCCG
WA Aj 93	WA-73-1007	LLOYD, RICHARD	W LAMBERSON	03-06-1975	545	S	225	H	371CCCG
WA Aj 94	WA-73-1196	JETER, DAVID W	C A CROMWELL	10-01-1975	560	U	100	H	371CCCG
WA Aj 95	WA-73-2125	AKERS, JAMES C	K L TEACH	12-16-1977	555	V	225	H	371CCCG
WA Aj 96	WA-73-0625	HOVIS, WALTER	D H WOODWARD	09-16-1974	600	H	225	H	371CCCG
WA Aj 97	WA-73-3183	BARLUP, RICHARD	JOHN SHAFF	08-08-1980	590	H	150	H	371CCCG
WA Aj 98	WA-03-8913	FRAT ORDER OF EAGLES	J M HOFFMAN	05 - 1960	540	V	44	H	371CCCG
WA Aj 99	WA-73-0301	FAGER, JOHN	D H WOODWARD	09-15-1973	605	S	425	H	371CCCG
WA Aj 100	WA-73-1488	LEWIS, RICHARD	D H WOODWARD	09-13-1976	620	S	225	H	371CCCG
WA Aj 101	WA-81-0603	BARNHART, DONALD F	JOHN SHAFF	10-19-1983	640	S	200	H	371ELBK
WA Aj 102	WA-81-0367	HENSON, CHARLES	A&H DRILLING	12-30-1982	665	H	205	H	371ELBK
WA Aj 103	WA-73-2636	FULGHUM, PETER C	D H WOODWARD	04-28-1979	645	H	335	H	371ELBK
WA Aj 104	WA-73-1440	MATHIAS, A L	JOHN SHAFF	05-21-1976	685	H	225	H	371ELBK
WA Aj 105	WA-73-0726	HUNTER, SAMUEL C	W LAMBERSON	07-18-1974	675	S	185	H	--
WA Aj 106	WA-73-0415	WARNER	JOHN SHAFF	10-04-1973	605	H	100	H	371ELBK
WA Aj 107	WA-73-0374	BUHRMAN, HOWARD JR	C A CROMWELL	09-05-1973	680	S	200	H	371ELBK
WA Aj 108	WA-73-1608	OLIVER, KENT	D H WOODWARD	10-04-1976	650	V	305	H	371ELBK
WA Aj 109	WA-73-1740	STONER, GREGORY H	D H WOODWARD	03-11-1977	675	S	275	H	371ELBK
WA Aj 110	WA-01-0151	BROOK LANE PSYCH CTR	J M HOFFMAN	07 - 1952	575	V	100	U	371CCCG
WA Aj 111	WA-81-0211	BROOK LANE PSYCH CTR	D H WOODWARD	05-19-1982	600	S	575	T	371CCCG
WA Aj 112	WA-81-0913	BROOK LANE PSYCH CTR	D H WOODWARD	11-27-1984	630	S	600	T	371CCCG
WA Aj 113	WA-81-0913	BROOK LANE PSYCH CTR	D H WOODWARD	11-27-1984	630	S	300	U	371CCCG
WA Aj 114	WA-81-0067	BROOK LANE PSYCH CTR	D H WOODWARD	04-15-1982	640	S	575	U	371CCCG
WA Aj 115	WA-81-0613	SHIRLEY, THOMAS	A&H DRILLING	10-24-1983	605	H	385	H	371CCCG
WA Aj 116	WA-67-0197	EXXON CORPORATION	C A CROMWELL	02-20-1967	570	S	85	C	371CCCG
WA Aj 117	WA-81-1354	HARTMAN, JOHN R	JOHN SHAFF	05-16-1986	630	V	275	H	371ELBK
WA Aj 118	WA-81-1467	FORCINI, FRANK T	JOHN SHAFF	08-01-1986	550	S	200	H	371CCCG
WA Aj 119	WA-81-1417	NORMAN, SCOTT	A&H DRILLING	07-23-1986	605	F	300	H	371CCCG
WA Aj 120	WA-81-1429	PARKS, JEFFREY L	A&H DRILLING	07-29-1986	520	S	105	H	371CCCG
WA Aj 121	WA-81-1367	SMITH, EARL	A&H DRILLING	05-22-1986	580	S	185	H	371CCCG
WA Ak 1	WA-01-7022	NEWCOMER, J ELMER	WELDO FUNT	12-20-1954	675	V	325	H	371ELBK
WA Ak 2	WA-00-7222	PEN ROCK HOTEL	R A HINER	05-02-1951	1,320	S	227	U	377WVRN
WA Ak 8	--	FT RITCHIE	--	1942	1,362	V	340	T	400CTCN
WA Ak 9	WA-02-7443	RIDENOUR, DAVID H	W MARTIN	07-02-1957	705	H	164	H	377WSBR
WA Ak 10	WA-03-3374	TABER, HAROLD W JR	J M HOFFMAN	02 - 1959	770	S	80	H	377TMSN
WA Ak 11	--	TABER, HAROLD W JR	--	--	770	S	23.8	U	110MNWS
WA Ak 12	WA-03-2070	WADE, PAUL R	WELDO FUNT	09-17-1958	1,605	H	56	H	400CTCN
WA Ak 13	--	BARKDOLL, GEORGE	--	1946	770	S	84	H	377WSBR
WA Ak 14	--	BELL, DANIEL	--	--	420	S	90	U	377WSBR
WA Ak 15	WA-03-4499	MARKER, C E	C A CROMWELL	05-11-1959	900	S	70	H,I	377HRPR
WA Ak 16	WA-01-4793	HAMPSON, GEORGE	C R COWAN	04-30-1954	1,560	S	280	H	377WVRN
WA Ak 17	WA-69-0126	LOWMAN, JOHN	J M HOFFMAN	10-11-1968	690	F	85	H	377TMSN
WA Ak 18	WA-69-0191	RISSER, ROBERT	J M HOFFMAN	02-21-1969	705	H	125	H	377WSBR
WA Ak 19	WA-69-0232	SWOPE, RONALD L	ROBERT CLINE	04-23-1969	775	S	120	H	377TMSN
WA Ak 20	WA-69-0367	ROBINSON, ROLAND	J M HOFFMAN	07-23-1969	780	S	108	H	377TMSN
WA Ak 21	WA-69-0136	WEICHT, NELSON	J M HOFFMAN	10-22-1968	745	V	105	H	377TMSN
WA Ak 22	WA-70-0202	ROWE, ROGER	A R KEYSER	12-06-1969	670	V	87	H,S	377TMSN
WA Ak 23	WA-70-0099	BARKDOLL, WALTER D	W LAMBERSON	02-09-1970	705	F	65	H	377TMSN
WA Ak 28	WA-70-0281	HARP, CHARLES D	D H WOODWARD	06-04-1970	710	H	127	H	377WSBR
WA Ak 29	WA-02-4383	TIFFANY, RAPHAEL J	W MARTIN	08-30-1956	705	H	92	U	377WSBR
WA Ak 30	WA-70-0324	TIFFANY, RAPHAEL J	D H WOODWARD	06-23-1970	715	H	348	H	377WSBR
WA Ak 31	WA-70-0286	FIERY, LAWRENCE	D H WOODWARD	06-06-1970	730	S	155	H,S	377TMSN
WA Ak 33	WA-73-1132	RINGGOLD CH OF CHRIST	D H WOODWARD	08-25-1975	800	H	175	H	377WSBR
WA Ak 34	WA-73-0284	PEN MAR COUNTY PARK	D H WOODWARD	10-13-1973	1,310	S	175	H	377WVRN
WA Ak 35	WA-73-1351	PEN MAR COUNTY PARK	W LAMBERSON	02-27-1976	1,275	S	405	H	377WVRN
WA Ak 36	WA-73-1671	BAKER, RICHARD K	D H WOODWARD	11-18-1976	690	S	125	H	377WVRN
WA Ak 37	WA-73-0043	RINGGOLD RURITAN	D H WOODWARD	11-14-1972	745	H	300	H	377WSBR
WA Ak 38	WA-73-0817	WILES	C A CROMWELL	10-09-1974	735	S	130	H	377WSBR
WA Ak 39	WA-81-0106	HOLSINGER, MERLE	D H WOODWARD	11-09-1981	765	S	300	H	377WSBR
WA Ak 40	WA-73-1961	BAYER, ARTHUR	D H WOODWARD	08-09-1977	770	S	205	H	377WSBR
WA Ak 41	WA-73-2000	KRETSINGER, ROBERT W	D H WOODWARD	08-10-1977	760	S	305	H	377WSBR
WA Ak 42	WA-73-0464	STEVENS, TERRY	D H WOODWARD	11-21-1973	710	S	410	H	377WSBR
WA Ak 43	WA-73-3088	BACHTELL, RICHARD W	D H WOODWARD	04-08-1980	660	F	125	H	377WSBR
WA Ak 44	WA-73-3089	BACHTELL, BRIAN	D H WOODWARD	04-07-1980	660	F	125	H	377WSBR
WA Ak 48	WA-81-0149	RINEHART ORCHARDS INC	D H WOODWARD	03-08-1982	735	S	525	H,I	377TMSN
WA Ak 49	WA-73-2901	GOUFF, HARRY E	D H WOODWARD	09-07-1979	700	U	85	H	377TMSN
WA Ak 50	WA-73-0234	NEEDY, KENNETH M	D H WOODWARD	09-13-1973	705	U	125	U	377TMSN
WA Ak 51	WA-81-0490	HESS, MERLE W	D H WOODWARD	06-06-1983	710	S	300	H	377TMSN
WA Ak 52	WA-73-1336	GARDENHOUR, JOSEPH	JOHN SHAFF	02-07-1976	705	U	100	H	377TMSN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
40	6	X	22	R	06-13-1984	20	68	22	0.43	3	06-13-1984	--	WA Aj 91
84	6	X	28	R	06-03-1977	10	296	28	.04	3	06-03-1977	--	WA Aj 92
25	6	X	40	R	03-06-1975	15	200	40	.09	1	03-06-1975	--	WA Aj 93
86	6	X	45	R	10-01-1975	20	95	45	.40	2	10-01-1975	--	WA Aj 94
41	6	X	40	R	12-16-1977	6	225	40	.03	2	12-16-1977	--	WA Aj 95
40	6	X	42	R	09-16-1974	5	200	42	.03	1	09-16-1974	--	WA Aj 96
50	6	X	22	R	08-08-1980	18	40	22	1.0	3	08-08-1980	--	WA Aj 97
13	6	X	15	R	05 - 1960	--	--	--	--	--	--	--	WA Aj 98
20	6	X	20	R	09-15-1973	1	425	20	.002	3	09-15-1973	--	WA Aj 99
22	6	X	25	R	09-13-1976	6	175	25	.04	2	09-13-1976	--	WA Aj 100
21	6	X	26	R	10-19-1983	30	44	26	1.67	3	10-19-1983	--	WA Aj 101
40	6	X	55	R	12-30-1982	7	205	55	.05	2	12-30-1982	--	WA Aj 102
21	6	X	--	-	--	50	335	--	--	2	04-28-1979	--	WA Aj 103
108	6	X	110	R	05-21-1976	20	151	110	.49	3	05-21-1976	--	WA Aj 104
25	6	X	30	R	07-18-1974	15	170	30	.11	1	07-18-1974	--	WA Aj 105
22	6	X	26	R	10-04-1973	10	38	26	.83	3	10-04-1973	--	WA Aj 106
21	6	X	10	R	09-05-1973	4	200	10	.02	3	09-05-1973	--	WA Aj 107
46	6	X	40	R	10-04-1976	14	150	40	.13	2	10-04-1976	--	WA Aj 108
42	6	X	40	R	03-11-1977	8	200	40	.05	3	03-11-1977	--	WA Aj 109
8	6	X	20	R	07 - 1952	20	40	20	1.0	1	07 - 1952	--	WA Aj 110
21	6	X	15	R	05-19-1982	15	575	15	.03	6	05-19-1982	--	WA Aj 111
21	6	X	80	R	11-27-1984	6	600	80	.01	4	11-27-1984	--	WA Aj 112
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Aj 113
23	6	X	15	R	04-15-1982	3	575	15	.01	5	04-15-1982	--	WA Aj 114
30	6	X	45	R	10-24-1983	2	385	45	.01	2	10-24-1983	--	WA Aj 115
60	5												
22	6	X	--	-	--	25	40	--	--	3	02-20-1967	--	WA Aj 116
24	6	X	16	R	05-16-1986	7	84	16	.10	3	05-16-1986	--	WA Aj 117
22	6	X	28	R	08-01-1986	10	68	28	.25	3	08-01-1986	--	WA Aj 118
70	6	X	50	R	07-23-1986	10	300	50	.04	2	07-23-1986	--	WA Aj 119
75	6	X	40	R	07-29-1986	30	105	40	.46	2	07-29-1986	--	WA Aj 120
105	6	X	65	R	05-22-1986	30	185	65	.25	2	05-22-1986	--	WA Aj 121
55	6	X	60	R	12-20-1954	8	300	60	.03	3	12-20-1954	--	WA Ak 1
--	6	-	156	R	05-02-1951	9	178	156	.41	.3	05-02-1951	--	WA Ak 2
81.7	8	X	35	R	10 - 1956	30	--	--	--	--	09-28-1942	Q	WA Ak 8
63	6	X	95	R	07-02-1957	5	--	95	--	2	07-02-1957	--	WA Ak 9
60	6	Z	40	R	02 - 1959	20	60	40	1.0	1	02 - 1959	--	WA Ak 10
23.8	48	W	11.86	S	06-19-1959	--	--	--	--	--	--	--	WA Ak 11
29	6	X	22.24	S	06-19-1959	35	43	24	1.84	3	09-17-1958	--	WA Ak 12
--	--	-	45.59	S	07-17-1959	--	--	--	--	--	--	--	WA Ak 13
--	6	-	25	E	07-17-1959	--	--	--	--	--	--	--	WA Ak 14
20	6	X	18	R	05-11-1959	5	70	18	.10	1	05-11-1959	--	WA Ak 15
21	6	X	131	R	04-30-1954	10	171	131	.25	1.5	04-30-1954	--	WA Ak 16
50	6	X	40	R	10-11-1968	100	76	40	2.78	.5	10-11-1968	--	WA Ak 17
69	6	X	100	R	02-21-1969	6	120	100	.30	.5	02-21-1969	--	WA Ak 18
105	5.5												
73	6	X	40	R	04-23-1969	50	120	40	.62	1	04-23-1969	--	WA Ak 19
100	6	X	55.31	S	08-22-1969	60	105	40	.92	.5	07-23-1969	--	WA Ak 20
30	6	X	30	R	10-22-1968	50	95	30	.77	.5	10-22-1968	--	WA Ak 21
18	6	X	50	R	12-06-1969	8	--	50	--	1	12-06-1969	--	WA Ak 22
38	6	X	28.52	S	02-18-1970	20	60	30	.67	1	02-09-1970	--	WA Ak 23
55	5												
50	6	X	83.10	S	08-12-1970	8	90	80	.80	3	06-04-1970	--	WA Ak 28
45	6	X	D	R	1969	5	--	75	--	2	08-30-1956	--	WA Ak 29
73	6	X	100	R	06-23-1970	3	344	100	.01	2	06-23-1970	--	WA Ak 30
105	6	X	60	R	06-06-1970	25	90	60	.83	3	06-06-1970	--	WA Ak 31
25	7	X	20	R	08-25-1975	15	100	20	.19	1	08-25-1975	--	WA Ak 33
140	4												
75	6	X	60	R	10-13-1973	5	125	60	.08	1	10-13-1973	--	WA Ak 34
55	6	X	35	R	02-27-1976	1	215	35	.01	1	02-27-1976	--	WA Ak 35
75	6	X	35	R	11-18-1976	10	120	35	.12	1	11-18-1976	--	WA Ak 36
39	6	X	39.20	S	10-30-1985	3	200	35	.02	1	11-14-1972	O	WA Ak 37
61	6	X	50	R	10-09-1974	8	125	50	.11	2	10-09-1974	--	WA Ak 38
55	6	X	75	R	11-09-1981	25	300	75	.11	2	11-09-1981	--	WA Ak 39
80	6	X	95	R	08-09-1977	20	125	95	.67	6	08-09-1977	Q	WA Ak 40
125	5												
22	6	X	55	R	08-10-1977	4	260	55	.02	7	08-10-1977	--	WA Ak 41
26	6	X	60	R	11-21-1973	4	350	60	.01	1	11-21-1973	--	WA Ak 42
71	6	X	11	R	04-08-1980	30	125	11	.26	2	04-08-1980	--	WA Ak 43
80	6	X	11	R	04-07-1980	50	125	11	.44	2	04-07-1980	--	WA Ak 44
76	6	X	60	R	03-08-1982	60	525	60	.13	4	03-08-1982	--	WA Ak 48
32	6	X	25	R	09-07-1979	25	85	25	.42	2	09-07-1979	--	WA Ak 49
20	6	X	25	R	09-13-1973	20	60	25	.57	1	09-13-1973	--	WA Ak 50
21	6	X	25	R	06-06-1983	5	300	25	.02	3	06-06-1983	--	WA Ak 51
80	6	X	26	R	02-07-1976	18	42	26	1.12	3	02-07-1976	--	WA Ak 52

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ak 53	WA-73-2620	MCGOWAN, RICHARD G	JOHN SHAFF	11-10-1978	785	S	465	H	377TMSN
WA Ak 54	WA-81-0416	GRAYBILL, WALTER J	JOHN SHAFF	04-14-1983	825	S	150	H	377TMSN
WA Ak 55	WA-81-0702	DEAL, GREGORY	D H WOODWARD	05-31-1984	820	S	550	H	377TMSN
WA Ak 56	WA-73-0337	CATTS, HARRY D	D H WOODWARD	11-01-1973	1,000	S	200	H	377ANTM
WA Ak 57	WA-73-3231	BUSHEY, RICHARD	D H WOODWARD	10-31-1980	1,080	S	300	H	377HRPR
WA Ak 58	WA-73-1513	HECK, RALPH E	D H WOODWARD	08-26-1976	820	S	363	H	377TMSN
WA Ak 59	WA-73-0587	DEWEASE, LENWOOD	D H WOODWARD	03-29-1974	760	S	100	H	377TMSN
WA Ak 60	WA-81-0309	STOTTLEMYER, HAROLD C	JOHN SHAFF	10-12-1982	730	F	135	H	377TMSN
WA Ak 61	WA-81-0993	VERDIER, JAMES B	A&H DRILLING	04-22-1985	785	S	305	H	377TMSN
WA Ak 62	WA-71-0189	D H WOODWARD	D H WOODWARD	03-26-1971	680	F	150	H	377TMSN
WA Ak 63	WA-73-3418	BIKLE MANUFACTURING	JOHN SHAFF	03-06-1981	790	F	175	N	377TMSN
WA Ak 64	WA-73-3410	NEEDY, GARY	JOHN SHAFF	03-02-1981	900	S	140	H	377HRPR
WA Ak 65	WA-73-2868	BOWMAN, TIMOTHY	ROBERT CLINE	08-08-1979	880	S	175	H	377HRPR
WA Ak 66	WA-73-0285	NEWCOMER, RICHARD S	D H WOODWARD	09-07-1973	1,035	S	300	H	377HRPR
WA Ak 67	WA-73-0985	MINNICK, GARY	C A CROMWELL	03-17-1975	760	U	250	H	377TMSN
WA Ak 68	WA-73-1894	TURNER, LARRY W	D H WOODWARD	06-09-1977	700	F	85	H	377TMSN
WA Ak 69	WA-73-2195	CORDER, JOHN C	JOHN SHAFF	03-03-1978	690	F	200	H	377TMSN
WA Ak 70	WA-73-1999	SLICK, CHARLES R	JOHN SHAFF	09-06-1977	685	U	125	H	377TMSN
WA Ak 71	WA-73-0826	SMITH, ALBERT F	W LAMBERSON	09-30-1974	675	F	85	H	377TMSN
WA Ak 72	WA-73-0830	SWOPE, BARRY	W LAMBERSON	09-28-1974	675	F	65	H	377TMSN
WA Ak 73	WA-73-1148	GEARHART, ROBERT	W LAMBERSON	07-31-1975	670	F	85	H	377TMSN
WA Ak 74	WA-73-1004	WAGNER	W LAMBERSON	03-07-1975	685	S	85	H	377TMSN
WA Ak 75	WA-73-1005	RIDENOUR, JAMES E	W LAMBERSON	03-07-1975	685	S	65	H	377TMSN
WA Ak 76	--	JACQUES, DENTON R	--	--	705	F	31	U	377TMSN
WA Ak 77	WA-73-2936	JACQUES, DENTON R	JOHN SHAFF	09-13-1979	705	F	300	H	377TMSN
WA Ak 78	WA-81-0388	BYLER, ROBERT	D H WOODWARD	01-25-1983	710	U	175	H	377TMSN
WA Ak 79	WA-81-0382	NEWCOMER, CHARLES	WM REICHART	07-22-1983	1,000	S	200	H	377ANTM
WA Ak 80	WA-81-0034	SANDERS, STEVEN	A&H DRILLING	07-29-1981	845	S	165	H	377TMSN
WA Ak 81	WA-73-1385	ECCARD, RICHARD W	W LAMBERSON	1976	885	S	--	U	377TMSN
WA Ak 82	WA-73-1526	NEEDY, RAYBURN S	D H WOODWARD	09-20-1976	925	S	250	H	377HRPR
WA Ak 83	WA-73-0462	OAKES, ALLAN W	A R KEYSER	11-02-1973	1,330	S	382	H	377WVRN
WA Ak 84	WA-73-1140	PEN MAR U B CHURCH	D H WOODWARD	08-18-1975	1,370	S	245	H	377WVRN
WA Ak 85	WA-73-2560	LEWIS, ROSCOE JR A	JOHN SHAFF	11-20-1978	1,370	S	400	H	377WVRN
WA Ak 86	WA-81-1087	DEAL, ISABELLE H	A&H DRILLING	08-19-1985	695	V	105	H	377TMSN
WA Ak 87	WA-81-1085	BOSTWICK, EUGENE	D H WOODWARD	07-16-1985	680	F	200	H	377TMSN
WA Ak 88	WA-81-0527	CRAMER, DENNIS	D H WOODWARD	08-10-1983	1,385	S	500	H	377WVRN
WA Ak 89	WA-03-6924	CAMP LOUISE	KOHL BROS	11-16-1959	605	S	254	H	377WVRN
WA Ak 90	WA-73-2398	DICKENSON, ROBERT D	D H WOODWARD	06-30-1978	605	S	97	H	400CTCN
WA Ak 91	WA-73-3310	BROWN, ALBERT	ROBERT CLINE	08-01-1980	605	S	225	H	400CTCN
WA Ak 92	WA-71-0175	WILLARD, GLEN JR	A R KEYSER	02-26-1971	605	S	382	H,S	400CTCN
WA Ak 93	WA-73-1886	STOCKSLAGER, DANNY W	JOHN SHAFF	07-16-1977	605	H	250	H	400CTCN
WA Ak 94	WA-81-1149	FRALEY, RICHARD C	A&H DRILLING	09-06-1985	780	U	285	H	377TMSN
WA Ak 95	WA-81-1239	WORTHINGTON, LEE	D H WOODWARD	12-09-1985	685	F	125	H	377TMSN
WA Ak 96	WA-73-1950	HOUVER, ELWOOD	JOHN SHAFF	09-04-1977	735	H	275	H	377TMSN
WA Ak 97	WA-73-1083	INGRAM, JEFFREY	ROBERT CLINE	06-20-1975	720	H	140	H	377TMSN
WA Ak 98	WA-73-1881	RINEHART ORCHARDS INC	D H WOODWARD	05-27-1977	730	S	283	H	377TMSN
WA Ak 99	WA-71-0019	HERBST, JOHN C	D H WOODWARD	08-01-1970	670	F	32	H,S	377TMSN
WA Ak 100	WA-73-1965	GROVE, ERNEST R	D H WOODWARD	08-01-1977	715	S	200	H	371ELBK
WA Ak 101	WA-81-1391	WOLF, ROBERT	A&H DRILLING	07-15-1986	685	S	265	H	377WSBR
WA Al 1	--	CAMP LOUISE	--	--	1,420	S	160	H	377WVRN
WA Al 2	--	CASCADE SCHOOL	--	--	1,340	S	45	U	400CTCN
WA Al 3	--	CHESSIE SYSTEM	--	--	1,380	S	256	U	400CTCN
WA Al 4	--	FLOHR, DANIEL	--	--	1,490	S	250	U	400CTCN
WA Al 5	--	HIGHFIELD WATER CO	KOHL BROS	1940	1,380	S	200	P	400CTCN
WA Al 6	--	HIGHFIELD WATER CO	--	1935	1,405	S	200	U	400CTCN
WA Al 7	--	FT RITCHIE	--	1942	1,322	V	300	P,T	400CTCN
WA Al 8	--	FT RITCHIE	--	1942	1,299	V	402	P,T	400CTCN
WA Al 9	--	FT RITCHIE	--	1942	1,313	V	200	P,T	400CTCN
WA Al 10	--	FT RITCHIE	--	1942	1,325	V	191	P,T	400CTCN
WA Al 11	--	FT RITCHIE	--	--	1,337	V	200	P,T	400CTCN
WA Al 12	--	FT RITCHIE	--	1942	1,344	V	187	P,T	400CTCN
WA Al 13	WA-81-0567	WILLARD, GLEN JR	D H WOODWARD	09-14-1983	605	S	300	H	400CTCN
WA Al 14	WA-73-2071	FRAZER, PAUL F	D H WOODWARD	09-23-1977	605	S	405	C,H	400CTCN
WA Al 15	WA-73-2484	DECKER'S MARKET	ROBERT CLINE	08-30-1978	605	V	150	C	400CTCN
WA Ba 1	--	ME' RE' AL FARM	--	--	625	H	182	U	341CMNG
WA Bb 1	--	WOODMONT ROD & GUN CL	C DENEEN	--	590	H	225	U	341PRKD
WA Bb 2	WA-00-0609	WOODMONT ROD & GUN CL	G L DEHAVEN	07 - 1946	590	H	184	U	341WDMN
WA Bb 3	--	WOODMONT ROD & GUN CL	--	--	590	H	--	U	341WDMN
WA Bb 4	--	WOOLFORD, L F	--	--	490	S	38	H	341HMPR
WA Bb 5	--	WILLS, B A	--	--	590	H	52.5	U	344RMNY
WA Bb 6	--	SPADE, ARLIE	--	1945	530	S	40	H	351WLCK
WA Bb 7	--	WOODMONT ROD & GUN CL	SWARTZ	1890	580	S	85	U	341CMNG
WA Bb 8	--	DIVEL, RAYMOND	--	--	640	S	67	H	352BMBG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
50	6	X	67	R	11-10-1978	42	216	67	0.28	3	11-10-1978	--	WA Ak 53
72	6	X	26	R	04-14-1983	26	77	26	.51	3	04-14-1983	--	WA Ak 54
105	6	X	60	R	05-31-1984	3	550	60	.01	4	05-31-1984	--	WA Ak 55
120	6	X	70	R	11-01-1973	7	160	70	.08	3	11-01-1973	--	WA Ak 56
71	6	X	30	R	10-31-1980	3	300	30	.01	3	10-31-1980	--	WA Ak 57
235	6	X	70	R	08-26-1976	50	80	70	5.0	2	08-26-1976	--	WA Ak 58
30	6	X	50	R	03-29-1974	30	75	50	1.20	1	03-29-1974	--	WA Ak 59
100	6	X	36	R	10-12-1982	14	78	36	.33	3	10-12-1982	--	WA Ak 60
25	6	X	20	R	04-22-1985	1	305	20	.004	2	04-22-1985	--	WA Ak 61
20	6	X	32	R	03-26-1971	30	100	32	.44	1	03-26-1971	--	WA Ak 62
130	6	X	48	R	03-06-1981	25	73	48	1.0	3	03-06-1981	--	WA Ak 63
33	6	X	16	R	03-02-1981	8	38	16	.36	3	03-02-1981	--	WA Ak 64
64	6	X	21	R	08-08-1979	10	175	21	.06	1	08-08-1979	--	WA Ak 65
42	6	X	30	R	09-07-1973	4	200	30	.02	1	09-07-1973	--	WA Ak 66
49	6	X	20	R	03-17-1975	2	245	20	.01	3	03-17-1975	--	WA Ak 67
70	6	X	35	R	06-09-1977	50	45	35	5.0	2	06-09-1977	--	WA Ak 68
120	6	X	28	R	03-03-1978	18	42	28	1.29	3	03-03-1978	--	WA Ak 69
84	6	X	26	R	09-06-1977	18	41	26	1.20	3	09-06-1977	--	WA Ak 70
56	6	X	40	R	09-30-1974	20	75	40	.57	1	09-30-1974	--	WA Ak 71
50	6	X	30	R	09-28-1974	30	60	30	1.0	1	09-28-1974	--	WA Ak 72
40	6	X	20	R	07-31-1975	30	70	20	.60	1	07-31-1975	--	WA Ak 73
45	6	X	35	R	03-07-1975	20	80	35	.44	1	03-07-1975	--	WA Ak 74
35	6	X	25	R	03-07-1975	40	45	25	2.0	1	03-07-1975	--	WA Ak 75
--	48	W	28.46	S	12-17-1985	--	--	--	--	--	--	--	WA Ak 76
50	6	X	28	R	09-13-1979	8	114	28	.09	3	09-13-1979	--	WA Ak 77
30	6	X	60	R	01-25-1983	25	175	60	.22	4	01-25-1983	--	WA Ak 78
41	6	X	60	R	07-22-1983	12	200	60	.09	1	07-22-1983	--	WA Ak 79
89	6	X	115	R	07-29-1981	10	165	115	.20	2	07-29-1981	--	WA Ak 80
145	5												
--	6	X	D	R	1976	0	--	--	--	--	1976	--	WA Ak 81
115	6	X	65	R	09-20-1976	20	120	65	.36	2	09-20-1976	--	WA Ak 82
61	6	X	200	R	11-02-1973	2	--	200	--	1	11-02-1973	--	WA Ak 83
46	6	X	115.63	S	05-27-1986	1	245	40	.005	3	08-18-1975	O	WA Ak 84
84	6	X	96	R	11-20-1978	4	241	96	.03	3	11-20-1978	--	WA Ak 85
35	6	X	35	R	08-19-1985	50	105	35	.71	2	08-19-1985	--	WA Ak 86
90	5												
21	6	X	35	R	07-16-1985	20	200	35	.12	4	07-16-1985	--	WA Ak 87
21	6	X	30	R	08-10-1983	1	500	30	.002	4	08-10-1983	--	WA Ak 88
--	--	-	75	R	11-16-1959	5	250	75	.03	1	11-16-1959	--	WA Ak 89
22	6	X	18	R	06-30-1978	20	95	18	.26	1	06-30-1978	--	WA Ak 90
43	6	X	35	R	08-01-1980	5	225	35	.03	1	08-01-1980	--	WA Ak 91
61	6	X	55	R	02-26-1971	1	--	55	--	1	02-26-1971	--	WA Ak 92
21	6	X	7	R	07-16-1977	4	180	7	.02	3	07-16-1977	--	WA Ak 93
45	6	X	70	R	09-06-1985	10	285	70	.05	2	09-06-1985	--	WA Ak 94
30	6	X	31	R	12-09-1985	40	125	31	.43	2	12-09-1985	--	WA Ak 95
28	6	X	36	R	09-04-1977	14	114	36	.18	3	09-04-1977	--	WA Ak 96
21	6	X	52	R	06-20-1975	25	140	52	.28	1	06-20-1975	--	WA Ak 97
65	6	X	20	R	05-27-1977	75	50	20	2.50	3	05-27-1977	--	WA Ak 98
20	6	X	5	R	08-01-1970	15	20	5	1.0	2	08-01-1970	--	WA Ak 99
55	6	X	50	R	08-01-1977	20	100	50	.40	5	08-01-1977	--	WA Ak 100
60	6	X	50	R	07-15-1986	8	265	50	.04	2	07-15-1986	--	WA Ak 101
--	--	-	--	-	--	3.5	--	--	--	--	06-11-1958	Q	WA Al 1
--	6	-	21.03	S	06-12-1958	--	--	--	--	--	--	--	WA Al 2
--	--	-	20.13	S	06-12-1958	--	--	--	--	--	--	--	WA Al 3
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Al 4
--	8	-	12.5	R	03 - 1947	95	--	--	--	100	1940	--	WA Al 5
--	8	-	--	-	--	55	--	--	--	--	03 - 1947	--	WA Al 6
8.6	8	X	8	R	09-28-1942	30	18	8	3.0	--	09-28-1942	Q	WA Al 7
20	8	X	14	R	1957	33	140	14	.26	5	1957	Q	WA Al 8
42.6	8	X	6	R	03-19-1957	55	--	--	--	--	09-18-1958	Q	WA Al 9
40.6	8	X	8	R	03-19-1951	37	--	--	--	--	09-28-1942	Q	WA Al 10
24.6	8	X	8	R	03-19-1957	27	--	--	--	--	09-28-1942	Q	WA Al 11
34.6	8	X	3	R	03-19-1957	29	--	--	--	--	09-28-1942	Q	WA Al 12
25	6	X	40	R	09-14-1983	6	300	40	.02	4	09-14-1983	--	WA Al 13
25	6	X	55	R	09-23-1977	10	200	55	.07	4	09-23-1977	--	WA Al 14
38	6	X	6	R	08-30-1978	5	150	6	.03	1	08-30-1978	--	WA Al 15
--	--	-	121.73	S	06-14-1985	--	--	--	--	--	--	O	WA Ba 1
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bb 1
63.5	6	X	68.00	S	07 - 1946	15	155	65	.17	1	07 - 1946	--	WA Bb 2
--	--	-	50.46	S	04-02-1985	--	--	--	--	--	--	O	WA Bb 3
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bb 4
--	6	-	29.73	S	04-02-1985	--	--	--	--	--	--	--	WA Bb 5
--	6	-	5	E	01-01-1945	--	--	--	--	--	--	--	WA Bb 6
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bb 7
--	6	-	50	E	06-01-1958	--	--	--	--	--	--	--	WA Bb 8

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bb 9	--	DIVEL, RAYMOND	--	--	640	F	80	S	354MCKZ
WA Bb 10	WA-02-1165	DILLON, R S	--	12-01-1955	680	S	99	H	352BMBG
WA Bb 11	--	DILLON, R S	--	--	635	S	125	H	351WLCK
WA Bb 13	--	MCCUSKER, ALBERT	--	--	705	S	65	H	344RMNY
WA Bb 14	WA-00-0687	DONEGAN, JOSEPH	G L DEHAVEN	08-12-1946	475	V	83	H	341HMPR
WA Bb 15	--	C & O CANAL NATL PARK	--	1941	460	V	125	U	341HMPR
WA Bb 16	--	WOODMONT ROD & GUN CL	--	1935	820	H	85	U	341HMPR
WA Bb 17	WA-02-4966	TONOLOWAY ROD & GUN CL	W MARTIN	11-12-1956	660	S	87.5	H	344RMNY
WA Bb 18	WA-05-2151	C & O CANAL NATL PARK	J M HOFFMAN	07-09-1963	430	V	105	H	354MCKZ
WA Bb 19	WA-73-0351	SANTOR, BERNARD	H LUCAS	08-17-1973	670	S	565	H	351WLCK
WA Bb 20	WA-73-0573	CORBETT, DONALD	GLENN FORD	02-15-1974	610	F	140	H	351WLCK
WA Bc 1	--	C & O CANAL NATL PARK	J M HOFFMAN	02-04-1969	420	G	125	U	354RSHL
WA Bc 2	WA-81-0079	SEAVOLT, TED	A&H DRILLING	10-02-1981	485	S	125	H	351WLCK
WA Bc 3	WA-73-3127	SEAVOLT, EDSEL	A&H DRILLING	05-14-1980	490	S	205	H	351WLCK
WA Bc 4	WA-81-0208	CLINGERMAN, CHARLES	A&H DRILLING	05-21-1982	460	S	105	H	351WLCK
WA Be 1	--	DAYHOFF, A L	--	--	530	S	37.5	U	347ORSK
WA Be 2	--	FT FREDERICK STATE PK	--	--	470	V	42.7	U	344RMNY
WA Be 3	WA-00-5321	REED, WARREN E	W TEACH	1950	530	H	130	H	344RMNY
WA Be 4	--	CHESSIE SYSTEM	--	--	400	S	37.6	U	344RMNY
WA Be 5	WA-00-0084	CHESSIE SYSTEM	J M HOFFMAN	09-26-1945	400	S	57	U	344RMNY
WA Be 6	WA-00-3356	HART, FRANKLIN M	W TEACH	11-07-1949	540	S	110	H	344RMNY
WA Be 7	WA-01-3407	SCHUHART	K L TEACH	10 - 1953	520	S	130	H	344RMNY
WA Be 8	WA-01-1605	MILLS, ROBERT O	K L TEACH	01-20-1953	520	S	90	H	344RMNY
WA Be 9	WA-02-7868	CARSON, ROBERT	W TEACH	08 - 1957	520	S	85	H	344RMNY
WA Be 10	WA-02-7865	MYERS, CALVIN M	W TEACH	07-30-1957	520	S	130	H	344RMNY
WA Be 11	WA-00-3338	MARTIN	W TEACH	11-20-1949	450	S	95	H	344RMNY
WA Be 12	WA-00-0463	HOVERMALE, PAUL	C E PIKE	06-27-1946	425	V	73	H	344RMNY
WA Be 13	WA-01-7248	SNYDER, JAMES	W TEACH	12 - 1954	425	V	110	H	344RMNY
WA Be 14	WA-02-9474	SNYDER, ROY W	W TEACH	12-15-1957	550	S	85	H	344RMNY
WA Be 15	WA-00-2284	TEDRICK, RODGER D	W TEACH	02-12-1949	490	S	90	H	344RMNY
WA Be 16	WA-00-1255	MILBURN	W TEACH	03-31-1946	530	S	70	C	347ORSK
WA Be 17	WA-00-8808	SHIVES, ROBERT	W TEACH	12-03-1951	430	S	115	H	341CMNG
WA Be 18	--	HEISTON, E L	--	--	450	S	60	H	341CMNG
WA Be 19	--	SHIVES, DALE	K L TEACH	1953	440	S	40	H	341WDMN
WA Be 20	WA-01-6457	SHANK, DANIEL	W MARTIN	10-09-1954	535	S	202	H	347HDBG
WA Be 21	--	SHANK, DANIEL	--	--	535	S	64	U	347ORSK
WA Be 22	--	SHANK, DANIEL	--	--	520	S	--	U	347HDBG
WA Be 23	WA-01-5659	WEBER, C H	L BRANNON	07-12-1954	450	S	132	S	347ORSK
WA Be 24	--	FT FREDERICK STATE PK	CIVILIAN C C	1936	460	S	140	H	344RMNY
WA Be 25	--	FT FREDERICK STATE PK	USGS	09-08-1958	380	G	27	U	110ALVM
WA Be 26	--	CHESSIE SYSTEM	USGS	09-09-1958	400	S	15.5	U	110TRRC
WA Be 27	--	U S GEOLOGICAL SURVEY	USGS	09-09-1958	420	S	25	U	110TRRC
WA Be 28	--	MD STATE HIGHWAY ADMIN	USGS	1958	420	S	13	U	110ALVM
WA Be 29	--	INDIAN SPRING SCHOOL	J M HOFFMAN	--	540	S	144	T	347ORSK
WA Be 33	--	C & O CANAL NATL PARK	J M HOFFMAN	05 - 1969	400	V	125	H	344RMNY
WA Be 34	WA-65-0154	TRUMPOWER, EARL	K L TEACH	02-15-1965	465	F	70	U	344RMNY
WA Be 35	WA-69-0290	TRUMPOWER, EARL	W LAMBERSON	06-05-1969	470	F	123	H	344RMNY
WA Be 36	WA-73-2837	GLADHILL, ENNIS	H LUCAS	06-23-1979	460	S	200	H	341PRKD
WA Be 37	WA-73-2872	FABIJANISKI, CHESTER J	H LUCAS	09-13-1979	600	S	240	H	347HDBG
WA Be 38	WA-81-0850	EASTON, WAYNE	A&H DRILLING	10-16-1984	550	H	345	H	344RMNY
WA Be 39	WA-81-0789	SUMMERS, CHARLES E	JOHN SHAFF	08-13-1984	415	S	150	H	344RMNY
WA Be 40	WA-73-1516	BOWERS, DOROTHY	H LUCAS	07-21-1976	530	H	205	H	347ORSK
WA Be 41	WA-71-0214	KOA KAMPGROUND	W LAMBERSON	03-29-1971	595	S	245	H	347ORSK
WA Be 42	WA-73-3442	BIG POOL CIVIC ASSOC	D H WOODWARD	04-15-1981	450	V	150	H	344RMNY
WA Be 43	WA-68-0121	MD STATE HIGHWAY ADMIN	W TEACH	02-17-1968	530	H	250	H	347HDBG
WA Be 44	WA-69-0239	EXXON CORPORATION	J M HOFFMAN	05-02-1969	460	H	120	H	344RMNY
WA Be 45	WA-69-0239	EXXON CORPORATION	J M HOFFMAN	04-23-1969	460	H	145	U	344RMNY
WA Be 46	WA-68-0017	SEMIER, JOAN	J M HOFFMAN	11-10-1967	550	V	125	H	347HDBG
WA Be 47	WA-68-0017	SEMIER, JOAN	J M HOFFMAN	1967	550	V	105	U	347HDBG
WA Be 48	WA-68-0034	FT FREDERICK STATE PK	LEO FORD	08-24-1967	550	F	222	H	344RMNY
WA Be 49	WA-81-0844	MOORE, GEORGE H	JOHN SHAFF	10-15-1984	430	H	350	H	344RMNY
WA Be 50	WA-81-0480	BERNHISEL, DONALD	D H WOODWARD	06-03-1983	535	S	300	H	344RMNY
WA Be 51	WA-81-0252	DICKEY, LARRY C	D H WOODWARD	07-02-1982	510	S	175	H	344RMNY
WA Bf 1	--	MD STATE HIGHWAY ADMIN	--	--	600	S	35.3	U	371CCCG
WA Bf 4	--	CLEAR SPRING SCHOOL	--	--	590	S	30	U	371CCCG
WA Bf 5	WA-00-3358	JAMES, CHARLES C	J M HOFFMAN	11-23-1949	625	H	70	H	351TNLY
WA Bf 9	--	SANDALA, STEPHEN C	J M HOFFMAN	1932	1,030	S	80	U	354RSHL
WA Bf 10	--	SEILER, H A	C E PIKE	1938	830	S	156	C,H	347HDBG
WA Bf 11	WA-00-8038	FORSYTHE, BESSIE	J M HOFFMAN	07 - 1951	670	S	91	H	351TNLY
WA Bf 12	WA-00-2229	BESTER, MARY	J M HOFFMAN	02-16-1949	405	S	93	H	344RMNY
WA Bf 13	--	BESTER, MARY	--	--	405	S	22.4	H	110ALVM
WA Bf 14	WA-00-5821	RHODES, HARRY L	W TEACH	05-06-1950	410	S	66	H	344RMNY
WA Bf 15	WA-00-5317	KAYLOR, JOHN F	W TEACH	02-25-1960	550	S	105	H	344RMNY

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bb 9
14	6	X	8	R	12-01-1955	6	70	8	0.10	--	12-01-1955	--	WA Bb 10
--	6	-	20	R	06-25-1958	--	--	--	--	--	--	--	WA Bb 11
--	6	-	10	E	06-01-1958	--	--	--	--	--	--	--	WA Bb 13
38	6	X	35	R	08-12-1946	20	70	35	.57	.8	08-12-1946	--	WA Bb 14
--	6	-	50	R	06-01-1958	--	--	--	--	--	--	Q	WA Bb 15
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bb 16
20	6	X	14	R	11-12-1956	10	35	14	.48	2	11-12-1956	--	WA Bb 17
51	6	X	26.04	S	07-30-1963	7.5	34.29	26.04	.91	24	07-31-1963	Q	WA Bb 18
106	6.6	X	100	R	08-17-1973	3	400	100	.01	3	08-17-1973	--	WA Bb 19
237	6												
20	6	X	56	R	02-15-1974	8	140	56	.10	2	02-15-1974	--	WA Bb 20
35	6	X	19.36	S	04-01-1969	7.5	--	--	--	--	02-04-1969	Q	WA Bc 1
23	6	X	35	R	10-02-1981	10	125	35	.11	2	10-02-1981	--	WA Bc 2
21	6	X	55	R	05-14-1980	20	205	55	.13	2	05-14-1980	--	WA Bc 3
25	6	X	50	R	05-21-1982	20	105	50	.36	2	05-21-1982	--	WA Bc 4
37.5	36	W	28.89	S	10-02-1946	--	--	--	--	--	--	--	WA Be 1
38.5	42	W	33.00	S	11-01-1967	--	--	--	--	--	--	O	WA Be 2
58	6	X	45	R	1950	10	58	45	.77	1	1950	Q	WA Be 3
--	6	-	5.45	S	03-18-1958	--	--	--	--	--	--	--	WA Be 4
24	6	X	20	R	09-26-1945	20	27	20	2.86	1	09-26-1945	Q	WA Be 5
26	6	X	68	R	11-07-1949	10	50	42	1.25	1	11-07-1949	--	WA Be 6
55	6	X	--	-	--	--	--	--	--	--	--	--	WA Be 7
39	6	X	30	R	01-20-1953	20	75	30	.44	3	01-20-1953	--	WA Be 8
39	6	X	30	R	08 - 1957	5	30	30	--	1	08 - 1985	--	WA Be 9
64	6	X	60	R	07-30-1957	6	65	60	1.20	1	07-30-1957	--	WA Be 10
33	6	X	85	R	11-20-1949	8	--	85	--	.5	11-20-1949	--	WA Be 11
23	6	X	37	R	06-27-1946	25	51	37	1.79	1	06-27-1946	--	WA Be 12
29	6	X	40	R	12 - 1954	5	--	40	--	1	12 - 1954	--	WA Be 13
50	6	X	40	R	12-15-1957	6	--	40	--	1	12-15-1957	--	WA Be 14
35	6	X	20	R	02-12-1949	10	40	20	.50	1	02-12-1949	--	WA Be 15
19	6	X	20	R	03-31-1946	10	--	20	--	--	03-31-1946	--	WA Be 16
32	6	X	80	R	12-03-1951	--	--	--	--	--	--	--	WA Be 17
--	6	-	30	E	07-23-1958	--	--	--	--	--	--	--	WA Be 18
--	6	-	8	R	1953	--	--	--	--	--	--	--	WA Be 19
111	6	X	99	R	10-09-1954	10	150	99	.20	4	10-09-1954	--	WA Be 20
--	--	-	61.36	S	07-23-1958	--	--	--	--	--	--	--	WA Be 21
--	48	W	60.84	S	07-23-1958	--	--	--	--	--	--	--	WA Be 22
36	6	X	70	R	07-12-1954	4	70	70	--	2	07-12-1954	--	WA Be 23
--	6	-	--	-	--	--	--	--	--	--	--	Q	WA Be 24
--	4	-	--	-	--	--	--	--	--	--	--	--	WA Be 25
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Be 26
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Be 27
--	4	-	--	-	--	--	--	--	--	--	--	C	WA Be 28
--	--	-	--	-	--	--	--	--	--	--	--	Q	WA Be 29
35	6	X	31.5	R	05 - 1969	5	--	31.5	--	--	05 - 1969	C,Q	WA Be 33
25	6	X	40	R	02-15-1965	8	45	40	1.60	2	02-15-1965	--	WA Be 34
47	6	X	60	R	06-05-1969	20	115	60	.36	.5	06-05-1969	--	WA Be 35
42	6	X	60	R	06-23-1979	15	180	60	.12	1	06-23-1979	--	WA Be 36
49	6	X	100	R	09-13-1979	15	200	100	.15	1	09-13-1979	--	WA Be 37
35	6	X	45	R	10-16-1984	6.5	345	45	.02	2	10-16-1984	--	WA Be 38
75	6	X	26	R	08-13-1984	30	52	26	1.15	3	08-13-1984	--	WA Be 39
25	6	X	100	-	07-21-1976	6	185	100	.07	1	07-21-1976	--	WA Be 40
100	6	X	185	R	03-29-1971	20	195	185	2.0	2	03-29-1971	Q	WA Be 41
185	5												
29	6	X	15	R	04-15-1981	30	150	15	.22	2	04-15-1981	--	WA Be 42
54	6	X	130	R	02-17-1968	15	150	130	.75	1	02-17-1968	Q	WA Be 43
35	6	X	40	R	05-02-1969	100	115	40	1.33	.5	05-02-1969	--	WA Be 44
--	6	-	40	R	04-23-1969	50	128	40	.57	.5	04-23-1969	--	WA Be 45
45	6	X	30	R	11-10-1967	20	115	30	.24	.5	11-10-1967	--	WA Be 46
22	6	X	30	R	1967	4	85	30	.07	.5	1967	--	WA Be 47
80	6	X	84	R	08-24-1967	17	222	84	.12	8	08-24-1967	--	WA Be 48
30	6	X	28	R	10-15-1984	6	114	28	.07	2	10-15-1984	--	WA Be 49
42	6	X	30	R	06-03-1983	6	300	30	.02	3	06-03-1983	--	WA Be 50
61	6	X	50	R	07-02-1982	40	175	50	.32	3	07-02-1982	--	WA Be 51
--	--	W	29.69	S	05-23-1949	--	--	--	--	--	--	--	WA Bf 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bf 4
41	5	X	30	R	11-23-1949	8	50	30	.40	.8	11-23-1949	Q	WA Bf 5
--	6	-	15	R	06-03-1958	--	--	--	--	--	--	--	WA Bf 9
60	8	X	40	R	1938	12.5	--	40	--	--	1938	--	WA Bf 10
85	6	X	31	R	07 - 1951	10	85	31	.19	1	07 - 1951	--	WA Bf 11
45	6	X	15	R	02-16-1949	7	45	15	.23	1	02-16-1949	--	WA Bf 12
22.4	48	W	10.28	S	11-14-1958	--	--	--	--	--	--	--	WA Bf 13
45	6	X	30	R	05-06-1950	30	--	30	--	1	05-06-1950	--	WA Bf 14
40	6	X	10	R	02-25-1950	10	--	10	--	--	02-25-1950	--	WA Bf 15

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bf 17	WA-03-2271	SMITH, H P	J M HOFFMAN	09 - 1958	505	S	210	H	371CCCG
WA Bf 18	WA-03-1754	TOSTON, HARRY E	J M HOFFMAN	08 - 1958	460	S	53	H	371CCCG
WA Bf 19	--	TOSTON, HARRY E	--	--	460	S	20	U	371CCCG
WA Bf 21	WA-03-4952	KALMEY, LEE W	J M HOFFMAN	07-11-1959	405	S	63	H	371CCCG
WA Bf 22	WA-02-4196	POOLE, R A	J M HOFFMAN	09 - 1956	620	S	212	H	371ELBK
WA Bf 23	WA-03-4692	COHEN, ARCHIE R	K L TEACH	05-20-1959	625	S	143	H	371ELBK
WA Bf 25	WA-03-9851	C & O CANAL NATL PARK	J M HOFFMAN	01-04-1963	405	S	197.3	R	371CCCG
WA Bf 26	WA-05-2934	TOWN OF CLEAR SPRING	J M HOFFMAN	07-24-1963	740	V	185	P	347HDBG
WA Bf 27	WA-05-2935	TOWN OF CLEAR SPRING	J M HOFFMAN	07-26-1963	740	V	280	P	347HDBG
WA Bf 28	WA-05-2153	C & O CANAL NATL PARK	J M HOFFMAN	07-05-1963	380	T	247	P	371CCCG
WA Bf 29	WA-67-0072	TOWN OF CLEAR SPRING	J M HOFFMAN	09-27-1966	740	V	285	P	347HDBG
WA Bf 30	WA-67-0067	H A HESS INC	J M HOFFMAN	09-03-1966	540	S	300	U	371CCCG
WA Bf 31	WA-67-0067	H A HESS INC	J M HOFFMAN	09-08-1966	540	S	200	C	371CCCG
WA Bf 32	WA-69-0070	EXXON COMPANY	A R KEYSER	09-13-1968	540	S	429	C	371CCCG
WA Bf 33	WA-69-0004	CORBITT, JOHN G	J M HOFFMAN	07-19-1968	515	D	110	S	371CCCG
WA Bf 34	WA-69-0184	MCCUSKER, CHARLES P	C A CROMWELL	02-06-1969	605	H	405	H	371ELBK
	WA-81-0331		A&H DRILLING	11-05-1982					
WA Bf 35	WA-70-0037	HART, JAMES	J M HOFFMAN	08-08-1969	435	V	105	H	371CCCG
WA Bf 36	WA-69-0342	HORST, OTHO	J M HOFFMAN	06-26-1969	520	S	105	H	371CCCG
WA Bf 37	WA-69-0096	HORST, OTHO	J M HOFFMAN	09-18-1968	540	S	80	H	371CCCG
WA Bf 38	WA-81-0824	CH OF GOD LANES RUN	A&H DRILLING	08-30-1984	690	H	205	H	351TNLY
WA Bf 39	WA-81-0694	REED, JESSE	A&H DRILLING	03-30-1984	700	S	300	H	351TNLY
WA Bf 40	WA-81-0607	MINITER, TIMOTHY	A&H DRILLING	11-04-1983	700	S	160	H	347HDBG
WA Bf 41	WA-81-0435	SPERRY, RUSSELL	A&H DRILLING	10-15-1983	605	S	185	H	351TNLY
WA Bf 42	WA-73-0766	FENSKE, KARL	W LAMBERSON	07-29-1974	650	S	205	H	351TNLY
WA Bf 43	WA-72-0143	MCCARTY, RONALD	W LAMBERSON	11-19-1971	545	S	85	H	351TNLY
WA Bf 44	WA-73-1979	WEBER, ADAM	D H WOODWARD	08-10-1977	600	S	305	H	351TNLY
WA Bf 45	WA-73-2285	LANES RUN MENNONITE CH	JOHN SHAFF	06-14-1978	630	S	250	H	351TNLY
WA Bf 46	WA-71-0040	MONGAN, ROSE	K L TEACH	11-04-1971	540	S	87	H	347ORSK
WA Bf 47	WA-73-0966	KNABLE, DAVID	W LAMBERSON	02-07-1975	700	H	405	H	347ORSK
WA Bf 48	WA-73-0712	KRINER, DONALD	JOHN SHAFF	06-24-1974	700	H	250	H	347ORSK
WA Bf 49	WA-73-3454	SMITH, RICHARD	D H WOODWARD	08-07-1981	690	S	500	H	344RMNY
WA Bf 50	WA-73-2157	SERIG, CHARLES	D H WOODWARD	11-21-1977	735	S	345	H	347HDBG
WA Bf 51	WA-73-3465	STARTZMAN, STEVEN	H LUCAS	08-21-1981	730	S	320	H	351TNLY
WA Bf 52	WA-73-3002	ALESHIRE, TERRY	JOHN SHAFF	12-11-1979	630	S	225	H	351TNLY
WA Bf 53	WA-73-2316	BAUGHMAN, WILLIAM	JOHN SHAFF	06-29-1978	690	S	475	H	344RMNY
WA Bf 54	WA-73-1791	SMITH, PAGE	H LUCAS	04-09-1977	490	S	325	H	371CCCG
WA Bf 55	WA-81-0329	ROWE, ALLEN G	K L TEACH	12-10-1982	515	H	205	H	371CCCG
WA Bf 56	WA-73-3398	WIGFIELD, LINDA E	D H WOODWARD	12-10-1981	465	S	500	H	371CCCG
WA Bf 57	WA-73-0591	BISHOP, ERNEST J	H LUCAS	04-18-1974	435	S	145	H	371CCCG
WA Bf 58	WA-73-0409	BAKER, ROLAND	W LAMBERSON	09-27-1973	485	S	145	H	371CCCG
WA Bf 59	WA-73-3496	HEBB, STEPHEN	D H WOODWARD	06-24-1981	525	H	200	H	371CCCG
WA Bf 60	WA-73-3011	CRAIG, RICHARD	A&H DRILLING	01-21-1980	545	H	260	H	371CCCG
WA Bf 61	WA-73-2656	ELLIS, GEORGANA J	H LUCAS	03-27-1979	540	H	365	H	371CCCG
WA Bf 62	WA-73-1445	SHIVES, TERRY	W LAMBERSON	06-04-1976	510	S	305	H	371CCCG
WA Bf 63	WA-73-2274	CREEK, ERNEST	H LUCAS	06-29-1974	490	S	85	H	371CCCG
WA Bf 64	WA-81-0627	VANDEN, GEORGE W	A&H DRILLING	11-14-1983	450	F	245	H	371CCCG
WA Bf 65	WA-73-0316	SNYDER, FRED	W LAMBERSON	06-07-1973	450	F	115	H	371CCCG
WA Bf 66	WA-73-1072	TAYLOR, FONROSE	W LAMBERSON	06-02-1975	455	F	125	H	371CCCG
WA Bf 67	WA-81-0532	MICHAEL, LARRY F	JOHN SHAFF	08-26-1983	450	S	100	H	371CCCG
WA Bf 68	WA-73-2646	STOUFFER, JOHN	R ARDINGER	04-26-1979	435	S	100	H	371CCCG
WA Bf 69	WA-73-2997	BAUGHMAN, MIKE	A&H DRILLING	12-07-1979	480	S	210	H	371CCCG
WA Bf 70	WA-73-0737	WELLER, JOYCE L	JOHN SHAFF	06-30-1974	450	S	400	H	371CCCG
WA Bf 71	WA-73-2851	DAVIS, RICHARD	A&H DRILLING	07-18-1979	475	S	205	H	371CCCG
WA Bf 72	WA-73-2290	TEACH, NORMAN W	K L TEACH	08-22-1978	500	S	250	H	371CCCG
WA Bf 73	WA-73-2364	CLARK, DONNIE H	D H WOODWARD	06-15-1978	520	H	305	H	371CCCG
WA Bf 74	WA-73-1101	PICKENS, RANDY	W LAMBERSON	07-07-1975	500	H	405	H	371CCCG
WA Bf 75	WA-73-0531	MULLINIX, CHARLES	D H WOODWARD	03-09-1974	520	H	125	H	371CCCG
WA Bf 76	WA-73-0988	YORKA ENTERPRISE	C A CROMWELL	02-22-1975	580	H	100	H	371CCCG
WA Bf 77	WA-73-1479	KING, DANIEL A JR	W LAMBERSON	06-24-1976	575	S	105	H	371CCCG
WA Bf 78	WA-73-0445	SNYDER, LAWRENCE	W LAMBERSON	10-03-1973	585	S	245	H	371CCCG
WA Bf 79	WA-73-0929	KITZMILLER, JACK O	D H WOODWARD	12-03-1974	575	S	400	H	371CCCG
WA Bf 80	WA-81-0081	BLAIR, LARRY	A&H DRILLING	10-12-1981	650	S	265	H	347ORSK

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
22	6	X	35	R	09-09-1958	6	200	35	0.04	1	09 - 1958	--	WA Bf 17
29	6	X	22.45	S	04-21-1959	13	50	20	.43	.5	08 - 1958	--	WA Bf 18
20	36	W	19.5	S	04-21-1959	--	--	--	--	--	--	--	WA Bf 19
11	6	X	56.18	S	07-23-1959	5	60	55	1.0	.5	07-11-1959	--	WA Bf 21
--	--	-	70	R	09 - 1956	2	200	70	.02	1	09 - 1956	--	WA Bf 22
40	6	X	70	R	05-20-1959	24	--	70	--	1	05-20-1959	--	WA Bf 23
9	6	X	39.20	S	02-06-1963	17	40.13	39.20	18.28	24	02-07-1963	C,Q	WA Bf 25
25	6	X	50	R	07-24-1963	100	150	50	1.0	1	07-24-1963	--	WA Bf 26
45	6	X	50	R	07-26-1963	100	240	50	.53	1	07-26-1963	--	WA Bf 27
60	5												
38	6	X	22.89	S	07-25-1963	5	117.32	23.86	.05	24	07-25-1963	Q	WA Bf 28
55	6	X	17	R	09-27-1966	120	280	17	.46	8	09-27-1966	--	WA Bf 29
21	6	X	D	R	09-03-1966	0	--	--	--	--	09-03-1966	--	WA Bf 30
56	6	X	125	R	09-08-1966	6	160	125	.17	.5	09-08-1966	--	WA Bf 31
34	6	X	30	R	09-13-1968	11	--	30	--	1	09-13-1968	--	WA Bf 32
80	5.5	X	50	R	07-19-1968	12	98	50	.25	1	07-19-1968	--	WA Bf 33
30	6	X	55	R	11-05-1982	6	35	--	--	2	02-06-1969	--	WA Bf 34
--	--	-	55	R	11-05-1982	7	405	55	.02	2	11-05-1982	--	WA Bf 34
21	6	X	35	R	08-08-1969	100	100	35	1.54	1	08-08-1969	--	WA Bf 35
74	6	X	40	R	06-26-1969	100	95	40	1.82	--	06-26-1969	--	WA Bf 36
54	6	X	30	R	09-18-1968	15	75	30	.33	.5	09-18-1968	--	WA Bf 37
95	6	X	120	R	08-30-1984	10	205	120	.12	2	08-30-1984	--	WA Bf 38
145	5												
50	6	X	105	R	03-30-1984	10	300	105	.05	2	03-30-1984	--	WA Bf 39
265	5												
87	6	X	30	R	11-04-1983	50	160	30	.38	2	11-04-1983	--	WA Bf 40
76	6	X	50	R	10-15-1983	15	185	50	.11	2	10-15-1983	Q	WA Bf 41
140	5												
73	6	X	80	R	07-29-1974	10	185	80	.10	1	07-29-1974	--	WA Bf 42
22	6	X	30	R	11-19-1971	10	75	30	.22	1	11-19-1971	--	WA Bf 43
55	6	X	80	R	08-10-1977	3	200	80	.02	7	08-10-1977	--	WA Bf 44
70	6	X	36	R	06-14-1978	5	114	36	.06	3	06-14-1978	--	WA Bf 45
25	6	X	60	R	11-04-1971	8	70	60	.80	1	11-04-1971	--	WA Bf 46
45	6	X	150	R	02-07-1975	12	395	150	.05	1	02-07-1975	--	WA Bf 47
170	5												
127	6	X	100	R	06-24-1974	14	180	100	.17	3	06-24-1974	--	WA Bf 48
111	6	X	50	R	08-07-1981	1	500	50	.002	3	08-07-1981	--	WA Bf 49
260	6	X	150	R	11-21-1977	6	240	150	.07	4	11-21-1977	--	WA Bf 50
120	6	X	175	R	08-21-1981	5	300	175	.04	1	08-21-1981	--	WA Bf 51
205	5												
130	6	X	66	R	12-11-1979	12	114	66	.25	3	12-11-1979	--	WA Bf 52
200	6	X	40	R	06-29-1978	26	196	40	.17	3	06-29-1978	--	WA Bf 53
20	6	X	100	R	04-09-1977	3	300	100	.01	2	04-09-1977	--	WA Bf 54
32	6	X	60	R	12-10-1982	8	165	60	.08	1	12-10-1982	--	WA Bf 55
35	6	X	65	R	12-10-1981	30	500	65	.07	3	12-10-1981	--	WA Bf 56
114	5												
25	6	O	35	R	04-18-1974	7	100	35	.11	2	04-18-1974	--	WA Bf 57
68	5	X	50	R	09-27-1973	20	130	50	.25	1	09-27-1973	--	WA Bf 58
37	6	X	90	R	06-24-1981	25	200	90	.23	3	06-24-1981	--	WA Bf 59
142	5												
21	6	X	26	R	01-21-1980	5	40	26	.36	4	01-21-1980	--	WA Bf 60
20	6	X	110	R	03-27-1979	6	340	110	.03	1	03-27-1979	--	WA Bf 61
35	6	X	45	R	06-04-1976	2	290	45	.01	1	06-04-1976	--	WA Bf 62
21	6	X	40	R	06-29-1974	10	80	40	.25	1	06-29-1974	--	WA Bf 63
60	5												
40	6	X	60	R	11-14-1983	3	245	60	.02	2	11-14-1983	--	WA Bf 64
49	6	X	15	R	06-07-1973	30	110	15	.32	1	06-07-1973	--	WA Bf 65
80	6	X	30	R	06-02-1975	50	100	30	.71	1	06-02-1975	--	WA Bf 66
90	6	X	19	R	08-26-1983	50	39	19	2.50	3	08-26-1983	--	WA Bf 67
72	6	X	72	R	04-26-1979	100	100	72	3.57	2	04-26-1979	--	WA Bf 68
70	6	X	60	R	12-07-1979	50	210	60	.33	15	12-07-1979	--	WA Bf 69
105	5												
20	6	X	86	R	06-30-1974	12	141	86	.22	3	06-30-1974	--	WA Bf 70
40	6	X	45	R	07-18-1979	22	205	45	.14	2	07-18-1979	--	WA Bf 71
67	6	X	94	R	08-22-1978	20	210	94	.17	1	08-22-1978	--	WA Bf 72
30	6	X	65	R	06-15-1978	10	200	65	.07	3	06-15-1978	--	WA Bf 73
67	5												
25	6	X	45	R	07-07-1975	2	345	45	.01	1	07-07-1975	--	WA Bf 74
23	6	X	26	R	03-09-1974	12	100	26	.16	1	03-09-1974	--	WA Bf 75
78	6	X	35	R	02-22-1975	15	95	35	.25	2	02-22-1975	--	WA Bf 76
75	6	X	40	R	06-24-1976	30	85	40	.67	1	06-24-1976	--	WA Bf 77
115	6	X	60	R	10-03-1973	6	220	60	.04	1	10-03-1973	--	WA Bf 78
145	5												
21	6	X	20	R	12-03-1974	5	300	20	.02	3	12-03-1974	--	WA Bf 79
40	6	X	65	R	10-12-1981	20	265	65	.10	2	10-12-1985	--	WA Bf 80

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bf 81	WA-73-2451	FLEMING, DANIEL	H LUCAS	08-04-1978	590	S	125	H	371CCCG
WA Bf 82	WA-73-1353	COLLIFLOWER, LARRY	C A CROMWELL	02-17-1976	560	S	110	H	371CCCG
WA Bf 83	WA-73-2022	HARNISH, JAMES M	K L TEACH	11-18-1977	580	H	350	H	371CCCG
WA Bf 84	WA-73-0354	BLACK, DOUGLAS W	W LAMBERSON	08-20-1973	420	S	65	H	371CCCG
WA Bf 85	WA-81-0259	TRINITY CHURCH OF GOD	K L TEACH	09-24-1982	590	S	210	H	371CCCG
WA Bf 86	WA-73-0448	C & O CANAL NATL PARK	W LAMBERSON	10-02-1973	410	H	85	H	371CCCG
WA Bf 87	WA-81-0250	LONG, JOHN	D H WOODWARD	07-07-1982	510	S	400	U	344RMNY
WA Bf 88	WA-73-1630	ANKENEY, DAVID	H LUCAS	10-22-1976	470	F	225	H	371CCCG
WA Bf 89	WA-73-1519	ANKENEY, DAVID	W LAMBERSON	07-22-1976	470	F	105	H	371CCCG
WA Bf 90	WA-73-1250	ANKENEY, DAVID	W LAMBERSON	11-18-1975	470	F	305	H	371CCCG
WA Bf 91	WA-73-1253	ANKENEY, DAVID	W LAMBERSON	11-05-1975	465	F	85	H	371CCCG
WA Bf 92	WA-73-1248	ANKENEY, DAVID	W LAMBERSON	11-04-1975	505	F	125	H	371CCCG
WA Bf 93	WA-73-1247	ANKENEY, DAVID	W LAMBERSON	10-17-1975	510	F	325	H	371CCCG
	WA-73-1629		H LUCAS	10-27-76					
WA Bf 94	WA-73-1246	ANKENEY, DAVID	W LAMBERSON	10-21-1975	510	F	205	H	371CCCG
WA Bf 95	WA-73-1631	ANKENEY, DAVID	H LUCAS	10-21-1976	515	F	265	H	371CCCG
WA Bf 96	WA-73-1514	ANKENEY, DAVID	W LAMBERSON	07-26-1976	515	F	285	H	371CCCG
WA Bf 97	WA-73-3494	GREENSPRING WATER CO	A&H DRILLING	06-17-1981	495	W	105	B	344RMNY
WA Bf 98	WA-73-2835	SHIVE, BRUCE	H LUCAS	06-22-1979	560	H	140	H	344RMNY
WA Bf 99	WA-73-1991	CATON, JAMES	H LUCAS	08-26-1977	555	H	140	H	344RMNY
WA Bf 100	WA-73-2493	ABBOTT, EMMETT	R ARDINGER	09-12-1978	545	H	185	U	344RMNY
WA Bf 101	WA-73-2494	ABBOTT, EMMETT	R ARDINGER	09-13-1978	535	H	265	U	344RMNY
WA Bf 102	WA-73-2258	DUSTIN, MURRAY	R ARDINGER	09-07-1978	535	S	145	U	344RMNY
WA Bf 103	WA-73-2010	HARRIS, DARRELL E	D H WOODWARD	08-12-1977	550	H	265	H	344RMNY
WA Bf 104	WA-73-2255	ABBOTT, EMMETT	R ARDINGER	09-08-1978	540	H	225	U	344RMNY
WA Bf 105	WA-73-2260	BRANT, JERRY	R ARDINGER	04-25-1978	550	H	160	H	344RMNY
WA Bf 106	WA-73-2256	ABBOTT, EMMETT	R ARDINGER	09-11-1978	540	H	265	H	344RMNY
WA Bf 107	WA-81-0002	WOLFENSBERGER, RANDY B	D H WOODWARD	08-11-1981	540	H	300	H	344RMNY
WA Bf 108	WA-81-0529	STARLIPER, HAZEL	K L TEACH	09-05-1983	550	H	245	H	344RMNY
WA Bf 109	WA-73-2259	ABBOTT, EMMETT	R ARDINGER	09-06-1978	545	S	185	H	344RMNY
WA Bf 110	WA-81-0379	LOPES, ARTHUR	D H WOODWARD	01-18-1983	540	S	300	H	344RMNY
WA Bf 111	WA-73-0754	CORDELL, PAUL	JOHN SHAFF	07-18-1974	550	H	125	H	344RMNY
WA Bf 112	WA-81-0436	BELT, JR NORRIS A	A&H DRILLING	05-04-1983	545	H	120	H	344RMNY
WA Bf 113	WA-73-3489	WALKER, SAMUEL	K L TEACH	07-01-1981	535	H	150	H	344RMNY
WA Bf 114	WA-73-2556	HAMMOND, DONALD	D H WOODWARD	11-29-1978	550	H	150	H	344RMNY
WA Bf 115	WA-73-2252	FRUSH, DONALD R	D H WOODWARD	03-30-1978	510	H	125	H	344RMNY
WA Bf 116	WA-73-2704	FT FREDERICK STATE PK	R ARDINGER	04-05-1979	500	S	220	H	344RMNY
WA Bf 117	WA-73-2656	ELLIS, GEORGANA J	H LUCAS	03-27-1979	540	H	450	U	371CCCG
WA Bf 118	WA-73-3196	TOSTON, HARRY	A&H DRILLING	08-05-1980	505	H	140	H	371CCCG
WA Bf 119	WA-81-1071	REED, GERALD	A&H DRILLING	07-02-1985	745	S	285	H	351TNLY
WA Bf 120	WA-81-0995	ABBOTT, EMMETT	A&H DRILLING	04-15-1985	550	S	145	H	344RMNY
WA Bf 121	WA-69-0330	LANES RUN LODGE	C A CROMWELL	06-09-1969	555	S	145	H	351TNLY
WA Bf 122	WA-67-0112	CARBAUGH, CARL	M W SHATZER	11-24-1966	545	W	270	H	351TNLY
WA Bf 123	WA-73-0915	WINDY HILL RESTAURANT	JOHN SHAFF	11-04-1974	550	S	100	C	371CCCG
WA Bf 124	WA-81-0928	ERNST, GREGORY	K L TEACH	12-14-1984	455	S	105	H	367SNNG
WA Bf 125	WA-81-0035	GORDON, WILLIAM	D H WOODWARD	09-02-1981	465	S	475	H	371CCCG
WA Bf 126	WA-73-0425	RUTHERFORD, CLINTON E	W LAMBERSON	09-26-1973	480	H	145	H	367RCKR
WA Bf 127	WA-81-0510	MCCUSKER, CHARLES P	A&H DRILLING	07-15-1983	605	F	205	H	371ELBK
WA Bf 128	WA-67-0230	LTL NORTH MTN WATER CO	J M HOFFMAN	05-10-1967	830	H	255	P	347ORSK
WA Bf 129	WA-67-0230	LTL NORTH MTN WATER CO	J M HOFFMAN	05-01-1967	830	H	300	U	347ORSK
WA Bf 130	WA-73-2312	TOWN OF CLEAR SPRING	D H WOODWARD	05-15-1978	760	S	305	U	347HDBG
WA Bg 1	WA-00-8994	MARTIN, S DORSEY	J M HOFFMAN	11-07-1951	430	S	160	H	364CBBG
WA Bg 2	WA-02-6844	TEACH, GEORGE	W TEACH	05-10-1957	500	H	50	H	361MRBG
WA Bg 3	WA-02-0539	PINESBURG RURITAN CLUB	W TEACH	11-10-1955	505	H	58	H	361MRBG
WA Bg 4	--	CITY OF HAGERSTOWN	USGS	1958	360	V	21	U	110ALVM
WA Bg 5	--	CITY OF HAGERSTOWN	USGS	1958	360	V	27	U	110ALVM
WA Bg 6	--	CONOCOCHEAGUE PARK	USGS	09-09-1958	365	V	7	U	110ALVM
WA Bg 7	--	CONOCOCHEAGUE PARK	USGS	09-09-1958	366	V	14.5	U	110ALVM
WA Bg 8	WA-02-1749	MARTIN-MARIETTA CORP	J M HOFFMAN	02 - 1956	350	D	508	N	364STPL
WA Bg 9	WA-02-7648	STALEY AUTO PARTS	W TEACH	07-16-1957	475	S	65	C	364CBBG
WA Bg 10	WA-00-2287	TABLER, CHARLES	W TEACH	02-25-1949	455	S	100	H,S	361MRBG
WA Bg 11	--	TABLER, CHARLES	--	--	545	S	50	U	361MRBG
WA Bg 12	WA-02-9790	BAUTZ, DONALD J	J M HOFFMAN	03 - 1958	445	H	125	H	361MRBG
WA Bg 14	WA-01-0200	ERNEST, ORVILLE	W TEACH	04-29-1952	490	H	68	H	371CCCG
WA Bg 15	WA-00-5729	TOSTEN, GLENN O	W TEACH	05-04-1950	490	H	70	H	371CCCG
WA Bg 16	WA-00-1697	ERNST, ORVILLE M	W TEACH	08-15-1949	490	H	170	H	371CCCG
WA Bg 17	WA-02-1270	REPP, JAMES	K L TEACH	11-23-1955	510	H	134	H	367SNNG
WA Bg 18	WA-00-0634	MYERS, ROY	W TEACH	07-19-1946	490	F	72	H	371CCCG
WA Bg 19	--	VALLEY MARKET	W TEACH	1958	520	H	115	C	367RCKR

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
58	6	X	45	R	08-04-1978	15	100	45	0.27	1	08-04-1978	--	WA Bf 81
100	6	X	40	R	02-17-1976	20	100	40	.33	2	02-17-1976	--	WA Bf 82
20	6	X	100	R	11-18-1977	6	310	100	.03	1	11-18-1981	--	WA Bf 83
30	6	X	15	R	08-20-1973	20	60	15	.44	1	08-20-1973	--	WA Bf 84
55	5												
60	6	X	87	R	09-24-1982	30	165	87	.38	1	09-24-1982	--	WA Bf 85
204	5												
65	6	X	50	R	10-02-1973	15	75	50	.60	1	10-02-1973	--	WA Bf 86
70	6	X	40	R	07-07-1982	2	400	40	.01	4	07-07-1982	--	WA Bf 87
20	6	X	75	R	10-22-1976	7	200	75	.06	1	10-22-1976	--	WA Bf 88
25	6	X	40	R	07-22-1976	30	100	40	.50	1	07-22-1976	--	WA Bf 89
45	6	X	30	R	11-18-1975	3	280	30	.01	1	11-18-1975	--	WA Bf 90
45	6	X	35	R	11-05-1975	20	75	35	.50	1	11-05-1975	--	WA Bf 91
50	6	X	35	R	11-04-1975	30	110	35	.40	1	11-04-1975	--	WA Bf 92
37	7	X	100	R	10-27-1976	30	70	35	.86	1	10-17-1975	--	WA Bf 93
85	6					3	300	100	.01	1	10-27-76		
60	6	X	50	R	10-21-1975	4	185	50	.03	1	10-21-1975	--	WA Bf 94
43	6	X	70	R	10-21-1976	4	200	70	.03	1	10-21-1976	--	WA Bf 95
45	6	X	50	R	07-26-1976	4	225	50	.02	1	07-26-1976	--	WA Bf 96
21	6	X	F	-	11-14-1985	100	105	25	1.25	2	06-17-1981	--	WA Bf 97
42	6	X	40	R	06-22-1979	15	120	40	.19	1	06-22-1979	--	WA Bf 98
56	6	X	50	R	08-26-1977	8	120	50	.11	1	08-26-1977	--	WA Bf 99
45	6	X	40	R	09-12-1978	30	185	40	.21	3	09-12-1978	--	WA Bf 100
65	6	X	45	R	09-13-1978	10	265	45	.05	3	09-13-1978	--	WA Bf 101
45	6	X	35	R	09-07-1978	30	145	35	.27	3	09-07-1978	--	WA Bf 102
21	6	X	30	R	08-12-1977	8	125	30	.08	6	08-12-1977	--	WA Bf 103
45	6	X	35	R	09-08-1978	50	225	35	.26	3	09-08-1978	--	WA Bf 104
63	6	X	45	R	04-25-1978	20	160	45	.17	1	04-25-1978	--	WA Bf 105
70	6	X	40	R	09-11-1978	10	265	40	.04	3	09-11-1978	--	WA Bf 106
52	6	X	60	R	08-11-1981	30	300	60	.12	3	08-11-1981	--	WA Bf 107
63	6	X	50	R	09-05-1973	20	165	50	.17	1	09-05-1983	--	WA Bf 108
27	6	X	30	R	09-06-1978	23	185	30	.15	3	09-06-1978	--	WA Bf 109
35	6	X	50	R	01-18-1983	7	300	50	.03	3	01-18-1983	--	WA Bf 110
21	6	X	31	R	07-18-1974	15	58	31	.56	3	07-18-1974	--	WA Bf 111
21	6	X	40	R	05-04-1983	50	120	40	.62	1	05-04-1983	--	WA Bf 112
83	6	X	40	R	07-01-1981	30	110	40	.43	1	07-01-1981	--	WA Bf 113
54	6	X	50	R	11-29-1978	12	150	50	.12	2	11-29-1978	--	WA Bf 114
55	6	X	25	R	03-30-1978	40	--	25	--	2	03-30-1978	--	WA Bf 115
30	6	X	10	R	04-05-1979	15	220	10	.07	5	04-05-1979	--	WA Bf 116
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bf 117
57	6	X	70	R	08-05-1980	50	140	70	.71	5	08-05-1980	--	WA Bf 118
102	5												
60	6	X	120	R	07-02-1985	20	285	120	.12	2	07-02-1985	--	WA Bf 119
260	5												
30	6	X	50	R	04-15-1985	40	145	50	.42	2	04-15-1985	--	WA Bf 120
65	5												
40	6	X	--	-	--	10	45	--	--	2	06-09-1969	--	WA Bf 121
21	6	X	0	R	11-24-1966	5	200	0	--	6	11-24-1966	--	WA Bf 122
18	6	X	9	R	11-04-1974	12	42	9	.36	3	11-04-1974	--	WA Bf 123
20	6	X	42	R	12-14-1984	35	42	42	--	1	12-14-1984	--	WA Bf 124
20	6	X	60	R	09-02-1981	3	475	60	.01	4	09-02-1981	--	WA Bf 125
134	5	X	60	R	09-26-1973	15	140	60	.19	1	09-26-1973	--	WA Bf 126
25	6	X	35	R	07-15-1983	20	205	35	.12	2	07-15-1983	--	WA Bf 127
151	6	X	125	R	05-10-1967	50	248	125	.41	.5	05-10-1967	--	WA Bf 128
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bf 129
55	6	X	30	R	05-15-1978	150	120	30	1.67	2	05-15-1978	--	WA Bf 130
18	6	X	120	R	11-07-1951	6	150	120	.20	1	11-07-1951	Q	WA Bg 1
15	6	X	25	R	05-10-1957	7	30	25	1.40	1	05-10-1957	Q	WA Bg 2
36	6	X	20	R	11-10-1955	5	--	20	--	1	11-10-1955	--	WA Bg 3
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 4
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 5
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 6
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 7
4	6	X	10	R	02 - 1956	6	500	10	.01	1	02 - 1956	--	WA Bg 8
44	6	X	30	R	07-16-1957	6	--	30	--	1	07-16-1957	--	WA Bg 9
26	6	X	12	R	02-25-1949	20	30	12	1.11	3	02-25-1949	--	WA Bg 10
--	--	W	9.68	S	10-30-1958	--	--	--	--	--	--	--	WA Bg 11
12	6	X	50	R	03 - 1958	18	120	50	.26	.5	03 - 1958	--	WA Bg 12
12	6	X	30	R	04-19-1952	--	--	--	--	--	--	Q	WA Bg 14
26	6	X	45	R	05-04-1950	3	--	45	--	1	05-04-1950	--	WA Bg 15
50	6	X	60	R	08-15-1949	8	152	60	.09	4	08-15-1949	--	WA Bg 16
31	6	X	70	R	11-23-1955	5	--	70	--	1	11-23-1955	--	WA Bg 17
44	6	X	7	R	07-19-1946	5	65	30	.14	1	07-19-1946	--	WA Bg 18
--	6	-	40.06	S	11-18-1958	5	--	--	--	--	11-18-1958	--	WA Bg 19

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bg 20	--	WASHINGTON COUNTY	--	--	475	S	35	U	361MRBG
WA Bg 21	WA-03-1607	MYERS, LEROY E	K L TEACH	08-23-1958	505	H	40	H	367RCKR
WA Bg 22	WA-00-2395	HEIRONIMUS, PAUL B	J M HOFFMAN	03-22-1949	450	H	79	H	361MRBG
WA Bg 23	WA-03-0454	HUB CITY RACING INC	J M HOFFMAN	03 - 1958	375	V	41	C	361MRBG
WA Bg 24	WA-02-7339	IZAAC WALTON LEAGUE	J M HOFFMAN	09 - 1957	450	S	89	H	361MRBG
WA Bg 25	WA-01-2330	SCHWARTZ, FRED J	J M HOFFMAN	05 - 1953	465	U	67	H	367RCKR
WA Bg 26	WA-02-5573	WILES, LEWIS	W TEACH	01-26-1957	460	S	200	H	367RCKR
WA Bg 27	WA-03-1475	SNUG HARBOR CAMPGROUND	C E PIKE	06-21-1958	390	S	72	C,R	361MRBG
	WA-71-0066		K L TEACH	10-24-1970					
WA Bg 28	--	AMSLEY, LYNN	--	--	385	S	55.7	H	361MRBG
WA Bg 29	WA-02-4269	ST CLAIR, OSCAR H	J M HOFFMAN	08 - 1956	410	S	100	H	361MRBG
WA Bg 30	WA-01-4491	ST CLAIR, RICHARD	J M HOFFMAN	03-23-1954	410	S	113	H	361MRBG
WA Bg 31	WA-03-3548	RANDALL, GENE T	R ROBISON	02-24-1959	475	V	139	H	367SNNG
WA Bg 32	WA-02-9307	JOY, FLOYD	W MARTIN	12-11-1957	485	S	119	H	367RCKR
WA Bg 33	WA-02-5682	JOY, FLOYD	W MARTIN	12 - 1956	485	S	150	U	367RCKR
WA Bg 34	WA-02-5681	MILLS, REUBEN L	W MARTIN	12-27-1956	475	S	107	H	367SNNG
WA Bg 35	WA-03-2584	KEEFER, RUSSELL E	J M HOFFMAN	10 - 1958	510	S	240	H	361MRBG
WA Bg 36	WA-03-1232	HOFFMAN, M G	W TEACH	06-17-1959	530	H	55	H,S	361MRBG
WA Bg 37	WA-02-9965	SUNRISE HANDI-MART	K L TEACH	02-15-1958	520	S	50	C	361MRBG
WA Bg 38	WA-03-1253	MILES, MARY A	J M HOFFMAN	06 - 1958	520	S	52	H	367RCKR
WA Bg 39	WA-00-7006	DIMON, MRS E	J M HOFFMAN	03-09-1951	500	S	155	H	367RCKR
WA Bg 40	WA-01-4093	TEDERICK, WILLIAM	W TEACH	02 - 1954	480	S	145	H,S	367RCKR
WA Bg 41	WA-01-5740	ROBINSON, F W	W TEACH	07 - 1954	440	S	196	U	367RCKR
WA Bg 42	--	ROBINSON, F W	W TEACH	--	440	S	200	H,S	367RCKR
WA Bg 43	WA-05-7286	C & O CANAL NATL PARK	J M HOFFMAN	05-21-1964	350	V	147.2	H	361MRBG
WA Bg 44	WA-69-0152	EBY, CARL	K L TEACH	12-14-1968	545	H	100	H	371CCCG
WA Bg 45	WA-69-0322	TEDRICK, DONALD L	J M HOFFMAN	06-27-1969	550	H	82	H	371CCCG
WA Bg 46	WA-70-0002	MARTIN, LEONARD A	W LAMBERSON	07-19-1969	530	S	165	H,S	371CCCG
WA Bg 47	--	C & O CANAL NATL PARK	W LAMBERSON	05 - 1969	350	V	300	U	371CCCG
WA Bg 48	--	C & O CANAL NATL PARK	W LAMBERSON	05 - 1969	350	V	125	U	371CCCG
WA Bg 49	WA-70-0265	FIDEL, FRANK R	W LAMBERSON	05-07-1970	550	H	105	H	371CCCG
WA Bg 50	--	C & O CANAL NATL PARK	DELMARVA DRL	05 - 1970	350	T	150	U	367RCKR
WA Bg 51	WA-70-0052	SPRECHER, CLARENCE	W LAMBERSON	08-29-1969	470	H	225	U	364CBBG
WA Bg 52	WA-70-0016	MYERS, JACOB	W LAMBERSON	07-30-1969	440	V	85	H	367RCKR
WA Bg 53	WA-70-0330	DILLER, LEHMAN	W LAMBERSON	07-02-1970	500	H	265	H	371CCCG
WA Bg 54	WA-69-0298	BENNETT, ROBERT E	J M HOFFMAN	06-03-1969	490	H	245	H	371CCCG
WA Bg 55	WA-70-0233	GRAMS, ROBERT	W LAMBERSON	03-13-1970	475	V	185	H	367SNNG
WA Bg 56	WA-70-0093	HORNBAKER, LEO N	W LAMBERSON	09-15-1969	475	V	100	H	--
WA Bg 57	WA-73-0220	COLE, GREGORY	W LAMBERSON	02-15-1973	520	S	205	H	367SNNG
WA Bg 58	WA-73-0924	PAPER, GARY W	D H WOODWARD	11-30-1974	510	S	180	H	367SNNG
WA Bg 59	WA-73-0302	SAVAGE, CLYDE	D H WOODWARD	10-14-1973	500	S	155	H	367SNNG
WA Bg 60	WA-73-0111	HENDERSHOT, PERRY	D H WOODWARD	11-29-1972	480	S	300	H	367SNNG
WA Bg 61	WA-73-0242	MONGOLD, JAMES	W LAMBERSON	03-12-1973	480	S	125	H	367SNNG
WA Bg 62	WA-73-1828	BURLESON, TED	H LUCAS	05-03-1977	470	V	80	H	367SNNG
WA Bg 63	WA-72-0173	ZEPP, HAROLD F	ELDON FUNK	02-14-1972	490	S	150	H	367SNNG
WA Bg 64	WA-72-0194	CARBAUGH, KENNETH J	ELDON FUNK	03-07-1972	500	S	188	H	367SNNG
WA Bg 65	WA-71-0119	WELLER, WAYNE	W TEACH	1970	510	S	--	H	367SNNG
WA Bg 66	WA-73-0833	WILSON, JAMES	W LAMBERSON	10-15-1974	515	S	205	H	361MRBG
WA Bg 67	WA-73-0982	CEDAR RIDGE CHILD HOME	D H WOODWARD	12-16-1974	470	H	400	T	367PBGS
WA Bg 68	WA-73-0596	CEDAR RIDGE CHILD HOME	D H WOODWARD	03-19-1974	440	S	425	U	367PBGS
WA Bg 69	WA-81-0501	SYSTER, DELBERT	A&H DRILLING	08-30-1983	555	H	105	H	371CCCG
WA Bg 70	WA-73-2168	MEASE, DONALD L	D H WOODWARD	12-15-1977	490	F	405	H	371CCCG
WA Bg 71	WA-73-1890	SNYDER, CHARLES	D H WOODWARD	08-12-1977	465	V	405	H	367SNNG
WA Bg 72	WA-73-1595	STARLIPER, ROBERT	H LUCAS	09-14-1976	470	V	45	H	367SNNG
WA Bg 73	WA-73-2990	SEIBERT, KELLER	A&H DRILLING	12-12-1979	485	S	240	H	367SNNG
WA Bg 74	WA-81-0108	HALTEMAN, NORMAN A	JOHN SHAFF	11-12-1981	490	S	450	H,S	364CBBG
WA Bg 75	WA-66-0019	HALTEMAN, NORMAN A	JACK HARLEY	06-30-1965	475	V	59	U	367SNNG
WA Bg 76	WA-73-1311	BEARD, JAMES	W LAMBERSON	12-15-1975	490	S	125	H	371CCCG
WA Bg 77	WA-73-0016	SCHILDTKUCHT, DONALD	C A CROMWELL	08-17-1972	545	F	90	H	371CCCG
WA Bg 78	WA-66-0254	MARTIN, LEONARD	A&H DRILLING	03 - 1966	540	S	118	U	110MNWS
WA Bg 79	WA-73-3042	MILLS, CALVIN G	K L TEACH	12-03-1979	560	H	300	H	371CCCG
WA Bg 80	WA-73-2948	GRUBER, GARY E	K L TEACH	11-19-1979	560	H	620	H	371CCCG
WA Bg 81	WA-04-1250	MARTIN, JACOB E	J M HOFFMAN	12 - 1960	490	F	132	H,S	367RCKR
WA Bg 82	WA-73-3136	DIVELBISS, STEVEN L	K L TEACH	05-28-1980	460	H	155	H	367PBGS
WA Bg 83	WA-73-0543	REID, PAUL C	JOHN SHAFF	01-26-1974	465	H	215	H	367PBGS
WA Bg 84	WA-73-3151	CURRAN, NEIL W	K L TEACH	06-27-1980	540	S	125	H	371CCCG
WA Bg 85	WA-73-2190	GARGANA, TOM	H LUCAS	04-08-1978	565	H	105	H	371CCCG
WA Bg 86	WA-81-0194	BURGER, ROBERT	K L TEACH	05-05-1982	585	H	165	H	371CCCG
WA Bg 88	WA-73-0738	MYERS, AARON C	D H WOODWARD	11-18-1974	525	H	425	H	367PBGS
WA Bg 89	WA-73-1168	HOSE, KERMIT	W LAMBERSON	08-19-1975	535	H	405	H	367PBGS
WA Bg 90	WA-73-3414	BURKE, BENJAMIN	JOHN SHAFF	04-22-1981	500	S	425	H	367PBGS
WA Bg 91	--	MARTIN, JACOB E	--	--	525	F	38	U	110MNWS
WA Bg 92	WA-81-0373	KRETZER, GEORGE D	A&H DRILLING	01-18-1983	520	H	105	H	367RCKR
WA Bg 93	WA-73-0982	CEDAR RIDGE CHILD HOME	D H WOODWARD	12-16-1974	450	H	425	U	367PBGS

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
--	6	-	13.05	S	10-15-1958	--	--	--	--	--	--	--	WA Bg 20
11	6	X	30	R	08-23-1958	6	--	30	--	1	08-23-1958	--	WA Bg 21
21	6	X	25	R	03-22-1949	10	45	25	0.50	1	03-22-1949	--	WA Bg 22
30	6	X	5	R	03 - 1958	30	30	5	1.20	.5	03 - 1958	--	WA Bg 23
40	6	X	40	R	09 - 1957	18	80	40	.45	1	09 - 1957	--	WA Bg 24
11	6	X	35	R	05 - 1953	20	60	35	.80	.5	05 - 1953	--	WA Bg 25
10	6	X	100	R	01-26-1957	5	--	100	--	1	01-26-1957	--	WA Bg 26
21	6	X	15	R	10-24-1970	8	56	30	.31	1	06-21-1958	Q	WA Bg 27
						10	--	15	--	1	10-24-1970		
--	6	-	17.61	S	04-16-1959	--	--	--	--	--	--	--	WA Bg 28
10	6	X	40	R	08 - 1956	20	80	40	.50	.5	08 - 1956	--	WA Bg 29
11	6	X	40	R	03-23-1954	4	110	40	.06	.5	03-23-1954	--	WA Bg 30
20	6	X	35	R	02-24-1959	2	139	35	.02	--	02-24-1959	--	WA Bg 31
14	6	X	43.16	S	04-21-1959	4	80	12	.06	2	12-11-1957	--	WA Bg 32
34	6	X	--	-	--	--	--	--	--	--	--	--	WA Bg 33
20	6	X	30	R	12-27-1956	8	50	30	.40	2	12-27-1956	--	WA Bg 34
23	6	X	35	R	10 - 1958	2	235	35	.01	1	10 - 1958	--	WA Bg 35
22	6	X	30.36	S	07-15-1959	6	--	25	--	1	06-17-1958	--	WA Bg 36
13	6	X	30	R	02-15-1958	6	--	30	--	1	02-15-1958	--	WA Bg 37
18	6	X	20	R	06 - 1958	30	30	20	3.0	.5	06 - 1958	Q	WA Bg 38
20	6	X	6	R	03-09-1951	1	150	6	.01	.5	03-09-1951	--	WA Bg 39
22	6	X	100	R	02 - 1954	1	--	100	--	1	02 - 1954	--	WA Bg 40
10	6	X	30.7	S	06-18-1959	1	--	195	--	1	07 - 1954	--	WA Bg 41
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 42
32	6	X	15.66	S	05-28-1964	20	24.22	15.66	2.34	24	05-28-1964	Q	WA Bg 43
84	6	X	60	R	12-14-1968	5	80	60	.25	1	12-14-1968	--	WA Bg 44
78	6	X	45	R	06-27-1969	30	80	45	.86	.5	06-27-1969	--	WA Bg 45
47	6	X	30	R	07-19-1969	15	100	30	.21	.5	07-19-1969	--	WA Bg 46
--	--	X	D	R	05 - 1969	0	--	--	--	--	05 - 1969	C	WA Bg 47
--	--	X	D	R	05 - 1969	0	--	--	--	--	05 - 1969	C	WA Bg 48
65	6	X	53.16	S	05-28-1970	50	90	40	1.0	1	05-07-1970	--	WA Bg 49
--	--	X	D	R	05 - 1970	0	--	--	--	--	05 - 1970	--	WA Bg 50
20	6	X	35.01	S	08-03-1970	1	125	31	.01	1	08-29-1969	--	WA Bg 51
20	6	X	52	R	07-30-1969	10	71	52	.53	1	07-30-1969	--	WA Bg 52
40	6	X	40	R	07-02-1970	10	260	40	.05	1	07-02-1970	--	WA Bg 53
20	6	X	50	R	06-03-1969	1.5	90	50	.04	.5	06-03-1969	--	WA Bg 54
25	6	X	40	R	03-13-1970	50	175	40	.37	1	03-13-1970	--	WA Bg 55
45	6	X	45	R	09-15-1969	60	90	45	1.33	1	09-15-1969	--	WA Bg 56
50	6	X	30	R	02-15-1973	10	180	30	.07	1	02-15-1973	--	WA Bg 57
23	6	X	50	R	11-30-1974	15	150	50	.15	3	11-30-1974	--	WA Bg 58
20	6	X	50	R	10-14-1973	20	100	50	.40	2	10-04-1973	--	WA Bg 59
20	6	X	35	R	11-29-1972	1	300	35	.004	2	11-29-1972	--	WA Bg 60
27	6	X	20	R	03-12-1973	10	75	20	.18	1	03-12-1973	--	WA Bg 61
20	6	X	25	R	05-03-1977	20	60	25	.57	1	05-03-1977	--	WA Bg 62
44	6	X	37	R	02-14-1972	2	140	37	.02	1	02-14-1972	--	WA Bg 63
30	6	X	48	R	03-07-1972	5	140	48	.05	1	03-07-1972	--	WA Bg 64
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 65
65	6	X	50	R	10-15-1974	5	150	50	.05	1	10-15-1974	--	WA Bg 66
20	6	X	20	R	12-16-1974	3	400	20	.01	1	12-16-1974	--	WA Bg 67
20	6	X	40	R	03-19-1974	3	400	40	.01	1	03-19-1974	--	WA Bg 68
75	6	X	60	R	08-30-1983	20	105	60	.44	2	08-30-1983	--	WA Bg 69
20	6	X	40	R	12-15-1977	1	325	40	.004	4	12-15-1977	--	WA Bg 70
--	6	-	25	R	08-12-1977	2	375	25	.01	10	08-12-1977	--	WA Bg 71
22	6	X	20	R	09-14-1976	8	35	20	.53	1	09-14-1976	--	WA Bg 72
32	6	X	10	R	12-12-1979	8	240	10	.03	3	12-12-1979	--	WA Bg 73
50	6	X	68	R	11-12-1981	15	210	68	.11	3	11-12-1981	--	WA Bg 74
14	6	X	20	R	06-30-1965	15	55	20	.43	1	06-30-1965	--	WA Bg 75
60	6	X	45	R	12-15-1975	20	120	45	.27	1	12-15-1975	--	WA Bg 76
55	6	X	45	R	08-17-1972	20	85	45	.50	3	08-17-1972	--	WA Bg 77
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 78
66	6	X	100	R	12-03-1979	6	255	100	.04	1	12-03-1979	--	WA Bg 79
64	6	X	50	R	11-19-1979	2.50	470	50	.01	1	11-19-1979	--	WA Bg 80
44	6	X	--	-	--	50	--	--	--	5	12 - 1960	--	WA Bg 81
41	6	X	20	R	05-28-1980	80	75	20	1.45	1	05-28-1980	--	WA Bg 82
20	6	X	30	R	01-26-1974	30	56	28	1.07	3	01-26-1974	--	WA Bg 83
99	6	X	40	R	06-27-1980	45	75	40	1.29	1	06-27-1980	--	WA Bg 84
89	6	X	55	R	04-08-1978	10	90	55	.29	1	04-08-1978	--	WA Bg 85
--	--	-	43	R	05-05-1982	15	145	43	.15	1	05-05-1982	--	WA Bg 86
20	6	X	30	R	11-18-1974	2	300	30	.01	3	11-18-1974	--	WA Bg 88
25	6	X	55	R	08-19-1975	2	270	55	.01	1	08-19-1975	--	WA Bg 89
29	6	X	28	R	04-22-1981	3	326	28	.01	3	04-22-1981	Q	WA Bg 90
38	36	W	30.31	S	11-27-1985	--	--	--	--	--	--	O	WA Bg 91
25	6	X	35	R	01-18-1983	100	105	35	1.43	2	01-18-1983	--	WA Bg 92
20	6	X	19.30	S	11-07-1985	3	425	20	.01	1	12-16-1974	O	WA Bg 93

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bg 94	WA-65-0189	CEDAR RIDGE CHILD HOME	K L TEACH	03-31-1965	450	H	80	U	367PBGS
WA Bg 95	WA-73-0461	MILLS, GARRETT C JR	W LAMBERSON	12-14-1974	555	H	500	U	371CCCG
WA Bg 96	WA-65-0215	THOMPSON, DONALD E	W TEACH	05-27-1965	500	F	60	H	367SNNG
WA Bg 97	WA-81-0580	MICHAEL, ANDREW J	JOHN SHAFF	10-08-1983	485	F	230	H	371CCCG
WA Bg 98	WA-81-0940	GOLDEN, TERRY	A&H DRILLING	01-07-1984	485	F	385	H	371CCCG
WA Bg 99	WA-81-0790	CUNNINGHAM, CHARLES C	JOHN SHAFF	09-17-1984	490	F	500	H	371CCCG
WA Bg 100	WA-81-0846	CUNNINGHAM, CHARLES C	JOHN SHAFF	09-14-1984	490	F	300	H	371CCCG
WA Bg 101	WA-73-1022	SHAW, RONALD	W LAMBERSON	04-07-1975	490	F	145	H	371CCCG
WA Bg 102	WA-73-2099	GEHR, JOE JR	H LUCAS	11-22-1977	475	F	100	H	371CCCG
WA Bg 103	WA-73-3223	HART, FREDERICK R	K L TEACH	10-06-1980	505	F	200	H	371CCCG
WA Bg 104	WA-81-0112	SHIRK, CHARLES E	A&H DRILLING	11-18-1981	470	F	320	H	367RCKR
WA Bg 105	WA-66-0293	ERNST, ORVILLE M	W TEACH	05-06-1966	490	F	75	H	371CCCG
WA Bg 106	WA-81-0986	GOZORA, ARNOLD	D H WOODWARD	04-09-1985	490	S	300	H	371CCCG
WA Bg 107	WA-73-1092	HENSON, RONALD	H LUCAS	06-18-1975	505	H	225	H	371CCCG
WA Bg 108	WA-81-1204	ROHRER, RODRICK	H LUCAS	10-21-1985	495	H	590	H	371CCCG
WA Bg 109	WA-81-1172	MARTIN, LEONARD	A&H DRILLING	09-25-1985	550	S	85	H	371CCCG
WA Bg 110	WA-73-2325	PINESBURG MENNONITE CH	JOHN SHAFF	05-29-1978	475	F	175	H	364CBBG
WA Bg 111	--	MARTIN MARIETTA AGGREG	--	--	460	S	--	N	361MRBG
WA Bg 112	WA-73-2152	MARTIN MARIETTA AGGREG	D H WOODWARD	11-21-1977	465	S	250	U	361MRBG
WA Bg 113	WA-73-3300	TOWN OF WILLIAMSPORT	A&H DRILLING	06-11-1986	510	S	275	H	361MRBG
WA Bg 114	WA-73-3173	BURGAN, WILLIAM	D H WOODWARD	09-24-1980	515	F	400	H	367SNNG
WA Bg 116	WA-73-0229	SNUG HARBOR CAMPGROUND	K L TEACH	04-25-1973	470	H	210	U	361MRBG
WA Bg 117	WA-81-0614	STRITE, BARBARA	A&H DRILLING	10-31-1983	465	H	360	H	367RCKR
WA Bg 118	WA-81-0059	STRITE, ADRIAN J	H LUCAS	09-21-1981	460	H	105	H	367RCKR
WA Bg 119	WA-81-0059	STRITE, ADRIAN J	H LUCAS	09-21-1981	460	H	85	U	367RCKR
WA Bg 120	WA-81-0060	STRITE, WAYNE	H LUCAS	09-22-1981	437	S	85	H	367RCKR
WA Bg 121	WA-81-0060	STRITE, WAYNE	H LUCAS	09-22-1981	437	S	65	U	367RCKR
WA Bg 122	WA-81-0060	STRITE, WAYNE	H LUCAS	09-22-1981	437	S	65	U	367RCKR
WA Bg 123	WA-81-0060	STRITE, WAYNE	H LUCAS	09-22-1981	437	S	65	U	367RCKR
WA Bg 124	WA-81-0912	HOTT, MICHAEL	A&H DRILLING	12-04-1984	490	S	105	H	361MRBG
WA Bg 125	WA-81-0988	KRINER, KENNETH E	K L TEACH	04-01-1985	420	W	205	U	371CCCG
WA Bg 126	WA-81-0966	KRINER, KENNETH	K L TEACH	03-11-1985	415	W	85	H	371CCCG
WA Bg 127	WA-73-1352	YEAKLE, JOHN C	W LAMBERSON	02-25-1976	465	H	345	H	367RCKR
WA Bg 128	WA-73-3039	NEWKIRK, WILLIAM D	JOHN SHAFF	01-17-1980	460	U	75	H	367RCKR
WA Bg 129	WA-73-2764	KRETZER, BARBARA	R ARDINGER	05-11-1979	465	U	400	H	367RCKR
WA Bg 130	WA-73-0858	ORNDORFF, RAY	W LAMBERSON	10-07-1974	485	H	425	H	367RCKR
WA Bg 131	WA-68-0230	ERNST, ORVIL	W TEACH	01-27-1969	475	U	300	H	367SNNG
WA Bg 132	WA-73-3133	MELLOTT, DALE	D H WOODWARD	06-05-1980	445	S	225	H	367RCKR
WA Bg 133	WA-73-3461	MOATS, RUSSELL	D H WOODWARD	05-21-1981	445	S	300	H	367RCKR
WA Bg 134	WA-67-0188	MYERS, JACOB	W TEACH	03-24-1967	440	F	55	U	367RCKR
WA Bg 135	WA-73-0325	MARTIN, DAVID	C A CROMWELL	09-07-1973	480	S	100	H	364CBBG
WA Bg 136	WA-73-1913	SCHETROPHF, STANLEY	H LUCAS	08-05-1977	490	S	100	H	361MRBG
WA Bg 137	WA-73-2822	LEWIS, BASIL E	D H WOODWARD	06-14-1979	480	S	127	H	364CBBG
WA Bg 138	WA-73-2791	KRINER, JAMES	JOHN SHAFF	06-14-1979	445	S	125	H	371CCCG
WA Bg 139	WA-81-1311	REPP, G SANDRA	K L TEACH	04-04-1986	470	H	355	H	367RCKR
WA Bg 140	WA-81-1315	HENSON, WANK	A&H DRILLING	04-10-1986	465	F	125	H	361MRBG
WA Bg 141	WA-73-1854	MULLENDORE, JOHN	H LUCAS	05-16-1977	465	H	500	H	371CCCG
WA Bg 142	WA-73-2976	WADE, RICHARD	A&H DRILLING	11-15-1979	490	H	100	H	364CBBG
WA Bg 143	WA-81-0548	SHANK, DONALD	A&H DRILLING	08-30-1983	465	S	120	H	361MRBG
WA Bg 144	WA-73-1548	BREKBILL, ROBERT	K L TEACH	08-20-1976	460	F	125	H	361MRBG
WA Bg 145	WA-73-2011	WEAVER, ROBERT W	D H WOODWARD	08-18-1977	520	H	75	H	361MRBG
WA Bg 146	WA-81-0282	SHIFLETT, IRMA B	JOHN SHAFF	09-30-1982	490	W	100	H	361MRBG
WA Bg 147	WA-73-3038	SHIFLETT, IRMA B	JOHN SHAFF	12-20-1979	525	H	125	H	361MRBG
WA Bg 148	WA-81-1209	SHADY BOWER SUNOCO	JOHN SHAFF	10-16-1985	523	H	100	C	367RCKR
WA Bg 149	WA-71-0376	SMITH, KENNETH	W LAMBERSON	07-19-1971	480	F	365	H	364CBBG
WA Bg 150	WA-05-4042 WA-65-0074	SUNRISE HANDI MART	J M HOFFMAN	09-03-1964	520	S	205	C	361MRBG
WA Bg 151	WA-71-0117	HI-LO OIL	W LAMBERSON	11-06-1970	440	H	505	U	364STPL
WA Bg 152	WA-73-3228	SHAMROCK INN	K L TEACH	09-16-1980	460	H	125	C	361MRBG
WA Bg 153	WA-73-1786	BRYSON, G W	D H WOODWARD	03-31-1977	440	H	305	H	364CBBG
WA Bg 154	--	FOP PANGBORN LODGE	--	--	375	G	--	U	361MRBG
WA Bg 155	--	FOP PANGBORN LODGE	--	--	375	G	--	U	361MRBG
WA Bg 156	WA-81-1500	FOP PANGBORN LODGE	A&H DRILLING	09-03-1986	380	G	185	H	361MRBG
WA Bg 157	WA-81-0345	CEDAR RIDGE CHILD HOME	D H WOODWARD	12-03-1982	440	S	400	T	367PBGS
WA Bh 1	--	CSX CORPORATION	J M HOFFMAN	08-09-1940	540	T	82	H	367RCKR
WA Bh 2	--	CSX CORPORATION	J M HOFFMAN	08-17-1940	530	F	52	U	367RCKR
WA Bh 3	--	GROH, GARLAND	--	--	545	F	218	U	367RCKR
WA Bh 4	--	CSX CORPORATION	--	1940	580	S	32	U	367RCKR
WA Bh 5	--	--	--	1842	445	F	44.3	U	367RCKR
WA Bh 6	--	VICTOR CUSHWA & SONS	S A DOWNIN	1905	385	T	141	U	361MRBG
WA Bh 7	--	VICTOR CUSHWA & SONS	S A DOWNIN	1917	385	T	120	U	361MRBG
WA Bh 8	WA-01-7778	--	J M HOFFMAN	04 - 1955	555	F	96	H	367RCKR
WA Bh 9	WA-00-1096	JAMES, FRANK	J M HOFFMAN	01-30-1947	420	H	80	H	367SNNG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
20	6	X	40	R	03-31-1965	10	--	40	--	2	03-31-1965	--	WA Bg 94
45	6	X	35	R	12-14-1974	1	185	35	0.01	1	12-14-1974	--	WA Bg 95
46	6	X	50	R	05-27-1965	15	50	50	--	1	05-27-1965	--	WA Bg 96
40	6	X	16	R	10-08-1983	4	58	16	.10	3	10-08-1983	--	WA Bg 97
55	6	X	45	R	01-07-1984	2	385	45	.01	2	01-07-1984	--	WA Bg 98
40	6	X	18	R	09-17-1984	3	266	18	.01	3	09-17-1984	--	WA Bg 99
21	6	X	12	R	09-14-1984	4	114	12	.04	3	09-14-1984	--	WA Bg 100
35	6	X	35	R	04-07-1975	15	135	35	.15	1	04-07-1975	--	WA Bg 101
20	6	X	30	R	11-22-1977	12	80	30	.24	1	11-22-1977	--	WA Bg 102
25	6	X	50	R	10-06-1980	20	130	50	.25	1	10-06-1980	--	WA Bg 103
35	6	X	60	R	11-18-1981	3	320	60	.01	1.5	11-18-1981	--	WA Bg 104
99	5												
54	6	X	45	R	05-06-1966	8	50	45	1.60	1	05-06-1966	--	WA Bg 105
53	6	X	40	R	04-09-1985	10	300	40	.04	4	04-09-1985	--	WA Bg 106
20	6	X	75	R	06-18-1975	3	205	75	.02	2	06-18-1975	--	WA Bg 107
20	6	X	200	R	10-21-1985	8	580	200	.02	1	10-21-1985	--	WA Bg 108
71	6	X	40	R	09-25-1985	20	85	40	.44	2	09-25-1985	--	WA Bg 109
74	6	X	36	R	05-29-1978	15	84	36	.31	3	05-29-1978	--	WA Bg 110
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bg 111
40	6	X	30	R	11-21-1977	22	70	30	.55	2	11-21-1977	O	WA Bg 112
26	5	X	30	R	11-05-1980	5	120	30	.06	2	11-05-1980	--	WA Bg 113
20	6	X	60	R	09-24-1980	7	400	60	.02	2	09-24-1980	--	WA Bg 114
55	6	X	40	R	04-25-1973	60	170	40	.46	1	04-25-1973	--	WA Bg 116
21	6	X	65	R	10-31-1983	5	360	65	.02	2	10-31-1983	--	WA Bg 117
25	6	X	50	R	09-21-1981	8	85	50	.23	1	09-21-1981	--	WA Bg 118
--	--	X	D	R	09-21-1981	0	--	--	--	--	09-21-1981	--	WA Bg 119
20	6	X	40	R	09-22-1981	6	80	40	.15	1	09-22-1981	--	WA Bg 120
--	--	X	D	R	09-22-1981	0	--	--	--	--	09-22-1981	--	WA Bg 121
--	--	X	D	R	09-22-1981	0	--	--	--	--	09-22-1981	--	WA Bg 122
--	--	X	D	R	09-22-1981	0	--	--	--	--	09-22-1981	--	WA Bg 123
28	6	X	35	R	12-04-1984	5	105	35	.07	2	12-04-1984	--	WA Bg 124
20	6	X	10.43	S	06-24-1986	--	--	--	--	--	--	O	WA Bg 125
20	6	X	10	R	03-11-1985	100	85	10	1.33	1	03-11-1985	--	WA Bg 126
35	6	X	30	R	02-25-1976	1	265	30	.004	1	02-25-1976	--	WA Bg 127
54	6	X	26	R	01-17-1980	18	33	26	2.57	3	01-17-1980	--	WA Bg 128
20	6	X	20	R	05-11-1979	1.5	400	20	.004	10	05-11-1979	--	WA Bg 129
22	6	X	--	-	--	--	--	--	--	--	--	--	WA Bg 130
39	6	X	40	R	01-27-1969	1	300	40	.004	1	01-27-1969	--	WA Bg 131
20	6	X	50	R	06-05-1980	8	225	50	.05	2	06-05-1980	--	WA Bg 132
40	6	X	30	R	05-21-1981	5	300	30	.02	3	05-21-1981	--	WA Bg 133
22	6	X	30	R	03-24-1967	6	35	30	1.20	1	03-24-1967	--	WA Bg 134
21	6	X	30	R	09-07-1973	20	90	30	.33	2	09-07-1973	--	WA Bg 135
42	6	X	30	R	08-05-1977	12	80	30	.24	1	08-05-1977	--	WA Bg 136
43	6	X	36	R	06-14-1979	12	110	36	.16	2	06-14-1979	--	WA Bg 137
59	6	X	54	R	06-14-1979	10	84	52	.31	3	06-14-1979	--	WA Bg 138
45	6	X	42	R	04-04-1986	20	50	42	2.50	1	04-04-1986	--	WA Bg 139
22	6	X	40	R	04-10-1986	20	125	40	.24	2	04-10-1986	--	WA Bg 140
20	6	X	150	R	05-16-1977	2	450	150	.01	2	05-16-1977	--	WA Bg 141
29	6	X	40	R	11-15-1979	40	100	45	.73	2	11-15-1979	--	WA Bg 142
42	6	X	20	R	08-30-1983	25	120	20	.25	2	08-30-1983	--	WA Bg 143
46	6	X	30	R	08-20-1976	15	35	30	3.0	1	08-20-1976	--	WA Bg 144
46	6	X	20	R	08-18-1977	20	50	20	.67	2	08-18-1977	--	WA Bg 145
21	6	X	12	R	09-30-1982	36	44	12	1.12	3	09-30-1982	--	WA Bg 146
42	5	X	24	R	12-20-1979	14	125	24	.14	3	12-20-1979	--	WA Bg 147
55	6	X	14	R	10-16-1985	50	26	14	4.17	3	10-16-1985	--	WA Bg 148
35	6	X	50	R	07-19-1971	1	330	50	.004	1	07-19-1971	--	WA Bg 149
28	6	X	50	R	10-11-1963	30	75	50	1.20	.5	10-11-1963	--	WA Bg 150
						20					09-03-1964		
21	6	X	62.31	S	12-29-1986	.25	--	--	--	1	11-06-1970	--	WA Bg 151
79	6	X	60	R	09-12-1980	25	95	60	.71	1	09-16-1980	--	WA Bg 152
22	6	X	40	R	03-31-1977	6	160	40	.05	3	03-31-1977	--	WA Bg 153
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bg 154
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bg 155
25	6	X	30	R	09-03-1986	15	185	30	.10	2	09-03-1986	--	WA Bg 156
21	6	X	25	R	12-03-1982	8	400	25	.02	4	12-03-1982	--	WA Bg 157
10	5	X	50	R	08-09-1940	24	--	50	--	--	08-09-1940	--	WA Bh 1
10	6	X	30	R	08-17-1940	6	--	30	--	--	08-17-1940	--	WA Bh 2
40.2	72	X	22.82	S	03-16-1984	--	--	--	--	--	--	O	WA Bh 3
--	6	-	22.9	S	12-18-1956	--	--	--	--	--	--	--	WA Bh 4
44.3	48	W	42.07	S	07-31-1957	--	--	--	--	--	--	--	WA Bh 5
--	6	-	95	R	1905	9	--	95	--	--	1905	--	WA Bh 6
--	6	-	10	R	1917	50	--	10	--	--	1917	--	WA Bh 7
21	6	X	30	R	04 - 1955	30	60	30	1.0	1	04 - 1955	--	WA Bh 8
40	6	X	55	R	01-30-1947	6	65	55	.60	1	01-30-1947	--	WA Bh 9

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bh 10	WA-00-0387	MINER, HAROLD C	J M HOFFMAN	05-09-1946	560	S	85	H	367RCKR
WA Bh 11	--	W F PRYOR CO INC	--	1925	545	S	50	U	367SNNG
WA Bh 12	WA-00-2339	HOPEWELL MANOR APTS	J M HOFFMAN	04 - 1949	475	F	88	U	367RCKR
WA Bh 17	WA-00-3304	HAGERSTOWN NURSERY	W TEACH	10-27-1949	560	F	125	I	367RCKR
WA Bh 22	--	CSX CORPORATION	--	--	390	S	48	U	361MRBG
WA Bh 27	WA-03-2583	WACOHU GRANGE	J M HOFFMAN	11 - 1958	490	F	54	C	364STPL
WA Bh 33	WA-03-6158	COSGROVE, MARION	R ROBISON	04-23-1959	475	F	210	H	367RCKR
WA Bh 34	WA-03-1940	DIBO, HELEN	M LANDIS	09-12-1958	485	S	65	H	367PBGS
WA Bh 35	WA-03-3013	STINE, ROY C	J M HOFFMAN	12 - 1958	485	S	67	H	367PBGS
WA Bh 36	WA-02-9720	BYERS, WILLIAM A	J M HOFFMAN	02 - 1958	530	S	162	H	361MRBG
WA Bh 37	WA-03-2270	BYERS, WILLIAM A	J M HOFFMAN	09 - 1958	480	S	110	S	367PBGS
WA Bh 38	WA-03-2956	MELLOTT, ROSS	J M HOFFMAN	11 - 1958	465	F	80	H	361MRBG
WA Bh 39	WA-00-3094	RUSSELL, WILLIAM K	J M HOFFMAN	08-08-1949	555	F	120	H	367RCKR
WA Bh 40	WA-01-1004	SHOOK, L E	R ROBISON	10-15-1952	550	F	50	H	367RCKR
WA Bh 41	WA-03-0989	BENNETT, DONALD E	J M HOFFMAN	06 - 1958	545	F	99	H	367RCKR
WA Bh 42	WA-00-0649	HUFFMAN, D M	C E PIKE	07-23-1946	490	F	51	H	367PBGS
WA Bh 43	WA-00-0389	HUFFMAN, E W	C E PIKE	05-07-1946	525	H	57	C,H	361MRBG
WA Bh 44	WA-00-8978	GIGOUS, RUSSELL	J M HOFFMAN	10 - 1951	520	H	50	H	361MRBG
WA Bh 45	WA-00-2408	FOCKLER, GEORGE S	J M HOFFMAN	03-22-1949	485	H	86	S	361MRBG
WA Bh 46	WA-01-4307	KNICELY, RONALD	J M HOFFMAN	03 - 1954	420	S	82	H	361MRBG
WA Bh 47	WA-02-6273	ZELLO, FRANK	J M HOFFMAN	03 - 1957	415	S	60	H	361MRBG
WA Bh 48	WA-00-4246	GOOD, GEORGE C	J M HOFFMAN	07-06-1949	490	S	66	H	361MRBG
WA Bh 49	WA-02-9124	WINTERMEYER, C FRED	J M HOFFMAN	11 - 1957	460	F	91	H,S	367SNNG
WA Bh 50	WA-00-2361	HIGGINS, F W	J M HOFFMAN	03-27-1949	560	F	90	H	367RCKR
WA Bh 51	WA-02-7840	RYAN, A G	J M HOFFMAN	08 - 1957	625	F	210	H	367RCKR
WA Bh 52	WA-02-9551	BOSTETTER, MARVIN	W MARTIN	12-28-1957	570	F	90	H	367RCKR
WA Bh 53	--	HIGGINS, F W	--	--	545	S	67.4	U	367RCKR
WA Bh 54	WA-03-3767	HALFWAY LITTLE LEAGUE	J M HOFFMAN	03 - 1959	580	F	45	U	367RCKR
WA Bh 55	WA-01-8680	TARBART, L T	K L TEACH	04-14-1955	510	F	32	H	367RCKR
WA Bh 56	WA-03-0037	EICHELBERGER, GUY E	W TEACH	03-15-1958	490	F	45	H	367RCKR
WA Bh 57	WA-02-3544	DOUB, GERALD W	J M HOFFMAN	07 - 1956	520	S	150	H	367RCKR
WA Bh 58	WA-03-2192	PLOTNER, PAUL E	J M HOFFMAN	09 - 1958	560	F	85	H	367RCKR
WA Bh 59	WA-01-8681	SPONAUGLE, ROBERT L	K L TEACH	04-09-1955	570	F	159	H	367RCKR
WA Bh 60	WA-66-0101	WASH CO SANITARY COMM	J M HOFFMAN	10-29-1965	425	H	345	U	367SNNG
WA Bh 61	WA-66-0101	WASH CO SANITARY COMM	J M HOFFMAN	11-06-1965	425	H	350	U	367SNNG
WA Bh 62	WA-66-0101	WASH CO SANITARY COMM	J M HOFFMAN	11-19-1965	425	H	300	U	367SNNG
WA Bh 63	WA-66-0101	WASH CO SANITARY COMM	J M HOFFMAN	11-24-1965	425	H	300	U	367SNNG
WA Bh 64	WA-66-0101	WASH CO SANITARY COMM	J M HOFFMAN	12-06-1965	425	H	305	U	367SNNG
WA Bh 65	WA-67-0273	HALL'S MOTOR TRANSIT	J M HOFFMAN	06-27-1967	495	F	63	C	367RCKR
WA Bh 66	WA-65-0233	H B MELLOTT ESTATE	GE HARR SONS	05-07-1965	550	S	63	H	371CCCG
WA Bh 67	WA-69-0360	BROWN, JESSE	J M HOFFMAN	07-07-1969	460	F	200	H	367RCKR
WA Bh 68	WA-69-0337	MILLER, DAVID	J M HOFFMAN	06-14-1969	520	S	140	H	371CCCG
WA Bh 69	WA-69-0316	A C & T CO	J M HOFFMAN	06-18-1969	495	F	125	H	367RCKR
WA Bh 70	WA-69-0107	WINTERMOYER, FRED	J M HOFFMAN	09-23-1968	480	F	145	S	367RCKR
WA Bh 71	WA-67-0177	CLEARVIEW NURSING HOME	J M HOFFMAN	01-10-1967	550	F	125	T	371CCCG
WA Bh 72	WA-70-0141	MOORE, HILLARD P	W LAMBERSON	11-11-1969	410	S	100	H	367RCKR
WA Bh 73	WA-73-0117	KEELEY, JOHN C	--	10-19-1972	520	S	85	H	371CCCG
WA Bh 74	WA-73-0029	STEVENSON, RODNEY	W LAMBERSON	10-06-1972	590	S	125	H	371CCCG
WA Bh 75	WA-73-0356	BRANDENBURG, ROWLAND	W LAMBERSON	07-25-1973	580	H	145	H	371CCCG
WA Bh 76	WA-73-0669	GOUCKER, GARY	W LAMBERSON	06-17-1974	590	S	165	H	371CCCG
WA Bh 77	WA-73-1230	TRITCH, MICHAEL	D H WOODWARD	10-23-1975	590	S	150	H	371CCCG
WA Bh 78	WA-73-1281	WATSON, RICHARD	W LAMBERSON	03-12-1976	590	S	165	H	371CCCG
WA Bh 79	WA-73-0668	SWARTZ, JACOB B	W LAMBERSON	06-20-1974	590	S	185	H	371CCCG
WA Bh 80	WA-73-1127	DALHAMER, CHARLES H	JOHN SHAFF	08-18-1975	590	S	200	H	371CCCG
WA Bh 81	WA-73-1204	RATH, NORRIS	W LAMBERSON	09-22-1975	580	S	105	H	371CCCG
WA Bh 82	WA-73-0026	POWERS DISTRIBUTING CO	W LAMBERSON	07-24-1972	495	V	385	H	364STPL
WA Bh 83	WA-73-3441	LITTLE, LEROY	A&H DRILLING	04-10-1981	495	H	110	H	361MRBG
WA Bh 84	WA-81-1093	FRANKLIN, JOHN	A&H DRILLING	07-15-1985	455	S	105	H	361MRBG
WA Bh 85	WA-73-3270	HOPEWELL SHEET METAL	D H WOODWARD	10-13-1980	490	F	500	N	367RCKR
WA Bh 86	WA-68-0112	HALFWAY LITTLE LEAGUE	W LAMBERSON	11-18-1967	580	F	100	U	367RCKR
WA Bh 87	WA-73-2925	TRUAX, CALVIN	A&H DRILLING	09-17-1979	450	F	400	H	--
WA Bh 88	WA-73-0978	STERLING, RALPH	K L TEACH	03-07-1975	510	U	300	H	367RCKR
WA Bh 89	WA-71-0201	C EARL BROWN INC	W LAMBERSON	06-01-1971	505	F	225	C	367RCKR
WA Bh 90	WA-70-0312	SMITH TRANSFER CORP	W LAMBERSON	06-15-1970	525	S	325	C	361MRBG
WA Bh 91	WA-70-0252	EMMANUEL BAPTIST CH	W LAMBERSON	04-28-1970	550	S	165	H	361MRBG
WA Bh 92	WA-72-0061	POWERS DISTRIBUTING CO	W LAMBERSON	09-01-1971	510	S	300	C	364CBBG
WA Bh 93	WA-67-0097	WACOHO GRANGE	W TEACH	11-05-1966	490	F	100	H	364STPL
WA Bh 94	WA-73-0576	BLAINE WINDOW HARDWARE	W LAMBERSON	03-25-1974	550	D	385	N	367RCKR
WA Bh 95	WA-67-0115	CEDAR LAWN MEM PARK	A&H DRILLING	10-20-1966	575	F	204	H,I	367RCKR
WA Bh 96	WA-05-5278	DEER LODGE MOB HOME PK	J W AMBROSE	12-04-1963	465	S	145	P	361MRBG
WA Bh 97	WA-69-0350	HERITAGE ACADEMY	W LAMBERSON	06-24-1969	420	S	125	T	361MRBG
WA Bh 98	WA-73-1994	WILSON FOUNDATION INC	W TEACH	03-27-1969	560	H	125	H	361MRBG
	WA-69-0223		K L TEACH	06-22-1977					

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
7	6	X	20	R	05-09-1946	10	25	20	2.0	1	05-09-1946	--	WA Bh 10
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bh 11
25	6	X	32	R	04 - 1949	10	45	32	.77	1	04 - 1949	--	WA Bh 12
26	6	X	20	R	10-27-1949	10	23	20	3.33	2	10-27-1949	Q	WA Bh 17
--	--	-	14.6	S	10-23-1958	4.5	--	14.6	--	--	10-15-1958	Q	WA Bh 22
8	6	X	34	R	11 - 1958	2	50	34	.12	.5	11 - 1958	Q	WA Bh 27
8	6	X	33.55	S	07-15-1959	5	--	65	--	.5	04-23-1959	--	WA Bh 33
21	6	X	24.13	S	04-15-1959	27	--	25	--	.5	09-12-1958	--	WA Bh 34
58	8	X	42	R	12 - 1958	8	62	42	.40	1	12 - 1958	--	WA Bh 35
12	6	X	55	R	02 - 1958	5	150	55	.05	1	02 - 1958	--	WA Bh 36
36	6	X	30	R	09 - 1958	12	100	30	.17	1	09 - 1958	--	WA Bh 37
28	6	X	32.37	S	04-15-1959	--	--	--	--	--	--	--	WA Bh 38
26	6	X	49	R	08-08-1949	12	50	49	12.0	2	08-08-1949	--	WA Bh 39
25	6	X	23	R	10-15-1952	10	--	23	--	1	10-15-1952	--	WA Bh 40
51	6	X	40	R	06 - 1958	2.5	95	40	.05	.5	06 - 1958	--	WA Bh 41
22	6	X	24.5	R	07-23-1946	12	40	24.5	.77	1	07-23-1946	--	WA Bh 42
22	6	X	32	R	05-07-1946	25	39	32	3.57	.5	05-07-1946	--	WA Bh 43
22	6	X	15	R	10 - 1951	10	25	15	1.0	.5	10 - 1951	--	WA Bh 44
40	6	X	25	R	03-22-1949	10	--	25	--	1	03-22-1949	--	WA Bh 45
16	6	X	10	R	03 - 1954	7	75	10	.11	.5	03 - 1954	--	WA Bh 46
22	6	X	30	R	03 - 1957	30	50	30	1.50	.5	03 - 1957	--	WA Bh 47
19	6	X	32	R	07-06-1949	4	60	32	.14	.5	07-06-1949	--	WA Bh 48
34	6	X	10	R	11 - 1957	30	60	10	.60	.5	11 - 1957	Q	WA Bh 49
19	6	X	37.67	S	04-17-1959	10	50	35	.67	2	03-27-1949	--	WA Bh 50
8	6	X	58.53	S	04-17-1959	20	200	90	.18	1	08 - 1957	--	WA Bh 51
11.5	6	X	20	R	12-28-1957	15	--	20	--	2	12-28-1957	--	WA Bh 52
39.6	48	W	40.84	S	04-22-1959	--	--	--	--	--	--	--	WA Bh 53
	6												
22	6	X	20	R	03 - 1959	20	25	20	4.0	.5	03 - 1959	--	WA Bh 54
1.5	6	X	10	R	04-14-1955	5	--	10	--	1	04-14-1955	--	WA Bh 55
28	6	X	30	R	03-15-1958	6	35	30	1.20	1	03-15-1958	--	WA Bh 56
2	6	X	20	R	07 - 1956	.7	140	20	.01	.5	07 - 1956	--	WA Bh 57
10	6	X	35	R	09 - 1958	20	75	35	.50	1	09 - 1958	--	WA Bh 58
12	6	X	100	R	04-09-1955	10	--	100	--	1	04-09-1955	--	WA Bh 59
--	--	X	D	R	10-29-1965	0	--	--	--	--	10-29-1965	--	WA Bh 60
--	--	-	--	-	--	6	--	--	--	--	11-06-1965	--	WA Bh 61
--	--	-	--	-	--	1	--	--	--	--	11-19-1965	--	WA Bh 62
--	--	X	D	R	11-24-1965	0	--	--	--	--	11-24-1965	--	WA Bh 63
12	6	X	75	R	12-06-1965	6	123	75	.12	.8	12-06-1965	--	WA Bh 64
23	6	X	20	R	06-27-1967	50	50	20	1.67	1	06-27-1967	--	WA Bh 65
45	5.5												
20	6	X	15	R	05-07-1965	30	53	15	.79	4	05-07-1965	--	WA Bh 66
40	6	X	50	R	07-07-1969	8	190	50	.06	.5	07-07-1969	--	WA Bh 67
22	6	X	40	R	06-14-1969	50	130	40	.56	1	06-14-1969	--	WA Bh 68
47	6	X	50	R	06-18-1969	15	120	50	.21	.5	06-18-1969	--	WA Bh 69
20	6	X	20	R	09-23-1968	12	60	20	.30	.5	09-23-1968	--	WA Bh 70
18	6	X	30	R	01-10-1967	20	110	30	.25	.5	01-10-1967	--	WA Bh 71
46	6	X	40	R	11-11-1969	30	86	40	.65	1	11-11-1969	--	WA Bh 72
35	6	X	20	R	10-19-1972	30	80	20	.50	1	10-19-1972	--	WA Bh 73
75	6	X	50	R	10-06-1972	20	100	50	.40	1	10-06-1972	--	WA Bh 74
55	6	X	50	R	07-25-1973	20	135	50	.24	1	07-25-1973	--	WA Bh 75
67	6	X	60	R	06-17-1974	10	150	60	.11	1	06-17-1974	--	WA Bh 76
75	6	X	55	R	10-23-1975	10	120	55	.15	2	10-23-1975	--	WA Bh 77
60	6	X	50	R	03-12-1976	20	145	50	.21	1	03-12-1976	--	WA Bh 78
45	6	X	45	R	06-20-1974	10	165	45	.08	1	06-20-1974	--	WA Bh 79
36	6	X	26	R	08-18-1975	32	31	26	6.40	3	08-18-1975	--	WA Bh 80
75	6	X	50	R	09-22-1975	20	95	50	.44	1	09-22-1975	--	WA Bh 81
21	6	X	25	R	07-24-1972	1	365	25	.003	1	07-24-1972	--	WA Bh 82
63	6	X	45	R	04-10-1981	25	110	45	.38	2	04-10-1981	--	WA Bh 83
21	6	X	25	R	07-15-1985	8	105	25	.10	2	07-15-1985	--	WA Bh 84
22	6	X	30	R	10-13-1980	1	500	30	.002	1	10-13-1980	--	WA Bh 85
25	6	X	20	R	11-18-1967	50	90	20	.71	--	11-18-1967	--	WA Bh 86
39	6	X	35	R	09-17-1979	1	400	35	.003	5	09-17-1979	--	WA Bh 87
21	6	X	50	R	03-07-1975	15	70	50	.75	1	03-07-1975	--	WA Bh 88
25	6	X	30	R	06-01-1971	20	205	30	.11	1	06-01-1971	--	WA Bh 89
45	6	X	50	R	06-15-1970	1	200	50	.01	1	06-15-1970	--	WA Bh 90
50	6	X	40	R	04-28-1970	20	150	40	.18	1	04-28-1970	--	WA Bh 91
42	6	X	25	R	09-01-1971	1	165	25	.01	1	09-01-1971	--	WA Bh 92
40.5	6	X	50	R	11-05-1966	--	--	--	--	--	--	--	WA Bh 93
40	6	X	30	R	03-25-1974	4	360	30	.01	1	03-25-1974	--	WA Bh 94
20	6	X	50	R	10-20-1966	12	160	50	.11	.5	10-20-1966	--	WA Bh 95
60	6	X	36	R	12-04-1963	16	100	36	.25	2	12-04-1963	--	WA Bh 96
35	6	X	40	R	06-24-1969	100	110	40	1.43	.5	06-24-1969	--	WA Bh 97
21	6	X	27	R	06-22-1977	6	35	30	1.20	1	03-27-1969	--	WA Bh 98
						30	40	27	2.31	1	06-22-1977		

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bh 99	WA-73-3464	KLINE ROOFING & SIDING	D H WOODWARD	05-18-1981	485	H	575	C	367RCKR
WA Bh 100	WA-81-1034	PRESGRAVES, STEVEN A	A&H DRILLING	05-16-1985	470	S	85	H	361MRBG
WA Bh 101	WA-81-0074	BETTS, AUBREY	A&H DRILLING	10-19-1981	482	H	120	H	361MRBG
WA Bh 102	WA-81-1001	WALKER, RALPH B	K L TEACH	04-18-1985	555	F	185	H	367RCKR
WA Bh 103	WA-73-2431	RHINEHART, FRANKLIN D	K L TEACH	08-18-1978	570	S	56	H	367RCKR
WA Bh 104	WA-73-3317	DORSEY, DONALD E	K L TEACH	08-05-1980	625	H	425	H	367RCKR
WA Bi 1	--	BAER BROS COLD STORAGE	--	--	575	F	137	J,N	371CCCG
WA Bi 2	--	BAER BROS COLD STORAGE	--	1904	575	F	120	U	371CCCG
WA Bi 3	--	BAER BROS COLD STORAGE	--	1904	575	F	68	U	371CCCG
WA Bi 4	--	BAER BROS COLD STORAGE	S A DOWNIN	--	575	F	108	U	371CCCG
WA Bi 5	--	POTOMAC EDISON CO	S A DOWNIN	1912	540	F	103	U	367SNNG
WA Bi 6	--	HAGERSTN ICE & STORAGE	S A DOWNIN	1913	530	F	160	U	367SNNG
WA Bi 7	--	HAGERSTN ICE & STORAGE	S A DOWNIN	1910	530	F	193	U	367SNNG
WA Bi 8	--	CROMER SILK MILLS	S A DOWNIN	1915	535	S	111	U	367SNNG
WA Bi 9	--	FAIRCHILD CORPORATION	S A DOWNIN	1911	540	U	281	U	367SNNG
WA Bi 10	--	FAIRCHILD CORPORATION	S A DOWNIN	1913	540	U	281	U	367SNNG
WA Bi 11	--	FAIRCHILD CORPORATION	S A DOWNIN	1913	540	U	326	U	367SNNG
WA Bi 12	--	FAIRCHILD CORPORATION	S A DOWNIN	1911	540	U	323	U	367SNNG
WA Bi 13	--	FAIRCHILD CORPORATION	S A DOWNIN	1911	540	U	910	U	367SNNG
WA Bi 14	--	HAGERSTOWN TABLE WORKS	--	1910	595	F	500	U	371CCCG
WA Bi 15	--	ARTZ, H M	--	--	485	F	32	H,S	367SNNG
WA Bi 16	WA-00-6005	SOUTHERN STATES COOP	J M HOFFMAN	07 - 1950	520	U	175	C	367SNNG
WA Bi 17	--	MD STATE HIGHWAY ADMIN	--	--	570	H	42.8	C,S	367SNNG
WA Bi 18	--	CSX CORPORATION	--	--	615	S	52	U	371CCCG
WA Bi 19	WA-00-5140	CENTRAL CHEMICAL CORP	J M HOFFMAN	02 - 1950	615	U	318	N	371CCCG
WA Bi 20	WA-00-0091	HAGERSTOWN BLOCK CO	J M HOFFMAN	12-13-1945	510	F	35	N	367SNNG
WA Bi 21	WA-00-3626	HAGERSTOWN BLOCK CO	J M HOFFMAN	03-03-1949	510	F	71	N	367SNNG
WA Bi 22	WA-01-5895	RIDENOUR, MRS	J W AMBROSE	07-28-1954	500	V	50	U	367SNNG
WA Bi 23	WA-01-9769	WEDDLES, GEORGE	J W AMBROSE	07-02-1955	500	V	35	H	367SNNG
WA Bi 24	WA-01-5020	VANCE, WILLIAM	J M HOFFMAN	05 - 1954	530	F	109	U	371CCCG
WA Bi 25	--	BORDEN'S ICE CREAM CO	C E PIKE	1943	540	F	70	J	367SNNG
WA Bi 26	--	VICTOR PRODUCTS CORP	J M HOFFMAN	1941	510	F	115	N	367SNNG
WA Bi 27	--	VICTOR PRODUCTS CORP	J M HOFFMAN	1942	510	F	103	U	367SNNG
WA Bi 28	--	HAGERSTOWN RUBBER CO	J M HOFFMAN	1944	550	S	190	J	--
WA Bi 29	--	SUPERIOR DAIRY INC	C E PIKE	1940	530	V	327	J	367SNNG
WA Bi 30	--	HAGERSTOWN DAIRY INC	J M HOFFMAN	1938	530	F	211	J	367RCKR
WA Bi 39	--	WARRENFELTZ, H L	--	--	575	F	200	S	371CCCG
WA Bi 41	WA-03-1917	SECOR, ALLEN F	J M HOFFMAN	08 - 1958	500	S	200	H	367SNNG
WA Bi 43	WA-03-3605	MINNICH FUNERAL HOME	J M HOFFMAN	03 - 1959	525	H	280	H	367SNNG
WA Bi 44	WA-02-9589	LUM, HAROLD	J M HOFFMAN	01 - 1958	640	U	85	H	367SNNG
WA Bi 45	WA-03-3311	ESHELMAN, RAY S	J M HOFFMAN	01 - 1959	600	U	230	H	367RCKR
WA Bi 46	WA-03-2924	SMITH, JOSIAH O	J M HOFFMAN	12 - 1958	600	U	50	H	367RCKR
WA Bi 47	WA-02-8782	WOODPOINT GOSPEL CHUR	J M HOFFMAN	11 - 1957	605	U	75	H	367RCKR
WA Bi 48	WA-00-1875	SUPREME CONCRETE BLOCK	J M HOFFMAN	01-28-1949	475	V	71	C	371CCCG
WA Bi 49	WA-00-6799	SUPREME CONCRETE BLOCK	J M HOFFMAN	11-01-1950	500	S	41.1	U	371CCCG
WA Bi 50	WA-01-7537	ABRAHAM, STUART	C R COWAN	02-20-1955	520	S	150	H	371CCCG
WA Bi 51	WA-00-9555	METZ, W L	J M HOFFMAN	03-01-1952	485	S	72	H	371CCCG
WA Bi 52	WA-00-3097	AUTO SHOW INC	J M HOFFMAN	08-21-1949	495	S	90	U	371CCCG
WA Bi 53	WA-03-1378	FOX, ESTON	J M HOFFMAN	02 - 1958	460	S	105	H,S	367SNNG
WA Bi 54	WA-03-2538	HOCKMAN, GEORGE B	J M HOFFMAN	10 - 1958	470	S	104	H	371CCCG
WA Bi 55	WA-02-9355	ALDER, JAMES R	J M HOFFMAN	12 - 1957	540	H	100	H	367SNNG
WA Bi 56	WA-03-3265	HELM, ROBERT B	J M HOFFMAN	01 - 1959	555	S	112	H,S	371CCCG
WA Bi 57	WA-03-0734	DAWSON, ROY	J M HOFFMAN	05 - 1958	560	U	363	U	371CCCG
WA Bi 58	--	YOUNG, JOHN	J M HOFFMAN	1955	585	F	197	U	371CCCG
WA Bi 59	WA-03-5634	MULLENDORE, H M	J M HOFFMAN	08 - 1959	500	S	65	H	--
WA Bi 60	WA-00-5793	JEFFERSON CHEESE MFG	J M HOFFMAN	07 - 1950	495	V	150	N	--
WA Bi 61	WA-67-0092	RAICE, LEON	JAMES KOHLER	10-01-1966	550	H	380	U	367SNNG
WA Bi 62	WA-69-0039	NICHOLES, BRUCE	J M HOFFMAN	09-09-1968	490	H	125	H	367SNNG
WA Bi 63	WA-68-0177	TROXELL, JAY	W TEACH	08-28-1968	580	H	192	H	371CCCG
WA Bi 64	WA-69-0142	STOTTLEMYER'S AMOCO	J M HOFFMAN	11-18-1968	550	U	225	C	371CCCG
WA Bi 65	WA-69-0046	REID, DONALD	J M HOFFMAN	10-16-1968	575	F	110	H	371CCCG
WA Bi 66	WA-70-0032	GROVE, EARL	W LAMBERSON	09-20-1969	545	H	265	U	371CCCG
WA Bi 67	WA-70-0032	GROVE, EARL	W LAMBERSON	09-23-1969	520	W	300	H	371CCCG
WA Bi 68	WA-70-0066	CLEM, RICHARD	W LAMBERSON	09-15-1969	530	S	285	U	371CCCG
WA Bi 69	WA-70-0221	SHOEMAKER, DONALD L	W LAMBERSON	03-13-1970	485	S	85	H	371CCCG
WA Bi 70	WA-69-0189	PEIFER, KENNETH C	C A CROMWELL	02-15-1969	505	H	85	H	367SNNG
WA Bi 71	WA-65-0037	CONTINENTAL BAKING CO	J M HOFFMAN	09-10-1964	530	S	405	U	371ELBK
WA Bi 72	WA-65-0070	CONTINENTAL BAKING CO	J M HOFFMAN	09-05-1964	535	S	405	C	371ELBK
WA Bi 73	WA-65-0070	CONTINENTAL BAKING CO	J M HOFFMAN	10-01-1964	535	S	460	U	371ELBK
WA Bi 74	WA-69-0210	EXXON CORPORATION	ROBERT CLINE	04-21-1969	560	U	420	C	371CCCG
WA Bi 75	WA-69-0293	KLICK, STANLEY R	J M HOFFMAN	06-08-1969	500	F	65	H	367SNNG
WA Bi 76	WA-69-0061	UNITED PARCEL SERVICE	W LAMBERSON	08-26-1968	510	F	185	C	367SNNG
WA Bi 77	WA-69-0200	KARPER, SHARPE D	W LAMBERSON	03-25-1969	540	H	240	H	367SNNG
WA Bi 78	WA-70-0090	GOODLOVE, GILBERT	W LAMBERSON	09-16-1969	510	S	85	H	367SNNG
WA Bi 79	WA-73-0836	BRINING, JACK	W LAMBERSON	12-19-1974	535	S	245	H	367RCKR

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
21	6	X	60	R	05-18-1981	1	575	60	0.002	3	05-18-1981	--	WA Bh 99
35	6	X	20	R	05-16-1985	40	85	20	.62	2	05-16-1985	--	WA Bh 100
40	6	X	20	R	10-19-1981	30	120	20	.30	2	10-19-1981	--	WA Bh 101
32	6	X	30	R	04-18-1985	40	75	30	.89	1	04-18-1985	--	WA Bh 102
30	6	X	18	R	08-18-1978	30	35	18	1.76	1	08-18-1978	--	WA Bh 103
63	6	X	70	R	08-05-1980	20	365	70	.07	1	08-05-1980	--	WA Bh 104
14	6	X	--	-	--	125	--	--	--	--	06-15-1944	--	WA Bi 1
--	4	-	--	-	--	--	--	--	--	--	--	--	WA Bi 2
--	8	-	28.69	S	06-15-1944	125	--	--	--	--	1904	--	WA Bi 3
--	--	-	40	R	1900	75	--	40	--	--	1900	--	WA Bi 4
10	6	X	20	R	1912	265	--	20	--	--	1912	--	WA Bi 5
18	6	X	20	R	1913	150	--	--	--	--	03	--	WA Bi 6
--	6	-	20	R	1910	180	--	20	--	--	1910	--	WA Bi 7
13	6	X	--	-	--	55	--	--	--	--	1915	--	WA Bi 8
8	6	X	6	R	1911	200	--	6	--	--	1911	--	WA Bi 9
10	6	X	8	R	1913	116	--	8	--	--	1913	--	WA Bi 10
5	6	X	5	R	1913	18	--	5	--	--	1913	--	WA Bi 11
1.5	6	X	3	R	1911	18	--	3	--	--	1911	--	WA Bi 12
20	6	X	20	R	1911	1	--	20	--	--	1911	--	WA Bi 13
160	8	X	60	R	1910	56	--	60	--	--	1910	--	WA Bi 14
32	60	W	20.34	S	06-16-1944	6	20.41	20.34	85.71	.2	06-16-1944	--	WA Bi 15
20	6	X	40	R	07 - 1950	.5	--	40	--	1	07 - 1950	Q	WA Bi 16
42.8	48	W	30.84	S	12-18-1956	--	--	--	--	--	--	--	WA Bi 17
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bi 18
38	8	X	30	R	02 - 1950	45	220	30	.24	240	02 - 1950	Q	WA Bi 19
19.5	6	X	15	R	12-13-1945	10	--	15	--	5	12-13-1945	--	WA Bi 20
25	6	X	20	R	03-03-1949	10	65	20	.22	1	03-03-1949	Q	WA Bi 21
22	6	X	22	R	07-28-1954	45	28	22	7.50	3	07-28-1954	--	WA Bi 22
26	6	X	17	R	07-02-1955	25	22	17	5.0	1	07-02-1955	--	WA Bi 23
53	6	X	59	R	05 - 1954	30	60	59	30.0	1	05 - 1954	--	WA Bi 24
--	8	-	--	-	--	60	--	--	--	--	1943	--	WA Bi 25
20	8	X	--	-	--	200	--	--	--	--	1941	--	WA Bi 26
20	8	X	13	R	07-29-1958	250	--	13	--	--	1942	Q	WA Bi 27
105	8	X	--	-	--	235	--	--	--	--	07-23-1958	--	WA Bi 28
90	6	X	8	R	1940	50	--	--	--	--	07-23-1958	--	WA Bi 29
--	6	-	37.5	R	1938	1.5	--	37.5	--	--	1938	--	WA Bi 30
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bi 39
10	6	X	44.80	S	09-09-1958	20	120	42	.26	1	08 - 1958	--	WA Bi 41
60	6	X	33.0	S	03-18-1959	25	100	60	.62	5	03 - 1959	--	WA Bi 43
6	6	X	20	R	01 - 1958	30	50	20	1.0	.5	01 - 1958	--	WA Bi 44
7	6	X	40	R	01 - 1959	1.7	220	40	.01	1	01 - 1959	--	WA Bi 45
9	6	X	25	R	12 - 1958	5	45	25	.25	.5	12 - 1958	--	WA Bi 46
26	6	X	45	R	11 - 1957	30	65	45	1.50	.5	11 - 1957	--	WA Bi 47
18	6	X	14.03	S	02-05-1968	10	18	10	1.25	1	01-28-1949	--	WA Bi 48
20	6	X	27.62	S	06-16-1959	15	35	25	1.50	1	11-01-1950	--	WA Bi 49
127	6	X	47	R	02-20-1955	15	--	47	--	4	02-20-1955	--	WA Bi 50
4	6	X	26.64	S	06-17-1959	8	65	20	.18	.5	03-01-1952	--	WA Bi 51
20	6	X	25	R	08-21-1949	30	30	25	6.0	1	08-21-1949	--	WA Bi 52
3	6	X	25	R	02 - 1958	30	50	25	1.20	1	02 - 1958	--	WA Bi 53
--	--	-	51.64	S	07-09-1959	15	70	50	.75	1	10 - 1958	--	WA Bi 54
25	6	X	50	R	12 - 1957	20	85	50	.57	1	12 - 1957	--	WA Bi 55
--	6	-	73.94	S	07-09-1959	20	--	--	--	1	01 - 1959	--	WA Bi 56
--	--	X	D	R	05 - 1958	0	--	--	--	--	05 - 1958	--	WA Bi 57
30	6	X	54.56	S	02-06-1968	35	--	--	--	--	1955	--	WA Bi 58
23	6	X	31.40	S	08-06-1959	20	60	31	.69	1	08 - 1959	--	WA Bi 59
19	6	X	8	R	07 - 1950	350	75	8	5.22	200	07 - 1950	--	WA Bi 60
22	6	X	21.25	S	04-17-1969	1	210	46	.01	2	10-01-1966	--	WA Bi 61
95	6	X	40	R	09-09-1968	10	105	40	.15	2	09-09-1968	--	WA Bi 62
16	6	X	100	R	08-28-1968	6	150	100	.12	1	08-28-1968	--	WA Bi 63
23	6	X	60	R	11-18-1968	50	215	60	.32	.5	11-18-1968	--	WA Bi 64
100	6	X	50	R	10-16-1968	50	103	50	.94	.5	10-16-1968	--	WA Bi 65
--	--	X	D	R	09-20-1969	0	--	--	--	--	09-20-1969	--	WA Bi 66
40	6	X	50	R	09-23-1969	2	185	50	.01	1	09-23-1969	--	WA Bi 67
22	6	X	60	R	09-15-1969	.5	120	60	.01	1	09-15-1969	--	WA Bi 68
24	6	X	40	R	03-13-1970	10	70	40	.33	1	03-13-1970	--	WA Bi 69
57	6	X	37	R	02-15-1969	10	--	37	--	2	02-15-1969	--	WA Bi 70
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bi 71
12	6	X	20	R	1969	6	--	20	--	--	1969	--	WA Bi 72
14	6	X	--	-	--	--	--	--	--	--	--	--	WA Bi 73
67.5	6	X	85	R	04-21-1969	2	420	85	.01	1	04-21-1969	--	WA Bi 74
22	6	X	30	R	06-08-1969	50	60	30	1.67	.5	06-08-1969	--	WA Bi 75
50	6	X	60	R	08-26-1968	20	165	60	.19	.5	08-26-1968	--	WA Bi 76
46	6	X	40	S	03-25-1969	1	55	40	.07	1	03-25-1969	--	WA Bi 77
22	6	X	25	R	09-16-1969	60	80	25	1.09	1	09-16-1969	--	WA Bi 78
25	6	X	40	R	12-19-1974	15	215	40	.09	1	12-19-1974	--	WA Bi 79

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bi 80	WA-73-0370	BLACK, JOHN	C A CROMWELL	10-02-1973	525	H	150	H	371CCCG
WA Bi 81	WA-73-0267	HOOVER, KENNETH M	D H WOODWARD	04-26-1973	530	H	150	H	371CCCG
WA Bi 82	WA-73-3271	MT AETNA BODY WORKS	D H WOODWARD	11-05-1980	505	F	300	C	371ELBK
WA Bi 83	WA-81-0260	BAPTIST TEMPLE	D H WOODWARD	08-17-1982	505	U	300	H	371CCCG
WA Bi 84	WA-81-0260	BAPTIST TEMPLE	D H WOODWARD	08-17-1982	505	U	93	U	371CCCG
WA Bi 85	WA-81-0260	BAPTIST TEMPLE	D H WOODWARD	08-17-1982	505	U	35	U	371CCCG
WA Bi 86	WA-04-1964	HONDA OF HAGERSTOWN	J M HOFFMAN	02 - 1961	490	S	225	C	371CCCG
WA Bi 87	WA-81-0967	MD FIRE MAINTENANCE	A&H DRILLING	03-15-1985	525	H	205	C	371CCCG
WA Bi 88	WA-73-0621	DORSEY BROS	W LAMBERSON	05-14-1974	540	H	125	C	371ELBK
WA Bi 89	WA-04-9272	WASHINGTON CO COMM	J M HOFFMAN	10 - 1962	540	F	360	U	367SNNG
WA Bi 90	WA-04-9273	WASHINGTON CO COMM	J M HOFFMAN	10 - 1962	540	F	170	U	367SNNG
WA Bi 91	WA-81-0316	REVIEW & HERALD PUB CO	A&H DRILLING	10-15-1982	515	V	90	N	367RCKR
WA Bi 92	WA-73-1591	SOUTHERN STATES COOP	JOHN SHAFF	10-13-1976	525	F	400	C	371CCCG
WA Bi 93	WA-72-0303	AAMCO TRANSMISSIONS	C A CROMWELL	07-13-1972	515	F	200	C	367SNNG
WA Bi 94	WA-73-1209	ROADWAY EXPRESS	HOLTZHAUSER	10-02-1975	515	F	358	C	371CCCG
WA Bi 95	WA-73-3036	FREY MOTORS INC	A&H DRILLING	01-07-1980	520	F	165	C	371CCCG
WA Bi 96	WA-73-2576	JOHN C LOUIS CO	D H WOODWARD	11-21-1978	510	H	450	C	371CCCG
WA Bi 97	WA-73-2982	SIECKNER, LARRY	D H WOODWARD	11-14-1979	535	H	400	H	371ELBK
WA Bi 98	WA-81-0801	BURKE, IRENE	D H WOODWARD	08-01-1984	565	H	705	H	371CCCG
WA Bi 99	WA-81-0583	BURKE, IRENE	D H WOODWARD	10-27-1983	565	H	500	U	371CCCG
WA Bi 100	WA-81-0759	FOX, PHILLIP	A&H DRILLING	01-03-1985	465	F	120	H	367SNNG
WA Bi 101	WA-67-0098	EL RANCHO TRAILER PARK	J M HOFFMAN	10-18-1966	588	H	365	P	371ELBK
WA Bi 102	WA-67-0137	EL RANCHO TRAILER PARK	J M HOFFMAN	11-03-1966	585	H	245	P	371ELBK
WA Bi 103	WA-81-0597	EL RANCHO TRAILER PARK	A&H DRILLING	10-11-1983	590	H	420	P	371ELBK
WA Bi 104	WA-73-3285	SHANK, CALVIN	D H WOODWARD	10-20-1980	555	F	100	H	367RCKR
WA Bi 105	WA-67-0232	MAX & EVELYN'S TAVERN	J M HOFFMAN	05-03-1967	480	S	125	C	367SNNG
WA Bi 106	WA-73-2111	NORTH AMERICAN R&G CL	D H WOODWARD	11-04-1977	505	H	105	H	371CCCG
WA Bi 107	WA-81-0970	MAYES, CHARLES JR	A&H DRILLING	03-22-1985	545	H	125	H	371CCCG
WA Bi 108	WA-69-0059	HARNE, CHARLES	J M HOFFMAN	02-14-1969	575	S	105	H	371CCCG
WA Bi 109	WA-71-0283	SLICK, ROBERT	D H WOODWARD	08-25-1971	545	S	300	H	371CCCG
WA Bi 110	WA-72-0009	SLICK, ROBERT	D H WOODWARD	09-01-1971	545	S	475	U	371CCCG
WA Bi 111	WA-81-0903	STOUFFER, GENE	A&H DRILLING	11-27-1984	495	F	245	H	367SNNG
WA Bi 112	WA-81-0904	DOYLE, RANSON	A&H DRILLING	12-12-1984	475	F	85	H	--
WA Bi 113	WA-81-0957	LONGANECKER, LARRY	A&H DRILLING	03-04-1985	505	H	125	H	371CCCG
WA Bi 114	WA-81-0979	LONGANECKER	A&H DRILLING	04-15-1985	525	U	460	H	371CCCG
WA Bi 115	WA-73-2302	FOUKE, WILLIAM P	D H WOODWARD	05-05-1978	480	S	340	H	371CCCG
WA Bi 116	WA-71-0218	GARLING, NELSON S	W LAMBERSON	07-16-1971	475	S	85	H	371CCCG
WA Bi 117	WA-65-0046	DITTO, VICTOR C	P E KOHLER	08-06-1964	530	S	300	U	367SNNG
WA Bi 118	WA-70-0303	DITTO WAREHOUSES	C A CROMWELL	06-22-1970	525	S	85	C,H	367SNNG
WA Bi 119	WA-73-1859	HARBAUGH, GARY	JOHN SHAFF	06-27-1977	565	S	50	H	371CCCG
WA Bi 120	WA-73-2436	RYLAND, RALPH	D H WOODWARD	08-29-1978	545	U	187	H	371CCCG
WA Bi 121	WA-73-1442	WALTERS, PAUL E	JOHN SHAFF	05-27-1976	525	S	250	H	371CCCG
WA Bi 122	WA-81-0028	RUBECK, ROBERT E JR	A&H DRILLING	10-14-1981	520	V	205	H	371CCCG
WA Bi 123	WA-73-1436	HARBAUGH-REPP	JOHN SHAFF	05-25-1976	555	S	225	H	371CCCG
WA Bi 124	WA-73-0040	BLOYER, HAROLD	D H WOODWARD	11-06-1972	590	F	300	H	371CCCG
WA Bi 125	WA-81-0904	DOYLE, RANSON	A&H DRILLING	12-12-1984	475	F	425	U	--
WA Bi 126	WA-81-0904	DOYLE, RANSON	A&H DRILLING	12-12-1984	475	F	505	U	--
WA Bi 127	WA-73-0694	HAR-TRU CORPORATION	W LAMBERSON	06-26-1974	625	H	485	C,I	367RCKR
WA Bi 128	WA-04-3735	INTERSTATE TRUCK EQUIP	J M HOFFMAN	07-26-1961	615	F	105	C	367RCKR
WA Bi 129	WA-73-2561	STOCKSLAGER, ALBERT	K L TEACH	12-13-1978	635	F	250	C	367RCKR
WA Bi 130	WA-81-1333	JETER PAVING CO	A&H DRILLING	06-10-1986	510	S	245	H	371CCCG
WA Bi 131	WA-81-1308	ALEXANDER, HAROLD	D H WOODWARD	03-28-1986	495	F	450	H	367SNNG
WA Bi 132	WA-81-0457	PICKETT, JOANN	JOHN SHAFF	05-16-1983	570	U	190	H	371CCCG
WA Bj 1	WA-02-3587	RIDENOUR, DAVID	E R SMITH	07-31-1956	735	V	152	I	377WSBR
WA Bj 3	--	OSWALD, MARY	J M HOFFMAN	1947	530	S	241	H	371ELBK
WA Bj 9	--	WINTERS, SAMUEL	--	--	665	F	40.2	U	110MNWS
WA Bj 10	--	AMBROSIAN, JOHN	--	--	655	S	--	H	110MNWS
WA Bj 11	--	PARKER, WILLIAM M	--	--	535	V	50.7	H	377TMSN
WA Bj 12	--	PARKER, WILLIAM M	--	--	635	V	55.7	H	110MNWS
WA Bj 13	--	MILLER, ISAAC	--	--	625	S	32.6	H	110MNWS
WA Bj 14	--	JACQUES, MARGARET	--	--	610	V	49.4	H	--
WA Bj 15	--	GRAYBILL, WALTER J	--	--	595	W	31.3	H	377TMSN
WA Bj 16	WA-02-5429	EVANS, ROBERT B	C R COWAN	12-28-1956	645	S	200	H,S	371ELBK
WA Bj 17	--	EASTERDAY, CLARENCE	--	--	640	S	200	H,S	371CCCG
WA Bj 18	--	EASTERDAY, CLARENCE	--	1951	645	H	250	S	371CCCG
WA Bj 19	--	RIDENOUR, H E	--	--	585	V	47.3	H	377TMSN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
21	6	X	40	R	10-02-1973	4	150	40	0.04	2	10-02-1973	--	WA Bi 80
25	6	X	30	R	04-26-1973	15	100	30	.21	3	04-26-1973	--	WA Bi 81
20	6	X	20	R	11-05-1980	50	300	20	.18	3	11-05-1980	--	WA Bi 82
37	6	X	25	R	08-17-1982	6	300	25	.02	2	08-17-1982	--	WA Bi 83
--	--	X	D	R	08-17-1982	0	--	--	--	--	08-17-1982	--	WA Bi 84
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bi 85
15	6	X	25	R	02 - 1961	12	210	25	.06	.5	02 - 1961	--	WA Bi 86
25	6	X	20	R	03-15-1985	10	205	20	.05	2	03-15-1985	--	WA Bi 87
20	6	X	45	R	05-14-1974	50	110	45	.77	1	05-14-1974	--	WA Bi 88
41	6	X	--	-	--	--	--	--	--	--	--	--	WA Bi 89
33	6	X	30	R	10 - 1962	85	155	30	.68	16	10 - 1962	--	WA Bi 90
32	6	X	40	R	10-15-1982	30	90	40	.60	2	10-15-1982	--	WA Bi 91
82	5												
50	6	X	18	R	10-13-1976	15	290	18	.06	3	10-13-1976	--	WA Bi 92
97	6	X	45	R	07-13-1972	12	190	45	.08	2	07-13-1972	--	WA Bi 93
32	12	X	39	R	10-02-1975	25	63	39	1.04	48	10-02-1975	--	WA Bi 94
99	8												
40	6	X	50	R	07-07-1980	10	165	50	.09	2	01-07-1980	--	WA Bi 95
95	5												
61	6	X	55	R	11-21-1978	3	450	55	.01	3	11-21-1978	--	WA Bi 96
31	6	X	30	R	11-14-1979	6	400	30	.02	2	11-14-1979	--	WA Bi 97
21	6	X	80	R	08-01-1984	60	705	80	.10	6	08-01-1984	--	WA Bi 98
21	6	X	60	R	10-27-1983	1	500	60	.002	4	10-27-1983	--	WA Bi 99
35	6	X	30	R	01-03-1985	60	120	30	.67	3	01-03-1985	--	WA Bi 100
20	6	X	95	R	10-18-1966	.5	245	95	.003	.5	10-18-1966	--	WA Bi 101
21	6	X	95	R	11-03-1966	5	215	95	.04	.5	11-03-1966	--	WA Bi 102
21	6	X	60	R	10-11-1983	2	420	60	.01	3	10-11-1983	--	WA Bi 103
22	6	X	30	R	10-20-1980	30	100	30	.43	3	10-20-1980	--	WA Bi 104
27	6	X	40	R	05-03-1967	2	57	40	.12	.5	05-03-1967	--	WA Bi 105
55	6	X	30	R	11-04-1977	40	40	30	4.0	2	11-04-1977	--	WA Bi 106
85	5												
110	6	X	50	R	03-22-1985	10	125	50	.13	2	03-22-1985	--	WA Bi 107
40	6	X	83	R	02-14-1969	10	95	83	.83	.5	02-14-1969	--	WA Bi 108
88	5.5												
20	6	X	89.38	S	07-10-1986	1	300	52	.004	1	08-25-1971	--	WA Bi 109
20	6	X	61.75	S	07-10-1986	--	--	--	--	--	--	O	WA Bi 110
32	6	X	50	R	11-27-1984	3	245	50	.02	2	11-27-1984	--	WA Bi 111
21	6	X	25	R	12-12-1984	10	85	25	.17	2	12-12-1984	--	WA Bi 112
30	6	X	60	R	03-04-1985	50	125	60	.77	2	03-04-1985	--	WA Bi 113
95	5												
21	6	X	50	R	04-15-1985	3	460	50	.01	2	04-15-1985	--	WA Bi 114
28	6	X	45	R	05-05-1978	23	275	45	.10	2	05-05-1978	--	WA Bi 115
80	6	X	35	R	07-16-1971	40	80	35	.89	1	07-16-1971	--	WA Bi 116
10	6	X	30	R	08-06-1964	7	110	30	.09	2.5	08-06-1964	--	WA Bi 117
22	6	X	30	R	06-22-1970	25	50	30	1.25	1	06-22-1970	--	WA Bi 118
27	6	X	16	R	06-27-1977	18	27	16	1.64	3	06-27-1977	--	WA Bi 119
62	6	X	35	R	08-29-1978	12	170	35	.09	1	08-29-1978	--	WA Bi 120
33	6	X	31	R	05-27-1976	6	82	31	.12	3	05-27-1976	--	WA Bi 121
58	6	X	55	R	10-14-1981	25	105	25	.31	2	07-27-1981	--	WA Bi 122
105	5					7	205	55	.05	2	10-14-1981		
35	6	X	18	R	05-25-1976	8	109	18	.09	3	05-25-1976	--	WA Bi 123
100	6	X	50	R	11-06-1972	1	300	50	.004	3	11-06-1972	--	WA Bi 124
126	4												
--	--	X	D	R	12-12-1984	0	--	--	--	--	12-12-1984	--	WA Bi 125
--	--	X	D	R	12-12-1984	0	--	--	--	--	12-12-1984	--	WA Bi 126
47	6	X	40	R	06-26-1974	10	420	40	.03	1	06-26-1974	--	WA Bi 127
15	6	X	35	R	07-26-1961	20	90	35	.36	.5	07-26-1961	--	WA Bi 128
63	6	X	50	R	12-13-1978	40	150	50	.40	1	12-13-1978	--	WA Bi 129
110	6	X	55	R	06-10-1986	8	245	55	.04	2	06-10-1986	--	WA Bi 130
63	6	X	45	R	03-28-1986	4	450	45	.01	4	03-28-1986	--	WA Bi 131
35	6	X	46	R	05-16-1983	10	88	46	.24	3	05-16-1983	--	WA Bi 132
20	6	X	35	R	07-31-1956	3	120	35	.04	2	07-31-1958	Q	WA Bj 1
--	--	-	--	-	--	5.5	--	--	--	--	05-28-1958	--	WA Bj 3
40.2	48	W	14.14	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 9
37.6	--	X	26.32	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 10
50.7	--	W	28.52	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 11
--	6	-	16.60	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 12
32.6	--	W	28.42	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 13
49.4	--	W	39.63	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 14
31.3	--	W	25.35	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 15
73	6	X	95	R	12-28-1956	12.5	--	--	--	--	12-28-1956	--	WA Bj 16
54	48	O	53.09	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 17
200	6												
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bj 18
47.3	--	W	27.52	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 19

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bj 21	--	NEEDY, JOHN	--	--	570	S	31.8	H,S	377WSBR
WA Bj 22	--	WINTERS, HENRY V	--	--	605	S	28.6	U	377TMSN
WA Bj 23	--	WINTERS, HENRY V	--	1931	605	S	87	H,S	377TMSN
WA Bj 24	--	MILLS, H L	--	--	565	S	--	-	371ELBK
WA Bj 25	--	MILLS, H L	--	--	565	S	--	-	371ELBK
WA Bj 26	WA-02-6633	GRIMM, BERTIE	J M HOFFMAN	04 - 1957	670	F	101	H	377TMSN
WA Bj 27	WA-02-7101	SINGLETON	A R KEYSER	06-01-1957	760	S	52.5	H	110MNWS
WA Bj 28	WA-02-0125	WIDDOWS, CLARENCE	W TEACH	07-30-1955	520	S	70	H	371CCCG
WA Bj 29	WA-02-8381	HURD, MARSHALL E	J M HOFFMAN	09 - 1957	595	F	90	H,S	371CCCG
WA Bj 30	--	BOWMAN, HUGH A	--	1930	595	F	220	U	371CCCG
WA Bj 31	WA-01-8782	BOWMAN, SHARON W	J W AMBROSE	04-28-1955	675	S	55	H	110MNWS
WA Bj 32	--	POFFENBERGER, EDWIN	J M HOFFMAN	1950	605	S	134	H,S	371CCCG
WA Bj 33	--	STOTLER, CHARLES J	--	--	580	S	100	H,S	371CCCG
WA Bj 34	WA-03-5350	BOWMAN, HUGH A	R ROBISON	07-29-1959	595	F	175	H	371CCCG
WA Bj 39	WA-67-0267	H B MELLOTT ESTATE INC	GE HARR SONS	04-13-1967	665	H	172	N	377WSBR
WA Bj 40	WA-66-0241	MILLS, H L	C A CROMWELL	02-09-1966	590	S	165	H,S	377WSBR
WA Bj 41	WA-69-0193	OLD FORGE ELEM SCHOOL	J M HOFFMAN	03-03-1969	630	F	205	U	371ELBK
WA Bj 42	WA-69-0300	OLD FORGE ELEM SCHOOL	J M HOFFMAN	03-05-1969	630	F	165	T	371ELBK
WA Bj 43	WA-66-0315	BOWMAN, HAROLD H	YORK DRLG	07-15-1966	590	V	40	S	371CCCG
WA Bj 44	WA-69-0127	DEATRICH, WILLIAM L	M E HOLTZMAN	06-03-1969	615	F	109	H,S	371CCCG
WA Bj 45	WA-69-0114	BOWMAN, SHARON	J M HOFFMAN	10-08-1968	680	F	85	H	377TMSN
WA Bj 46	WA-69-0060	HIGAMAN, GEORGE	J M HOFFMAN	09-05-1968	720	F	115	H	377TMSN
			W LAMBERSON	12-05-1969					
WA Bj 47	WA-69-0211	BROMLEY ORCHARDS	WELDO FUNT	05-10-1969	870	S	418	H	377ANTM
WA Bj 48	WA-69-0310	MELLOTT, WILLIAM L	C A CROMWELL	06-07-1969	565	H	85	H	371ELBK
WA Bj 49	WA-69-0094	TURNER, JOHN A	C A CROMWELL	09-27-1968	550	S	124	H	371ELBK
WA Bj 50	WA-70-0124	LAWYER, MILTON	W LAMBERSON	10-14-1969	750	S	245	H	377TMSN
WA Bj 51	WA-67-0042	GUTSHALL, KEN	C A CROMWELL	08-11-1966	705	F	166	H	377TMSN
WA Bj 52	WA-70-0171	MCCLEARY, RAYMOND	M E HOLTZMAN	12-22-1969	745	S	80	H	110MNWS
WA Bj 53	WA-70-0183	A POWELL FISH HATCHERY	W LAMBERSON	12-06-1969	520	S	85	H	371ELBK
WA Bj 54	WA-69-0020	SNAVELY, ROBERT	J M HOFFMAN	07-15-1968	625	S	60	H,S	371CCCG
WA Bj 55	WA-70-0140	SALVIA, MICHAEL	W LAMBERSON	11-12-1969	550	V	105	U	377TMSN
WA Bj 56	WA-70-0130	MARTIN, MERVIN	W LAMBERSON	10-27-1969	660	S	185	H	377TMSN
WA Bj 57	WA-01-8369	STOUFFER, HERMAN	C R COWAN	04-08-1955	745	S	145	H	377TMSN
WA Bj 58	WA-70-0203	SHAFFER, CARL	W LAMBERSON	01-05-1970	550	V	125	H	377TMSN
WA Bj 59	WA-70-0195	WELLER, BENJAMIN	W LAMBERSON	03-23-1970	650	H	325	H	377WSBR
WA Bj 60	WA-70-0232	DAY, GEORGE A	W LAMBERSON	03-12-1970	700	H	145	H	377TMSN
WA Bj 61	WA-71-0011	YESACAVAGE, DONALD B	D H WOODWARD	08-03-1970	725	S	124	U	377TMSN
WA Bj 62	WA-70-0085	PALMER, HARRY S	G E CORNETT	10-20-1969	755	S	110	H	377ANTM
WA Bj 63	WA-70-0168	REEDER, KENNETH	JOHN SHAFF	12-03-1969	595	S	200	H	371CCCG
WA Bj 64	WA-71-0005	STANSBERRY, JOHN	W LAMBERSON	07-15-1970	565	H	385	H	371CCCG
WA Bj 65	WA-70-0151	MUNSON, LYNN	W LAMBERSON	04-30-1970	555	S	300	H	371CCCG
	WA-70-0276								
WA Bj 66	WA-70-0139	CLEVENGER, ERNEST	W LAMBERSON	11-13-1969	560	S	320	H	371CCCG
WA Bj 67	--	MARTZ, CHARLES R	TEACH	1940	585	S	168	H	371ELBK
WA Bj 68	--	MARTZ, CHARLES R	TEACH	1964	585	S	205	H,S	371ELBK
WA Bj 69	WA-70-0262	MARTZ, CHARLES R	W LAMBERSON	04-30-1970	595	S	65	H,S	371ELBK
WA Bj 70	WA-70-0259	MARTZ, ROGER E	W LAMBERSON	04-23-1970	610	S	285	S	371CCCG
WA Bj 71	WA-70-0137	CHENEY, DAVID	W LAMBERSON	11-03-1969	525	H	105	H	371CCCG
WA Bj 73	WA-81-0750	A POWELL FISH HATCHERY	D H WOODWARD	06-26-1984	510	V	80	H	371ELBK
WA Bj 74	WA-73-1141	WILES, JAY F	D H WOODWARD	10-02-1975	545	S	75	H	371ELBK
WA Bj 75	WA-73-0312	WOODWARD, JOAN	JOHN SHAFF	06-05-1973	550	S	80	U	371ELBK
WA Bj 76	WA-81-0136	WOODWARD, JOAN	A&H DRILLING	12-28-1981	550	S	165	H	371ELBK
WA Bj 77	WA-73-2825	BEAVER CR ANTIQUE MKT	D H WOODWARD	08-10-1979	555	S	300	C	371ELBK
WA Bj 78	WA-02-1403	REST OVER MOTEL	W TEACH	12-18-1955	550	S	240	C	371ELBK
WA Bj 79	WA-73-1412	CHEWSVILLE COMM BLDG	W LAMBERSON	04-13-1976	665	F	175	H	371ELBK
	WA-73-3216		D H WOODWARD	08-29-1980					
WA Bj 80	WA-81-0624	ENGLEHART, JESSE	D H WOODWARD	11-04-1983	665	H	300	H	--
WA Bj 81	WA-73-0513	GRIMM, BOBBIE E	JOHN SHAFF	01-18-1974	660	S	150	H	371ELBK
WA Bj 82	WA-73-1197	AUSHERMAN, RUSSELL C	C A CROMWELL	10-27-1975	620	U	50	H	371CCCG
WA Bj 83	WA-73-1620	AUSHERMAN, RUSSELL C	C A CROMWELL	09-15-1976	620	U	125	H	371CCCG
WA Bj 84	WA-73-2133	WEBER, RICHARD E	D H WOODWARD	11-10-1977	520	H	65	H,S	371CCCG
WA Bj 86	WA-73-2378	REED	ROBERT CLINE	07-18-1978	540	H	240	H	371CCCG
WA Bj 87	WA-73-1343	NIPPS, JAMES R	D H WOODWARD	02-16-1976	580	H	200	H	371CCCG
WA Bj 88	WA-73-1693	MCKENRICK, DONALD L	JOHN SHAFF	12-11-1976	565	H	175	H	371CCCG
WA Bj 89	WA-73-1177	MARKELL, JAMES	D H WOODWARD	09-12-1975	550	H	105	H	371CCCG
WA Bj 90	WA-73-2306	REEL, RICHARD	R ARDINGER	05-23-1978	535	S	120	H	371CCCG
WA Bj 91	WA-73-2377	CRABB, W G	ROBERT CLINE	07-18-1978	520	H	100	H	371CCCG
WA Bj 92	WA-81-0010	POWELL, CARROLL E	A&H DRILLING	07-09-1981	520	S	200	H	371CCCG
WA Bj 93	WA-73-1399	CUNNINGHAM, LARRY	W LAMBERSON	05-20-1976	570	H	105	H	371CCCG
WA Bj 94	WA-73-2236	SHOBE, ROBERT E	D H WOODWARD	03-22-1978	565	H	145	H	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Casing Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
--	--	-	25.62	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 21
28.6	--	W	19.97	S	10-21-1958	--	--	--	--	--	--	--	WA Bj 22
--	6	-	40	E	10-21-1958	--	--	--	--	--	--	--	WA Bj 23
51.1	--	W	--	-	--	--	--	--	--	--	--	--	WA Bj 24
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bj 25
27	6	X	35	R	04 - 1957	4	100	35	0.06	1	04 - 1957	--	WA Bj 26
52.5	6	O	30	R	06-01-1957	10	35	30	2.0	1.5	06-01-1957	--	WA Bj 27
12	6	X	43.12	S	07-30-1955	7	--	40	--	2	07-30-1955	--	WA Bj 28
90	6	O	50	R	09 - 1957	15	80	50	.50	3	09 - 1957	--	WA Bj 29
--	6	-	70	E	1959	--	--	--	--	--	--	--	WA Bj 30
51	6	Z	6	R	04-28-1955	8	25	6	.42	4	04-28-1955	--	WA Bj 31
--	6	-	35	E	07-17-1959	--	--	--	--	--	--	--	WA Bj 32
25	48	W	20	E	1959	--	--	--	--	--	--	--	WA Bj 33
29	6	X											
16	6	X	23	R	07-29-1959	10	--	23	--	1	07-29-1959	--	WA Bj 34
45.5	6	X	66	R	04-13-1967	12	140	66	.16	4	04-13-1967	--	WA Bj 39
28	6	X	45	R	02-09-1966	10	--	45	--	1.5	02-09-1966	--	WA Bj 40
--	--	-	20	R	03-03-1969	4	182	20	.02	.5	03-03-1969	--	WA Bj 41
24	6	X	36.29	S	08-21-1969	16	140	39	.16	5	03-05-1969	--	WA Bj 42
134	5.5												
12	6	X	--	-	--	30	--	--	--	.5	07-15-1966	--	WA Bj 43
49	6	X	48	R	06-03-1969	36	--	48	--	9	06-03-1969	--	WA Bj 44
73	6	X	30	R	10-08-1968	60	75	30	1.33	.5	10-08-1968	--	WA Bj 45
75	6	X	80	R	12-05-1969	50	80	40	1.25	.5	09-05-1968	--	WA Bj 46
						50	110	80	1.67	1	12-05-1969		
400	6	X	180.40	S	08-28-1969	4	410	165	.02	3	05-10-1969	--	WA Bj 47
61	6	X	--	-	--	15	45	--	--	2	06-07-1969	--	WA Bj 48
18	6	X	--	-	--	7	45	--	--	1.5	09-27-1968	--	WA Bj 49
43	6	X	60	R	10-14-1969	10	220	60	.06	1	10-14-1969	--	WA Bj 50
57	6	X	60	R	08-11-1966	15	--	60	--	2	08-11-1966	--	WA Bj 51
42	6	X	12	R	12-22-1969	7	48	12	.19	3	12-22-1969	--	WA Bj 52
25	6	X	18.08	S	02-13-1970	100	70	15	1.82	1	12-06-1969	--	WA Bj 53
43	6	X	20	R	07-15-1968	50	50	20	1.67	.5	07-15-1968	--	WA Bj 54
56	6	X	11.80	S	03-24-1970	10	90	45	.22	1	11-12-1969	--	WA Bj 55
53	6	X	40	R	10-27-1969	12	155	40	.10	1	10-27-1969	--	WA Bj 56
76	6	X	47	R	04-08-1955	14	--	47	--	2	04-08-1955	--	WA Bj 57
46	6	X	20	R	01-05-1970	10	90	20	.14	1	01-05-1970	--	WA Bj 58
62	6	X	99.30	S	03-30-1970	1.5	125	80	.03	1	03-23-1970	--	WA Bj 59
55	6	X	50	R	03-12-1970	20	140	50	.22	1	03-12-1970	--	WA Bj 60
121	6	X	20	R	08-03-1970	30	80	20	.50	3	08-03-1970	--	WA Bj 61
90	6	X	60	R	10-20-1969	17	--	60	--	3	10-20-1969	--	WA Bj 62
20	6	X	30	R	12-03-1969	8	150	30	.07	3	12-03-1969	--	WA Bj 63
25	6	X	70	R	07-15-1970	30	380	70	.10	1	07-15-1970	--	WA Bj 64
42	6	X	35	R	11-20-1969	30	85	35	.60	1	11-20-1969	--	WA Bj 65
						20				1	04-30-1970		
45	6	X	50	R	11-13-1969	1	125	50	.01	1	11-13-1969	--	WA Bj 66
--	6	-	--	-	--	.5	--	--	--	--	08-20-1970	--	WA Bj 67
--	6	-	--	-	--	5	--	--	--	--	08-20-1970	--	WA Bj 68
37	6	X	41.36	S	04-30-1970	20	60	35	.80	1	04-30-1970	--	WA Bj 69
100	6	X	50	R	04-23-1970	3	150	50	.03	1	04-23-1970	--	WA Bj 70
42	6	X	37	R	11-03-1969	30	85	37	.62	1	11-03-1969	--	WA Bj 71
31	6	X	4	R	06-26-1984	30	80	4	.39	2	06-26-1984	--	WA Bj 73
50	6	X	45	R	10-02-1975	10	60	45	.67	1.5	10-02-1975	--	WA Bj 74
22	6	X	18	R	06-05-1973	15	42	18	.62	3	06-05-1973	--	WA Bj 75
30	6	X	50	R	12-28-1981	30	165	50	.26	2	12-28-1981	--	WA Bj 76
47	6	X	82	S	08-10-1979	12	300	82	.06	2	08-10-1979	--	WA Bj 77
18	6	X	100	R	12-18-1955	7	120	100	.35	1	12-18-1955	--	WA Bj 78
95	6	X	75	R	08-29-1980	50	105	45	.83	1	04-13-1976	--	WA Bj 79
						30	175	75	.30	3	08-29-1980		
39	6	X	80	R	11-04-1983	60	300	80	.27	3	11-02-1983	--	WA Bj 80
50	6	X	16	R	01-18-1974	12	48	16	.37	3	01-18-1974	--	WA Bj 81
23	6	X	12	R	10-27-1975	15	40	12	.54	2	10-27-1975	--	WA Bj 82
34	6	X	35	R	09-15-1976	20	120	35	.24	2	09-15-1976	--	WA Bj 83
55	6	X	25	R	11-10-1977	30	35	25	3.0	2	11-10-1977	--	WA Bj 84
86	6	X	54	R	07-18-1978	25	240	54	.13	1	07-18-1978	--	WA Bj 86
63	6	X	75	R	02-16-1976	12	125	75	.24	3	02-16-1976	--	WA Bj 87
87	6	X	62	R	12-11-1976	30	90	62	1.07	3	12-11-1976	--	WA Bj 88
65	6	X	70	R	09-12-1975	10	80	70	1.0	2	09-12-1975	--	WA Bj 89
45	6	X	36	R	05-23-1978	18	120	36	.21	1	05-23-1978	--	WA Bj 90
50	6	X	54	R	07-18-1978	25	100	54	.54	1	07-18-1978	--	WA Bj 91
26	6	X	50	R	07-09-1981	25	200	50	.17	2	07-09-1981	--	WA Bj 92
95	6	X	65	R	05-20-1976	10	100	65	.29	1	05-20-1976	--	WA Bj 93
42	6	X	40	R	03-22-1978	18	140	40	.18	3	03-22-1978	--	WA Bj 94
85	5												

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bj 95	WA-72-0139	CLEVENGER, SIDNEY C	C A CROMWELL	02-08-1972	540	H	315	H	371CCCG
WA Bj 96	WA-73-0185	HASTINGS, EARL	C A CROMWELL	02-20-1973	580	S	175	H	371CCCG
WA Bj 97	WA-73-1743	HUSK, WILLIAM	C A CROMWELL	05-21-1977	600	S	225	H	371CCCG
WA Bj 98	WA-81-1084	BOWMAN, HAROLD	D H WOODWARD	07-16-1985	615	S	225	H	371CCCG
WA Bj 99	WA-73-1573	STRITE, STEPHEN C	D H WOODWARD	09-28-1976	600	S	205	H	371CCCG
WA Bj 100	WA-73-0528	KELLER'S UPHOLSTERING	C A CROMWELL	02-08-1974	745	S	125	C	377TMSN
WA Bj 101	WA-73-1676	CLAUDY, WILSON I	C A CROMWELL	11-15-1976	670	U	65	H	377TMSN
WA Bj 102	WA-72-0103	MARTIN, MARLIN	D H WOODWARD	09-12-1971	645	H	43	H,S	377TMSN
WA Bj 103	WA-73-2449	KREIT, LAWRENCE A	R ARDINGER	08-22-1978	635	U	260	H	371CCCG
WA Bj 104	WA-05-2931	ESHLEMAN, ROBERT	J M HOFFMAN	08-05-1963	650	F	245	S	371CCCG
WA Bj 105	WA-73-0818	ESHLEMAN, ROBERT	C A CROMWELL	10-18-1974	645	V	250	H	371CCCG
WA Bj 106	--	ESHLEMAN, ROBERT	C A CROMWELL	1974	640	V	360	H,S	371CCCG
WA Bj 107	WA-81-0083	MARTIN, MERLE	D H WOODWARD	10-09-1981	680	S	200	H	--
WA Bj 108	WA-73-2083	LITTLE, NELSON	D H WOODWARD	10-11-1977	705	F	165	H	377TMSN
WA Bj 109	WA-81-0506	MCCARTER, MICHAEL	D H WOODWARD	07-08-1983	705	F	200	H	377TMSN
WA Bj 110	WA-73-3403	MCCARTER, STANLEY	D H WOODWARD	02-17-1981	700	F	225	H	377TMSN
WA Bj 111	WA-66-0021	KELLY, JOHN	A R KEYSER	07-30-1965	725	F	140	H	377TMSN
WA Bj 112	WA-81-0213	C R SEMLER INC	A&H DRILLING	04-06-1983	685	F	145	C	377TMSN
WA Bj 113	WA-81-0856	C R SEMLER INC	A&H DRILLING	10-04-1984	670	S	125	C	377TMSN
WA Bj 114	WA-73-0401	HUNTZBERRY, RICHARD	C A CROMWELL	02-04-1974	725	V	240	H	377TMSN
WA Bj 115	WA-81-0955	TURNER, JOHN W	A&H DRILLING	02-25-1985	880	S	345	H	377TMSN
WA Bj 116	WA-73-1903	DILLER, NATHAN H	D H WOODWARD	06-14-1977	640	U	185	H	371ELBK
WA Bj 117	WA-81-0084	BOHN, RONALD	ROBERT CLINE	10-21-1981	710	F	150	H	377TMSN
WA Bj 118	WA-73-1086	SPANGLER, WILLIAM	C A CROMWELL A&H DRILLING	07-07-1975 08-21-1984	840	S	125	H	377ANTM
WA Bj 119	WA-81-0788	DUGGINS, JAMES G	A&H DRILLING	08-01-1984	850	S	285	H	377ANTM
WA Bj 120	WA-81-0877	DUGGINS, JAMES G	A&H DRILLING	10-22-1984	835	S	365	U	377ANTM
WA Bj 121	WA-73-1867	SHANK, THOMAS H	ROY HARLEY	05-19-1977	610	S	175	H	377TMSN
WA Bj 122	WA-73-3081	SOWERS, DOUGLAS	D H WOODWARD	05-05-1980	570	S	120	H	377TMSN
WA Bj 123	WA-73-2878	ALIZADEH	A&H DRILLING	08-15-1979	630	H	325	H	377WSBR
WA Bj 124	WA-73-3186	CROUSE, RICHARD	A&H DRILLING	08-25-1980	565	S	305	H	377TMSN
WA Bj 125	WA-73-2951	NEGLEY, JOHN	A&H DRILLING	11-08-1979	670	H	170	H	377WSBR
WA Bj 126	WA-81-1169	NEGLEY, CLEMENT L	JOHN SHAFF	10-02-1985	570	S	125	H	377WSBR
WA Bj 127	WA-73-2841	JOHNSTON, RICHARD J	D H WOODWARD	07-19-1979	615	F	140	H	377TMSN
WA Bj 128	WA-73-2339	HINES, G W	ROY HARLEY	06-27-1978	625	H	60	H	377TMSN
WA Bj 129	WA-73-2104	LYONS, ROBERT A	ROBERT CLINE	11-11-1977	670	S	225	H	377TMSN
WA Bj 130	WA-73-2284	TWENTEY, JAMES R	ROBERT CLINE	07-18-1978	730	H	425	H	377TMSN
WA Bj 131	WA-81-1187	SIRNI, JOSEPH JR	D H WOODWARD	10-29-1985	580	S	300	H	377WSBR
WA Bj 133	WA-73-2867	BROWN, R D	A&H DRILLING	08-09-1979	695	H	325	H	371CCCG
WA Bj 134	WA-81-0758	MANN, RICKY G	A&H DRILLING	06-22-1984	650	H	205	H	371CCCG
WA Bj 135	WA-81-0901	MONTGOMERY, RICHARD J	D H WOODWARD	11-15-1984	645	S	375	H	371CCCG
WA Bj 136	WA-81-0745	BRICKER, ROBERT JR	D H WOODWARD	06-12-1984	630	S	300	H	371CCCG
WA Bj 137	WA-81-1126	HOLMES, CLINTON	D H WOODWARD	08-08-1985	680	S	400	H	371CCCG
WA Bj 138	WA-81-0647	TAYLOR, DARRELL	A&H DRILLING	12-23-1983	660	S	345	H	371CCCG
WA Bj 139	WA-81-0956	TWIGG, MICHAEL	A&H DRILLING	02-19-1985	625	S	220	H	371CCCG
WA Bj 140	WA-81-0847	KINNEY, ROBERT J	JOHN SHAFF	11-08-1984	615	H	175	H	371ELBK
WA Bj 141	WA-81-1252	HOOVER, KEVIN R	JOHN SHAFF	01-10-1986	610	S	100	H	371ELBK
WA Bj 142	WA-81-0568	MAUK, DAVID	D H WOODWARD	09-22-1983	600	F	250	H	371ELBK
WA Bj 143	WA-81-0746	HALL, JACK	A&H DRILLING	06-20-1984	590	H	120	H	371ELBK
WA Bj 144	WA-73-0075	BRYAN, LEWIS J	JOHN SHAFF	10-11-1972	695	H	260	H	371CCCG
WA Bj 145	WA-73-0756	STOTLER, RALPH	C A CROMWELL	08-08-1974	575	S	90	H	371CCCG
WA Bj 146	WA-73-1144	FEUERSTEIN, WILLIE	W LAMBERSON	08-15-1975	580	S	365	H	371CCCG
WA Bj 147	WA-70-0045	RHODERICK, ARTHUR	JOHN SHAFF	09-01-1969	560	U	100	H,S	371CCCG
WA Bj 148	WA-81-1228	PRYOR, EDGAR P	A&H DRILLING	11-25-1985	565	S	265	H	371ELBK
WA Bj 149	WA-73-2823	RHODERICK, ARTHUR	D A WOODWARD	06-15-1979	585	H	120	H	371CCCG
WA Bj 150	WA-01-7385	PRYOR, EDGAR P	W MARTIN	02-05-1955	590	S	114	H,S	371CCCG
WA Bj 151	WA-73-0550	WEAVER, H L	W LAMBERSON	01-25-1974	565	H	365	H	371CCCG
WA Bj 152	WA-81-1373	MCCARTER, JAMES	D H WOODWARD	05-20-1986	710	F	300	H	377TMSN
WA Bj 153	WA-81-1393	MEYER, RICHARD C	A&H DRILLING	07-23-1986	525	H	125	H	371CCCG
WA Bj 154	WA-81-1430	HUNTZBERRY BROTHERS	A&H DRILLING	07-24-1986	555	S	100	H	371ELBK
WA Bj 155	WA-81-1309	MOMMSEN, ROBERT	A&H DRILLING	04-03-1986	625	S	165	H	371CCCG
WA Bj 156	WA-81-1287	HOLMES, BRIAN S	D H WOODWARD	03-04-1986	595	V	200	H	--
WA Bj 157	WA-81-1322	POPP, LARRY M	JOHN SHAFF	05-06-1986	680	S	150	H	377TMSN
WA Bj 158	WA-81-1307	ALONSO, WALTER	D H WOODWARD	03-26-1986	700	S	500	H	377TMSN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
44	6	X	30	R	02-08-1972	3	300	30	0.01	5	02-08-1972	--	WA Bj 95
64	6	X	40	R	02-20-1973	12	170	40	.09	2	02-20-1973	--	WA Bj 96
22	6	X	20	R	05-21-1977	4	175	20	.03	2	05-21-1977	--	WA Bj 97
21	6	X	35	R	07-16-1985	12	225	35	.06	2	07-16-1985	--	WA Bj 98
25	6	X	40	R	09-28-1976	6	70	40	.20	2	09-28-1976	--	WA Bj 99
54	6	X	40	R	02-08-1974	25	115	40	.33	2	02-08-1974	--	WA Bj 100
25	6	X	25	R	11-15-1976	100	35	25	10.0	2	11-15-1976	--	WA Bj 101
40	6	X	20	R	09-12-1971	25	25	20	5.0	1	09-12-1971	--	WA Bj 102
24	6	X	40	R	08-22-1978	2	260	40	.01	.7	08-22-1978	--	WA Bj 103
21	6	X	150	R	08-05-1963	3	195	150	.07	.5	08-05-1963	--	WA Bj 104
21	6	X	35	R	10-18-1974	4	245	35	.02	2	10-18-1974	Q	WA Bj 105
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bj 106
35	6	X	45	R	10-09-1981	10	200	45	.06	2	10-09-1981	--	WA Bj 107
25	6	X	45	R	10-11-1977	55	--	45	--	4	10-11-1977	--	WA Bj 108
44	6	X	50	R	07-08-1983	25	200	50	.17	3	07-08-1983	--	WA Bj 109
70	5												
54	6	X	45	R	02-17-1981	30	225	45	.17	3	02-17-1981	--	WA Bj 110
67	6	X	45	R	07-30-1965	20	--	45	--	1	07-30-1965	--	WA Bj 111
95	6	X	60	R	04-06-1983	50	145	60	.59	1	04-06-1983	--	WA Bj 112
130	5					50	125	35	.56	2	05-26-1982		
65	6	X	25	R	10-04-1984	60	125	25	.60	2	10-04-1984	--	WA Bj 113
105	5												
26	6	X	20	R	02-04-1974	40	225	20	.20	2	02-04-1974	--	WA Bj 114
50	6	X	100	R	02-25-1985	5	345	100	.02	2	02-25-1985	--	WA Bj 115
185	5												
45	6	X	55	R	06-14-1977	40	120	55	.62	5	06-14-1977	--	WA Bj 116
131	6	X	31	R	10-21-1981	50	150	31	.42	1	10-21-1981	--	WA Bj 117
82	6	X	65	R	08-21-1984	25	100	40	.42	1	07-07-1975	--	WA Bj 118
117	5					30	125	65	.50	2	08-21-1984		
100	6	X	120	R	08-01-1984	6	285	120	.04	2	08-01-1984	--	WA Bj 119
230	5												
125	6	X	120	R	10-22-1984	8	365	120	.03	2	10-22-1984	--	WA Bj 120
305	5												
20	6	X	50	R	05-19-1977	12	130	50	.15	3	05-19-1977	--	WA Bj 121
62	6	X	50	R	05-05-1980	100	120	50	1.43	17	05-05-1980	--	WA Bj 122
60	6	X	65	R	08-15-1979	8	325	65	.03	2	08-15-1979	--	WA Bj 123
35	6	X	35	R	08-25-1980	8	305	35	.03	2	08-25-1980	--	WA Bj 124
105	5												
43	6	X	90	R	11-08-1979	100	170	90	1.25	1	11-08-1979	--	WA Bj 125
158	5												
30	6	X	26	R	10-02-1985	10	58	26	.31	3	10-02-1985	--	WA Bj 126
45	6	X	45	R	07-19-1979	30	140	45	.32	3	07-19-1979	--	WA Bj 127
36	6	X	30	R	06-27-1978	20	60	30	.67	.5	06-27-1978	--	WA Bj 128
125	6	X	56	R	11-11-1977	20	225	56	.12	1	11-11-1977	--	WA Bj 129
79	6	X	80	R	07-18-1978	3	425	80	.01	1	07-18-1978	--	WA Bj 130
63	6	X	45	R	10-29-1985	10	300	45	.04	2	10-29-1985	--	WA Bj 131
25	6	X	65	R	08-09-1979	15	325	65	.06	2	08-09-1979	--	WA Bj 133
65	6	X	50	R	06-22-1984	8	205	50	.05	3	06-22-1984	--	WA Bj 134
120	5												
21	6	X	80	R	11-15-1984	30	375	80	.10	3	11-15-1984	--	WA Bj 135
31	6	X	70	R	06-12-1984	25	300	70	.11	4	06-12-1984	--	WA Bj 136
27	6	X	105	R	08-08-1985	12	400	105	.04	4	08-08-1985	--	WA Bj 137
111	5												
35	6	X	85	R	12-23-1983	8	345	85	.03	2	12-23-1983	--	WA Bj 138
75	5												
74	6	X	40	R	02-19-1985	15	220	40	.08	3	02-19-1985	--	WA Bj 139
51	6	X	36	R	11-08-1984	15	78	36	.36	2	11-08-1984	--	WA Bj 140
75	6	X	28	R	01-10-1986	30	41	28	2.31	3	01-10-1986	--	WA Bj 141
42	6	X	50	R	09-22-1983	30	250	50	.15	2	09-22-1983	--	WA Bj 142
45	6	X	40	R	06-20-1984	20	120	40	.25	3	06-20-1984	--	WA Bj 143
22	6	X	42	R	10-11-1972	8	108	42	.12	3	10-11-1972	--	WA Bj 144
26	6	X	15	R	08-08-1974	50	75	15	.83	2	08-08-1974	--	WA Bj 145
25	6	X	30	R	08-15-1975	30	345	30	.10	1	08-15-1975	--	WA Bj 146
18	6	X	18	R	09-01-1969	30	35	18	1.76	3	09-01-1969	--	WA Bj 147
50	6	X	35	R	11-25-1985	30	265	35	.13	3	11-25-1985	--	WA Bj 148
124	5												
48	6	X	62	R	06-15-1979	40	110	62	.83	1	06-15-1979	--	WA Bj 149
80	6	X	65	R	02-05-1955	8	75	65	.80	4	02-05-1955	--	WA Bj 150
23	6	X	35	R	01-25-1974	4	340	35	.01	1	01-25-1974	--	WA Bj 151
88	6	X	60	R	05-20-1986	80	300	60	.33	3	05-20-1986	--	WA Bj 152
21	6	X	55	R	07-23-1986	20	125	55	.29	2	07-23-1986	--	WA Bj 153
23	6	X	30	R	07-24-1986	20	100	30	.29	2	07-24-1986	--	WA Bj 154
21	6	X	50	R	04-03-1986	10	165	50	.09	2	04-03-1986	--	WA Bj 155
50	6	X	30	R	03-04-1986	10	200	30	.06	2	03-04-1986	--	WA Bj 156
65	5												
45	6	X	68	R	05-06-1986	20	96	68	.71	3	05-06-1986	--	WA Bj 157
27	6	X	70	R	03-26-1986	20	500	70	.05	4	03-26-1986	--	WA Bj 158

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Bj 159	WA-81-1586	H B MELLOTT ESTATE INC	A&H DRILLING	10-14-1986	545	S	155	U	371ELBK
WA Bj 160	WA-81-1587	H B MELLOTT ESTATE INC	A&H DRILLING	10-14-1986	540	S	155	U	371ELBK
WA Bj 161	WA-81-1589	H B MELLOTT ESTATE INC	A&H DRILLING	10-14-1986	540	S	150	U	371ELBK
WA Bj 162	WA-81-1584	H B MELLOTT ESTATE INC	A&H DRILLING	10-14-1986	530	S	145	U	371ELBK
WA Bj 163	WA-81-1588	H B MELLOTT ESTATE INC	A&H DRILLING	10-14-1986	525	S	135	U	371ELBK
WA Bj 164	--	H B MELLOTT ESTATE INC	--	--	525	S	--	U	371ELBK
WA Bk 1	--	CSX CORPORATION	--	--	805	H	90	U	377TMSN
WA Bk 2	--	STOTTLEMYER, L B JR	--	--	1,610	H	41	H	400CTCN
WA Bk 5	WA-02-0152	HESSONG, JOSEPH	E R SMITH	08-09-1955	835	S	101	U	377TMSN
WA Bk 6	WA-01-6212	GIBBS, LEONARD	W MARTIN	08-28-1954	960	S	286	H	377TMSN
WA Bk 8	WA-03-1129	FRAVER, JOHN C	WELDO FUNT	06-16-1958	1,180	S	82	H	400CTCN
WA Bk 9	WA-03-1599	DOUBLEDAY CO INC	J M HOFFMAN	1958	800	H	501	U	377TMSN
WA Bk 10	WA-03-2884	DOUBLEDAY CO INC	J M HOFFMAN	08 - 1958	765	S	94	N	377TMSN
WA Bk 11	--	TOWN OF SMITHSBURG	C R COWAN	1957	940	S	225.5	U	377HRPR
WA Bk 12	--	JACQUES, M N	--	1935	940	S	80	H,S	377ANTM
WA Bk 13	--	LEWIS, H H	--	1943	810	S	90	H	377TMSN
WA Bk 14	--	DOUBLEDAY CO INC	USGS	1958	765	S	4	U	110MNWS
WA Bk 15	--	DOUBLEDAY CO INC	USGS	1958	765	S	3	U	110MNWS
WA Bk 16	--	DOUBLEDAY CO INC	USGS	1958	765	S	3.5	U	110MNWS
WA Bk 18	--	CITY OF HAGERSTOWN	--	1882	800	S	434	U	377TMSN
WA Bk 19	WA-02-4889	PRYOR, MERLE R	E R SMITH	10-08-1956	675	S	36	H	377WSBR
WA Bk 20	WA-03-3869	KLINE, H D	WELDO FUNT	03-28-1959	1,310	S	60	H	400CTCN
WA Bk 21	WA-03-2484	DRAPER, THOMAS F	J M HOFFMAN	10 - 1958	1,610	S	64	H	400CTCN
WA Bk 22	WA-03-6726	DOUBLEDAY CO INC	KOHL BROS	02-28-1960	765	S	500	N	377TMSN
WA Bk 23	WA-68-0170	LONG, GARLAND D	J M HOFFMAN	04-30-1968	900	S	265	H	377TMSN
WA Bk 24	WA-04-8635	HYKES, CHARLES M	P E KOHLER	09-20-1962	920	S	281	H	377TMSN
	WA-05-6094		YORK DRLG	02-04-1964					
WA Bk 25	WA-70-0235	U S GEOLOGICAL SURVEY	A R KEYSER	04-07-1970	790	V	200	U	377TMSN
WA Bk 26	WA-73-1054	CHAMP, DONALD	D H WOODWARD	06-06-1975	1,610	F	225	H	400CTCN
WA Bk 27	WA-81-0339	SMITH, ELVIN	D H WOODWARD	11 - 1982	1,670	S	400	H	400CTCN
WA Bk 30	WA-73-0387	PYLES, HERMAN	ROBERT CLINE	09-12-1973	1,525	S	80	H	400CTCN
WA Bk 31	WA-81-0162	BLUELL, MARK	D H WOODWARD	03-11-1982	1,565	S	300	H	400MTRL
WA Bk 32	WA-73-2934	RAMSBURG, WAYNE	D H WOODWARD	08-29-1979	1,540	S	250	H	400CTCN
WA Bk 33	WA-73-1978	STARTZMAN, RICHARD C	D H WOODWARD	09-07-1977	1,670	S	500	U	400CTCN
WA Bk 34	WA-81-0814	STARTZMAN, RICHARD C	A&H DRILLING	08-16-1984	1,670	S	305	H	400CTCN
WA Bk 35	WA-73-2602	BROMLEY,WALTER D JR	D H WOODWARD	03-27-1979	1,045	S	232	H	377HRPR
WA Bk 36	WA-73-0334	MOUNTAIN FARM CAMPGRND	D H WOODWARD	11-05-1973	1,565	F	200	H	400MTRL
WA Bk 37	WA-66-0091	CITY OF HAGERSTOWN	J M HOFFMAN	09 - 1965	910	S	160	H	377HRPR
WA Bk 38	WA-04-4875	MT PLEASANT CH OF GOD	A R KEYSER	09 - 1961	1,710	H	55	H	400CTCN
WA Bk 39	WA-73-3335	ZELLO, DOMENICK M	D H WOODWARD	12-03-1980	900	V	250	C	377HRPR
WA Bk 40	WA-73-3347	ZELLO, DOMENICK M	D H WOODWARD	12-04-1980	900	V	250	C	377HRPR
WA Bk 42	WA-81-0327	TARANTO, MONROE J	D H WOODWARD	11-10-1982	950	S	200	H	377HRPR
WA Bk 43	WA-73-2539	CRUZE, SUSAN H	K L TEACH	11-03-1978	1,260	S	200	H	377WVRN
WA Bk 44	WA-73-3229	BURGESS, EUBERT H	D H WOODWARD	09-15-1980	1,410	S	300	H	400CTCN
WA Bk 45	WA-81-1353	SOUTH MTN ROD & GUN CL	KEYSER-GARVR	08-14-1986	1,450	S	300	H	400MTRL
WA Bk 46	WA-69-0238	ZELLO, DOMENICK M	C A CROMWELL	05-14-1969	895	V	165	U	377HRPR
WA Bk 47	WA-81-1133	WALTZ, EDWARD I	A&H DRILLING	09-04-1985	885	S	225	H	377TMSN
WA Bk 48	WA-73-2874	LEWIS, NEVIN	A&H DRILLING	08-15-1979	890	S	240	H,I	377TMSN
WA Bk 49	WA-73-3198	WASHINGTON CT TNHOUSES	D H WOODWARD	08-19-1980	755	S	280	U	377TMSN
WA Bk 50	WA-73-0843	O'BRIEN, CLARENCE	KEYSER-GARVR	09-28-1974	1,505	S	235	H	400CTCN
WA Bk 51	WA-73-3198	WASHINGTON CT TNHOUSES	D H WOODWARD	08-19-1980	755	S	800	U	377TMSN
WA Bk 52	WA-71-0116	O'BRIEN, CLARENCE R	D H WOODWARD	11-12-1970	1,510	H	300	H	400CTCN
WA Bk 53	WA-81-1336	CLINE, ROGER	A&H DRILLING	04-30-1986	1,050	S	245	H	377HRPR
WA Cg 1	WA-00-0672	PENTECOST ASSEM OF GOD	J M HOFFMAN	08-14-1946	405	U	56	H	371CCCG
WA Cg 2	--	SWOPE, F	--	1900	540	H	90	H,S	361MRBG
WA Cg 3	WA-03-2560	SCHETROMPF, PAUL	W TEACH	11 - 1958	390	S	302	S	361MRBG
WA Cg 4	--	SCHETROMPF, PAUL	W TEACH	1957	390	S	197	U	361MRBG
WA Cg 5	--	POTOMAC FISH & GAME CL	J M HOFFMAN	--	470	S	97	C	361MRBG
WA Cg 6	--	HARRELL, FLOYD	--	--	440	F	59	H	371CCCG
WA Cg 7	WA-01-6870	DITTO, EDWARD W	J M HOFFMAN	12 - 1954	430	U	305	U	367SNNG
WA Cg 8	--	DITTO, EDWARD W	--	--	440	U	190	H,S	367SNNG
WA Cg 9	WA-03-0036	RHODES, KENNETH L	W TEACH	03-12-1958	440	U	200	H	367SNNG
WA Cg 10	WA-02-5402	DITTO, WILLIAM H	J M HOFFMAN	12 - 1956	400	W	99	H	367RCKR
WA Cg 11	WA-02-3376	C & O CANAL NATL PARK	J M HOFFMAN	06 - 1956	390	S	237	U	367SNNG
WA Cg 12	WA-65-0117	C & O CANAL NATL PARK	J M HOFFMAN	11-03-1964	330	T	106.8	H	371CCCG
WA Cg 13	--	C & O CANAL NATL PARK	J M HOFFMAN	04-30-1969	345	T	245	U	361MRBG
WA Cg 16	WA-81-0664	FARROW, JOHN M	JOHN SHAFF	03-06-1984	450	F	300	H	367SNNG
WA Cg 17	WA-81-0183	STOVER, MILTON H	A&H DRILLING	03-02-1981	450	F	105	H	367RCKR
WA Cg 18	WA-73-1887	HORNBAKER, EUGENE R	D H WOODWARD	05-27-1977	495	F	85	H	--
WA Cg 19	WA-73-1887	HORNBAKER, EUGENE R	D H WOODWARD	05-27-1977	490	F	365	U	--

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
21	6	X	50	R	10-14-1986	100	155	50	0.95	2	10-14-1986	--	WA Bj 159
22	6	X	50	R	10-14-1986	100	155	50	.95	2	10-14-1986	--	WA Bj 160
26	6	X	60	R	10-14-1986	100	150	60	1.11	2	10-14-1986	--	WA Bj 161
37	6	X	50	R	10-14-1986	20	145	50	.21	2	10-14-1986	--	WA Bj 162
40	6	X	50	R	10-14-1986	20	135	50	.24	2	10-14-1986	--	WA Bj 163
--	--	W	27.2	S	01-06-1988	--	--	--	--	--	--	--	WA Bj 164
--	--	-	59.0	S	08-28-1958	--	--	--	--	--	--	--	WA Bk 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bk 2
69	6	X	85	R	08-09-1955	8	93	85	1.0	2	08-09-1955	--	WA Bk 5
86	6	X	246	R	08-28-1954	2.5	250	246	.62	2	08-28-1954	--	WA Bk 6
44.5	6	X	15	S	06-15-1958	30	24	15	3.33	.5	06-16-1958	--	WA Bk 8
72	6	X	68	S	09 - 1958	10	235	80	.06	24	1958	--	WA Bk 9
18	8	X	20	R	08 - 1958	300	90	20	4.29	100	08 - 1958	--	WA Bk 10
55	6												
--	6	-	90.68	S	08-28-1958	20	--	--	--	--	10-07-1958	Q	WA Bk 11
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bk 12
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Bk 13
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bk 14
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bk 15
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bk 16
110	6	X	60	R	1900	--	--	--	--	--	--	--	WA Bk 18
29	6	X	24	R	10-08-1956	8	30	24	1.33	4	10-08-1956	--	WA Bk 19
27	6	X	26.04	S	03-28-1959	10	50	24	.38	3	03-28-1959	--	WA Bk 20
14	6	X	25	R	10 - 1958	8	60	25	.23	.5	10 - 1958	--	WA Bk 21
31.5	12	X	18	R	02-28-1960	100	170	18	.66	37	02-28-1960	--	WA Bk 22
101	8												
112	6	X	170	R	04-30-1968	10	250	170	.12	1	04-30-1968	--	WA Bk 23
243	5.5												
198	6	X	200	R	02-04-1964	3	175	132	.07	2	09-20-1962	--	WA Bk 24
280	5					10	275	200	.13	2	02-04-1964		
129	6	X	34.60	S	04-07-1970	200	46.20	34.60	17.24	11	04-07-1970	C,G,O	WA Bk 25
46	6	X	25	R	06-06-1975	2.5	150	25	.02	1	06-06-1975	--	WA Bk 26
21	6	X	50	R	11 - 1982	1	400	50	.003	4	11 - 1982	--	WA Bk 27
28	6	X	32	R	09-12-1973	7	80	32	.15	1	09-12-1973	--	WA Bk 30
55	6	X	60	R	03-11-1982	2	300	60	.01	3	03-11-1982	--	WA Bk 31
21	6	X	100	R	08-29-1979	6	250	100	.04	1	08-29-1979	--	WA Bk 32
22	6	X	134.38	S	06-05-1986	1	450	35	.002	3	09-07-1977	O	WA Bk 33
42	6	X	60	R	08-16-1984	2	305	60	.01	2	08-16-1984	--	WA Bk 34
85	6	X	41	R	03-27-1979	7	214	41	.04	1	03-27-1979	--	WA Bk 35
55	6	X	38	R	11-05-1973	15	150	38	.13	1	11-05-1973	--	WA Bk 36
35	6	X	30	R	09 - 1965	8	145	30	.07	.5	09 - 1965	--	WA Bk 37
23	6	X	25	R	09 - 1961	8	25	--	--	2	09 - 1961	--	WA Bk 38
22	6	X	20	R	12-03-1980	20	250	20	.09	4	12-03-1980	--	WA Bk 39
22	6	X	20	R	12-04-1980	12	250	20	.05	3	12-04-1980	--	WA Bk 40
35	6	X	25	R	11-10-1982	30	200	25	.17	3	11-10-1982	--	WA Bk 42
90	6	X	75	R	11-03-1978	25	145	75	.36	1	11-03-1978	--	WA Bk 43
23.5	6	X	40	R	09-15-1980	1	300	40	.004	1	09-15-1980	--	WA Bk 44
31.5	6	X	33	R	08-14-1986	12	290	33	.05	5	08-14-1986	--	WA Bk 45
16	6	X	--	-	--	10	47	--	--	2	05-14-1969	--	WA Bk 46
40	6	X	70	R	09-04-1985	15	225	70	.10	2	09-04-1985	--	WA Bk 47
150	5												
170	6	X	70	R	08-15-1979	15	170	17	.10	5	08-15-1979	--	WA Bk 48
21	6	X	50	R	08-19-1980	30	280	50	.13	2	08-19-1980	--	WA Bk 49
28	6	X	32	R	09-28-1974	6	50	32	.33	2	09-28-1974	--	WA Bk 50
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Bk 51
31	6	X	40	R	11-12-1970	3	300	40	.01	1	11-12-1970	--	WA Bk 52
80	6	X	125	R	04-30-1986	8	245	125	.07	2	04-30-1986	--	WA Bk 53
29	6	X	36	R	08-14-1946	20	--	36	--	.5	08-14-1946	--	WA Cg 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Cg 2
21	6	X	70	R	12-17-1958	8	--	150	--	1	11 - 1958	Q	WA Cg 3
35	6	X	--	-	--	1	--	--	--	--	12-17-1958	--	WA Cg 4
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Cg 5
38.5	36	W	35.66	S	12-17-1958	--	--	--	--	--	--	--	WA Cg 6
	6												
35	6	X	70	R	12 - 1954	.8	300	70	.002	.5	12 - 1954	--	WA Cg 7
40	36	W	--	-	--	--	--	--	--	--	--	--	WA Cg 8
	6												
--	--	-	80	R	03-12-1958	6	85	80	1.20	1	03-12-1958	--	WA Cg 9
38	6	X	40	R	12 - 1956	20	50	40	2.0	1	12 - 1956	--	WA Cg 10
20	6	X	80	R	06 - 1956	1	230	80	.01	.5	06 - 1956	--	WA Cg 11
34	6	X	20.36	S	11-17-1969	18.5	34.44	20.36	1.31	8	11-17-1964	Q	WA Cg 12
--	--	-	F	S	07 - 1969	--	--	--	--	--	--	Q	WA Cg 13
21	6	X	18	R	03-06-1984	6	164	18	.04	3	03-06-1984	--	WA Cg 16
45	6	X	60	R	03-02-1981	80	105	60	1.78	2	03-02-1981	--	WA Cg 17
85	5												
67	6	X	50	R	05-27-1977	10	65	50	.67	2	05-27-1977	--	WA Cg 18
45	6	X	50	R	05-27-1977	.5	365	50	.002	3	05-27-1977	--	WA Cg 19

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Cg 20	WA-73-0835	CLARK, CYNTHIA J	W LAMBERSON	09-09-1974	525	H	145	H	361MRBG
WA Cg 21	WA-03-5438	MYERS, CARL	W TEACH	07-15-1959	525	H	65	H	361MRBG
WA Cg 22	WA-73-0635	HORNBAKER, ROGER	W LAMBERSON	04-25-1974	525	H	145	H	361MRBG
WA Cg 23	WA-73-1799	PLANK, DOYLE	D H WOODWARD	04-15-1977	435	S	400	H	367SNNG
WA Cg 24	WA-73-1799	PLANK, DOYLE	D H WOODWARD	04-15-1977	435	S	305	U	367SNNG
WA Cg 25	WA-73-1507	SHANK, EUGENE E	JOHN SHAFF	08-18-1976	430	F	620	H	367SNNG
WA Cg 26	WA-73-1507	SHANK, EUGENE E	JOHN SHAFF	08-18-1976	430	F	450	U	367SNNG
WA Cg 27	WA-73-1507	SHANK, EUGENE E	JOHN SHAFF	08-18-1976	430	F	550	U	367SNNG
WA Cg 28	WA-73-2454	ROWLAND, JOHN	R ARDINGER	08-09-1978	420	U	500	H	367SNNG
WA Cg 29	WA-73-0934	REEDER, JANE	C A CROMWELL	01-23-1975	470	H	455	H,S	367SNNG
WA Cg 30	WA-73-0342	REEDER, JANE	W LAMBERSON	07-09-1973	470	H	385	H,S	367SNNG
WA Cg 31	WA-73-2178	C & O CANAL NATL PARK	D H WOODWARD	02-16-1978	385	V	105	H	367RCKR
WA Cg 32	WA-73-3217	HORNBAKER, ROGER	D H WOODWARD	09-11-1980	440	F	250	H	367RCKR
WA Cg 33	WA-73-2887	STEVENS, WALTER	A&H DRILLING	08-19-1979	450	F	185	H	367SNNG
WA Cg 34	WA-73-2954	TURNER, WILLIAM	JOHN SHAFF	10-08-1979	435	F	200	H	367SNNG
WA Cg 35	WA-81-0713	SHANK, RONALD L	JOHN SHAFF	05-18-1984	415	F	100	H	367SNNG
WA Cg 36	WA-81-0896	BUCHANON, JOHNNY	A&H DRILLING	11-15-1984	420	V	405	H	367SNNG
WA Cg 37	WA-72-0306	NALLEY, LESTER	K L TEACH	07-03-1972	510	S	105	H	361MRBG
WA Cg 38	WA-73-2227	HARSH, DAVID	JOHN SHAFF	04-28-1978	505	S	400	H	361MRBG
WA Cg 39	WA-68-0081	PINECREST TRAILER PK	J M HOFFMAN	10-16-1967	530	H	105	P	361MRBG
WA Ch 1	--	VICKERS, E E	--	--	415	S	26	H	371CCCG
WA Ch 3	--	DOWNSVILLE SCHOOL	J M HOFFMAN	1941	485	H	300	H	367RCKR
WA Ch 4	WA-02-2192	BLOOM, MYRON L	J M HOFFMAN	02-23-1956	455	F	120	H	367RCKR
WA Ch 5	WA-02-2374	FERRY, MRS JOHN S	J M HOFFMAN	03 - 1956	505	S	35	H	367SNNG
WA Ch 9	--	CONRAIL	--	--	455	U	85	H	367RCKR
WA Ch 10	WA-03-1944	BARKDOLL, JAMES A	J M HOFFMAN	08 - 1958	530	U	165	H	367SNNG
WA Ch 12	--	MYERS, CLYDE	--	-- 1957	460	S	55	H	371CCCG
WA Ch 15	--	MCCUBBIN, H W	--	--	530	V	37	H	371CCCG
WA Ch 18	WA-01-6459	MALONE, JAMES G	J M HOFFMAN	09 - 1954	445	S	138	H,S	371CCCG
WA Ch 21	--	DELAUDER, RALPH	--	--	415	V	18.1	H,S	371CCCG
WA Ch 22	--	RUFFNER, PETER	C E PIKE	1950	400	S	80	H,S	371CCCG
WA Ch 23	--	DOWNEY, LAWRENCE	--	--	375	S	53.5	H,S	371CCCG
WA Ch 24	--	OTZELBERGER, JOHN	--	--	470	F	100	H,S	371CCCG
WA Ch 25	--	BURKHOLDER, J H	--	1951	450	U	268	H,S	367RCKR
WA Ch 28	WA-03-2923	CAVANAUGH, CHARLES	J M HOFFMAN	11 - 1958	495	F	265	U	367RCKR
WA Ch 29	WA-03-2618	ANDERSON, GLEN O	J M HOFFMAN	11 - 1958	495	F	77	H	367RCKR
WA Ch 30	WA-03-2699	IZER, LAWRENCE B	J M HOFFMAN	11 - 1958	435	U	350	H,S	367RCKR
WA Ch 31	WA-01-6708	WINGERT, MRS LEWIS	J M HOFFMAN	09 - 1954	435	S	76	H,S	371CCCG
WA Ch 32	WA-03-0855	SHANTZ, CHARLES H	W TEACH	06-04-1958	340	S	80	H	371CCCG
WA Ch 33	WA-01-8955	HAMMOND, LESTER	J M HOFFMAN	05 - 1955	475	S	70	H	367RCKR
WA Ch 34	WA-03-2377	SAUNDERS, BRUCE	J M HOFFMAN	09 - 1958	525	F	55	H	367RCKR
WA Ch 35	WA-01-9496	BERGER, SAMUEL B	J M HOFFMAN	07 - 1955	465	H	281	H,S	367RCKR
WA Ch 36	WA-02-2773	MILLS, PAUL E	C E PIKE	04-24-1956	370	S	47	H	371CCCG
WA Ch 37	WA-02-4104	KYLER, ORVILLE	J PROVARD	07-31-1956	525	F	74	H	367RCKR
WA Ch 38	WA-03-2403	HESS, ELSTON E	J M HOFFMAN	10 - 1958	480	S	240	H,S	371CCCG
WA Ch 39	WA-68-0152	ST JAMES SCHOOL	J M HOFFMAN	04-01-1968	500	V	185	T	367SNNG
WA Ch 40	WA-68-0153	ST JAMES SCHOOL	J M HOFFMAN	04-02-1968	500	V	185	U	367SNNG
WA Ch 41	--	PRICE FARMS	--	--	440	S	35	U	371CCCG
WA Ch 42	WA-03-7425	LONG, LAWRENCE C	J M HOFFMAN	01 - 1960	460	U	130	H,S	367SNNG
WA Ch 43	WA-69-0259	LONG, LAWRENCE C	LEO FORD	05-03-1969	460	U	198	S	367SNNG
WA Ch 44	WA-69-0276	HARSH, NELSON SR	J M HOFFMAN	05-21-1969	450	H	205	H	367RCKR
WA Ch 45	WA-69-0312	CLOPPER, VERDEEN	J M HOFFMAN	06-13-1969	435	D	95	H	367SNNG
WA Ch 46	WA-69-0206	BURKHOLDER, JACOB	JOHN SHAFF	03-01-1969	445	D	290	H,S	367RCKR
WA Ch 47	WA-69-0302	DEIBERT, WALTER	ELDON FUNK	05-28-1969	535	S	105	H,S	367RCKR
WA Ch 48	WA-69-0171	MAY, ROBERT L	C A CROMWELL	12-17-1968	440	V	80	H	371CCCG
WA Ch 49	WA-69-0243	DENEEN, ERNEST B	JOHN SHAFF	04-28-1969	470	S	125	H	371CCCG
WA Ch 51	WA-70-0322	FOUNTAIN ROCK ELEM SCH	W LAMBERSON	07-07-1970	515	F	325	U	371CCCG
WA Ch 52	WA-70-0094	DENEEN, ERNEST B	W LAMBERSON	09-10-1969	450	F	270	H	367SNNG
WA Ch 53	WA-69-0083	ANDERSON, GLENN	J M HOFFMAN	09-25-1968	495	F	250	U	367RCKR
WA Ch 54	WA-69-0083	ANDERSON, GLENN	J M HOFFMAN	10-04-1968	490	F	165	H	367RCKR
WA Ch 55	WA-70-0152	RUFFNER, DAVID	W LAMBERSON	12-03-1969	430	H	200	H	371CCCG
WA Ch 56	WA-70-0012	SEMLER, RICHARD	W LAMBERSON	07-21-1969	420	S	265	U	371CCCG
WA Ch 57	WA-70-0012	SEMLER, RICHARD	W LAMBERSON	07-23-1969	420	S	305	U	371CCCG
WA Ch 58	WA-70-0012	SEMLER, RICHARD	W LAMBERSON	09 - 1969	420	S	250	U	371CCCG
WA Ch 59	WA-73-1357	EASTERDAY, RUSSELL E	K L TEACH	02-20-1976	525	S	300	H	371CCCG
WA Ch 60	WA-73-0146	KUNZE, ERNEST	W LAMBERSON	01-12-1973	465	F	85	H	371CCCG
WA Ch 61	WA-73-0435	METZ, JEFFREY	W LAMBERSON	10-12-1973	470	F	85	H	371CCCG
WA Ch 62	WA-73-0308	HANCOCK, VERN	W LAMBERSON	07-19-1973	465	S	125	H	371CCCG
WA Ch 63	WA-73-0883	RESH	W LAMBERSON	11-15-1974	475	F	265	H	371CCCG
WA Ch 64	WA-73-0731	MILLER	W LAMBERSON	08-02-1974	470	F	245	H	371CCCG
WA Ch 65	WA-73-0795	BOWERS, JAMES	W LAMBERSON	08-14-1974	470	S	165	H	371CCCG
WA Ch 66	WA-73-0732	EYLER, CURTIS L	W LAMBERSON	07-30-1974	460	W	270	H	371CCCG
WA Ch 67	WA-73-0890	ENDRICH, DICK	W LAMBERSON	11-27-1974	465	S	245	H	371CCCG
WA Ch 68	WA-73-1245	HAMMOND, LARRY	W LAMBERSON	12-17-1975	460	F	105	H	371CCCG
WA Ch 69	WA-72-0144	FORD, ALBERT	W LAMBERSON	12-14-1971	480	H	105	H	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
80	6	X	75	R	09-09-1974	25	140	75	0.38	1	09-09-1974	--	WA Cg 20
42	6	X	30	R	07-15-1959	5	50	30	.25	1	07-15-1959	--	WA Cg 21
60	6	X	50	R	04-25-1974	20	125	50	.27	1	04-25-1974	--	WA Cg 22
20	6	X	45	R	04-15-1977	1	350	45	.003	3	04-15-1977	--	WA Cg 23
--	--	X	D	R	04-15-1977	0	--	--	--	--	04-15-1977	--	WA Cg 24
21	6	X	96	R	08-18-1976	4	460	96	.01	3	08-18-1976	--	WA Cg 25
--	--	X	D	R	08-18-1976	0	--	--	--	--	08-18-1976	--	WA Cg 26
--	--	X	D	R	08-18-1976	0	--	--	--	--	08-18-1976	--	WA Cg 27
42	6	X	40	R	08-09-1978	1	500	40	.002	.5	08-09-1978	--	WA Cg 28
85	6	X	65	R	01-23-1975	2	455	65	.01	4	01-23-1975	--	WA Cg 29
85	6	X	40	R	07-09-1973	5	340	40	.02	1	07-09-1973	--	WA Cg 30
20	6	X	28.23	S	05-14-1985	25	50	45	5.0	3	02-16-1978	--	WA Cg 31
22	6	X	60	R	09-11-1980	15	250	60	.08	3	09-11-1980	--	WA Cg 32
40	6	X	35	R	08-19-1979	23	185	35	.15	2	08-19-1979	--	WA Cg 33
21	6	X	17	R	10-08-1979	8	56	17	.21	3	10-08-1979	--	WA Cg 34
40	6	X	16	R	05-18-1984	30	38	16	1.36	3	05-18-1984	--	WA Cg 35
38	6	X	40	R	11-15-1984	2	405	40	.01	2	11-15-1984	Q	WA Cg 36
35	6	X	60	R	07-03-1972	40	70	60	4.0	1	07-03-1972	--	WA Cg 37
80	6	X	38	R	04-28-1978	5	319	38	.02	3	04-28-1978	--	WA Cg 38
75	6	X	20	R	10-16-1967	15	100	20	.19	.5	10-16-1967	--	WA Cg 39
26	48	W	14.45	S	05-10-1956	5	--	--	--	--	05-10-1956	O	WA Ch 1
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ch 3
3	6	X	15	R	02-23-1956	30	30	15	2.0	.5	02-23-1956	Q	WA Ch 4
28	6	X	20	R	03 - 1956	15	30	20	1.50	1.5	03 - 1956	--	WA Ch 5
--	6	-	--	-	--	4	--	--	--	--	10-15-1958	Q	WA Ch 9
17	6	X	50	R	08 - 1958	2	--	45	--	.5	08 - 1958	--	WA Ch 10
--	6	-	--	-	--	15	--	--	--	--	04 - 1958	--	WA Ch 12
--	36	W	33.15	S	12-04-1958	--	--	--	--	--	--	--	WA Ch 15
15	6	X	30	R	12-05-1958	2	135	27	.02	1	09 - 1954	--	WA Ch 18
18.1	48	W	12.22	S	12-10-1958	--	--	--	--	--	--	--	WA Ch 21
1.5	6	X	--	-	--	--	--	--	--	--	--	--	WA Ch 22
53.5	36	W	48.88	S	12-10-1958	--	--	--	--	--	--	--	WA Ch 23
--	6	-	70	R	12-10-1958	6	--	70	--	--	12-10-1958	--	WA Ch 24
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ch 25
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ch 28
--	--	-	30	R	11 - 1958	25	40	30	2.50	.7	11 - 1958	--	WA Ch 29
8	6	X	35	R	11 - 1958	3	340	35	.01	1	11 - 1958	--	WA Ch 30
18	6	X	25	R	09 - 1954	20	50	25	.80	.5	09 - 1954	--	WA Ch 31
44	6	X	35	R	06-04-1958	6	40	35	1.20	1	06-04-1958	--	WA Ch 32
9	6	X	40	R	05 - 1955	4	65	40	.16	.5	05 - 1955	Q	WA Ch 33
22	6	X	30	R	09 - 1958	12	50	30	.60	.5	09 - 1958	Q	WA Ch 34
7	6	X	60	R	07 - 1955	10	255	60	.05	1	07 - 1955	--	WA Ch 35
22	6	X	31.77	S	07-15-1959	10	47	28	.53	.5	04-24-1956	--	WA Ch 36
21	6	X	30	R	07-31-1956	20	40	30	2.0	3	07-31-1956	Q	WA Ch 37
78	6	X	110	R	10 - 1958	1.5	230	110	.01	1	10 - 1958	--	WA Ch 38
25	6	X	30	R	04-01-1968	50	146	30	.43	.5	04-01-1968	--	WA Ch 39
25	6	X	30	R	04-02-1968	50	146	30	.43	.5	04-02-1968	--	WA Ch 40
35	50	W	23.85	S	04-09-1969	--	--	--	--	--	--	--	WA Ch 41
23	6	X	20.17	S	05-01-1969	30	40	20	1.50	.5	01 - 1969	G,Q	WA Ch 42
103	5	X	21.45	S	05-27-1969	12	192	98	.13	2	05-03-1969	Q	WA Ch 43
						5	121.45	21.45	.05	20	05-27-1969		
22	6	X	40	R	05-21-1969	8	195	40	.05	.5	05-21-1969	--	WA Ch 44
20	6	X	40	R	06-13-1969	10	80	40	.25	.5	06-13-1969	--	WA Ch 45
46	6	X	46	R	03-01-1969	30	90	46	.68	5	03-01-1969	--	WA Ch 46
20	6	X	58	R	05-28-1969	5	100	58	.12	1	05-28-1969	--	WA Ch 47
16	6	X	--	-	--	8	40	--	--	2	12-17-1968	--	WA Ch 48
20	6	X	22	R	04-28-1969	15	30	22	1.87	4	04-28-1969	--	WA Ch 49
45	6	X	31.65	S	08-18-1970	25	180.65	31.65	.17	5	08-18-1970	--	WA Ch 51
47	6	X	50	R	09-10-1969	50	266	50	.23	3	09-10-1969	--	WA Ch 52
--	--	X	D	R	09-25-1968	0	--	--	--	--	09-25-1968	--	WA Ch 53
20	6	X	60	R	10-04-1968	20	150	60	.22	.5	10-04-1968	--	WA Ch 54
65	6	X	100	R	12-03-1969	60	180	100	.75	1	12-03-1969	--	WA Ch 55
--	--	X	D	R	07-21-1969	0	--	--	--	--	07-21-1969	--	WA Ch 56
--	--	X	D	R	07-23-1969	0	--	--	--	--	07-23-1969	--	WA Ch 57
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ch 58
82	6	X	35	R	02-20-1976	8	250	35	.04	1	02-20-1976	--	WA Ch 59
25	6	X	35	R	01-12-1973	10	80	35	.22	--	01-12-1973	--	WA Ch 60
65	6	X	30	R	10-12-1973	25	75	30	.56	1	10-12-1973	--	WA Ch 61
65	6	X	30	R	07-19-1973	15	100	30	.21	1	07-19-1975	--	WA Ch 62
70	6	X	65	R	11-15-1974	40	245	65	.22	1	11-15-1974	--	WA Ch 63
68	6	X	50	R	08-02-1974	3	240	50	.02	1	08-02-1974	--	WA Ch 64
55	6	X	60	R	08-14-1974	50	150	60	.56	1	08-14-1974	--	WA Ch 65
77	6	X	30	R	07-30-1974	20	265	30	.09	1	07-30-1974	--	WA Ch 66
30	6	X	60	R	11-27-1974	40	225	60	.24	1	11-27-1974	--	WA Ch 67
75	5												
25	6	X	35	R	12-17-1975	20	75	35	.50	1	12-17-1975	--	WA Ch 68
52	6	X	50	R	12-14-1971	10	90	50	.25	1	12-14-1971	--	WA Ch 69

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ch 70	WA-73-0657	SMITH, ELMER	W LAMBERSON	05-03-1974	485	H	105	H	371CCCG
WA Ch 71	WA-73-1077	CLIFFORD, BRUCE	W LAMBERSON	06-04-1975	480	H	125	H	371CCCG
WA Ch 72	WA-73-0970	CRAWFORD, LARRY	W LAMBERSON	12-30-1974	480	S	245	H	371CCCG
WA Ch 73	WA-73-0676	WISE, RONALD	W LAMBERSON	05-27-1974	470	S	105	H	371CCCG
WA Ch 74	WA-73-0809	FEAR, EDWARD	W LAMBERSON	09-06-1974	460	S	285	H	371CCCG
WA Ch 75	WA-73-0899	JOHN R OLIVER CO	W LAMBERSON	12-31-1974	450	S	345	H	371CCCG
WA Ch 76	WA-73-0734	MARIS, ROBERT	W LAMBERSON	08-21-1974	450	S	225	H	371CCCG
WA Ch 77	WA-73-0796	STOTTLEMYER, BOBBIE	W LAMBERSON	08-20-1974	460	H	285	H	371CCCG
WA Ch 78	WA-73-0733	MILLER	W LAMBERSON	08-16-1974	450	S	145	H	371CCCG
WA Ch 79	WA-73-0612	MOATS, VICTOR	W LAMBERSON	05-02-1974	440	S	125	H	371CCCG
WA Ch 80	WA-73-0802	ZIMOWSKI, JOHN	W LAMBERSON	09-05-1974	450	S	85	H	371CCCG
WA Ch 81	WA-73-0519	LEWIS, PAUL	C A CROMWELL	04-18-1974	440	H	75	H	371CCCG
WA Ch 82	WA-73-0525	STOTTLEMEYER, RICHARD	W LAMBERSON	01-28-1974	490	S	365	H	371CCCG
WA Ch 83	WA-73-1542	PRICE, GARY M	JOHN SHAFF	08-09-1976	480	H	300	H	371CCCG
WA Ch 84	WA-73-0677	CHANEY, HOWARD A	W LAMBERSON	06-14-1974	490	H	205	H	371CCCG
WA Ch 85	WA-73-0122	STOTLER, GEORGE	W LAMBERSON	01-12-1973	440	S	205	H	371CCCG
WA Ch 86	WA-73-0213	TURNER, LUTHER	W LAMBERSON	02-26-1973	470	F	65	H	371CCCG
WA Ch 87	WA-73-0845	JOHN R OLIVER CO	W LAMBERSON	09-20-1974	440	S	125	U	371CCCG
WA Ch 88	WA-73-0846	JOHN R OLIVER CO	W LAMBERSON	09-17-1974	480	H	165	U	371CCCG
WA Ch 89	WA-73-0857	RUFFNER, PAUL	W LAMBERSON	12-20-1974	400	S	85	H	371CCCG
WA Ch 90	WA-73-0675	CAMPBELL, THOMAS	W LAMBERSON	05-28-1974	485	F	185	H	371CCCG
WA Ch 91	WA-73-1707	DELAUDER, JOHN	JOHN SHAFF	04-04-1977	440	S	250	H	371CCCG
WA Ch 92	WA-73-1708	DELAUDER, JOHN	JOHN SHAFF	04-01-1977	440	W	150	H	371CCCG
WA Ch 93	WA-73-1709	TURBIN, WILLIAM	JOHN SHAFF	02-18-1977	450	F	150	H	371CCCG
WA Ch 94	WA-73-1710	SILVER, RICHARD	JOHN SHAFF	02-18-1977	450	F	150	H	371CCCG
WA Ch 95	WA-73-1202	HOSE, JAMES	JOHN SHAFF	09-09-1975	480	H	375	H	371CCCG
WA Ch 96	WA-73-0104	BUSSARD, ALBERT F	C A CROMWELL	10-06-1972	520	S	150	H	371CCCG
WA Ch 97	WA-73-0105	CASAVANT, JOSEPH A	JOHN SHAFF	10-15-1972	520	S	250	H	371CCCG
WA Ch 98	WA-73-1444	MITCHELL, WILLIAM	W LAMBERSON	07-08-1976	530	H	110	H	371CCCG
WA Ch 99	WA-73-1477	WELTY, LARRY	W LAMBERSON	06-27-1976	530	H	105	H	371CCCG
WA Ch 100	WA-73-0260	BOWERS, LLOYD L	C A CROMWELL	08-09-1973	465	S	57	H	371CCCG
WA Ch 101	WA-73-0226	MILLS, RICHARD A	C A CROMWELL	03-07-1973	470	S	250	H	371CCCG
WA Ch 102	WA-73-0282	GREEN, CHARLES	JOHN SHAFF	05-15-1973	455	W	225	H	367SNNG
WA Ch 103	WA-73-0679	TEACH, PHILIP	JOHN SHAFF	05-30-1974	560	H	250	H	371CCCG
WA Ch 104	WA-73-0560	NOLLEY, ROY	JOHN SHAFF	02-15-1974	455	S	150	H	371CCCG
WA Ch 105	--	DEAN, L A	--	--	420	V	14.7	U	371CCCG
WA Ch 106	WA-73-2095	U S GEOLOGICAL SURVEY	KEYSER-GARVR	02-22-1978	520	F	69	U	371CCCG
WA Ch 107	WA-73-0584	HARSH, G F	JOHN SHAFF	03-16-1974	425	U	150	H	367RCKR
WA Ch 108	WA-73-2465	FREE, EDWARD	R ARDINGER	08-15-1978	435	U	70	H	367RCKR
WA Ch 109	WA-73-1784	MCMAHON'S MILL REC AR	ROY HARLEY	03-19-1977	420	U	200	U	367SNNG
WA Ch 110	WA-73-2070	MCMAHON'S MILL REC AR	ROY HARLEY	09-24-1977	415	U	340	C,R	367SNNG
WA Ch 111	WA-73-2081	MYERS, TERRENCE N	D H WOODWARD	10-05-1977	430	U	85	H	--
WA Ch 112	WA-81-0386	HOUSER, JAMES	JOHN SHAFF	02-08-1983	460	H	125	H	371CCCG
WA Ch 113	WA-81-0666	HOUSER, JAMES C	JOHN SHAFF	03-20-1984	450	V	125	H	371CCCG
WA Ch 114	WA-73-2554	DOGGETT, RICHARD M	R ARDINGER	10-16-1978	460	H	100	H	371CCCG
WA Ch 115	WA-73-3029	PENNINGTON, WILLIAM	JOHN SHAFF	01-21-1980	445	U	175	H	371CCCG
WA Ch 116	WA-05-6049	HARSHMAN, DOWNEY	YORK DRLG	01-27-1964	435	U	200	S	367RCKR
WA Ch 117	WA-73-2247	DOWNSVILLE RURITAN CL	R ARDINGER	04-06-1978	470	F	300	H	367RCKR
WA Ch 118	WA-73-0956	WETZEL, JACK	D H WOODWARD	05-22-1975	420	H	425	H	367RCKR
WA Ch 119	WA-81-0195	WARFIELD, DONALD M	A&H DRILLING	05-04-1982	420	S	265	H	371CCCG
WA Ch 120	WA-81-0343	CURRY, RICHARD	A&H DRILLING	12-07-1982	390	F	165	H	367SNNG
WA Ch 121	WA-68-0030	SMITH, CHARLES R	W LAMBERSON	08-23-1967	390	F	75	U	367SNNG
WA Ch 122	WA-81-0622	MATHENY, WALLACE H	ROBERT CLINE	12-08-1983	430	U	475	H	367RCKR
WA Ch 123	WA-81-0471	EBERHARDT, WALTER	A&H DRILLING	05-24-1983	395	U	140	H	367SNNG
WA Ch 124	WA-81-0616	SMITH, CHARLES R	JOHN SHAFF	11-18-1983	385	F	150	U	367SNNG
WA Ch 125	WA-73-2206	NALLEY, DAVID	JOHN SHAFF	04-03-1978	470	U	200	H	371CCCG
WA Ch 126	WA-81-1190	PRICE FARMS	A&H DRILLING	10-28-1985	420	S	345	U	371CCCG
WA Ch 127	WA-81-0926	PANNILL, PHILLIP	A&H DRILLING	01-04-1985	395	U	105	H	371CCCG
WA Ch 128	WA-81-0448	BROWN, DONALD	JOHN SHAFF	05-12-1983	500	H	175	H	371CCCG
WA Ch 129	WA-81-0319	GAYLOR, CLYDE	A&H DRILLING	10-17-1982	465	U	265	H	367RCKR
WA Ch 130	WA-81-0172	BOWERS, JOHN	JOHN SHAFF	03-17-1982	450	S	225	H	367RCKR
WA Ch 131	WA-81-1138	REAGAN, MICHAEL	D H WOODWARD	08-23-1985	465	U	450	H	367RCKR
WA Ch 132	WA-81-0051	GROOMES, FRED J	A&H DRILLING	08-24-1981	405	H	345	H	371CCCG
WA Ch 133	WA-81-0069	SPRINGER, RICHARD	D H WOODWARD	09-21-1981	500	H	200	H	371CCCG
WA Ch 134	WA-73-1146	LEWIS, NELSON	W LAMBERSON	07-31-1975	465	U	305	H	367RCKR
WA Ch 135	WA-73-3075	MORAN, JAMES E JR	A&H DRILLING	03-31-1980	425	S	325	H	371CCCG
WA Ch 136	WA-73-1335	TAYLOR, DAVID	JOHN SHAFF	01-15-1976	465	U	250	H	371CCCG
WA Ch 137	WA-73-2966	BRADLEY, RALPH	A&H DRILLING	10-15-1979	470	U	100	H	371CCCG
WA Ch 138	WA-73-0707	DIVELBLISS, DAVID	W LAMBERSON	08-12-1974	455	U	225	H	371CCCG
WA Ch 139	WA-73-1238	NEFF, RUSSELL U	W LAMBERSON	10-24-1975	460	U	225	H	371CCCG
WA Ch 140	WA-73-0785	BOYER, PAUL A	C A CROMWELL	11-07-1974	430	S	150	H	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
70	6	X	60	R	05-03-1974	30	100	60	0.75	1	05-03-1974	--	WA Ch 70
50	6	X	30	R	06-04-1975	20	110	30	.25	1	06-04-1975	--	WA Ch 71
25	6	X	60	R	12-30-1974	16	225	60	.10	1	12-30-1974	--	WA Ch 72
55	6	X	60	R	05-27-1974	15	85	60	.60	1	05-27-1974	--	WA Ch 73
50	6	X	55	R	09-06-1974	20	260	55	.10	1	09-06-1974	--	WA Ch 74
30	6	X	60	R	12-31-1974	3	320	60	.01	1	12-31-1974	--	WA Ch 75
60	6	X	60	R	08-21-1974	15	210	60	.10	1	08-21-1974	--	WA Ch 76
70	6	X	60	R	08-20-1974	20	270	60	.10	1	08-20-1974	--	WA Ch 77
20	6	X	60	R	08-16-1974	8	135	60	.11	1	08-16-1974	--	WA Ch 78
30	6	X	45	R	05-02-1974	25	115	45	.36	4	05-02-1974	--	WA Ch 79
55	6	X	50	R	09-05-1974	30	75	50	1.20	1	09-05-1974	--	WA Ch 80
42	6	X	30	R	04-18-1974	35	60	30	1.17	2	04-18-1974	--	WA Ch 81
80	6	X	35	R	01-28-1974	1	285	35	.004	1	01-28-1974	--	WA Ch 82
60	6	X	54	R	08-09-1976	35	65	54	3.18	3	08-09-1976	--	WA Ch 83
65	6	X	60	R	06-14-1974	25	170	60	.23	1	06-14-1974	--	WA Ch 84
20	6	X	60	R	01-12-1973	6	180	60	.05	1	01-12-1973	--	WA Ch 85
60	6	X	25	R	02-26-1973	25	60	25	.71	1	02-26-1973	--	WA Ch 86
55	6	X	24.69	S	02-27-1978	50	100	30	.71	1	09-20-1974	--	WA Ch 87
22	6	X	48.23	S	03-06-1978	50	150	30	.42	1	09-17-1974	--	WA Ch 88
55	6	X	30	R	12-20-1974	8	80	30	.16	1	12-20-1974	--	WA Ch 89
23	6	X	50	R	05-28-1974	12	160	50	.11	1	05-28-1974	--	WA Ch 90
22	6	X	26	R	04-04-1977	7	52	26	.27	3	04-04-1977	--	WA Ch 91
22	6	X	26	R	04-01-1977	5	73	26	.11	3	04-01-1977	--	WA Ch 92
42	6	X	28	R	02-18-1977	50	46	28	2.78	3	02-18-1977	--	WA Ch 93
21	6	X	16	R	02-18-1977	12	31	16	.80	3	02-18-1977	--	WA Ch 94
22	6	X	68	R	09-08-1975	15	206	68	.11	3	09-08-1975	--	WA Ch 95
78	6	X	60	R	10-06-1972	20	140	60	.25	1	10-06-1972	--	WA Ch 96
41	6	X	63	R	10-15-1972	7	180	63	.06	3	10-15-1972	--	WA Ch 97
50	6	X	50	R	07-08-1976	20	105	50	.36	1	08-07-1976	--	WA Ch 98
80	5												
50	6	X	50	R	06-27-1976	20	95	50	.44	1	06-27-1976	--	WA Ch 99
45	6	X	12	R	08-09-1973	20	50	12	.53	2	08-09-1973	--	WA Ch 100
21	6	X	40	R	03-07-1973	4	250	40	.02	2	03-07-1973	--	WA Ch 101
16	6	X	26	R	05-15-1973	15	104	26	.19	3	05-15-1973	--	WA Ch 102
21	6	X	16	R	05-30-1974	8	144	16	.06	3	05-30-1974	--	WA Ch 103
25	6	X	16	R	02-15-1974	15	48	16	.47	3	02-15-1974	--	WA Ch 104
14.7	--	W	8.49	S	08-29-1977	--	--	--	--	--	--	--	WA Ch 105
41	6	X	29.30	S	02-22-1978	5	65	29.30	.14	.5	02-22-1978	O	WA Ch 106
15	6	X	21	R	03-16-1974	15	87	21	.23	3	03-16-1974	--	WA Ch 107
46	6	X	30	R	08-15-1978	10	70	30	.25	.5	08-15-1978	--	WA Ch 108
20	6	X	67.37	S	05-14-1985	12	95	40	.22	3	03-19-1977	O	WA Ch 109
20	6	X	53	R	09-24-1977	15	140	53	.17	2	09-24-1977	--	WA Ch 110
58	6	X	30	R	10-05-1977	60	30	30	--	3	10-05-1977	--	WA Ch 111
90	6	X	48	R	02-08-1983	15	92	48	.34	3	02-08-1983	--	WA Ch 112
74	6	X	58	R	03-20-1984	15	73	58	1.0	3	03-20-1984	--	WA Ch 113
46	6	X	60	R	10-16-1978	8	100	60	.20	.5	10-16-1978	--	WA Ch 114
50	6	X	47	R	01-21-1980	26	62	47	1.73	3	01-21-1980	Q	WA Ch 115
17.5	6	X	--	-	--	25	180	--	--	1.5	01-27-1964	--	WA Ch 116
21	6	X	16.58	S	07-31-1985	1	300	50	.004	2	04-06-1978	O,Q	WA Ch 117
20	6	X	50	R	05-22-1975	1	325	50	.004	2	05-22-1975	--	WA Ch 118
36	6	X	40	R	05-04-1982	20	265	40	.09	2	05-04-1982	--	WA Ch 119
30	6	X	50	R	12-07-1982	10	165	50	.09	2	12-07-1982	--	WA Ch 120
120	5												
31	6	X	20	R	08-23-1967	30	70	20	.60	1	08-23-1967	--	WA Ch 121
42	6	X	6	R	12-08-1983	10	475	6	.02	1	12-08-1983	--	WA Ch 122
35	6	X	30	R	05-24-1983	100	140	30	.91	1.5	05-24-1983	--	WA Ch 123
--	6	-	26	R	11-18-1983	15	81	26	.27	3	11-18-1983	--	WA Ch 124
46	6	X	22	R	04-03-1978	12	37	22	.80	3	04-03-1978	--	WA Ch 125
25	6	X	75	R	10-28-1985	20	345	75	.07	2	10-28-1985	--	WA Ch 126
105	5												
70	6	X	50	R	01-04-1985	15	105	50	.27	2	01-04-1985	--	WA Ch 127
75	6	X	36	R	05-12-1983	18	84	36	.37	3	05-12-1983	--	WA Ch 128
21	6	X	40	R	10-17-1982	2	265	40	.01	1	10-17-1982	--	WA Ch 129
35	6	X	46	R	03-17-1982	8	109	46	.13	3	03-17-1982	--	WA Ch 130
21	6	X	30	R	08-23-1985	4	450	30	.01	3	08-23-1985	--	WA Ch 131
21	6	X	40	R	08-24-1981	5	345	40	.02	2	08-24-1981	--	WA Ch 132
100	6	X	130	R	09-21-1981	25	200	130	.36	2	09-21-1981	--	WA Ch 133
35	6	X	40	R	07-31-1975	3	240	40	.01	1	07-31-1975	--	WA Ch 134
55	6	X	55	R	03-31-1980	7	325	55	.03	2	03-31-1980	--	WA Ch 135
22	6	X	26	R	01-15-1976	5	103	26	.06	3	01-15-1976	--	WA Ch 136
21	6	X	40	R	10-15-1979	50	100	40	.83	1	10-15-1979	--	WA Ch 137
30	6	X	65	R	08-12-1974	12	190	65	.10	1	08-12-1974	--	WA Ch 138
70	5												
30	6	X	35	R	10-24-1975	12	205	35	.07	1	10-24-1975	--	WA Ch 139
74	6	X	45	R	11-07-1974	8	150	45	.08	2	11-07-1974	--	WA Ch 140

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ch 141	WA-73-0822	KARDISCO, STEPHEN J	C A CROMWELL	10-08-1974	450	U	225	H	371CCCG
WA Ch 142	WA-73-2660	BUTTS, C L	R ARDINGER	01-22-1979	415	F	45	H	371CCCG
WA Ch 143	WA-73-2842	BIKLE	A&H DRILLING	07-02-1979	425	H	405	H	371CCCG
WA Ch 144	WA-73-2820	BLOOM, MYRON	R ARDINGER	06-19-1979	450	U	205	H	371CCCG
WA Ch 145	WA-73-2518	CAVANAUGH, GERALD	JOHN SHAFF	08-26-1978	500	U	200	S	371CCCG
WA Ch 146	WA-73-1161	STICKELL, RALPH	W LAMBERSON	08-13-1975	480	H	145	H	371CCCG
WA Ch 147	WA-73-1931	SMITH, STEVEN L	D H WOODWARD	06-27-1977	430	U	205	H	371CCCG
WA Ch 148	WA-68-0159	CAMP MERRY-MAC	J M HOFFMAN	07-11-1968	435	H	305	H	371CCCG
WA Ch 149	WA-73-1873	CRUZE, SUSAN	JOHN SHAFF	07-13-1977	445	F	125	U	367RCKR
WA Ch 150	WA-73-1869	CRUZE, SUSAN H	JOHN SHAFF	07-13-1977	450	F	100	U	367RCKR
WA Ch 151	WA-73-1997	DIEBERT, WILBUR	JOHN SHAFF	11-03-1977	445	F	350	U	367RCKR
WA Ch 152	WA-70-0223	DIEBERT, WILBUR	C A CROMWELL	03-09-1970	445	F	65	H	367RCKR
WA Ch 153	WA-73-0144	PENNINGTON, WILLIAM E	W LAMBERSON	01-08-1973	450	U	125	S	371CCCG
WA Ch 154	WA-73-0341	SAFARI CAMPGROUND	W LAMBERSON	06-11-1973	470	F	125	C,R	367RCKR
WA Ch 155	WA-73-1262	ALESHIRE, GREGORY	W LAMBERSON	11-17-1975	520	U	85	H	371CCCG
WA Ch 156	WA-73-1368	LINE, GEORGE	W LAMBERSON	11-07-1976	520	H	125	H	371CCCG
WA Ch 157	WA-81-1026	GROSH, JOHN R	A&H DRILLING	06-03-1985	420	V	345	H	371CCCG
WA Ch 158	WA-81-1196	KELBAUGH, RICK	A&H DRILLING	11-14-1985	480	H	325	H	371CCCG
WA Ch 159	WA-81-0837	POWERS, DONALD W	A&H DRILLING	09-20-1984	480	H	345	H	371CCCG
WA Ch 160	WA-81-0773	SHAFFER, ROBERT	A&H DRILLING	08-09-1984	460	S	140	H	371CCCG
WA Ch 161	WA-73-2763	PRICE, JOHN D	R ARDINGER	05-09-1979	465	U	145	H	371CCCG
WA Ch 162	WA-81-1019	SNYDER, GREGORY L	D H WOODWARD	05-14-1985	455	S	300	H	371CCCG
WA Ch 163	WA-73-0460	WEAVER, DOUGLAS	W LAMBERSON	11-16-1973	500	H	105	H	371CCCG
WA Ch 164	WA-73-2265	WOODMEN OF THE WORLD	D H WOODWARD	04-14-1978	445	H	265	H	371CCCG
WA Ch 165	WA-73-2266	WOODMEN OF THE WORLD	D H WOODWARD	04-18-1978	470	H	305	H	371CCCG
WA Ch 166	WA-81-1115	RAMSEY, LARRY	A&H DRILLING	08-20-1985	540	F	145	H	371CCCG
WA Ch 167	WA-73-1831	DOWNS, JOHN	D H WOODWARD	05-04-1977	515	F	85	H	367RCKR
WA Ch 168	WA-73-0279	KAETZEL, DAVID	W LAMBERSON	06-26-1973	515	V	465	H	367RCKR
WA Ch 169	WA-73-2027	BROWN, JESS W	D H WOODWARD	08-29-1977	480	F	225	H	367SNNG
WA Ch 170	WA-73-1653	RIDGEWAY, EDNA	D H WOODWARD	11-08-1976	510	F	250	H	367RCKR
WA Ch 171	WA-73-0310	DOWNSVILLE CHRISTIAN C	W LAMBERSON	05-10-1973	480	H	185	H	367RCKR
WA Ch 172	WA-81-1191	PRICE FARMS	A&H DRILLING	11-14-1985	420	S	145	S	371CCCG
WA Ch 173	WA-81-0498	BAKER, JOHN	JOHN SHAFF	07-06-1983	315	S	200	H	371CCCG
WA Ch 174	WA-04-4204	TAYLORS LDG SPRTSMN CL	W TEACH	09-20-1961	360	S	150	H	371CCCG
WA Ch 175	WA-81-1019	SNYDER, GREGORY	D H WOODWARD	05-14-1985	455	S	100	U	371CCCG
WA Ch 176	WA-81-1019	SNYDER, GREGORY	D H WOODWARD	05-14-1985	455	S	75	U	371CCCG
WA Ci 1	--	SHUMAKER, GILBERT	--	-- 1954	470	S	65	H	371CCCG
WA Ci 2	--	POPE, LEO	C E PIKE	1931	450	S	180	H	371CCCG
WA Ci 3	--	POPE, LEO	C E PIKE	-- 1931	450	S	80	H,S	371CCCG
WA Ci 4	--	BUSHONG, E K	--	-- 1900	490	S	78	H	371CCCG
WA Ci 5	--	ST MARKS CHURCH	--	-- 1927	490	S	125	H	371CCCG
WA Ci 6	WA-00-3374	FAIRPLAY ROTARY CLUB	J HOLLAND	11-19-1949	505	H	166	U	371CCCG
WA Ci 7	WA-02-9074	BENEVOLA U B CHURCH	J M HOFFMAN	10 - 1957	470	S	75	H	377WSBR
WA Ci 8	--	EARL W HOFFMAN & SONS	--	--	450	S	62	U	371ELBK
WA Ci 9	--	MANOR CHURCH	--	--	445	S	9.2	H	371CCCG
WA Ci 10	--	THOMS, HARRY SR	--	--	490	V	--	H	371ELBK
WA Ci 12	WA-02-6828	SHIFLER, SHIRLEY S	K L TEACH	05-15-1957	505	F	57	H	377TMSN
WA Ci 13	WA-02-5132	CRIDER BROS FM MACH CO	J M HOFFMAN	11 - 1956	530	F	61	C	377WSBR
WA Ci 14	--	ROUTZAHN, C E	J M HOFFMAN	--	480	S	89	C,H	371CCCG
WA Ci 15	WA-02-2001	MURDOCK, J S	W TEACH	01-30-1956	475	S	95	H	371ELBK
WA Ci 16	WA-02-8860	HUTZELL, R	W TEACH	10-29-1957	480	S	130	H	371CCCG
WA Ci 21	WA-03-3144	U S ARMY	SYDNOR HYDRO	07-20-1955	490	F	303	P	371CCCG
WA Ci 22	--	SHAFFER, CHARLES E	--	--	490	S	230	U	371CCCG
WA Ci 23	--	SHAFFER, CHARLES E	--	--	490	S	65	H,S	371CCCG
WA Ci 24	--	SHAFFER, CHARLES E	--	--	455	S	32.7	H,S	371CCCG
WA Ci 25	WA-00-2311	BAKER, DAVID E	J M HOFFMAN	04 - 1949	490	H	191	H,S	371CCCG
WA Ci 26	--	BAKER, DAVID E	C A CROMWELL	1950	490	H	128.4	U	371CCCG
WA Ci 27	WA-00-9214	BAKER, DAVID E	JACK HARLEY	01-25-1952	495	H	41	H,S	371CCCG
WA Ci 28	--	GRIFFITH, JOHN	--	--	480	F	110	H,S	377TMSN
WA Ci 29	--	GRIFFITH, JOHN	--	--	480	F	48.3	U	377TMSN
WA Ci 31	WA-00-6565	THUMMA, ALVIN F	J M HOFFMAN	10-25-1950	525	U	145	H,S	371CCCG
WA Ci 32	--	THUMMA, ALVIN F	--	--	525	H	180	H,S	371CCCG
WA Ci 33	--	U S ARMY	J M HOFFMAN	1952	490	F	74	U	371CCCG
WA Ci 34	WA-03-3768	MAHANEY, CALVIN	J M HOFFMAN	03 - 1959	480	S	65	H	371CCCG
WA Ci 35	WA-02-2052	STOTLER, GEORGE F	J M HOFFMAN	08 - 1958	510	H	210	C	371CCCG
WA Ci 36	--	EMBRY, LEONARD	C E PIKE	1954	510	H	83	H	367SNNG
WA Ci 37	--	RHOTON, NELSON	--	--	485	S	60	H,S	371CCCG
WA Ci 38	WA-03-4880	MILLER, FLOYD E	J M HOFFMAN	06 - 1959	505	S	120	H,S	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
23	6	X	25	R	10-08-1974	20	200	25	0.11	1	10-08-1974	--	WA Ch 141
25	6	X	10	R	01-22-1979	40	45	10	1.14	1	01-22-1979	--	WA Ch 142
40	6	X	35	R	07-02-1979	2	405	35	.01	2	07-02-1979	--	WA Ch 143
35	6	X	35	R	06-19-1979	10	205	35	.06	1	06-19-1979	--	WA Ch 144
45	5												
58	6	X	22	R	08-26-1978	16	80	22	.28	3	08-26-1978	--	WA Ch 145
110	6	X	45	R	08-13-1975	20	120	45	.27	1	08-13-1975	--	WA Ch 146
125	6	X	60	R	06-27-1977	8	125	60	.12	6	06-27-1977	--	WA Ch 147
15	6	X	200	R	07-11-1968	10	280	200	.12	.5	07-11-1968	--	WA Ch 148
27	6	X	14	R	07-13-1977	14	19	14	2.80	3	07-13-1977	--	WA Ch 149
21	6	X	12	R	07-13-1977	12	18	12	2.0	3	07-13-1977	--	WA Ch 150
28	6	X	30.22	S	06-04-1986	14	108	22	.16	3	11-03-1977	O	WA Ch 151
39	6	X	35	R	03-09-1970	10	60	35	.40	4	03-09-1970	--	WA Ch 152
30	6	X	35	R	01-08-1973	50	105	35	.71	1	01-08-1973	--	WA Ch 153
22	6	X	15	R	06-11-1973	50	95	15	.62	1	06-11-1973	--	WA Ch 154
45	6	X	30	R	11-17-1975	60	80	30	1.20	1	11-17-1975	--	WA Ch 155
50	6	X	35	R	11-07-1976	30	120	35	.35	1	11-07-1976	--	WA Ch 156
25	6	X	45	R	06-03-1985	6	345	45	.02	2	06-03-1985	--	WA Ch 157
25	6	X	25	R	11-14-1985	1	325	25	.003	2	11-14-1985	--	WA Ch 158
30	6	X	30	R	09-20-1984	2	345	30	.01	2	09-20-1984	--	WA Ch 159
60	6	X	25	R	08-09-1984	15	140	25	.13	2	08-09-1984	--	WA Ch 160
40	6	X	45	R	05-09-1979	30	145	45	.30	2	05-09-1979	--	WA Ch 161
45	5												
90	6	X	40	R	05-14-1985	30	300	40	.12	3	05-14-1985	--	WA Ch 162
20	6	X	40	R	11-16-1973	20	95	40	.36	1	11-16-1973	--	WA Ch 163
20	6	X	40	R	04-14-1978	20	220	40	.11	2	04-14-1978	--	WA Ch 164
40	6	X	45	R	04-18-1978	10	280	45	.04	2	04-18-1978	--	WA Ch 165
40	6	X	60	R	08-20-1985	20	145	60	.24	2	08-20-1985	--	WA Ch 166
95	5												
40	6	X	20	R	05-04-1977	100	--	20	--	2	05-04-1977	--	WA Ch 167
24	6	X	40	R	06-26-1973	2	400	40	.01	1	06-26-1974	--	WA Ch 168
32	6	X	30	R	08-29-1977	3	150	30	.02	5	08-29-1977	--	WA Ch 169
21	6	X	20	R	11-08-1976	2	250	20	.01	3	11-08-1976	--	WA Ch 170
48	6	X	30	R	05-10-1973	5	150	30	.04	1	05-10-1973	--	WA Ch 171
21	6	X	60	R	11-14-1985	50	145	60	.59	2	11-14-1985	--	WA Ch 172
69	6	X	21	R	07-06-1983	12	66	21	.27	3	07-06-1983	--	WA Ch 173
6	6	X	70	R	09-20-1961	6	75	70	1.20	1	09-20-1961	--	WA Ch 174
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ch 175
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ch 176
--	--	-	35.69	S	06-21-1977	--	--	--	--	--	--	--	WA Ci 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ci 2
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ci 3
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ci 4
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ci 5
21	6	X	27	E	12-10-1958	10	65	60	2.0	1	11-19-1949	--	WA Ci 6
35	6	X	50	R	10 - 1957	20	60	50	2.0	1	10 - 1957	--	WA Ci 7
20	--	W	16.80	S	06-06-1958	--	--	--	--	--	--	--	WA Ci 8
	6												
9.2	48	W	3.09	S	06-06-1958	--	--	--	--	--	--	--	WA Ci 9
--	--	-	--	-	--	6	--	--	--	--	06-06-1958	--	WA Ci 10
36	6	X	30	R	05-15-1957	6	30	30	--	1	05-15-1957	Q	WA Ci 12
15	6	X	20	R	11 - 1956	25	50	20	.83	.5	11 - 1956	--	WA Ci 13
--	6	-	60	R	05-09-1969	--	--	--	--	--	--	--	WA Ci 14
24	6	X	50	R	01-30-1956	8	60	50	.80	1	01-30-1956	--	WA Ci 15
25	6	X	80	R	10-29-1957	6	85	80	1.20	1	10-29-1957	Q	WA Ci 16
--	--	-	80	R	10-29-1957	--	--	--	--	--	--	Q	WA Ci 16
83	8	X	46	S	11-24-1958	25	108	48	.42	--	07-20-1955	Q	WA Ci 21
125	6												
--	6	-	27	E	12-10-1958	--	--	--	--	--	--	--	WA Ci 22
--	--	-	30	E	12-10-1985	--	--	--	--	--	--	--	WA Ci 23
32.7	60	W	15.84	S	12-10-1958	--	--	--	--	--	--	--	WA Ci 24
9	6	X	63	R	04 - 1949	5	191	63	.04	1	04 - 1949	--	WA Ci 25
--	--	-	66.52	S	12-09-1958	--	--	--	--	--	--	--	WA Ci 26
9	6	X	29	R	01-25-1952	14	--	29	--	4	01-25-1952	--	WA Ci 27
--	6	-	47.50	S	12-10-1958	--	--	--	--	--	--	--	WA Ci 28
48.3	48	W	--	-	--	--	--	--	--	--	--	--	WA Ci 29
--	6	-	35	R	10-25-1950	1	145	35	.01	1	10-25-1950	--	WA Ci 31
--	6	-	30	E	12-11-1958	--	--	--	--	--	--	--	WA Ci 32
--	--	-	--	-	--	50	--	--	--	--	1952	Q	WA Ci 33
26	6	X	35	R	03 - 1959	20	50	35	1.33	1	03 - 1959	--	WA Ci 34
5	6	X	60	R	08 - 1958	1	200	60	.01	1	08 - 1958	Q	WA Ci 35
17	6	X	25	E	1954	--	--	--	--	--	--	--	WA Ci 36
--	6	-	26.5	S	07-17-1959	--	--	--	--	--	--	--	WA Ci 37
59	6	X	60	R	06 - 1959	20	100	60	.50	1	06 - 1959	Q	WA Ci 38

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ci 39	WA-03-4722	THUMMA, ALVIN F	J M HOFFMAN	05 - 1959	525	U	425	H,S	371CCCG
WA Ci 40	WA-66-0262	DEVILS BACKBONE CO PK	J M HOFFMAN	03-26-1966	370	V	145	H	371CCCG
WA Ci 41	WA-68-0084	MANOR CHURCH	J M HOFFMAN	10-23-1967	440	S	270	H	371CCCG
WA Ci 42	WA-68-0031	DIST 12 RURITAN CLUB	J M HOFFMAN	08-09-1967	485	F	85	H	371CCCG
WA Ci 43	WA-69-0149	BLACKSTON, RICHARD	J M HOFFMAN	11-06-1968	485	S	145	H	377TMSN
WA Ci 44	WA-05-5947 WA-65-0193	MICHIGAN LIMESTONE DIV	C A CROMWELL	01-25-1964 03-11-1965	430	S	165	H,S	377TMSN
WA Ci 45	WA-69-0048	DEBAUGH, LOUIS	J M HOFFMAN	08-07-1968	505	F	265	U	377TMSN
WA Ci 46	WA-69-0048	DEBAUGH, LOUIS	J M HOFFMAN	08-10-1968	505	F	145	H	377TMSN
WA Ci 47	WA-69-0282	NULL, ROBERT N	C A CROMWELL	06-18-1969	500	F	160	H	377TMSN
WA Ci 48	WA-69-0281	GROVE, CHARLES	J M HOFFMAN	05-23-1969	490	V	300	H	371CCCG
WA Ci 49	WA-69-0024	REES, BUCKLEY G	J M HOFFMAN	08-13-1969	510	H	285	H	371CCCG
WA Ci 50	WA-69-0251	CULLER, DAVID E	J M HOFFMAN	05-09-1969	440	S	215	H	371CCCG
WA Ci 51	WA-69-0283	BURTNER, WALDEN	J M HOFFMAN	05-28-1969	480	H	205	H,S	371CCCG
WA Ci 52	WA-69-0252	MELLOTT, LYLE G	J M HOFFMAN	05-07-1969	435	S	185	H	371CCCG
WA Ci 53	WA-69-0280	TOMS, HARRY JR	J M HOFFMAN	05-26-1969	475	S	145	H	371ELBK
WA Ci 54	WA-70-0101	SMITH, DAVID	W LAMBERSON	09-11-1969	440	S	45	H	377WSBR
WA Ci 56	WA-73-0335	MOSE, LEWIS	D H WOODWARD	09-04-1973	485	S	75	U	371CCCG
WA Ci 57	WA-73-0876	MOSE, LEWIS	D H WOODWARD	11-13-1974	485	S	215	H	371CCCG
WA Ci 58	WA-73-0943	HUNTZBERRY, ROBERT	W LAMBERSON	11-18-1974	460	S	125	H	371CCCG
WA Ci 59	WA-73-0590	MONG, GEORGE	D H WOODWARD	03-28-1974	500	S	70	H	371CCCG
WA Ci 60	WA-73-0610	KLINE, DONALD	C A CROMWELL	04-16-1974	505	H	150	H	371CCCG
WA Ci 61	WA-73-1420	LINE, GEORGE	JOHN SHAFF	05-11-1976	480	S	150	H	371CCCG
WA Ci 62	WA-73-1315	STOUFFER, STANLEY	W LAMBERSON	12-24-1975	470	S	105	H	371CCCG
WA Ci 63	WA-73-1322	TROLIO, PETE	W LAMBERSON	02-04-1976	470	S	105	H	371CCCG
WA Ci 64	WA-73-0035	FEHLAUER, KENNETH	W LAMBERSON	10-02-1972	520	S	305	H	371CCCG
WA Ci 65	WA-73-0190	SAUFLEY, HARRY	W LAMBERSON	01-31-1973	520	S	405	H	371CCCG
WA Ci 66	WA-73-0555	CHELMEY, DONALD	W LAMBERSON	02-11-1974	490	S	325	H	371CCCG
WA Ci 67	WA-73-1265	TIMMONS, WILLIAM	C A CROMWELL	11-06-1975	505	H	250	H	371CCCG
WA Ci 68	WA-73-0803	HELLER, LEONARD	W LAMBERSON	10-18-1974	490	S	225	H	371CCCG
WA Ci 69	WA-73-0804	MORELAND, GAIL	W LAMBERSON	09-27-1974	490	S	245	H	371CCCG
WA Ci 70	WA-73-0708	WHITTAKER, JESSE	W LAMBERSON	07-02-1974	505	H	205	H	371CCCG
WA Ci 71	WA-73-0709	MASON, FRANCIS	W LAMBERSON	07-05-1974	505	H	185	H	371CCCG
WA Ci 72	WA-72-0029	WOODRING, CHARLES	W LAMBERSON	08-03-1971	505	H	425	H	371CCCG
WA Ci 73	WA-73-1698	CRONISE, CARROLL	JOHN SHAFF	12-21-1976	480	S	100	H	371CCCG
WA Ci 74	WA-73-1724	SNYDER, PHILLIP	D H WOODWARD	02-09-1977	480	S	245	H	371CCCG
WA Ci 75	WA-73-0574	GRAVES, ROBERT	W LAMBERSON	02-28-1974	515	S	105	H	367SNNG
WA Ci 76	WA-73-0586	BAILEY, HUNTER	D H WOODWARD	03-11-1974	505	H	200	H	371CCCG
WA Ci 77	WA-73-1185	HOSE, ROBERT F	W LAMBERSON	08-22-1975	475	S	85	H	371CCCG
WA Ci 78	WA-73-0494	YOUNKINS, HAROLD	D H WOODWARD	11-01-1973	500	H	150	H	371CCCG
WA Ci 79	WA-73-0277	WILLS, ELMER	W LAMBERSON	05-25-1973	490	S	145	H	371CCCG
WA Ci 80	WA-73-0778	SHIFLER, JAMES	JOHN SHAFF	09-16-1974	485	S	175	U	377WSBR
WA Ci 82	WA-73-2101	U S GEOLOGICAL SURVEY	KEYSER-GARVR	02-24-1978	500	F	84	U	371CCCG
WA Ci 84	WA-73-1206	SHIFLER, JAMES	JOHN SHAFF	10-02-1975	485	S	150	H	--
WA Ci 85	WA-66-0221	YELLOW HOUSE LIQUORS	YORK DRLG	06-15-1966	510	F	175	C	377TMSN
WA Ci 86	WA-65-0212	WOODLAND MOB HOME PARK	J M HOFFMAN	04-05-1965	525	F	246	P	371CCCG
WA Ci 87	WA-73-2984	BATTLEFIELD BIBLE CH	A&H DRILLING	10-30-1979	500	U	325	H	371CCCG
WA Ci 88	WA-73-1962	HENDRICKSON, JON L	D H WOODWARD	08-10-1977	500	S	300	H	371CCCG
WA Ci 89	WA-73-3222	BROWN, MARJORIE	D H WOODWARD	09-02-1980	500	V	300	H	371ELBK
WA Ci 90	WA-73-3221	SOWERS	D H WOODWARD	09-02-1980	535	S	200	H	371ELBK
WA Ci 91	WA-73-1848	NEEDY, DAVID F	JOHN SHAFF	10-14-1977	500	S	150	H	371ELBK
WA Ci 92	WA-81-0231	TALBERT, LEWIS J	D H WOODWARD	06-16-1982	520	S	200	H	371ELBK
WA Ci 93	WA-04-0377	TALBERT, LEWIS J	C A CROMWELL	09-08-1960	515	S	125	I,S	371ELBK
WA Ci 94	WA-73-3045	HATCHER, ROBERT W	A&H DRILLING	01-22-1980	510	S	145	H	371ELBK
WA Ci 95	WA-73-2958	ROBERTS, WILLIAM E	A&H DRILLING	10-27-1979	520	H	305	H	371ELBK
WA Ci 96	WA-81-0455	WILLIAMS, JAMES F JR	A&H DRILLING	05-12-1983	480	S	140	H	371ELBK
WA Ci 97	WA-81-1237	SHANK, MORRIS	NEIL NEGLEY	12-09-1985	520	S	196	H	371ELBK
WA Ci 98	WA-81-0851	DAVIS, KIM	A&H DRILLING	09-20-1984	545	H	300	H	371ELBK
WA Ci 99	WA-73-2712	BLUMENTRICH, IRMA K	D H WOODWARD	07-10-1979	525	S	285	H	371ELBK
WA Ci 100	WA-73-1732	MARTIN, JOHN J	JOHN SHAFF	04-14-1977	530	H	325	H	371ELBK
WA Ci 101	WA-73-3103	LAIL, JERRY W	K L TEACH	04-18-1980	510	S	150	H	371ELBK
WA Ci 102	WA-73-3125	KENDLE, STEVEN R	D H WOODWARD	05-23-1980	480	S	300	H	371ELBK
WA Ci 103	WA-73-2343	SWISHER, STEVEN L	R ARDINGER	06-19-1978	525	H	120	H	371ELBK
WA Ci 104	WA-73-0865	BLICKENSTAFF, DONALD	W LAMBERSON	10-16-1974	500	S	165	H	377WSBR
WA Ci 105	WA-73-2460	ECTON, MICHAEL K	JOHN SHAFF	11-24-1978	540	H	200	H	377WSBR
WA Ci 106	WA-73-3390	WEAVER, HARRY D	D H WOODWARD	02-20-1981	465	H	500	H	377TMSN
WA Ci 107	WA-67-0195	GROSS, MELVIN A	J M HOFFMAN	02-28-1967	460	H	345	H	377TMSN
WA Ci 108	WA-73-2362	HOOVER, H G	JOHN SHAFF	06-29-1978	450	U	200	H	371ELBK
WA Ci 109	WA-03-6142	EARL W HOFFMAN & SONS	J M HOFFMAN	09 - 1959	460	S	85	U	371ELBK
WA Ci 110	WA-65-0125	EARL W HOFFMAN & SONS	J M HOFFMAN	10-30-1964	465	H	165	U	371ELBK
WA Ci 111	WA-70-0044	EARL W HOFFMAN & SONS	W LAMBERSON	08-25-1969	465	H	220	C	371ELBK

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
6	6	X	80	S	06-10-1959	8	400	80	0.02	1	05 - 1959	--	WA Ci 39
21	5	X	45	R	03-26-1966	10	80	45	.29	.8	03-26-1966	--	WA Ci 40
20	6	X	20	R	10-23-1967	50	266	20	.20	.5	10-23-1967	--	WA Ci 41
60	6	X	20	R	08-09-1967	20	75	20	.36	.5	08-09-1967	--	WA Ci 42
40	6	O	95	R	11-06-1968	20	140	95	.44	.5	11-06-1968	--	WA Ci 43
145	5.5												
16	6	X	40	R	01-25-1964	15	--	40	--	1	01-25-1964	--	WA Ci 44
						30				6	03-11-1965		
--	--	X	D	R	08-07-1968	0	--	--	--	--	08-07-1968	--	WA Ci 45
32	6	X	40	R	08-10-1968	30	130	40	.33	.5	08-10-1968	--	WA Ci 46
18	6	X	--	-	--	7	50	--	--	3	06-18-1969	--	WA Ci 47
24	6	X	78	R	05-23-1969	1	185	78	.01	1	05-23-1969	--	WA Ci 48
32	6	X	60	R	08-13-1968	2	260	60	.01	.5	08-13-1968	--	WA Ci 49
24	6	X	60	R	05-09-1969	30	210	60	.20	.5	05-09-1969	--	WA Ci 50
38	6	X	60	R	05-28-1969	4.5	125	60	.07	.5	05-28-1969	--	WA Ci 51
17	6	X	60	R	05-07-1969	15	175	60	.13	.5	05-07-1969	--	WA Ci 52
57	6	X	40	R	05-26-1969	12	125	40	.14	.5	05-26-1969	--	WA Ci 53
37	6	X	20	R	09-11-1969	20	40	20	1.0	1	09-11-1969	--	WA Ci 54
20	6	X	18	R	09-04-1973	20	30	18	1.67	1	09-04-1973	--	WA Ci 56
60	6	X	20	R	11-13-1974	8	160	20	.06	2	11-13-1974	--	WA Ci 57
45	6	X	25	R	11-18-1974	10	105	25	.12	1	11-18-1974	--	WA Ci 58
34	6	X	35	R	03-28-1974	20	50	35	1.33	2	03-28-1974	--	WA Ci 59
20	6	X	35	R	04-16-1974	30	140	35	.29	1	04-16-1974	--	WA Ci 60
21	6	X	26	R	05-11-1976	8	51	26	.32	3	05-11-1976	--	WA Ci 61
45	6	X	30	R	12-24-1975	10	95	30	.15	1	12-24-1975	--	WA Ci 62
65	5												
40	6	X	35	R	02-04-1976	20	90	35	.36	1	02-04-1976	--	WA Ci 63
22	6	X	35	R	10-02-1972	50	290	35	.20	1	10-02-1972	--	WA Ci 64
25	6	X	40	R	01-31-1973	2	370	40	.01	1	01-31-1973	--	WA Ci 65
40	6	X	35	R	02-11-1974	2	270	35	.01	1	02-11-1974	--	WA Ci 66
21	6	X	25	R	11-06-1975	3	245	25	.01	3	11-06-1975	--	WA Ci 67
64	6	X	30	S	10-18-1974	8	200	30	.05	1	10-18-1974	--	WA Ci 68
24	6	X	40	R	09-27-1974	13	220	40	.07	.1	09-27-1974	--	WA Ci 69
23	6	X	45	R	07-02-1974	12	175	45	.09	1	07-02-1974	--	WA Ci 70
47	6	X	40	R	07-05-1974	12	160	40	.10	1	07-05-1974	--	WA Ci 71
35	6	X	40	R	08-03-1971	1	415	40	.004	1	08-03-1971	--	WA Ci 72
44	6	X	24	R	12-21-1976	26	37	24	2.0	3	12-21-1976	--	WA Ci 73
22	6	X	22.70	S	04-14-1977	20	100	42	.34	1	02-09-1977	--	WA Ci 74
25	6	X	40	R	02-28-1974	15	90	40	.30	1	02-28-1974	--	WA Ci 75
20	6	X	55	R	03-11-1974	7	100	55	.16	1	03-11-1974	--	WA Ci 76
25	6	X	40	R	08-22-1975	20	70	40	.67	1	08-22-1975	--	WA Ci 77
20	6	X	50	R	11-01-1973	5	140	50	.06	1	11-01-1973	--	WA Ci 78
47	6	X	30	R	05-25-1973	15	120	30	.17	1	05-25-1973	--	WA Ci 79
45	6	X	45.69	S	05-30-1986	15	108	64	.34	3	09-16-1974	O	WA Ci 80
32	6	X	43.35	S	02-24-1978	30	80	43.35	.82	.5	02-24-1978	O	WA Ci 82
37	6	X	22	R	10-02-1975	22	38	22	1.37	3	10-02-1975	--	WA Ci 84
114	6	X	--	-	--	5	--	--	--	4	06-15-1966	--	WA Ci 85
65	6	X	40	R	04-05-1965	20	100	40	.33	3	04-05-1965	--	WA Ci 86
30	6	X	45	R	10-30-1979	52	325	45	.19	2	10-30-1979	--	WA Ci 87
40	6	X	60	R	08-10-1977	3	275	60	.01	7	08-10-1977	--	WA Ci 88
23.5	6	X	50	R	09-02-1980	9	300	50	.04	2	09-02-1980	--	WA Ci 89
21.5	6	X	60	R	09-02-1980	20	200	60	.14	3	09-02-1980	--	WA Ci 90
32	6	X	23	R	10-14-1977	11	38	23	.73	3	10-14-1977	--	WA Ci 91
46	6	X	50	R	06-16-1982	30	200	50	.20	4	06-16-1982	--	WA Ci 92
--	6	-	50	R	09-08-1960	7	125	50	.09	1	09-08-1960	--	WA Ci 93
32	6	X	50	R	01-22-1980	12	145	50	.13	2	01-22-1980	--	WA Ci 94
25	6	X	65	R	10-27-1979	27	305	65	.11	2	10-27-1979	--	WA Ci 95
115	6	X	50	R	05-12-1983	60	140	50	.67	3	05-12-1983	--	WA Ci 96
40	6	X	84	R	12-09-1985	25	135	84	.49	1	12-09-1985	--	WA Ci 97
63	6	X	25	R	09-20-1984	10	300	25	.04	3	09-20-1984	--	WA Ci 98
53	6	X	75	R	07-10-1979	15	285	75	.07	--	07-10-1979	--	WA Ci 99
133	5												
97	6	X	76	R	04-14-1977	14	180	76	.13	3	04-14-1977	--	WA Ci 100
23	6	X	80	R	04-18-1980	30	100	80	1.50	1	04-18-1980	--	WA Ci 101
34	6	X	35	R	05-23-1980	10	300	35	.04	2	05-23-1980	--	WA Ci 102
171	5												
109	6	X	70	R	06-19-1978	30	120	70	.60	.5	06-19-1978	--	WA Ci 103
70	6	X	60	R	10-16-1974	10	150	60	.11	1	10-16-1974	--	WA Ci 104
84	6	X	76	R	11-24-1978	12	114	76	.32	3	11-24-1978	--	WA Ci 105
22	6	X	35	R	02-20-1981	2	500	35	.004	4	02-20-1981	--	WA Ci 106
15	6	X	150	R	02-28-1967	1	325	150	.01	1	02-28-1967	--	WA Ci 107
50	6	X	26	R	06-29-1978	10	58	26	.31	3	06-29-1978	--	WA Ci 108
15	6	X	20	R	09 - 1959	20	80	20	.33	.5	09 - 1959	--	WA Ci 109
37	6	X	25	R	10-30-1964	15	50	25	.60	1	10-30-1964	--	WA Ci 110
55	6	X	60	R	08-25-1969	100	210	60	.67	1	08-25-1969	--	WA Ci 111

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ci 112	WA-81-1150	CRONISE, VIRGINIA	A&H DRILLING	12-03-1985	495	F	305	H	377TMSN
WA Ci 113	WA-03-6858	SCENIC VIEW TRAILER PK	J M HOFFMAN	11 - 1959	515	F	305	P	377TMSN
WA Ci 114	WA-02-9545	SCENIC VIEW TRAILER PK	J M HOFFMAN	12 - 1957	515	F	146	U	377TMSN
WA Ci 115	WA-66-0066	BEARD, DONALD L	J M HOFFMAN	08-31-1965	515	U	205	H,S	377TMSN
WA Ci 116	WA-81-0596	MOORE, DAVID	A&H DRILLING	10-14-1983	485	H	380	H	377TMSN
WA Ci 118	WA-67-0152	BOWERS, RICHARD L	K L TEACH	01-20-1967	430	S	69	H	371ELBK
WA Ci 119	WA-73-1283	SEMLER, PRESTON	W LAMBERSON	11-14-1975	550	H	265	H	371ELBK
WA Ci 120	WA-73-1544	HAGER, VERLIS	W LAMBERSON	08-31-1976	550	H	145	H	371ELBK
WA Ci 121	WA-73-2054	REESE, EUGENE	D H WOODWARD	10-06-1977	525	H	225	H	371ELBK
WA Ci 122	WA-73-3025	NOROKONAS, RICHARD	A&H DRILLING	12-20-1979	525	S	285	H	371ELBK
WA Ci 123	WA-73-1213	EBERSOLE, HAROLD L	W LAMBERSON	10-03-1975	420	S	165	H	371ELBK
WA Ci 124	WA-73-0200	POFFENBERGER, JOHN R	W LAMBERSON	02-08-1973	405	S	165	H	371ELBK
WA Ci 125	WA-71-0295	POFFENBERGER, JOHN R	W LAMBERSON	07-26-1971	405	S	305	H	371ELBK
WA Ci 126	WA-73-2499	REEDER, DENNIS E	R ARDINGER	10-03-1978	535	H	325	H	371ELBK
WA Ci 127	WA-73-3342	REEDER, DEAN	A&H DRILLING	12-09-1980	540	H	285	H	371ELBK
WA Ci 128	WA-81-0115	KLINE, PETER V	A&H DRILLING	11-23-1981	460	S	240	H	371ELBK
WA Ci 129	WA-73-0459	BITNER, GARY L	D H WOODWARD	11-08-1973	475	H	250	H	371ELBK
WA Ci 130	WA-73-2619	HOLDER, JOHN D	D H WOODWARD	03-01-1979	485	H	175	H	371ELBK
WA Ci 131	WA-73-2162	HARTLE, PHILLIP E	ROY HARLEY	05-10-1978	465	U	80	H	377TMSN
WA Ci 132	WA-81-0384	THOMAS, DONALD	D H WOODWARD	01-24-1983	460	H	300	H,S	377TMSN
WA Ci 133	WA-81-0941	THOMPSON, EARL	D H WOODWARD	02-21-1985	450	H	150	H	377TMSN
WA Ci 134	WA-81-0792	EBERSOLE, LEONARD R	D H WOODWARD	08-15-1984	480	S	475	H	377WSBR
WA Ci 135	WA-81-0985	THOMAS, TRACY E	D H WOODWARD	04-08-1985	510	H	300	H	377WSBR
WA Ci 136	WA-73-3291	SLIGO ADVENTIST CAMP	JOHN SHAFF	10-31-1980	430	S	200	H,R	371ELBK
WA Ci 137	WA-81-0272	PARKS, WILLIAM H	A&H DRILLING	12-01-1982	540	H	285	H	377WSBR
WA Ci 138	WA-73-0762	RISER, CHARLES	KEYSER-GARVR	07-20-1974	480	S	310	H	377WSBR
WA Ci 139	WA-73-2469	ARMSTRONG, JOHN D JR	D H WOODWARD	08-02-1978	480	H	345	H	377WSBR
WA Ci 140	WA-73-2760	BEARD, DONALD E	R ARDINGER	05-07-1979	455	F	125	H	367SNNG
WA Ci 141	WA-73-1762	BARNHART, DONALD E	D H WOODWARD	03-25-1977	460	F	145	H	367SNNG
WA Ci 142	WA-73-1329	STOTTLEMYER, ROBERT C	D H WOODWARD	10-22-1976	460	U	225	H	367SNNG
WA Ci 143	WA-81-1112	REID, DAVID	A&H DRILLING	08-19-1985	465	S	245	H	367SNNG
WA Ci 144	WA-73-2059	ROBINSON, BOYD M	D H WOODWARD	01-13-1978	490	H	385	H	371CCCG
WA Ci 145	WA-73-2819	MOORE, CRAIG	JOHN SHAFF	07-07-1979	510	S	125	H	371CCCG
WA Ci 146	WA-81-0296	THREN, EUGENE A	R ARDINGER	10-12-1982	490	S	170	H	371CCCG
WA Ci 147	WA-73-2905	WILLS GREENHOUSE	A&H DRILLING	08-27-1979	495	U	225	C,I	371CCCG
WA Ci 148	WA-73-3276	WOLFORD, CHARLES	A&H DRILLING	10-24-1980	480	F	105	H	371CCCG
WA Ci 149	WA-73-0491	SMITH, THURMAN L	D H WOODWARD	11-05-1973	490	U	300	H	371CCCG
WA Ci 150	WA-73-3328	FAIRPLAY FIRE CO	A&H DRILLING	11-08-1980	505	H	255	F,H	371CCCG
WA Ci 151	WA-73-2124	WADE, FRANKLIN C	JOHN SHAFF	03-03-1978	485	H	200	H	371CCCG
WA Ci 152	WA-81-1145	BAKER, KENNETH	D H WOODWARD	09-16-1985	465	H	150	H	371CCCG
WA Ci 153	WA-73-0955	ENAMAIT, EDWARD	C A CROMWELL	05-13-1975	490	H	80	H	371CCCG
WA Ci 154	WA-81-0222	POOLE, CHARLES A	A&H DRILLING	06-02-1982	465	H	325	H	371ELBK
WA Ci 155	WA-73-3155	BOWERS, RANDALL	D H WOODWARD	06-18-1980	430	H	200	H	371ELBK
WA Ci 156	WA-73-1020	THOMAS, JOSEPH L	W LAMBERSON	03-21-1975	450	H	225	H	371ELBK
WA Ci 157	WA-81-0499	PATTERSON, WESLEY R	D H WOODWARD	06-29-1983	485	H	375	H	371ELBK
WA Ci 158	WA-81-0817	MUNSON, ROBERT	D H WOODWARD	08-17-1984	425	H	200	H	371ELBK
WA Ci 159	WA-81-0509	MOATS, ROBERT L	JOHN SHAFF	07-10-1983	430	U	300	H	371ELBK
WA Ci 160	WA-81-0545	UNIVERSITY OF MARYLAND	LF EASTERDAY	09-09-1983	490	F	180	T	371CCCG
WA Ci 161	WA-72-0163	NUNAMAKER, CARROLL L	W LAMBERSON	03-15-1972	495	H	325	H	371CCCG
WA Ci 162	WA-81-1254	GARDNER, DAVID Z	A&H DRILLING	01-24-1986	465	V	300	H	371CCCG
WA Ci 163	WA-81-1188	FRANKLIN, DANIEL	D H WOODWARD	03-11-1986	510	T	300	H	371ELBK
WA Ci 164	WA-73-1001	REEDER, ELSWORTH	JOHN SHAFF	03-04-1975	500	H	350	H	371ELBK
WA Ci 165	WA-81-1375	GRAHE, WILBUR	A&H DRILLING	08-08-1986	485	S	385	H	371CCCG
WA Ci 166	WA-81-1379	GEARHART, DAISY	D H WOODWARD	05-29-1986	480	S	500	H	371CCCG
WA Ci 167	WA-81-1361	JONES, CHARLES	A&H DRILLING	05-06-1986	510	F	85	H	377TMSN
WA Cj 3	--	FAHRNEY-KEEDY MEM HOME	--	--	535	S	19.5	U	377TMSN
WA Cj 7	WA-00-2607	HIWAY DRIVE-IN THEATRE	J HOLLAND	05-14-1949	540	F	98	U	377TMSN
WA Cj 8	WA-03-1303	MORRISON, ROY	C A CROMWELL	06-11-1958	595	S	120	H	377TMSN
WA Cj 14	WA-03-1943	BEAVER CR COUNTRY CLUB	J M HOFFMAN	08 - 1958	525	S	250	H,I	371ELBK
WA Cj 15	WA-02-1045	SNYDER, WALTER R	C R COWAN	11-20-1955	640	S	130	H	377TMSN
WA Cj 16	WA-01-6818	CADDEN, MILES S	J W AMBROSE	02-15-1955	690	S	85	H	110MNWS
WA Cj 17	WA-01-6641	DEER PARK LODGE	LF EASTERDAY	10-22-1954	840	S	110	U	377ANTM
WA Cj 18	WA-02-5869	BREWBAKER, JOHN E	J W AMBROSE	03-19-1957	750	S	140	C,H	110MNWS
WA Cj 19	--	D A STICKELL & SONS	--	1954	543	S	--	C	371ELBK
WA Cj 20	--	HERSCHEL, DEAN	--	--	585	S	41	U	377TMSN
WA Cj 21	WA-01-9700	FARMERS LIVESTOCK EXCH	J M HOFFMAN	07 - 1955	520	F	110	C	377TMSN
WA Cj 22	WA-01-9977	BOONSBORO PRODUCE MKT	J M HOFFMAN	07 - 1955	520	S	138	C,H	377TMSN
WA Cj 24	WA-03-1392	HORNE, NED V	C A CROMWELL	07-26-1958	760	S	175	H	377ANTM

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
25	6	X	20	R	12-03-1985	10	305	20	0.04	2	12-03-1985	--	WA Ci 112
85	5												
23	6	X	60	R	11 - 1959	1	300	60	.004	1	11 - 1959	Q	WA Ci 113
13	6	X	81	R	12 - 1957	15	140	81	.25	.5	12 - 1957	--	WA Ci 114
35	6	X	50	R	08-31-1965	10	100	50	.20	.8	08-31-1965	--	WA Ci 115
21	6	X	60	R	10-14-1983	15	380	60	.05	2	10-14-1983	--	WA Ci 116
28	6	X	40	R	01-20-1967	8	50	40	.80	1	01-20-1967	--	WA Ci 118
35	6	X	40	R	11-14-1975	25	250	40	.12	1	11-14-1975	--	WA Ci 119
45	6	X	60	R	08-31-1976	10	125	60	.15	1	08-31-1976	--	WA Ci 120
22	6	X	45	R	10-06-1977	8	175	45	.06	4	10-06-1977	--	WA Ci 121
30	6	X	70	R	12-20-1979	10	285	70	.05	2	12-20-1979	--	WA Ci 122
190	5												
20	6	X	40	R	10-03-1975	15	140	40	.15	1	10-03-1975	--	WA Ci 123
23	6	X	45	R	02-08-1973	10	135	45	.11	1	02-08-1973	--	WA Ci 124
90	6	X	60	R	07-26-1971	20	290	60	.09	1	07-26-1971	--	WA Ci 125
21	6	X	80	R	10-03-1978	10	325	80	.04	3	10-03-1978	--	WA Ci 126
85	5												
22	6	X	65	R	12-09-1980	40	285	65	.18	2	12-09-1980	--	WA Ci 127
62	6	X	70	R	11-23-1981	23	240	70	.14	2	11-23-1981	--	WA Ci 128
23	6	X	47	R	11-08-1973	6	200	47	.04	1	11-08-1973	--	WA Ci 129
21	6	X	60	R	03-01-1979	25	175	60	.22	2	03-01-1979	--	WA Ci 130
61	6	X	45	R	05-10-1978	35	80	45	1.0	1	05-10-1978	--	WA Ci 131
21	6	X	80	R	01-24-1983	30	300	80	.14	6	01-24-1983	--	WA Ci 132
42	6	X	44	R	02-21-1985	45	150	44	.42	7	02-21-1985	--	WA Ci 133
175	6	X	43	R	08-15-1984	20	475	43	.05	3	08-15-1984	--	WA Ci 134
98	6	X	50	R	04-08-1985	5	300	50	.02	3	04-08-1985	--	WA Ci 135
63	6	X	28	R	10-31-1980	26	74	28	.57	3	10-31-1980	--	WA Ci 136
95	6	X	125	R	12-01-1982	20	285	125	.12	2	12-01-1982	--	WA Ci 137
205	5												
28	6	X	40	R	07-20-1974	5	60	40	.25	2	07-20-1974	--	WA Ci 138
64	6	X	120	R	08-02-1978	50	345	120	.22	2	08-02-1978	--	WA Ci 139
27	6	X	27	R	05-07-1979	102	125	27	1.04	2	05-07-1979	--	WA Ci 140
45	6	X	35	R	03-25-1977	105	58	35	4.57	3	03-25-1977	--	WA Ci 141
21	6	X	25	R	01-22-1976	2	200	25	.01	4	01-22-1976	--	WA Ci 142
45	6	X	60	R	08-19-1985	20	245	60	.11	2	08-19-1985	--	WA Ci 143
71	6	X	50	R	01-13-1978	3	325	50	.01	3	01-13-1978	--	WA Ci 144
34	6	X	54	R	07-07-1979	15	88	54	.44	3	07-07-1979	--	WA Ci 145
21	7	X	42	R	10-12-1982	25	62	42	1.25	4	10-12-1982	--	WA Ci 146
35	6	X	50	R	08-27-1979	20	225	50	.11	2	08-27-1979	Q	WA Ci 147
23	6	X	35	R	10-24-1980	60	105	35	.86	2	10-24-1980	--	WA Ci 148
32	6	X	40	R	11-05-1973	2	300	40	.01	1	11-05-1973	--	WA Ci 149
22	6	X	45	R	11-08-1980	20	255	45	.10	2	11-08-1980	--	WA Ci 150
63	6	X	36	R	03-03-1978	14	104	36	.21	3	03-03-1978	--	WA Ci 151
64	6	X	30	R	09-16-1985	50	150	30	.42	5	09-16-1985	--	WA Ci 152
63	6	X	40	R	05-13-1975	50	60	40	2.50	1	05-03-1975	--	WA Ci 153
55	6	X	75	R	06-02-1982	12	325	75	.05	2	06-02-1982	--	WA Ci 154
125	5												
22	6	X	30	R	06-18-1980	10	200	30	.06	2	06-18-1980	--	WA Ci 155
20	6	X	50	R	03-21-1975	30	200	50	.20	1	03-21-1975	--	WA Ci 156
21	6	X	35	R	06-29-1983	6	375	35	.02	3	06-29-1983	--	WA Ci 157
21	6	X	30	R	08-17-1984	40	200	30	.24	2	08-17-1984	--	WA Ci 158
24	6	X	28	R	07-10-1983	12	90	28	.19	3	07-10-1983	--	WA Ci 159
65	6	X	30	R	09-09-1983	35	180	30	.23	2	09-09-1983	--	WA Ci 160
55	6	X	60	R	03-15-1972	3	295	60	.01	1	03-15-1972	--	WA Ci 161
21	6	X	35	R	01-24-1986	15	300	35	.06	6	01-24-1986	--	WA Ci 162
71	6	X	50	R	03-11-1986	20	300	50	.08	3	03-11-1986	--	WA Ci 163
102	5												
100	6	X	36	R	03-04-1975	12	108	36	.17	3	03-04-1975	--	WA Ci 164
35	6	X	40	R	07-17-1986	3	285	40	.01	2	07-17-1986	--	WA Ci 165
95	5					8	385	40	.02	.5	08-08-1986		
80	6	X	80	R	05-29-1986	2	500	80	.005	3	05-29-1986	--	WA Ci 166
21	6	X	30	R	05-06-1986	10	85	30	.18	2	05-06-1986	--	WA Ci 167
19.5	4	W	6.56	S	12-18-1956	--	--	--	--	--	--	--	WA Cj 3
20	6	X	10.14	S	08-13-1985	20	10	5	4.0	2	05-14-1985	O	WA Cj 7
44	6	X	76.17	S	06-10-1958	30	--	40	--	8	06-11-1958	C,Q	WA Cj 8
11	6	X	57	S	09-03-1958	35	240	40	.17	1	08 - 1958	--	WA Cj 14
60	6	X	54	R	11-20-1955	2	97	54	.05	--	11-20-1955	Q	WA Cj 15
81	6	X	18	R	02-15-1955	16	--	18	--	1	02-15-1955	Q	WA Cj 16
75	6	X	70	R	10-22-1954	10	85	70	.67	--	10-22-1954	--	WA Cj 17
130	6	F	9	R	03-19-1957	8	120	9	.07	3	03-19-1957	Q	WA Cj 18
--	--	-	--	-	--	3.5	--	--	--	--	09 - 1958	--	WA Cj 19
41	--	W	21.5	S	10-01-1958	--	--	--	--	--	--	--	WA Cj 20
16	6	X	45	R	07 - 1955	20	65	45	1.0	.5	07 - 1955	Q	WA Cj 21
26	6	X	70	R	07 - 1955	15	120	70	.30	1	07 - 1955	--	WA Cj 22
44	6	X	30	R	07-26-1958	3	175	30	.02	1	07-26-1958	--	WA Cj 24

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Cj 25	WA-02-4105	MILLER, JOHN H	JOHN SHAFF	07-21-1956	670	S	159	H	377TMSN
WA Cj 26	WA-03-1390	BREWBAKER, JOHN E	C A CROMWELL	07-07-1958	660	S	70	H	110MNWS
WA Cj 27	WA-03-3520	SUMMERS, ALBERT	J M HOFFMAN	02 - 1959	605	S	177	U	377TMSN
WA Cj 28	WA-02-9982	BEACHLEY, HAROLD C	J M HOFFMAN	02 - 1958	625	S	170	H	377ANTM
WA Cj 29	WA-03-1123	LIZER, WILLIAM F	J M HOFFMAN	06 - 1958	565	S	81	H	371ELBK
WA Cj 30	WA-03-4748	ORNDORFF, ROBERT	JOHN SHAFF	05-25-1959	585	S	51	H	377TMSN
WA Cj 34	WA-03-5648	BEAVER CR COUNTRY CLUB	J M HOFFMAN	1959	560	S	85	H	371ELBK
WA Cj 35	WA-03-5649	BEAVER CR COUNTRY CLUB	J M HOFFMAN	1959	525	S	65	H	371ELBK
WA Cj 36	WA-69-0047	PRYOR, ALVIE R	W LAMBERSON	10-05-1968	670	S	265	H	377TMSN
WA Cj 37	WA-69-0095	SLIFER, LARRY	J M HOFFMAN	09-22-1968	658	S	300	H	377TMSN
WA Cj 38	WA-69-0054	LOHMAN, RICHARD	JOHN SHAFF	08-08-1968	595	F	180	H	377TMSN
WA Cj 39	WA-69-0132	MALOTT, DAVID	J M HOFFMAN	10-25-1968	530	H	185	H	377TMSN
WA Cj 40	WA-69-0135	PUGLISI, ANTHONY	J M HOFFMAN	10-19-1968	565	F	110	H	377TMSN
WA Cj 41	WA-69-0038	MOSER, GERALD	C A CROMWELL	08-02-1968	600	S	100	H	377TMSN
WA Cj 42	WA-69-0357	ESTES, JOHN A	C A CROMWELL	07-02-1969	545	F	248	H	377TMSN
WA Cj 43	WA-70-0021	EBERSOLE, KENNETH	W LAMBERSON	09-02-1969	665	S	300	H	377TMSN
WA Cj 44	WA-66-0291	JENKINS, MELVIN L	J M HOFFMAN	05-11-1966	830	S	330	H	377TMSN
WA Cj 45	WA-69-0164	MINNICK, JOHN E	A R KEYSER	01-02-1969	850	S	310	H	377ANTM
WA Cj 46	--	RENNER, LEROY W	YORK DRLG	04 - 1967	770	S	140	U	110MNWS
WA Cj 47	WA-67-0200	RENNER, LEROY W	A R KEYSER	04-17-1967	790	S	87	H	110MNWS
WA Cj 48	WA-67-0095	BLICKENSTAFF, MILO L	J M HOFFMAN	10-13-1966	800	S	400	H	377ANTM
WA Cj 49	--	MD STATE HIGHWAY ADMIN	YORK DRLG	12 - 1966	820	S	180	U	377TMSN
WA Cj 50	WA-67-0201	MD STATE HIGHWAY ADMIN	A R KEYSER	04-06-1967	825	S	380	U	377ANTM
WA Cj 51	WA-67-0106	EASTERDAY, RONALD L	JOHN SHAFF	10-18-1966	710	S	75	H	110MNWS
WA Cj 52	WA-67-0198	STOUFFER, FAYETTE	C A CROMWELL	01-26-1968	660	S	150	H	377TMSN
WA Cj 53	WA-68-0082	GREENBRIER STATE PARK	A R KEYSER	10-26-1967	630	F	107	H	110MNWS
WA Cj 54	WA-67-0252	HAMILTON, EARL	J P KOHLER	08-24-1967	585	F	115	H	377TMSN
WA Cj 55	WA-66-0250	RUBLE, CATHERINE	J M HOFFMAN	02-26-1966	615	S	120	H	377TMSN
WA Cj 56	WA-70-0084	WARGO, GEORGE	W LAMBERSON	09-05-1969	520	S	125	H	377TMSN
WA Cj 57	WA-70-0082	WIEDEMAN, JAMES R	C A CROMWELL	11-07-1969	690	S	235	H	377TMSN
WA Cj 58	WA-04-3167	STOUFFER, DALE	J M HOFFMAN	07 - 1961	720	S	300	U	110MNWS
WA Cj 59	WA-70-0234	U S GEOLOGICAL SURVEY	A R KEYSER	03-04-1970	635	V	380	U	377TMSN
WA Cj 60	WA-70-0272	SHANK, GAITHER E	W LAMBERSON	05-04-1970	540	V	185	H	371ELBK
WA Cj 61	WA-70-0323	SUFFECOOL, RALPH	W LAMBERSON	07-14-1970	580	S	65	H	377TMSN
WA Cj 62	WA-70-0244	WARNER, MORTON L	W LAMBERSON	04-20-1970	730	S	400	H	377TMSN
WA Cj 63	WA-70-0310	HORINE, JAMES R	A R KEYSER	06-26-1970	590	S	182	H	377WSBR
WA Cj 64	WA-70-0305	HARRELL, RONNIE	W LAMBERSON	06-22-1970	655	V	105	H	377TMSN
WA Cj 65	WA-69-0347	PALMER, CLAUDE	J M HOFFMAN	07-14-1969	665	S	325	H	377TMSN
WA Cj 66	WA-70-0050	HARNISH, GEORGE F	M E HOLTZMAN	09-15-1969	535	S	115	H	371ELBK
WA Cj 67	WA-81-1314	ROUTZAHN, WILLIAM A JR	A&H DRILLING	04-08-1986	630	S	320	H	377TMSN
WA Cj 70	WA-73-0239	MACMICHAEL, RALPH R	C A CROMWELL	03-24-1973	890	S	203	H	377HRPR
WA Cj 71	WA-73-0772	BALLAM, SAMUEL G	D H WOODWARD	10-11-1974	590	S	105	H	377TMSN
WA Cj 72	WA-72-0206	SEVENTH DAY ADV CHURCH	W LAMBERSON	04-19-1972	515	U	65	H	371ELBK
WA Cj 73	WA-81-0534	IRVING, ROBERT W	JOHN SHAFF	09-22-1983	775	S	600	H	377TMSN
WA Cj 74	WA-73-0508	LONG, JOHN	W LAMBERSON	11-27-1973	885	S	265	H	377ANTM
WA Cj 75	WA-73-1845	SCHAEFER, ROBERT E	JOHN SHAFF	07-05-1977	770	S	300	H	377ANTM
WA Cj 76	WA-73-1632	SMITH, ROBERT	C A CROMWELL	11-26-1976	835	S	250	H	377ANTM
WA Cj 77	WA-73-0839	RIGGIN, ELLIOTT R	W LAMBERSON	10-02-1974	790	S	325	H	377ANTM
WA Cj 78	WA-73-0838	SHIVES, DONALD C	W LAMBERSON	09-14-1974	540	S	225	H	377TMSN
WA Cj 79	WA-73-2981	POFFENBERGER, NANCY	A&H DRILLING	11-23-1979	555	V	85	U	377TMSN
WA Cj 80	WA-81-0813	BOYD, MICHAEL	A&H DRILLING	08-13-1984	560	H	155	H	371ELBK
WA Cj 81	WA-81-0876	HARRIS, ALLEN T	CLINE&DUVALL	02-15-1985	540	S	200	H	371ELBK
WA Cj 82	WA-81-0258	HART, DENNIS	A&H DRILLING	07-19-1982	510	S	105	H	371ELBK
WA Cj 83	WA-81-1057	SEEKFORD, MONROE M	A&H DRILLING	06-27-1985	600	S	125	H	377TMSN
WA Cj 84	WA-70-0144	GREENBRIAR INN	ROBERT CLINE	10-14-1969	1,100	S	350	C	377HRPR
WA Cj 85	WA-71-0281	GREENBRIAR ELEM SCHOOL	W LAMBERSON	06-10-1971	600	S	85	T	377TMSN
WA Cj 86	WA-72-0008	AMERICAN MOULDING INC	C A CROMWELL	08-18-1971	560	S	95	N	377TMSN
WA Cj 87	WA-73-1853	GREENBRIAR BAPTIST CH	ROY HARLEY	05-09-1977	540	U	100	H	371ELBK
WA Cj 88	WA-73-0760	SELLMAN, GARY	W LAMBERSON	11-06-1974	545	U	95	H	377TMSN
WA Cj 89	WA-73-3050	KING, TERRY	JOHN SHAFF	03-05-1980	815	S	300	H	377ANTM
WA Cj 90	WA-73-2717	MOATS, KENNETH	R ARDINGER	03-27-1979	710	S	225	H	377TMSN
WA Cj 91	WA-81-1127	WILLARD, RAYMOND A	JOHN SHAFF	08-13-1985	775	S	740	H	377TMSN
WA Cj 92	WA-73-3168	MARTIN MARIETTA AGGREG	A&H DRILLING	07-10-1980	510	H	240	N	377TMSN
WA Cj 93	WA-73-3172	FAULDERS, HAROLD L	JOHN SHAFF	07-28-1980	510	S	325	H	377TMSN
WA Cj 94	WA-70-0318	MANLY, DAVID H	JOHN SHAFF	06-17-1970	1,150	S	200	H	377HRPR
WA Cj 95	WA-66-0240	DEER PARK LODGE	YORK DRLG	02-17-1966	845	S	120	C,H	377ANTM
WA Cj 97	WA-73-1700	ROBERTS, RICHARD B	D H WOODWARD	12-06-1976	920	S	245	H	377ANTM

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
121	6	X	18	R	07-21-1956	25	--	18	--	10	07-21-1956	--	WA Cj 25
70	6	O	10	R	07-07-1958	3	70	10	0.05	2	07-07-1958	--	WA Cj 26
18	6	X	50	R	02 - 1959	25	150	50	.25	.5	02 - 1959	--	WA Cj 27
40	6	X	45	R	02 - 1958	2	165	45	.02	.5	02 - 1958	--	WA Cj 28
42	6	X	46	R	06 - 1958	2.5	75	46	.09	.5	06 - 1958	--	WA Cj 29
16	6	X	20	R	05-25-1959	12	26	20	2.0	8	05-25-1959	--	WA Cj 30
20.8	6	X	40.66	S	08-06-1959	20	60	30	.67	1	1959	--	WA Cj 34
17	6	X	25	R	1959	10	50	25	.40	1	1959	--	WA Cj 35
23	6	X	60	R	10-05-1968	3	225	60	.02	.5	10-05-1968	--	WA Cj 36
20	6	X	50	R	09-22-1968	.5	100	50	.01	.5	09-22-1968	--	WA Cj 37
32	6	X	26	R	08-08-1968	12	47	26	.57	4	08-08-1968	--	WA Cj 38
20	6	X	60	R	10-25-1968	6	125	60	.09	.5	10-25-1968	--	WA Cj 39
95	6	X	30	R	10-19-1968	100	105	30	1.33	1	10-19-1968	--	WA Cj 40
70	6	X	--	-	--	8	30	--	--	1	08-02-1968	--	WA Cj 41
15	6	X	--	-	--	1.5	57	--	--	2.5	07-02-1969	--	WA Cj 42
60	6	X	60	R	09-02-1969	1	260	60	.005	1	09-02-1969	--	WA Cj 43
135	6	X	150	R	05-11-1966	6	225	150	.08	1	05-11-1966	--	WA Cj 44
290	5												
104	6	X	100	R	01-02-1969	5	--	100	--	2	01-02-1969	--	WA Cj 45
130	6	X	--	-	--	--	--	--	--	--	--	--	WA Cj 46
57	8	O	20	R	04-17-1967	10	--	20	--	2	04-17-1967	--	WA Cj 47
87	6												
304	6	Z	140	R	10-13-1966	8	340	140	.04	1	10-13-1966	--	WA Cj 48
120	6	X	--	-	--	--	--	--	--	--	--	--	WA Cj 49
361	6	O	93	R	04-06-1967	10	--	93	--	2	04-06-1967	--	WA Cj 50
380	5												
47	6	X	26	R	10-18-1966	6	46	26	.30	3	10-18-1966	--	WA Cj 51
95	6	X	--	-	--	15	40	--	--	3	01-26-1968	--	WA Cj 52
107	6	X	51	R	10-26-1967	10	--	51	--	1	10-26-1967	--	WA Cj 53
107	6	X	61	R	08-24-1967	11	80	61	.58	2	08-24-1967	--	WA Cj 54
60	6	X	65	R	02-26-1966	50	100	65	1.43	.8	02-26-1966	--	WA Cj 55
110	5												
65	6	X	40	R	09-05-1969	20	102	40	.32	1	09-05-1969	--	WA Cj 56
34	6	X	80	R	11-07-1969	30	200	80	.25	1	11-07-1969	--	WA Cj 57
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Cj 58
151	6	X	60	R	03-30-1970	.5	380	60	.002	--	03-30-1970	C,G	WA Cj 59
30	6	X	40	R	05-04-1970	30	170	40	.23	1	05-04-1970	--	WA Cj 60
60	6	X	20	R	07-14-1970	100	62	20	2.38	1	07-14-1970	--	WA Cj 61
170	6	X	140	R	04-20-1970	1	375	140	.004	1	04-20-1970	--	WA Cj 62
75	6	X	50	R	06-26-1970	9	--	50	--	2	06-26-1970	--	WA Cj 63
50	6	X	40	R	06-22-1970	50	92	40	.96	1	06-22-1970	--	WA Cj 64
45	6	X	60	R	07-14-1969	1	100	60	.02	.5	07-14-1969	--	WA Cj 65
50	6	X	37	R	09-15-1969	35	--	37	--	3	09-15-1969	--	WA Cj 66
50	6	X	60	R	04-08-1986	40	320	60	.15	2	04-08-1986	--	WA Cj 67
21	6	X	45	R	03-24-1973	30	200	45	.19	2	03-24-1973	--	WA Cj 70
96	6	X	56	R	10-11-1974	15	71	56	1.0	8	10-11-1974	--	WA Cj 71
55	6	X	25	R	04-19-1972	30	60	25	.86	1	04-19-1972	--	WA Cj 72
60	6	X	56	R	09-22-1983	6	410	56	.02	3	09-22-1983	--	WA Cj 73
45	6	X	75	R	11-27-1973	5	240	75	.03	1	11-27-1973	Q	WA Cj 74
180	6	X	190	R	07-05-1977	12	218	190	.43	3	07-05-1977	--	WA Cj 75
120	6	X	137	R	11-26-1976	20	180	137	.47	3	11-26-1976	--	WA Cj 76
135	6	X	80	R	10-02-1974	10	310	80	.04	1	10-02-1974	--	WA Cj 77
25	6	X	15	R	09-14-1974	6	205	16	.03	1	09-14-1974	--	WA Cj 78
65	6	X	25	R	11-23-1979	20	85	25	.33	1	11-23-1979	--	WA Cj 79
30	6	X	60	R	08-13-1984	70	155	60	.74	3	08-13-1984	--	WA Cj 80
84	6	X	48	R	02-15-1985	15	200	48	.10	1	02-15-1985	--	WA Cj 81
25	6	X	35	R	07-19-1982	10	105	35	.14	2	07-19-1982	--	WA Cj 82
45	5												
45	6	X	50	R	06-27-1985	10	125	50	.13	2	06-27-1985	Q	WA Cj 83
110	5												
42	6	X	35	R	10-14-1969	2	350	35	.01	1	10-14-1969	--	WA Cj 84
70	6	X	50	R	06-10-1971	30	75	50	1.20	1	06-10-1971	--	WA Cj 85
45	6	X	34	R	08-18-1971	14	70	34	.39	2	08-18-1971	--	WA Cj 86
20	6	X	40	R	05-09-1977	15	60	40	.75	3	05-09-1977	--	WA Cj 87
85	6	X	30	R	11-06-1974	50	90	30	.83	1	11-06-1974	--	WA Cj 88
200	6	X	68	R	03-05-1980	14	188	68	.12	3	03-05-1980	--	WA Cj 89
176	6	X	175	R	03-27-1979	10	225	175	.20	2	03-27-1979	--	WA Cj 90
205	5												
74	6	X	115	R	08-13-1985	2	384	115	.01	3	08-13-1985	--	WA Cj 91
21	6	X	35	R	07-10-1980	100	240	35	.49	2	07-10-1980	--	WA Cj 92
40	6	X	26	R	07-28-1980	14	55	26	.48	3	07-28-1980	--	WA Cj 93
23	6	X	60	R	06-17-1970	10	108	60	.21	3	06-17-1970	--	WA Cj 94
90	6	X	--	-	--	20	120	--	--	.5	02-17-1966	--	WA Cj 95
40	6	X	100	R	12-06-1976	5	245	100	.03	1	12-06-1976	--	WA Cj 97

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Cj 98	WA-81-0073	DOROSH, PHILLIP M	JOHN SHAFF	10-14-1981	920	S	300	H	377ANTM
WA Cj 99	WA-81-0526	HARRISON, CRAIG	A&H DRILLING	08-24-1983	745	S	220	H	377ANTM
WA Cj 100	WA-73-2778	ANDERSON	JOHN SHAFF	05-21-1979	645	S	325	H	377TMSN
WA Cj 101	WA-73-3148	DOYLE, DENNIS R	JOHN SHAFF	06-11-1980	690	S	200	H	377TMSN
WA Cj 102	WA-81-0947	HAUGH, GARY L	JOHN SHAFF	02-25-1985	710	S	250	H	377TMSN
WA Cj 103	WA-81-0402	STOTLER, RONALD E	A&H DRILLING	03-14-1983	730	H	185	H	377TMSN
WA Cj 104	WA-73-2672	WISE, DARYL E	JOHN SHAFF	03-20-1979	750	S	250	H	377TMSN
WA Cj 105	WA-81-0582	MOSER, HELEN E	D H WOODWARD	09-26-1983	610	F	150	H	377TMSN
WA Cj 106	WA-81-0443	BOONSBORO RESCUE CO	A&H DRILLING	04-13-1983	540	S	285	H	377TMSN
WA Cj 107	WA-81-0879	SPEROW, MARY I	JOHN SHAFF	11-16-1984	520	S	150	H	377TMSN
WA Cj 108	WA-73-2438	DAGENHART, J RICHARD	R ARDINGER	08-03-1978	580	H	360	H	377TMSN
WA Cj 109	WA-73-2457	WISLER, GLENN M	C A CROMWELL	08-07-1978	555	F	100	H	377TMSN
WA Cj 110	WA-73-2568	PALMER, DONALD L	D H WOODWARD	11-03-1978	565	F	450	H	377TMSN
WA Cj 111	WA-73-2889	SCHNEIDER, JOHN E	ROBERT CLINE	08-31-1979	595	H	275	H	377TMSN
WA Cj 112	WA-81-0942	ECCARD, WILLIAM	A&H DRILLING	01-16-1985	520	S	105	H	371ELBK
WA Cj 113	WA-73-0931	BEAVER CREEK CHRIST CH	D H WOODWARD	01-02-1975	565	H	425	H	371ELBK
WA Cj 114	WA-81-1236	BOONSBORO CH OF GOD	KEYSER-GARVR	11-27-1985	560	S	240	H	377TMSN
WA Cj 115	WA-73-2783	JOHNSTON, CHARLES H JR	R ARDINGER	06-26-1979	660	S	165	H	377TMSN
WA Cj 116	WA-73-1407	SISK, KENNETH	W LAMBERSON	05-14-1976	580	S	105	H	377TMSN
WA Cj 117	WA-73-1528	GRENCI, FRANK	JOHN SHAFF	09-10-1976	605	S	150	H	377TMSN
WA Cj 118	WA-73-0700	FELDMYER, KARL F	W LAMBERSON	07-12-1974	650	F	145	H	377TMSN
WA Cj 119	WA-73-2969	FLEMING, RALPH E	JOHN SHAFF	10-24-1979	760	F	200	H	377TMSN
WA Cj 120	WA-73-0102	YEAKLE, HOWARD G	W LAMBERSON A&H DRILLING	10-19-1972 08-30-85	1,225	H	385	H	377WVRN
WA Cj 121	WA-71-0282	SHANK, THURMAN	W LAMBERSON	06-18-1971	1,210	S	325	H	377WVRN
WA Cj 122	WA-73-1377	REDMOND, LAWRENCE I	K L TEACH	05-12-1976	545	F	200	H	377TMSN
WA Cj 123	WA-01-3586	WASHINGTON CO BD OF ED	J M HOFFMAN	10 - 1953	560	H	253	U	371ELBK
WA Cj 124	WA-73-1506	LITTON, DAVID	W LAMBERSON	08-05-1976	485	S	345	H	377TMSN
WA Cj 125	WA-67-0223	RICHARD F KLINE INC	K L TEACH	06-26-1967	530	F	165	N	377TMSN
WA Cj 128	WA-81-1330	KEYSER, KEN	A&H DRILLING	05-13-1986	1,070	S	230	H	377HRPR
WA Cj 129	WA-04-4343	WASHINGTON CO NAT BANK	W MARTIN	10-12-1961	530	S	130	C	377TMSN
WA Cj 130	WA-73-0701	KIRK, JOHN	W LAMBERSON	07-10-1974	650	F	325	U	377TMSN
WA Cj 131	WA-73-1759	KIRK, JOHN	D H WOODWARD	03-18-1977	650	F	225	H	377TMSN
WA Dh 1	--	ELLIOTT, LEONA	--	--	428	S	28.5	U	371CCCG
WA Dh 4	--	MILLER, H E	--	--	418	F	80	H,S	371CCCG
WA Dh 5	WA-02-8628	BITTNER, FRANCIS B	J W AMBROSE	11-11-1957	475	H	168	U	371CCCG
WA Dh 11	WA-02-1779	C & O CANAL NATL PARK	W MARTIN	04-05-1956	440	H	527	U	371CCCG
WA Dh 12	WA-03-3310	TYNE, MARY A	J M HOFFMAN	02 - 1959	500	H	290	H,S	371ELBK
WA Dh 13	WA-03-3917	BITTNER, FRANCIS B	J M HOFFMAN	04 - 1959	468	H	328	H,S	371ELBK
WA Dh 14	--	KOONTZ, ELMER	--	--	436	F	37.9	U	371CCCG
WA Dh 15	--	BAKER, ARTHUR	--	--	449	F	46.8	U	371CCCG
WA Dh 16	--	GAMPERL, JOHN	--	--	445	F	17.5	U	371CCCG
WA Dh 17	--	SNYDER, MARY	--	--	440	F	35.6	U	371CCCG
WA Dh 18	--	KELLER, SCOTT	--	--	453	F	51.3	U	371CCCG
WA Dh 19	--	COOKE, MARGARET	--	--	444	U	71.5	U	371CCCG
WA Dh 20	--	POFFENBERGER, HENRY	--	--	454	F	50.7	U	371CCCG
WA Dh 21	--	SHEALY, W H	--	--	420	F	--	U	371CCCG
WA Dh 22	--	SMITH, CLIFTON LOHMAN, SAMUEL	--	--	415	S	20	U	371CCCG
WA Dh 23	WA-02-9572	LOHMAN, HARRY	J W AMBROSE	01-09-1958	420	S	27.5	U	371CCCG
WA Dh 24	--	GROVE, ARGYL	--	--	420	F	25	U	371CCCG
WA Dh 25	--	MUMMA, B & N	--	--	418	F	22.6	U	371CCCG
WA Dh 26	--	HEBB, THEODORE	--	--	425	F	--	U	371CCCG
WA Dh 27	--	GROVE, BESSIE	--	--	420	F	17.5	U	371CCCG
WA Dh 28	--	MOSE, HILDA	--	--	430	F	60	U	371CCCG
WA Dh 29	--	DAVIS, WARREN	--	--	230	F	--	U	371CCCG
WA Dh 30	--	SHUMAKER, SYLVESTER	--	--	426	F	31.2	U	371CCCG
WA Dh 31	WA-03-3967	DELAUNEY, WILLIAM T	J W AMBROSE	04-17-1959	440	F	60	U	371CCCG
WA Dh 32	--	GRIMM, CARL F	--	--	430	F	--	U	371CCCG
WA Dh 33	--	THOMAS, FRANK H	--	--	430	U	38.8	U	371CCCG
WA Dh 34	--	EARLEY, KLEORA	--	--	445	U	--	U	371CCCG
WA Dh 35	--	BUSSARD, DAVID G S	--	--	435	U	26.9	U	371CCCG
WA Dh 36	--	MORGAN, S G	--	--	439	S	38.7	U	371CCCG
WA Dh 37	--	MYERS, ALLEN	--	--	470	F	90	U	371ELBK
WA Dh 38	WA-00-0405	GRIMM, EVERARD J	J M HOFFMAN	08-27-1946	462	F	74	U	371ELBK
WA Dh 39	--	SHARPSBURG ELEM SCHOOL	C E PIKE	--	485	F	218	U	371ELBK
WA Dh 40	WA-00-2198	DIETRICH, ALBERT B	J M HOFFMAN	01-14-1949	465	F	112	H	371CCCG
WA Dh 41	--	SWAIN, HOWARD	--	--	440	U	52	H	371CCCG
WA Dh 42	--	ROULETTE, ESTELLA E	--	--	474	F	100	H	371ELBK
WA Dh 43	--	JAMISON, J W	--	--	419	F	24.2	U	371CCCG
WA Dh 44	--	MOSS, LENA	--	--	430	F	--	U	371CCCG
WA Dh 45	--	SAUNDERS, FRANCIS	--	--	430	F	30	U	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
151	6	X	56	R	10-14-1981	10	214	56	0.06	3	10-14-1981	--	WA Cj 98
63	6	X	50	R	08-24-1983	20	220	50	.12	2	08-24-1983	--	WA Cj 99
62	6	X	66	R	05-21-1979	10	193	66	.08	3	05-21-1979	--	WA Cj 100
58	6	X	38	R	06-11-1980	14	104	38	.21	3	06-11-1980	--	WA Cj 101
120	6	X	56	R	02-25-1985	12	128	56	.17	3	02-25-1985	--	WA Cj 102
30	6	X	120	R	03-14-1983	20	185	120	.31	8	03-14-1983	--	WA Cj 103
170	5												
75	6	X	56	R	03-20-1978	5	182	56	.04	3	03-20-1979	--	WA Cj 104
48	6	X	40	R	09-26-1983	40	150	40	.36	3	09-26-1983	--	WA Cj 105
30	6	X	40	R	04-13-1983	100	285	40	.41	2	04-13-1983	--	WA Cj 106
75	6	X	58	R	11-16-1984	15	72	58	1.07	3	11-16-1984	--	WA Cj 107
21	6	X	40	R	08-03-1978	1.5	360	40	.005	30	08-03-1978	--	WA Cj 108
22	6	X	30	R	08-07-1978	30	95	30	.46	2	08-07-1978	--	WA Cj 109
21	6	X	22	R	11-03-1978	5	450	22	.01	3	11-03-1978	--	WA Cj 110
49	6	X	70	R	08-31-1979	8	275	70	.04	1	08-31-1979	--	WA Cj 111
21	6	X	30	R	01-16-1985	50	105	30	.67	3	01-16-1985	--	WA Cj 112
56	5												
23	6	X	30	R	01-02-1975	18	275	30	.07	2	01-02-1975	--	WA Cj 113
82	6	X	100	R	11-27-1985	15	--	100	--	3	11-27-1985	--	WA Cj 114
55	6	X	40	R	06-26-1979	20	165	40	.16	1	06-26-1979	--	WA Cj 115
65	6	X	30	R	05-14-1976	50	90	30	.83	1	05-14-1976	--	WA Cj 116
120	6	X	68	R	09-10-1976	26	74	68	4.33	3	09-10-1976	--	WA Cj 117
55	6	X	60	R	07-12-1974	20	130	60	.29	1	07-12-1974	--	WA Cj 118
125	5												
125	6	X	157	R	10-24-1979	18	166	157	2.0	3	10-24-1979	--	WA Cj 119
25	6	X	70	R	08-30-1985	3	160	50	.03	1	10-19-1972	--	WA Cj 120
						4	385	70	.01	8	08-30-85		
25	6	X	50	R	06-18-1971	2	210	50	.01	1	06-18-1971	--	WA Cj 121
23	6	X	30	R	05-12-1976	5	100	30	.07	1	05-12-1976	--	WA Cj 122
4	6	X	80	R	10 - 1953	100	250	80	.59	1	10 - 1953	--	WA Cj 123
20	6	X	20	R	08-05-1976	1	100	20	.01	1	08-05-1976	--	WA Cj 124
13	6	X	30	R	06-26-1967	7	165	30	.05	1	06-26-1967	--	WA Cj 125
90	6	X	80	R	05-13-1986	8	230	80	.05	2	05-13-1986	--	WA Cj 128
69	6	X	78	R	10-12-1961	8	--	78	--	8	10-12-1961	--	WA Cj 129
--	--	X	D	R	07-10-1974	0	--	--	--	--	07-10-1974	--	WA Cj 130
84	6	X	55	R	03-18-1977	100	75	55	5.0	3	03-18-1977	--	WA Cj 131
28.5	36	W	25.27	S	10-22-1946	--	--	--	--	--	--	Q	WA Dh 1
--	--	-	40	R	12-11-1958	--	--	--	--	--	--	--	WA Dh 4
70	6	X	133	R	11-11-1957	--	--	--	--	--	--	--	WA Dh 5
31	6	X	145	R	04-05-1956	3	200	145	.05	6	04-05-1956	Q	WA Dh 11
46.5	6	X	90	R	02 - 1959	12	--	90	--	.5	02 - 1959	--	WA Dh 12
46	6	X	165	R	04 - 1959	20	250	165	.24	1	04 - 1959	--	WA Dh 13
37.9	48	W	33.60	S	04-15-1959	--	--	--	--	--	--	Q	WA Dh 14
46.8	--	W	45.40	S	04-14-1959	--	--	--	--	--	--	Q	WA Dh 15
17.5	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 16
35.6	--	W	32.90	S	04-15-1959	--	--	--	--	--	--	Q	WA Dh 17
51.3	--	W	49.23	S	04-14-1959	--	--	--	--	--	--	Q	WA Dh 18
--	6	-	41.05	S	04-15-1959	--	--	--	--	--	--	--	WA Dh 19
50.7	--	W	41.80	S	04-15-1959	--	--	--	--	--	--	Q	WA Dh 20
--	--	W	--	-	--	--	--	--	--	--	--	--	WA Dh 21
20	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 22
21	6	X	17	R	01-09-1958	60	--	17	--	1.5	01-09-1958	Q	WA Dh 23
25	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 24
--	--	W	15.00	S	04-16-1959	--	--	--	--	--	--	Q	WA Dh 25
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 26
17.5	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 27
60	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 28
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 29
31.2	--	W	26.83	S	04-16-1959	--	--	--	--	--	--	--	WA Dh 30
22	6	X	40	R	04-17-1959	7	--	40	--	3	04-17-1959	Q	WA Dh 31
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 32
36.4	--	W	36.9	S	04-21-1959	--	--	--	--	--	--	Q	WA Dh 33
--	--	W	--	-	--	--	--	--	--	--	--	--	WA Dh 34
26.9	--	W	22.60	S	04-29-1959	--	--	--	--	--	--	Q	WA Dh 35
38.7	--	W	36.75	S	04-29-1959	--	--	--	--	--	--	Q	WA Dh 36
--	--	-	--	-	--	--	--	--	--	--	--	Q	WA Dh 37
31.5	6	X	62	R	08-27-1946	10	--	62	--	.5	08-27-1946	Q	WA Dh 38
--	--	-	--	-	--	7.5	--	--	--	--	04-29-1959	Q	WA Dh 39
12	6	X	10	R	01-14-1949	7	57	10	.15	1	01-14-1949	Q	WA Dh 40
52	48	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 41
--	--	-	70	R	1955	--	--	--	--	--	--	--	WA Dh 42
24.2	--	W	20.6	S	05-19-1959	--	--	--	--	--	--	Q	WA Dh 43
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 44
30	--	W	--	-	--	--	--	--	--	--	--	--	WA Dh 45

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Dh 46	--	WATERS, DAVID L	--	--	435	U	40	U	371CCCG
WA Dh 47	WA-02-9286	ROULETTE, J WALTER	J M HOFFMAN	12 - 1957	481	F	100	H	371ELBK
WA Dh 48	WA-01-8716	KEFAUVER, ELLIS L	J W AMBROSE	04-20-1955	477	H	90	H	371ELBK
WA Dh 49	WA-00-4003	HOUSER, EARL	J M HOFFMAN	05-25-1949	422	U	97	U	371CCCG
WA Dh 50	--	LATTA, FLAVIOUS	--	--	425	S	125	U	371CCCG
WA Dh 51	WA-05-2154	C & O CANAL NATL PARK	J M HOFFMAN	07-02-1963	315	T	121.6	U	371CCCG
WA Dh 52	WA-05-7148	C & O CANAL NATL PARK	J M HOFFMAN	05-13-1964	310	F	100	H	371CCCG
WA Dh 53	--	C & O CANAL NATL PARK	J M HOFFMAN	05-07-1969	290	F	100	H	371CCCG
WA Dh 54	WA-66-0036	MARCUM, ROBERT	P E KOHLER	09-20-1965	430	F	250	S	371CCCG
WA Dh 56	--	C & O CANAL NATL PARK	DELMARVA DRL	05 - 1970	315	T	296	H	371CCCG
WA Dh 59	--	C & O CANAL NATL PARK	DELMARVA DRL	06 - 1970	315	T	150	U	371CCCG
WA Dh 63	WA-70-0280	MARSHALL, WALTER	W LAMBERSON	05-21-1970	477	S	200	H	371ELBK
WA Dh 64	WA-70-0095	W MD SPORTSMANS CLUB	W LAMBERSON	10-01-1969	360	S	105	H	371CCCG
WA Dh 65	WA-81-1222	LANGENSTEIN, DENNIS	A&H DRILLING	11-20-1985	435	V	300	H	371CCCG
WA Dh 66	WA-81-0776	PRATT, MICHAEL R	A&H DRILLING	08-02-1984	455	S	245	H	371CCCG
WA Dh 67	WA-73-1356	COLPO, JAMES L	JOHN SHAFF	02-16-1976	470	H	150	H	371CCCG
WA Dh 68	WA-73-2127	NEIKIRK, MALCOLM J	D H WOODWARD	04-07-1978	410	V	85	H	371CCCG
WA Dh 69	WA-73-1016	TOMLIN, KENNETH A	D H WOODWARD	05-12-1975	320	V	175	H	371CCCG
WA Dh 70	WA-73-0979	D R L C O ASSOCIATES	W LAMBERSON	04-14-1975	310	V	145	H	371CCCG
WA Dh 71	WA-73-2066	SHUPP, GARY	D H WOODWARD	10-12-1977	425	U	400	H	371CCCG
WA Dh 72	WA-73-1415	WEAGLEY, RALPH	W LAMBERSON A&H DRILLING	04-22-1976 02-19-87	420	S	165	H	371CCCG
WA Dh 73	WA-73-0932	POFFENBERGER, JEFFREY	W LAMBERSON	11-19-1974	445	S	325	H	371CCCG
WA Dh 74	WA-73-2873	MASON, LESTER	W QUYNN	08-14-1979	400	S	180	H	371CCCG
WA Dh 75	WA-81-0234	MARTIN, DELBERT	A&H DRILLING	07-04-1982	405	H	385	U	371CCCG
WA Dh 76	WA-72-0134	MARTIN, DELBERT	W LAMBERSON	11-09-1971	400	S	305	H	371CCCG
WA Dh 77	WA-73-3272 WA-73-3105	SAGLE, WILLIAM	A&H DRILLING	10-10-1980	425	H	165	H	371CCCG
WA Dh 78	WA-73-2635	HOSE, FREDERICK T	JOHN SHAFF	02-07-1979	440	U	650	H	371CCCG
WA Dh 79	WA-73-2863	SCHWEINHART, DOUGLAS	JOHN SHAFF	10-05-1979	445	S	100	H	371CCCG
WA Dh 80	WA-73-3299	CONOCOCHEAGUE SPTMN CL	A&H DRILLING	11-16-1980	380	H	285	H	371ELBK
WA Dh 81	WA-73-3161	LITTON, FELIX B	D H WOODWARD	06-26-1980	475	S	375	H	371ELBK
WA Dh 82	WA-81-1090	HOWARD, CARLTON L	A&H DRILLING	09-25-1986	500	H	185	H	371ELBK
WA Dh 83	WA-73-1954 WA-81-0099	JAMISON, MARVIN L	JOHN SHAFF	10-30-1981	460	F	300	H	371CCCG
WA Dh 84	WA-73-1334	RUTHERFORD	C A CROMWELL	02-24-1976	450	S	90	H	371CCCG
WA Dh 85	WA-71-0089	THE CLARA BEE	C A CROMWELL	10-19-1970	455	S	105	C,H	371CCCG
WA Dh 86	WA-73-0067	FERRY HILL TAVERN	JOHN SHAFF	09-18-1972	440	F	500	C	371CCCG
WA Di 1	--	ANTIETAM NATL BATTLEFD	--	1932	485	S	254	U	371ELBK
WA Di 2	--	ANTIETAM NATL BATTLEFD	--	1927	485	S	310	H,I	371ELBK
WA Di 3	WA-02-1842	VALENTINE, CALVIN F	J W AMBROSE	02-16-1956	412	F	65	C,H	377TMSN
WA Di 4	WA-02-5809	LOHMAN, WALTER L	J W AMBROSE	01-15-1957	412	F	43.5	H	377TMSN
WA Di 5	WA-02-6645	MILLER, CLARENCE JR	A R KEYSER	05-03-1957	610	S	100	H	400CTCN
WA Di 9	WA-01-6638	MCCLENNAN'S GUN CLUB	C A CROMWELL	10 - 1954	910	S	135	H	377ANTM
WA Di 10	WA-01-4832	LONG, JOHN W SR	C A CROMWELL	05-29-1954	490	F	92	H	377ANTM
WA Di 11	--	C & O CANAL NATL PARK	--	--	300	V	13	U	377WSBR
WA Di 12	--	HAHN, MARVIN	--	--	575	F	22.4	U	377WVRN
WA Di 13	--	HAHN, MARVIN	C A CROMWELL	--	575	F	66	H	377WVRN
WA Di 14	WA-02-0100	EBERSOLE, HOWARD	J M HOFFMAN	10 - 1955	458	F	137	H	371CCCG
WA Di 15	WA-02-2284	SMITH, RICHARD	J W AMBROSE	04-14-1956	463	S	100	H,S	377WSBR
WA Di 16	--	SMITH, RICHARD D	--	--	463	S	85	U	377WSBR
WA Di 17	WA-02-9334	SCHELLER, RAYMOND	J W AMBROSE	12-13-1957	478	F	75	H,S	377TMSN
WA Di 19	WA-02-6559	MYERS, FLOYD	C A CROMWELL	03-20-1957	710	S	57	H	377ANTM
WA Di 21	WA-02-9004	REEDER, HARRY	A R KEYSER	10 - 1957	558	V	96	H	377ANTM
WA Di 22	--	MARSHALL, MAX	JOHN SHAFF	1953	500	S	64	H	377TMSN
WA Di 23	WA-02-9746	WYAND, DRURY	A R KEYSER	03-03-1958	470	V	251	H	377TMSN
WA Di 24	--	HOLMES	--	--	725	S	90	H	377HRPR
WA Di 25	--	GRIFFITH, DONALD N	JOHN SHAFF	1955	610	S	75	H	400CTCN
WA Di 27	--	LOWERY, GEORGE	--	--	430	V	36.4	H	377ANTM
WA Di 29	--	KEEDYSVILLE ELEM SCH	--	--	425	S	--	T	377TMSN
WA Di 31	WA-00-5913	TOWN OF KEEDYSVILLE	JACK HARLEY	11-06-1950	450	F	106	H	377TMSN
WA Di 32	--	C & P TELEPHONE CO	--	1949	430	V	85	C	377TMSN
WA Di 33	--	MEYERS, KEITH	--	--	430	F	220	H,S	371ELBK
WA Di 34	WA-03-0917	FETTER, GEORGE E	J M HOFFMAN	07 - 1958	560	V	50	H	377ANTM
WA Di 39	--	GETRIDGE, CLARA M	--	--	421.96	F	23	U	371CCCG
WA Di 40	--	LEATHERMAN, LEO	C E PIKE	1944	460	F	128	U	371CCCG
WA Di 41	--	FELTNER, NELLIE	--	--	410	F	--	U	371CCCG
WA Di 42	--	EASTERDAY, LAURENCE	--	--	423.98	F	17.6	U	371CCCG
WA Di 43	--	DELAUNEY, AARON B	--	--	420	F	30	U	371CCCG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
40	--	W	--	-	--	--	--	--	--	--	--	Q	WA Dh 46
45	6	X	75	R	12 - 1957	20	95	75	1.0	0.5	12 - 1957	Q	WA Dh 47
76	6	X	72	R	04-20-1955	20	--	72	--	.5	04-20-1955	--	WA Dh 48
8	6	X	18.97	S	04-07-1959	20	40	25	1.33	1	05-25-1949	Q	WA Dh 49
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Dh 50
19	6	X	14.02	S	07-29-1963	7.5	29.61	13.55	.47	24	07-29-1963	C,G,Q	WA Dh 51
28	6	X	26.66	S	05-20-1964	16	46.64	26.66	.80	24	05-20-1969	Q	WA Dh 52
50	6	X	27	S	05-14-1969	5	--	27	--	1	05-07-1969	C,Q	WA Dh 53
17	6	X	34	R	09-20-1965	15	68	34	.44	3	09-20-1965	--	WA Dh 54
46	6	X	19.12	S	06-09-1970	1.5	--	--	--	--	06-09-1970	G	WA Dh 56
--	--	-	--	-	--	.5	--	--	--	--	06 - 1970	--	WA Dh 59
48	6	X	50	R	05-21-1970	5	190	50	.04	1	05-21-1970	--	WA Dh 63
90	6	X	55	R	10-01-1969	50	100	55	1.11	3	10-01-1969	--	WA Dh 64
63	6	X	50	R	11-20-1985	3	300	50	.01	2	11-20-1985	--	WA Dh 65
25	6	X	120	R	08-02-1984	8	245	120	.06	2	08-02-1984	--	WA Dh 66
150	5												
21	6	X	38	R	02-16-1976	10	76	38	.26	3	02-16-1976	--	WA Dh 67
20	6	X	40	R	04-07-1978	100	50	40	10.0	2	04-07-1978	--	WA Dh 68
22	6	X	18	R	05-12-1975	15	90	18	.21	1	05-12-1975	--	WA Dh 69
50	6	X	50	R	04-14-1975	8	135	50	.09	1	04-14-1975	--	WA Dh 70
90	5												
32	6	X	65	R	10-12-1977	10	120	65	.18	3	10-12-1977	--	WA Dh 71
50	6	X	75	R	02-19-1987	15	95	65	.50	1	04-22-1976	--	WA Dh 72
						10	165	75	.11	2	02-19-87		
20	6	X	50	R	11-19-1974	3	280	50	.01	1	11-19-1974	--	WA Dh 73
36	6	X	30	R	08-14-1979	8	170	30	.06	2	08-14-1979	--	WA Dh 74
20	6	X	71.09	S	04-04-1986	1	385	20	.003	3	07-04-1982	--	WA Dh 75
45	6	X	60	R	11-09-1971	2	250	60	.01	1	11-09-1971	--	WA Dh 76
21	6	X	65	R	10-10-1980	10	165	65	.10	2	10-10-1980	--	WA Dh 77
						25	125	45	.31	2	04-10-1980		
40	6	X	62	R	02-07-1979	5	491	62	.01	3	02-07-1979	--	WA Dh 78
63	6	X	26	R	10-05-1979	18	42	26	1.12	3	10-05-1979	--	WA Dh 79
30	6	X	50	R	11-16-1980	20	285	50	.09	2	11-16-1980	--	WA Dh 80
20	6	X	100	R	06-26-1980	16	375	100	.06	2	06-26-1980	--	WA Dh 81
184	5												
55	6	X	80	R	09-25-1986	10	105	40	.15	2	07-30-1985	--	WA Dh 82
						10	185	80	.10	2	09-25-1986		
--	6	-	68	R	10-30-1981	12	114	68	.26	3	10-30-1981	--	WA Dh 83
21	6	X	35	R	02-24-1976	20	85	35	.40	1	02-24-1976	--	WA Dh 84
34	6	X	40	R	10-19-1970	20	90	40	.40	3	10-19-1970	--	WA Dh 85
68	6	X	28	R	09-18-1972	12	410	28	.03	3	09-18-1972	--	WA Dh 86
--	--	-	--	-	--	--	--	--	--	--	--	Q	WA Di 1
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Di 2
24	6	X	37	R	02-16-1956	19	--	37	.25	2	02-16-1956	--	WA Di 3
--	--	-	31	R	01-15-1951	24	--	31	--	1	01-15-1957	--	WA Di 4
89	6	X	40	R	05-03-1957	10	90	40	.20	1	05-03-1957	Q	WA Di 5
10	6	X	70	R	10 - 1954	4	125	70	.07	1	10 - 1954	--	WA Di 9
14	6	X	15.5	R	05-29-1954	4	17.5	15.5	2.0	.3	05-29-1954	Q	WA Di 10
13	48	W	10.33	S	10-01-1958	--	--	--	--	--	--	Q	WA Di 11
22.4	48	W	22.11	S	10-08-1958	--	--	--	--	--	--	--	WA Di 12
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Di 13
4	6	X	38	R	10 - 1955	8	130	38	.09	.5	10 - 1955	Q	WA Di 14
86	6	S	70	R	04-14-1956	10	92	70	.45	1	04-14-1956	--	WA Di 15
100	6												
34	48	X	63.29	S	12-10-1958	--	--	--	--	--	--	--	WA Di 16
85	6												
--	6	-	18	R	12-13-1957	8	62	18	.18	1.5	12-13-1957	--	WA Di 17
20	6	X	20	R	03-20-1957	4	55	20	.11	1	03-20-1957	--	WA Di 19
96	6	O	45	R	10 - 1957	10	60	45	.67	2	10 - 1957	--	WA Di 21
--	6	-	12	E	12-11-1958	--	--	--	--	--	--	--	WA Di 22
14	6	X	14.91	S	12-11-1958	2	40	20	.10	3	03-03-1958	--	WA Di 23
--	6	-	20	E	12-17-1958	--	--	--	--	--	--	--	WA Di 24
--	6	-	10	E	12-17-1958	--	--	--	--	--	--	--	WA Di 25
36.4	36	W	--	-	--	--	--	--	--	--	--	--	WA Di 27
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Di 29
4	6	X	75	R	11-06-1950	14	--	75	--	3	11-06-1950	--	WA Di 31
85	6	X	55	R	1954	--	--	--	--	--	--	--	WA Di 32
--	6	-	30	E	12-19-1958	--	--	--	--	--	--	--	WA Di 33
14	6	X	20	R	07 - 1958	2	40	20	.10	.5	07 - 1958	--	WA Di 34
23	--	W	17.25	S	04-08-1959	--	--	--	--	--	--	Q	WA Di 39
--	6	-	--	-	--	--	--	--	--	--	--	Q	WA Di 40
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 41
17.6	--	W	16.15	S	04-08-1959	--	--	--	--	--	--	Q	WA Di 42
30	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 43

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Di 44	--	DELAUNEY, HAROLD T	--	--	414	F	14.3	U	371CCCG
WA Di 45	--	BOYER, ELMER	--	--	430	F	35	U	371CCCG
WA Di 46	--	KEARNEY, EMMA	--	--	420	F	30	U	371CCCG
WA Di 47	--	MARSHALL, DANIEL A	--	--	420	F	--	U	371CCCG
WA Di 48	--	HAMMOND, S R	--	--	415	F	16	U	371CCCG
WA Di 50	--	SHARPSBURG BANK	--	--	415	F	8.2	U	371CCCG
WA Di 51	--	SMITH, AIMEE	--	--	430	F	30	U	371CCCG
WA Di 52	--	DELAUNEY, THEO	--	--	415	F	18.1	U	371CCCG
WA Di 53	--	CANFIELD, ROBERT W	--	--	420	F	--	U	371CCCG
WA Di 54	--	CLIPP, ETHEL	--	--	415	F	16.8	U	371CCCG
WA Di 55	WA-01-6716	MALONE, MILDRED	J W AMBROSE	10-29-1954	420	F	75	U	371CCCG
WA Di 56	--	ROHRER, CHARLES	--	--	410	F	--	U	371CCCG
WA Di 57	--	EAVEY, JOHN W	--	--	410	F	12.1	U	371CCCG
WA Di 58	--	CLIPP, SILAS	--	--	410	F	12.5	U	371CCCG
WA Di 59	--	PEYTON, HARRY	--	--	410	F	13	U	371CCCG
WA Di 60	--	MILES, L M	--	--	410	F	10	U	371CCCG
WA Di 61	--	OTZELBERGER, M R	--	--	410	F	9.7	U	371CCCG
WA Di 62	WA-00-8602	GUESSFORD, RUTH	J M HOFFMAN	10 - 1951	440	F	124	U	371CCCG
WA Di 63	--	HIGHBERGER, ANNA	--	--	430	F	30	U	371CCCG
WA Di 64	WA-01-2612	AMERICAN LEGION	J M HOFFMAN	07 - 1953	424	F	51	U	371CCCG
WA Di 65	--	AMERICAN LEGION	J M HOFFMAN	--	424	F	36	U	371CCCG
WA Di 66	--	LEATHERMAN, CHARLES	--	--	420	F	40	U	371CCCG
WA Di 67	--	CRISWELL, R B	--	--	430	F	25.3	U	371CCCG
WA Di 68	--	WINKS, RUBY	--	--	430	F	--	U	371CCCG
WA Di 69	--	STULL, FRED	--	--	420	F	19.9	U	371CCCG
WA Di 70	--	BOYER, ELMER	--	--	470	F	46.4	H	371CCCG
WA Di 71	WA-01-2613	GRIFFIN, COMMODORE	J M HOFFMAN	10 - 1953	485	F	200	U	371ELBK
WA Di 74	--	PIPER FARM	--	--	435	V	31	H	371CCCG
WA Di 75	WA-01-9259	GRIMM, LIONEL A	J M HOFFMAN	06 - 1955	424	S	121	U	371CCCG
WA Di 76	--	WILHELM, LENA	--	--	430	F	101	U	371CCCG
WA Di 77	WA-00-2370	FLOOK, JOHN	J M HOFFMAN	05-08-1949	438	F	80	U	371CCCG
WA Di 79	WA-01-3214	SHEALY, W H	W MARTIN	02-17-1954	481	F	276	U	371CCCG
WA Di 80	WA-02-8751	SHEALY, DR W H	J M HOFFMAN	12 - 1957	460	S	264	U	371CCCG
WA Di 81	--	GROVE, CLYDE W	--	--	431	F	30.3	U	371CCCG
WA Di 82	--	KAYLOR, HELEN	--	--	454	F	52.5	U	371CCCG
WA Di 83	--	KLINE, EUGENE B	--	--	422	F	21.8	U	371CCCG
WA Di 84	--	KAYLOR, HELEN	--	--	440	F	--	U	371CCCG
WA Di 85	--	C & O CANAL NATL PARK	J M HOFFMAN	12-06-1962	290	T	85	U	371ELBK
WA Di 86	WA-04-9892	C & O CANAL NATL PARK	J M HOFFMAN	01-22-1963	300	V	165	U	371ELBK
WA Di 87	WA-05-7285	C & O CANAL NATL PARK	J M HOFFMAN	05-14-1964	290	T	85	H	371ELBK
WA Di 88	WA-67-0079	MEYERS, KEITH J	J P KOHLER	09-26-1966	430	F	200	S	371ELBK
WA Di 89	WA-69-0227	EICHLEBERGER, RICHARD	W LAMBERSON	04-02-1964	450	S	163	H	371ELBK
WA Di 90	WA-68-0018	SHADE, PAUL	W LAMBERSON	07-28-1967	490	H	105	H	371ELBK
WA Di 91	WA-69-0221	HETZEL, ALBERT	W LAMBERSON	04-01-1969	450	H	203	H	371ELBK
WA Di 92	WA-69-0250	FARROW, ROLLIN E	W LAMBERSON	05-03-1969	590	V	105	H	377HRPR
WA Di 93	WA-69-0075	YOUNG, WILLIE	W LAMBERSON	09-01-1968	605	S	85	H	377ANTM
WA Di 94	WA-69-0260	GRIMM, JAMES	W LAMBERSON	05-12-1969	445	S	165	H	377WSBR
WA Di 95	WA-70-0150	BARNHART, ROBERT	W LAMBERSON	12-17-1969	445	V	100	H	377HRPR
WA Di 96	WA-70-0298	INGRAM, RALEIGH	W LAMBERSON	06-04-1970	455	H	85	H	377TMSN
WA Di 97	WA-04-6027	ANTIETAM NATL BATTLEFD	A R KEYSER	01-25-1962	525	H	300	U	371CCCG
WA Di 98	WA-70-0055	MILBURN, CLAUDE	C A CROMWELL	09 - 1969	425	S	227	H	371CCCG
WA Di 99	WA-70-0076	MILLER, WILLIAM P	C A CROMWELL	10-01-1969	500	H	166	H	371CCCG
WA Di 100	WA-70-0105	GLYN-JONES, JOHN	C A CROMWELL	09-23-1969	559	V	186	H	377HRPR
WA Di 101	WA-70-0060	PARKINSON, RAYMOND	W LAMBERSON	09-05-1969	595	V	125	H	377HRPR
WA Di 104	WA-67-0108	MOSER, EDWIN	A R KEYSER	10-22-1966	475	S	295	H	377TMSN
WA Di 105	WA-70-0135	OTZELBERGER, JERRY	JOHN SHAFF	11-16-1969	300	V	100	H	377WSBR
WA Di 106	WA-70-0123	WYAND, LEO	W LAMBERSON	10-13-1964	482	H	325	H	377WSBR
WA Di 107	WA-70-0007	COOPER, JAMES	W LAMBERSON	07-18-1969	620	S	160	H	377ANTM
WA Di 108	WA-70-0249	THOMPSON, EARNEST	W LAMBERSON	04-15-1970	560	V	285	H	377TMSN
WA Di 109	--	ELLIOTT, LEONA	--	1870	420	V	16.5	U	377WSBR
WA Di 110	WA-73-1111	HILL, HAROLD	JOHN SHAFF	07-06-1975	1,045	S	325	H	377ANTM
WA Di 111	WA-73-0776	MENDEZ, ANTONIO	JOHN SHAFF	08-30-1974	995	S	125	H	377ANTM
WA Di 112	WA-73-2979	ULLMAN, LOIS J	W QUYNN	10-26-1979	980	S	320	H	377ANTM
WA Di 113	WA-73-0263	AMOS, HOWARD W	JOHN SHAFF	06-08-1973	810	S	250	H	377ANTM
WA Di 114	WA-73-2628	TERRETT, R L	W QUYNN	01-26-1979	980	S	220	H	377ANTM
WA Di 115	WA-73-1448	HARTLE, RICHARD	JOHN SHAFF	07-14-1976	670	S	350	H	377ANTM
WA Di 116	WA-81-0414	SUFFECOOL, DOUGLAS	JOHN SHAFF	03-30-1983	710	S	275	H	377ANTM
WA Di 117	WA-81-0007	ZULLI, PHILIP	JOHN SHAFF	07-14-1981	640	S	250	H	377ANTM
WA Di 118	WA-73-3131	ANTIETAM CHURCH OF GOD	ROBERT CLINE	05-14-1980	450	F	300	H	371ELBK
WA Di 119	WA-73-2446	LEON, JULES	R ARDINGER	09-23-1978	600	S	185	H	377ANTM
WA Di 120	WA-72-0108	HEFFNER, STEPHEN L	W LAMBERSON	10-21-1971	520	S	245	H	377ANTM
WA Di 121	WA-73-3408	FLEMING, DEBRA L	A&H DRILLING	03-04-1981	420	H	325	H	377TMSN
WA Di 122	WA-73-2617	WHITE, WILLIAM F	D H WOODWARD	04-06-1979	410	H	425	H	377TMSN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
14.3	--	W	11.35	S	04-08-1959	--	--	--	--	--	--	--	WA Di 44
35	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 45
30	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 46
--	--	-	--	-	--	--	--	--	--	--	--	Q	WA Di 47
16	--	W	9.15	S	04-14-1959	--	--	--	--	--	--	Q	WA Di 48
8.2	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 50
30	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 51
18.1	--	W	14.95	S	04-21-1959	--	--	--	--	--	--	Q	WA Di 52
--	--	W	--	-	--	--	--	--	--	--	--	--	WA Di 53
16.8	--	W	13.72	S	04-16-1959	--	--	--	--	--	--	Q	WA Di 54
24	6	X	9	R	10-29-1954	2	72	9	0.03	1	10-29-1954	Q	WA Di 55
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 56
12.1	--	W	5.12	S	04-23-1959	--	--	--	--	--	--	Q	WA Di 57
12.5	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 58
13	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 59
10	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 60
9.7	--	W	5.20	S	04-23-1959	--	--	--	--	--	--	Q	WA Di 61
24	6	X	80	R	10 - 1951	2	124	80	.05	.5	10 - 1951	Q	WA Di 62
30	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 63
38	6	X	17.20	S	04-21-1959	10	50	10	.25	.5	07 - 1953	--	WA Di 64
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Di 65
40	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 66
25.3	--	W	22.56	S	04-21-1959	--	--	--	--	--	--	Q	WA Di 67
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 68
19.9	--	W	17.1	S	04-23-1959	--	--	--	--	--	--	Q	WA Di 69
--	6	-	35.30	S	05-11-1959	--	--	--	--	--	--	Q	WA Di 70
5.5	6	X	31	R	10 - 1953	40	200	31	.24	.5	10 - 1953	Q	WA Di 71
31	--	W	27.7	S	05-20-1959	--	--	--	--	--	--	Q	WA Di 74
5	6	X	18.47	S	05-20-1959	1.5	115	18	.02	1	06 - 1955	--	WA Di 75
--	--	-	--	-	--	--	--	--	--	--	--	Q	WA Di 76
37	6	X	35	R	05-08-1949	14	40	35	2.80	2	05-08-1949	Q	WA Di 77
14	6	X	75	R	02-17-1954	3	200	75	.02	2	02-17-1954	Q	WA Di 79
15	6	X	55	R	12 - 1957	2	250	55	.01	1	12 - 1957	Q	WA Di 80
30.3	--	W	25.27	S	04-07-1959	--	--	--	--	--	--	Q	WA Di 81
52.5	48	W	51.00	S	04-07-1959	--	--	--	--	--	--	Q	WA Di 82
21.8	--	W	16.10	S	04-07-1959	--	--	--	--	--	--	Q	WA Di 83
--	--	W	--	-	--	--	--	--	--	--	--	Q	WA Di 84
--	--	-	--	-	--	--	--	--	--	--	--	C	WA Di 85
65	6	X	12.30	S	02-04-1963	17	30.35	12.30	.94	24	02-04-1963	O,Q	WA Di 86
30	6	X	23.43	S	05-26-1964	50	28	23.5	11.11	3	05-14-1964	--	WA Di 87
63	6	X	84	R	09-26-1966	12	160	84	.16	2	09-26-1966	--	WA Di 88
46	6	X	50	R	04-02-1964	3	100	50	.06	.5	04-02-1964	--	WA Di 89
21	6	X	25	R	07-28-1967	10	90	25	.15	.5	07-28-1967	--	WA Di 90
18	6	X	50	R	04-01-1969	1.5	77	50	.06	.5	04-01-1969	--	WA Di 91
65	6	X	40	R	05-03-1969	50	100	40	.83	.5	05-03-1969	--	WA Di 92
80	6	X	40	R	09-01-1968	12	81	40	.29	.5	09-01-1968	--	WA Di 93
15	6	X	40	R	05-12-1969	7	160	40	.06	.5	05-12-1969	--	WA Di 94
50	6	X	25	R	12-17-1969	15	90	25	.23	1	12-17-1969	--	WA Di 95
80	5												
65	6	X	40	R	06-04-1970	15	75	40	.43	1	06-04-1970	--	WA Di 96
24	--	X	82	R	01-25-1962	7.5	244	82	.05	24	01-25-1962	Q	WA Di 97
21	6	X	40	R	08-21-1969	10	120	40	.12	2	08-21-1969	--	WA Di 98
20	6	X	125	R	10-01-1969	10	--	125	--	2	10-01-1969	--	WA Di 99
69	6	X	70	R	09-23-1969	4	--	70	--	2	09-23-1969	--	WA Di 100
22	6	X	30	R	09-05-1969	10	110	30	.12	1	09-05-1969	--	WA Di 101
10	6	X	20	R	10-22-1966	2	--	20	--	1	10-22-1966	--	WA Di 104
42	6	X	15	R	11-16-1969	15	60	15	.33	4	11-16-1969	--	WA Di 105
45	6	X	100	R	10-13-1964	20	315	100	.09	1	10-13-1964	--	WA Di 106
155	5	X	125	R	07-18-1969	10	157	125	.31	1	07-18-1969	--	WA Di 107
35	6	X	40	R	04-15-1970	3	240	40	.01	1	04-15-1970	--	WA Di 108
16.50	44	W	5.12	S	07-11-1972	--	--	--	--	--	--	O	WA Di 109
42	6	X	146	R	07-06-1975	8	208	146	.13	3	07-06-1975	--	WA Di 110
42	6	X	23	R	08-30-1974	15	41	23	.83	3	08-30-1974	--	WA Di 111
23	6	X	35	R	10-26-1979	3	310	35	.01	3	10-26-1979	--	WA Di 112
21	6	X	76	R	06-08-1973	12	104	76	.43	3	06-08-1973	--	WA Di 113
43	6	X	30	R	01-26-1979	10	215	30	.05	2	01-26-1979	--	WA Di 114
56	6	X	68	R	07-14-1976	10	205	68	.07	3	07-14-1976	--	WA Di 115
60	6	X	68	R	03-30-1983	5	166	68	.05	3	03-30-1983	--	WA Di 116
63	6	X	66	R	07-14-1981	7	140	66	.09	3	07-14-1981	--	WA Di 117
130	6	X	60	R	05-14-1980	4	300	60	.02	1	05-14-1980	--	WA Di 118
70	6	X	75	R	09-23-1978	20	185	75	.18	3	09-23-1978	--	WA Di 119
135	5												
23	6	X	15	R	10-21-1971	3	160	15	.02	1	10-21-1971	--	WA Di 120
32	6	X	45	R	03-04-1981	3	325	45	.01	2	03-04-1981	--	WA Di 121
22	6	X	60	R	04-06-1979	1	425	60	.003	3	04-06-1979	--	WA Di 122

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Di 123	WA-73-2555	DUNCAN, MARVIN J	R ARDINGER	10-06-1978	530	S	325	H	377ANTM
WA Di 124	WA-73-1702	NAVE, JERRY L	D H WOODWARD	12-07-1976	560	S	305	H	377ANTM
WA Di 125	WA-73-1918	TORE, JAMES E	JOHN SHAFF	10-12-1977	570	S	400	H	377ANTM
WA Di 126	WA-81-0952	FLOYD, GENE F	JOHN SHAFF	03-01-1985	725	S	350	H	377ANTM
WA Di 127	WA-81-1003	JONES, ROBERT E	JOHN SHAFF	05-16-1985	515	S	290	H	377ANTM
WA Di 128	WA-71-0125	WHIPP, RAY	W LAMBERSON	02-05-1971	690	S	165	H	377ANTM
WA Di 129	--	ANTIETAM NATL BATTLEFD	--	--	460	S	60.4	U	371CCCG
WA Di 130	WA-73-0554	ANTIETAM NATL BATTLEFD	W LAMBERSON	02-01-1974	370	S	125	U	371ELBK
WA Di 132	WA-81-0803	CROUSE, LARRY	ROBERT CLINE	08-20-1984	650	H	250	H	377WVRN
WA Di 133	WA-81-0845	PALM, JEFFREY W	JOHN SHAFF	10-04-1984	605	S	250	H	400CTCN
WA Di 134	WA-81-0715	JOHNSON, ROBERT D	A&H DRILLING	04-27-1984	685	S	160	H	400CTCN
WA Di 136	WA-73-2875	ROMFREY, E O	D H WOODWARD	03-01-1979	680	S	265	H	377WVRN
WA Di 137	WA-73-1354	CALLAWAY, LEE E	JOHN SHAFF	02-16-1976	790	S	200	H	377WVRN
WA Di 138	WA-73-1641	NARAY, WESELY	JOHN SHAFF	11-10-1976	730	S	340	H	377HRPR
WA Di 139	WA-72-0250	DON'S DRIVE IN	C A CROMWELL	06-06-1972	505	H	250	U	371ELBK
WA Di 140	WA-73-3384	C&O CANAL NATL PARK	A&H DRILLING	02-26-1981	310	V	185	H	377WSBR
WA Di 141	WA-73-2281	MULL, PAUL R	JOHN SHAFF	05-01-1978	405	U	150	H,S	377TMSN
WA Di 142	WA-66-0218	BATTLEVIEW L&W MARKET	J M HOFFMAN	01-07-1966	440	F	235	C,H	371CCCG
WA Di 143	WA-68-0012	RIDGE WATER CO	J M HOFFMAN	07-26-1967	705	H	205	P	377HRPR
WA Di 144	WA-81-0333	SUMMERS, DWIGHT	KEYSER-GARVR	11-16-1982	425	U	300	H	377TMSN
WA Di 145	WA-81-0705	NICODEMUS, FRANKLIN E	JOHN SHAFF	05-01-1984	440	S	125	H	377TMSN
WA Di 146	WA-73-1309	BAXLEY	JOHN SHAFF	12-23-1975	415	U	250	H	377TMSN
WA Di 147	WA-73-0855	WILSON, DELANO	W LAMBERSON	10-05-1974	405	F	85	H	377TMSN
WA Di 148	WA-73-1157	COURTNEY, GAIL A	W LAMBERSON	08-11-1975	435	V	345	H	377TMSN
WA Di 149	WA-03-9068	RIDGE WATER CO	JOHN SHAFF	06-22-1960	705	H	100	P	377HRPR
WA Di 150	WA-73-1915	RIDGE WATER CO	KEYSER-GARVR	10-11-1977	705	H	265	P	377HRPR
WA Di 151	WA-81-0740	RIDGE WATER CO	A&H DRILLING	05-28-1984	705	H	265	P	377HRPR
WA Di 152	WA-73-3337	GOSSERT, JARED E	JOHN SHAFF	12-04-1980	830	S	325	H	377ANTM
WA Di 153	WA-73-3453	YOUNG, ERNEST E	D H WOODWARD	04-27-1981	780	S	250	H	377ANTM
WA Di 154	WA-81-0180	GRIMM, GENE W	A&H DRILLING	11-01-1982	680	S	245	H	377ANTM
WA Di 155	WA-73-1896	SHEPPARD, GEORGE	D H WOODWARD	06-07-1977	1,010	H	405	H	377ANTM
WA Di 156	WA-73-0594	MOATS, RONALD	C A CROMWELL	03-22-1974	1,000	S	525	H	377ANTM
	WA-73-2587		R ARDINGER	09-04-1978					
WA Di 157	WA-73-3052	HAROLD, SAMUEL D	JOHN SHAFF	02-14-1980	470	S	325	H	371CCCG
WA Di 158	WA-73-0953	BRADLEY, RALPH	A&H DRILLING	02-13-1985	510	H	85	H	371CCCG
WA Di 159	WA-81-1109	ANTIETAM NATL BATTLEFD	KEYSER-GARVR	07-25-1985	445	S	300	S	371CCCG
WA Di 160	WA-81-0516	BARNHART, FRED	A&H DRILLING	07-30-1983	455	F	80	H,S	371CCCG
WA Di 161	WA-73-3377	BARNHART, FRED	J M HOFFMAN	01-23-1981	460	F	425	H,S	371CCCG
WA Di 162	WA-81-1235	CLARK, RONALD	A&H DRILLING	12-19-1985	390	S	200	H	371ELBK
WA Di 163	WA-73-0392	EATON, HAZEL	W LAMBERSON	08-13-1975	365	S	105	H	371ELBK
WA Di 164	WA-73-2482	GAUSE, ROBERT S	D H WOODWARD	09-15-1978	460	S	250	H	371ELBK
WA Di 165	WA-81-1220	MARKLE, LINDA	KEYSER-GARVR	11-25-1985	495	H	320	H	377TMSN
WA Di 166	WA-73-0698	ALSIP, S R	C A CROMWELL	08-06-1974	490	H	175	H	377TMSN
WA Di 167	WA-81-0802	CONTI, JOSEPH A	JOHN SHAFF	09-17-1984	440	S	270	H	377WSBR
WA Di 168	WA-81-0413	RHODERICK, PHIL F	JOHN SHAFF	03-30-1983	425	S	250	H	377WSBR
WA Di 169	WA-73-0827	CAVANAUGH, JOHN	C A CROMWELL	10-16-1974	505	H	200	H	377WSBR
WA Di 170	WA-81-1185	WILLIAMS, JAMES	A&H DRILLING	11-14-1985	495	H	125	H	377WSBR
WA Di 171	WA-73-1849	THOMAS, THADDEOUS M	C A CROMWELL	05-31-1977	450	F	400	H	377TMSN
WA Di 172	WA-73-3277	BAUGHER, ROBERT	A&H DRILLING	10-30-1980	480	V	325	H	377TMSN
WA Di 173	WA-81-1072	STILLIONS, CHARLES R	JOHN SHAFF	07-25-1985	580	F	600	H	377ANTM
WA Di 174	WA-73-2618	HOLLAND, IVAN F	D H WOODWARD	03-31-1979	590	S	450	H	377ANTM
WA Di 175	WA-73-3235	JONES, JOSEPH W	JOHN SHAFF	09-03-1980	560	S	400	H	377TMSN
WA Di 176	WA-73-0232	DAWSON, LARRY P	C A CROMWELL	07-09-1973	540	S	100	H	377TMSN
WA Di 177	WA-73-0946	CHURCHEY, GARY	C A CROMWELL	01-02-1975	475	S	200	H	377TMSN
WA Di 178	WA-73-2828	HARPER, LAWRENCE M	R ARDINGER	06-25-1979	420	S	305	H	377TMSN
WA Di 179	WA-73-1333	NORRIS, RAY T	C A CROMWELL	01-26-1976	480	H	230	H	377TMSN
WA Di 180	WA-73-0613	MUELLER, EUGENE E	D H WOODWARD	09-19-1974	475	S	300	U	377TMSN
WA Di 181	WA-73-1068	SOPER	C A CROMWELL	06-18-1975	430	H	250	H	377TMSN
WA Di 182	WA-73-1636	METZ, WAYNE	JOHN SHAFF	12-13-1971	400	U	250	H	377TMSN
WA Di 183	WA-73-0567	CLENDANIEL, WILLIAM W	W LAMBERSON	03-08-1974	410	S	265	H	377TMSN
WA Di 184	WA-73-2844	CLARK, WILLIAM D	A&H DRILLING	07-06-1979	345	S	160	U	371ELBK
WA Di 185	WA-81-1141	CLARK, WILLIAM D	A&H DRILLING	10-03-1985	350	S	245	H	371ELBK
WA Di 186	WA-69-0345	MULLENDORE, LLOYD T	J M HOFFMAN	07-01-1969	565	F	285	H	400CTCN
WA Di 187	WA-81-1060	BURNSIDE CHURCH OF GOD	A&H DRILLING	06-21-1985	410	U	200	H	377TMSN
WA Di 188	WA-81-1349	MELLONS, TERRY L	A&H DRILLING	05-06-1986	475	S	585	H	377TMSN
WA Di 189	WA-81-1407	BUNNELL, AUSTIN F	JOHN SHAFF	06-25-1986	635	S	300	H	377ANTM
WA Dj 1	--	WASHINGTON MON ST PARK	--	--	1,470	H	400	H	377WVRN
									400CTCN
WA Dj 2	--	REICHMUTH, CHARLES	--	--	1,070	H	61.3	U	377WVRN
WA Dj 3	WA-00-2469	ROHRERSVILLE ELEM SCH	J M HOFFMAN	05-01-1949	670	F	137	T	400CTCN
WA Dj 4	--	STONE, ELMER A	--	--	542	F	52.5	H	377TMSN
WA Dj 5	WA-01-3291	WAGAMAN, MARLEN	J M HOFFMAN	10 - 1953	788	F	220	H	377HRPR
WA Dj 9	--	SLIFER, PAUL	--	--	570	F	33.5	H	377TMSN
WA Dj 10	--	SLIFER, LUTHER	--	--	570	F	57.7	H	377TMSN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
35	6	X	70	R	10-06-1978	7	325	70	0.03	2	10-06-1978	--	WA Di 123
--	--	-	45	R	12-07-1976	13	50	45	2.60	1	12-07-1976	--	WA Di 124
40	6	X	68	R	10-12-1977	8	214	68	.05	3	10-12-1979	--	WA Di 125
60	6	X	66	R	03-01-1985	7	179	66	.06	3	03-01-1985	--	WA Di 126
65	6	X	23	R	05-16-1985	5	89	23	.08	3	05-16-1985	--	WA Di 127
25	6	X	65	R	02-05-1971	3	140	65	.04	1	02-05-1971	--	WA Di 128
--	6	-	54.91	S	12-26-1985	--	--	--	--	--	--	O	WA Di 129
25	6	X	52.43	S	12-26-1985	25	115	50	.38	1	02-01-1974	O	WA Di 130
42	6	X	65	R	08-20-1984	4	250	65	.02	1	08-20-1984	--	WA Di 132
70	6	X	18	R	10-04-1984	15	87	18	.22	2	10-04-1984	--	WA Di 133
42	6	X	25	R	04-27-1984	5	160	25	.04	2	04-27-1984	--	WA Di 134
75	6	X	60	R	03-01-1979	6	265	60	.03	2	03-01-1979	--	WA Di 136
23	6	X	26	R	02-16-1976	8	80	26	.15	3	02-16-1976	Q	WA Di 137
60	6	X	70	R	10-10-1976	12	108	70	.32	3	11-10-1976	--	WA Di 138
28	6	X	47.58	S	05-28-1986	3	250	35	.01	4	06-06-1972	--	WA Di 139
25	6	X	30	R	02-26-1981	80	185	30	.52	2	02-26-1981	--	WA Di 140
21	6	X	32	R	05-01-1978	12	54	32	.55	3	05-01-1978	--	WA Di 141
40	6	X	65	R	01-07-1966	6	100	65	.17	1	01-07-1966	--	WA Di 142
44	6	X	50	R	07-26-1967	9	180	50	.07	2	07-26-1967	--	WA Di 143
62	6	X	40	R	11-16-1982	4	280	40	.02	6	11-16-1982	--	WA Di 144
21	6	X	17	R	05-01-1984	30	26	17	3.33	3	05-01-1984	--	WA Di 145
115	6	X	20	R	12-23-1975	6	114	20	.06	3	12-23-1975	--	WA Di 146
70	6	X	60	R	10-05-1974	20	80	60	1.0	1	10-05-1974	--	WA Di 147
25	6	X	20	R	08-11-1975	3	305	20	.01	1	08-11-1975	--	WA Di 148
20	6	X	40	R	06-22-1960	8	62	40	.36	6	06-22-1960	--	WA Di 149
39	6	X	80	R	10-11-1977	20	90	80	2.0	2	10-11-1977	--	WA Di 150
21	6	X	40	R	05-28-1984	10	265	40	.04	2	05-28-1984	--	WA Di 151
105	6	X	58	R	12-04-1980	18	114	58	.32	3	12-04-1980	Q	WA Di 152
46	6	X	30	R	04-27-1981	20	250	30	.09	3	04-27-1981	--	WA Di 153
60	6	X	160	R	11-01-1982	6	245	160	.07	1	11-01-1982	--	WA Di 154
230	5												
45	6	X	150	R	06-07-1977	3	300	150	.02	2	06-07-1977	--	WA Di 155
19	6	X	225	R	09-04-1978	6	310	110	.03	3	03-22-1974	--	WA Di 156
						1	525	225	.003	.5	09-04-1978		
90	6	X	68	R	02-14-1980	20	130	68	.32	3	02-14-1980	--	WA Di 157
25	6	X	30	R	02-13-1985	100	85	30	1.82	2	02-13-1985	--	WA Di 158
41	6	X	35	R	07-25-1985	104	290	35	.41	3	07-25-1985	--	WA Di 159
42	6	X	25	R	07-30-1983	50	80	25	.91	2	07-30-1983	--	WA Di 160
26	6	X	40	R	01-23-1981	22	425	40	.06	2	01-23-1981	--	WA Di 161
50	6	X	50	R	12-19-1985	20	200	50	.13	2	12-19-1985	--	WA Di 162
35	6	X	50	R	08-13-1975	20	95	50	.44	1	08-13-1975	--	WA Di 163
21	6	X	40	R	09-15-1978	20	250	40	.10	2	09-15-1978	--	WA Di 164
53	6	X	95	R	11-25-1985	5	120	95	.20	3	11-25-1985	--	WA Di 165
26	6	X	35	R	08-06-1974	4	175	35	.03	2	08-06-1974	--	WA Di 166
40	6	X	28	R	09-17-1984	15	76	28	.31	2	09-17-1984	--	WA Di 167
30	6	X	58	R	03-30-1983	7	96	58	.18	3	03-30-1983	--	WA Di 168
57	6	X	55	R	10-16-1974	5	200	55	.03	2	10-16-1974	--	WA Di 169
75	6	X	25	R	11-14-1985	40	125	25	.40	2	11-14-1985	--	WA Di 170
53	6	X	25	R	05-31-1977	4	300	25	.01	10	05-31-1977	--	WA Di 171
22	6	X	45	R	10-30-1980	2	325	45	.01	2	10-30-1980	--	WA Di 172
65	6	X	48	R	07-25-1985	22	366	48	.07	3	07-25-1985	--	WA Di 173
63	6	X	50	R	03-31-1979	1	450	50	.002	3	03-31-1979	--	WA Di 174
45	6	X	26	R	09-03-1980	6	202	26	.03	3	09-03-1980	--	WA Di 175
21	6	X	30	R	07-09-1973	20	95	30	.31	2	07-09-1973	--	WA Di 176
21	6	X	40	R	01-02-1975	10	190	40	.07	1	01-02-1975	--	WA Di 177
21	6	X	45	R	06-25-1979	15	305	45	.06	2	06-25-1979	--	WA Di 178
21	6	X	40	R	01-26-1976	6	225	40	.03	2	01-26-1976	--	WA Di 179
20	6	X	50	R	09-19-1974	1	300	50	.004	3	09-19-1974	--	WA Di 180
57	6	X	45	R	06-18-1975	5	245	45	.02	3	06-18-1975	--	WA Di 181
75	6	X	18	R	12-13-1971	9	34	18	.56	3	12-13-1971	--	WA Di 182
25	6	X	70	R	03-08-1974	10	245	70	.06	1	03-08-1974	--	WA Di 183
45	6	X	50	R	07-06-1979	20	160	50	.18	1	07-06-1979	--	WA Di 184
40	6	X	65	R	10-03-1985	20	245	65	.11	2	10-03-1985	Q	WA Di 185
145	5												
41	6	X	50	R	07-01-1969	2	100	50	.04	.5	07-01-1969	--	WA Di 186
32	6	X	50	R	06-21-1985	5	200	50	.03	2	06-21-1985	Q	WA Di 187
21	6	X	60	R	05-06-1986	1	585	60	.002	2	05-06-1986	--	WA Di 188
105	6	X	48	R	06-25-1986	10	91	48	.23	3	06-25-1986	--	WA Di 189
--	6	-	138	S	04-27-1956	1.5	--	138	--	--	04-27-1956	--	WA Dj 1
--	--	W	41.35	S	12-18-1956	--	--	--	--	--	--	O	WA Dj 2
5	6	X	4	R	05-01-1949	10	34	4	.33	2	05-01-1949	--	WA Dj 3
52.5	--	W	33.01	S	09-09-1958	--	--	--	--	--	--	--	WA Dj 4
78	6	X	85	R	10 - 1953	1	210	85	.01	.5	10 - 1953	--	WA Dj 5
33.5	48	W	31.6	S	12-17-1958	--	--	--	--	--	--	--	WA Dj 9
57.7	48	W	54.78	S	12-17-1958	--	--	--	--	--	--	--	WA Dj 10

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Dj 11	--	MILLER, PAUL	--	--	563	F	53.7	H	377TMSN
WA Dj 12	--	MILLER, MARY P	--	--	708	F	38.6	H	377HRPR
WA Dj 13	--	SINES, HARRY	--	1940	710	F	125	H	377HRPR
WA Dj 14	WA-02-9356	HOUSE, ELWOOD C	J M HOFFMAN	11 - 1957	1,000	S	120	H	377HRPR
WA Dj 15	WA-02-6991	ANGLE, IRA T	JOHN SHAFF	06-21-1957	610	F	67	H	400CTCN
WA Dj 16	--	MENTZER, LLOYD	--	--	600	V	80	H	400CTCN
WA Dj 17	--	BEAN, GEORGE	--	--	610	F	23.8	H	400CTCN
WA Dj 18	--	ROHRER, JOHN	--	--	623	F	22.6	H	400CTCN
WA Dj 22	WA-03-2646	MUMMA, V R	A R KEYSER	10-20-1958	580	H	78	H	377TMSN
WA Dj 23	WA-02-9357	ZITTLE, GEORGE W	J M HOFFMAN	11 - 1957	1,000	S	72	H	377HRPR
WA Dj 24	WA-03-2156	DAILEY, DONALD R	J M HOFFMAN	09 - 1958	845	S	165	H	377HRPR
WA Dj 25	WA-03-1009	KEEDY, JOHN	JOHN SHAFF	06-09-1958	610	F	45	H	400CTCN
WA Dj 27	WA-69-0311	POFFENBERGER, ARTHUR L	JOHN SHAFF	07-17-1969	530	V	75	H	377TMSN
WA Dj 28	WA-70-0158	POFFENBERGER, RUTH	W LAMBERSON	12-06-1969	575	S	325	U	377TMSN
WA Dj 29	WA-70-0158	POFFENBERGER, RUTH	W LAMBERSON	12-06-1969	573	H	245	H	377TMSN
WA Dj 33	WA-73-3233	OSWALD, ROY	W QUYNN	09-30-1980	890	S	200	H	377HRPR
WA Dj 34	WA-73-1538	METZ, LLOYD	C A CROMWELL	08-18-1976	770	S	175	H	377HRPR
WA Dj 35	WA-73-2222	STOUFFER, GALE	D H WOODWARD	03-31-1978	810	S	385	H	377HRPR
WA Dj 36	WA-73-0396	ALBERT, SHARON	W LAMBERSON	09-28-1973	810	F	210	H	377HRPR
WA Dj 37	WA-73-1467	MORGAN, STEPHEN W	W LAMBERSON	06-03-1976	600	F	125	H	377ANTM
WA Dj 38	WA-73-3391	BAKER, HERBERT C	A&H DRILLING	02-09-1981	610	F	105	H	377ANTM
WA Dj 39	WA-73-2726	WYAND, AMOS D	JOHN SHAFF	04-19-1979	620	S	275	H	377ANTM
WA Dj 40	WA-81-0398	CASTLE, TERRY	A&H DRILLING	02-23-1983	660	S	225	H	377HRPR
WA Dj 41	WA-73-2496	MONNINGER, ROY V	R ARDINGER	09-25-1978	630	S	285	H	377HRPR
WA Dj 42	WA-73-3284	SMITH, OSCAR JR	JOHN SHAFF	10-23-1980	600	S	400	H	377HRPR
WA Dj 43	WA-73-1651	FRUSHOUR, DALE	KEYSER-GARVR	11-17-1976	595	F	220	H	377ANTM
WA Dj 44	WA-73-1489	FRUSHOUR, DALE	W LAMBERSON	07-14-1976	585	S	185	H	377ANTM
WA Dj 45	WA-73-1145	MANSPEAKER, RAYMOND C	W LAMBERSON	08-05-1975	565	V	85	H	377ANTM
WA Dj 46	WA-73-1205	SHANK, GARY L	W LAMBERSON	09-10-1975	565	S	165	H	377ANTM
WA Dj 47	WA-73-2599	LLOYD, JOHN	R ARDINGER	11-20-1978	565	S	260	H	377TMSN
WA Dj 48	WA-73-2473	HOLDER, THOMAS L	JOHN SHAFF	08-25-1978	570	F	150	H	377TMSN
WA Dj 49	WA-73-1781	STOTTLEMEYR, JOSEPH	C A CROMWELL	05-03-1977	600	H	135	H	377ANTM
WA Dj 50	--	STONE, ELMER A	A R KEYSER	--	560	H	103	U	377TMSN
WA Dj 51	WA-73-2153	STONE, ELMER A	D H WOODWARD	12-21-1977	540	S	95	H	377TMSN
WA Dj 52	WA-65-0209	STILES, CHARLES A	J M HOFFMAN	03-19-1965	600	V	162	H,S	377HRPR
WA Dj 53	WA-71-0243	STILES, CHARLES A	W LAMBERSON	05-19-1971	580	S	205	H	377HRPR
WA Dj 55	WA-73-2039	SMITH, SAMUEL E	D H WOODWARD	09-28-1977	645	S	405	H	377ANTM
WA Dj 56	WA-72-0133	MAIORANA, CATHERINE	JOHN SHAFF	11-14-1971	965	H	350	H	377HRPR
WA Dj 57	WA-73-2563	DILL, RODNEY	R ARDINGER	10-12-1978	760	S	265	H	377HRPR
WA Dj 58	WA-73-0545	PATTERSON, LESTER	JOHN SHAFF	02-08-1974	710	V	250	H	377HRPR
WA Dj 59	WA-81-0266	HARRIS, MARY A	JOHN SHAFF	08-26-1982	700	S	275	H	377HRPR
WA Dj 60	WA-70-0173	HAYNES, RICHARD	W LAMBERSON	02-04-1970	760	S	205	H	377HRPR
WA Dj 61	WA-73-2085	KAETZEL, ROBERT	JOHN SHAFF	10-25-1977	710	S	225	H	377HRPR
WA Dj 62	WA-81-0062	HAHN, MERREL D	JOHN SHAFF	09-11-1981	700	S	240	H	377ANTM
WA Dj 63	WA-69-0173	SNYDER	ROBERT CLINE	02-25-1969	550	S	220	H	377TMSN
WA Dj 64	WA-81-0665	FULKS, RICHARD	JOHN SHAFF	02-22-1984	770	S	250	H	377HRPR
WA Dj 65	WA-81-0762	HAYNES, RICHARD L	JOHN SHAFF	08-10-1984	725	H	175	H	377HRPR
WA Dj 66	WA-81-0717	KNIGHT, RAND L	JOHN SHAFF	05-24-1984	625	H	425	H	377ANTM
WA Dj 67	WA-73-1688	HAYNES, TIMOTHY A	JOHN SHAFF	12-29-1976	730	H	175	H	377HRPR
WA Dj 68	WA-73-1714	NICODEMUS, J A	D H WOODWARD	02-28-1977	630	F	265	H	377ANTM
WA Dj 69	WA-81-0858	GRIMM, MELVIN A	A&H DRILLING	10-02-1984	780	S	300	H	377HRPR
WA Dj 70	WA-81-0859	GRIMM, MELVIN A	A&H DRILLING	10-02-1984	770	S	265	H	377HRPR
WA Dj 71	--	RICE, BLANCHE	--	--	605	V	14	U	400CTCN
WA Dj 72	WA-73-1772	RICE, BLANCHE	JOHN SHAFF	05-11-1977	610	V	90	H	400CTCN
WA Dj 73	WA-73-1426	CLARK, NOEL	JOHN SHAFF	04-07-1976	970	S	250	H	377HRPR
WA Dj 74	WA-72-0066	BETHEL UN METHODIST CH	JOHN SHAFF	09-04-1971	645	S	175	H	400CTCN
WA Dj 75	WA-81-0827	HOWE, DONALD B	JOHN SHAFF	09-26-1984	550	F	100	H	377TMSN
WA Dj 76	WA-81-0781	MARTIN, ROSCOE F	JOHN SHAFF	08-10-1984	720	S	125	H	377ANTM
WA Dj 77	WA-81-0922	REEDER, JAMES H	JOHN SHAFF	12-17-1984	565	S	100	H	377ANTM
WA Dj 78	WA-81-0519	OTIS, HAROLD F	A&H DRILLING	08-03-1983	720	H	200	H	400GBGG
WA Dj 80	WA-73-2971	KEEDY, JOHN	A&H DRILLING	11-07-1979	740	S	165	H	377HRPR
WA Dj 81	WA-73-2593	DUNSMORE, DONALD L	JOHN SHAFF	12-03-1978	745	S	300	H	377HRPR
WA Dj 82	WA-73-3070	REEDER, JAMES H	JOHN SHAFF	03-28-1980	570	S	75	H	377HRPR
WA Dj 83	WA-73-0951	WARRENFELTZ, BRUCE	C A CROMWELL	04-04-1975	520	F	75	H	377TMSN
WA Dj 84	WA-73-2292	MCDOWELL, BRYAN	R ARDINGER	05-12-1978	545	U	120	H	377TMSN
WA Dj 85	WA-05-6643	WASHINGTON MON ST PARK	LEO FORD	04-03-1964	1,325	H	98	H,R	400CTCN
WA Dj 86	WA-04-9572	SOUTH MOUNTAIN INN	J M HOFFMAN	10 - 1962	1,080	H	285	C	377WVRN
WA Dj 87	WA-73-1956	PRICE, BRUCE	JOHN SHAFF	09-12-1977	765	H	125	H	400CTCN
WA Dj 88	WA-73-1566	JAMES, EMANUEL P	A&H DRILLING	08-23-1976	760	H	365	H	400CTCN
WA Dj 89	WA-73-1570	HART, JAMES	A&H DRILLING	08-25-1976	720	S	145	H	400CTCN

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
53.7	36	W	50.39	S	12-17-1958	--	--	--	--	--	--	--	WA Dj 11
38.6	36	W	32.63	S	12-17-1958	--	--	--	--	--	--	--	WA Dj 12
--	6	-	30	E	1957	--	--	--	--	--	--	--	WA Dj 13
72	6	X	60	R	11 - 1957	10	100	60	0.25	1	11 - 1957	--	WA Dj 14
34	6	X	35	R	06-21-1957	7	50	35	.47	8	12-21-1957	--	WA Dj 15
1.2	6	X	21.91	S	12-19-1958	--	--	--	--	--	--	--	WA Dj 16
23.8	48	W	21.31	S	12-19-1958	--	--	--	--	--	--	--	WA Dj 17
22.6	48	W	19.62	S	12-19-1958	--	--	--	--	--	--	--	WA Dj 18
56	6	X	45	R	10-20-1958	10	55	45	1.0	2	10-20-1958	--	WA Dj 22
36	6	X	40	R	11 - 1957	5	65	40	.20	1	11 - 1957	--	WA Dj 23
49	6	X	60	R	09 - 1958	5	150	60	.06	1	09 - 1958	--	WA Dj 24
22	6	X	38	R	06-09-1958	8	45	38	1.14	2	06-09-1958	--	WA Dj 25
40	6	X	32	R	07-17-1969	10	40	32	1.25	3	07-17-1969	--	WA Dj 27
--	--	X	D	R	12-06-1969	0	--	--	--	--	12-06-1969	--	WA Dj 28
25	6	X	57.96	S	02-05-1970	4	225	80	.03	1	12-06-1969	--	WA Dj 29
61	6	X	25	R	09-30-1980	3	200	25	.02	3	09-30-1980	--	WA Dj 33
21	6	X	35	R	08-18-1976	10	170	35	.07	2	08-18-1976	--	WA Dj 34
46	6	X	75	R	03-31-1978	2	300	75	.01	2	03-31-1978	--	WA Dj 35
21	6	X	30	R	09-28-1973	4	185	30	.03	1	09-28-1973	--	WA Dj 36
95	6	X	45	R	06-03-1976	10	110	45	.15	1	06-03-1976	--	WA Dj 37
21	6	X	60	R	02-09-1981	8	105	60	.18	2	02-09-1981	--	WA Dj 38
90	5												
50	6	X	66	R	04-19-1979	22	140	66	.30	3	04-19-1979	--	WA Dj 39
22	6	X	40	R	02-23-1983	10	225	40	.05	2	02-23-1983	--	WA Dj 40
85	6	X	65	R	09-25-1978	15	285	65	.07	2	09-25-1978	--	WA Dj 41
160	6	X	26	R	10-23-1980	8	122	26	.08	3	10-23-1980	--	WA Dj 42
206	6	X	30	R	11-17-1976	100	40	30	10.0	2	11-17-1976	--	WA Dj 43
175	6	X	35	R	07-14-1976	50	180	35	.34	1	07-14-1976	--	WA Dj 44
70	6	X	15	R	08-05-1975	10	75	15	.17	1	08-05-1975	--	WA Dj 45
30	6	X	50	R	09-10-1975	13	145	50	.14	1	09-10-1975	--	WA Dj 46
85	5												
58	6	X	40	R	11-20-1978	15	260	40	.07	3	11-20-1978	--	WA Dj 47
63	6	X	52	R	08-25-1978	32	88	52	.89	3	08-25-1978	--	WA Dj 48
74	6	X	45	R	05-03-1977	15	125	45	.19	2	05-03-1977	--	WA Dj 49
--	6	-	39.48	S	03-13-1985	--	--	--	--	--	--	O	WA Dj 50
50	6	X	20	R	12-21-1977	40	75	20	.73	2	12-21-1977	--	WA Dj 51
113	6	X	80	R	03-19-1965	20	115	80	.57	1	03-19-1965	--	WA Dj 52
65	6	X	40	R	05-19-1971	60	190	40	.40	1	05-19-1971	--	WA Dj 53
125	6	X	50	R	09-28-1977	5	200	50	.03	3	09-28-1977	--	WA Dj 55
235	5												
21	6	X	60	R	11-14-1971	5	280	60	.02	2	11-14-1971	--	WA Dj 56
45	6	X	65	R	10-12-1978	5	265	65	.02	3	10-12-1978	--	WA Dj 57
22	6	X	26	R	02-08-1974	7	108	26	.09	3	02-08-1974	--	WA Dj 58
103	6	X	26	R	08-26-1982	15	114	26	.17	3	08-26-1982	--	WA Dj 59
23	6	X	25	R	02-04-1970	25	190	25	.15	1	02-04-1970	--	WA Dj 60
63	6	X	18	R	10-25-1977	8	52	18	.24	3	10-25-1977	--	WA Dj 61
78	6	X	26	R	09-11-1981	18	78	26	.35	3	09-11-1981	--	WA Dj 62
48	6	X	40	R	02-25-1969	3	220	40	.02	1	02-25-1969	--	WA Dj 63
60	6	X	57	R	02-22-1984	8	116	57	.14	3	02-22-1984	--	WA Dj 64
60	6	X	19	R	08-10-1984	50	36	19	2.94	3	08-10-1984	--	WA Dj 65
50	6	X	74	R	05-24-1984	30	138	74	.47	3	05-24-1984	--	WA Dj 66
44	6	X	32	R	12-29-1976	18	50	32	1.0	3	12-29-1976	--	WA Dj 67
140	6	X	80	R	02-28-1977	20	150	80	.29	4	02-28-1977	--	WA Dj 68
230	5												
84	6	X	40	R	10-02-1984	6	300	40	.02	3	10-02-1984	--	WA Dj 69
63	6	X	55	R	10-02-1984	5	265	55	.02	3	10-02-1984	--	WA Dj 70
155	5												
14	36	W	2.29	S	03-26-1986	--	--	--	--	--	--	O	WA Dj 71
46	6	X	8	R	05-11-1977	12	26	8	.67	3	05-11-1977	--	WA Dj 72
100	6	X	60	R	04-07-1976	10	95	60	.29	3	04-07-1976	--	WA Dj 73
22	6	X	37	R	09-04-1971	8	91	37	.15	3	09-04-1971	--	WA Dj 74
60	6	X	26	R	09-26-1984	50	49	26	2.17	2	09-26-1984	--	WA Dj 75
105	6	X	32	R	08-10-1984	15	68	32	.42	3	08-10-1984	--	WA Dj 76
63	6	X	6	R	12-17-1984	20	28	6	.91	3	12-17-1984	--	WA Dj 77
42	6	X	45	R	08-03-1983	53	200	45	.34	2	08-03-1983	--	WA Dj 78
35	6	X	10	R	11-07-1979	20	165	10	.13	2	11-07-1979	--	WA Dj 80
63	6	X	86	R	12-03-1978	6	132	86	.13	3	12-03-1978	--	WA Dj 81
60	6	X	18	R	03-28-1980	38	43	18	1.52	3	03-28-1980	--	WA Dj 82
56	6	X	20	R	04-04-1975	15	70	20	.30	1	04-04-1975	--	WA Dj 83
105	6	X	45	R	05-12-1978	100	120	45	1.33	1	05-12-1978	--	WA Dj 84
30	6	X	28	R	04-03-1964	40	98	28	.57	8	04-03-1964	--	WA Dj 85
33	6	X	40	R	10 - 1962	5	260	40	.02	.5	10 - 1962	--	WA Dj 86
70	6	X	18	R	09-12-1977	15	26	18	1.87	3	09-12-1977	--	WA Dj 87
30	6	X	40	R	08-23-1976	1	325	40	.004	1	08-23-1976	--	WA Dj 88
80	6	X	40	R	08-25-1976	10	105	40	.15	1	08-25-1976	--	WA Dj 89

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Dj 90	WA-73-1610	LAMB, RONALD G	JOHN SHAFF	10-04-1976	700	S	250	H	400CTCN
WA Dj 91	WA-73-1727	MARINO, ROBERT J	JOHN SHAFF	03-12-1977	725	F	375	H	400CTCN
WA Dj 92	WA-73-1567	SEABRIGHT, JERRY	A&H DRILLING	08-24-1976	760	U	165	H	400CTCN
WA Dj 93	WA-73-2525	HURLEY, JOHN E	JOHN SHAFF	12-15-1978	765	U	275	H	400GBGG
WA Dj 94	WA-73-1958	DAVIS, ROBERT	JOHN SHAFF	09-14-1977	750	F	125	H	400GBGG
WA Dj 95	WA-73-1957	COSTELLO, THOMAS	JOHN SHAFF	09-12-1977	740	S	450	H	400GBGG
WA Dj 96	WA-81-0076	PETERSON, EDWIN	ROBERT CLINE	10-07-1981	755	U	225	H	400GBGG
WA Dj 97	WA-73-0758	FOUCHE, ARTHUR	W LAMBERSON	07-30-1974	645	S	385	H	400CTCN
WA Dj 98	WA-81-1234	PERKINS, EDWARD L	A&H DRILLING	11-29-1985	715	S	150	H	377HRPR
WA Dj 99	WA-81-1230	HANER, BETH A	JOHN SHAFF	01-07-1986	710	S	175	H	377HRPR
WA Dj 100	--	ROHRERSVILLE RURITAN	--	--	650	S	--	H	400CTCN
WA Dj 101	WA-81-1272	ROHRER, GERALD T JR	A&H DRILLING	02-13-1986	555	U	300	H	377TMSN
WA Eh 1	WA-05-7688	C & O CANAL NATL PARK	J M HOFFMAN	05-19-1964	280	T	83	H	377TMSN
WA Ei 1	WA-01-2011	LEWIN, WILLIAM L	J M HOFFMAN	04-09-1953	300	V	66	H	377WSBR
WA Ei 2	WA-01-4627	ELKS LODGE	J M HOFFMAN	06 - 1954	610	S	76	H	377HRPR
WA Ei 4	--	CAMP MANIDOKAN	J M HOFFMAN	1949	460	H	250	U	377HRPR
WA Ei 5	WA-03-0067	CAMP MANIDOKAN	J M HOFFMAN	1958	465	H	222	U	377HRPR
WA Ei 6	--	MYERS GROCERY	--	--	370	V	7.8	U	377HRPR
WA Ei 7	WA-03-3729	KELBAUGH, GEORGE	R S HARLEY	03-14-1959	845	S	82	H	400CTCN
WA Ei 11	--	EBERSOLE, L	--	1953	625	V	25	H	377HRPR
WA Ei 12	--	DIXON, TOM	--	--	430	V	26	H	377HRPR
WA Ei 13	WA-03-2062	COULTER, JOHN	A R KEYSER	10-02-1958	530	F	216	H	400GBGG
WA Ei 14	WA-00-7295	TRITAPOE, CALVIN	A R KEYSER	01-21-1951	420	F	44	H	400GBGG
WA Ei 15	WA-00-0730	MOORE, CHARLES W	J M HOFFMAN	12-20-1946	565	F	90	H,S	377HRPR
WA Ei 16	WA-00-0731	MARTIN, HARRY	J M HOFFMAN	10-14-1946	560	F	73	H	377HRPR
WA Ei 17	--	GLENN, JOHN	JOHN SHAFF	1956	545	F	75	H	377HRPR
WA Ei 18	WA-00-9833	JONES, JOHN F	JOHN SHAFF	04-21-1952	580	S	87.5	H	377HRPR
WA Ei 20	--	INGRAM, G	--	--	530	F	37.6	H	377HRPR
WA Ei 21	--	HUDSON	--	--	390	S	10.1	H	377HRPR
WA Ei 22	WA-03-1889	HECK, F M	JOHN SHAFF	08-15-1958	655	F	165	H	377HRPR
WA Ei 24	--	HOLMES, G W	--	1930	750	S	15.5	H	400CTCN
WA Ei 25	--	HAYES, GLENN	JOHN SHAFF	1953	560	V	43	H	400GBGG
WA Ei 27	WA-01-7498	REDMOND, JOHN	R HARRIS	01-12-1954	735	S	60	H	400CTCN
WA Ei 28	WA-02-6840	BEST, THOMAS	A R KEYSER	05-31-1957	510	S	64	H	400GBGG
WA Ei 29	WA-06-0005	HARRIS, RICHARD	A R KEYSER	01-15-1951	400	S	45	H	400GBGG
WA Ei 30	--	THOMPSON, DONALD F	JOHN SHAFF	1950	545	S	63	H	400GBGG
WA Ei 32	--	ANDERSON, JOHN	JOHN SHAFF	1955	540	S	90	H	400GBGG
WA Ei 33	--	RICKENDS, J H	--	--	540	S	70	H	400GBGG
WA Ei 34	WA-02-3105	BEST, LINFORD	JACK HARLEY	04-24-1956	570	F	54	H	400GBGG
WA Ei 37	--	HOLBRUNNER, RALPH	BECKLEY	1950	435	V	66	H	377HRPR
WA Ei 38	WA-02-9883	CORDELL, CHARLES W	C A CROMWELL	02-11-1958	645	S	71	H	400CTCN
WA Ei 39	WA-03-3203	SMITH, DONALD R	R S HARLEY	01-03-1958	515	S	65	H	400GBGG
WA Ei 40	WA-03-3243	HIMES, JOSEPH	R S HARLEY	02-28-1959	465	V	240	H	400GBGG
WA Ei 41	WA-02-9963	HIGDON, LEONARD	C A CROMWELL	03-07-1958	660	F	60	H	400GBGG
WA Ei 42	WA-03-3933	COOK, GALE W	R S HARLEY	04-04-1958	300	V	40	H	377HRPR
WA Ei 43	WA-03-3966	CRAMPTON, LOTTIE	J W AMBROSE	03-13-1959	330	V	25	H	377TMSN
WA Ei 44	WA-03-5080	GIFFET, WALTER S	R S HARLEY	06-27-1959	750	V	80	H	377HRPR
WA Ei 45	WA-03-5401	ABBOTT, AUSTIN	R S HARLEY	07-31-1959	740	S	90	H	377HRPR
WA Ei 46	WA-05-7147	C & O CANAL NATL PARK	J M HOFFMAN	05-16-1964	290	T	105.3	U	377TMSN
WA Ei 52	WA-73-1079	KELLER, PAUL	JOHN SHAFF	06-06-1975	580	S	250	H	377HRPR
WA Ei 53	WA-81-0091	BARLETT, CHARLES M	KEYSER-GARVR	10-28-1981	490	H	165	H	377HRPR
WA Ei 54	WA-81-0358	C & O CANAL NATL PARK	A&H DRILLING	12-22-1982	550	H	205	H	377HRPR
WA Ei 55	WA-73-2416	KNIGHT, ROGER L	R ARDINGER	07-28-1978	480	S	220	H	377ANTM
WA Ei 56	WA-81-0317	INGRAM, STEVEN L	JOHN SHAFF	10-19-1982	540	S	150	H	377HRPR
WA Ei 57	WA-73-1409	MARTZ, IRA E	JOHN SHAFF	04-14-1976	520	F	150	H	377HRPR
WA Ei 58	WA-73-3008	YOUNG, MICHAEL	ROY HARLEY	12-10-1979	780	S	265	H	377HRPR
WA Ei 59	WA-81-0117	CRAMPTON, STEPHEN	A&H DRILLING	12-10-1981	770	S	160	H	377HRPR
WA Ei 60	WA-73-1425	OTZELBERGER, RODGER	C A CROMWELL	05-18-1976	640	F	290	H	377HRPR
WA Ei 61	WA-73-0306	CANAL CAMPGROUNDS	C A CROMWELL	05-30-1973	525	H	225	R	377HRPR
WA Ei 62	WA-73-0720	CANAL CAMPGROUNDS	C A CROMWELL	06-15-1974	525	H	330	R	377HRPR
WA Ei 63	WA-69-0359	STRITE, NATHAN	W LAMBERSON	07-08-1969	580	H	145	H	377HRPR
WA Ei 64	WA-73-0008	DRAPER, DAVID	C A CROMWELL	07-18-1972	395	S	150	H	377TMSN
WA Ei 65	WA-73-0365	DOWNIN, DAVID P	D H WOODWARD	09-18-1973	400	V	300	H	377HRPR
WA Ei 66	WA-73-0735	JOHNSON, JESTON	W LAMBERSON	07-19-1974	355	V	225	H	377HRPR
WA Ei 67	WA-73-0922	GAY, ORVEL	W LAMBERSON	11-26-1974	355	V	305	H	377HRPR
WA Ei 68	WA-81-0100	SHOEMAKER, ROGER	A&H DRILLING	11-05-1981	585	S	345	H	377HRPR
WA Ei 69	WA-73-0395	BREEDEN, JAMES A	W LAMBERSON	09-03-1973	640	H	225	H	377HRPR
WA Ei 70	WA-73-0036	LEGGETT, ROBERT E	W LAMBERSON	09-12-1972	700	S	205	H	377HRPR
WA Ei 71	WA-71-0162	CHESTNUT GROV BIBLE CH	JOHN SHAFF	01-26-1971	630	S	175	H	377HRPR
WA Ei 72	WA-73-2970	WILHIDE, JOSEPH C	JOHN SHAFF	10-24-1979	410	S	175	H	377HRPR
WA Ei 73	WA-73-2654	WATERS, CHARLES M	JOHN SHAFF	01-17-1979	520	S	200	H	400GBGG

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
60	6	X	36	R	10-04-1976	8	114	36	0.10	3	10-04-1976	--	WA Dj 90
42	6	X	32	R	03-12-1977	5	206	32	.03	3	03-12-1977	--	WA Dj 91
65	6	X	40	R	08-24-1976	10	150	40	.09	1	08-24-1976	--	WA Dj 92
42	6	X	26	R	12-15-1978	5	118	26	.05	3	12-15-1978	--	WA Dj 93
80	6	X	22	R	09-14-1977	15	46	22	.62	3	09-14-1977	--	WA Dj 94
50	6	X	26	R	09-12-1977	5	260	26	.02	3	09-12-1977	--	WA Dj 95
96	6	X	35	R	10-07-1981	5	225	35	.03	1	10-07-1981	--	WA Dj 96
25	6	X	35	R	07-30-1974	1	180	35	.01	1	07-30-1974	--	WA Dj 97
55	6	X	15	R	11-29-1985	30	150	15	.22	2	11-29-1985	--	WA Dj 98
100	6	X	47	R	01-07-1986	15	116	47	.22	3	01-07-1986	--	WA Dj 99
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Dj 100
42	6	X	25	R	02-13-1986	100	300	25	.36	3	02-13-1986	--	WA Dj 101
24	6	X	16.56	S	05-22-1964	20	17.57	16.56	19.80	24	05-22-1964	Q	WA Eh 1
31.5	6	X	20	R	04-09-1953	20	30	20	2	.5	04-09-1953	Q	WA Ei 1
25	6	X	26	R	06 - 1954	20	46	26	1	1	06 - 1954	Q	WA Ei 2
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ei 4
20	6	X	50	R	03 - 1958	5	215	50	.03	1	03 - 1958	Q	WA Ei 5
7.8	36	W	5.20	S	10-01-1958	--	--	--	--	--	--	--	WA Ei 6
42	6	X	56	R	03-14-1959	10	66	56	1.0	1	03-14-1959	--	WA Ei 7
--	--	-	--	-	--	--	--	--	--	--	--	--	WA Ei 11
26	--	W	--	-	--	--	--	--	--	--	--	--	WA Ei 12
37	6	X	20	R	10-02-1958	4	216	20	.02	3	10-02-1958	--	WA Ei 13
12	6	X	20	R	01-21-1951	4	30	20	.40	.5	01-21-1951	--	WA Ei 14
34	6	X	60	R	12-20-1946	5	--	30	--	.5	12-20-1946	--	WA Ei 15
64	6	X	20	R	10-14-1946	5	--	45	--	.5	10-14-1946	--	WA Ei 16
--	6	-	60	E	12-17-1958	--	--	--	--	--	--	--	WA Ei 17
87.5	6	O	42	R	04-21-1952	10	45	40	2.0	1.5	04-21-1952	--	WA Ei 18
37.6	48	W	25.39	S	12-18-1958	--	--	--	--	--	--	--	WA Ei 20
--	--	X	10.05	S	12-17-1958	--	--	--	--	--	--	--	WA Ei 21
39.6	48	X	40.41	S	12-17-1958	10	50	50	--	2	08-15-1958	--	WA Ei 22
25	6												
15.5	48	W	7.48	S	12-18-1958	--	--	--	--	--	--	--	WA Ei 24
--	6	-	10	E	12-18-1958	--	--	--	--	--	--	--	WA Ei 25
22	6	X	36	R	01-12-1954	--	--	--	--	--	--	--	WA Ei 27
52	6	X	40	R	05-31-1957	7	50	40	.70	1	05-31-1957	--	WA Ei 28
25	6	X	10	R	01-15-1951	4	25	10	.27	.5	01-15-1951	--	WA Ei 29
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Ei 30
--	6	-	18.38	S	12-18-1958	--	--	--	--	--	--	--	WA Ei 32
--	6	-	15	E	12-18-1958	--	--	--	--	--	--	--	WA Ei 33
21	6	X	20	R	04-24-1956	10	30	20	1.0	--	04-24-1956	--	WA Ei 34
--	48	W	32.27	S	12-19-1958	--	--	--	--	--	--	--	WA Ei 37
--	6												
33	6	X	33	R	02-11-1958	15	--	33	--	2	02-11-1958	--	WA Ei 38
36	6	X	30	R	01-03-1958	8	50	30	.40	1	01-03-1958	--	WA Ei 39
19.5	6	X	6	R	02-28-1959	1.5	175	6	.01	1	02-28-1959	--	WA Ei 40
21	6	X	30	R	03-07-1958	2	60	30	.07	1	03-07-1958	--	WA Ei 41
18	6	X	8	R	04-04-1958	2	30	8	.09	1	04-04-1958	--	WA Ei 42
17	6	X	15	R	03-13-1959	5	--	15	--	1	03-13-1959	--	WA Ei 43
21.7	6	X	25	R	06-27-1959	4	60	25	.11	1	06-27-1959	--	WA Ei 44
85.7	6	X	40	R	07-31-1959	15	60	40	.75	1	07-31-1959	--	WA Ei 45
32	6	X	22.70	S	05-25-1964	20	27.30	22.70	4.35	24	05-25-1964	Q	WA Ei 46
45	5.5												
22	6	X	46	R	06-06-1975	12	108	46	.19	3	06-06-1975	--	WA Ei 52
40	6	X	38	R	10-28-1981	15	130	38	.16	4	10-28-1981	--	WA Ei 53
26	6	X	60	R	12-22-1982	20	205	60	.14	2	12-22-1982	--	WA Ei 54
194	6	X	60	R	07-28-1978	15	220	60	.09	.5	07-28-1978	--	WA Ei 55
42	6	X	22	R	10-19-1982	18	81	22	.31	3	10-19-1982	--	WA Ei 56
30	6	X	26	R	04-14-1976	5	62	26	.14	3	04-14-1976	--	WA Ei 57
42	6	X	50	R	12-10-1979	12	75	50	.48	3	12-10-1979	--	WA Ei 58
44	6	X	20	R	12-10-1981	6	160	20	.04	1.5	12-10-1981	--	WA Ei 59
28	6	X	35	R	05-18-1976	2	285	35	.01	4	05-18-1976	--	WA Ei 60
21	6	X	40	R	05-30-1973	8	220	40	.04	2	05-30-1973	--	WA Ei 61
21	6	X	45	R	06-15-1974	6	325	45	.02	3	06-15-1974	--	WA Ei 62
55	6	X	60	R	07-08-1969	8	125	60	.12	.5	07-08-1969	--	WA Ei 63
21	6	X	35	R	07-18-1972	10	140	35	.10	2	07-18-1972	--	WA Ei 64
60	6	X	10	R	09-18-1973	2	280	10	.01	2	09-18-1973	--	WA Ei 65
120	6	X	60	R	07-19-1974	10	200	60	.07	1	07-19-1974	--	WA Ei 66
65	6	X	45	R	11-26-1974	4	270	45	.02	1	11-26-1974	--	WA Ei 67
21	6	X	30	R	11-05-1981	3	345	30	.01	2	11-05-1981	--	WA Ei 68
37	6	X	25	R	09-03-1973	2	185	25	.01	1	09-03-1973	--	WA Ei 69
35	6	X	40	R	09-12-1972	6	160	40	.05	1	09-12-1972	--	WA Ei 70
21	6	X	18	R	01-26-1971	8	109	18	.09	3	01-26-1971	--	WA Ei 71
85	6	X	32	R	10-24-1979	10	116	32	.12	3	10-24-1979	--	WA Ei 72
51	6	X	18	R	01-17-1979	9	39	18	.43	3	01-17-1979	--	WA Ei 73

Table 2.—Records of selected wells—Continued

Well number	Well permit number	Owner or name	Driller	Date of construction	Altitude of land surface (ft)	Topo-graphic setting	Depth (ft)	Use of water	Geologic unit
WA Ei 74	WA-73-0638	KELLEY, E M	C A CROMWELL	04-29-1974	450	H	210	H	400GBGG
WA Ei 75	WA-73-3467	RICHARDSON & HINSHAW	ROBERT CLINE	05-15-1982	465	H	150	H	400GBGG
WA Ei 76	WA-73-1520	FRITTS, JOHN	C A CROMWELL	08-17-1976	430	H	125	H	400GBGG
WA Ei 77	WA-73-3469	BEST, ROBERT	KEYSER-GARVR	05-20-1981	440	S	163	H	400GBGG
WA Ei 78	WA-73-3212	LOWERY, JOHN W	JACK HARLEY	08-28-1980	435	V	200	H	400GBGG
WA Ei 79	WA-73-1744	HOLMES, DAMON	C A CROMWELL	04-01-1977	590	S	125	H	400CTCN
WA Ei 80	WA-73-2988	GRIMES, MARK W	ROBERT CLINE	11-08-1979	790	S	170	H	400CTCN
WA Ei 81	WA-73-3211	SULCER, PRESTON	KEYSER-GARVR	09-25-1980	760	S	205	H	400CTCN
WA Ei 82	WA-81-0286	ANDREWS, MABEL	JOHN SHAFF	09-17-1982	770	S	225	H	400CTCN
WA Ei 83	WA-73-1156	MT MORIAH BAPTIST CH	JOHN SHAFF	08-12-1975	505	S	250	H	400GBGG
WA Ei 84	--	PAYNE, MAURICE H	A R KEYSER	--	780	S	85	U	400CTCN
WA Ei 85	WA-81-0497	INGRAM, LARRY B	A&H DRILLING	06-20-1983	550	S	165	H	377HRPR
WA Ei 86	WA-73-3324	MILLER, LESTER P	KEYSER-GARVR	11-13-1980	780	S	163	H	400CTCN
WA Ei 87	WA-73-0736	SNOOTS, WILLIAM	KEYSER-GARVR	07-03-1974	680	S	250	H	400CTCN
WA Ei 88	WA-73-0227	PHILLIPS, GARY	JOHN SHAFF	02-28-1973	735	S	100	H	400CTCN
WA Ei 89	WA-72-0235	DAYHOFF, ROLAND E	C A CROMWELL	05-09-1972	560	S	125	H	400GBGG
WA Ei 90	WA-73-2630	GREENHORN, GLADYS P	JOHN SHAFF	01-11-1979	620	S	300	H	377HRPR
WA Ei 91	WA-81-1056	SOUTH COUNTY PARK	A&H DRILLING	06-14-1985	745	V	500	H	377HRPR
WA Ei 92	WA-73-2665	WENNER, THOMAS F	KEYSER-GARVR	01-29-1979	525	H	202	H	400GBGG
WA Ei 93	WA-81-0943	PAYNE, MAURICE H	JOHN SHAFF	03-14-1985	780	S	250	H	400CTCN
WA Ei 94	WA-81-0633	HANES, MARK J	JOHN SHAFF	01-19-1984	740	S	500	H	400CTCN
WA Ei 95	WA-81-0264	MOSER, WAYNE C	JOHN SHAFF	08-05-1982	660	H	100	H	400GBGG
WA Ei 96	WA-81-0549	BOGLEY, RICHARD	JOHN SHAFF	09-23-1983	880	S	230	H	400CTCN
WA Ei 97	WA-81-0338	BROWN, RICHARD C	JOHN SHAFF	11-29-1982	930	S	425	H	400CTCN
WA Ei 98	WA-73-1814	PHILLIPS, MILLARD E	JOHN SHAFF	05-13-1977	880	S	140	H	400CTCN
WA Ei 100	WA-73-2718	MARKER, HOWARD	W QUYNN	03-28-1979	745	S	200	H	400CTCN
WA Ei 101	WA-73-3047	MORRIS, ELISAH D	JACK HARLEY	01-10-1980	740	S	125	H	377HRPR
WA Ei 102	WA-69-0306	POTOMAC VALLEY FIRE CO	J M HOFFMAN	06-26-1969	535	S	300	F,H	377HRPR
WA Ei 103	--	CAMP MANIDOKAN	--	--	475	V	14.5	U	377HRPR
WA Ei 104	WA-81-0662	CAMP MANIDOKAN	W QUYNN	02-03-1984	490	S	180	H	377HRPR
WA Ei 105	WA-67-0274	CAMP MANIDOKAN	A R KEYSER	06-26-1967	520	S	205	H,R	377HRPR
WA Ei 106	WA-73-1084	CAMP MANIDOKAN	KEYSER-GARVR	06-23-1975	730	S	300	H	377HRPR
WA Ei 107	WA-81-1067	SOUTH COUNTY PARK	A&H DRILLING	06-14-1985	750	S	405	H	377HRPR
WA Ej 1	WA-03-2347	SPIELMAN, LEON C	C A CROMWELL	10-03-1958	725	H	150	H	400CTCN
WA Ej 10	--	DAGENHART, EVERITT	--	--	620	V	32.16	H	400GBGG
WA Ej 11	WA-00-5889	LAPOLE, B A	J W HOLTZMAN	05-15-1950	665	F	49	H	400GBGG
WA Ej 12	WA-03-4479	HAGAN, PETER R	JOHN SHAFF	05-05-1959	650	S	62.5	H	400GBGG
WA Ej 13	WA-81-1004	DIXON, MICHAEL	JOHN SHAFF	04-29-1985	545	H	125	H	400GBGG
WA Ej 14	--	DIXON, MICHAEL	--	--	540	S	49	U	400GBGG
WA Ej 15	WA-81-0361	WETZEL, ROBERT	D H WOODWARD	01-12-1983	685	H	400	H	400CTCN
WA Ej 16	WA-81-0468	TRICE, MICHAEL	JOHN SHAFF	06-01-1983	680	S	300	H	400GBGG
WA Ej 17	WA-81-0122	BOWERS, JOHN A	JOHN SHAFF	12-07-1981	660	H	150	H	400GBGG
WA Ej 18	WA-81-0012	BLACKBURN, NORMAN	JOHN SHAFF	07-13-1981	720	H	140	H	400GBGG
WA Ej 19	WA-73-2737	SANTILL, KENNETH	W QUYNN	05-02-1979	740	S	80	H	400GBGG
WA Ej 20	WA-73-0259	ORZECHOWSKI, ALICE	C A CROMWELL	08-14-1973	715	U	95	U	400GBGG
WA Ej 21	WA-73-0622	MAPLETREE CAMP	KEYSER-GARVR	04-24-1974	780	S	115	H	377HRPR
WA Ej 22	WA-73-0376	KAETZEL, FLORENCE	W LAMBERSON	08-29-1973	645	S	185	H	400GBGG
WA Ej 23	WA-73-3478	PAINTER, RICHARD C	JOHN SHAFF	05-29-1981	680	S	165	H	400CTCN
WA Ej 25	WA-73-3333	MULLENDORE, DENTON	JOHN SHAFF	11-15-1980	720	H	150	H,S	400GBGG
WA Ej 26	WA-67-0144	CHRISTIAN HOLINESS CH	J V HARRIS	01-02-1967	670	U	80	H	400CTCN
WA Ej 27	WA-73-2459	MILLARD, ROBERT L	JOHN SHAFF	08-14-1978	690	U	150	H	400CTCN
WA Ej 28	WA-73-3280	MILLARD, ROBERT L	JOHN SHAFF	10-24-1980	700	U	250	H	400CTCN
WA Fi 1	WA-02-1849	CSX CORPORATION	D F MYERS	03-06-1956	260	T	30	H	377WVRN
WA Fi 4	--	HIMES, C	A R KEYSER	--	280	T	70.5	H	400GBGG
WA Fi 5	--	HUGHES, W L	--	--	280	T	10	H	400GBGG
WA Fi 6	--	DEENER, G	--	--	280	T	27	H	400GBGG
WA Fi 7	--	PHILLIPS, J L	--	--	280	T	12.8	H	400GBGG
WA Fi 8	--	PAYNE	--	--	275	T	50.5	H	400GBGG
WA Fi 9	WA-00-9680	BARTLETT, MERVIN I	A R KEYSER	05-07-1952	275	T	21.5	H	400GBGG
WA Fi 11	--	--	--	--	280	T	24	H	377WVRN
WA Fi 12	WA-65-0115	C & O CANAL NATL PARK	J M HOFFMAN	10-21-1964	250	T	177.2	U	400GBGG
WA Fi 13	WA-65-0116	C & O CANAL NATL PARK	J M HOFFMAN	11-04-1964	260	T	274.6	U	377HRPR
WA Fi 14	WA-73-0399	GREEN, JOHN	C A CROMWELL	08-11-1973	500	S	100	H	400GBGG
WA Fi 15	WA-72-0296	HILLSIDE MOTEL	ROBERT CLINE	06-20-1972	450	S	400	C	400GBGG
WA Fi 16	WA-73-1590	HARPERS FERRY NATL PK	JOHN SHAFF	08-23-1976	720	H	400	H	377HRPR

Casing Depth (ft)	Casing Diameter (in.)	Finish	Water level (ft)	Method	Date measured	Yield (gal/min)	Pumping level (ft)	Static level (ft)	Specific capacity [(gal/min)/ft]	Hours pumped	Date of test	Other data available	Well number
33	6	X	35	R	04-29-1974	15	200	35	0.09	1	04-29-1974	Q	WA Ei 74
42	6	X	40	R	05-15-1982	15	150	40	.14	1	05-15-1982	--	WA Ei 75
21	6	X	30	R	08-17-1976	7	120	30	.08	2	08-17-1976	--	WA Ei 76
39.5	6	X	35	R	05-20-1981	4	120	35	.05	4	05-20-1981	--	WA Ei 77
25	6	X	5	R	08-28-1980	3	80	5	.04	3	08-28-1980	--	WA Ei 78
32	6	X	35	R	04-01-1977	20	120	35	.24	1	04-01-1977	--	WA Ei 79
78	6	X	46	R	11-08-1979	5	170	46	.04	--	11-08-1979	--	WA Ei 80
105	6	X	50	R	09-25-1980	4	185	50	.03	4	09-25-1980	--	WA Ei 81
42	6	X	16	R	09-17-1982	12	62	16	.26	3	09-17-1982	--	WA Ei 82
63	6	X	31	R	08-12-1975	8	108	31	.10	3	08-12-1975	--	WA Ei 83
--	6	-	47.04	S	07-29-1985	--	--	--	--	--	--	O	WA Ei 84
42	6	X	40	R	06-20-1983	50	165	40	.40	1.5	06-20-1983	--	WA Ei 85
109	6	X	55	R	11-13-1980	6	150	55	.06	4	11-13-1980	--	WA Ei 86
39	6	X	28	R	07-03-1974	3	40	28	.25	2	07-03-1974	--	WA Ei 87
41	6	X	13	R	02-28-1973	10	18	13	2.0	3	02-28-1973	--	WA Ei 88
22	6	X	25	R	05-09-1972	10	125	25	.10	2	05-09-1972	--	WA Ei 89
42	6	X	37	R	01-11-1979	6	188	37	.04	3	01-11-1979	--	WA Ei 90
23	6	X	20	R	06-14-1985	2	500	20	.004	2	06-14-1985	--	WA Ei 91
41	6	X	50	R	01-29-1979	20	90	50	.50	3	01-29-1979	--	WA Ei 92
100	6	X	58	R	03-14-1985	5	103	58	.11	3	03-14-1985	Q	WA Ei 93
26	6	X	32	R	01-19-1984	3	341	32	.01	3	01-19-1984	--	WA Ei 94
34	6	X	22	R	08-05-1982	15	38	22	.94	3	08-05-1982	--	WA Ei 95
84	6	X	36	R	09-23-1983	20	68	36	.62	3	09-23-1983	--	WA Ei 96
75	6	X	36	R	11-29-1982	2	342	36	.01	3	11-29-1982	--	WA Ei 97
100	6	X	57	R	05-13-1977	14	88	57	.45	3	05-13-1977	--	WA Ei 98
43	6	X	30	R	03-28-1979	4	190	30	.02	3	03-28-1979	--	WA Ei 100
42	6	X	40	R	01-10-1980	15	120	40	.19	2	01-10-1980	--	WA Ei 101
55	6	X	60	R	06-26-1969	1	80	60	.05	1	06-26-1969	--	WA Ei 102
14.5	48	W	4.31	S	05-28-1986	--	--	--	--	--	--	O	WA Ei 103
35	6	X	40	R	02-03-1984	10	180	40	.07	2	02-03-1984	--	WA Ei 104
28	6	X	65	R	06-26-1967	40	--	65	--	1	06-26-1967	Q	WA Ei 105
68	6	X	38	R	06-23-1975	12	48	38	1.20	2	06-23-1975	--	WA Ei 106
23	6	X	25	R	06-14-1985	1	405	25	.003	2	06-14-1985	--	WA Ei 107
30	6	X	30	R	10-03-1958	5	150	30	.04	2	10-03-1958	--	WA Ej 1
32.16	48	W	11.88	S	12-18-1958	--	--	--	--	--	--	--	WA Ej 10
40	6	X	20	R	05-15-1950	16	--	20	--	2	05-15-1950	--	WA Ej 11
29	6	X	19.13	S	07-22-1959	12	25	23	6.0	4	05-05-1959	--	WA Ej 12
55	6	X	23	R	04-29-1985	5	44	23	.24	3	04-29-1985	--	WA Ej 13
3	36	-	35.50	S	03-12-1986	--	--	--	--	--	--	O	WA Ej 14
74	6	X	60	R	01-12-1983	2	400	60	.01	5	01-12-1983	--	WA Ej 15
50	6	X	16	R	06-01-1983	10	54	16	.26	3	06-01-1983	--	WA Ej 16
42	6	X	26	R	12-07-1981	15	44	26	.83	3	12-07-1981	--	WA Ej 17
42	6	X	28	R	07-13-1981	30	71	28	.70	3	07-13-1981	--	WA Ej 18
46	6	X	25	R	05-02-1979	25	75	25	.50	2	05-02-1979	--	WA Ej 19
23	6	X	7.59	S	03-18-1986	30	80	25	.55	1	08-14-1973	O	WA Ej 20
66	6	X	50	R	04-24-1974	25	55	50	5.0	2	04-24-1974	Q	WA Ej 21
60	6	X	45	R	08-29-1973	10	160	45	.09	1	08-29-1973	--	WA Ej 22
44	6	X	12	R	05-29-1981	25	36	12	1.04	3	05-29-1981	--	WA Ej 23
55	6	X	16	R	11-15-1980	28	44	16	1.0	3	11-15-1980	--	WA Ej 25
18	6	X	40	R	01-02-1967	10	75	40	.29	1	01-02-1967	--	WA Ej 26
32	6	X	24	R	08-14-1978	3	114	24	.03	3	08-14-1978	--	WA Ej 27
42	6	X	18	R	10-24-1980	4	116	18	.04	3	10-24-1980	--	WA Ej 28
18	6	X	14.94	S	03-08-1956	10	20	18	5.0	3	03-06-1956	--	WA Fi 1
--	6	-	--	-	--	--	--	--	--	--	--	--	WA Fi 4
10	36	W	--	-	--	--	--	--	--	--	--	--	WA Fi 5
--	--	W	--	-	--	--	--	--	--	--	--	--	WA Fi 6
12.8	36	W	9.57	S	05-07-1960	--	--	--	--	--	--	--	WA Fi 7
--	--	-	7.70	S	05-07-1960	--	--	--	--	--	--	--	WA Fi 8
13	6	X	4	R	05-07-1952	1	10	4	.17	.2	05-07-1952	--	WA Fi 9
24	36	W	14.90	S	05-07-1960	--	--	--	--	--	--	--	WA Fi 11
22	6	X	15.81	S	11-28-1964	9.4	59.09	15.81	.22	8	11-28-1964	C,Q	WA Fi 12
41	6	X	14.63	S	11-28-1964	1.5	--	--	--	1	11-04-1964	--	WA Fi 13
21	6	X	20	R	08-11-1973	15	95	20	.20	2	08-11-1973	--	WA Fi 14
41	6	X	55	R	06-20-1972	6	400	55	.02	1	06-20-1972	--	WA Fi 15
80	6	X	28	R	07-13-1981	3	318	80	.01	3	08-23-1976	--	WA Fi 16

Table 3.—Records of selected springs

Spring number	Owner or name	Use of water	Altitude of land surface (ft)	Topo-graphic setting	Geologic unit[1]	Dis-charge (gal/min)	Method	Im-prove-ments	Other data avail-able
WA Ab 1	SWAIN, THURMAN	H	630	V	341CMNG	--	-	-	--
WA Ab 3	JEROME, ALBERT	H	910	S	341HMPR	30	E	C	--
WA Ab 7	CREEK, THOMAS	H,S	960	S	341HMPR	5	E	-	--
WA Ab 14	HIXON, GEORGE	H	1,000	S	341HMPR	20	E	-	--
WA Ab 17	DILLON, R. S.	I	990	S	341HMPR	5	E	P	--
WA Ab 30	DILLON, R. S.	I	930	S	341HMPR	20	E	-	--
WA Ab 34	DILLON, R. S.	I	860	S	341HMPR	2	E	P	--
WA Ab 40	DILLON, R. S.	H	580	W	351WLCK	30	E	H	--
WA Ab 41	BERNARD, SAMUEL N.	H	900	S	341HMPR	--	-	C	--
WA Ac 8	MUNSON, LINN	H,S	530	V	354MCKZ	2	E	G	--
WA Ac 10	DORRIER, HERMAN	H,S	450	V	351WLCK	20	E	G	--
WA Ac 11	MCCARTY, E. M.	H	500	S	351WLCK	75	E	G	--
WA Ac 12	STAUFFER, ROBERT	H	520	S	351WLCK	3	E	G	--
WA Ac 13	KIRK, LEMUEL	H	480	V	351TNLY	250	E	G	--
WA Ac 20	CAHILL, FELIPPE	H	580	W	351WLCK	50	E	C	--
WA Ac 21	CASPAR, JOHN P.	H,I	580	S	351WLCK	10	E	P	--
WA Ac 22	CASPAR, JOHN	I	550	W	351WLCK	8	E	P	--
WA Ac 23	MORRISS, ERNEST	-	600	W	351WLCK	4	E	H	--
WA Ac 47	MUNSON, LINN	S	525	V	354MCKZ	5	E	B	Q
WA Ad 28	BIVENS, FRANK P.	H,S	520	W	344RMNY	20	E	H	--
WA Ae 1	KEEFER, JOHN	H,S	670	S	351WLCK	3	E	-	--
WA Ae 20	MURRAY, J. B.	U	420	S	347HDBG	450	E	N	--
WA Ae 27	GAME & INLAND FISH COMM.	H	575	V	347HDBG	5	E	H	--
WA Ae 28	HOSE, GEORGE	H	530	V	347HDBG	2	E	-	--
WA Ae 29	HALSER, JOHN	H,S	635	W	347HDBG	15	E	H	--
WA Ae 30	THE DARBY CO.	C,H	570	W	351WLCK	50	E	P	--
WA Af 6	DEEDS, JIM	H	690	S	354MCKZ	10	E	P	--
WA Af 7	ROHVER, JOHN	H	675	W	354MCKZ	5	E	H	--
WA Af 10	SNYDER, HOWARD	H	750	S	361MRBG	10	E	H	--
WA Af 11	BRAGUNIER, C. G.	H	740	W	361MRBG	2	E	C	--
WA Af 13	BRAGUNIER, T. R.	H	815	W	361MRBG	2	E	G	--
WA Af 14	SWORD, JOHN	H	695	S	361MRBG	2	E	R	--
WA Af 15	REPP, EARL	H	960	V	361MRBG	1	E	G	--
WA Af 17	ERNST, CHESTER	H,S	515	V	371ELBK	50	E	-	--
WA Af 21	CAMP SINGEWALD	H	740	V	--	--	-	-	--
WA Af 22	RIDGLEY	H	940	S	361MRBG	.83	V	H	--
WA Af 23	REPP, JACK	H	840	W	361MRBG	--	-	H	--
WA Ag 1	HEIRS, DENNIS	H,Q	400	W	364CBBG	808	C	L	D,T
WA Ag 2	CUSHWA, R. L.	H,S	500	W	367SNNG	456	C	L	D,Q,T
WA Ag 12	CLARK, LLOYD E.	H,S	625	V	371CCCG	25	E	H	--
WA Ag 17	FAITH, ADRIAN	H,S	605	W	371ELBK 371CCCG	100	E	G	--
WA Ag 23	SIEBERT, FRANKLIN S.	U	570	S	371CCCG	10	E	B	--
WA Ag 24	SEIBERT, TOM	U	605	W	371CCCG	100	E	N	--
WA Ag 29	RONEY, JOHN	H,S	493	W	367RCKR	233	C	C	D,T
WA Ag 30	RONEY, JOHN	H,S	485	W	367RCKR	75	E	-	--
WA Ag 31	FIERY, ROBERT K.	H,S	475	V	364STPL	200	E	-	--
WA Ah 9	TROUPE, G.	Q	445	V	364STPL	250	E	N	--
WA Ah 10	STOTELMYER, A. G.	H,S	445	V	364STPL	275	E	N	D,T
WA Ah 11	SCHETROMPF, STANLEY	-	400	S	364CBBG	125	E	-	--
WA Ah 32	HORST, JONAS	H	510	V	367RCKR	25	E	B	--
WA Ah 33	KEENER, EDGAR	C,H,Q	505	V	367RCKR	400	E	G	--
WA Ah 50	MILLER, AMOS A.	H,I,N	580	V	367RCKR	--	-	-	--
WA Ah 51	PEACHEY, JOHN	H,I	595	F	367RCKR	50	E	-	--
WA Ah 62	BEARD, VICTOR	-	477	S	361MRBG	--	-	-	--
WA Ah 64	MONGAN	H,S	529	F	361MRBG	--	-	-	--
WA Ah 65	EBY, REUBEN	H,S	484	F	367RCKR	200	E	-	--
WA Ah 66	EBY, REUBEN	-	478	F	367RCKR	--	-	-	--
WA Ah 67	EBY, REUBEN	H,S	473	F	367RCKR	--	-	-	--
WA Ah 75	SOWERS, ROY	H,S	562	V	367RCKR	175	E	L	--
WA Ah 76	MARTIN, ROBERT	H,S	510	V	367RCKR	12.5	E	-	--
WA Ai 10	MARTIN, WALTER L.	I	595	V	371CCCG	463	C	C	D,T
WA Ai 12	REST HAVEN CEMETERY	U	575	W	367SNNG	208	C	N	D,T
WA Ai 20	FOUNTAIN HEAD COUNTRY CLUB	I	570	F	371CCCG	50	E	H	Q
WA Ai 44	MARTIN, GRANT	S	590	V	367SNNG	100	W	N	--
WA Ai 45	MARTIN, GRANT	S	590	V	367SNNG	150	W	N	--
WA Ai 46	MARTIN, GRANT	S	585	S	367SNNG	75	W	N	--
WA Ai 49	STULLER, WALTER	H	525	W	367SNNG	75	E	H	--
WA Ai 50	MARTIN, G. JOSEPH	H	655	V	367SNNG	100	E	H	--
WA Ak 3	HAUVER, ELWOOD	A,H	655	V	377TMSN	856	C	T	D,Q,T

Table 3.—Records of selected springs—Continued

Spring number	Owner or name	Use of water	Altitude of land surface (ft)	Topo-graphic setting	Geologic unit[1]	Dis-charge (gal/min)	Method	Im-prove-ments	Other data avail-able
WA Ak 4	--	H	650	F	377TMSN	75	E	H	--
WA Ak 5	BACHTELL, GLENN S.	H	665	U	377TMSN	157	W	C	D,T
WA Ak 6	U.S. ARMY, FORT RITCHIE	T	1,632	W	400CTCN	2.5	E	B	Q
WA Ak 7	U.S. ARMY, FORT RITCHIE	T	1,604	W	400CTCN	10.4	M	B	Q
WA Ak 24	OLLER, ELMER H.	S	665	V	377TMSN	145	C	N	--
WA Ak 25	RINEHART	S	695	V	377TMSN	606	C	H	--
WA Ak 26	DIEHL, WILLIAM	U	690	V	377TMSN	75	E	H	--
WA Ak 27	HUFF, G. H.	S	640	V	377TMSN	15	E	-	--
WA Ak 32	PEN MAR COUNTY PARK	U	1,180	S	377WVRN	--	-	R	--
WA Ak 45	EDGEMONT ORCHARDS	H,I	970	S	377HRPR	9.4	V	H	D,Q,T
WA Ak 46	LEATHER, HOWARD C.	H	1,150	S	377HRPR	17	E	H	--
WA Ak 47	SHOCKEY, J. R.	H	910	S	377TMSN	--	-	B	--
WA Bb 12	TONOLOWAY ROD & GUN CLUB	H	710	S	344RMNY	30	E	P	--
WA Be 30	FORT FREDERICK STATE PARK	H	400	V	110ALVM	1	E	G	--
WA Be 31	SNYDER, C. A.	U	540	V	347ORSK	50	E	B	--
WA Be 32	SNYDER, C. A.	C,H	540	V	347ORSK	25	E	B	--
WA Bf 2	TOWN OF CLEAR SPRING	P	730	V	347ORSK	--	-	B	Q
WA Bf 3	CLARK, LEROY P.	H	420	S	371CCCG	987	C	H	D,Q,T
WA Bf 6	MONTGAN, J. C.	H	500	S	347ORSK	225	C	L	D,T
WA Bf 7	SANDALA, STEPHEN	U	1,190	S	357TCRR	17.5	E	L	--
WA Bf 8	CEARFOSS, MRS.	U	1,300	S	357TCRR	30	E	N	--
WA Bf 16	WEBER, C. H.	C	490	S	344RMNY	--	-	B	--
WA Bf 20	TOSTON, HARRY E.	U	340	V	371CCCG	400	E	C	--
WA Bf 24	TOWN OF CLEAR SPRING	U	550	F	371CCCG	5	E	H	D
WA Bg 13	REID, PAUL C.	H,S	510	S	367RCKR	25	E	U	--
WA Bg 87	--	H	500	S	371CCCG	--	-	H	--
WA Bg 115	STRITE, ADRIAN J.	H,S	410	S	367RCKR	--	-	H	--
WA Bh 13	EVERLY, MRS. B. I.	H,S	380	W	367RCKR	150	E	H	--
WA Bh 14	TAYLOR, WALLACE	U	420	W	367RCKR	450	E	N	--
WA Bh 15	DRURY, F. NELSON	H,S	420	W	367RCKR	212	C	N	--
WA Bh 16	PALMER, S.	H,S	380	W	367RCKR	175	E	C	--
WA Bh 18	W. D. BYRON SONS, INC.	N	375	V	367RCKR	--	-	B	--
WA Bh 19	TAYLOR	N	380	S	367RCKR	--	-	B	--
WA Bh 20	CITY OF WILLIAMSPORT	U	375	S	361MRBG	150	E	W	--
WA Bh 21	BYRON, JAMES E.	H,S	415	V	367RCKR 367SNNG	--	-	H	--
WA Bh 23	THOMAS, PAUL	H,S	540	F	367RCKR	--	-	H	--
WA Bh 24	DOUB, RICHARD	H,S	475	F	367RCKR	62.5	E	H	--
WA Bh 25	ANDERSON, PAUL	H,S	480	W	367SNNG	50	E	H	--
WA Bh 26	ANDERSON, PAUL	S	495	F	367RCKR	62.5	E	N	--
WA Bh 28	SHANK, SAM	H	535	W	371CCCG	125	E	H	--
WA Bh 29	SHANK, SAM	U	535	W	371CCCG	150	E	R	--
WA Bh 30	SHANK, SAM	U	535	W	371CCCG	100	E	L	--
WA Bh 31	LANDIS, JOHN	H	535	W	371CCCG	63	E	L	--
WA Bh 32	LANDIS, JOHN	U	545	W	371CCCG	35	E	H	--
WA Bi 31	CITY OF HAGERSTOWN	U	490	F	367SNNG	--	-	B	--
WA Bi 32	CITY OF HAGERSTOWN	U	490	F	367SNNG	--	-	B	--
WA Bi 33	CITY OF HAGERSTOWN	R	560	V	367SNNG	--	-	-	--
WA Bi 34	CITY OF HAGERSTOWN	R	550	V	367SNNG	--	-	-	--
WA Bi 35	CITY OF HAGERSTOWN	R	450	S	367SNNG	50	V	G	D,Q,T
WA Bi 36	CITY OF HAGERSTOWN	R	545	S	367SNNG	--	-	-	--
WA Bi 37	CITY OF HAGERSTOWN	R	555	V	367SNNG	--	-	-	--
WA Bi 38	CITY OF HAGERSTOWN	U	490	F	367SNNG	55	E	N	--
WA Bi 40	PASHEN, SAM	H,S	475	S	371ELBK	1,055	C	U	D,T
WA Bi 42	CITY OF HAGERSTOWN	H	545	F	367SNNG	65	C	L	D,T
WA Bj 2	--	H,S	645	V	377TMSN	250	E	-	Q
WA Bj 4	A. M. POWELL FISH HATCHERY	Q	505	V	371ELBK	2,853	C	-	D,Q,T
WA Bj 5	HOUPT	U	515	V	371ELBK	150	-	-	Q
WA Bj 6	MT. AETNA WATER ASSOC.	P	715	S	377WVRN 377HRPR	450	E	-	--
WA Bj 7	CREST VALLEY ESTATES	C,H	590	W	377TMSN	137.5	E	-	Q
WA Bj 8	A. M. POWELL FISH HATCHERY	Q	515	V	371ELBK	87.5	E	-	--
WA Bj 20	BECK, T. H.	H	585	V	377TMSN	--	-	-	--
WA Bj 35	CREST VALLEY ESTATES	H	585	V	377TMSN	225	C	H	--
WA Bj 36	CREST VALLEY ESTATES	U	580	W	377TMSN	50	E	-	--
WA Bj 37	CREST VALLEY ESTATES	U	585	V	377TMSN	20	E	U	--
WA Bj 38	ENGLISH, HARRY	H,S	575	V	377TMSN	15	E	K	--
WA Bj 72	MD. STATE HIGHWAY ADMIN.	U	615	C	371CCCG	15	W	N	--
WA Bj 85	WEBER, RICHARD E.	U	500	W	371CCCG	--	-	H	--
WA Bj 132	MT. AETNA WATER ASSOC.	P	960	S	377HRPR	--	-	H	--
WA Bk 3	ALLENBERG, WILLIAM M.	H	990	W	377HRPR	62.5	E	B	Q

Table 3.—Records of selected springs—Continued

Spring number	Owner or name	Use of water	Altitude of land surface (ft)	Topo-graphic setting	Geologic unit[1]	Dis-charge (gal/min)	Method	Im-prove-ments	Other data avail-able
WA Bk 4	DIFFENDALL	U	930	S	377HRPR	125	E	N	Q
WA Bk 7	CITY OF HAGERSTOWN	P	960	C	377HRPR	3,500	C	-	--
WA Bk 17	CITY OF HAGERSTOWN	P	980	S	377HRPR	--	-	-	--
WA Bk 28	--	H	1,300	S	400MTRL	5	E	B	--
WA Bk 29	NAYLOR, A. M.	H	1,470	S	400CTCN	12	V	H	D,Q,T
WA Bk 41	TARANTO, MONROE J.	U	945	S	377HRPR	2.7	V	B	--
WA Cg 14	BOWERS, VIOLA E.	H,S	500	S	361MRBG	5	E	B	D,Q,T
WA Cg 15	JORDAN, ROGER A.	H,S	510	S	361MRBG	--	-	B	--
WA Ch 2	ST. JAMES SCHOOL	T	480	W	371CCCG	620	C	H	D,Q,T
WA Ch 6	DELLINGER, HENRY	H,S	410	F	367SNNG	87.5	E	H	--
WA Ch 7	HARSHMAN, D. I.	H,S	430	F	367RCKR	229	C	H	D,Q,T
WA Ch 8	DOWNEY, DANIEL H.	H,S	500	W	367SNNG	208	C	H	D,T
WA Ch 11	MYERS, CLYDE	H,S	430	W	367SNNG	300	E	-	--
WA Ch 13	KNIPPENBERG, ROBERT	H,S	415	U	367SNNG	100	E	H	--
WA Ch 14	MYERS, COURTNEY	U	420	U	367SNNG	150	E	H	--
WA Ch 16	MYERS, COURTNEY	S	420	W	367SNNG	35	E	N	--
WA Ch 17	MALONE, J. G.	S	425	S	371CCCG	40	E	H	--
WA Ch 19	MALONE, J. G.	H	420	W	371CCCG	35	E	W	--
WA Ch 20	HOUSER, J. C.	H,S	430	W	371CCCG	125	E	H	--
WA Ch 26	C & O CANAL NATIONAL PARK	U	300	V	371CCCG	894	C	-	D,T
WA Ch 27	BLOYER, K.	H,S	415	U	367RCKR	--	-	G	--
WA Ch 50	VICKERS, ROBERT	S	415	V	371CCCG	25	W	N	--
WA Ci 11	TOMS, HUBERT	H,S	450	W	371ELBK	516	C	W	D,T
WA Ci 17	EAKLE, E. A.	H,S	445	W	371CCCG	63	E	H	--
WA Ci 18	EAKLE, E. A.	S	440	W	371CCCG	25	E	H	--
WA Ci 19	EAKLE, E. A.	S	430	W	371CCCG	40	E	W	--
WA Ci 20	POFFENBERGER, C. T.	H,S	440	S	371CCCG	85	C	H	--
WA Ci 30	SCHLOSSER, GEORGE	H	410	W	377WSBR	50	E	H	--
WA Ci 55	BOWERS, HERSHEL	U	440	V	371CCCG	200	E	N	--
WA Ci 81	--	S	510	C	367SNNG	89.8	R	N	--
WA Ci 83	BECKLEY, ROBERT	U	460	K	371CCCG	148.1	R	N	D,T
WA Ci 117	BOWERS, RICHARD L.	U	415	W	371ELBK	--	-	H	--
WA Cj 1	--	U	1,540	W	377WVRN	4	E	C	--
WA Cj 2	--	Z	1,490	W	377WVRN	22.5	E	-	--
WA Cj 4	FAHRNEY-KEEDY MEML. HOME	T	780	S	377HRPR	87.5	E	B	--
WA Cj 5	WASHINGTON CO. ORPHANS HOME	U	518	V	377TMSN	250	E	H	--
WA Cj 6	WARRENFELTZ, LORENE G.	P	519	S	377TMSN	145	C	B	D
WA Cj 9	WEGLEY, ROY C.	H,S	490	V	371ELBK	15	E	H	--
WA Cj 10	COSENS, C. H.	H,S	530	V	377TMSN	867	C	U	D,T
WA Cj 11	COSENS, C. H.	H,S	520	S	377TMSN	150	E	W	--
WA Cj 12	TOWN OF BOONSBORO	P	910	S	377HRPR	32.5	V	H	--
WA Cj 13	TOWN OF BOONSBORO	P	800	S	377HRPR	250	E	H	--
WA Cj 23	PAPA, ALFRED	H	540	V	371ELBK	737	C	H	--
WA Cj 31	DAVIS, H. V.	H,S	510	S	377WSBR	350	E	H	--
WA Cj 32	TOWN OF BOONSBORO	P	960	S	377HRPR	10	V	-	--
WA Cj 33	TOWN OF BOONSBORO	P	960	S	377HRPR	10	E	-	--
WA Cj 68	--	U	755	S	110MNWS	7.2	-	R	--
WA Cj 69	MD. STATE HIGHWAY ADMIN.	Z	960	S	377HRPR	13	V	R	D,Q,T
WA Cj 96	FAHRNEY-KEEDY MEML. HOME	T	1,020	W	377HRPR	--	-	B	--
WA Cj 126	WISHERD, PAULINE	H,S	480	W	377WSBR	15	V	H	Q
WA Cj 127	FAHRNEY-KEEDY MEML. HOME	T	480	W	377WSBR	--	-	H	--
WA Dh 2	C & O CANAL NATIONAL PARK	U	300	G	371CCCG	275	E	N	--
WA Dh 3	C & O CANAL NATIONAL PARK	H	342	S	371CCCG	17.5	E	-	--
WA Dh 6	MORGAN, L. P.	P	375	S	371CCCG	35	E	C	--
WA Dh 7	CONOCOCHEAGUE SPTSMN CLUB	H	320	G	371ELBK	15	E	L	--
WA Dh 8	SHIPPER, COL.	H,S	340	S	371ELBK	150	E	-	--
WA Dh 9	--	-	300	S	371ELBK	100	E	-	--
WA Dh 10	SHAW, J. W.	H	330	W	371ELBK	150	E	-	--
WA Dh 55	KELLER, ROBERT C.	H	300	S	371ELBK	60	E	B	--
WA Dh 57	C & O CANAL NATIONAL PARK	U	350	W	371CCCG	30	E	N	--
WA Dh 58	C & O CANAL NATIONAL PARK	U	315	T	371CCCG	50	E	T	--
WA Dh 60	C & O CANAL NATIONAL PARK	U	310	T	371CCCG	15	W	N	--
WA Dh 61	C & O CANAL NATIONAL PARK	U	310	T	371CCCG	.5	W	N	--
WA Dh 62	C & O CANAL NATIONAL PARK	U	310	T	371CCCG	3	W	N	--
WA Di 6	TOWN OF KEEDYSVILLE	P	380	S	377TMSN	1,197	C	-	D,Q,T
WA Di 7	TAYLOR	-	380	V	377TMSN	400	E	-	--
WA Di 8	TOWN OF SHARPSBURG	U	410	S	371CCCG	184	C	-	D,Q,T
WA Di 18	SHIMP, LESTER	H,S	340	V	377TMSN	25	E	H	--
WA Di 20	WAGNER, J. B.	H	410	V	371ELBK	100	E	H	--
WA Di 26	REEDER, ROY	U	420	V	377TMSN	150	E	N	--

Table 3.—Records of selected springs—Continued

Spring number	Owner or name	Use of water	Altitude of land surface (ft)	Topo-graphic setting	Geologic unit[1]	Dis-charge (gal/min)	Method	Im-prove-ments	Other data avail-able
WA Di 28	KEFAUVER, M. O.	H,S	420	V	371ELBK	125	E	-	--
WA Di 30	TAYLOR, R. B.	U	360	V	377TMSN	300	E	C	--
WA Di 35	DORSEY, W. D.	H,S	385	V	377TMSN	20	E	G	--
WA Di 36	GRIFFITH, W. L.	H,S	345	V	371ELBK	2	E	-	--
WA Di 37	SINNISEN, ALBERT	H,S	430	V	377TMSN	40	E	H	--
WA Di 38	SINNISEN, ALBERT	S	439	V	377TMSN	35	E	-	--
WA Di 49	SINCLAIR SERVICE STATION	U	407	D	371CCCG	--	-	B	Q
WA Di 72	DORSEY, PAUL J.	H	390	V	371ELBK	--	-	L	Q
WA Di 73	MARSHALL, LUTHER	-	415	S	371ELBK	--	-	H	Q
WA Di 78	--	S	460	W	377TMSN	30	E	N	--
WA Di 102	ANTIETAM NATL. BATTLEFIELD	U	365	S	371ELBK	5	W	-	--
WA Di 103	ANTIETAM NATL. BATTLEFIELD	S	475	S	371CCCG	15	V	H	--
WA Di 131	MULLENDORE, STANLEY	H	570	V	377WVRN	--	-	H	--
WA Di 135	JOHNSON, ROBERT D.	U	675	W	400CTCN	--	-	H	--
WA Dj 6	MUNSON, M. E.	H	1,010	F	377HRPR	20	E	H	--
WA Dj 7	ZITTLE, LOY	H	995	H	377WVRN	20	E	N	--
WA Dj 8	HAYNES, HAROLD	H	639	F	377HRPR	10	E	H	--
WA Dj 19	BUTTS, R. E.	H,S	470	V	377TMSN	87.5	E	H	--
WA Dj 20	LOWERY, JOHN	H,S	465	V	377TMSN	87.5	E	H	--
WA Dj 21	BISER	H	455	V	377TMSN	10	E	H	--
WA Dj 26	LOWERY, J.	S	457	V	377TMSN	100	E	-	--
WA Dj 30	SUDDUCTH	H	710	W	377HRPR	--	-	H	--
WA Dj 31	--	U	800	S	110MNWS	2	E	N	--
WA Dj 32	STILES, CHARLES	U	690	S	110MNWS	1	E	H	--
WA Dj 54	BYRD, DAVID O.	H	490	S	377TMSN	10	E	H	--
WA Dj 79	--	H	720	S	377HRPR	5	E	H	--
WA Ei 3	CAMP MANIDOKAN	H,R	380	W	377HRPR	--	-	C	--
WA Ei 8	JONES, TOM	H,S	500	V	400GBGG	20	E	R	--
WA Ei 9	COULTER, JOHN	H,S	585	S	400CTCN	35	E	D	--
WA Ei 10	JONES, MARVIN	H	540	S	400CTCN	5	E	H	--
WA Ei 19	INGRAM, JOHN	H	550	S	377HRPR	10	E	H	--
WA Ei 23	GIFFT, A. N.	H	680	W	377HRPR	2	E	P	--
WA Ei 26	YOUNKINS, FRED	H	610	S	400GBGG	2	E	H	--
WA Ei 31	WHEELER, ROBERT	H	510	S	400GBGG	10	E	H	--
WA Ei 35	PIERCE, HOWELL G.	H	320	V	377TMSN	10	E	G	--
WA Ei 36	KNIGHT, LARRY	H	440	V	377HRPR	3	E	P	--
WA Ei 47	MILLS, NOAH	U	360	V	377TMSN	20	E	N	--
WA Ei 48	MILLS, NOAH	U	360	V	377TMSN	20	E	N	--
WA Ei 49	C & O CANAL NATIONAL PARK	U	320	S	377TMSN	10	E	T	--
WA Ei 50	REED, OTHA	H	570	S	400GBGG	--	-	H	--
WA Ei 51	ANDREWS, MABEL	U	750	S	400CTCN	--	-	B	--
WA Ei 99	ABBOTT, LIONEL	H	710	W	377HRPR	10	E	H	--
WA Ej 2	BROWN, MRS. WALTER	H	540	V	400GBGG	15	E	H	--
WA Ej 3	SIER, JAMES	H	660	W	400GBGG	20	E	H	--
WA Ej 4	TOWN OF BRUNSWICK	H,P	590	S	377HRPR	16	E	H	D,T
WA Ej 5	TOWN OF BRUNSWICK	H,P	590	S	400CTCN 377HRPR 400CTCN	191	C	H	D,Q,T
WA Ej 6	SPIELMAN, NORMAN	P	610	S	400CTCN	--	-	G	--
WA Ej 7	--	H	590	V	400GBGG	10	E	H	--
WA Ej 8	HAINES, STANLEY	H	640	W	400GBGG	10	E	H	--
WA Ej 9	VOGT, JOHN	H	680	S	400CTCN	15	E	H	--
WA Ej 24	MULLENDORE, DENTON	U	680	W	400GBGG	--	-	H	--
WA Fi 2	MUMAU, ALPHA	H	460	V	400GBGG	15	E	H	--
WA Fi 3	CHESSIE SYSTEM	H	280	T	377WVRN	5	E	B	--
WA Fi 10	SCARLETT, MAUDE	U	280	T	400CTCN	20	E	L	--

EXPLANATION OF CODES

Use of Water

A Air conditioning
C Commercial
H Domestic
I Irrigation
N Industrial
P Public supply
Q Aquaculture
R Recreation
S Stock
T Institution
U Unused
Z Other

Topographic Setting

C Stream channel
D Depression
F Flat
G Flood plain
H Hilltop
K Sinkhole
S Hillside
T Terrace
U Undulating
V Valley flat
W Upland draw
U Under basement of residence
V Culvert
W Retaining wall

Method

C Current meter
E Estimated
M Totalizing meter
R Reported
V Volumetric
W Weir
L Lined
N None
P Pond
R Pipe
T Trough

Improvements

B Boxed basin
C Concrete basin
D Dam
G Gallery
H Spring house
K Collecting tank

Other Data Available

D Discharge
Q Water quality
T Temperature

[1] For explanation of geologic unit codes, refer to table 1.

Table 4.—Discharge and temperature measurements at selected springs

[Method of measurement: C, current meter; E, estimated; V, volumetric; W, weir]

SPRING WA Ag 1
GEOLOGIC UNIT: Chambersburg Limestone
ALTITUDE: 400 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/23/58	2,430	C	11.7	03/19/59	1,000	C	11.5
08/06/58	730	C	11.7	04/27/59	900	C	11.4
09/24/58	470	C	12.2	05/28/59	680	C	11.4
11/26/58	370	C	11.7	06/23/59	670	C	11.4
01/21/59	360	C	11.7	07/29/59	670	C	11.4
02/20/59	1,000	C	10.8	09/01/59	420	C	11.4

SPRING WA Ag 2
GEOLOGIC UNIT: Stonehenge Limestone
ALTITUDE: 500 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/23/58	1,050	C	11.4	03/06/59	530	C	--
08/06/58	575	C	--	03/11/59	630	C	--
08/14/58	585	C	--	03/19/59	630	C	--
08/15/58	585	C	--	03/25/59	480	C	--
08/18/58	585	C	--	03/31/59	450	C	--
09/02/58	530	C	--	04/09/59	360	C	--
09/08/58	480	C	--	04/15/59	630	C	--
09/16/58	480	C	--	04/20/59	610	C	--
09/22/58	480	C	--	04/24/59	610	C	--
09/29/58	530	C	--	05/01/59	680	C	11.7
10/09/58	480	C	--	05/08/59	580	C	--
10/16/58	585	C	--	05/13/59	530	C	--
10/23/58	480	C	--	05/21/59	530	C	--
11/03/58	480	C	--	05/28/59	500	C	--
11/11/58	380	C	--	06/04/59	530	C	--
11/18/58	480	C	--	06/08/59	460	C	--
11/24/58	380	C	--	06/12/59	430	C	10.8
12/02/58	480	C	--	06/18/59	420	C	10.9
12/09/58	380	C	--	06/25/59	380	C	10.8
12/16/58	370	C	--	07/02/59	410	C	--
12/29/58	355	C	--	07/10/59	360	C	--
01/05/59	330	C	--	07/16/59	340	C	--
01/07/59	360	C	--	08/03/59	450	C	10.8
01/14/59	360	C	--	08/05/59	400	C	11.7
01/22/59	670	C	--	08/07/59	390	C	--
01/23/59	610	C	--	08/13/59	375	C	--
01/28/59	480	C	--	08/21/59	345	C	--
02/02/59	480	C	--	08/27/59	345	C	--
02/12/59	550	C	--	09/02/59	340	C	10.8
02/20/59	530	C	--	10/01/59	340	C	11.7
02/26/59	480	C	--	01/13/60	380	C	11.1

SPRING WA Ag 29
GEOLOGIC UNIT: Rockdale Run Formation
ALTITUDE: 493 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
02/27/59	220	C	--	06/23/59	210	C	--
03/24/59	270	C	--	07/30/59	240	C	15.0
04/30/59	245	C	12.2	09/02/59	215	C	12.0

SPRING WA Ah 10
GEOLOGIC UNIT: St. Paul Group
ALTITUDE: 445 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/23/58	250	E	11.4	07/17/81	--	--	14.5
01/28/81	300	E	10.0	08/11/81	--	--	15.7
02/25/81	--	--	11.0	09/18/81	--	--	12.0
03/18/81	--	--	10.5	10/22/81	--	--	11.0
04/17/81	--	--	11.0	11/20/81	--	--	11.0
01/22/81	--	--	12.0	12/01/81	--	--	11.0
06/18/81	--	--	12.0	01/29/82	--	--	14.5

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRINGS WA Ah 32, WA Ah 33, and WA Ah 76 (combined)
GEOLOGIC UNIT: Rockdale Run Formation
ALTITUDE: 498 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
11/12/58	240	C	12.2	06/04/59	550	C	--
01/23/59	890	C	10.0	06/08/59	480	C	--
02/27/59	770	C	--	06/12/59	380	C	--
03/13/59	740	C	--	06/18/59	410	C	--
03/16/59	700	C	--	06/25/59	350	C	--
03/19/59	670	C	--	07/02/59	310	C	--
03/25/59	625	C	--	07/10/59	250	C	--
03/30/59	625	C	--	07/16/59	350	C	--
04/07/59	550	C	--	07/23/59	350	C	--
04/15/59	625	C	--	08/03/59	180	C	--
04/20/59	625	C	--	08/05/59	160	C	--
05/01/59	480	C	--	08/07/59	160	C	--
05/08/59	550	C	--	08/13/59	160	C	--
05/13/59	625	C	--	08/18/59	175	C	--
05/21/59	550	C	--	08/27/59	120	C	--
05/28/59	480	C	--	10/01/59	290	C	--
06/04/59	550	C	--	01/13/60	350	C	--

SPRING WA Ai 10
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 595 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
08/29/58	--	--	12.2	05/01/59	785	C	10.8
10/24/58	290	C	12.8	06/03/59	680	C	10.9
01/09/59	90	C	--	06/23/59	525	C	--
02/20/59	860	C	10.8	07/29/59	205	C	11.4
03/20/59	680	C	12.2	09/02/59	50	C	11.6

SPRING WA Ai 12
GEOLOGIC UNIT: Stonehenge Limestone
ALTITUDE: 575 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
08/29/58	--	--	11.9	06/23/59	240	C	11.7
10/17/58	115	C	--	07/30/59	195	C	12.8
01/30/59	220	C	--	08/31/59	170	C	11.6
04/08/59	305	C	12.2				

SPRING WA Ak 3
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 655 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
06/12/58	1,610	C	--	06/18/81	--	--	13.0
10/10/58	330	C	--	07/17/81	--	--	14.0
01/21/59	1,030	C	--	08/11/81	--	--	12.4
02/16/59	2,400	C	--	08/28/81	--	--	12.0
06/24/59	310	C	--	09/22/81	--	--	14.0
07/30/59	115	C	--	10/22/81	--	--	12.0
08/28/59	195	C	--	11/20/81	--	--	11.0
03/17/81	--	--	8.0	12/08/81	--	--	10.0
04/10/81	--	--	13.0	01/25/82	--	--	7.0
05/26/81	--	--	13.0	02/19/82	--	--	8.0

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Ak 5
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 665 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
07/03/58	235	W	--	03/05/59	155	W	--
07/21/58	235	W	--	03/11/59	185	W	--
08/01/58	235	W	--	03/17/59	140	W	--
08/08/58	210	W	--	03/25/59	165	W	--
08/15/58	235	W	--	04/01/59	165	W	--
08/21/58	185	W	--	04/10/59	185	W	--
08/29/58	210	W	--	04/17/59	175	W	11.7
09/11/58	175	W	--	04/24/59	200	W	--
09/22/58	165	W	--	05/07/59	180	W	--
10/02/58	140	W	--	05/13/59	200	W	--
10/10/58	155	W	--	05/21/59	200	W	--
10/17/58	185	W	--	05/29/59	175	W	11.3
10/30/58	165	W	--	06/05/59	165	W	--
11/03/58	140	W	--	06/08/59	165	W	--
11/14/58	165	W	--	06/19/59	155	W	--
11/18/58	125	W	--	06/26/59	140	W	--
11/26/58	135	W	--	07/02/59	140	D	--
12/09/58	140	W	--	07/10/59	135	W	--
12/19/58	135	W	--	07/16/59	140	W	--
12/30/58	120	W	--	07/23/59	155	W	--
01/07/59	115	W	--	07/31/59	125	W	--
01/14/59	115	W	--	08/07/59	115	W	11.4
01/21/59	125	W	--	08/14/59	115	W	--
01/23/59	140	W	--	08/21/59	105	W	--
01/30/59	140	W	--	08/28/59	105	W	--
02/05/59	135	W	--	09/02/59	105	W	11.7
02/17/59	155	W	--	10/01/59	100	W	--
02/27/59	165	W	--	01/13/60	105	W	11.7

SPRING WA Ak 45
GEOLOGIC UNIT: Harpers Formation
ALTITUDE: 970 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
12/27/85	9.1	V	11.0	10/01/86	9.4	V	12.5
02/03/86	9.2	V	11.0	10/29/86	7.7	V	12.0
03/07/86	11.1	V	11.0	12/11/86	7.2	V	11.0
03/27/86	7.9	V	7.9	01/05/87	8.0	V	--
04/28/86	10.7	V	11.5	02/03/87	7.1	V	10.5
06/05/86	9.4	V	12.0	03/03/87	10.7	V	10.5
06/25/86	10.0	V	12.0	03/26/87	9.1	V	11.0
07/14/86	9.7	V	12.5	04/30/87	10.3	V	11.0
07/29/86	10.0	V	--	05/28/87	12.0	V	12.0
09/04/86	9.4	V	12.0				

SPRING WA Bf 3
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 420 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
04/03/58	--	--	11.7	05/12/59	1,120	C	--
04/25/58	1,020	C	12.0	05/13/59	1,120	C	11.7
05/26/58	1,100	C	--	06/04/59	1,020	C	11.4
08/25/58	1,060	C	--	06/08/59	1,030	C	--
09/22/58	1,100	C	--	06/12/59	1,030	C	11.4
11/25/58	880	C	--	06/15/59	1,030	C	--
01/14/59	820	C	12.2	06/25/59	1,000	C	11.4
02/20/59	860	C	11.7	07/02/59	970	C	11.4
03/20/59	890	C	11.7	07/10/59	950	C	11.7
03/31/59	--	--	11.7	07/16/59	940	C	--
04/09/59	870	C	11.5	07/23/59	930	C	--
04/15/59	1,020	C	--	08/03/59	950	C	11.5
04/16/59	1,020	C	11.5	08/07/59	930	C	--
04/21/59	1,120	C	11.5	08/13/59	930	C	11.6
04/24/59	1,100	C	--	08/21/59	880	C	--
04/27/59	1,120	C	11.5	08/27/59	880	C	--
05/01/59	1,120	C	--	09/02/59	850	C	--
05/08/59	1,140	C	--	10/01/59	800	C	12.2

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Bf 6
GEOLOGIC UNIT: Oriskany Sandstone
ALTITUDE: 500 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
04/03/58	--	--	12.5	03/11/59	140	C	12.2
04/25/58	235	C	12.5	05/01/59	220	C	--
08/18/58	345	C	--	06/08/59	260	C	12.0
01/14/59	175	C	--	08/05/59	200	C	12.2

SPRINGS WA Bh 28--32 (combined)
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 543 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
01/30/59	310	C	11.1	06/23/59	315	C	--
02/27/59	145	C	--	07/28/59	320	C	--
03/24/59	340	C	--	09/01/59	150	C	--
05/21/59	430	C	11.9				

SPRING WA Bi 35
GEOLOGIC UNIT: Stonehenge Limestone
ALTITUDE: 450 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
07/30/58	--	--	11.9	09/21/81	60	V	12.0
03/18/81	40	V	11.5	10/22/81	60	V	12.0
04/17/81	40	V	12.0	11/20/81	60	V	11.5
05/26/81	60	V	13.0	12/08/81	40	V	12.0
06/18/81	60	V	13.3	01/25/82	30	V	11.0
07/17/81	40	V	13.0	02/19/82	60	V	12.0
08/27/81	40	V	12.0	03/11/82	60	V	12.2

SPRING WA Bi 40
GEOLOGIC UNIT: Elbrook Limestone
ALTITUDE: 475 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/15/58	1,990	C	11.7	01/22/59	970	C	--
08/19/58	610	C	--	03/12/59	650	C	12.2

SPRING WA Bi 42
GEOLOGIC UNIT: Stonehenge Limestone
ALTITUDE: 545 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/27/58	72	C	13.9	04/30/59	60	C	--
07/29/58	72	C	13.6	05/26/59	75	C	--
01/29/59	60	C	13.3	06/23/59	70	C	13.3
03/19/59	75	C	13.3	07/27/59	35	C	--

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Bj 4
GEOLOGIC UNIT: Elbrook Limestone
ALTITUDE: 505 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/21/58	3,569	C	11.7	06/25/59	3,000	C	--
06/25/58	3,300	C	12.3	07/10/59	2,850	C	--
10/17/58	2,920	C	--	07/23/59	2,750	C	--
11/24/58	2,790	C	12.2	07/27/59	2,700	C	--
01/08/59	2,390	C	--	08/07/59	2,530	C	--
02/19/59	1,990	C	--	08/20/59	2,250	C	--
03/06/59	--	--	12.2	08/28/59	2,200	C	--
03/09/59	3,170	C	--	09/02/50	2,150	C	--
04/29/59	3,680	C	--	10/01/59	2,100	C	--
05/20/59	3,450	C	--	01/13/60	1,970	C	12.2
05/25/59	3,200	C	--	02/01/60	1,970	C	--
05/26/59	3,150	C	--	03/14/60	2,670	C	--
05/27/59	3,150	C	--	03/20/60	3,100	C	--
05/28/59	3,200	C	--	04/13/60	4,400	W	--
06/01/59	3,250	C	--	05/07/60	3,600	W	--
06/08/59	3,200	C	--	09/07/60	2,500	W	--
06/18/59	3,050	C	--	10/01/60	2,340	W	--
06/23/59	3,050	C	--	10/16/60	2,280	W	11.8

SPRINGS WA Bj 35 and WA Bj 37 (combined)
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 589 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
02/19/59	110	W	--	05/21/59	125	W	--
02/23/59	85	W	--	05/29/59	110	W	--
03/03/59	95	W	--	06/05/59	125	W	--
03/11/59	135	W	--	06/26/59	100	W	--
03/19/59	110	W	--	07/02/59	80	W	--
03/24/59	100	W	--	07/10/59	100	W	--
03/30/59	105	W	--	07/23/59	95	W	--
04/10/59	125	W	--	08/14/59	115	W	--
04/17/59	135	W	--	08/21/59	85	W	--
04/24/59	135	W	--	08/28/59	85	W	--
04/29/59	115	W	--	09/02/59	80	W	--
05/07/59	115	W	--	10/01/59	80	W	--
05/13/59	140	W	--				

SPRING WA Bk 29
GEOLOGIC UNIT: Catoctin Formation
ALTITUDE: 1,470 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/27/86	20	V	10.0	12/03/86	15.8	V	10.5
06/05/86	15.8	V	11.5	01/05/87	14.3	V	--
06/25/86	15.0	V	--	02/03/87	10.3	V	--
07/14/86	13.6	V	11.0	03/03/87	18.2	V	9.0
07/28/86	12.0	V	11.0	03/26/87	15.0	V	9.0
09/04/86	9.1	V	11.5	04/28/87	6.7	V	10.0
10/01/86	3.2	V	12.0	05/28/87	12.5	V	10.5
10/29/86	6.4	V	11.5				

SPRING WA Cg 14
GEOLOGIC UNIT: Martinsburg Formation
ALTITUDE: 500 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/14/85	2.0	E	12.5	08/29/86	1.6	V	13.3
07/31/85	3.8	V	13.0	10/02/86	1.5	V	14.0
08/27/85	5.4	V	13.0	10/29/86	1.2	V	14.0
10/30/85	3.9	V	13.5	12/03/86	2.9	V	12.5
12/26/85	8.6	V	13.0	12/31/86	3.7	V	--
02/03/86	6.2	V	12.0	02/05/87	7.0	V	11.5
03/27/86	10.7	V	12.0	03/03/87	10.3	V	12.0
04/28/86	6.7	V	--	03/26/87	5.4	V	11.7
06/04/86	4.6	V	12.5	04/29/87	7.8	V	11.7
06/25/86	3.0	V	13.0	05/28/87	6.0	V	12.5
07/30/86	2.7	V	13.3				

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Ch 2
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 480 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/29/58	860	C	12.2	04/21/81	337	C	--
08/26/58	800	C	--	05/26/81	--	--	12.0
11/24/58	530	C	--	06/18/81	--	--	12.0
01/19/59	480	C	--	07/17/81	--	--	12.0
02/20/59	580	C	--	08/11/81	--	--	12.5
03/19/59	670	C	--	08/25/81	--	--	11.0
04/29/59	1,040	C	--	09/18/81	--	--	13.0
05/27/59	630	C	11.8	10/22/81	--	--	12.0
06/22/59	640	C	--	11/20/81	--	--	11.5
07/27/59	410	C	--	12/08/81	--	--	11.5
08/28/59	470	C	12.6	01/25/81	--	--	12.0
03/18/81	--	--	11.5	02/19/82	--	--	12.0
04/17/81	--	--	12.0	03/11/82	--	--	12.0

SPRING WA Ch 7
GEOLOGIC UNIT: Rockdale Run Formation
ALTITUDE: 430 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
06/06/58	--	--	11.4	06/03/59	300	C	10.8
07/22/58	328	C	12.0	06/16/59	200	C	--
01/28/59	140	C	11.7	06/24/59	140	C	--
03/11/59	290	C	12.0	07/29/59	120	C	--
03/19/59	320	C	10.8	08/31/59	110	C	11.7
04/30/59	340	C	10.5				

SPRING WA Ch 8
GEOLOGIC UNIT: Stonehenge Limestone
ALTITUDE: 500 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
06/06/58	--	--	11.9	06/03/59	260	C	11.6
10/10/58	294	C	12.8	06/24/59	180	C	--
01/15/59	150	C	12.8	07/29/59	140	C	12.8
03/20/59	280	C	12.2	08/31/59	90	C	11.8
05/01/59	270	C	--				

SPRING WA Ch 26
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 300 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
12/12/58	960	C	12.0	07/28/59	830	C	11.8
01/29/59	900	C	10.5	08/31/59	700	C	11.8
06/24/59	1,080	C	11.7				

SPRING WA Ci 11
GEOLOGIC UNIT: Elbrook Limestone
ALTITUDE: 450 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/20/58	1,007	C	12.0	04/29/59	480	C	--
08/26/58	870	C	--	05/26/59	400	C	--
11/24/58	360	C	--	06/22/59	380	C	--
01/19/59	410	C	11.7	07/27/59	390	C	12.8
02/20/59	490	C	--	08/25/59	380	C	11.7
03/19/59	510	C	12.2				

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Cj 6
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 490 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
06/17/59	125	C	--	08/24/59	160	C	--
07/28/59	150	C	--				

SPRING WA Cj 10
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 530 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/21/58	1,387	C	11.9	04/29/59	960	C	--
08/26/58	860	C	--	05/26/59	950	C	--
11/26/58	760	C	--	06/22/59	670	C	--
01/21/59	880	C	12.0	07/27/59	660	C	12.5
02/19/59	860	C	--	08/24/59	610	C	11.8
03/19/59	940	C	12.2				

SPRING WA Cj 69
GEOLOGIC UNIT: Harpers Formation
ALTITUDE: 960 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
08/06/85	2.5	V	--	09/04/86	3.5	V	12.0
08/27/85	5.4	V	13.0	10/01/86	2.1	V	12.0
10/09/85	4.3	V	13.0	10/29/86	1.6	V	11.8
12/27/85	23.1	V	12.0	12/03/86	2.3	V	12.0
02/03/86	11.5	V	11.5	01/06/87	4.7	V	--
02/27/86	42.8	V	11.5	02/03/87	7.9	V	--
03/27/86	33.3	V	12.0	03/03/87	30.0	V	--
04/28/86	25.0	V	--	03/27/87	11.5	V	11.0
06/05/86	13.6	V	11.5	04/29/87	21.4	V	11.3
06/25/86	9.7	V	12.0	05/28/87	11.1	V	12.0

SPRING WA Di 6
GEOLOGIC UNIT: Tomstown Formation
ALTITUDE: 380 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
05/22/58	2,520	C	12.2	05/26/81	--	--	12.0
08/21/58	1,830	C	--	06/18/81	--	--	12.0
11/25/58	830	C	12.8	07/17/81	--	--	11.5
01/15/59	820	C	--	08/11/81	--	--	12.5
02/20/59	1,000	C	12.5	08/25/81	--	--	11.0
03/25/59	920	C	--	09/21/81	--	--	12.0
05/07/59	1,070	C	12.0	10/22/81	--	--	12.0
05/27/59	1,050	C	11.8	11/20/81	--	--	11.5
06/22/59	940	C	11.7	12/08/81	--	--	11.0
07/28/59	900	C	11.6	01/25/82	--	--	11.0
08/26/59	880	C	11.7	02/19/82	--	--	12.0
04/22/81	1,600	C	--	03/11/82	--	--	12.0

Table 4.—Discharge and temperature measurements at selected springs—Continued

SPRING WA Di 8
GEOLOGIC UNIT: Conococheague Limestone
ALTITUDE: 410 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
08/12/58	--	--	12.5	08/06/59	--	--	12.2
08/26/58	420	C	--	08/26/59	75	C	12.0
11/25/58	140	C	12.2	03/18/81	--	--	12.0
12/11/58	--	--	12.2	04/17/81	--	--	12.0
01/21/59	210	C	--	04/22/81	301	C	--
02/20/59	270	C	12.5	05/26/81	--	--	14.0
03/20/59	120	C	12.8	06/18/81	--	--	12.5
04/17/59	--	--	11.9	07/17/81	--	--	13.0
04/29/59	145	C	12.8	08/11/81	--	--	13.5
05/26/59	140	C	13.0	09/18/81	--	--	12.0
05/30/59	--	--	12.1	10/22/81	--	--	12.0
06/02/59	--	--	12.0	11/20/81	--	--	12.0
06/09/59	--	--	12.1	12/08/81	--	--	12.0
06/23/59	120	C	13.0	01/25/82	--	--	12.0
07/07/59	--	--	11.9	02/19/82	--	--	12.0
07/28/59	85	C	13.3	03/11/82	--	--	13.0

SPRING WA Ej 4
GEOLOGIC UNIT: Contact, Harpers Formation and Catoctin Formation
ALTITUDE: 590 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
12/12/58	17.5	E	--	10/15/81	13.5	E	11.5
08/28/81	--	--	13.0	07/21/82	--	--	12.5
09/25/81	--	--	12.0				

SPRING WA Ej 5
GEOLOGIC UNIT: Contact, Harpers Formation and Catoctin Formation
ALTITUDE: 590 feet

Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)	Date	Discharge (gal/min)	Method of measurement	Temperature (deg C)
12/12/58	175	C	--	06/09/59	140	W	--
01/08/59	170	W	--	09/25/81	--	--	12.0
03/10/59	280	W	--				

Table 5.—Water levels in observation wells

[All measurements in feet below land surface, except as noted]

Well number: WA Aa 3
Owner: Unknown
Geologic unit: Chemung Formation
Altitude: 720 feet
Depth of well: 27.8 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 26, 1985	8.69	Feb 12, 1986	3.30	Jul 29, 1986	11.08	Feb 4, 1987	2.48
Jul 30	7.93	28	3.03	Aug 26	13.44	Mar 5	2.26
Aug 27	9.19	Mar 26	5.27	Sep 30	15.47	25	7.49
Oct 29	4.57	Apr 29	6.01	Oct 28	13.84	Apr 28	5.34
Nov 26	3.20	Jun 3	6.58	Nov 25	4.15	May 26	8.09
Dec 23	5.86	26	8.64	Dec 30	3.61		

Period of record: Highest level: 2.26 feet Mar 5, 1987; Lowest level: 15.47 feet Sep 30, 1986

Well number: WA Ab 56
Owner: St. Paul's Lutheran Church
Geologic unit: Chemung Formation
Altitude: 850 feet
Depth of well: 100 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 26, 1985	22.42	Feb 12, 1986	18.82	Jul 29, 1986	21.69	Feb 4, 1987	18.70
Jul 30	21.96	28	18.27	Aug 28	21.82	Mar 5	18.82
Aug 28	21.68	Mar 26	19.73	Sep 30	24.36	25	20.70
Oct 29	20.82	Apr 29	19.94	Oct 28	22.10	Apr 28	19.36
Nov 26	18.32	Jun 3	21.51	Nov 25	20.87	May 26	21.61
Dec 23	19.95	26	21.11	Dec 30	18.80		

Period of record: Highest level: 18.27 feet Feb 28, 1986; Lowest level: 24.36 feet Sep 30, 1986

Well number: WA Ab 80
Owner: Mt. Olivet Presbyterian Church
Geologic unit: Hampshire Formation
Altitude: 970 feet
Depth of well: 258 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 26, 1985	65.25	Feb 12, 1986	62.23	Jul 29, 1986	66.33	Feb 4, 1987	58.46
Jul 30	65.47	28	58.48	Aug 28	66.71	Mar 5	61.63
Aug 27	65.12	Mar 26	61.24	Sep 30	66.83	25	64.07
Oct 29	65.46	Apr 29	65.15	Oct 28	67.18	Apr 28	60.99
Nov 26	58.28	Jun 3	63.83	Nov 25	65.04	May 26	64.29
Dec 23	60.99	26	66.52	Dec 30	62.36		

Period of record: Highest level: 58.28 feet Nov 26, 1985; Lowest level: 67.18 feet Oct 28, 1986

Well number: WA Ab 82
Owner: Long Ridge Chapel
Geologic unit: Parkhead Sandstone
Altitude: 850 feet
Depth of well: 232 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 14, 1985	71.09	Dec 23, 1985	62.32	Jun 26, 1986	70.12	Dec 30, 1986	61.79
26	72.37	Feb 12, 1986	64.66	Jul 29	70.40	Feb 4, 1987	62.28
Jul 30	72.90	28	56.13	Aug 28	71.34	Mar 5	61.46
Aug 27	71.54	Mar 26	60.64	Sep 30	71.63	25	65.88
Oct 25	72.81	Apr 29	67.41	Oct 28	72.40	Apr 28	54.86
Nov 26	62.14	Jun 3	70.31	Nov 25	72.17	May 26	67.07

Period of record: Highest level: 54.86 feet Apr 28, 1987; Lowest level: 72.90 feet Jul 30, 1985

Table 5.—Water levels in observation wells—Continued

Well number: WA Ac 1
Owner: Creager, Susan
Geologic unit: Romney Formation
Altitude: 440 feet
Depth of well: 86.2 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Oct 2, 1946	54.03	Jun 19, 1953	53.53	Nov 24, 1957	53.50	Jul 5, 1962	49.90
Dec 18	54.30	30	54.01	25	53.57	11	53.97
Jan 3, 1947	43.50	Jul 23	54.11	26	53.73	30	54.10
Feb 7	53.32	Aug 3	54.39	27	53.73	Aug 21	54.33
19	53.54	31	54.69	28	53.69	30	54.57
Mar 7	53.29	Sep 30	54.69	29	53.79	Oct 3	54.29
Apr 22	53.24	Nov 16	54.62	30	53.87	16	54.14
May 2	51.37	19	55.83	Dec 1	53.87	26	54.45
Jun 5	53.16	Dec 4	54.63	2	53.88	Nov 26	52.09
Jul 10	52.62	30	54.75	3	53.88	Jan 3, 1963	52.90
Aug 4	44.36	Feb 1, 1954	53.51	4	53.95	4	52.72
Sep 3	45.76	25	52.92	13	52.07	31	46.50
29	54.47	Mar 1	52.24	14	52.45	Mar 22	41.95
Dec 2	53.83	30	52.54	16	51.95	Apr 10	49.23
5	54.60	Apr 29	52.83	Jan 9, 1958	53.28	30	51.78
Jan 6, 1948	51.40	Jun 10	53.79	20	53.54	Jun 5	49.57
Feb 5	53.59	28	54.03	Feb 3	52.80	Jul 9	53.90
Mar 8	49.98	Jul 6	54.32	12	51.66	10	54.05
Apr 8	51.97	30	54.44	Mar 4	49.18	Aug 14	54.55
May 9	46.34	Sep 9	54.05	Apr 1	46.05	Oct 1	54.50
Jun 5	52.63	29	54.35	9	45.95	8	54.35
Jul 6	52.52	Nov 4	52.73	May 12	48.05	Nov 12	53.20
Aug 4	53.46	30	45.97	15	48.85	Dec 27	53.80
Nov 7	52.73	Dec 21	48.47	Jun 6	53.75	Jan 8, 1964	51.84
Dec 8	49.50	Jan 5, 1955	49.67	13	53.80	30	50.98
Jan 14, 1949	50.57	Feb 7	53.08	Jul 23	53.84	Mar 13	47.02
Feb 14	50.69	Mar 1	50.20	Sep 23	53.92	Apr 2	52.61
22	49.32	Apr 6	52.20	30	54.15	17	51.35
Mar 6	51.50	May 6	52.60	Oct 30	54.45	Jun 11	53.90
Apr 6	52.10	Jun 8	53.79	Dec 3	54.35	Jul 8	54.34
May 3	53.04	Jul 20	54.35	30	54.67	22	54.28
23	52.30	Aug 11	54.41	Jan 9, 1959	52.67	Aug 26	54.51
Jun 1	52.95	Sep 14	53.56	30	49.05	Oct 14	54.39
Jul 8	52.60	Oct 12	54.12	Mar 3	53.86	21	52.97
Aug 4	53.53	22	54.28	Apr 2	53.00	Dec 8	51.90
11	53.82	Nov 29	54.04	6	52.26	Jan 11, 1965	54.92
Sep 11	53.68	Jan 4, 1956	55.52	27	52.59	15	51.77
Oct 5	54.15	11	54.64	May 14	51.39	Feb 24	52.58
Nov 2	51.70	31	51.46	Jun 3	51.13	Apr 8	53.61
30	52.38	Apr 6	50.05	Jul 6	54.25	14	49.32
Dec 8	53.44	9	43.01	10	54.28	May 25	53.66
Jan 6, 1950	51.95	May 18	52.56	30	54.09	Jul 6	54.50
Feb 7	48.64	Jun 5	51.02	Sep 3	54.24	14	53.60
Mar 2	52.92	Jul 16	53.76	28	54.80	Aug 5	53.62
Apr 5	51.64	Aug 13	52.36	Oct 15	54.15	Sep 9	54.54
May 2	51.75	Sep 7	53.72	29	51.76	Oct 4	54.39
Jun 5	50.82	Oct 8	53.12	Dec 2	51.75	8	53.92
Jul 12	53.63	11	53.18	30	51.03	Nov 16	54.11
Aug 4	55.26	Nov 9	52.50	Jan 11, 1960	52.36	Dec 30	54.60
Sep 12	52.24	Dec 7	52.70	Feb 3	48.65	Jan 6, 1966	54.67
Oct 3	53.32	Jan 10, 1957	52.68	Mar 3	52.00	Feb 18	48.45
24	53.18	14	50.10	Apr 5	38.02	Mar 16	52.30
30	53.16	Feb 8	50.01	14	50.67	Apr 29	45.89
Dec 6	44.54	Mar 1	49.76	20	47.98	May 18	52.15
Jan 10, 1951	51.13	Apr 8	47.40	May 10	39.81	31	53.04
Feb 13	50.11	12	48.17	Jun 29	53.29	Jun 8	53.68
Mar 6	50.71	May 24	52.21	Jul 13	53.76	28	54.37
7	50.99	28	43.15	22	53.86	Jul 27	54.68
Apr 10	49.46	Jun 6	53.87	Aug 30	54.21	29	54.74
30	50.30	Jul 5	53.73	Sep 29	53.59	Aug 30	54.45
Jun 8	53.34	17	54.44	Oct 10	54.28	Sep 9	54.73
Jul 5	53.25	Aug 2	54.26	Nov 14	53.74	29	53.22
Aug 25	54.77	4	54.20	29	54.19	Oct 13	53.32
Sep 11	54.39	7	54.28	Dec 30	53.61	20	53.42
Oct 4	54.61	21	54.80	Jan 12, 1961	52.94	27	53.49
5	54.56	Sep 5	54.31	30	52.15	Nov 29	52.40
Nov 13	54.52	Oct 28	53.05	Mar 28	46.87	Dec 28	53.54
Dec 7	53.33	29	53.18	Apr 11	48.37	Jan 19, 1967	53.21
Feb 12, 1952	50.89	30	53.22	28	48.71	30	50.58
Mar 8	53.59	31	53.05	Jun 2	53.05	Feb 27	52.79
Apr 9	49.99	Nov 1	53.00	29	53.46	Mar 10	45.22
16	48.81	2	53.28	Jul 12	53.85	Apr 20	52.22
May 2	48.44	3	53.36	20	54.09	Jun 7	52.88
Jun 6	53.20	4	53.38	31	53.91	26	52.97
Jul 9	53.76	5	53.43	Sep 28	54.16	Jul 12	53.12
22	54.32	6	53.43	29	54.34	19	53.05
Sep 4	53.42	7	53.45	Oct 30	53.92	Aug 28	50.86
Oct 17	54.23	13	53.46	Nov 29	53.49	Sep 14	53.93
Nov 11	54.64	14	53.47	Jan 9, 1962	48.94	Oct 4	53.22
13	54.45	15	53.50	17	52.18	27	49.24
Dec 8	53.34	16	53.45	Feb 2	52.07	Nov 8	53.00
Jan 20, 1953	47.60	17	53.33	27	49.00	27	52.85
Feb 11	51.25	18	53.19	Mar 29	48.57	Dec 20	51.40
Mar 9	51.35	19	52.98	Apr 12	49.03	26	52.45
Apr 3	50.07	20	52.98	30	52.40	Jan 24, 1968	46.91
21	50.05	22	53.39	May 29	52.60	Feb 26	53.18
May 4	52.70	23	53.29	Jun 14	50.41	Mar 6	53.68

Table 5.—Water levels in observation wells—Continued

Well number: WA Ac 1 (continued)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 25, 1968	44.15	Sep 22, 1972	53.88	Aug 23, 1977	53.74	Aug 26, 1982	53.58
Apr 25	53.40	Oct 24	53.28	Sep 22	54.00	Sep 27	53.67
30	53.22	Nov 24	49.22	Oct 20	53.03	Oct 25	53.50
May 24	52.33	Dec 18	47.74	Nov 22	52.57	Dec 27	52.76
Jun 6	50.45	Jan 24, 1973	51.88	Jan 4, 1978	52.45	Jan 24, 1983	53.43
24	53.20	Feb 22	51.47	24	48.20	Feb 23	49.12
Jul 16	53.88	Mar 20	48.80	Feb 22	51.67	Mar 28	49.81
24	54.30	Apr 24	49.95	Mar 23	43.52	Apr 25	37.35
Aug 23	54.08	May 21	51.98	Apr 24	51.54	May 31	50.59
Sep 24	54.07	Jun 22	52.19	May 23	49.08	Jun 27	52.38
Oct 25	53.55	Jul 24	53.15	Jun 23	53.31	Jul 27	53.73
Nov 22	51.91	Aug 23	51.38	Jul 24	53.14	Aug 29	53.93
Dec 20	50.97	Sep 24	53.55	Aug 24	52.85	Sep 26	53.98
Jan 8, 1969	49.95	Oct 2	53.52	Sep 25	53.58	Oct 28	51.84
23	52.48	23	53.07	Oct 24	53.70	Nov 28	52.10
Feb 20	53.38	Nov 26	52.77	Nov 22	53.65	Dec 27	50.09
Mar 24	51.40	Jan 14, 1974	46.16	Dec 22	52.70	Jan 30, 1984	51.95
Apr 21	52.60	24	48.26	Jan 3, 1979	45.40	Feb 27	47.40
May 21	53.62	Feb 25	50.82	24	47.30	Mar 26	44.13
Jun 23	54.05	Mar 22	51.44	Feb 22	50.55	Apr 27	47.79
Jul 24	53.38	Apr 22	51.39	Mar 26	44.95	May 28	52.52
Aug 25	52.35	May 23	51.94	Apr 24	52.12	Jun 26	53.38
Sep 23	53.42	Jun 24	49.68	May 24	51.58	Jul 27	53.08
Oct 7	53.32	Jul 24	53.61	Jun 25	53.05	Aug 27	53.08
23	53.97	Aug 26	53.57	Jul 25	52.57	Sep 25	53.65
Nov 19	53.38	Sep 23	53.62	Aug 24	50.28	Oct 26	53.00
Dec 16	51.30	Oct 22	53.30	Sep 25	48.85	Nov 26	53.16
Jan 23, 1970	52.01	Nov 22	53.82	Oct 24	51.47	Jan 3, 1985	51.78
Feb 12	50.62	Dec 26	50.05	Nov 26	51.82	28	52.07
24	50.95	Jan 2, 1975	48.32	Dec 26	47.52	Feb 25	45.48
Mar 24	48.75	22	49.79	Jan 2, 1980	51.10	Mar 27	55.01
Apr 21	49.51	Feb 20	46.45	25	48.60	Apr 25	52.75
May 5	51.45	Mar 24	46.88	Feb 25	49.78	May 28	51.34
21	52.75	Apr 24	52.63	Mar 21	47.02	Jun 26	54.08
Jun 22	52.67	May 22	50.73	Apr 25	51.08	Jul 30	53.35
Jul 22	53.25	Jun 24	53.43	May 26	47.67	Aug 27	53.66
Aug 24	53.36	Jul 24	52.79	Jun 24	52.72	Sep 30	53.68
Sep 24	53.98	Aug 22	53.00	Jul 24	52.98	Oct 22	52.65
Oct 20	54.20	Sep 24	48.76	Aug 25	52.43	Nov 27	48.68
Nov 23	50.42	Oct 22	47.91	Sep 24	53.93	Jan 16, 1986	53.25
Dec 21	50.94	Nov 24	52.25	Oct 27	53.36	Feb 27	49.15
Jan 22, 1971	51.17	Dec 23	52.54	Nov 24	53.23	Mar 27	51.32
Feb 22	40.72	Jan 2, 1976	35.65	Dec 23	53.50	May 27	51.85
Mar 22	50.14	23	52.44	Jan 23, 1981	53.79	Jun 26	52.38
Apr 21	52.25	Feb 23	50.24	27	53.75	Jul 28	54.17
May 24	50.58	Mar 24	50.97	Feb 4	48.39	Aug 29	53.68
Jun 24	52.88	Apr 22	52.85	25	47.35	Sep 29	53.51
Jul 22	53.99	May 21	51.51	Mar 26	53.05	Oct 30	53.62
Aug 19	53.36	Jun 23	49.80	Apr 27	51.55	Dec 19	52.45
23	53.75	Jul 22	53.55	May 27	51.78	Jan 29, 1987	50.95
Sep 22	51.16	Aug 24	53.85	Jun 29	52.56	Mar 26	52.28
Oct 26	48.45	Sep 23	53.43	Jul 27	53.42	Apr 27	47.83
Nov 23	53.38	Oct 22	48.49	Aug 27	53.81	May 29	51.95
Dec 20	52.18	Nov 19	52.35	Sep 28	53.57	Jun 29	53.13
Jan 24, 1972	52.12	Dec 23	52.24	Oct 26	53.87	Jul 30	53.69
Feb 15	47.46	Jan 4, 1977	52.27	Dec 28	51.41	Aug 28	53.62
Mar 23	51.45	21	53.07	Jan 27, 1982	50.67	Sep 28	52.95
Apr 19	46.45	Feb 21	52.40	Feb 25	47.07	Oct 28	53.38
24	45.96	Mar 21	49.33	Mar 23	44.07	Nov 30	50.35
May 24	49.68	Apr 22	52.20	Apr 27	52.23	Jan 5, 1988	51.55
Jun 26	45.74	May 23	53.10	May 26	52.25	28	51.45
Jul 17	51.94	Jun 23	53.89	Jun 22	51.42		
Aug 23	53.33	Jul 22	52.48	Jul 26	53.08		

Period of record: Highest level: 35.65 feet Jan 2, 1976; Lowest level: 55.83 feet Nov 19, 1953

Well number: WA Ac 46
Owner: Cohill, Roger
Geologic Unit: Wills Creek Shale
Altitude: 640 feet
Depth of well: 200 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 26, 1985	89.21	Feb 28, 1986	85.11	Aug 28, 1986	89.52	Mar 5, 1987	88.65
Aug 27	89.78	Mar 26	85.95	Sep 30	89.74	25	89.31
Oct 29	90.00	Apr 29	87.51	Oct 28	89.99	Apr 28	87.33
Nov 26	87.44	Jun 3	88.52	Nov 25	90.11	May 26	89.02
Dec 23	87.44	26	88.83	Dec 30	89.46		
Feb 12, 1986	86.98	Jul 29	89.21	Feb 4, 1987	88.49		

Period of record: Highest level: 85.11 feet Feb 28, 1986; Lowest level: 90.11 feet Nov 25, 1986

Table 5.—Water levels in observation wells—Continued

Well Number: WA Ac 53
Owner: Town of Hancock
Geologic unit: Romney Formation
Altitude: 500 feet
Depth of well: 420 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Apr 3, 1985	49.08	Jun 26, 1985	51.49	Jul 30, 1985	51.33	Aug 28, 1985	53.43

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	51.50	51.80	50.21	50.80	52.04	51.94	52.45	52.62	53.37
2	---	---	50.07	51.59	51.56	50.22	51.09	51.97	52.24	52.30	52.68	53.37
3	---	---	50.47	51.59	51.48	50.28	51.27	51.96	52.42	52.34	52.81	53.35
4	---	---	50.47	51.68	51.45	50.28	51.28	51.89	52.30	52.40	52.81	53.31
5	---	---	50.38	51.72	50.99	50.40	51.40	51.84	52.18	52.33	52.69	53.25
6	---	---	50.66	51.98	50.77	50.36	51.40	51.84	52.18	52.38	52.82	53.32
7	---	---	50.72	52.20	50.54	50.69	51.29	51.84	52.14	52.34	52.81	53.38
8	---	---	50.73	52.20	50.52	50.75	51.14	52.15	52.06	52.29	53.31	53.52
9	---	---	50.92	52.20	50.52	50.75	51.16	52.28	52.19	52.24	53.34	53.63
10	---	---	50.93	52.00	50.51	50.62	51.40	52.26	52.14	52.28	53.15	53.55
11	---	---	50.92	51.98	50.49	50.69	51.52	51.90	51.93	52.34	53.36	53.37
12	---	51.11	50.92	51.97	50.56	50.73	51.63	51.94	51.84	52.27	53.43	53.50
13	---	50.16	50.92	51.99	50.66	50.72	51.72	52.62	52.19	52.27	53.57	53.67
14	---	50.14	50.99	52.29	50.65	50.46	51.72	52.62	52.19	52.24	53.60	53.71
15	---	50.46	50.99	52.52	51.06	49.96	51.67	52.62	52.19	52.25	53.42	53.69
16	---	50.46	50.83	52.52	51.11	49.19	51.43	52.58	52.14	52.34	53.36	53.79
17	---	50.27	50.96	52.52	51.10	49.13	51.23	52.39	52.19	52.40	53.37	53.79
18	---	50.06	51.21	52.40	50.92	49.27	51.40	52.54	52.48	52.40	53.43	53.67
19	---	50.05	51.21	52.19	50.53	49.23	51.40	52.62	52.43	52.34	54.05	53.54
20	---	49.98	51.21	52.36	50.11	49.81	51.33	52.57	52.43	52.35	54.37	53.50
21	---	49.98	51.20	52.38	49.71	50.05	50.96	52.53	52.59	52.61	53.67	53.37
22	---	49.88	51.16	52.27	49.71	50.14	51.00	51.59	52.47	52.69	53.65	53.38
23	---	49.78	50.88	52.27	49.86	50.02	51.17	51.31	52.35	52.74	53.38	53.20
24	---	49.73	51.04	52.26	49.86	50.38	51.24	51.44	52.31	52.67	53.51	53.32
25	---	50.87	51.35	52.04	49.89	50.38	51.17	51.78	52.43	52.27	53.58	53.32
26	---	51.05	51.35	51.56	49.77	50.38	51.18	51.98	52.39	52.34	53.54	53.28
27	---	50.67	51.35	51.66	49.90	50.42	51.98	51.91	52.40	52.61	53.34	53.28
28	---	50.55	51.49	51.80	50.22	50.64	---	51.87	52.25	52.75	53.49	53.28
29	52.18	---	51.51	51.80	---	50.59	52.42	51.87	52.25	52.43	53.41	53.20
30	---	---	51.58	51.81	---	50.59	52.42	51.82	52.34	52.53	53.52	52.95
31	---	---	51.47	51.80	---	50.80	---	51.58	---	52.48	53.42	---
Max	52.18	51.11	51.58	52.52	51.80	50.80	52.42	52.62	52.59	52.75	54.37	53.79
Min	52.18	49.73	50.07	51.50	49.71	49.13	50.80	51.31	51.84	52.24	52.62	52.95

Water year 1986: Highest level: 49.13 feet Mar 17, 1986; Lowest level: 54.37 feet Aug 20, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Ac 53 (continued)

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	53.03	52.08	51.83	51.82	51.51	51.66	51.54	50.18	---	---	---	---
2	53.08	52.00	51.82	51.80	51.44	50.91	51.30	50.33	---	---	---	---
3	53.08	52.00	51.55	51.92	51.30	50.90	51.32	50.64	---	---	---	---
4	52.92	52.01	51.67	51.92	51.30	50.74	51.16	50.80	---	---	---	---
5	52.91	52.14	51.70	51.92	51.42	50.74	50.54	50.80	---	---	---	---
6	53.03	51.98	51.70	51.99	51.42	50.74	---	50.51	---	---	---	---
7	53.04	52.01	51.67	52.08	51.00	50.72	---	50.54	---	---	---	---
8	53.11	51.97	51.58	52.26	50.95	50.58	---	50.75	---	---	---	---
9	53.04	51.74	51.57	52.26	51.06	50.54	49.45	50.80	---	---	---	---
10	53.04	51.80	51.74	52.25	51.02	50.77	49.53	50.81	---	---	---	---
11	52.98	51.74	51.74	52.26	51.04	50.78	49.53	---	---	---	---	---
12	52.95	51.51	51.66	52.40	51.47	50.77	49.42	---	---	---	---	---
13	52.87	51.69	51.97	52.40	51.52	50.77	49.60	---	---	---	---	---
14	52.98	51.69	51.97	52.40	51.62	50.87	49.64	---	---	---	---	---
15	52.99	51.68	51.78	52.40	51.75	51.03	49.66	50.62	---	---	---	---
16	52.96	51.43	51.99	52.49	51.75	51.16	49.58	50.85	---	---	---	---
17	53.05	51.44	51.99	52.49	52.00	51.25	49.31	---	---	---	---	---
18	53.11	51.45	51.99	52.49	52.52	51.26	48.54	---	---	---	---	---
19	53.11	51.82	51.88	52.21	52.63	51.26	---	---	---	---	---	---
20	52.97	51.82	51.89	51.93	52.79	51.38	---	---	---	---	---	---
21	52.63	51.72	52.07	51.57	53.12	51.46	---	---	---	---	---	---
22	52.48	51.99	52.12	51.42	52.60	51.78	49.21	---	---	---	---	---
23	52.20	51.99	52.12	51.21	52.21	51.78	49.44	50.64	---	---	---	---
24	52.37	52.00	52.12	51.64	52.30	51.78	49.64	50.04	---	---	---	---
25	52.38	52.04	51.96	51.64	52.29	51.76	49.78	---	---	---	---	---
26	52.36	51.66	51.86	51.65	51.85	51.64	49.83	50.16	---	---	---	---
27	52.08	51.43	51.63	51.79	51.76	51.73	---	---	---	---	---	---
28	52.21	51.43	---	51.80	51.66	51.73	49.74	---	---	---	---	---
29	52.00	51.54	---	51.79	---	51.73	---	---	---	---	---	---
30	52.09	51.74	51.55	51.44	---	51.72	50.10	---	---	---	---	---
31	52.09	---	51.82	51.51	---	51.56	---	---	---	---	---	---
Max	53.11	52.14	52.12	52.49	53.12	51.78	51.54	50.85	---	---	---	---
Min	52.00	51.43	51.55	51.21	50.95	50.54	48.54	50.04	---	---	---	---

Water year 1987: Highest level: 48.54 feet Apr 18, 1987; Lowest level: 53.12 feet Feb 21, 1987
Period of record: Highest level: 48.54 feet Apr 18, 1987; Lowest level: 54.37 feet Aug 20, 1986

Well number: WA Ac 62
Owner: Grace Presbyterian Church
Geologic unit: Wills Creek Shale
Altitude: 640 feet
Depth of well: 220 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 26, 1985	84.58	Feb 12, 1986	82.97	Jul 29, 1986	85.32	Feb 4, 1987	85.33
Jul 30	85.22	28	80.89	Aug 28	85.58	Mar 5	84.90
Aug 27	85.74	Mar 26	81.78	Sep 30	86.00	25	85.26
Oct 29	86.20	Apr 29	82.90	Oct 28	86.41	Apr 28	82.54
Nov 26	83.56	Jun 3	84.27	Nov 25	86.47	May 26	86.65
Dec 23	83.00	26	84.65	Dec 30	85.29		

Period of record: Highest level: 80.89 feet Feb 28, 1986; Lowest level: 86.65 feet May 26, 1987

Table 5.—Water levels in observation wells—Continued

Well number: WA Ad 85
Owner: Orchard Ridge Church
Geologic unit: Romney Formation
Altitude: 700 feet
Depth of well: 180 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jul 30, 1985	64.03	Feb 27, 1986	60.24	Aug 28, 1986	64.88	Mar 5, 1987	63.79
Sep 18	64.86	Mar 26	61.73	Sep 30	65.64	24	65.56
Oct 29	65.46	Apr 29	65.41	Oct 28	66.06	Apr 28	62.03
Nov 26	63.12	May 29	65.06	Nov 25	66.36	May 26	62.69
Dec 23	62.00	Jun 26	68.12	Dec 30	64.76		
Feb 12, 1986	66.63	Jul 29	65.26	Feb 4, 1987	64.43		

Period of record: Highest level: 60.24 feet Feb 27, 1986; Lowest level: 68.12 feet Jun 26, 1986

Well number: WA Ae 31
Owner: Gilley, U. D.
Geologic unit: Romney Formation
Altitude: 580 feet
Depth of well: 48.5 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Apr 5, 1985	32.52	Dec 23, 1985	33.07	Jun 26, 1986	35.08	Dec 30, 1986	32.88
Jun 19	35.72	Feb 12, 1986	33.93	Jul 29	35.95	Feb 4, 1987	33.56
Jul 30	35.65	27	31.82	Aug 28	36.44	Mar 5	32.80
Sep 18	36.51	Mar 26	32.96	Sep 30	37.00	24	34.32
Oct 29	35.29	Apr 29	33.53	Oct 28	37.28	Apr 28	32.29
Nov 26	31.82	May 29	34.31	Nov 25	36.07	May 26	34.03

Period of record: Highest level: 31.82 feet Nov 26, 1985, Feb 27, 1986; Lowest level: 37.28 feet Oct 28, 1986

Well number: WA Ae 50
Owner: Coon Ridge Wildlife Area
Geologic unit: Romney Formation
Altitude: 550 feet
Depth of well: 42 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Nov 27, 1985	6.58	Apr 29, 1986	11.23	Sep 30, 1986	17.88	Mar 5, 1987	9.25
Dec 23	10.51	May 28	14.35	Oct 28	18.40	24	12.37
Feb 13, 1986	8.58	Jun 26	16.20	Nov 25	15.27	Apr 28	9.37
27	7.49	Jul 29	16.10	Dec 30	10.01	May 26	13.50
Mar 26	9.82	Aug 28	17.09	Feb 4, 1987	7.93		

Period of record: Highest level: 6.58 feet Nov 27, 1985; Lowest level: 18.40 feet Oct 28, 1986

Well number: WA Af 36
Owner: Indian Springs Work Center
Geologic unit: Martinsburg Formation
Altitude: 720 feet
Depth of well: 90.0 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jul 30, 1985	14.26	Feb 27, 1986	13.46	Aug 28, 1986	15.43	Mar 5, 1987	12.59
Sep 20	15.56	Mar 26	13.54	Sep 30	16.04	24	14.13
Oct 29	14.15	Apr 29	13.69	Oct 28	16.05	Apr 28	13.54
Nov 26	13.06	May 28	13.89	Nov 25	13.88	May 26	14.00
Dec 23	13.83	Jun 26	14.64	Dec 30	13.15		
Feb 13, 1986	13.17	Jul 29	14.97	Feb 4, 1987	13.38		

Period of record: Highest level: 12.59 feet Mar 5, 1987; Lowest level: 16.05 feet Oct 28, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Ag 101
Owner: Clark, Ray
Geologic unit: Conococheague Limestone
Altitude: 620 feet
Depth of well: 234 feet

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	15.12	15.56	16.69	17.12	20.05	20.66	---
2	---	---	---	---	---	15.20	15.59	16.86	17.32	20.06	20.68	---
3	---	---	---	---	---	15.26	15.62	17.00	17.56	19.87	20.71	---
4	---	---	---	---	---	15.28	15.65	17.14	17.80	19.91	20.74	---
5	---	---	---	---	---	15.24	15.73	17.26	18.02	19.96	20.76	---
6	---	---	---	---	---	14.83	15.73	17.41	18.23	20.00	20.78	---
7	---	---	---	---	---	15.05	15.18	17.55	18.41	20.04	20.79	---
8	---	---	---	---	---	15.18	15.29	17.71	18.58	20.08	20.79	---
9	---	---	---	---	---	15.18	15.34	17.86	18.74	20.11	20.78	---
10	---	---	---	---	---	15.14	15.40	18.01	18.88	20.13	20.78	---
11	---	---	---	---	---	14.92	15.49	18.14	19.01	20.16	20.79	---
12	---	---	---	---	---	15.01	15.56	18.27	19.13	20.19	20.80	---
13	---	---	---	---	15.39	14.82	15.63	18.40	19.26	20.21	20.81	---
14	---	---	---	---	15.54	14.68	15.76	18.52	19.36	20.24	20.83	---
15	---	---	---	---	15.78	14.76	15.84	18.64	19.39	20.27	20.84	---
16	---	---	---	---	16.25	14.83	14.75	18.75	19.42	20.30	20.85	---
17	---	---	---	---	16.44	14.90	14.79	18.86	19.46	20.34	20.87	---
18	---	---	---	---	15.05	14.97	14.88	18.96	19.49	20.37	20.88	---
19	---	---	---	---	14.84	15.13	15.04	19.01	19.52	20.40	20.90	---
20	---	---	---	---	14.68	15.24	15.13	17.98	19.57	20.43	20.91	---
21	---	---	---	---	14.72	15.29	15.25	14.98	19.61	20.44	20.91	---
22	---	---	---	---	14.85	15.31	15.34	15.17	19.65	20.46	19.18	---
23	---	---	---	---	14.86	15.34	15.42	15.31	19.69	20.48	19.25	---
24	---	---	---	15.59	14.81	15.37	15.50	15.39	19.73	20.49	19.34	---
25	---	---	---	---	14.82	15.39	15.59	15.47	19.76	20.51	19.42	---
26	---	---	---	---	14.85	15.40	15.68	15.60	19.90	20.53	19.51	---
27	---	---	---	---	14.93	15.45	15.87	15.83	19.93	20.55	19.61	---
28	---	---	---	---	15.02	15.48	16.08	16.19	19.96	20.56	19.66	---
29	---	---	---	---	---	15.51	16.31	16.52	19.98	20.57	---	---
30	---	---	---	---	---	15.53	16.51	16.67	20.02	20.60	---	20.05
31	---	---	---	---	---	15.56	---	16.90	---	20.63	---	---
Max	---	---	---	15.59	16.44	15.56	16.51	19.01	20.02	20.63	20.91	20.05
Min	---	---	---	15.59	14.68	14.68	14.75	14.98	17.12	19.87	19.18	20.05

Water year 1986: Highest level: 14.68 feet Feb 20, 1986, Mar 14, 1986
Lowest level: 20.91 feet Aug 20, 1986, Aug 21, 1986

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	21.05	21.84	17.69	17.27	18.62	---	---	17.35	---	---	---	---
2	21.04	21.86	17.99	17.78	18.87	---	---	17.65	---	---	---	---
3	21.01	21.88	14.95	18.32	14.80	---	---	17.92	---	---	---	---
4	21.02	21.91	15.31	18.74	14.83	---	---	18.01	---	---	---	---
5	20.58	21.92	15.58	19.07	15.13	---	---	15.41	---	---	---	---
6	20.39	19.02	16.39	19.30	15.31	---	---	15.51	---	---	---	---
7	20.42	18.88	17.08	19.42	15.46	---	---	15.70	---	---	---	---
8	20.45	18.76	17.68	18.00	15.58	---	---	16.22	---	---	---	---
9	20.80	17.86	17.03	17.03	15.76	---	---	16.71	---	---	---	---
10	20.54	17.86	15.03	17.00	16.27	---	---	17.10	---	---	---	---
11	20.58	17.85	15.25	16.93	16.78	---	---	17.48	---	---	---	---
12	20.62	15.73	15.00	16.93	17.16	---	---	17.91	---	---	---	---
13	20.66	16.71	15.40	16.75	17.63	---	---	18.29	---	---	---	---
14	20.66	17.62	15.75	16.82	18.08	---	---	18.58	---	---	---	---
15	18.44	18.55	16.59	14.81	18.53	---	---	18.81	---	---	---	---
16	19.13	---	17.25	15.05	18.89	---	---	19.01	---	---	---	---
17	19.70	---	17.91	15.30	19.16	---	---	19.17	---	---	---	---
18	20.19	---	18.00	15.40	19.39	---	14.90	19.31	---	---	---	---
19	18.56	---	15.34	15.25	19.59	19.53	15.14	19.41	---	---	---	---
20	20.85	---	15.65	14.81	19.75	19.74	15.29	19.40	---	---	---	---
21	21.06	---	16.47	15.02	19.88	19.92	15.36	15.46	---	---	---	---
22	21.23	---	17.20	15.14	19.98	20.07	15.45	15.74	---	---	---	---
23	21.38	---	17.89	15.30	20.06	20.19	15.53	16.36	---	---	---	---
24	21.52	---	18.22	15.42	20.12	20.28	15.64	16.95	---	---	---	---
25	21.63	17.25	14.87	15.56	20.14	20.35	15.91	17.48	---	---	---	---
26	21.66	17.34	15.06	15.76	20.15	20.41	16.22	18.00	---	---	---	---
27	21.54	15.12	15.30	16.14	20.15	20.47	---	---	---	---	---	---
28	21.62	15.42	15.57	---	20.15	50.51	16.67	---	---	---	---	---
29	21.69	16.00	15.86	17.12	---	20.53	16.84	---	---	---	---	---
30	21.75	16.94	16.14	17.47	---	---	17.10	---	---	---	---	---
31	21.81	---	16.77	18.09	---	---	---	---	---	---	---	---
Max	21.81	21.92	18.22	19.42	20.15	50.51	17.10	19.41	---	---	---	---
Min	18.44	15.12	14.87	14.81	14.80	19.53	14.90	15.41	---	---	---	---

Water year 1987: Highest level: 14.80 feet Feb 3, 1987; Lowest level: 50.51 feet Mar 28, 1987
Period of record: Highest level: 14.68 feet Feb 20, 1986, Mar 14, 1986; Lowest level: 50.51 feet Mar 28, 1987

Table 5.—Water levels in observation wells—Continued

Well number: WA Aj 48
Owner: Maietta, Frank
Geologic unit: Conococheague Limestone
Altitude: 540 feet
Depth of well: 26 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Aug 20, 1985	23.32	Feb 27, 1986	14.82	Jul 29, 1986	23.35	Feb 3, 1987	19.91
Oct 30	24.25	Mar 27	15.24	Oct 1	Dry	Mar 3	17.06
Nov 27	18.54	Apr 28	17.45	29	Dry	26	19.90
Dec 27	19.39	Jun 5	20.38	Dec 11	20.83	Apr 30	17.57
Feb 3, 1986	21.98	25	21.28	Jan 5, 1987	20.19	May 28	19.78

Period of record: Highest level: 14.82 feet Feb 27, 1986; Lowest level: Dry Oct 1, 1986, Oct 29, 1986

Well number: WA Ak 37
Owner: Ringgold Ruritan Club
Geologic unit: Waynesboro Formation
Altitude: 750 feet
Depth of well: 300 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Oct 30, 1985	39.20	Apr 28, 1986	35.73	Oct 1, 1986	40.36	Mar 3, 1987	34.82
Nov 27	33.37	Jun 5	37.23	29	40.95	26	38.26
Dec 27	35.87	25	36.54	Dec 11	34.30	Apr 30	35.46
Feb 3, 1986	37.51	Jul 29	39.37	Jan 5, 1987	36.27	May 28	36.93
Mar 27	35.66	Sep 4	40.86	Feb 3	36.99		

Period of record: Highest level: 33.37 feet Nov 27, 1985; Lowest level: 40.95 feet Oct 29, 1986

Well number: WA Ak 84
Owner: Pen Mar United Bretheren Church
Geologic unit: Weverton Formation
Altitude: 1,370 feet
Depth of well: 245 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Feb 3, 1986	131.35	Jul 29, 1986	144.64	Dec 11, 1986	143.5 (Est.)	Mar 26, 1987	103.53
Apr 28	96.65	Sep 4	145.78	Jan 5, 1987	126.73	Apr 30	85.92
May 27	115.63	Oct 1	152.61	Feb 3	110.11		
Jun 25	137.25	29	156.08	Mar 3	110.82		

Period of record: Highest level: 85.92 feet Apr 30, 1987; Lowest level: 156.08 feet Oct 29, 1986

Well number: WA Ba 1
Owner: Me' Re' Al Farm
Geologic unit: Chemung Formation
Altitude: 630 feet
Depth of well: 182 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 14, 1985	121.73	Feb 28, 1986	113.21	Aug 28, 1986	127.76	Mar 5, 1987	118.02
Jul 30	123.45	Mar 26	116.57	Sep 30	124.58	25	119.64
Aug 27	123.59	Apr 29	117.97	Oct 28	125.82	Apr 28	115.51
Oct 25	123.67	Jun 3	119.10	Nov 25	124.34	May 26	118.43
Nov 26	118.36	26	121.46	Dec 30	120.57		
Dec 23	118.06	Jul 29	122.58	Feb 4, 1987	118.04		

Period of record: Highest level: 113.21 feet Feb 28, 1986; Lowest level: 127.76 feet Aug 28, 1986

Well number: WA Bb 3
Owner: Woodmont Rod & Gun Club
Geologic unit: Woodwmont Formation
Altitude: 590 feet
Depth of well: 186 feet

Date	Water Level	Date	Water Level	Date	Water Level
Apr 2, 1985	50.46	Jul 11, 1985	45.88	Aug 27, 1985	45.86
Jun 14	46.88	29	45.83		

Table 5.—Water levels in observation wells—Continued

Well number: WA Bb 3 (continued)

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	49.59	55.68	52.04	52.31	50.23	49.26	48.78	48.18	---	---	---
2	---	50.54	54.66	52.24	52.30	50.78	48.96	48.90	48.44	---	---	---
3	---	50.34	55.06	52.59	52.01	50.27	49.19	49.22	---	---	---	---
4	---	---	54.99	52.31	51.70	50.36	48.98	49.25	---	---	---	---
5	---	---	54.55	51.78	51.58	49.90	49.06	48.68	---	---	---	---
6	---	---	54.20	52.04	51.15	49.65	48.94	48.75	---	---	---	---
7	---	49.89	54.64	52.20	51.13	49.81	48.47	48.77	---	---	---	---
8	---	---	54.17	52.61	51.55	50.03	48.29	48.84	---	---	---	---
9	---	---	54.29	52.09	52.09	49.69	48.10	49.24	---	---	---	---
10	---	---	55.49	51.76	52.84	49.63	48.01	49.36	---	---	---	---
11	---	---	55.32	53.22	52.02	49.22	47.79	49.20	---	---	---	---
12	---	---	54.18	52.25	51.62	49.35	48.10	49.32	---	---	---	---
13	---	---	---	52.78	51.74	49.70	48.11	49.37	---	---	---	---
14	---	---	54.96	52.68	52.46	49.12	48.35	---	---	---	---	---
15	---	---	54.30	52.92	52.22	49.06	48.01	49.50	---	---	---	---
16	---	---	54.18	52.82	51.80	49.30	---	49.28	---	---	---	---
17	---	---	54.12	52.55	51.77	49.11	47.98	49.23	---	---	---	---
18	---	---	55.03	52.80	---	---	48.20	49.22	---	---	---	---
19	---	---	55.68	52.09	---	48.26	48.10	49.07	---	---	---	---
20	---	---	55.15	52.05	---	48.72	47.97	48.78	---	---	---	---
21	---	---	54.52	51.80	---	48.88	48.80	48.84	---	---	---	---
22	---	---	54.18	51.66	---	49.24	48.82	48.60	---	---	---	---
23	---	---	53.52	52.00	---	49.40	48.80	48.55	---	---	---	---
24	---	---	53.24	52.18	---	49.34	48.62	48.72	---	---	---	---
25	49.72	---	53.31	52.34	50.24	49.33	48.60	48.40	---	---	---	---
26	49.96	53.79	53.34	52.34	50.25	48.92	---	48.44	48.84	---	---	---
27	49.88	---	52.78	51.98	49.69	48.63	---	48.63	---	---	---	---
28	49.91	---	53.02	51.15	50.09	48.95	---	48.20	---	---	49.37	---
29	49.95	53.94	52.51	51.84	---	48.76	48.80	48.23	---	48.81	---	---
30	49.83	55.60	52.59	51.93	---	48.62	49.06	48.25	---	---	---	49.93
31	49.70	---	52.34	52.29	---	48.96	---	48.21	---	---	---	---
Max	49.96	55.60	55.68	53.22	52.84	50.78	49.26	49.50	48.84	48.81	49.37	49.93
Min	49.70	49.59	52.34	51.15	49.69	48.26	47.79	48.20	48.18	48.81	49.37	49.93

Water year 1986: Highest level: 47.79 feet Apr 11, 1986; Lowest level: 55.68 feet Dec 1, 1985, Dec 19, 1985

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Oct 28, 1986	52.72	Dec 30, 1986	54.87	Mar 5, 1987	55.61	Apr 28, 1987	53.01
Nov 25	57.33	Feb 4, 1987	57.47	25	52.97	May 26	57.27

Period of record: Highest level: 45.83 feet Jul 29, 1985; Lowest level: 57.47 feet Feb 4, 1987

Table 5.—Water levels in observation wells—Continued

Well number: WA Be 2
Owner: State of Maryland (Fort Frederick State Park)
Geologic unit: Romney Formation
Altitude: 470 feet
Depth of well: 42.7 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Dec 1, 1949	34.37	Apr 1, 1954	32.17	Nov 8, 1967	32.60	Feb 21, 1977	34.10
Jun 5, 1950	29.25	19	31.96	Dec 20	27.75	Apr 12	23.23
17	29.07	May 3	32.55	Jan 23, 1968	25.41	May 26	30.45
Jul 3	30.75	Jun 1	32.85	Feb 20	25.60	Jul 12	34.24
Aug 14	34.03	16	33.54	Mar 6	28.40	Aug 23	35.07
Sep 7	34.41	28	33.84	Apr 16	26.36	Oct 6	35.40
17	34.02	Jul 4	34.15	Jun 5	32.37	Nov 22	32.79
Oct 1	32.86	Aug 16	35.29	Jul 10	33.75	Jan 4, 1978	26.25
15	30.23	Sep 16	35.80	Aug 19	34.61	Feb 23	29.23
Nov 1	30.17	29	35.80	Oct 3	35.45	Apr 5	21.51
16	30.91	Nov 1	35.86	Nov 19	35.83	May 17	27.03
Dec 1	28.26	Dec 16	33.87	Jan 8, 1969	35.80	Jun 28	29.35
15	22.68	21	34.26	Mar 11	35.87	Aug 9	29.64
Jan 2, 1951	24.44	Jan 17, 1955	31.37	Apr 21	35.43	Sep 19	32.66
17	26.35	Feb 7	31.67	May 22	35.18	Oct 27	34.36
Feb 3	25.16	Jul 20	33.87	Jun 23	35.81	Jan 3, 1979	33.40
15	23.44	Jan 4, 1956	34.62	Jul 16	36.50	Mar 13	26.50
Mar 2	21.03	Apr 9	23.77	Sep 10	36.21	May 8	27.25
15	21.26	Jul 10	34.66	Oct 7	36.00	Jun 28	31.80
Apr 1	19.56	Aug 4	34.97	Nov 19	36.40	Aug 8	33.97
15	18.93	31	34.53	Dec 16	36.02	Oct 12	20.39
May 3	24.20	Oct 1	35.07	Feb 12, 1970	28.26	Nov 20	25.22
16	26.50	Nov 2	32.60	Mar 26	26.52	Dec 18	27.67
Jun 1	29.21	Dec 6	30.79	May 5	21.50	Jan 2, 1980	28.00
17	27.41	Jan 3, 1957	28.16	Jun 17	28.18	23	28.53
Jul 15	29.70	10	26.86	Jul 30	27.71	Feb 27	31.58
Aug 1	31.86	Feb 5	27.94	Oct 19	34.18	Apr 15	23.70
16	33.15	Mar 6	24.90	Dec 28	24.68	May 27	27.06
Sep 1	33.90	Apr 3	26.89	Feb 11, 1971	26.58	Jul 3	31.65
16	34.17	8	26.69	Mar 22	24.01	Aug 15	33.54
30	34.43	May 3	25.67	May 7	30.60	Oct 10	35.30
Oct 4	34.49	24	28.11	Jun 3	28.72	Nov 10	35.60
14	34.63	Jul 10	33.54	Jul 14	29.63	Dec 17	35.41
Nov 7	34.92	Oct 2	36.48	Sep 10	34.02	Jan 20, 1981	35.96
Dec 2	35.21	Nov 4	35.85	Oct 27	29.84	Feb 26	33.45
Jan 3, 1952	30.86	Feb 12, 1958	34.66	Nov 12	27.73	Apr 6	31.73
17	28.61	Mar 11	34.23	Dec 22	27.98	May 7	29.24
Feb 4	23.47	Apr 9	23.20	Feb 15, 1972	26.16	Jun 10	31.39
20	23.90	May 15	18.94	Mar 7	20.48	15	31.20
Mar 2	25.17	Jul 23	30.27	Apr 19	22.95	29	29.34
15	22.68	Sep 23	34.20	May 15	17.90	Jul 27	30.14
31	19.68	Jan 9, 1959	35.68	Jun 20	25.69	Aug 27	32.48
Apr 16	22.28	Apr 6	33.98	Jul 27	25.25	Sep 9	33.31
20	22.84	May 15	33.79	Aug 24	31.02	28	34.10
May 4	18.33	Jun 12	34.13	Sep 11	32.95	Oct 26	35.00
18	19.35	Jul 8	28.93	Nov 2	34.70	Nov 20	33.81
Jun 1	20.12	Oct 15	30.44	Dec 18	25.25	Jan 5, 1982	33.48
15	24.18	Jan 11, 1960	32.30	Feb 13, 1973	21.79	27	33.12
Jul 3	31.09	Apr 14	20.50	Mar 20	25.58	Feb 25	26.99
4	28.19	Jul 13	28.19	Apr 26	21.83	Mar 26	24.15
20	29.65	Oct 10	34.61	May 21	24.35	Apr 27	25.75
23	29.37	Jan 12, 1961	35.67	Jun 7	23.60	May 26	30.09
Aug 17	32.32	Apr 11	18.97	Jul 12	28.04	Jun 25	27.68
31	33.31	Jul 12	31.48	Aug 17	32.83	Jul 27	31.25
Sep 14	32.08	Aug 18	32.87	Sep 13	34.08	Aug 26	33.54
Oct 1	32.32	Oct 23	34.80	Oct 2	35.85	Sep 27	34.72
Nov 13	34.31	Jan 10, 1962	32.71	26	35.62	Oct 25	35.40
Feb 1, 1953	21.37	Apr 12	21.58	Jan 7, 1974	24.97	Nov 24	35.74
15	23.35	Jun 11	30.47	Mar 11	30.40	Jan 24, 1983	36.22
Mar 2	22.13	Jul 11	33.41	Apr 22	24.05	Feb 23	35.60
16	22.90	Oct 16	35.57	Jun 6	31.75	Mar 28	28.49
Apr 1	18.24	Jan 2, 1963	36.09	Jul 29	33.79	Apr 25	18.94
18	21.57	Apr 10	27.79	Aug 28	34.45	May 31	24.08
21	22.10	Jul 10	34.14	Oct 7	35.09	Jun 27	28.25
May 2	24.79	Oct 8	36.10	Nov 11	35.45	Jul 27	31.22
16	27.42	Jan 8, 1964	36.59	Dec 16	34.33	Sep 26	34.34
Jun 4	21.80	Apr 2	24.72	Jan 2, 1975	31.49	Oct 28	35.10
16	24.13	Jul 8	32.42	23	30.12	Nov 28	34.30
Jul 15	30.29	Oct 14	35.90	Feb 24	25.91	Jan 30, 1984	31.05
23	31.20	Jan 11, 1965	36.92	Apr 8	22.90	Feb 27	24.75
24	31.46	Apr 8	33.38	May 13	22.73	Mar 26	23.90
Aug 1	32.21	Jul 14	33.71	Jun 17	25.45	Apr 26	16.75
17	33.50	Oct 4	35.78	Jul 23	28.07	May 28	22.73
Sep 7	33.19	Jan 6, 1966	36.18	Aug 28	32.40	Jun 26	29.10
18	34.39	May 5	30.35	Sep 25	32.09	Jul 27	31.95
Oct 3	34.69	Jun 8	30.96	Oct 28	25.19	Aug 27	33.35
16	34.90	Jul 27	34.15	Dec 9	30.45	Sep 25	34.03
Nov 3	35.17	Sep 9	35.41	Jan 2, 1976	31.05	Oct 26	34.82
19	35.37	Dec 7	35.72	Feb 23	30.94	Nov 26	35.62
Dec 15	35.55	Jan 19, 1967	34.12	Mar 29	32.40	Jan 28, 1985	34.08
Jan 6, 1954	35.62	Mar 3	31.80	May 11	32.05	Feb 25	31.25
18	35.71	Apr 20	28.41	Jun 16	33.90	Mar 26	32.83
Feb 2	35.58	Jun 7	29.85	Jul 20	34.25	Apr 25	31.08
19	35.64	26	31.43	Aug 27	34.22	May 28	30.05
25	35.45	Jul 19	32.90	Oct 7	30.75	Jun 26	33.54
Mar 4	33.70	Aug 28	32.32	Nov 17	25.80	Jul 26	33.92
16	33.73	Oct 3	33.68	Jan 4, 1977	31.72	Aug 27	33.38

Table 5.—Water levels in observation wells—Continued

Well number: WA Be 2 (continued)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Sep 30, 1985	33.68	May 27, 1986	32.45	Dec 22, 1986	35.82	Jul 30, 1987	33.22
Oct 30	36.03	Jun 26	34.38	Jan 29, 1987	32.08	Aug 28	34.30
Nov 27	25.04	Jul 28	34.95	Feb 26	29.72	Jan 5, 1988	34.45
Jan 28, 1986	29.87	Aug 29	35.57	Mar 26	29.17	6	35.30
Feb 27	21.75	Sep 29	35.92	Apr 27	23.17	28	32.65
Mar 27	22.62	Oct 30	36.25	May 29	28.57		
Apr 28	29.25	Nov 1	36.32	Jun 29	31.64		

Period of record: Highest level: 16.75 feet Apr 26, 1984; Lowest level: 36.92 feet Jan 11, 1965

Well number: WA Bg 91
Owner: Martin, Jacob E.
Geologic unit: Colluvium
Altitude: 530 feet
Depth of well: 38.0 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Nov 27, 1985	30.31	Apr 29, 1986	24.27	Sep 30, 1986	33.28	Feb 24, 1987	32.57
Dec 24	28.68	May 28	26.51	Oct 28	34.19	Mar 26	32.05
Feb 12, 1986	29.14	Jun 26	28.80	Nov 25	34.47	Apr 29	27.62
27	24.43	Jul 30	30.52	Dec 30	33.28	May 26	29.27
Mar 26	22.69	Aug 28	31.98	Feb 4, 1987	32.83		

Period of record: Highest level: 22.69 feet Mar 26, 1986; Lowest level: 34.47 feet Nov 25, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Bg 93
Owner: Cedar Ridge Children's Home
Geologic unit: Pinesburg Station Dolomite
Altitude: 450 feet
Depth of well: 425 feet

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	23.24	35.39	34.99	25.93	34.32	36.32	36.51	37.77	38.01	38.21
2	---	---	23.24	35.45	35.07	27.19	34.55	36.37	36.61	37.76	38.02	38.25
3	---	---	23.24	35.63	33.65	28.43	34.68	36.41	36.66	37.78	37.99	38.26
4	---	---	23.24	35.73	33.62	29.06	34.85	36.41	36.79	37.77	38.02	38.26
5	---	---	23.59	35.92	24.58	29.29	34.90	36.49	36.82	37.83	38.03	38.26
6	---	---	25.92	36.05	19.67	29.12	35.02	36.53	36.88	37.85	38.00	38.27
7	---	19.30	27.55	36.15	18.87	29.74	35.22	36.56	36.93	37.84	37.97	38.25
8	---	21.30	28.76	36.18	18.88	30.02	35.31	36.62	36.98	37.87	37.98	38.21
9	---	23.91	29.88	36.18	18.89	30.46	35.47	36.67	37.08	37.88	37.96	38.20
10	---	26.70	38.28	36.22	18.90	31.05	35.52	36.98	37.15	37.92	37.94	38.21
11	---	31.45	30.76	36.36	18.90	31.84	35.58	37.02	37.18	37.93	37.94	38.19
12	---	---	31.55	36.40	18.90	32.24	35.67	37.06	37.19	37.95	38.00	38.20
13	---	---	31.74	36.58	18.91	32.37	35.75	37.09	37.26	37.92	38.03	38.25
14	---	---	29.73	36.62	18.92	31.53	35.79	37.13	37.35	37.96	38.05	38.26
15	---	---	29.73	36.68	18.92	13.94	35.86	37.15	37.43	37.98	38.05	38.28
16	---	---	29.73	36.68	18.93	15.71	35.86	37.17	37.47	37.99	38.01	38.28
17	---	---	29.73	36.68	18.93	17.28	35.88	37.19	37.46	37.97	38.02	38.28
18	---	---	30.19	36.70	18.93	18.74	35.76	37.20	37.48	38.00	38.02	38.28
19	---	---	31.01	36.70	---	20.42	35.77	37.23	37.46	37.95	37.99	38.29
20	---	---	31.87	34.66	---	22.84	35.77	37.25	37.45	37.94	37.97	38.32
21	---	---	32.57	34.50	---	25.26	35.86	37.25	37.49	37.90	37.96	38.33
22	---	---	32.93	30.27	---	27.40	35.89	34.66	37.50	37.94	38.03	38.34
23	---	---	33.60	31.25	---	28.99	35.98	34.66	37.54	37.95	38.05	38.34
24	---	---	33.94	32.22	18.77	30.51	36.05	34.90	37.55	37.91	38.08	38.35
25	---	---	34.28	32.78	19.87	31.57	36.04	34.90	37.59	37.89	38.08	38.36
26	---	---	34.36	33.28	20.89	32.23	36.07	34.90	37.59	37.88	38.09	38.36
27	---	28.14	34.49	33.90	22.67	32.68	36.08	34.90	37.62	37.89	38.10	38.37
28	---	28.12	34.74	34.29	24.32	33.08	---	36.16	37.64	---	38.10	38.37
29	---	23.24	34.87	34.44	---	33.40	36.24	36.25	37.66	---	38.20	38.37
30	---	23.24	35.06	34.69	---	33.82	36.31	36.32	37.72	38.00	38.22	38.36
31	---	---	35.14	34.87	---	34.11	---	36.42	---	38.01	38.23	---
Max	---	31.45	38.28	36.70	35.07	34.11	36.31	37.25	37.72	38.01	38.23	38.37
Min	---	19.30	23.24	30.27	18.77	13.94	34.32	34.66	36.51	37.76	37.94	38.19

Water year 1986: Highest level: 13.94 feet Mar 15, 1986
Lowest level: 38.37 feet Sep 27, 1986, Sep 28, 1986, Sep 29, 1986

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	38.36	38.42	37.36	31.91	33.78	28.50	---	34.31	---	---	---	---
2	38.36	38.43	37.37	32.94	33.84	18.12	---	34.50	---	---	---	---
3	38.37	38.43	32.10	33.74	33.60	19.37	---	34.74	---	---	---	---
4	38.37	38.45	31.18	34.03	31.70	20.90	---	---	---	---	---	---
5	38.38	38.44	33.55	34.24	26.50	23.98	---	---	---	---	---	---
6	38.38	38.41	34.73	34.36	24.21	28.60	---	---	---	---	---	---
7	38.39	---	35.50	34.61	24.63	---	---	---	---	---	---	---
8	38.39	38.40	36.00	34.70	25.60	---	---	35.45	---	---	---	---
9	38.39	38.38	36.00	34.70	27.20	---	---	35.54	---	---	---	---
10	38.40	---	30.23	34.70	28.52	---	---	35.69	---	---	---	---
11	38.39	---	30.62	34.78	29.96	---	---	35.78	---	---	---	---
12	38.39	38.28	31.86	34.82	30.92	---	---	35.91	---	---	---	---
13	38.38	38.23	32.54	34.84	31.99	---	---	36.10	---	---	---	---
14	38.38	38.19	32.57	---	32.67	38.81	---	36.16	---	---	---	---
15	38.38	38.18	33.27	---	33.27	39.05	---	---	---	---	---	---
16	38.38	38.20	34.18	---	33.60	39.17	---	---	---	---	---	---
17	38.38	38.23	34.55	---	33.88	39.35	---	36.47	---	---	---	---
18	38.34	38.21	34.45	---	34.01	39.57	---	36.60	---	---	---	---
19	38.34	38.02	30.65	---	34.16	39.82	---	---	---	---	---	---
20	38.37	37.97	30.62	---	34.08	39.99	---	---	---	---	---	---
21	38.38	36.40	31.86	---	34.18	40.20	---	---	---	---	---	---
22	38.37	36.95	32.58	---	34.57	40.37	---	---	---	---	---	---
23	38.39	37.38	32.87	---	35.14	40.54	---	---	---	---	---	---
24	38.39	37.54	33.15	---	35.25	40.68	---	---	---	---	---	---
25	38.40	37.60	22.90	---	35.32	40.74	---	---	---	---	---	---
26	38.40	37.61	20.15	---	35.32	40.89	---	37.12	---	---	---	---
27	38.39	36.37	---	---	34.59	40.94	---	---	---	---	---	---
28	38.41	36.87	---	---	33.91	41.02	---	---	---	---	---	---
29	38.41	37.13	---	32.62	---	41.05	33.63	---	---	---	---	---
30	38.43	37.28	28.40	33.07	---	41.05	34.12	---	---	---	---	---
31	38.44	---	30.63	33.64	---	---	---	---	---	---	---	---
Max	38.44	38.45	37.37	34.84	35.32	41.05	34.12	37.12	---	---	---	---
Min	38.34	36.37	20.15	31.91	24.21	18.12	33.63	34.31	---	---	---	---

Water year 1987: Highest level: 18.12 feet Mar 2, 1987; Lowest level: 41.05 feet Mar 29, 1987, Mar 30, 1987
Period of record: Highest level: 13.94 feet Mar 15, 1986; Lowest level: 41.05 feet Mar 29, 1987, Mar 30, 1987

Table 5.—Water levels in observation wells—Continued

Well number: WA Bg 112
Owner: Martin Marietta Aggregates
Geologic unit: Martinsburg Formation
Altitude: 470 feet
Depth of well: 250 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 28, 1986	27.65	Oct 1, 1986	33.39	Jan 29, 1987	26.41	May 28, 1987	29.80
Jun 26	30.90	29	33.92	Feb 24	28.02		
Jul 30	31.97	Nov 25	28.53	Mar 26	29.31		
Aug 29	31.25	Dec 30	25.68	Apr 29	25.38		

Period of record: Highest level: 25.38 feet Apr 29, 1987; Lowest level: 33.92 feet Oct 29, 1986

Well number: WA Bg 125
Owner: Kriner, Kenneth E.
Geologic unit: Conococheague Limestone
Altitude: 420 feet
Depth of well: 205 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Aug 29, 1986	10.58	Nov 25, 1986	9.81	Feb 24, 1987	9.75	May 26, 1987	9.81
Oct 1	10.92	Dec 30	8.92	Mar 26	9.84		
28	10.68	Feb 3, 1987	9.53	Apr 29	8.87		

Period of record: Highest level: 8.87 feet Apr 29, 1987; Lowest level: 10.92 feet Oct 1, 1986

Well number: WA Bh 3
Owner: Groh, Garland
Geologic unit: Rockdale Run Formation
Altitude: 550 feet
Depth of well: 218 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Oct 1, 1946	20.81	Feb 7, 1951	22.37	Feb 1, 1955	31.25	Jul 23, 1958	39.02
Dec 6	33.68	Mar 6	19.89	Mar 2	22.51	Aug 4	39.03
18	36.64	7	20.31	Apr 1	17.57	Sep 16	39.26
Feb 7, 1947	19.65	Apr 3	22.32	May 11	29.80	24	40.96
19	21.56	May 1	23.49	Jun 15	42.16	Nov 6	39.09
Mar 7	24.77	Jun 5	38.30	Jul 12	38.96	Jan 2, 1959	38.96
Apr 22	30.73	Jul 10	24.70	20	42.25	9	39.20
May 3	40.10	Aug 2	38.97	Aug 10	40.68	Feb 4	30.99
Jun 5	40.14	Sep 5	37.44	Sep 8	39.03	Mar 20	38.45
Jul 7	22.14	Oct 3	40.10	Oct 11	38.37	Apr 6	39.82
Aug 4	23.15	4	39.91	12	40.42	May 1	39.59
Sep 3	26.09	Dec 4	38.98	Nov 8	38.98	13	39.32
29	39.02	Feb 7, 1952	16.96	Dec 7	39.00	Jun 10	34.24
Dec 2	39.08	Mar 4	22.62	28	38.74	12	40.64
4	40.06	Apr 9	19.90	Jan 4, 1956	44.83	Jul 8	40.75
Jan 7, 1948	32.10	16	21.42	Feb 1	39.01	23	39.99
Feb 6	37.31	May 14	19.25	Mar 7	23.68	Sep 3	36.65
Mar 9	18.68	Jun 10	21.78	Apr 5	21.88	Oct 12	39.00
Apr 9	18.69	Jul 8	28.70	9	20.46	15	43.11
Jun 6	20.25	22	31.42	May 9	28.03	Dec 2	42.02
Aug 5	27.46	Aug 8	40.06	Jun 5	33.50	Jan 11, 1960	40.18
Nov 7	39.11	Sep 10	39.75	Jul 11	40.00	Mar 10	21.57
Dec 9	20.02	Oct 1	38.99	16	39.32	Apr 14	17.74
Feb 11, 1949	16.64	Nov 13	40.75	31	24.59	20	19.79
22	17.96	25	16.65	Sep 13	38.97	Jun 7	23.43
Mar 6	20.00	Jan 6, 1953	27.33	Oct 11	39.30	Jul 13	44.32
May 9	33.78	Feb 6	20.26	Nov 8	16.84	20	37.67
23	32.53	Mar 12	23.34	Jan 10, 1957	22.76	Sep 6	39.00
Jun 24	35.27	Apr 14	23.69	Feb 5	20.50	Oct 10	39.63
Aug 8	24.95	21	24.65	14	21.80	18	39.07
11	23.59	May 5	34.52	Mar 14	22.02	Jan 12, 1961	39.43
Sep 14	27.87	Jun 5	19.46	Apr 8	28.33	Feb 1	37.27
Oct 7	29.21	30	34.53	May 24	29.86	17	36.27
Nov 9	30.55	Jul 23	38.34	Jun 5	31.87	Mar 21	20.33
30	31.72	Aug 4	35.07	Jul 17	40.69	Apr 11	19.69
Dec 14	32.32	Sep 8	38.93	Aug 14	39.03	Jun 5	33.39
Jan 19, 1950	34.34	Oct 6	40.20	Sep 12	39.10	Jul 12	39.72
Feb 10	21.53	Feb 25, 1954	39.84	Oct 2	41.63	Aug 16	39.49
Mar 21	24.66	May 10	38.95	9	39.33	Sep 18	39.73
Apr 4	22.97	Jun 10	38.63	Nov 22	38.96	28	39.57
May 3	25.76	28	39.62	Dec 13	36.16	Oct 23	38.96
Jun 5	26.53	Jul 14	39.13	Feb 3, 1958	26.41	Jan 9, 1962	37.82
Jul 11	26.52	Aug 5	38.96	Mar 11	21.40	Feb 27	18.94
Aug 11	27.20	31	38.88	Apr 9	17.15	Mar 22	16.40
Oct 24	26.06	Nov 4	39.54	10	17.29	Apr 13	20.43
31	28.73	Dec 1	39.00	May 19	18.84	May 3	22.28
Dec 7	16.28	23	23.62	Jun 13	35.03	Jun 8	36.48
Jan 5, 1951	22.65	Jan 4, 1955	22.36	26	37.50	Jul 11	39.19

Table 5.—Water levels in observation wells—Continued

Well number: WA Bh 3 (continued)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Aug 30, 1962	39.00	Mar 3, 1967	21.48	Sep 11, 1972	24.45	Sep 19, 1978	24.48
Oct 4	38.91	Apr 18	22.63	Apr 26, 1973	21.00	Oct 27	24.50
12	39.15	Jun 7	24.65	May 8	19.77	Dec 14	24.48
		26	24.52	21	24.50	Jan 3, 1979	23.73
Jan 4, 1963	37.80	Jul 12	18.70	Jun 7	19.23	Mar 13	17.50
Feb 25	24.90	18	19.50	Jul 12	24.50	May 9	24.48
		Aug 21	20.38	Aug 17	23.75	Jun 29	24.49
Apr 10	20.84	Oct 4	24.48	Sep 13	24.48	Aug 9	24.48
May 28	39.05	Nov 9	24.08	Oct 2	23.22	Oct 12	17.47
Jul 8	39.24	Dec 20	18.07	26	24.49	Nov 20	24.52
10	38.75	Jan 22, 1968	19.18	Dec 7	24.48	Dec 19	24.48
Aug 21	39.24	Feb 7	17.45	Jan 7, 1974	17.28	Jan 2, 1980	24.59
Oct 3	39.41	20	20.27	Mar 11	24.45	23	24.57
8	38.93	Mar 7	23.60	Apr 22	20.49	Feb 27	24.35
Nov 13	39.36	Apr 15	22.05	Jun 6	24.45	Apr 16	22.85
Dec 20	39.50	May 29	24.50	Jul 29	24.49	May 28	24.47
Jan 8, 1964	39.70	Jul 8	24.45	Aug 28	24.53	Jul 3	24.48
30	18.50	16	24.54	Oct 7	24.52	Aug 14	24.56
Mar 14	16.57	Aug 22	24.44	Nov 11	23.90	Oct 10	24.80
Apr 2	20.23	Oct 3	24.88	Dec 16	24.28	Nov 12	25.05
29	20.05	Nov 19	24.46	Jan 2, 1975	24.48	Dec 17	25.07
Jun 12	32.86	Jan 8, 1969	24.53	23	22.82	Jan 19, 1981	25.13
Jul 8	34.85	Mar 11	24.47	Feb 24	18.33	Feb 26	24.50
22	36.15	Apr 21	24.45	Apr 8	21.70	Apr 7	24.47
Aug 27	34.10	May 22	24.44	Jun 17	19.35	May 7	24.47
Oct 14	28.34	Jun 23	24.52	Jul 23	24.05	Jun 11	24.48
21	27.94	Jul 15	24.49	Aug 29	24.45	Jul 27	24.49
Dec 7	38.00	Sep 10	24.48	Sep 25	21.76	Sep 9	24.45
Jan 11, 1965	32.88	Oct 7	24.46	Oct 28	18.29	Oct 5	24.47
15	40.50	Nov 19	24.50	Dec 9	24.48	Nov 20	24.45
Feb 24	21.95	Dec 16	24.67	Jan 2, 1976	20.95	Jan 6, 1982	24.46
Apr 8	25.56	Feb 12, 1970	17.96	Feb 23	24.49	Feb 22	21.28
14	21.50	Mar 17	20.51	Mar 29	24.30	Mar 23	21.32
May 25	36.15	May 5	18.05	May 11	24.48	May 12	24.48
Jul 6	39.30	Jun 17	19.74	Jun 15	24.48	Jun 22	24.38
14	39.30	Jul 30	19.09	Jul 21	24.48	Jul 26	24.51
Aug 4	34.10	Oct 19	24.47	Aug 26	24.50	Sep 9	24.38
Sep 10	37.71	Dec 28	17.82	Oct 7	20.40	Nov 3	24.84
Oct 4	39.10	Feb 11, 1971	23.50	Nov 17	23.35	Dec 15	25.10
7	37.92	Mar 22	21.18	Jan 4, 1977	24.49	Jan 27, 1983	25.18
Nov 15	39.68	May 7	24.43	Feb 21	24.49	Mar 10	24.59
Dec 28	34.53	Jun 3	24.49	Apr 11	18.21	Apr 15	19.05
Jan 6, 1966	39.21	Jul 14	24.47	May 26	24.50	May 23	24.45
Feb 17	22.50	Sep 9	24.49	Jul 12	24.49	Jul 8	24.45
Mar 16	21.30	Oct 19	24.55	Aug 22	24.53	Aug 16	24.50
Apr 28	24.46	Nov 12	19.61	Oct 6	24.78	Oct 3	24.47
Jun 8	24.56	Dec 17	18.98	Nov 22	24.50	Nov 7	24.50
Jul 27	24.55	Feb 15, 1972	20.36	Jan 4, 1978	22.00	Dec 15	16.13
29	24.78	Mar 7	16.14	Feb 23	22.47	Feb 1, 1984	24.50
Sep 8	24.81	Apr 19	23.95	Apr 5	18.19	Mar 16	22.82
Oct 18	24.65	May 15	22.40	May 17	22.32		
Dec 7	24.71	Jun 20	24.48	Jun 28	24.48		
Jan 18, 1967	22.93	Jul 27	24.45	Aug 9	24.04		

Period of record: Highest level: 16.13 feet Dec 15, 1983; Lowest level: 44.83 feet Jan 4, 1956

Well number: WA Bi 110
Owner: Slick, Robert
Geologic unit: Conococheague Limestone
Altitude: 550 feet
Depth of well: 475 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jul 10, 1986	61.75	Oct 1, 1986	69.82	Jan 6, 1987	67.52	Mar 27, 1987	64.98
29	62.44	28	70.75	Feb 3	66.96	Apr 29	59.86
Sep 4	65.12	Dec 3	71.18	Mar 3	62.92	May 28	61.79

Period of record: Highest level: 59.86 feet Apr 29, 1987; Lowest level: 71.18 feet Dec 3, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25
Owner: U.S. Geological Survey
Geologic unit: Tomstown Formation
Altitude: 790 feet
Depth of well: 200 feet

Daily low water levels for water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	---	34.56	42.65	44.22	42.28	---
2	---	---	---	---	---	---	---	34.97	42.80	44.38	42.49	---
3	---	---	---	---	---	---	---	35.28	43.10	44.50	42.65	---
4	---	---	---	---	---	---	---	35.55	43.22	44.52	42.93	---
5	---	---	---	---	---	---	---	35.82	43.22	44.67	43.11	46.77
6	---	---	---	---	---	---	---	36.37	43.23	44.82	43.30	46.87
7	---	---	---	---	---	---	---	36.71	43.33	44.44	43.46	46.93
8	---	---	---	---	---	---	---	37.03	43.47	44.50	43.60	46.95
9	---	---	---	---	---	---	---	37.42	43.53	44.64	43.63	47.03
10	---	---	---	---	---	---	---	37.75	43.62	44.10	43.65	47.14
11	---	---	---	---	---	---	---	38.16	43.83	40.80	43.85	47.29
12	---	---	---	---	---	---	---	38.45	44.04	---	43.97	47.36
13	---	---	---	---	---	---	---	38.72	44.20	---	44.05	47.35
14	---	---	---	---	---	---	---	39.14	44.29	---	44.23	47.43
15	---	---	---	---	---	---	---	39.36	44.36	---	44.46	47.49
16	---	---	---	---	---	---	---	39.50	44.41	---	44.52	47.58
17	---	---	---	---	---	---	---	39.70	44.45	---	44.70	47.63
18	---	---	---	---	---	---	---	39.87	44.49	---	44.88	47.55
19	---	---	---	---	---	---	---	39.75	44.10	---	45.05	47.66
20	---	---	---	---	---	---	---	40.13	43.90	---	45.15	47.68
21	---	---	---	---	---	---	---	40.42	43.89	---	45.40	47.60
22	---	---	---	---	---	---	---	40.57	43.84	---	45.50	47.63
23	---	---	---	---	---	---	---	40.85	43.80	---	45.52	47.73
24	---	---	---	---	---	---	---	41.07	43.78	---	45.47	47.84
25	---	---	---	---	---	---	---	41.12	43.86	---	45.28	47.89
26	---	---	---	---	---	---	---	41.37	43.86	---	45.12	47.86
27	---	---	---	---	---	---	33.04	41.87	43.92	---	45.05	47.76
28	---	---	---	---	---	---	33.31	42.16	44.00	---	44.90	47.75
29	---	---	---	---	---	---	33.70	42.40	44.05	42.43	44.81	47.77
30	---	---	---	---	---	---	34.16	42.48	44.07	42.41	44.75	47.70
31	---	---	---	---	---	---	---	42.54	---	42.17	---	---
Max	---	---	---	---	---	---	34.16	42.54	44.49	44.82	45.52	47.89
Min	---	---	---	---	---	---	33.04	34.56	42.65	40.80	42.28	46.77

Water year 1970: Highest level: 33.04 feet Apr 27, 1970; Lowest level: 47.89 feet Sep 25, 1970

Daily low water levels for water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	47.61	48.40	47.42	43.25	43.22	26.38	35.77	40.71	39.24	41.86	45.80	---
2	---	48.17	47.36	43.38	43.57	26.67	36.32	40.75	39.40	---	45.67	---
3	---	48.13	47.51	43.45	43.63	26.76	36.72	40.90	39.47	---	45.48	---
4	---	47.95	47.56	43.44	43.63	27.50	37.12	41.19	39.56	---	45.35	---
5	---	47.77	47.22	42.70	43.58	27.94	37.43	41.36	39.60	---	44.93	---
6	---	47.87	47.22	39.83	43.47	27.94	37.45	41.44	39.60	---	44.50	---
7	---	47.83	47.37	38.49	43.41	27.51	37.42	41.44	39.65	---	44.39	---
8	---	47.88	47.37	38.51	42.97	26.63	36.69	41.35	39.61	43.51	44.37	---
9	---	47.82	47.40	38.72	42.55	27.47	35.91	40.70	39.60	43.60	44.37	---
10	---	47.74	47.64	39.01	42.43	27.87	35.92	40.45	39.76	43.65	44.36	---
11	---	47.65	47.64	39.39	42.49	---	36.06	40.28	39.87	43.61	44.33	---
12	---	47.43	47.62	40.02	42.53	29.10	36.15	40.00	39.88	43.63	44.65	---
13	---	46.97	47.72	40.18	42.09	29.55	36.20	39.75	39.85	43.80	44.86	---
14	---	46.97	47.81	40.38	38.08	30.12	36.79	39.42	40.07	44.00	---	---
15	---	46.65	48.01	40.72	36.27	30.67	37.00	38.98	40.21	44.20	---	---
16	---	46.78	47.94	40.88	36.68	---	37.25	38.57	40.35	44.40	---	---
17	---	46.83	47.55	40.90	36.73	32.28	37.56	37.98	40.56	44.50	---	---
18	---	46.83	47.16	41.68	36.72	32.78	37.91	37.74	40.75	44.58	---	---
19	---	46.83	46.69	41.57	36.33	32.83	38.07	37.62	40.88	44.50	---	---
20	---	46.73	46.53	42.02	35.50	32.07	38.28	37.75	---	44.61	---	---
21	---	46.53	46.43	42.05	34.49	31.14	38.42	37.78	---	44.79	---	---
22	---	46.25	46.33	42.25	33.87	---	38.88	37.88	---	44.95	---	---
23	---	46.06	45.70	42.65	31.37	31.85	38.88	38.05	---	45.08	---	---
24	---	46.27	44.10	42.65	27.64	32.42	38.92	38.13	---	45.19	---	---
25	---	46.37	42.86	42.63	26.73	32.97	39.17	38.42	---	45.17	---	---
26	---	---	42.14	42.49	26.79	33.37	39.58	38.77	---	45.21	---	---
27	---	---	42.10	42.58	26.72	33.72	39.79	39.01	---	45.35	---	---
28	48.62	---	42.55	42.67	26.43	33.91	39.99	39.18	---	45.47	---	---
29	48.62	---	42.82	42.68	---	34.42	40.40	39.27	41.90	45.62	---	---
30	48.62	---	43.19	42.62	---	34.93	40.61	39.30	41.88	45.70	---	---
31	48.58	---	43.24	42.82	---	35.46	---	39.30	---	45.89	---	---
Max	48.62	48.40	48.01	43.45	43.63	35.46	40.61	41.44	41.90	45.89	45.80	---
Min	47.61	46.06	42.10	38.49	26.43	26.38	35.77	37.62	39.24	41.86	44.33	---

Water year 1971: Highest level: 26.38 feet Mar 1, 1971
Lowest level: 48.62 feet Oct 28, 1970 Oct 29, 1970 Oct 30, 1970

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	32.48	32.07	31.55	---	---	---
2	---	---	---	---	---	---	32.90	32.30	31.99	---	---	---
3	---	---	---	---	---	---	33.86	32.45	32.48	---	---	---
4	---	---	---	---	---	---	33.97	32.45	32.37	---	---	---
5	---	---	---	---	---	---	34.25	29.26	33.27	---	---	---
6	---	---	---	---	---	---	34.45	27.59	33.61	---	---	---
7	---	---	---	---	---	---	35.08	27.21	34.08	---	---	---
8	---	---	---	---	---	---	35.67	27.34	34.37	---	---	---
9	---	---	---	---	---	---	35.91	27.34	34.33	---	---	---
10	---	---	---	---	---	---	36.12	27.19	34.13	---	---	---
11	---	---	---	---	---	---	36.50	27.28	---	---	---	---
12	---	---	---	---	---	---	36.76	27.57	---	---	---	---
13	---	---	---	---	---	---	36.76	27.79	---	26.77	---	---
14	---	---	---	---	---	---	36.12	28.00	---	27.50	---	---
15	---	---	---	---	---	---	35.86	28.28	36.53	28.28	---	---
16	---	---	---	---	32.02	---	34.97	28.67	36.80	28.95	---	---
17	---	---	---	---	31.92	---	33.92	29.09	36.92	29.61	---	---
18	---	---	---	---	31.80	---	33.40	29.65	37.08	30.26	---	---
19	---	---	---	---	31.63	27.23	33.09	30.07	37.24	30.84	---	---
20	---	---	---	---	31.57	27.73	33.18	30.08	37.29	31.43	---	---
21	---	---	---	---	31.57	28.04	33.32	28.32	37.35	31.93	---	---
22	---	---	---	---	31.77	27.54	33.32	27.63	34.95	32.43	---	---
23	---	---	---	---	31.77	28.47	33.02	27.85	---	32.86	---	---
24	---	---	---	---	31.47	29.02	32.83	28.20	---	33.32	---	---
25	---	---	---	---	31.69	29.35	31.55	28.89	---	33.79	---	---
26	---	---	---	---	31.62	29.72	31.19	29.43	---	34.21	---	---
27	---	---	---	---	---	30.14	31.37	29.83	---	34.48	---	---
28	---	---	---	---	---	30.68	31.52	30.16	---	34.72	---	---
29	---	---	---	---	---	31.09	31.75	30.60	---	35.11	---	---
30	---	---	---	---	---	31.66	31.95	30.87	---	---	---	---
31	---	---	---	---	---	32.02	---	31.19	---	---	---	---
Max	---	---	---	---	32.02	32.02	36.76	32.45	37.35	35.11	---	---
Min	---	---	---	---	31.47	27.23	31.19	27.19	31.55	26.77	---	---

Water year 1972: Highest level: 26.77 feet Jul 13, 1972; Lowest level: 37.35 feet Jun 21, 1972

Daily low water levels for water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	27.55	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	47.94
11	---	---	---	---	---	---	---	---	---	---	---	48.02
12	---	---	---	---	---	---	---	---	---	---	---	48.11
13	---	---	---	---	---	---	---	---	---	---	---	47.91
14	---	---	---	---	---	---	---	---	---	---	---	47.02
15	---	---	---	---	---	---	---	---	---	---	---	45.69
16	---	---	---	---	---	---	---	---	---	---	---	45.68
17	---	---	---	---	---	---	---	---	---	---	---	45.69
18	---	---	---	---	---	---	---	---	---	---	---	45.51
19	---	---	---	---	---	---	---	---	---	---	---	45.06
20	---	---	---	---	---	---	---	---	---	---	---	45.05
21	---	---	---	---	---	---	---	---	---	---	---	45.23
22	---	---	---	---	---	---	---	---	---	---	---	45.38
23	---	---	---	---	---	---	---	---	---	---	---	45.70
24	---	---	---	---	---	---	---	---	---	---	---	45.83
25	---	---	---	---	---	---	---	---	---	---	---	45.87
26	---	---	---	---	---	---	---	---	---	---	---	46.17
27	---	---	---	---	---	---	---	---	---	---	---	46.42
28	---	---	---	---	---	---	---	---	---	---	---	46.50
29	---	---	---	---	---	---	---	---	---	---	---	46.69
30	---	---	---	---	---	---	---	---	---	---	---	46.85
31	---	---	---	---	---	---	---	---	---	---	---	---
Max	---	---	---	---	---	---	27.55	---	---	---	---	48.11
Min	---	---	---	---	---	---	27.55	---	---	---	---	45.05

Water year 1974: Highest level: 27.55 feet Apr 9, 1974; Lowest level: 48.11 feet Sep 12, 1974

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1974 to September 1975

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	47.05	---	---	---	---	---	---	---	34.61	33.08	41.81	43.09
2	47.32	---	---	---	---	---	---	---	29.80	33.39	41.95	43.02
3	47.46	---	---	---	---	---	---	---	28.60	33.75	---	43.21
4	47.53	---	---	---	---	---	---	---	---	34.27	---	43.34
5	47.59	---	---	---	---	---	---	---	---	34.72	---	43.39
6	47.60	---	---	---	---	---	---	---	---	35.16	---	43.44
7	47.60	---	---	---	---	---	---	---	27.14	35.58	---	---
8	47.68	---	---	---	---	---	---	---	27.78	36.02	---	---
9	47.75	---	---	---	---	---	---	---	---	36.43	---	43.68
10	47.88	---	---	---	---	---	---	---	28.52	36.85	---	43.72
11	48.00	---	---	---	---	---	---	---	29.64	37.23	---	43.68
12	48.00	---	---	---	---	---	---	---	29.66	37.72	---	43.85
13	48.27	---	---	---	---	---	---	---	28.48	37.98	---	43.97
14	48.36	---	---	---	---	---	---	---	28.67	38.23	---	44.06
15	48.54	---	---	---	---	---	---	---	29.10	38.60	---	44.08
16	48.55	---	---	---	---	---	---	---	29.79	38.88	---	44.03
17	---	---	---	---	---	---	---	29.49	30.40	39.11	---	44.13
18	---	---	---	---	---	---	---	29.20	31.03	39.34	---	44.20
19	---	---	---	---	---	---	---	29.50	31.57	39.44	---	44.25
20	---	---	---	---	---	---	---	29.88	32.24	39.66	---	44.27
21	---	---	---	---	---	---	---	30.30	32.85	39.75	---	44.27
22	---	---	---	---	---	---	---	30.83	33.33	40.08	---	44.22
23	---	---	---	---	---	---	---	31.27	33.86	40.33	---	44.18
24	---	---	---	---	---	---	---	31.74	34.33	40.47	42.36	40.62
25	---	---	---	---	---	---	---	32.28	34.80	40.75	42.49	36.63
26	---	---	---	---	---	---	---	32.58	35.13	40.81	42.69	---
27	---	---	---	---	---	---	---	33.14	35.25	40.80	42.80	---
28	---	---	---	---	---	---	---	33.69	34.21	40.97	42.89	---
29	---	---	---	---	---	---	---	34.09	32.45	41.29	42.91	---
30	---	---	---	---	---	---	---	34.43	32.74	41.50	43.00	---
31	---	---	---	---	---	---	---	34.77	---	41.70	43.13	---
Max	48.55	---	---	---	---	---	---	34.77	35.25	41.70	43.13	44.27
Min	47.05	---	---	---	---	---	---	29.20	27.14	33.08	41.81	36.63

Water Year 1975: Highest level: 27.14 feet Jun 7, 1975; Lowest level: 48.55 feet Oct 16, 1974

Daily low water levels for water year October 1975 To September 1976

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	30.40	36.39	39.58	39.50	43.11	43.88	45.37	41.92
2	---	---	---	---	29.79	36.55	---	39.48	42.86	44.03	45.52	41.69
3	---	---	---	---	29.70	36.76	34.80	39.72	42.91	44.08	45.58	41.02
4	---	---	---	---	30.08	36.91	34.46	39.94	43.00	44.05	45.59	41.53
5	---	---	---	---	30.21	37.04	34.27	40.16	43.18	44.07	45.57	41.37
6	---	---	---	---	30.47	37.28	34.22	40.35	43.13	44.18	45.63	40.69
7	---	---	---	---	30.70	37.12	34.40	40.55	42.97	44.22	45.67	40.79
8	---	---	---	---	31.08	37.72	34.67	40.73	43.10	44.30	45.67	40.49
9	---	---	---	---	31.60	37.78	34.85	40.75	43.28	44.38	43.78	40.45
10	---	---			31.68	38.03	34.95	40.75	43.38	44.37	43.47	40.43
11	---	---	---	---	32.28	38.35	35.32	40.83	43.23	44.30	43.55	40.34
12	---	---	---	---	32.54	38.42	35.50	41.22	43.60	44.16	43.69	39.85
13	---	---	---	---	32.90	38.45	35.73	41.38	43.72	43.95	43.64	39.43
14	---	---	---	---	33.42	38.51	36.01	41.50	43.70	43.98	43.50	39.15
15	---	---	---	---	33.41	38.55	36.19	41.63	43.75	44.09	43.33	39.01
16	---	---	---	31.29	33.52	38.51	36.41	41.61	43.85	44.05	43.17	39.57
17	---	---	---	31.79	33.85	38.77	36.62	41.63	44.00	44.27	43.04	39.57
18	---	---	---	32.35	33.87	38.88	36.77	41.82	44.07	44.40	43.02	39.54
19	---	---	---	32.42	34.18	38.80	36.96	42.02	44.05	44.48	42.82	39.60
20	---	---	---	32.65	34.54	38.90	37.32	42.17	44.03	44.50	42.88	39.63
21	---	---	---	32.82	34.55	38.97	37.50	42.39	43.88	44.53	42.75	40.02
22	---	---	---	33.28	34.75	39.10	37.84	42.46	43.74	44.60	42.67	40.52
23	---	---	---	33.46	35.08	39.15	38.18	42.23	43.59	44.63	42.42	40.67
24	---	---	---	34.03	35.21	39.15	38.32	42.41	43.58	44.68	42.07	40.75
25	---	---	---	34.45	35.36	39.23	38.37	42.72	43.55	44.80	41.63	40.70
26	---	---	---	34.50	35.50	39.40	38.82	42.95	43.70	44.87	41.47	40.75
27	---	---	---	34.45	35.70	39.50	39.04	43.08	43.68	44.91	41.78	40.70
28	---	---	---	32.62	35.97	39.55	39.24	43.18	43.75	45.01	42.41	40.90
29	---	---	---	30.52	36.06	39.60	39.27	43.23	43.76	45.06	42.29	40.73
30	---	---	---	30.35	---	39.65	39.47	43.15	43.67	45.16	41.88	40.27
31	---	---	---	30.42	---	39.76	---	43.17	---	45.21	41.76	---
Max	---	---	---	34.50	36.06	39.76	39.58	43.23	44.07	45.21	45.67	41.92
Min	---	---	---	30.35	29.70	36.39	34.22	39.48	42.86	43.88	41.47	39.01

Water year 1976: Highest level: 29.70 feet Feb 3, 1976; Lowest level: 45.67 feet Aug 7, 1976, Aug 8, 1976

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1976 to September 1977

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	39.77	---	---	42.02	---	48.00	---	---	---	---	46.39	47.67
2	28.12	---	---	42.04	---	48.00	---	---	---	---	46.49	47.70
3	24.75	---	---	42.16	---	47.98	---	---	---	---	46.54	47.74
4	20.37	---	---	42.39	---	47.90	---	---	---	---	46.63	47.76
5	19.57	---	---	42.57	---	47.49	---	---	---	---	46.66	47.76
6	19.30	---	---	42.60	---	46.47	---	---	---	44.87	46.72	47.81
7	18.45	---	---	---	---	45.95	---	---	---	44.95	46.75	47.90
8	---	---	---	---	---	45.81	---	---	---	45.05	46.78	48.00
9	---	---	---	---	---	45.84	---	---	---	45.23	46.90	48.00
10	---	---	---	---	---	45.86	---	---	---	45.32	46.95	48.13
11	---	---	---	---	---	46.05	---	---	---	45.43	47.07	48.19
12	---	---	---	---	---	46.05	---	---	---	45.20	47.06	48.21
13	---	---	---	---	---	45.87	---	---	---	45.30	46.93	48.23
14	---	---	---	---	---	43.25	---	---	---	45.50	47.08	---
15	---	---	39.20	---	---	---	---	---	---	45.71	47.14	---
16	---	---	39.21	---	---	---	---	---	---	45.77	47.14	---
17	---	---	39.55	---	---	---	---	---	---	45.76	47.02	---
18	---	---	39.83	---	---	---	---	---	---	45.84	46.97	---
19	---	---	39.83	---	---	---	---	---	---	45.90	47.10	---
20	---	---	39.80	---	---	---	---	---	---	45.90	47.13	---
21	---	---	40.40	---	---	---	---	---	---	46.05	46.75	---
22	---	---	40.47	---	---	---	---	---	---	46.13	46.74	---
23	---	---	40.73	---	---	---	---	---	---	46.18	46.79	---
24	---	---	40.86	---	---	---	---	---	---	46.13	47.13	---
25	---	---	40.85	---	---	---	---	---	---	46.26	47.30	---
26	---	---	40.80	---	---	---	43.07	---	---	46.26	47.34	---
27	---	---	41.06	---	---	---	42.35	---	---	46.26	47.39	---
28	---	---	41.18	---	---	---	---	---	---	46.28	47.44	---
29	---	---	41.65	---	---	---	---	---	---	46.26	47.45	---
30	---	---	41.73	---	---	---	---	---	---	46.30	47.52	---
31	---	---	41.79	---	---	---	---	---	---	46.34	47.63	---
Max	39.77	---	41.79	42.60	---	48.00	43.07	---	---	46.34	47.63	48.23
Min	18.45	---	39.20	42.02	---	43.25	42.35	---	---	44.87	46.39	47.67

Water year 1977: Highest level: 18.45 feet Oct 7, 1976; Lowest level: 48.23 feet Sep 13, 1977

Daily low water levels for water year October 1977 to September 1978

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	48.45	---	---	---	---	---	41.21	31.38	40.31	44.12	---
2	---	48.38	---	---	---	---	---	41.42	31.95	40.40	44.22	---
3	---	---	---	---	---	---	---	41.57	32.45	---	44.33	---
4	---	---	---	---	---	---	---	41.72	32.96	---	---	---
5	---	---	---	---	---	---	---	41.80	33.50	---	---	---
6	---	---	---	---	---	---	---	---	34.06	---	---	---
7	---	---	---	---	---	---	---	---	34.45	---	---	---
8	---	---	---	---	---	---	---	---	34.92	---	---	---
9	---	---	---	---	---	---	---	---	35.50	---	---	---
10	---	---	---	---	---	---	---	---	35.99	---	---	---
11	---	---	---	42.03	---	---	---	---	36.38	---	---	---
12	---	---	---	42.12	---	---	---	---	36.73	---	---	---
13	---	---	48.98	42.09	---	---	---	---	37.15	---	---	---
14	48.29	---	48.98	42.03	---	---	---	---	37.52	---	---	---
15	48.30	---	49.00	42.40	---	---	---	---	37.82	---	---	---
16	48.25	---	49.02	42.53	---	---	---	---	38.15	---	---	---
17	48.12	---	48.99	42.60	---	---	---	---	38.41	---	---	---
18	48.12	---	---	42.59	---	---	---	---	38.55	---	---	---
19	48.08	---	---	42.45	---	---	---	---	38.79	---	---	---
20	48.20	---	---	42.60	---	---	---	---	39.03	---	---	---
21	48.30	---	---	42.90	---	---	---	---	39.15	---	---	---
22	48.30	---	---	42.95	---	---	---	---	39.20	---	---	---
23	48.37	---	---	43.19	---	---	---	---	39.07	---	---	---
24	48.35	48.61	---	43.21	---	---	---	---	39.23	---	---	---
25	48.32	48.53	---	43.17	---	---	40.02	27.14	39.27	---	---	---
26	48.26	---	---	---	---	---	40.21	27.87	39.45	---	---	---
27	48.15	---	---	---	---	---	40.46	28.53	39.80	---	---	---
28	48.35	---	---	---	---	---	40.71	29.10	39.85	43.63	---	---
29	48.37	---	---	---	---	---	40.79	29.65	40.02	43.67	---	---
30	48.42	---	---	---	---	---	40.95	30.20	40.14	43.84	---	---
31	48.44	---	---	---	---	---	---	30.75	---	43.89	---	---
Max	48.44	48.61	49.02	43.21	---	---	40.95	41.80	40.14	43.89	44.33	---
Min	48.08	48.38	48.98	42.03	---	---	40.02	27.14	31.38	40.31	44.12	---

Water year 1978: Highest level: 27.14 feet May 25, 1978; Lowest level: 49.02 feet Dec 16, 1977

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1978 to September 1979

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	---	---	---	---	45.42	46.32
2	---	---	---	---	---	---	---	---	---	---	45.55	46.30
3	---	---	---	---	---	---	---	---	---	---	45.65	46.37
4	---	---	---	---	---	---	---	---	---	---	45.72	46.40
5	---	---	---	---	---	---	---	---	---	---	45.72	46.43
6	---	---	---	---	---	---	---	---	---	---	45.77	44.70
7	---	---	---	---	---	---	---	---	---	---	45.87	36.75
8	---	---	---	---	---	---	---	---	---	---	45.87	37.42
9	---	---	---	---	---	---	---	---	---	45.45	45.97	38.05
10	---	---	---	---	---	---	---	---	---	45.50	45.89	38.55
11	---	---	---	---	---	---	---	39.85	---	45.43	45.75	39.18
12	---	---	---	---	---	---	---	39.65	---	45.28	45.73	39.67
13	---	---	---	---	---	---	---	39.54	---	45.22	45.45	39.92
14	---	---	---	---	---	---	---	39.53	---	45.19	45.30	40.23
15	---	---	---	---	---	---	---	39.48	---	45.10	45.30	40.32
16	---	---	---	---	---	---	---	---	---	45.05	45.46	40.41
17	---	---	---	---	---	---	---	---	---	---	45.53	40.46
18	---	---	---	---	---	---	---	---	---	45.12	45.48	40.33
19	---	---	---	---	---	---	---	---	---	45.00	45.55	40.49
20	---	---	---	---	---	---	---	---	---	44.92	45.63	40.88
21	---	---	---	---	---	---	---	---	---	44.98	45.72	40.97
22	---	48.58	---	---	---	---	---	---	---	45.06	45.75	39.22
23	---	48.58	---	---	---	---	---	---	---	45.12	45.77	33.18
24	---	48.57	---	---	---	---	---	---	---	45.16	45.82	33.61
25	---	48.63	---	---	---	---	---	---	---	45.16	45.90	34.23
26	---	48.70	---	---	---	---	---	---	---	45.13	45.93	34.92
27	---	48.72	---	---	---	---	---	---	---	45.22	45.94	35.48
28	---	48.85	---	---	---	---	---	---	---	45.28	45.99	35.94
29	---	48.63	---	---	---	---	---	---	---	45.24	46.05	36.51
30	---	---	---	---	---	---	---	---	---	45.28	46.15	36.95
31	---	---	---	---	---	---	---	---	---	45.34	46.26	---
Max	---	48.85	---	---	---	---	---	39.85	---	45.50	46.26	46.43
Min	---	48.57	---	---	---	---	---	39.48	---	44.92	45.30	33.18

Water year 1979: Highest level: 33.18 feet Sep 23, 1979; Lowest level: 48.85 feet Nov 28, 1978

Daily low water levels for water year October 1979 to September 1980

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	37.05	---	37.33	37.91	---	43.12	28.89	---	---	41.94	---	42.02
2	36.43	---	37.43	38.18	---	43.02	26.93	33.57	---	41.95	---	42.18
3	36.23	---	37.43	38.41	---	43.18	26.76	33.45	---	42.10	---	42.19
4	31.54	---	37.44	38.43	---	43.25	26.88	33.40	---	42.23	---	42.24
5	---	---	37.44	---	---	43.36	27.72	33.51	---	42.25	---	42.30
6	---	---	37.62	---	---	43.55	28.30	---	---	42.50	---	42.36
7	---	---	37.87	---	---	43.48	29.02	34.10	---	42.64	---	42.46
8	---	---	38.33	---	---	43.37	29.41	---	---	42.72	---	42.47
9	---	---	38.35	---	---	43.48	29.42	34.70	---	42.83	---	42.51
10	---	---	38.52	---	---	43.48	28.23	---	---	42.84	---	42.66
11	---	---	38.73	---	---	43.67	28.60	35.22	---	42.95	---	42.70
12	---	---	38.97	---	---	43.85	28.82	---	---	43.08	---	42.81
13	---	---	39.22	---	---	43.83	29.17	35.63	40.00	43.21	---	42.86
14	---	---	39.52	---	---	43.98	29.17	---	40.05	43.30	---	42.84
15	---	---	39.61	---	---	44.05	28.93	---	40.25	43.35	41.22	42.82
16	---	---	39.64	---	---	44.03	29.48	---	40.25	43.45	41.35	---
17	---	---	39.96	---	---	43.68	29.79	---	40.26	---	41.42	---
18	---	---	40.12	---	---	41.14	30.15	---	40.30	43.77	41.40	---
19	---	---	40.40	---	---	39.24	30.48	---	40.37	---	41.42	---
20	---	---	40.70	---	---	38.59	30.71	---	40.67	43.88	41.41	---
21	---	38.86	40.76	---	---	38.05	31.13	---	40.84	---	41.47	---
22	---	39.03	40.81	---	---	33.52	31.43	---	40.97	43.93	41.52	---
23	---	39.28	40.89	---	42.15	32.12	31.93	---	41.13	---	41.60	---
24	---	39.52	40.92	---	42.27	32.08	32.37	---	41.30	---	41.60	---
25	---	39.55	---	---	42.25	32.39	32.95	---	41.41	---	41.59	---
26	---	39.50	39.02	---	42.55	32.90	33.31	---	41.52	---	41.65	---
27	---	38.78	38.39	---	42.60	33.33	33.53	---	41.65	---	41.73	---
28	---	37.75	38.28	---	42.76	33.55	---	---	41.63	---	41.74	---
29	---	37.35	38.17	---	43.11	33.54	---	---	41.42	---	41.80	---
30	---	37.35	37.94	---	---	30.55	---	---	41.80	---	41.85	---
31	---	---	37.87	---	---	29.82	---	---	---	---	41.92	---
Max	37.05	39.55	40.92	38.43	43.11	44.05	33.53	35.63	41.80	43.93	41.92	42.86
Min	31.54	37.35	37.33	37.91	42.15	29.82	26.76	33.40	40.00	41.94	41.22	42.02

Water year 1980: Highest level: 26.76 feet Apr 3, 1980; Lowest level: 44.05 feet Mar 15, 1980

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1980 to September 1981

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	48.73	48.25	49.48	51.32	---	46.15	42.74	---	44.32	---	48.24
2	---	48.27	48.34	49.68	50.99	---	46.37	43.03	---	44.52	---	48.31
3	---	48.63	48.59	49.73	50.40	---	46.42	43.17	---	44.54	---	48.40
4	---	48.54	48.59	49.83	50.10	---	46.46	43.28	---	44.41	---	48.46
5	---	48.69	48.50	49.86	50.13	---	46.54	43.43	---	44.05	---	48.47
6	---	48.69	48.50	49.81	50.07	---	46.78	43.68	---	43.98	---	48.45
7	---	48.53	48.46	49.98	50.08	---	46.83	43.94	---	44.21	---	48.40
8	---	48.67	48.35	50.07	50.07	---	46.78	44.13	---	44.48	---	48.37
9	---	48.67	48.31	50.08	50.26	---	46.99	44.18	---	44.77	---	48.57
10	---	48.65	48.53	50.20	50.28	---	47.05	44.20	---	45.10	---	48.65
11	---	48.65	48.67	50.18	50.09	---	46.95	44.18	---	45.34	---	48.80
12	---	48.85	48.67	50.18	49.37	---	46.91	44.24	---	45.45	---	48.83
13	---	48.88	48.62	50.20	49.11	---	46.74	44.25	---	45.55	---	48.75
14	---	49.00	48.75	50.32	48.95	---	45.58	44.22	---	45.86	---	48.64
15	---	49.05	48.76	50.49	48.85	---	43.53	44.09	---	46.00	---	---
16	---	49.15	48.79	50.60	48.82	---	42.27	44.15	---	46.14	---	---
17	---	49.14	48.85	50.65	48.80	---	41.65	44.16	---	46.31	---	---
18	---	49.12	48.92	50.63	48.80	---	41.44	44.02	---	46.40	---	---
19	---	49.15	49.19	50.66	48.71	---	41.49	43.90	---	46.45	---	---
20	---	49.18	49.23	50.80	48.54	44.62	41.72	---	44.57	46.41	---	---
21	---	49.25	49.23	50.82	46.67	45.01	41.83	---	44.15	46.44	---	---
22	---	49.31	49.21	50.88	44.88	45.05	41.79	---	43.77	46.37	48.02	---
23	48.63	49.30	49.09	51.00	44.19	45.12	41.72	---	43.35	46.44	47.78	---
24	48.65	49.16	49.27	51.08	41.52	45.33	41.75	---	43.24	46.50	47.95	---
25	48.53	48.47	49.37	51.11	39.55	45.60	41.94	---	43.25	---	48.11	---
26	48.42	48.12	49.35	50.98	40.30	45.67	41.95	---	43.58	---	48.20	---
27	48.43	48.07	49.39	51.13	40.73	45.96	41.91	---	43.80	---	48.30	---
28	48.48	47.85	49.37	51.18	---	46.03	41.94	---	43.95	---	48.47	---
29	48.62	48.08	49.28	51.26	---	45.93	42.19	---	43.99	---	48.47	---
30	48.64	48.19	49.40	51.33	---	46.00	42.49	---	44.05	---	48.35	---
31	48.55	---	49.47	51.37	---	46.19	---	---	---	---	48.22	---
Max	48.65	49.31	49.47	51.37	51.32	46.19	47.05	44.25	44.57	46.50	48.47	48.83
Min	48.42	47.85	48.25	49.48	39.55	44.62	41.44	42.74	43.24	43.98	47.78	48.24

Water year 1981: Highest level: 39.55 feet Feb 25, 1981; Lowest level: 51.37 feet Jan 31, 1981

Daily low water levels for water year October 1981 to September 1982

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	49.53	---	---	---	---	---	40.35	40.61	44.78	40.37	44.38	---
2	---	---	---	---	---	---	40.59	40.56	45.00	40.57	44.58	---
3	---	---	---	---	---	---	40.65	40.60	45.12	40.70	44.75	---
4	---	---	49.81	---	---	---	40.26	40.88	45.18	41.07	44.89	---
5	49.85	---	---	---	---	41.36	39.51	41.15	45.10	41.34	---	---
6	---	---	---	---	---	41.35	39.05	41.28	44.83	41.53	---	---
7	49.93	---	---	---	---	41.45	38.43	41.42	44.78	41.68	45.17	---
8	---	---	---	---	---	41.62	37.83	41.61	44.80	41.80	45.18	---
9	50.17	---	---	---	---	41.57	37.54	41.81	44.90	41.83	45.18	---
10	---	---	---	---	---	41.55	37.56	41.97	44.98	41.99	45.40	---
11	50.25	---	---	---	---	41.17	37.48	42.18	45.07	42.10	45.49	---
12	---	---	---	---	---	40.54	37.45	42.37	44.96	42.38	45.62	---
13	50.42	---	---	---	---	38.91	37.36	42.57	44.92	42.60	45.66	---
14	---	---	---	---	---	38.45	37.64	42.79	42.87	42.80	45.53	---
15	50.40	---	---	---	---	38.58	37.86	42.95	41.70	42.98	45.70	---
16	50.44	---	---	---	---	38.63	38.07	43.03	41.81	43.12	45.83	---
17	---	---	---	---	---	38.13	38.12	43.19	41.05	43.22	45.93	---
18	---	---	---	---	---	37.00	38.40	43.32	38.40	43.30	46.15	---
19	---	---	---	---	---	36.72	38.56	43.42	36.39	43.38	46.26	---
20	---	---	---	---	---	36.22	38.68	43.58	35.88	43.60	46.27	---
21	---	---	---	---	---	36.70	39.07	43.80	36.19	43.75	---	---
22	---	---	---	---	---	37.02	39.31	43.93	36.72	43.75	---	---
23	---	---	---	---	---	37.36	39.60	44.04	37.17	43.87	---	---
24	---	---	---	---	---	37.68	39.77	44.05	37.42	43.98	---	---
25	---	---	---	---	---	37.86	39.99	44.15	37.75	44.11	---	---
26	---	---	---	---	---	38.40	40.08	44.28	38.22	44.25	---	---
27	---	---	---	---	---	38.95	40.30	44.45	38.69	44.38	---	---
28	---	---	---	---	---	39.21	40.50	44.57	39.05	44.40	---	---
29	---	---	---	---	---	39.42	40.67	44.62	39.45	44.63	---	---
30	---	---	---	---	---	39.55	40.74	44.66	39.95	44.67	---	---
31	---	---	---	---	---	39.93	---	44.72	---	44.50	---	---
Max	50.44	---	49.81	---	---	41.62	40.74	44.72	45.18	44.67	46.27	---
Min	49.53	---	49.81	---	---	36.22	37.36	40.56	35.88	40.37	44.38	---

Water year 1982: Highest level: 35.88 feet Jun 20, 1982; Lowest level: 50.44 feet Oct 16, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1982 to September 1983

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	50.54	---	40.67	---	34.24	37.32	43.42	45.79
2	---	---	---	---	50.47	---	40.45	---	34.61	37.53	43.37	45.93
3	---	---	---	---	50.06	---	41.89	---	34.80	37.91	43.20	45.97
4	---	---	---	---	50.00	---	42.41	---	35.15	38.17	43.10	45.90
5	---	---	---	---	49.90	---	42.61	---	34.96	38.43	43.28	46.07
6	---	---	---	---	49.62	---	42.65	---	34.30	38.95	43.42	46.07
7	---	---	---	---	49.27	---	42.60	---	34.22	39.29	43.53	46.27
8	---	---	---	---	49.30	---	---	---	34.69	39.52	43.56	46.45
9	---	---	---	---	49.29	---	---	---	35.12	39.66	43.31	46.53
10	---	---	---	---	49.30	---	---	---	35.47	39.95	43.89	46.57
11	---	---	49.18	---	49.28	---	---	---	35.78	40.15	44.02	46.57
12	---	---	49.22	---	49.22	---	---	---	36.08	40.35	44.25	46.68
13	---	---	49.30	---	49.20	---	---	---	36.43	40.60	44.44	46.82
14	---	---	49.52	---	48.95	---	---	---	36.79	40.75	44.52	46.92
15	---	---	49.59	---	48.99	---	---	---	37.19	40.80	44.56	47.05
16	---	---	49.68	---	48.99	---	---	---	37.62	41.09	44.65	47.06
17	---	---	49.82	---	48.92	---	---	---	37.94	41.31	44.74	47.00
18	---	---	49.82	---	---	---	---	---	38.09	41.52	44.89	47.10
19	---	---	49.71	---	---	---	---	---	37.65	41.67	45.00	47.15
20	---	---	49.67	---	---	---	---	---	37.99	41.66	45.09	47.17
21	---	---	---	50.30	---	---	---	---	36.82	41.76	45.23	47.25
22	---	---	---	50.32	---	---	---	---	35.68	41.97	45.34	47.38
23	---	---	---	50.23	---	---	---	---	34.96	42.05	45.55	47.42
24	---	---	---	50.35	---	---	---	---	34.94	42.23	45.67	47.38
25	---	---	---	50.52	---	---	---	---	35.33	42.42	45.78	47.20
26	---	---	---	50.55	---	---	---	---	35.65	42.60	45.82	47.10
27	---	---	---	50.58	---	---	---	33.29	35.95	42.78	45.85	47.28
28	---	---	---	50.61	---	---	---	33.21	36.17	42.95	45.91	47.50
29	---	---	---	50.61	---	---	---	33.03	36.78	43.10	45.99	47.60
30	---	---	---	50.49	---	---	---	33.38	37.09	43.24	46.05	47.60
31	---	---	---	50.48	---	---	---	33.79	---	43.30	45.92	---
Max	---	---	49.82	50.61	50.54	---	42.65	33.79	38.09	43.30	46.05	47.60
Min	---	---	49.18	50.23	48.92	---	40.45	33.03	34.22	37.32	43.10	45.79

Water year 1983: Highest level: 33.03 feet May 29, 1983; Lowest level: 50.61 feet Jan 28, 1983, Jan 29, 1983

Daily low water levels for water year October 1983 to September 1984

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	47.51	46.97	45.49	37.82	42.02	17.69	22.61	26.42	---	39.93	41.98	42.58
2	47.42	47.01	45.48	38.12	42.09	18.55	19.44	26.95	---	39.93	42.08	42.65
3	47.51	47.19	45.51	38.46	42.07	19.55	17.82	27.24	---	39.94	42.08	42.68
4	47.58	47.28	45.48	38.79	41.84	---	17.58	26.99	---	39.94	42.05	42.68
5	47.75	47.37	45.22	39.04	41.35	20.80	17.14	26.35	---	40.04	42.10	42.82
6	47.93	47.38	44.85	39.46	41.02	21.57	14.68	26.65	---	40.06	42.18	43.16
7	48.01	47.34	44.45	39.89	41.28	22.48	14.89	26.92	35.37	39.99	42.19	43.37
8	48.04	47.16	44.18	40.20	41.35	23.18	15.14	26.95	35.65	39.52	42.12	43.45
9	48.07	47.04	43.90	40.42	41.50	24.30	15.80	26.11	35.90	39.44	42.10	43.47
10	48.09	46.90	44.05	40.57	41.60	25.10	16.50	25.19	36.17	39.43	42.12	43.50
11	48.04	46.49	44.07	41.07	41.59	26.14	17.40	25.37	36.55	39.50	42.08	43.79
12	47.79	46.56	43.32	41.34	41.47	27.10	18.28	25.87	36.85	39.73	41.90	43.93
13	47.78	46.58	43.49	41.39	41.23	27.68	19.25	26.13	37.16	39.93	41.67	43.94
14	47.82	46.65	36.72	41.60	40.89	28.55	20.06	26.77	37.36	40.07	41.29	43.92
15	47.90	46.65	32.85	41.69	29.03	28.55	20.20	27.32	37.79	40.08	41.20	44.17
16	47.90	46.60	33.65	41.83	22.91	28.50	20.15	27.88	37.97	40.14	41.18	44.25
17	47.86	47.04	34.40	42.15	20.25	28.59	18.90	28.40	38.04	40.25	41.15	44.30
18	47.93	47.11	34.94	42.15	20.35	28.74	19.38	28.76	38.29	40.45	41.15	44.28
19	48.04	47.08	35.78	42.49	21.08	29.02	20.06	29.14	38.60	40.65	41.37	44.24
20	48.06	47.04	36.57	42.70	21.78	29.25	20.81	29.68	38.67	40.75	41.60	44.30
21	48.08	46.92	36.95	42.83	22.65	29.27	21.62	---	38.67	40.84	41.71	44.60
22	48.07	46.65	36.94	42.94	23.47	29.34	22.17	---	38.87	40.95	41.71	44.71
23	47.95	46.68	36.62	43.00	23.93	29.73	22.15	---	39.12	40.95	41.66	44.70
24	47.61	46.66	36.43	42.95	23.45	29.81	22.10	---	39.27	40.84	41.75	44.48
25	47.32	46.55	36.92	42.75	18.05	29.77	22.78	---	39.35	40.92	41.86	44.49
26	46.98	45.95	37.34	42.68	16.87	30.17	23.40	---	39.43	41.00	41.92	44.78
27	46.88	45.56	37.80	42.20	17.08	30.55	24.03	---	39.60	41.25	41.90	44.82
28	46.88	45.39	37.86	41.64	17.03	30.60	24.79	---	39.82	41.50	41.96	44.85
29	47.01	45.30	37.23	41.43	16.85	29.77	25.24	---	39.90	41.67	42.08	44.92
30	47.05	45.36	37.40	41.43	---	26.67	25.78	---	39.95	41.70	42.18	44.97
31	46.95	---	37.57	41.81	---	25.25	---	---	---	41.81	42.43	---
Max	48.09	47.38	45.51	43.00	42.09	30.60	25.78	29.68	39.95	41.81	42.43	44.97
Min	46.88	45.30	32.85	37.82	16.85	17.69	14.68	25.19	35.37	39.43	41.15	42.58

Water year 1984: Highest level: 14.68 feet Apr 6, 1984; Lowest level: 48.09 feet Oct 10, 1983

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1984 to September 1985

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	45.00	46.43	45.19	46.54	47.02	40.66	42.23	44.36	45.21	46.76	47.72	47.18
2	45.09	46.29	45.22	46.70	47.14	41.02	41.84	44.31	45.31	46.64	47.82	47.25
3	45.08	46.28	45.16	46.68	47.24	41.12	41.63	44.35	45.30	46.67	47.83	47.25
4	45.25	46.13	45.31	46.53	47.25	41.09	41.62	44.30	45.45	46.73	47.82	47.19
5	45.33	46.06	45.28	46.63	47.10	41.64	41.45	44.18	45.44	46.67	47.85	47.21
6	45.40	46.42	45.18	---	46.95	42.00	41.60	44.13	45.17	46.69	47.86	47.28
7	45.37	46.67	45.20	---	47.12	42.00	41.65	44.32	44.95	46.82	47.87	47.36
8	45.30	46.71	45.13	46.75	47.15	42.00	41.77	44.46	44.72	46.84	47.86	47.38
9	45.42	46.70	45.14	46.80	47.16	42.37	41.99	44.53	44.70	46.95	47.80	47.34
10	45.48	46.70	45.03	46.80	47.14	42.54	42.05	44.61	44.87	47.06	47.81	47.41
11	45.50	46.85	45.03	46.56	47.02	42.58	42.19	44.70	44.87	47.07	47.82	47.60
12	45.50	46.95	45.15	46.55	46.75	42.80	42.28	44.71	44.84	47.29	47.89	47.71
13	45.49	47.10	45.48	46.55	39.55	42.98	42.33	44.76	44.15	47.25	47.91	47.80
14	45.54	47.20	45.65	46.46	37.04	43.20	42.29	44.95	45.28	47.18	47.98	47.85
15	45.66	47.20	45.78	46.88	37.21	43.47	42.25	45.07	45.35	47.17	47.93	47.85
16	45.88	47.29	45.79	46.95	37.52	43.50	42.53	45.03	45.32	47.25	48.03	47.81
17	45.90	47.37	45.80	46.75	37.98	43.53	42.77	44.92	45.47	47.31	48.07	---
18	45.71	47.34	46.01	46.78	38.22	43.85	42.84	45.01	45.55	47.35	48.05	---
19	45.70	47.35	46.00	47.02	38.65	43.90	43.07	45.13	45.72	47.37	48.05	---
20	45.88	47.33	46.20	47.14	39.12	44.15	43.23	45.13	45.92	47.41	48.11	---
21	46.03	47.25	46.20	47.14	39.38	44.25	43.33	45.15	46.05	47.41	48.11	48.09
22	46.17	47.16	46.28	---	39.75	44.27	43.45	45.25	46.09	47.52	48.05	48.13
23	46.30	46.98	46.32	---	39.82	44.22	43.05	45.25	46.13	47.66	48.09	48.14
24	46.34	46.86	46.23	---	39.98	44.16	43.73	45.17	46.24	47.74	48.06	48.21
25	46.34	46.85	46.43	---	40.26	43.99	43.87	45.02	46.29	47.77	47.93	48.29
26	46.18	46.88	46.50	47.47	40.31	43.96	43.97	44.95	46.39	47.70	47.75	48.24
27	46.06	46.95	46.44	47.37	40.65	43.78	44.11	44.90	46.46	47.55	47.60	48.04
28	45.94	46.92	46.38	47.02	40.72	43.62	44.27	45.10	46.49	47.56	47.37	48.13
29	45.96	46.73	46.36	46.83	---	43.64	44.35	45.23	46.58	47.55	47.23	48.08
30	46.20	45.38	46.63	46.87	---	43.61	44.36	45.23	46.70	47.60	47.13	47.98
31	46.41	---	46.61	47.01	---	43.10	---	45.51	---	47.60	47.16	---
Max	46.41	47.37	46.63	47.47	47.25	44.27	44.36	45.51	46.70	47.77	48.11	48.29
Min	45.00	45.38	45.03	46.46	37.04	40.66	41.45	44.13	44.15	46.64	47.13	47.18

Water year 1985: Highest level: 37.04 feet Feb 14, 1985; Lowest level: 48.29 feet Sep 25, 1985

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	48.05	48.31	46.98	44.18	46.65	35.36	36.40	39.53	39.51	42.00	44.90	47.06
2	48.11	48.34	47.57	44.25	46.54	35.45	37.05	39.95	40.04	42.11	45.06	47.15
3	48.07	48.34	47.55	44.42	46.53	35.77	37.48	40.16	40.25	42.31	45.05	47.18
4	48.01	48.26	47.45	44.54	46.44	36.14	37.78	40.27	40.42	42.53	45.12	47.19
5	48.17	47.67	47.44	44.62	45.85	36.58	38.15	40.41	40.73	42.61	45.18	47.21
6	48.27	45.76	47.40	44.93	44.96	36.65	38.20	40.63	40.89	42.70	45.24	47.30
7	48.30	45.08	47.02	45.23	44.16	37.44	38.39	40.65	40.77	42.89	45.21	47.27
8	48.34	45.20	46.87	45.30	43.75	37.62	38.60	40.75	39.46	43.09	45.26	47.31
9	48.27	45.27	46.63	45.30	43.70	37.67	38.90	40.92	39.52	42.96	45.40	47.37
10	48.28	45.39	46.27	45.34	43.65	37.74	39.11	41.05	39.61	43.12	45.40	47.36
11	48.49	45.64	46.22	45.42	43.52	38.15	39.45	41.15	39.52	43.29	45.53	47.30
12	48.50	45.70	46.15	45.40	43.56	38.37	39.87	41.39	39.53	43.42	45.69	47.44
13	48.48	45.86	46.10	45.65	43.64	38.38	39.87	41.73	39.75	43.48	45.80	47.57
14	48.33	45.98	46.23	45.83	43.62	38.24	39.92	41.94	39.79	43.68	45.87	47.72
15	48.52	46.24	46.45	46.03	43.60	36.47	40.02	41.99	39.87	43.83	45.91	47.70
16	48.66	46.25	46.54	46.11	43.64	30.30	40.00	42.06	39.96	43.95	45.92	47.79
17	48.81	46.10	46.45	46.11	43.52	29.48	39.75	42.10	40.24	43.87	46.00	47.77
18	48.80	45.96	46.42	46.12	43.24	29.60	39.45	42.08	40.39	44.00	46.03	47.68
19	48.74	46.00	45.96	46.03	40.70	29.88	39.26	42.24	40.50	44.03	46.14	47.75
20	48.76	46.05	45.94	46.17	37.15	30.77	38.96	42.30	40.80	43.95	46.20	47.70
21	48.77	46.12	45.84	46.29	34.00	31.42	38.71	41.56	40.95	44.18	46.23	47.77
22	48.73	46.11	45.72	46.29	33.44	31.90	38.86	39.30	40.99	44.11	46.25	47.80
23	48.65	45.34	45.73	46.27	33.75	32.29	38.94	38.84	41.11	44.07	46.23	47.66
24	48.62	44.26	45.52	46.35	33.90	32.99	38.99	38.73	41.17	44.13	46.27	47.77
25	48.59	44.24	45.26	46.34	34.20	33.43	38.88	38.68	41.24	44.20	46.45	47.84
26	48.62	44.44	44.98	46.10	34.19	33.72	38.87	38.72	41.25	44.36	46.54	47.82
27	48.56	44.42	44.93	46.02	34.47	34.39	38.89	38.74	41.34	44.45	46.75	47.81
28	48.55	44.80	43.51	46.04	---	34.74	38.94	38.80	41.45	44.45	47.00	47.88
29	48.55	45.90	43.63	46.20	---	35.14	39.15	38.90	41.60	44.60	47.19	47.82
30	48.38	46.31	43.81	46.47	---	35.55	39.25	39.05	41.88	44.65	47.18	47.85
31	48.34	---	43.88	46.59	---	36.13	---	39.30	---	44.79	47.09	---
Max	48.81	48.34	47.57	46.59	46.65	38.38	40.02	42.30	41.88	44.79	47.19	47.88
Min	48.01	44.24	43.51	44.18	33.44	29.48	36.40	38.68	39.46	42.00	44.90	47.06

Water year 1986: Highest level: 29.48 feet Mar 17, 1986; Lowest level: 48.81 feet Oct 17, 1985

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 25 (continued)

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	47.99	50.00	---	---	---	43.86	42.39	34.44	41.48	44.55	45.94	---
2	48.08	49.98	---	---	---	39.97	42.42	35.16	41.69	44.55	45.96	---
3	48.10	49.94	47.00	---	---	36.80	42.44	35.76	41.81	44.50	45.99	---
4	47.97	50.09	46.98	---	---	36.41	42.05	36.17	41.81	44.45	46.05	---
5	47.92	50.09	46.98	44.65	42.94	36.33	33.25	36.37	41.94	44.51	46.21	---
6	48.05	50.15	47.12	45.29	42.74	36.34	29.34	36.64	42.03	44.53	46.32	---
7	48.14	50.18	47.30	45.40	42.30	36.47	26.74	37.04	42.20	44.45	---	---
8	48.19	50.16	47.27	45.59	42.01	36.75	25.14	37.38	42.34	44.35	---	---
9	48.15	49.94	47.49	45.65	42.09	37.44	25.28	37.55	42.56	44.26	---	47.60
10	48.35	49.95	47.47	45.50	42.18	38.24	25.64	37.91	42.72	44.24	---	47.64
11	48.42	49.87	47.23	45.34	42.19	38.57	26.16	38.12	42.65	44.25	---	47.70
12	48.38	49.74	47.14	45.15	42.26	38.76	26.77	38.58	42.84	44.23	---	47.70
13	48.35	49.72	47.36	45.19	42.43	39.04	27.67	39.43	43.07	44.21	---	47.70
14	48.38	49.72	47.35	45.19	42.56	39.15	28.25	39.48	43.06	44.32	---	47.81
15	48.35	49.52	47.17	45.04	42.84	39.48	28.86	39.41	43.20	44.38	---	47.88
16	48.37	49.46	47.18	---	42.91	39.73	29.28	39.58	43.31	44.54	---	47.90
17	48.56	49.40	47.20	---	42.94	39.94	29.37	39.75	43.55	44.68	---	47.91
18	48.67	49.41	---	---	43.18	40.15	28.69	40.05	43.67	44.70	---	47.82
19	48.70	49.49	---	---	43.40	40.37	29.66	40.25	43.73	44.74	---	47.90
20	48.60	49.45	---	---	43.49	40.60	29.06	40.29	43.73	44.80	---	47.89
21	48.54	49.11	---	---	43.54	40.76	29.27	40.38	43.69	44.96	---	47.92
22	48.57	49.09	---	---	43.57	41.09	29.85	40.43	43.74	45.06	---	47.95
23	48.58	48.97	---	---	43.89	41.27	30.24	40.50	43.85	45.17	---	47.99
24	48.64	48.69	---	---	44.05	41.47	30.83	40.60	43.98	45.28	---	48.03
25	48.70	48.69	---	---	44.17	41.54	31.37	40.78	44.01	45.33	---	48.16
26	48.70	48.53	---	---	44.24	41.86	31.87	40.92	44.07	45.30	---	48.21
27	48.72	---	---	---	44.26	41.95	32.30	41.05	44.16	45.37	---	48.25
28	48.90	---	---	---	44.25	42.18	32.84	41.05	44.30	45.50	---	48.28
29	49.61	---	---	---	---	42.25	33.20	41.11	44.37	45.61	---	48.25
30	49.90	---	---	---	---	42.17	33.90	41.18	44.51	45.65	---	48.16
31	50.01	---	---	---	---	42.37	---	41.33	---	45.69	---	---
Max	50.01	50.18	47.49	45.65	44.26	43.86	42.44	41.33	44.51	45.69	46.32	48.28
Min	47.92	48.53	46.98	44.65	42.01	36.33	25.14	34.44	41.48	44.21	45.94	47.60

Water year 1987: Highest level: 25.14 feet Apr 8, 1987; Lowest level: 50.18 feet Nov 7, 1986

Daily low water levels for water year October 1987 to September 1988

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	48.36	49.29	47.61	47.62	---	---	---	---	---	---	---	---
2	48.45	49.24	47.85	47.65	---	---	---	---	---	---	---	---
3	48.51	49.19	47.84	47.61	---	---	---	---	---	---	---	---
4	48.53	49.11	47.84	47.51	---	---	---	---	---	---	---	---
5	48.54	49.28	47.97	47.66	---	---	---	---	---	---	---	---
6	48.49	49.31	48.05	---	---	---	---	---	---	---	---	---
7	48.55	49.31	48.05	---	---	---	---	---	---	---	---	---
8	48.76	49.31	48.03	---	---	---	---	---	---	---	---	---
9	48.83	49.24	47.88	---	---	---	---	---	---	---	---	---
10	48.79	49.22	47.75	---	---	---	---	---	---	---	---	---
11	48.67	49.06	47.72	---	---	---	---	---	---	---	---	---
12	48.66	48.83	47.82	---	---	---	---	---	---	---	---	---
13	48.80	48.56	48.03	---	---	---	---	---	---	---	---	---
14	48.89	48.42	48.03	---	---	---	---	---	---	---	---	---
15	48.88	48.53	47.96	---	---	---	---	---	---	---	---	---
16	48.92	48.49	47.86	---	---	---	---	---	---	---	---	---
17	48.91	48.43	47.09	---	---	---	---	---	---	---	---	---
18	48.95	48.48	48.11	---	---	---	---	---	---	---	---	---
19	48.98	48.48	48.05	---	---	---	---	---	---	---	---	---
20	48.97	48.26	48.05	---	---	---	---	---	---	---	---	---
21	49.12	48.49	47.93	---	---	---	---	---	---	---	---	---
22	49.22	48.52	47.93	---	---	---	---	---	---	---	---	---
23	49.23	48.46	47.94	---	---	---	---	---	---	---	---	---
24	49.24	48.34	47.94	---	---	---	---	---	---	---	---	---
25	49.22	48.31	47.89	---	---	---	---	---	---	---	---	---
26	49.20	48.36	47.88	---	---	---	---	---	---	---	---	---
27	49.11	48.42	47.83	---	---	---	---	---	---	---	---	---
28	49.04	48.38	47.05	---	---	---	---	---	---	---	---	---
29	49.13	48.32	47.77	---	---	---	---	---	---	---	---	---
30	49.16	48.03	47.77	---	---	---	---	---	---	---	---	---
31	49.29	---	47.71	---	---	---	---	---	---	---	---	---
Max	49.29	49.31	48.11	47.66	---	---	---	---	---	---	---	---
Min	48.36	48.03	47.05	47.51	---	---	---	---	---	---	---	---

Water year 1988: Highest level: 47.05 feet Dec 28, 1987
Lowest level: 49.31 feet Nov 6, 1987, Nov 7, 1987, Nov 8, 1987
Period of record: Highest level: 14.68 feet Apr 6, 1984; Lowest level: 51.37 feet Jan 31, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Bk 33
Owner: Startzman, Richard C.
Geologic unit: Catoctin Formation
Altitude: 1,670 feet
Depth of well: 500 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 5, 1986	134.38	Oct 1, 1986	149.46	Feb 3, 1987	134.23	May 28, 1987	134.43
25	137.90	29	150.63	Mar 3	135.20		
Jul 29	145.15	Dec 3	147.92	26	131.84		
Sep 4	148.12	Jan 5, 1987	137.78	Apr 29	123.60		

Period of record: Highest level: 123.60 feet Apr 29, 1987; Lowest level: 150.63 feet Oct 29, 1986

Well number: WA Ch 1
Owner: Vickers, E. E.
Geologic unit: Conococheague Limestone
Altitude: 420 feet
Depth of well: 26 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 10, 1956	14.45	Jun 8, 1966	18.67	Jul 11, 1972	7.98	May 18, 1978	10.41
Jul 18	17.84	Jul 28	19.52	18	8.99	Jun 29	14.13
Oct 12	18.23	Sep 9	20.10	Sep 7	13.93	Aug 10	16.32
Dec 18	17.27	Oct 18	19.54	Oct 20	16.74	Sep 18	17.85
Jan 11, 1957	16.55	Dec 7	19.02	Dec 13	12.98	Oct 30	18.79
Apr 8	16.06	Jan 18, 1967	18.49	Jan 19, 1973	11.42	Dec 14	17.77
Jul 17	17.84	Mar 1	17.15	Mar 1	9.96	Jan 3, 1979	15.70
Nov 13	18.03	Apr 20	15.17	Apr 3	10.97	Mar 13	7.05
Dec 13	19.71	Jun 6	17.35	May 2	8.50	May 8	12.42
Jan 10, 1958	19.62	26	17.76	Jun 13	8.36	Jun 28	15.70
Feb 3	16.56	Jul 17	17.07	Aug 3	14.17	Aug 9	17.65
Mar 11	15.70	Aug 23	17.34	Sep 17	16.06	Oct 3	16.70
Apr 10	10.69	Oct 3	17.70	Oct 25	16.29	Nov 20	14.19
May 19	11.19	Nov 7	17.13	Nov 28	18.00	Dec 19	15.73
Jul 23	16.07	Dec 19	14.75	Jan 7, 1974	11.47	Jan 2, 1980	15.42
Sep 24	18.13	Jan 23, 1968	13.58	Feb 7	10.77	25	14.92
Jan 9, 1959	19.29	Feb 20	13.87	Mar 14	14.10	Feb 29	16.68
Apr 10	18.78	Mar 5	14.98	Apr 18	10.14	Apr 15	12.72
30	18.54	Apr 15	13.05	May 23	13.45	May 27	12.50
Jun 2	18.90	May 1	14.27	Jul 11	16.69	Jul 3	15.35
12	19.37	28	15.50	Sep 6	18.05	Aug 14	17.47
Jul 7	18.94	Jul 9	16.15	Oct 21	19.03	Oct 10	18.65
Aug 6	19.38	16	16.50	Nov 15	18.95	Nov 10	18.95
26	19.65	Aug 19	17.83	Jan 2, 1975	17.84	Dec 17	19.12
Oct 16	19.56	Oct 2	18.22	29	16.50	Jan 21, 1981	19.47
Jan 12, 1960	21.10	Nov 21	18.42	Mar 11	14.02	Feb 24	17.98
Apr 15	16.55	Jan 8, 1969	19.03	Apr 10	11.21	Apr 7	18.70
Jul 1	17.38	Mar 10	20.02	May 15	10.60	May 6	17.85
Jan 13, 1961	20.05	Apr 21	18.83	Jul 16	9.86	Jun 10	17.15
Apr 11	12.44	May 22	18.92	Aug 26	14.41	Jul 22	17.25
Jul 5	15.72	Jun 23	18.94	Oct 8	8.47	Sep 15	18.44
Oct 5	18.72	Jul 15	19.61	Nov 17	8.67	Oct 5	18.78
Jan 10, 1962	18.29	Sep 9	18.68	Dec 18	11.77	Nov 20	18.69
Apr 13	10.90	Oct 7	19.33	30	12.18	Jan 5, 1982	17.33
Jul 5	16.80	Nov 19	19.82	Feb 4, 1976	9.73	Feb 17	15.76
Oct 12	19.03	Dec 16	18.72	Mar 11	13.01	Mar 22	12.30
Jan 4, 1963	18.62	Feb 12, 1970	15.91	May 11	13.50	May 11	14.60
Apr 11	15.34	Mar 17	16.96	Jun 15	16.63	Jun 21	10.64
Jul 1	18.06	May 5	10.92	Jul 20	16.78	Jul 26	14.80
Oct 1	19.39	Jun 17	14.83	Aug 26	17.47	Sep 9	17.58
25	19.98	Jul 30	13.28	Oct 8	13.90	Nov 2	18.65
Nov 6	20.07	Oct 19	18.22	Nov 18	9.50	Dec 15	19.05
Jan 9, 1964	17.39	Dec 28	16.43	Jan 4, 1977	13.73	Jan 26, 1983	19.25
Apr 3	17.50	Feb 11, 1971	14.19	Feb 21	16.43	Mar 10	17.80
Jul 1	16.46	Mar 22	9.92	Apr 11	9.06	Apr 15	11.91
Oct 21	19.50	May 7	14.47	May 27	14.02	May 23	10.31
31	19.44	Jun 3	15.06	Jul 12	16.62	Jul 8	15.41
Jan 12, 1965	17.39	Aug 5	15.03	Aug 22	17.62	Aug 16	17.78
Apr 9	16.93	Oct 5	15.94	Oct 6	18.79	Oct 3	18.65
Jun 30	18.42	Dec 3	11.43	Nov 21	18.81	Nov 7	19.20
Sep 30	19.95	Jan 4, 1972	12.36	Jan 4, 1978	16.50	Dec 15	14.55
Jan 7, 1966	20.39	Mar 21	8.94	Feb 23	14.12	Feb 1, 1984	15.65
Apr 28	18.49	May 26	9.61	Apr 6	8.98	Mar 16	8.92

Period of record: Highest level: 7.05 feet Mar 13, 1979; Lowest level: 20.39 feet Jan 7, 1966

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 87
Owner: John R. Oliver Co.
Geologic unit: Conococheague Limestone
Altitude: 440 feet
Depth of well: 125 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Feb 27, 1978	24.69	Dec 14, 1978	33.60	Feb 22, 1980	27.41	Nov 20, 1980	35.74
Mar 30	19.64	Mar 1, 1979	18.26	Apr 2	23.00	Dec 19	36.02
Apr 25	21.77	16	19.55	May 2	23.13	Jan 16, 1981	36.79
May 25	20.44	Apr 5	19.81	Jun 2	23.70	Feb 20	35.66
Jun 1	21.37	May 10	22.24	30	25.78	Mar 20	32.89
Jul 11	24.63	Jun 14	24.69	Jul 28	28.75	Apr 17	30.57
28	26.39	Jul 18	28.23	Aug 15	30.25	May 20	29.00
Oct 27	33.18	Aug 30	31.38	Sep 19	32.79	Jun 19	30.10
Nov 21	34.40	Jan 4, 1980	25.92	Oct 20	34.60		

Period of record: Highest level: 18.26 feet Mar 1, 1979; Lowest level: 36.79 feet Jan 16, 1981

Well number: WA Ch 88
Owner: John R. Oliver Co.
Geologic unit: Conococheague Limestone
Altitude: 480 feet
Depth of well: 165 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 6, 1978	48.23	Mar 1, 1979	43.78	May 2, 1980	46.45	Dec 19, 1980	52.37
30	43.93	16	41.08	Jun 2	45.55	Jan 16, 1981	56.75
Apr 25	44.75	Apr 5	41.80	30	46.87	Feb 20	52.70
May 25	43.49	May 10	44.30	Jul 28	43.49	Mar 20	51.78
Jun 1	43.64	Jun 14	46.52	Aug 21	49.88	Apr 17	51.30
Jul 11	45.87	Jan 4, 1980	48.28	Sep 19	50.70	May 20	50.35
Nov 21	51.47	Mar 4	48.70	Oct 20	51.60	Jun 19	50.42
Dec 14	51.34	Apr 2	47.00	Nov 20	52.16		

Period of record: Highest level: 41.08 feet Mar 16, 1979; Lowest level: 56.75 feet Jan 16, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 106
Owner: U.S. Geological Survey
Geologic unit: Conococheague Limestone
Altitude: 520 feet
Depth of well: 69.0 feet

Daily low water levels for water year October 1977 to September 1978

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	22.75	25.76	26.75	28.90	30.47	30.80
2	---	---	---	---	---	---	22.85	25.87	26.81	28.91	30.53	30.85
3	---	---	---	---	---	---	22.87	---	26.87	28.90	30.57	30.93
4	---	---	---	---	---	---	22.89	---	26.94	28.84	30.56	31.01
5	---	---	---	---	---	---	22.92	---	27.00	28.92	30.60	31.08
6	---	---	---	---	---	29.66	---	26.20	27.08	28.98	30.64	31.15
7	---	---	---	---	---	---	---	26.30	27.15	29.05	30.65	31.21
8	---	---	---	---	---	---	---	26.38	27.22	29.10	30.70	31.28
9	---	---	---	---	---	---	---	26.48	27.30	29.15	30.75	31.35
10	---	---	---	---	---	---	---	26.60	27.38	29.22	30.79	---
11	---	---	---	---	---	---	---	26.70	27.45	29.29	30.83	---
12	---	---	---	---	---	---	---	26.78	27.51	29.34	30.84	---
13	---	---	---	---	---	---	---	26.83	27.60	29.40	30.88	---
14	---	---	---	---	---	---	---	26.73	27.68	29.46	30.94	---
15	---	---	---	---	---	---	---	26.74	27.75	29.51	30.99	---
16	---	---	---	---	---	---	---	26.54	27.82	29.57	31.04	---
17	---	---	---	---	---	---	---	26.40	27.89	29.64	31.08	---
18	---	---	---	---	---	---	---	26.28	27.96	29.69	31.14	---
19	---	---	---	---	---	---	---	26.14	28.04	29.75	31.18	---
20	---	---	---	---	---	---	---	26.05	28.08	29.80	31.24	---
21	---	---	---	---	---	---	---	25.98	28.16	---	31.28	32.06
22	---	---	---	---	---	---	---	25.96	28.25	---	31.34	32.12
23	---	---	---	---	---	---	---	25.94	28.32	---	31.38	32.17
24	---	---	---	---	---	---	---	---	28.40	---	31.43	32.23
25	---	---	---	---	---	---	25.01	26.48	28.46	---	31.48	32.28
26	---	---	---	---	---	---	25.10	26.51	28.54	---	31.53	32.34
27	---	---	---	---	29.27	---	25.22	26.54	28.60	---	31.55	32.40
28	---	---	---	---	---	---	25.33	26.58	28.68	30.24	30.65	32.45
29	---	---	---	---	---	23.20	25.43	26.61	28.75	30.30	30.78	32.50
30	---	---	---	---	---	---	25.54	---	28.82	30.35	30.86	32.55
31	---	---	---	---	---	22.78	---	---	---	30.40	30.86	---
Max	---	---	---	---	29.27	29.66	25.54	26.83	28.82	30.40	31.55	32.55
Min	---	---	---	---	29.27	22.78	22.75	25.76	26.75	28.84	30.47	30.80

Water year 1978: Highest level: 22.75 feet Apr 1, 1978; Lowest level: 32.55 feet Sep 30, 1978

Daily low water levels for water year October 1978 to September 1979

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	32.60	33.90	34.76	---	---	22.59	---	25.57	---	---	---	33.32
2	32.65	33.95	34.79	---	---	22.51	---	25.66	---	---	---	33.35
3	32.70	33.98	34.80	---	---	22.48	---	25.75	---	---	---	33.40
4	32.74	34.02	34.80	---	---	---	---	25.84	---	---	---	33.44
5	32.78	34.05	34.82	---	---	---	23.70	25.94	---	---	---	33.45
6	32.83	34.09	34.84	---	---	22.09	23.77	26.04	---	---	---	33.05
7	32.87	34.12	34.86	---	---	---	23.80	26.13	---	---	---	33.14
8	32.92	34.15	34.87	---	---	---	23.81	26.23	---	---	---	33.21
9	32.97	34.18	34.84	---	---	---	23.85	26.32	---	---	---	33.27
10	33.01	34.22	34.60	---	---	---	23.95	26.34	---	---	---	33.32
11	33.05	34.25	34.60	---	---	---	24.00	---	---	---	---	33.37
12	33.11	34.28	34.60	---	---	22.05	24.05	---	---	---	---	33.42
13	33.12	34.31	34.60	---	---	---	24.10	---	---	---	---	33.45
14	33.17	34.34	34.61	---	---	---	24.14	---	---	---	---	33.48
15	33.22	34.36	34.62	---	---	---	24.22	---	---	---	---	33.52
16	33.26	34.39	34.64	---	28.45	22.37	24.32	---	---	---	---	33.55
17	33.30	34.40	34.65	---	28.55	22.45	24.40	---	---	---	---	33.58
18	33.35	34.44	34.66	---	28.62	---	24.48	---	---	---	---	33.61
19	33.38	34.47	34.67	---	28.70	---	24.56	---	---	31.31	---	33.64
20	---	34.50	34.68	---	28.78	---	24.65	---	---	31.36	---	33.66
21	---	34.55	34.68	---	28.85	---	24.74	---	---	---	---	33.25
22	---	34.58	34.70	---	28.87	---	24.82	---	---	---	---	32.94
23	---	34.60	---	---	28.85	---	24.90	---	---	---	---	32.95
24	---	34.64	---	---	---	---	24.99	---	---	---	---	32.96
25	---	34.66	---	---	---	---	25.07	---	---	---	---	32.98
26	---	34.68	---	---	---	---	25.15	---	---	---	---	32.99
27	33.70	34.69	---	---	---	---	25.24	---	---	---	---	33.00
28	33.75	34.71	---	---	---	---	25.32	---	---	---	---	33.02
29	33.78	34.74	---	---	---	---	25.40	---	---	---	---	33.04
30	33.83	34.74	---	---	---	---	25.49	---	---	---	33.23	---
31	33.87	---	---	---	---	---	---	---	---	---	33.28	---
Max	33.87	34.74	34.87	---	28.87	22.59	25.49	26.34	---	31.36	33.28	33.66
Min	32.60	33.90	34.60	---	28.45	22.05	23.70	25.57	---	31.31	33.23	32.94

Water year 1979: Highest level: 22.05 feet Mar 12, 1979; Lowest level: 34.87 feet Dec 8, 1978

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 106 (continued)

Daily low water levels for water year October 1979 to September 1980

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	29.35	29.44	---	30.50	---	---	28.47	28.74	29.95	31.40	---
2	---	29.35	29.48	---	30.53	---	29.97	28.55	28.74	30.00	31.46	---
3	---	29.20	29.50	---	30.55	---	29.87	28.54	28.68	30.05	31.51	---
4	---	29.19	29.53	30.34	30.58	---	29.70	28.54	28.71	30.12	31.58	---
5	---	29.17	29.55	30.36	---	---	29.53	28.54	28.75	30.17	---	---
6	---	29.14	29.58	30.39	---	---	29.48	28.53	28.78	30.22	---	---
7	---	29.10	29.62	30.42	---	---	29.29	28.55	28.80	30.30	---	---
8	---	29.09	29.68	30.46	---	---	29.18	28.55	28.81	30.34	---	---
9	---	29.06	29.72	30.50	---	---	29.08	28.57	28.80	30.40	---	---
10	---	29.04	29.75	30.52	---	---	28.98	28.59	28.84	30.46	---	---
11	---	29.05	29.80	30.55	---	---	28.92	28.60	28.88	30.50	---	---
12	---	29.04	29.83	30.58	---	---	28.87	28.62	28.94	30.59	---	---
13	---	29.04	29.87	30.60	---	---	28.83	28.63	28.96	30.65	---	---
14	---	29.05	29.92	30.61	---	---	28.80	28.66	29.00	30.71	---	---
15	---	29.05	29.95	---	---	---	28.70	28.70	29.05	30.76	32.14	---
16	---	29.07	29.98	---	---	---	28.66	---	29.08	30.82	32.20	---
17	---	29.08	30.04	---	---	---	28.65	---	29.13	30.88	32.25	---
18	---	29.10	30.08	---	---	---	28.63	---	29.20	30.94	32.31	---
19	---	29.13	30.13	30.54	---	---	28.59	---	29.24	31.00	32.36	33.77
20	---	29.15	30.18	30.54	---	---	28.56	---	29.29	31.05	32.41	33.80
21	---	29.18	30.22	30.52	---	---	28.54	28.74	29.35	31.10	32.47	33.85
22	---	29.20	30.25	30.50	---	---	28.52	28.60	29.40	30.70	32.51	33.88
23	---	29.24	---	30.47	---	---	28.51	28.60	29.46	30.70	32.55	33.91
24	29.25	29.27	---	30.46	---	---	28.50	28.60	29.52	30.84	32.60	33.95
25	29.25	29.28	---	30.45	---	---	28.50	28.61	29.57	30.94	32.65	33.99
26	29.26	29.28	---	30.45	---	---	28.51	28.64	29.64	31.00	32.70	34.02
27	29.27	29.30	---	30.45	---	---	28.51	28.65	29.70	31.10	32.75	34.05
28	29.27	29.34	---	30.45	---	---	28.49	28.66	29.75	31.16	32.80	34.08
29	29.30	29.36	---	30.46	---	---	28.45	28.67	29.80	31.23	---	34.11
30	29.32	29.40	---	30.48	---	---	28.47	28.70	29.89	31.29	---	34.15
31	29.34	---	---	30.49	---	---	---	28.72	---	31.35	---	---
Max	29.34	29.40	30.25	30.61	30.58	---	29.97	28.74	29.89	31.35	32.80	34.15
Min	29.25	29.04	29.44	30.34	30.50	---	28.45	28.47	28.68	29.95	31.40	33.77

Water year 1980: Highest level: 28.45 feet Apr 29, 1980; Lowest level: 34.15 feet Sep 30, 1980

Daily low water levels for water year October 1980 to September 1981

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	34.18	---	35.34	35.87	---	35.03	35.37	34.24	34.62	---	---	---
2	34.21	---	35.36	35.89	---	35.03	35.38	34.22	34.64	---	---	---
3	34.25	---	35.39	35.90	---	35.04	35.40	34.25	34.64	---	---	---
4	34.28	---	35.42	35.92	---	35.05	35.42	34.26	34.64	---	---	---
5	34.31	---	35.44	35.93	---	35.05	35.44	34.28	34.63	---	---	---
6	34.34	---	35.45	35.94	35.75	35.07	35.45	34.30	34.65	---	---	---
7	34.36	---	35.47	35.95	35.83	35.09	35.47	34.33	34.66	---	---	---
8	34.40	---	35.49	35.96	35.89	35.10	35.48	34.35	34.68	---	---	---
9	34.43	---	35.50	35.98	35.94	35.11	35.50	34.37	34.70	---	---	---
10	34.45	---	35.52	35.99	35.99	35.12	35.52	34.38	34.70	---	---	---
11	34.48	---	35.54	36.00	35.99	35.13	35.52	34.40	---	---	---	---
12	34.50	---	35.55	36.01	---	35.14	35.45	34.30	34.73	---	---	---
13	34.54	---	35.57	36.02	35.30	35.15	35.31	34.32	34.74	---	---	---
14	34.56	---	35.58	36.04	35.42	35.16	35.32	34.33	34.75	---	---	---
15	34.60	---	35.60	36.06	35.50	35.17	---	34.34	34.76	---	---	---
16	34.63	---	35.63	36.13	35.58	35.18	---	34.36	34.77	---	---	---
17	34.65	---	35.64	---	---	35.19	34.50	34.38	34.78	---	---	---
18	34.68	---	35.66	---	---	35.20	34.45	34.39	34.79	---	---	---
19	34.71	---	35.68	---	---	35.21	34.36	---	34.77	---	---	---
20	34.75	35.34	35.70	---	35.38	35.22	34.30	34.43	---	---	---	---
21	34.77	35.36	35.72	---	35.45	35.24	34.26	34.44	---	---	---	---
22	34.80	35.38	35.74	---	---	35.25	34.24	34.46	---	---	---	---
23	34.82	35.42	35.75	---	---	35.26	34.21	34.48	---	---	---	---
24	34.85	35.42	35.76	---	35.24	35.27	34.19	34.50	---	---	---	---
25	34.85	35.12	35.78	---	35.21	35.29	34.17	34.51	---	---	---	---
26	34.82	35.18	35.80	---	35.14	35.30	34.18	34.53	---	---	---	---
27	34.85	35.22	35.81	---	35.08	35.32	34.19	34.54	---	---	---	---
28	34.88	35.25	35.82	---	35.05	35.34	34.20	34.55	---	---	---	---
29	34.90	35.28	35.84	---	---	35.35	34.21	34.56	---	---	---	---
30	34.94	35.32	35.85	---	---	35.35	34.23	34.58	---	---	---	---
31	34.95	---	35.86	---	---	35.36	---	34.60	---	---	---	---
Max	34.95	35.42	35.86	36.13	35.99	35.36	35.52	34.60	34.79	---	---	---
Min	34.18	35.12	35.34	35.87	35.05	35.03	34.17	34.22	34.62	---	---	---

Water year 1981: Highest level: 34.17 feet Apr 25, 1981; Lowest level: 36.13 feet Jan 16, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 106 (continued)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Apr 23, 1984	18.41	Oct 9, 1984	32.68	Mar 26, 1985	34.24	Sep 11, 1985	34.42
Jun 7	21.58	Nov 19	34.50	May 6	34.59		
Jul 12	26.00	Jan 3, 1985	35.00	Jun 17	34.30		
Aug 28	30.02	Feb 14	31.81	Jul 29	34.13		

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	31.89	30.75	32.18	29.43	26.66	28.61	30.37	31.78	33.09	34.30
2	---	---	31.61	30.78	32.21	29.34	26.72	28.69	30.44	31.85	33.13	34.33
3	---	---	---	30.82	32.26	29.27	26.78	28.76	30.50	31.89	33.18	34.35
4	---	---	---	30.85	32.26	29.21	26.82	28.82	30.55	31.94	33.22	34.38
5	---	---	---	30.89	32.20	29.16	26.90	28.88	30.60	32.00	33.26	34.41
6	---	33.62	---	30.94	32.19	29.11	26.95	28.94	30.64	32.05	33.30	34.45
7	---	33.52	---	31.00	32.17	29.08	27.02	29.01	30.57	32.10	33.34	34.48
8	---	33.38	---	31.04	32.14	29.08	27.06	29.08	30.64	32.14	33.39	34.50
9	---	33.32	---	31.06	32.12	29.06	27.11	29.16	30.71	32.19	33.45	34.53
10	---	33.29	---	31.11	32.10	29.05	27.19	29.21	30.76	32.24	33.49	34.56
11	---	33.28	---	31.15	32.08	29.05	27.26	29.28	30.81	32.28	33.50	34.58
12	---	33.29	---	31.18	32.07	29.06	27.34	29.24	30.86	32.32	33.57	34.61
13	---	33.30	---	31.23	32.06	29.06	27.44	29.42	30.92	32.37	33.62	34.64
14	---	33.32	---	31.28	32.05	29.03	27.51	29.49	30.97	32.41	33.66	34.66
15	---	33.35	---	31.34	32.04	28.04	27.57	29.56	31.02	32.46	33.70	34.69
16	---	33.36	---	31.42	32.04	27.64	27.60	29.62	31.06	32.50	33.75	34.72
17	---	33.33	---	31.44	32.03	27.33	27.67	29.69	31.12	32.54	33.78	34.75
18	---	33.33	---	31.48	31.98	27.11	27.75	29.76	31.17	32.59	33.82	34.77
19	---	33.32	---	31.52	31.75	26.90	27.81	29.83	31.21	32.61	33.85	34.80
20	---	33.29	---	31.56	31.14	26.78	27.86	29.88	31.27	32.60	33.89	34.83
21	---	33.27	---	31.60	30.86	26.71	27.92	29.58	31.31	32.57	33.92	34.86
22	35.23	33.26	---	31.65	30.48	26.65	28.00	29.76	31.37	32.61	33.95	34.88
23	---	32.80	---	31.74	30.25	26.60	28.07	29.84	31.42	32.66	33.98	34.92
24	---	32.68	30.56	31.79	30.08	26.56	28.13	29.90	31.45	32.71	34.00	34.94
25	35.02	32.55	30.58	31.83	29.91	26.56	28.19	29.98	31.51	32.75	34.04	34.97
26	---	32.42	30.60	31.86	29.75	26.54	28.26	30.04	31.55	32.80	34.07	35.00
27	---	32.36	30.61	31.91	29.61	26.55	28.32	30.10	31.62	32.84	34.10	35.03
28	---	32.31	30.64	31.97	29.52	26.53	28.42	30.13	31.66	32.88	34.12	35.05
29	---	32.15	30.66	32.03	---	26.54	28.49	30.20	31.71	32.93	34.19	35.08
30	---	32.04	30.69	32.08	---	26.57	28.55	30.26	31.76	33.00	34.23	35.11
31	---	---	30.71	32.14	---	26.62	---	30.31	---	33.04	34.27	---
Max	35.23	33.62	31.89	32.14	32.26	29.43	28.55	30.31	31.76	33.04	34.27	35.11
Min	35.02	32.04	30.56	30.75	29.52	26.53	26.66	28.61	30.37	31.78	33.09	34.30

Water year 1986: Highest level: 26.53 feet Mar 28, 1986; Lowest level: 35.23 feet Oct 22, 1985

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 106 (continued)

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	35.09	35.79	36.06	35.26	34.48	33.57	32.64	30.44	---	32.89	---	34.46
2	35.14	35.81	36.04	35.23	34.47	33.54	32.66	30.48	---	32.92	---	---
3	35.17	35.82	36.04	35.22	34.42	33.53	32.68	30.52	---	32.96	---	---
4	35.19	35.84	36.05	35.22	34.41	---	32.67	30.52	---	32.99	---	---
5	35.21	35.85	36.05	35.21	34.38	---	31.88	30.54	---	33.03	---	---
6	35.24	35.86	36.06	35.20	34.33	---	31.84	30.56	---	33.07	---	---
7	35.26	35.88	36.07	35.20	34.24	---	31.55	30.59	---	33.10	---	---
8	35.28	35.89	36.08	35.19	34.17	---	31.27	30.62	31.87	32.69	---	---
9	35.31	35.91	36.08	35.19	34.10	---	31.05	30.65	---	32.69	---	---
10	35.34	35.92	36.04	35.19	34.05	---	30.91	30.68	---	32.62	---	---
11	35.36	35.93	36.04	35.19	33.96	---	30.74	30.71	---	32.63	---	---
12	35.39	35.93	36.03	35.18	33.90	---	30.64	30.75	---	32.64	---	---
13	35.41	35.96	36.02	35.18	33.85	---	30.57	30.80	---	32.65	---	---
14	35.43	35.98	36.02	35.18	33.82	---	30.52	30.82	---	32.67	---	---
15	35.45	35.99	36.01	35.18	33.77	---	30.46	30.86	---	32.69	---	---
16	35.47	36.00	36.01	35.17	33.75	32.37	30.42	30.90	---	32.71	---	---
17	35.50	36.01	36.01	35.17	33.73	---	30.38	30.94	---	32.74	---	---
18	35.52	36.10	36.00	35.17	33.72	---	30.35	30.97	---	32.77	---	---
19	35.55	36.03	35.90	35.16	33.70	---	30.34	31.02	---	32.82	---	---
20	35.57	36.04	35.97	34.97	33.67	---	30.33	31.05	---	32.86	---	---
21	35.59	35.94	35.97	34.94	33.66	---	30.33	31.09	---	32.89	---	---
22	35.60	35.99	35.97	34.84	33.66	---	30.32	31.14	---	32.94	---	---
23	35.62	36.02	35.96	34.73	33.65	---	30.32	31.17	---	32.98	---	---
24	35.66	36.04	35.96	34.67	33.69	---	30.33	31.21	---	33.02	---	---
25	35.67	36.05	35.52	34.62	33.61	---	30.34	31.26	---	33.06	---	---
26	35.70	36.05	35.52	34.58	33.61	32.51	30.36	31.33	---	33.10	---	---
27	35.71	36.05	35.52	34.55	33.61	32.52	---	---	---	33.14	---	---
28	35.72	36.06	35.46	34.52	33.61	32.55	30.36	---	---	33.18	---	---
29	35.73	36.07	35.38	34.51	---	32.58	30.39	---	---	33.23	---	---
30	35.76	36.07	35.34	34.50	---	32.58	30.42	---	---	33.26	---	---
31	35.77	---	35.28	34.49	---	32.61	---	---	---	33.30	---	---
Max	35.77	36.10	36.08	35.26	34.48	33.57	32.68	31.33	31.87	33.30	---	34.46
Min	35.09	35.79	35.28	34.49	33.61	32.37	30.32	30.44	31.87	32.62	---	34.46

Water year 1987: Highest level: 30.32 feet Apr 22, 1987, Apr 23, 1987; Lowest level: 36.10 feet Nov 18, 1986

Daily low water levels for water year October 1987 to September 1988

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	35.74	35.82	35.82	---	---	---	---	---	---	---	---
2	---	35.76	35.82	35.82	---	---	---	---	---	---	---	---
3	---	35.77	35.82	---	---	---	---	---	---	---	---	---
4	---	35.78	35.80	---	---	---	---	---	---	---	---	---
5	35.22	35.79	35.79	---	---	---	---	---	---	---	---	---
6	35.24	35.80	35.79	---	---	---	---	---	---	---	---	---
7	35.26	35.82	35.79	---	---	---	---	---	---	---	---	---
8	35.28	35.83	35.79	---	---	---	---	---	---	---	---	---
9	35.30	35.84	35.79	---	---	---	---	---	---	---	---	---
10	35.31	35.86	35.79	---	---	---	---	---	---	---	---	---
11	35.34	35.84	35.79	---	---	---	---	---	---	---	---	---
12	35.35	35.85	35.79	---	---	---	---	---	---	---	---	---
13	35.40	35.86	35.80	---	---	---	---	---	---	---	---	---
14	35.42	35.87	35.80	---	---	---	---	---	---	---	---	---
15	35.44	35.89	35.80	---	---	---	---	---	---	---	---	---
16	35.47	35.90	35.81	---	---	---	---	---	---	---	---	---
17	35.48	35.91	35.82	---	---	---	---	---	---	---	---	---
18	35.50	35.92	35.82	---	---	---	---	---	---	---	---	---
19	35.52	35.93	35.83	---	---	---	---	---	---	---	---	---
20	35.55	35.94	35.83	---	---	---	---	---	---	---	---	---
21	35.57	35.96	35.83	---	---	---	---	---	---	---	---	---
22	35.59	35.97	35.83	---	---	---	---	---	---	---	---	---
23	35.60	35.99	35.84	---	---	---	---	---	---	---	---	---
24	35.62	36.00	35.84	---	---	---	---	---	---	---	---	---
25	35.64	36.00	35.84	---	---	---	---	---	---	---	---	---
26	35.65	36.01	35.84	---	---	---	---	---	---	---	---	---
27	35.66	36.03	35.84	---	---	---	---	---	---	---	---	---
28	35.67	36.04	35.84	---	---	---	---	---	---	---	---	---
29	35.68	36.04	35.84	---	---	---	---	---	---	---	---	---
30	35.70	35.84	35.84	---	---	---	---	---	---	---	---	---
31	35.73	---	35.84	---	---	---	---	---	---	---	---	---
Max	35.73	36.04	35.84	35.82	---	---	---	---	---	---	---	---
Min	35.22	35.74	35.79	35.82	---	---	---	---	---	---	---	---

Water year 1988: Highest level: 35.22 feet Oct 5, 1987; Lowest level: 36.04 feet Nov 28, 1987, Nov 29, 1987
Period of record: Highest level: 18.41 feet Apr 23, 1984; Lowest level: 36.13 feet Jan 16, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Ch 109
Owner: McMahon's Mill Recreation Area
Geologic unit: Stonehenge Limestone
Altitude: 420 feet
Depth of well: 200 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 14, 1985	67.37	Feb 3, 1986	60.87	Jul 30, 1986	69.55	Feb 5, 1987	57.95
Jul 31	68.40	27	50.27	Aug 29	70.18	Mar 3	53.75
Aug 27	65.25	Mar 27	50.97	Oct 2	71.73	26	58.05
Oct 30	69.73	Apr 28	57.29	29	73.03	Apr 29	54.79
Nov 27	56.63	Jun 4	63.30	Dec 3	65.89	May 28	60.04
Dec 26	55.73	25	64.63	31	62.81		

Period of record: Highest level: 50.27 feet Feb 27, 1986; Lowest level: 73.03 feet Oct 29, 1986

Well number: WA Ch 117
Owner: Downsville Ruritan Club
Geologic unit: Rockdale Run Formation
Altitude: 470 feet
Depth of well: 300 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jul 31, 1985	16.58	Feb 27, 1986	8.09	Aug 29, 1986	18.78	Mar 3, 1987	11.85
Aug 27	15.64	Mar 27	9.08	Oct 2	19.26	26	13.54
Oct 30	17.84	Apr 28	12.29	29	19.51	Apr 29	11.08
Nov 27	12.03	Jun 4	15.42	Dec 3	18.60	May 27	13.98
Dec 26	11.35	25	16.62	31	16.57		
Feb 3, 1986	14.76	Jul 30	18.21	Feb 5, 1987	13.88		

Period of record: Highest level: 8.09 feet Feb 27, 1986; Lowest level: 19.51 feet Oct 29, 1986

Well number: WA Ch 151
Owner: Diebert, Wilbur
Geologic unit: Rockdale Run Formation
Altitude: 450 feet
Depth of well: 350 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 4, 1986	30.12	Oct 2, 1986	35.01	Feb 5, 1987	30.98	May 28, 1987	30.44
25	31.08	29	35.56	Mar 3	29.30		
Jul 30	32.85	Dec 3	34.92	26	30.77		
Aug 29	33.63	31	32.20	Apr 29	28.12		

Period of record: Highest level: 28.12 feet Apr 29, 1987; Lowest level: 35.56 feet Oct 29, 1986

Well number: WA Ci 1
Owner: Shumaker, Gilbert
Geologic unit: Conococheague Limestone
Altitude: 470 feet
Depth of well: 65 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 21, 1977	35.69	Feb 1, 1978	33.04	Mar 1, 1979	27.89	Aug 15, 1980	37.60
23	35.82	Mar 6	34.82	16	27.87	Sep 19	39.59
Jul 7	36.53	29	29.29	Apr 5	29.29	Oct 20	41.75
27	37.31	Apr 25	31.78	May 10	32.35	Nov 20	41.14
Aug 2	37.56	May 25	30.81	Jun 14	34.57	Dec 19	42.27
29	38.64	Jun 20	33.20	19	36.68	Jan 16, 1981	41.97
Sep 13	39.46	Jul 11	34.15	Aug 30	38.33	Feb 20	39.71
21	39.54	28	35.32	Jan 4, 1980	35.75	Mar 20	39.05
Oct 13	39.67	Aug 24	36.82	Mar 4	36.17	Apr 17	38.02
24	41.94	Sep 8	37.34	Apr 2	31.56	May 20	37.16
Nov 23	39.86	21	37.82	May 2	33.39	Jun 19	37.57
Dec 12	38.38	Oct 27	38.95	Jun 2	33.49		
29	36.09	Nov 21	40.67	30	35.53		
Jan 11, 1978	34.63	Dec 14	38.85	Jul 28	36.84		

Period of record: Highest level: 27.87 feet Mar 16, 1979; Lowest level: 42.27 feet Dec 19, 1980

Well number: WA Ci 6
Owner: Fairplay Rotary Club
Geologic unit: Conococheague Limestone
Altitude: 510 feet
Depth of well: 166 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jun 21, 1977	58.57	Aug 2, 1977	60.70	Oct 13, 1977	64.67	Dec 29, 1977	50.85
24	59.20	10	62.60	24	62.39	Jan 11, 1978	48.21
Jul 7	60.30	29	60.70	Nov 23	59.20	Feb 1	50.00
27	57.75	Sep 21	60.00	Dec 12	54.19	Mar 6	53.46

Period of record: Highest level: 48.21 feet Jan 11, 1978; Lowest level: 64.67 feet Oct 13, 1977

Table 5.—Water levels in observation wells—Continued

Well number: WA Ci 80
Owner: Shifler, James
Geologic unit: Waynesboro Formation
Altitude: 490 feet
Depth of well: 175 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 30, 1986	45.69	Oct 1, 1986	50.44	Feb 3, 1987	46.62	May 28, 1987	46.28
Jun 25	46.78	29	50.96	Mar 3	40.14		
Jul 29	48.99	Dec 3	48.32	27	46.46		
Aug 29	49.80	Jan 6, 1987	48.06	Apr 29	44.41		

Period of record: Highest level: 40.14 feet Mar 3, 1987; Lowest level: 50.96 feet Oct 29, 1986

Well number: WA Ci 82
Owner: U.S. Geological Survey
Geologic unit: Conococheague Limestone
Altitude: 500 feet
Depth of well: 84 feet

Daily low water levels for water year October 1977 to September 1978

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	---	43.18	41.95	45.72	48.89	45.13
2	---	---	---	---	---	---	---	43.39	42.17	45.72	48.96	45.14
3	---	---	---	---	---	---	---	43.60	42.37	44.77	49.05	45.19
4	---	---	---	---	---	---	---	43.79	42.58	43.69	48.82	---
5	---	---	---	---	---	---	---	43.98	42.78	43.58	48.70	---
6	---	---	---	---	---	44.20	---	44.17	42.99	43.63	48.69	---
7	---	---	---	---	---	---	---	44.35	43.19	43.77	48.66	---
8	---	---	---	---	---	---	---	44.53	43.38	43.95	48.56	---
9	---	---	---	---	---	---	---	44.69	43.57	44.17	48.58	---
10	---	---	---	---	---	---	---	44.83	43.77	44.40	48.70	---
11	---	---	---	---	---	---	---	44.99	43.95	44.64	48.85	---
12	---	---	---	---	---	---	---	45.14	44.13	44.89	49.00	---
13	---	---	---	---	---	---	---	45.15	44.30	45.13	49.14	---
14	---	---	---	---	---	---	---	43.32	44.49	45.37	49.28	---
15	---	---	---	---	---	---	---	42.22	44.68	45.61	49.41	---
16	---	---	---	---	---	---	---	40.94	44.85	45.86	49.53	---
17	---	---	---	---	---	---	---	40.02	45.01	46.10	49.66	---
18	---	---	---	---	---	---	---	39.63	45.12	46.34	49.79	---
19	---	---	---	---	---	---	---	39.44	45.23	46.56	49.91	---
20	---	---	---	---	---	---	---	39.43	45.37	46.79	50.04	---
21	---	---	---	---	---	---	---	39.53	45.47	47.02	50.15	---
22	---	---	---	---	---	---	---	39.72	45.22	47.24	50.22	51.36
23	---	---	---	---	---	---	---	39.92	45.27	47.43	50.24	51.47
24	---	---	---	---	---	---	---	40.12	45.36	47.63	50.25	51.57
25	---	---	---	---	---	---	41.92	40.33	45.50	47.84	50.25	51.68
26	---	---	---	---	---	---	42.09	40.56	45.64	48.02	50.25	51.78
27	---	---	---	---	43.35	---	42.31	40.80	45.71	48.18	49.77	51.88
28	---	---	---	---	---	---	42.53	41.04	45.72	48.34	46.09	51.97
29	---	---	---	---	---	35.21	42.75	41.26	45.72	48.49	46.21	52.07
30	---	---	---	---	---	---	42.96	41.49	45.72	48.64	46.21	52.16
31	---	---	---	---	---	---	---	41.72	---	48.79	46.21	---
Max	---	---	---	---	43.35	44.20	42.96	45.15	45.72	48.79	50.25	52.16
Min	---	---	---	---	43.35	35.21	41.92	39.43	41.95	43.58	46.09	45.13

Water year 1978: Highest level: 35.21 feet Mar 29, 1978; Lowest level: 52.16 feet Sep 30, 1978

Table 5.—Water levels in observation wells—Continued

Well number: WA Ci 82 (continued)

Daily low water levels for water year October 1978 to September 1979

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	52.25	53.24	53.92	49.46	36.54	30.59	38.82	43.50	46.40	48.82	51.27	51.80
2	52.33	53.31	53.82	47.77	37.01	30.96	39.07	43.65	46.54	48.90	51.33	51.82
3	52.41	53.39	53.80	45.78	37.42	31.38	39.33	43.80	46.69	48.99	51.40	51.88
4	52.48	53.47	53.69	45.29	37.80	31.80	39.50	44.00	46.82	49.08	51.48	51.95
5	52.57	53.55	53.45	45.21	38.18	32.00	39.30	44.15	46.89	49.09	51.55	51.98
6	52.64	53.62	53.33	45.23	38.56	31.69	39.05	44.25	47.00	49.07	51.62	49.11
7	52.71	53.69	53.29	45.32	38.89	31.70	39.21	44.40	47.14	49.12	51.70	48.48
8	52.78	53.77	53.28	45.28	39.26	31.96	39.40	44.60	47.29	49.20	51.78	48.06
9	52.86	53.84	52.26	45.22	39.63	32.32	39.55	44.75	47.43	49.29	51.86	47.99
10	52.93	53.92	50.79	45.20	39.97	32.66	39.70	44.85	47.57	49.39	51.93	48.08
11	52.99	53.98	50.35	45.29	40.31	32.90	39.90	45.00	47.69	49.50	52.01	48.24
12	53.05	54.05	50.25	45.40	40.61	33.16	40.00	45.16	47.81	49.61	52.03	---
13	52.83	54.11	50.25	45.52	40.94	33.45	40.20	45.31	47.94	49.71	51.69	---
14	51.24	54.17	50.35	45.65	41.27	33.73	40.35	45.40	48.06	49.82	51.48	---
15	51.51	54.23	50.47	45.82	41.58	34.11	40.50	45.45	48.17	49.93	51.43	---
16	51.52	54.28	50.62	45.97	41.83	34.88	40.70	45.53	48.28	50.04	51.46	---
17	51.60	54.28	50.77	46.10	42.10	35.62	40.90	45.62	48.15	50.15	51.51	---
18	51.70	54.19	50.93	46.29	42.40	35.94	41.10	45.72	47.64	50.24	51.59	---
19	51.81	54.08	51.09	46.53	42.66	36.28	41.30	45.85	47.48	50.36	51.67	---
20	51.94	54.06	51.23	46.73	42.94	36.62	41.50	45.99	47.43	50.46	51.77	---
21	52.08	54.09	51.36	42.57	43.19	36.97	41.70	46.13	47.48	50.53	51.85	---
22	52.20	54.15	51.46	39.16	43.20	37.30	41.95	46.27	47.58	50.61	51.82	---
23	52.32	54.21	51.57	39.22	42.88	37.60	42.10	46.42	47.71	50.69	51.79	---
24	52.44	54.27	51.61	36.94	39.97	37.85	42.30	46.44	47.87	50.78	51.80	---
25	52.57	54.32	49.59	33.00	35.66	37.75	42.45	46.19	48.04	50.87	51.81	---
26	52.69	54.37	49.20	33.52	31.82	37.63	42.65	45.99	48.19	50.94	51.86	---
27	52.80	54.42	49.05	34.07	30.81	37.74	42.80	45.90	48.33	51.00	51.92	---
28	52.90	54.37	49.07	34.56	30.56	37.93	43.00	45.93	48.47	51.05	51.99	---
29	53.00	54.27	49.15	35.09	---	38.13	43.15	46.03	48.59	51.11	52.05	---
30	53.09	54.11	49.27	35.60	---	38.35	43.30	46.14	48.71	51.16	51.96	---
31	53.17	---	49.39	36.07	---	38.57	---	46.27	---	51.22	51.84	---
Max	53.17	54.42	53.92	49.46	43.20	38.57	43.30	46.44	48.71	51.22	52.05	51.98
Min	51.24	53.24	49.05	33.00	30.56	30.59	38.82	43.50	46.40	48.82	51.27	47.99

Water year 1979: Highest level: 30.56 feet Feb 28, 1979; Lowest level: 54.42 feet Nov 27, 1978

Daily low water levels for water year October 1979 to September 1980

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	45.50	47.08	47.60	50.35	43.39	43.05	43.58	---	---	52.41
2	---	---	45.63	47.19	47.70	50.42	42.66	43.04	43.75	---	---	52.48
3	---	---	45.77	47.32	47.80	50.49	42.29	43.09	43.92	---	---	52.55
4	---	---	45.88	47.45	47.90	50.57	42.09	43.16	44.07	---	---	52.61
5	---	---	46.01	47.60	48.00	50.63	42.04	43.25	44.20	---	---	52.67
6	---	---	46.14	47.75	48.10	50.69	42.09	43.35	44.34	---	---	52.72
7	---	---	46.29	47.90	48.20	50.74	42.16	43.48	44.50	---	---	52.78
8	---	---	46.45	48.00	48.30	50.79	42.25	43.61	44.64	---	---	52.83
9	---	---	46.64	48.10	48.40	50.85	42.25	43.75	44.70	---	---	52.89
10	---	---	46.80	48.20	48.45	50.91	42.11	43.89	44.75	---	---	52.94
11	---	---	46.96	48.35	48.60	50.97	42.08	44.03	44.80	---	---	52.99
12	---	---	47.11	48.38	48.70	51.04	42.10	44.17	44.89	---	---	53.03
13	---	---	47.25	48.40	48.80	51.11	42.16	44.30	45.00	---	---	53.08
14	---	---	47.36	48.40	48.95	51.16	42.22	44.41	45.12	---	---	53.13
15	---	---	47.47	48.15	49.02	51.21	42.15	44.53	45.26	---	51.26	53.18
16	---	---	47.58	47.90	49.10	51.03	42.09	44.67	45.40	---	51.30	53.24
17	---	---	47.72	47.75	49.20	50.58	42.11	44.81	45.44	---	51.36	53.29
18	---	---	47.85	47.65	49.30	49.98	42.13	44.91	45.51	---	51.42	53.36
19	---	---	47.96	47.50	49.40	49.58	42.20	44.88	45.63	---	51.48	53.42
20	---	---	48.08	47.30	49.45	49.35	42.29	44.90	45.77	---	51.54	53.48
21	---	44.69	48.20	47.15	49.55	48.67	42.41	44.31	45.94	---	51.61	53.53
22	---	44.80	48.30	47.05	49.70	46.78	42.54	43.33	46.10	---	51.67	53.59
23	---	44.95	48.41	47.00	49.83	46.06	42.67	42.82	46.26	---	51.75	53.64
24	---	45.12	48.52	47.00	49.90	45.75	42.82	42.62	46.42	---	51.83	53.70
25	---	45.28	48.08	47.05	49.97	45.64	42.98	42.57	46.59	---	51.92	53.76
26	---	45.40	47.33	47.10	50.04	45.63	43.14	42.65	46.76	---	51.99	53.80
27	---	45.34	46.97	47.18	50.11	45.65	43.28	42.77	46.97	---	52.07	53.84
28	---	45.26	46.86	47.23	50.19	45.70	43.32	42.92	47.16	---	52.14	53.89
29	---	45.30	46.85	47.35	50.27	45.31	43.18	43.08	47.33	---	52.20	53.93
30	---	45.40	46.88	47.42	---	44.55	43.06	43.25	47.45	---	52.27	53.97
31	---	---	46.97	47.50	---	44.13	---	43.41	---	---	52.34	---
Max	---	45.40	48.52	48.40	50.27	51.21	43.39	44.91	47.45	---	52.34	53.97
Min	---	44.69	45.50	47.00	47.60	44.13	42.04	42.57	43.58	---	51.26	52.41

Water year 1980: Highest level: 42.04 feet Apr 5, 1980; Lowest level: 53.97 feet Sep 30, 1980

Table 5.—Water levels in observation wells—Continued

Well number: WA Ci 82 (continued)

Daily low water levels for water year October 1980 to September 1981

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	54.02	54.16	51.84	---	59.28	50.59	53.30	48.47	48.40	---	---	---
2	54.07	54.24	51.97	---	59.04	50.71	53.35	48.54	48.56	---	---	---
3	54.12	54.32	52.13	---	58.40	50.87	53.39	48.55	48.71	---	---	---
4	54.16	54.39	52.28	---	58.15	51.02	53.44	48.62	48.85	---	---	---
5	54.21	54.48	52.41	---	58.07	51.14	53.49	48.72	48.87	---	---	---
6	54.25	54.56	52.55	---	58.05	51.27	53.55	48.85	48.80	---	---	---
7	54.29	54.64	52.70	---	58.05	51.33	53.62	49.02	48.83	---	---	---
8	54.34	54.73	52.84	---	58.08	51.39	53.67	49.18	48.91	---	---	---
9	54.38	54.80	52.98	---	58.15	51.44	53.73	49.32	49.00	---	---	---
10	54.43	54.87	53.12	---	58.21	51.49	53.80	49.45	49.11	---	---	---
11	54.47	54.93	53.24	---	57.38	51.56	53.85	49.51	49.12	---	---	---
12	54.52	54.99	53.36	---	56.85	51.64	53.74	46.28	49.15	---	---	---
13	54.57	55.04	53.48	---	56.74	51.71	52.19	45.64	49.22	---	---	---
14	54.61	55.08	53.63	---	56.71	51.82	49.02	45.32	49.30	---	---	---
15	54.65	55.13	53.77	---	56.74	51.91	46.60	45.21	49.39	---	---	---
16	54.70	55.17	53.90	58.89	56.81	51.99	46.10	45.22	49.48	---	---	---
17	54.74	55.22	54.04	58.91	56.91	52.07	45.82	45.33	49.59	---	---	---
18	54.77	55.01	54.16	58.94	57.01	52.16	45.75	45.45	49.70	---	---	---
19	54.80	54.50	54.26	58.97	57.11	52.24	45.85	45.60	49.77	---	---	---
20	54.84	54.27	---	58.99	54.38	52.33	45.99	45.78	---	---	---	---
21	54.87	54.17	---	59.02	52.22	52.43	46.20	45.97	---	---	---	---
22	54.91	54.15	---	59.04	51.86	52.54	46.41	46.17	---	---	---	---
23	54.95	54.18	---	59.07	51.57	52.62	46.62	46.40	---	---	---	---
24	54.99	53.91	---	59.09	50.89	52.70	46.86	46.67	---	---	---	---
25	54.98	52.57	---	59.12	50.55	52.79	47.15	46.94	---	---	---	---
26	54.62	51.94	---	59.14	50.45	52.87	47.42	47.18	---	---	---	---
27	54.31	51.70	---	59.16	50.45	52.94	47.65	47.41	---	---	---	---
28	54.14	51.61	---	59.18	50.49	53.03	47.87	47.63	---	---	---	---
29	54.08	51.63	---	59.21	---	53.10	48.06	47.85	---	---	---	---
30	54.07	51.73	---	59.24	---	53.16	48.28	48.04	---	---	---	---
31	54.10	---	---	59.26	---	53.24	---	48.22	---	---	---	---
Max	54.99	55.22	54.26	59.26	59.28	53.24	53.85	49.51	49.77	---	---	---
Min	54.02	51.61	51.84	58.89	50.45	50.59	45.75	45.21	48.40	---	---	---

Water year 1981: Highest level: 45.21 feet May 15, 1981; Lowest level: 59.28 feet Feb 1, 1981

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Aug 20, 1982	49.63	Feb 1, 1984	44.72	Jul 9, 1985	50.77	Nov 18, 1986	53.78
Sep 24	52.14	Mar 16	38.92	29	49.37	Dec 19	52.18
Oct 22	52.82	Apr 23	30.57	Sep 11	50.09	Feb 2, 1987	49.72
Dec 10	53.63	Jun 7	37.99	Oct 22	52.58	Mar 16	46.66
Jan 21, 1983	54.88	Jul 12	43.84	Dec 2	42.38	Apr 28	44.09
Feb 18	55.89	Aug 28	48.39	Jan 16, 1986	47.77	Jun 8	48.75
Apr 1	50.45	Oct 9	52.29	Feb 20	44.68	Jul 15	49.19
May 27	40.12	Jan 3, 1985	52.38	Apr 7	41.42	Sep 1	53.36
Jul 8	46.03	Feb 14	42.92	May 21	47.11	Oct 13	54.05
Aug 18	51.01	Mar 26	45.86	Jul 1	48.14	Nov 23	54.36
Oct 14	53.67	May 6	49.74	Aug 11	51.61	Jan 5, 1988	53.95
Nov 29	50.27	Jun 17	47.98	Oct 1	54.32		

Period of record: Highest level: 30.56 feet Feb 28, 1979; Lowest level: 59.28 feet Feb 1, 1981

Table 5.—Water levels in observation wells—Continued

Well number: WA Cj 7
Owner: Hiway Drive-In Theatre
Geologic unit: Tomstown Formation
Altitude: 540 feet
Depth of well: 98 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Aug 13, 1985	10.14	Feb 27, 1986	1.36	Sep 4, 1986	11.69	Feb 3, 1987	5.51
Oct 9	11.28	Mar 27	2.06	Oct 1	12.64	Mar 3	3.88
Nov 15	6.70	Apr 28	4.78	29	12.71	27	7.43
25	4.17	Jun 5	7.97	Dec 3	10.10	Apr 29	3.78
Dec 27	4.98	25	8.87	29	7.25	May 28	7.11
Feb 3, 1986	8.18	Jul 25	10.36	Jan 6, 1987	7.88		

Period of record: Highest level: 1.36 feet Feb 27, 1986; Lowest level: 12.71 feet Oct 29, 1986

Well number: WA Di 86
Owner: C & O Canal National Park
Geologic unit: Elbrook Limestone
Altitude: 300 feet
Depth of well: 165 feet

(Readings Above Land Surface Indicated By "+")

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jul 29, 1985	1.94	Feb 10, 1986	+.43	Jun 25, 1986	2.28	Dec 3, 1986	2.92
Oct 9	3.55	27	Flowing	Jul 30	3.17	31	1.74
Nov 15	.16	Mar 27	Flowing	Aug 29	3.63	Feb 5, 1987	+.05
27	+.37	Apr 28	+.50	Oct 2	3.62	Mar 3	Flowing
Dec 26	.15	Jun 4	1.52	29	3.73	26	.29

Period of record: Highest level: +.50 feet Apr 28, 1986; Lowest level: 3.73 feet Oct 29, 1986

Well number: WA Di 109
Owner: Elliott, Leona
Geologic unit: Waynesboro Formation
Altitude: 420 feet
Depth of well: 16.5 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
		May 15, 1975	4.90	May 18, 1978	2.01	May 6, 1981	12.90
Sep 7, 1972	12.15	Jul 16	5.05	Jun 29	9.17	Jun 10	12.53
Oct 20	14.33	Aug 26	12.15	Aug 10	13.47	Jul 22	12.53
Dec 13	5.28	Oct 8	3.46	Oct 26	14.47	Sep 11	14.15
Jan 18, 1973	7.98	Nov 17	2.52	Dec 13	13.91	Oct 5	14.73
Mar 1	3.71	Dec 18	7.62	Jan 3, 1979	9.40	Nov 20	14.26
Apr 3	6.31	30	7.82	Mar 13	1.90	Jan 5, 1982	12.90
May 2	2.79	Feb 4, 1976	2.09	May 8	6.10	Feb 17	10.91
Jun 13	2.25	Mar 11	7.42	Jun 28	7.70	Mar 22	2.01
Aug 3	12.04	May 11	12.00	Aug 8	13.42	May 11	6.55
Sep 12	14.23	Jun 15	13.87	Oct 3	3.85	Jun 21	1.79
Oct 25	14.52	Jul 20	13.65	Nov 19	2.75	Jul 26	3.80
Nov 28	14.50	Aug 26	14.08	Dec 18	6.86	Sep 9	12.73
Jan 7, 1974	7.82	Oct 8	7.90	Jan 2, 1980	4.99	Nov 2	14.20
Feb 7	3.24	Nov 18	3.45	23	2.73	Dec 15	14.52
Mar 14	10.63	Jan 4, 1977	11.21	Feb 29	9.79	Jan 26, 1983	14.40
Apr 18	5.16	Feb 21	13.95	Apr 15	1.95	Mar 10	6.30
May 23	9.98	Apr 11	2.40	May 27	2.09	Apr 14	1.95
Jul 11	13.94	May 26	11.45	Jul 3	5.97	May 23	1.80
Sep 6	14.46	Jul 12	14.79	Aug 19	13.38	Jul 8	8.15
Oct 21	15.00	Aug 22	14.21	Oct 10	14.20	Aug 16	13.53
Nov 15	15.14	Oct 6	14.66	Nov 12	14.45	Oct 3	14.10
Jan 2, 1975	13.49	Nov 21	14.04	Dec 17	13.83	Nov 7	13.63
29	11.24	Jan 4, 1978	4.35	Jan 19, 1981	14.77	Dec 15	1.85
Mar 11	7.24	Feb 23	5.52	Feb 24	8.78	Mar 16, 1984	1.96
Apr 10	4.86	Apr 6	2.04	Apr 6	13.54		

Period of record: Highest level: 1.79 feet Jun 21, 1982; Lowest level: 15.14 feet Nov 15, 1974

Well number: WA Di 129
Owner: Antietam National Battlefield
Geologic unit: Conococheague Limestone
Altitude: 460 feet
Depth of well: 60.4 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Dec 26, 1985	54.91	May 30, 1986	57.80	Dec 3, 1986	56.77	Apr 29, 1987	54.51
Feb 14, 1986	54.80	Jun 27	58.88	31	54.92	May 27	56.42
25	51.75	Jul 30	58.81	Jan 29, 1987	55.93		
Mar 27	54.19	Aug 29	58.06	Feb 25	56.64		
Apr 28	55.63	Oct 2	58.39	Mar 26	56.38		

Period of record: Highest level: 51.75 feet Feb 25, 1986; Lowest level: 58.88 feet Jun 27, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Di 130
Owner: Antietam National Battlefield
Geologic unit: Elbrook Limestone
Altitude: 370 feet
Depth of well: 125 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Dec 26, 1985	52.43	Jun 4, 1986	53.42	Oct 29, 1986	55.18	Mar 26, 1987	52.94
Feb 14, 1986	52.47	25	53.94	Dec 3	53.68	Apr 29	51.52
27	49.45	Jul 30	54.31	31	52.57	May 27	52.88
Mar 27	50.91	Aug 29	54.65	Feb 5, 1987	51.81		
Apr 28	52.15	Oct 2	55.12	Mar 3	49.17		

Period of record: Highest level: 49.17 feet Mar 3, 1987; Lowest level: 55.18 feet Oct 29, 1986

Well number: WA Dj 2
Owner: Reichmuth, Charles
Geologic unit: Weverton Formation
Altitude: 1,070 feet
Depth of well: 61.3 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Dec 18, 1956	41.35	Dec 19, 1967	37.80	Sep 05, 1974	50.33	Feb 24, 1981	51.10
Jan 11, 1957	38.16	Jan 22, 1968	32.98	Oct 21	51.59	Apr 06	45.81
Feb 05	32.80	Feb 20	29.63	Nov 14	56.49	May 06	37.67
Mar 04	25.67	Mar 07	33.56	Jan 02, 1975	58.08	Jun 10	35.15
Apr 08	28.93	25	27.23	29	44.70	Jul 22	38.85
Jun 03	34.62	Apr 15	28.69	Mar 07	40.36	Sep 11	45.01
Jul 17	43.29	May 28	36.15	Apr 10	25.66	Oct 05	47.55
Aug 22	49.64	Jul 09	34.56	May 15	23.44	Jan 05, 1982	52.38
Oct 02	52.24	Aug 21	42.84	Jul 16	38.62	Feb 17	45.85
Nov 13	51.28	Oct 03	47.35	Aug 26	39.59	Mar 22	32.54
Mar 11, 1958	33.78	Nov 20	51.53	Oct 08	28.40	May 11	27.62
Apr 09	16.86	Jan 08, 1969	47.50	Nov 17	30.99	Jun 21	31.63
May 19	21.52	Mar 10	47.00	Dec 18	37.34	Jul 26	35.80
Jan 09, 1959	46.92	Apr 22	42.54	30	36.63	Sep 09	40.25
Apr 06	46.21	May 22	41.75	Feb 04, 1976	28.86	Nov 02	46.82
May 13	43.18	Jun 23	44.33	Mar 11	34.28	Dec 15	49.00
Jun 12	44.52	Jul 16	49.53	May 11	35.15	Jan 26, 1983	49.90
Jul 02	44.90	Sep 09	44.39	Jun 15	38.59	Mar 10	39.30
Oct 15	46.22	Oct 07	49.54	Jul 20	37.70	Apr 14	19.95
Jan 11, 1960	57.57	Nov 19	53.10	Aug 26	41.23	May 23	21.88
Apr 14	23.62	Dec 16	49.55	Oct 08	39.43	Jul 08	30.55
Jul 01	31.47	Feb 12, 1970	36.60	Nov 18	26.55	Aug 16	39.37
Oct 19	53.50	Mar 17	32.30	Jan 04, 1977	36.35	Oct 03	46.80
Jan 12, 1961	29.26	May 05	20.60	Feb 21	42.70	Nov 07	47.30
Apr 10	36.29	Jun 17	33.30	Apr 11	21.55	Dec 15	33.60
Jul 05	42.32	Jul 30	34.90	May 26	35.45	Feb 01, 1984	35.13
Oct 05	58.88	Oct 19	47.97	Jul 12	42.07	Mar 16	21.79
Jan 09, 1962	46.29	Dec 28	43.84	Aug 22	45.82	Apr 23	16.35
Apr 12	34.58	Feb 11, 1971	35.70	Oct 06	41.45	Jun 12	28.90
Jul 05	46.42	Mar 22	26.30	Nov 21	48.74	Jul 12	34.84
Oct 16	54.87	May 07	35.04	Jan 04, 1978	33.15	Aug 28	37.95
Jan 02, 1963	49.11	Jun 03	31.94	Feb 23	29.97	Oct 09	43.87
Apr 10	38.57	Jul 14	40.53	Apr 06	21.33	Nov 19	46.30
Jul 01	36.65	Sep 09	46.54	May 18	21.99	Jan 03, 1985	43.20
Oct 01	47.79	Oct 19	50.77	Jun 29	31.77	Feb 14	40.33
25	50.35	Nov 12	44.20	Aug 10	34.62	Mar 26	35.94
Jan 08, 1964	48.02	Dec 17	41.44	Sep 20	38.75	May 06	35.45
Apr 02	43.11	Feb 15, 1972	30.10	Oct 26	43.47	Jun 17	31.80
Jul 01	35.96	Mar 22	22.59	Dec 13	49.73	Jul 29	35.80
Oct 21	50.00	Jul 11	22.16	Jan 03, 1979	47.65	Mar 07, 1986	49.17
Jan 11, 1965	39.67	Sep 12	42.01	Mar 13	17.90	Apr 07	26.64
Apr 08	36.41	Oct 24	48.46	May 08	28.60	May 21	32.50
Jun 30	37.00	Dec 14	37.31	Jun 28	33.45	Jul 01	34.00
Sep 30	49.24	Jan 18, 1973	29.68	Aug 08	40.63	Aug 11	36.63
Jan 06, 1966	47.26	Mar 01	25.83	Oct 03	38.62	Oct 02	38.73
Apr 28	43.92	Apr 03	28.91	Nov 19	29.40	Nov 18	39.87
Jun 08	38.12	May 02	21.88	Dec 18	32.29	Dec 19	52.45
Jul 28	42.77	Jun 13	24.60	Jan 02, 1980	33.25	Feb 02, 1987	50.70
Sep 09	48.61	Aug 03	38.94	23	32.71	Mar 16	37.90
Jan 17, 1967	43.20	Sep 12	54.47	Feb 29	35.06	Apr 28	28.50
Mar 02	36.84	Oct 25	49.17	Apr 15	20.30	Jun 08	27.10
Jun 05	32.60	Nov 28	54.81	May 27	21.55	Jul 15	28.65
26	37.25	Jan 07, 1974	42.61	Jul 03	31.50	Sep 01	46.97
Jul 12	38.74	Feb 07	32.37	Aug 19	40.54	Oct 13	51.70
18	39.40	Mar 15	37.75	Oct 10	47.45	Nov 23	55.10
Aug 21	42.25	Apr 18	26.44	Nov 12	50.90	Jan 05, 1988	54.78
Oct 03	43.78	May 23	31.01	Dec 17	52.95		
Nov 07	45.42	Jul 11	37.43	Jan 20, 1981	55.34		

Period of record: Highest level: 16.35 feet Apr 23, 1984 Lowest level: 58.88 feet Oct 05, 1961

Table 5.—Water levels in observation wells—Continued

Well number: WA Dj 50
Owner: Stone, Elmer A.
Geologic unit: Tomstown Formation
Altitude: 560 feet
Depth of well: 103 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 13, 1985	39.48	Dec 26, 1985	33.82	Jul 29, 1986	43.84	Feb 25, 1987	41.79
Jun 20	40.76	Feb 3, 1986	38.04	Aug 29	46.33	Mar 27	38.93
Jul 31	40.83	27	26.63	Oct 1	48.46	Apr 30	32.83
Aug 27	42.58	Mar 27	26.32	29	49.95	May 28	37.71
Oct 9	45.51	Apr 28	31.75	Dec 3	48.87		
Nov 15	40.36	Jun 4	38.19	Jan 6, 1987	46.98		
27	36.64	25	40.75	29	43.69		

Period of record: Highest level: 26.32 feet Mar 27, 1986; Lowest level: 49.95 feet Oct 29, 1986

Well number: WA Dj 71
Owner: Rice, Blanche
Geologic unit: Catoctin Formation
Altitude: 610 feet
Depth of well: 14 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 26, 1986	2.29	Aug 29, 1986	9.06	Jan 6, 1987	2.69	Apr 30, 1987	1.87
Jun 4	3.96	Oct 1	10.50	29	2.36	May 28	2.95
25	6.24	29	10.77	Feb 25	2.31		
Jul 29	7.84	Dec 3	2.32	Mar 27	2.47		

Period of record: Highest level: 1.87 feet Apr 30, 1987; Lowest level: 10.77 feet Oct 29, 1986

Well number: WA Ei 84
Owner: Payne, Maurice H.
Geologic unit: Catoctin Formation
Altitude: 780 feet
Depth of well: 85 feet

Date	Water Level
Jul 29, 1985	49.84

Daily low water levels for water year October 1985 to September 1986

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	54.53	52.51	53.64	51.73	45.86	48.11	50.45	53.28	---	56.08
2	---	---	53.13	52.51	53.66	51.42	45.78	48.28	50.35	53.38	---	56.13
3	---	---	54.12	52.53	53.68	51.32	45.78	48.39	50.38	53.50	---	58.80
4	---	---	53.97	52.59	53.68	51.17	45.78	48.45	50.38	53.64	---	58.85
5	---	---	53.66	52.56	53.68	51.05	45.86	48.49	50.52	53.74	---	58.91
6	---	---	53.39	52.69	53.77	50.79	45.86	48.52	50.52	53.86	---	58.96
7	---	---	53.37	52.78	53.76	50.70	45.79	48.55	50.52	53.96	---	59.03
8	---	---	53.20	52.82	53.77	50.70	45.79	48.75	50.79	54.15	---	59.08
9	55.90	---	53.16	52.77	53.81	50.54	45.87	48.80	50.91	54.12	---	59.14
10	---	---	53.15	52.78	53.81	50.52	45.91	48.93	50.98	54.28	---	59.20
11	---	---	52.91	52.79	53.81	50.26	46.04	48.86	50.99	54.30	---	59.23
12	---	---	52.75	52.75	53.84	50.26	46.28	48.87	51.15	54.39	---	59.24
13	---	---	52.65	52.87	54.00	50.15	46.44	49.02	51.35	54.48	---	59.33
14	---	---	52.64	52.93	54.00	49.92	46.48	49.04	51.37	54.68	---	59.41
15	---	54.96	52.62	52.14	53.92	49.51	46.47	49.11	51.50	54.76	---	59.41
16	---	54.95	52.59	53.14	53.99	48.59	46.53	49.11	51.53	54.93	---	59.56
17	---	54.86	52.45	53.12	53.99	48.09	46.77	49.27	51.78	54.98	---	59.56
18	---	54.86	52.52	53.07	53.99	47.57	46.78	49.27	51.90	55.03	---	59.57
19	---	54.83	52.52	53.05	53.94	46.82	46.92	49.33	51.95	55.03	---	59.66
20	---	54.80	52.42	53.10	53.85	46.55	46.91	49.33	52.16	55.16	---	59.66
21	---	54.82	52.20	53.19	53.68	46.55	46.91	49.35	52.30	55.42	---	59.71
22	---	54.78	52.19	53.28	53.19	46.40	47.18	49.42	52.35	55.43	---	59.82
23	---	54.76	52.40	53.24	53.00	46.18	47.28	49.50	52.42	55.58	---	59.86
24	---	54.81	52.03	53.31	52.76	46.14	47.38	49.62	52.62	55.62	---	59.91
25	---	54.81	52.04	53.31	52.28	46.14	47.48	49.68	52.77	55.63	---	59.96
26	---	54.80	52.35	53.25	52.09	46.09	47.58	49.83	52.79	55.80	---	59.99
27	---	54.65	52.35	53.22	51.84	45.76	47.68	49.83	52.94	55.89	---	60.00
28	---	54.66	52.41	53.38	51.80	45.93	47.88	49.83	52.94	56.00	---	60.14
29	---	54.68	52.41	53.42	---	45.91	47.94	49.86	53.13	56.20	58.55	60.22
30	---	54.62	52.53	53.61	---	45.85	48.11	49.89	53.19	56.30	58.56	60.31
31	---	---	52.44	53.64	---	45.86	---	50.00	---	---	56.02	---
Max	55.90	54.96	54.53	53.64	54.00	51.73	48.11	50.00	53.19	56.30	58.56	60.31
Min	55.90	54.62	52.03	52.14	51.80	45.76	45.78	48.11	50.35	53.28	56.02	56.08

Water year 1986: Highest level: 45.76 feet Mar 27, 1986; Lowest level: 60.31 feet Sep 30, 1986

Table 5.—Water levels in observation wells—Continued

Well number: WA Ei 84 (continued)

Daily low water levels for water year October 1986 to September 1987

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	60.34	62.15	63.35	65.48	66.30	---	60.79	47.19	---	---	---	---
2	60.44	62.20	63.36	65.49	66.29	---	60.74	46.91	---	---	---	---
3	60.44	62.22	63.45	65.60	66.30	---	60.76	46.91	---	---	---	---
4	60.48	62.23	63.45	65.64	66.41	---	60.43	---	---	---	---	---
5	60.52	62.24	63.46	65.73	66.41	---	---	---	---	---	---	---
6	60.60	62.29	63.50	65.73	66.39	---	---	---	---	---	---	---
7	60.71	62.35	63.58	65.80	66.36	---	---	---	---	---	---	---
8	60.75	62.38	63.57	65.83	66.36	---	---	---	---	---	---	---
9	60.80	62.42	63.56	65.93	66.04	---	---	---	---	---	---	---
10	60.83	62.44	63.56	65.94	65.94	---	---	---	---	---	---	---
11	60.93	62.49	63.56	66.01	65.83	---	---	---	---	---	---	---
12	60.94	62.55	63.56	66.11	65.68	---	---	---	---	---	---	---
13	60.94	62.58	63.62	66.12	65.55	---	---	---	---	---	---	---
14	60.99	62.60	63.62	66.13	65.53	---	---	---	---	---	---	---
15	61.09	62.65	63.65	66.14	65.53	---	---	---	---	---	---	---
16	61.21	62.74	63.65	66.24	65.53	---	---	---	---	---	---	---
17	61.21	62.76	63.92	66.34	65.36	---	---	---	---	---	---	---
18	61.37	62.77	64.14	66.34	65.31	---	---	---	---	---	---	---
19	61.38	62.78	64.32	66.34	65.31	---	---	---	---	---	---	---
20	61.38	62.80	64.55	66.42	65.26	---	---	---	---	---	---	---
21	61.42	62.88	64.70	66.42	65.26	---	---	---	---	---	---	---
22	61.45	62.89	64.70	66.41	65.24	---	---	---	---	---	---	---
23	61.48	63.02	64.86	66.33	65.14	---	---	---	---	---	---	---
24	61.68	63.08	65.02	66.32	65.20	---	---	---	---	---	---	---
25	61.70	63.08	65.15	66.30	65.08	---	---	---	---	---	---	---
26	61.70	63.10	65.19	---	---	60.83	---	---	---	---	---	---
27	61.73	63.18	65.32	---	---	60.83	---	48.21	---	---	---	---
28	61.84	63.20	65.35	---	---	60.80	---	---	---	---	---	---
29	61.86	63.34	65.35	66.26	---	60.81	---	---	---	---	---	---
30	61.93	63.34	65.38	66.26	---	60.80	47.25	---	---	---	---	---
31	62.01	---	65.38	66.30	---	60.79	---	---	---	---	---	---
Max	62.01	63.34	65.38	66.42	66.41	60.83	60.79	48.21	---	---	---	---
Min	60.34	62.15	63.35	65.48	65.08	60.79	47.25	46.91	---	---	---	---

Water year 1987: Highest level: 46.91 feet May 2, 1987, May 3, 1987
Lowest level: 66.42 feet Jan 20, 1987, Jan 21, 1987
Period of record: Highest level: 45.76 feet Mar 27, 1986; Lowest level: 66.42 feet Jan 20, 1987, Jan 21, 1987

Well number: WA Ei 103
Owner: Camp Manidokan
Geologic unit: Harpers Formation
Altitude: 480 feet
Depth of well: 14.5 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 28, 1986	4.31	Aug 29, 1986	9.56	Dec 31, 1986	2.67	Apr 29, 1987	2.32
Jun 4	4.95	Oct 2	11.05	Feb 5, 1987	2.26	May 27	3.29
25	5.67	29	11.80	Mar 3	2.32		
Jul 29	7.92	Nov 26	11.92	26	2.76		

Period of record: Highest level: 2.26 feet Feb 5, 1987; Lowest level: 11.92 feet Nov 26, 1986

Well number: WA Ej 14
Owner: Dixon, Michael
Geologic unit: Gneiss Complex
Altitude: 540 feet
Depth of well: 49 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 12, 1986	35.50	Jun 25, 1986	37.89	Oct 29, 1986	39.21	Feb 25, 1987	36.03
28	35.51	Jul 29	38.15	Dec 3	34.59	Mar 27	36.38
Apr 28	36.20	Aug 29	38.73	Jan 6, 1987	36.21	Apr 30	36.62
Jun 4	37.19	Oct 1	39.42	29	35.88	May 28	36.54

Period of record: Highest level: 34.59 feet Dec 3, 1986; Lowest level: 39.42 feet Oct 1, 1986

Well number: WA Ej 20
Owner: Orzechowski, Alice
Geologic unit: Gneiss Complex
Altitude: 720 feet
Depth of well: 95 feet

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 18, 1986	7.59	Jul 29, 1986	11.78	Dec 3, 1986	11.80	Mar 27, 1987	9.93
Apr 28	9.78	Aug 29	12.26	Jan 6, 1987	11.17	Apr 30	8.71
Jun 4	10.72	Oct 1	12.87	29	10.43	May 28	9.83
25	11.20	29	14.23	Feb 25	10.43		

Period of record: Highest level: 7.59 feet Mar 18, 1986; Lowest level: 14.23 feet Oct 29, 1986

Table 6.—Lithologic logs of selected wells

Driller's logs

Well number: WA Ab 83
Geologic unit: Hampshire Formation
Geophysical logs available: Caliper, gamma, multi-point electric, 6-foot lateral

Interval, in feet From	To	Water-bearing	Description
0	5		Overburden
5	15		Red shale
15	92		Red sand rock
92	104	x	Gray shale
104	106		Red sand rock
106	117		Gray shale
117	163	x	Gray sand rock
163	247	x	Gray and red shales

Well number: WA Ac 53
Geologic unit: Romney Formation
Geophysical logs available: Gamma, single-point electric

Interval, in feet From	To	Water-bearing	Description
0	15		Yellow shale
15	310		Black shale
310	390		Gray shale
390	420	x	Black shale

Well number: WA Bg 112
Geologic unit: Martinsburg Formation
Geophysical logs available: Gamma, single-point electric

Interval, in feet From	To	Water-bearing	Description
0	24		Yellow shale
24	70	x	Black slate
70	155	x	Soft gray slate
155	170	x	Gray slate
170	250		Gray slate

Well number: WA Bk 25
Geologic unit: Tomstown Formation
Geophysical logs available: Caliper, gamma

Interval, in feet From	To	Water-bearing	Description
0	138		Mountain wash
138	200	x	Limestone

Table 6.—Lithologic logs of selected wells—Continued

Well number: WA Cj 59
Geologic unit: Tomstown Formation
Geophysical logs available: Caliper, gamma

Interval, in feet From	To	Water-bearing	Description
0	150		Mountain wash
150	380		Tomstown Dolomite
			no Water

Well number: WA Dh 51
Geologic unit: Conococheague Limestone
Geophysical logs available: Caliper, gamma

Interval, in feet From	To	Water-bearing	Description
0	15		Fill dirt
15	20		Mud and limestone
20	120	x	Limestone
			1/2 gal/min at 30 ft
			1 gal/min at 75 ft
			29 gal/min at 110 ft

Geologist's log

Well number WA Bk 25

Interval, in feet From	To	Water-bearing	Description
0	22		Mountain wash--brownish-red clay containing sand, gravel, and cobbles
22	25		Boulder, dolomite
25	121		Mountain wash--as above
121	130		Dolomitic limestone, light-gray, microcrystalline
130	132	x	Solution cavity, partly clay filled Water: 100 gal/min
132	136		Dolomitic limestone--as above
136	138	x	Solution cavity, partly clay filled Water: 75 gal/min
138	200	x	Dolomitic limestone and limy dolomite, light-gray, microcrystalline Water: 25 gal/min at about 175 ft

TABLE 7 FOLLOWS

Table 7.—Stream-station and drainage-basin characteristics

Station number	Station name	Period of record	Type of record[1]	Drainage area (square miles)	Main channel length (miles)
01610150	Bear Creek at Forest Park	May 1965 - Apr. 1983	K		
		June 1975 - May 1979	L		
		Mar. 1985 - Oct. 1987	L,Q	10.4	8.80
01610155	Sideling Hill Creek near Bellegrove	July 1967 - Sept. 1977	C		
		Aug. 1985 - Aug. 1986	Q	102	34.3
01610170	Potomac River Tributary at Woodmont	Mar. 1985 - Oct. 1986	L,Q	3.29	4.60
01612500	Little Tonoloway Creek near Hancock	Oct. 1947 - Sept. 1963	C		
		1964	K		
		Aug. 1985 - Aug. 1986	Q	16.9	5.80
01613000	Potomac River at Hancock	Oct. 1932 - Present	C		
		Jan. 1961 - June 1980	Q	4,073	196
01613100	Tonoloway Creek at Hancock	Mar. 1985 - Oct. 1986	L,Q	113	30.0
01613150	Ditch Run near Hancock	Mar. 1965 - Feb. 1985	K		
		June 1975 - May 1979	L		
		Mar. 1985 - Oct. 1986	L,Q	4.80	6.50
01613160	Potomac River Tributary near Hancock	Mar. 1965 - Apr. 1975	K	1.2	2.70
01613540	Lanes Run near Forsythe	Apr. 1980 - May 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	9.98	5.95
01613545	Licking Creek near Pecktonville	Apr. 1985 - Mar. 1987	L,Q	212	55.9
01614050	Little Conococheague Creek near Charlton	Apr. 1985 - Mar. 1987	L,Q	18.1	12.4
01614500	Conococheague Creek at Fairview	June 1928 - Present	C		
		Oct. 1948 - Aug. 1986	Q	494	61.1
01614525	Rockdale Run at Fairview	Aug. 1976 - Sept. 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	9.67	5.45
01614575	Rush Run near Huyett	Apr. 1985 - Oct. 1986	L,Q	5.20	5.93
01614577	Rush Run at Troupe Springs[3]	Aug. 1976 - Sept. 1982	L	9.49	6.13
01614625	Meadow Brook at Conococheague	Aug. 1976 - Sept. 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	6.77	6.17
01614675	Conococheague Creek Tributary near Huyett	Sept. 1977 - Sept. 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	7.94	6.56
01614705	Conococheague Creek at Williamsport	Aug. 1954 - Nov. 1954	L		
		Sept. 1985 - Mar. 1987	L,Q	564	85.1
01617600	Downey Branch near Downsville	Sept. 1976 - Sept. 1982	L	3.00	3.99
01617780	St. James Run at Spielman	Sept. 1977 - Sept. 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	7.14	6.63
01617800	Marsh Run at Grimes	Oct. 1963 - Present	C		
		Sept. 1985 - Aug. 1986	Q	18.9	8.70
01618000	Potomac River at Shepherdstown, W.Va.	Aug. 1928 - Sept. 1953	C		
		Oct. 1953 - June 1964	K		
		Sept. 1964 - Present	C		
		Sept. 1960 - Jan. 1988	Q	5,936	248.5
01619000	Antietam Creek near Waynesboro, Pa.	May 1948 - Sept. 1951,			
		Oct. 1965 - Sept. 1981	C		
		Feb. 1968 - May 1973	Q		
		Aug. 1985 - Aug. 1986	Q	93.5	16.3
01619050	Little Antietam Creek at Leitersburg	Aug. 1976 - Sept. 1982	L		
		Apr. 1985 - Oct. 1986	L,Q	24.5	10.9
01619145	West Branch at Paramount	Sept. 1977 - Sept. 1982	L	5.07	3.80
01619150	Marsh Run at Fiddlesburg	Oct. 1964 - Sept. 1974	L		
		Sept. 1976 - May 1979,			
		Apr. 1985 - Oct. 1986	L,Q	31.0	12.7
01619250	Antietam Creek at Hagerstown	May 1972; Aug. 1976	Q	--	--

Altitude (feet) At 10% stream length	At 85% stream length	Mean basin altitude (feet)	Slope of main channel (feet/mile)	Slope of main channel (percent)	Area of lakes (percent)	Forested area (percent)	Discharge of record (feet/second) Maximum	Discharge of record (feet/second) Minimum	Average discharge (inches/year)	Station number
675	980	1,060	46.3	0.86	0.126	62.4	[2] 1,450	--	--	01610150
500	1,060	1,120	17.5	.33	.047	73.6	14,200	.00	16.11	01610155
480	930	873	131.4	2.49	.428	68.3	--	--	--	01610170
480	895	851	93.6	1.77	.236	74.1	1,470	.00	12.29	01612500
--	--	1,803	7.93	.15	.060	77.0	340,000	180	13.89	01613000
425	735	939	13.8	.26	.067	68.9	--	--	--	01613100
470	705	716	47.5	.89	.317	27.8	[2] 650	--	--	01613150
450	725	677	136	2.58	.605	36.4	[2] 250	--	--	01613160
555	1,285	1,012	163.8	3.10	.056	78.9	--	--	--	01613540
415	825	998	9.76	.18	.192	66.0	--	--	--	01613545
385	1,240	745	42.3	.80	.263	42.1	--	--	--	01614050
415	905	1,054	11.2	.21	.227	37.4	32,400	21.0	16.27	01614500
470	1,060	667	144.3	2.73	.109	19.7	--	--	--	01614525
475	680	586	46.8	.89	.000	1.4	--	--	--	01614575
475	680	566	46.8	.89	.015	1.2	--	--	--	01614577
430	620	559	41.3	.78	.123	8.9	--	--	--	01614625
395	600	533	41.7	.79	.113	3.8	--	--	--	01614675
360	815	839	7.16	.14	.210	34.2	--	--	--	01614705
400	505	473	35.1	.66	.026	.8	--	--	--	01617600
445	585	539	28.3	.54	.024	12.2	--	--	--	01617780
385	570	509	23.8	.45	.115	11.7	459	.00	9.20	01617800
--	--	1,524	5.98	.11	.051	68.0	335,000	170	14.07	01618000
555	1,265	1,010	59.2	1.12	.184	46.2	5,430	11	17.14	01619000
525	1,355	968	101.2	1.92	.105	30.5	--	--	--	01619050
575	730	645	54.5	1.03	.000	3.7	--	--	--	01619145
515	665	669	15.7	.30	.002	2.9	--	--	--	01619150
--	--	--	--	--	--	--	--	--	--	01619250

Table 7.—Stream-station and drainage-basin characteristics—Continued

Station number	Station name	Period of record	Type of record[1]	Drainage area (square miles)	Main channel length (miles)
01619270	Antietam Creek below Hagerstown	May 1972	Q	--	--
01619275	Landis Spring Branch near Benevola	Sept. 1976 - Sept. 1982	L		
		Mar. 1985 - Oct. 1986	L,Q	6.60	7.15
01619325	Beaver Creek at Benevola	Aug. 1975 - May 1979	L		
		Mar. 1985 - Oct. 1986	L,Q	22.9	13.6
01619350	Little Beaver Creek at Benevola	Aug. 1975 - May 1979	L		
		Apr. 1985 - Oct. 1986	L,Q	8.70	5.63
01619475	Dog Creek Tributary near Locust Grove	Aug. 1966 - July 1976	K	.10	.55
01619480	Little Antietam Creek at Keedysville	Sept. 1964 - May 1979	L		
		Apr. 1985 - Oct. 1986	L,Q	24.4	7.37
01619500	Antietam Creek near Sharpsburg	June 1897 - Sept. 1905,			
		Aug. 1928 - Present	C		
		Aug. 1963 - Aug. 1986	Q	281	47.1
01619525	Sharmans Branch near Antietam	Sept. 1977 - Sept. 1982	L	4.62	5.02
01636730	Israel Creek at Weverton	Aug. 1975 - May 1979	L		
		Apr. 1985 - Oct. 1986	L,Q	13.2	8.07

[1] C, continuous; K, peak flow; L, low flow; Q, water quality.
[2] Operated as a peak-flow crest-stage gage.
[3] Formerly published as Rush Run near Huyett with incorrect drainage area (U.S. Geological Survey, 1977-82).

Altitude (feet) At 10% stream length	At 85% stream length	Mean basin altitude (feet)	Slope of main channel (feet/mile)	Slope of main channel (percent)	Area of lakes (percent)	Forested area (percent)	Discharge of record (feet/second) Maximum	Discharge of record (feet/second) Minimum	Average discharge (inches/year)	Station number
--	--	--	--	--	--	--	--	--	--	01619270
465	630	583	31.1	.59	.021	4.1	--	--	--	01619275
440	820	861	37.3	.71	.093	44.8	--	--	--	01619325
445	795	793	83.1	1.57	.563	39.5	--	--	--	01619350
500	595	571	226	4.28	.000	28.9	[2] 100	--	--	01619475
375	665	687	52.4	.99	.131	32.8	--	--	--	01619480
330	730	781	10.8	.20	.123	29.8	12,600	9.4	13.39	01619500
365	705	721	90.8	1.72	.377	77.4	--	--	--	01619525
305	615	724	51.3	.97	.112	51.6	--	--	--	01636730

Table 8.—Monthly mean and annual mean streamflow

[Values reported in cubic feet per second]

01610155 Sideling Hill Creek near Bellegrove

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1967	--	--	--	--	--	--	--	--	--	52.9	34.7	36.5	--
1968	94.5	49.7	254	65.8	93.5	247	39.4	149	53.6	1.82	.04	1.68	88.1
1969	2.51	55.1	39.7	16.1	48.6	107	47.0	22.9	17.8	49.8	85.1	11.9	42.0
1970	3.15	49.3	135	155	233	261	519	52.4	112	67.1	4.67	4.81	132
1971	15.7	293	262	193	523	189	37.8	288	43.3	2.01	23.0	15.8	155
1972	36.6	56.8	162	72.2	262	244	273	259	726	37.9	8.34	1.24	177
1973	10.9	173	401	156	224	134	407	170	72.1	11.9	15.9	15.6	148
1974	139	49.7	290	230	65.4	122	176	61.0	113	42.5	4.95	4.92	109
1975	1.17	6.69	161	148	273	286	277	198	75.7	26.7	2.92	194	136
1976	210	89.3	45.9	206	140	107	128	26.2	115	29.3	75.8	42.4	101
1977	569	89.2	84.5	11.3	67.6	346	194	28.0	6.34	87.6	13.8	6.37	126

01612500 Little Tonoloway Creek near Hancock

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1948	0.09	2.47	0.97	12.1	15.5	29.6	38.3	31.1	2.40	0.24	0.03	0.05	11.1
1949	2.73	9.65	43.0	49.2	32.0	10.4	15.2	8.27	1.44	28.3	3.72	.86	17.1
1950	3.13	4.49	12.8	9.88	48.1	24.0	7.94	49.5	13.4	.95	.12	16.6	15.7
1951	13.9	32.0	50.4	32.2	61.5	52.1	34.4	12.6	63.1	2.26	.87	.16	29.3
1952	.10	1.44	13.3	77.9	25.2	41.7	48.3	23.5	8.08	7.64	.64	8.10	21.4
1953	1.27	45.7	30.5	57.2	27.9	57.1	24.9	27.9	17.9	.95	.51	.13	24.3
1954	.11	1.54	5.55	4.97	4.35	37.3	6.90	4.36	1.76	.20	2.56	.24	5.87
1955	18.2	17.5	31.2	11.2	17.9	65.7	21.2	6.89	5.67	.45	4.12	.47	16.8
1956	1.04	1.35	.68	2.04	36.4	35.6	26.1	7.83	4.07	15.4	12.3	1.71	12.0
1957	3.82	4.57	25.3	22.1	33.6	18.9	35.2	5.28	2.68	.31	.05	.00	12.5
1958	.67	1.69	16.2	19.0	19.8	50.3	35.1	44.9	4.77	1.48	2.18	.72	16.4
1959	1.54	1.16	.87	5.12	9.01	18.7	23.2	18.0	2.11	1.79	3.26	1.90	7.21
1960	2.58	4.88	11.4	16.1	26.7	26.4	30.3	53.6	14.4	2.33	4.45	3.41	16.4
1961	.49	1.19	.68	6.26	48.8	61.2	57.2	11.7	4.35	1.20	.36	.29	15.9
1962	.00	.33	2.98	6.30	32.7	63.8	30.2	7.64	3.32	.19	.05	.07	12.2
1963	.39	8.11	4.23	15.3	4.74	74.9	7.90	4.31	3.39	.16	.08	.25	10.4

Table 8.—Monthly mean and annual mean streamflow—Continued

01613000 Potomac River at Hancock

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1933	1,530	4,881	2,347	4,742	4,774	11,050	14,080	10,430	1,516	1,039	2,861	2,393	5,134
1934	610	825	1,830	4,915	1,041	5,309	5,062	1,527	1,058	460	894	1,255	2,074
1935	1,065	1,317	4,477	6,645	9,072	6,579	10,030	5,966	1,730	1,313	1,846	3,019	4,388
1936	548	2,224	2,863	8,597	9,324	32,280	8,916	1,778	1,203	915	627	368	5,813
1937	1,729	1,181	4,476	15,450	8,954	5,258	13,430	4,730	1,666	800	3,075	1,960	5,202
1938	10,950	3,700	2,857	3,126	3,623	4,747	3,421	4,991	2,267	1,948	1,179	516	3,623
1939	374	589	2,303	3,107	14,270	8,208	8,401	2,961	2,168	3,465	1,760	537	3,940
1940	1,022	1,351	1,094	1,084	5,107	6,763	14,330	3,573	8,718	1,593	1,699	1,860	3,982
1941	770	2,483	4,366	3,702	2,249	5,363	6,085	1,344	4,093	3,711	1,039	601	2,986
1942	309	551	1,249	1,590	2,884	6,420	6,067	8,605	2,688	738	3,374	1,289	2,985
1943	13,020	2,896	8,842	7,835	10,500	8,398	7,254	4,716	1,674	1,774	691	367	5,652
1944	391	704	467	2,862	4,600	13,180	7,749	7,382	1,733	566	342	581	3,381
1945	2,418	968	3,585	3,780	9,234	9,724	4,188	4,377	1,551	1,160	2,149	6,756	4,124
1946	1,357	3,543	4,196	6,229	4,653	7,030	3,174	6,532	4,859	1,093	875	329	3,655
1947	882	559	887	4,099	1,987	4,841	3,028	3,847	1,933	1,636	1,394	632	2,152
1948	328	1,661	1,054	3,031	5,626	7,992	10,310	6,313	2,330	1,566	1,224	842	3,508
1949	2,762	3,153	10,730	10,600	8,761	4,372	5,367	2,936	7,285	6,677	2,678	1,115	5,524
1950	705	1,953	3,855	3,351	11,090	7,765	3,553	6,750	2,968	890	471	3,894	3,887
1951	2,021	3,441	10,500	7,741	12,070	8,765	9,827	5,736	7,806	1,446	613	488	5,825
1952	321	788	2,461	10,750	5,486	9,940	11,560	8,574	1,998	912	587	755	4,513
1953	426	3,081	3,306	9,408	6,922	12,200	7,474	5,771	2,787	683	468	351	4,397
1954	337	488	807	1,524	1,386	8,371	2,961	2,628	2,801	868	1,279	761	2,026
1955	6,502	4,294	6,387	4,520	5,863	14,300	4,955	2,913	6,161	1,004	9,479	1,114	5,638
1956	603	793	765	751	10,620	8,605	7,896	3,890	3,228	1,887	3,356	1,098	3,591
1957	1,189	1,562	4,931	5,266	10,140	5,334	8,526	2,603	2,179	681	350	350	3,544
1958	1,020	1,000	4,224	3,231	4,295	9,603	11,350	9,756	1,478	1,650	2,608	628	4,243
1959	470	571	662	2,144	2,913	3,715	5,292	4,316	2,740	597	594	331	2,019
1960	2,543	1,876	4,142	5,620	5,132	7,216	11,610	9,416	3,858	959	677	1,403	4,533
1961	703	806	624	1,689	12,860	11,670	12,540	5,671	2,696	913	905	647	4,241
1962	759	977	2,736	3,249	5,778	17,340	8,153	3,370	2,422	1,024	504	442	3,891
1963	582	3,006	1,467	4,137	1,504	20,870	3,033	2,010	2,805	780	469	483	3,457
1964	370	884	1,546	5,827	3,039	12,720	8,906	5,084	987	560	402	413	3,403
1965	1,050	930	2,656	7,368	6,939	11,250	7,983	3,049	697	466	389	387	3,581
1966	480	399	463	1,048	6,026	5,072	6,741	5,916	849	357	354	1,353	2,393
1967	2,598	1,789	2,749	3,048	3,803	16,270	3,440	8,943	2,058	1,794	1,694	934	4,118
1968	1,919	1,370	7,089	5,965	5,737	10,480	2,857	7,145	3,872	584	414	358	3,993
1969	447	1,552	1,718	1,615	2,654	3,471	2,929	1,558	622	906	2,584	1,240	1,770
1970	665	1,299	2,790	5,062	6,331	7,150	14,700	2,759	2,077	1,720	949	527	3,806
1971	665	5,303	6,805	7,913	16,720	8,549	3,693	6,188	3,695	682	1,876	2,333	5,293
1972	3,405	2,312	5,997	3,828	9,858	10,670	10,060	9,390	13,390	4,733	1,472	627	6,290
1973	4,010	7,894	15,160	5,096	8,055	6,474	15,210	6,325	3,780	1,170	1,960	949	6,319
1974	2,626	3,105	10,120	9,957	4,329	4,784	7,456	3,307	6,855	2,006	777	1,040	4,701
1975	689	799	6,124	7,128	9,641	11,660	6,142	8,856	3,103	2,037	1,654	6,586	5,347
1976	6,391	3,112	2,371	8,315	6,389	4,284	3,404	1,434	2,125	1,043	1,097	701	3,384
1977	13,270	3,784	3,677	1,046	3,109	10,430	8,116	1,569	727	732	497	466	3,966
1978	985	5,127	7,555	6,279	2,541	17,390	5,997	11,490	1,910	3,826	4,476	1,194	5,781
1979	599	783	5,298	9,296	11,540	14,280	6,861	6,696	3,955	2,320	1,639	4,912	5,651
1980	9,127	6,280	4,497	6,104	2,858	8,735	11,660	9,884	3,159	1,946	1,862	736	5,587
1981	612	1,431	1,923	824	5,409	3,383	6,575	5,398	6,538	1,364	561	1,732	2,947
1982	1,387	1,550	2,441	2,937	11,760	13,260	4,600	2,524	6,848	2,080	1,063	667	4,207
1983	789	1,026	2,699	1,593	4,955	7,755	14,590	9,065	3,341	974	602	568	3,979
1984	1,621	3,265	8,308	2,735	11,530	12,180	16,020	6,107	1,393	2,406	4,134	1,087	5,873
1985	1,132	2,326	4,605	3,095	7,655	5,940	4,722	4,774	4,085	1,884	1,131	695	3,476
1986	1,662	20,0090	7,066	2,269	10,500	10,130	4,063	2,935	1,344	1,214	763	783	5,177

Table 8.—Monthly mean and annual mean streamflow—Continued

01614500 Conococheague Creek at Fairview

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1928	--	--	--	--	--	--	--	--	2,045	1,358	433	276	--
1929	273	187	212	305	701	1,326	1,569	899	401	200	163	180	533
1930	1,233	814	460	469	636	881	481	266	156	75.7	55.0	54.6	465
1931	42.3	45.4	61.2	88.8	151	389	816	805	316	786	196	134	320
1932	63.2	68.7	110	407	335	732	885	978	254	120	64.8	80.8	342
1933	474	1,453	468	531	607	1,560	2,004	1,268	326	190	627	603	842
1934	277	161	175	741	203	409	746	366	277	214	237	1,212	418
1935	499	390	1551	594	972	897	853	547	196	169	116	182	579
1936	152	450	531	939	853	3,557	1,331	348	233	177	150	105	737
1937	264	175	723	1,685	1,342	607	2,064	909	655	597	296	179	787
1938	926	820	446	471	356	669	369	433	224	151	127	156	430
1939	98.6	105	625	399	1390	986	1,074	401	378	340	120	126	497
1940	335	435	144	133	647	1,082	2,041	594	612	200	227	306	559
1941	165	745	828	566	444	798	788	218	445	296	128	148	463
1942	74.2	143	573	407	648	850	1,711	1,089	786	481	921	271	662
1943	1,274	611	1,190	901	1,178	1,145	924	1,287	461	213	117	83.7	782
1944	149	358	151	667	376	1,453	1,104	878	322	138	99.1	84.2	482
1945	194	120	431	337	968	993	742	1,023	314	134	185	739	512
1946	207	850	1,016	942	420	1,065	413	890	1,200	249	352	209	653
1947	418	212	233	675	467	699	367	800	673	695	345	159	480
1948	106	472	218	489	532	816	1,071	965	499	263	177	96.1	474
1949	169	436	983	1,554	1,123	490	572	354	224	804	221	139	587
1950	146	170	500	496	1,348	1,009	569	1,180	612	221	201	537	577
1951	632	1,249	1,481	1,105	1,851	1,157	1,370	492	934	383	184	118	905
1952	97.7	210	663	1,544	922	1,900	1,486	1,137	432	540	196	638	815
1953	142	1,399	1,070	1,584	1,024	1,709	963	1,056	616	243	183	103	840
1954	90.9	140	347	181	363	814	428	637	194	90.1	174	154	301
1955	501	308	779	472	595	1,738	801	382	521	161	523	191	582
1956	504	267	186	213	1,184	1,125	1,065	392	233	417	208	130	491
1957	322	837	1,045	664	976	824	1,048	287	281	129	71.7	75.7	543
1958	105	162	693	983	719	1,417	1,239	1,657	555	263	229	162	683
1959	124	150	147	413	497	571	642	475	255	224	174	106	314
1960	156	176	437	543	691	756	1,352	1,012	866	323	269	224	565
1961	127	132	104	161	1,621	1,759	1,853	655	357	183	124	125	591
1962	69.4	97.6	174	287	713	1,701	1,203	411	181	115	98.6	97.0	427
1963	145	317	209	420	286	2,150	444	249	345	118	77.8	56.3	403
1964	55.8	138	202	636	554	1,387	1245	777	214	128	89.4	71.2	458
1965	75.9	99.6	226	422	973	1,638	586	294	120	74.9	103	86.7	389
1966	199	90.8	81.9	179	1,213	788	431	482	122	62.2	48.0	145	314
1967	144	163	283	474	493	1,624	615	1027	274	456	313	127	502
1968	325	338	1,027	787	682	1,077	451	587	601	164	138	179	530
1969	125	547	352	241	245	552	416	230	155	262	406	135	306
1970	108	258	483	523	1,342	1,151	2,417	587	553	842	279	191	721
1971	219	1,440	1,200	937	2,044	1,308	441	810	498	176	222	182	781
1972	467	430	1,091	627	1,203	1,554	1,335	1,661	3,278	847	305	175	1,078
1973	160	721	1,904	1,097	1,468	896	2,075	1,266	1,316	518	428	479	1,023
1974	827	519	1,501	1,511	553	767	1,696	701	602	291	176	195	781
1975	114	144	796	845	1,232	1,862	1,134	979	863	388	254	1828	865
1976	1,418	814	548	1,085	805	668	863	356	404	260	195	158	631
1977	2,177	651	453	193	352	1,522	1,162	289	175	154	109	103	615
1978	191	619	1,263	1,277	511	2,236	769	1,570	489	377	306	168	820
1979	119	130	456	1,675	1,378	1,738	979	672	458	319	327	1,350	796
1980	1,290	926	818	580	272	1,155	1,617	958	366	181	159	125	706
1981	104	238	164	88.9	1,298	524	1,062	452	395	311	144	134	402
1982	234	222	223	465	1,221	1,196	912	341	963	270	145	117	520
1983	111	136	256	245	773	1,028	2,063	1,147	516	205	121	102	555
1984	226	522	1,465	486	2,446	1,266	2,274	772	357	804	708	216	955
1985	170	303	532	268	884	576	691	526	212	159	150	111	378
1986	133	1,299	808	301	1,381	1,479	705	428	210	149	126	92.4	586

Table 8.—Monthly mean and annual mean streamflow—Continued

01617800 Marsh Run at Grimes

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1964	2.99	3.47	3.64	11.2	12.7	19.1	18.5	18.7	11.7	7.96	5.34	4.23	9.94
1965	3.84	3.66	3.63	4.18	9.00	17.2	13.0	9.17	8.84	5.06	4.08	3.03	7.04
1966	3.42	3.35	3.23	3.02	8.86	9.48	8.40	9.31	5.64	3.90	3.27	4.30	5.49
1967	5.04	5.87	6.03	9.81	11.5	20.1	13.5	12.5	8.59	11.5	15.1	9.63	10.8
1968	9.17	8.85	16.7	16.5	15.4	22.2	16.2	13.5	13.2	7.58	6.60	5.58	12.6
1969	4.62	6.24	4.95	3.99	5.21	5.65	4.45	3.65	2.74	2.93	4.08	3.29	4.31
1970	4.90	3.27	4.86	6.21	12.4	13.0	26.6	17.4	14.1	20.5	12.7	7.40	11.9
1971	6.61	10.6	10.9	15.9	28.4	25.6	14.7	14.7	13.6	7.35	6.88	8.77	13.6
1972	12.7	15.7	20.3	15.0	21.7	29.7	26.9	36.2	48.2	32.4	18.0	10.7	23.9
1973	8.63	11.9	29.7	26.1	32.2	21.7	28.9	25.4	21.8	13.3	9.85	4.53	19.4
1974	7.78	5.58	12.8	26.5	15.8	14.2	25.1	14.6	10.2	6.76	5.27	7.11	12.6
1975	4.24	4.15	12.2	11.9	16.6	25.6	20.4	23.9	47.7	23.8	14.7	31.8	19.7
1976	39.2	27.0	17.1	26.2	17.9	14.6	18.7	11.6	8.75	8.85	6.34	5.40	16.8
1977	39.5	21.9	15.4	10.6	9.57	15.2	26.0	14.0	10.5	9.36	7.69	5.26	15.5
1978	6.13	8.10	15.4	20.8	16.4	34.4	22.1	22.3	15.5	13.7	10.1	7.58	16.1
1979	5.73	4.72	9.09	30.1	29.3	38.0	24.1	16.5	12.4	7.99	5.96	10.2	16.1
1980	24.0	18.0	14.6	13.8	10.4	14.4	22.4	18.2	10.3	6.24	5.49	4.07	13.5
1981	3.98	5.58	3.13	2.24	6.99	6.58	9.14	9.28	8.62	7.19	5.45	3.59	5.96
1982	4.27	4.54	4.23	6.83	16.9	21.8	18.4	13.2	19.8	13.0	8.45	6.78	11.5
1983	5.03	5.28	5.18	4.85	7.01	9.02	27.6	23.9	16.5	9.85	5.52	2.34	10.2
1984	2.16	4.83	15.8	11.3	30.9	30.6	49.8	34.7	17.8	13.0	9.64	5.98	18.8
1985	5.23	5.15	5.69	4.95	17.5	8.30	6.97	5.83	5.63	4.86	4.89	3.68	6.48
1986	4.04	13.3	17.6	10.9	17.6	24.2	17.3	12.1	8.89	5.82	3.48	1.88	11.4

Table 8.—Monthly mean and annual mean streamflow—Continued

01618000 Potomac River at Shepherdstown, W. Va.

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1929	1,416	1,349	2,782	3,151	4,445	14,840	19,010	8,687	3,698	1,473	879	897	5,214
1930	10,010	8,674	5,147	4,180	5,479	7,020	5,092	2,049	1,382	624	429	378	4,199
1931	351	395	621	1,291	2,241	4,376	10,370	11,210	3,660	3,655	1,933	1,230	3,449
1932	731	532	1,860	3,985	7,860	10,370	10,230	16,050	2,074	1,771	683	450	4,714
1933	2,579	8,885	3,669	7,229	7,018	15,690	20,160	14,190	2,725	1,615	4,536	3,820	7,669
1934	1,421	1,291	2,362	6,803	1,580	6,526	7,555	2,666	1,724	856	1,614	3,071	3,132
1935	2,258	1,880	8,565	8,627	12,770	9,288	13,150	7,828	2,465	1,809	2,283	3,585	6,166
1936	913	3,276	4,016	11,740	12,950	45,990	13,490	2,923	2,035	1,441	1,111	624	8,389
1937	2,564	1,681	6,515	20,480	13,510	7,664	20,330	7,842	3,164	2,022	4,060	2,790	7,678
1938	14,540	6,398	3,947	4,455	5,083	6,838	4,781	6,365	3,094	2,579	1,734	959	5,078
1939	638	943	4,276	3,992	19,180	11,620	11,570	4,473	3,352	4,513	2,542	921	5,574
1940	2,203	2,923	1,704	1,626	7,633	9,402	19,430	5,184	10,830	2,304	2,292	3,154	5,677
1941	1,557	5,284	7,110	5,908	3,891	7,715	8,604	2,115	5,500	4,632	1,545	1,136	4,583
1942	617	962	2,485	2,597	4,494	9,081	10,120	11,480	4,401	1,909	5,850	2,322	4,697
1943	19,840	4,910	11,650	11,550	14,990	12,270	10,250	7,841	2,923	2,275	1,084	651	8,338
1944	790	1,482	769	4,357	5,872	18,360	10,940	10,380	2,628	990	677	904	4,849
1945	2,944	1,226	4,662	5,010	12,220	13,560	6,582	7,239	2,674	1,727	3,269	9,848	5,871
1946	2,371	5,151	7,599	9,086	6,063	10,410	4,658	8,598	7,955	1,956	2,090	956	5,580
1947	1,858	1,188	1,373	6,069	3,180	6,881	4,072	5,699	3,480	3,402	2,359	1,099	3,400
1948	573	2,589	1,592	4,443	7,006	10,720	13,690	9,608	3,719	2,402	1,904	1,215	4,940
1949	3,697	4,410	14,730	15,930	12,780	6,056	7,284	4,477	7,905	9,529	3,490	1,784	7,656
1950	1,008	2,406	5,345	4,802	15,420	10,720	5,217	10,220	4,792	1,615	1,014	5,780	5,627
1951	3,673	7,074	15,140	10,900	17,800	12,390	14,810	7,862	10,570	2,586	1,309	877	8,679
1952	553	1,105	3,387	15,330	8.666	15,110	17,090	13,240	3,372	2,190	1,405	2,532	7,001
1953	874	7,006	6,275	14,380	9,780	17,530	10,620	8,818	5,170	1,453	1,063	660	6,958
1954	543	841	1,639	2,025	2,218	10,960	4,023	4,124	3,495	1,269	1,915	1,332	2,875
1955	7,731	5,387	7,968	6,480	7,308	19,540	7,090	4,084	7,446	1,608	12,140	1,913	7,414
1956	1,599	1,475	1,212	1,105	14,580	11,950	11,280	4,969	4,153	3,576	4,603	1,699	5,138
1957	2,234	3,474	7,547	6,914	13,040	7,825	11,800	3,851	3,549	1,229	567	616	5,160
1958	1,293	1,361	5,722	6,261	5,986	14,640	15,240	14,690	2,664	2,287	4,245	1,087	6,306
1959	695	991	1,005	2,671	4,212	5,439	6,967	6,353	4,133	1,007	1,131	543	2,916
1960	3,038	2,393	5,568	7,533	8,331	8,964	17,330	13,020	6,980	1,952	1,328	2,206	6,536
1961	978	1,114	807	2,603	17,750	17,710	19,620	8,148	4,100	1,587	1,381	1,362	6,336
1962	1,054	1,446	3,663	4,515	7,649	25,460	12,360	4,978	3,834	1,668	850	680	5,676
1963	840	4,555	2,162	5,613	2,269	27,550	4,366	2,741	3,867	1,091	660	652	4,732
1964	508	1,429	2,333	8,817	5,370	17,930	11,870	8,645	1,680	1,144	795	658	5,110
1965	1,347	1,288	3,317	9,025	10,150	16,470	10,290	4,173	1,228	692	679	632	4,916
1966	849	614	695	1,302	8,839	7,209	8,228	7,906	1,276	556	457	2,103	3,294
1967	3,376	2,170	3,855	4,411	5,403	21,070	5,195	11,850	3,041	2,910	2,866	1,475	5,666
1968	3,277	2,450	10,430	6,859	8,588	14,640	4,244	8,799	5,930	1,145	764	833	5,673
1969	811	2,773	2,290	1,794	3,621	4,791	4,010	2,167	970	1,477	4,450	2,209	2,607
1970	1,103	1,918	3,837	7,007	10,610	10,340	22,300	4,622	3,880	4,347	1,974	1,050	6,032
1971	1,158	9,511	10,410	11,410	23,770	12,510	5,204	8,703	5,853	1,185	2,874	3,278	7,881
1972	5,072	3,992	10,050	6,676	14,880	16,030	14,600	14,700	22,600	7,850	2,644	1,167	9,988
1973	6,487	10,610	22,070	8,745	13,150	9,184	22,290	9,981	6,642	2,394	3,345	2,050	9,711
1974	4,626	4,563	14,980	15,210	6,161	6,693	12,460	5,444	8,846	2,985	1,197	1,452	7,061
1975	959	1,185	9,163	9,515	13,560	17,490	9,493	12,730	6,464	3,649	2,441	11,750	8,166
1976	10,160	5,364	3,787	12,280	8,961	6,296	5,952	2,484	3,420	1,934	1,822	1,215	5,301
1977	20,080	5,991	5,068	1,705	3,733	14,990	12,450	2,494	1,285	1,197	809	748	5,905
1978	1,512	7,220	11,550	9,925	3,993	24,610	8,863	16,560	3,044	5,377	6,324	1,752	8,465
1979	1,002	1,136	6,516	15,010	15,600	20,500	10,060	8,888	5,547	3,394	2,447	7,992	8,135
1980	13,830	9,406	7,055	9,770	3,939	12,350	16,910	13,750	4,272	2,725	2,259	1,038	8,133
1981	959	2,282	2,310	1,009	7,986	4,705	9,480	7,014	8,006	2,653	1,308	1,924	4,090
1982	1,839	1,991	3,123	4,216	16,000	18,130	7,206	3,664	11,300	3,034	1,589	1,002	6,018
1983	1,118	1,318	3,238	2,152	7,743	11,360	22,670	12,980	4,936	1,612	954	879	5,882
1984	2,257	4,682	12,660	4,466	19,260	17,460	25,020	9,618	2,493	3,944	5,844	1,702	9,069
1985	1,637	3,206	6,575	3,636	10,540	7,928	7,157	6,572	4,977	2,336	1,566	993	4,721
1986	2,074	24,780	10,240	3,511	15,670	14,910	6,037	4,143	1,972	1,567	1,069	975	7,164

Table 8.—Monthly mean and annual mean streamflow—Continued

01619000 Antietam Creek near Waynesboro, Pa.

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1948	--	--	--	--	--	--	--	170	101	74.2	60.9	41.6	--
1949	63.9	86.9	160	264	226	132	136	93.7	61.6	206	93.9	80.0	134
1950	71.6	68.6	103	112	176	168	137	168	129	68.5	43.5	45.7	107
1951	56.4	120	245	161	249	210	202	135	205	101	62.0	46.6	149
1966	26.9	21.2	20.1	18.8	86.8	95.4	88.5	89.7	37.5	27.9	19.8	72.4	50.1
1967	43.3	41.9	56.4	87.8	95.7	204	116	153	83.0	106	76.5	47.1	92.8
1968	69.2	68.8	133	133	142	171	118	141	135	52.8	45.7	51.2	105
1969	35.2	75.7	60.3	46.1	48.2	61.0	69.7	55.3	59.2	60.5	56.5	36.2	55.3
1970	30.6	39.4	55.5	58.2	159	148	321	127	122	149	94.0	51.3	112
1971	49.0	102	118	136	249	219	107	152	128	61.4	65.9	45.0	118
1972	55.8	67.2	142	107	187	240	217	223	476	182	81.2	56.5	169
1973	48.7	76.3	181	154	222	151	269	231	206	122	90.5	83.0	152
1974	77.6	69.7	176	213	116	125	313	126	85.7	58.1	48.1	55.8	122
1975	39.8	40.7	115	125	172	268	174	199	274	119	92.1	473	174
1976	280	185	122	199	159	120	155	83.6	77.8	63.2	50.7	56.8	129
1977	299	130	90.5	61.8	68.8	168	237	97.2	66.3	49.7	44.2	36.3	113
1978	40.9	78.8	140	198	116	243	140	249	103	107	62.8	49.0	128
1979	41.5	37.9	57.3	237	239	263	167	129	104	65.7	60.7	197	132
1980	218	135	122	117	78.5	160	235	172	89.0	58.9	49.5	39.9	123
1981	36.1	46.5	38.3	30.1	127	84.5	161	93.9	128	77.6	56.1	45.6	76.5

Table 8.—Monthly mean and annual mean streamflow—Continued

01619500 Antietam Creek near Sharpsburg

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual
1897	--	--	--	--	--	--	--	--	--	146	161	114	--
1898	109	140	210	303	260	312	316	375	226	155	322	167	242
1899	200	249	598	529	560	897	483	358	317	169	200	161	393
1900	109	144	133	135	315	432	291	222	181	115	112	91.7	189
1901	99.1	114	110	90.5	80.0	285	632	523	341	238	218	171	242
1902	130	175	510	410	871	1,068	662	313	249	232	141	113	404
1903	150	131	530	810	849	750	926	398	350	738	354	242	517
1904	226	172	195	--	--	--	--	--	--	--	--	--	--
1929	169	145	148	152	243	592	502	603	264	171	112	93.2	267
1930	300	296	227	217	326	430	317	189	157	110	90.3	91.0	229
1931	86.5	97.3	92.5	78.4	72.5	101	167	139	154	259	132	112	125
1932	74.1	77.5	69.6	99.3	115	222	297	520	202	126	97.2	109	168
1933	171	419	223	264	294	543	647	472	248	250	335	267	344
1934	234	162	139	203	120	193	294	229	159	103	96.9	140	173
1935	128	105	363	217	366	410	459	336	191	205	122	114	251
1936	97.8	120	171	378	362	1,290	692	311	212	163	157	116	340
1937	118	93.5	207	481	615	395	718	496	347	243	207	140	336
1938	301	330	260	223	179	234	210	225	172	136	113	122	209
1939	88.1	97.2	265	200	532	455	453	332	217	171	121	103	251
1940	128	154	111	120	253	462	766	461	339	206	168	202	280
1941	204	443	402	384	298	337	385	215	205	147	120	100	270
1942	84.9	93.2	121	109	158	274	519	390	274	222	410	241	242
1943	410	377	451	481	572	543	419	413	247	164	121	99.0	357
1944	104	118	88.1	247	116	337	355	314	183	119	93.5	92.6	181
1945	106	87.0	192	186	308	439	381	355	200	142	147	233	231
1946	156	205	396	361	265	340	228	249	405	177	165	136	257
1947	148	130	119	186	201	251	195	257	289	230	175	129	192
1948	98.8	136	109	191	219	324	462	431	270	203	175	118	228
1949	168	239	453	799	656	394	357	255	171	586	263	207	378
1950	166	171	242	271	459	449	378	400	313	194	143	165	278
1951	158	355	776	448	741	609	522	352	534	276	191	140	423
1952	116	143	166	484	439	503	721	779	422	268	189	326	379
1953	152	422	451	601	499	600	546	479	366	209	161	125	383
1954	102	103	130	99.7	105	231	165	215	115	86.7	91.3	81.4	127
1955	138	105	168	161	242	556	356	219	208	142	410	198	242
1956	224	164	130	148	499	486	452	263	184	357	169	148	268
1957	186	347	379	313	448	385	421	246	194	126	92.6	93.3	268
1958	82.2	88.7	173	330	291	525	633	692	324	246	178	138	309
1959	118	114	112	172	221	213	262	219	169	125	109	75.0	158
1960	84.5	83.6	110	149	226	285	512	368	413	203	161	119	226
1961	103	101	80.9	112	409	604	784	450	261	179	131	112	276
1962	89.7	107	110	176	228	659	488	277	175	136	108	92.1	220
1963	81.5	135	106	215	169	678	284	172	206	115	89.5	69.4	194
1964	65.5	86.3	85.4	242	265	528	477	448	193	146	108	92.7	228
1965	86.1	82.0	86.3	95.3	221	478	261	188	140	104	86.6	70.9	158
1966	78.7	65.6	61.5	57.3	178	218	189	214	109	88.3	65.0	172	124
1967	130	109	152	233	267	535	303	331	197	286	232	149	244
1968	181	194	389	401	380	474	335	305	318	153	138	143	284
1969	106	175	146	120	135	153	163	139	132	134	158	119	140
1970	94.3	102	135	156	423	387	815	389	356	462	259	166	311
1971	146	254	300	395	690	607	333	386	321	177	185	154	327
1972	221	239	462	332	552	710	614	687	1,278	572	280	186	510
1973	159	225	540	473	624	433	661	553	542	305	253	224	414
1974	198	177	400	588	359	323	692	362	252	167	137	168	318
1975	117	121	355	347	456	683	480	536	719	392	265	1090	462
1976	800	589	406	638	485	359	439	248	224	187	150	148	389
1977	916	444	301	198	198	453	668	292	215	169	139	112	343
1978	123	202	397	551	374	726	453	627	332	306	200	152	371
1979	129	118	181	689	708	784	495	359	280	193	172	436	376
1980	659	420	352	360	240	424	620	474	293	198	156	131	361
1981	119	142	119	94.8	285	227	359	253	295	206	140	132	197
1982	130	119	125	198	405	497	440	269	478	274	175	141	269
1983	118	115	118	113	198	359	838	548	449	242	163	126	282
1984	153	199	552	326	938	688	1001	626	322	306	474	231	483
1985	180	196	238	192	537	292	309	265	193	163	156	117	234
1986	116	337	375	213	455	580	403	277	227	152	127	100	279

Table 9.—Streamflow at partial-record stations

[Values in cubic feet per second. An asterisk (*) indicates annual peak flow of water year]

01610150 Bear Creek at Forest Park

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Mar 5, 1965	380*	June 3, 1975	4.41	Aug 9, 1977	0.40	Mar 14, 1985	3.82
June 6, 1966	125*	June 25	4.47	Sept 13	.12	Apr 30	2.03
Mar 7, 1967	450*	Nov 5	3.07	Mar 15, 1978	430*	June 26	.15
Mar 13, 1968	215*	Mar 8, 1976	4.17	Sept 21	.43	Aug 28	.30
Mar 25, 1969	110*	Apr 20	4.20	Mar 5, 1979	430*	May 13, 1986	1.41
Feb 13, 1971	450*	June 20	520*	May 3	11.6	June 3	1.43
June 22, 1972	1450*	July 7	.37	Mar 14, 1980	190*	Aug 26	.04
Apr 4, 1973	280*	Aug 24	.86	Feb 24, 1981	260*	Oct 2	.03
Oct 29	970*	Oct 9	740*	June 13, 1982	480*	Oct 30	.09
Apr 25, 1975	650*	Apr 18, 1977	5.55	Apr 24, 1983	340*		

01610170 Potomac River Tributary at Woodmont

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Mar 14, 1985	0.94	Aug 28, 1985	0.30	June 3, 1986	0.34	Oct 2, 1986	0.03
Apr 30	.71	May 13, 1986	.47	Aug 26	.07	Oct 30	.06
June 26	.32						

01613100 Tonoloway Creek at Hanock

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Mar 4, 1985	55.7	Sept 18, 1985	1.41	June 3, 1986	16.9	Oct 2, 1986	2.46
Apr 30	31.1	May 29, 1986	37.0	Aug 26	2.37	Oct 30	4.19
June 26	5.37						

01613150 Ditch Run near Hancock

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Mar 5, 1965	310*	Mar 19, 1975	300*	Apr 18, 1977	2.72	Apr 3, 1983	153*
Feb 13, 1966	175*	June 3	1.39	Aug 9	.22	Feb 14, 1984	410*
Mar 7, 1967	230*	June 25	.61	Sept 13	.07	Feb 13, 1985	220*
Sept 10, 1968	140*	Nov 5	1.40	Aug 4, 1978	650*	Mar 14	1.36
July 25, 1969	135*	Mar 8, 1976	1.29	Sept 21	.52	Apr 30	.59
July 9, 1970	275*	Apr 20	1.47	Mar 5, 1979	285*	June 26	.14
Nov 13	400*	July 7	.20	May 3	2.76	Aug 28	.39
June 22, 1972	555*	Aug 24	.46	Dec 25	113*	May 29, 1986	.87
Apr 4, 1973	115*	Sept 17	220*	June 14, 1981	143*	Oct 7	.00
Oct 29	470*	Oct 9	480*	June 13, 1982	143*	Oct 30	.00

01613160 Potomac River Tributary near Hancock

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Mar 5, 1965	135*	Oct 25, 1967	78*	June 22, 1972	165*	Oct 29, 1973	250*
Feb 13, 1966	105*	July 9, 1970	125*	Apr 4, 1973	44*	Apr 25, 1975	115*
Mar 7, 1967	95*	Dec 23	115*				

01613540 Lanes Run near Forsythe

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Apr 22, 1980	10.1	Sept 24, 1981	0.49	Apr 29, 1985	1.75	May 12, 1986	2.30
June 24	1.46	May 17, 1982	2.81	June 27	1.30	Oct 7	.45
Aug 17, 1981	.42	Sept 7	.34	Aug 29	1.90	Oct 30	.50

Table 9.—Streamflow at partial-record stations—Continued

01613545 Licking Creek near Pectonville

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Apr 29, 1985	12.8	May 12, 1986	82.3	Aug 29, 1986	11.8	Oct 30, 1986	13.7
June 27	34.9	June 3	69.3	Oct 7	18.2	Mar 24, 1987	111
Sept 18	14.9						

01614050 Little Conococheague Creek near Charlton

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Apr 29, 1985	5.93	Apr 3, 1986	13.8	Aug 22, 1986	3.54	Oct 31, 1986	2.16
June 27	3.49	June 3	5.85	Oct 3	1.94	Mar 24, 1987	8.11
Aug 29	4.04						

01614525 Rockdale Run at Fairview

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 31, 1976	3.07	May 3, 1979	9.88	Sept 7, 1982	3.55	Apr 3, 1986	12.9
Apr 21, 1977	12.8	Aug 17, 1981	4.31	Apr 23, 1985	7.30	Aug 21	4.50
Sept 8	2.83	Sept 24	2.83	June 27	3.50	Sept 26	2.09
Sept 26, 1978	3.56	May 17, 1982	7.97	Aug 26	3.08	Oct 7	2.08
Nov 6	3.05						

01614575 Rush Run near Huyett

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Apr 23, 1985	3.56	Sept 26, 1985	1.33	Aug 22, 1986	1.42	Oct 7,1986	.68
June 27	2.03	Apr 3, 1986	6.62				

01614577 Rush Run at Troupe Springs

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 31, 1976	1.94	Sept 26, 1978	3.13	Aug 17, 1981	4.28	May 17, 1982	6.55
Apr 21, 1977	14.6	Nov 6	1.60	Sept 24	2.58	Sept 7	2.60
Sept 8	2.31	May 3, 1979	9.22				

01614625 Meadow Brook at Conococheague

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 31, 1976	0.83	Apr 6, 1978	0.71	May 17, 1982	3.00	Sept 26, 1985	0.32
Apr 21, 1977	7.10	May 3, 1979	4.97	Sept 7	1.07	Apr 3, 1986	7.82
Sept 8	.51	Aug 17, 1981	1.24	Apr 23, 1985	1.86	Oct 7	.51
Sept 26, 1978	1.29	Sept 23	.60	June 27	1.53	Oct 31	.35

01614675 Conococheague Creek Tributary near Huyett

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 8, 1977	0.76	Aug 17, 1981	1.75	Apr 23, 1985	3.31	Apr 3, 1986	8.81
Sept 26, 1978	1.52	Sept 23	1.08	June 27	1.59	Aug 27	1.12
Nov 6	.99	May 17, 1982	3.74	Sept 24	1.29	Oct 7	.56
May 3, 1979	6.01	Sept 7	.99				

01614705 Conococheague Creek at Williamsport

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 6, 1954	75.5	Nov 4, 1954	394	Aug 21, 1986	136	Oct 31, 1986	91.0
Sept 1	635	Sept 19, 1985	105	Oct 3	117	Mar 24, 1987	384
Oct 6	143	Apr 3, 1986	610				

01617600 Downey Branch near Downsville

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 2, 1976	1.17	Sept 26, 1978	1.81	Aug 18, 1981	1.45	May 18, 1982	2.73
Apr 21, 1977	4.25	Nov 6	.91	Sept 23	.78	Sept 8	1.21
Sept 8	1.01	May 2, 1979	4.76				

Table 9.—Streamflow at partial-record stations—Continued

01617780 St. James Run at Spielman

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 8, 1977	2.83	Aug 18, 1981	3.22	Apr 23, 1985	3.34	Aug 27, 1986	2.57
Sept 26, 1978	2.50	Sept 23	2.41	June 27	3.22	Oct 7	1.67
Nov 6	2.64	May 17, 1982	3.48	Sept 19	2.54	Oct 31	1.68
May 2, 1979	5.49	Sept 7	2.75	Apr 15, 1986	6.39		

01619050 Little Antietam Creek at Leitersburg

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 31, 1976	8.79	Nov 6, 1978	7.77	May 17, 1982	17.5	Apr 14, 1986	18.9
Apr 21, 1977	30.4	May 3, 1979	20.2	Sept 7	8.78	June 5	14.8
Sept 8	6.88	Aug 18, 1981	9.04	Apr 22, 1985	16.7	Aug 20	7.72
Sept 26, 1978	9.35	Sept 24	7.31	Sept 26	5.47	Oct 8	5.54

01619145 West Branch at Paramount

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 8, 1977	1.63	Nov 6, 1978	1.10	Aug 18, 1981	2.78	May 17, 1982	5.16
Sept 26, 1978	2.17	May 3, 1979	6.34	Sept 24	1.82	Sept 7	2.67

01619150 Marsh Run at Fiddlesburg

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct 30, 1964	1.71	Sept 14, 1967	12.6	Sept 3, 1973	11.9	May 3, 1979	25.5
June 24, 1965	5.16	Apr 23, 1968	21.6	Aug 15, 1974	5.90	Apr 22, 1985	17.5
Sept 9	1.21	July 9	8.66	Sept 23	5.83	June 28	7.07
June 15, 1966	5.24	June 27, 1969	2.06	Sept 2, 1976	3.57	Sept 26	2.15
July 21	3.23	Sept 30	1.74	Apr 21, 1977	35.0	Apr 14, 1986	27.9
Sept 8	.92	Sept 17, 1970	9.74	Sept 8	3.73	June 5	11.3
Sept 13	.74	July 8, 1971	9.74	Sept 26, 1978	5.41	Aug 20	3.86
June 5, 1967	14.5	Sept 13, 1972	11.5	Nov 6	2.72	Oct 8	1.49
July 17	35.7	July 12, 1973	25.4				

01619275 Landis Spring Branch near Benevola

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 2, 1976	1.61	May 2, 1979	5.17	Sept 8, 1982	1.49	Sept 25, 1985	0.80
Apr 21, 1977	8.22	Aug 18, 1981	1.52	Mar 11, 1985	2.47	Apr 4, 1986	4.41
Sept 8	1.39	Sept 23	1.19	Apr 22	2.00	Aug 27	1.22
Sept 18, 1978	2.06	May 18, 1982	3.49	Sept 20	.96	Oct 8	.76
Nov 6	1.22						

01619325 Beaver Creek at Benevola

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 4, 1975	22.5	Sept 2, 1976	16.1	May 2, 1979	26.7	Sept 25, 1985	10.6
Nov 18	52.8	Apr 21, 1977	38.9	Mar 11, 1985	23.1	Apr 4, 1986	31.8
Mar 8, 1976	32.0	Sept 8	13.6	Apr 22	19.3	Aug 27	13.4
July 27	19.2	Sept 18, 1978	17.3	Sept 20	11.9	Oct 8	11.1
Aug 26	16.2	Nov 6	13.2				

01619350 Little Beaver Creek at Benevola

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 4, 1975	6.94	Sept 2, 1976	5.30	Nov 6, 1978	3.27	Sept 25, 1985	3.32
Nov 18	16.6	Apr 21, 1977	15.6	May 2, 1979	8.49	Apr 4, 1986	12.5
Mar 8, 1976	10.4	Sept 8	3.56	Apr 22, 1985	7.26	Aug 20	4.17
Jul 27	6.08	Sept 18, 1978	4.56	Sept 20	3.61	Oct 8	2.69
Aug 26	5.12						

01619475 Dog Creek Tributary near Locust Grove

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 11, 1966	14*	July 28, 1969	7*	June 22, 1972	30*	Sept 26, 1975	34*
Aug 7, 1967	110*	July 9, 1970	16*	June 4, 1973	69*	July 11, 1976	19*
Oct 25	28*	Feb 13, 1971	12*	July 29, 1974	10*		

Table 9.—Streamflow at partial-record stations—Continued

01619480 Little Antietam Creek at Keedysville

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 9, 1964	5.48	June 6, 1967	14.3	Sept 17, 1970	7.64	May 2, 1979	25.3
June 24, 1965	9.41	July 18	10.5	Sept 2, 1976	10.9	Apr 23, 1985	18.9
Sept 10	4.13	Sept 14	8.21	Apr 21, 1977	32.7	Sept 19	5.86
June 14, 1966	9.23	July 9, 1968	17.0	Sept 8	7.38	Apr 14, 1986	25.1
July 21	5.21	June 27, 1969	6.16	Sept 18, 1978	8.66	Aug 20	6.37
Sept 9	3.33	Sept 30	7.29	Nov 6	6.00	Oct 8	4.51
Sept 13	2.82						

01619525 Sharmans Branch near Antietam

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept 8, 1977	0.18	Nov 6, 1978	0.25	Aug 18, 1981	0.19	May 18, 1982	1.65
Sept 18, 1978	.39	May 2, 1979	2.49	Sept 23	.11	Sept 8	.27

01636730 Israel Creek at Weverton

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Aug 4, 1975	6.38	Aug 5, 1977	0.93	May 3, 1979	12.1	Apr 15, 1986	10.2
Nov 18	17.5	Sept 16	.69	Apr 23, 1985	8.67	Aug 22	1.80
Mar 8, 1976	10.4	Sept 21, 1978	2.05	Sept 19	1.17	Oct 2	.42
July 27	4.78	Nov 3	1.62	Sept 25	.95	Oct 30	.66
Aug 26	2.23						

Table 10.—Ground-water appropriations

[Only appropriations greater than an average of 10,000 gallons per day are included; yearly totals are from all sources of water]

User	Ground-water appropriation permit number	Appropriation (gallons per day) Average	Appropriation (gallons per day) High month[1]	Well permit number	Site identification number	Geologic unit[2]	1986 reported pumpage (gallons) Daily average	1986 reported pumpage (gallons) High month daily average[1]	1986 reported pumpage (gallons) Yearly total
Jefferson Cheese Manufacturers	WA50G003	80,000	100,000	WA-00-5793	WA Bi 60	371SNNG or 371CCCG	[3] 230	-	[3] 84,000
Fountain Head Country Club	WA54G013	15,000	28,000	WA-03-0100	WA Ai 16	371CCCG	8,400	24,772	[4] 3,067,000
Doubleday & Company, Inc.	WA58G008	45,000	50,000	WA-03-1599 WA-03-2884 WA-03-6726	WA Bk 9 WA Bk 10 WA Bk 22	377TMSN 377TMSN 377TMSN	25,964	31,602	9,477,200
Deer Lodge Mobile Home Park	WA63G010	12,000	18,000	WA-05-5278	WA Bh 96	361MRBG	4,210	6,416	1,536,600
Clear Spring, Town of	WA67G001	100,000	144,000	(Spring) WA-05-2934 WA-05-2935 WA-67-0072 WA-73-2312	WA Bf 2 WA Bf 26 WA Bf 27 WA Bf 29 WA Bf 130	347ORSK 347HDBG 347HDBG 347HDBG 347HDBG	141,463	189,043	51,634,200
A. M. Powell Fish Hatchery	WA74G110	[5] 4,560,000	4,600,000	(Spring) (Spring)	WA Bj 4 WA Bj 8	371ELBK 110MNWS	[5] 4,560,000	-	-
H. B. Mellott Estate, Inc.	WA77G120	168,000	500,000	(Quarry)	--	377WSBR	128,496	196,534	46,901,000
Keedysville, Town of	WA79G012	210,000	215,000	(Spring)	WA Di 6	377TMSN	190,000	203,302	69,425,000
Boonsboro, Town of	WA79G013	130,000	150,000	(Spring) (Spring) (Spring)	WA Cj 6 [6] WA Cj 12 [6] WA Cj 13	377TMSN 377HRPR 377HRPR	116,170	138,546	42,403,000
Martin Marietta Aggregates	WA80G008	114,000	912,100	WA-73-3168	WA Cj 92	377TMSN	41,590	49,873	15,180,000
H. B. Mellott Estate, Inc.	WA82G101	1,500,000	1,600,000	WA-81-0155	WA Ac 64	351TNLY	10,192	59,161	[7] 3,719,700
U.S. Army Ft. Ritchie	WA82G200	250,000	340,000	(Spring) (Spring) -- -- -- -- --	WA Ak 6 WA Ak 7 WA Ak 8 WA Ak 9 WA Ak 10 WA Ak 11 WA Ak 12	400CTCN 400CTCN 400CTCN 400CTCN 400CTCN 400CTCN 400CTCN	271,298	315,515	[8] 49,105,200
Brunswick, Town of	WA83G012	350,000	500,000	(Spring) (Spring)	WA Ej 4 WA Ej 5	377HRPR & 400CTCN 377HRPR & 400CTCN	229,480	282,119	83,761,000

[1] Daily average during month of highest use.
[2] For explanation of geologic unit codes, refer to table 1.
[3] Estimated pumpage. Also used public water.
[4] Pumped April to September only.
[5] Estimated average spring flow.
[6] Used only in summer.
[7] Pumped October to December only.
[8] Pumpage for July to December not reported.

Table 11.—Surface-water appropriations

[Only appropriations greater than an average of 10,000 gallons per day are included; reported pumpage is from all sources of water]

User	Surface-water appropriation permit number	Appropriation (million gallons per day) Average	Appropriation (million gallons per day) High month[1]	Basin	Source (Geologic unit)[2]	1986 reported pumpage (million gallons) Daily average	1986 reported pumpage (million gallons) High month daily average[1]	1986 reported pumpage (million gallons) Yearly total
Marquette Company	WA19S050	1.25	4.320	Antietam Creek	Main stem	2.158	2.200	[3] 788.4
Hagerstown, City of	WA28S001	10	13.0	Potomac River	Main stem	7.949	10.441	2,904
Washington County Sanitary District	WA67S002	.10	.200	Potomac River	Main stem	.071	.078	25.910
Martin Marietta Aggregates	WA69S014	1.75	3.500	Potomac River	Quarry (364STPL)	.051	.163	[4] 18.585
Potomac Edison Company	WA70S006	60	85.0	Potomac River	Main stem	31.670	61.612	11,567
Shepherdstown Water Works	WA73S006	.50	1.000	Potomac River	Main stem	.331	.399	120.888
Mt. Aetna Water Association	WA75S001	.05	.100	Beaver Creek	Spring WA Bj 6 (377HRPR) and (377WVRN) Spring WA Bj 132 (377HRPR)	.068	.076	24.750
Hancock, Town of	WA75S007	.30	.500	Little Tonoloway Creek	Main stem	.211	.304	[5] 77.132
Maryland Environmental Service	WA76S009	.012	.114	Little Beaver Creek	Main stem and Park Lake	.005	.012	[6] 1.833
Camp Louise	WA76S035	0.02	0.075	Falls Creek	Lake Royer	0.008	0.032	[7] 3.003
Smithsburg, Town of	WA76S043	.175	.255	Little Antietam Creek	Spring WA Bk 4 (377HRPR)	.143	.172	53.056
Hepburn Orchards, Inc.	WA76S045	.15	.720	Tonoloway Creek	Main stem	.069	.473	[8] 25.200
Beaver Creek Country Club	WA76S099	.40	.950	Black Rock Creek	Main stem	.021	.061	8.468
W. D. Byron & Sons, Inc.	WA78S015	.36	.400	Conococheague Creek	Main stem	.381	.656	139.237
Hagerstown Raceway, Inc.	WA82S004	.014	.100	Conococheague Creek	Main stem	.012	.023	[9] 4.360
Hancock, Town of	WA83S011	.10	.216	Potomac River	Main stem	.078	.328	[10] 28.310
Potomac Edison Company (Instream use--power generation)	WA83S013	932	1,205	Potomac River	Main stem	[11] 509.6	[11] 686.5	[11] 186,013

1 Daily average during month of highest use.
2 For explanation of geologic unit codes, refer to table 1.
3 Estimated pumpage.
4 Pumped March to September and November to December.
5 Pumped January to August and December.
6 No pumpage for January.
7 Pumped April to October only.
8 Pumped July and August only.
9 Pumped March to November only.
10 Pumped September to November only.
11 July 1986 to June 1987.

TABLE 12 FOLLOWS

Table 12.—Major-ion analyses of ground water

[ND, not detected (detection limit not reported)]

Site number	Site type	Date	Geo-logic unit[1]	Discharge (gal/min)	Flow period prior to sam-pling (min)	Specific conduc-tance (µS/cm)	pH	Temper-ature air (deg C)	Temper-ature water (deg C)
WA Ab 5	well	10-16-58	341HMPR	--	--	225	7.0	--	--
WA Ab 32	well	10-16-58	341HMPR	--	--	40	7.0	--	--
WA Ab 72	well	07-15-86	341WDMN	12	12	185	7.8	29.0	13.0
WA Ab 78	well	08-27-85	341CMNG	2.5	40	189	6.7	24.0	13.5
WA Ab 80	well	08-27-85	341HMPR	--	20	175	6.8	25.0	13.5
WA Ab 81	well	08-27-85	337PRSL	3.0	35	250	7.0	21.5	13.0
WA Ac 2	well	10-16-58	347HDBG	--	--	733	7.4	--	--
WA Ac 3	well	08-28-85	351WLCK	3.3	15	450	7.3	32.0	14.0
WA Ac 5	well	08-28-85	341WDMN	2.1	15	165	7.4	28.5	13.5
WA Ac 43	well	12-17-68	354RSHL	--	--	527	8.0	--	--
WA Ac 44	well	08-27-85	344RMNY	--	--	315	6.6	24.5	12.0
WA Ac 47	spring	07-14-86	354MCKZ	1.3	--	279	7.5	30.0	15.0
WA Ad 3	well	11-28-55	341PRKD	--	10	177	6.8	--	--
WA Ad 47	well	07-27-63	341WDMN	12	1,080	578	7.5	--	13.0
WA Ad 53	well	07-16-86	341WDMN	4.2	15	125	6.7	23.0	14.5
WA Ad 72	well	08-28-85	341HMPR	3.8	15	250	8.0	28.0	14.0
WA Ad 77	well	07-15-86	341PRKD	2.1	15	180	7.6	27.5	14.0
WA Ae 15	well	10-16-58	341CMNG	--	--	261	8.0	--	--
WA Ae 32	well	07-14-86	347ORSK	4.8	5	529	7.6	26.5	14.0
WA Af 12	well	04-24-59	361MRBG	--	--	360	7.2	--	10.0
WA Af 19	well	04-08-70	371CCCG	--	--	460	7.7	--	13.0
WA Af 33	well	04-15-87	354MCKZ	--	--	560	7.2	--	12.5
WA Ag 2	spring	04-24-59	367SNNG	600	--	278	7.6	--	12.0
		04-08-70		--	--	310	7.8	--	11.0
WA Ag 65	well	05-19-87	364STPL	--	10	430	7.2	12.0	13.0
WA Ag 71	well	05-19-87	364CBBG	--	5	970	6.6	12.5	13.0
WA Ah 2	well	03-25-70	367RCKR	--	--	1,500	7.2	--	12.0
		04-08-70		--	--	790	7.7	--	7.0
WA Ah 8	well	03-19-58	361MRBG	--	--	117	6.0	--	--
		04-08-70		--	--	365	6.1	--	14.0
WA Ah 73	well	03-25-70	367RCKR	--	--	600	7.5	--	8.0
WA Ai 1	well	03-07-51	367RCKR	5.0	--	501	7.7	--	10.5
		03-25-70		--	--	600	7.4	--	11.0
WA Ai 4	well	03-19-58	371CCCG	--	--	473	8.0	--	--
WA Ai 19	well	09-17-58	367RCKR	--	--	815	7.0	--	--
WA Ai 20	spring	10-15-58	371CCCG	--	--	598	7.9	--	--
WA Ai 74	well	05-21-87	367SNNG	--	10	890	6.6	19.0	14.0
WA Aj 1	well	03-26-70	371CCCG	--	--	675	7.3	--	14.0
WA Aj 2	well	03-12-58	371CCCG	--	--	620	7.5	--	--
WA Aj 9	well	03-26-70	371CCCG	--	--	700	7.7	--	20.0
WA Ak 3	spring	08-27-81	377TMSN	--	--	430	8.0	--	12.0
WA Ak 6	spring	01-05-60	400CTCN	--	--	37	5.2	--	--
WA Ak 7	spring	01-05-60	400CTCN	--	--	35	6.6	--	--
WA Ak 8	well	01-05-60	400CTCN	--	--	86	6.6	--	--
WA Ak 40	well	07-14-86	377WSBR	15	5	691	7.2	27.5	13.0
WA Ak 45	spring	07-14-86	377HRPR	9.0	--	34	5.4	25.0	12.5
		06-29-87		8.7	--	35	5.6	28	12
WA Al 1	well	06-11-58	377WVRN	--	--	71	6.8	--	--
WA Al 7	well	01-05-60	400CTCN	--	--	284	6.6	--	--
WA Al 8	well	12-26-56	400CTCN	40	--	131	6.8	--	14.5
		01-05-60		--	--	151	6.5	--	--
WA Al 9	well	10-20-54	400CTCN	37	--	57	6.4	--	14.0
		01-05-60		--	--	98	6.9	--	--
WA Al 10	well	01-05-60	400CTCN	--	--	100	6.9	--	--
WA Al 11	well	01-05-60	400CTCN	--	--	141	6.7	--	--
WA Al 12	well	01-05-60	400CTCN	--	--	183	6.7	--	--
WA Bb 3	well	03-18-58	341WDMN	--	--	334	7.7	--	--
WA Bb 15	well	07-15-86	341HMPR	1.8	10	482	6.6	26.0	13.5
WA Bb 18	well	07-31-63	354MCKZ	7.5	1,200	456	7.2	--	12.5
WA Bc 1	well	02-04-69	354RSHL	--	--	261	7.8	--	--
		07-15-86		2.5	30	278	7.1	22.5	12.0

Color (platinum-cobalt units)	Hardness (mg/L as $CaCO_3$)	Total noncarbonate hardness (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Total bicarbonate (mg/L as HCO_3)	Site number
1	90	0	18	11	--	--	130	WA Ab 5
6	13	0	1.7	2.2	--	--	20	WA Ab 32
--	77	0	19	7.2	13	0.50	113	WA Ab 72
--	74	0	15	8.9	7.6	.60	--	WA Ab 78
--	69	0	11	10	6.6	1.5	--	WA Ab 80
--	40	0	6.6	5.8	23	2.2	--	WA Ab 81
5	310	0	77	29	--	--	390	WA Ac 2
--	270	28	80	17	1.7	1.0	--	WA Ac 3
--	68	0	15	7.3	7.0	.50	--	WA Ac 5
2	98	0	24	9.2	77	1.6	250	WA Ac 43
--	170	64	50	11	4.8	.90	--	WA Ac 44
--	160	0	57	3.7	1.5	.80	195	WA Ac 47
2	71	0	13	9.4	7.2	.40	110	WA Ad 3
5	230	0	64	17	44	1.1	390	WA Ad 47
--	47	0	5.9	7.9	6.8	.60	66	WA Ad 53
--	0	0	.10	.02	60	.30	--	WA Ad 72
--	66	0	18	5.1	15	.40	110	WA Ad 77
12	100	0	22	11	--	--	160	WA Ae 15
--	300	4	100	11	6.2	1.1	355	WA Ae 32
3	160	74	38	15	9.0	1.5	100	WA Af 12
--	--	--	--	--	--	--	--	WA Af 19
--	130	0	50	2.0	.90	.60	158	WA Af 33
5	150	24	46	7.6	1.6	1.2	150	WA Ag 2
--	--	--	--	--	--	--	--	
--	250	99	73	17	2.5	.70	265	WA Ag 65
--	560	250	170	34	3.1	.90	382	WA Ag 71
--	--	--	--	--	--	--	--	WA Ah 2
--	--	--	--	--	--	--	--	
--	21	10	4.0	2.7	--	--	14	WA Ah 8
--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	WA Ah 73
3	250	50	91	5.1	3.4	3.7	240	WA Ai 1
--	--	--	--	--	--	--	--	
4	330	58	110	11	--	--	330	WA Ai 4
10	280	0	100	6.5	--	--	410	WA Ai 19
3	270	12	51	34	--	--	310	WA Ai 20
--	360	84	130	7.7	42	7.8	332	WA Ai 74
--	--	--	--	--	--	--	--	WA Aj 1
--	340	84	95	25	--	--	310	WA Aj 2
--	--	--	--	--	--	--	--	WA Aj 9
--	180	32	48	15	17	1.3	183	WA Ak 3
--	130	120	49	.70	--	--	5	WA Ak 6
--	86	84	33	.90	--	--	2	WA Ak 7
--	170	130	66	1.2	--	--	47	WA Ak 8
--	330	52	88	27	16	2.3	340	WA Ak 40
--	9	0	1.9	1.1	2.4	.90	8	WA Ak 45
--	10	2	2.1	1.1	1.9	1.0	12	
3	16	5	4.3	1.3	--	--	14	WA Al 1
--	85	0	21	7.9	--	--	170	WA Al 7
10	48	0	8.0	6.9	--	--	65	WA Al 8
--	37	0	12	1.8	--	--	78	
6	12	0	4.4	.30	--	--	30	WA Al 9
--	39	0	12	2.3	--	--	58	
--	54	6	9.9	7.2	--	--	58	WA Al 10
--	37	0	8.7	3.6	--	--	55	WA Al 11
--	39	0	12	2.2	--	--	57	WA Al 12
--	40	0	4.3	7.0	--	--	210	WA Bb 3
--	170	77	34	21	33	2.2	115	WA Bb 15
5	220	22	73	8.3	18	.90	240	WA Bb 18
3	130	25	26	15	3.0	1.4	120	WA Bc 1
--	130	2	26	16	6.4	1.3	157	

Table 12.—Major-ion analyses of ground water—Continued

Site number	Date	Total alkalinity (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Iodide, dissolved (mg/L)	Silica, dissolved (mg/L)
WA Ab 5	10-16-58	109	21	7.4	0.60	0.10	--	--
WA Ab 32	10-16-58	16	3.2	5.4	1.4	.10	--	--
WA Ab 72	07-15-86	93	2.7	4.4	5.2	.20	--	17
WA Ab 78	08-27-85	85	33	5.5	2.3	<.10	--	21
WA Ab 80	08-27-85	83	25	4.3	1.8	<.10	--	16
WA Ab 81	08-27-85	77	15	22	11	.10	--	7.0
WA Ac 2	10-16-58	322	25	28	7.0	.10	--	--
WA Ac 3	08-28-85	242	23	22	5.6	.30	--	9.0
WA Ac 5	08-28-85	75	5.8	8.3	1.0	.20	--	18
WA Ac 43	12-17-68	202	3.9	16	36	.20	--	10
WA Ac 44	08-27-85	106	52	85	1.0	.10	--	15
WA Ac 47	07-14-86	160	9.8	21	1.9	<.10	--	6.8
WA Ad 3	11-28-55	87	27	.4	4.2	.10	--	19
WA Ad 47	07-27-63	318	19	2.4	4.6	<.05	--	21
WA Ad 53	07-16-86	54	23	6.4	2.3	.20	--	20
WA Ad 72	08-28-85	142	2.7	6.3	1.6	<.10	--	18
WA Ad 77	07-15-86	90	4.7	3.9	2.1	.20	--	17
WA Ae 15	10-16-58	130	2.5	4.6	2.0	.30	--	--
WA Ae 32	07-14-86	291	16	23	1.5	.10	--	12
WA Af 12	04-24-59	83	10	46	22	.40	--	17
WA Af 19	04-08-70	--	--	--	--	--	--	--
WA Af 33	04-15-87	130	16	2.3	.50	.10	--	9.9
WA Ag 2	04-24-59	122	5.9	10	3.1	.40	--	8.0
	04-08-70	--	--	--	--	--	--	--
WA Ag 65	05-19-87	217	19	15	5.0	<.10	--	6.0
WA Ag 71	05-19-87	310	0	230	5.0	.30	--	6.5
WA Ah 2	03-25-70	--	--	--	--	--	--	--
	04-08-70	--	--	--	--	--	--	--
WA Ah 8	03-19-58	11	22	12	7.5	--	--	--
	04-08-70	--	--	--	--	--	--	--
WA Ah 73	03-25-70	--	--	--	--	--	--	--
WA Ai 1	03-07-51	198	7.6	36	5.9	.10	--	9.2
	03-25-70	--	--	--	--	--	--	--
WA Ai 4	03-19-58	272	5.3	28	8.3	.20	--	9.6
WA Ai 19	09-17-58	336	65	13	17	.20	--	--
WA Ai 20	10-15-58	255	6.2	18	9.4	.20	--	--
WA Ai 74	05-21-87	272	0	48	75	.10	--	9.8
WA Aj 1	03-26-70	--	--	--	--	--	--	--
WA Aj 2	03-12-58	256	16	60	8.2	--	--	--
WA Aj 9	03-26-70	--	--	--	--	--	--	--
WA Ak 3	08-27-81	150 (lab)	2.6	5.7	30	.10	--	9.6
WA Ak 6	01-05-60	4	50	5.0	2.4	.10	--	4.8
WA Ak 7	01-05-60	2	.8	7.0	2.4	.10	--	5.1
WA Ak 8	01-05-60	39	19	1.0	3.4	.10	--	22
WA Ak 40	07-14-86	279	33	31	43	.30	--	12
WA Ak 45	07-14-86	7	65	1.7	1.8	<.10	--	8.8
	06-29-87	10	--	.8	1.9	<.10	--	9.4
WA Al 1	06-11-58	11	3.5	8.2	7.0	.20	--	--
WA Al 7	01-05-60	137	67	5.0	4.9	.10	--	25
WA Al 8	12-26-56	53	16	7.8	3.0	.10	--	19
	01-05-60	64	39	4.2	4.9	.10	--	22
WA Al 9	10-20-54	25	19	2.5	2.1	<.05	--	15
	01-05-60	48	12	.6	1.0	.10	--	37
WA Al 10	01-05-60	48	12	2.8	4.9	.10	--	34
WA Al 11	01-05-60	45	17	11	7.4	.20	--	25
WA Al 12	01-05-60	47	18	10	14	.10	--	.2
WA Bb 3	03-18-58	172	6.7	4.0	2.8	--	--	--
WA Bb 15	07-15-86	94	42	16	89	.10	--	13
WA Bb 18	07-31-63	194	24	50	3.8	.20	--	8.0
WA Bc 1	02-04-69	102	3.1	26	4.2	.20	--	8.6
	07-15-86	129	18	25	7.5	.10	--	7.4

Solids, residue at 180 Deg C dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Nitrate, Nitrate, dis-solved (mg/L)	NO_2+ NO_3 dis-solved (mg/L)	Ammonia + or-ganic N, dis-solved (mg/L)	Phos-phate, total (mg/L)	Phos-phate, ortho, dis-solved (mg/L)	Site number
--	130	1.8	--	--	--	--	WA Ab 5
--	--	4.1	--	--	--	--	WA Ab 32
--	120	--	<0.10	--	--	--	WA Ab 72
--	110	--	1.1	--	--	--	WA Ab 78
--	100	--	.67	--	--	0.31	WA Ab 80
--	140	--	.12	--	--	<.03	WA Ab 81
--	--	18	--	--	--	--	WA Ac 2
--	250	--	4.4	--	--	<.03	WA Ac 3
--	100	--	.11	--	--	--	WA Ac 5
--	290	--	--	--	--	--	WA Ac 43
--	230	--	.10	--	--	<.03	WA Ac 44
--	190	--	.26	--	--	--	WA Ac 47
113	110	--	--	--	<0.05	--	WA Ad 3
368	340	.02	--	--	.07	--	WA Ad 47
--	83	--	<.10	--	--	--	WA Ad 53
--	160	--	.69	--	--	--	WA Ad 72
--	120	--	<.10	--	--	--	WA Ad 77
--	--	.07	--	--	--	--	WA Ae 15
--	330	--	.11	--	--	--	WA Ae 32
186	210	2.1	--	--	3.40	--	WA Af 12
--	--	6.1	--	--	--	--	WA Af 19
139	150	--	.30	0.30	--	.09	WA Af 33
257	160	2.3	--	--	3.10	--	WA Ag 2
--	--	3.6	--	--	--	--	
250	210	--	2.5	1.6	--	.06	WA Ag 65
690	640	--	8.3	--	--	.03	WA Ag 71
--	--	25	--	--	--	--	WA Ah 2
--	--	35	--	--	--	--	
--	--	3.8	--	--	--	--	WA Ah 8
--	--	.81	--	--	--	--	
--	--	9.7	--	--	--	--	WA Ah 73
304	300	5.0	--	--	--	--	WA Ai 1
--	--	5.6	--	--	--	--	
336	--	.45	--	--	.10	--	WA Ai 4
--	--	9.9	--	--	--	--	WA Ai 19
--	--	13	--	--	--	--	WA Ai 20
505	480	--	6.6	--	--	<.03	WA Ai 74
--	--	5.0	--	--	--	--	WA Aj 1
--	--	5.9	--	--	--	--	WA Aj 2
--	--	5.4	--	--	--	--	WA Aj 9
245	220	--	--	--	--	--	WA Ak 3
33	--	1.5	--	--	.20	--	WA Ak 6
30	--	.11	--	--	.20	--	WA Ak 7
72	--	.05	--	--	.20	--	WA Ak 8
--	390	--	5.4	--	--	--	WA Ak 40
--	24	--	1.0	--	--	--	WA Ak 45
24	23	--	1.1	--	--	.03	
--	--	.16	--	--	--	--	WA Al 1
181	--	.32	--	--	.80	--	WA Al 7
86	--	.20	--	--	<.05	--	WA Al 8
108	--	.16	--	--	.30	--	
50	--	.45	--	--	--	--	WA Al 9
94	--	--	--	--	<.05	--	
96	--	.05	--	--	1.60	--	WA Al 10
112	--	.84	--	--	3.00	--	WA Al 11
124	--	2.2	--	--	.50	--	WA Al 12
--	--	.34	--	--	--	--	WA Bb 3
--	270	--	6.5	--	--	--	WA Bb 15
288	280	--	--	--	.03	--	WA Bb 18
--	150	.02	--	--	--	--	WA Bc 1
--	170	--	<.10	--	--	--	

Table 12.—Major-ion analyses of ground water—Continued

Site number	Site type	Date	Geo-logic unit[1]	Discharge (gal/min)	Flow period prior to sam-pling (min)	Specific conduc-tance (µS/cm)	pH	Temper-ature air (deg C)	Temper-ature water (deg C)
WA Be 3	well	03-07-51	344RMNY	10	--	126	7.0	--	--
WA Be 5	well	03-19-58	344RMNY	--	--	271	8.1	--	--
WA Be 24	well	10-15-58	344RMNY	--	--	110	6.1	--	--
WA Be 29	well	10-16-58	347ORSK	--	--	198	7.6	--	--
WA Be 33	well	04-18-69	344RMNY	--	--	317	7.9	--	--
WA Be 41	well	05-18-87	347ORSK	--	10	360	7.3	21.0	15.0
WA Be 43	well	07-16-86	347HDBG	2.0	10	1060	7.3	25.0	14.5
WA Bf 2	spring	02-21-57	347ORSK	--	--	208	7.8	--	--
WA Bf 3	spring	10-15-58	371CCCG	--	--	347	8.1	--	12.0
		04-08-70		--	--	380	7.8	--	11.0
WA Bf 5	well	03-18-58	351TNLY	--	--	366	7.4	--	--
		04-08-70		--	--	470	7.6	--	22.0
WA Bf 25	well	02-06-63	371CCCG	17	1,320	477	7.3	--	12.0
WA Bf 28	well	07-26-63	371CCCG	4.5	780	562	7.5	--	13.5
WA Bf 41	well	07-16-86	351TNLY	9.1	10	404	7.4	23.0	13.0
WA Bg 1	well	03-19-58	361MRBG	--	--	442	8.1	--	--
WA Bg 2	well	03-19-58	361MRBG	--	--	271	7.2	--	--
WA Bg 14	well	04-24-59	371CCCG	--	--	357	8.0	--	--
		04-08-70		--	--	460	7.6	--	22.0
WA Bg 27	well	05-19-87	361MRBG	--	5	250	7.6	13.5	13.5
WA Bg 38	well	04-09-70	367RCKR	--	--	480	7.6	--	11.0
WA Bg 43	well	05-29-64	361MRBG	20	1,380	304	8.0	--	12.0
WA Bg 90	well	04-15-87	367PBGS	--	--	560	7.2	--	12.5
WA Bh 17	well	10-15-58	367RCKR	--	--	596	7.9	--	--
WA Bh 22	well	10-15-58	361MRBG	--	--	1,380	7.5	--	--
WA Bh 27	well	03-25-70	364STPL	--	--	760	7.5	--	20.0
WA Bh 39	well	03-25-70	367RCKR	--	--	800	7.3	--	18.0
WA Bh 49	well	03-25-70	367SNNG	--	--	850	7.4	--	13.0
WA Bi 16	well	03-07-51	367SNNG	.5	--	724	7.2	--	--
WA Bi 19	well	03-19-58	371CCCG	--	--	3,680	3.0	--	--
WA Bi 21	well	03-19-58	367SNNG	--	--	179	7.5	--	--
WA Bi 27	well	10-14-58	367SNNG	--	--	659	7.4	--	--
WA Bi 35	spring	08-27-81	367SNNG	40	--	680	7.7	--	12.0
		05-04-82		--	--	--	-	--	11.0
WA Bj 1	well	03-12-58	377WSBR	--	--	440	7.7	--	--
		03-26-70		--	--	460	8.3	--	10.0
WA Bj 2	well	03-19-58	377TMSN	--	--	444	7.9	--	--
		03-26-70		--	--	500	7.8	--	11.0
WA Bj 4	spring	10-08-58	371ELBK	--	--	411	7.8	--	12.0
WA Bj 5	spring	03-26-70	371ELBK	--	--	460	7.7	--	13.0
WA Bj 7	spring	06-12-58	377TMSN	--	--	332	7.6	--	--
		03-26-70		--	--	300	7.9	--	12.0
WA Bj 105	well	05-19-87	371CCCG	--	5	750	7.1	12.5	13.5
WA Bk 3	spring	03-12-58	377HRPR	--	--	18	6.8	--	--
WA Bk 4	spring	03-12-58	377HRPR	--	--	56	6.9	--	--
WA Bk 11	well	10-08-58	377HRPR	--	--	130	7.7	--	--
WA Bk 25	well	04-09-70	377TMSN	--	660	323	8.1	--	12.0
WA Bk 29	spring	07-14-86	400CTCN	14	--	175	6.4	25.5	11.0
WA Cg 3	well	04-24-59	361MRBG	2.0	--	444	7.5	--	12.0
WA Cg 12	well	11-18-64	371CCCG	20	390	452	7.8	--	11.5
WA Cg 13	well	05-01-69	361MRBG	--	--	573	8.1	--	--
WA Cg 14	spring	08-27-85	361MRBG	5.4	--	115	5.9	23.0	13.0
WA Cg 36	well	08-27-85	367SNNG	--	--	585	7.3	23.5	16.5
WA Ch 2	spring	10-15-58	371CCCG	--	--	575	7.5	--	--
		04-08-70		--	--	600	7.5	--	12.0
		08-25-81		--	--	650	7.9	--	11.0
WA Ch 4	well	04-09-70	367RCKR	--	--	1,200	7.2	--	16.0
WA Ch 7	spring	04-24-59	367RCKR	300	--	542	7.8	--	10.5
		04-09-70		--	--	515	7.7	--	11.0
WA Ch 9	well	10-15-58	367RCKR	--	--	499	8.2	--	--

Color (platinum-cobalt units)	Hardness (mg/L as $CaCO_3$)	Total noncarbonate hardness (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Total bicarbonate (mg/L as HCO_3)	Site number
2	37	0	6.4	5.1	7.3	1.0	77	WA Be 3
--	120	0	40	3.7	--	--	140	WA Be 5
4	33	20	11	1.4	--	--	16	WA Be 24
15	70	0	18	6.1	--	--	110	WA Be 29
15	150	15	44	10	5.8	1.7	170	WA Be 33
--	180	6	63	5.6	1.9	.40	210	WA Be 41
--	310	88	110	8.1	90	.80	268	WA Be 43
--	100	2	36	2.4	1.7	1.1	120	WA Bf 2
1	160	9	42	14	--	--	190	WA Bf 3
--	--	--	--	--	--	--	--	
--	170	23	64	2.8	--	--	180	WA Bf 5
--	--	--	--	--	--	--	--	
2	250	31	71	18	1.5	1.4	270	WA Bf 25
5	320	50	74	32	1.0	1.7	330	WA Bf 28
--	220	16	68	13	1.1	.70	252	WA Bf 41
--	180	54	46	16	--	--	150	WA Bg 1
--	120	45	37	6.4	--	--	90	WA Bg 2
4	180	44	62	6.0	3.2	2.0	170	WA Bg 14
--	--	--	--	--	--	--	--	
--	110	0	30	9.1	9.5	1.2	140	WA Bg 27
--	--	--	--	--	--	--	--	WA Bg 38
--	150	28	39	12	8.1	.80	150	WA Bg 43
--	390	37	87	42	17	1.4	461	WA Bg 90
5	270	17	94	7.7	--	--	300	WA Bh 17
2	730	670	220	45	--	--	76	WA Bh 22
--	--	--	--	--	--	--	--	WA Bh 27
--	--	--	--	--	--	--	--	WA Bh 39
--	--	--	--	--	--	--	--	WA Bh 49
2	380	17	150	3.2	4.4	1.4	440	WA Bi 16
--	1,600	0	550	45	--	--	--	WA Bi 19
0	2	0	.30	.30	34	.40	41	WA Bi 21
1	310	42	41	50	--	--	320	WA Bi 27
--	370	130	130	10	10	2.4	--	WA Bi 35
--	350	80	120	11	14	2.5	--	
--	220	17	52	22	--	--	250	WA Bj 1
--	--	--	--	--	--	--	--	
--	220	29	66	13	--	--	230	WA Bj 2
--	--	--	--	--	--	--	--	
2	180	0	37	22	--	--	230	WA Bj 4
--	--	--	--	--	--	--	--	WA Bj 5
1	150	0	35	15	--	--	210	WA Bj 7
--	--	--	--	--	--	--	--	
--	360	120	97	29	8.1	7.6	296	WA Bj 105
2	5	0	1.1	.50	2.0	.60	8	WA Bk 3
--	5	0	1.8	.10	--	--	20	WA Bk 4
3	46	3	17	.90	--	--	53	WA Bk 11
0	150	8	32	18	2.5	1.3	180	WA Bk 25
--	63	33	13	7.4	7.3	.50	37	WA Bk 29
9	230	20	81	7.8	4.4	.50	260	WA Cg 3
--	250	26	84	8.6	1.5	1.2	270	WA Cg 12
2	210	36	60	14	20	26	210	WA Cg 13
--	40	19	9.9	3.8	5.5	2.0	26	WA Cg 14
--	270	18	100	5.2	12	2.7	--	WA Cg 36
5	300	61	23	59	--	--	290	WA Ch 2
--	--	--	--	--	--	--	320	
--	310	49	110	8.4	8.1	2.2	--	
--	--	--	--	--	--	--	--	WA Ch 4
5	280	46	98	8.6	3.8	2.0	290	WA Ch 7
--	--	--	--	--	--	--	--	
2	270	50	22	53	--	--	270	WA Ch 9

Table 12.—Major-ion analyses of ground water—Continued

Site number	Date	Total alkalinity (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Iodide, dissolved (mg/L)	Silica, dissolved (mg/L)
WA Be 3	03-07-51	63	12	4.0	1.2	0.20	--	19
WA Be 5	03-19-58	116	1.8	21	3.5	--	--	--
WA Be 24	10-15-58	13	20	30	2.0	.10	--	--
WA Be 29	10-16-58	90	4.4	1.0	6.0	.10	--	--
WA Be 33	04-18-69	136	3.3	27	3.6	.20	--	12
WA Be 41	05-18-87	174	17	<5.0	2.0	.10	--	10
WA Be 43	07-16-86	220	20	15	200	<.10	--	10
WA Bf 2	02-21-57	98	3.0	1.0	1.3	.10	--	5.2
WA Bf 3	10-15-58	154	2.4	8.6	3.0	.20	--	--
	04-08-70	--	--	--	--	--	--	--
WA Bf 5	03-18-58	148	11	15	8.1	--	--	--
	04-08-70	--	--	--	--	--	--	--
WA Bf 25	02-06-63	220	21	23	1.9	.40	--	11
WA Bf 28	07-26-63	267	16	43	1.3	.90	--	11
WA Bf 41	07-16-86	207	16	15	1.6	.10	--	7.6
WA Bg 1	03-19-58	127	2.0	51	23	--	--	--
WA Bg 2	03-19-58	74	9.0	40	4.3	--	--	--
WA Bg 14	04-24-59	136	2.6	22	5.5	.60	--	10
	04-08-70	--	--	--	--	--	--	--
WA Bg 27	05-19-87	115	5.5	11	5.0	.20	--	25
WA Bg 38	04-09-70	--	--	--	--	--	--	--
WA Bg 43	05-29-64	119	2.3	35	2.5	.20	--	18
WA Bg 90	04-15-87	378	43	24	32	1.6	--	7.9
WA Bh 17	10-15-58	249	6.1	35	11	.05	--	--
WA Bh 22	10-15-58	62	3.8	680	<.05	.10	--	--
WA Bh 27	03-25-70	--	--	--	--	--	--	--
WA Bh 39	03-25-70	--	--	--	--	--	--	--
WA Bh 49	03-25-70	--	--	--	--	--	--	--
WA Bi 16	03-07-51	358	44	29	5.6	<.05	--	16
WA Bi 19	03-19-58	--	--	2600	42	--	--	--
WA Bi 21	03-19-58	34	2.1	33	6.8	.70	--	4.3
WA Bi 27	10-14-58	266	20	83	12	.20	--	--
WA Bi 35	08-27-81	--	9.3	40	23	.10	--	8.8
	05-04-82	--	--	42	33	<.10	--	9.7
WA Bj 1	03-12-58	203	7.8	14	4.5	--	--	--
	03-26-70	--	--	--	--	--	--	--
WA Bj 2	03-19-58	189	4.6	24	6.1	--	--	--
	03-26-70	--	--	--	--	--	--	--
WA Bj 4	10-08-58	191	5.9	4.8	3.6	.30	--	--
WA Bj 5	03-26-70	--	--	--	--	--	--	--
WA Bj 7	06-12-58	175	8.5	.6	2.0	.10	--	--
	03-26-70	--	--	--	--	--	--	--
WA Bj 105	05-19-87	243	34	45	30	.40	--	9.6
WA Bk 3	03-12-58	6	2.0	.2	2.4	<.05	--	7.8
WA Bk 4	03-12-58	16	4.0	7.8	1.5	--	--	--
WA Bk 11	10-08-58	43	1.7	15	.60	.30	--	--
WA Bk 25	04-09-70	146	2.2	6.2	5.1	.10	--	11
WA Bk 29	07-14-86	30	23	9.9	27	<.10	--	18
WA Cg 3	04-24-59	214	13	14	4.4	.80	--	13
WA Cg 12	11-18-64	219	6.7	18	2.0	<.05	--	11
WA Cg 13	05-01-69	171	2.6	43	20	.40	--	7.0
WA Cg 14	08-27-85	21	51	8.2	6.9	<.10	--	11
WA Cg 36	08-27-85	253	25	18	29	.10	--	9.2
WA Ch 2	10-15-58	239	15	23	14	.20	--	--
	04-08-70	--	--	--	--	--	--	--
	08-25-81	260 (lab)	6.3	31	23	.20	--	9.8
WA Ch 4	04-09-70	--	--	--	--	--	--	--
WA Ch 7	04-24-59	234	7.2	25	11	.50	--	11
	04-09-70	--	--	--	--	--	--	--
WA Ch 9	10-15-58	223	2.7	19	4.6	.20	--	--

Solids, residue at 180 Deg C dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Nitrate, Nitrate, dis-solved (mg/L)	NO_2+ NO_3 dis-solved (mg/L)	Ammonia + or-ganic N, dis-solved (mg/L)	Phos-phate, total (mg/L)	Phos-phate, ortho, dis-solved (mg/L)	Site number
81	82	0.05	--	--	--	--	WA Be 3
--	--	.11	--	--	--	--	WA Be 5
--	--	.02	--	--	--	--	WA Be 24
--	--	1.1	--	--	--	--	WA Be 29
--	190	.05	--	--	--	--	WA Be 33
188	--	--	0.44	0.50	--	0.12	WA Be 41
--	570	--	2.4	--	--	--	WA Be 43
110	110	.18	--	--	<.05	--	WA Bf 2
--	--	6.8	--	--	--	--	WA Bf 3
--	--	3.4	--	--	--	--	
--	--	4.3	--	--	--	--	WA Bf 5
--	--	4.3	--	--	--	--	
275	280	3.6	--	--	ND	--	WA Bf 25
343	330	.79	--	--	.05	--	WA Bf 28
--	230	--	.48	--	--	--	WA Bf 41
--	--	3.6	--	--	--	--	WA Bg 1
--	--	4.7	--	--	--	--	WA Bg 2
231	210	3.6	--	--	4.40	--	WA Bg 14
--	--	3.8	--	--	--	--	
166	160	--	<.10	.90	--	.12	WA Bg 27
--	--	5.0	--	--	--	--	WA Bg 38
197	190	.59	--	--	.04	--	WA Bg 43
406	420	--	.99	.50	--	<.03	WA Bg 90
--	350	6.6	--	--	--	--	WA Bh 17
--	1,000	.59	--	--	--	--	WA Bh 22
--	--	6.1	--	--	--	--	WA Bh 27
--	--	1.4	--	--	--	--	WA Bh 39
--	--	23	--	--	--	--	WA Bh 49
447	430	3.2	--	--	--	--	WA Bi 16
--	--	.18	--	--	--	--	WA Bi 19
108	100	.16	--	--	<.05	--	WA Bi 21
--	--	13	--	--	--	--	WA Bi 27
412	370	--	--	--	--	--	WA Bi 35
417	400	--	8.2	.50	--	--	
--	--	3.2	--	--	--	--	WA Bj 1
--	--	5.9	--	--	--	--	
--	--	5.4	--	--	--	--	WA Bj 2
--	--	5.4	--	--	--	--	
--	--	1.9	--	--	--	--	WA Bj 4
--	--	5.0	--	--	--	--	WA Bj 5
--	--	2.2	--	--	--	--	WA Bj 7
--	--	1.8	--	--	--	--	
441	370	--	20	1.6	--	<.03	WA Bj 105
18	19	.02	--	--	<.05	--	WA Bk 3
--	--	.18	--	--	--	--	WA Bk 4
--	--	.05	--	--	--	--	WA Bk 11
171	170	1.2	--	--	--	--	WA Bk 25
--	100	--	.89	--	--	--	WA Bk 29
239	270	2.5	--	--	3.70	--	WA Cg 3
265	270	2.1	--	--	--	--	WA Cg 12
--	340	11	--	--	--	--	WA Cg 13
--	61	--	4.7	--	--	--	WA Cg 14
--	290	--	11	--	--	--	WA Cg 36
--	--	7.0	--	--	--	--	WA Ch 2
--	--	5.4	--	--	--	--	
404	350	--	--	--	--	--	
--	--	6.1	--	--	--	--	WA Ch 4
319	320	4.3	--	--	4.10	--	WA Ch 7
--	--	4.5	--	--	--	--	
--	--	20	--	--	--	--	WA Ch 9

Table 12.—Major-ion analyses of ground water—Continued

Site number	Site type	Date	Geo-logic unit[1]	Discharge (gal/min)	Flow period prior to sam-pling (min)	Specific conduc-tance (µS/cm)	pH	Temper-ature air (deg C)	Temper-ature water (deg C)
WA Ch 9	well	03-26-70	367RCKR	--	--	575	7.4	--	7.0
WA Ch 33	well	04-08-70	367RCKR	--	--	1,320	7.4	--	11.0
WA Ch 34	well	03-26-70	367RCKR	--	--	650	7.4	--	13.0
WA Ch 37	well	04-08-70	367RCKR	--	--	600	7.7	--	18.0
WA Ch 42	well	09-09-69	367SNNG	--	120	423	7.7	--	--
WA Ch 43	well	05-27-69	367SNNG	--	--	518	7.5	--	--
WA Ch 115	well	08-27-85	371CCCG	--	2	475	7.3	26.0	24.5
WA Ch 117	well	08-27-85	367RCKR	--	2	615	7.6	24.0	14.0
WA Ci 6	well	03-26-70	371CCCG	--	--	1,000	7.2	--	16.0
WA Ci 12	well	09-09-58	377TMSN	--	--	582	7.7	--	--
		03-26-70		--	--	640	7.5	--	12.0
WA Ci 16	well	09-09-58	371CCCG	--	--	452	7.5	--	--
		04-08-70		--	--	520	7.7	--	27.0
WA Ci 21	well	12-26-56	371CCCG	--	--	413	7.6	--	12.0
		01-04-60		--	--	433	7.6	--	--
		01-12-61		25	--	422	7.2	--	12.0
WA Ci 33	well	09-30-54	371CCCG	5.0	--	310	7.4	--	--
WA Ci 35	well	03-26-70	371CCCG	--	--	740	7.3	--	11.0
WA Ci 38	well	04-08-70	371CCCG	--	--	535	7.4	--	9.0
WA Ci 113	well	08-17-83	377TMSN	10	15	687	7.1	--	13.0
WA Ci 147	well	05-21-87	371CCCG	--	120	1,250	7.0	14.0	14.0
WA Cj 8	well	10-08-58	377TMSN	--	--	490	7.4	--	--
WA Cj 15	well	07-11-58	377ANTM	--	--	311	7.9	--	--
		03-26-70		--	--	430	7.7	--	20.0
WA Cj 16	well	07-11-58	110MNWS	--	--	232	8.2	--	--
WA Cj 17	well	10-08-58	377ANTM	--	--	501	7.8	--	--
WA Cj 18	well	06-12-58	110MNWS	--	--	69	6.6	--	--
WA Cj 21	well	09-09-58	377TMSN	--	--	389	8.0	--	--
		03-26-70		--	--	500	7.6	--	10.0
WA Cj 69	spring	08-27-85	377HRPR	5.5	--	148	5.7	24.0	13.0
WA Cj 74	well	08-27-85	377ANTM	--	2	34	5.7	26.0	15.0
WA Cj 83	well	08-27-85	377TMSN	--	3	280	7.9	27.0	25.5
WA Cj 126	spring	05-21-87	377WSBR	--	--	510	6.8	14.5	12.5
WA Dh 1	well	05-19-59	371CCCG	--	--	697	7.9	--	--
WA Dh 11	well	10-01-58	371CCCG	--	--	929	7.3	--	--
		03-26-70		--	--	1,080	7.4	--	8.0
WA Dh 14	well	04-15-59	371CCCG	--	--	808	7.6	--	--
WA Dh 15	well	04-14-59	371CCCG	--	--	--	7.7	--	--
WA Dh 16	well	04-14-59	371CCCG	--	--	836	7.6	--	--
WA Dh 17	well	04-15-59	371CCCG	--	--	659	7.5	--	--
WA Dh 18	well	04-14-59	371CCCG	--	--	789	7.8	--	--
WA Dh 20	well	04-15-59	371CCCG	--	--	721	7.8	--	--
WA Dh 22	well	04-16-59	371CCCG	--	--	783	7.5	--	--
WA Dh 23	well	04-16-59	371CCCG	--	--	677	7.5	--	--
WA Dh 24	well	04-16-59	371CCCG	--	--	492	7.8	--	--
WA Dh 25	well	04-16-59	371CCCG	--	--	564	7.7	--	--
WA Dh 26	well	04-16-59	371CCCG	--	--	915	7.5	--	--
WA Dh 27	well	04-16-59	371CCCG	--	--	636	7.5	--	--
WA Dh 28	well	04-16-59	371CCCG	--	--	779	7.6	--	--
WA Dh 29	well	04-30-59	371CCCG	--	--	948	7.6	--	--
WA Dh 31	well	04-30-59	371CCCG	--	--	666	7.6	--	--
WA Dh 32	well	04-21-59	371CCCG	--	--	1,170	7.3	--	--
WA Dh 33	well	04-21-59	371CCCG	--	--	518	7.6	--	--
WA Dh 35	well	04-29-59	371CCCG	--	--	440	7.6	--	--
WA Dh 36	well	04-14-59	371CCCG	--	--	808	7.6	--	--
WA Dh 37	well	04-30-59	371ELBK	--	--	439	8.0	--	--
WA Dh 38	well	04-30-59	371ELBK	--	--	740	7.7	--	--
WA Dh 39	well	05-11-59	371ELBK	--	--	600	7.6	--	--
WA Dh 40	well	04-30-59	371CCCG	--	--	675	7.6	--	--
WA Dh 41	well	05-11-59	371CCCG	--	--	726	6.9	--	--

Color (platinum-cobalt units)	Hardness (mg/L as $CaCO_3$)	Total noncarbonate hardness (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Total bicarbonate (mg/L as HCO_3)	Site number
--	--	--	--	--	--	--	--	WA Ch 9
--	--	--	--	--	--	--	--	WA Ch 33
--	--	--	--	--	--	--	--	WA Ch 34
--	--	--	--	--	--	--	--	WA Ch 37
1	200	45	70	7.0	3.4	2.2	190	WA Ch 42
3	270	47	93	10	2.0	1.7	280	WA Ch 43
--	180	0	62	7.3	25	2.1	--	WA Ch 115
--	330	57	110	14	9.9	1.6	--	WA Ch 117
--	--	--	--	--	--	--	--	WA Ci 6
2	300	0	56	40	--	--	540	WA Ci 12
--	--	--	--	--	--	--	--	
3	230	5	44	28	--	--	270	WA Ci 16
--	--	--	--	--	--	--	--	
10	190	17	65	7.5	--	--	220	WA Ci 21
--	160	0	61	2.8	--	--	230	
0	200	24	68	7.7	--	--	220	
12	150	36	48	6.8	--	--	140	WA Ci 33
--	--	--	--	--	--	--	--	WA Ci 35
--	--	--	--	--	--	--	--	WA Ci 38
--	--	--	--	--	--	--	--	WA Ci 113
--	440	150	150	15	72	3.3	353	WA Ci 147
7	270	29	67	24	--	--	290	WA Cj 8
3	150	4	41	12	--	--	180	WA Cj 15
--	--	--	--	--	--	--	--	
1	100	0	25	9.9	--	--	150	WA Cj 16
3	270	33	53	34	3.3	1.7	290	WA Cj 17
17	26	0	9.4	.70	--	--	37	WA Cj 18
3	210	29	36	28	--	--	220	WA Cj 21
--	--	--	--	--	--	--	--	
--	24	14	5.1	2.7	19	1.3	13	WA Cj 69
--	7	0	1.9	.52	2.3	2.8	--	WA Cj 74
--	120	6	42	4.8	3.4	3.5	--	WA Cj 83
--	270	57	69	23	3.2	2.5	256	WA Cj 126
--	290	0	--	--	9.3	37	370	WA Dh 1
0	12	0	.90	2.4	--	--	370	WA Dh 11
--	--	--	--	--	--	--	--	
5	340	80	99	22	17	12	320	WA Dh 14
--	260	38	--	--	31	8.7	270	WA Dh 15
8	350	69	100	21	51	32	340	WA Dh 16
--	290	60	--	--	34	7.6	280	WA Dh 17
--	320	92	--	--	20	19	280	WA Dh 18
5	300	13	80	25	13	17	350	WA Dh 20
7	290	56	85	20	35	31	290	WA Dh 22
--	260	6	--	--	27	22	310	WA Dh 23
--	200	51	63	9.3	13	17	180	WA Dh 24
--	220	0	--	--	21	23	270	WA Dh 25
--	390	65	--	--	24	26	400	WA Dh 26
6	240	0	82	8.0	32	17	300	WA Dh 27
--	320	130	--	--	12	32	230	WA Dh 28
--	370	130	110	25	27	25	300	WA Dh 29
--	270	41	--	--	17	17	280	WA Dh 31
13	430	87	130	28	63	9.7	420	WA Dh 32
5	170	0	51	11	27	25	300	WA Dh 33
--	170	22	--	--	18	11	180	WA Dh 35
--	360	100	--	--	20	8.0	310	WA Dh 36
--	220	0	--	--	2.5	1.5	300	WA Dh 37
--	350	60	--	--	17	3.3	350	WA Dh 38
5	280	35	93	11	6.3	3.0	300	WA Dh 39
7	240	0	60	21	32	21	340	WA Dh 40
--	210	16	--	--	--	--	240	WA Dh 41

Table 12.—Major-ion analyses of ground water—Continued

Site number	Date	Total alkalinity (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Iodide, dissolved (mg/L)	Silica, dissolved (mg/L)
WA Ch 9	03-26-70	--	--	--	--	--	--	--
WA Ch 33	04-08-70	--	--	--	--	--	--	--
WA Ch 34	03-26-70	--	--	--	--	--	--	--
WA Ch 37	04-08-70	--	--	--	--	--	--	--
WA Ch 42	09-09-69	159	6.2	32	11	0.20	--	10
WA Ch 43	05-27-69	226	14	29	8.2	.20	--	9.2
WA Ch 115	08-27-85	222	22	3.5	14	.10	--	10
WA Ch 117	08-27-85	275	13	35	30	.10	--	9.5
WA Ci 6	03-26-70	--	--	--	--	--	--	--
WA Ci 12	09-09-58	443	17	17	4.0	.20	--	--
	03-26-70	--	--	--	--	--	--	--
WA Ci 16	09-09-58	220	13	8.4	2.8	.20	--	--
	04-08-70	--	--	--	--	--	--	--
WA Ci 21	12-26-56	176	8.6	12	5.0	.20	--	11
	01-04-60	189	9.2	9.0	7.8	.20	--	12
	01-12-61	178	22	8.2	13	.20	--	12
WA Ci 33	09-30-54	112	8.7	20	11	.20	--	7.5
WA Ci 35	03-26-70	--	--	--	--	--	--	--
WA Ci 38	04-08-70	--	--	--	--	--	--	--
WA Ci 113	08-17-83	--	--	--	--	--	--	--
WA Ci 147	05-21-87	289	0	22	200	.20	--	12
WA Cj 8	10-08-58	237	18	7.4	14	.50	--	--
WA Cj 15	07-11-58	148	3.6	3.4	4.0	.10	--	--
	03-26-70	--	--	--	--	--	--	--
WA Cj 16	07-11-58	121	1.5	1.0	1.2	.10	--	--
WA Cj 17	10-08-58	239	7.3	27	7.5	.40	--	14
WA Cj 18	06-12-58	30	15	.6	<.05	.10	--	--
WA Cj 21	09-09-58	176	3.4	5.6	2.2	.40	--	--
	03-26-70	--	--	--	--	--	--	--
WA Cj 69	08-27-85	11	39	2.1	38	<.10	--	7.6
WA Cj 74	08-27-85	10	39	.9	2.1	<.10	--	13
WA Cj 83	08-27-85	119	2.9	2.7	4.9	.20	--	11
WA Cj 126	05-21-87	210	0	19	8.1	.40	--	11
WA Dh 1	05-19-59	300	7.3	--	12	--	--	--
WA Dh 11	10-01-58	300	29	110	2.4	1.0	--	--
	03-26-70	--	--	--	--	--	--	--
WA Dh 14	04-15-59	258	13	70	12	.70	<.05	9.0
WA Dh 15	04-14-59	223	8.6	--	6.0	--	--	--
WA Dh 16	04-14-59	277	13	56	8.5	.50	.50	16
WA Dh 17	04-15-59	233	14	--	9.5	--	--	--
WA Dh 18	04-14-59	231	7.1	--	16	--	--	--
WA Dh 20	04-15-59	290	8.9	50	14	.50	.40	14
WA Dh 22	04-16-59	239	15	51	13	.60	.30	11
WA Dh 23	04-16-59	253	15	--	10	--	--	--
WA Dh 24	04-16-59	145	4.5	58	6.0	.60	--	12
WA Dh 25	04-16-59	221	8.6	--	8.0	--	--	--
WA Dh 26	04-16-59	325	20	--	14	--	--	--
WA Dh 27	04-16-59	249	15	35	18	.50	.40	7.5
WA Dh 28	04-16-59	190	9.3	--	9.0	--	--	--
WA Dh 29	04-30-59	244	12	80	18	.50	.30	12
WA Dh 31	04-30-59	230	11	--	9.0	--	--	--
WA Dh 32	04-21-59	343	33	140	34	.50	<.05	12
WA Dh 33	04-21-59	244	12	19	3.5	.50	.10	5.0
WA Dh 35	04-29-59	145	7.1	--	6.5	--	--	--
WA Dh 36	04-14-59	258	13	--	8.0	--	--	--
WA Dh 37	04-30-59	249	4.8	--	2.0	--	--	--
WA Dh 38	04-30-59	285	11	--	14	--	--	--
WA Dh 39	05-11-59	243	12	3.7	8.0	.50	--	12
WA Dh 40	04-30-59	280	14	26	8.0	.40	<.05	10
WA Dh 41	05-11-59	194	47	--	25	--	--	--

Solids, residue at 180 Deg C dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Nitrate, Nitrate, dis-solved (mg/L)	NO_2+ NO_3 dis-solved (mg/L)	Ammonia + or-ganic N, dis-solved (mg/L)	Phos-phate, total (mg/L)	Phos-phate, ortho, dis-solved (mg/L)	Site number
--	--	3.8	--	--	--	--	WA Ch 9
--	--	5.2	--	--	--	--	WA Ch 33
--	--	16	--	--	--	--	WA Ch 34
--	--	4.1	--	--	--	--	WA Ch 37
243	240	2.9	--	--	--	--	WA Ch 42
--	300	2.7	--	--	--	--	WA Ch 43
--	230	--	3.9	--	--	--	WA Ch 115
--	290	--	7.8	--	--	--	WA Ch 117
--	--	17	--	--	--	--	WA Ci 6
--	--	3.8	--	--	--	--	WA Ci 12
--	--	7.5	--	--	--	--	
--	--	7.7	--	--	--	--	WA Ci 16
--	--	6.1	--	--	--	--	
239	--	5.0	--	--	<.05	--	WA Ci 21
264	--	4.1	--	--	<.05	--	
247	--	2.9	--	--	ND	--	
201	--	4.3	--	--	--	--	WA Ci 33
--	--	16	--	--	--	--	WA Ci 35
--	--	3.8	--	--	--	--	WA Ci 38
--	--	--	--	--	--	--	WA Ci 113
735	650	--	7.4	--	--	<0.03	WA Ci 147
--	--	7.9	--	--	--	--	WA Cj 8
--	--	5.4	--	--	--	--	WA Cj 15
--	--	8.8	--	--	--	--	
--	--	.45	--	--	--	--	WA Cj 16
282	290	1.7	--	--	<.05	--	WA Cj 17
--	--	.14	--	--	--	--	WA Cj 18
--	--	15	--	--	--	--	WA Cj 21
--	--	5.4	--	--	--	--	
--	82	--	.32	--	--	--	WA Cj 69
--	30	--	.13	--	--	--	WA Cj 74
--	140	--	3.1	--	--	--	WA Cj 83
298	260	--	8.8	--	--	.03	WA Cj 126
--	--	--	--	--	--	--	WA Dh 1
--	--	.02	--	--	--	--	WA Dh 11
--	--	.50	--	--	--	--	
540	450	11	--	--	<.05	--	WA Dh 14
--	--	8.4	--	--	--	--	WA Dh 15
551	560	23	--	--	.50	--	WA Dh 16
--	--	13	--	--	--	--	WA Dh 17
--	--	6.6	--	--	--	--	WA Dh 18
405	400	2.1	--	--	<.05	--	WA Dh 20
470	460	15	--	--	.10	--	WA Dh 22
--	--	47	--	--	--	--	WA Dh 23
308	310	9.3	--	--	<.05	--	WA Dh 24
--	--	3.8	--	--	--	--	WA Dh 25
--	--	18	--	--	--	--	WA Dh 26
368	370	5.0	--	--	.10	--	WA Dh 27
--	--	25	--	--	--	--	WA Dh 28
581	480	7.9	--	--	<.05	--	WA Dh 29
--	--	11	--	--	--	--	WA Dh 31
876	680	13	--	--	<.05	--	WA Dh 32
302	420	30	--	--	<.05	--	WA Dh 33
--	--	6.6	--	--	--	--	WA Dh 35
--	--	4.7	--	--	--	--	WA Dh 36
--	--	2.3	--	--	--	--	WA Dh 37
--	--	18	--	--	--	--	WA Dh 38
342	330	10	--	--	.10	--	WA Dh 39
392	430	18	--	--	--	--	WA Dh 40
--	--	4.3	--	--	--	--	WA Dh 41

Table 12.—Major-ion analyses of ground water—Continued

Site number	Site type	Date	Geo-logic unit[1]	Discharge (gal/min)	Flow period prior to sam-pling (min)	Specific conduc-tance (µS/cm)	pH	Temper-ature air (deg C)	Temper-ature water (deg C)
WA Dh 43	well	05-19-59	371CCCG	--	--	904	7.7	--	--
WA Dh 44	well	05-21-59	371CCCG	--	--	1,030	7.2	--	--
WA Dh 46	well	05-20-59	371CCCG	--	--	529	7.9	--	--
WA Dh 47	well	05-20-59	371ELBK	--	--	315	7.6	--	--
WA Dh 49	well	05-11-59	371CCCG	--	--	552	7.4	--	--
WA Dh 51	well	07-30-63	371CCCG	7.5	--	493	7.6	--	12.0
WA Dh 52	well	05-28-64	371CCCG	16	1,380	632	7.2	--	13.0
WA Dh 53	well	05-06-69	371CCCG	--	--	301	7.6	--	--
WA Di 1	well	04-29-59	371ELBK	--	--	685	7.6	--	--
WA Di 5	well	10-08-58	400CTCN	--	--	352	7.3	--	--
WA Di 6	spring	08-25-81	377TMSN	--	--	480	7.6	--	11.0
WA Di 8	spring	04-23-59	371CCCG	--	--	487	7.5	--	--
WA Di 10	well	09-09-58	377ANTM	--	--	407	6.8	--	--
WA Di 11	well	10-18-58	377WSBR	--	--	63	5.9	--	--
WA Di 14	well	05-20-59	371CCCG	--	--	418	7.7	--	--
WA Di 39	well	04-08-59	371CCCG	--	--	641	7.3	--	--
WA Di 40	well	04-08-59	371CCCG	--	--	882	7.4	--	--
WA Di 41	well	04-08-59	371CCCG	--	--	997	7.2	--	--
WA Di 42	well	04-08-59	371CCCG	--	--	533	7.9	--	--
WA Di 43	well	04-08-59	371CCCG	--	--	728	7.4	--	--
WA Di 45	well	04-08-59	371CCCG	--	--	512	7.5	--	--
WA Di 46	well	04-08-59	371CCCG	--	--	670	7.5	--	--
WA Di 47	well	04-14-59	371CCCG	--	--	665	8.1	--	--
WA Di 48	well	04-14-59	371CCCG	--	--	673	7.6	--	--
WA Di 49	spring	04-15-59	371CCCG	--	--	578	7.7	--	--
WA Di 50	well	04-15-59	371CCCG	--	--	456	7.8	--	--
WA Di 51	well	04-23-59	371CCCG	--	--	582	7.7	--	--
WA Di 52	well	04-21-59	371CCCG	--	--	408	7.3	--	--
WA Di 54	well	04-16-59	371CCCG	--	--	647	7.3	--	--
WA Di 55	well	04-23-59	371CCCG	--	--	895	7.3	--	--
WA Di 56	well	04-23-59	371CCCG	--	--	604	7.6	--	--
WA Di 57	well	04-23-59	371CCCG	--	--	570	7.6	--	--
WA Di 58	well	04-23-59	371CCCG	--	--	820	7.4	--	--
WA Di 59	well	04-23-59	371CCCG	--	--	617	7.6	--	--
WA Di 60	well	04-21-59	371CCCG	--	--	765	7.5	--	--
WA Di 61	well	04-23-59	371CCCG	--	--	897	7.5	--	--
WA Di 62	well	04-23-59	371CCCG	--	--	839	7.6	--	--
WA Di 63	well	04-30-59	371CCCG	--	--	1,080	7.6	--	--
WA Di 66	well	04-21-59	371CCCG	--	--	906	7.4	--	--
WA Di 67	well	04-21-59	371CCCG	--	--	710	7.7	--	--
WA Di 68	well	04-23-59	371CCCG	--	--	1,120	7.6	--	--
WA Di 69	well	04-23-59	371CCCG	--	--	--	7.7	--	--
WA Di 70	well	05-11-59	371CCCG	--	--	664	8.4	--	--
WA Di 71	well	05-21-59	371ELBK	--	--	462	7.7	--	--
WA Di 72	spring	05-20-59	371ELBK	--	--	627	7.8	--	--
WA Di 73	spring	05-20-59	371ELBK	--	--	509	7.8	--	--
WA Di 74	well	05-20-59	371CCCG	--	--	968	7.2	--	--
WA Di 76	well	05-21-59	371CCCG	--	--	876	7.7	--	--
WA Di 77	well	05-21-59	371CCCG	--	--	538	7.6	--	--
WA Di 79	well	04-07-59	371CCCG	--	--	629	7.4	--	--
WA Di 80	well	04-07-59	371CCCG	--	--	452	7.5	--	--
WA Di 81	well	04-07-59	371CCCG	--	--	969	7.2	--	--
WA Di 82	well	04-07-59	371CCCG	--	--	1,130	7.8	--	--
WA Di 83	well	04-07-59	371CCCG	--	--	723	7.2	--	--
WA Di 84	well	04-07-59	371CCCG	--	--	1,230	7.0	--	--
WA Di 86	well	02-04-63	371ELBK	20	--	764	7.3	--	14.5
WA Di 97	well	02-01-62	371CCCG	7.5	--	565	7.6	--	--
WA Di 137	well	04-14-87	377WVRN	--	--	37	5.3	--	12.0
WA Di 152	well	07-16-86	377ANTM	2.6	15	181	7.9	27.5	15.0

Color (platinum-cobalt units)	Hardness (mg/L as $CaCO_3$)	Total noncarbonate hardness (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Total bicarbonate (mg/L as HCO_3)	Site number
--	260	13	--	--	59	19	300	WA Dh 43
8	440	0	130	24	25	27	570	WA Dh 44
--	250	79	--	--	9.3	8.9	210	WA Dh 46
7	150	14	40	12	.90	3.0	170	WA Dh 47
--	290	62	89	17	5.7	4.6	280	WA Dh 49
30	270	31	82	17	1.9	1.0	300	WA Dh 51
--	350	60	120	14	2.9	1.1	360	WA Dh 52
3	160	17	53	6.9	2.2	1.4	180	WA Dh 53
2	380	13	81	43	1.7	1.7	450	WA Di 1
5	160	19	51	7.9	--	--	170	WA Di 5
--	260	43	84	13	4.7	2.1	--	WA Di 6
--	230	30	--	--	6.6	5.3	240	WA Di 8
2	86	43	22	7.6	--	--	53	WA Di 10
1	18	9	4.7	1.6	--	--	11	WA Di 11
--	210	24	--	--	2.0	.90	220	WA Di 14
--	280	62	89	14	20	25	270	WA Di 39
--	390	120	79	48	37	8.2	330	WA Di 40
--	400	32	120	22	42	50	450	WA Di 41
--	280	59	92	13	7.2	7.9	270	WA Di 42
--	290	58	87	17	34	25	280	WA Di 43
--	290	63	85	18	4.5	4.6	270	WA Di 45
--	320	56	96	20	18	17	320	WA Di 46
--	330	36	--	--	15	7.3	360	WA Di 47
--	200	0	--	--	23	22	270	WA Di 48
5	250	13	69	18	17	7.2	280	WA Di 49
--	180	17	--	--	12	14	200	WA Di 50
--	270	45	--	--	9.0	8.3	270	WA Di 51
--	280	0	--	--	51	27	340	WA Di 52
--	240	0	--	--	31	26	320	WA Di 54
8	360	85	98	29	30	18	340	WA Di 55
--	230	0	--	--	25	20	290	WA Di 56
9	230	39	75	11	12	14	240	WA Di 57
9	360	18	110	18	22	18	420	WA Di 58
7	290	27	78	22	10	4.9	310	WA Di 59
--	270	30	--	--	38	18	290	WA Di 60
--	250	63	--	--	18	8.3	220	WA Di 61
5	360	72	110	19	33	7.5	360	WA Di 62
--	360	110	--	--	65	20	300	WA Di 63
5	290	3	86	19	47	34	350	WA Di 66
7	280	20	84	16	37	16	310	WA Di 67
5	330	0	89	25	41	21	420	WA Di 68
--	310	61	--	--	5.3	83	300	WA Di 69
--	300	63	--	--	4.2	30	270	WA Di 70
6	220	13	54	21	1.6	1.8	250	WA Di 71
--	280	11	--	--	3.4	8.3	330	WA Di 72
--	240	28	--	--	3.7	2.8	260	WA Di 73
--	390	75	--	--	18	40	380	WA Di 74
9	430	110	110	38	12	14	380	WA Di 76
--	280	31	--	--	2.5	1.6	300	WA Di 77
--	380	54	83	42	1.8	2.2	400	WA Di 79
--	250	38	67	21	1.5	1.9	260	WA Di 80
--	400	100	120	26	17	81	370	WA Di 81
--	410	160	100	37	90	12	300	WA Di 82
--	330	0	96	23	20	27	430	WA Di 83
--	570	120	130	60	39	27	550	WA Di 84
0	420	140	110	34	3.3	1.7	350	WA Di 86
0	300	40	69	31	--	--	320	WA Di 97
--	13	9	2.8	1.5	1.4	1.6	4	WA Di 137
--	68	8	20	4.4	8.6	.60	73	WA Di 152

Table 12.—Major-ion analyses of ground water—Continued

Site number	Date	Total alkalinity (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Iodide, dissolved (mg/L)	Silica, dissolved (mg/L)
WA Dh 43	05-19-59	243	9.4	--	3.3	--	--	--
WA Dh 44	05-21-59	468	57	9.2	16	0.40	0.10	9.6
WA Dh 46	05-20-59	173	4.2	--	16	--	--	--
WA Dh 47	05-20-59	135	6.6	2.9	3.4	.50	<.05	13
WA Dh 49	05-11-59	230	18	38	9.6	.50	1.2	8.7
WA Dh 51	07-30-63	244	12	25	2.3	.20	--	11
WA Dh 52	05-28-64	292	36	48	3.5	.10	--	11
WA Dh 53	05-06-69	144	7.0	11	3.9	.20	--	9.5
WA Di 1	04-29-59	366	18	16	1.0	.90	<.05	--
WA Di 5	10-08-58	141	14	25	3.0	.10	--	--
WA Di 6	08-25-81	--	11	17	9.6	.20	--	9.9
WA Di 8	04-23-59	199	12	--	4.5	--	--	--
WA Di 10	09-09-58	43	13	8.2	28	.10	--	--
WA Di 11	10-18-58	9	22	4.4	5.0	<.05	--	--
WA Di 14	05-20-59	183	7.1	--	5.7	--	--	--
WA Di 39	04-08-59	218	21	17	22	.40	2.9	7.9
WA Di 40	04-08-59	272	21	48	61	.50	.10	12
WA Di 41	04-08-59	366	45	62	44	.50	<.05	11
WA Di 42	04-08-59	224	5.5	36	6.1	.50	.50	9.1
WA Di 43	04-08-59	229	18	41	25	.40	1.5	12
WA Di 45	04-08-59	223	14	25	9.1	.40	.30	9.7
WA Di 46	04-08-59	266	16	43	20	.40	<.05	12
WA Di 47	04-14-59	292	4.5	--	6.5	--	--	--
WA Di 48	04-14-59	218	11	--	14	--	--	--
WA Di 49	04-15-59	233	9.0	24	9.0	.40	--	11
WA Di 50	04-15-59	161	4.9	--	7.0	--	--	--
WA Di 51	04-23-59	221	8.6	--	14	--	--	--
WA Di 52	04-21-59	280	27	--	24	--	--	--
WA Di 54	04-16-59	264	26	--	7.0	--	--	--
WA Di 55	04-23-59	279	27	72	18	.50	.10	11
WA Di 56	04-23-59	234	11	--	7.0	--	--	--
WA Di 57	04-23-59	194	9.4	35	13	.30	<.05	11
WA Di 58	04-23-59	341	26	39	18	.30	.40	12
WA Di 59	04-23-59	258	13	30	7.0	.40	.10	--
WA Di 60	04-21-59	238	15	--	18	--	--	--
WA Di 61	04-23-59	183	11	--	9.0	--	--	--
WA Di 62	04-23-59	291	14	72	10	.50	--	12
WA Di 63	04-30-59	244	12	--	33	.40	1.0	--
WA Di 66	04-21-59	290	22	53	22	.40	.60	11
WA Di 67	04-21-59	256	9.9	54	14	.50	.40	13
WA Di 68	04-23-59	344	17	56	22	.50	.40	12
WA Di 69	04-23-59	244	9.4	--	22	--	--	--
WA Di 70	05-11-59	235	1.7	--	14	--	--	--
WA Di 71	05-21-59	208	8.1	12	5.5	.40	<.05	10
WA Di 72	05-20-59	273	8.4	--	10	--	--	--
WA Di 73	05-20-59	212	6.5	--	7.7	--	--	--
WA Di 74	05-20-59	310	38	--	34	--	--	--
WA Di 76	05-21-59	313	12	100	23	.40	.10	11
WA Di 77	05-21-59	245	12	--	4.1	--	--	--
WA Di 79	04-07-59	326	25	35	1.5	.30	<.05	11
WA Di 80	04-07-59	216	13	16	3.0	.30	1.1	9.9
WA Di 81	04-07-59	301	37	24	27	.40	1.0	13
WA Di 82	04-07-59	249	7.7	48	14	.50	2.4	11
WA Di 83	04-07-59	350	43	28	18	.40	.90	11
WA Di 84	04-07-59	452	88	48	66	.30	.90	13
WA Di 86	02-04-63	286	28	150	<.05	.20	--	21
WA Di 97	02-01-62	260	13	39	6.7	.70	--	12
WA Di 137	04-14-87	4	39	11	1.5	.10	--	7.7
WA Di 152	07-16-86	60	1.5	23	8.1	.20	--	2 0

Solids, residue at 180 Deg C dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Nitrate, Nitrate, dis-solved (mg/L)	NO_2+ NO_3 dis-solved (mg/L)	Ammonia + or-ganic N, dis-solved (mg/L)	Phos-phate, total (mg/L)	Phos-phate, ortho, dis-solved (mg/L)	Site number
--	--	7.5	--	--	--	--	WA Dh 43
562	550	4.1	--	--	0.10	--	WA Dh 44
--	--	2.3	--	--	--	--	WA Dh 46
175	160	1.4	--	--	<.05	--	WA Dh 47
332	350	7.9	--	--	--	--	WA Dh 49
339	290	.52	--	--	.07	--	WA Dh 51
410	390	2.9	--	--	.02	--	WA Dh 52
--	190	2.5	--	--	--	--	WA Dh 53
438	--	.56	--	--	<.05	--	WA Di 1
--	--	1.9	--	--	--	--	WA Di 5
310	270	--	--	--	--	--	WA Di 6
--	--	6.8	--	--	--	--	WA Di 8
--	--	3.2	--	--	--	--	WA Di 10
--	--	2.7	--	--	--	--	WA Di 11
--	--	1.8	--	--	--	--	WA Di 14
388	340	3.4	--	--	--	--	WA Di 39
466	530	16	--	--	--	--	WA Di 40
612	630	12	--	--	--	--	WA Di 41
338	330	5.2	--	--	--	--	WA Di 42
448	450	15	--	--	--	--	WA Di 43
308	310	4.7	--	--	--	--	WA Di 45
428	420	7.9	--	--	--	--	WA Di 46
--	--	6.3	--	--	--	--	WA Di 47
--	--	12	--	--	--	--	WA Di 48
--	330	7.2	--	--	<.05	--	WA Di 49
--	--	6.3	--	--	--	--	WA Di 50
--	--	2.9	--	--	--	--	WA Di 51
--	--	51	--	--	--	--	WA Di 52
--	--	16	--	--	--	--	WA Di 54
610	520	17	--	--	<.05	--	WA Di 55
--	--	4.7	--	--	--	--	WA Di 56
388	370	18	--	--	<.05	--	WA Di 57
483	450	1.5	--	--	<.05	--	WA Di 58
337	--	4.1	--	--	<.05	--	WA Di 59
--	--	8.8	--	--	--	--	WA Di 60
--	--	11	--	--	--	--	WA Di 61
530	510	15	--	--	--	--	WA Di 62
--	--	34	--	--	--	--	WA Di 63
552	520	16	--	--	.20	--	WA Di 66
490	450	15	--	--	<.05	--	WA Di 67
670	610	30	--	--	<.05	--	WA Di 68
--	--	76	--	--	<.05	--	WA Di 69
--	--	5.0	--	--	--	--	WA Di 70
264	240	1.8	--	--	<.05	--	WA Di 71
--	--	1.4	--	--	--	--	WA Di 72
--	--	2.5	--	--	--	--	WA Di 73
--	--	9.0	--	--	--	--	WA Di 74
532	510	3.4	--	--	<.05	--	WA Di 76
--	--	1.1	--	--	--	--	WA Di 77
388	370	--	--	--	8.20	--	WA Di 79
248	270	5.2	--	--	1.30	--	WA Di 80
638	580	21	--	--	--	--	WA Di 81
688	560	20	--	--	6.30	--	WA Di 82
458	430	--	--	--	--	--	WA Di 83
736	740	19	--	--	3.40	--	WA Di 84
529	--	--	--	--	<.05	--	WA Di 86
339	--	2.1	--	--	.04	--	WA Di 97
28	30	--	0.20	0.30	--	<0.03	WA Di 137
--	120	--	<.10	--	--	--	WA Di 152

Table 12.—Major-ion analyses of ground water—Continued

Site number	Site type	Date	Geo-logic unit[1]	Discharge (gal/min)	Flow period prior to sam-pling (min)	Specific conduc-tance (µS/cm)	pH	Temper-ature air (deg C)	Temper-ature water (deg C)
WA Di 185	well	05-20-87	371ELBK	--	5	2,600	6.7	12.0	14.0
WA Di 187	well	05-20-87	377TMSN	--	10	630	7.1	11.0	13.5
WA Eh 1	well	05-23-64	377TMSN	20	1,380	661	7.2	--	11.5
WA Ei 1	well	11-28-55	377WSBR	--	10	704	7.3	--	13.0
WA Ei 2	well	10-01-58	377HRPR	--	--	233	7.0	--	--
WA Ei 5	well	10-01-58	377HRPR	--	--	274	7.4	--	--
WA Ei 46	well	05-26-64	377TMSN	20	1380	471	7.3	--	12.0
WA Ei 74	well	04-14-87	400GBGG	--	--	280	7.9	--	13.0
WA Ei 93	well	05-20-87	400CTCN	--	10	96	5.7	11.0	13.0
WA Ei 105	well	05-20-87	377HRPR	--	15	105	6.0	9.5	13.0
WA Ej 5	spring	05-04-82	377HRPR 400CTCN	--	--	--	-	--	--
WA Ej 21	well	05-20-87	377HRPR	--	15	67	5.9	11.0	13.0
WA Fi 12	well	11-28-64	400GBBG	9.4	450	537	7.7	--	13.0

Color (platinum-cobalt units)	Hardness (mg/L as $CaCO_3$)	Total noncarbonate hardness (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Total bicarbonate (mg/L as HCO_3)	Site number
--	1,300	1,100	390	90	4.8	1.9	309	WA Di 185
--	340	50	72	40	3.6	.90	360	WA Di 187
--	370	130	100	28	6.2	1.3	290	WA Eh 1
1	370	48	91	34	3.9	1.4	390	WA Ei 1
5	100	0	28	7.2	--	--	120	WA Ei 2
8	120	4	35	8.7	--	--	150	WA Ei 5
--	260	34	91	7.9	2.6	1.6	280	WA Ei 46
--	120	3	35	8.1	8.5	1.1	116	WA Ei 74
--	33	4	7.5	3.5	4.1	.50	36	WA Ei 93
--	38	2	8.7	4.0	6.0	.80	43	WA Ei 105
--	73	--	--	--	--	--	--	WA Ej 5
--	21	0	5.0	2.0	4.5	.90	29	WA Ej 21
--	260	130	82	14	12	2.6	170	WA Fi 12

Table 12.—Major-ion analyses of ground water—Continued

Site number	Date	Total alkalinity (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Iodide, dissolved (mg/L)	Silica, dissolved (mg/L)
WA Di 185	05-20-87	253	0	1500	1.1	0.60	--	24
WA Di 187	05-20-87	295	0	23	13	<.10	--	6.1
WA Eh 1	05-23-64	237	29	110	14	.10	--	12
WA Ei 1	11-28-55	319	31	72	3.3	.20	--	20
WA Ei 2	10-01-58	101	20	3.4	2.6	.30	--	--
WA Ei 5	10-01-58	119	9.2	14	3.0	.10	--	--
WA Ei 46	05-26-64	226	22	16	4.7	.20	--	14
WA Ei 74	04-14-87	142	2.9	19	2.3	.30	--	27
WA Ei 93	05-20-87	29	0	<5.0	2.9	<.10	--	24
WA Ei 105	05-20-87	36	0	7.0	8.0	<.10	--	26
WA Ej 5	05-04-82	--	--	--	--	--	--	--
WA Ej 21	05-20-87	24	0	<5.0	2.1	.10	--	28
WA Fi 12	11-28-64	136	5.3	110	23	.20	--	20

[1] For explanation of geologic unit codes, refer to table 1.

Solids, residue at 180 Deg C dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Nitrate, Nitrate, dis-solved (mg/L)	NO_2+ NO_3 dis-solved (mg/L)	Ammonia + or-ganic N, dis-solved (mg/L)	Phos-phate, total (mg/L)	Phos-phate, ortho, dis-solved (mg/L)	Site number
2550	2200	--	<0.10	--	--	<0.03	WA Di 185
347	340	--	4.9	--	--	<.03	WA Di 187
449	420	0.34	--	--	0.03	--	WA Eh 1
464	420	.18	--	--	<.05	--	WA Ei 1
--	--	.18	--	--	--	--	WA Ei 2
--	--	.02	--	--	--	--	WA Ei 5
291	280	2.0	--	--	.03	--	WA Ei 46
167	170	--	<.100	.20	--	<.03	WA Ei 74
69	65	--	3.2--	--	--	.18	WA Ei 93
74	83	--	.71	--	--	<.03	WA Ei 105
--	91	--	--	--	--	--	WA Ej 5
57	63	--	.95	--	--	.25	WA Ej 21
360	350	2.7	--	--	--	--	WA Fi 12

Table 13.—Trace-element analyses of ground water

[Site type: W = well, S = spring; all values in micrograms per liter, except as indicated]

Site number	Site type	Date	Geologic unit[1]	Discharge (gal/min)	Flow period prior to sampling (min)	Aluminum, total recoverable	Aluminum, dissolved	Arsenic, dissolved	Cadmium, total recoverable	Cadmium, dissolved	Chromium, total recoverable	Chromium dissolved	Copper, total recoverable
WA Ab 5	W	10-16-58	341HMPR	--	--	--	--	--	--	--	--	--	<5
WA Ab 32	W	10-16-58	341HMPR	--	--	--	--	--	--	--	--	--	10
WA Ab 72	W	07-15-86	341WDMN	12	12	--	<10	--	--	--	--	--	--
WA Ab 78	W	08-27-85	341CMNG	2.5	40	--	<100	--	--	--	--	--	--
WA Ab 80	W	08-27-85	341HMPR	--	20	--	<100	--	--	--	--	--	--
WA Ab 81	W	08-27-85	337PRSL	3.0	35	--	<100	--	--	--	--	--	--
WA Ac 2	W	10-16-58	347HDBG	--	--	--	--	--	--	--	--	--	10
WA Ac 3	W	08-28-85	351WLCK	3.3	15	--	100	--	--	--	--	--	--
WA Ac 5	W	08-28-85	341WDMN	2.1	15	--	<100	--	--	--	--	--	--
WA Ac 43	W	12-17-68	354RSHL	--	--	--	--	--	--	--	--	--	--
WA Ac 44	W	08-27-85	344RMNY	--	--	--	--	--	--	--	--	--	--
WA Ac 47	S	07-14-86	354MCKZ	1.3	--	--	<10	--	--	--	--	--	--
WA Ad 3	W	11-28-55	341PRKD	--	10	200	--	--	--	--	--	--	<5
WA Ad 47	W	07-27-63	341WDMN	12	1,080	200	--	--	--	--	--	--	70
WA Ad 53	W	07-16-86	341WDMN	4.2	15	--	<10	--	--	--	--	--	--
WA Ad 72	W	08-28-85	341HMPR	3.8	15	--	<100	--	--	--	--	--	--
WA Ad 77	W	07-15-86	341PRKD	2.1	15	--	<10	--	--	--	--	--	--
WA Ae 15	W	10-16-58	341CMNG	--	--	--	--	--	--	--	--	--	<5
WA Ae 32	W	07-14-86	347ORSK	4.8	5	--	20	--	--	--	--	--	--
WA Af 12	W	04-24-59	361MRBG	--	--	100	--	--	--	--	--	--	30
WA Af 33	W	04-15-87	354MCKZ	--	--	--	<10	<1	--	<1	--	<10	--
WA Ag 2	S	04-24-59	367SNNG	600	--	100	--	--	--	--	--	--	<5
WA Ag 65	W	05-19-87	364STPL	--	10	--	--	--	--	--	--	--	--
WA Ag 71	W	05-19-87	364CBBG	--	5	--	--	--	--	--	--	--	--
WA Ai 1	W	03-07-51	367RCKR	5.0	--	100	--	--	--	--	--	--	--
WA Ai 4	W	03-19-58	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Ai 19	W	09-17-58	367RCKR	--	--	--	--	--	--	--	--	--	<5
WA Ai 20	S	10-15-58	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Ai 74	W	05-21-87	367SNNG	--	10	--	--	--	--	--	--	--	--
WA Ak 3	S	08-27-81	377TMSN	--	--	100	200	--	<1	--	5	--	21
WA Ak 6	S	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Ak 7	S	01-05-60	400CTCN	--	--	100	--	--	--	--	--	--	<5
WA Ak 8	W	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Ak 40	W	07-14-86	377WSBR	15	5	--	<10	--	--	--	--	--	--
WA Ak 45	S	07-14-86	377HRPR	9.0	--	--	<10	--	--	--	--	--	--
		06-29-87		8.7	--	--	<10	<1	--	<1	--	<10	--
WA Al 1	W	06-11-58	377WVRN	--	--	--	--	--	--	--	--	--	200
WA Al 7	W	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Al 8	W	12-26-56	400CTCN	40	--	--	--	--	--	--	--	--	<5
		01-05-60		--	--	<50	--	--	--	--	--	--	<5
WA Al 9	W	10-20-54	400CTCN	37	--	--	--	--	--	--	--	--	--
		01-05-60		--	--	<50	--	--	--	--	--	--	<5
WA Al 10	W	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Al 11	W	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Al 12	W	01-05-60	400CTCN	--	--	<50	--	--	--	--	--	--	<5
WA Bb 15	W	07-15-86	341HMPR	1.8	10	--	10	--	--	--	--	--	--
WA Bb 18	W	07-31-63	354MCKZ	7.5	1,200	100	--	--	--	--	--	--	30
WA Bc 1	W	02-04-69	354RSHL	--	--	--	--	--	--	--	--	--	--
		07-15-86		2.5	30	--	10	--	--	--	--	--	--
WA Be 3	W	03-07-51	344RMNY	10	--	2,400	--	--	--	--	--	--	--
WA Be 24	W	10-15-58	344RMNY	--	--	--	--	--	--	--	--	--	<5
WA Be 29	W	10-16-58	347ORSK	--	--	--	--	--	--	--	--	--	<5
WA Be 41	W	05-18-87	347ORSK	--	10	--	<10	<1	--	<1	--	30	--
WA Be 43	W	07-16-86	347HDBG	2.0	10	--	<10	--	--	--	--	--	--
WA Bf 2	S	02-21-57	347ORSK	--	--	<50	--	--	--	--	--	--	<5
WA Bf 3	S	10-15-58	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Bf 25	W	02-06-63	371CCCG	17	1,320	100	--	--	--	--	--	--	<5
WA Bf 28	W	07-26-63	371CCCG	4.5	780	100	--	--	--	--	--	--	30
WA Bf 41	W	07-16-86	351TNLY	9.1	10	--	<10	--	--	--	--	--	--
WA Bg 14	W	04-24-59	371CCCG	--	--	100	--	--	--	--	--	--	30
WA Bg 27	W	05-19-87	361MRBG	--	5	--	<10	<1	--	<1	--	20	--
WA Bg 43	W	05-29-64	361MRBG	20	1,380	<50	--	--	--	--	--	--	30
WA Bg 90	W	04-15-87	367PBGS	--	--	--	<10	<1	--	<1	--	<10	--
WA Bh 17	W	10-15-58	367RCKR	--	--	--	--	--	--	--	--	--	<5
WA Bh 22	W	10-15-58	361MRBG	--	--	--	--	--	--	--	--	--	<5
WA Bi 16	W	03-07-51	367SNNG	.5	--	3,600	--	--	--	--	--	--	--
WA Bi 21	W	03-19-58	367SNNG	--	--	100	--	--	--	--	--	--	<5
WA Bi 27	W	10-14-58	367SNNG	--	--	--	--	--	--	--	--	--	<5
WA Bi 35	S	08-27-81	367SNNG	40	--	200	<100	--	<1	--	8	--	7

Copper, dis-solved	Iron, total recov-erable	Iron, dis-solved	Lead, total recov-erable	Lead, dis-solved	Lithium, total recov-erable	Manga-nese, total recov-erable	Manga-nese, dis-solved	Mercury, total recov-erable	Nickel, total recov-erable	Silver, total recov-erable	Zinc, total recov-erable	Zinc, dis-solved	Site number
--	<5	--	--	--	--	--	--	--	--	--	4,400	--	WA Ab 5
--	<5	--	--	--	--	--	--	--	--	--	300	--	WA Ab 32
--	--	42	--	--	--	--	160	--	--	--	--	--	WA Ab 72
--	--	120	--	--	--	--	340	--	--	--	--	--	WA Ab 78
--	--	32	--	--	--	--	3	--	--	--	--	--	WA Ab 80
--	--	12,000	--	--	--	--	1,900	--	--	--	--	--	WA Ab 81
--	20	--	--	--	--	--	--	--	--	--	290	--	WA Ac 2
--	--	5	--	--	--	--	16	--	--	--	--	--	WA Ac 3
--	--	7	--	--	--	--	22	--	--	--	--	--	WA Ac 5
--	2,800	--	--	--	--	100	--	--	--	--	--	--	WA Ac 43
--	--	10,000	--	--	--	--	220	--	--	--	--	--	WA Ac 44
--	--	5	--	--	--	--	12	--	--	--	--	--	WA Ac 47
--	4,300	--	--	--	200	410	--	--	--	--	1,800	--	WA Ad 3
--	960	--	--	--	--	930	--	--	--	--	200	--	WA Ad 47
--	--	310	--	--	--	--	170	--	--	--	--	--	WA Ad 53
--	--	6	--	--	--	--	<1	--	--	--	--	--	WA Ad 72
--	--	240	--	--	--	--	150	--	--	--	--	--	WA Ad 77
--	720	--	--	--	--	--	--	--	--	--	70	--	WA Ae 15
--	--	7	--	--	--	--	8	--	--	--	--	--	WA Ae 32
--	1,800	--	--	--	<50	60	--	--	--	--	100	--	WA Af 12
17	--	<3	--	<5	--	--	<1	--	--	--	--	47	WA Af 33
--	<5	--	--	--	<50	<5	--	--	--	--	<5	--	WA Ag 2
--	--	5	--	--	--	--	1	--	--	--	--	--	WA Ag 65
--	--	<3	--	--	--	--	<1	--	--	--	--	--	WA Ag 71
--	40	--	--	--	--	10	--	--	--	--	--	--	WA Ai 1
--	30	--	--	--	--	20	--	--	--	--	450	--	WA Ai 4
--	70	--	--	--	--	--	--	--	--	--	10,000	--	WA Ai 19
--	<5	--	--	--	--	--	--	--	--	--	530	--	WA Ai 20
--	--	5	--	--	--	--	<1	--	--	--	--	--	WA Ai 74
--	230	30	2	--	--	10	<10	0.10	1	<1	40	--	WA Ak 3
--	190	--	--	--	--	<5	--	--	--	--	190	--	WA Ak 6
--	70	--	--	--	--	<5	--	--	--	--	60	--	WA Ak 7
--	890	--	--	--	--	<5	--	--	--	--	140	--	WA Ak 8
--	--	5	--	--	--	--	<1	--	--	--	--	--	WA Ak 40
--	--	4	--	--	--	--	2	--	--	--	--	--	WA Ak 45
<1	--	<3	--	<5	--	--	1	--	--	--	--	<3	
--	90	--	--	--	--	--	--	--	--	--	3700	--	WA Al 1
--	890	--	--	--	--	<5	--	--	--	--	<5	--	WA Al 7
--	5,700	--	--	--	--	<5	--	--	--	--	10	--	WA Al 8
--	600	--	--	--	--	<5	--	--	--	--	<5	--	
--	1,200	--	--	--	--	--	--	--	--	--	--	--	WA Al 9
--	370	--	--	--	--	<5	--	--	--	--	<5	--	
--	110	--	--	--	--	<5	--	--	--	--	<5	--	WA Al 10
--	300	--	--	--	--	<5	--	--	--	--	<5	--	WA Al 11
--	600	--	--	--	--	<5	--	--	--	--	<5	--	WA Al 12
--	--	330	--	--	--	--	40	--	--	--	--	--	WA Bb 15
--	100	--	--	--	--	20	--	--	--	--	100	--	WA Bb 18
--	2,200	--	--	--	--	1,100	--	--	--	--	--	--	WA Bc 1
--	--	1,100	--	--	--	--	1,500	--	--	--	--	--	
--	30	--	--	--	--	100	--	--	--	--	--	--	WA Be 3
--	790	--	--	--	--	--	--	--	--	--	210	--	WA Be 24
--	680	--	--	--	--	--	--	--	--	--	280	--	WA Be 29
3	--	7	--	12	--	--	1	--	--	--	--	170	WA Be 41
--	--	14	--	--	--	--	<1	--	--	--	--	--	WA Be 43
--	100	--	--	--	<50	<5	--	--	--	--	<5	--	WA Bf 2
--	<5	--	--	--	--	--	--	--	--	--	<5	--	WA Bf 3
--	<5	--	--	--	--	<5	--	--	--	--	500	--	WA Bf 25
--	40	--	--	--	--	<5	--	--	--	--	1,100	--	WA Bf 28
--	--	4	--	--	--	--	<1	--	--	--	--	--	WA Bf 41
--	30	--	--	--	<50	<5	--	--	--	--	1,200	--	WA Bg 14
2	--	49	--	9	--	--	280	--	--	--	--	24	WA Bg 27
--	1,200	--	--	--	--	<5	--	--	--	--	100	--	WA Bg 43
<1	--	3	--	<5	--	--	<1	--	--	--	--	10	WA Bg 90
--	<5	--	--	--	--	--	--	--	--	--	240	--	WA Bh 17
--	10	--	--	--	--	--	--	--	--	--	450	--	WA Bh 22
--	40	--	--	--	--	70	--	--	--	--	--	--	WA Bi 16
--	20	--	--	--	300	30	--	--	--	--	50	--	WA Bi 21
--	<5	--	--	--	--	--	--	--	--	--	<5	--	WA Bi 27
--	320	20	1	--	--	10	<10	.10	1	<1	20	--	WA Bi 35

Table 13.—Trace-element analyses of ground water—Continued

Site number	Site type	Date	Geologic unit[1]	Discharge (gal/min)	Flow period prior to sampling (min)	Aluminum, total recoverable	Aluminum, dissolved	Arsenic, dissolved	Cadmium, total recoverable	Cadmium, dissolved	Chromium, total recoverable	Chromium dissolved	Copper, total recoverable
WA Bi 35		05-04-82		--	--	<100	<100	--	--	--	10	--	--
WA Bj 4	S	10-08-58	371ELBK	--	--	--	--	--	--	--	--	--	<5
WA Bj 7	S	06-12-58	377TMSN	--	--	--	--	--	--	--	--	--	<5
WA Bj 105	W	05-19-87	371CCCG	--	5	--	--	--	--	--	--	--	--
WA Bk 3	W	03-12-58	377HRPR	--	--	<50	--	--	--	--	--	--	<5
WA Bk 11	W	10-08-58	377HRPR	--	--	--	--	--	--	--	--	--	<5
WA Bk 25	W	04-09-70	377TMSN	--	660	--	--	--	--	--	--	--	--
WA Bk 29	W	07-14-86	400CTCN	14	--	--	<10	--	--	--	--	--	--
WA Cg 3	W	04-24-59	361MRBG	2.0	--	200	--	--	--	--	--	--	30
WA Cg 14	W	08-27-85	361MRBG	5.4	--	--	<100	--	--	--	--	--	--
WA Cg 36	W	08-27-85	367SNNG	--	--	--	<100	--	--	--	--	--	--
WA Ch 2	W	10-15-58	371CCCG	--	--	--	--	--	--	--	--	--	<5
		08-25-81		--	--	1,000	100	--	<1	--	15	--	2
WA Ch 7	W	04-24-59	367RCKR	300	--	100	--	--	--	--	--	--	<5
WA Ch 9	W	10-15-58	367RCKR	--	--	--	--	--	--	--	--	--	<5
WA Ch 42	W	09-09-69	367SNNG	--	120	--	--	--	--	--	--	--	--
WA Ch 115	W	08-27-85	371CCCG	--	2	--	100	--	--	--	--	--	--
WA Ch 117	W	08-27-85	367RCKR	--	2	--	100	--	--	--	--	--	--
WA Ci 12	W	09-09-58	377TMSN	--	--	--	--	--	--	--	--	--	<5
WA Ci 16	W	09-09-58	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Ci 21	W	12-26-56	371CCCG	--	--	--	--	--	--	--	--	--	<5
		01-04-60		--	--	<50	--	--	--	--	--	--	<5
		01-12-61		25	--	<50	--	--	--	--	--	--	10
WA Ci 33	W	09-30-54	371CCCG	5.0	--	--	--	--	--	--	--	--	--
WA Ci 147	W	05-21-87	371CCCG	--	120	--	--	--	--	--	--	--	--
WA Cj 8	W	10-08-58	377TMSN	--	--	--	--	--	--	--	--	--	<5
WA Cj 15	W	07-11-58	377TMSN	--	--	--	--	--	--	--	--	--	<5
WA Cj 16	W	07-11-58	110MNWS	--	--	--	--	--	--	--	--	--	<5
WA Cj 17	W	10-08-58	377ANTM	--	--	100	--	--	--	--	--	--	<5
WA Cj 18	W	06-12-58	110MNWS	--	--	--	--	--	--	--	--	--	80
WA Cj 21	W	09-09-58	377TMSN	--	--	--	--	--	--	--	--	--	70
WA Cj 69	W	08-27-85	377HRPR	5.5	--	--	<100	--	--	--	--	--	--
WA Cj 74	W	08-27-85	377ANTM	--	2	--	<100	--	--	--	--	--	--
WA Cj 83	W	08-27-85	377TMSN	--	3	--	<100	--	--	--	--	--	--
WA Cj 126	S	05-21-87	377WSBR	--	--	--	--	--	--	--	--	--	--
WA Dh 1	W	05-19-59	371CCCG	--	--	--	--	--	--	--	--	--	--
WA Dh 11	W	10-01-58	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Dh 14	W	04-15-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 16	W	04-14-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 20	W	04-15-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 22	W	04-16-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 24	W	04-16-59	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Dh 27	W	04-16-59	371CCCG	--	--	100	--	--	--	--	--	--	<5
WA Dh 29	W	04-30-59	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Dh 32	W	04-21-59	371CCCG	--	--	200	--	--	--	--	--	--	<5
WA Dh 33	W	04-21-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 39	W	05-11-59	371ELBK	--	--	<50	--	--	--	--	--	--	--
WA Dh 40	W	04-30-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 44	W	05-21-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Dh 46	W	05-20-59	371CCCG	--	--	<50	--	--	--	--	--	--	20
WA Dh 47	W	05-20-59	371ELBK	--	--	<50	--	--	--	--	--	--	<5
WA Dh 49	W	05-11-59	371CCCG	--	--	--	--	--	--	--	--	--	<5
WA Dh 51	W	07-30-63	371CCCG	7.5	--	200	--	--	--	--	--	--	90
WA Dh 52	W	05-28-64	371CCCG	16	1,380	<50	--	--	--	--	--	--	<5
WA Di 1	W	04-29-59	371ELBK	--	--	--	--	--	--	--	--	--	<5
WA Di 5	W	10-08-58	400CTCN	--	--	--	--	--	--	--	--	--	10
WA Di 6	W	08-25-81	377TMSN	--	--	200	100	--	<1	--	16	--	2
WA Di 10	W	09-09-58	377ANTM	--	--	--	--	--	--	--	--	--	<5
WA Di 11	W	10-18-58	377WSBR	--	--	--	--	--	--	--	--	--	<5
WA Di 39	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 40	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 41	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 42	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 43	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 45	W	04-08-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 46	W	04-08-59	371CCCG	--	--	50	--	--	--	--	--	--	5
WA Di 49	W	04-15-59	371CCCG	--	--	50	--	--	--	--	--	--	40

Copper, dis-solved	Iron, total recov-erable	Iron, dis-solved	Lead, total recov-erable	Lead, dis-solved	Lithium, total recov-erable	Manga-nese, total recov-erable	Manga-nese, dis-solved	Mercury, total recov-erable	Nickel, total recov-erable	Silver, total recov-erable	Zinc, total recov-erable	Zinc, dis-solved	Site number
--	40	10	--	--	--	<10	1	--	--	--	10	--	WA Bi 35
--	10	--	--	--	--	--	--	--	--	--	850	--	WA Bj 4
--	<5	--	--	--	--	--	--	--	--	--	80	--	WA Bj 7
--	--	<3	--	--	--	--	<1	--	--	--	--	--	WA Bj 105
--	120	--	--	--	<50	<5	--	--	--	--	60	--	WA Bk 3
--	20	--	--	--	--	--	--	--	--	--	540	--	WA Bk 11
--	20	--	--	--	--	250	--	--	--	--	--	--	WA Bk 25
--	--	5	--	--	--	--	2	--	--	--	--	--	WA Bk 29
--	<5	--	--	--	<50	<5	--	--	--	--	3,700	--	WA Cg 3
--	--	11	--	--	--	--	3	--	--	--	--	--	WA Cg 14
--	--	4	--	--	--	--	<1	--	--	--	--	--	WA Cg 36
--	<5	--	--	--	--	--	--	--	--	--	300	--	WA Ch 2
--	130	10	9	--	--	20	<10	<.10	2	<1	20	--	
--	<5	--	--	--	<50	<5	--	--	--	--	<5	--	WA Ch 7
--	<5	--	--	--	--	--	--	--	--	--	250	--	WA Ch 9
--	20	--	--	--	--	20	--	--	--	--	--	--	WA Ch 42
--	--	15	--	--	--	--	<1	--	--	--	--	--	WA Ch 115
--	--	7	--	--	--	--	9	--	--	--	--	--	WA Ch 117
--	10	--	--	--	--	--	--	--	--	--	5,000	--	WA Ci 12
--	20	--	--	--	--	--	--	--	--	--	530	--	WA Ci 16
--	70	--	--	--	--	<5	--	--	--	--	310	--	WA Ci 21
--	20	--	--	--	--	<5	--	--	--	--	140	--	
--	70	--	--	--	--	30	--	--	--	--	400	--	
--	1,800	--	--	--	--	--	--	--	--	--	--	--	WA Ci 33
--	--	4	--	--	--	--	4	--	--	--	--	--	WA Ci 147
--	<5	--	--	--	--	--	--	--	--	--	470	--	WA Cj 8
--	20	--	--	--	--	--	--	--	--	--	50	--	WA Cj 15
--	10	--	--	--	--	--	--	--	--	--	20	--	WA Cj 16
--	180	--	--	--	<50	<5	--	--	--	--	260	--	WA Cj 17
--	110	--	--	--	--	--	--	--	--	--	660	--	WA Cj 18
--	10	--	--	--	--	--	--	--	--	--	60	--	WA Cj 21
--	--	27	--	--	--	--	52	--	--	--	--	--	WA Cj 69
--	--	5	--	--	--	--	<1	--	--	--	--	--	WA Cj 74
--	--	10	--	--	--	--	<1	--	--	--	--	--	WA Cj 83
--	--	98	--	--	--	--	5	--	--	--	--	--	WA Cj 126
--	--	--	--	--	--	--	--	--	--	--	2,800	--	WA Dh 1
--	10	--	--	--	--	--	--	--	--	--	310	--	WA Dh 11
--	<5	--	--	--	--	--	--	--	--	--	330	--	WA Dh 14
--	<5	--	--	--	--	--	--	--	--	--	160	--	WA Dh 16
--	--	--	--	--	--	--	--	--	--	--	770	--	WA Dh 20
--	<5	--	--	--	--	--	--	--	--	--	80	--	WA Dh 22
--	<5	--	--	--	--	--	--	--	--	--	--	--	WA Dh 24
--	<5	--	--	--	--	--	--	--	--	--	350	--	WA Dh 27
--	<5	--	--	--	--	--	--	--	--	--	1,000	--	WA Dh 29
--	<5	--	--	--	--	20	--	--	--	--	2,700	--	WA Dh 32
--	<5	--	--	--	--	--	--	--	--	--	60	--	WA Dh 33
--	<5	--	--	--	--	--	--	--	--	--	390	--	WA Dh 39
--	<5	--	--	--	--	--	--	--	--	--	11,000	--	WA Dh 40
--	<5	--	--	--	--	--	--	--	--	--	240	--	WA Dh 44
--	--	--	--	--	--	--	--	--	--	--	--	--	WA Dh 46
--	<5	--	--	--	--	--	--	--	--	--	600	--	WA Dh 47
--	20	--	--	--	--	--	--	--	--	--	710	--	WA Dh 49
--	20	--	--	--	--	230	--	--	--	--	100	--	WA Dh 51
--	140	--	--	--	--	200	--	--	--	--	100	--	WA Dh 52
--	--	--	--	--	--	--	--	--	--	--	2,000	--	WA Di 1
--	<5	--	--	--	--	--	--	--	--	--	3,800	--	WA Di 5
--	110	<10	8	--	--	10	<10	<.10	3	<1	20	--	WA Di 6
--	20	--	--	--	--	--	--	--	--	--	13,000	--	WA Di 10
--	<5	--	--	--	--	--	--	--	--	--	220	--	WA Di 11
--	10	--	--	--	--	--	--	--	--	--	<5	--	WA Di 39
--	10	--	--	--	--	--	--	--	--	--	70	--	WA Di 40
--	<5	--	--	--	--	--	--	--	--	--	410	--	WA Di 41
--	10	--	--	--	--	--	--	--	--	--	310	--	WA Di 42
--	20	--	--	--	--	--	--	--	--	--	1,100	--	WA Di 43
--	<5	--	--	--	--	--	--	--	--	--	<5	--	WA Di 45
--	10	--	--	--	--	--	--	--	--	--	190	--	WA Di 46
--	<5	--	--	--	--	--	--	--	--	--	540	--	WA Di 49

Table 13.—Trace-element analyses of ground water—Continued

Site number	Site type	Date	Geologic unit[1]	Discharge (gal/min)	Flow period prior to sampling (min)	Aluminum, total recoverable	Aluminum, dissolved	Arsenic, dissolved	Cadmium, total recoverable	Cadmium, dissolved	Chromium, total recoverable	Chromium dissolved	Copper, total recoverable
WA Di 55	W	04-23-59	371CCCG	--	--	200	--	--	--	--	--	--	<5
WA Di 57	W	04-23-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 58	W	04-23-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 59	W	04-23-59	371CCCG	--	--	50	--	--	--	--	--	--	<5
WA Di 62	W	04-23-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 66	W	04-21-59	371CCCG	--	--	<50	--	--	--	--	--	--	480
WA Di 67	W	04-21-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 68	W	04-23-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 71	W	05-21-59	371ELBK	--	--	100	--	--	--	--	--	--	<5
WA Di 76	W	05-21-59	371CCCG	--	--	500	--	--	--	--	--	--	<5
WA Di 77	W	05-21-59	371CCCG	--	--	--	--	--	--	--	--	--	20
WA Di 79	W	04-07-59	371CCCG	--	--	200	--	--	--	--	--	--	<5
WA Di 80	W	04-07-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 81	W	04-07-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 82	W	04-07-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 83	W	04-07-59	371CCCG	--	--	<50	--	--	--	--	--	--	5
WA Di 84	W	04-07-59	371CCCG	--	--	<50	--	--	--	--	--	--	<5
WA Di 86	W	02-04-63	371ELBK	20	--	200	--	--	--	--	--	--	10
WA Di 97	W	02-01-62	371CCCG	7.5	--	200	--	--	--	--	--	--	<5
WA Di 137	W	04-14-87	377WVRN	--	--	--	30	<1	--	<1	--	<10	--
WA Di 152	W	07-16-86	377ANTM	2.6	15	--	<10	--	--	--	--	--	--
WA Di 185	W	05-20-87	371ELBK	--	5	--	--	--	--	--	--	--	--
WA Di 187	W	05-20-87	377TMSN	--	10	--	--	--	--	--	--	--	--
WA Eh 1	W	05-23-64	377TMSN	20	1,380	<50	--	--	--	--	--	--	20
WA Ei 1	W	11-28-55	377WSBR	--	10	500	--	--	--	--	--	--	<5
WA Ei 2	W	10-01-58	377HRPR	--	--	--	--	--	--	--	--	--	<5
WA Ei 5	W	10-01-58	377HRPR	--	--	--	--	--	--	--	--	--	5
WA Ei 46	W	05-26-64	377TMSN	20	1,380	<50	--	--	--	--	--	--	<5
WA Ei 74	W	04-14-87	400GBGG	--	15	<10	--	<1	--	<1	--	<10	--
WA Ei 93	W	05-20-87	400CTCN	--	10	--	--	--	--	--	--	--	--
WA Ei 105	W	05-20-87	377HRPR	--	15	--	<10	<1	--	<1	--	60	--
WA Ej 5	S	05-04-82	377HRPR/ 400CTCN	--	--	--	--	--	--	--	--	--	--
WA Ej 21	W	05-20-87	377HRPR	--	15	--	--	--	--	--	--	--	--

[1] For explanation of geologic unit codes, refer to table 1.

Copper, dis-solved	Iron, total recov-erable	Iron, dis-solved	Lead, total recov-erable	Lead, dis-solved	Lithium, total recov-erable	Manga-nese, total recov-erable	Manga-nese, dis-solved	Mercury, total recov-erable	Nickel, total recov-erable	Silver, total recov-erable	Zinc, total recov-erable	Zinc, dis-solved	Site number
--	<5	--	--	--	--	--	--	--	--	--	3,200	--	WA Di 55
--	20	--	--	--	--	<20	--	--	--	--	550	--	WA Di 57
--	10	--	--	--	--	--	--	--	--	--	40	--	WA Di 58
--	30	--	--	--	--	--	--	--	--	--	300	--	WA Di 59
--	20	--	--	--	--	--	--	--	--	--	1,000	--	WA Di 62
--	20	--	--	--	--	--	--	--	--	--	870	--	WA Di 66
--	10	--	--	--	--	--	--	--	--	--	300	--	WA Di 67
--	20	--	--	--	--	--	--	--	--	--	110	--	WA Di 68
--	40	--	--	--	--	--	--	--	--	--	2,700	--	WA Di 71
--	60	--	--	--	--	40	--	--	--	--	--	--	WA Di 76
--	--	--	--	--	--	--	--	--	--	--	2,900	--	WA Di 77
--	10	--	--	--	--	--	--	--	--	--	1,600	--	WA Di 79
--	20	--	--	--	--	--	--	--	--	--	2,600	--	WA Di 80
--	20	--	--	--	--	--	--	--	--	--	200	--	WA Di 81
--	20	--	--	--	--	--	--	--	--	--	1,500	--	WA Di 82
--	240	--	--	--	--	2,000	--	--	--	--	330	--	WA Di 83
--	180	--	--	--	--	1,400	--	--	--	--	110	--	WA Di 84
--	10	--	--	--	--	<5	--	--	--	--	500	--	WA Di 86
--	<5	--	--	--	--	<5	--	--	--	--	500	--	WA Di 97
<1	--	14	--	<5	--	--	18	--	--	--	--	5	WA Di 137
--	--	22	--	--	--	--	9	--	--	--	--	--	WA Di 152
--	--	1,800	--	--	--	--	20	--	--	--	--	--	WA Di 185
--	--	6	--	--	--	--	<1	--	--	--	--	--	WA Di 187
--	10	--	--	--	--	1,500	--	--	--	--	300	--	WA Eh 1
--	1,300	--	--	--	2,900	<5	--	--	--	--	830	--	WA Ei 1
--	20	--	--	--	--	--	--	--	--	--	1, 1200	--	WA Ei 2
--	190	--	--	--	--	--	--	--	--	--	740	--	WA Ei 5
--	70	--	--	--	--	<5	--	--	--	--	<50	--	WA Ei 46
<1	--	19	--	<5	--	--	150	--	--	--	--	4	WA Ei 74
--	--	4	--	--	--	--	16	--	--	--	--	--	WA Ei 93
13	--	520	--	5	--	--	76	--	--	--	--	510	WA Ei 105
--	--	--	--	--	--	--	1	--	--	--	--	--	WA Ej 5
--	--	3	--	--	--	--	<1	--	--	--	--	--	WA Ej 21

Table 14.—Pesticide analyses of ground water

[All analyses reported in micrograms per liter]

Site number	Site type	Date	Discharge (gal/min)	Flow period prior to sampling (min)	Geologic unit	Ametryn, total	Atraton, total	Atrazine, total
WA Ag 65	well	05-19-87	--	10	St. Paul Group	<0.10	--	0.10
WA Ai 74	well	05-21-87	--	10	Stonehenge Limestone	< .10	--	.10
WA Bj 105	well	05-19-87	--	5	Conococheague Limestone	< .10	--	.50
WA Ci 113	well	08-17-83	10	15	Tomstown Formation	< .10	<0.10	.40
WA Ci 147	well	05-21-87	--	120	Conococheague Limestone	< .10	--	.30
WA Cj 126	spring	05-21-87	--	--	Waynesboro Formation	< .10	--	.10
WA Di 187	well	05-20-87	--	10	Tomstown Formation	< .10	--	< .10

Site number	Cyanazine, total	Cyprazine, total	Prometon, total	Prometryn, total	Propazine, total	Simetone, total	Simetryn, total	Simazine, total
WA Ag 65	<0.10	--	<0.1	<0.1	<0.10	--	<0.1	<0.10
WA Ai 74	< .10	--	< .1	< .1	< .10	--	< .1	< .10
WA Bj 105	< .10	--	< .1	< .1	< .10	--	< .1	.10
WA Ci 113	< .10	<0.10	< .1	< .1	< .10	<0.10	< .1	< .10
WA Ci 147	< .10	--	.1	< .1	< .10	--	< .1	< .10
WA Cj 126	< .10	--	< .1	< .1	< .10	--	< .1	< .10
WA Di 187	< .10	--	< .1	< .1	< .10	--	< .1	< .10

Additional analyses for spring WA Ak 45

Date	Discharge (gal/min)	Geologic unit	Aldrin, dissolved	Chlordane, dissolved	DDD, dissolved	DDE, dissolved	DDT, dissolved	Dieldrin, dissolved
06-29-87	8.7	Harpers Formation	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Endosulfan, dissolved	Endrin, dissolved	Heptachlor, dissolved	Heptachlor epoxide, dissolved	Lindane, dissolved	Methoxychlor, dissolved	Mirex, dissolved	Perthane, dissolved	Toxaphene, dissolved
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Table 15.—Analyses of organic constituents from selected wells and springs

[Units in micrograms per liter, except as noted]

Site number	Site type	Date	Geologic unit	Discharge (gal/min)	Flow period prior to sampling (min)	Organic carbon, total (mg/L as C)	Organic carbon, dissolved (mg/L as C)	Methylene blue active substance (mg/L)
WA Af 12	well	04-24-59	Martinsburg Formation	--	--	--	--	0.13
WA Ag 2	spring	04-24-59	Stonehenge Limestone	600	--	--	--	.09
WA Ag 65	well	05-19-87	St. Paul Group	--	10	1.3	--	--
WA Ag 71	well	05-19-87	Chambersburg Limestone	--	--	3.4	--	--
WA Ai 74	well	05-21-87	Stonehenge Limestone	--	--	--	0.8	--
WA Be 41	well	05-18-87	Oriskany Sandstone	--	10	.7	--	--
WA Bg 27	well	05-19-87	Martinsburg Formation	--	5	<.1	--	--
WA Bj 105	well	05-19-87	Conococheague Limestone	--	5	--	.7	--
WA Cg 3	well	04-24-59	Martinsburg Formation	2.0	--	--	--	.08
WA Ch 7	spring	04-24-59	Rockdale Run Formation	300	--	--	--	.10
WA Ci 147	well	05-21-87	Conococheague Limestone	--	--	--	1.0	--
WA Cj 126	spring	05-21-87	Waynesboro Formation	--	--	--	.5	--
WA Di 185	well	05-20-87	Elbrook Limestone	--	--	--	.3	--
WA Di 187	well	05-20-87	Tomstown Formation	--	--	--	.6	--
WA Ei 93	well	05-20-87	Catoctin Formation	--	10	--	.5	--
WA Ei 105	well	05-20-87	Harpers Formation	--	--	.1	.1	--
WA Ej 21	well	05-20-87	Harpers Formation	--	15	--	.3	--

Additional analyses for spring WA Ak 45

Date	Geologic unit	Discharge (gal/min)	Organic carbon, dissolved (mg/L as C)	Bromoform, total	Chloroform, total	Styrene, total	Toluene, total	Xylene, total recoverable	2-Chloroethylvinylether, total
06-29-87	Harpers Formation	8.7	0.5	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Methylbromide, total	Methylchloride, total	Methylene chloride, total	Vinyl chloride, total	Carbontetrachloride, total	Chlorodibromomethane, total	Dichlorobromomethane, total	Dichlorodifluoromethane, total	Trichlorofluoromethane, total	Chloroethane, total	1,1-Dichloroethane, total
<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

1,2-Dichloroethane, total	1,1,1-Trichloroethane, total	1,1,2-Trichloroethane, total	1,1,2,2 Tetrachloroethane, total	1,1-Dichloroethylene, total	1,2- -Trans-dichloroethylene, total	Trichloroethylene, total	Tetrachloroethylene, total	1,2-Dibromo ethylene, total	1,2-Dichloropropane, total	1,3-Dichloropropane, total
<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Cis-1,3-dichloropropene, total	Trans-1,3-dichloropropene, total	Benzene, total	Ethylbenzene, total	Chlorobenzene, total	1,2-Dichlorobenzene, total	1,3-Dichlorobenzene, total	1,4-Dichlorobenzene, total	PCB, dissolved	PCN, dissolved
<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.1	<0.10

Table 16.—Analyses of radioactivity and radioisotopes of ground-water and surface-water samples

Site		Date	Discharge (ft^3/s)	Alpha, total (pCi/L)	Beta, total (pCi/L)	Radium 226, total (pCi/L)	Uranium, dis-solved (μg/L)	Potas-sium 40 dis-solved (pCi/L as ^{40}K)
Wells	Geologic unit							
WA Dh 20	Conococheague Limestone	04-29-59	--	<2.9	19	0.3	4.3	--
WA Dh 27	do.	04-30-59	--	<2.5	15	.2	4.1	--
WA Dh 36	do.	04-29-59	--	<4.9	6.6	.3	3.7	--
WA Dh 39	Elbrook Limestone	04-29-59	--	<4.2	4.0	.4	3.2	--
WA Di 1	do.	04-29-59	--	<3.0	<4.2	.6	4.3	--
Springs								
WA Ch 2	Conococheague Limestone	08-25-81	--	--	--	--	--	1.6
WA Di 6	Tomstown Formation	08-25-81	--	--	--	--	--	1.6
WA Di 8	Conococheague Limestone	04-29-59	--	<2.2	6.6	.3	2.9	--
WA Di 49	do.	04-30-59	--	<2.4	<4.2	.2	3.5	--
Stream stations								
Antietam Creek near Sharpsburg		10-08-69	99	1.2	6.0	--	--	--
		10-20-70	128	.6	6.9	--	--	--
		09-23-71	160	3.3	8.5	--	--	--
		01-20-81	99	--	--	--	--	2.7
		04-27-81	285	--	--	--	--	2.0
		08-28-81	117	--	--	--	--	2.9
Antietam Creek near Waynesboro, Pa.		10-14-70	42	.6	5.0	--	--	--
		09-16-71	41	.6	4.7	--	--	--
Conococheague Creek at Fairview		01-20-81	90	--	--	--	--	2.1
		04-27-81	572	--	--	--	--	1.3
		08-28-81	102	--	--	--	--	2.2
Potomac River at Hancock		10-02-69	733	1.0	5.8	--	--	--
		10-08-70	390	.4	5.4	--	--	--
		09-23-71	3,950	.6	4.6	--	--	--

TABLE 17 FOLLOWS

Table 17.—Major-ion analyses of surface water

[ND, not detected (detection limit not reported)]

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01610150	Bear Creek at Forest Park	08-28-85	1100	0.30	318	7.9	21.5	19.0	10
		05-13-86	1045	1.4	140	7.8	17.5	14.0	5
		08-26-86	1030	.04	690	7.6	22.0	17.0	5
01610155	Sideling Hill Creek near Bellegrove	08-28-85	1220	3.2	190	7.8	21.0	22.0	15
		05-13-86	1330	13	86	7.4	20.0	17.0	5
		08-26-86	1150	.55	139	7.7	27.0	24.0	10
01610170	Potomac River Tributary at Woodmont	08-28-85	1335	.30	86	7.2	20.5	21.5	45
		05-13-86	1530	.47	75	6.8	16.5	15.5	15
		08-26-86	1315	.07	210	7.4	28.0	20.0	5
01612500	Little Tonoloway Creek near Hancock	06-20-66	--	--	442	7.5	--	--	3
		08-28-85	1450	.90	353	7.6	27.5	21.0	10
		05-29-86	2015	1.5	339	7.1	21.5	19.5	5
		08-26-86	1415	.13	660	6.9	32.0	21.0	10
01613000	Potomac River at Hancock	01-09-61	--	--	234	7.2	--	--	0
		02-20-61	--	--	112	5.9	--	--	0
		08-21-61	--	--	269	7.4	--	--	--
		08-09-65	--	390	505	8.4	--	--	--
		07-21-69	1140	--	315	8.7	--	26.5	--
		08-18-69	1030	--	260	7.6	--	27.0	--
		09-01-69	1325	--	310	8.2	--	28.0	--
		10-02-69	2000	733	540	6.7	--	18.0	20
		11-18-69	1150	--	320	7.8	--	5.5	--
		12-09-69	1127	--	300	8.0	--	3.5	--
		01-05-70	1130	--	180	7.1	--	1.0	--
		02-02-70	1235	--	150	7.9	--	5.5	--
		03-10-70	1055	--	160	7.6	--	5.0	--
		04-06-70	1040	--	150	7.6	--	5.0	--
		05-04-70	1125	--	210	7.4	--	17.0	--
		06-02-70	1107	--	340	7.9	--	25.5	--
		07-28-70	1155	--	310	7.9	--	28.0	--
		08-19-70	0955	--	380	8.1	--	25.5	--
		09-15-70	1215	--	340	8.3	--	25.0	--
		10-08-70	1640	390	430	8.7	--	18.5	3
		11-19-70	1242	--	190	7.3	--	8.0	--
		12-09-70	1120	--	265	7.2	--	1.5	--
		01-04-71	1636	--	230	7.8	--	.5	--
		02-09-71	1430	--	190	7.7	--	.0	--
		03-09-71	1140	--	150	7.4	--	2.5	--
		04-05-71	1442	--	218	7.7	--	10.0	--
		04-07-71	0934	--	227	7.2	--	6.0	--
		05-03-71	1426	--	314	8.1	--	12.0	--
		06-14-71	1407	--	225	8.0	--	23.0	--
		07-12-71	1530	--	365	8.3	--	27.0	--
		08-18-71	1115	--	355	8.1	--	24.0	--
		09-23-71	1005	3950	220	7.2	--	19.0	5
		10-27-71	1307	--	165	7.0	--	16.0	--
		11-22-71	1258	--	290	7.1	--	5.0	--
		12-15-71	1215	--	195	7.0	--	7.0	--
		01-11-72	1233	--	195	7.2	--	5.0	--
		02-07-72	1155	--	205	7.3	--	.0	--
		03-13-72	1315	--	205	6.7	--	6.5	--
		04-03-72	1310	--	230	6.9	--	8.0	--
		05-01-72	1240	--	210	7.2	--	17.0	--
		06-05-72	1305	--	245	7.9	--	23.5	--
		12-09-75	1415	1490	270	7.8	--	3.5	3
		02-23-76	1730	6400	180	8.1	--	7.0	1
		06-16-76	1120	784	330	7.7	28.0	26.5	1
		07-22-76	1115	752	360	7.3	--	23.5	--
		08-27-76	1350	464	430	8.0	--	26.0	4

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
--	--	110	48	27	9.3	20	3.6	160	24	30	01610150
10.0	--	46	18	11	4.4	8.9	2.2	50	16	20	
--	--	180	110	47	16	45	5.0	90	20	80	
--	--	59	16	15	5.2	9.5	2.9	160	31	20	01610155
9.9	--	30	9	7.2	3.0	4.2	1.8	100	68	20	
--	--	46	7	11	4.4	6.3	2.5	130	47	30	
--	--	33	5	7.8	3.3	3.3	2.5	1200	690	90	01610170
8.8	--	26	11	5.8	2.9	3.6	1.9	200	98	20	
--	--	39	0	8.8	4.1	3.5	2.5	870	200	210	
--	--	220	0	62	15	5.7	1.7	--	--	50	01612500
--	--	120	81	28	12	18	2.7	140	11	1400	
7.8	--	91	65	20	10	22	2.6	90	12	2000	
--	--	220	170	51	22	33	3.5	80	15	1700	
--	--	91	42	27	5.8	7.0	2.2	500	--	150	01613000
--	--	46	25	12	3.9	1.8	2.8	ND	--	ND	
--	--	110	49	34	7.3	8.0	2.4	100	--	ND	
--	--	160	86	50	8.8	--	--	--	--	--	
9.1	--	--	--	--	--	--	--	--	--	--	
7.8	--	--	--	--	--	--	--	--	--	--	
9.1	--	--	--	--	--	--	--	--	--	--	
7.9	1.0	180	130	--	--	--	--	--	30	--	
11.5	--	--	--	--	--	--	--	--	--	--	
13.2	--	--	--	--	--	--	--	--	--	--	
12.8	--	--	--	--	--	--	--	--	--	--	
12.5	--	--	--	--	--	--	--	--	--	--	
11.8	--	--	--	--	--	--	--	--	--	--	
11.2	--	--	--	--	--	--	--	--	--	--	
8.2	--	--	--	--	--	--	--	--	--	--	
8.3	--	--	--	--	--	--	--	--	--	--	
8.3	--	--	--	--	--	--	--	--	--	--	
8.4	--	--	--	--	--	--	--	--	--	--	
9.6	--	--	--	--	--	--	--	--	--	--	
10.1	1.3	170	110	--	--	--	--	--	ND	--	
11.7	--	--	--	--	--	--	--	--	--	--	
13.4	--	--	--	--	--	--	--	--	--	--	
13.5	--	--	--	--	--	--	--	--	--	--	
13.2	--	--	--	--	--	--	--	--	--	--	
12.6	--	--	--	--	--	--	--	--	--	--	
11.8	--	--	--	--	--	--	--	--	--	--	
12.1	--	--	--	--	--	--	--	--	--	--	
11.2	--	--	--	--	--	--	--	--	--	--	
9.1	--	--	--	--	--	--	--	--	--	--	
10.0	--	--	--	--	--	--	--	--	--	--	
8.3	--	--	--	--	--	--	--	--	--	--	
9.1	.4	88	36	--	--	--	--	--	50	--	
9.4	--	--	--	--	--	--	--	--	--	--	
10.4	--	--	--	--	--	--	--	--	--	--	
11.4	--	--	--	--	--	--	--	--	--	--	
11.2	--	--	--	--	--	--	--	--	--	--	
12.6	--	--	--	--	--	--	--	--	--	--	
10.4	--	--	--	--	--	--	--	--	--	--	
10.2	--	--	--	--	--	--	--	--	--	--	
9.7	--	--	--	--	--	--	--	--	--	--	
10.2	--	--	--	--	--	--	--	--	--	--	
--	--	130	55	38	7.5	11	1.7	310	--	70	
--	--	68	37	20	4.5	4.6	1.6	640	--	110	
--	--	130	69	41	6.7	9.0	1.8	120	<10	50	
--	--	--	--	--	--	--	--	--	--	--	
--	--	160	83	50	7.8	18	2.4	220	<10	90	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01610150	Bear Creek at Forest Park	08-28-85	26	71	58	1.4	28	46	<0.10
		05-13-86	9	34	28	.9	17	16	< .10
		08-26-86	53	94	77	3.8	42	120	< .10
01610155	Sideling Hill Creek near Bellegrove	08-28-85	17	52	43	1.3	17	17	< .10
		05-13-86	9	26	21	1.6	14	6.9	< .10
		08-26-86	16	47	39	1.5	12	8.2	< .10
01610170	Potomac River Tributary at Woodmont	08-28-85	20	34	28	3.4	7.3	5.5	< .10
		05-13-86	10	18	15	4.5	19	5.7	< .10
		08-26-86	68	61	50	3.9	4.1	4.7	< .10
01612500	Little Tonoloway Creek near Hancock	06-20-66	--	200	164	10	57	11	.20
		08-28-85	1300	46	38	1.8	76	32	< .10
		05-29-86	2	32	26	4.0	56	44	< .10
		08-26-86	1600	62	51	12	130	68	< .10
01613000	Potomac River at Hancock	01-09-61	--	60	49	6.0	43	11	.10
		02-20-61	--	26	21	52	26	2.0	ND
		08-21-61	--	80	66	5.1	51	8.0	.10
		08-09-65	--	92	75	.6	100	51	--
		07-21-69	--	--	--	--	--	--	--
		08-18-69	--	--	--	--	--	--	--
		09-01-69	--	--	--	--	--	--	--
		10-02-69	300	69	57	1.4	110	54	.20
		11-18-69	--	--	--	--	--	--	--
		12-09-69	--	--	--	--	--	--	--
		01-05-70	--	--	--	--	--	--	--
		02-02-70	--	--	--	--	--	--	--
		03-10-70	--	--	--	--	--	--	--
		04-06-70	--	--	--	--	--	--	--
		05-04-70	--	--	--	--	--	--	--
		06-02-70	--	--	--	--	--	--	--
		07-28-70	--	--	--	--	--	--	--
		08-19-70	--	--	--	--	--	--	--
		09-15-70	--	--	--	--	--	--	--
		10-08-70	40	70	61	.4	110	33	.20
		11-19-70	--	--	--	--	--	--	--
		12-09-70	--	--	--	--	--	--	--
		01-04-71	--	--	--	--	--	--	--
		02-09-71	--	--	--	--	--	--	--
		03-09-71	--	--	--	--	--	--	--
		04-05-71	--	--	--	--	--	--	--
		04-07-71	--	--	--	--	--	--	--
		05-03-71	--	--	--	--	--	--	--
		06-14-71	--	--	--	--	--	--	--
		07-12-71	--	--	--	--	--	--	--
		08-18-71	--	--	--	--	--	--	--
		09-23-71	76	63	52	5.0	37	6.2	.10
		10-27-71	--	--	--	--	--	--	--
		11-22-71	--	--	--	--	--	--	--
		12-15-71	--	--	--	--	--	--	--
		01-11-72	--	--	--	--	--	--	--
		02-07-72	--	--	--	--	--	--	--
		03-13-72	--	--	--	--	--	--	--
		04-03-72	--	--	--	--	--	--	--
		05-01-72	--	--	--	--	--	--	--
		06-05-72	--	--	--	--	--	--	--
		12-09-75	--	86	71	2.2	62	21	.10
		02-23-76	--	38	31	.5	37	8.1	.10
		06-16-76	6	74	61	2.3	65	17	.10
		07-22-76	--	--	--	--	--	--	--
		08-27-76	<10	90	74	1.4	84	33	.10

Silica, dis-solved (mg/L)	Solids, residue at 180 deg. C, dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Solids, dis-solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis-solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro-gen, total (mg/L as N)	Phos-phorus, total (mg/L as P)	Phos-phate, total (mg/L as PO_4)	Station No.
3.3	198	170	0.16	--	--	0.50	--	0.040	--	01610150
2.7	84	79	.32	--	--	.30	--	< .010	--	
4.6	355	330	.04	--	--	.60	--	.010	--	
1.4	102	93	.88	--	--	.20	--	.040	--	01610155
3.6	53	54	1.9	--	--	< .10	--	.010	--	
1.1	74	69	.11	--	--	< .10	--	< .010	--	
6.6	66	53	.05	--	--	.30	--	.040	--	01610170
6.6	53	54	.07	--	--	.30	--	.010	--	
7.8	61	66	.01	--	--	.30	--	.020	--	
4.0	--	250	--	--	--	--	--	--	ND	01612500
7.4	246	200	.60	--	--	.70	--	.040	--	
7.8	193	180	.77	--	--	.60	--	< .010	--	
9.7	368	350	13	--	--	.90	--	< .010	--	
4.6	139	130	1070	--	--	--	--	--	--	01613000
3.9	71	65	10700	--	--	--	--	--	--	
3.8	157	150	243	--	--	--	--	--	--	
--	316	--	333	--	--	--	--	--	.04	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	343	--	679	--	--	--	--	.100	--	
--	--	--	--	--	--	--	--	--	--	
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--	328	--	345	--	--	--	--	.013	--	
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--	150	--	1600	--	--	--	--	.110	--	
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2.0	--	190	747	--	--	.35	--	.040	--	
5.2	--	100	1720	--	--	.70	--	.040	--	
2.6	220	180	466	--	--	--	--	.030	--	
--	--	--	--	--	--	--	--	--	--	
2.3	280	240	351	--	--	.02	--	.040	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01613000	Potomac River at Hancock	08-31-76	1630	616	535	8.7	25.0	24.5	--
		10-07-76	1425	3640	220	7.5	--	16.0	--
		12-23-76	1005	2600	260	7.8	-2.0	.0	--
		03-21-77	1355	7990	180	7.6	--	6.0	--
		04-13-77	1235	6280	225	7.7	28.0	14.5	5
		05-27-77	1425	1080	310	7.9	27.0	26.0	--
		06-23-77	1000	616	460	7.9	18.5	21.5	--
		07-07-77	1245	414	440	7.1	32.0	30.5	10
		08-23-77	1220	471	400	8.1	20.0	23.0	--
		09-22-77	1145	379	580	8.0	17.0	20.0	--
		02-22-78	1020	1500	300	7.0	-4.5	1.0	--
		03-23-78	1030	24600	140	7.6	18.0	7.5	10
		04-05-78	1045	8410	210	7.7	--	10.0	10
		06-27-78	1440	1140	440	9.0	30.0	27.5	--
		12-14-78	1030	--	200	8.2	--	2.5	20
		06-13-80	1500	3800	225	7.7	27.0	20.5	0
01613100	Tonoloway Creek at Hancock	09-18-85	1200	1.4	443	7.4	22.0	15.0	10
		05-29-86	1815	32	140	7.4	25.5	23.0	--
		08-26-86	1530	2.3	395	8.9	31.0	25.0	15
01613150	Ditch Run near Hancock	08-28-85	1615	.39	150	7.7	22.0	21.5	10
		05-29-86	1500	.87	126	7.0	25.0	20.0	10
01613540	Lanes Run near Forsythe	08-29-85	1540	1.9	145	8.3	27.0	22.0	5
		05-12-86	1430	2.3	115	8.0	20.0	17.5	5
01613545	Licking Creek near Pecktonville	09-18-85	1830	15	323	8.4	19.5	17.5	10
		05-12-86	1815	82	230	8.0	22.0	18.0	5
01614050	Little Conococheague Creek near Charlton	08-29-85	1815	4.0	390	8.5	24.5	21.0	10
		04-03-86	1515	13	327	8.6	21.0	15.5	5
		08-22-86	1100	3.6	428	8.2	22.0	20.0	5
01614500	Conococheague Creek at Fairview	10-06-48	--	--	307	8.5	--	12.0	5
		10-13-48	--	--	297	8.3	--	13.0	7
		10-20-48	--	--	251	7.1	--	9.5	15
		10-27-48	--	--	312	8.4	--	11.0	8
		11-03-48	--	--	343	7.8	--	10.0	5
		11-10-48	--	--	261	7.8	--	11.0	5
		11-17-48	--	--	286	8.3	--	8.0	5
		11-24-48	--	--	224	7.8	--	8.0	20
		12-01-48	--	--	222	7.4	--	5.0	5
		12-08-48	--	--	229	7.5	--	6.5	5
		12-15-48	--	--	266	7.7	--	6.0	1
		01-05-49	--	--	237	7.3	--	4.5	7
		01-12-49	--	--	259	7.3	--	5.5	5
		01-19-49	--	--	292	7.6	--	7.0	5
		01-26-49	--	--	219	7.7	--	6.0	10
		02-09-49	--	--	231	7.8	--	5.0	5
		02-16-49	--	--	250	7.9	--	9.0	6
		02-23-49	--	--	210	7.9	--	7.0	8
		03-09-49	--	--	275	7.8	--	6.5	5
		03-16-49	--	--	294	7.8	--	4.0	5
		03-23-49	--	--	281	8.2	--	13.5	5
		03-30-49	--	--	284	8.1	--	13.5	10
		04-06-49	--	--	262	7.6	--	9.0	5
		04-13-49	--	--	238	7.7	--	10.5	5
		04-20-49	--	--	205	7.8	--	11.5	7
		04-27-49	--	--	233	8.0	--	16.5	7
		05-04-49	--	--	212	7.6	--	20.0	5
		05-11-49	--	--	237	7.8	--	14.5	5
		05-18-49	--	--	200	8.6	--	22.0	5
		05-25-49	--	--	225	7.7	--	17.0	8
		06-01-49	--	--	254	8.2	--	19.0	7

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
12.0	--	--	--	--	--	--	--	200	--	60	01613000
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	92	54	28	5.4	4.8	1.5	660	20	80	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	180	120	57	9.4	15	2.2	90	<10	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	54	31	16	3.3	4.0	1.4	5800	20	210	
--	--	76	42	22	5.0	5.1	1.3	1000	30	110	
--	--	--	--	--	--	--	--	--	--	--	
--	--	68	38	20	4.3	5.4	1.9	1800	120	100	
9.7	--	90	49	27	5.5	6.0	1.4	440	30	70	
--	--	150	44	42	11	17	4.0	100	14	20	01613100
9.1	--	--	--	--	--	--	--	--	--	--	
--	--	150	51	42	11	10	4.3	220	11	100	
--	--	46	13	11	4.5	8.1	4.5	320	74	50	01613150
8.1	--	46	19	11	4.4	5.9	3.9	120	67	30	
--	--	65	6	20	3.6	2.5	1.5	180	47	<10	01613540
9.6	--	59	9	18	3.3	2.4	1.3	50	19	10	
--	--	150	5	39	12	3.6	2.3	120	15	40	01613545
9.4	--	110	15	30	8.9	3.3	1.6	140	24	20	
--	--	180	17	57	10	6.0	3.1	210	14	<10	01614050
10.6	--	160	20	49	9.2	5.5	2.0	160	14	30	
--	--	190	16	58	11	5.6	5.3	1100	21	70	
16.0	5.4	230	76	--	--	--	--	--	--	--	01614500
13.6	6.8	220	80	--	--	--	--	--	--	--	
12.2	3.0	110	41	36	6.0	--	--	140	--	--	
15.1	9.1	210	56	--	--	--	--	--	--	--	
10.8	1.8	230	71	--	--	--	--	--	--	--	
12.0	2.4	220	100	--	--	--	--	--	--	--	
14.6	3.6	150	21	42	10	--	--	90	--	--	
9.8	1.9	180	89	--	--	--	--	--	--	--	
10.6	2.6	100	22	--	--	--	--	--	--	--	
10.5	1.7	110	18	--	--	--	--	--	--	--	
10.4	3.1	140	20	42	9.2	--	--	90	--	--	
10.4	3.0	120	23	--	--	--	--	--	--	--	
9.9	1.9	150	37	--	--	--	--	--	--	--	
10.2	2.2	150	18	--	--	--	--	--	--	--	
10.2	2.7	110	21	32	7.3	--	--	190	--	--	
11.2	2.0	120	30	--	--	--	--	--	--	--	
10.6	1.4	140	32	--	--	--	--	--	--	--	
11.1	2.3	100	18	31	5.9	--	--	270	--	--	
11.2	2.1	130	13	--	--	--	--	--	--	--	
12.7	2.9	150	24	--	--	--	--	--	--	--	
10.7	1.5	140	15	44	8.5	--	--	100	--	--	
12.3	1.7	160	29	--	--	--	--	--	--	--	
11.1	3.5	140	26	--	--	--	--	--	--	--	
10.3	3.2	130	22	--	--	--	--	--	--	--	
12.4	2.2	100	15	31	6.0	--	--	170	--	--	
10.4	1.8	100	3	--	--	--	--	--	--	--	
9.7	1.9	100	8	--	--	--	--	--	--	--	
10.8	1.5	120	10	--	--	--	--	--	--	--	
10.8	1.8	100	9	28	8.3	--	--	70	--	--	
9.5	1.6	110	20	--	--	--	--	--	--	--	
12.9	1.3	120	8	--	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01613000	Potomac River at Hancock	08-31-76	--	--	--	--	--	--	--
		10-07-76	--	--	--	--	--	--	--
		12-23-76	--	--	--	--	--	--	--
		03-21-77	--	--	--	--	--	--	--
		04-13-77	50	46	38	1.5	42	7.5	< .10
		05-27-77	--	--	--	--	--	--	--
		06-23-77	--	--	--	--	--	--	--
		07-07-77	<10	81	66	10	94	27	.10
		08-23-77	--	--	--	--	--	--	--
		09-22-77	--	--	--	--	--	--	--
		02-22-78	--	--	--	--	--	--	--
		03-23-78	80	28	23	1.1	26	5.7	.10
		04-05-78	90	42	34	1.3	36	8.4	.10
		06-27-78	--	--	--	--	--	--	--
		12-14-78	80	37	30	.4	37	5.9	< .10
		06-13-80	20	50	41	1.6	45	7.7	.10
01613100	Tonoloway Creek at Hancock	09-18-85	12	129	106	8.2	60	28	.10
		05-29-86	--	50	41	3.2	--	--	--
		08-26-86	11	--	99	.2	53	13	.10
01613150	Ditch Run near Hancock	08-28-85	44	40	33	1.3	18	13	< .10
		05-29-86	18	33	27	5.2	18	9.1	< .10
01613540	Lanes Run near Forsythe	08-29-85	12	--	59	.6	7.3	3.4	< .10
		05-12-86	6	61	50	1	9.4	3.7	< .10
01613545	Licking Creek near Pecktonville	09-18-85	5	--	142	1.1	16	6.8	< .10
		05-12-86	11	118	97	1.9	13	6.0	.20
01614050	Little Conococheague Creek near Charlton	08-29-85	12	--	167	1.0	15	15	.10
		04-03-86	17	--	140	.7	16	7.8	.10
		08-22-86	25	212	174	2.1	14	10	.20
01614500	Conococheague Creek at Fairview	10-06-48	--	170	156	.9	--	--	--
		10-13-48	--	170	139	1.4	--	--	--
		10-20-48	--	90	74	11	31	9.0	ND
		10-27-48	--	170	151	1.1	--	--	--
		11-03-48	--	200	161	4.9	--	--	--
		11-10-48	--	140	116	3.6	--	--	--
		11-17-48	--	150	125	1.2	20	8.0	ND
		11-24-48	--	110	94	2.9	--	--	--
		12-01-48	--	100	82	6.3	--	--	--
		12-08-48	--	110	92	5.6	--	--	--
		12-15-48	--	150	123	4.8	18	4.0	ND
		01-05-49	--	120	96	9.3	--	--	--
		01-12-49	--	130	110	11	--	--	--
		01-19-49	--	160	128	6.2	--	--	--
		01-26-49	--	110	89	3.4	18	4.0	.10
		02-09-49	--	120	95	2.9	--	--	--
		02-16-49	--	130	108	2.6	--	--	--
		02-23-49	--	100	84	2.0	16	4.0	ND
		03-09-49	--	140	118	3.6	--	--	--
		03-16-49	--	160	128	3.9	--	--	--
		03-23-49	--	160	130	1.6	15	5.0	ND
		03-30-49	--	160	130	2.0	--	--	--
		04-06-49	--	140	112	5.4	--	--	--
		04-13-49	--	130	107	4.1	--	--	--
		04-20-49	--	110	87	2.7	15	5.0	.10
		04-27-49	--	120	100	1.9	--	--	--
		05-04-49	--	120	94	4.6	--	--	--
		05-11-49	--	130	107	3.3	--	--	--
		05-18-49	--	100	95	.4	12	4.0	.20
		05-25-49	--	110	92	3.6	--	--	--
		06-01-49	--	130	109	1.3	--	--	--

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
--	--	--	--	0.400	--	0.41	0.94	0.070	--	01613000
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.5	131	120	2220	--	--	.57	--	.020	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
1.8	327	250	366	--	--	.01	--	< .010	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.6	93	76	6180	--	--	.95	--	.090	--	
5.7	121	100	2750	--	--	.85	--	.030	--	
--	--	--	--	--	--	--	--	--	--	
6.8	108	100	--	--	--	.83	--	.080	--	
3.3	141	120	1450	--	--	.46	--	.020	--	
.4	279	220	1.1	--	--	.50	--	.900	--	01613100
--	--	--	--	--	--	--	--	--	--	
2.0	216	200	1.4	--	--	.40	--	.200	--	
4.6	97	84	.10	--	--	.30	--	.050	--	01613150
5.3	84	74	.20	--	--	1.00	--	.020	--	
7.2	82	80	.42	--	--	2.40	--	.010	--	01613540
5.8	76	74	.47	--	--	.40	--	< .010	--	
3.5	178	160	7.2	--	--	.30	--	.020	--	01613545
1.3	126	120	28	--	--	.90	--	.010	--	
7.2	237	210	2.6	--	--	.30	--	.120	--	01614050
4.4	176	180	6.3	--	--	3.20	--	.020	--	
8.7	234	220	2.2	--	--	3.00	--	.120	--	
--	--	--	--	--	--	--	--	--	--	01614500
--	--	--	--	--	--	--	--	--	--	
5.0	163	--	143	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
.4	165	--	61	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
6.0	167	--	183	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
9.0	132	--	460	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
2.6	125	--	547	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
1.2	159	--	169	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
4.6	119	--	191	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
2.8	118	--	80	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01614500	Conococheague Creek at Fairview	06-08-49	--	--	284	8.4	--	20.5	5
		06-15-49	--	--	293	8.2	--	24.5	8
		06-22-49	--	--	220	7.8	--	25.0	10
		06-29-49	--	--	258	8.0	--	22.0	5
		07-06-49	--	--	274	8.0	--	28.5	8
		07-13-49	--	--	216	7.3	--	21.0	35
		07-20-49	--	--	200	7.4	--	24.5	30
		07-27-49	--	--	292	7.8	--	24.5	20
		08-03-49	--	--	315	7.9	--	26.0	5
		08-10-49	--	--	324	8.2	--	26.0	10
		08-17-49	--	--	333	8.3	--	24.0	5
		08-24-49	--	--	336	8.2	--	23.0	8
		08-31-49	--	--	252	7.9	--	21.5	15
		09-07-49	--	--	352	7.8	--	18.0	5
		09-14-49	--	--	364	7.7	--	21.5	5
		09-21-49	--	--	332	8.2	--	17.0	15
		09-28-49	--	--	339	7.8	--	17.0	10
		10-05-49	--	--	328	8.3	--	17.0	--
		10-12-49	--	--	322	8.2	--	20.0	--
		10-19-49	--	--	350	8.1	--	13.5	10
		10-26-49	--	--	337	8.4	--	9.5	--
		11-02-49	--	--	269	7.8	--	11.5	10
		11-16-49	--	--	306	8.1	--	6.5	20
		11-23-49	--	--	319	8.1	--	1.5	10
		11-30-49	--	--	264	7.7	--	4.5	45
		12-14-49	--	--	217	7.4	--	4.5	25
		01-04-50	--	--	239	7.5	--	8.5	8
		01-11-50	--	--	242	7.7	--	6.0	6
		01-25-50	--	--	276	8.0	--	8.5	15
		02-08-50	--	--	252	7.6	--	5.0	9
		02-15-50	--	--	175	7.7	--	4.0	50
		02-22-50	--	--	259	7.6	--	4.0	7
		03-15-50	--	--	233	7.8	--	4.0	9
		03-22-50	--	--	210	7.6	--	6.0	25
		03-29-50	--	--	195	7.8	--	9.5	20
		04-05-50	--	--	240	7.7	--	10.5	5
		04-12-50	--	--	271	7.9	--	9.0	7
		04-19-50	--	--	278	8.3	--	13.5	6
		04-26-50	--	--	226	7.4	--	11.0	13
		05-03-50	--	--	210	7.4	--	13.5	5
		05-10-50	--	--	230	7.3	--	15.0	5
		05-17-50	--	--	190	7.4	--	17.0	4
		05-24-50	--	--	187	7.5	--	15.5	25
		05-31-50	--	--	224	7.2	--	16.5	8
		06-07-50	--	--	251	7.3	--	19.0	5
		06-14-50	--	--	285	7.5	--	19.0	5
		06-21-50	--	--	302	7.8	--	19.5	5
		06-28-50	--	--	311	8.1	--	26.0	5
		07-05-50	--	--	317	8.2	--	22.5	5
		07-19-50	--	--	282	7.9	--	2.5	7
		07-26-50	--	--	318	7.9	--	21.5	7
		08-02-50	--	--	336	7.7	--	2.5	5
		08-09-50	--	--	350	7.8	--	21.5	5
		08-16-50	--	--	351	7.3	--	20.5	8
		08-23-50	--	--	293	7.6	--	18.5	10
		08-30-50	--	--	348	8.0	--	24.0	10
		09-06-50	--	--	294	7.2	--	17.0	5
		09-13-50	--	--	237	7.0	--	17.0	20
		09-20-50	--	--	340	7.7	--	16.5	7
		09-27-50	--	--	315	7.5	--	11.5	4
		02-20-61	--	--	239	7.2	--	--	9
		08-28-63	1400	--	382	8.6	--	24.0	7
		10-14-63	1045	--	420	6.9	--	10.5	60
		03-11-64	1050	--	195	8.1	--	8.0	--
		06-24-64	--	--	349	7.2	--	26.0	5
		09-17-64	--	--	415	7.5	--	21.5	--
		08-09-65	--	135	355	8.3	--	--	--

Oxygen, dis- solved (mg/L)	Biochem- ical oxygen demand, 5 day (mg/L)	Hard- ness, (mg/L as $CaCO_3$)	Non- carbon- ate hard- ness, total (mg/L as $CaCO_3$)	Cal- cium, dis- solved (mg/L)	Magne- sium, dis- solved (mg/L)	Sodium, dis- solved (mg/L)	Potas- sium, dis- solved (mg/L)	Iron, total recov- erable (µg/L)	Iron, dis- solved (µg/L)	Manga- nese, total recov- erable (µg/L)	Station No.
14.6	4.0	140	10	--	--	--	--	--	--	--	01614500
12.4	2.5	150	18	45	10	--	--	170	--	--	
7.8	1.2	110	15	--	--	--	--	--	--	--	
9.1	.4	120	3	--	--	--	--	--	--	--	
13.0	.8	140	8	--	--	--	--	--	--	--	
8.6	2.8	92	24	--	--	--	--	--	--	--	
6.6	.8	95	13	29	5.6	--	--	310	--	--	
8.1	1.1	140	12	--	--	--	--	--	--	--	
8.7	.2	150	19	--	--	--	--	--	--	--	
11.0	1.7	170	23	--	--	--	--	--	--	--	
10.8	1.2	170	19	51	10	--	--	100	--	--	
12.4	1.4	170	20	--	--	--	--	--	--	--	
8.4	1.5	130	22	--	--	--	--	--	--	--	
9.0	.9	170	15	--	--	--	--	--	--	--	
11.0	1.2	180	18	--	--	--	--	--	--	--	
11.5	1.2	170	29	49	12	--	--	160	--	--	
11.6	1.2	170	17	--	--	--	--	--	--	--	
13.6	.9	170	13	--	--	--	--	--	--	--	
11.9	1.3	160	9	--	--	--	--	--	--	--	
9.9	.7	180	13	51	12	--	--	40	--	--	
15.0	2.0	160	8	--	--	--	--	--	--	--	
11.2	6.2	120	0	--	--	--	--	--	--	--	
10.4	5.2	150	12	44	10	--	--	50	--	--	
15.5	5.9	160	17	--	--	--	--	--	--	--	
10.4	4.4	120	15	--	--	--	--	--	--	--	
10.6	3.1	95	18	28	6.1	--	--	100	--	--	
10.3	2.2	110	9	--	--	--	--	--	--	--	
11.7	2.6	110	11	--	--	--	--	--	--	--	
11.3	2.1	130	16	39	8.3	--	--	80	--	--	
11.6	1.5	120	11	--	--	--	--	--	--	--	
10.2	2.7	80	16	24	4.9	--	--	580	--	--	
11.8	2.3	120	6	--	--	--	--	--	--	--	
11.4	2.2	110	20	34	6.6	--	--	380	--	--	
9.7	3.4	98	16	--	--	--	--	--	--	--	
9.6	2.1	98	19	--	--	--	--	--	--	--	
9.4	2.1	120	19	--	--	--	--	--	--	--	
11.4	1.9	130	9	--	--	--	--	--	--	--	
13.3	2.2	140	18	42	9.3	--	--	50	--	--	
11.9	2.8	110	16	--	--	--	--	--	--	--	
8.8	1.7	97	12	--	--	--	--	--	--	--	
--	--	110	8	--	--	--	--	--	--	--	
8.0	1.1	84	7	--	--	--	--	--	--	--	
7.7	2.1	85	8	25	5.5	--	--	670	--	--	
8.2	.9	110	14	--	--	--	--	--	--	--	
8.4	1.1	130	17	--	--	--	--	--	--	--	
8.7	1.4	140	14	--	--	--	--	--	--	--	
8.7	.3	150	14	46	9.7	--	--	30	--	--	
11.1	1.3	160	10	--	--	--	--	--	--	--	
10.8	1.9	180	24	--	--	--	--	--	--	--	
9.5	1.1	150	24	43	9.7	--	--	60	--	--	
8.7	1.0	160	20	--	--	--	--	--	--	--	
--	--	160	16	--	--	--	--	--	--	--	
8.8	.6	170	18	--	--	--	--	--	--	--	
8.2	--	180	22	49	13	--	--	40	--	--	
8.5	1.4	160	40	--	--	--	--	--	--	--	
10.2	1.4	170	11	--	--	--	--	--	--	--	
8.8	2.0	140	17	--	--	--	--	--	--	--	
7.7	2.3	110	19	--	--	--	--	--	--	--	
8.0	3.8	170	19	49	11	--	--	90	--	--	
10.2	1.4	160	25	--	--	--	--	--	--	--	
--	--	110	28	37	4.7	2.6	2.2	10	--	--	
--	--	170	16	52	10	--	--	380	--	ND	
--	--	200	25	59	13	13	3.3	160	--	ND	
--	--	87	21	27	4.7	2.9	1.6	1100	--	100	
--	--	170	27	51	10	6.2	2.5	120	--	--	
--	--	200	19	58	13	14	3.0	700	--	ND	
--	--	160	26	49	9.4	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01614500	Conococheague Creek at Fairview	06-08-49	--	140	127	0.9	--	--	--
		06-15-49	--	170	136	1.7	16	4.0	ND
		06-22-49	--	110	92	2.8	--	--	--
		06-29-49	--	140	116	2.3	--	--	--
		07-06-49	--	160	130	2.5	--	--	--
		07-13-49	--	83	68	6.6	--	--	--
		07-20-49	--	100	82	6.3	16	4.0	.10
		07-27-49	--	160	131	4.0	--	--	--
		08-03-49	--	170	136	3.3	--	--	--
		08-10-49	--	170	143	1.7	--	--	--
		08-17-49	--	180	150	1.5	15	4.0	.10
		08-24-49	--	180	148	1.8	--	--	--
		08-31-49	--	130	106	2.6	--	--	--
		09-07-49	--	190	159	4.9	--	--	--
		09-14-49	--	200	162	6.3	--	--	--
		09-21-49	--	170	143	1.7	16	5.0	ND
		09-28-49	--	190	153	4.7	--	--	--
		10-05-49	--	190	153	1.5	--	--	--
		10-12-49	--	180	151	1.8	--	--	--
		10-19-49	--	200	164	2.5	14	6.5	ND
		10-26-49	--	190	156	1.2	--	--	--
		11-02-49	--	150	125	3.8	--	--	--
		11-16-49	--	170	139	2.1	18	6.0	ND
		11-23-49	--	180	145	2.2	--	--	--
		11-30-49	--	130	103	4.0	--	--	--
		12-14-49	--	94	77	5.9	25	3.5	ND
		01-04-50	--	120	98	6.0	--	--	--
		01-11-50	--	120	102	3.9	--	--	--
		01-25-50	--	140	116	2.3	16	5.5	ND
		02-08-50	--	130	107	5.2	--	--	--
		02-15-50	--	78	64	2.5	23	2.0	ND
		02-22-50	--	140	116	5.7	--	--	--
		03-15-50	--	110	92	2.8	24	3.0	ND
		03-22-50	--	100	82	4.0	--	--	--
		03-29-50	--	96	79	2.4	--	--	--
		04-05-50	--	120	101	3.9	--	--	--
		04-12-50	--	150	123	3.0	--	--	--
		04-19-50	--	150	125	1.2	13	5.0	ND
		04-26-50	--	110	94	7.2	--	--	--
		05-03-50	--	100	85	6.6	--	--	--
		05-10-50	--	120	102	9.9	--	--	--
		05-17-50	--	94	77	5.9	--	--	--
		05-24-50	--	94	77	4.7	17	3.5	ND
		05-31-50	--	110	94	11	--	--	--
		06-07-50	--	140	113	11	--	--	--
		06-14-50	--	160	130	7.9	--	--	--
		06-21-50	--	170	141	4.3	16	3.0	ND
		06-28-50	--	180	148	2.3	--	--	--
		07-05-50	--	190	154	1.9	--	--	--
		07-19-50	--	150	123	3.0	16	3.5	ND
		07-26-50	--	170	141	3.4	--	--	--
		08-02-50	--	180	146	5.6	--	--	--
		08-09-50	--	190	154	4.7	--	--	--
		08-16-50	--	190	154	15	14	7.5	ND
		08-23-50	--	140	118	5.7	--	--	--
		08-30-50	--	190	157	3.1	--	--	--
		09-06-50	--	150	123	15	--	--	--
		09-13-50	--	110	89	17	--	--	--
		09-20-50	--	180	149	5.8	19	5.5	ND
		09-27-50	--	160	131	8.0	--	--	--
		02-20-61	--	100	84	10	20	5.0	.20
		08-28-63	--	170	155	.7	24	20	.20
		10-14-63	--	220	176	43	22	18	.10
		03-11-64	--	80	66	1.0	17	5.0	.20
		06-24-64	--	170	142	17	20	10	.10
		09-17-64	--	220	179	11	24	22	.10
		08-09-65	--	160	135	1.3	24	17	--

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
--	--	--	--	--	--	--	--	--	--	01614500
3.8	181	--	66	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
8.2	135	--	693	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
3.0	200	--	81	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
1.6	188	--	57	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
3.4	211	--	59	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
3.4	189	--	73	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
12	140	--	210	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.9	165	--	152	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
9.1	120	--	210	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
6.5	147	--	244	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
2.9	172	--	173	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
7.2	136	--	595	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.5	190	--	186	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
6.6	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
1.3	217	--	73	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
7.1	212	--	147	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
7.9	152	130	900	--	--	--	--	--	--	
1.4	224	220	34	--	--	--	--	--	--	
.4	236	230	32	--	--	--	--	--	--	
6.6	119	100	681	--	--	--	--	--	--	
5.6	230	190	130	--	--	--	--	--	--	
.7	240	240	36	--	--	--	--	--	--	
--	221	--	81	--	--	--	--	--	.72	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01614500	Conococheague Creek at Fairview	10-19-65	--	99	405	7.2	--	14.0	--
		11-16-65	--	90	429	7.8	--	7.0	3
		12-28-65	--	75	396	6.9	--	.0	4
		03-16-66	--	502	302	7.5	--	9.0	--
		05-05-66	--	782	243	7.3	--	11.5	3
		06-14-66	--	123	350	7.8	--	18.0	7
		07-29-66	--	40	382	7.2	--	28.0	10
		09-08-66	--	27	480	7.6	--	20.5	7
		10-19-66	--	96	400	7.2	--	--	5
		12-07-66	--	221	328	7.4	--	--	3
		01-18-67	--	310	304	6.7	--	--	3
		03-01-67	--	270	329	8.3	--	--	4
		03-07-67	--	8070	180	7.5	--	--	7
		04-25-67	--	464	270	7.2	--	--	0
		06-07-67	--	282	327	8.2	--	--	0
		07-18-67	--	324	266	7.6	--	--	5
		08-20-67	--	155	430	8.4	--	--	5
		09-30-67	--	386	391	8.0	--	--	10
		10-30-67	1015	460	282	7.9	--	7.0	5
		11-09-67	--	--	306	7.9	--	4.0	4
		11-29-67	1040	244	303	8.0	--	3.0	5
		12-21-67	0915	680	325	8.5	--	6.0	0
		12-30-67	1145	412	370	8.1	--	2.0	5
		01-22-68	1150	1150	265	8.3	--	4.0	5
		01-30-68	1015	920	280	8.0	--	4.0	2
		02-29-68	1050	302	378	8.4	--	4.0	2
		03-06-68	0910	318	370	8.2	--	5.0	0
		03-30-68	1545	890	305	8.2	--	16.0	2
		04-15-68	1100	399	328	8.0	--	15.0	3
		05-24-68	1020	674	318	7.8	--	13.0	4
		06-30-68	0910	345	251	8.6	--	18.0	7
		07-10-68	1210	168	322	8.3	--	24.0	5
		07-29-68	0745	119	360	8.6	--	21.0	10
		08-22-68	1230	151	330	7.9	--	25.0	8
		08-30-68	0905	95	402	8.3	--	17.0	5
		09-29-68	0940	88	425	8.2	--	16.0	3
		10-03-68	1215	83	432	8.1	--	18.0	5
		10-30-68	0900	99	413	8.4	--	6.0	2
		11-19-68	1030	1770	244	7.5	--	8.0	10
		11-29-68	0920	318	337	8.1	--	8.0	2
		12-30-68	0940	270	365	8.1	--	1.0	0
		01-15-69	1130	200	376	7.9	--	.0	1
		01-29-69	1150	220	351	8.5	--	1.0	0
		02-07-69	1140	316	332	8.1	--	2.0	0
		02-26-69	1100	260	320	8.0	--	1.0	0
		03-11-69	1045	302	315	8.0	--	2.0	0
		03-30-69	1045	800	265	7.7	--	6.0	3
		04-02-69	1245	559	278	7.7	--	--	3
		04-29-69	0945	353	188	8.0	--	--	5
		06-23-69	1150	121	338	7.7	--	22.0	3
		07-15-69	1510	81	348	8.2	--	26.0	5
		09-10-69	1205	216	311	8.1	--	19.0	2
		10-30-69	1645	86	420	8.1	--	4.0	5
		12-18-69	1130	454	276	7.7	--	1.0	0
		01-14-70	1430	440	342	8.1	--	.0	1
		03-12-70	0930	812	274	8.2	--	5.5	3
		05-14-70	1200	512	333	7.8	--	19.5	2
		09-11-70	1450	153	417	8.2	--	20.5	0
		10-29-70	1455	170	369	7.9	--	11.5	5
		12-31-70	1400	890	333	8.0	--	2.0	0
		03-01-71	1350	2500	227	7.5	--	6.5	0
		04-19-71	1255	--	325	7.8	--	14.5	1
		06-03-71	1410	465	305	7.4	--	18.0	0
		06-14-71	1310	366	328	7.8	--	21.5	0
		07-12-71	1410	240	375	8.6	--	21.5	1
		07-14-71	1320	178	359	7.9	--	22.0	5

Oxygen, dis- solved (mg/L)	Biochem- ical oxygen demand, 5 day (mg/L)	Hard- ness, (mg/L as $CaCO_3$)	Non- carbon- ate hard- ness, total (mg/L as $CaCO_3$)	Cal- cium, dis- solved (mg/L)	Magne- sium, dis- solved (mg/L)	Sodium, dis- solved (mg/L)	Potas- sium, dis- solved (mg/L)	Iron, total recov- erable (µg/L)	Iron, dis- solved (µg/L)	Manga- nese, total recov- erable (µg/L)	Station No.
--	--	190	0	55	12	12	3.1	--	--	ND	01614500
--	--	190	0	53	14	14	3.1	--	--	ND	
--	--	180	0	54	10	12	2.6	--	--	ND	
--	--	140	0	42	9.4	5.0	1.6	--	--	ND	
--	--	110	0	34	6.3	4.6	1.6	--	--	10	
--	--	170	0	51	11	7.0	2.2	--	--	ND	
--	--	180	0	51	13	9.7	3.2	--	--	ND	
--	--	200	0	54	15	23	3.6	--	--	10	
--	--	190	34	57	12	11	3.6	10	--	10	
--	--	150	40	44	9.4	7.8	2.3	--	--	--	
--	--	140	35	41	8.5	7.6	2.2	--	--	--	
--	--	160	45	49	9.1	6.6	1.5	--	--	--	
--	--	74	30	23	4.0	4.2	2.7	ND	--	ND	
--	--	120	25	37	7.7	4.9	1.6	--	--	--	
--	--	160	35	48	10	5.5	1.9	--	--	--	
--	--	120	32	33	10	5.3	2.2	--	--	--	
--	--	200	45	60	13	8.4	2.3	--	--	--	
--	--	180	34	49	13	13	4.0	180	--	ND	
--	--	140	35	41	8.3	5.1	2.4	120	--	10	
--	--	150	34	44	9.1	6.1	2.0	--	ND	--	
--	--	150	34	44	8.8	6.3	2.0	60	--	10	
--	--	150	32	42	12	6.2	2.0	--	--	--	
--	--	170	35	49	12	5.4	1.6	120	--	ND	
--	--	120	35	32	8.8	5.4	2.4	140	--	50	
--	--	130	29	38	8.3	4.8	1.8	270	--	ND	
--	--	180	40	46	15	6.4	2.2	--	--	--	
--	--	170	31	46	14	7.6	2.1	50	--	20	
--	--	140	29	39	10	4.5	1.7	--	--	--	
--	--	160	34	48	9.8	4.6	1.8	120	--	10	
--	--	150	33	44	8.8	7.2	2.7	560	--	20	
--	--	120	24	35	8.3	5.2	2.3	80	--	50	
--	--	170	31	48	11	4.8	1.8	30	--	10	
--	--	180	24	52	12	9.0	2.6	30	--	10	
--	--	160	28	47	10	6.6	3.2	90	--	50	
--	--	200	34	59	13	7.7	2.7	40	--	ND	
--	--	200	32	60	13	12	3.2	60	--	ND	
--	--	210	35	61	13	8.8	3.1	--	--	--	
--	--	200	32	58	13	8.8	3.0	120	--	10	
--	--	110	36	32	6.6	5.4	3.4	1600	--	330	
--	--	160	35	48	9.8	6.8	2.1	80	--	ND	
--	--	180	41	52	11	8.0	2.2	60	--	ND	
--	--	200	53	67	8.1	6.7	2.0	--	--	--	
--	--	170	38	49	11	8.3	2.0	100	--	ND	
--	--	150	42	46	9.6	8.3	2.1	--	--	--	
--	--	150	38	43	9.2	8.3	2.0	120	--	30	
--	--	150	39	43	9.3	8.1	1.9	130	--	40	
--	--	120	37	36	7.7	5.6	2.0	80	--	ND	
--	--	120	28	37	7.8	4.6	1.8	130	--	10	
--	--	76	19	18	7.6	4.8	1.6	60	--	30	
--	--	150	26	43	9.8	9.1	2.4	120	--	40	
--	--	160	24	47	11	7.1	2.8	50	--	30	
--	--	140	22	40	9.9	6.5	2.8	--	--	--	
--	--	190	27	56	13	10	3.0	50	--	ND	
--	--	130	33	37	8.2	6.8	1.9	120	--	10	
--	--	160	36	46	10	7.4	1.8	90	--	20	
--	--	130	34	38	8.3	5.0	1.4	30	--	ND	
--	--	150	27	47	7.4	5.1	1.9	70	--	20	
--	--	210	36	62	13	7.0	2.7	30	--	10	
--	--	170	30	51	11	7.0	3.0	60	--	30	
--	--	160	37	48	9.8	4.7	1.7	130	--	10	
--	--	100	25	30	6.2	3.6	1.7	280	--	40	
--	--	160	30	46	10	5.8	1.9	30	--	ND	
--	--	140	30	42	8.7	5.6	2.1	220	--	40	
--	--	160	31	48	9.5	6.3	2.7	170	--	60	
--	--	190	33	56	12	5.8	2.7	50	--	ND	
--	--	180	27	52	11	5.6	2.1	80	--	ND	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01614500	Conococheague Creek at Fairview	10-19-65	--	190	156	19	30	14	0.20
		11-16-65	--	200	164	5.0	26	18	.10
		12-28-65	--	180	148	37	27	17	.20
		03-16-66	--	140	115	6.9	22	8.2	.20
		05-05-66	--	100	82	8.1	20	8.0	.10
		06-14-66	--	180	148	4.4	24	9.9	.10
		07-29-66	--	200	164	20	24	15	.30
		09-08-66	--	210	172	8.5	29	27	.20
		10-19-66	--	190	158	19	31	15	.10
		12-07-66	--	130	109	8.4	29	11	.10
		01-18-67	--	120	102	39	28	10	.10
		03-01-67	--	140	115	1.1	28	11	.20
		03-07-67	--	54	44	2.7	22	7.5	.20
		04-25-67	--	120	99	12	20	10	.10
		06-07-67	--	150	126	1.5	21	11	.10
		07-18-67	--	110	92	4.5	23	10	.20
		08-20-67	--	190	158	1.2	28	14	.20
		09-30-67	--	170	142	2.7	29	21	.20
		10-30-67	--	120	102	2.5	23	9.3	.10
		11-09-67	ND	140	113	2.8	24	10	.10
		11-29-67	--	140	112	2.2	22	11	.10
		12-21-67	--	140	122	.7	22	7.7	.10
		12-30-67	--	170	137	2.1	24	9.4	.20
		01-22-68	--	97	81	.8	23	10	.10
		01-30-68	--	120	100	1.9	24	9.2	.10
		02-29-68	--	160	137	1.0	24	12	.10
		03-06-68	--	170	142	1.7	19	11	.10
		03-30-68	--	130	110	1.3	21	8.3	.10
		04-15-68	--	150	126	2.4	20	9.0	.10
		05-24-68	--	140	113	3.5	21	13	.20
		06-30-68	--	110	98	.4	18	8.4	.10
		07-10-68	--	160	134	1.3	20	9.6	.20
		07-29-68	--	170	155	.7	22	14	.20
		08-22-68	--	160	131	3.2	24	12	.20
		08-30-68	--	200	167	1.6	25	14	.20
		09-29-68	--	210	171	2.1	29	18	.20
		10-03-68	--	210	171	2.6	24	15	.20
		10-30-68	--	190	166	1.2	25	15	.20
		11-19-68	--	87	71	4.4	28	9.1	.10
		11-29-68	--	150	125	1.9	25	12	.20
		12-30-68	--	160	134	2.1	27	14	.20
		01-15-69	--	180	148	3.6	23	25	.20
		01-29-69	--	150	130	.8	25	13	.20
		02-07-69	--	140	112	1.7	28	15	.20
		02-26-69	--	130	107	2.1	26	15	.20
		03-11-69	--	130	107	2.1	25	15	.20
		03-30-69	--	100	85	3.3	22	11	.10
		04-02-69	--	120	97	3.7	20	11	.10
		04-29-69	--	70	57	1.1	18	10	.10
		06-23-69	--	150	122	4.7	22	15	.20
		07-15-69	--	170	139	1.7	21	11	.20
		09-10-69	--	150	119	1.8	20	13	.20
		10-30-69	--	200	166	2.6	24	17	.20
		12-18-69	--	110	93	3.6	25	12	.10
		01-14-70	--	150	120	1.8	25	15	.10
		03-12-70	--	120	95	1.2	21	9.1	.10
		05-14-70	--	150	121	3.7	21	9.5	.10
		09-11-70	--	210	172	2.1	25	14	.20
		10-29-70	--	170	143	3.5	25	13	.20
		12-31-70	--	150	123	2.4	23	9.7	.10
		03-01-71	--	91	75	4.6	18	6.9	.10
		04-19-71	--	150	126	3.9	21	12	.20
		06-03-71	--	130	111	8.5	17	9.6	.20
		06-14-71	--	160	128	3.9	23	11	.20
		07-12-71	--	190	156	1.9	18	12	.20
		07-14-71	--	180	148	3.6	21	11	.10

Silica, dis-solved (mg/L)	Solids, residue at 180 deg. C, dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Solids, dis-solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis-solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro-gen, total (mg/L as N)	Phos-phorus, total (mg/L as P)	Phos-phate, total (mg/L as PO_4)	Station No.
2.8	231	220	62	--	--	--	--	--	0.27	01614500
.4	232	230	56	--	--	--	--	--	.49	
.6	215	210	44	--	--	--	--	--	.46	
1.8	192	160	260	--	--	--	--	--	.02	
5.8	145	130	306	--	--	--	--	--	.17	
3.8	227	200	75	--	--	--	--	--	.19	
4.2	215	220	23	--	--	--	--	--	.40	
.9	262	260	19	--	--	--	--	--	.44	
1.4	238	230	62	--	--	--	--	--	--	
7.3	208	180	124	--	--	--	--	--	--	
3.3	200	160	167	--	--	--	--	--	--	
3.8	212	180	155	--	--	--	--	--	--	
6.9	123	97	2680	--	--	--	--	--	--	
3.6	150	140	188	--	--	--	--	--	--	
2.3	187	180	142	--	--	--	--	--	--	
.6	147	140	129	--	--	--	--	--	--	
.6	244	220	102	--	--	--	--	--	--	
5.7	230	220	240	--	--	--	--	--	--	
8.6	--	160	197	--	--	--	--	--	--	
7.8	--	170	152	--	--	--	--	--	--	
3.3	--	160	109	--	--	--	--	--	--	
5.7	--	180	324	--	--	--	--	--	--	
6.2	--	190	211	--	--	--	--	--	--	
7.6	--	140	432	--	--	--	--	--	--	
6.4	--	150	379	--	--	--	--	--	--	
1.1	--	190	157	--	--	--	--	--	--	
.6	--	190	159	--	--	--	--	--	--	
5.0	--	160	374	--	--	--	--	--	--	
1.2	--	170	183	--	--	--	--	--	--	
7.9	--	170	314	--	--	--	--	--	--	
3.1	--	140	134	--	--	--	--	--	--	
1.7	--	180	82	--	--	--	--	--	--	
1.8	--	210	69	--	--	--	--	--	--	
7.3	--	190	77	--	--	--	--	--	--	
1.7	--	230	58	--	--	--	--	--	--	
1.3	--	240	57	--	--	--	--	--	--	
1.0	--	230	51	--	--	--	--	--	--	
5.3	--	240	63	--	--	--	--	--	--	
9.4	--	140	654	--	--	--	--	--	--	
5.9	--	180	158	--	--	--	--	--	--	
6.1	--	200	147	--	--	--	--	--	--	
3.0	--	220	121	--	--	--	--	--	--	
.2	--	190	113	--	--	--	--	--	--	
5.3	--	180	155	--	--	--	--	--	--	
1.8	--	170	119	--	--	--	--	--	--	
1.3	--	170	137	--	--	--	--	--	--	
6.1	--	140	306	--	--	--	--	--	--	
2.5	--	140	216	--	--	--	--	--	--	
.2	--	95	90	--	--	--	--	--	--	
7.5	--	180	60	--	--	--	--	--	--	
4.5	--	190	41	--	--	--	--	--	--	
7.2	--	170	100	--	--	--	--	--	--	
.6	--	220	52	--	--	--	--	--	--	
7.0	--	150	189	--	--	--	--	--	--	
5.5	--	180	217	--	--	--	--	--	--	
5.0	--	140	318	--	--	--	--	--	--	
4.4	--	170	234	--	--	--	--	--	--	
3.1	--	230	95	--	--	--	--	--	--	
5.9	--	200	93	--	--	--	--	--	--	
7.2	--	180	428	--	--	--	--	--	--	
6.8	--	120	797	--	--	--	--	--	--	
1.5	--	170	180	--	--	--	--	--	--	
6.9	--	160	199	--	--	--	--	--	--	
6.9	--	180	182	--	--	--	--	--	--	
2.2	--	200	131	--	--	--	--	--	--	
2.4	--	190	93	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01614500	Conococheague Creek at Fairview	08-16-71	1506	144	392	8.3	--	23.0	7
		09-09-71	1400	94	401	8.0	--	25.0	5
		10-19-71	1515	123	420	8.4	--	15.0	1
		10-27-71	1155	1770	251	7.5	--	15.0	18
		11-22-71	1152	215	390	8.2	--	6.0	2
		12-15-71	1110	1090	276	7.9	--	6.0	3
		01-11-72	1118	781	290	7.7	--	7.0	3
		02-07-72	1045	720	319	7.8	--	1.0	3
		03-13-72	1208	924	292	7.8	--	9.0	5
		03-22-72	1335	1150	268	7.5	--	8.5	5
		04-03-72	1201	703	279	8.4	--	10.0	5
		05-01-72	1135	848	259	7.8	--	15.0	0
		06-05-72	1150	746	296	8.0	--	19.0	--
		06-22-72	0630	11100	167	7.2	--	16.0	5
		07-21-72	1000	608	327	8.1	--	22.5	--
		08-28-72	1145	464	296	8.2	--	--	--
		09-27-72	1722	155	414	8.5	--	--	--
		10-18-72	1115	144	420	8.3	--	10.5	--
		11-14-72	1215	512	305	8.0	--	--	--
		12-11-72	1200	3260	250	7.9	--	6.5	--
		01-09-73	1220	920	298	8.0	--	1.0	--
		02-07-73	1130	1810	256	7.5	--	5.0	--
		03-12-73	1300	933	281	7.5	--	11.0	--
		04-03-73	1215	2390	207	7.2	--	10.0	--
		05-08-73	1140	914	289	7.8	--	--	--
		06-05-73	1200	998	270	7.5	--	21.5	--
		07-10-73	1100	527	356	8.1	--	22.0	--
		08-07-73	1130	213	375	8.2	--	23.0	--
		09-12-73	1145	175	400	8.3	--	19.0	10
		10-16-73	1120	270	400	7.9	--	14.0	--
		11-06-73	1120	782	280	8.0	--	6.0	--
		12-03-73	1215	267	330	8.5	--	3.0	--
		01-22-74	1140	3160	225	7.4	--	5.5	--
		03-11-74	1420	619	264	7.8	5.5	8.0	--
		07-05-74	1530	408	270	7.4	--	23.0	0
		07-29-74	1140	219	--	--	24.0	22.0	2
		08-28-74	1345	151	400	--	--	23.5	1
		10-07-74	1305	103	453	--	--	13.0	2
		11-11-74	1500	97	410	--	--	7.0	5
		12-16-74	1400	1280	--	--	6.5	4.5	20
		01-23-75	1350	591	--	--	--	5.0	9
		02-24-75	1345	3050	--	--	16.5	8.5	30
		04-09-75	1220	753	--	8.2	--	8.5	3
		05-13-75	1310	1020	--	8.0	21.0	16.0	3
		06-17-75	1600	735	322	8.2	26.0	21.0	2
		07-23-75	1220	274	--	8.6	--	23.5	2
		08-28-75	1235	162	--	8.3	--	21.0	2
		10-28-75	1255	895	360	--	20.0	13.5	--
		12-09-75	1310	395	420	8.3	--	4.0	2
		01-13-76	1225	628	350	8.2	--	2.0	1
		02-23-76	1350	921	260	8.3	2.5	6.5	1
		03-29-76	1330	761	250	8.2	12.0	10.0	8
		06-16-76	0930	230	360	8.1	--	22.5	1
		07-21-76	1250	201	380	8.4	25.0	23.5	--
		08-26-76	1625	132	400	8.6	--	26.0	6
		10-07-76	0940	593	320	7.6	16.0	14.0	--
		11-17-76	1140	465	360	8.3	8.0	4.5	--
		02-24-77	1030	358	350	8.1	11.5	4.0	0
		04-12-77	1300	1010	310	8.2	30.0	15.0	5
		05-26-77	1100	220	415	8.0	21.0	20.0	--
		07-13-77	1305	245	340	7.7	30.0	25.0	30
		08-23-77	0935	115	390	8.0	19.5	21.0	--
		10-07-77	1025	90	420	8.1	8.0	10.0	--
		11-22-77	1005	310	360	8.1	5.5	8.5	--
		02-23-78	1540	344	355	7.6	.5	2.0	--

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
--	--	180	30	53	11	9.9	2.4	60	--	ND	01614500
--	--	190	26	54	13	8.0	2.7	50	--	ND	
--	--	190	27	56	12	12	2.9	70	--	ND	
--	--	100	30	30	6.6	5.4	3.2	640	--	80	
--	--	170	29	51	11	9.0	2.3	120	--	10	
--	--	120	30	37	7.9	4.5	1.9	200	--	10	
--	--	130	30	38	8.1	5.7	2.2	200	--	10	
--	--	130	33	39	8.6	7.9	2.0	130	--	30	
--	--	140	32	42	8.5	4.3	1.7	ND	--	ND	
--	--	120	30	37	7.7	4.9	2.0	10	--	ND	
--	--	130	29	40	8.3	4.6	1.6	10	--	ND	
--	--	140	32	42	8.5	4.5	1.8	90	--	20	
--	--	150	35	44	9.8	4.3	1.6	150	--	ND	
--	--	68	20	21	3.7	2.7	3.4	--	--	--	
--	--	160	37	50	9.1	4.8	2.5	500	--	50	
--	--	200	42	59	12	6.7	2.8	280	--	30	
--	--	220	43	65	14	7.3	2.4	50	--	ND	
--	--	220	48	65	14	8.9	2.7	60	--	<10	
--	--	150	42	46	9.2	6.4	3.6	650	--	50	
--	--	110	38	34	6.2	4.3	2.0	<10	--	<10	
--	--	160	43	49	8.6	4.4	1.5	160	--	<10	
--	--	120	32	37	7.2	4.2	1.6	530	--	40	
--	--	140	37	42	8.3	4.7	1.8	190	--	<10	
--	--	96	28	29	5.7	4.2	1.7	840	--	100	
--	--	150	35	46	8.6	4.1	1.6	210	--	40	
--	--	130	30	41	7.8	3.8	1.8	370	--	50	
--	--	180	37	56	10	4.5	2.0	500	--	40	
9.8	--	200	35	59	12	5.3	2.3	600	--	20	
12.8	1.1	190	24	56	12	6.2	2.5	120	--	50	
9.9	--	190	31	56	13	6.5	2.7	1100	--	40	
11.5	--	140	25	41	9.5	4.4	2.3	240	--	20	
16.4	1.7	160	25	48	10	6.2	2.2	240	--	<10	
12.4	--	99	24	29	6.5	4.6	2.0	3700	--	170	
--	--	120	17	35	8.0	5.0	1.8	150	--	50	
--	--	150	49	42	10	5.0	2.1	490	--	300	
--	--	180	22	52	11	7.1	2.5	270	--	40	
--	--	190	25	59	11	7.2	2.5	90	--	<10	
--	--	200	28	60	13	10	3.1	140	--	20	
--	--	200	33	58	13	11	2.6	70	--	20	
--	--	120	31	34	7.9	5.2	2.7	3000	--	1800	
--	--	140	30	40	9.0	6.5	1.7	240	--	1000	
--	--	100	31	29	7.0	3.8	2.6	2000	--	150	
--	--	140	30	43	9.0	4.6	1.7	170	--	20	
--	--	120	15	35	7.1	3.8	1.7	490	--	30	
--	--	150	28	47	9.0	4.9	2.1	570	--	50	
--	--	190	31	56	11	6.4	2.3	250	--	20	
--	--	200	3	60	11	7.7	2.9	160	--	<10	
--	--	--	--	--	--	--	--	--	--	--	
--	--	170	24	51	11	4.6	2.0	160	--	<10	
--	--	150	18	45	10	4.4	1.8	160	--	20	
--	--	110	18	33	6.8	4.8	1.8	300	--	20	
--	--	110	22	32	7.3	5.3	3.4	600	--	40	
--	--	170	13	48	11	6.8	2.4	250	<10	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	190	38	54	14	9.1	2.7	240	<10	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	160	34	46	10	7.6	2.3	300	20	20	
--	--	160	46	47	9.5	4.6	1.9	500	30	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	150	36	42	10	7.0	4.2	4400	50	120	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01614500	Conococheague Creek at Fairview	08-16-71	--	180	148	1.4	25	16	0.10
		09-09-71	--	200	162	3.1	22	14	.20
		10-19-71	--	190	162	1.2	25	18	.20
		10-27-71	--	88	72	4.4	25	8.9	.20
		11-22-71	--	170	144	1.8	24	15	.10
		12-15-71	--	120	95	2.3	20	7.6	.20
		01-11-72	--	120	98	3.8	23	8.2	.10
		02-07-72	--	120	100	3.1	22	14	.10
		03-13-72	--	130	108	3.3	20	8.3	.10
		03-22-72	--	120	94	5.8	20	9.0	.10
		04-03-72	--	120	105	.7	19	7.8	.10
		05-01-72	--	130	108	3.3	19	8.0	.10
		06-05-72	--	140	115	2.2	17	7.5	.10
		06-22-72	--	58	48	5.8	15	5.6	.90
		07-21-72	--	150	125	1.9	21	11	.10
		08-28-72	--	190	155	1.9	23	11	.10
		09-27-72	--	210	177	1.1	23	12	.20
		10-18-72	--	210	172	1.7	23	14	.30
		11-14-72	--	130	111	2.1	26	12	.10
		12-11-72	--	88	72	1.8	21	7.7	< .10
		01-09-73	--	140	115	2.2	22	8.0	.10
		02-07-73	--	110	90	5.5	20	6.5	.10
		03-12-73	--	120	102	6.2	20	7.8	.10
		04-03-73	--	83	68	8.3	18	5.8	.10
		05-08-73	--	140	115	3.5	18	7.0	.30
		06-05-73	--	130	105	6.4	17	6.0	.20
		07-10-73	--	180	144	2.2	18	8.3	.30
		08-07-73	--	200	162	--	17	10	.20
		09-12-73	--	200	165	--	21	10	.30
		10-16-73	--	200	162	4.0	21	9.2	.30
		11-06-73	--	140	117	2.3	17	9.6	.30
		12-03-73	--	170	136	.8	16	9.3	.20
		01-22-74	--	91	75	5.8	19	7.1	.10
		03-11-74	--	130	103	3.2	18	8.8	.20
		07-05-74	--	120	97	7.5	18	7.6	.30
		07-29-74	--	190	153	--	15	20	--
		08-28-74	--	210	168	--	21	12	.30
		10-07-74	--	210	175	--	23	14	.20
		11-11-74	--	200	165	--	26	14	.20
		12-16-74	--	100	86	--	19	6.9	.10
		01-23-75	--	130	107	--	20	11	.10
		02-24-75	--	85	70	--	19	8.4	.30
		04-09-75	--	140	114	1.4	19	9.4	.30
		05-13-75	--	120	102	2.0	4.5	5.6	.10
		06-17-75	--	150	126	1.5	18	9.1	.10
		07-23-75	--	190	154	.8	19	9.2	.20
		08-28-75	--	230	192	1.9	23	11	.30
		10-28-75	--	--	--	--	--	--	--
		12-09-75	--	180	149	1.4	19	8.4	.10
		01-13-76	--	170	136	1.7	20	7.7	.20
		02-23-76	--	110	92	.9	18	8.8	< .10
		03-29-76	--	110	88	1.1	18	11	.10
		06-16-76	<10	180	152	2.3	17	10	.10
		07-21-76	--	--	--	--	--	--	--
		08-26-76	<10	190	155	.8	25	16	.10
		10-07-76	--	--	--	--	--	--	--
		11-17-76	--	--	--	--	--	--	--
		02-24-77	20	150	122	1.9	21	12	.10
		04-12-77	<10	130	110	1.3	18	8.0	.10
		05-26-77	--	--	--	--	--	--	--
		07-13-77	<10	140	110	4.4	21	11	.10
		08-23-77	--	--	--	--	--	--	--
		10-07-77	--	--	--	--	--	--	--
		11-22-77	--	--	--	--	--	--	--
		02-23-78	--	--	--	--	--	--	--

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
3.6	--	210	82	--	--	--	--	--	--	01614500
4.6	--	220	55	--	--	--	--	--	--	
1.9	--	240	78	--	1.90	--	--	--	--	
9.2	--	140	687	--	2.70	--	--	--	--	
3.3	--	210	124	--	2.50	--	--	--	--	
7.6	--	150	456	--	2.50	--	--	--	--	
5.7	--	160	340	--	2.50	--	--	--	--	
6.7	--	170	335	--	2.70	--	--	--	--	
6.1	--	170	414	--	2.30	--	--	--	--	
5.9	--	150	472	--	2.00	--	--	--	--	
3.3	--	160	307	--	1.80	--	--	--	--	
5.2	--	160	375	--	2.20	--	--	--	--	
5.8	--	170	340	--	2.20	--	--	--	--	
11	118	100	3540	2.30	2.30	--	--	--	--	
7.0	--	190	316	--	2.80	--	--	--	--	
4.9	--	230	283	--	3.10	--	--	--	--	
2.5	--	250	105	--	3.30	--	--	--	--	
1.3	--	250	95	--	2.90	--	--	--	--	
6.1	--	190	259	--	2.60	--	--	--	--	
7.9	--	150	1330	--	5.50	--	--	--	--	
7.1	--	180	455	--	3.10	--	--	--	--	
7.0	--	150	736	--	2.90	--	--	--	--	
5.7	--	160	415	--	3.00	--	--	--	--	
7.8	--	120	793	--	2.20	--	--	--	--	
4.8	--	170	421	--	2.60	--	--	--	--	
6.5	--	160	425	--	2.40	--	--	--	--	
6.0	--	210	293	--	3.30	--	--	--	--	
4.2	--	220	128	--	3.60	--	--	--	--	
.8	257	220	121	--	3.27	--	--	.130	--	
3.9	--	210	153	3.09	--	3.10	--	--	--	
6.7	--	160	340	2.69	--	2.70	--	--	--	
2.6	204	180	147	2.17	--	2.20	--	.100	--	
6.3	--	120	1020	2.34	--	2.40	--	--	--	
4.4	--	140	239	1.77	--	1.80	--	--	--	
5.5	--	150	164	--	--	6.70	--	.300	--	
2.4	--	200	119	--	--	2.60	--	.200	--	
2.9	--	220	88	--	--	2.80	--	.210	--	
.2	--	230	63	--	--	2.30	--	.180	--	
.2	--	220	59	--	--	1.50	--	.220	--	
6.9	--	130	464	--	--	2.30	--	.220	--	
6.4	--	160	253	--	--	2.60	--	.070	--	
6.2	--	120	973	--	--	2.10	--	.180	--	
4.9	--	160	326	--	--	2.50	--	.060	--	
4.6	--	120	340	--	--	1.70	--	.080	--	
7.0	--	170	343	--	--	3.00	--	.100	--	
3.7	--	200	148	--	--	3.10	--	.130	--	
3.6	--	230	103	--	--	3.10	--	.180	--	
--	--	--	--	--	--	--	--	--	--	
3.8	--	190	202	--	--	3.00	--	.130	--	
6.8	--	180	301	--	--	3.60	--	.080	--	
6.2	--	130	334	--	--	2.10	--	.080	--	
5.5	--	140	278	--	--	1.60	--	.110	--	
3.4	201	190	125	--	--	2.40	--	.170	--	
--	--	--	--	--	--	--	--	--	--	
1.7	220	220	78	--	--	2.20	--	.250	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
3.3	186	180	180	--	--	2.10	--	.160	--	
4.7	164	160	447	--	--	3.20	--	.060	--	
--	--	--	--	--	--	--	--	--	--	
6.7	203	170	134	--	--	2.90	--	.320	--	
--	--	--	--	--	--	--	--	--	--	
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Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01614500	Conococheague Creek at Fairview	04-05-78	1345	1270	310	8.2	--	10.5	10
		06-28-78	1650	281	395	8.4	27.5	26.5	--
		08-09-78	1205	575	260	8.1	25.0	23.0	--
		09-19-78	1115	165	410	8.4	27.0	23.0	10
		10-27-78	1145	102	450	8.3	13.5	11.0	30
		12-14-78	1200	361	360	8.0	1.0	2.0	10
		02-01-79	1115	990	310	8.2	.0	2.0	0
		03-20-79	1240	754	290	8.2	12.0	10.5	5
		05-09-79	1350	466	285	8.6	27.0	21.0	--
		06-13-80	1200	340	345	8.3	22.0	17.0	0
		01-20-81	1400	90	416	8.2	7.0	.0	<5
		04-27-81	1015	572	326	7.1	23.0	14.0	3
		08-28-81	1445	102	421	8.3	28.0	25.0	5
		12-08-81	1400	207	333	8.3	3.0	4.5	10
		04-20-82	1300	732	279	8.8	18.0	14.5	<1
		10-22-82	1045	109	444	8.4	8.0	9.0	10
		03-15-83	1030	582	288	7.0	13.0	9.0	--
		06-10-83	1045	398	379	8.1	19.5	17.5	--
		08-26-85	1615	153	423	8.7	24.0	23.0	15
		04-02-86	1515	528	300	8.9	20.5	17.0	--
		08-21-86	1400	138	440	8.3	--	22.0	10
01614525	Rockdale Run at Fairview	09-26-85	1015	2.1	414	8.0	14.5	12.0	5
		04-03-86	1400	12	408	8.7	22.0	17.0	5
		08-21-86	1530	4.5	468	8.1	19.0	18.0	--
01614575	Rush Run near Huyett	09-26-85	1330	1.3	706	7.8	22.0	14.0	15
		04-03-86	1640	6.6	605	7.9	19.5	15.0	7
		08-22-86	1245	1.4	830	7.8	25.0	19.0	5
01614625	Meadow Brook at Conococheague	09-26-85	1130	.32	519	8.0	18.5	14.5	15
		04-03-86	1220	7.8	550	8.2	22.0	14.5	5
01614675	Conococheague Creek Tributary near Huyett	09-24-85	1910	1.3	711	7.6	15.5	17.0	10
		04-03-86	1745	8.9	611	7.8	18.0	14.5	5
		08-27-86	0830	1.1	745	7.9	24.0	18.0	5
01614705	Conococheague Creek at Williamsport	09-19-85	1900	105	460	8.8	21.0	21.0	15
		04-03-86	0930	609	360	8.7	14.0	14.5	5
		08-21-86	1630	132	445	8.5	21.0	23.0	10
01617780	St. James Run at Spielman	09-19-85	1015	2.5	655	8.1	21.0	14.0	5
		04-15-86	0900	6.4	638	8.1	9.5	10.0	1
		08-27-86	1040	2.6	687	8.0	24.0	20.0	5
01617800	Marsh Run at Grimes	09-19-85	1130	2.4	616	8.3	21.0	16.5	<1
		04-02-86	1245	18	570	8.1	22.5	17.0	3
		08-20-86	1740	4.2	600	8.1	21.5	23.0	5
01618000	Potomac River at Shepherdstown, WV	09-28-60	1215	--	272	7.2	--	20.0	7
		04-18-61	1515	--	116	7.0	--	8.5	40
		10-22-64	--	--	384	7.2	--	--	--
		08-09-65	--	--	371	8.2	--	--	--
		03-29-79	1300	13600	195	8.0	25.0	8.0	--
		04-25-79	1345	4640	300	8.2	28.5	18.5	--
		05-14-79	1200	10600	260	8.2	--	23.0	--
		05-17-79	1330	9200	180	8.1	17.0	19.5	--
		06-04-79	1300	8240	240	8.1	24.0	21.5	--
		06-12-79	1330	9820	220	8.2	--	--	--
		07-11-79	1400	2070	360	8.5	25.5	23.0	--
		07-31-79	1430	4050	325	7.9	31.0	26.0	--
		08-13-79	1430	1950	365	8.2	25.0	24.5	--
		08-27-79	1400	2370	380	8.3	29.5	25.0	--
		09-05-79	1430	3310	270	8.1	23.5	25.5	--
		10-24-79	1100	5690	280	8.0	8.0	16.0	--

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
--	--	150	52	37	14	4.4	1.7	490	<10	20	01614500
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	160	0	56	3.9	7.6	3.1	160	20	<10	
--	--	200	30	57	14	9.2	3.6	90	50	<10	
--	--	140	30	41	9.1	7.6	2.8	330	50	30	
--	--	130	31	39	7.6	5.2	2.0	340	<10	20	
--	--	140	34	44	8.4	5.1	2.0	100	30	<10	
--	--	--	--	--	--	--	--	--	--	--	
14.5	--	160	19	47	10	6.5	2.0	300	20	20	
19.1	--	200	28	58	13	11	2.8	100	<10	<10	
--	--	150	31	45	9.3	5.8	1.8	290	<10	30	
12.2	--	200	32	58	14	10	3.0	180	20	20	
13.0	--	160	33	47	11	9.7	2.6	170	14	<10	
13.1	--	140	29	40	9.4	7.2	1.5	300	30	20	
13.7	--	210	35	61	13	11	3.0	50	11	10	
10.8	--	130	30	36	9.3	7.7	1.8	--	22	--	
8.7	--	190	57	55	12	7.4	2.0	--	7	--	
--	--	200	27	57	13	10	3.5	260	5	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	190	30	56	12	10	5.5	360	30	60	
--	--	210	22	63	13	3.0	2.2	420	9	50	01614525
13.4	--	210	57	60	14	3.6	2.2	220	12	20	
--	--	--	--	--	--	--	--	--	--	--	
--	--	330	140	110	14	17	3.7	1400	130	90	01614575
9.5	--	280	66	89	13	13	3.7	440	5	30	
--	--	330	76	110	14	20	8.3	1200	13	50	
--	--	240	23	76	13	9.3	3.6	410	9	50	01614625
10.8	--	270	48	86	13	8.7	2.1	170	5	20	
--	--	320	24	100	16	18	3.7	1000	5	50	01614675
8.8	--	280	63	92	13	14	2.8	350	<3	30	
--	--	340	82	110	16	17	3.9	1000	<3	60	
--	--	200	20	59	13	12	3.6	140	6	30	01614705
10.1	--	180	25	52	11	6.3	2.1	80	5	20	
--	--	190	27	55	13	10	4.2	240	11	40	
--	--	290	0	100	9.5	11	2.4	270	14	20	01617780
9.4	--	320	55	110	9.8	12	2.2	290	5	30	
--	--	290	43	100	9.3	12	2.8	250	7	20	
--	--	270	0	92	9.5	11	2.5	140	21	20	01617800
11.0	--	280	32	97	9.3	8.9	2.2	260	<3	30	
--	--	270	52	95	9.0	9.9	3.2	340	6	30	
8.3	--	120	32	37	7.0	5.7	1.9	220	220	120	01618000
9.0	--	50	20	15	3.1	1.6	1.2	540	540	100	
--	--	150	33	42	10	23	2.5	110	--	ND	
--	--	150	56	46	8.8	--	--	--	--	--	
12.8	--	73	34	22	4.4	4.1	1.3	620	<10	50	
10.9	--	120	47	36	6.9	6.9	1.6	--	--	--	
--	--	100	48	31	6.0	6.1	1.7	--	--	--	
8.8	--	70	30	21	4.2	3.5	1.6	--	--	--	
--	--	94	31	29	5.3	5.1	1.7	--	--	--	
--	--	90	39	28	4.8	4.5	1.7	2200	<10	110	
10.2	--	160	71	48	8.9	12	2.3	--	--	--	
8.7	--	140	49	43	7.7	9.9	2.2	--	--	--	
8.7	--	160	39	49	9.0	11	2.4	--	--	--	
8.8	--	150	50	45	8.0	11	2.7	--	--	--	
7.2	--	120	40	36	6.2	7.4	2.7	810	80	90	
9.4	--	150	19	43	10	9.4	2.0	--	20	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01614500	Conococheague Creek at Fairview	04-05-78	<10	120	98	1.2	19	8.1	0.10
		06-28-78	--	--	--	--	--	--	--
		08-09-78	--	--	--	--	--	--	--
		09-19-78	<10	190	160	1.2	21	12	.10
		10-27-78	20	210	170	1.7	25	15	.10
		12-14-78	<10	140	110	2.2	25	13	.10
		02-01-79	5	120	98	1.2	19	11	.10
		03-20-79	3	130	110	1.3	19	10	.10
		05-09-79	--	--	--	--	--	--	--
		06-13-80	3	--	140	1.3	18	10	.10
		01-20-81	9	207	170(lab)	2.1	27	17	.20
		04-27-81	5	146	120(lab)	18	19	11	.10
		08-28-81	<10	--	170(lab)	1.6	25	14	.20
		12-08-81	5	--	130(lab)	1.2	28	13	.10
		04-20-82	7	--	110(lab)	.3	19	9.6	.10
		10-22-82	3	--	171(lab)	1.3	24	16	.20
		03-15-83	7	119	98(lab)	19	21	11	< .10
		06-10-83	3	158	130	2.0	22	12	< .10
		08-26-85	3	--	169(lab)	.6	21	17	.20
		04-02-86	--	--	140	.3	--	--	--
		08-21-86	9	--	159	1.5	24	17	.20
01614525	Rockdale Run at Fairview	09-26-85	29	230	189	3.6	12	9.7	.10
		04-03-86	3	--	150	.6	18	7.1	.10
		08-21-86	--	--	--	--	--	--	--
01614575	Rush Run near Huyett	09-26-85	30	229	188(lab)	5.8	39	37	.10
		04-03-86	8	260	210	5.1	36	27	.10
		08-22-86	8	312	256	7.9	49	43	.10
01614625	Meadow Brook at Conococheague	09-26-85	16	268	220	4.2	16	22	.10
		04-03-86	3	268	220	2.7	23	20	.10
01614675	Conococheague Creek Tributary near Huyett	09-24-85	4	356	292	14	36	39	.20
		04-03-86	8	268	220	6.7	34	34	.10
		08-27-86	6	316	259	6.3	36	40	.20
01614705	Conococheague Creek at Williamsport	09-19-85	5	--	181	.5	25	22	.20
		04-03-86	5	--	150	.6	18	13	.10
		08-21-86	6	--	164	1.0	24	17	.10
01617780	St. James Run at Spielman	09-19-85	5	364	299	4.6	38	28	.20
		04-15-86	6	317	260	4.0	31	28	.20
		08-27-86	5	299	245	4.8	34	26	.20
01617800	Marsh Run at Grimes	09-19-85	4	--	280	2.7	32	28	.20
		04-02-86	10	304	249	3.8	22	21	.20
		08-20-86	7	271	222	3.4	28	26	.20
01618000	Potomac River at Shepherdstown, WV	09-28-60	--	110	89	11	34	8.0	.30
		04-18-61	--	37	30	5.9	19	1.5	.10
		10-22-64	--	140	113	14	78	10	ND
		08-09-65	--	120	95	1.2	63	22	--
		03-29-79	30	47	39	.8	28	6.4	< .10
		04-25-79	--	87	71	.9	43	11	.10
		05-14-79	--	66	54	.7	44	9.9	.10
		05-17-79	--	49	40	.6	26	4.0	< .10
		06-04-79	--	77	63	1	30	7.2	.10
		06-12-79	5	62	51	.6	29	6.8	.10
		07-11-79	--	--	86	.5	60	17	.10
		07-31-79	--	110	90	2.2	44	14	.10
		08-13-79	--	146	120	1.5	41	15	.10
		08-27-79	--	--	95	.9	45	15	.10
		09-05-79	3	91	75	1.1	31	9.9	.10
		10-24-79	--	158	130	2.5	27	7.9	.10

Silica, dis-solved (mg/L)	Solids, residue at 180 deg. C, dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Solids, dis-solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis-solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro-gen, total (mg/L as N)	Phos-phorus, total (mg/L as P)	Phos-phate, total (mg/L as PO_4)	Station No.
5.3	168	150	576	--	--	2.70	--	0.050	--	01614500
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
3.0	238	200	106	--	--	2.60	--	.250	--	
.4	259	230	71	--	--	2.30	--	.340	--	
8.8	192	180	187	--	--	3.50	--	.150	--	
6.9	176	150	470	--	--	3.60	--	.060	--	
5.3	182	160	371	--	--	3.10	--	.030	--	
--	--	--	--	--	--	--	--	--	--	
1.9	214	180	196	--	--	3.10	--	.090	--	
.9	257	230	62	--	--	4.00	--	.550	--	
3.8	178	170	275	--	--	3.40	--	.110	--	
1.6	282	230	78	--	--	4.00	--	.320	--	
1.5	214	190	120	--	--	3.40	--	.240	--	
1.9	176	150	348	--	--	2.80	--	.080	--	
2.1	286	230	84	--	--	4.10	--	.470	--	
6.5	173	150	272	--	--	--	--	--	--	
2.0	222	190	239	--	--	--	--	--	--	
5.1	271	230	112	--	--	3.70	--	.410	--	
--	--	--	--	--	--	--	--	--	--	
4.4	248	220	92	--	--	3.40	6.8	.320	--	
7.3	242	220	1.4	--	--	4.90	--	.050	--	01614525
4.1	226	200	7.6	--	--	8.00	--	.030	--	
--	--	--	--	--	--	--	--	--	--	
9.7	429	340	1.5	--	--	7.30	--	.120	--	01614575
4.8	355	310	6.3	--	--	11.0	--	.060	--	
9.6	430	410	1.6	--	--	8.20	--	.160	--	
7.5	299	280	.26	--	--	4.70	--	.110	--	01614625
6.9	315	290	6.7	--	--	8.00	--	.020	--	
9.0	424	360	1.5	--	--	5.80	--	.070	--	01614675
6.3	362	330	8.7	--	--	7.40	--	.020	--	
8.9	300	390	.91	--	--	6.90	--	.120	--	
1.1	279	240	79	--	--	2.40	--	.200	--	01614705
.9	211	190	347	--	--	4.40	--	.050	--	
2.2	242	220	86	--	--	2.30	--	.200	--	
9.2	317	290	2.1	--	--	3.80	--	.040	--	01617780
9.3	360	360	6.2	--	--	4.70	--	.030	--	
9.5	270	340	1.9	--	--	4.20	--	.020	--	
9.0	312	260	2.0	--	--	3.70	--	.020	--	01617800
8.2	339	320	17	--	--	5.10	--	.030	--	
9.4	303	310	3.4	--	--	4.10	--	.040	--	
4.8	156	150	438	--	--	--	--	--	--	01618000
5.5	66	65	6250	--	--	--	--	--	--	
2.5	226	240	1390	--	--	--	--	--	--	
--	229	--	--	--	--	--	--	--	.06	
5.9	109	96	4000	--	--	.94	1.9	.030	--	
2.0	157	150	1970	--	--	.79	1.0	.020	.06	
2.8	146	130	4180	--	--	.53	.80	.040	.12	
5.9	106	90	2630	--	--	.68	.97	.040	.12	
6.0	128	120	2850	--	--	.85	1.3	.090	.28	
5.2	125	110	3310	--	--	.61	1.0	.070	.21	
3.7	258	200	1440	--	--	.91	1.3	.040	--	
5.9	199	180	2180	--	--	.94	1.6	.050	--	
4.5	241	200	1270	--	--	.94	1.8	.050	--	
3.9	223	190	1430	--	--	1.00	1.5	.060	--	
6.1	166	140	1480	--	--	1.20	1.6	.090	--	
6.6	208	180	3200	--	--	1.50	1.7	.070	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01618000	Potomac River at Shepherdstown, WV	11-28-79	1330	20700	160	7.4	12.0	14.5	--
		12-10-79	1500	4100	280	7.9	11.0	5.0	--
		01-21-80	1400	15400	165	7.4	6.0	4.0	--
		02-20-80	1300	2590	345	8.0	9.0	1.0	--
		03-20-80	1400	23000	150	7.7	16.0	7.5	--
		04-17-80	1300	23300	160	7.2	12.0	9.5	--
		05-14-80	1330	7410	252	7.4	19.5	18.0	--
		06-17-80	1315	3620	265	8.0	18.5	22.0	--
		07-16-80	1145	2890	282	8.2	34.0	27.0	--
		08-12-80	1230	1320	400	8.4	26.0	28.0	--
		09-23-80	1400	810	450	8.2	28.0	23.0	--
		11-12-80	1330	811	505	8.5	--	7.5	--
		01-19-81	1500	650	460	7.9	--	.5	--
		03-17-81	1315	4340	185	8.0	7.0	6.0	--
		05-20-81	1200	5390	210	7.7	18.0	17.0	--
		07-20-81	1400	1250	370	8.5	33.5	28.5	--
		09-14-81	1230	1350	340	--	28.0	24.5	--
		11-02-81	1315	3560	258	7.6	22.0	13.0	--
		01-19-82	1230	3490	320	8.0	-7.0	.0	--
		02-08-82	1345	11900	205	7.6	2.0	4.0	--
		03-15-82	1230	24700	163	7.0	8.0	7.5	--
		05-10-82	1230	4320	290	8.0	23.0	18.0	--
		07-13-82	1330	4560	315	8.1	27.0	27.0	--
		09-20-82	1015	920	445	7.9	18.5	22.0	--
		11-29-83	1200	8750	210	7.2	7.5	7.5	--
		01-23-84	1300	2440	365	7.2	-5.0	.5	--
		03-06-84	1230	8780	250	7.6	2.0	3.0	--
		05-09-84	1230	18900	220	7.5	13.0	13.0	--
		07-09-84	1200	7500	240	7.6	21.0	22.0	--
		09-10-84	1300	1740	390	7.9	23.0	22.0	--
		11-07-84	1300	1870	445	7.7	8.0	11.0	--
		01-07-85	1230	6160	265	7.7	7.0	6.0	--
		03-11-85	1200	5080	250	7.9	12.0	8.5	--
		05-01-85	1200	2370	315	8.6	23.5	24.5	--
		07-01-85	1230	1200	340	8.2	20.0	24.0	--
		09-03-85	1200	1270	460	7.8	28.0	26.0	--
		11-04-85	1230	4440	350	7.7	14.5	13.0	--
		11-06-85	1300	145000	165	7.6	16.0	13.0	--
		01-07-86	1030	2980	340	7.8	-2.0	1.5	--
		03-03-86	1045	8240	253	7.6	6.0	.0	--
		05-05-86	1100	3650	300	8.2	19.0	18.0	--
		07-01-86	1230	1300	440	8.1	22.0	24.0	--
		09-02-86	1135	1250	462	8.0	20.0	21.0	--
		11-17-86	1015	2250	366	7.5	12.0	8.0	--
		01-05-87	1200	4270	260	7.7	4.0	3.0	--
		03-05-87	1130	15400	168	7.5	4.0	6.0	--
		05-11-87	1215	7750	210	7.9	27.0	19.0	--
		07-06-87	1110	1910	405	8.0	24.0	27.0	--
		09-08-87	1200	1190	524	8.0	22.0	22.0	--
		11-09-87	1115	1140	430	8.0	18.0	13.0	--
		01-05-88	1030	5100	228	7.4	-7.0	.0	--
01619000	Antietam Creek near Waynesboro, Pa.	02-26-68	1335	96	341	8.4	--	2.0	2
		03-26-68	1215	214	275	7.9	--	10.0	0
		04-26-68	1200	104	290	8.3	--	13.0	3
		05-27-68	1635	126	240	8.1	--	12.0	2
		07-08-68	1630	60	290	8.2	--	22.0	2
		07-29-68	1820	38	340	8.3	--	24.0	2
		09-25-68	1840	34	388	8.1	--	19.0	5
		10-26-68	1930	32	395	8.2	--	11.0	5
		01-15-69	1655	42	347	8.2	--	3.0	0
		03-10-69	1000	49	325	8.0	--	3.0	2
		07-15-69	1050	32	323	8.1	--	19.0	3
		07-24-69	0900	--	260	7.7	--	18.0	--
		08-21-69	1125	--	325	7.6	--	17.0	--
		09-01-69	1130	--	400	7.5	--	19.0	--
		09-09-69	1055	45	323	7.9	--	17.0	3

Oxygen, dissolved (mg/L)	Biochemical oxygen demand, 5 day (mg/L)	Hardness, (mg/L as $CaCO_3$)	Noncarbonate hardness, total (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Iron, total recoverable (µg/L)	Iron, dissolved (µg/L)	Manganese, total recoverable (µg/L)	Station No.
7.5	--	67	29	20	4.2	5.0	2.2	--	--	--	01618000
13.4	--	110	39	35	6.1	6.2	1.4	150	40	40	
12.7	--	72	27	22	4.2	3.9	1.2	--	--	--	
--	--	140	45	43	7.8	10	1.6	--	--	--	
12.4	--	64	33	19	3.9	4.6	1.4	1900	20	160	
11.4	--	69	28	21	4.0	3.4	1.4	--	--	--	
9.8	--	110	40	34	6.7	6.1	1.4	--	--	--	
9.5	--	120	43	35	6.8	6.2	1.6	400	10	40	
7.4	--	110	44	35	6.4	6.0	2.0	--	--	--	
7.8	--	170	72	54	9.0	11	2.4	--	--	--	
9.4	--	180	76	54	10	15	2.7	180	10	40	
--	--	180	74	57	10	23	3.3	220	20	40	
15.2	--	49	0	14	3.3	30	3.9	1100	320	250	
12.4	--	96	42	29	5.7	7.5	1.7	--	--	--	
10.0	--	86	36	26	5.0	6.4	1.9	510	30	70	
10.8	--	160	59	49	8.9	10	2.2	150	<10	50	
11.2	--	140	71	44	6.4	8.7	2.1	--	--	--	
10.1	--	110	52	33	6.1	6.6	2.5	390	59	60	
14.6	--	110	47	34	6.7	9.4	1.7	--	--	--	
14.2	--	--	--	--	--	--	--	--	--	--	
12.8	--	65	33	19	4.2	4.6	1.3	1700	47	180	
9.5	--	120	41	37	7.1	7.6	1.5	220	9	60	
9.0	--	130	48	41	7.5	7.3	1.6	--	--	--	
10.4	--	200	84	62	12	20	2.3	130	10	50	
13.1	--	84	33	25	5.3	6.2	1.9	--	41	--	
14.9	--	150	55	44	8.6	11	1.8	--	--	--	
14.3	--	110	41	32	6.1	5.4	1.5	--	14	--	
10.8	--	89	31	27	5.3	4.2	1.5	--	35	--	
9.5	--	99	31	30	5.8	5.1	2.5	--	--	--	
10.0	--	160	62	50	9.4	11	2.1	--	3	--	
11.7	--	190	64	58	10	13	2.6	--	15	--	
15.0	--	110	44	33	6.3	6.2	1.4	--	--	--	
12.8	--	100	47	31	6.2	5.9	1.2	--	21	--	
9.8	--	140	44	42	7.8	7.5	1.9	--	5	--	
8.4	--	140	71	44	8.3	11	1.8	--	--	--	
8.0	--	190	110	60	9.7	22	3.1	--	<3	--	
--	--	150	78	47	8.3	11	2.7	--	26	--	
--	--	66	16	22	2.6	2.2	3.2	--	220	--	
14.4	--	150	70	44	9.0	8.1	2.1	--	--	--	
13.4	--	110	53	32	6.5	6.6	1.7	--	27	--	
9.7	--	--	--	--	--	--	--	--	--	--	
7.5	--	170	68	52	9.2	12	2.5	--	--	--	
9.8	--	190	90	61	10	16	3.2	--	<3	--	
12.5	--	150	100	48	8.3	7.8	2.2	--	16	--	
14.4	--	100	39	32	6.0	6.1	1.7	--	--	--	
13.1	--	70	25	21	4.2	4.2	1.4	--	38	--	
11.0	--	90	33	27	5.4	4.2	1.4	--	16	--	
7.9	--	170	55	51	9.9	14	3.1	--	--	--	
7.7	--	210	110	66	11	26	3.4	--	14	--	
10.7	--	180	76	56	10	16	3.2	--	21	--	
14.2	--	--	--	--	--	--	--	--	--	--	
--	--	160	32	38	17	4.2	2.1	--	--	--	01619000
--	--	130	30	35	11	3.6	1.9	--	--	--	
--	--	150	29	39	12	3.7	2.0	--	--	--	
--	--	110	23	30	9.1	4.7	1.9	--	--	--	
--	--	140	28	36	13	3.8	2.2	--	--	--	
--	--	170	31	44	15	5.0	2.4	--	--	--	
--	--	190	37	49	17	5.0	3.1	10	--	ND	
--	--	200	40	52	16	6.0	3.2	--	10	--	
--	--	170	38	46	14	4.8	2.4	--	--	--	
--	--	160	34	43	13	3.8	2.0	60	--	20	
--	--	160	25	41	13	6.3	2.4	200	--	20	
7.8	--	--	--	--	--	--	--	--	--	--	
9.3	--	--	--	--	--	--	--	--	--	--	
9.6	--	--	--	--	--	--	--	--	--	--	
--	--	160	24	42	13	4.9	2.4	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01618000	Potomac River at Shepherdstown, WV	11-28-79	--	46	38	2.9	27	6.4	.10
		12-10-79	40	90	74	1.8	36	10	ND
		01-21-80	--	55	45	3.5	24	5.8	.10
		02-20-80	--	116	95	1.8	48	15	.10
		03-20-80	20	38	31	1.2	25	6.4	.10
		04-17-80	--	50	41	5.0	23	4.3	.10
		05-14-80	--	88	72	5.5	35	8.0	.10
		06-17-80	4	88	72	1.4	40	8.4	.10
		07-16-80	--	85	70	.8	43	8.4	.10
		08-12-80	--	--	100	.8	59	14	.20
		09-23-80	10	122	100	1.2	72	20	.20
		11-12-80	3	--	110(lab)	.7	79	37	.20
		01-19-81	230	--	--	--	18	39	.30
		03-17-81	--	66	54(lab)	1.0	37	11	< .10
		05-20-81	20	61	50(lab)	1.9	36	9.9	< .10
		07-20-81	<1	--	100(lab)	.6	39	17	.10
		09-14-81	--	79	65(lab)	--	66	13	.10
		11-02-81	9	68	56(lab)	2.7	37	8.1	< .10
		01-19-82	--	79	65(lab)	1.3	37	12	< .10
		02-08-82	--	--	--	--	--	--	--
		03-15-82	31	39	32(lab)	6.2	28	6.4	< .10
		05-10-82	6	99	81(lab)	1.6	38	12	< .10
		07-13-82	--	104	85(lab)	1.3	38	10	.10
		09-20-82	4	146	120(lab)	2.9	65	31	.20
		11-29-83	15	62	51(lab)	6.2	33	7.9	.20
		01-23-84	--	110	90(lab)	12	57	17	.10
		03-06-84	52	78	64(lab)	2.9	34	11	< .10
		05-09-84	12	71	58(lab)	3.5	32	6.4	.10
		07-09-84	--	83	68(lab)	3.3	28	8.7	< .10
		09-10-84	4	124	102(lab)	2.5	59	18	.20
		11-07-84	16	149	122	4.7	64	21	.10
		01-07-85	--	78	64	2.5	43	11	< .10
		03-11-85	71	68	56	1.4	42	10	< .10
		05-01-85	17	--	93	.4	43	14	< .10
		07-01-85	--	89	73	.9	54	19	.20
		09-03-85	21	93	76	2.3	83	36	.10
		11-04-85	34	90	74	2.9	63	16	.20
		11-06-85	9	61	49	2.4	22	3.5	.20
		01-07-86	--	94	77	2.4	56	13	< .10
		03-03-86	53	66	54	2.3	28	12	.20
		05-05-86	--	76	62	.9	--	--	--
		07-01-86	--	122	100	1.5	59	22	.10
		09-02-86	5	127	103	2.0	85	30	.20
		11-17-86	66	66	54	3.2	94	12	.10
		01-05-87	--	80	66	2.7	40	11	< .10
		03-05-87	15	74	45	2.5	24	6.3	< .10
		05-11-87	13	70	57	1.3	33	6.0	< .10
		07-06-87	--	138	113	2.3	58	27	.10
		09-08-87	7	127	104	1.9	94	35	.20
		11-09-87	13	128	105	2.2	74	25	.20
		01-05-88	--	61	50	3.8	--	--	--
01619000	Antietam Creek near Waynesboro, Pa.	02-26-68	--	150	133	1	22	6.7	.20
		03-26-68	--	130	103	2.5	18	7.1	.20
		04-26-68	--	140	118	1.1	18	6.8	.20
		05-27-68	--	110	89	1.4	15	7.0	.20
		07-08-68	--	140	115	1.4	17	6.4	.20
		07-29-68	--	170	141	1.3	19	7.3	.20
		09-25-68	--	190	155	2.4	20	7.8	.30
		10-26-68	--	190	156	1.9	20	10	.30
		01-15-69	--	170	135	1.7	18	7.5	.30
		03-10-69	--	150	127	2.5	19	16	.20
		07-15-69	--	160	131	2.0	16	13	.20
		07-24-69	--	--	--	--	--	--	--
		08-21-69	--	--	--	--	--	--	--
		09-01-69	--	--	--	--	--	--	--
		09-09-69	--	160	134	3.3	17	7.8	.20

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
5.6	100	93	5590	--	--	.64	1.3	.060	--	01618000
4.8	163	140	1800	--	--	1.30	1.5	.030	--	
5.6	111	94	4620	--	--	--	--	.020	--	
3.3	205	190	1430	--	--	1.20	1.2	.030	--	
6.0	99	85	6150	--	--	1.10	1.8	.090	--	
6.0	107	88	6730	--	--	.96	1.5	.120	--	
4.6	149	140	2980	--	--	1.00	1.3	.030	--	
1.4	167	140	1630	--	--	.95	1.2	.030	--	
5.7	175	150	1370	--	--	1.20	1.5	.040	--	
5.0	271	210	966	--	--	.76	1.1	.070	--	
3.0	270	240	590	--	--	.78	1.1	.050	--	
2.0	304	280	666	--	--	.86	1.1	.060	--	
9.4	154	130	270	--	--	2.60	5.6	1.20	--	
4.6	149	130	1750	--	--	1.30	1.5	.050	--	
5.3	150	120	2180	--	--	.66	1.0	.060	--	
1.8	243	190	820	--	--	.89	1.6	.030	--	
4.4	213	180	776	--	--	.86	1.2	.080	--	
6.8	150	130	1440	--	--	--	--	.070	--	
7.0	161	150	1520	--	--	--	--	.100	--	
--	--	--	--	--	--	--	--	.040	--	
5.8	102	89	6800	--	--	--	--	--	--	
1.2	171	150	1990	--	--	--	--	.040	--	
2.1	203	160	2500	--	--	--	--	.080	--	
2.4	295	270	733	--	--	--	--	.100	--	
6.1	121	120	2860	--	--	--	--	.060	--	
5.3	223	200	1470	--	--	--	--	.040	--	
6.0	147	130	3480	--	--	--	--	.020	--	
5.7	164	120	8370	--	--	--	--	.100	--	
6.5	171	130	3460	--	--	--	--	.080	--	
1.6	243	210	1140	--	--	--	--	.060	--	
4.7	284	250	1430	--	--	--	--	.090	--	
3.9	162	140	2690	--	--	--	--	.050	--	
4.5	151	130	2070	--	--	--	--	.030	--	
1.7	194	170	1240	--	--	--	--	.040	--	
1.5	220	180	713	--	--	--	--	.070	--	
5.3	272	270	933	--	--	--	--	.070	--	
6.1	200	200	2400	--	1.29	--	--	.070	--	
5.1	97	92	38000	--	.86	--	--	3.30	--	
5.0	193	190	1550	--	1.59	--	--	.060	--	
6.4	130	130	2890	--	1.69	--	--	.030	--	
--	--	--	--	--	.81	--	--	.030	--	
2.4	239	220	839	--	.91	--	--	.040	--	
4.3	284	270	958	--	.98	--	--	.080	--	
4.8	237	210	1440	--	--	--	--	.050	--	
5.7	144	140	1660	--	--	--	--	.030	--	
6.3	88	95	3660	--	--	--	--	.060	--	
5.2	121	120	2530	--	--	--	--	.020	--	
5.0	236	240	1220	--	1.48	--	--	.070	--	
4.4	312	300	998	--	--	--	--	--	--	
.3	251	250	773	--	--	--	--	.040	--	
--	--	--	--	--	--	--	--	.030	--	
4.8	--	180	46	--	--	--	--	--	--	01619000
6.4	--	150	84	--	--	--	--	--	--	
7.6	--	160	45	--	--	--	--	--	--	
8.1	--	130	44	--	--	--	--	--	--	
6.3	--	150	25	--	--	--	--	--	--	
6.8	--	190	19	--	--	--	--	--	--	
7.2	--	200	19	--	--	--	--	--	--	
8.3	--	210	18	--	--	--	--	--	--	
5.7	--	180	20	--	--	--	--	--	--	
5.7	--	180	24	--	--	--	--	--	--	
6.4	--	180	15	--	--	--	--	--	--	
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8.3	--	180	21	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01619000	Antietam Creek near Waynesboro, Pa.	10-21-69	0930	--	370	6.8	--	13.5	--
		10-29-69	1040	26	376	7.6	--	4.0	2
		11-18-69	0952	--	380	8.0	--	5.5	--
		12-09-69	0952	--	320	8.0	--	3.5	--
		01-05-70	1005	--	340	7.7	--	.0	--
		02-02-70	1028	--	240	7.7	--	5.0	--
		03-10-70	1035	--	240	7.7	--	3.0	--
		04-06-70	0922	--	250	7.9	--	5.5	--
		05-04-70	1010	--	280	7.9	--	12.0	--
		06-02-70	0830	--	340	7.6	--	16.5	--
		07-29-70	1130	--	340	8.0	--	19.5	--
		08-19-70	1200	--	330	8.0	--	18.5	--
		09-15-70	1100	--	360	8.1	--	17.0	--
		10-14-70	1200	42	375	8.2	--	15.5	3
		11-17-70	1400	--	265	8.0	--	7.5	--
		12-07-70	1537	--	320	8.5	--	3.0	--
		01-04-71	1340	--	315	7.9	--	4.0	--
		02-09-71	1200	--	315	7.6	--	2.0	--
		03-09-71	1003	--	275	7.9	--	2.0	--
		04-05-71	1101	--	324	8.7	--	8.0	--
		05-03-71	1216	--	314	8.9	--	10.0	--
		06-14-71	1107	--	275	8.1	--	17.0	--
		06-16-71	1205	--	230	7.6	--	13.5	--
		07-12-71	1245	--	305	8.3	--	17.0	--
		08-16-71	1245	--	400	6.9	--	17.5	--
		09-16-71	1330	41	370	7.5	--	18.0	0
		10-29-71	1038	--	330	7.7	--	12.0	--
		11-18-71	1138	--	330	7.9	--	8.0	--
		12-13-71	1056	--	260	7.5	--	7.0	--
		01-07-72	1112	--	290	7.6	--	4.0	--
		02-14-72	1115	--	180	7.0	--	5.0	--
		03-20-72	1149	--	275	7.7	--	7.0	--
		04-06-72	1200	--	298	8.8	--	10.0	--
		05-08-72	1245	--	270	7.8	--	15.0	--
		06-07-72	1415	--	310	8.5	--	17.0	--
		07-19-72	0845	--	370	7.8	--	16.0	--
		08-28-72	1041	--	355	8.0	--	16.0	--
		09-19-72	1020	48	420	8.0	--	15.0	4
		10-18-72	1025	44	375	7.8	--	10.0	--
		11-14-72	1050	224	295	7.7	--	10.0	--
		12-05-72	1055	71	335	7.9	--	6.5	4
		01-09-73	1120	137	325	7.8	--	2.0	--
		02-07-73	1045	267	295	7.7	--	5.0	--
		03-06-73	1230	163	295	8.1	--	7.0	5
		04-03-73	1110	181	255	7.7	--	9.0	--
		05-08-73	1040	174	295	7.8	--	12.0	--
		05-30-73	1420	483	215	7.9	--	15.0	10
		08-26-85	1600	54	345	8.1	26.0	21.0	10
		04-14-86	1240	113	379	8.7	19.5	12.5	4
		08-20-86	1120	43	472	7.9	24.0	21.0	5
01619050	Little Antietam Creek at Leitersburg	09-26-85	1700	5.5	481	7.9	21.0	15.5	10
		04-14-86	1400	19	483	8.7	18.0	13.0	2
		08-20-86	1300	7.7	532	8.0	23.5	21.5	5
01619150	Marsh Run at Fiddlesburg	09-26-85	1515	2.2	571	8.0	19.0	14.0	5
		04-14-86	1515	28	611	8.2	20.5	13.5	1
		08-20-86	0930	3.7	610	8.1	24.0	20.0	5
01619250	Antietam Creek at Hagerstown	08-31-76	1330	--	500	7.6	20.0	18.5	--

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
8.4	--	--	--	--	--	--	--	--	--	--	01619000
--	--	190	30	48	16	5.8	2.6	100	--	ND	
1.1	--	--	--	--	--	--	--	--	--	--	
12.0	--	--	--	--	--	--	--	--	--	--	
12.6	--	--	--	--	--	--	--	--	--	--	
11.8	--	--	--	--	--	--	--	--	--	--	
13.1	--	--	--	--	--	--	--	--	--	--	
11.2	--	--	--	--	--	--	--	--	--	--	
10.2	--	--	--	--	--	--	--	--	--	--	
7.7	--	--	--	--	--	--	--	--	--	--	
9.4	--	--	--	--	--	--	--	--	--	--	
9.9	--	--	--	--	--	--	--	--	--	--	
9.9	--	--	--	--	--	--	--	--	--	--	
9.7	2.4	210	34	--	--	--	--	--	40	--	
11.6	--	--	--	--	--	--	--	--	--	--	
14.0	--	--	--	--	--	--	--	--	--	--	
12.4	--	--	--	--	--	--	--	--	--	--	
13.0	--	--	--	--	--	--	--	--	--	--	
13.1	--	--	--	--	--	--	--	--	--	--	
15.8	--	--	--	--	--	--	--	--	--	--	
14.2	--	--	--	--	--	--	--	--	--	--	
9.7	--	--	--	--	--	--	--	--	--	--	
10.3	--	--	--	--	--	--	--	--	--	--	
11.1	--	--	--	--	--	--	--	--	--	--	
9.3	--	--	--	--	--	--	--	--	--	--	
9.5	1.0	180	14	--	--	--	--	--	40	--	
9.4	--	--	--	--	--	--	--	--	--	--	
13.6	--	--	--	--	--	--	--	--	--	--	
11.0	--	--	--	--	--	--	--	--	--	--	
11.4	--	--	--	--	--	--	--	--	--	--	
11.2	--	--	--	--	--	--	--	--	--	--	
11.4	--	--	--	--	--	--	--	--	--	--	
15.6	--	--	--	--	--	--	--	--	--	--	
9.6	--	--	--	--	--	--	--	--	--	--	
11.8	--	--	--	--	--	--	--	--	--	--	
8.8	--	--	--	--	--	--	--	--	--	--	
8.9	--	--	--	--	--	--	--	--	--	--	
9.2	1.0	220	47	62	17	4.0	2.4	--	40	--	
10.5	--	--	--	--	--	--	--	--	--	--	
9.9	--	--	--	--	--	--	--	--	--	--	
12.4	2.6	190	45	51	14	4.4	2.3	--	60	--	
13.8	--	--	--	--	--	--	--	--	--	--	
12.4	--	--	--	--	--	--	--	--	--	--	
12.8	2.6	150	39	41	12	5.0	2.1	--	110	--	
12.2	--	--	--	--	--	--	--	--	--	--	
10.8	--	--	--	--	--	--	--	--	--	--	
9.8	.9	97	23	27	7.2	2.5	1.7	--	70	--	
--	--	170	30	45	14	7.3	3.0	680	23	30	
--	--	180	23	50	14	5.3	2.6	140	14	20	
--	--	210	32	57	17	5.8	2.9	490	10	40	
--	--	240	19	62	20	7.5	2.5	580	9	20	01619050
--	--	240	31	65	19	6.9	2.5	80	27	20	
--	--	250	42	66	20	6.8	2.9	120	8	10	
--	--	290	20	96	12	4.8	2.5	350	17	40	01619150
10.8	--	320	74	110	12	5.7	2.6	140	<3	20	
--	--	300	54	100	12	5.1	3.5	500	12	40	
7.9	--	--	--	--	--	--	--	280	--	40	01619250

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01619000	Antietam Creek near Waynesboro, Pa.	10-21-69	--	200	160(lab)	--	--	--	--
		10-29-69	--	190	156	7.6	18	9.1	0.30
		11-18-69	--	--	--	--	--	--	--
		12-09-69	--	200	160	3.1	--	--	--
		01-05-70	--	--	--	--	--	--	--
		02-02-70	--	--	--	--	--	--	--
		03-10-70	--	--	--	--	--	--	--
		04-06-70	--	--	--	--	--	--	--
		05-04-70	--	--	--	--	--	--	--
		06-02-70	--	--	--	--	--	--	--
		07-29-70	--	--	--	--	--	--	--
		08-19-70	--	--	--	--	--	--	--
		09-15-70	--	--	--	--	--	--	--
		10-14-70	20	210	173	3.4	20	8.6	.20
		11-17-70	--	--	--	--	--	--	--
		12-07-70	--	--	--	--	--	--	--
		01-04-71	--	--	--	--	--	--	--
		02-09-71	--	--	--	--	--	--	--
		03-09-71	--	--	--	--	--	--	--
		04-05-71	--	--	--	--	--	--	--
		05-03-71	--	--	--	--	--	--	--
		06-14-71	--	--	--	--	--	--	--
		06-16-71	--	--	--	--	--	--	--
		07-12-71	--	--	--	--	--	--	--
		08-16-71	--	--	--	--	--	--	--
		09-16-71	24	200	164	4.0	21	6.8	.20
		10-29-71	--	--	--	--	--	--	--
		11-18-71	--	--	--	--	--	--	--
		12-13-71	--	--	--	--	--	--	--
		01-07-72	--	--	--	--	--	--	--
		02-14-72	--	--	--	--	--	--	--
		03-20-72	--	--	--	--	--	--	--
		04-06-72	--	--	--	--	--	--	--
		05-08-72	--	--	--	--	--	--	--
		06-07-72	--	--	--	--	--	--	--
		07-19-72	--	--	--	--	--	--	--
		08-28-72	--	--	--	--	--	--	--
		09-19-72	20	220	178	1.7	23	8.1	.30
		10-18-72	--	--	--	--	--	--	--
		11-14-72	--	--	--	--	--	--	--
		12-05-72	30	170	140	4.3	25	8.5	.20
		01-09-73	--	--	--	--	--	--	--
		02-07-73	--	--	--	--	--	--	--
		03-06-73	<10	140	113	5.5	18	9.6	.30
		04-03-73	--	--	--	--	--	--	--
		05-30-73	--	--	--	--	--	--	--
		05-30-73	40	90	74	7.2	15	4.5	.40
		08-26-85	15	171	140(lab)	2.1	18	12	.20
		04-14-86	11	--	160	.6	17	8.8	.20
		08-20-86	22	219	180	4.4	22	12	.20
01619050	Little Antietam Creek at Leitersburg	09-26-85	6	266	218	5.3	24	16	.20
		04-14-86	10	--	210	.8	25	15	.20
		08-20-86	8	250	205	4.0	23	16	.20
01619150	Marsh Run at Fiddlesburg	09-26-85	13	328	269	5.2	32	15	.20
		04-14-86	4	305	250	3.1	25	15	.20
		08-20-86	12	299	245	3.8	30	17	.20
01619250	Antietam Creek at Hagerstown	08-31-76	--	--	--	--	--	--	--

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
--	--	--	--	--	--	--	--	--	--	01619000
7.1	--	210	15	--	2.90	--	--	--	--	
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--	240	--	27	--	--	--	--	.230	--	
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7.8	257	250	33	--	3.80	--	--	.240	.74	
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7.1	203	210	39	--	3.20	--	--	.150	--	
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6.7	127	180	56	--	2.90	--	--	.140	--	
--	--	--	--	--	--	--	--	--	--	
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6.9	127	120	166	--	1.59	--	--	.096	--	
7.0	222	190	32	--	--	4.00	--	.450	--	
5.3	220	200	67	--	--	4.40	--	.200	--	
5.9	251	230	29	--	--	4.10	--	.170	--	
8.1	282	260	4.2	--	--	3.70	--	.110	--	01619050
3.8	284	260	14	--	--	4.70	--	.040	--	
7.4	288	270	6.0	--	--	4.00	--	.090	--	
8.0	338	310	2.0	--	--	5.20	--	.070	--	01619150
7.8	356	330	27	--	--	8.40	--	.030	--	
7.6	233	320	2.3	--	--	6.00	--	.070	--	
--	--	--	--	3.15	--	3.20	3.6	.530	--	01619250

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01619275	Landis Spring Branch near Benevola	09-25-85	1230	0.80	615	8.1	19.5	14.5	5
		04-04-86	1040	4.5	628	8.1	20.0	14.5	3
		08-27-86	1445	1.2	611	8.0	25.0	20.0	5
01619325	Beaver Creek at Benevola	09-25-85	1400	11	519	8.2	19.0	16.0	10
		04-04-86	1200	32	459	8.5	20.5	14.5	5
		08-27-86	1340	13	577	8.2	25.0	20.0	5
01619350	Little Beaver Creek at Benevola	09-25-85	1530	3.3	419	8.2	25.0	16.5	10
		04-04-86	1330	13	356	8.6	21.0	16.5	5
		08-20-86	1600	4.2	445	8.2	23.0	21.0	5
01619480	Little Antietam Creek at Keedysville	09-19-85	1320	5.9	482	7.7	30.0	15.5	5
		04-14-86	1625	25	364	8.3	18.5	14.5	2
		08-20-86	1440	6.4	530	7.7	23.0	20.0	5
01619500	Antietam Creek near Sharpsburg	08-09-63	1430	--	440	8.1	--	--	5
		08-28-63	1205	--	460	8.2	--	20.5	7
		10-14-63	0925	--	504	7.0	--	11.0	20
		03-11-64	--	--	328	7.1	--	--	--
		06-24-64	--	--	419	7.7	--	--	2
		09-17-64	--	--	486	7.7	--	--	--
		08-04-65	1310	77	488	7.2	28.5	22.0	--
		08-09-65	--	--	490	8.3	--	--	--
		09-10-65	0855	68	491	7.7	26.5	23.0	--
		10-19-65	--	65	523	7.0	--	13.0	--
		11-16-65	--	65	531	7.4	--	8.0	4
		12-28-65	1400	60	545	8.1	3.5	2.0	3
		03-16-66	1535	174	404	8.6	7.5	11.5	--
		04-29-66	0745	375	297	7.3	8.0	10.0	5
		06-15-66	1220	102	438	7.8	26.5	23.5	7
		07-28-66	1210	71	495	7.6	26.5	24.5	5
		09-08-66	1510	55	540	7.6	26.5	19.5	5
		10-18-66	1300	109	482	7.2	10.0	11.0	6
		12-06-66	1515	135	442	7.1	2.5	4.5	0
		01-18-67	1255	197	414	7.3	-5.5	4.5	0
		03-02-67	1015	219	413	8.4	-0.5	3.0	1
		06-06-67	1100	206	388	8.4	26.5	20.5	0
		07-17-67	1450	251	354	7.4	25.5	21.0	3
		08-22-67	1315	162	458	8.4	33.5	22.5	5
		10-03-67	1225	138	435	7.7	23.0	16.0	7
		11-07-67	1405	223	398	7.6	1.0	8.0	4
		12-19-67	1330	389	421	8.7	11.5	8.0	0
		01-23-68	0820	--	411	8.7	--	6.0	0
		03-05-68	1305	264	462	8.4	7.5	6.0	0
		04-16-68	1500	290	435	8.1	16.5	15.0	3
		04-26-68	1730	282	390	8.2	--	14.0	3
		05-16-68	1130	209	432	8.1	--	17.0	5
		05-28-68	--	695	325	8.0	--	13.0	6
		07-10-68	0830	171	430	8.1	22.5	23.5	4
		08-20-68	1315	148	380	8.0	34.0	25.0	8
		10-03-68	0845	--	520	8.2	--	18.0	5
		11-20-68	1200	--	355	7.8	--	7.0	10
		01-16-69	1220	--	485	8.0	--	1.0	3
		03-10-69	1400	138	453	8.1	--	6.0	3
		04-22-69	1040	170	364	7.8	--	--	2
		05-29-69	1145	112	436	8.0	--	--	5
		07-16-69	1105	85	430	8.3	29.5	24.0	5
		07-17-69	0930	--	425	7.9	--	24.5	--
		08-28-69	1010	--	460	8.1	--	19.0	--
		09-10-69	0835	129	452	8.0	16.5	19.0	5
		09-24-69	1215	--	440	7.7	--	17.0	--
		10-08-69	1100	99	450	7.2	--	16.5	5
		10-29-69	1245	79	507	8.3	6.5	8.0	5

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
--	--	300	22	88	20	9.6	2.9	400	4	30	01619275
9.8	--	310	53	89	22	11	3.0	250	<3	20	
--	--	300	48	88	19	8.9	3.4	180	20	20	
--	--	260	0	67	23	5.6	2.3	350	51	20	01619325
14.2	--	240	51	62	21	5.6	2.4	170	9	30	
--	--	270	43	71	22	5.8	2.8	160	7	20	
--	--	200	16	52	17	8.0	2.0	290	8	30	01619350
11.5	--	170	25	43	14	8.8	2.2	200	66	20	
--	--	200	26	52	16	8.2	3.1	200	19	20	
--	--	210	0	61	14	7.5	2.8	340	7	20	01619480
9.9	--	180	15	52	11	6.4	2.4	110	45	30	
--	--	230	22	67	15	8.9	3.5	240	15	40	
--	--	220	38	64	15	8.8	3.8	--	--	--	01619500
--	--	180	0	65	3.9	--	--	--	--	--	
--	--	230	23	71	14	17	4.6	140	--	10	
--	--	150	30	46	7.8	4.2	2.5	870	--	40	
--	--	210	39	61	15	6.0	3.4	160	--	10	
--	--	240	42	71	15	11	3.8	70	--	ND	
--	--	230	40	69	15	13	3.7	--	--	--	
--	--	200	17	70	6.4	--	--	--	--	--	
--	--	230	41	83	6.1	12	4.0	--	--	--	
--	--	230	29	36	35	18	4.8	--	--	ND	
--	--	230	37	62	19	18	4.5	--	--	ND	
--	--	250	47	57	25	19	4.5	--	--	ND	
--	--	200	27	60	13	8.0	3.3	--	--	ND	
--	--	140	35	42	9.0	6.0	3.0	--	--	ND	
--	--	220	38	66	13	8.7	3.8	--	--	ND	
--	--	220	35	67	14	13	4.5	--	--	ND	
--	--	240	52	72	15	17	4.1	--	--	10	
--	--	240	35	69	16	11	3.8	20	--	10	
--	--	210	39	62	13	8.1	3.5	20	--	ND	
--	--	200	39	57	13	7.9	3.0	10	--	ND	
--	--	210	56	62	14	8.0	2.5	--	--	--	
--	--	200	45	60	12	5.9	2.9	--	--	--	
--	--	170	47	48	13	6.4	3.0	--	--	--	
--	--	250	63	74	15	6.7	3.1	ND	--	ND	
--	--	220	45	67	12	8.1	4.1	100	--	50	
--	--	200	40	61	12	6.1	3.1	--	10	--	
--	--	210	44	56	16	6.8	2.9	--	--	--	
--	--	200	44	53	16	6.4	3.1	90	--	40	
--	--	210	39	64	13	7.1	2.7	60	--	40	
--	--	220	46	66	14	5.7	2.7	50	--	10	
--	--	190	40	56	12	6.8	3.2	90	--	10	
--	--	220	44	64	14	7.7	3.0	120	--	10	
--	--	150	33	43	9.4	7.5	4.5	880	--	380	
--	--	210	37	63	13	8.6	3.2	90	--	20	
--	--	180	40	53	11	11	5.0	90	--	10	
--	--	250	48	73	16	14	4.4	--	--	--	
--	--	160	37	47	10	7.4	4.0	140	--	30	
--	--	230	43	66	15	10	3.4	60	--	50	
--	--	220	51	66	14	12	3.3	90	--	90	
--	--	170	40	51	11	7.3	3.1	250	--	60	
--	--	200	30	59	12	11	3.5	110	--	30	
--	--	200	29	57	13	8.8	3.7	180	--	40	
6.8	--	--	--	--	--	--	--	--	--	--	
8.0	--	--	--	--	--	--	--	--	--	--	
--	--	210	38	62	13	10	4.4	140	--	20	
8.0	--	--	--	--	--	--	--	--	--	--	
8.0	1.1	210	42	--	--	--	--	--	50	--	
--	--	240	46	70	16	13	4.4	70	--	ND	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01619275	Landis Spring Branch near Benevola	09-25-85	7	341	280	4.3	32	23	0.40
		04-04-86	5	317	260	4.0	35	25	.30
		08-27-86	5	305	250	4.8	31	19	.20
01619325	Beaver Creek at Benevola	09-25-85	11	327	268	3.2	33	15	.30
		04-04-86	13	--	190	1.2	20	13	.20
		08-27-86	9	274	225	2.8	29	11	.30
01619350	Little Beaver Creek at Benevola	09-25-85	8	224	184	2.2	14	17	.20
		04-04-86	8	--	140	.7	37	14	.10
		08-20-86	8	207	170	2.1	15	18	.20
01619480	Little Antietam Creek at Keedysville	09-19-85	13	333	273	11	17	15	.20
		04-14-86	12	--	160	1.6	14	9.4	.20
		08-20-86	24	252	207	8.0	17	17	.20
01619500	Antietam Creek near Sharpsburg	08-09-63	--	220	184	2.8	28	15	.30
		08-28-63	--	230	187	2.3	30	17	.50
		10-14-63	--	260	212	41	31	20	.30
		03-11-64	--	140	117	18	22	6.9	ND
		06-24-64	--	210	175	6.8	25	10	.30
		09-17-64	--	240	197	7.6	34	21	.40
		08-04-65	--	240	194	24	33	20	.40
		08-09-65	--	220	184	1.8	36	25	--
		09-10-65	--	230	191	7.4	36	18	.30
		10-19-65	--	250	205	40	35	23	.40
		11-16-65	--	240	196	15	33	26	.30
		12-28-65	--	240	198	3.0	36	26	.30
		03-16-66	--	200	176	.8	30	12	.30
		04-29-66	--	130	107	10	24	8.7	.20
		06-15-66	--	220	180	5.5	27	12	.20
		07-28-66	--	230	190	9.3	36	20	.40
		09-08-66	--	230	190	9.3	42	24	.40
		10-18-66	--	250	203	25	30	16	.30
		12-06-66	--	210	169	26	31	14	.30
		01-18-67	--	190	157	15	29	12	.30
		03-02-67	--	190	156	1.2	29	13	.10
		06-06-67	--	190	154	1.2	25	12	.20
		07-17-67	--	150	126	9.7	31	12	.30
		08-22-67	--	220	184	1.4	29	14	.30
		10-03-67	--	210	172	6.7	28	16	.30
		11-07-67	--	200	162	7.9	24	13	.20
		12-19-67	--	180	162	.6	27	12	.20
		01-23-68	--	180	154	.6	27	12	.20
		03-05-68	--	200	174	1.3	26	14	.20
		04-16-68	--	220	176	2.7	27	12	.30
		04-26-68	--	180	149	1.8	24	12	.30
		05-16-68	--	210	173	2.7	26	14	.30
		05-28-68	--	140	113	2.2	21	13	.20
		07-10-68	--	210	174	2.7	28	15	.30
		08-20-68	--	170	138	2.7	31	15	.30
		10-03-68	--	240	200	2.4	34	22	.40
		11-20-68	--	150	122	3.8	27	14	.20
		01-16-69	--	220	184	3.6	28	17	.30
		03-10-69	--	210	171	2.6	30	20	.30
		04-22-69	--	160	133	4.1	25	14	.30
		05-29-69	--	200	167	3.2	27	8.0	.30
		07-16-69	--	200	167	1.6	27	16	.30
		07-17-69	--	--	--	--	--	--	--
		08-28-69	--	--	--	--	--	--	--
		09-10-69	--	210	170	3.3	32	17	.30
		09-24-69	--	--	--	--	--	--	--
		10-08-69	350	200	166	4.0	30	16	.30
		10-29-69	--	230	195	1.8	33	19	.30

Silica, dis-solved (mg/L)	Solids, residue at 180 deg. C, dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Solids, dis-solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis-solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro-gen, total (mg/L as N)	Phos-phorus, total (mg/L as P)	Phos-phate, total (mg/L as PO_4)	Station No.
9.6	307	280	0.66	--	--	5.10	--	0.040	--	01619275
5.5	365	350	4.4	--	--	5.70	--	.020	--	
9.5	240	330	.79	--	--	5.40	--	.010	--	
8.2	312	280	9.3	--	--	4.70	--	.050	--	01619325
4.6	200	240	17	--	--	4.70	--	.020	--	
8.2	327	290	12	--	--	5.10	--	.030	--	
7.9	237	220	2.1	--	--	3.30	--	.080	--	01619350
6.1	203	210	6.9	--	--	3.40	--	.050	--	
8.3	238	220	2.7	--	--	3.50	--	.070	--	
8.4	274	240	4.4	--	--	3.00	--	.120	--	01619480
7.1	208	200	14	--	--	3.10	--	.070	--	
9.7	272	260	4.7	--	--	3.30	--	.140	--	
9.4	292	250	103	--	--	--	--	--	--	01619500
3.9	278	280	83	--	--	--	--	--	--	
2.3	287	290	47	--	--	--	--	--	--	
7.5	201	170	464	--	--	--	--	--	--	
7.0	272	230	133	--	--	--	--	--	--	
4.2	286	280	224	--	--	--	--	--	--	
4.5	305	280	63	--	1.80	--	--	--	--	
--	316	--	122	--	1.50	--	--	--	--	
4.0	295	290	54	--	2.10	--	--	--	--	
5.2	336	280	59	--	.540	--	--	--	2.60	
3.2	303	290	53	--	1.50	--	--	--	1.30	
3.4	311	300	50	--	2.70	--	--	--	2.80	
.2	261	250	123	--	2.50	--	--	--	.12	
7.6	199	180	201	--	2.70	--	--	--	.34	
4.8	285	250	78	--	2.50	--	--	--	.42	
5.7	288	290	55	--	3.20	--	--	--	1.80	
4.4	311	310	46	--	2.90	--	--	--	.38	
5.1	280	270	82	--	.070	--	--	--	--	
7.6	293	250	107	--	3.20	--	--	--	--	
5.3	260	240	138	--	3.40	--	--	--	--	
3.5	271	240	160	--	3.80	--	--	--	--	
1.8	230	220	128	--	2.10	--	--	--	--	
.6	193	200	131	--	2.10	--	--	--	--	
5.5	273	270	119	--	3.20	--	--	--	--	
7.8	--	260	97	--	3.20	--	--	--	--	
8.4	--	240	144	--	3.20	--	--	--	--	
6.0	--	250	263	--	3.80	--	--	--	--	
7.8	--	240	335	--	3.80	--	--	--	--	
3.1	--	260	183	--	3.80	--	--	--	--	
3.4	--	250	197	--	3.20	--	--	--	--	
8.1	--	230	172	--	3.20	--	--	--	--	
8.3	--	260	145	--	3.40	--	--	--	--	
11	--	190	355	--	2.70	--	--	--	--	
6.0	--	260	119	--	3.60	--	--	--	--	
7.7	--	230	92	--	3.20	--	--	--	--	
6.8	--	290	79	--	--	--	--	--	--	
8.4	--	190	150	--	--	--	--	--	--	
3.5	--	250	66	--	--	--	--	--	--	
4.0	--	250	94	--	--	--	--	--	--	
6.5	--	200	91	--	--	--	--	--	--	
9.4	--	230	70	--	--	--	--	--	--	
5.8	--	240	54	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
8.6	--	250	87	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	265	--	71	--	--	--	--	.700	--	
6.5	--	280	60	--	--	--	--	--	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01619500	Antietam Creek near Sharpsburg	11-20-69	1115	--	480	7.8	--	7.0	--
		12-11-69	1044	131	400	7.8	--	6.5	7
		01-07-70	1155	152	470	7.9	--	2.5	2
		02-04-70	1110	530	310	7.8	--	1.5	5
		03-12-70	1130	312	380	7.9	--	6.5	1
		04-20-70	1015	805	360	8.0	--	10.5	3
		05-13-70	1118	385	430	7.7	--	17.5	1
		05-19-70	1050	--	410	7.5	--	15.0	--
		06-04-70	1045	304	440	7.7	--	20.5	3
		07-28-70	1040	282	390	7.7	--	21.5	1
		08-17-70	1030	236	370	7.9	--	21.5	1
		09-17-70	1215	150	450	8.2	--	22.0	5
		10-20-70	0853	128	440	8.0	--	11.5	0
		11-24-70	1015	266	430	7.7	--	3.0	5
		12-09-70	1330	184	465	8.2	--	4.0	5
		01-20-71	1140	326	460	7.9	--	.5	2
		02-08-71	1050	335	460	7.6	--	4.0	5
		03-08-71	1035	825	380	8.1	--	5.0	0
		04-07-71	1035	450	430	8.1	--	6.0	2
		05-06-71	1007	322	425	7.4	--	13.5	0
		06-16-71	1100	420	290	7.4	--	15.5	5
		07-14-71	1107	170	480	7.9	--	21.0	0
		08-18-71	1250	152	500	8.3	--	22.0	7
		09-23-71	1432	160	425	7.8	--	18.0	5
		10-29-71	0922	299	470	7.8	--	13.5	0
		11-17-71	1245	187	510	6.8	--	9.0	0
		12-14-71	1045	500	400	7.4	--	7.0	1
		01-10-72	1049	376	425	7.7	--	7.0	2
		02-10-72	1028	304	460	7.2	--	1.0	0
		03-15-72	1123	670	400	7.2	--	7.0	1
		04-05-72	1113	425	425	7.6	--	9.0	0
		05-09-72	1125	835	376	7.3	--	14.0	3
		06-12-72	1215	350	450	7.8	--	16.0	--
		07-20-72	1030	450	490	7.9	--	19.0	--
		08-29-72	1320	232	490	7.8	--	18.0	--
		09-19-72	1325	179	450	8.1	--	17.0	3
		10-19-72	1031	157	472	8.0	--	10.0	--
		11-15-72	1205	400	370	7.9	--	9.0	--
		12-05-72	1315	226	465	8.2	--	7.0	0
		01-10-73	1150	495	430	7.9	--	2.0	--
		02-08-73	1125	765	400	7.8	--	6.0	--
		03-06-73	1430	465	420	8.0	--	9.0	3
		04-04-73	1200	535	365	7.8	--	9.0	--
		05-09-73	1135	605	420	7.9	--	14.5	--
		05-30-73	1115	1010	285	8.0	--	15.0	18
		07-11-73	1110	326	455	8.2	--	20.0	--
		08-08-73	1145	203	490	7.9	--	22.0	--
		09-12-73	1400	166	515	8.2	--	18.5	10
		10-17-73	1240	161	480	8.1	--	13.5	--
		11-07-73	1145	196	430	8.1	--	5.5	--
		12-03-73	1400	146	470	8.4	--	5.0	--
		01-23-74	1220	720	380	7.6	--	7.0	--
		03-14-74	1515	255	444	8.1	--	7.0	--
		05-23-74	1440	350	341	7.8	--	19.5	2
		07-11-74	1220	166	--	-	--	23.5	1
		09-05-74	1545	158	412	-	--	18.5	1
		10-22-74	0905	113	540	7.9	--	6.0	5
		11-15-74	1320	164	475	7.5	--	7.0	10
		12-23-74	1000	297	500	8.2	1.5	4.5	9
		01-29-75	1030	451	460	7.6	--	6.0	8
		03-11-75	1200	406	510	8.3	--	5.5	7
		04-10-75	1220	426	500	8.1	--	9.0	3
		05-15-75	1045	495	425	7.8	--	15.0	2
		07-17-75	0945	406	405	7.8	--	19.0	7

Oxygen, dis-solved (mg/L)	Biochem-ical oxygen demand, 5 day (mg/L)	Hard-ness, (mg/L as $CaCO_3$)	Non-carbon-ate hard-ness, total (mg/L as $CaCO_3$)	Cal-cium, dis-solved (mg/L)	Magne-sium, dis-solved (mg/L)	Sodium, dis-solved (mg/L)	Potas-sium, dis-solved (mg/L)	Iron, total recov-erable (µg/L)	Iron, dis-solved (µg/L)	Manga-nese, total recov-erable (µg/L)	Station No.
10.0	--	--	--	--	--	--	--	--	--	--	01619500
11.1	--	170	39	48	12	13	6.5	680	--	120	
12.0	--	210	42	62	13	12	3.6	130	--	20	
12.3	--	140	37	41	8.8	8.5	3.2	510	--	80	
11.0	--	180	39	54	12	7.1	2.6	110	--	20	
9.6	--	180	42	52	11	4.7	2.5	230	--	30	
7.8	--	210	41	62	13	5.9	3.0	190	--	30	
8.5	--	--	--	--	--	--	--	--	--	--	
7.6	--	220	43	66	14	7.3	3.3	360	--	60	
7.7	--	230	42	70	14	6.0	3.2	170	--	30	
7.6	--	190	34	58	12	6.7	3.8	180	--	30	
8.5	--	260	61	78	16	11	3.7	100	--	ND	
8.7	1.5	230	34	68	15	9.0	3.6	--	50	--	
12.0	--	210	46	62	13	6.0	3.1	140	--	20	
13.1	--	230	50	69	14	8.2	3.1	100	--	20	
13.9	--	230	54	69	15	7.2	2.9	120	--	20	
12.0	--	210	45	62	13	10	3.3	130	--	20	
11.9	--	180	42	54	11	6.4	3.2	500	--	40	
13.4	--	210	49	62	13	6.8	3.1	100	--	20	
8.9	--	210	44	62	13	7.2	3.3	160	--	60	
9.0	--	130	27	39	7.9	5.3	3.5	920	--	120	
9.4	--	220	45	66	14	10	3.5	100	--	20	
8.9	--	230	43	70	14	12	3.5	100	--	20	
9.6	.9	190	32	58	12	11	4.2	20	20	58	
9.1	--	220	49	67	14	8.7	3.9	270	--	30	
10.8	--	240	45	72	14	98	--	140	--	20	
11.4	--	190	45	58	12	6.8	3.1	260	--	30	
11.0	--	210	44	62	13	6.9	4.0	300	--	20	
12.2	--	220	47	66	14	7.9	3.1	160	--	40	
10.2	--	150	37	43	10	5.7	2.5	150	--	40	
12.5	--	210	44	61	13	6.7	2.9	110	--	60	
9.1	--	180	36	54	11	6.7	3.6	190	--	70	
9.9	--	230	53	70	14	5.7	2.6	550	--	90	
7.7	--	240	58	73	14	6.0	3.0	270	--	40	
9.2	--	250	57	76	15	6.8	3.6	190	--	--	
9.0	1.8	260	65	78	16	8.0	3.2	--	20	--	
10.0	--	260	63	77	16	10	3.5	80	--	20	
10.4	--	190	43	58	10	9.0	3.9	490	--	60	
12.6	1.9	240	53	73	14	8.2	3.3	--	40	--	
13.2	--	230	53	70	13	6.0	2.7	240	--	<10	
11.6	--	200	51	62	12	7.4	2.8	490	--	60	
11.2	3.3	220	55	67	13	7.0	2.9	--	90	--	
11.2	--	180	40	57	10	7.0	2.6	270	--	<10	
--	--	210	49	65	12	5.8	2.6	410	--	30	
9.2	2.5	140	32	43	7.6	3.9	2.6	--	60	--	
8.0	--	220	36	66	13	6.2	2.9	830	--	50	
7.8	--	240	48	72	15	9.0	3.3	260	--	20	
10.4	.7	240	40	75	13	10	3.6	170	--	60	
11.0	--	240	40	70	16	11	4.0	310	--	40	
12.1	--	220	35	65	14	8.5	3.6	150	--	30	
14.6	1.3	220	34	68	13	11	3.5	140	--	<10	
12.2	--	180	42	54	11	6.0	2.7	1600	--	90	
--	--	210	30	62	13	6.7	3.0	170	--	30	
--	--	200	42	60	13	6.7	3.2	1200	--	70	
--	--	230	54	69	15	8.0	3.8	220	--	50	
--	--	190	28	57	12	7.5	4.2	480	--	60	
--	--	230	42	72	13	10	4.0	70	--	<10	
--	--	210	33	62	14	12	3.9	230	--	30	
--	--	210	38	61	13	7.4	2.5	500	--	60	
--	--	190	37	58	12	7.3	3.0	1100	--	380	
--	--	210	31	61	13	6.5	2.9	270	--	30	
--	--	220	59	67	14	6.4	2.5	430	--	40	
--	--	190	40	59	11	6.3	2.6	530	--	40	
--	--	220	48	68	13	7.7	3.4	1500	--	80	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01619500	Antietam Creek near Sharpsburg	11-20-69	--	--	--	--	--	--	--
		12-11-69	--	160	130	10	30	20	.30
		01-07-70	--	200	166	4.0	32	20	.30
		02-04-70	--	120	102	7.8	27	17	.20
		03-12-70	--	170	145	1.4	26	12	.20
		04-20-70	--	160	133	5.1	28	10	.20
		05-13-70	--	200	167	6.5	28	12	.20
		05-19-70	--	--	--	--	--	--	--
		06-04-70	--	220	179	6.9	30	15	.20
		07-28-70	--	230	190	4.6	30	14	.30
		08-17-70	--	200	160	3.1	28	14	.30
		09-17-70	--	240	200	2.4	34	21	.30
		10-20-70	20	240	198	4.8	30	16	.20
		11-24-70	--	200	162	3.1	30	13	.20
		12-09-70	--	220	180	3.5	30	16	.30
		01-20-71	--	220	180	3.5	31	15	.30
		02-08-71	--	200	163	2.5	28	20	.20
		03-08-71	--	170	138	4.2	28	14	.20
		04-07-71	--	190	159	6.2	28	14	.30
		05-06-71	--	200	164	8.0	27	14	.30
		06-16-71	--	120	103	10	24	9.1	.30
		07-14-71	--	220	177	5.4	31	17	.30
		08-18-71	--	210	189	1.1	30	22	.30
		09-23-71	59	200	162	5.0	27	17	.30
		10-29-71	--	220	176	--	33	16	.30
		11-17-71	--	230	192	--	29	18	.30
		12-14-71	--	180	149	--	26	14	.20
		01-10-72	--	200	164	--	26	14	.20
		02-10-72	--	210	175	--	29	15	.20
		03-15-72	--	140	112	--	23	11	.20
		04-05-72	--	200	162	--	29	12	.20
		05-09-72	--	170	144	--	26	12	.20
		06-12-72	--	220	179	--	28	11	.20
		07-20-72	--	220	182	--	29	12	.30
		08-29-72	--	240	195	--	31	13	0.20
		09-19-72	10	240	196	--	32	14	.30
		10-19-72	--	240	195	3.0	29	16	.30
		11-15-72	--	170	143	2.8	28	13	.20
		12-05-72	<10	230	187	9.1	34	17	.20
		01-10-73	--	210	175	3.4	31	13	.20
		02-08-73	--	190	153	4.7	28	14	.20
		03-06-73	<10	200	166	6.4	28	13	.30
		04-04-73	--	170	144	1.8	25	13	.20
		05-09-73	--	200	163	7.9	26	11	.40
		05-30-73	20	130	107	8.2	20	7.2	.40
		07-11-73	--	220	182	2.8	24	11	.40
		08-08-73	--	240	194	3.8	27	16	.40
		09-12-73	--	250	201	2.0	32	17	.40
		10-17-73	--	250	201	3.1	31	17	.30
		11-07-73	--	230	185	2.8	28	20	.50
		12-03-73	--	230	189	1.5	31	15	.40
		01-23-74	--	170	138	6.7	24	11	.30
		03-14-74	--	220	178	2.7	26	13	.20
		05-23-74	--	200	161	4.9	24	11	.30
		07-11-74	--	220	180	--	30	15	1.0
		09-05-74	--	200	164	--	26	6.5	.30
		10-22-74	--	230	191	4.7	31	18	.30
		11-15-74	--	220	179	11	25	17	.30
		12-23-74	--	210	168	2.1	26	13	.20
		01-29-75	--	190	157	7.6	26	13	.20
		03-11-75	--	210	175	1.7	27	13	.30
		04-10-75	--	200	166	2.5	28	12	.20
		05-15-75	--	190	153	4.7	24	11	.20
		07-17-75	--	210	175	5.4	23	10	.20

Silica, dis- solved (mg/L)	Solids, residue at 180 deg. C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Solids, dis- solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis- solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro- gen, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phate, total (mg/L as PO_4)	Station No.
--	--	--	--	--	--	--	--	--	--	01619500
6.9	--	210	76	--	--	--	--	--	--	
6.5	--	250	102	--	--	--	--	--	--	
8.7	--	180	251	--	--	--	--	--	--	
5.4	--	210	176	--	--	--	--	--	--	
7.2	--	200	424	--	--	--	--	--	--	
5.5	--	230	239	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
8.7	--	250	207	--	--	--	--	--	--	
6.4	--	260	196	--	--	--	--	--	--	
6.8	--	230	144	--	--	--	--	--	--	
5.2	--	290	117	--	--	--	--	--	--	
3.8	301	260	104	--	--	--	--	.530	--	
9.0	--	230	167	--	--	--	--	--	--	
6.8	--	260	127	--	--	--	--	--	--	
7.7	--	260	226	--	--	--	--	--	--	
7.1	--	240	218	--	--	--	--	--	--	
7.0	--	210	460	--	--	--	--	--	--	
4.3	--	230	276	--	--	--	--	--	--	
3.6	--	230	199	--	--	--	--	--	--	
7.8	--	160	180	--	--	--	--	--	--	
6.3	--	250	117	--	--	--	--	--	--	
6.0	--	280	115	--	--	--	--	--	--	
8.8	288	240	124	--	--	--	--	.550	--	
10	--	270	221	--	3.40	--	--	--	--	
7.7	--	290	145	--	4.10	--	--	--	--	
8.3	--	230	314	--	3.40	--	--	--	--	
7.3	--	250	251	--	3.40	--	--	--	--	
7.8	--	260	217	--	3.80	--	--	--	--	
7.6	--	180	329	--	2.70	--	--	--	--	
5.3	--	240	278	--	3.40	--	--	--	--	
7.8	--	220	496	--	2.90	--	--	--	--	
7.5	--	260	247	--	3.40	--	--	--	--	
7.4	--	270	331	--	4.00	--	--	--	--	
7.4	--	290	180	--	3.80	--	--	--	--	
7.6	318	300	154	--	4.20	--	--	.460	1.41	
7.3	--	290	125	--	4.10	--	--	--	--	
6.6	--	230	245	--	2.80	--	--	--	--	
6.9	288	280	176	--	3.50	--	--	.310	--	
8.3	--	270	357	--	4.00	--	--	--	--	
7.8	--	240	502	--	3.80	--	--	--	--	
6.7	265	250	333	--	3.80	--	--	.290	--	
8.0	--	220	322	--	3.20	--	--	--	--	
6.7	--	240	397	--	3.60	--	--	--	--	
7.7	205	170	559	--	2.29	--	--	.410	--	
7.6	--	260	225	--	3.50	--	--	--	--	
7.1	--	290	157	--	4.40	--	--	--	--	
5.9	319	300	143	--	4.46	--	--	.680	--	
5.3	--	280	120	.537	--	.54	--	--	--	
6.9	--	260	136	3.49	--	3.50	--	--	--	
5.0	273	260	108	4.14	--	4.20	--	.400	--	
7.2	--	200	386	3.13	--	3.20	--	--	--	
4.9	--	240	162	3.56	--	3.60	--	--	--	
7.0	--	220	209	--	--	3.10	--	.290	--	
6.0	--	260	115	--	--	3.40	--	.450	--	
8.5	--	220	94	--	--	2.80	--	.340	--	
6.6	--	270	82	--	--	3.40	--	.960	--	
5.9	--	250	110	--	--	3.60	--	.520	--	
8.0	--	230	186	--	--	3.50	--	.230	--	
7.8	--	220	269	--	--	3.40	--	.200	--	
7.4	--	240	259	--	--	4.00	--	.300	--	
5.9	--	240	271	--	--	3.60	--	.210	--	
6.7	--	210	284	--	--	3.00	--	.180	--	
8.0	--	240	261	--	--	3.30	--	.180	--	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Time	Discharge (cubic feet per second)	Specific conductance (µS/cm)	pH	Temperature, air (deg C)	Temperature, water (deg C)	Color (platinum-cobalt units)
01619500	Antietam Creek near Sharpsburg	08-26-75	1245	217	410	8.1	--	22.0	1
		10-08-75	1425	650	500	7.3	--	14.0	1
		11-17-75	1230	666	380	7.6	21.0	8.5	--
		12-19-75	1020	338	490	-	-4.0	2.0	--
		03-11-76	1120	350	480	-	--	7.0	--
		05-11-76	1710	223	470	8.1	--	15.5	1
		06-15-76	1225	166	480	8.3	--	21.5	1
		07-20-76	1240	174	500	8.2	30.0	21.5	--
		08-26-76	1305	122	500	8.0	--	22.5	2
		08-31-76	1005	118	480	8.0	18.0	16.5	--
		10-08-76	1520	588	400	7.3	18.0	15.0	--
		12-06-76	1020	267	500	8.2	-5.0	3.0	--
		01-04-77	1225	220	500	8.3	4.0	2.5	--
		02-21-77	1130	188	480	8.4	2.0	3.5	0
		04-11-77	1305	666	420	8.0	24.0	11.5	5
		05-26-77	1540	231	480	8.3	27.0	20.0	--
		07-12-77	1055	166	510	8.3	29.5	22.5	10
		08-22-77	1240	190	370	7.5	26.0	19.5	--
		10-06-77	1340	108	510	8.2	14.0	12.0	--
		11-21-77	1035	140	480	8.0	10.5	9.0	--
		02-23-78	1115	285	460	7.4	-4.0	3.0	--
		04-06-78	0945	550	450	8.3	--	10.5	5
		06-29-78	1320	271	480	7.9	27.0	21.5	--
		08-10-78	1030	214	485	8.3	24.5	22.5	--
		09-19-78	1345	152	520	8.2	30.0	22.5	10
		10-26-78	1400	115	570	8.4	19.5	12.0	--
		12-14-78	1430	166	540	8.3	--	3.5	5
		02-01-79	1245	538	485	8.1	.5	4.0	--
		03-20-79	1145	533	440	8.2	10.0	9.5	50
		05-08-79	1355	323	430	8.3	27.0	20.0	--
		06-13-80	1330	290	442	7.8	26.0	16.5	0
		01-20-81	1100	99	509	7.7	9.0	.0	5
		04-27-81	1300	285	453	7.2	26.0	15.0	3
		08-28-81	1230	117	510	7.7	28.0	21.5	<1
		12-08-81	1130	114	462	7.8	3.0	5.0	7
		04-20-82	1100	386	423	8.0	17.0	13.5	3
		10-22-82	1330	114	556	8.2	13.0	10.5	10
		03-16-83	1315	273	385	8.1	15.5	11.0	--
		06-10-83	1315	327	476	8.0	26.0	17.5	--
		09-25-85	1700	100	551	8.1	19.5	17.5	5
		04-02-86	0915	396	505	8.1	20.0	14.5	5
		08-27-86	1230	113	589	8.1	23.0	21.0	5
01636730	Israel Creek at Weverton	09-25-85	1845	.95	203	7.9	16.5	16.0	10
		04-15-86	1040	10	129	8.3	10.0	10.0	5
		08-22-86	1430	1.8	233	7.8	26.0	22.0	10

Oxygen, dis- solved (mg/L)	Biochem- ical oxygen demand, 5 day (mg/L)	Hard- ness, (mg/L as $CaCO_3$)	Non- carbon- ate hard- ness, total (mg/L as $CaCO_3$)	Cal- cium, dis- solved (mg/L)	Magne- sium, dis- solved (mg/L)	Sodium, dis- solved (mg/L)	Potas- sium, dis- solved (mg/L)	Iron, total recov- erable (µg/L)	Iron, dis- solved (µg/L)	Manga- nese, total recov- erable (µg/L)	Station No.
--	--	240	28	69	16	6.8	3.1	260	--	<10	01619500
--	--	250	52	72	17	5.7	3.2	290	--	20	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	230	45	68	14	6.3	2.9	320	--	30	
--	--	210	28	63	14	7.7	3.2	350	<10	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	240	52	72	15	9.9	3.4	310	<10	40	
9.0	--	--	--	--	--	--	--	560	--	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	220	38	66	14	10	3.3	140	<10	20	
--	--	200	44	62	12	5.6	2.7	1000	20	40	
--	--	--	--	--	--	--	--	--	--	--	
--	--	230	35	71	14	11	3.7	1200	<10	50	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	180	22	60	7.8	7.1	2.7	720	<10	40	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	250	47	74	15	10	4.1	270	30	30	
--	--	--	--	--	--	--	--	--	--	--	
--	--	220	42	66	14	12	3.8	180	40	<10	
--	--	--	--	--	--	--	--	--	--	--	
--	--	210	47	63	12	7.3	2.7	320	<10	20	
--	--	--	--	--	--	--	--	--	--	--	
10.5	--	200	33	60	13	9.3	3.1	420	10	40	
14.8	--	230	37	68	14	16	3.6	100	20	<10	
--	--	210	38	62	13	9.3	2.7	620	<10	50	
8.6	--	240	44	73	15	13	3.9	320	20	30	
12.2	--	230	37	68	14	13	3.7	130	7	10	
10.1	--	200	45	59	14	12	2.6	440	31	50	
--	--	250	42	75	15	14	3.8	140	23	20	
10.8	--	190	41	53	13	12	2.7	--	19	--	
10.0	--	230	64	69	15	10	3.0	--	13	--	
--	--	240	0	71	16	15	4.4	300	33	20	
10.9	--	230	24	69	15	10	3.4	140	4	30	
--	--	240	31	71	15	18	5.3	200	6	30	
--	--	77	7	20	6.5	7.5	2.2	100	22	20	01636730
11.7	--	48	9	12	4.5	5.9	1.3	110	30	20	
--	--	77	9	20	6.5	7.7	5.8	510	61	30	

Table 17.—Major-ion analyses of surface water—Continued

Station No.	Station name	Date	Manganese, dissolved (µg/L)	Bicarbonate, total (mg/L)	Alkalinity, total (mg/L as $CaCO_3$)	Carbon dioxide dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)
01619500	Antietam Creek near Sharpsburg	08-26-75	--	260	210	3.2	25	12	.40
		10-08-75	--	240	198	19	31	12	.40
		11-17-75	--	--	--	--	--	--	--
		12-19-75	--	--	--	--	--	--	--
		03-11-76	--	--	--	--	--	--	--
		05-11-76	--	220	182	2.8	26	12	.20
		06-15-76	2	230	187	1.8	27	14	.20
		07-20-76	--	--	--	--	--	--	--
		08-26-76	<10	230	190	3.7	29	15	.30
		08-31-76	--	--	--	--	--	--	--
		10-08-76	--	--	--	--	--	--	--
		12-06-76	--	--	--	--	--	--	--
		01-04-77	--	--	--	--	--	--	--
		02-21-77	<10	220	184	1.4	26	17	.20
		04-11-77	<10	190	160	3.0	23	11	.10
		05-26-77	--	--	--	--	--	--	--
		07-12-77	20	240	200	1.9	30	16	.20
		08-22-77	--	--	--	--	--	--	--
		10-06-77	--	--	--	--	--	--	--
		11-21-77	--	--	--	--	--	--	--
		02-23-78	--	--	--	--	--	--	--
		04-06-78	20	200	160	1.6	27	13	.20
		06-29-78	--	--	--	--	--	--	--
		08-10-78	--	--	--	--	--	--	--
		09-19-78	<10	240	200	2.4	34	18	0.20
		10-26-78	--	--	--	--	--	--	--
		12-14-78	<10	220	180	1.8	34	21	.20
		02-01-79	--	--	--	--	--	--	--
		03-20-79	3	200	160	2.0	27	14	.20
		05-08-79	--	--	--	--	--	--	--
		06-13-80	10	207	170	5.2	24	14	.20
		01-20-81	5	232	190(lab)	7.3	38	24	.30
		04-27-81	20	232	190(lab)	21	26	15	.20
		08-28-81	20	244	200(lab)	7.7	35	21	.30
		12-08-81	12	232	190(lab)	5.8	35	21	.30
		04-20-82	21	195	160(lab)	3.1	23	17	.20
		10-22-82	9	252	207(lab)	2.5	35	20	.30
		03-16-83	19	177	145(lab)	2.2	23	18	.20
		06-10-83	12	207	170	3.3	9.8	17	.20
		09-25-85	9	300	246	3.8	35	27	.30
		04-02-86	16	256	210	3.2	18	20	.20
		08-27-86	9	254	208	3.2	33	22	.30
01636730	Israel Creek at Weverton	09-25-85	3	85	70	1.7	12	15	< .10
		04-15-86	6	--	39	.4	12	8.5	< .10
		08-22-86	9	83	68	2.1	14	13	.10

Silica, dis-solved (mg/L)	Solids, residue at 180 deg. C, dis-solved (mg/L)	Solids, sum of consti-tuents, dis-solved (mg/L)	Solids, dis-solved (tons per day)	Nitrate, total (mg/L as N)	Nitrate, dis-solved (mg/L as N)	Nitrate + Nitrite, total (mg/L as N)	Nitro-gen, total (mg/L as N)	Phos-phorus, total (mg/L as P)	Phos-phate, total (mg/L as PO_4)	Station No.
7.9	--	270	156	--	--	3.90	--	.240	--	01619500
8.9	--	270	472	--	--	4.60	--	.170	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.8	--	240	147	--	--	3.60	--	.230	--	
7.0	307	250	138	--	--	2.90	--	.250	--	
--	--	--	--	--	--	--	--	--	--	
6.3	295	260	97	--	--	3.20	--	.380	--	
--	--	--	--	2.88	--	2.90	3.4	.340	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
4.4	272	250	138	--	--	3.50	--	.140	--	
7.6	235	220	423	--	--	3.00	--	.130	--	
--	--	--	--	--	--	--	--	--	--	
8.0	291	270	130	--	--	3.70	--	.230	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
5.7	248	220	368	--	--	3.60	--	.130	--	
--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	
6.6	298	280	122	--	--	4.00	--	0.340	--	
--	--	--	--	--	--	--	--	--	--	
9.4	296	270	133	--	--	4.00	--	.290	--	
--	--	--	--	--	--	--	--	--	--	
6.4	254	230	366	--	--	3.80	--	.120	--	
--	--	--	--	--	--	--	--	--	--	
6.4	260	230	204	--	--	4.30	--	.130	--	
4.2	315	280	84	--	--	4.10	--	.400	--	
6.7	276	240	212	--	--	4.00	--	.170	--	
5.9	330	290	104	--	--	3.60	--	.370	--	
3.2	299	270	92	--	--	3.70	--	.300	--	
4.8	258	230	269	--	--	4.30	--	.200	--	
7.1	331	290	102	--	--	4.50	--	.350	--	
8.3	232	220	171	--	--	--	--	--	--	
7.3	289	230	255	--	--	--	--	--	--	
6.3	323	300	87	--	--	4.70	--	.640	--	
3.7	303	270	324	--	--	4.80	--	.100	--	
7.6	318	300	12	--	--	4.90	--	.300	--	
13	125	110	.32	--	--	.70	--	.070	--	01636730
10	91	78	2.5	--	--	1.50	--	.020	--	
16	127	120	.62	--	--	.60	--	.110	--	

Table 18.—Analyses of trace elements recovered from stream-bottom materials

[All values expressed as micrograms per gram; ND, not detected (detection limit not reported)]

Station number	Station name	Date	Arsenic	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Zinc
01610150	Bear Creek at Forest Park	08-26-86	6	<1	4	7	7,100	10	550	0.02	40
01610170	Potomac River Tributary at Woodmont	08-26-86	12	<1	10	20	2,700	20	940	.08	90
01613000	Potomac River at Hancock	05-18-72	20	1	8	20	1,600	20	1,100	.11	8
		08-31-76	1	ND	10	10	6,100	20	370	.20	60
01613100	Tonoloway Creek at Hancock	08-26-86	9	<1	6	7	11,000	10	260	.04	40
01613150	Ditch Run near Hancock	06-30-87	26	<1	140	6	9,700	10	770	<.10	30
01614625	Meadow Brook at Conococheague	05-18-87	15	1	240	6	5,400	30	980	.60	30
01614675	Conococheague Creek Tributary near Huyett	08-27-86	6	1	20	10	5,000	30	710	.06	50
01617780	St. James Run at Spielman	08-27-86	3	2	9	20	4,600	40	230	.06	60
01619050	Little Antietam Creek at Leitersburg	08-20-86	3	<1	10	20	12,000	30	510	.11	50
01619250	Antietam Creek at Hagerstown	05-17-72	5	ND	5	3	84	9	33	.04	10
		08-31-76	8	ND	50	60	11,000	200	310	.40	220
01619270	Antietam Creek below Hagerstown	05-17-72	ND	1	17	10	1,300	50	120	.06	70
01619275	Landis Spring Branch near Benevola	08-27-86	3	2	6	5	1,800	20	520	.03	20
01619325	Beaver Creek at Benevola	08-27-86	3	<1	10	10	11,000	20	320	.06	60
01619500	Antietam Creek near Sharpsburg	05-17-72	2	1	2	2	390	10	230	.03	20
		08-31-76	8	ND	20	10	11,000	30	630	ND	60
		08-27-86	5	2	40	30	17,000	70	480	.21	120
01636730	Israel Creek at Weverton	08-22-86	2	<1	9	10	18,000	30	420	.03	50

Table 19.—Analyses of pesticides recovered from stream-bottom materials

[Concentrations expressed in micrograms per kilogram; ND, not detected (detection level not reported)]

Station number	Station name	Date	Aldrin	Chlor-dane	Diazinon	DDD	DDE	DDT
01610155	Sideling Hill Creek near Bellegrove	08-26-86	<0.1	<1.0	<0.1	<0.1	<0.1	<0.1
01612500	Little Tonoloway Creek near Hancock	08-26-86	< .1	<1.0	< .1	1.1	2.1	1.9
01613000	Potomac River at Hancock	05-18-72	ND	10	--	6.5	9.9	9.2
		08-31-76	ND	20	ND	95	29	27
01613540	Lanes Run near Forsythe	05-18-87	< .1	<1.0	< .1	3.6	30	48
01613545	Licking Creek near Pectonville	06-30-87	< .1	24	< .1	11	2.4	.3
01614050	Little Conococheague Creek near Charlton	08-22-86	< .1	<1.0	< .1	< .1	6.0	2.6
01614500	Conococheague Creek at Fairview	08-21-86	< .1	2.0	.1	3.2	11	.2
01614525	Rockdale Run at Fairview	08-21-86	< .1	<1.0	< .1	< .1	.4	< .1
01614575	Rush Run near Huyett	08-22-86	< .1	<1.0	< .1	1.2	4.1	12
01614705	Conococheague Creek at Williamsport	08-21-86	< .1	<1.0	< .1	.3	.2	.2
01617800	Marsh Run at Grimes	08-20-86	< .1	4.0	< .1	.3	< .1	1.0
01619000	Antietam Creek near Waynesboro, Pa.	08-20-86	.4	6.0	< .1	1.7	< .1	.4
01619150	Marsh Run at Fiddlesburg	08-20-86	< .1	1.0	< .1	.7	.4	< .1
01619250	Antietam Creek at Hagerstown	05-17-72	ND	430	--	590	360	140
		08-31-76	ND	230	ND	640	84	2700
01619270	Antietam Creek below Hagerstown	05-17-72	ND	50	--	71	26	190
01619350	Little Beaver Creek at Benevola	08-20-86	< .1	<1.0	< .1	1.4	3.8	< .1
01619480	Little Antietam Creek at Keedysville	08-20-86	< .1	1.0	< .1	1.8	.8	.3
01619500	Antietam Creek near Sharpsburg	05-17-72	ND	20	--	28	3.3	54
		08-31-76	ND	4.0	ND	3.9	.8	2.2

Station number	Date	Dieldrin	2,4-D	2,4-DP	Endo-sulfan	Endrin	Ethion	Hepta-chlor	Hepta-chlor epoxide	Lindane	Mala-thion
01610155	08-26-86	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
01612500	08-26-86	.3	< .1	< .1	< .1	.5	< .1	< .1	< .1	< .1	< .1
01613000	05-18-72	2.2	--	--	--	4.8	--	ND	--	ND	--
	08-31-76	.4	ND	--	--	.4	ND	ND	ND	ND	ND
01613540	05-18-87	.6	< .1	< .1	1.6	2.1	.2	< .1	< .1	< .1	< .1
01613545	06-30-87	.1	< .1	< .1	<1.0	3.6	< .1	.3	1.1	.3	< .1
01614050	08-22-86	.5	< .1	< .1	< .1	< .1	< .1	< .1	.1	.1	< .1
01614500	08-21-86	1.2	< .1	< .1	< .1	.3	< .1	.2	.4	.3	< .1
01614525	08-21-86	.1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1
01614575	08-22-86	.3	< .1	< .1	< .1	.4	< .1	< .1	< .1	< .1	< .1
01614705	08-21-86	.1	< .1	< .1	< .1	.1	< .1	< .1	< .1	< .1	< .1
01617800	08-20-86	.2	< .1	< .1	< .1	< .1	< .1	< .1	.1	< .1	< .1
01619000	08-20-86	5.1	< .1	< .1	< .1	.4	< .1	.3	.1	< .1	< .1
01619150	08-20-86	.1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1
01619250	05-17-72	740	--	--	--	ND	--	ND	--	ND	--
	08-31-76	150	ND	--	--	ND	ND	ND	ND	ND	ND
01619270	05-17-72	29	--	--	--	ND	--	ND	--	ND	--
01619350	08-20-86	.2	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1
01619480	08-20-86	.1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1	< .1
01619500	05-17-72	1.3	--	--	--	ND	--	ND	--	ND	--
	08-31-76	ND	ND	--	--	ND	ND	ND	ND	ND	ND

Table 19.—Analyses of pesticides recovered from stream-bottom materials—Continued

Station number	Date	Meth-oxy-chlor	Methyl para-thion	Methyl tri-thion	Para-thion	PCB	PCN	Per-thane	Mirex	Silvex	2,4,5-T	Toxa-phene	Tri-thion
01610155	08-26-86	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<0.1	<0.1	<0.1	<10	<0.1
01612500	08-26-86	< .1	< .1	< .1	< .1	<1	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01613000	05-18-72	--	--	--	--	10	--	--	--	--	--	--	--
	08-31-76	--	ND	ND	ND	88	--	--	--	ND	ND	ND	ND
01613540	05-18-87	<1.0	< .1	< .1	.5	<1	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01613545	06-30-87	< .1	< .1	< .1	< .1	<1	<1.0	<1.00	<.1	< .1	< .1	<100	< .1
01614050	08-22-86	< .1	< .1	< .1	< .1	23	<1.0	<1.00	<.1	< .1	< .1	20	< .1
01614500	08-21-86	< .1	.1	< .1	< .1	7	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01614525	08-21-86	< .1	< .1	< .1	< .1	<1	<1.0	<2.00	<.1	< .1	< .1	<10	< .1
01614575	08-22-86	< .1	< .1	< .1	< .1	15	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01614705	08-21-86	< .1	< .1	< .1	< .1	<1	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01617800	08-20-86	< .1	< .1	< .1	< .1	7	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01619000	08-20-86	< .1	< .1	< .1	< .1	70	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01619150	08-20-86	< .1	< .1	< .1	< .1	<1	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01619250	05-17-72	--	--	--	--	1200	--	--	--	--	--	--	--
	08-31-76	--	ND	ND	ND	420	--	--	--	ND	ND	ND	ND
01619270	05-17-72	--	--	--	--	40	--	--	--	--	--	--	--
01619350	08-20-86	< .1	< .1	< .1	< .1	3	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01619480	08-20-86	< .1	< .1	< .1	< .1	<1	<1.0	<1.00	<.1	< .1	< .1	<10	< .1
01619500	05-17-72	--	--	--	--	30	--	--	--	--	--	--	--
	08-31-76	--	ND	ND	ND	ND	--	--	--	ND	ND	ND	ND

Table 20.—Monthly suspended-sediment loads, Conococheague Creek at Fairview

[Values are in tons per day]

Water year	October	November	December	January	February	March	April	May	June	July	August	September	Annual total
1967	58	1,052	172	4,311	313	21,812	799	6,640	1,128	8,934	3,680	289	49,188
1968	2,385	422	3,382	2,705	1,346	14,548	288	3,721	2,095	150	611	595	32,248
1969	178	3,584	709	191	192	14,601	414	402	548	4,114	3,278	100	28,311
1970	68	397	4,290	2,637	11,769	3,403	23,640	911	9,707	16,089	1,219	293	74,422
1971	549	8,026	5,037	2,612	15,794	1,824	274	2,094	6,032	323	629	269	43,465
1972	9,196	1,538	6,092	753	4,473	6,998	7,578	10,597	137,402	2,332	259	115	187,334
1973	70	6,214	10,992	2,906	10,769	2,394	17,316	8,655	27,175	4,817	5,243	3,891	100,443
1974	18,587	393	4,842	4,094	904	7,168	8,395	4,956	4,852	1,593	191	601	56,577
1975	66	71	5,470	3,077	4,660	17,699	5,546	2,083	7,749	884	862	19,446	67,612
1976	6,881	365	458	4,611	937	403	5,495	2,640	3,553	685	379	416	26,823
1977	26,553	865	790	81	450	8,273	5,545	129	120	343	156	149	43,424
1978	732	4,064	9,727	16,007	622	32,911	1,090	13,570	1,313	2,300	3,062	298	85,696
1979	88	46	1,664	22,304	19,888	7,658	1,874	2,803	1,798	1,633	1,260	11,951	72,968
1980	6,804	3,002	2,025	178	27	12,444	7,819	4,168	763	372	216	88	37,907

Table 21.—Particle-size distribution of suspended sediment

[Values are percent by weight finer than indicated diameter in millimeters]

Date	Time	Discharge (cubic feet per second)	0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500
			01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW								
2-20-61	0931	4,640	12	19	42	69	89	94	95	98	99
3-25-69	1615	4,590	--	63	80	94	96	100	--	--	--
4-03-70	0915	10,600	52	70	85	94	98	99	100	--	--
10-01-76	1920	4,090	--	64	73	86	96	100	--	--	--
12-01-77	1100	4,000	--	57	71	81	88	95	98	100	100
1-09-78	1300	3,770	--	51	67	78	83	91	93	94	95
8-08-78	1230	1,560	--	76	87	94	97	99	99	99	99
1-24-79	1650	7,000	35	47	61	76	87	96	99	100	--
1-25-79	1100	15,200	59	72	84	92	96	98	99	99	100
2-25-79	1200	9,930	55	70	80	90	94	97	99	99	100
9-06-79	0830	11,000	--	66	85	91	95	99	100	--	--
10-03-79	0920	6,850	--	64	79	89	91	99	100	--	--
			01619500 ANTIETAM CREEK NEAR SHARPSBURG								
2-19-61	1450	935	2	10	19	43	69	86	87	97	100

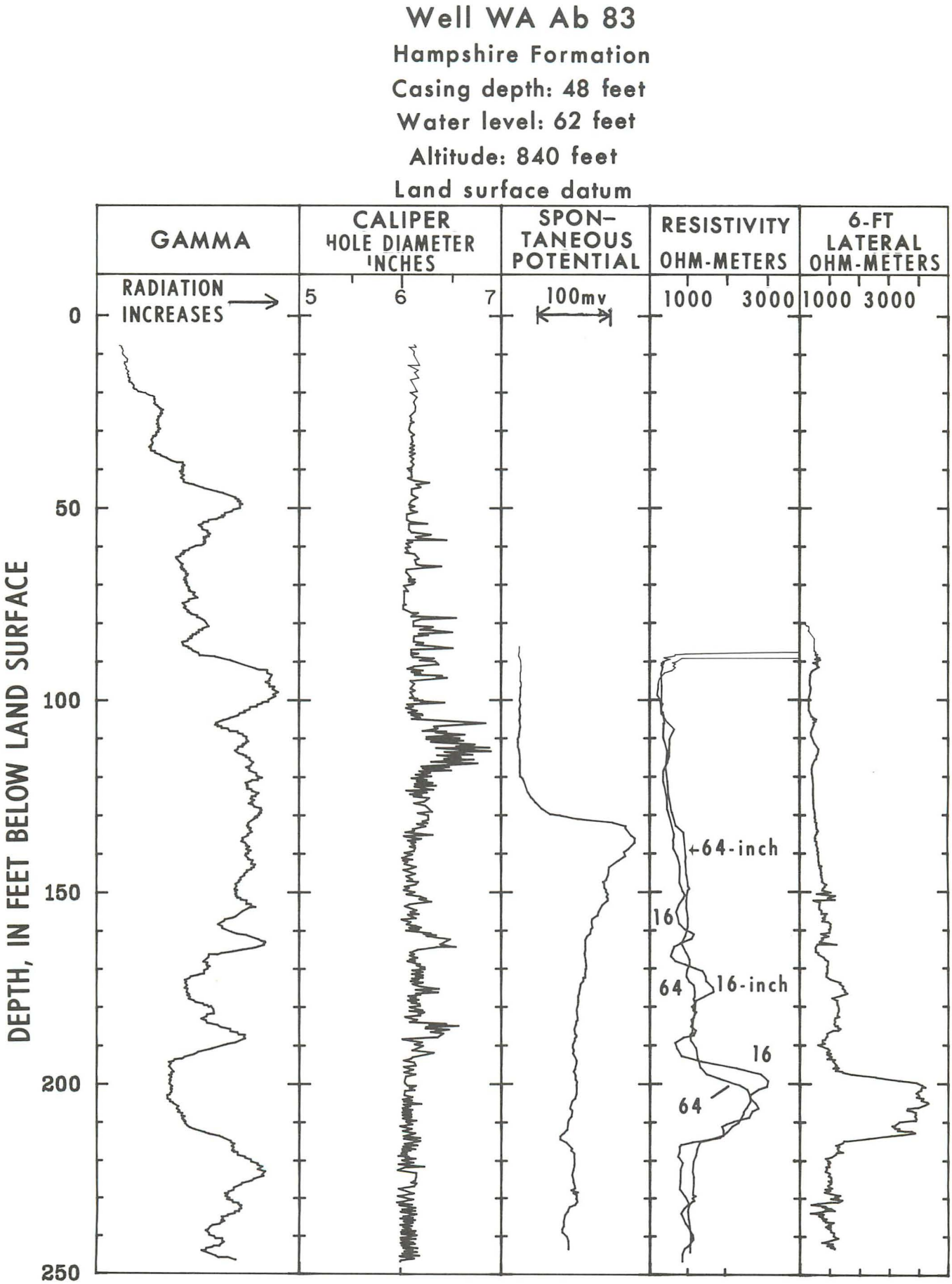


Figure 3. Selected geophysical logs of wells.

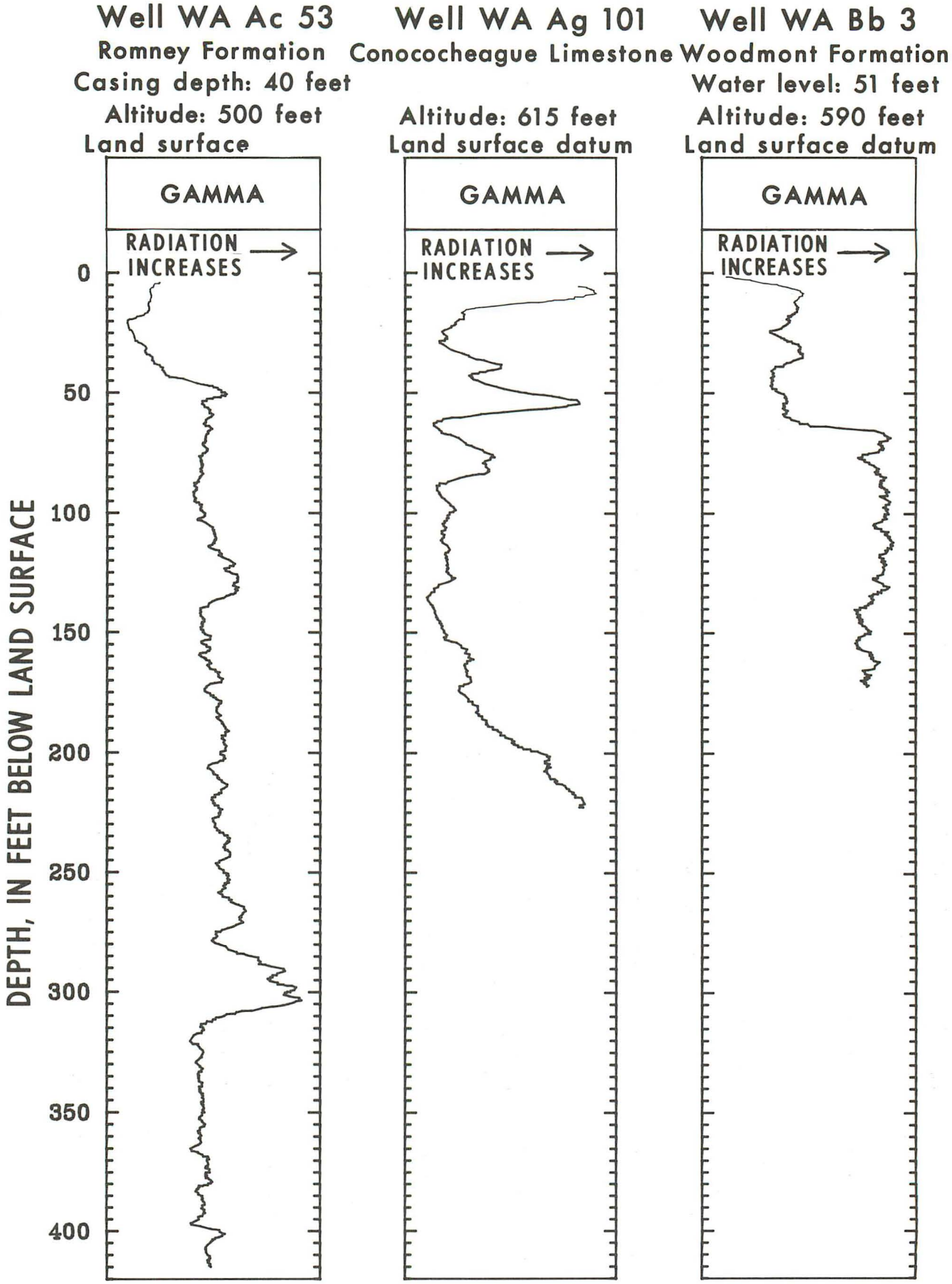


Figure 3. Selected geophysical logs of wells—Continued.

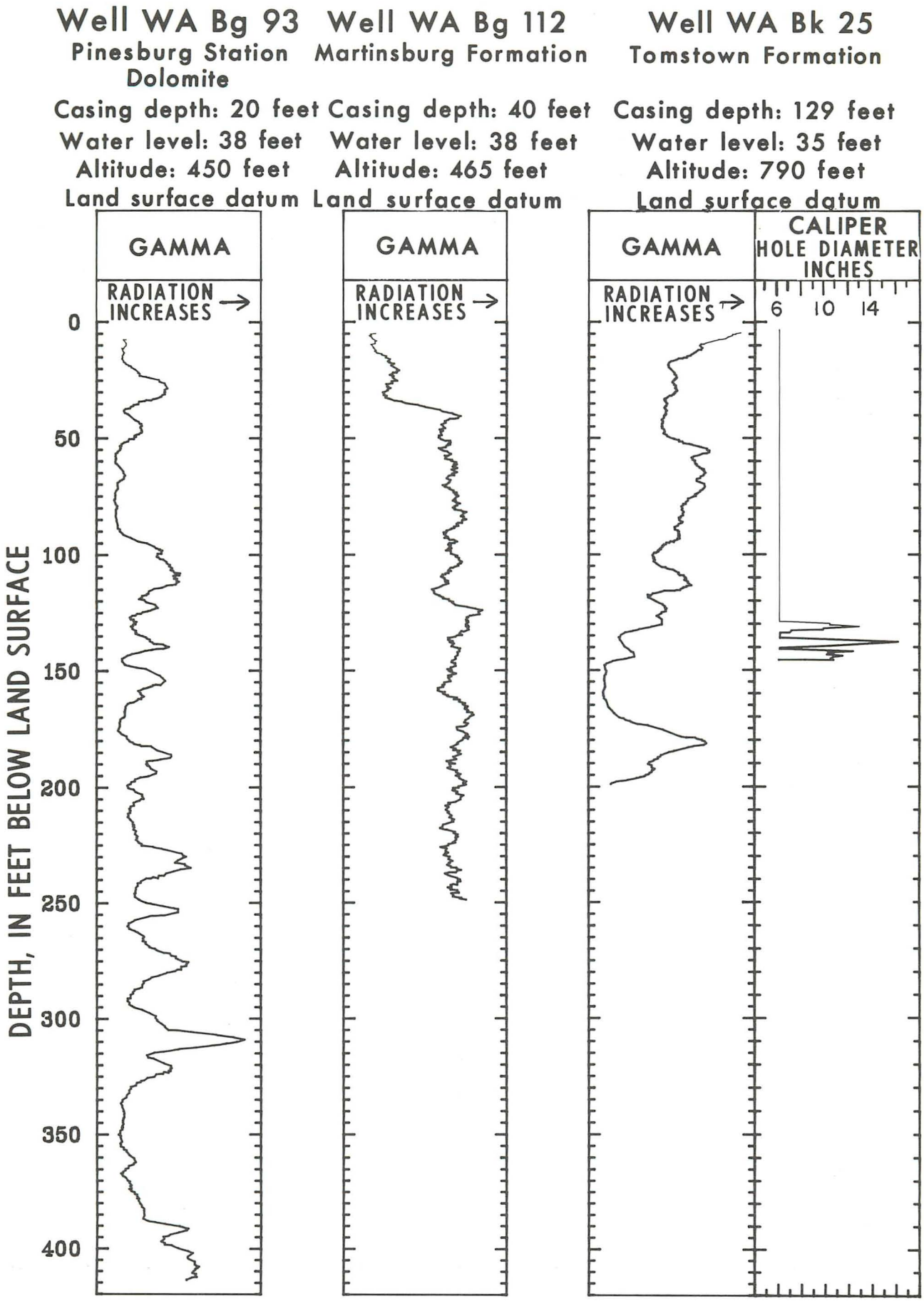


Figure 3. Selected geophysical logs of wells—Continued.

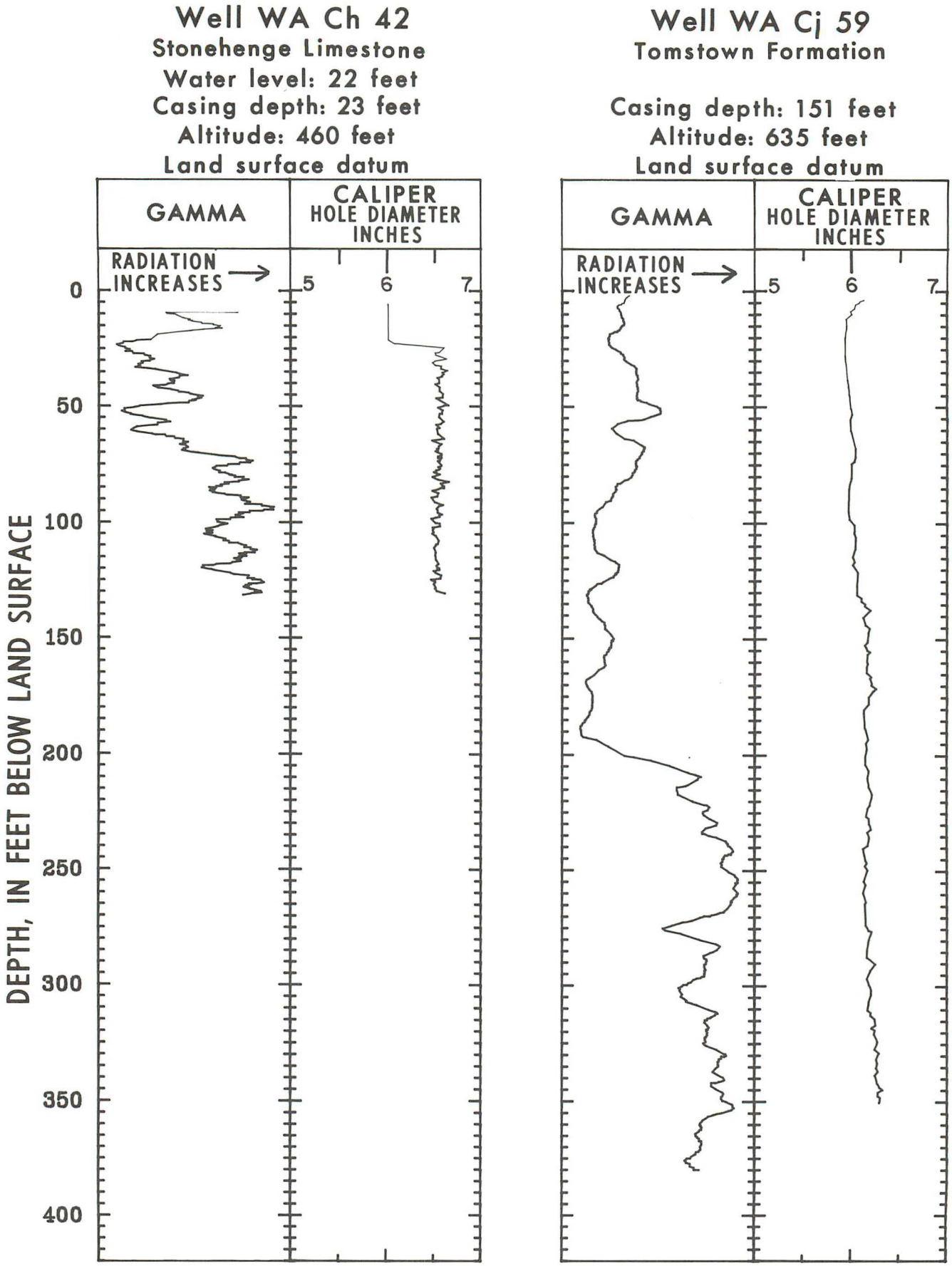


Figure 3. Selected geophysical logs of wells—Continued.

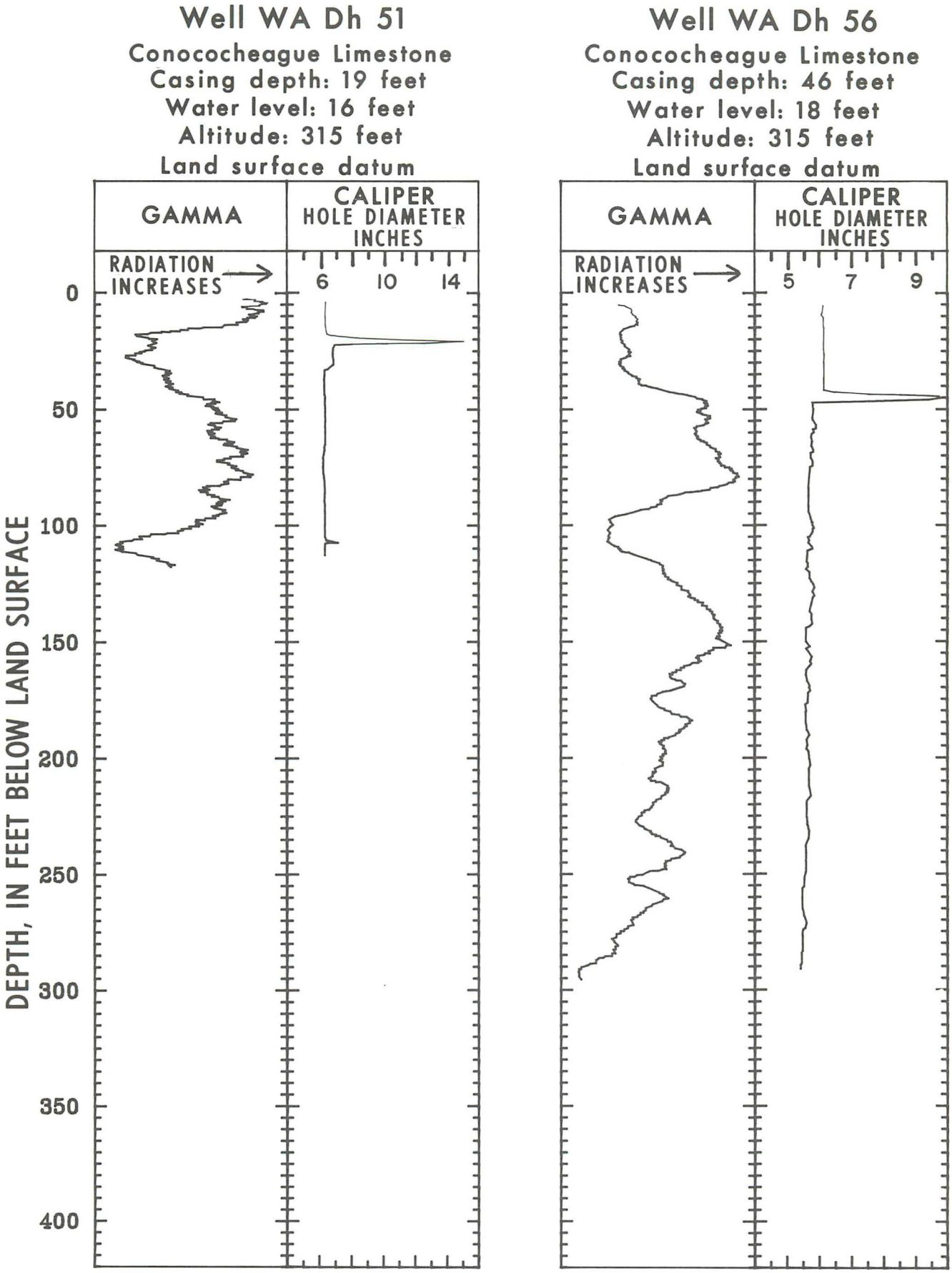
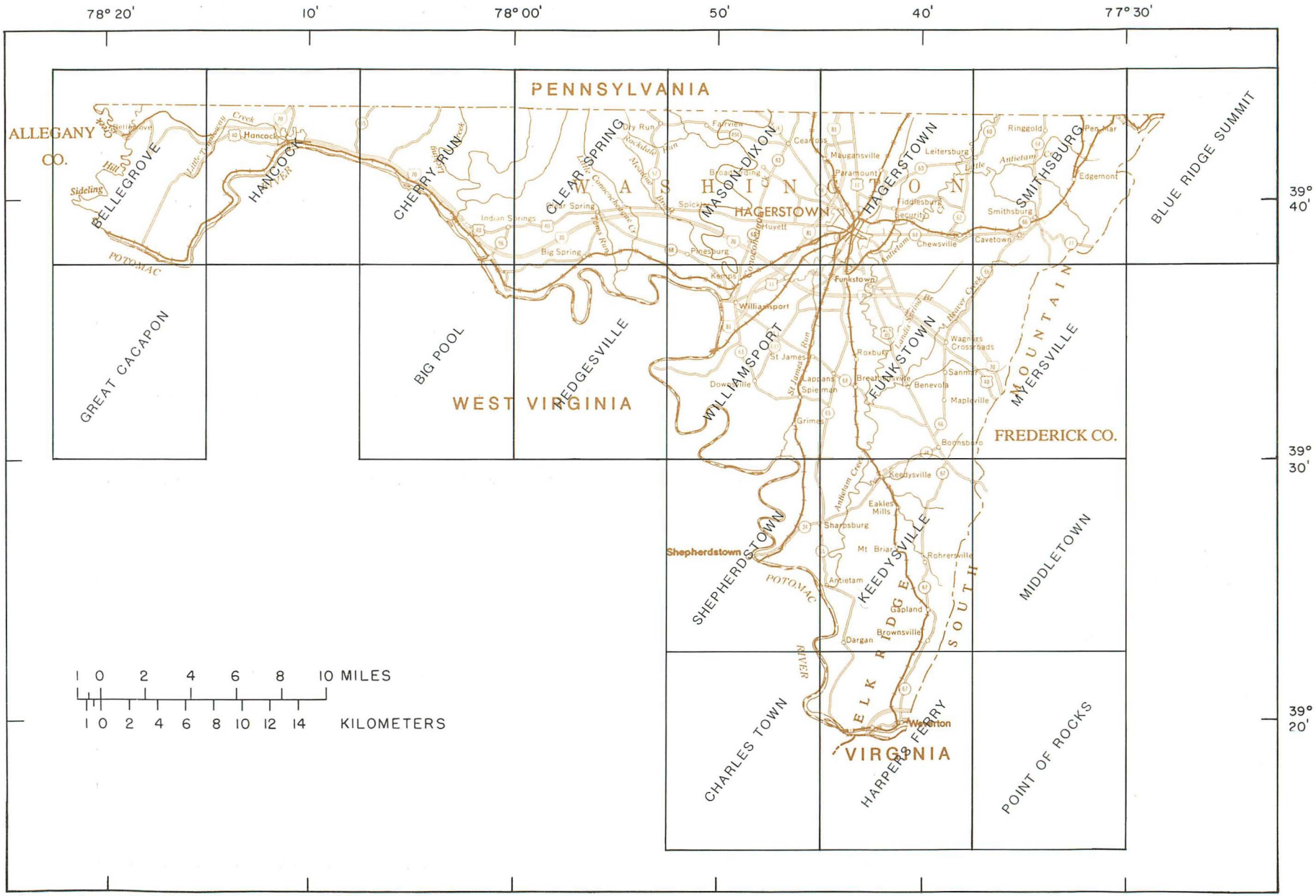
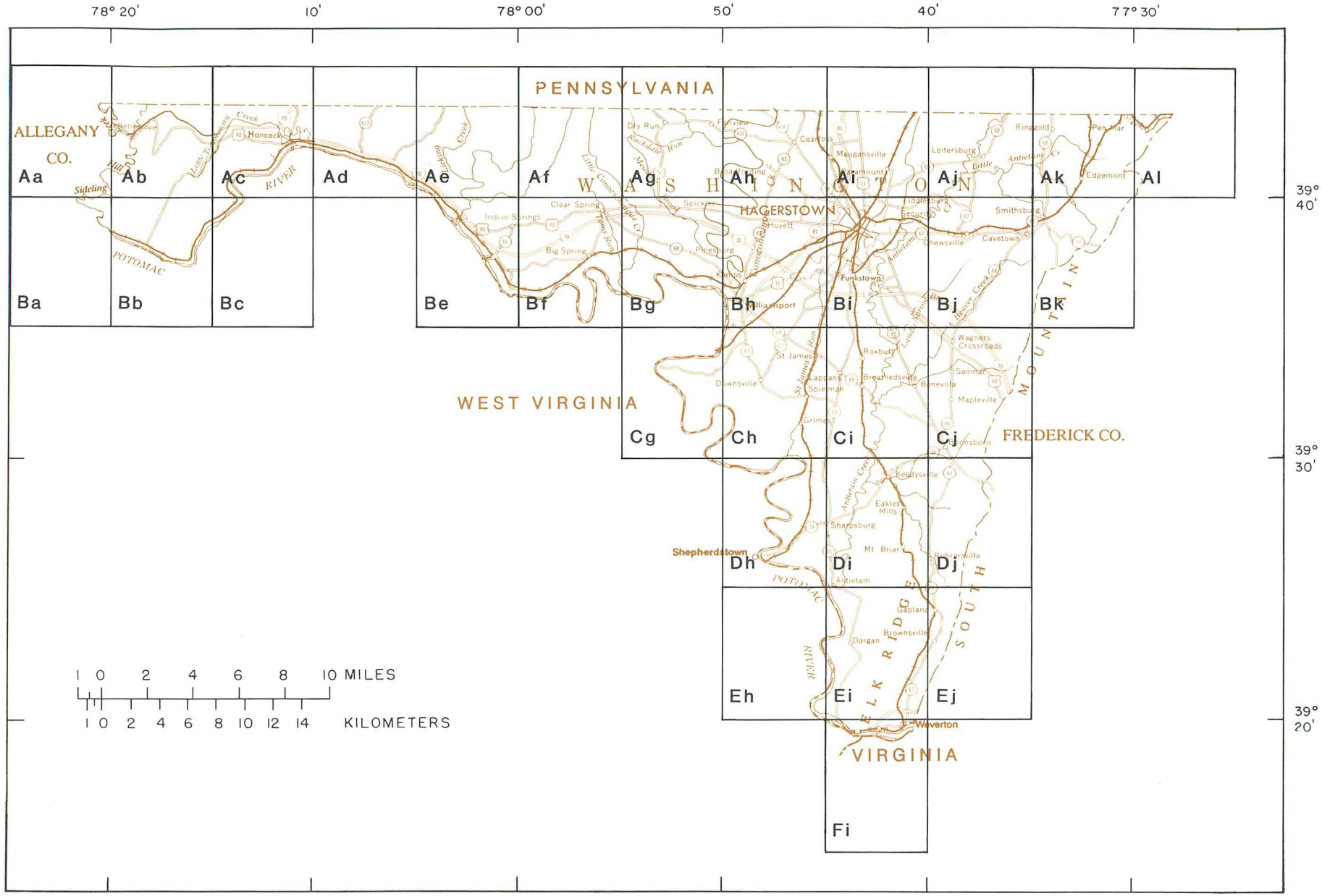


Figure 3. Selected geophysical logs of wells—Continued.



Base map from U.S. Geological Survey 1:250,000

Figure 5. Index map of 7½-minute topographic quadrangles.



Base map from U.S. Geological Survey 1:250,000

Figure 6. Index map of Washington County 5-minute well- and spring-location quadrangles.

MAPS SHOWING LOCATIONS OF WELLS AND SPRINGS

MAP SYMBOLS

○22 Well with site number

44 Spring with site number

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Aa

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ab

39°40'

78°10'

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ac

Base Map from U. S. Geological Survey 7½-minute quadrangles

Ad

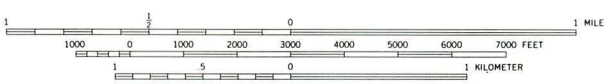
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base Map from U. S. Geological Survey 7½-minute quadrangles



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ae

39°40'

77°55'

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Af

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ag

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ah

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ai

Base Map from U. S. Geological Survey 7½-minute quadrangles

Ai

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

39°40'

77°30'

Base Map from U. S. Geological Survey 7½-minute quadrangles

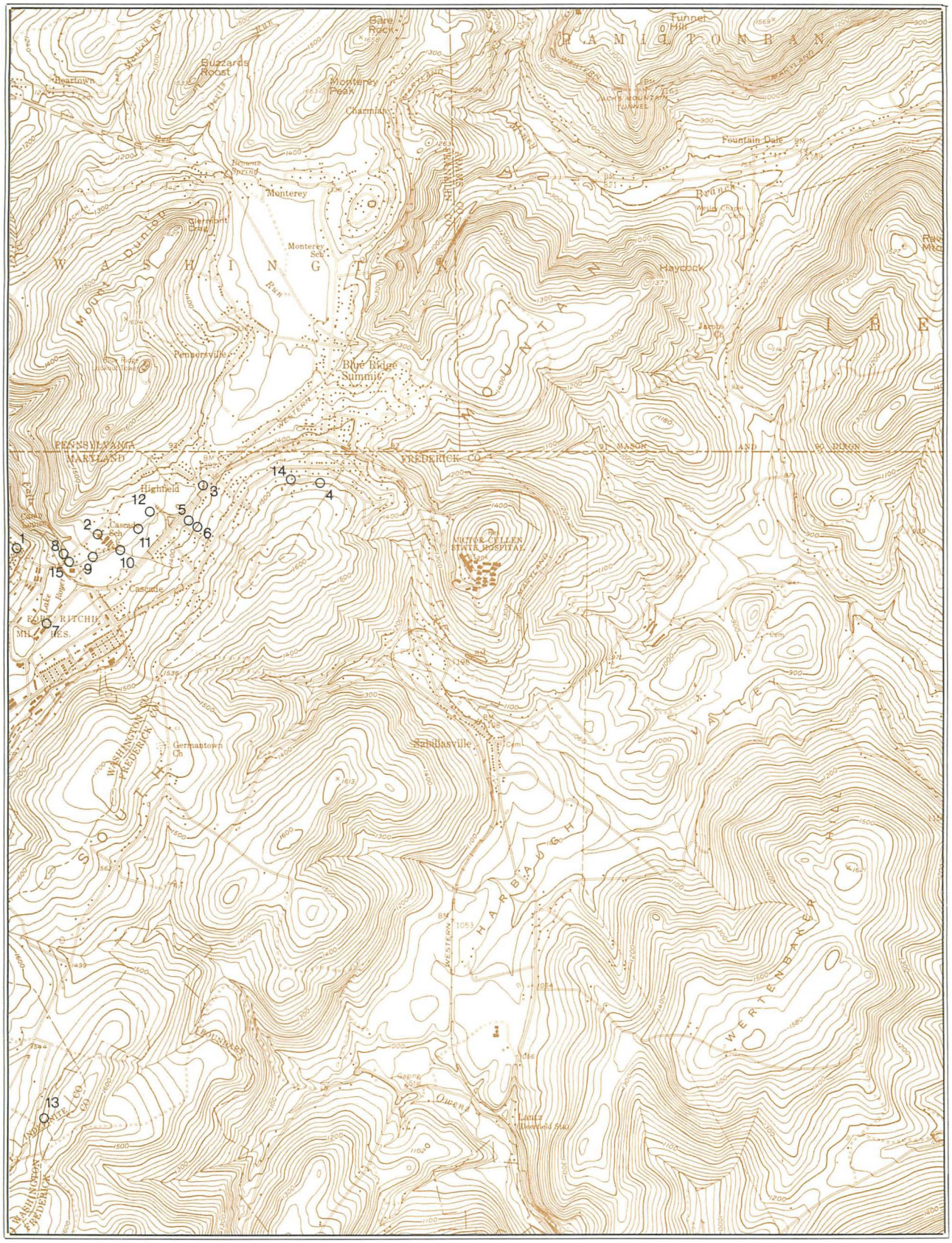
Ak

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



39°40'

77°25'

Base Map from U. S. Geological Survey 7½-minute quadrangles

A1

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

39°35'

78°20'

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ba

39°35'

78°15'

Base Map from U. S. Geological Survey 7½-minute quadrangles

Bb

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

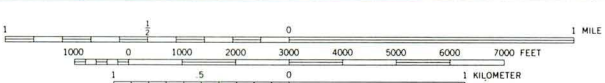
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

39°35'

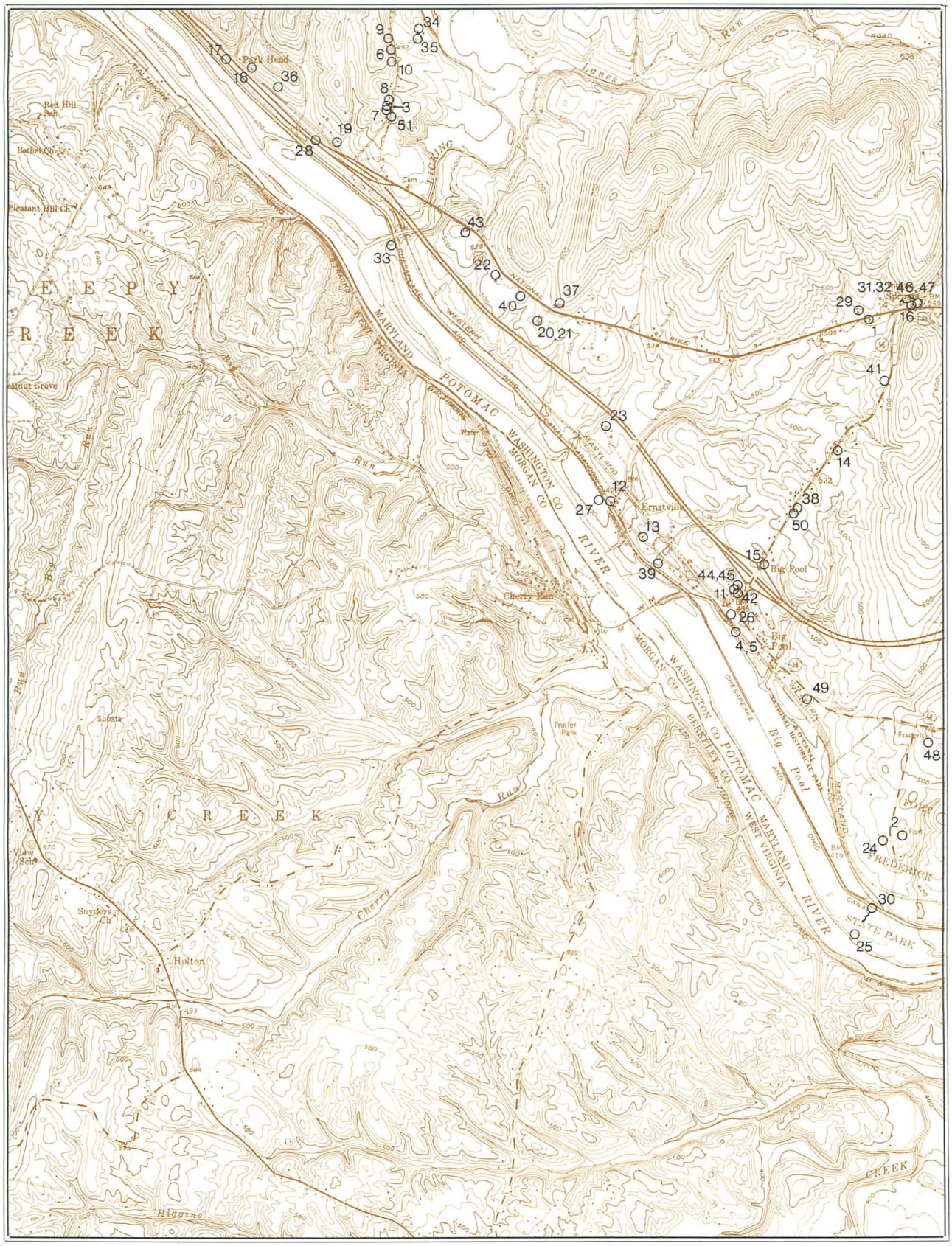
78°10'

Base Map from U. S. Geological Survey 7½-minute quadrangles



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bc



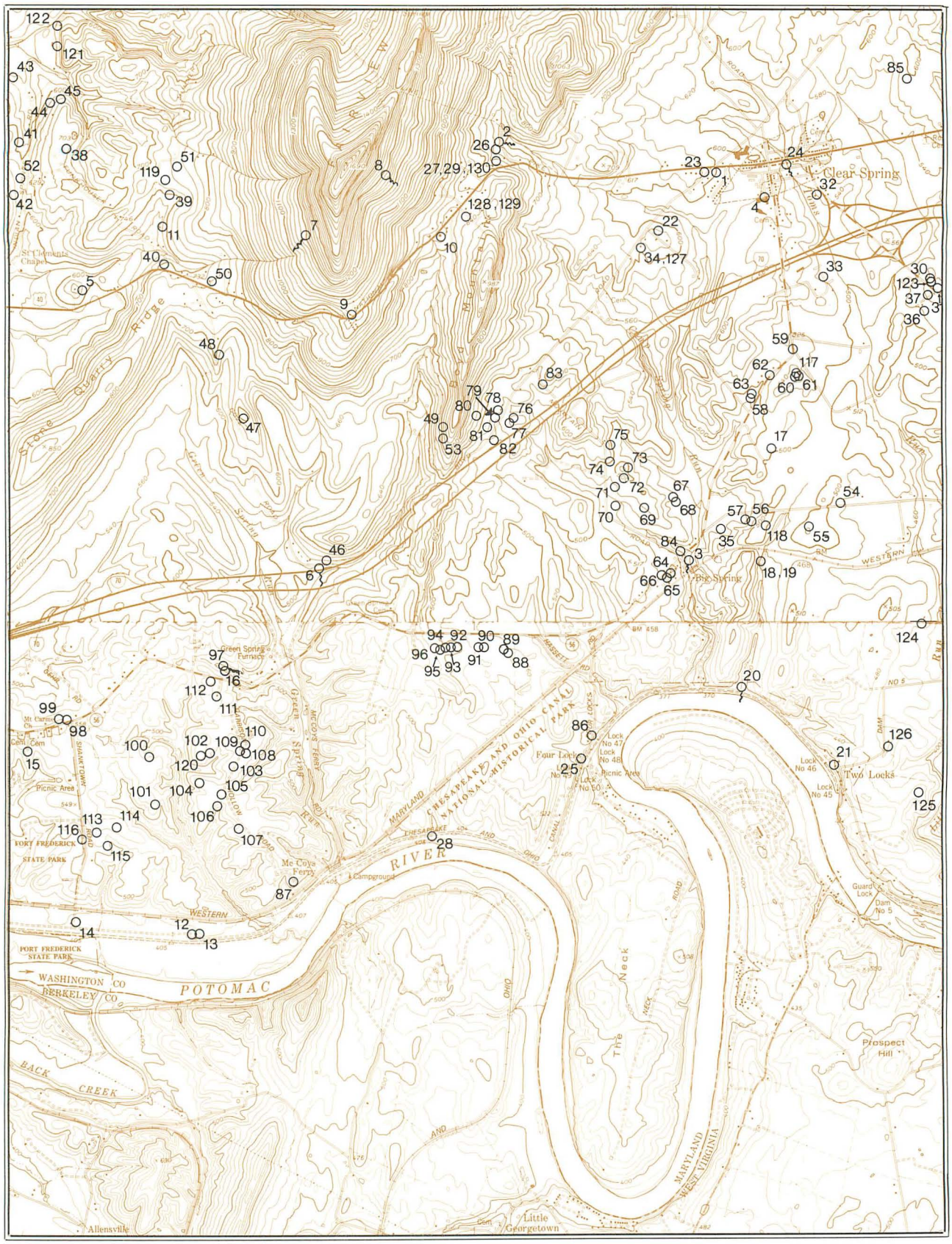
39°35'
78°00'

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Be



Base Map from U. S. Geological Survey 7½-minute quadrangles

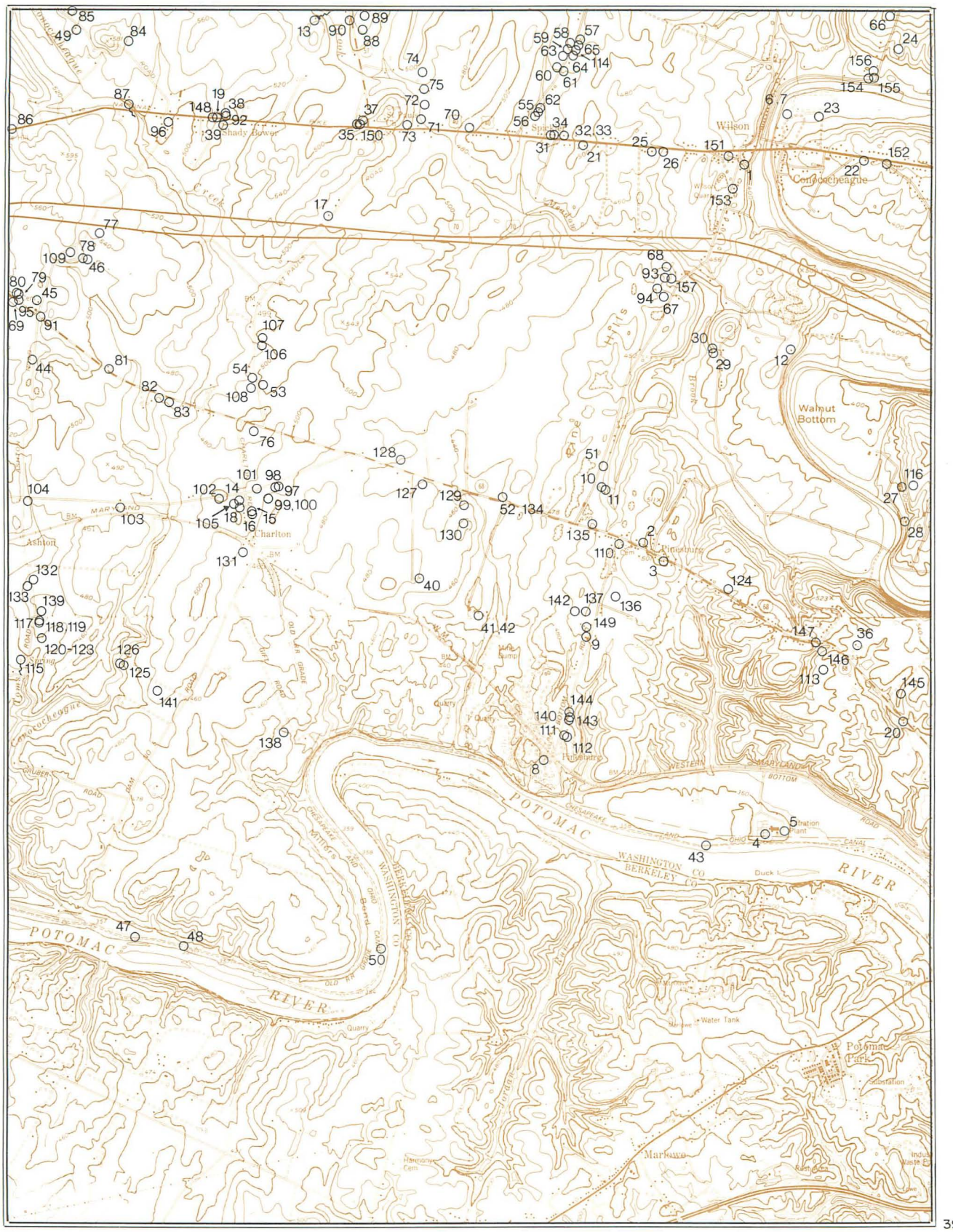
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bf



Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bg

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bh

Base Map from U. S. Geological Survey 7½-minute quadrangles

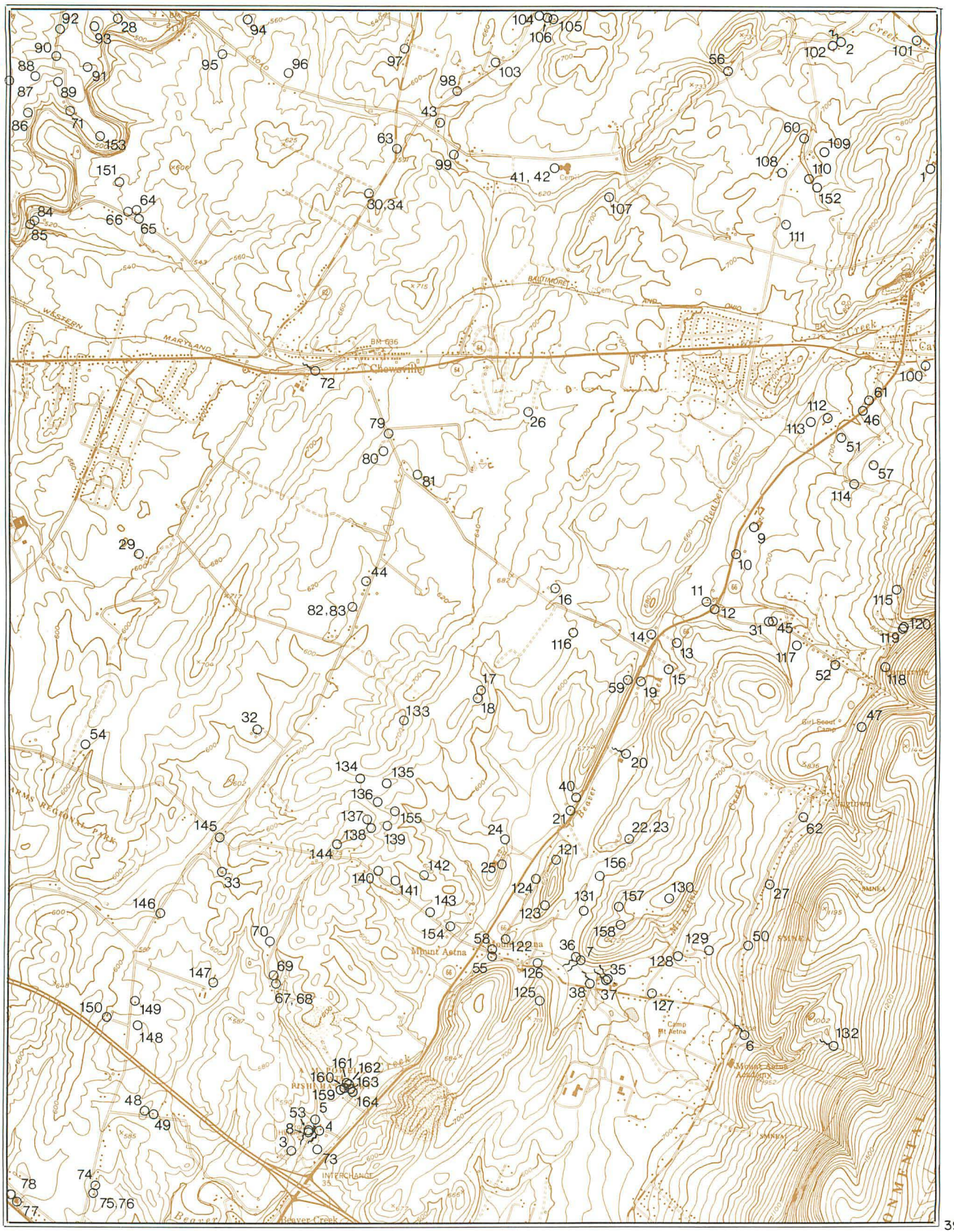
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bi



Base Map from U. S. Geological Survey 7½-minute quadrangles

Bj

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

39°35'

77°30'

Base Map from U. S. Geological Survey 7½-minute quadrangles

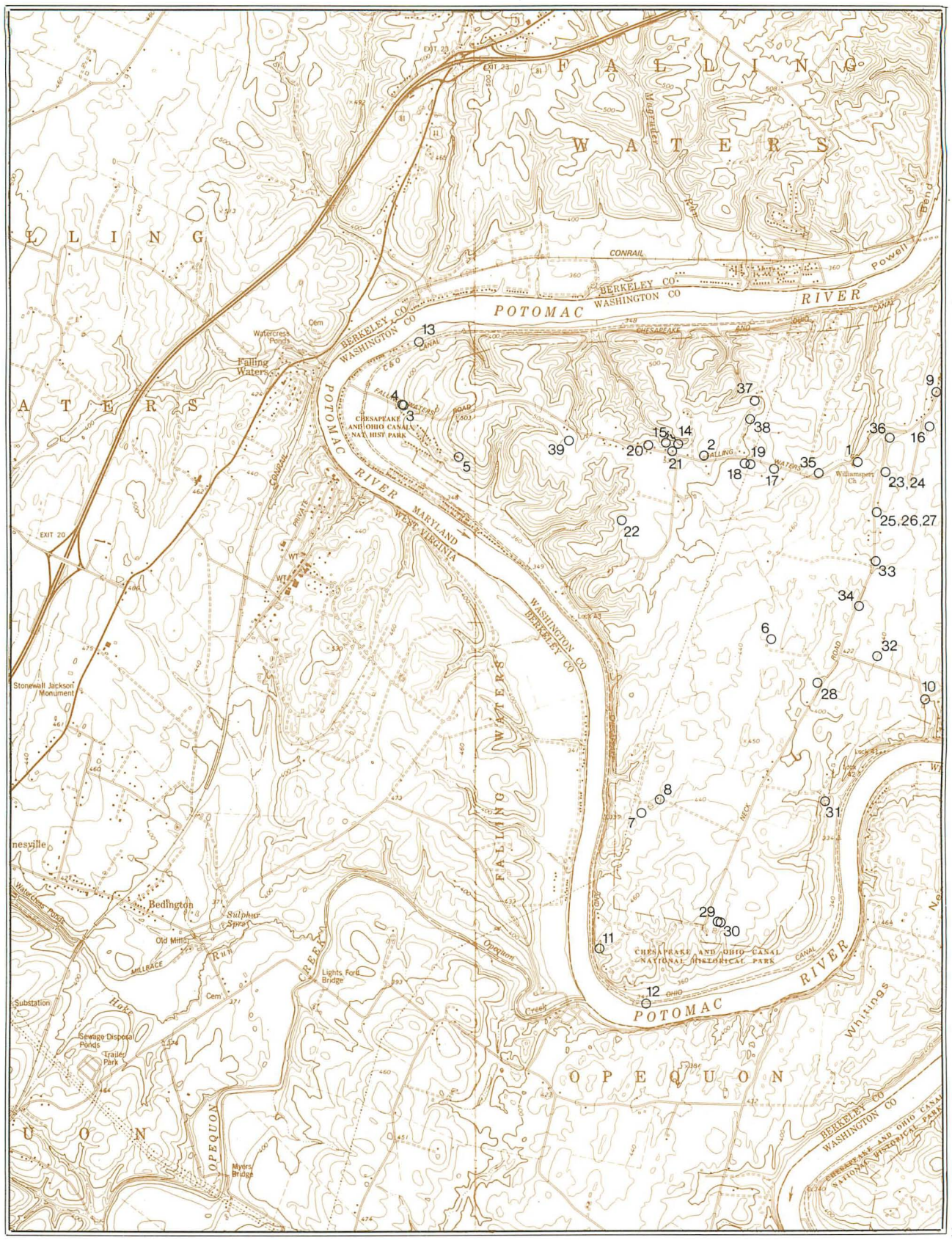
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Bk



Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Cg

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ch

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ci

Base Map from U. S. Geological Survey 7½-minute quadrangles

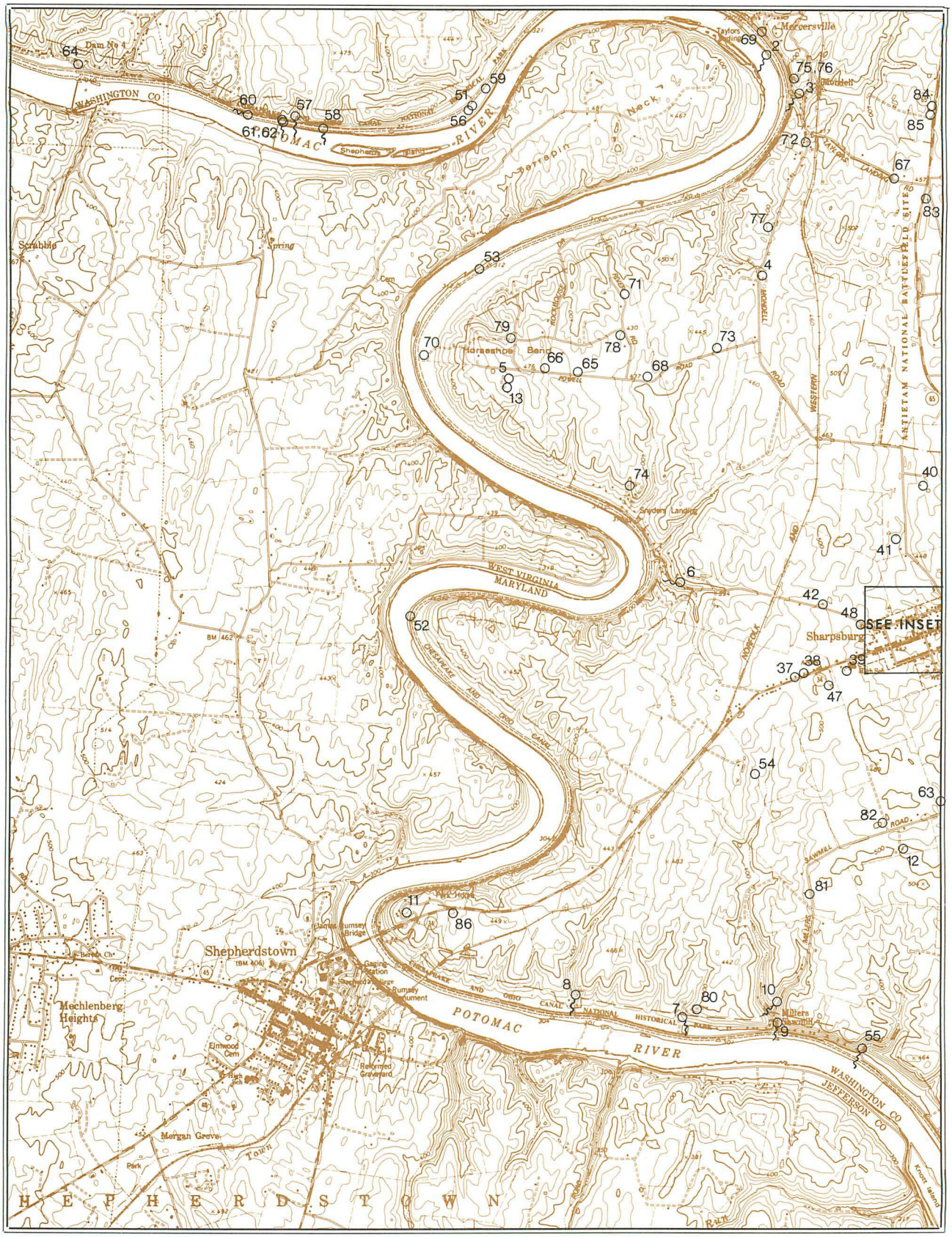
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ci



Base Map from U. S. Geological Survey 7½-minute quadrangles

Dh

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base Map from U. S. Geological Survey 7½-minute quadrangles

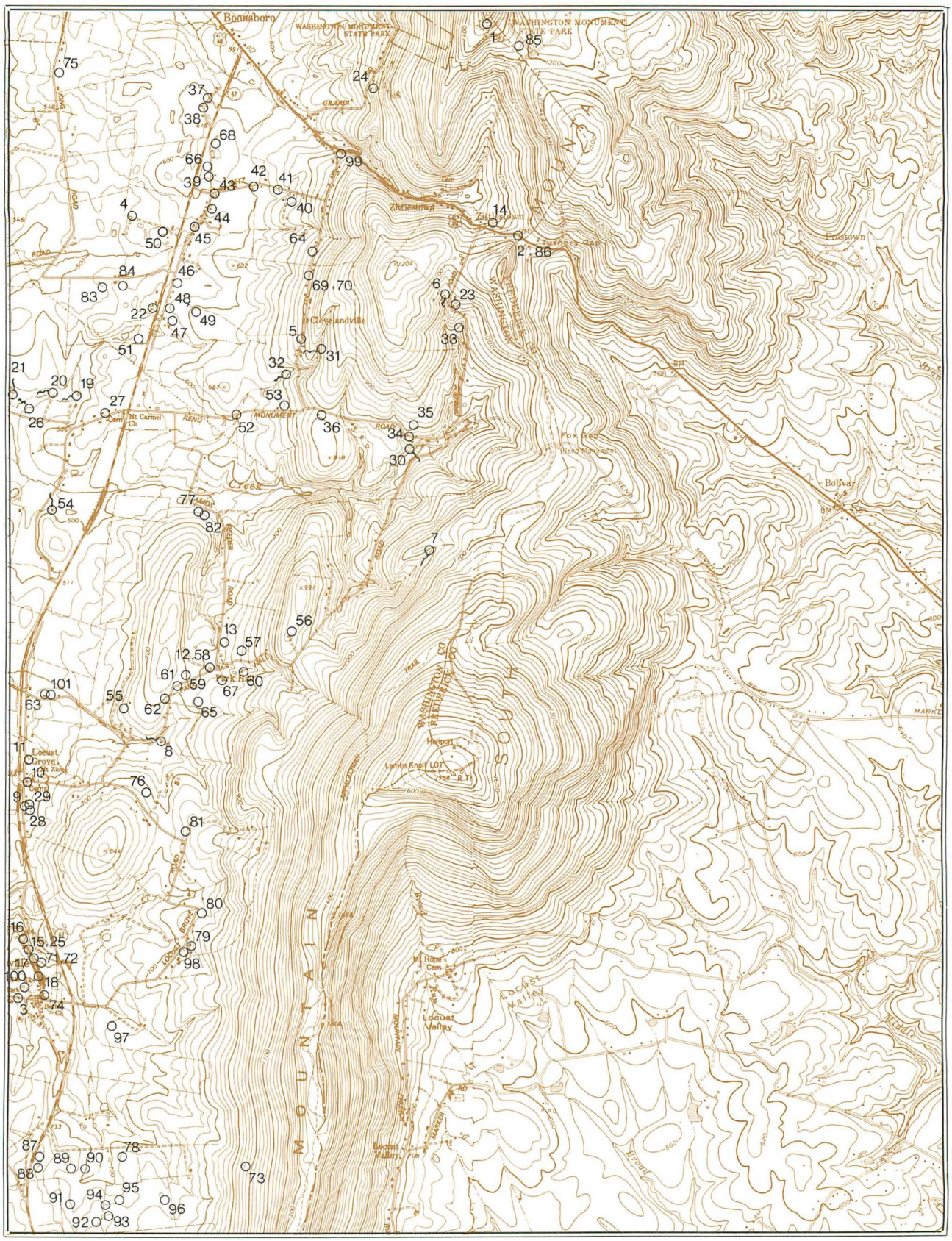
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Di



Base Map from U. S. Geological Survey 7½-minute quadrangles

Dj

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base Map from U. S. Geological Survey 7½-minute quadrangles

Eh

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ei

Base Map from U. S. Geological Survey 7½-minute quadrangles

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Ei

39°15'

77°40'

Base Map from U. S. Geological Survey 7½-minute quadrangles

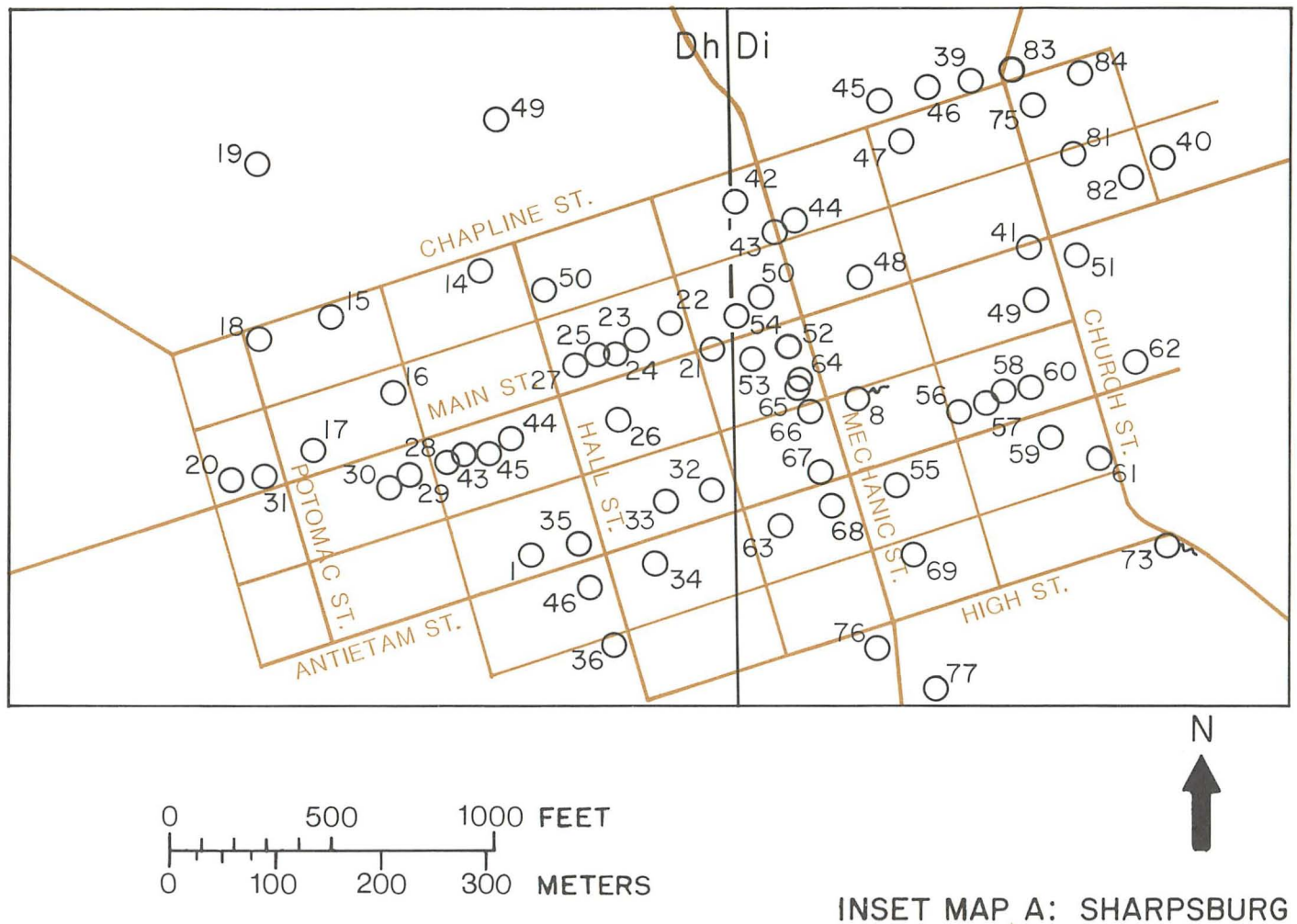
Fi

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



INSET MAP A: SHARPSBURG

MARYLAND GEOLOGICAL SURVEY
2300 St. Paul Street
Baltimore, Maryland 21218-5210
(301) 554-5505

Basic Data Reports:

1. Records of wells and springs in Baltimore County, Maryland, by C. P. Laughlin, 1966, 406 p. ..... $ 3.50*
2. Records of wells and springs, chemical analyses, and selected well logs in Charles County, Maryland, by T. H. Slaughter and C. P. Laughlin, 1966, 93 p. ..... $ 4.00
3. Hydrogeologic data from the Janes Island State Park test well (1,514 feet), Somerset County, Maryland, by H. J. Hansen, 1967, 24 p. .... $ 2.50
4. Southern Maryland—Records of selected wells, water levels, and chemical analyses, by J. M. Weigle and W. E. Webb, 1970, 48 p. ..... $ 3.50*
5. Deep wells of Maryland, by J. Edwards, Jr., 1970, 162 p. ..... $ 3.50*
6. Worcester County ground-water information: well records, pumpage, chemical-quality data, and selected well logs, compiled by R. C. Lucas, 1972, 90 p. ..... $ 3.75
7. Harford County ground-water information: well records, pumpage, and chemical-quality data, compiled by L. J. Nutter and M. J. Smigaj, 1975, 89 p. ..... $ 3.75
8. Anne Arundel County ground-water information: selected well records, chemical-quality data, pumpage, appropriation data, and selected well logs, compiled by R. C. Lucas, 1976, 149 p. ..... $ 5.00
9. Interstitial water chemistry of Chesapeake Bay sediments, by O. P. Bricker, G. Matisoff, and G. R. Holdren, Jr., 1977, 67 p. ..... $ 2.50
10. Maryland ground-water information: chemical-quality data, compiled by R. S. Woll, 1978, 126 p. ..... $ 9.50
11. Garrett County water well records, chemical-quality data, ground-water use, coal test-hole data, and surface-water data, compiled by L. J. Nutter, M. J. Smigaj, and L. L. Knobel; with a section on gas-well records, compiled by K. A. Schwarz and J. Edwards, Jr., 1980, 102 p. ..... $ 7.00
12. Carroll County ground-water information: well records, spring records, and chemical-quality data, compiled by J. T. Hilleary and J. M. Weigle, 1981, 252 p. ..... $ 9.50
13. Prince George's County ground-water information: well records, chemical-quality data, pumpage, appropriation data, observation well records, and well logs, compiled by M. D. Tompkins, 1983, 160 p. ..... $ 8.50
14. Records of selected wells, Calvert and St. Mary's Counties, Maryland, compiled by D. D. Drummond, 1983, 117 p. $12.25
15. Ground-water and surface-water data for Frederick County, Maryland, compiled by J. R. Dine, M. D. Tompkins, and M. T. Duigon, 1985, 240 p. $14.25
16. Hydrologic data for Cecil County, Maryland, compiled by R. E. Willey, R. A. McGregor, J. de Grouchy, and M. D. Tompkins, 1987, 150 p. $15.00
17. Ground-water levels from the Maryland observation-well network, 1943-86, by M. J. Smigaj and R. G. Davis, Jr., 1987, 234 p. $10.25
18. Ground-water and surface-water data for Washington County, Maryland, compiled by M. T. Duigon, J. R. Dine, and M. D. Tompkins, 1989, 273 p. $25.00

*Available as microfiche copy.