Reconnaissance of Ground-Water Quality at Selected Wells in the Beaver Creek Watershed, Shelby, Fayette, Tipton, and Haywood Counties, West Tennessee, July and August 1992

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CONTENTS

	Page
Abstract	1
Introduction	1
Analytical methods and quality assurance	2
Results	3
Selected references	28

PLATES

[in back of report]

1-4. Maps showing location of:
1. Wells sampled in Shelby County, Tennessee
2. Wells sampled in Fayette County, Tennessee
3. Wells sampled in Tipton County, Tennessee
4. Wells sampled in Haywood County, Tennessee

TABLES

1.	Distribution of sampled wells by county	2
2.	Water-quality data for selected wells in Shelby County, West Tennessee	4
3.	Water-quality data for selected wells in Fayette County, West Tennessee	6
4.	Water-quality data for selected wells in Tipton County, West Tennessee	14
5.	Water-quality data for selected wells in Haywood County, West Tennessee	22

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By Amy M. Fielder, Angel Roman-Mas, *and* Michael W. Bennett

Abstract

A reconnaissance of water-quality conditions of the water-table aquifer in the Beaver Creek watershed and other rural areas in Shelby, Fayette, Tipton, and Haywood Counties, West Tennessee, was conducted during July and August 1992. The reconnaissance was conducted by the U.S. Geological Survey, in cooperation with the Tennessee Department of Agriculture and the University of Tennessee Agricultural Extension Service. This report presents data of selected water-quality constituents and properties of water samples collected from 398 domestic wells, located primarily in rural areas of southwestern Tennessee.

INTRODUCTION

Ground water is the source of drinking water for 51 percent of the residents in Tennessee (Hutson, 1991). Many of the residents in the Beaver Creek watershed and other rural areas of Shelby, Fayette, Tipton, and Haywood Counties in West Tennessee rely on domestic wells for their primary source of water. They share a growing concern that the quality of ground water might be degraded or become degraded because of agricultural activities in the area. However, limited ground-water-quality data are available. To obtain additional information, a reconnaissance of ground-water-quality conditions within the Beaver Creek watershed and other rural areas in the four counties was conducted during July and August 1992. The reconnaissance was conducted by the U.S. Geological Survey (USGS), in cooperation with the Tennessee Department of Agriculture and the University of Tennessee Agricultural Extension Service (UTAES). The reconnaissance is part of a long-term research program to assess the effect of agricultural activities on the quality of surface and ground-water resources within the Beaver Creek watershed.

Water samples from 398 domestic wells were collected and analyzed for selected water-quality properties and constituents. The distribution of the wells sampled is summarized in table 1. Selection of wells was based on the availability of domestic wells whose owners were willing to have their wells sampled. Accordingly, the geographical distribution of the wells sampled may not be ideal for an areal assessment. The wells are located in rural areas in Shelby, Fayette, Tipton, and Haywood Counties (plates 1-4).

Table 1. Distribution of sampled wells by county

County	Total number of wells ssmpled	Number of wells in the Beaver Creek watershed
Shelby	40	3
Fayette	125	20
Tipton	130	70
Haywood	103	2
Total	398	95

UTAES agents and volunteers assisted the USGS in the selection, location, and sampling of the wells. Standard USGS protocols for the collection of ground-water samples were followed (Wood, 1981). Upon collection, the samples were immediately transported to the USGS field laboratory and analyzed for selected unstable constituents. The remaining samples were shipped by overnight carrier to the Tennessee District laboratory for other analyses.

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ANALYTICAL METHODS AND QUALITY ASSURANCE

Analyses for pH, specific conductance, alkalinity, and fecal coliform and fecal streptococci bacteria were conducted at the field laboratory. Standard methods 4500, 2510, and 2320 (electrometrics techniques) were used to determine pH, specific conductance, and alkalinity, respectively (American Public Health Association and others, 1992). Bacteria analyses were conducted following methods described by Britton and Greeson (1989).

Analyses for cations, anions, nutrients, and selected pesticides were conducted at the USGS Tennessee District laboratory. Each day a six-standard calibration curve was developed and new standards were prepared using the highest grade chemicals commercially available. Field and laboratory blank samples, representing 10 percent of the total number of samples, were analyzed as part of the quality-assurance and quality-control program. In addition, 10 percent of the samples were analyzed in duplicate. Coefficients of variation among replicas were less than 5 percent. Every 25th analysis was a laboratory-spiked sample. Recoveries for spiked samples were greater than 95 percent.

Analyses for iron and manganese were conducted at the USGS Quality Water Service Unit in Ocala, Florida. The quality-assurance and quality-control program for this laboratory was described by Kirkland and Medley (1991).

Nitrate, nitrite, orthophosphate, chloride, and sulfate were analyzed by ion chromatography following U.S. Environmental Protection Agency method 300.0 (Pfaff and others, 1989). Calcium, magnesium, potassium, ammonium, and sodium were analyzed by ion chromatography using suppressed conductivity detection (Small, 1989). Atrazine, aldicarb, and alachlor were analyzed by enzyme-linked immuno-absorbent assays (ELISA) with the antibody coupled to a paramagnetic particle. Proficiency of this method was described by Thurman and others (1990). Iron and manganese were analyzed by a direct-reading emission spectrometric method utilizing induction-coupled argon plasma (ICP) as an excitation source (Fishman and Friedman, 1989).

RESULTS

The reconnaissance provided an indication of water-quality conditions for the water-table aquifer at the sampled wells during July and August 1992. Additional water-quality data and support information, such as well construction and local land use, are needed before cause-effect relations can be determined and overall ground-water-quality conditions can be assessed. The water-quality data for the 398 wells sampled are present in tables 2-5.

Nitrate concentrations ranged from less than 0.1 (detection limit) to 75.2 milligrams per liter (mg/L) as nitrate. Nitrate concentrations in water samples from 95 wells located in the Beaver Creek watershed ranged from less than 0.1 to 49.1 mg/L as nitrate. Nitrite and ammonium concentrations were less than the detection limit in all but four of the samples. Orthophosphate concentrations ranged from less than 0.1 (detection limit) to 4.6 mg/L as phosphate.

Fecal coliform bacteria were detected in water samples from 21 of the 398 wells sampled; 16 of these samples were from wells located in Haywood County, the other 5 samples were from wells in Tipton County. No fecal coliform bacteria were detected in water samples from wells in Shelby and Fayette Counties. In the Beaver Creek watershed, fecal coliform bacteria were detected in water samples from 4 of the 95 wells sampled. The Tennessee Department of Environment and Conservation, Division of Water Supply, has adopted a primary drinking water standard for fecal coliform of 1 colony per 100 milliliter of sample (cols./100 mL) (Tennessee Department of Health and Environment, 1991).

Fecal streptococci bacteria were detected in water samples from 118 of the 398 wells sampled. Fecal streptococci bacteria in water from 13 of these wells equaled or exceeded 1,000 cols./100 mL, or were too numerous to count. Of those 13 wells, 7 wells are located in Tipton County, 3 wells in Haywood County, 2 wells in Fayette County, and 1 well in Shelby County. In the Beaver Creek watershed, fecal streptococci bacteria were detected in water samples from 34 of the 95 wells sampled.

Atrazine was detected in water samples from 26 wells. Nineteen of the water samples with detectable atrazine had concentrations of 0.1 microgram per liter (μg/L). Detection limit for the analytical method used for the determination of atrazine is 0.1 μg/L. Atrazine concentration for the other seven samples ranged from 0.2 to 9.7 μg/L; only one of these samples exceeded the proposed primary drinking water standard of 3 μg/L (Tennessee Department of Environment and Conservation, Division of Water Supply, written commun., 1992). In the Beaver Creek watershed, atrazine was detected in water samples from 2 of the 95 wells sampled. Atrazine concentrations in these samples did not exceed the proposed primary drinking water standard.

Aldicarb was not detected in water samples from any of the 398 wells sampled. Alachlor was detected in water samples from six of the wells sampled; all six wells are located in Tipton County, three of these wells are located within the Beaver Creek watershed. Alachlor concentrations ranged from 0.1 to 0.3 μg/L. The Tennessee Department of Environment and Conservation, Division of Water Supply, has proposed a primary drinking water standard for alachlor of 2 μg/L (Tennessee Department of Environment and Conservation, Division of Water Supply, written commun., 1992).

Table 2. Water-quality data for selected wells in Shelby County, West Tennessee

[µS/cm, microsiemens per centimeter; mg/L, milligrams per liter; cols./100 mL, number of colonies per 100 milliliters of sample; µg/L, micrograms per liter; <, detected at level less than the concentration shown; K, non-ideal count; TNTC, too numerous to count; b, well is located in Beaver Creek watershed; nd, not detected]

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./100 mL)	Streptococci fecal (cols./100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
1	350002	894738	181	6.76	31	<1	<1	10	5	18	13
2	350023	894045	66	6.00	21	<1	<1	6	4	7	4
3	350024	894049	172	5.99	18	<1	<1	7	5	20	4
4	350145	894230	100	6.08	22	<1	<1	6	3	12	3
5	350448	894205	117	5.91	23	<1	<1	7	4	15	3
6	350601	893925	52	6.24	56	<1	<1	7	4	8	3
7	350747	894618	76	6.16	22	<1	K 2	6	3	8	4
8	350805	894612	80	6.06	25	<1	<1	7	5	9	5
9	350850	894600	82	6.12	30	<1	<1	7	4	11	4
10	351029	894230	100	5.95	32	<1	<1	6	3	11	4
11	351054	894330	267	7.95	144	<1	<1	23	14	10	3
12	351054	894322	39	5.90	17	<1	<1	4	3	5	3
13	351054	894248	56	6.02	21	<1	<1	6	4	9	3
14	351055	894314	69	6.68	24	<1	<1	6	4	8	4
15	351055	894305	100	6.27	28	<1	<1	8	5	13	6
16	351059	894306	101	5.82	26	<1	<1	6	3	12	7
17	351106	894258	87	6.12	25	<1	<1	7	5	11	5
18	351511	894010	55	5.78	20	<1	<1	5	3	6	5
19	351513	894226	46	5.91	21	<1	<1	5	3	6	4
20	351527	894621	66	6.05	28	<1	TNTC	6	3	5	5
21	351528	893937	45	6.32	22	<1	<1	4	3	6	4
22	351702	895059	196	6.47	98	<1	<1	13	8	14	5
23	351707	895056	243	6.46	84	<1	K16	15	10	20	5
24	351815	894426	102	5.74	37	<1	<1	5	5	10	3
25	351826	895606	565	6.99	238	<1	<1	55	31	12	8
26	351828	895604	336	7.17	198	<1	<1	32	18	7	3
27	351830	895622	456	7.37	254	<1	550	46	27	9	4
28	351835	895723	337	6.93	158	<1	<1	32	19	8	4
29	351840	895750	382	6.94	384	<1	<1	39	23	8	6
30	351852	894153	254	7.15	146	<1	<1	4	3	72	4
31	351857	894058	94	5.99	37	<1	<1	5	5	8	5
32 b	351912	893827	141	5.87	12	<1	<1	5	5	15	8
33 b	352055	894222	168	6.60	60	<1	<1	8	4	24	3
34 b	352121	894252	211	6.43	46	<1	K10	10	6	28	3
35	352145	895704	656	6.90	348	<1	<1	57	39	12	7
36	352208	894532	243	6.48	86	<1	K10	17	10	14	4
37	352242	895548	620	7.10	320	<1	<1	64	33	10	21
38	352242	895541	620	7.10	324	<1	<1	60	35	10	15
39	352245	895554	653	7.28	364	<1	<1	64	39	14	13
40	352248	894501	83	6.28	32	<1	<1	6	4	11	3

Table 2. Water-quality data for selected wells in Shelby County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
1	21	8.4	nd	nd	nd	1	1,500	19	<0.1	<1	<0.1
2	8	.9	nd	nd	nd	2	<5	<5	<.1	<1	<.1
3	35	8.2	nd	nd	1.0	1	<5	<5	<.1	<1	<.1
4	14	6.4	nd	nd	.3	2	8	<5	<.1	<1	<.1
5	18	5.8	nd	nd	.3	2	7	<5	<.1	<1	<.1
6	5	.3	nd	nd	.3	1	23	<5	<.1	<1	<.1
7	8	1.4	nd	nd	.3	2	17	<5	<.1	<1	<.1
8	9	.8	nd	nd	.1	2	5	<5	<.1	<1	<.1
9	8	4.4	nd	nd	nd	1	32	<5	<.1	<1	<.1
10	11	1.3	nd	nd	.3	2	22	<5	<.1	<1	<.1
11	5	3.5	nd	nd	.3	1	<5	<5	<.1	<1	<.1
12	5	.3	nd	nd	.1	<1	15	<5	<.1	<1	<.1
13	5	.3	nd	nd	.2	1	25	<5	<.1	<1	<.1
14	6	.9	nd	nd	.3	1	31	<5	<.1	<1	<.1
15	12	.8	nd	nd	nd	1	22	<5	<.1	<1	<.1
16	14	.5	nd	nd	nd	<1	20	<5	<.1	<1	<.1
17	10	1.4	nd	nd	.1	2	20	<5	<.1	<1	<.1
18	7	.9	nd	nd	nd	2	5	<5	<.1	<1	<.1
19	4	.3	nd	nd	.3	<1	10	<5	<.1	<1	<.1
20	3	<.1	nd	nd	nd	3	1,600	21	<.1	<1	<.1
21	3	.3	nd	nd	nd	2	30	<5	<.1	<1	<.1
22	7	6.3	nd	nd	.3	2	40	<5	<.1	<1	<.1
23	7	7.9	nd	nd	.3	2	15	<5	<.1	<1	<.1
24	10	2.1	nd	nd	.3	1	9	<5	<.1	<1	<.1
25	22	25.2	nd	nd	.3	<1	11	<5	<.1	<1	<.1
26	4	3.1	nd	nd	.3	2	7	<5	<.1	<1	<.1
27	3	.9	nd	nd	.4	1	<5	<5	<.1	<1	<.1
28	7	9.0	nd	nd	.3	1	12	<5	<.1	<1	<.1
29	4	3.8	nd	nd	.9	2	<5	<5	<.1	<1	<.1
30	3	nd	nd	nd	nd	1	29	<5	<.1	<1	<.1
31	5	nd	nd	nd	.3	3	62	<5	<.1	<1	<.1
32 b	15	2.1	nd	nd	.3	2	25	<5	<.1	<1	<.1
33 b	18	4.2	nd	nd	.3	<1	26	<5	<.1	<1	<.1
34 b	26	17.6	nd	nd	.3	1	30	<5	<.1	<1	<.1
35	6	2.1	nd	nd	.3	1	<5	<5	<.1	<1	<.1
36	12	16.6	nd	nd	.3	<1	240	<5	<.1	<1	<.1
37	4	<.1	nd	nd	.3	4	99	590	<.1	<1	<.1
38	4	<.1	nd	nd	.3	2	10	750	<.1	<1	<.1
39	1	nd	nd	nd	<.1	3	24	1,400	<.1	<1	<.1
40	5	3.2	nd	nd	nd	<1	91	<5	<.1	<1	<.1

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee

[µS/cm, microsiemens per centimeter; mg/L, milligrams per liter; cols./100 mL, number of colonies per 100 milliliters of sample; µg/L, micrograms per liter; <, detected at level less than the concentration shown; K, non-ideal count; b, well is located in Beaver Creek watershed; nd, not detected]

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
1	350031	891927	22	5.25	11	<1	<1	1	<1	2	2
2	350113	893259	32	5.58	11	<1	<1	2	1	4	2
3	350149	892726	57	5.68	11	<1	<1	4	2	6	1
4	350215	892730	41	5.58	10	<1	<1	3	2	7	<1
5	350217	892817	64	5.61	10	<1	<1	3	2	10	<1
6	350217	892730	40	5.96	12	<1	<1	3	1	6	<1
7	350225	892719	43	5.68	13	<1	<1	3	2	8	<1
8	350245	892828	97	5.87	18	<1	<1	2	2	19	2
9	350304	892640	46	5.89	10	<1	<1	3	1	6	1
10	350330	892235	55	5.58	8	<1	<1	3	3	8	<1
11	350333	892420	152	5.78	22	<1	<1	5	3	18	9
12	350536	893215	22	5.65	12	<1	<1	1	<1	2	2
13	350633	892302	24	5.48	7	<1	<1	<1	3	11	2
14	350655	892250	44	5.72	13	<1	<1	3	<1	15	2
15	350911	892940	409	6.06	38	<1	<1	13	1	47	13
16	350926	893450	62	5.71	23	<1	<1	4	2	8	3
17	350935	892206	33	5.71	9	<1	<1	<1	4	13	<1
18	350945	892111	29	5.87	12	<1	<1	3	3	8	2
19	350950	892111	37	5.51	10	<1	K 7	2	1	9	1
20	350952	891835	48	5.51	13	<1	K 1	4	3	6	1
21	351010	891924	32	5.92	11	<1	<1	2	1	3	2
22	351023	891857	73	5.51	10	<1	<1	5	2	5	<1
23	351101	893604	48	5.56	18	<1	<1	2	1	7	2
24	351102	893610	73	5.71	14	<1	<1	4	2	11	12
25	351107	892837	193	5.73	14	<1	K14	14	5	9	53
26	351138	891512	26	5.62	8	<1	<1	3	2	5	1
27	351149	893557	51	5.32	32	<1	<1	4	1	5	7
28	351156	892639	33	5.68	12	<1	<1	3	1	6	1
29	351158	893554	124	5.37	18	<1	<1	<1	2	13	21
30	351218	891821	33	5.49	8	<1	<1	2	1	6	1
31	351224	893357	45	5.85	16	<1	K 4	2	1	4	3
32	351258	892617	40	5.70	11	<1	<1	3	1	6	2
33	351313	891733	28	5.77	14	<1	<1	3	2	5	1
34	351320	893626	128	5.86	26	<1	<1	5	2	14	7
35	351324	893608	118	6.10	20	<1	<1	1	<1	8	4
36	351344	893308	79	6.16	15	<1	<1	3	1	10	2
37	351354	891835	25	5.52	8	<1	<1	2	2	5	1
38	351358	893057	94	5.66	12	<1	<1	5	3	18	3
39	351359	893756	55	5.73	14	<1	<1	4	2	8	4
40	351405	891507	27	5.54	8	<1	<1	<1	<1	<1	2

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
1	5	2.1	nd	nd	<0.1	<1	14	<5	<0.1	<1	<0.1
2	5	2.9	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
3	7	5.1	nd	nd	<.1	<1	<5	7	<.1	<1	<.1
4	5	4.5	nd	nd	<.1	<1	13	<5	<.1	<1	<.1
5	10	8.0	nd	nd	<.1	<1	5	17	<.1	<1	<.1
6	3	1.7	nd	nd	<.1	<1	8	<5	<.1	<1	<.1
7	6	3.4	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
8	18	8.2	nd	nd	nd	<1	16	<5	<.1	<1	<.1
9	4	6.5	nd	nd	<.1	<1	15	<5	<.1	<1	<.1
10	7	<.1	nd	nd	<.1	<1	21	<5	<.1	<1	<.1
11	24	7.2	nd	nd	nd	<1	22	<5	<.1	<1	<.1
12	4	1.4	nd	nd	<.1	<1	7	<5	<.1	<1	<.1
13	13	<.1	nd	nd	<.1	12	210	<5	<.1	<1	<.1
14	5	3.6	nd	nd	<.1	<1	47	<5	<.1	<1	<.1
15	38	nd	nd	nd	<.1	<1	10	<5	<.1	<1	<.1
16	8	1.6	nd	nd	.3	2	8	<5	<.1	<1	<.1
17	2	.3	nd	nd	<.1	7	5	<5	<.1	<1	<.1
18	5	.9	nd	nd	nd	1	17	<5	<.1	<1	<.1
19	4	9.9	nd	nd	<.1	<1	8	<5	<.1	<1	<.1
20	4	9.2	nd	nd	<.1	<1	60	<5	<.1	<1	<.1
21	3	1.8	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
22	4	10.1	nd	nd	nd	<1	<5	<5	<.1	<1	<.1
23	6	4.6	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
24	6	1.4	nd	nd	nd	<1	62	<5	<.1	<1	<.1
25	5	2.2	nd	nd	<.1	<1	140	<5	<.1	<1	<.1
26	3	4.7	nd	nd	nd	<1	6	<5	<.1	<1	<.1
27	6	1.5	nd	nd	4.0	<1	<5	<5	.1	<1	<.1
28	5	1.4	nd	nd	nd	<1	7	<5	<.1	<1	<.1
29	7	4.5	nd	nd	<.1	<1	11	<5	<.1	<1	<.1
30	14	<.1	nd	nd	<.1	<1	12	<5	<.1	<1	<.1
31	4	1.2	nd	nd	nd	<1	<5	<5	<.1	<1	<.1
32	7	3.8	nd	nd	<.1	2	14	<5	<.1	<1	<.1
33	4	.2	nd	nd	<.1	<1	21	<5	<.1	<1	<.1
34	21	3.1	nd	nd	nd	<1	47	<5	<.1	<1	<.1
35	24	.5	nd	nd	<.1	<1	7	<5	<.1	<1	<.1
36	12	4.9	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
37	6	<.1	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
38	14	11.3	nd	nd	<.1	2	25	<5	<.1	<1	<.1
39	10	<.1	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
40	5	2.3	nd	nd	<.1	<1	62	<5	<.1	<1	<.1

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
41	351406	891837	25	5.60	11	<1	<1	3	2	5	1
42	351408	892446	35	5.80	12	<1	<1	3	1	5	1
43	351422	892451	34	5.66	14	<1	30	3	3	6	1
44	351428	893344	38	5.58	14	<1	<1	<1	<1	14	2
45	351432	891834	31	5.56	11	<1	<1	3	1	8	<1
46	351434	893111	193	5.99	30	<1	<1	8	11	37	12
47	351438	893520	32	5.80	14	<1	<1	2	<1	7	2
48	351438	893512	246	6.15	44	<1	<1	<1	9	44	9
49	351440	891553	60	5.46	13	<1	<1	4	3	7	1
50	351443	891825	31	5.50	11	<1	<1	2	1	4	<1
51	351445	891841	36	5.58	10	<1	<1	3	2	6	1
52	351445	891819	34	5.58	12	<1	<1	<1	<1	1	1
53	351446	891555	30	5.68	11	<1	<1	3	2	5	2
54	351447	891807	30	5.67	11	<1	<1	2	1	3	1
55	351448	893805	50	5.89	22	<1	K 4	2	2	21	4
56	351448	891827	38	5.70	12	<1	K53	2	1	6	1
57	351450	891756	47	5.82	10	<1	<1	<1	3	10	1
58	351457	891749	41	5.57	15	<1	<1	2	1	5	2
59	351500	893405	49	4.98	88	<1	<1	3	1	7	2
60	351519	892414	85	6.03	13	<1	<1	4	3	9	3
61	351524	893420	39	6.09	21	<1	<1	4	2	7	3
62	351526	893422	30	5.72	17	<1	<1	<1	1	9	2
63	351531	891918	25	5.56	8	<1	K20	2	1	4	1
64	351534	892004	46	5.71	13	<1	K 4	6	5	5	<1
65	351540	892714	51	5.55	12	<1	<1	2	1	6	2
66	351547	893514	43	5.85	32	<1	<1	4	3	6	3
67	351608	893807	82	6.09	28	<1	<1	6	3	14	7
68	351622	892607	47	6.09	19	<1	<1	4	2	4	2
69	351639	892129	51	5.83	13	<1	<1	2	1	6	2
70	351642	891921	43	6.00	12	<1	<1	2	1	15	1
71	351649	891829	225	5.98	14	<1	<1	12	5	20	4
72	351650	891910	31	5.96	11	<1	<1	2	1	3	1
73	351704	893636	60	5.92	24	<1	<1	6	3	7	4
74	351706	893641	47	6.10	19	<1	<1	4	2	6	3
75	351803	892331	41	6.00	14	<1	K 1	3	1	4	2
76	351815	892053	39	5.73	13	<1	<1	2	1	6	1
77	351825	891236	40	5.58	7	<1	<1	<1	<1	1	2
78	351850	892223	104	6.11	12	<1	<1	2	1	16	1
79	351903	891542	42	5.68	14	<1	K 2	3	2	6	<1
80	351907	892051	39	5.94	12	<1	<1	3	2	6	<1

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
41	3	3.0	nd	nd	<0.1	<1	6	<5	<0.1	<1	<0.1
42	3	<.1	nd	nd	<.1	<1	56	<5	<.1	<1	<.1
43	3	.8	nd	nd	<.1	<1	23	<5	<.1	<1	<.1
44	4	<.1	nd	nd	<.1	nd	10	<5	<.1	<1	<.1
45	4	.1	nd	2.0	<.1	5	<5	<5	<.1	<1	<.1
46	19	24.0	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
47	9	<.1	nd	nd	<.1	4	<5	<5	<.1	<1	<.1
48	30	19.6	nd	nd	nd	1	6	<5	<.1	<1	<.1
49	9	10.9	nd	nd	<.1	<1	17	<5	<.1	<1	<.1
50	3	10.1	nd	nd	nd	1	<5	<5	<.1	<1	<.1
51	4	<.1	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
52	3	1.1	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
53	5	5.0	nd	nd	<.1	1	8	<5	<.1	<1	<.1
54	1	.2	nd	nd	<.1	<1	21	<5	<.1	<1	<.1
55	5	<.1	nd	nd	<.1	<1	8	<5	<.1	<1	<.1
56	6	<.1	nd	nd	<.1	<1	12	<5	<.1	<1	<.1
57	7	3.1	nd	nd	<.1	5	<5	<5	<.1	<1	<.1
58	7	17.0	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
59	6	3.0	nd	nd	<.1	<1	10	<5	<.1	<1	<.1
60	11	14.1	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
61	6	.2	nd	nd	nd	2	17	<5	<.1	<1	<.1
62	6	<.1	nd	nd	<.1	4	<5	<5	<.1	<1	<.1
63	9	<.1	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
64	4	3.5	nd	nd	<.1	2	24	<5	<.1	<1	<.1
65	8	11.6	nd	nd	<.1	<1	6	<5	<.1	<1	<.1
66	6	.3	nd	nd	.2	<1	7	<5	<.1	<1	<.1
67	12	.1	nd	nd	<.1	1	61	<5	<.1	<1	<.1
68	4	4.2	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
69	7	1.5	nd	nd	<.1	<1	9	<5	<.1	<1	<.1
70	6	4.8	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
71	27	nd	nd	nd	nd	<1	10	<5	9.7	<1	<.1
72	4	.9	nd	nd	<.1	<1	7	<5	<.1	<1	<.1
73	4	.2	nd	nd	nd	2	38	<5	<.1	<1	<.1
74	4	.4	nd	nd	.3	2	<5	<5	<.1	<1	<.1
75	8	<.1	nd	nd	<.1	<1	11	<5	<.1	<1	<.1
76	4	<.1	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
77	5	5.6	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
78	17	11.1	nd	nd	<.1	<1	15	<5	<.1	<1	<.1
79	5	7.2	nd	nd	nd	<1	<5	<5	<.1	<1	<.1
80	4	.2	nd	nd	<.1	<1	16	<5	<.1	<1	<.1

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
81	351911	892646	73	5.86	17	<1	<1	4	2	9	1
82	351913	892051	80	5.77	14	<1	<1	<1	1	27	1
83	351920	892656	103	6.16	26	<1	<1	5	2	13	1
84	351922	893422	59	6.11	17	<1	K 6	4	1	9	6
85	351930	893726	83	6.17	36	<1	K 2	6	3	12	3
86	351942	892759	39	5.84	18	<1	<1	3	1	4	2
87	351946	892148	39	5.70	13	<1	K 2	2	1	4	1
88	351947	892822	45	5.81	18	<1	<1	3	1	6	1
89	351951	892836	68	5.87	22	<1	<1	4	3	10	1
90	351958	892836	47	5.93	19	<1	<1	4	3	7	4
91 b	352017	893743	81	6.13	27	<1	<1	7	4	11	5
92	352027	893047	164	6.48	38	<1	K 1	6	3	21	3
93	352032	893049	117	6.34	38	<1	<1	7	4	14	3
94	352036	893038	93	6.35	32	<1	<1	6	3	14	2
95	352040	892406	245	5.53	9	<1	<1	16	6	13	1
96	352045	893044	151	6.70	46	<1	<1	4	3	28	4
97	352050	893643	118	6.24	42	<1	K 2	8	5	9	10
98	352050	893057	70	5.96	17	<1	K 5	4	3	11	2
99 b	352057	893737	76	6.25	26	<1	<1	3	6	11	6
100 b	352057	893714	62	5.76	42	<1	<1	5	3	7	4
101 b	352107	893654	94	6.06	35	<1	<1	7	3	8	6
102 b	352115	893650	78	6.26	32	<1	K 7	6	4	8	6
103 b	352116	893659	88	6.37	32	<1	<1	7	4	9	8
104 b	352149	893421	415	6.11	29	<1	<1	19	8	35	129
105 b	352223	892931	114	6.13	37	<1	K1,400	7	4	17	3
106	352224	892815	166	6.19	40	<1	<1	5	2	27	2
107 b	352243	893327	84	7.16	34	<1	<1	<1	3	13	2
108 b	352246	892928	124	5.67	13	<1	<1	4	1	19	2
109 b	352253	892919	89	6.32	32	<1	<1	6	4	13	3
110	352305	892704	69	5.81	21	<1	<1	<1	<1	5	2
111 b	352307	893650	65	5.80	24	<1	<1	6	3	7	5
112	352307	892728	112	5.96	30	<1	30	6	3	20	2
113	352308	892852	65	5.99	20	<1	<1	6	4	10	3
114 b	352310	892905	39	5.90	19	<1	<1	5	4	5	3
115	352311	892642	60	6.01	22	<1	<1	<1	2	29	2
116 b	352312	892848	51	5.90	22	<1	<1	5	3	8	2
117 b	352316	892919	171	5.60	35	<1	<1	7	4	29	3
118 b	352317	893135	57	6.52	54	<1	K1,000	4	3	10	4
119 b	352318	892927	155	6.40	41	<1	<1	7	4	25	4
120	352323	892401	63	6.23	19	<1	<1	<1	<1	5	2

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
81	10	3.5	nd	nd	<0.1	<1	6	<5	<0.1	<1	<0.1
82	10	20.8	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
83	13	1.3	nd	nd	<.1	<1	26	<5	<.1	<1	<.1
84	5	<.1	nd	nd	<.1	<1	70	<5	<.1	<1	<.1
85	5	<.1	nd	nd	nd	<1	140	<5	<.1	<1	<.1
86	9	<.1	nd	nd	nd	<1	13	<5	<.1	<1	<.1
87	1	.6	nd	nd	<.1	<1	6	<5	<.1	<1	<.1
88	8	<.1	nd	nd	<.1	<1	6	<5	<.1	<1	<.1
89	15	<.1	nd	nd	nd	<1	7	<5	<.1	<1	<.1
90	5	3.1	nd	nd	3.9	<1	33	<5	<.1	<1	<.1
91 b	7	.9	nd	nd	<.1	2	<5	<5	<.1	<1	<.1
92	20	13.8	nd	nd	nd	1	17	<5	<.1	<1	<.1
93	11	6.5	nd	nd	nd	1	250	15	<.1	<1	<.1
94	7	.1	nd	nd	<.1	2	1,800	<5	<.1	<1	<.1
95	26	nd	nd	nd	nd	<1	7	<5	<.1	<1	<.1
96	12	18.3	nd	nd	.3	<1	<5	<5	<.1	<1	<.1
97	6	nd	nd	nd	.3	2	2,300	85	<.1	<1	<.1
98	9	1.5	nd	nd	nd	1	6	<5	<.1	<1	<.1
99 b	3	<.1	nd	nd	<.1	2	10	<5	<.1	<1	<.1
100 b	6	<.1	nd	nd	.1	2	400	<5	<.1	<1	<.1
101 b	8	nd	nd	nd	<.1	<1	35	<5	<.1	<1	<.1
102 b	5	.1	nd	nd	.3	2	15	<5	<.1	<1	<.1
103 b	5	<.1	nd	nd	nd	1	8	<5	<.1	<1	<.1
104 b	18	.8	nd	nd	<.1	<1	360	<5	<.1	<1	<.1
105 b	10	6.1	nd	nd	.3	2	57	<5	.2	<1	<.1
106	23	7.2	nd	nd	<.1	<1	6	<5	<.1	<1	<.1
107 b	10	.6	nd	nd	<.1	4	29	<5	<.1	<1	<.1
108 b	10	13.7	nd	nd	<.1	<1	17	<5	<.1	<1	<.1
109 b	9	4.7	nd	nd	.3	1	11	<5	<.1	<1	<.1
110	9	.9	nd	nd	<.1	<1	<5	<5	<.1	<1	<.1
111 b	3	.1	nd	nd	.3	1	290	<5	<.1	<1	<.1
112	15	4.1	nd	nd	nd	2	12	<5	<.1	<1	<.1
113	8	4.5	nd	nd	nd	1	<5	<5	<.1	<1	<.1
114 b	3	.2	nd	nd	.3	1	<5	<5	<.1	<1	<.1
115	11	.1	nd	2.4	<.1	nd	<5	<5	<.1	<1	<.1
116 b	6	<.1	nd	nd	nd	2	13	<5	<.1	<1	<.1
117 b	18	6.1	nd	nd	.3	<1	11	<5	<.1	<1	<.1
118 b	6	<.1	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
119 b	18	12.5	nd	nd	nd	1	53	<5	<.1	<1	<.1
120	9	4.6	nd	nd	<.1	<1	8	<5	<.1	<1	<.1

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
121 b	352334	893049	44	5.92	24	<1	<1	2	<1	10	2
122 b	352336	893132	44	5.95	21	<1	<1	6	4	6	3
123	352340	892408	66	5.89	18	<1	<1	<1	<1	5	2
124 b	352344	893133	48	6.22	62	<1	K 3	6	4	6	3
125	352354	891645	56	5.87	19	<1	K15	5	3	17	2

Table 3. Water-quality data for selected wells in Fayette County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
121 b	4	<0.1	nd	nd	nd	4	28	<5	<0.1	<1	<0.1
122 b	6	.2	nd	nd	nd	1	16	<5	<.1	<1	<.1
123	9	3.3	nd	nd	<.1	<1	15	<5	<.1	<1	<.1
124 b	3	<.1	nd	nd	nd	1	<5	<5	<.1	<1	<.1
125	8	6.1	nd	nd	nd	2	20	<5	<.1	<1	<.1

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee

[µS/cm, microsiemens per centimeter; mg/L, milligrams per liter; cols./100 mL, number of colonies per 100 milliliters of sample; µg/L, micrograms per liter; b, well is located in Beaver Creek watershed; <, detected at level less than the concentration shown; nd, not detected; K, non-ideal count; TNTC, too numerous to count]

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./100 mL)	Streptococci fecal (cols./100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
1 b	352359	893923	120	6.03	29	<1	<1	8	11	17	5
2 b	352402	893725	105	5.99	32	175	K195	5	2	11	3
3	352406	895800	644	7.12	270	20	250	54	43	12	6
4 b	352411	893631	109	5.98	46	1	K 12	7	4	12	4
5 b	352418	894033	95	6.79	44	<1	5	7	3	11	3
6 b	352422	894108	144	6.55	80	<1	<1	5	7	16	2
7 b	352444	893631	257	6.32	58	<1	K 15	15	7	33	12
8 b	352446	893554	80	6.05	28	<1	<1	6	10	11	2
9 b	352451	893547	89	5.94	40	<1	K 1	7	10	12	2
10 b	352452	893630	178	6.49	72	<1	<1	8	3	24	6
11 b	352452	893553	103	6.08	28	<1	<1	<1	<1	17	2
12 b	352454	893941	102	6.30	34	<1	K 2	8	4	16	3
13 b	352457	893557	142	6.37	41	<1	K 5	4	<1	13	5
14 b	352458	893950	104	5.90	41	<1	<1	6	2	12	3
15 b	352459	893945	97	6.52	36	<1	TNTC	1	<1	8	3
16 b	352459	893629	262	6.71	49	<1	K 20	10	5	39	10
17 b	352501	893932	110	6.27	30	<1	K200	6	3	13	4
18 b	352501	893149	102	6.30	44	<1	<1	6	4	8	6
19 b	352503	893938	122	6.36	36	<1	<1	9	5	20	4
20 b	352503	893556	156	6.44	74	<1	<1	11	6	10	3
21 b	352504	893951	155	6.34	44	<1	<1	9	4	18	17
22 b	352505	893524	126	6.18	49	75	550	6	3	16	3
23 b	352507	893938	122	6.09	38	<1	<1	2	4	15	3
24 b	352509	893524	154	6.34	80	<1	<1	12	6	13	5
25 b	352517	893624	162	6.28	64	<1	<1	8	3	23	5
26 b	352518	893617	103	6.35	46	<1	<1	6	2	20	2
27 b	352520	893619	151	6.20	50	<1	TNTC	7	4	17	2
28 b	352534	893620	100	6.42	44	<1	300	7	4	11	3
29	352545	895151	206	7.05	242	<1	K 10	28	6	5	4
30 b	352556	892953	171	6.45	68	<1	470	15	2	16	4
31 b	352613	894449	155	6.17	46	<1	K 1	11	6	10	2
32 b	352616	893624	112	6.29	54	<1	K 5	7	3	14	3
33 b	352620	893958	93	6.44	32	<1	K 2	6	3	9	2
34 b	352636	894222	113	6.34	28	<1	<1	7	2	15	5
35 b	352640	893533	95	6.12	40	<1	<1	5	3	13	2
36 b	352645	892840	82	6.31	34	<1	<1	6	3	14	6
37 b	352647	893928	141	5.87	42	<1	<1	9	11	17	2
38 b	352654	893905	78	6.29	36	<1	<1	4	2	176	2
39 b	352655	893911	87	6.05	48	<1	<1	6	2	12	2
40 b	352701	893909	89	6.05	38	<1	<1	8	11	11	2

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
1 b	10	16.9	nd	nd	nd	3	52	<5	<0.1	<1	<0.1
2 b	5	6.7	nd	nd	nd	1	25	<5	<.1	<1	<.1
3	3	7.7	nd	nd	<.1	2	15	<5	<.1	<1	<.1
4 b	7	5.9	nd	nd	nd	1	13	<5	<.1	<1	<.1
5 b	14	8.8	nd	nd	nd	2	12	<5	<.1	<1	<.1
6 b	8	6.0	nd	nd	<.1	1	40	20	<.1	<1	<.1
7 b	19	25.1	nd	nd	<.1	<1.0	5	<5	<.1	<1	<.1
8 b	6	6.1	nd	nd	<.1	2	22	<5	<.1	<1	<.1
9 b	5	6.9	nd	nd	<.1	3	16	<5	<.1	<1	<.1
10 b	8	11.6	nd	nd	<.1	<1.0	16	<5	<.1	<1	<.1
11 b	7	14.6	nd	nd	<.1	<1.0	15	<5	<.1	<1	<.1
12 b	5	5.5	nd	nd	<.1	2	21	<5	<.1	<1	<.1
13 b	10	7.3	nd	nd	<.1	<1.0	7	<5	<.1	<1	<.1
14 b	7	5.6	nd	nd	<.1	1	27	<5	<.1	<1	<.1
15 b	3	1.1	nd	nd	<.1	<1.0	15	<5	<.1	<1	<.1
16 b	10	49.1	nd	nd	.6	<1.0	23	<5	<.1	<1	<.1
17 b	8	4.5	nd	nd	<.1	1	39	<5	<.1	<1	<.1
18 b	5	3.3	nd	nd	nd	3	810	31	<.1	<1	<.1
19 b	11	12.8	nd	nd	.7	2	15	<5	<.1	<1	<.1
20 b	2	nd	nd	nd	nd	2	20	<5	<.1	<1	<.1
21 b	12	8.1	nd	nd	<.1	<1.0	24	<5	<.1	<1	<.1
22 b	7	9.3	nd	nd	nd	1	15	<5	<.1	<1	<.1
23 b	12	12.8	nd	nd	<.1	1	9	<5	<.1	<1	<.1
24 b	6	1.2	nd	nd	<.1	1	15	20	<.1	<1	<.1
25 b	8	9.3	nd	nd	<.1	<1.0	8	<5	<.1	<1	<.1
26 b	6	7.2	nd	nd	nd	<1.0	10	<5	<.1	<1	<.1
27 b	9	12.2	nd	nd	nd	1	44	<5	<.1	<1	<.1
28 b	5	4.7	nd	nd	<.1	<1.0	13	<5	<.1	<1	<.1
29	6	<.1	nd	nd	<.1	<1.0	34	<5	<.1	<1	<.1
30 b	11	2.5	nd	nd	<.1	1	470	44	<.1	<1	<.1
31 b	13	20.3	nd	nd	<.1	<1.0	53	6	2.7	<1	<.1
32 b	7	6.3	nd	nd	nd	<1.0	24	<5	<.1	<1	<.1
33 b	5	2.8	nd	nd	<.1	1	19	<5	<.1	<1	<.1
34 b	9	17.7	nd	nd	.8	<1.0	20	<5	<.1	<1	<.1
35 b	6	7.3	nd	nd	nd	<1.0	18	<5	<.1	<1	<.1
36 b	5	nd	nd	nd	nd	<1.0	440	<5	<.1	<1	<.1
37 b	2	1.0	nd	nd	<.1	2	25	<5	<.1	<1	<.1
38 b	5	2.4	nd	nd	<.1	nd	23	<5	<.1	<1	<.1
39 b	6	6.2	nd	nd	<.1	2	25	<5	<.1	<1	<.1
40 b	7	.7	nd	nd	nd	2	30	<5	<.1	<1	<.1

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
41 b	352706	893909	151	5.98	43	<1	<1	5	2	12	2
42 b	352710	893617	89	6.19	32	<1	K 1	5	3	9	3
43 b	352720	894006	134	6.29	39	<1	<1	8	4	17	3
44 b	352723	893356	136	6.43	64	<1	<1	12	6	17	6
45 b	352728	893808	97	6.22	42	<1	<1	6	3	11	5
46 b	352731	893807	118	6.27	31	<1	<1	6	3	13	2
47 b	352735	893803	166	5.96	42	<1	<1	9	5	22	2
48 b	352736	893933	66	5.97	26	<1	<1	4	2	9	2
49 b	352743	893631	98	6.11	32	<1	<1	<1	<1	13	6
50	352758	892822	201	6.09	54	<1	<1	6	3	32	8
51 b	352817	893448	272	6.35	106	<1	20	17	9	24	7
52	352822	892827	64	5.97	28	<1	K 1	6	2	6	2
53 b	352830	893057	132	6.09	52	<1	K 1	7	3	16	14
54 b	352833	893807	99	5.97	43	<1	<1	8	4	9	4
55 b	352840	893514	82	8.41	30	<1	<1	9	4	31	5
56 b	352902	893532	136	6.44	58	<1	<1	5	2	10	4
57	352913	894113	102	6.38	38	<1	30	8	5	12	3
58 b	352915	893507	78	5.88	23	<1	K 8	4	1	9	3
59 b	352921	893450	123	6.30	28	<1	K 2	5	3	15	3
60 b	352923	893503	204	6.04	52	<1	22	12	6	23	4
61 b	352926	893447	114	6.57	45	<1	<1	9	4	9	3
62 b	352929	893423	128	6.32	34	<1	<1	7	3	16	3
63 b	352930	893418	129	6.13	57	<1	<1	7	3	15	3
64 b	352936	893356	97	6.31	40	<1	<1	5	2	14	2
65 b	352940	893450	138	6.08	30	<1	<1	5	2	23	8
66 b	352941	893356	121	6.29	44	<1	<1	6	2	17	2
67 b	352942	893442	197	6.74	62	<1	<1	12	7	17	10
68	352942	893034	102	6.23	42	<1	K 4	7	10	15	2
69 b	352950	893400	87	6.00	34	<1	<1	5	2	12	2
70	352954	894140	80	6.15	33	<1	<1	5	3	9	2
71 b	352957	893853	90	6.40	46	<1	<1	9	5	10	2
72	352957	893051	245	6.09	55	<1	K 4	10	4	35	10
73 b	352959	893446	242	6.24	72	<1	K24	11	6	34	6
74 b	353000	893307	160	5.95	44	<1	<1	9	11	24	5
75 b	353003	893302	132	6.23	32	<1	K 1	6	3	18	3
76 b	353006	893446	168	6.31	66	<1	K31	8	3	21	5
77 b	353014	893446	150	6.28	36	<1	K 4	6	2	24	3
78	353035	893446	112	5.74	30	<1	<1	6	3	13	2
79	353041	894258	225	7.33	170	<1	TNTC	19	11	10	2
80	353042	893217	212	6.12	74	<1	K 1	19	9	19	7

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
41 b	15	15.4	nd	nd	<0.1	<1.0	6	<5	<0.1	<1	<0.1
42 b	4	9.4	nd	nd	<.1	<1.0	53	<5	<.1	<1	.1
43 b	16	18.9	nd	nd	<.1	2	35	<5	<.1	<1	.3
44 b	10	nd	nd	nd	nd	3	1,000	27	<.1	<1	<.1
45 b	8	7.1	nd	nd	4.6	1	<5	<5	<.1	<1	<.1
46 b	9	5.4	nd	nd	<.1	1	26	<5	<.1	<1	<.1
47 b	23	11.9	nd	nd	nd	2	38	<5	<.1	<1	<.1
48 b	3	3.8	nd	nd	<.1	<1.0	11	<5	<.1	<1	.3
49 b	10	10.3	nd	nd	2.4	<1.0	15	<5	<.1	<1	<.1
50	27	14.2	nd	nd	1.3	1	<5	<5	<.1	<1	<.1
51 b	8	nd	nd	nd	<.1	3	18,200	140	<.1	<1	<.1
52	5	nd	nd	nd	nd	1	700	7	<.1	<1	<.1
53 b	6	2.8	nd	nd	<.1	1	50	<5	<.1	<1	<.1
54 b	3	5.8	nd	nd	<.1	<1.0	17	<5	<.1	<1	<.1
55 b	3	nd	nd	nd	nd	2	1,800	<5	<.1	<1	<.1
56 b	6	.6	nd	nd	<.1	2	41	13	<.1	<1	<.1
57	7	nd	nd	nd	nd	<1.0	13	<5	<.1	<1	<.1
58 b	8	9.9	nd	nd	<.1	<1.0	18	<5	<.1	<1	<.1
59 b	9	9.4	nd	nd	<.1	<1.0	<5	<5	<.1	<1	<.1
60 b	20	18.4	nd	nd	.9	<1.0	8	<5	<.1	<1	<.1
61 b	4	<.1	nd	nd	<.1	<1.0	40	<5	<.1	<1	<.1
62 b	13	9.4	nd	nd	nd	<1.0	23	<5	<.1	<1	<.1
63 b	7	5.2	nd	nd	nd	<1.0	10	<5	<.1	<1	<.1
64 b	7	6.3	nd	nd	nd	<1.0	13	<5	<.1	<1	<.1
65 b	11	10.5	nd	nd	<.1	<1.0	10	<5	<.1	<1	<.1
66 b	8	12.0	nd	nd	<.1	<1.0	16	<5	<.1	<1	<.1
67 b	5	13.0	nd	nd	nd	1	25	<5	<.1	<1	<.1
68	7	11.7	nd	nd	<.1	3	14	<5	<.1	<1	<.1
69 b	5	4.3	nd	nd	nd	<1.0	9	<5	<.1	<1	<.1
70	5	5.0	nd	nd	<.1	<1.0	22	<5	<.1	<1	<.1
71 b	2	.4	nd	nd	<.1	2	11	<5	<.1	<1	<.1
72	27	11.9	nd	nd	<.1	<1.0	17	<5	<.1	<1	<.1
73 b	8	46.0	nd	nd	nd	<1.0	17	<5	<.1	<1	<.1
74 b	16	17.9	nd	nd	1.7	2	10	<5	<.1	<1	<.1
75 b	9	19.6	nd	nd	nd	1	34	<5	<.1	<1	<.1
76 b	9	10.9	nd	nd	<.1	<1.0	7	<5	<.1	<1	<.1
77 b	11	23.8	nd	nd	<.1	<1.0	19	<5	<.1	<1	<.1
78	7	16.3	nd	nd	nd	<1.0	<5	<5	<.1	<1	<.1
79	5	8.9	nd	nd	<.1	<1.0	8	<5	<.1	<1	<.1
80	13	15.6	nd	nd	1.7	2	29	<5	<.1	<1	<.1

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
81	353044	893318	82	6.13	30	<1	K 3	4	4	10	3
82	353045	894255	238	6.89	110	<1	K46	24	14	6	2
83	353057	893350	408	6.65	192	<1	26	23	12	47	9
84	353057	893342	387	6.34	80	<1	<1	22	11	43	5
85	353101	893402	96	6.15	30	<1	<1	7	3	9	3
86	353108	893938	136	6.47	60	<1	<1	11	6	10	4
87 b	353108	893823	171	6.91	68	<1	2,000	13	7	10	3
88	353112	894028	104	6.24	79	<1	K13	8	5	9	2
89	353114	893707	111	6.72	70	<1	K 1	7	3	13	2
90	353116	893718	202	6.37	102	<1	<1	17	9	9	4
91	353116	893647	116	6.47	64	<1	K10	8	4	12	2
92	353118	893439	121	6.44	62	<1	10,000	8	4	13	2
93	353119	893622	96	6.22	48	<1	25	5	2	13	4
94	353120	893648	121	6.16	46	<1	K12	8	5	15	2
95	353121	893126	120	6.03	30	<1	<1	9	10	16	6
96	353122	893107	189	6.13	82	<1	<1	9	1	10	3
97	353127	893126	245	6.82	90	<1	TNTC	20	8	15	14
98	353136	893140	87	6.37	26	<1	<1	1	<1	7	2
99	353138	893217	166	5.72	25	<1	K 6	10	5	17	3
100	353141	893144	152	5.94	38	<1	<1	7	9	27	7
101	353142	893221	132	6.39	40	<1	K13	7	4	15	2
102	353143	893851	207	6.46	92	<1	<1	12	4	3	3
103	353147	893141	210	6.19	64	<1	<1	7	3	31	15
104	353210	894626	584	6.71	322	<1	<1	66	35	6	3
105	353217	893557	89	6.23	40	<1	K 2	5	2	12	2
106	353218	893619	153	6.74	62	<1	<1	13	7	11	2
107	353239	893644	128	6.06	23	<1	<1	8	3	9	4
108	353249	893023	172	5.94	66	<1	<1	11	5	13	6
109	353259	893022	247	6.32	112	<1	<1	19	9	15	10
110	353300	893351	72	6.31	32	<1	K 1	4	2	10	2
111	353320	893242	170	5.83	112	<1	<1	16	8	7	5
112	353329	893058	298	6.55	122	<1	<1	24	11	18	9
113	353344	893014	531	6.80	193	<1	<1	42	24	25	45
114	353346	892945	665	6.89	264	<1	K 2	48	26	76	33
115	353354	893817	140	6.33	42	<1	TNTC	11	6	8	2
116	353417	893510	89	6.09	32	<1	K28	7	3	11	2
117	353442	893114	391	6.68	192	<1	<1	38	21	18	10
118	353456	893745	278	7.05	148	<1	<1	30	17	7	3
119	353502	893612	494	6.88	246	<1	<1	36	17	62	2
120	353508	893627	680	7.12	344	<1	K 1	74	37	18	24

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
81	5	4.4	nd	nd	<0.1	1	6	<5	0.3	<1	0.3
82	4	6.2	nd	nd	<.1	<1.0	10	<5	<.1	<1	<.1
83	22	nd	nd	nd	.8	1.1	1,600	94	<.1	<1	<.1
84	34	56.6	nd	nd	<.1	<1.0	<5	<5	<.1	<1	<.1
85	5	3.3	nd	nd	nd	<1.0	32	<5	<.1	<1	<.1
86	6	11.1	nd	nd	<.1	<1.0	34	<5	<.1	<1	<.1
87 b	4	9.5	nd	nd	nd	1	29	<5	<.1	<1	<.1
88	6	.6	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
89	7	6.6	nd	nd	nd	<1.0	18	<5	<.1	<1	<.1
90	5	5.4	nd	nd	nd	2	48,000	65	<.1	<1	<.1
91	5	1.1	nd	nd	<.1	<1.0	19	<5	<.1	<1	<.1
92	6	4.5	nd	nd	<.1	<1.0	5	<5	<.1	<1	<.1
93	5	7.5	nd	nd	<.1	<1.0	8	<5	<.1	<1	<.1
94	4	9.2	nd	nd	<.1	1	<5	<5	<.1	<1	<.1
95	11	8.3	nd	nd	<.1	2	18	<5	<.1	<1	<.1
96	7	4.1	nd	nd	<.1	<1.0	<5	<5	<.1	<1	<.1
97	3	.2	nd	nd	<.1	<1.0	3,800	62	<.1	<1	<.1
98	6	7.0	nd	nd	<.1	<1.0	580	<5	<.1	<1	<.1
99	24	16.3	nd	nd	nd	1	31	<5	<.1	<1	<.1
100	18	12.8	nd	nd	4.1	<1.0	44	<5	<.1	<1	<.1
101	5	8.4	nd	nd	<.1	0.5	10	<5	<.1	<1	<.1
102	3	7.1	nd	nd	<.1	<1.0	120	<5	<.1	<1	<.1
103	12	14.3	nd	nd	4.4	1	270	<5	<.1	<1	<.1
104	1	<.1	nd	nd	<.1	<1.0	160	710	<.1	<1	<.1
105	2	2.8	nd	nd	<.1	<1.0	14	<5	<.1	<1	<.1
106	3	<.1	nd	nd	nd	<1.0	200	<5	<.1	<1	<.1
107	12	19.4	nd	nd	<.1	1	29	<5	<.1	<1	<.1
108	5	nd	nd	nd	<.1	<1.0	4,800	86	<.1	<1	<.1
109	7	nd	nd	nd	<.1	<1.0	6,600	97	<.1	<1	<.1
110	5	4.6	nd	nd	<.1	1	15	<5	<.1	<1	<.1
111	6	<.1	nd	nd	<.1	<1.0	780	8	<.1	<1	<.1
112	7	<.1	nd	nd	nd	<1.0	2,300	110	<.1	<1	<.1
113	21	7.9	<.1	nd	nd	<1.0	5,900	120	<.1	<1	<.1
114	35	<.1	nd	nd	<.1	<1.0	2,900	74	<.1	<1	<.1
115	11	14.7	nd	nd	<.1	<1.0	14	<5	<.1	<1	<.1
116	2	6.1	nd	nd	<.1	<1.0	11	<5	<.1	<1	<.1
117	6	<.1	nd	nd	nd	<1.0	2,000	45	<.1	<1	<.1
118	2	.3	nd	nd	<.1	<1.0	<5	<5	<.1	<1	.1
119	17	<.1	nd	nd	<.1	<1.0	9,900	120	<.1	<1	<.1
120	7	.7	nd	nd	<.1	<1.0	1,200	150	<.1	<1	<.1

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (μS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
121	353513	893313	427	6.91	186	<1	330	32	18	22	21
122	353536	893500	405	6.59	192	<1	<1	44	22	8	10
123	353548	893927	490	7.23	264	<1	<1	44	28	13	4
124	353555	893427	241	6.79	132	<1	<1	22	10	10	8
125	353558	893448	442	6.64	192	<1	K 1	47	24	10	21
126	353558	893443	260	6.60	108	<1	K26	26	13	10	11
127	353612	893957	545	7.36	307	<1	50	63	35	10	3
128	353702	894021	213	6.25	32	<1	<1	18	10	16	2
129	353716	893945	80	6.73	40	50	K 3	6	4	10	2
130	353730	893939	522	7.28	300	<1	<1	55	30	11	3

Table 4. Water-quality data for selected wells in Tipton County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
121	15	nd	nd	nd	<0.1	<1.0	8,900	44	<0.1	<1	<0.1
122	6	nd	nd	<1	<.1	<1.0	2,900	95	<.1	<1	<.1
123	4	2.4	nd	nd	<.1	1.2	8	<5	<.1	<1	<.1
124	2	nd	nd	<1	<.1	<1.0	3,900	53	<.1	<1	<.1
125	9	nd	nd	nd	<.1	<1.0	3,300	87	<.1	<1	<.1
126	3	<.1	nd	nd	nd	<1.0	1,700	64	<.1	<1	<.1
127	2	.9	nd	nd	<.1	<1.0	41	10	<.1	<1	<.1
128	16	48.9	nd	nd	<.1	2	26	<5	<.1	<1	.1
129	5	5.9	nd	nd	<.1	1	49	<5	<.1	<1	<.1
130	1	<.1	nd	nd	<.1	<1.0	74	<5	<.1	<1	<.1

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee

[µS/cm, microsiemens per centimeter; mg/L, milligrams per liter; cols./100 mL, number of colonies per 100 milliliters of sample; µg/L, micrograms per liter; nd, not detected; <, detected at level less than the concentration shown; K, non-ideal count; b, well is located in Beaver Creek watershed; TNTC, too numerous to count]

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./100 mL)	Streptococci fecal (cols./100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
1	352423	892609	44	5.76	20	455	4,400	3	1	7	3
2	352427	891732	61	5.73	12	<1	<1	6	10	9	3
3	352436	891716	36	5.72	12	60	10	3	1	5	2
4	352454	892614	71	5.48	36	<1	<1	4	2	10	3
5	352528	892129	42	5.55	14	<1	<1	3	1	4	2
6	352539	892045	88	5.94	29	10	15	4	2	13	3
7	352547	892057	113	5.87	34	<1	<1	4	2	18	3
8	352550	891950	195	5.74	24	1	K 8	8	4	16	4
9	352554	891302	52	5.83	15	<1	<1	5	3	9	3
10	352554	891230	94	5.75	24	<1	<1	5	2	11	3
11	352556	891254	54	5.35	17	14	K 6	4	1	5	3
12	352601	892520	102	5.92	20	<1	K11	5	2	14	3
13	352602	891307	60	5.47	18	<1	K 1	4	2	8	3
14 b	352607	892812	154	6.22	37	<1	<1	4	2	24	6
15 b	352610	892813	119	6.71	27	10	46	7	4	13	6
16	352620	891529	64	5.79	15	<1	<1	11	5	19	2
17	352624	891706	49	5.46	16	<1	29	3	1	6	3
18	352625	892604	285	6.48	73	20	210	16	7	19	14
19	352629	891708	45	5.67	15	<1	<1	4	1	7	3
20	352630	891821	65	5.77	17	<1	<1	6	3	8	2
21	352630	891442	48	5.77	12	<1	<1	3	1	8	3
22	352631	891330	54	5.84	15	<1	K 2	5	9	8	3
23	352634	891703	45	5.76	15	<1	<1	5	9	8	3
24	352634	891310	54	5.74	16	TNTC	8,000	3	1	16	3
25	352635	891432	164	5.69	17	<1	1,725	6	2	19	3
26	352701	892131	189	5.89	21	<1	<1	12	5	13	3
27	352701	890906	24	5.31	7	<1	<1	2	1	4	2
28	352710	891638	51	5.86	16	<1	<1	3	1	7	2
29	352716	891634	88	6.04	28	<1	<1	2	1	16	3
30	352734	890923	44	5.27	10	<1	K19	3	1	6	2
31	352754	892058	42	5.80	19	2	K 1	3	1	5	2
32	352803	891844	141	5.88	31	<1	K 1	7	3	20	3
33	352804	891031	31	5.64	14	<1	<1	4	2	6	2
34	352805	892703	129	5.93	35	<1	<1	6	3	16	9
35	352805	891003	30	6.05	12	<1	<1	2	1	4	2
36	352812	891443	90	5.62	21	26	K10	6	10	14	3
37	352812	891443	60	5.65	28	5	28	3	2	9	3
38	352815	892118	108	6.09	33	<1	<1	5	3	15	3
39	352821	892122	107	5.96	23	<1	K 2	6	4	15	3
40	352823	891706	64	5.60	21	<1	<1	5	3	10	3

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
1	7	0.2	nd	nd	0.3	<1.0	18	<5	<0.1	<1	<0.1
2	9	3.6	nd	nd	nd	3	22	<5	<.1	<1	<.1
3	5	3.2	nd	nd	.3	1	15	<5	<.1	<1	<.1
4	4	.1	nd	nd	.1	1	11	<5	<.1	<1	<.1
5	3	2.8	nd	nd	nd	1	25	<5	<.1	<1	<.1
6	8	2.1	nd	nd	nd	1	15	<5	<.1	<1	<.1
7	12	3.5	nd	nd	.1	2	24	<5	<.1	<1	<.1
8	21	38.9	nd	nd	2.2	2	25	<5	<.1	<1	<.1
9	7	4.4	nd	nd	.3	2	14	<5	<.1	<1	<.1
10	14	5.2	nd	nd	.3	2	20	<5	<.1	<1	<.1
11	4	2.8	nd	nd	.3	1	9	<5	<.1	<1	<.1
12	14	7.3	nd	nd	nd	<1.0	10	<5	<.1	<1	<.1
13	4	2.3	nd	nd	.3	1	25	<5	<.1	<1	<.1
14 b	18	6.0	nd	nd	nd	1	13	<5	<.1	<1	<.1
15 b	11	4.5	nd	nd	.4	8	130	<5	<.1	<1	<.1
16	10	8.3	nd	nd	.2	2	21	<5	<.1	<1	<.1
17	5	.6	nd	nd	nd	1	110	18	<.1	<1	<.1
18	28	4.9	nd	nd	nd	5	7	<5	<.1	<1	<.1
19	6	2.2	nd	nd	nd	2	24	<5	<.1	<1	<.1
20	4	9.5	nd	nd	.3	2	32	<5	.1	<1	<.1
21	4	4.1	nd	nd	.3	2	10	<5	<.1	<1	<.1
22	7	5.9	nd	nd	.3	3	5	<5	.2	<1	<.1
23	4	1.5	nd	nd	nd	3	10	<5	<.1	<1	<.1
24	5	3.4	nd	nd	.3	1	5	<5	<.1	<1	<.1
25	33	10.6	nd	nd	nd	1	15	<5	<.1	<1	<.1
26	24	35.3	nd	nd	nd	2	10	<5	.1	<1	<.1
27	3	1.8	nd	nd	.3	1	10	<5	<.1	<1	<.1
28	5	1.5	nd	nd	nd	<1.0	5	<5	<.1	<1	<.1
29	9	3.3	nd	nd	nd	1	20	<5	<.1	<1	<.1
30	5	8.3	nd	nd	.4	1	21	<5	<.1	<1	<.1
31	3	.1	nd	nd	nd	1	48	<5	<.1	<1	<.1
32	22	3.5	nd	nd	nd	2	26	<5	<.1	<1	<.1
33	5	1.3	nd	nd	.3	2	40	<5	.1	<1	<.1
34	15	.5	nd	nd	nd	2	300	17	<.1	<1	<.1
35	3	.8	nd	nd	nd	<1.0	22	<5	<.1	<1	<.1
36	12	3.2	nd	nd	nd	3	10	<5	<.1	<1	<.1
37	7	3.8	nd	nd	.2	1	29	<5	<.1	<1	<.1
38	15	9.9	nd	nd	.3	4.0	18	<5	<.1	<1	<.1
39	12	11.1	nd	nd	.3	3.2	6	<5	<.1	<1	<.1
40	6	2.6	nd	nd	.2	2	31	<5	<.1	<1	<.1

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
41	352825	892546	231	5.71	35	<1	950	11	5	25	3
42	352833	891613	170	6.11	25	<1	<1	8	3	23	4
43	352843	892653	200	6.28	34	<1	<1	9	4	21	6
44	352848	891632	71	5.92	21	<1	<1	5	10	10	3
45	352910	892624	145	5.89	32	<1	<1	5	2	22	8
46	352914	891138	52	5.67	18	<1	<1	5	2	9	3
47	353002	892031	33	5.81	15	<1	<1	4	2	6	3
48	353002	891854	32	5.91	13	<1	K 2	5	2	5	3
49	353037	892131	126	5.70	42	<1	<1	8	4	12	2
50	353106	891518	84	5.93	30	<1	<1	4	1	11	3
51	353140	891322	99	5.68	12	<1	<1	7	10	17	3
52	353157	891503	84	6.04	20	<1	<1	7	3	15	3
53	353157	891445	125	5.95	18	<1	<1	7	3	20	2
54	353157	891435	52	5.95	17	<1	<1	4	2	6	3
55	353158	891458	139	5.94	32	<1	<1	8	4	24	4
56	353203	891404	66	5.93	20	<1	<1	5	3	10	3
57	353209	891425	74	5.96	24	25	750	7	11	12	3
58	353216	891335	101	5.87	29	<1	<1	6	3	19	4
59	353222	891256	81	5.71	34	<1	<1	11	5	22	3
60	353222	891244	105	5.76	23	<1	<1	5	3	13	3
61	353254	891250	85	5.88	23	<1	<1	6	4	14	5
62	353258	891534	51	5.79	19	<1	<1	3	2	7	3
63	353315	891443	227	6.07	36	<1	<1	12	12	31	5
64	353345	891655	147	5.84	26	<1	<1	58	58	58	8
65	353350	891537	58	5.36	21	<1	<1	7	3	6	3
66	353352	891653	156	6.09	23	<1	<1	8	3	16	4
67	353400	891655	106	5.85	27	<1	<1	3	1	15	6
68	353418	891529	157	5.93	33	6,800	K 1	7	3	20	12
69	353420	891533	66	5.98	20	<1	48	6	10	12	3
70	353434	892801	113	6.70	52	<1	<1	7	3	19	3
71	353444	892712	290	6.07	21	<1	<1	18	6	17	4
72	353450	891814	72	5.94	30	<1	<1	6	4	7	4
73	353456	892510	109	6.09	35	<1	<1	8	4	17	3
74	353500	892522	69	5.98	26	<1	<1	4	2	9	2
75	353502	891956	74	6.16	30	<1	31	6	3	9	5
76	353503	892010	65	5.82	24	<1	<1	4	2	12	3
77	353514	892253	89	5.71	30	<1	<1	8	10	10	4
78	353518	891925	77	6.12	35	<1	71	6	2	5	3
79	353531	891535	139	5.75	30	<1	<1	6	3	14	6
80	353537	891815	116	5.42	15	<1	<1	5	2	13	3

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
41	28	32.5	nd	nd	nd	1	41	<5	<0.1	<1	<0.1
42	16	12.9	nd	nd	.1	1	9	<5	<.1	<1	<.1
43	18	32.2	nd	nd	.1	1	26	<5	<.1	<1	<.1
44	7	3.7	nd	nd	nd	3	21	<5	<.1	<1	<.1
45	12	12.2	nd	nd	nd	1	24	<5	<.1	<1	<.1
46	5	.8	nd	nd	.3	2	<5	<5	<.1	<1	<.1
47	3	.2	nd	nd	.3	2	11	<5	<.1	<1	<.1
48	3	.2	nd	nd	nd	2	6	<5	<.1	<1	<.1
49	7	nd	nd	nd	nd	2	1,900	280	<.1	<1	<.1
50	12	1.6	nd	nd	.3	1	<5	<5	<.1	<1	<.1
51	11	13.8	nd	nd	nd	2	<5	<5	2.6	<1	<.1
52	16	3.6	nd	nd	.3	2	<5	<5	<.1	<1	<.1
53	19	8.9	nd	nd	.3	2	16	<5	<.1	<1	<.1
54	4	1.0	nd	nd	.3	1	10	<5	<.1	<1	<.1
55	21	2.6	nd	nd	nd	2	9	<5	.1	<1	<.1
56	8	.8	nd	nd	.3	2	26	<5	<.1	<1	<.1
57	8	.5	nd	nd	nd	3	22	<5	<.1	<1	<.1
58	10	4.0	nd	nd	nd	2	7	<5	<.1	<1	<.1
59	6	2.9	nd	nd	nd	2	17	<5	.1	<1	<.1
60	14	6.7	nd	nd	nd	2.4	32	<5	<.1	<1	<.1
61	9	.1	nd	nd	.3	2	28	22	<.1	<1	<.1
62	4	.5	nd	nd	nd	1	23	<5	<.1	<1	<.1
63	25	43.7	nd	nd	nd	3	25	<5	<.1	<1	<.1
64	19	8.3	nd	12	.1	56	62	12	.1	<1	<.1
65	3	8.1	nd	nd	.3	3	14	<5	.2	<1	<.1
66	21	19.1	nd	nd	nd	1	18	<5	.1	<1	<.1
67	10	2.9	nd	nd	.3	1	17	<5	.1	<1	<.1
68	14	11.0	nd	nd	.3	2	9	<5	<.1	<1	<.1
69	7	2.2	nd	nd	.3	3	5	<5	<.1	<1	<.1
70	5	1.4	nd	nd	.3	1	30	<5	<.1	<1	<.1
71	53	34.7	nd	nd	.3	2	9	<5	<.1	<1	<.1
72	3	<.1	nd	nd	.3	2	7	<5	<.1	<1	<.1
73	9	5.8	nd	nd	.3	2	21	<5	<.1	<1	<.1
74	4	4.3	nd	nd	nd	1	10	<5	<.1	<1	<.1
75	6	nd	nd	nd	nd	2	180	<5	<.1	<1	<.1
76	4	3.0	nd	nd	.3	1	35	<5	.1	<1	<.1
77	6	4.7	nd	nd	nd	3	12	<5	<.1	<1	<.1
78	3	<.1	nd	nd	nd	2	280	33	<.1	<1	<.1
79	19	1.2	nd	nd	nd	2	10	<5	<.1	<1	<.1
80	12	21.1	nd	nd	nd	1	33	<5	<.1	<1	<.1

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee--Continued

Map number	Latitude	Longitude	Specific conductance (µS/cm)	pH (standard units)	Field alkalinity (mg/L as $CaCO_3$)	Coliform, fecal (cols./ 100 mL)	Streptococci fecal (cols./ 100 mL)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
81	353539	891853	81	5.71	26	<1	<1	6	3	12	3
82	353608	891844	90	5.88	29	<1	<1	11	3	9	8
83	353800	891211	50	5.88	19	<1	<1	4	2	9	3
84	353812	891430	83	5.78	32	<1	<1	5	2	15	3
85	353825	891414	104	5.97	47	11	<1	7	4	16	3
86	353838	891430	83	5.79	25	160	<1	4	2	15	3
87	354014	891231	46	5.87	21	<1	<1	4	1	7	2
88	354043	891806	179	6.06	37	<1	<1	5	3	26	3
89	354058	892330	234	6.00	37	<1	<1	21	10	18	62
90	354100	891759	140	6.29	49	<1	<1	12	4	13	9
91	354106	892340	109	5.93	37	<1	<1	6	3	14	9
92	354116	891347	142	5.51	47	<1	<1	10	11	23	2
93	354122	891450	109	6.22	36	<1	<1	6	10	22	3
94	354125	892400	119	6.23	36	<1	K 1	5	2	18	3
95	354140	891424	151	5.95	47	<1	<1	4	2	13	5
96	354145	891421	120	6.40	54	<1	<1	12	6	11	5
97	354153	892041	279	6.20	74	<1	<1	14	7	44	4
98	354208	891442	58	6.31	19	<1	K18	6	<1	8	3
99	354212	891517	407	6.03	47	<1	<1	18	15	53	29
100	354212	891455	72	5.92	29	34	K12	5	3	8	4
101	354303	891431	74	5.97	33	<1	K1	6	3	7	4
102	354423	892355	239	6.70	112	<1	<1	20	17	17	3
103	354453	892356	255	6.33	124	<1	<1	22	17	14	5

Table 5. Water-quality data for selected wells in Haywood County, West Tennessee--Continued

Map number	Chloride, dissolved (mg/L as Cl)	Nitrogen nitrate, dissolved (mg/L as NO_3)	Nitrogen nitrite, dissolved (mg/L as NO_2)	Nitrogen ammonium, dissolved (mg/L as NH_4)	Phosphorous orthophosphate, dissolved (mg/L as PO_4)	Potassium, dissolved (mg/L as K)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Atrazine, total (µg/L)	Aldicarb, total (µg/L)	Alachlor, total (µg/L)
81	7	3.1	nd	nd	0.3	2	<5	<5	<0.1	<1	<0.1
82	8	3.5	nd	nd	.3	2	15	<5	<.1	<1	<.1
83	4	.3	nd	nd	nd	2	20	<5	<.1	<1	<.1
84	6	4.9	nd	nd	nd	1	17	<5	.1	<1	<.1
85	8	8.8	nd	nd	.1	2	12	<5	.1	<1	<.1
86	7	8.4	nd	nd	nd	1	8	<5	.1	<1	<.1
87	6	.1	nd	nd	nd	1	<5	<5	<.1	<1	<.1
88	20	21.2	nd	nd	.3	1	<5	<5	<.1	<1	<.1
89	5	1.9	nd	nd	.1	3	48	43	<.1	<1	<.1
90	8	6.0	.2	nd	nd	2	1,700	20	<.1	<1	<.1
91	5	3.2	nd	nd	nd	1	11	<5	<.1	<1	<.1
92	11	11.9	nd	nd	nd	2	17	<5	<.1	<1	<.1
93	10	5.1	nd	nd	nd	3	35	<5	<.1	<1	<.1
94	7	12.5	nd	nd	.3	1	35	<5	.1	<1	<.1
95	16	7.5	nd	nd	nd	2	18	15	.1	<1	<.1
96	5	<.1	nd	nd	nd	2	180	12	<.1	<1	<.1
97	30	17.2	nd	nd	nd	2	13	<5	<.1	<1	<.1
98	3	4.1	nd	nd	.3	1	64	<5	.1	<1	<.1
99	32	75.2	nd	nd	nd	3	50	<5	.1	<1	<.1
100	6	.1	nd	nd	nd	1	19	<5	<.1	<1	<.1
101	3	<.1	nd	nd	nd	<1	68	11	.1	<1	<.1
102	10	3.1	nd	nd	nd	3	49	12	.1	<1	<.1
103	4	<.1	nd	nd	nd	3	4,000	500	<.1	<1	<.1

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