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GEOLOGICAL SURVEY

GROUND-WATER-QUALITY DATA FROM THE  
NORTHERN POWDER RIVER BASIN, SOUTHEASTERN  
MONTANA

By Roger W. Lee

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**UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.**

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## METRIC CONVERSION TABLE

To convert inch-pound units in this report to equivalent metric units multiply by the following factors:

<u>Multiply inch-pound unit</u>	<u>By</u>	<u>To obtain SI unit</u>
acre	0.4047	square hectometer (hm <sup>2</sup> )
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)

temperature, degrees Celsius (°C) = 0.556 (°F-32)

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ABSTRACT

Water-quality data collected during 1973-77 for hydrologic studies in the northern Powder River Basin of southeastern Montana provide a data base for shallow ground water. The 665 water samples collected were analyzed for major cations and anions. Of the samples, 516 were from wells and 149 were from springs. About 10 percent of the samples were also analyzed for trace constituents and radiochemistry. The majority of analyses were performed by the Montana Bureau of Mines and Geology laboratory in Butte, Montana. The remaining analyses, including all trace constituent and radiochemical analyses, were performed by the USGS National Water Quality Laboratory in Denver, Colorado.

INTRODUCTION

The northern Powder River Basin of southeastern Montana contains numerous and widespread subbituminous and lignite coal deposits. These deposits are becoming increasingly important as a potential source of supply for meeting future energy needs. The demand for information about the area's water resources prior to any extensive coal-mining activity has led to several studies being made by the U.S. Geological Survey. The purpose of this report is to present the chemical-quality data obtained from water samples collected during 1973-77 to aid in understanding more fully the water resources of the basin.

The 665 water samples collected during this study (fig. 1) were analyzed for major cations and anions (table 1). Of the samples collected, 516 were from wells and 149 were from springs. Water samples from 65 selected wells were also analyzed for trace-element concentration (table 2) and miscellaneous-constituent and radiochemical concentrations (table 3).

Chemical analysis of the water samples was performed by the laboratory of the Montana Bureau of Mines and Geology in Butte, Mont., and the USGS National Water Quality Laboratory in Denver, Colo. On-site processing of samples collected for analysis differed for the two laboratories during the early part of the study. Prior to March 1, 1976, all samples sent to Butte were unfiltered and untreated. After this date, samples sent for analysis were unfiltered-untreated, filtered-acidified, and filtered-untreated and each sample was sent in a separate bottle. Samples sent to Denver throughout the study and to Butte after March 1, 1976, were processed according to standard sampling methods of Brown, Skougstad, and Fishman (1970).

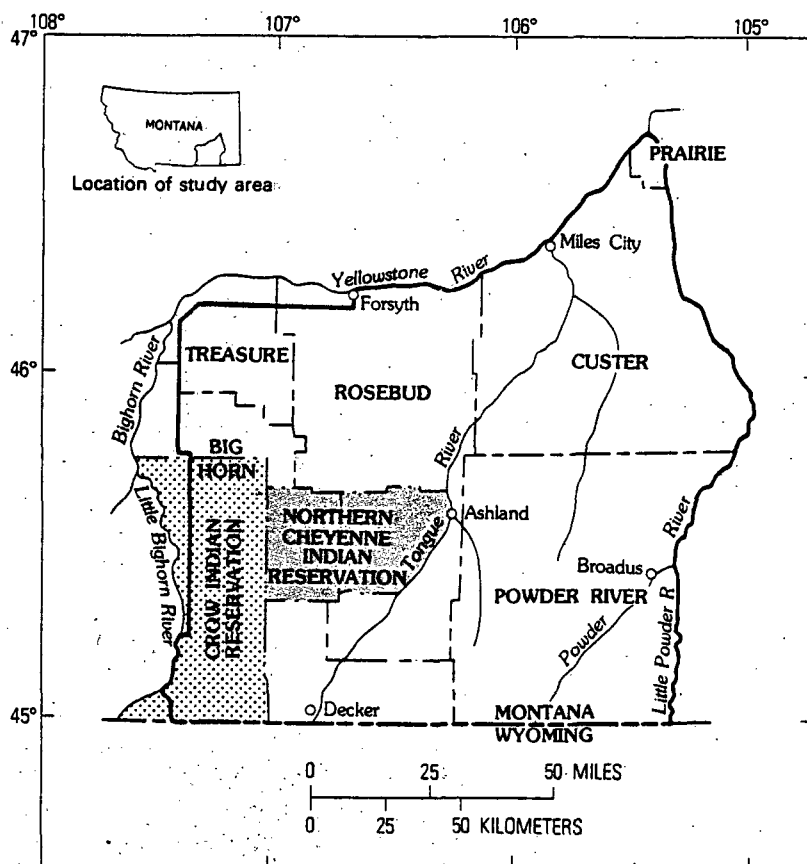


Figure 1.--Location of study area.

Data are reported in the tables as dissolved and total. The dissolved concentration is determined for a water sample after it is passed through a filter having a pore size of 0.45 micrometer (micron). Total concentration is determined on an unfiltered sample containing both dissolved and suspended components.

Reported values for trace-element concentration in table 2 are not always consistent. During the early part of the study, trace-element data were acquired by spectrographic analysis for trace elements. After April 1977 the trace elements were analyzed by standard analytical methods, where the sensitivity can be greater.

Location numbers for sampled wells and springs are shown to the left of each chemical analysis in tables 1-3. The location numbers are based on the Federal system of land subdivision (fig. 2). The first number indicates the township north (N) or south (S) of the Montana Base Line; the second, the range east (E) of the Principal Meridian; the third, the section. The first letter following the section number denotes the quarter section (160-acre tract); the second, the quarter-quarter section (40-acre tract); the third, the quarter-quarter-quarter section (10-acre tract); and the fourth, the quarter-quarter-quarter-quarter section (2.5-acre tract). The

letters are assigned in a counterclockwise direction, beginning with "A" in the northeast quadrant. Consecutive numbers, beginning with 2, are added if more than one well is located within a tract. In figure 2, the well located at 9S51E21DBBB would be in the NW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of the SE $\frac{1}{4}$  sec. 21, T.9 S., R.51 E.

Chemical analyses in tables 1-3 are arranged in order by location from north to south throughout the study area. All well and spring locations are plotted on plate 1.

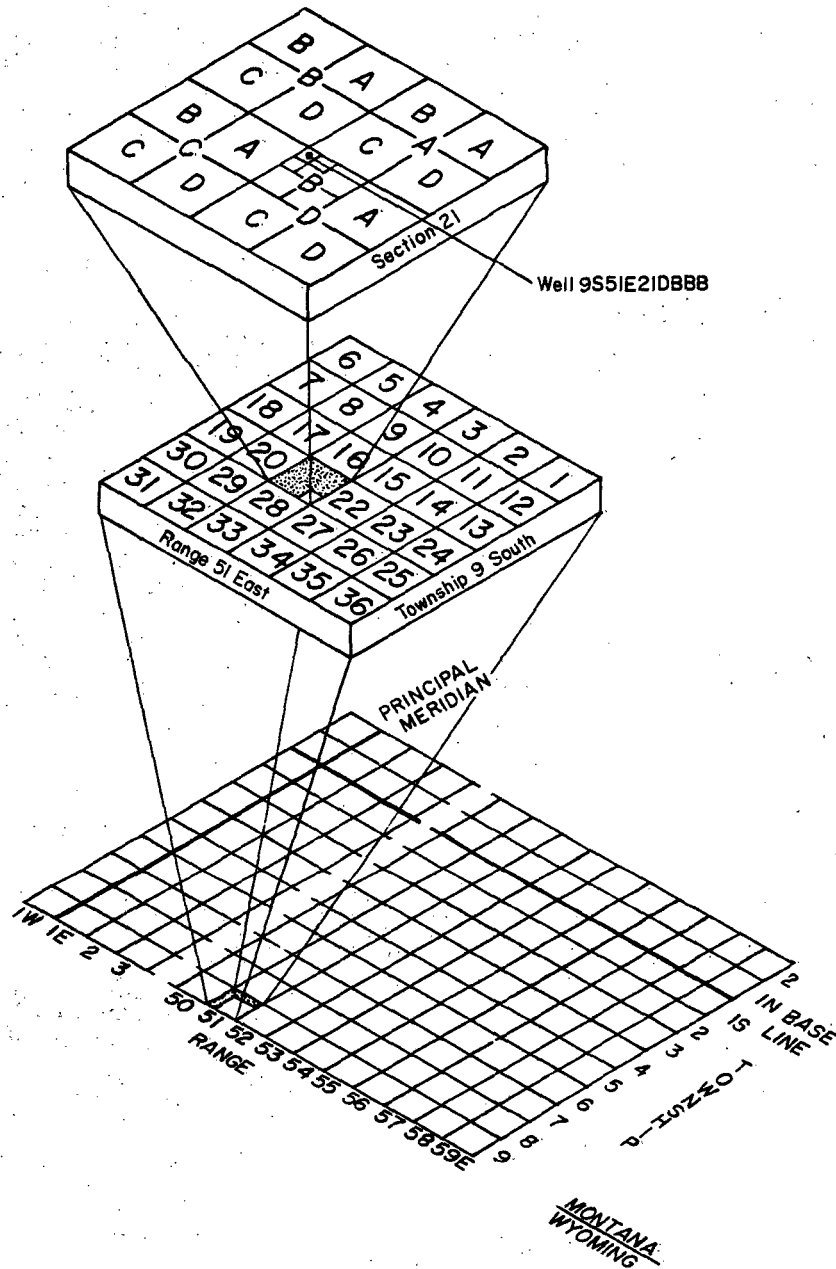


Figure 2.--System of numbering wells and springs.

## SELECTED REFERENCES

- Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 160 p.
- Slagle, S. E., and Stimson, J. R., 1979, Hydrogeologic data from the northern Powder River Basin, southeastern Montana: U.S. Geological Survey Open-File Report 79-1332, 110 p.
- U.S. Bureau of Land Management, 1975, Resource and potential reclamation evaluation of Otter Creek study area, Otter Creek coal field, Montana: Energy Mineral Rehabilitation Inventory and Analyses Report No. 1, 200 p.
- \_\_\_\_\_ 1977, Resource and potential reclamation evaluation of Bear Creek study area, West Moorhead coalfield, Montana: Energy Mineral Rehabilitation Inventory and Analyses Report No. 8, 148 p.
- Wood, W. W., 1976, Guidelines for collection and field analysis of groundwater samples for selected unstable constituents: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 1, Chapter D2, 24 p.



Table 1.--Chemical analyses of water from wells and springs

[Except as indicated otherwise, pH data are laboratory values and analyses are by Montana Bureau of Mines and Geology. Constituents are dissolved, and values are reported in milligrams per liter. To convert from milligrams per liter to milliequivalents per liter, multiply by the following factors: Ca, 0.04990; Cl, 0.02821; CO<sub>3</sub>, 0.03333; HCO<sub>3</sub>, 0.01639; K, 0.02557; Mg, 0.08226; Na, 0.04350; SO<sub>4</sub> 0.02082]

<u>Aquifer code</u>	<u>Aquifer unit and age</u>
SPBK	Spoil banks, Holocene
ALVM	Alluvium, Holocene and Pleistocene
WSTC	Wasatch Formation, Eocene
TGRV	Tongue River Member of Fort Union Formation, Paleocene
LEBO	Lebo Shale Member of Fort Union Formation, Paleocene
TLCK	Tullock Member of Fort Union Formation, Paleocene
HLCK	Upper part of Hell Creek Formation, Late Cretaceous
FHHC	Fox Hills-lower Hell Creek aquifer, Late Cretaceous

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance (umho/cm at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
9N49E13BDAA	8-03-76	118	TLCK	3,180	7.7	15.0	59
8N48E04CDDC	8-18-76	125	TLCK	6,970	7.9	11.0	34
8N50E08CBBB	8-05-76	25	ALVM	2,710	7.7	12.5	110
7N46E24ACBD	8-27-76	620	FHHC	1,530	8.8	14.0	1.2
7N46E35CCCB	7-28-76	800	FHHC	727	7.6	11.0	3.5
7N47E13DDBB	8-10-76	74	HLCK	5,700	8.2	11.5	17
6N41E35ADBC	8-20-76	200	HLCK	866	8.2	12.5	14
6N43E28CDBB	8-18-76	200	TLCK	682	7.7	10.5	29
6N50E11ADDA	8-17-76	228	TLCK	1,320	8.8	14.0	1.1
5N36E10ACDA	10-13-75	280	HLCK	726	7.7	10.0	52
5N40E22BDAC	8-25-76	125	TLCK	1,450	7.8	12.5	63
5N44E22DBBC	8-24-76	94	TGRV	687	7.7	---	53
5N48E02DBDA	8-05-76	190	HLCK	2,530	8.4	11.0	5.5
5N51E29DDDC	8-05-76	205	HLCK	1,430	8.7	11.5	2.0
4N37E22BAAD	10-06-76	140	HLCK	2,100	8.5	10.5	4.4
4N39E30DCAD	8-25-76	112	TGRV	493	7.8	10.5	43
4N40E31DCAA	8-27-76	199	HLCK	1,250	8.6	10.0	1.7
4N42E12CADB	12-13-76	---	--	1,930	8.2	---	2.7
4N43E30DBAC	8-26-76	300	HLCK	2,530	8.1	14.5	8.0
4N44E24BADA	9-12-75	61	TGRV	960	8.1	10.0	42
4N44E24BBAB	9-12-75	175	LEBO	673	8.1	13.0	17
4N44E28ACAA	8-27-75	Spring	TGRV	3,220	6.5	12.0	170
4N44E29CCAC	8-26-75	107	TGRV	4,360	6.9	11.0	20
14N44E32DDDA	5-25-76	120	TGRV	3,650	7.5	12.0	95
14N44E36AABA	6-03-76	103	TGRV	1,240	7.2	11.5	110
4N46E11ADCB	10-06-76	180	TLCK	4,210	7.9	10.5	19
4N48E20DBBC	8-06-76	75	TLCK	3,480	7.9	10.5	56
4N50E31CCAA	8-05-76	110	TLCK	4,780	7.9	9.5	68
13N39E08CBBB	10-12-76	---	--	730	7.3	11.0	67
3N39E36BACD	7-26-73	235	TLCK	1,390	8.3	13.5	4.4
3N40E31DADC	7-23-75	Spring	TGRV	2,450	6.7	6.0	52
3N41E34CCCD	11-01-72	Spring	TGRV	363	8.1	12.0	38
3N41E35CBAA	3-23-76	120	TGRV	1,420	7.6	9.5	150
3N43E34BCBB	10-04-73	141	TLCK	2,070	8.6	10.5	4.6
3N44E07ADBA	8-27-75	Spring	TGRV	3,240	6.5	14.0	96

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
43	650	10	770	0	1,050	7.2	2,200
14	1,710	5	1,820	0	2,200	25	4,900
90	430	9	600	0	1,020	9.5	1,970
.3	390	1	880	41	.1	55	940
.7	180	2	460	0	.5	11	430
7.4	1,400	4	1,160	0	2,090	29	4,130
8.3	190	2	420	0	109	7.5	550
14	110	3	400	0	42	1.8	410
.3	330	2	720	31	63	18	810
27	75	3	380	0	82	3.8	440
45	210	4	450	0	367	22	940
38	49	4	400	0	55	5	417
2.2	630	2	840	6.7	641	8.7	1,720
.5	370	1	900	33	8.9	14	890
.77	480	2	510	7.7	620	8	1,380
26	26	4	320	0	13.8	.9	290
.4	320	1	690	18	70	20	780
1.1	498	2	1,070	0	.3	150	1,200
9.4	520	3	1,020	0	113	174	1,340
31	140	4	470	.5	150	4	610
8.8	130	3	360	0	60	6.4	410
220	330	11	560	0	1,500	18	2,540
7.3	1,000	5	740	0	1,650	14	3,120
78	580	6	700	0	1,200	14	2,330
78	53	5	510	0	300	11.0	820
7.9	100	4	1,240	0	1,150	33	2,830
40	760	8	880	0	1,200	7	2,530
79	1,040	9	670	0	2,090	15	3,640
40	46	3	420	0	77	4.3	460
.5	380	2	790	19	99	42	950
110	520	6	450	0	1,290	18	2,220
24	4.7	1	200	0	36	1.3	217
99	45	4	510	0	440	13	1,020
13	530	4	970	42	370	7.5	1,460
100	550	9	510	0	1,370	13	2,410

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho}/\text{cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
3N44E08DCAC	8-27-75	Spring	TGRV	4,310	6.7	15.0	84
3N44E18AABA	8-27-75	159	TGRV	5,330	6.5	11.0	31
<sup>1</sup> 3N44E21CBAB	6-03-76	150	TGRV	1,060	7.5	14.0	98
3N44E31CBDC	8-19-75	205	TGRV	1,780	6.4	11.0	84
3N46E19ADBA	8-12-75	205	TGRV	2,870	7.5	---	93
3N48E27CABD	7-14-76	284	TLCK	1,690	8.7	12.0	2.2
3N51E01DAAA	8-11-76	270	HLCK	2,140	8.6	12.0	2.6
3N52E32CBBD	8-11-76	260	TLCK	3,540	8.4	13.5	8.5
2N36E23AADB	8-19-75	60	LEBO	627	7.6	11.5	32
2N36E28DDAC	8-20-75	---	--	1,770	7.6	14.5	57
2N38E36CDBD	7-29-75	---	--	7,500	7.2	10.0	360
2N39E05BCBD	9-13-73	57	TGRV	2,210	8.3	11.0	54
2N39E05DDDC	9-13-73	16	ALVM	6,640	8.0	13.5	250
2N39E12CCCB	11-10-72	555	TGRV	1,250	8.6	13.5	2.4
2N39E20DBCB	8-08-75	---	--	3,440	7.3	13.5	25
2N39E23CAAB	7-26-73	100	TGRV	1,240	8.0	---	51
2N39E24CDAB	7-25-73	140	TGRV	3,030	8.1	---	140
<sup>1</sup> 2N39E25ACDC	5-26-76	136	TGRV	5,100	7.2	12.3	270
2N39E31CBCD	10-04-72	Spring	TGRV	3,760	7.9	12.0	200
2N39E32DDDD	7-11-73	---	--	3,990	8.0	12.5	200
2N39E34ADBB	7-10-73	60	TGRV	2,940	7.9	---	160
2N39E34DADB	7-10-73	80	TGRV	2,050	7.9	16.0	170
2N40E06AABB2	7-23-75	103	TGRV	2,620	6.4	10.5	170
<sup>1</sup> 2N40E06CBDB	5-27-76	104	TGRV	3,050	8.3	13.0	18
2N40E11AABA	8-06-75	122	LEBO	3,010	6.8	14.0	59
2N40E18DABD	10-06-72	Spring	TGRV	3,700	8.0	13.0	120
2N40E28AADD	7-24-75	146	TGRV	3,230	6.9	12.0	180
2N40E29CDCC	7-24-75	---	--	2,725	6.8	16.0	14
2N40E30BAAC	7-13-73	246	TGRV	3,360	8.1	14.0	77
<sup>1</sup> 2N40E31DCCD	5-26-76	165	TGRV	1,740	6.8	13.5	220
2N40E32BBAB	7-12-73	---	--	990	7.9	---	83
2N40E35DDCD	7-13-73	250	TGRV	2,670	7.9	11.5	260
2N41E01DBBA	8-30-73	---	--	878	8.6	11.5	31
2N41E02DBBA	11-01-72	237	LEBO	3,290	8.0	---	220
2N41E10BCBC	7-19-73	150	TGRV	1,790	7.9	13.0	170

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
75	890	7	670	0	1,800	17	3,220
12	1,300	5	750	0	2,200	26	3,940
86	32	4	680	0	73	3.0	650
120	160	7	450	0	660	9	1,290
130	450	8	610	0	1,220	6.8	2,220
.9	430	2	950	29	37	40	1,020
.7	508	1	560	16	587	16	1,420
2.5	850	3	820	4.3	1,140	6.5	2,420
23	88	3	370	0	55	2.5	390
27	420	6	580	0	660	14	1,470
370	580	11	450	0	4,400	23	6,290
110	320	6	320	0	980	7.5	1,650
550	900	13	700	0	4,200	27	6,300
.8	330	1	740	15	42	30	810
15	800	5	340	0	1,500	9	2,570
97	110	6	520	0	330	4.3	878
160	45	8	510	0	1,600	9.6	2,590
420	470	11	760	0	2,700	21	4,280
390	330	13	570	0	2,200	12	3,480
300	310	11	510	0	2,000	11	3,100
330	180	9	720	0	1,500	12	2,540
180	92	5	480	0	950	7.3	1,660
130	300	8	430	0	1,200	18	2,070
14	650	4	547	0	1,100	11	2,070
37	340	9	420	0	1,300	30	2,270
300	480	15	730	0	1,900	19	3,200
170	420	9	740	0	1,400	12	2,580
3.5	610	4	300	0	1,100	12	1,900
110	660	6	450	0	1,650	12	2,760
130	65	6	660	0	640	7.0	1,420
86	24	2	480	0	210	3.1	666
220	170	6	780	0	1,200	9.9	2,290
92	28	4	220	19	270	5.5	590
110	510	9	380	0	1,740	9.9	2,800
98	55	6	360	0	620	6.5	1,160

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
2N41E12CCAD	3-23-76	160	TGRV	1,440	7.8	9.5	120
2N41E21CADA	11-09-72	122	TGRV	3,350	7.9	10.0	170
2N41E21CDDD	8-07-75	120	TGRV	3,480	6.9	11.0	150
<sup>1</sup> 2N41E24CAAA	5-26-76	27	TGRV	1,240	7.0	11.0	130
<sup>1</sup> 2N42E04DACA	5-24-76	102	TGRV	2,240	7.6	12.0	76
2N42E05CABB	8-30-73	---	---	2,070	8.3	11.0	120
2N42E06CBCD	11-01-72	120	TGRV	1,680	7.7	12.0	110
2N43E02ABBD	10-03-73	390	TLCK	2,080	8.6	12.0	4.7
<sup>1</sup> 2N43E04ACAD	5-25-76	81	TLCK	4,250	7.6	11.5	38
2N43E04CDAA	9-27-73	220	TLCK	1,730	8.8	12.5	3.1
2N43E10DDAA	10-03-73	200	TLCK	4,340	8.6	10.5	11
2N43E12CABB	10-03-72	Spring	TGRV	4,390	7.8	12.0	290
2N43E12CBAC	10-03-73	Spring	TGRV	3,660	7.7	11.0	240
2N43E16DABB	10-02-73	29	ALVM	2,680	8.1	9.5	130
2N43E18AAAC	6-12-75	66	TGRV	4,840	7.8	11.8	91
2N43E20CABB	10-02-73	49	TGRV	1,650	7.9	9.5	54
2N43E24DDDD	9-28-73	---	---	2,340	8.1	10.0	120
2N43E25BCAA	9-28-73	74	TGRV	2,060	7.7	11.0	98
2N43E27CCBC	10-19-72	---	---	2,800	7.8	13.0	130
2N43E28CCBC	9-27-73	210	TLCK	1,520	8.8	11.5	3.1
2N43E30BDDA	6-12-75	---	---	1,840	8.3	13.0	2.7
2N43E36BAAB	9-28-73	42	TGRV	2,150	7.7	11.0	150
2N44E21DDDC	10-26-72	150	LEBO	2,030	7.8	11.0	310
2N44E32DAAC	10-20-72	75	TGRV	4,360	7.8	11.0	79
2N44E33DDAC	9-13-73	168	TGRV	4,760	8.3	12.5	42
2N45E03BBBA	8-17-76	33	LEBO	1,970	7.8	10.5	58
2N46E23ABBC	7-27-76	181	LEBO	3,050	8.1	11.5	23
2N46E30ACDA	7-27-76	124	LEBO	1,330	8.6	11.5	1.9
2N47E22BDBD	7-14-76	230	TLCK	2,170	8.4	12.5	4.2
2N47E23DABC	7-14-76	330	TLCK	2,530	8.5	25.0	5.0
2N47E32BBBC	7-13-76	72	LEBO	4,050	7.7	11.0	140
2N48E02BABA	8-18-76	82	LEBO	850	7.7	9.0	83
2N48E15BCBC	7-15-76	272	LEBO	2,450	8.6	12.5	4.4
2N48E19BDDC	7-15-76	98	TGRV	1,470	8.8	13.0	1.8
2N48E30DDBC	7-14-76	265	LEBO	1,960	8.3	12.0	2.3

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
120	52	5	360	0	560	7.8	1,050
170	490	9	540	0	1,680	13	2,820
120	560	10	540	0	1,580	14	2,720
91	24	4	700	0	180	4.3	800
44	360	7	460	0	820	7.5	1,560
200	110	8	220	0	1,100	9.5	1,710
160	77	5	430	0	720	6.0	1,310
1.5	520	2	970	30	6.4	210	1,270
27	840	5	1,130	0	1,200	46	2,720
.3	450	2	830	53	165	38	1,080
10	1,130	4	670	33	1,650	100	3,290
420	400	18	560	0	2,750	12	4,200
350	310	17	500	0	2,200	11	3,430
110	370	10	310	0	1,240	12	2,050
57	890	6	630	0	1,800	49	3,200
41	290	6	340	0	620	3.8	1,200
180	190	11	250	0	1,200	6.1	1,870
150	190	5	290	0	970	11	1,580
120	390	6	400	0	1,250	34	2,150
.5	400	2	700	69	50	90	910
.7	400	2	840	0	1	150	990
170	130	6	210	0	1,100	12	1,550
33	170	4	350	0	960	13	1,690
47	950	5	670	0	1,800	23	3,250
16	1,140	6	570	0	2,100	21	3,620
47	334	7	480	0	638	17	1,350
21	680	5	600	0	1,040	22	2,100
.43	333	1	750	18	13	37	790
1.5	540	2	900	9.1	370	39	1,420
2.0	630	2	1,000	11	420	62	1,650
150	690	9	640	0	1,900	14	3,190
35	50	5	360	0	170	6.0	530
1.5	590	2	710	19	650	6.6	1,630
.59	350	1	510	22	260	16	920
.88	500	2	1,200	0	.37	90	1,180

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
<sup>1</sup> 2N49E04CADC	10-13-77	78	TLCK	3,260	8.1	12.0	23
2N51E04CCCC	8-26-76	101	HLCK	3,520	8.2	10.5	1.7
2N51E20DDDD	8-04-76	136	HLCK	1,530	8.6	11.5	2.9
2N53E01DACC	8-17-76	101	HLCK	688	7.7	10.5	68
1N36E01ABCD	8-21-75	Spring	TGRV	2,420	7.6	17.5	140
1N36E01BADD	8-18-75	50	TGRV	1,878	7.8	11.0	120
1N36E01BADD2	8-18-75	Spring	TGRV	2,450	7.5	11.0	130
1N36E14CCDA	9-04-75	90	TGRV	1,980	8.1	13.0	37
1N37E07DDDB	8-18-75	98	TGRV	1,580	7.2	10.5	130
1N39E05CBB	7-05-73	300	TGRV	3,140	8.2	12.0	20
1N39E22DDDC	7-25-73	Spring	TGRV	2,160	8.1	---	120
1N40E02BABD	7-24-73	Spring	TGRV	2,930	7.5	17.0	380
<sup>1</sup> 1N40E02BACA	6-02-76	180	TGRV	2,710	7.2	13.0	280
1N40E02BCAB	7-19-73	44	TGRV	480	7.9	9.0	46
1N40E12CBBA	11-02-72	40	ALVM	1,660	7.8	10.5	110
1N40E35DBBC	3-24-76	30	TGRV	3,840	7.8	9.0	150
1N41E03CDDD	8-20-73	86	TGRV	1,240	8.5	11.5	13
1N41E12CBDB	8-02-73	51	TGRV	2,540	8.1	15.5	62
1N41E13CDCD	7-18-73	200	TGRV	2,110	7.6	16.0	150
1N41E17BBBB	3-23-76	71	TGRV	210	7.2	6.5	6.5
1N41E22DCCD	3-18-75	---	--	2,580	7.9	---	170
1N41E23BCDC	8-09-73	74	TGRV	2,540	8.4	19.0	110
1N41E23CBBA	2-27-76	297	TGRV	2,400	8.1	---	21
<sup>1</sup> 1N41E26BCAA	6-02-76	35	TGRV	3,130	7.5	11.0	180
1N41E26BCAB	2-27-76	195	TGRV	2,950	7.7	---	150
1N41E27DBDB	3-18-76	---	--	380	7.5	---	37
1N42E10CCDC	10-18-72	43	TGRV	3,160	8.0	10.5	250
1N42E17BDDC	3-17-76	52	SPBK	2,600	7.4	12.0	290
<sup>1</sup> 1N42E19DBBA	6-02-76	47	TGRV	1,690	7.8	10.5	210
1N42E22CABD	9-06-73	55	TGRV	4,690	8.0	11.0	250
1N42E25BCDD	9-06-73	94	TGRV	4,000	8.3	---	110
1N42E28BDDC	8-10-73	53	TGRV	1,900	8.7	10.0	38
1N42E33ADBC	9-28-72	42	TGRV	3,490	8.2	10.0	110
1N42E34ACAB	12-01-73	275	TGRV	2,420	7.9	---	30
1N43E02CCDA	9-28-73	50	TGRV	707	8.0	10.5	36



Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
11	770	6	820	0	1,000	13	2,240
3.3	850	3	820	0	1,120	17	2,400
1.2	370	1	620	10	260	4.4	970
29	43	3	410	0	32	6.6	400
240	120	15	950	0	800	17	1,830
170	110	7	690	0	640	5.5	1,410
250	130	23	1,000	0	810	17	1,880
24	390	5	460	0	640	11	1,340
130	61	9	420	0	590	19	1,160
8.2	750	4	260	0	1,400	13	2,330
250	76	13	690	0	920	5.5	1,750
270	65	11	350	0	1,900	13	2,790
230	3.2	11	510	0	1,200	8.7	2,000
34	5.5	2	230	0	58	7.0	300
160	78	6	450	0	690	4.6	1,300
200	570	7	60	0	1,900	13	3,130
150	63	5	260	18	490	8.6	870
180	320	7	300	0	1,300	12	2,050
180	130	8	560	0	920	6.0	1,700
11	20	2	90	0	23	4.0	110
210	170	9	610	0	1,060	6.3	1,940
240	200	9	240	5	1,400	13	2,150
13	520	4	450	0	790	11	1,590
360	170	12	570	0	1,600	13	2,640
330	150	10	590	0	1,500	13	2,450
20	4.5	4	58	0	130	0	220
330	180	8	320	0	2,000	17	2,960
290	37	7	810	0	1,300	7.9	2,330
110	10	6	540	0	520	7.9	1,140
380	510	11	470	0	2,800	17	4,220
100	820	13	520	4	1,920	17	2,750
145	200	7	320	15	830	9.9	1,430
120	620	12	520	0	1,640	16	2,810
10	490	5	450	0	760	10	1,540
47	45	3	190	0	200	6.7	550

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
<sup>1</sup> 1N43E09BABB	10-12-77	90	TGRV	2,900	7.4	12.0	62
1N43E09DDDA	9-29-73	---	--	3,750	7.7	11.5	170
1N43E17AACA	10-18-72	---	--	2,050	8.1	10.5	5.0
1N43E22BBAA	9-29-73	22	TGRV	4,240	7.7	11.5	260
1N43E33BBBB	10-01-73	33	ALVM	1,410	7.9	10.5	89
1N44E04DABD	6-13-75	45	TGRV	5,430	8.0	12.0	29
1N44E07AADA	11-29-72	---	--	4,530	7.7	11.0	280
1N44E12CBCA	9-12-73	---	--	2,000	8.6	16.0	2.6
1N44E14BBDC	9-25-73	700	HLCK	1,990	8.5	14.5	3.1
1N44E14BBDC2	9-04-75	---	--	3,960	6.5	12.0	180
1N44E24DBCB	9-29-72	---	--	2,830	7.9	---	110
1N44E27CBAC	9-13-73	---	--	2,030	8.9	14.0	3.0
1N44E29ACBD	9-13-73	24	TGRV	1,950	8.3	11.0	110
1N44E30BDCA	9-13-73	Spring	TGRV	4,400	8.5	19.5	220
1N44E31AABA	9-13-73	70	TGRV	1,550	8.9	13.0	3.2
1N44E34DBCB	9-29-72	Spring	TGRV	2,830	7.9	11.5	110
1N46E01BCCB	7-21-76	96	TGRV	3,090	7.6	12.0	130
1N46E03DBDD	7-22-76	66	TGRV	3,100	7.7	11.0	115
1N46E06ACBC	10-05-76	93	TGRV	2,890	7.4	10.6	135
1N46E06BDAD	7-22-76	104	TGRV	2,930	7.5	10.6	120
1N46E26ABCB	7-21-76	750	TLCK	1,140	8.6	15.5	2.7
1N47E04CCAA	7-13-76	141	TGRV	1,710	7.8	11.0	88
1N47E20AADC	7-07-76	112	TGRV	3,610	7.6	13.0	290
1N47E23DBDD	7-08-76	120	TGRV	4,270	7.8	10.5	100
<sup>1</sup> 1N47E27CACD	10-18-77	120	TGRV	4,050	7.9	10.5	54
1N47E35ABCC	7-07-76	90	TGRV	2,020	7.6	12.0	160
1N48E22ACBB	6-29-76	203	LEBO	3,230	8.4	14.0	8.5
1N48E28CDAD	6-29-76	74	TGRV	4,350	7.7	10.5	72
1N49E18BDAA	6-18-76	114	LEBO	2,780	8.4	11.0	7.1
1N49E25AACB	7-01-76	35	TGRV	981	7.9	11.5	100
<sup>1</sup> 1N49E26ACAA	10-13-77	300	TGRV	1,750	7.6	11.5	33
1N49E26CBBD	7-02-76	230	TGRV	911	7.7	11.0	100
1N49E30DBBC	6-30-76	58	LEBO	2,940	7.7	10.5	200
1N49E36ADAD	7-01-76	162	TGRV	2,360	7.4	14.0	290
1N50E32BAAA	8-04-76	305	LEBO	2,110	7.1	11.5	170

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
33	600	6	640	0	950	22	2,000
380	360	10	180	0	2,500	18	3,600
2.1	440	1	480	0	570	13	1,280
530	230	11	300	0	2,900	17	4,160
130	73	8	290	0	640	4.6	1,120
16	1,200	6	790	0	2,000	42	3,710
400	470	7	480	0	2,800	30	4,270
.5	500	2	1,000	39	73	83	1,250
.5	510	2	980	53	66	120	1,200
150	620	14	830	0	1,630	46	3,080
130	440	13	560	0	1,300	9.2	2,280
.6	530	2	1,100	53	.9	120	1,190
98	210	10	200	0	950	10	1,510
450	430	24	310	6	3,000	26	4,320
.6	360	2	450	34	330	14	990
130	440	13	560	0	1,280	9.2	2,260
110	490	8	500	0	1,400	8.2	2,380
188	402	6	610	0	1,370	18	2,400
180	337	6	840	0	1,070	26	2,180
180	350	6	830	0	1,090	23	2,180
.96	290	1	640	15	61	13	710
95	190	5	420	0	650	5.1	1,250
180	410	9	550	0	1,800	6.2	2,950
74	850	6	790	0	1,700	11	3,140
40	660	4	550	0	1,200	9.8	2,250
120	160	4	550	0	720	10	1,450
2.7	750	2	490	4.8	1,200	13	2,230
34	880	5	440	0	1,800	11	3,060
2.5	690	2	920	7.2	680	22	1,880
61	13	6	430	0	160	7.1	580
19	350	4	500	0	470	4.9	1,140
55	19	3	510	0	100	2.7	550
140	350	8	420	0	1,400	8.4	2,330
190	60	6	670	0	1,000	5.3	1,920
140	150	7	480	0	900	7.1	1,640

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
1N51E34ADDA	10-05-76	100	TLCK	1,160	7.6	9.0	68
1N52E26CDAA	8-24-76	86	LEBO	840	7.3	10.0	82
1N53E35DCBC	8-26-76	75	HLCK	1,320	8.7	11.0	2.8
1S39E12DCBA	9-12-73	Spring	TGRV	1,900	7.9	13.0	83
1S40E06BBDB	9-12-73	Spring	TGRV	1,650	8.8	11.0	15
1S40E07DADA	9-12-73	---	---	2,910	8.2	13.0	92
1S40E08AAAC	9-12-73	Spring	TGRV	2,400	8.4	12.5	54
1S40E12DDDD	7-24-73	Spring	TGRV	692	7.9	14.0	73
1S41E02AABB	9-07-73	81	TGRV	2,350	8.0	---	140
1S41E05CDAA	3-24-76	80	TGRV	2,960	7.8	10.0	100
1S41E17DAAA	12-01-72	45	TGRV	2,420	7.9	10.5	120
<sup>1</sup> 1S41E23BACB	6-03-76	248	TGRV	1,800	8.0	13.5	5.9
1S41E23BDBB	2-27-76	248	TGRV	1,820	8.2	12.0	8.4
1S41E32CABA	10-27-72	100	TGRV	3,200	7.9	12.0	190
1S41E33DBBC	10-27-72	120	TGRV	1,870	7.8	---	6.7
1S42E04DCAB	8-01-73	38	ALVM	4,820	8.3	11.5	87
1S42E04DCA2	8-01-73	40	ALVM	4,500	7.5	13.0	53
<sup>1</sup> 1S42E05ADBB	6-02-76	135	TGRV	5,850	7.1	13.0	110
1S42E12CBDC	10-01-73	30	TGRV	2,000	8.1	9.5	76
1S43E11BDDC	10-01-73	21	ALVM	1,270	8.2	10.5	67
1S43E11CACB	11-29-72	---	---	1,740	8.0	9.5	130
1S44E08DCAD	9-28-72	59	TGRV	2,100	7.9	11.0	130
1S44E10CDBC	9-30-73	---	---	1,780	8.7	12.5	14
1S45E01CABB	9-29-72	202	TGRV	2,550	8.3	13.0	110
1S45E10BADD	10-30-74	---	---	2,920	8.5	9.5	77
1S46E28BAAB	10-09-74	150	TGRV	2,080	8.2	14.0	110
1S46E29BBDA	10-31-74	65	TGRV	1,650	7.8	10.0	150
1S46E30ADCA	10-29-74	67	TGRV	2,820	8.2	10.5	120
1S46E30ADCA2	10-29-74	220	TGRV	1,180	9.0	13.0	3.7
1S46E33DADB	10-29-74	100	TGRV	2,470	8.4	10.0	35
1S46E34CBAA	10-09-74	---	---	2,760	7.9	12.5	170
1S46E36CDCD	6-22-76	230	TGRV	2,610	7.6	13.5	94
1S47E11DDDD	7-01-76	160	TGRV	2,500	7.7	12.0	85
1S47E20ACDA	6-24-76	170	TGRV	4,010	7.7	13.0	110
1S47E26CBBB	6-29-76	580	LEBO	1,100	8.5	14.5	1.6

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
32	160	3	510	0	230	7.0	760
40	52	4	450	0	110	5.5	530
.8	300	1	350	12	300	12	810
150	140	5	640	0	600	4.8	1,310
130	120	11	350	30	500	5.4	1,010
120	440	8	240	0	1,440	5.5	2,240
220	180	12	370	19	1,050	7.6	1,740
27	33	6	190	0	200	5.0	480
200	160	10	420	0	1,100	9.9	1,860
72	540	7	480	0	1,300	13	2,260
160	300	5	400	0	1,200	10	2,000
1.4	420	3	390	0	570	8.1	1,160
2.7	410	2	390	0	570	9	1,200
280	290	9	330	0	1,900	9.6	2,900
1.7	410	2	400	0	550	8.0	1,190
260	870	20	560	20	2,540	33	4,170
160	750	27	440	24	1,900	27	3,230
180	1,000	12	710	0	2,400	14	4,080
140	220	9	340	0	950	4.4	1,600
100	85	8	290	0	510	6.4	958
120	140	5	470	0	710	7.1	1,370
140	200	15	380	0	970	6.5	1,670
5.9	420	4	460	20	490	12	1,220
93	430	7	640	0	1,000	3.5	1,980
160	420	15	350	14	1,400	6.5	2,320
96	270	14	640	0	720	4.2	1,550
130	70	7	630	0	510	4.3	1,200
240	220	13	300	0	1,440	9	2,240
1.5	300	2	650	12	26	16	733
160	330	16	420	9	1,070	66	1,860
130	400	10	680	0	1,210	6.4	2,270
110	390	--	740	0	930	6.0	1,920
100	350	10	440	0	1,000	6.3	1,790
100	760	10	750	0	1,700	6.5	3,070
.37	280	1	640	12	3.0	35	660

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
1S47E27DBBD	4-07-76	60	TGRV	2,160	7.7	10.0	87
1S47E28ACCD	6-29-76	240	TGRV	3,870	7.8	11.0	66
1S47E34AACD	6-29-76	100	TGRV	1,250	7.7	11.0	75
1S48E17BBBC	6-30-76	800	FHHC	1,310	8.7	15.5	2.0
1S48E17DDDD	6-30-76	123	TGRV	4,640	7.7	12.0	160
1S48E20DCAC	7-01-76	113	TGRV	2,990	7.6	11.5	190
1S48E24CACD	7-07-76	260	TGRV	1,110	8.5	13.0	2.3
1S49E09CBAD	7-08-76	200	TGRV	1,570	8.6	13.0	2.6
1S49E14ADCD	7-12-76	400	LEBO	3,120	7.5	13.5	60
1S49E18ADAC	7-01-76	270	TGRV	1,470	8.3	18.0	3.5
1S49E23CACD	7-08-76	126	TGRV	2,800	7.4	12.0	330
<sup>1</sup> 1S49E31BDCC	10-18-76	50	ALVM	4,020	7.2	9.0	200
1S50E08AAAD	7-13-76	80	TGRV	1,420	7.2	16.0	160
1S50E22BDDD	7-07-75	114	TGRV	5,350	7.7	14.0	480
<sup>1</sup> 1S50E33CDCC	10-14-77	309	LEBO	3,220	7.1	12.5	350
1S50E36BDCD	7-08-76	200	LEBO	2,170	8.3	14.0	8
1S52E11CDBB	7-27-76	39	TGRV	3,310	7.5	10.5	120
2S41E02BABA	9-28-72	Spring	TGRV	375	7.7	8.0	28
2S41E02DABC	11-30-72	200	TGRV	4,600	7.7	11.5	260
2S44E12BCCA	9-21-72	Spring	TGRV	1,190	8.1	11.5	45
2S44E14CBDB	9-21-72	Spring	TGRV	1,020	8.0	12.0	61
2S45E17CBBD	9-06-76	230	TGRV	1,820	7.5	12.5	140
2S45E25DACA	8-07-74	Spring	TGRV	2,350	8.1	16.5	77
2S45E36ACBA	8-07-74	Spring	TGRV	2,030	8.5	21.0	9.5
2S46E05AACB	10-24-74	130	TGRV	2,120	8.4	11.0	45
2S46E10DBAC	10-24-74	Spring	TGRV	2,090	8.8	9.5	18
2S46E17BACA	10-24-74	Spring	TGRV	700	8.6	10.0	32
2S46E17BBAB	10-24-74	Spring	TGRV	1,510	8.1	9.0	82
2S46E22DBCA	10-23-74	Spring	TGRV	600	8.8	10.0	29
2S46E32ABCC	8-08-74	Spring	TGRV	2,390	8.0	12.0	76
2S46E33CCBA	8-08-74	Spring	TGRV	1,720	8.6	15.0	13
2S46E34BCCB	12-21-73	120	TGRV	3,950	8.4	8.0	29
2S47E19CDDB	10-22-74	Spring	TGRV	640	8.8	9.0	39
<sup>1</sup> 2S49E26AACA	10-21-76	200	TGRV	2,470	7.1	11.0	140
2S50E04DDBB	7-08-76	262	TGRV	1,340	7.7	14.0	68

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
95	300	11	700	0	690	7.2	1,550
43	860	8	940	0	1,400	4.8	2,840
73	110	7	500	0	280	7.9	810
.40	310	1	490	15	240	13	830
280	690	12	560	0	2,500	17	3,960
130	410	7	630	0	1,300	7.3	2,360
.94	260	1	470	8.2	160	8.4	680
.75	390	1	790	28	110	26	960
24	630	4	390	0	1,300	6.5	2,190
.8	370	1	890	0	5.5	51	890
220	89	7	550	0	1,500	4.0	2,400
220	540	20	620	0	2,000	11	3,340
95	46	3	380	0	530	9.0	1,030
320	570	7	450	0	3,200	24	4,810
200	230	9	580	0	1,600	6.3	2,710
2.8	500	2	500	0	680	3.8	1,440
91	550	5	850	0	1,140	5.7	2,350
20	27	3	180	0	51	3.8	250
310	710	29	650	0	2,800	20	4,520
47	175	9	500	0	270	5.6	820
73	78	6	510	0	190	4.4	690
110	160	7	930	0	380	3.5	1,290
100	370	9	910	0	640	7.9	1,680
15	510	9	1,200	0	150	4.4	1,330
100	320	14	590	11	710	5.3	1,520
16	480	6	850	33	370	5.3	1,270
38	70	4	330	7	100	2.4	400
120	100	12	630	0	370	4	1,020
40	44	9	300	8	71	3	380
82	400	11	810	0	680	6	1,680
6.8	430	5	880	29	190	8	1,110
6.7	950	7	920	18	1,370	4.8	2,840
58	17	8	370	22	29	3	360
85	340	7	700	0	820	5	1,760
38	220	5	500	0	390	4.2	990

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
2S50E08AADA	7-07-76	165	TGRV	2,280	7.9	12.5	19
2S50E17BDBA	6-28-76	152	TGRV	1,690	7.4	11.0	170
2S50E34CCBD	7-08-76	110	TGRV	1,290	7.7	10.5	100
3S44E11BCAB	5-20-75	381	TGRV	1,830	8.0	12.0	2.6
3S44E13DBBA	12-19-75	930	TLCK	2,250	8.8	13.5	4.2
3S44E33BDAA	6-05-75	300	TGRV	1,320	8.2	12.5	2.2
3S45E01ABDD	8-07-74	Spring	TGRV	2,420	8.1	15.0	84
3S45E03BADD	5-27-75	280	TGRV	4,600	7.8	8.0	100
3S45E05DBBC	5-28-75	45	TGRV	1,630	7.7	9.5	63
3S45E09DDAD	6-25-75	97	TGRV	3,280	7.5	11.5	65
3S45E10BACD	10-08-74	193	TGRV	2,130	8.2	13.5	57
3S45E12BDCB	2-26-76	240	TGRV	1,890	7.8	11.5	78
3S45E12BDCB2	8-07-74	12	ALVM	1,980	8.1	10.5	85
3S45E12BDCD	8-07-74	Spring	TGRV	1,450	8.2	16.0	50
3S45E13DCBC	1-14-74	172	TGRV	3,460	8.3	10.5	42
3S45E15DDDA	12-17-73	280	TGRV	2,010	8.1	10.0	10
3S45E19DDBC	8-13-75	100	TGRV	1,390	7.9	--	2.4
3S45E19DDBD	12-18-73	100	TGRV	1,380	8.6	7.5	2.4
3S45E22BAAB	1-12-74	250	TGRV	2,050	8.4	14.0	75
3S45E22BBBA	12-20-73	80	TGRV	1,550	7.8	8.5	77
3S45E23DADA	12-21-73	150	TGRV	1,160	8.4	11.0	2.8
3S45E24ACDA	5-28-75	140	TGRV	3,440	7.9	9.0	78
3S45E26ADAC	5-19-76	194	TGRV	4,840	7.3	13.5	96
3S45E26DBCB	5-21-76	195	TGRV	4,170	6.9	10.5	250
3S45E27ACBC2	5-28-75	55	TGRV	3,260	7.3	9.0	130
3S45E31DCDA	8-13-75	168	TGRV	4,400	7.5	--	91
13S45E32DDAC	6-04-76	318	TGRV	1,410	8.0	14.0	3.1
3S45E33BCBB	12-18-73	900	TLCK	1,380	8.5	12.5	3.0
3S45E33CBDA	12-21-73	435	TGRV	1,470	8.5	12.5	2.6
13S45E34AACD	5-20-76	189	TGRV	5,600	27.3	14.0	110
13S45E34CACD	6-25-76	268	TGRV	6,730	27.7	13.0	94
3S45E34DABA	5-19-76	319	TGRV	3,630	7.9	13.0	17
3S46E04CDBB	8-08-74	Spring	TGRV	5,400	8.3	14.5	50
3S46E05AABB	8-08-74	320	TGRV	1,460	8.6	13.0	2.6
3S46E06CCBD	8-08-74	---	---	1,290	7.9	9.5	61



Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
4.8	510	3	500	0	740	4.8	1,540
89	100	7	450	0	620	4.0	1,210
69	98	7	400	0	400	12	890
.9	390	2	950	0	.5	68	950
1.7	580	3	1,120	53	1.1	180	1,390
.4	330	2	840	0	.1	34	800
140	330	11	710	0	850	9.2	1,790
110	900	12	930	0	1,900	17	3,510
68	220	9	590	0	420	8.2	1,100
67	660	9	700	0	1,200	11	2,410
67	370	7	690	0	600	6.4	1,460
100	230	10	640	0	560	6.7	1,010
99	250	19	650	0	590	13	1,420
81	170	9	510	0	380	6.7	980
25	820	5	1,050	0	1,100	15	2,530
3.0	470	3	570	0	570	12	1,360
.5	350	2	820	0	3.6	66	840
1.4	340	2	760	29	.9	65	840
73	330	10	610	11	660	4.8	1,480
70	190	13	500	0	420	5.1	1,120
1.0	300	1	760	7	1.2	32	720
180	550	17	700	0	1,500	8.6	2,720
34	1,100	10	920	0	1,900	17	3,620
220	580	13	1,280	0	1,700	19	3,430
180	440	17	730	0	1,400	7.5	2,580
90	740	35	550	0	2,100	15	3,460
.8	360	2	820	0	3.9	65	850
.2	360	2	790	20	1.2	70	860
.9	360	2	820	36	4.9	34	860
78	1,200	12	910	0	2,500	19	4,380
39	1,700	11	1,180	0	3,300	27	5,720
6.8	900	6	1,250	0	990	20	2,570
53	1,300	12	1,520	0	2,000	11	4,210
1.0	380	3	950	22	4.0	9.9	910
80	130	9	520	0	300	8.4	880

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho}/\text{cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
3S46E07ADBB	1-18-74	133	TGRV	4,210	8.5	8.0	18
3S46E12ADDC	12-19-73	Spring	TGRV	1,720	8.0	9.0	62
3S46E14CBCD	1-17-74	54	ALVM	1,940	8.0	8.0	63
3S46E14DBBD	8-29-74	Spring	TGRV	2,870	8.2	12.5	11
3S46E15CAAA	1-17-74	130	TGRV	2,260	8.3	9.0	85
<sup>1</sup> 3S46E16ADCC	6-16-76	152	TGRV	5,480	7.6	12.0	150
3S46E17DBDC	1-17-74	85	TGRV	2,720	8.1	7.5	88
3S46E18BDAC	1-18-74	Spring	TGRV	4,510	8.1	6.0	100
3S46E19ACBA	8-12-75	205	TGRV	2,870	7.5	--	93
3S46E19BBBB	1-14-74	80	TGRV	4,940	8.1	8.5	140
3S46E30BCCC	5-28-75	170	TGRV	5,080	7.6	12.5	170
3S46E34DDCD	8-22-74	Spring	TGRV	3,960	7.8	16.5	110
3S48E05DDDA	4-21-76	125	TGRV	2,390	8.1	11.0	7.6
3S48E23AABD	4-21-76	110	TGRV	3,900	7.7	10.0	220
3S49E03BADB	7-01-76	---	--	5,350	7.6	9.5	210
3S49E08ADAC	6-07-77	150	TGRV	3,070	8.2	10.8	27
3S49E11BADC	12-03-75	50	TGRV	1,780	7.9	8.5	130
3S49E12CAAA	7-14-76	100	TGRV	2,090	7.5	8.5	150
3S49E13DADA	7-14-76	205	TGRV	2,150	7.5	10.0	83
3S49E19BADB	7-13-76	135	TGRV	1,890	8.0	12.0	18
3S49E21BCCB	6-08-77	Spring	TGRV	2,180	7.6	20.0	110
3S49E23DADC	11-12-75	110	TGRV	634	7.9	8.0	64
3S49E30CCDC	4-21-76	165	TGRV	5,080	7.6	11.0	190
3S49E34ABCC	6-08-77	Spring	TGRV	1,750	7.1	13.5	69
3S49E35DCAD	11-12-75	120	TGRV	2,930	7.8	10.5	160
3S50E03BADD	6-23-76	153	TGRV	1,030	7.7	10.5	150
3S50E08BBBA	12-04-75	100	TGRV	1,160	7.7	8.5	100
3S50E12AACB	6-23-76	120	LEBO	1,700	7.6	13.0	130
3S50E15BCBB	12-02-75	73	TGRV	930	7.8	9.5	83
<sup>1</sup> 3S50E24ABAA	10-21-75	---	--	6,890	7.1	9.0	550
3S50E24DDAB	6-24-76	150	LEBO	1,910	7.4	13.0	150
3S50E30BBDD	6-23-76	99	TGRV	3,140	7.6	11.0	180
4S44E05AAAC	6-05-75	40	TGRV	1,890	7.5	10.5	56
4S44E24ABBB	1-14-75	Spring	TGRV	5,040	7.7	3.0	240
<sup>1</sup> 4S45E02BDDD	5-18-76	228	TGRV	3,180	<sup>2</sup> 8.0	11.5	25

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
16	1,000	9	1,010	36	1,400	8.2	3,040
140	150	10	670	0	500	5.0	1,210
120	230	10	560	0	680	6.1	1,410
10	740	8	1,330	0	530	19	2,060
130	310	10	650	0	820	6.8	1,720
220	920	15	790	0	2,200	12	3,920
160	370	14	760	0	1,000	6.1	2,080
59	1,000	10	1,170	0	1,700	11	3,470
130	450	8	610	0	1,220	6.8	2,220
340	730	24	1,000	0	2,500	11	4,220
220	970	14	970	0	2,600	17	4,460
110	760	11	1,070	0	1,400	13	2,970
4.3	640	3	1,700	0	0	13	1,530
140	590	13	790	0	1,700	8.2	3,040
170	970	11	1,000	0	2,400	9.4	4,340
14	690	7	930	0	840	21	2,060
70	210	9	360	0	750	7.7	1,370
87	190	6	480	0	710	3.6	1,390
47	370	5	550	0	700	5.1	1,490
7.6	480	4	800	0	430	14	1,360
78	330	8	720	0	680	8	1,580
47	15	3	430	0	38	4.0	400
110	1,000	9	950	0	2,200	18	3,990
60	270	7	660	0	430	8	1,180
83	460	9	740	0	1,100	7.2	2,210
73	180	7	390	0	740	7.3	1,360
67	69	5	510	0	250	3.2	760
42	210	7	480	0	550	7.9	1,190
63	51	6	400	0	230	7.6	660
450	850	22	570	0	4,400	27	6,620
59	210	7	370	0	760	7.8	1,390
94	450	9	340	0	1,500	9.7	2,440
68	290	12	450	0	630	8.5	1,300
420	670	18	1,170	0	2,700	9.9	4,680
9.0	720	7	1,260	0	690	18	2,100

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
4S45E02CDDDB	11-23-76	80	TGRV	2,500	7.7	9.0	110
<sup>1</sup> 4S45E02DACD	5-18-76	120	TGRV	1,930	28.1	13.5	6.9
4S45E04DBCA	1-12-76	250	TGRV	1,050	8.3	13.0	3.0
4S45E04DBDB	1-12-74	50	ALVM	2,590	8.2	10.0	90
4S45E09CAAD	5-27-75	800	TLCK	2,220	8.2	16.0	2.5
<sup>1</sup> 4S45E09DDBA	6-04-76	780	TLCK	2,560	8.2	15.5	4.4
4S45E15CCDD	12-19-73	640	LEBO	1,570	8.1	14.0	3.4
4S45E15DBBC	5-29-75	450	TGRV	2,340	8.1	11.5	3.3
<sup>1</sup> 4S45E19DADC	6-04-76	326	TGRV	4,650	8.2	14.5	21
4S45E20CCAD	12-19-73	180	TGRV	2,540	7.9	10.0	91
4S45E22ADCC	1-29-74	440	TGRV	1,520	8.3	15.5	3.1
4S45E23CCCB	1-14-74	454	TGRV	1,010	8.3	14.5	2.3
<sup>1</sup> 4S45E27ACCD	5-07-76	354	TGRV	890	8.0	12.5	4.2
4S45E27DBAB	11-23-76	59	ALVM	2,740	7.6	9.5	88
4S45E28ADDA	6-26-75	129	TGRV	3,910	7.0	12.0	180
4S45E30DDBB	1-14-74	Spring	TGRV	1,790	8.0	3.0	110
4S45E32CADB	1-14-74	Spring	TGRV	2,600	7.9	5.5	160
4S46E05BCBC	8-20-74	196	TGRV	1,920	8.2	11.0	6.9
4S46E05CCAA	8-22-74	50	TGRV	2,600	7.9	9.0	120
4S46E08CBCC	6-06-75	110	TGRV	4,320	7.7	11.0	85
4S46E09BBCA	11-22-76	310	TGRV	1,600	8.1	12.0	3.6
4S46E10DABC	11-22-76	65	TGRV	2,640	7.8	2.0	87
4S46E11BBBA	8-22-74	85	TGRV	2,400	8.1	13.5	68
4S46E28DABC	1-16-74	Spring	TGRV	5,720	7.7	7.5	360
4S46E29CBBA	1-16-74	Spring	TGRV	5,600	7.9	8.0	270
4S46E31CCCC	1-16-74	240	TGRV	2,270	7.9	8.0	35
4S46E31DDBC	6-27-75	18	TGRV	2,980	7.5	8.0	200
4S46E32DCDC	6-27-75	65	TGRV	2,120	7.3	12.0	87
4S46E34ABDB	1-16-74	Spring	TGRV	5,290	7.7	5.5	200
4S47E12CABD	6-24-76	165	TGRV	2,910	7.7	10.5	140
4S48E18BACD	6-23-76	57	TGRV	2,170	7.8	8.5	140
4S48E24ABDB	6-24-76	175	TGRV	5,380	7.7	10.0	250
4S48E26BDBD	11-07-75	Spring	TGRV	1,780	7.5	10.0	170
<sup>1</sup> 4S48E28CBCC	10-20-77	150	TGRV	2,290	7.3	8.0	170
4S48E34DDBB	6-24-76	150	TGRV	1,960	7.3	8.5	150

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
130	330	12	640	0	930	9.5	1,850
5.1	520	3	1,300	0	48	11	1,250
.6	270	1	660	2	3.8	25	640
140	360	23	610	0	1,000	9.1	1,980
1.3	580	3	1,390	0	.9	110	1,410
1.6	640	4	1,410	0	8.1	160	1,530
1.4	400	2	970	0	5.6	65	970
1.1	610	2	1,370	0	3.8	150	1,470
9.7	1,200	9	1,330	0	1,600	17	3,520
160	320	8	920	0	780	11	1,850
1.3	380	2	880	0	.5	77	920
1.0	260	1	650	0	.5	23	620
.4	240	1	640	0	6.0	20	600
110	420	20	670	0	940	17	1,950
140	640	12	910	0	1,600	18	3,090
160	95	6	620	0	650	5.1	1,350
250	180	7	840	0	1,000	10	2,080
2.0	510	4	1,360	0	.2	12	1,230
140	340	12	670	0	1,000	14	1,980
170	900	12	720	0	2,200	6.6	3,750
1.6	420	2	1,140	0	1.5	12	1,020
120	400	12	650	0	980	13	1,960
96	390	10	660	0	860	8.8	1,780
510	540	21	920	0	3,300	8.4	5,260
420	740	20	880	0	3,100	11	5,010
18	470	6	490	0	420	8.6	1,520
250	530	20	900	0	1,900	19	3,360
120	230	9	580	0	710	4.2	1,500
370	820	24	1,000	0	2,800	10	4,790
170	360	10	660	0	1,200	7.0	2,260
140	180	10	580	0	830	7.2	1,620
160	960	14	740	0	2,700	13	4,510
140	80	5	740	0	550	6.2	1,330
160	180	10	610	0	890	8.1	1,740
150	120	5	550	0	780	5.1	1,490

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
4S49E08ABDA	11-06-75	60	TGRV	331	5.2	11.0	18
4S49E14BABB	11-03-75	185	TGRV	2,070	7.8	10.0	130
4S49E14BCBD	11-04-75	122	TGRV	2,300	7.7	10.5	200
4S49E15BDDD	11-04-75	150	TGRV	2,590	8.0	10.5	23
4S49E16CCBB	11-06-75	38	TGRV	3,290	7.3	9.0	130
4S49E22ACBA	11-06-75	70	TGRV	2,320	7.5	10.0	240
4S49E23ACAC	11-04-75	120	TGRV	3,600	7.6	10.5	140
4S49E25DABB	11-12-75	391	TGRV	2,390	7.8	11.5	76
4S49E31CCCC	11-04-75	280	TGRV	4,410	7.5	12.0	310
4S49E31DCDA	11-07-75	Spring	TGRV	5,180	7.5	10.0	400
14S50E10ACCB	10-21-77	160	TGRV	1,320	7.6	10.5	49
4S52E18BCDC	7-29-76	1,020	FHHC	850	9.1	15.0	1.1
5S41E10ACBC	3-02-74	Spring	TGRV	1,140	7.7	4.0	55
5S41E18BBCD	3-01-74	Spring	TGRV	1,570	7.7	11.0	95
5S41E21CAAA	3-04-74	Spring	TGRV	1,150	7.5	5.5	19
5S41E23DABB	3-03-74	Spring	TGRV	1,560	8.1	---	48
5S41E26ABAC	3-04-74	Spring	TGRV	510	7.7	5.5	38
5S41E28ABCC	3-04-74	Spring	TGRV	600	7.7	3.5	50
5S41E28DDDC	3-05-74	Spring	TGRV	930	7.4	7.0	50
5S41E31AAAA	3-04-74	Spring	TGRV	4,540	7.7	1.5	172
5S41E31CBAC	3-03-74	80	TGRV	1,280	7.8	6.5	48
5S41E31CBBC	3-04-74	Spring	TGRV	1,510	7.9	3.5	83
5S41E31DDDA	3-03-74	Spring	TGRV	3,340	7.7	5.5	150
5S41E32CDBC	3-03-74	Spring	TGRV	3,790	7.6	4.5	200
5S41E35CBCC	3-05-74	Spring	TGRV	440	8.0	7.5	26
5S41E36CBBA	3-04-74	Spring	TGRV	540	8.1	7.5	36
5S42E16DDBD	3-02-74	80	TGRV	1,230	7.6	9.5	61
5S42E18DCDB	3-01-74	80	TGRV	1,710	7.8	10.0	82
5S42E20ADDB	3-02-74	110	TGRV	2,200	8.3	7.0	4.6
5S42E21DBAB	3-02-74	Spring	TGRV	260	7.0	1.5	16
5S42E22DBBC	3-01-74	830	TGRV	990	8.3	16.5	2.2
5S42E30CBCB	3-05-74	Spring	TGRV	1,430	7.8	5.5	110
5S42E31CCCD	3-04-74	Spring	TGRV	380	7.9	7.0	28
5S42E34ABBA	11-11-75	880	TLCK	1,020	8.5	15.5	1.9
5S45E03ABCD	11-24-76	90	TGRV	1,710	8.5	11.0	3.3

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
8.0	33	6	20	0	130	2.3	220
76	270	9	490	0	790	5.4	1,540
94	260	9	470	0	1,000	4.1	1,850
9.8	580	3	290	0	1,100	12	1,850
120	550	9	930	0	1,200	16	2,500
130	190	8	130	0	900	15	1,850
110	600	9	440	0	1,700	13	2,830
31	440	4	410	0	930	7.1	1,710
300	550	14	450	0	2,700	11	4,140
440	470	15	580	0	3,300	9.6	4,900
20	200	4	430	0	280	3.9	780
.3	97	1	320	25	110	7	510
82	81	10	440	0	310	4.7	770
100	130	5	540	0	480	6.2	1,090
15	250	5	680	0	68	6.4	710
92	190	8	520	0	480	9.1	1,100
28	26	6	290	0	29	3.7	290
39	19	5	370	0	23	3.2	340
44	99	8	530	0	80	4.3	560
320	590	9	670	0	2,400	12	3,900
92	120	7	610	0	260	3.4	850
100	130	7	770	0	290	3.2	1,010
150	450	25	290	0	1,670	6.8	2,630
170	520	31	360	0	2,000	6.7	3,170
26	27	6	250	0	29	4.1	270
39	21	6	350	0	18	3.3	320
67	130	9	570	0	240	3.7	820
106	170	10	600	0	530	3.5	1,230
.3	550	3	830	4	490	6.7	1,490
4.8	27	11	120	0	20	4.4	160
.1	240	1	530	0	71	9.0	600
95	87	8	870	0	150	7.5	900
22	17	4	230	0	15	2.8	220
.44	250	1	520	13	79	4.6	620
1.6	390	3	420	7	470	18	1,110

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu$ mho/cm at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
5S45E03ACBB	12-18-73	700	TLCK	1,740	8.3	7.0	7.4
5S45E04BBDD	1-13-74	250	TGRV	1,010	8.3	13.0	2.4
5S45E06DAAD	1-13-74	Spring	TGRV	1,570	7.8	4.5	130
5S45E08BDDA	1-13-74	Spring	TGRV	1,790	7.7	8.0	51
5S45E11BBAC	6-26-75	1,020	TLCK	2,640	8.0	18.0	2.7
5S45E11CDCD	6-25-75	---	--	2,270	7.4	12.0	10
5S45E14AAAD	1-29-74	1,200	TLCK	2,830	8.4	16.5	5.7
5S45E15ADDD	12-18-73	1,243	TLCK	2,500	8.3	13.5	3.4
5S45E18AACD	1-12-74	Spring	TGRV	2,880	8.1	1.0	160
5S45E26BABB	12-19-73	40	ALVM	2,750	7.7	10.5	130
5S45E27BDDB	6-26-75	252	TGRV	1,480	7.8	13.0	2.1
5S45E28BBBA	6-25-75	250	TGRV	1,960	10.1	12.0	7.0
5S45E29ADDC	1-16-74	Spring	TGRV	2,940	8.0	6.0	150
5S45E35BABA	5-22-75	264	TGRV	880	7.7	11.5	25
5S45E35BABD	5-22-75	50	ALVM	3,090	8.0	10.0	68
15S46E04DACA	5-03-76	70	ALVM	2,630	7.5	10.0	96
5S46E04DDAB	11-23-76	80	TGRV	2,280	7.8	8.5	100
5S46E05BDCB	6-27-75	70	TGRV	2,000	7.4	11.0	90
5S46E09DADD	1-16-74	Spring	TGRV	2,180	7.8	4.5	96
5S46E20ABCA	1-18-74	Spring	TGRV	2,850	7.8	3.5	180
5S46E20CDAB	1-14-74	18	ALVM	3,640	7.9	8.0	130
5S46E21DDAA	1-17-74	---	--	2,300	7.9	8.5	120
5S46E24BCCB	1-18-74	30	ALVM	2,360	8.0	8.5	99
5S46E27BAAA	1-16-74	Spring	TGRV	4,300	7.5	2.0	230
5S49E32ADCD	7-27-76	220	TGRV	3,740	7.6	11.5	53
5S51E07CDAC	7-28-76	880	FHHC	3,840	7.6	12.0	170
6S39E08DBBD	6-17-75	100	TGRV	1,060	7.9	10.5	61
6S39E15DDBC	6-26-75	90	TGRV	1,960	7.4	11.5	46
6S39E17BDBC	6-17-75	60	TGRV	1,030	7.4	10.5	58
6S39E17CDAC	6-17-75	100	TGRV	1,010	7.4	13.5	25
6S39E23AAAA	7-08-75	Spring	TGRV	1,890	6.9	9.5	110
6S39E25DADB	7-23-74	Spring	TGRV	760	8.1	24.0	43
6S39E34CBCC	8-13-74	Spring	TGRV	1,120	7.8	12.5	99
6S39E36ACDD	7-24-74	Spring	TGRV	550	9.1	14.5	14
6S40E02CBAB	11-11-76	Spring	TGRV	1,240	8.3	3.0	59



Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
3.3	380	3	420	0	480	15	1,110
1.3	250	1	630	5	1.7	22	620
140	38	5	690	--	430	5.9	1,120
66	330	6	800	--	440	5.7	1,310
.2	690	3	1,550	--	.4	170	1,650
2.6	520	3	300	--	850	21	1,580
.6	740	3	1,660	22	.3	160	1,770
.9	640	3	1,350	53	2.5	150	1,540
350	120	10	730	--	1,500	10	2,510
170	320	16	650	--	1,200	13	2,180
.9	390	2	960	0	1.3	34	920
1.6	460	5	280	440	4.0	40	1,100
250	250	8	600	0	1,500	11	2,450
.2	210	2	540	0	1.1	16	510
140	430	16	840	0	990	13	2,100
140	280	11	620	0	820	5.8	1,680
150	240	11	550	0	900	8.0	1,700
120	230	11	600	0	700	3.9	1,500
180	220	12	860	0	730	6.6	1,690
210	320	9	860	0	1,300	6.5	2,440
240	470	48	990	0	1,500	10	2,950
140	250	13	650	0	900	7.1	1,780
160	290	12	720	0	950	6.9	1,900
490	320	17	990	0	2,400	12	3,970
29	800	7	480	0	1,500	8.0	2,670
86	650	6	830	0	1,460	5.6	2,800
76	69	10	530	0	180	1.1	700
68	330	5	700	0	510	3.3	1,330
91	40	8	510	0	180	2.8	660
17	190	6	530	0	110	1.0	630
130	180	7	890	0	430	3.5	1,300
66	34	2	460	0	59	2.2	450
87	33	7	610	0	150	7.0	710
67	11	3	190	37	96	2.7	330
129	43	5	613	5	258	4.0	820

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
6S40E03BDDA	11-11-76	Spring	TGRV	1,490	7.6	6.0	130
6S40E26CDAB	7-11-75	Spring	TGRV	1,490	7.8	8.5	71
6S40E29CABA	8-22-74	Spring	TGRV	680	8.1	13.0	64
6S40E30BACC	7-23-74	Spring	TGRV	1,320	7.9	19.0	67
6S40E30BADD	7-23-74	Spring	TGRV	970	8.1	11.0	71
6S40E30CAAA	7-23-74	Spring	TGRV	1,180	7.8	12.0	83
6S40E30CBAA	7-23-74	Spring	TGRV	1,040	8.0	14.0	62
6S40E30DCCA	7-24-74	Spring	TGRV	1,840	7.4	11.0	110
6S40E30DDAA	7-24-74	111	TGRV	1,390	7.5	10.5	65
6S40E30DDAA2	7-24-74	93	TGRV	1,460	8.1	10.0	64
6S40E31DBCC	7-24-74	Spring	TGRV	1,900	7.6	10.0	130
6S40E32BADD	8-22-74	Spring	TGRV	820	8.0	10.5	55
6S41E02ACCB	3-03-74	Spring	TGRV	1,690	7.9	3.8	47
6S41E11AAAC	11-10-76	Spring	TGRV	2,160	8.4	1.0	27
6S41E23CCCC	7-10-75	300	TGRV	1,972	8.1	9.0	5.1
6S41E25CBDD	11-19-76	Spring	TGRV	820	7.7	8.0	59
6S41E29BACD	11-11-76	Spring	TGRV	4,690	7.7	3.0	290
6S41E32CADA	7-03-75	160	TGRV	1,410	8.0	13.0	38
6S42E01DDCC	6-19-75	470	TGRV	2,120	7.9	16.5	2.7
6S42E01DDCC2	6-29-75	246	TGRV	830	7.4	13.5	69
6S42E13BABD	3-06-74	250	TGRV	1,900	8.3	10.0	2.6
6S42E13DBCC	3-06-74	290	TGRV	1,940	8.9	10.5	1.4
6S42E14DCAD	3-06-74	335	TGRV	1,920	8.5	9.5	1.5
6S42E16ACDA	11-10-76	96	TGRV	2,060	7.8	10.5	78
6S42E23BCAC	3-06-74	350	TGRV	2,020	8.3	10.5	2.0
6S42E23BDBA	3-06-74	160	TGRV	2,010	8.3	10.5	2.6
6S42E23CAB	3-06-74	570	TGRV	1,470	8.3	11.5	1.7
6S42E27ABBC	3-06-74	315	TGRV	2,340	8.3	1.0	1.6
6S42E29CAAA	3-01-74	450	TGRV	1,880	8.3	10.0	1.4
6S42E32ABA	3-01-74	700	TGRV	1,370	8.2	14.0	2.2
6S42E32CBA	3-02-74	400	TGRV	2,360	8.3	7.5	4.0
6S43E07DCCA	3-02-74	555	TGRV	1,900	8.2	6.0	2.8
6S43E18BABC	3-02-74	480	TGRV	1,580	8.3	12.0	2.2
6S48E09BBDA	7-20-76	120	TGRV	1,780	7.6	13.0	170
6S49E30BACB	7-20-76	310	TGRV	2,180	7.8	13.5	12

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
120	36	5	600	0	380	8	1,000
130	110	11	680	0	360	8.6	1,040
48	19	3	420	0	37	5.5	400
120	71	4	500	0	390	1.4	900
78	37	6	430	0	220	3.1	650
100	43	6	560	0	250	3.5	790
87	51	8	500	0	210	4.1	700
160	100	6	840	0	440	3.5	1,260
83	130	5	580	0	330	3.9	930
130	72	8	590	0	370	10.1	960
180	69	5	800	0	540	4.3	1,340
65	32	5	420	0	130	4.3	520
100	210	10	520	0	530	7.8	1,190
90	360	12	800	8	490	13	1,400
9.2	490	7	1,340	0	1.1	7.0	1,190
50	44	6	370	0	130	6.4	490
390	440	22	1,170	0	2,230	20	3,980
100	150	11	530	0	370	4.7	960
2.6	500	3	770	0	460	3.4	1,370
49	42	6	400	0	140	3.7	520
2.3	510	2	1,270	10	28	4.0	1,200
.2	510	2	1,060	70	96	3.8	1,160
.4	510	2	1,160	14	110	4.5	1,230
100	260	12	630	0	610	15	1,400
.6	540	2	1,400	4	.4	4.3	1,270
.3	540	2	1,380	2	19	4.6	1,290
.4	390	2	1,010	0	.4	5.0	920
1.0	650	3	1,690	0	.5	4.6	1,510
.6	510	2	1,290	5	.5	6.8	1,180
.1	360	2	950	0	.9	5.1	860
.4	650	3	1,670	0	.5	5.2	1,520
.6	530	3	1,360	0	.7	6.3	1,240
.2	430	2	1,090	0	.5	4.3	960
114	84	6	750	0	387	10	1,170
4.5	510	4	560	0	660	6	1,480

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
6S51E30CCCC	8-03-76	576	TLCK	1,013	8.2	13.0	3.3
7S38E12DCAC	7-31-74	Spring	TGRV	890	8.6	17.0	110
7S38E14ACDD	7-29-74	Spring	TGRV	640	8.0	9.0	42
7S38E24DACA	7-22-74	Spring	TGRV	840	7.6	9.0	71
7S38E24DBD	7-17-74	60	TGRV	1,060	7.4	10.4	96
7S38E24DBDA2	7-22-74	Spring	TGRV	770	7.7	8.0	39
7S39E02BBCA	8-13-74	Spring	TGRV	1,280	8.3	13.5	51
7S39E02BDAD	8-13-74	Spring	TGRV	690	8.2	11.5	59
7S39E02DDCC	7-18-74	Spring	TGRV	1,020	7.5	14.5	88
7S39E05BDCD	8-01-74	Spring	TGRV	1,740	8.0	9.0	94
7S39E07DBDC	7-22-74	Spring	TGRV	650	7.8	9.0	61
7S39E08BCAD	7-30-74	Spring	TGRV	620	8.2	9.0	50
7S39E09CBD	7-30-74	120	TGRV	1,010	7.9	8.0	54
7S39E10BCAC	7-31-74	Spring	TGRV	820	8.1	19.0	66
7S39E10CCDA	8-01-74	Spring	TGRV	1,330	7.8	14.0	120
7S39E12ACDD	7-18-74	Spring	TGRV	970	8.7	30.0	59
7S39E12BABB	7-18-74	Spring	TGRV	1,200	7.9	12.5	56
7S39E16ACD	7-23-74	23	ALVM	1,030	8.0	8.0	75
7S39E19DCBB	7-22-74	Spring	TGRV	1,260	8.0	9.0	67
7S39E20DAAC	6-20-75	160	TGRV	1,460	7.5	14.5	7.5
7S39E20DADA	6-20-75	160	TGRV	1,110	7.5	9.0	77
7S39E21ADA2	7-11-74	100	TGRV	1,230	7.4	11.5	95
7S39E21CDA	7-19-74	100	TGRV	1,130	7.6	8.0	78
7S39E22BCD	7-15-74	42	TGRV	1,170	7.4	11.0	92
7S39E23ACDD	7-17-74	Spring	TGRV	1,720	7.8	9.5	140
17S39E23ACD3	5-04-76	160	TGRV	2,890	7.0	10.0	210
7S39E23ACD5	7-25-74	140	TGRV	5,200	7.8	10.5	81
7S39E24BCD	7-25-74	275	TGRV	2,160	7.7	11.0	160
7S39E27DCDD	7-23-74	350	TGRV	1,500	8.6	12.0	2.2
7S39E3LACA	7-17-74	39	TGRV	1,150	7.5	9.0	100
17S39E35DAB	5-04-76	92	TGRV	540	7.8	9.5	30
7S39E36CDD	7-23-74	75	TGRV	660	8.1	10.5	33
7S40E05DDDC	7-16-74	137	TGRV	1,450	7.8	10.5	11
7S40E07DADD	7-26-74	Spring	TGRV	1,500	7.9	12.0	100
7S40E08CCDA	7-18-74	44	TGRV	1,360	7.2	9.5	130

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
1.0	250	2	550	0	69	18	630
66	11	5	420	18	180	3.0	620
53	11	5	290	0	110	1.9	380
67	17	5	420	0	110	5.8	510
89	20	5	570	0	180	2.0	700
72	20	5	390	0	120	2.9	460
117	86	6	460	9	370	7.9	890
56	6.6	4	410	0	31	8.3	410
85	20	2	500	0	180	3.8	650
180	49	11	670	0	540	5.9	1,240
48	8.2	6	370	0	52	2.5	390
50	12	7	310	0	87	3.0	390
94	39	7	460	0	210	4.2	650
65	12	6	500	0	55	5.9	480
120	17	6	760	0	200	2.6	860
89	23	4	510	1	140	7.8	600
89	21	3	550	0	100	8.2	580
93	20	9	610	0	99	6.1	630
100	66	6	600	0	240	2.2	800
7.8	340	4	670	0	220	1.4	940
83	55	6	550	0	200	1.6	830
100	39	6	490	0	320	4.5	840
81	65	7	520	0	240	4.5	740
100	34	6	590	0	230	2.8	780
150	57	12	290	0	820	4.9	1,360
210	240	10	820	0	1,200	4.4	2,290
82	1,110	16	620	0	2,380	9.6	4,020
190	98	8	560	0	900	5.6	1,660
1.6	370	2	730	20	170	---	940
94	23	3	480	0	290	.4	760
26	33	6	200	0	100	2.1	310
48	39	8	200	0	190	3.5	450
6	320	5	540	0	300	3.4	950
130	60	7	630	0	390	6.9	1,030
110	46	5	690	0	260	4.5	920

Table 1.--Chemical analyses of water from wells and springs--Continued.

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
7S40E08CCBD	7-18-74	26	TGRV	1,510	7.4	12.5	130
7S40E09ABCA	7-16-74	Spring	TGRV	1,260	7.8	10.0	70
7S40E09CDDA	7-16-74	Spring	TGRV	2,010	7.9	25.0	100
7S40E15DCBD	7-17-75	29	TGRV	1,470	7.5	10.0	84
7S40E16DBCC	7-19-74	Spring	TGRV	400	7.4	14.5	39
7S40E17AACD	7-16-74	Spring	TGRV	1,500	8.0	18.0	98
7S40E17BBCD	7-18-74	Spring	TGRV	1,530	7.5	14.5	120
7S40E18ADDB	7-17-74	Spring	TGRV	530	7.7	15.5	56
7S40E18BBDD	7-17-74	Spring	TGRV	1,600	7.9	17.0	100
7S40E27CDAD	7-09-75	10	TGRV	830	7.4	11.5	65
7S40E30CCBD	7-25-74	72	TGRV	330	7.6	12.0	30
7S40E35BDAC	7-08-75	Spring	TGRV	870	7.4	8.0	70
7S41E02AACC	11-11-76	Spring	TGRV	1,720	8.2	7.5	49
7S41E04DCDD	7-03-75	---	--	1,270	7.1	11.0	40
7S41E19DCAA	7-17-75	---	--	1,650	7.5	9.0	90
7S41E22ACDC	6-26-75	44	ALVM	1,360	7.7	10.0	73
7S41E27DBBD	7-17-75	20	ALVM	1,760	7.6	9.5	32
7S41E27DBCB	7-17-75	20	ALVM	3,950	8.1	9.0	55
7S42E06BCAA6	6-24-75	260	TGRV	980	7.5	9.0	56
7S42E06BCDB	6-24-75	20	ALVM	1,070	7.0	9.0	110
17S44E34BAAD	4-12-76	75	TGRV	3,050	8.0	11.0	5.8
17S44E34BAAD2	6-09-76	232	TGRV	2,890	8.3	13.5	6.5
17S44E36DADB	6-09-76	68	TGRV	2,800	8.3	12.0	14
7S45E13DCCC	8-03-76	225	TGRV	1,870	8.1	11.0	3.2
7S46E35CCCB	7-28-76	800	TGRV	730	7.6	11.0	3.5
7S48E15ACAB	7-21-76	40	TGRV	2,100	7.7	12.5	100
7S50E22BDAD	7-21-76	435	LEBO	2,000	7.7	12.5	21
7S51E34DBDB	7-22-76	830	TLCK	930	7.6	9.5	110
7S52E10DACC	7-29-76	800	FHHC	770	9.2	11.5	1.8
8S38E01ADBB	7-10-74	Spring	TGRV	2,570	7.4	18.5	97
8S38E02CCBD	9-10-74	Spring	WSTC	1,000	7.7	15.5	99
8S38E11ADBC	7-10-74	Spring	WSTC	1,180	7.8	10.0	94
8S38E11ADB	7-10-74	42	WSTC	2,200	7.6	12.0	190
8S38E12DCDD	7-10-74	18	TGRV	1,540	7.8	9.5	130
8S39E01ABAA	7-11-74	55	TGRV	940	7.9	11.5	59

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
130	51	6	680	0	390	5.1	1,060
130	34	14	300	0	490	5.5	930
220	63	17	550	0	820	9.3	1,530
130	61	11	610	0	380	6.0	990
21	10	7	170	0	56	2.4	250
140	47	7	660	0	370	9.5	1,040
140	41	12	590	0	470	7.7	1,110
32	6.7	8	290	0	52	1.3	310
160	52	12	600	0	520	4.3	1,160
52	32	14	310	0	190	5.8	530
17	9.7	4	150	0	32	3.2	200
54	38	13	360	0	180	7.9	550
100	200	15	250	0	720	12	1,240
76	140	13	350	0	400	6.2	860
140	100	12	610	0	490	11	1,150
72	140	8	360	0	460	4.5	960
44	350	9	1,070	0	120	18	1,120
140	850	13	1,560	0	1,220	27	3,090
54	39	9	350	0	190	3.2	570
56	54	4	390	0	260	12	710
4.2	680	5	1,180	0	540	17	1,850
3.7	770	11	2,000	300	9.0	30	2,130
11	590	10	1,190	0	360	24	1,610
1.3	490	3	1,280	0	.4	21	1,160
.7	180	2	460	0	.5	11	430
120	220	13	520	0	780	5	1,520
5	420	3	230	0	760	6.8	1,330
48	23	5	370	0	210	1.2	590
.2	180	1	260	31	110	2.9	460
160	320	8	820	0	890	5.9	1,900
71	31	5	560	0	140	2.0	650
110	39	4	570	0	270	13	840
180	100	6	620	0	930	5.8	1,740
120	73	7	630	0	400	13	1,070
65	45	9	180	0	350	4.5	650

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu$ mho/cm at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
8S39E02DAAD2	7-09-74	130	TGRV	890	8.1	13.0	48
8S39E04BBBB	9-10-74	Spring	TGRV	2,360	7.7	16.0	170
8S39E04CBCA	7-09-74	Spring	TGRV	1,760	8.0	29.0	120
8S39E12ACBB	7-18-74	305	TGRV	1,420	8.5	12.5	31
8S39E12ACBB2	7-18-74	370	TGRV	2,040	8.7	12.0	7.8
8S39E13BBCC	7-29-74	348	TGRV	3,690	7.4	10.0	160
8S39E14CBBC	10-13-73	---	--	1,190	7.9	12.0	89
8S39E16ABCA	7-01-74	Spring	TGRV	750	7.3	30.5	92
8S40E02ABBB	11-08-76	Spring	TGRV	440	8.0	8.0	28
8S40E11CAAC	7-17-74	14	ALVM	920	7.6	13.5	85
8S40E18BBAD	6-18-75	303	TGRV	700	6.9	12.0	37
8S40E33ACDB	10-11-73	---	--	1,610	7.7	10.5	130
8S40E34BDAA	10-11-73	53	TGRV	930	7.8	12.0	40
8S41E21CABB	10-17-73	99	TGRV	650	8.2	15.0	24
8S41E24DCBA	11-09-76	42	TGRV	5,150	7.4	11.5	250
8S41E25CCAB	10-14-73	420	TGRV	4,900	8.1	13.5	29
8S41E34BCCC	11-09-76	181	TGRV	4,030	7.4	12.0	94
8S42E10AADC	11-10-76	Spring	TGRV	1,460	7.8	8.0	100
8S42E15CBBA	11-10-76	157	TGRV	3,400	7.4	9.5	180
8S42E26CBBB	11-15-73	159	TGRV	3,710	8.2	11.0	110
8S42E29BDAC	11-10-76	20	WSTC	2,030	7.9	10.0	130
8S43E07ADAA	10-30-73	36	TGRV	4,340	7.7	10.0	190
8S43E13ACCA	6-19-75	110	TGRV	950	7.6	11.0	43
<sup>1</sup> 8S43E20DABD	6-09-76	95	TGRV	2,690	8.1	14.0	6.3
8S43E23DBDB	2-26-74	274	TGRV	5,490	7.5	9.0	220
<sup>1</sup> 8S43E29DABC	5-05-76	68	TGRV	1,720	7.5	9.0	110
8S43E30BBGD	11-15-73	47	TGRV	1,550	7.8	9.5	74
8S44E02AADC	11-16-73	13	ALVM	1,830	8.6	9.0	34
8S44E12ACAC	2-27-74	Spring	TGRV	3,260	7.6	5.0	180
8S44E15BCCD	6-04-75	51	TGRV	1,760	7.6	9.0	170
8S44E22DCDB	6-19-75	190	TGRV	940	7.3	11.0	47
8S44E25DBDB	2-27-74	Spring	TGRV	3,380	7.2	3.5	180
8S44E35ADDC	2-03-74	28	TGRV	750	7.8	9.4	79
8S44E35ADDC	6-19-75	28	TGRV	740	7.3	10.0	80
8S45E03BAAB	2-27-74	Spring	TGRV	2,540	7.8	1.0	110



Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
63	45	11	190	0	310	6.3	600
140	180	7	580	0	870	4.7	1,670
150	110	8	530	0	650	6.5	1,320
23	260	8	430	9	370	5.3	930
3.6	460	4	460	33	550	6.5	1,310
200	540	14	860	0	1,520	15	2,950
70	110	6	510	0	330	6.5	880
22	31	29	150	0	260	3.2	510
22	24	11	170	0	80	5.9	280
57	36	8	420	0	180	6.8	600
31	52	6	250	0	130	3.5	390
72	180	12	350	0	700	5.7	1,300
65	75	9	200	0	350	4.4	670
32	60	6	220	0	140	7.4	420
600	370	4	700	0	3,050	34	4,650
14	1,210	9	990	0	1,830	23	3,640
250	570	14	1,300	0	1,400	15	3,000
130	48	18	340	0	570	6.0	1,070
320	280	7	700	0	1,710	22	2,880
96	720	12	1,140	0	1,310	7.5	2,840
180	120	6	500	0	850	10	1,550
320	650	8	380	0	2,720	14	4,110
53	93	7	470	0	130	8.7	580
3.0	620	5	1,850	0	8.6	21	1,590
330	790	8	600	0	3,080	20	4,760
92	180	9	460	0	650	7.0	1,300
100	140	7	320	0	630	6.4	1,150
24	390	7	590	26	490	8.0	1,290
200	370	8	580	0	1,560	12	2,630
190	120	6	440	0	1,080	7.3	1,810
76	38	4	300	0	270	3.9	610
200	420	7	990	0	1,340	8.3	2,670
48	20	2	420	0	71	6.7	460
46	17	2	420	0	55	6.0	440
180	260	12	690	0	1,000	16	1,950

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
8S45E03DAAC	2-27-74	Spring	TGRV	2,770	7.1	6.0	190
8S45E04ABAA	2-27-74	25	ALVM	4,490	7.3	12.0	180
8S45E04ACCD	2-27-74	Spring	TGRV	3,700	7.5	2.5	190
8S45E08DBAA	2-02-74	Spring	TGRV	1,900	7.9	6.0	50
<sup>1</sup> 8S45E08DCBB	6-26-75	185	TGRV	5,840	7.6	14.0	44
8S45E13BCAA	2-02-74	Spring	TGRV	950	7.7	4.0	100
8S45E15DBBB	2-02-74	Spring	TGRV	370	7.0	0.5	23
<sup>1</sup> 8S45E16DBCB	5-12-76	35	--	4,000	6.7	14.0	300
<sup>1</sup> 8S45E16DBCB2	5-12-76	153	TGRV	2,670	7.7	12.2	9.9
8S45E16DDCB	2-02-74	42	TGRV	5,840	7.7	8.5	360
8S45E20BDAB	2-02-74	40	TGRV	3,650	7.7	8.5	230
8S45E24CADD	2-03-74	Spring	TGRV	5,300	7.5	3.5	260
8S45E27BDBD	1-31-74	45	ALVM	6,380	7.7	8.5	400
8S45E27BDBD2	2-01-74	Spring	TGRV	4,210	8.0	10.5	180
8S45E33BAAC	2-01-74	50	TGRV	5,270	7.8	8.0	390
8S45E33BADB	1-30-74	30	ALVM	6,010	7.7	9.5	410
8S45E33BBDD	2-02-74	30	ALVM	3,850	6.0	8.5	150
8S45E34ABDA	8-17-76	155	TGRV	6,000	7.4	--	170
8S45E34BBBB	8-12-76	65	TGRV	4,430	7.4	--	130
<sup>1</sup> 8S45E34BCBC	2-03-76	253	TGRV	2,180	7.6	12.5	6.3
8S45E34CAAC	1-30-74	20	ALVM	4,040	7.6	7.5	290
<sup>1</sup> 8S45E34CABC	2-05-76	25	ALVM	4,280	7.2	10.5	280
8S46E02AABC	2-06-74	Spring	TGRV	1,660	7.9	3.0	73
8S46E04DACC	2-07-74	21	TGRV	4,120	7.9	6.0	180
8S46E04DDDB	2-07-74	Spring	TGRV	2,590	7.8	2.0	110
8S46E05DADD	2-07-74	16	ALVM	3,070	8.3	4.0	110
8S46E17CDBC	2-04-74	30	TGRV	5,080	8.0	2.5	220
8S46E20CCCA	1-30-74	33	ALVM	6,070	7.9	5.5	310
8S46E21CBAA	2-04-74	Spring	TGRV	4,470	7.7	6.5	300
8S46E23ACCC	2-06-74	Spring	TGRV	1,730	7.7	0.5	200
8S46E23CCAA	2-04-74	Spring	TGRV	3,690	7.9	2.5	210
8S46E24CCDB	2-01-74	160	TGRV	4,020	7.8	8.5	59
8S46E26ACCD	2-04-74	18	TGRV	1,910	7.8	3.5	160
8S46E32ABAB	1-30-74	20	ALVM	5,620	8.0	--	290
8S47E07BABA	2-06-74	Spring	TGRV	3,400	7.8	6.0	160

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
180	260	9	790	0	1,090	18	2,160
300	590	17	710	0	2,290	20	3,780
270	380	19	640	0	1,830	22	3,060
40	76	10	370	0	150	9.3	540
29	1,200	12	1,320	0	1,700	16	3,670
41	55	8	290	0	300	2.3	660
14	23	14	80	0	100	5.0	240
340	340	16	530	0	2,400	11.0	3,710
7.7	680	5	1,700	0	130	23	1,700
410	730	19	710	0	3,530	21	5,450
280	370	11	520	0	2,030	14	3,240
150	1,800	13	770	0	2,680	14	4,530
340	980	16	570	0	3,900	20	5,980
170	710	12	810	0	2,000	13	3,518
270	700	39	790	0	2,910	23	4,760
380	610	37	750	0	3,130	21	5,040
290	460	7	110	0	2,330	20	3,350
120	1,400	21	2,030	0	2,200	25	5,970
110	870	17	1,050	0	1,700	11	3,888
3.8	560	5	1,510	0	9.4	22	1,360
210	500	12	570	0	2,180	15	3,530
250	520	9	610	0	2,300	.9	3,680
120	160	10	640	0	470	9.3	1,180
210	630	15	970	0	1,850	9.5	3,390
130	350	13	710	0	970	6.2	1,960
190	380	34	690	0	1,360	8.8	2,460
330	700	17	690	0	2,790	19	4,440
470	950	15	650	0	4,170	20	6,280
230	630	9	550	0	2,460	14	3,940
82	94	14	330	0	770	11	1,360
230	450	10	680	0	1,810	12	3,090
42	900	8	950	0	1,470	6.8	2,980
93	170	7	460	0	760	5.4	1,440
410	740	19	510	0	3,500	16	5,260
180	470	14	700	0	1,580	9.9	2,780

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
8S48E12AACA	7-22-76	590	LEBO	840	7.7	13.5	2.6
8S48E13BDDD	7-28-76	367	TGRV	880	7.9	12.0	3.2
8S50E25CBDD	7-20-76	40	TGRV	2,360	6.8	9.5	270
8S51E12DCBB	7-22-76	100	LEBO	940	7.7	12.0	94
9S39E01CCBB	11-11-76	Spring	WSTC	1,670	7.8	4.0	170
9S39E14BDAD	10-17-73	300	TGRV	1,370	8.8	14.0	2.6
9S39E16AAAD	11-11-76	Spring	WSTC	2,290	7.4	6.0	120
9S40E04CDAB	6-18-74	---	--	4,470	7.4	12.5	220
9S40E21CDED	10-12-73	188	TGRV	1,590	8.1	14.0	3.2
9S40E22DAAD	10-18-73	169	TGRV	2,840	8.4	10.0	18
<sup>1</sup> 9S40E29CCAD2	5-04-76	151	TGRV	1,770	8.1	11.0	3.6
9S41E08CACD	6-18-75	---	--	2,960	7.9	12.5	11
9S41E09ACBC	10-14-73	29	ALVM	2,620	7.9	10.5	86
9S41E12BDCD	2-27-74	Spring	TGRV	2,550	7.9	1.5	230
9S41E26AADA	6-24-75	40	TGRV	4,580	6.8	11.0	84
9S41E35DADD	11-09-76	180	WSTC	3,410	7.6	11.0	180
9S42E25DCAD	6-03-75	59	TGRV	6,540	7.7	9.0	280
9S42E35DCCC	11-09-76	100	WSTC	5,730	7.5	9.0	320
<sup>1</sup> 9S43E03CDDA	6-16-75	100	TGRV	2,670	8.1	12.0	6.0
<sup>1</sup> 9S43E03CDDA2	6-09-76	60	TGRV	10,500	8.3	12.0	110
9S43E07BCAD	10-30-73	46	TGRV	2,310	7.8	9.0	120
9S43E10BBAD	2-26-74	75	TGRV	5,450	7.2	9.5	270
9S43E15DABC	10-28-73	---	--	2,250	8.8	10.0	5.7
9S43E25BADC	2-28-74	Spring	WSTC	780	7.3	4.8	64
9S43E27CDCA	10-28-73	240	TGRV	1,900	8.2	11.0	5.5
<sup>1</sup> 9S43E35BBCD	5-05-76	215	TGRV	1,870	7.9	10.5	6.5
<sup>1</sup> 9S43E35CADC	5-05-76	235	TGRV	1,720	8.1	10.0	6.4
9S44E01ADAA	2-28-74	330	TGRV	2,531	8.6	12.1	11
9S44E07ADAA	2-28-74	70	TGRV	4,960	7.5	7.5	280
9S44E10CBAD	6-04-74	50	TGRV	7,520	7.9	9.0	270
9S44E11BDAA	6-03-75	180	TGRV	980	7.7	10.5	72
9S44E20DCAA	6-04-75	204	TGRV	8,660	7.7	8.0	380
9S44E27ABCB	6-04-75	54	TGRV	7,270	7.7	8.0	380
9S44E28CDCA	10-27-73	Spring	TGRV	2,720	7.8	11.0	230
9S44E28CDCC	10-27-73	227	TGRV	2,450	8.1	11.0	9.8

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
.7	200	2	530	0	5.4	13	500
.9	220	2	550	0	20	6.5	530
200	60	11	290	0	1,340	4.9	2,050
55	36	4	460	0	160	2.3	590
140	37	3	370	0	700	4.5	1,250
.8	350	4	870	28	10	3.5	850
130	270	10	740	0	770	10	1,680
340	510	26	370	0	2,590	15	3,910
.9	450	4	1,140	0	4.7	15	1,060
22	710	8	1,580	51	280	35	1,040
2.6	430	4	1,200	0	3.0	14	1,060
5.5	800	7	2,120	0	4.3	20	1,920
190	350	12	630	0	1,150	11	2,150
130	230	8	490	0	1,180	12	2,050
180	820	11	320	0	2,340	10	3,620
110	550	7	690	0	1,450	20	2,670
280	1,040	7	650	0	3,400	20	5,370
310	840	7	450	0	3,370	12	5,100
6.1	640	5	1,610	0	130	22	1,610
50	1,900	20	1,300	0	3,600	28	6,360
170	230	4	320	0	1,190	5.5	1,860
260	810	28	490	0	2,980	56	4,660
4.4	640	5	1,480	79	59	19	1,580
53	27	2	340	0	150	4.9	490
4.0	500	4	1,260	0	45	22	1,220
4.0	540	5	1,480	0	0	19	1,320
4.3	470	4	1,060	0	6.3	19	1,160
4.9	650	5	1,660	73	.5	16	1,600
320	620	7	600	0	2,800	14	4,360
460	910	9	720	0	3,790	18	5,920
72	35	4	330	0	270	4.0	640
450	1,120	12	850	0	4,390	29	6,840
330	930	8	760	0	3,600	14	5,660
190	210	9	730	0	1,110	12	2,170
4.7	660	5	1,730	0	.2	13	1,570

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
19S45E02CBAD	11-13-75	179	TGRV	4,650	7.4	13.0	69
19S45E03ADCC	5-06-76	82	TGRV	5,450	6.7	10.5	210
19S45E03BAAA	2-04-76	---	--	5,900	7.3	7.0	330
9S45E03BBBB	8-18-76	145	TGRV	4,450	6.5	---	320
19S45E07CCAD	6-26-75	285	TGRV	2,150	8.0	12.5	8.9
9S45E07CDAD	2-02-74	---	--	1,990	8.1	12.2	9.8
19S45E11ADDB	3-09-76	297	TGRV	3,700	7.6	13.0	39
19S45E11BCDA	6-30-75	16	ALVM	3,550	7.2	8.0	160
9S45E12CBCC	1-30-74	---	--	1,750	8.2	10.5	6.5
9S45E16AAAD	1-31-74	30	TGRV	2,920	7.6	8.0	260
9S46E03AABB	1-31-74	50	TGRV	5,560	8.0	4.5	210
9S46E04ACBC	1-31-74	160	TGRV	2,190	8.7	10.5	8.4
9S46E04BCAC	1-29-74	Spring	TGRV	8,400	5.3	8.5	260
19S46E05ABAB	6-18-75	180	TGRV	3,180	7.7	11.0	57
19S46E05BCBC	1-30-74	330	TGRV	1,930	8.3	9.0	7.6
9S46E05BCBD	3-17-76	302	TGRV	2,950	8.3	12.0	4.0
9S46E05DABD	1-29-74	165	TGRV	3,230	8.1	9.0	30
9S46E05DDAA	1-29-74	38	ALVM	4,770	7.8	6.5	460
19S46E05DDAA	6-08-76	38	ALVM	3,490	8.2	9.0	300
9S46E06ADAD	1-30-74	76	TGRV	4,300	6.1	6.0	280
9S46E06ADDA	2-01-74	300	TGRV	1,920	8.4	6.5	9.8
9S46E06BCBD	1-30-74	53	TGRV	4,340	7.7	6.0	350
19S46E08BACB	5-11-76	240	TGRV	3,380	7.7	9.0	24
19S46E09BAAD	6-08-76	120	TGRV	2,450	8.0	11.7	12
19S46E09DABB	5-12-76	110	TGRV	2,320	8.0	12.5	11
9S46E11BDCC	2-03-74	160	TGRV	2,640	7.9	11.0	75
19S46E11CACA	5-06-76	175	TGRV	3,320	8.1	10.5	19
9S46E12DABA	2-02-74	18	TGRV	5,740	8.0	4.5	460
9S46E15CBDD	2-05-74	220	TGRV	4,140	7.5	8.0	120
19S46E20BCAB	6-29-75	450	TGRV	2,090	8.1	14.0	14
9S46E23ABCC	2-03-74	Spring	TGRV	4,780	7.9	3.0	190
9S46E29ABCD	1-29-74	56	WSTC	3,910	7.7	8.0	400
9S46E29CDAA	2-05-74	Spring	WSTC	2,140	7.2	3.0	290
9S47E19DBCC	2-02-74	Spring	TGRV	5,340	7.6	4.5	310
9S47E31CCCD	6-02-75	70	TGRV	4,940	7.3	10.0	170

Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
34	1,000	10	1,430	0	1,300	2.6	3,140
160	1,000	29	730	0	2,800	14	4,650
290	850	12	720	0	3,100	22	4,980
250	620	21	700	0	2,400	34	4,350
4.0	520	5	1,420	0	5.5	17	1,270
3.8	530	4	1,420	0	.8	15	1,280
26	890	11	1,480	0	970	12	2,690
140	550	9	930	0	1,360	9.4	2,720
4.8	450	3	1,230	0	2.5	16	1,110
170	260	7	550	0	1,430	8.3	2,430
240	890	8	560	0	2,920	16	4,580
4.7	580	4	1,460	0	11	15	1,400
350	1,640	14	5	0	5,460	36	7,770
22	720	7	1,640	0	280	16	1,920
2.2	510	4	1,360	0	2.9	14.8	1,220
4.9	510	4	1,370	0	11	14	1,230
10	800	6	1,880	0	300	3.8	2,120
320	400	6	390	0	2,920	13	4,330
250	270	6	420	0	1,900	6.7	2,950
360	390	7	100	0	2,780	16	3,900
.9	510	4	1,300	24	.4	17	1,230
290	460	6	630	0	2,470	16	3,930
17	820	7	1,200	0	940	11	2,420
7.3	620	5	1,660	0	7.4	12	1,490
7.5	610	5	1,680	0	13	13	1,500
67	490	8	800	0	850	12	1,920
17	840	7	1,270	0	890	11	2,430
680	180	23	660	0	3,430	27	5,350
120	790	10	1,400	0	1,280	22	3,090
4.2	430	8	1,160	0	47	19	1,100
170	820	10	760	0	2,190	13	3,790
280	310	14	470	0	2,310	7.7	3,580
140	63	10	520	0	940	8.6	1,760
280	800	22	640	0	3,060	8.6	4,810
170	890	15	1,160	0	2,050	12	3,930

Table 1.--Chemical analyses of water from wells and springs--Continued

Sample location	Date of collection	Well depth (feet)	Aquifer	Laboratory specific conductance ( $\mu\text{mho/cm}$ at 25°C)	pH	Field temperature (°C)	Calcium (Ca)
9S49E24CCBC	7-27-76	147	TGRV	1,100	8.2	13.0	6.9
9S51E21DBBB	7-20-76	175	TGRV	3,460	7.8	10.5	140

1 Laboratory analysis by U.S. Geological Survey.  
 2 Field pH value.



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Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Car- bonate (CO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chloride (Cl)	Dissolved solids (sum of constituents)
2.1	260	3	570	0	110	5	680
36	660	9	300	0	1,640	6	2,650

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Table 2.--Trace-element concentrations of water from selected wells

[Analyses are by U.S. Geological Survey; constituents are dissolved, and values are reported in micrograms per liter]

Sample location	Date of collection	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)
4N44E32DDDA	5-25-76	170	0	20	360	0	<45	<10
4N44E36AABA	6-03-76	40	0	20	140	0	<16	<4
3N39E08CBBB	10-12-76	10	0	100	110	0	0	0
3N44E21CBAB	6-03-76	60	--	50	220	0	15	<4
2N39E25ACDC	5-26-76	--	0	--	--	--	--	10
2N40E06CBDB	5-27-76	60	1	10	150	0	<35	0
2N40E31DCCD	5-26-76	--	0	--	--	--	--	10
2N41E24CAAA	5-26-76	--	0	--	--	--	--	0
2N42E04DACA	5-24-76	100	0	30	250	0	<30	0
2N43E04ACAD	5-25-76	--	0	--	--	--	--	0
2N49E04CADC	10-13-77	30	1	0	700	0	10	0
1N40E02BACA	6-02-76	80	0	20	560	0	<35	10
1N41E26BCAA	6-02-76	70	--	20	210	0	<45	--
1N42E19DBBA	6-02-76	30	0	20	430	0	<20	10
1N43E09BABB	10-12-77	30	0	0	310	0	0	0
1N47E27CACD	10-18-77	0	2	0	630	0	10	1
1N49E26ACAA	10-13-77	10	0	100	350	1	10	0
1S41E23BACB	6-03-76	50	0	20	70	0	<20	10
1S42E05ADBB	6-02-76	100	0	20	220	0	<60	10
1S49E31BDCC	10-18-76	0	2	0	1,000	0	0	0
1S50E33CDCC	10-14-77	0	0	200	560	0	10	0
2S49E26AACA	10-21-76	0	1	0	440	0	0	0
3S45E32DDAC	6-04-76	40	0	100	80	0	<20	0
3S45E34AACD	5-20-76	80	0	40	140	0	<80	<17
3S45E34CACD	6-25-76	280	0	40	120	0	<100	10
3S46E16ADCC	6-16-76	130	0	20	250	0	<70	10
3S50E24ABAA	10-21-75	0	1	200	560	0	10	0
4S45E02BDDD	5-18-76	100	0	80	110	0	<40	0
4S45E02DACD	5-18-76	110	0	300	70	0	<27	0
4S45E09DDBA	6-04-76	140	0	400	140	0	<35	<8
4S45E19DADC	6-04-76	70	0	70	110	0	<65	<15
4S45E27ACCD	5-07-76	30	--	80	50	0	<13	<3
4S48E28CBCC	10-20-77	0	1	0	280	0	0	0
4S50E10ACCB	10-21-77	0	1	0	230	0	0	0
5S46E04DACA	5-03-76	30	0	10	370	0	<10	10

Iron (Fe)	Lead (Pb)	Lith- ium (Li)	Manga- nese (Mn)	Mer- cury (Hg)	Molyb- denum (Mo)	Sele- nium (Se)	Stron- tium (Sr)	Vana- dium (V)	Zinc (Zn)
190	<45	70	80	0.5	<20	0	3,300	<45	0
740	<16	30	100	<.5	<8	0	2,000	<10	260
880	0	10	40	.0	1	0	1,600	0	40
80	<15	40	160	--	<10	--	1,400	<10	90
1,500	--	--	--	<.5	--	0	--	--	--
90	<35	30	70	.0	<17	0	750	<35	60
610	--	--	--	<.5	--	0	--	--	--
1,700	--	--	--	<.5	--	0	--	--	--
3,200	<30	50	40	.5	<10	0	3,600	--	20
230	--	--	--	.7	--	0	--	--	--
820	0	40	10	.0	4	0	780	0	200
40	<35	50	220	<.5	<15	0	9,000	<25	100
50	<45	50	<30	--	<20	--	3,400	<30	0
100	<20	40	80	<.5	<10	0	3,300	<15	70
930	0	40	60	.0	1	0	2,400	0	520
40	1	60	60	.0	0	0	2,100	.1	20
140	7	40	20	.0	0	0	770	0	230
20	<20	20	<20	<.5	<10	0	410	<15	40
100	<60	30	80	1.0	<25	1	3,400	<40	30
1,500	0	120	2,100	.0	4	0	3,400	.1	110
8,500	0	50	40	.0	1	0	6,400	0	120
1,400	1	80	50	.0	0	3	3,400	.2	520
40	<20	20	<20	<.5	<10	0	160	<15	80
<80	<85	200	100	<.5	<35	0	4,400	<40	80
290	<100	160	<100	<.5	<60	0	4,800	<100	50
2,800	<70	200	230	<.5	<30	0	3,800	<50	120
4,700	0	110	4,600	.0	1	0	4,700	.3	140
20	<40	70	90	<.5	<20	0	7,000	<20	90
60	<30	50	<30	1.0	<13	0	470	<13	0
40	<35	20	<30	<.5	<15	0	400	<25	80
<70	<65	140	<50	--	<30	0	2,100	<45	230
40	<10	20	<10	.0	15	0	100	<10	0
90	0	100	0	.0	1	0	2,100	.2	20
580	0	20	50	.0	0	0	1,400	.3	30
430	<10	130	8	.6	10	6	1,600	<10	370

Table 2.--Trace-element concentrations of water from selected wells--Continued

Sample location	Date of collection	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)
7S39E23ACD3	5-04-76	180	0	20	80	1	<10	0
7S39E35DAB	5-04-76	10	4	30	90	0	<5	0
7S44E34BAAD	4-12-76	470	1	100	50	0	<35	5
7S44E34BAAD2	6-09-76	130	0	400	40	0	<45	0
7S44E36DADB	6-09-76	40	0	30	60	0	<40	0
8S43E20DABD	6-09-76	30	0	300	50	0	<35	0
8S43E29DABC	5-05-76	40	0	30	250	0	<25	3
8S45E08DCBB	6-26-75	80	2	60	85	0	<25	30
8S45E16DBC B	5-12-76	90	21	70	800	1	<65	2
8S45E16DBC B2	5-12-76	120	0	500	80	0	<35	1
8S45E34BCBC	2-03-76	80	0	300	90	0	<15	<5
8S45E34CABC	2-05-76	--	2	--	320	--	--	5
9S40E29CCAD2	5-04-76	40	0	300	60	1	<10	5
9S43E03CDDA	6-16-75	40	1	80	<12	0	<12	<3
9S43E03CDDA2	6-09-76	120	0	70	<100	0	<100	10
9S43E35BBCD	5-05-76	60	1	300	30	1	<10	1
9S43E35CADC	5-05-76	50	0	300	30	0	<10	0
9S45E02CBAD	11-13-75	50	1	80	110	0	<20	<5
9S45E03ADCC	5-06-76	160	3	30	1,100	1	<85	4
9S45E03BAAA	2-04-76	<40	0	40	210	0	<40	<20
9S45E07CCAD	6-26-75	--	1	--	80	--	--	2
9S45E11ADDB	3-09-76	--	0	--	140	--	--	4
9S45E11BCDA	6-30-75	--	--	--	--	--	--	--
9S46E05ABAB	6-18-75	90	1	480	50	0	<15	<4
9S46E05DDAA	6-08-76	120	0	30	230	0	<50	10
9S46E08BACB	5-11-76	100	25	60	60	0	<45	4
9S46E09BAAD	6-08-76	90	0	600	60	0	<35	0
9S46E09DABB	5-12-76	100	0	500	40	0	<35	0
9S46E11CACA	5-06-76	20	0	3	5	0	<5	3
9S46E20BCAB	6-29-75	110	12	290	<8	0	10	3

Iron (Fe)	Lead (Pb)	Lith- ium (Li)	Manga- nese (Mn)	Mer- cury (Hg)	Molyb- denum (Mo)	Sele- nium (Se)	Stron- tium (Sr)	Vana- dium (V)	Zinc (Zn)
3,100	<10	170	100	.1	25	0	4,600	<10	160
240	<3	50	30	1.7	10	0	410	<3	90
190	<35	100	<40	.0	<16	0	2,600	<35	80
80	<45	130	<50	<.5	<20	0	320	<40	20
40	<40	200	<40	<.5	<15	0	490	<30	20
30	<35	130	<40	<.5	<15	0	250	<30	60
20	<15	120	<20	1.6	25	8	1,300	<15	30
80	<25	120	<20	.6	75	--	2,700	<20	30
22,000	<65	340	800	.0	<30	2	3,400	<65	0
210	<35	100	<40	.0	<15	0	510	<35	0
40	<25	90	<20	.0	30	--	270	<15	20
30	--	--	--	.0	--	--	--	--	--
190	<10	120	<10	.2	15	0	360	<10	550
50	<12	150	<12	.0	20	--	470	<12	310
1,000	<100	360	80	<.5	<50	0	4,400	<75	30
30	<10	90	<10	.7	10	0	250	<10	40
70	<10	70	<10	.6	15	0	260	<10	0
<20	<20	130	250	.0	<15	--	1,000	<20	20
53,000	<55	340	1,000	.0	75	3	3,500	<55	30
3,000	<80	170	700	.0	100	--	4,000	<40	20
230	--	--	--	.2	--	--	--	--	--
0	--	--	--	.0	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--
400	<15	180	180	.0	<7	--	1,000	<15	250
260	<50	120	70	<.5	<20	0	2,700	<35	200
70	<45	120	50	.0	<20	1	820	<45	<70
40	<35	80	<30	<.5	<15	0	520	<25	50
140	<35	80	<40	.0	<15	0	360	<35	0
570	<4	100	<3	.0	4	0	780	<3	70
50	<8	60	35	.0	10	--	350	<8	30

Table 3.--Miscellaneous-constituent and radiochemical concentrations of water from selected wells

[Analyses are by U.S. Geological Survey; values are reported in milligrams per liter, except where indicated as micrograms per liter (ug/L) or picocuries per liter (pCi/L)]

Sample location	Date of collection	Total sulfide (S)	Dis-solved fluo-ride (F)	Dis-solved bro-mide (Br)	Dis-solved iodide (I)	Dis-solved silica (SiO <sub>2</sub> )
4N44E32DDDA	5-25-76	0.2	0.7	0.0	0.00	8.9
4N44E36AABA	6-03-76	.5	.2	.1	.00	14
3N39E08CBBB	10-12-76	.1	.4	.1	.00	12
3N44E21CBAB	6-03-76	.4	.3	--	--	15
2N39E25ACDC	5-26-76	.7	.2	.1	.00	8.5
2N40E06CBDB	5-27-76	.5	.6	.2	.00	5.8
2N40E31DCCD	5-26-76	1.1	.1	.0	.00	20
2N41E24CAAA	5-26-76	3.0	.3	.1	.00	18
2N42E04DACA	5-24-76	.6	.3	.0	.00	11
2N43E04ACAD	5-25-76	.4	.6	.2	.02	7.8
2N49E04CADC	10-13-77	.4	1.6	.1	.01	13
1N40E02BACA	6-02-76	.4	.2	.0	.00	17
1N41E26BCAA	6-02-76	.4	.2	--	--	18
1N42E19DBBA	6-02-76	.7	.3	.1	.00	12
1N43E09BABB	10-12-77	.1	1.8	.2	.01	8.2
1N47E27CACD	10-18-77	.6	.3	.1	.01	9.2
1N49E26ACAA	10-13-77	.0	.1	.0	.01	13
1S41E23BACB	6-03-76	.2	.6	.1	.00	7.9
1S42E05ADBB	6-02-76	.9	.4	.1	.00	8.0
1S49E31BDCC	10-18-76	.0	.6	.1	.01	31
1S50E33CDCC	10-14-77	.2	.1	.1	.02	17
2S49E26AACA	10-21-76	.2	.1	.0	.00	13
3S45E32DDAC	6-04-76	.2	3.2	.3	.02	8.1
3S45E34AACD	5-20-76	.7	.3	.1	.00	9.4
3S45E34CACD	6-25-76	1.1	.4	.1	.02	10
3S46E16ADCC	6-16-76	.2	.5	.1	.00	8.6
3S50E24ABAA	10-21-75	.0	.3	.4	.01	28
4S45E02BDDD	5-18-76	--	.8	--	--	9.6
4S45E02DACD	5-18-76	--	1.7	--	--	10
4S45E09DDBA	6-04-76	.7	4.9	1.3	.18	9.4

Total nitrogen (N)	Total phosphorus (P)	Dissolved gross alpha as U-nat. (µg/L)	Suspended gross alpha as U-nat. (µg/L)	Dissolved gross beta as Sr90/Y90 (pCi/L)	Suspended gross beta as Sr90/Y90 (pCi/L)	Total organic carbon (C)	Dissolved organic carbon (C)
1.4	0.02	<35	0.4	<9.2	<0.4	1.9	--
1.1	.01	<11	<.4	4.0	<.4	1.5	--
.14	.06	<7.1	<.4	3.1	.5	--	1.2
.22	.03	<7.7	1.2	6.6	1.8	3.2	--
.67	.02	<46	1.5	22	2.1	13	--
.39	.02	<36	.5	<8.3	<.4	1.8	--
.56	.03	<36	.5	<8.3	<.4	11	--
.26	.02	<16	<.4	7.6	<.4	2.1	--
1.2	.02	<15	<.4	7.5	<.4	1.2	--
.39	.01	<30	<.4	17	<.4	1.7	--
.88	.03	<27	<.4	4.8	.4	--	2.4
1.2	.01	<44	<.4	16	<.4	2.5	--
1.0	.01	<39	<.4	12	<.4	--	--
.31	.01	<22	<.4	<4.4	<.4	.5	--
.75	.02	42	<.4	7.4	<.4	--	1.2
3.6	.04	<39	<.4	<8.3	<.4	--	2.6
2.0	.00	<13	<.4	3.0	<.4	--	1.2
.39	.02	<15	<.4	<4.2	<.4	.1	--
3.5	.01	<43	<.4	<14	<.4	3.5	--
.15	.09	<54	.9	19	2.6	--	5.0
2.2	.00	<29	.7	10	.5	--	3.1
2.5	.03	<33	<.4	10	<.4	--	1.7
.71	.08	<9.1	<.4	<3.2	<.4	2.5	--
--	.12	<31	11	<13	6.4	--	--
4.1	.09	<89	6.4	29	3.2	26	--
2.4	.03	13	<.4	16	<.4	4.1	--
.86	.04	<140	.7	18	5.1	--	6.7
3.4	.45	52	14	17	6.9	19	--
3.5	.31	<13	47	<4.8	19	83	--
1.0	.04	<28	<.4	<7.2	<.4	1.6	--

Table 3.--Miscellaneous-constituent and radiochemical concentrations of water from selected wells--Continued

Sample location	Date of collection	Total sulfide (S)	Dis-solved fluoride (F)	Dis-solved bromide (Br)	Dis-solved iodide (I)	Dis-solved silica (SiO <sub>2</sub> )
4S45E19DADC	6-04-76	1.3	1.7	.5	.00	8.2
4S45E27ACCD	5-07-76	.5	2.0	1.2	.04	7.8
4S48E28CBCC	10-20-77	.1	.5	.1	.00	22
4S50E10ACCB	10-21-77	.6	.3	.0	.00	11
5S46E04DACA	5-03-76	.0	.6	.1	.00	22
7S39E23ACD3	5-04-76	.0	.3	.0	.00	14
7S39E35DAB	5-04-76	.0	1.0	.0	.00	18
7S44E34BAAD	4-12-76	.3	4.7	.4	.00	8.9
7S44E34BAAD2	6-09-76	--	5.0	.3	.00	8.3
7S44E36DADB	6-09-76	--	1.5	.3	.00	10
8S43E20DABD	6-09-76	.9	3.7	.1	.00	8.2
8S43E29DABC	5-05-76	.8	1.2	.0	.00	23
8S45E08DCBB	6-26-75	--	1.4	--	--	12
8S45E16DBC	5-12-76	.6	.4	.1	.00	22
8S45E16DBC2	5-12-76	1.0	2.7	.2	.00	6.8
8S45E34BCBC	2-03-76	--	2.5	--	--	7.0
8S45E34CABC	2-05-76	--	.4	--	--	16
9S40E29CCAD	5-04-76	.0	2.4	.1	.00	7.1
9S43E03CDDA	6-16-75	--	2.9	--	--	7.5
9S43E03CDDA2	6-09-76	.8	1.5	.3	.00	7.8
9S43E35BBCD	5-05-76	.8	2.2	.2	.01	8.1
9S43E35CADC	5-05-76	1.9	2.3	.2	.01	6.8
9S45E02CBAD	11-13-75	--	1.0	--	--	7.8
9S45E03ADCC	5-06-76	.5	.4	.1	.00	17
9S45E03BAAA	2-04-76	--	.3	--	--	15
9S45E07CCAD	6-26-75	--	2.0	--	--	8.5
9S45E11ADDB	3-09-76	--	.9	--	--	8.7
9S45E11BCDA	6-30-75	--	.3	--	--	11
9S46E05ABAB	6-18-75	--	1.3	--	--	8.1
9S46E05DDAA	6-08-76	1.1	.5	.1	--	13



Total nitro- gen (N)	Total phos- phorus (P)	Dis- solved gross alpha as U-nat. (µg/L)	Sus- pended gross alpha as U-nat. (µg/L)	Dis- solved gross beta as Sr90/Y90 (pCi/L)	Sus- pended gross beta as Sr90/Y90 (pCi/L)	Total organic carbon (C)	Dis- solved organic carbon (C)
2.8	.09	<39	1.7	<8.9	1.5	5.0	--
.88	.11	<8.5	<.4	<1.9	<.4	1.1	--
.15	.02	<37	<.4	10	1.5	--	2.9
1.4	.02	<14	<.4	6.4	<.4	--	.7
3.3	.07	<37	<.4	16	<.4	24	--
3.2	.04	<37	<.4	6.8	<.4	8.9	--
.22	.03	<8.6	<.4	6.5	<.4	2.5	--
3.7	.21	<18	5	<9	5.7	48	--
1.8	.07	<39	<.4	8.3	<.5	5.0	--
4.1	.13	<21	1.9	<7.1	.7	5.9	--
1.6	.15	<15	8.3	<7	3.9	10	--
1.8	.01	<14	<.4	11	.4	4.4	--
6.2	.11	<43	16	13	5.5	--	--
5.1	.50	<74	20	21	14	52	--
4.1	.1	<26	2.2	12	3.2	11	--
2.2	.11	--	--	--	--	--	--
2.2	.18	--	--	--	--	--	--
2.5	.11	<14	<.4	6.4	<.4	4.2	--
2.4	.20	<20	27	<5.6	8.8	--	--
6.2	.04	<52	1.6	<14	1.5	6.7	--
3.4	.32	<19	17	4.5	9.5	12	--
3.2	.11	29	<.4	10	<.4	5.5	--
4.6	.12	--	--	--	--	--	--
7.6	.2	<55	<1.2	15	<.5	31	--
1.2	.03	<99	6.8	150	8.6	--	--
3.8	.1	--	--	--	--	--	--
2.0	.19	--	--	--	--	--	--
--	--	--	--	--	--	--	--
5.2	.06	<30	8.3	8.5	2.0	--	--
.2	.02	<37	<.4	8.4	.5	3.4	--

Table 3.--Miscellaneous-constituent and radiochemical concentrations of water from selected wells--Continued

Sample location	Date of collection	Total sulfide (S)	Dis-solved fluo-ride (F)	Dis-solved bro-mide (Br)	Dis-solved iodide (I)	Dis-solved silica (SiO <sub>2</sub> )
9S46E08BACB	5-11-76	.2	.9	0	.00	7.1
9S46E09BAAD	6-08-76	1.4	1.5	.2	.00	7.5
9S46E09DABB	5-12-76	.8	2.0	.1	.00	6.7
9S46E11CACA	5-06-76	1.8	1.1	0	.00	840
9S46E20BCAB	6-29-75	--	1.2	--	--	6.5

Total nitrogen (N)	Total phosphorus (P)	Dissolved gross alpha as U-nat. (µg/L)	Suspended gross alpha as U-nat. (µg/L)	Dissolved gross beta as Sr90/Y90 (pCi/L)	Suspended gross beta as Sr90/Y90 (pCi/L)	Total organic carbon (C)	Dissolved organic carbon (C)
3.0	.14	<41	18	8.8	6.7	9.6	--
2.2	.06	<11	1.3	5.1	1.0	4.7	--
3.7	.2	<20	8.1	<4.6	8.1	13	--
3.6	.11	<28	<.4	9.5	<.4	5.0	--
14	.71	<15	27	5.6	1.2	--	--