

**CLIMATOLOGIC, SOIL-WATER, GROUND-WATER, GEOLOGIC,
SURFACE-WATER, AND WATER-QUALITY DATA FOR A
SURFACE COAL MINE IN NORTHWESTERN COLORADO**

by **Robert S. Williams, Jr., Gregory M. Clark, and Norman E. Spahr**

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CONVERSION FACTORS AND RELATED INFORMATION

<i>Multiply</i>	<i>By</i>	<i>To obtain</i>
acre-foot (acre-ft)	0.001233	cubic hectometer
cubic foot per second	0.02832	cubic meter per second
foot (ft)	0.3048	meter
gram per cubic centimeter (g/cm ³)	62.4	pound per cubic foot
inch (in.)	2.54	centimeter
inch per year (in./yr)	2.54	centimeter per year
micrometer (μm)	39.37x10 ⁻⁶	inch
mile (mi)	1.609	kilometer
mile per hour	1.609	kilometer per hour
millidarcy (mD)	3.17x10 ⁻⁸	foot per second

Degree Celsius (°C) can be converted to degree Fahrenheit (°F) by using the following equation:

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F}-32).$$

The following terms and abbreviations also are used in this report:

- micrograms per liter (μg/L)
- microsiemens per centimeter at 25 degrees Celsius (μS/cm)
- milligrams per liter (mg/L)

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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ABSTRACT

Climatologic, soil-water, ground-water, geologic, surface-water, and water-quality data were collected at five sites at a surface coal mine in northwestern Colorado. The data were collected to help describe the hydrogeology and geochemistry of an area that is being surface mined for coal.

The study area was at the Seneca II Coal Mine. The Lennox coal and the Wadge coal are the major seams being mined. Confined aquifers in bedrock and unconfined aquifers in reclaimed spoil are present in the area. Springs are present at the toe of the reclaimed spoil slope.

Climatologic data were collected at two sites. Air temperature, relative humidity, solar radiation, windspeed, and wind duration were collected at one site. Precipitation was measured at three rain gages. Snow-course data were collected at three sites. Soil-water content and soil dry density were measured.

Eighteen wells in the confined aquifer and seven in the unconfined aquifer were installed at the study area. Geophysical and geologic logs were recorded for selected cored boreholes. Water levels were measured at the wells. Porosity, grain density, and permeability of selected core were estimated. Mineral composition also was determined.

Ground-water samples were collected for water-quality analysis. Spring discharge and water quality were measured for two springs. Water quantity and quality were measured for two lysimeters.

INTRODUCTION

During surface mining of coal, the vegetation and overburden are removed, the coal is mined, the overburden is replaced, and the surface is reclaimed. After mining, the reclaimed spoil undergoes weathering, settling, and compacting for an unknown period of time before reaching equilibrium. Full evaluation of this disturbed and changing system and understanding of reclaimed-spoil hydrogeologic processes is essential to regulatory agencies for support of leasing, permitting, and reclamation related to coal mining on Federal lands.

In 1986, the U.S. Geological Survey in cooperation with the U.S. Bureau of Land Management and the Colorado Department of Natural Resources, Mined Land Reclamation Division, began a study to determine the processes controlling the hydrology of reclaimed coal spoils at a surface coal mine in northwestern Colorado. However, in order to evaluate this disturbed and changing system, climatologic, soil-water, ground-water, geologic, surface-water, and water-quality data needed to be collected and compiled to aid researchers, regulators, and land managers in conceptualizing the hydrology of potential coal-spoil sites.

Purpose and Scope

This report lists climatologic, soil-water, ground-water, geologic, surface-water, and water-quality data collected at five sites as part of a study to evaluate the hydrology and geochemistry of a surface coal mine in northwestern Colorado. Monitoring equipment and instrumentation were installed in the summer of 1987. Data were collected during 1988 and 1989. The monitoring equipment and instrumentation were placed on undisturbed areas and reclaimed spoil areas. Reclaimed spoil, as described in this report, is material that has been excavated from a mine pit and then has been replaced, regraded, topsoiled, and revegetated.

The study area was at the Seneca II Coal Mine. The mine is divided approximately in half by an anticline. The Lennox coal and the Wadge coal are the major seams being mined. Confined aquifers in bedrock and unconfined aquifers in reclaimed spoil are present in the area. Springs are present at the toe of the reclaimed spoil slope.

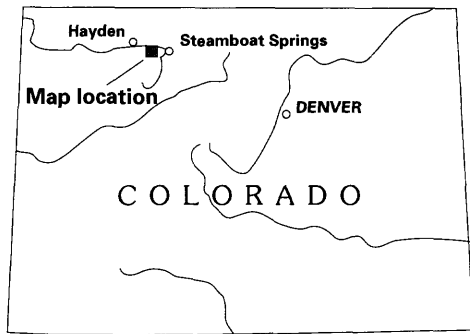
Air temperature, relative humidity, solar radiation, windspeed, and wind duration were collected at one site. Precipitation was measured at three rain gages. Snow-course data were collected at three sites.

Lysimeters were installed at two sites, and water quantity and quality were measured. Soil-water content was measured using soil-water access tubes and a neutron probe. Soil dry density was measured once with a density probe.

Eighteen wells in the confined aquifer and seven wells in the unconfined aquifer were installed. Geophysical and geologic logs were recorded for selected cored boreholes. Water levels were measured at the wells. Porosity, grain density, and permeability of selected core were estimated. Mineral composition also was determined. Ground-water samples were collected for water-quality analysis. Two springs that flowed from the reclaimed spoil were monitored, and discharge and water quality were measured.

Description of Study Area

The study area is located at the Seneca II Coal Mine in northwestern Colorado (fig. 1). The site is about 20 mi west and 5 mi south of Steamboat Springs, Colorado. The area is shown on the U.S. Geological Survey topographic maps of the Milner and Mount Harris quadrangles (fig. 2). The area ranges in altitude from about 6,800 to 8,000 ft. The vegetation primarily is sagebrush and grasses with scattered stands of scrub oak, serviceberry, and



EXPLANATION

↕ AXIS OF ANTICLINE--Showing direction of plunge (from Tweto, 1976)

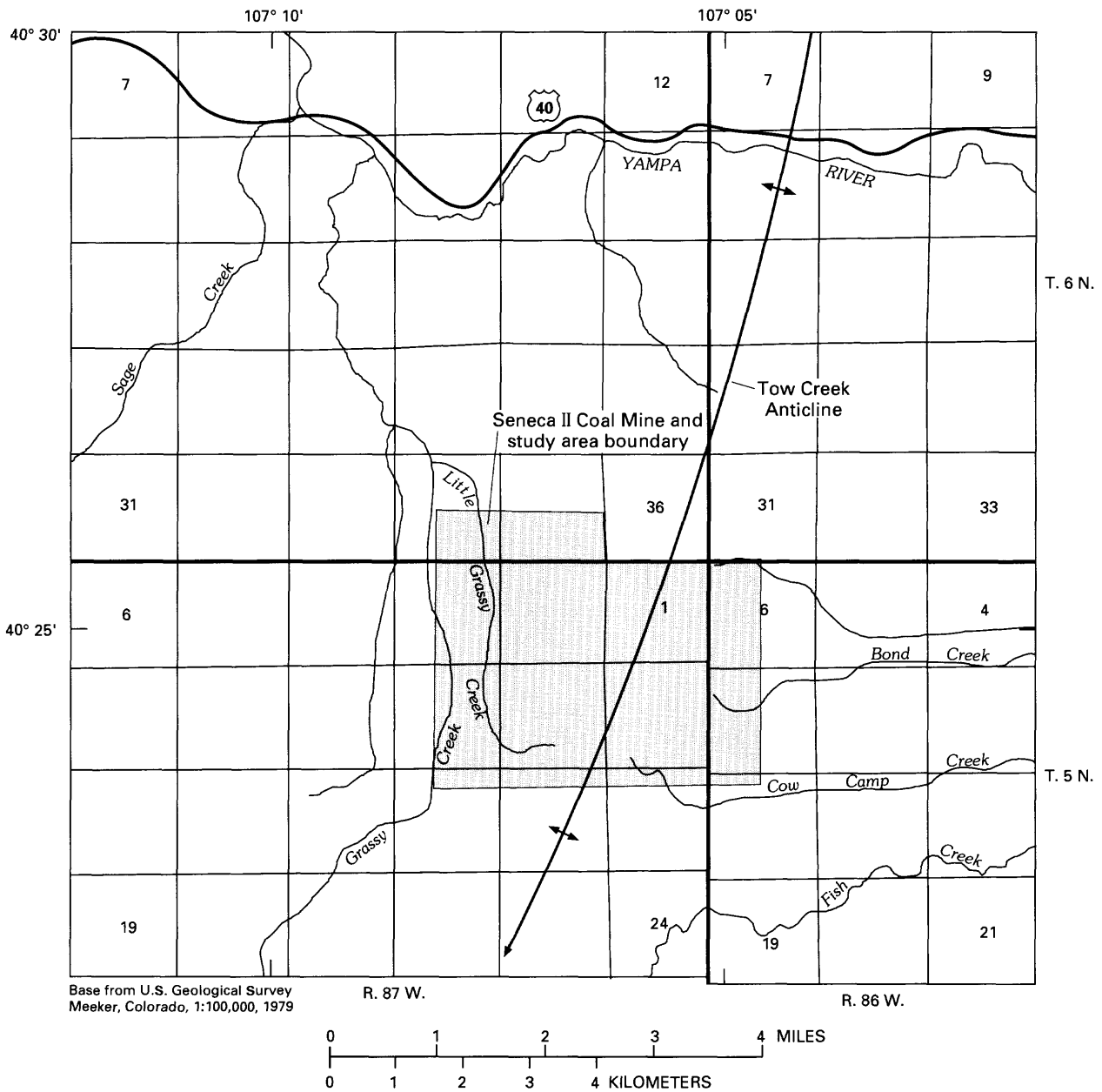


Figure 1.--Location of the study area (modified from Clark and Williams, 1990).

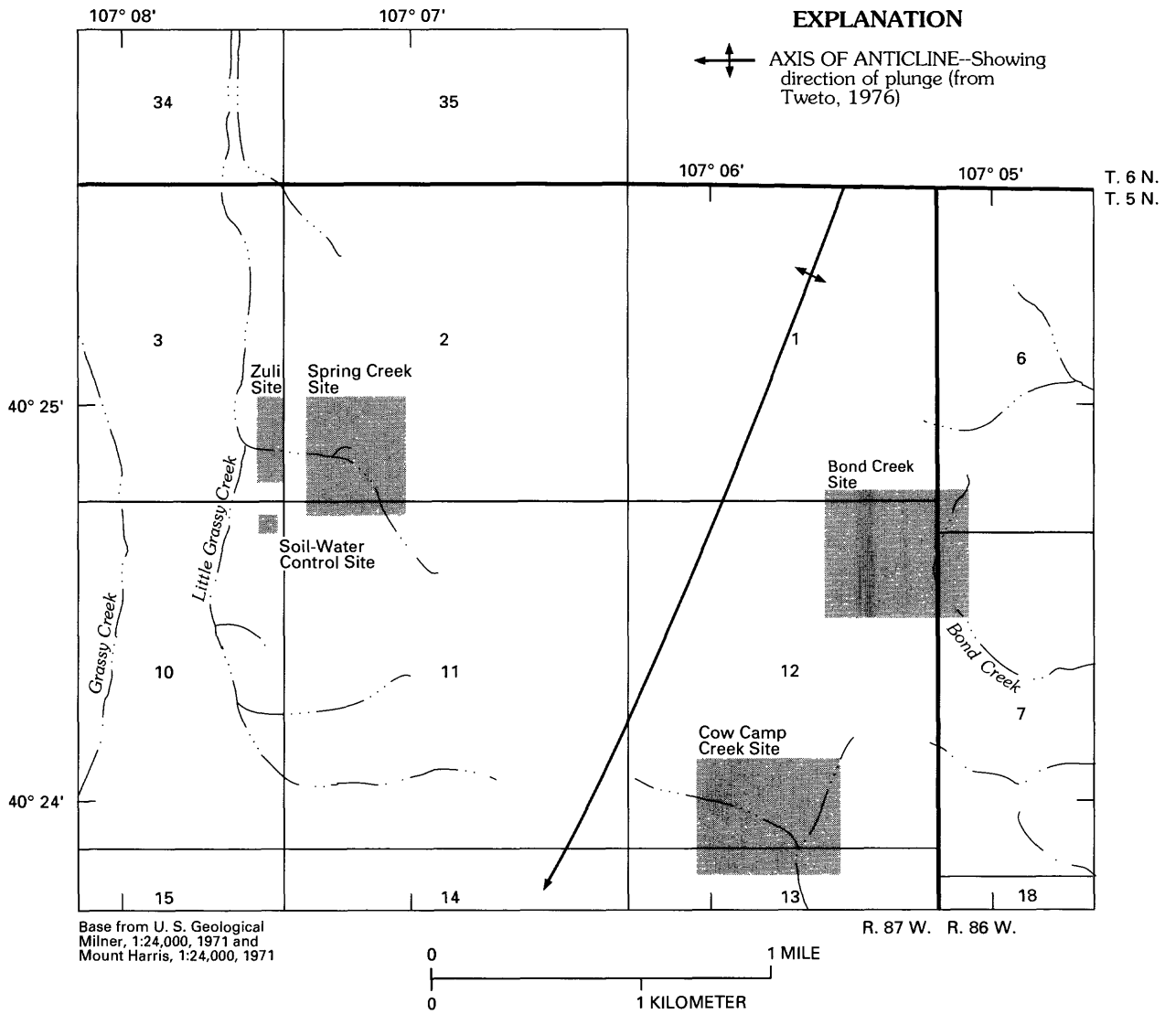


Figure 2.--Study area and data-collection sites.

aspen. Average yearly rainfall for the area is 16 in. (ENMAP Corporation, 1981). Warm days and cool nights characterize the summer; winter is relatively cold. The average date of the first killing frost is September 14, and the average date of the last killing frost is June 10.

A prominent feature in the study area is the Tow Creek anticline, a northeastward-trending asymmetrical fold (Bass and others, 1955) (fig. 1). The axis of the anticline extends through the central part of the mine. Rocks east of the axis of the anticline dip to the east, and rocks west of the axis dip to the west (Bass and others, 1955) (fig. 1). The eastern part of the area is drained by Bond Creek, Cow Camp Creek, and other unnamed streams that are tributary to Fish Creek. The western part of the area is drained by Little Grassy Creek, which is tributary to Grassy Creek. In the southern part of the study area at the plunging, southern tip of the anticline, rocks dip to the south (Bass and others, 1955) (fig. 1). The coal seams of interest in this study are the Lennox and the Wadge (fig. 3) of the Williams Fork Formation of Cretaceous age.

Unconfined aquifers develop in the reclaimed spoil during and following mining (fig. 4). The aquifers generally are at the toe of the slope at the location of the mine pit low wall. A spring(s) will form when the water level rises above the reclaimed spoil surface.

Acknowledgments

Personnel from the Peabody Coal Company at the Flagstaff, Arizona, headquarters office and at the Seneca II Coal Mine supplied technical information and machinery throughout the study. Bulldozers and backhoes were provided during well construction, roads were snowplowed and graded as needed, and wells were surveyed and mapped at all sites. This work and logistical assistance was a significant contribution to the completion of the investigation and is appreciated.

SAMPLING-SITE LOCATIONS AND DATA-COLLECTION INFORMATION

Data were collected at five sites in the study area. The sites are Spring Creek (figs. 2 and 5), Cow Camp Creek (figs. 2 and 6), Zuli (figs. 2 and 5), Bond Creek (figs. 2 and 7), and soil-water control site (fig. 2).

Climatologic information was monitored at one climate station (fig. 5) and three weighing-bucket precipitation gages (figs. 5 and 6). Air temperature and relative humidity were measured using a ¹Campbell Scientific 201 sensor (table 1; tables 1-27 are in the "Data" section at the back of the report). Incoming short wave solar radiation was measured with an Eppley PSP (precision spectral pyranometer) radiometer (table 1). Windspeed, wind vector, wind run, and wind duration were measured using a MET ONE anemometer and a MET ONE wind vane (tables 2 and 3). All sensors were measured every 10 seconds and were averaged daily by a Campbell Scientific data logger.

¹The use of trade or product names in this report is for identification purposes only, and does not constitute endorsement by the U.S. Geological Survey.

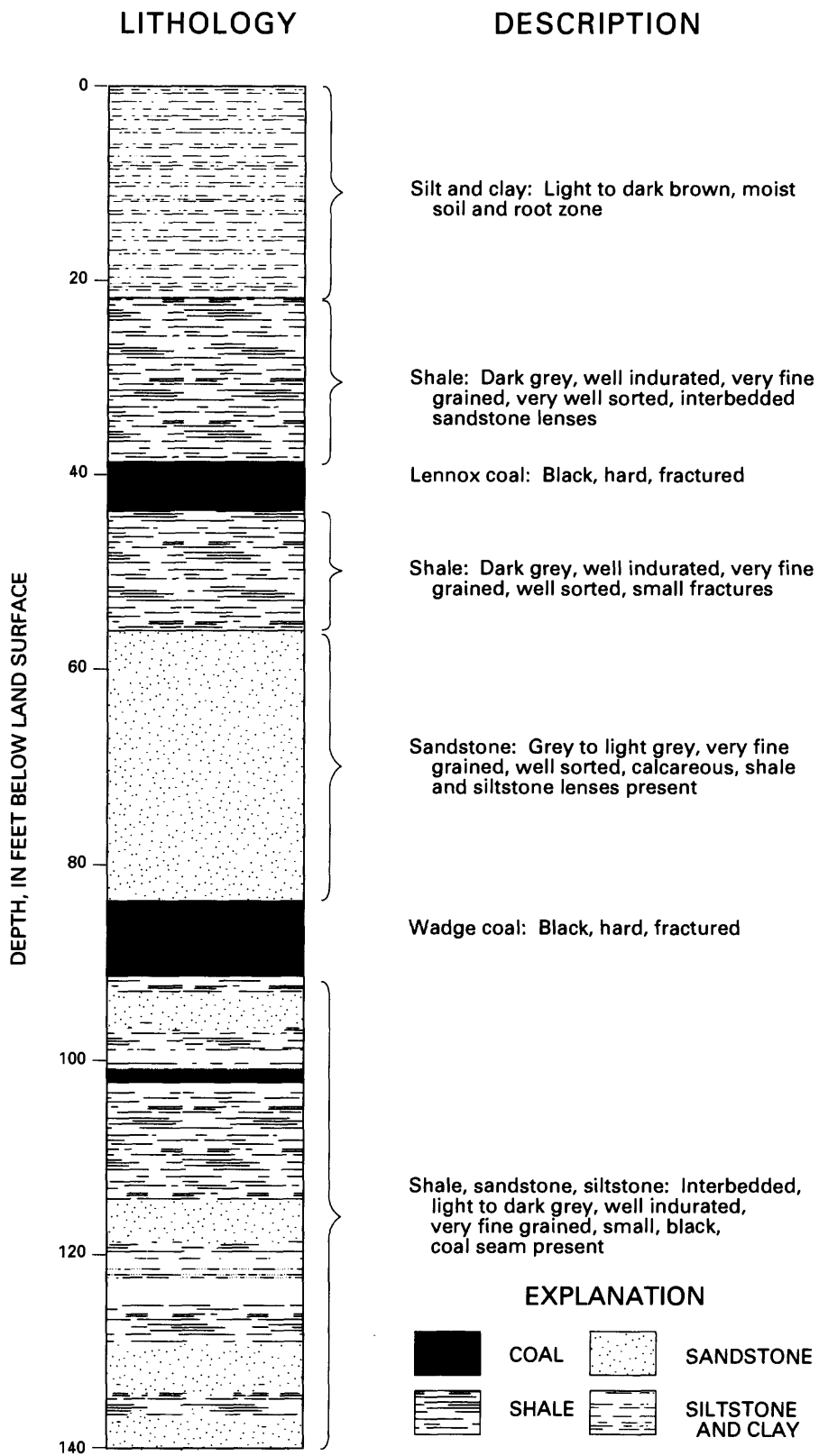


Figure 3.--General lithologic log for a typical well in the study area.

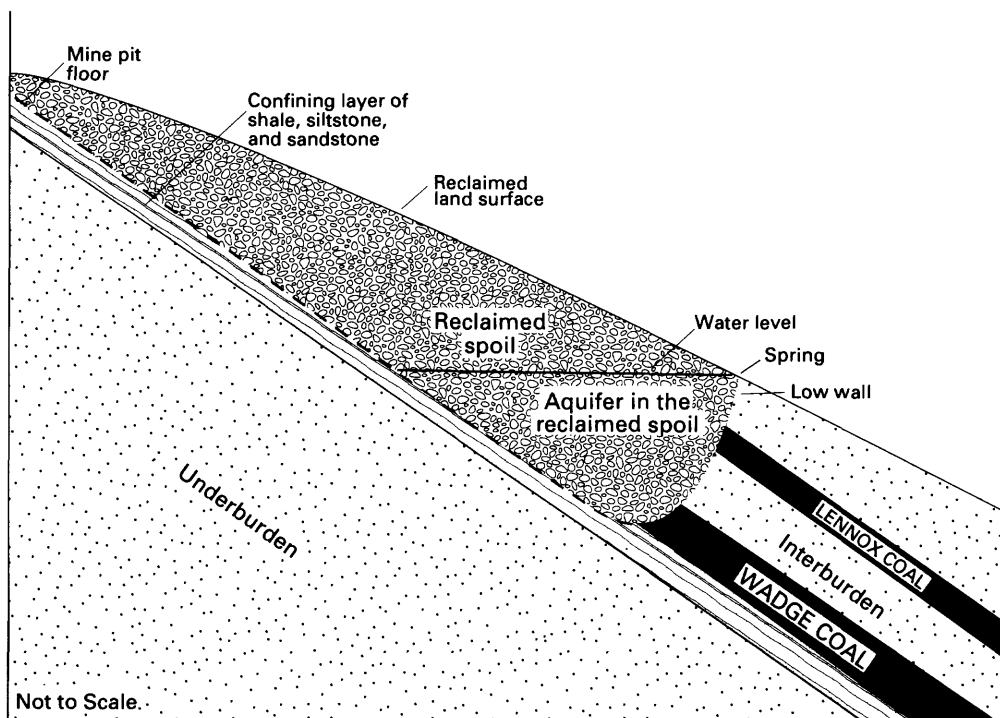


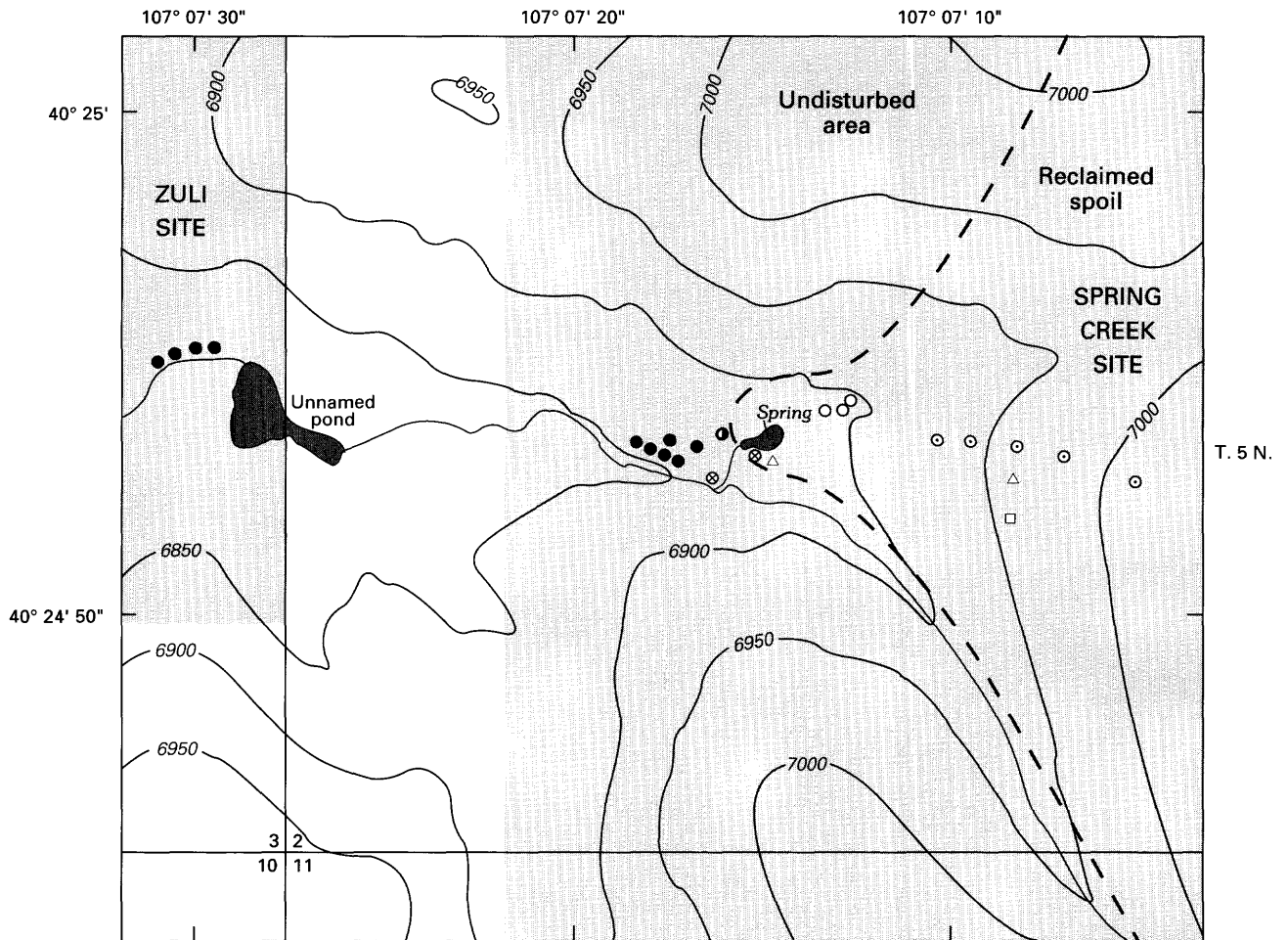
Figure 4.--Schematic diagram showing hydrogeology of reclaimed spoil and bedrock at the study area (modified from Clark and Williams, 1990).

Precipitation was recorded using three weighing type precipitation gages (table 1). Snow courses were run monthly at three sites when snowpack was present (table 4). Snow tubes were used to measure snow depth and snow water content.

Water was collected from lysimeters at the Spring Creek site (figs. 2 and 5) and the Cow Camp Creek site (figs. 2 and 6). A schematic diagram of a lysimeter and soil-water access tube is shown in figure 8.

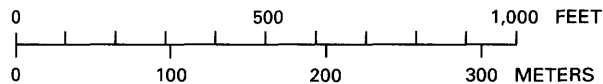
Soil-water access tubes were installed at the Spring Creek (figs. 2 and 5), Cow Camp Creek (figs. 2 and 6), and soil-water control sites (fig. 2). Soil-water content was measured using a neutron probe (tables 5 to 7). Soil dry density was measured once on May 11, 1989, using a density probe (table 8).

Wells are located at four sites at the study area. Two sites, Spring Creek (figs. 2 and 5) and Cow Camp Creek (figs. 2 and 6), have some wells completed in bedrock and some in reclaimed spoil. Two other sites, Zuli (figs. 2 and 5) and Bond Creek (figs. 2 and 7), have wells completed only in the bedrock. A typical bedrock well completion is shown in figure 9. The Zuli site is downdip from the Spring Creek site. The Bond Creek site was being mined during the period of data collection. The mine pit is the area of active mining, and the spoil ridge is the unreclaimed spoil area (fig. 7).



Base from Seneca II Mine
 Recontour map based on
 May, 1988 aerial photography

R. 87 W.

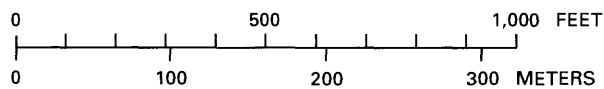
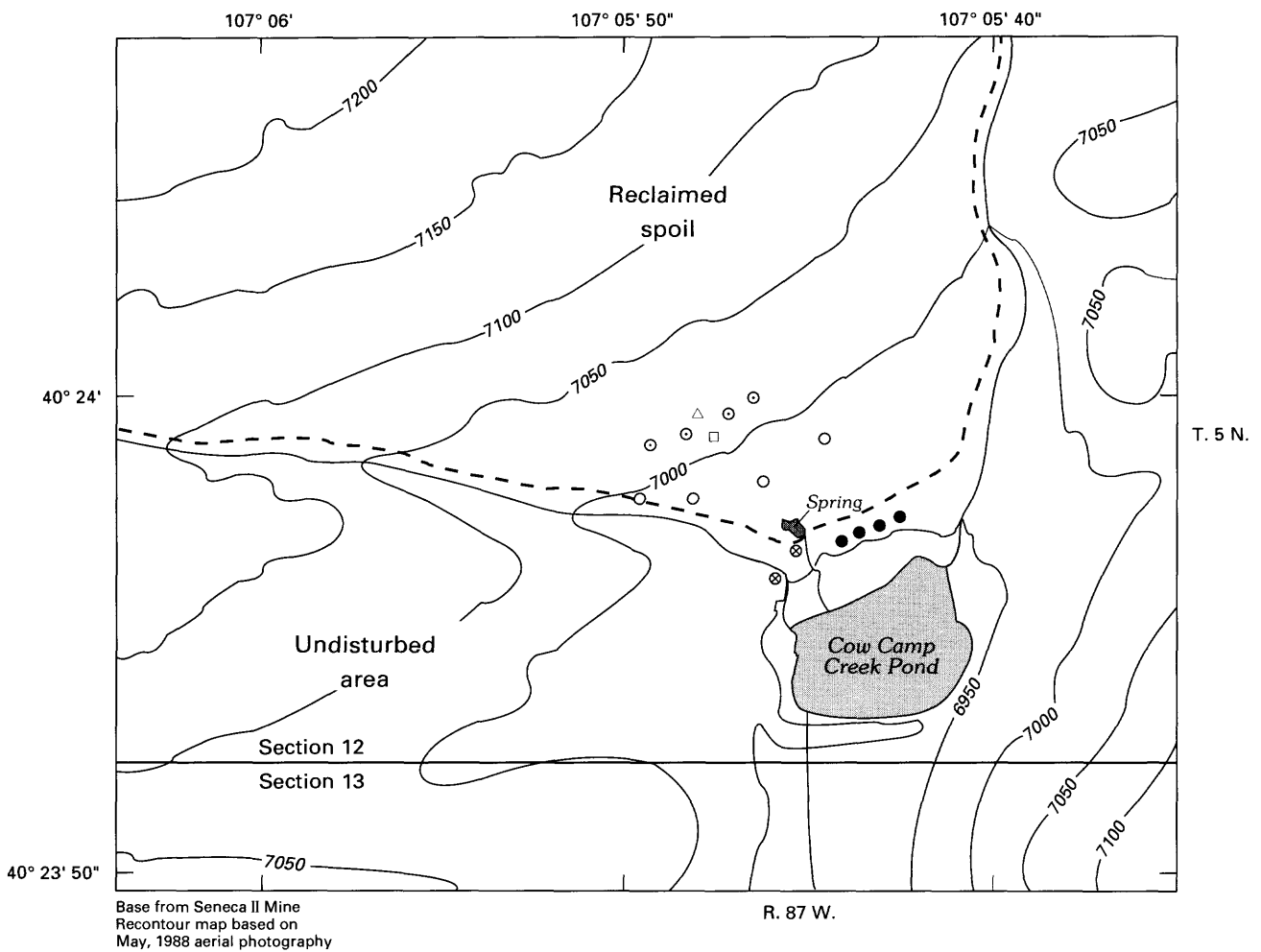


Contour interval 50 feet
 National Geodetic Vertical Datum of 1929

EXPLANATION

- WELL COMPLETED IN BEDROCK
- WELL COMPLETED IN RECLAIMED SPOIL
- - - APPROXIMATE BOUNDARY OF RECLAIMED SPOIL
- STUDY SITES
- LYSIMETER AND SOIL-WATER ACCESS TUBE
- △ WEIGHING-BUCKET PRECIPITATION GAGE
- SOIL-WATER ACCESS TUBE
- ⊗ SURFACE-WATER GAGE
- CLIMATE STATION

Figure 5.--Data-collection points and instrumentation at the Spring Creek and Zuli sites.

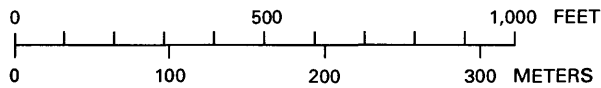
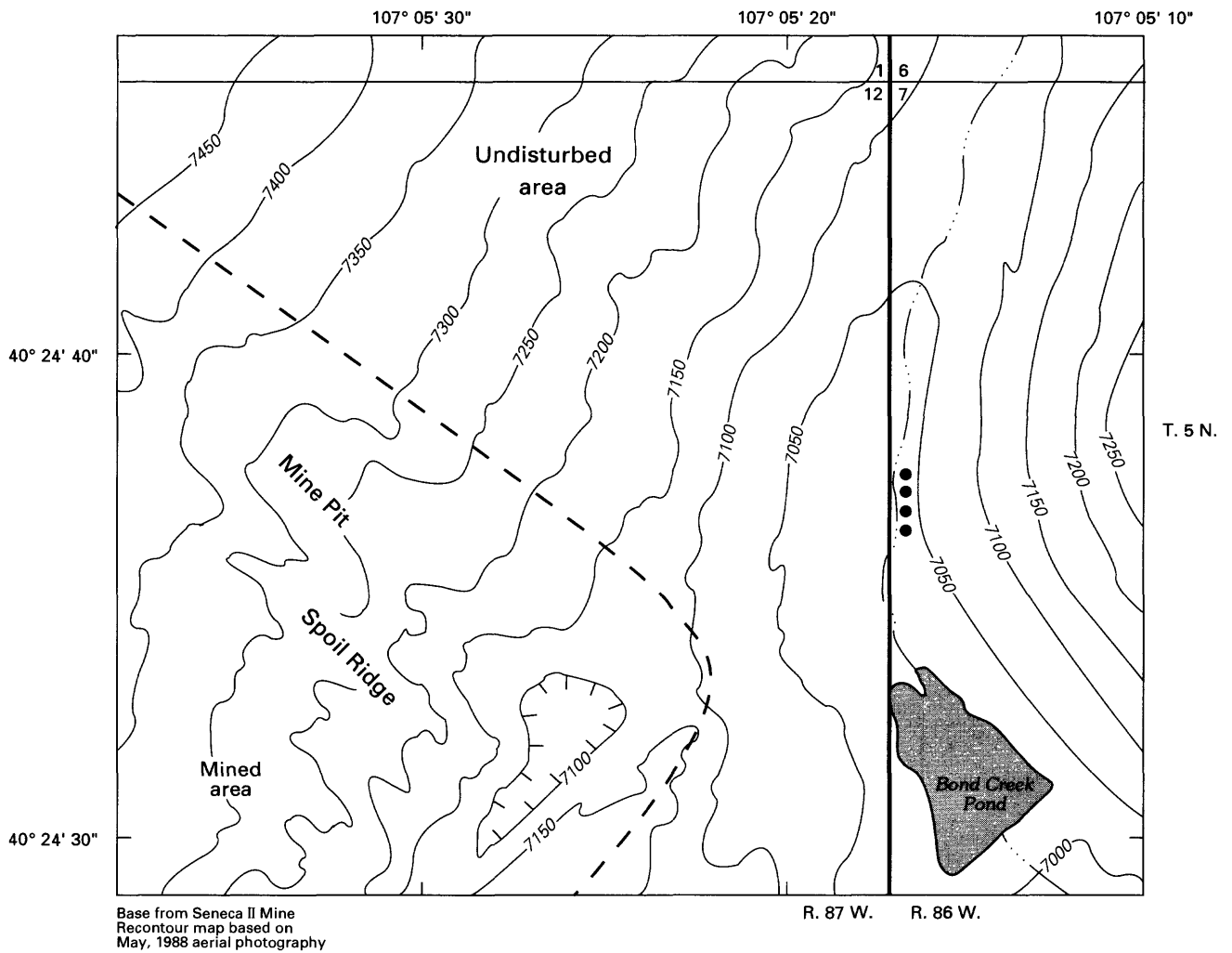


Contour interval 50 feet
National Geodetic Vertical Datum of 1929

EXPLANATION

- WELL COMPLETED IN BEDROCK
- WELL COMPLETED IN RECLAIMED SPOIL
- - - APPROXIMATE BOUNDARY OF RECLAIMED SPOIL
- LYSIMETER AND SOIL-WATER ACCESS TUBE
- △ WEIGHING-BUCKET PRECIPITATION GAGE
- ⊙ SOIL-WATER ACCESS TUBE
- ⊗ SURFACE-WATER GAGE

Figure 6.--Data-collection points and instrumentation at the Cow Camp Creek site.

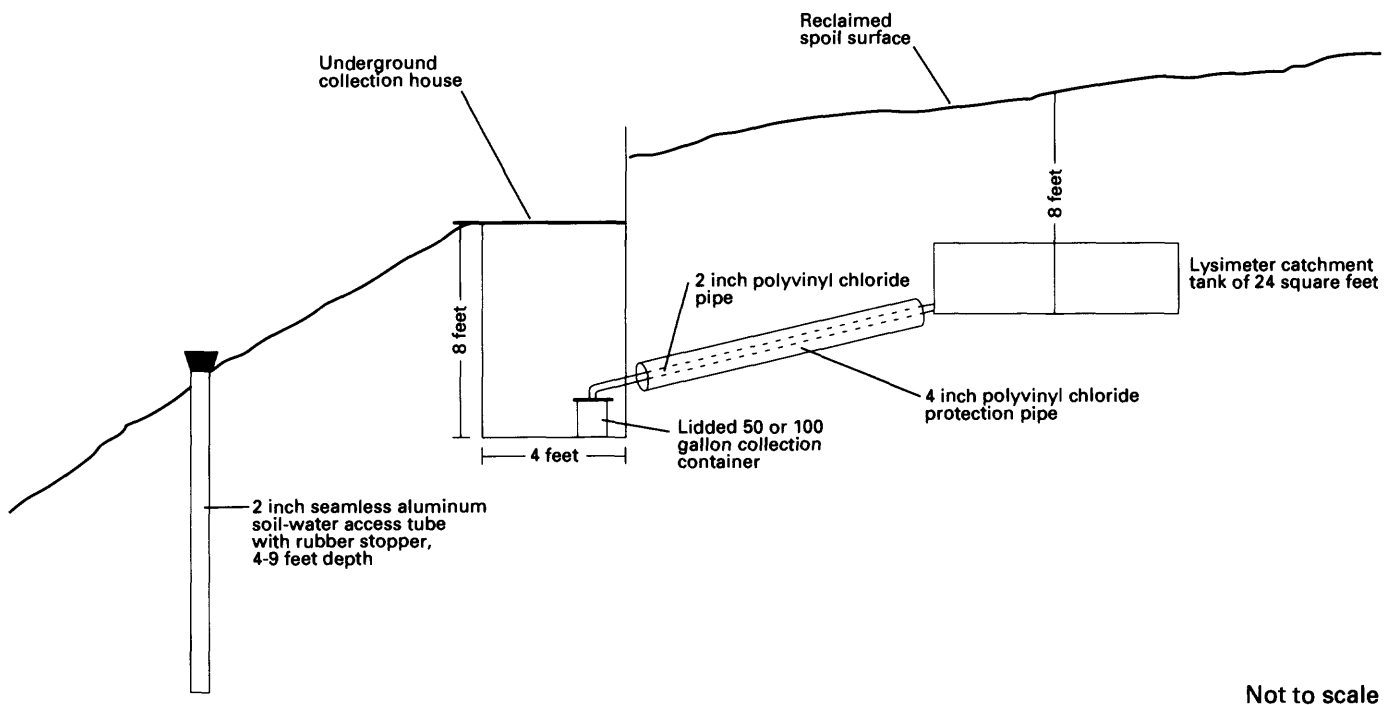


Contour interval 50 feet
National Geodetic Vertical Datum of 1929

EXPLANATION

- WELL COMPLETED IN BEDROCK
- - - APPROXIMATE BOUNDARY OF RECLAIMED SPOIL

Figure 7.--Data-collection points and instrumentation at the Bond Creek site.



Not to scale

Figure 8.--Schematic diagram of a lysimeter and a soil-water access tube in the reclaimed spoil.

Eighteen bedrock wells are installed in the study area. At four sites within the study area, a bedrock well is completed in the Lennox coal, the interburden (bedrock zone between the Lennox coal and the Wadge coal), the Wadge coal, and the underburden (bedrock zone below the Wadge coal). In addition, two bedrock wells (SSU287 and SSD487, table 9) are completed deeper in the underburden at the Spring Creek site, each in separate aquifers.

Seven wells were installed in reclaimed spoil in the study area. Three reclaimed spoil wells are at the Spring Creek site (fig. 5) and four reclaimed spoil wells are at the Cow Camp Creek site (fig. 6).

Locations and names of wells (bedrock and reclaimed spoil wells) are listed in table 9. Well depths and intervals and zones of completion also are listed in table 9. Information about geophysical and lithologic logs is listed in table 10 and shown in figures 10 through 13. Water levels at the bedrock wells were measured with a pressure gage if the hydraulic head was above the top of the well casing and with a steel tape if the water level was below the top of the well casing during site visits (table 11). Hydrographs showing hydraulic head for the bedrock wells are shown in figures 14 to 17. All of the bedrock aquifers in which wells were completed during this study were under confined conditions. Hydraulic head in all of these bedrock wells was above land surface. Water levels in the reclaimed spoil wells were measured with a steel tape (table 12). Hydrographs for the reclaimed spoil wells are shown in figures 18 and 19. Hydrographs for the reclaimed spoil wells equipped with continuous recorders are shown in figures 20 and 21. Mean daily water levels for the reclaimed spoil wells equipped with continuous recorders are listed in tables 13 and 14.

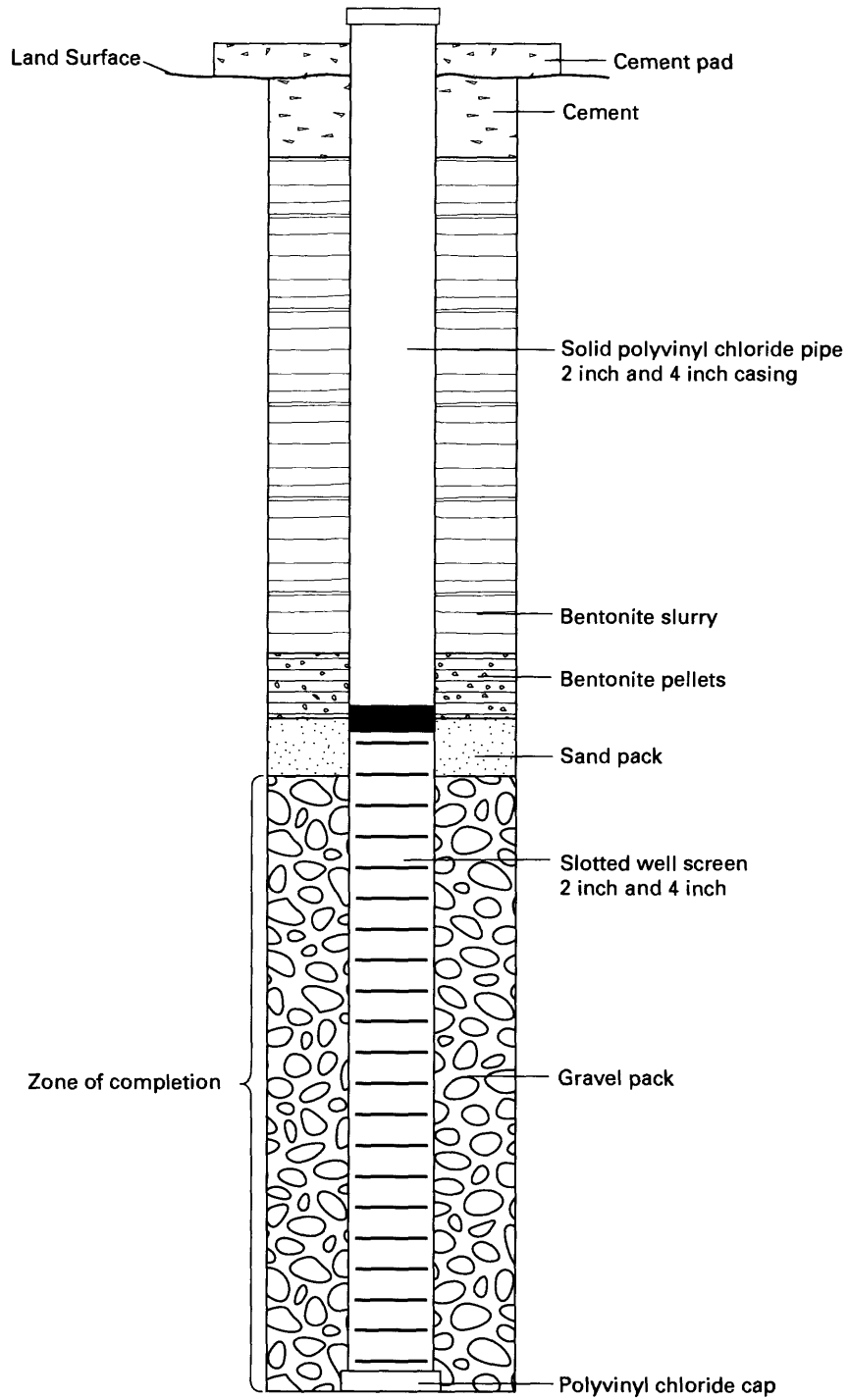


Figure 9.--Typical bedrock well completion.

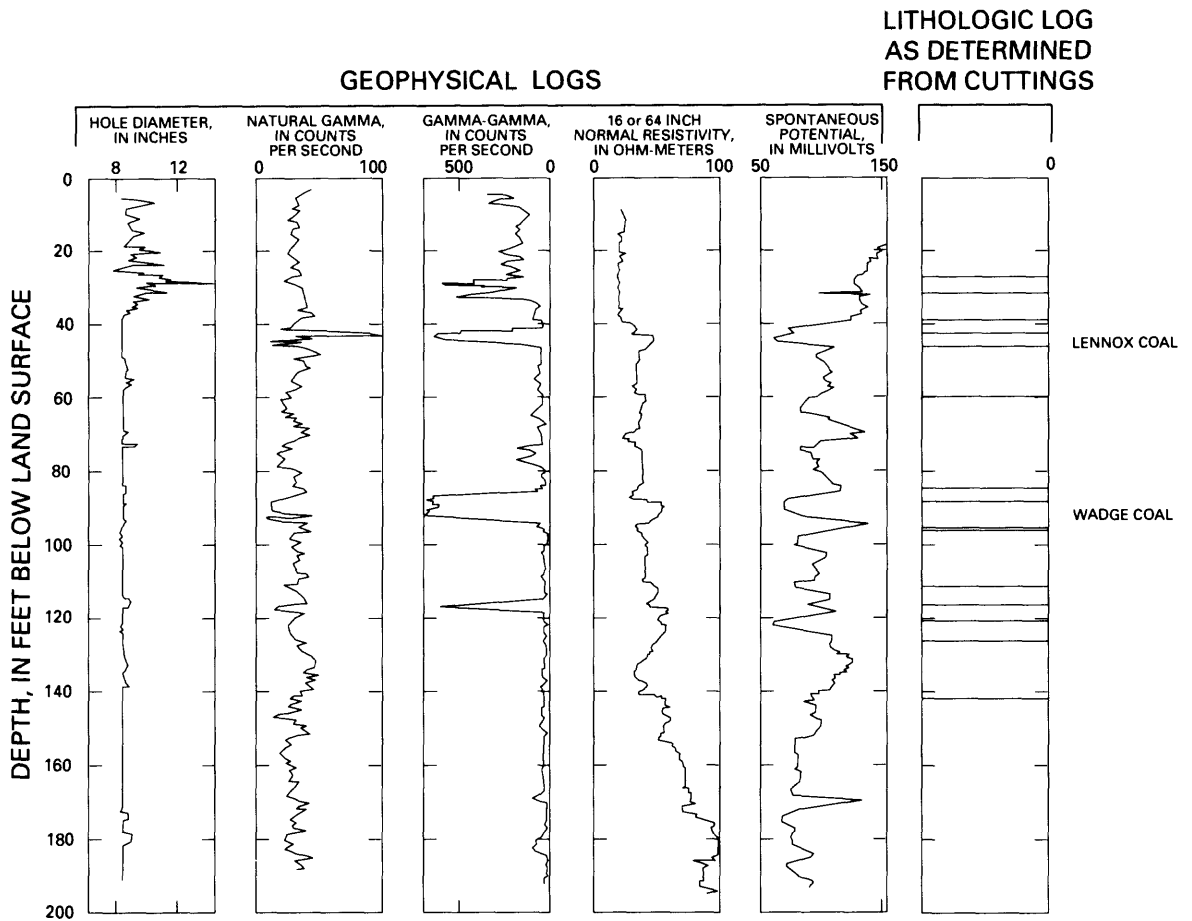


Figure 10.--Geophysical and lithologic logs for well SSD487 at the Spring Creek site.

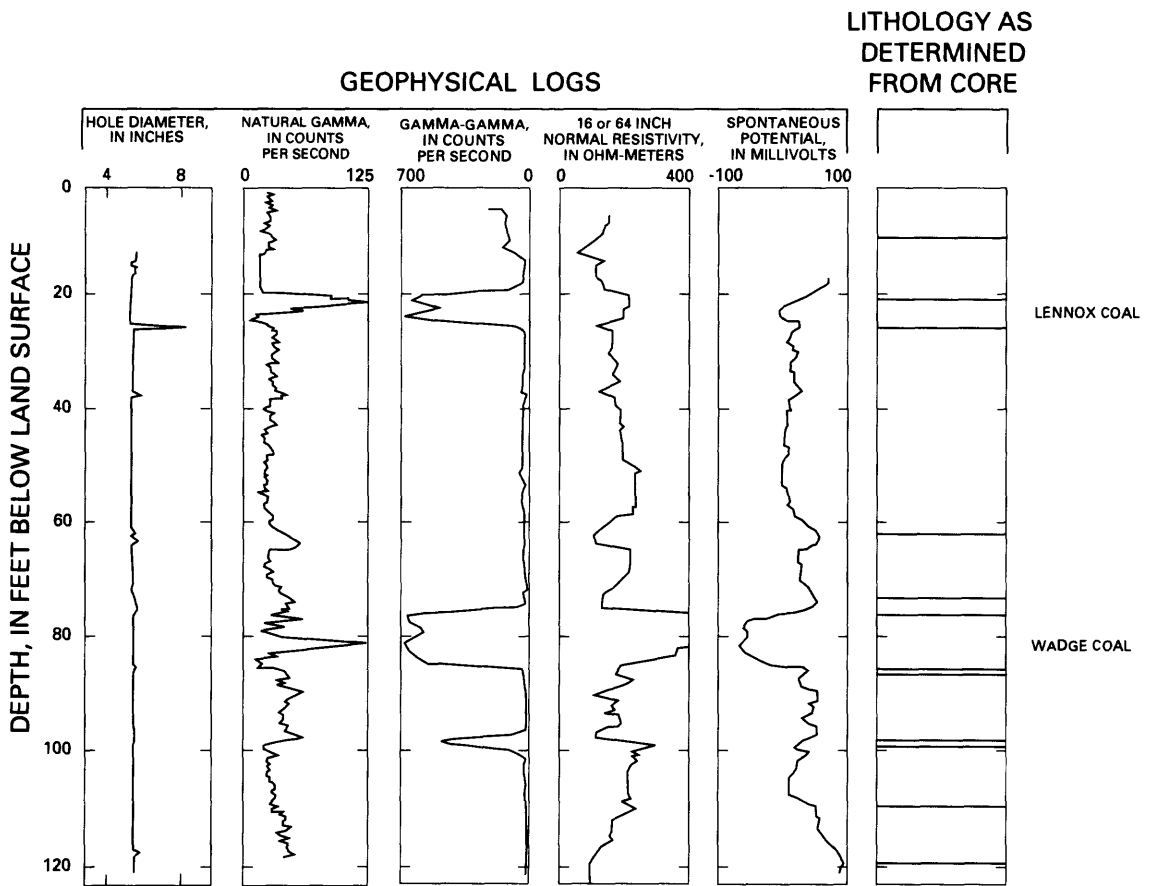


Figure 11.--Geophysical and lithologic logs for well SCU287 at the Cow Camp Creek site.

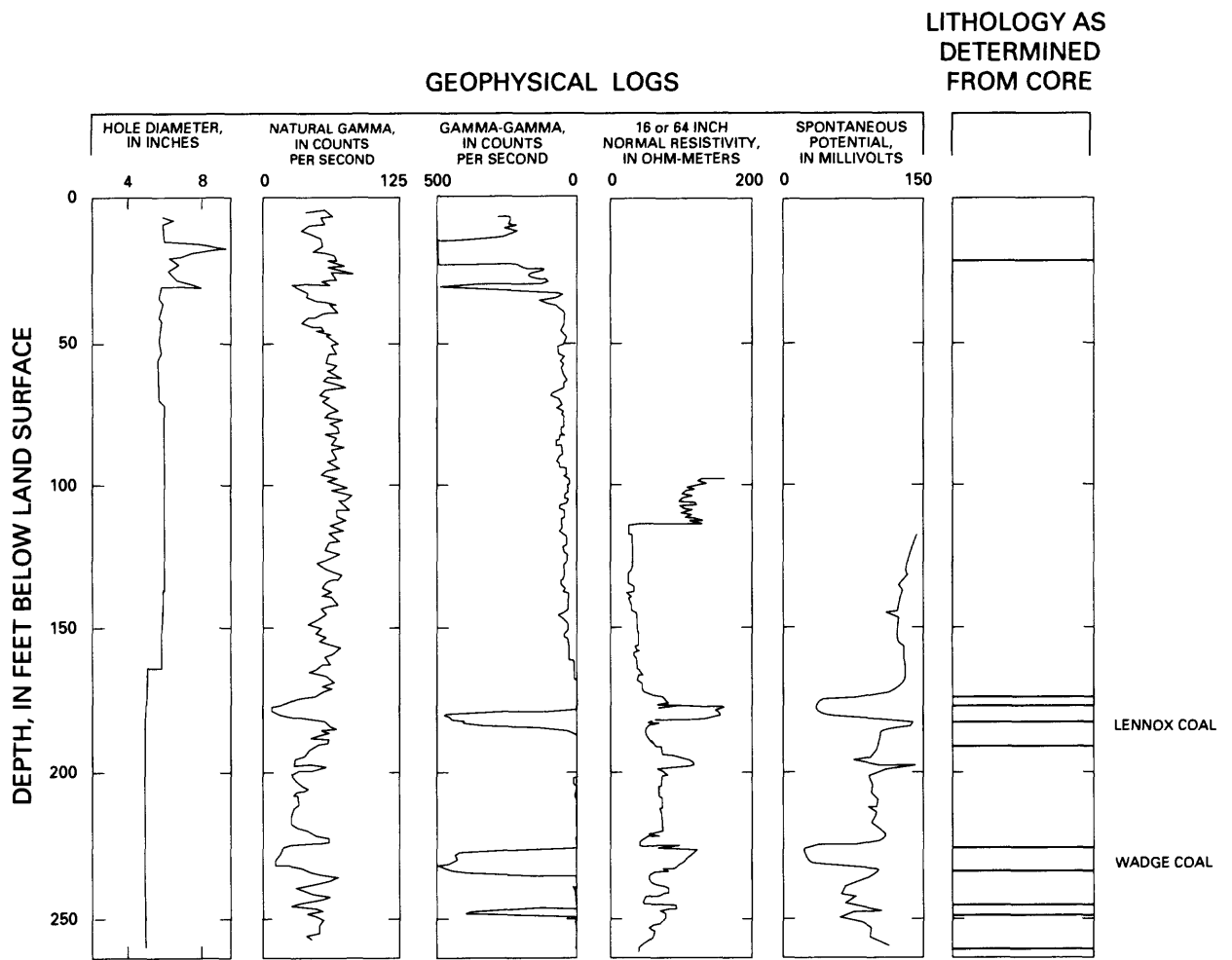


Figure 12.--Geophysical and lithologic logs for well SZU287 at the Zuli site.

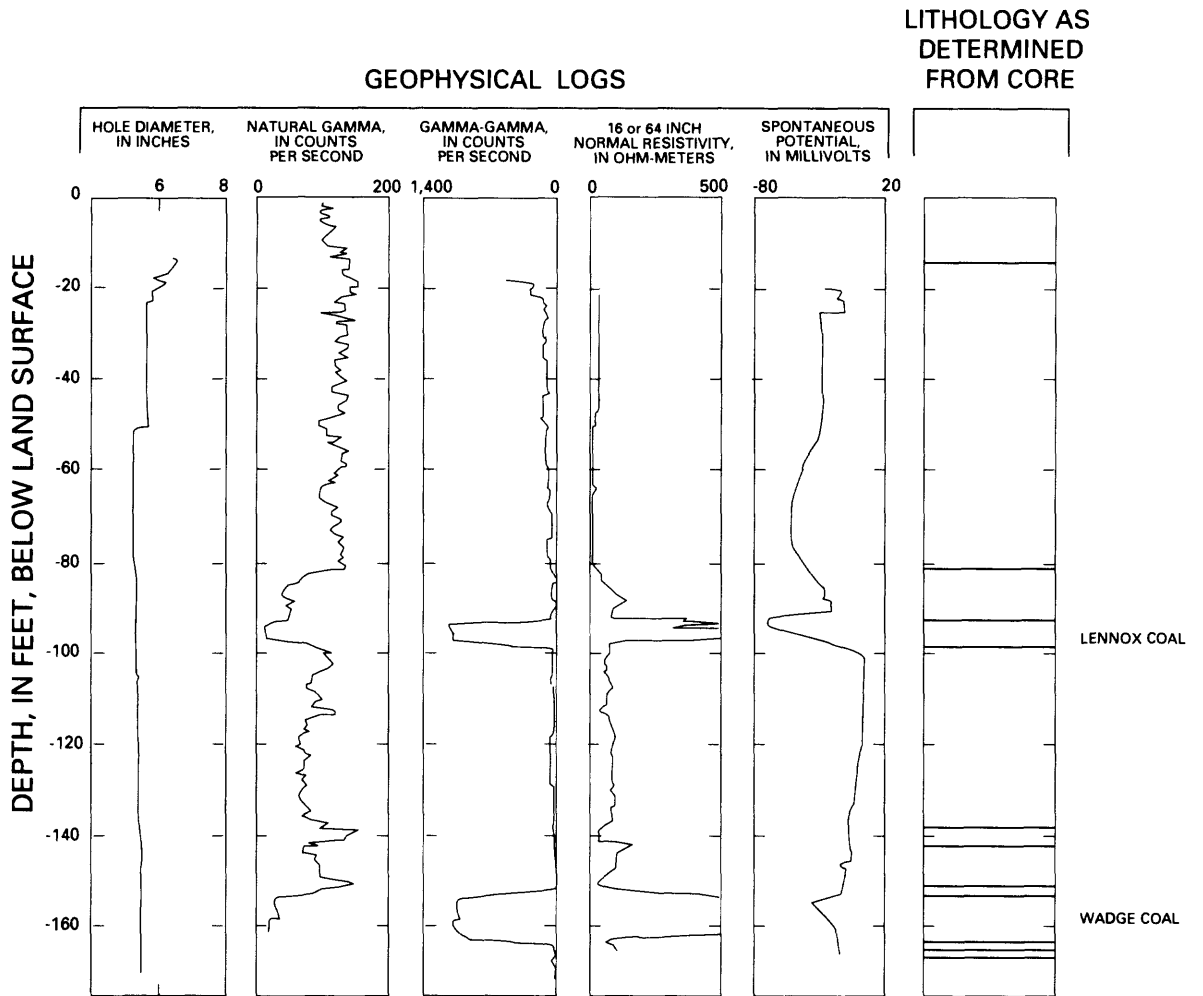


Figure 13.--Geophysical and lithologic logs for well SBU287 at the Bond Creek site.

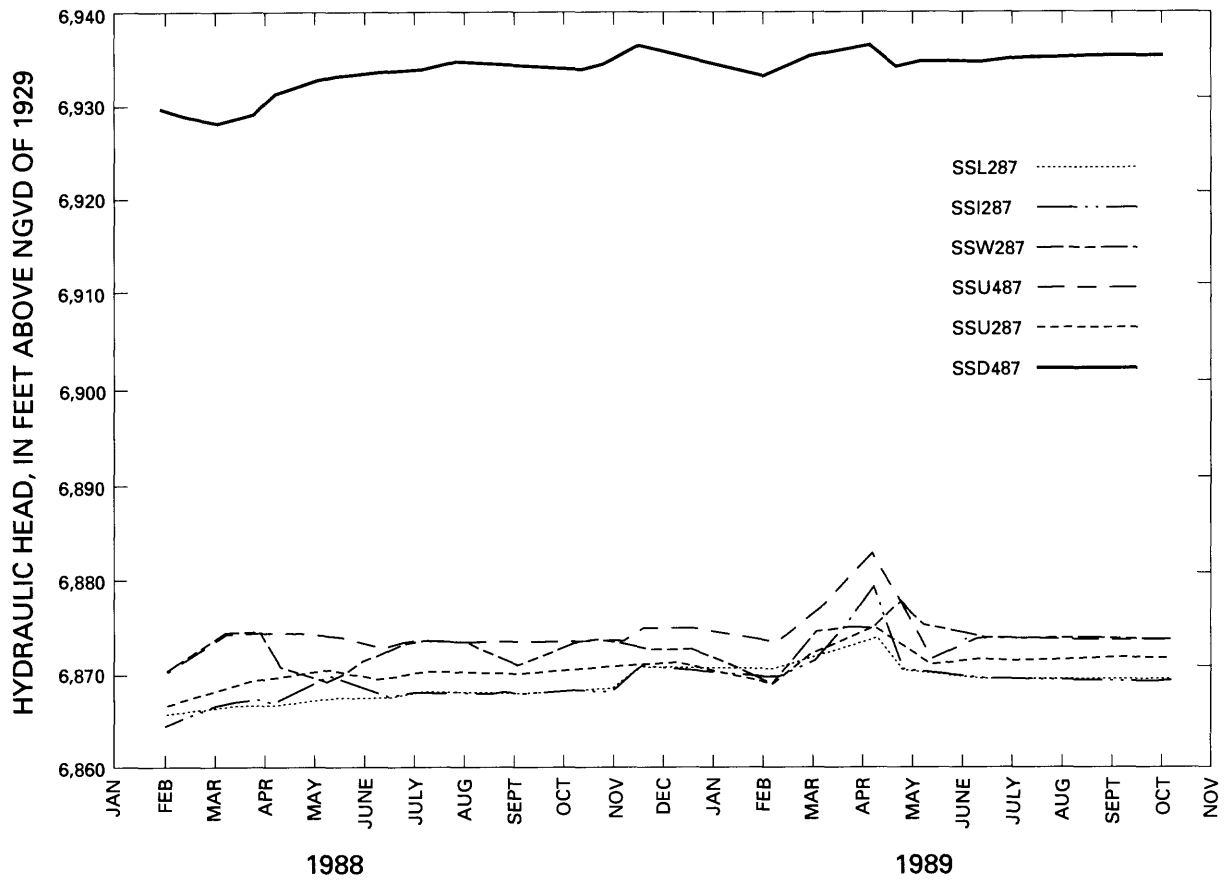


Figure 14.--Hydraulic head for bedrock wells at the Spring Creek site.

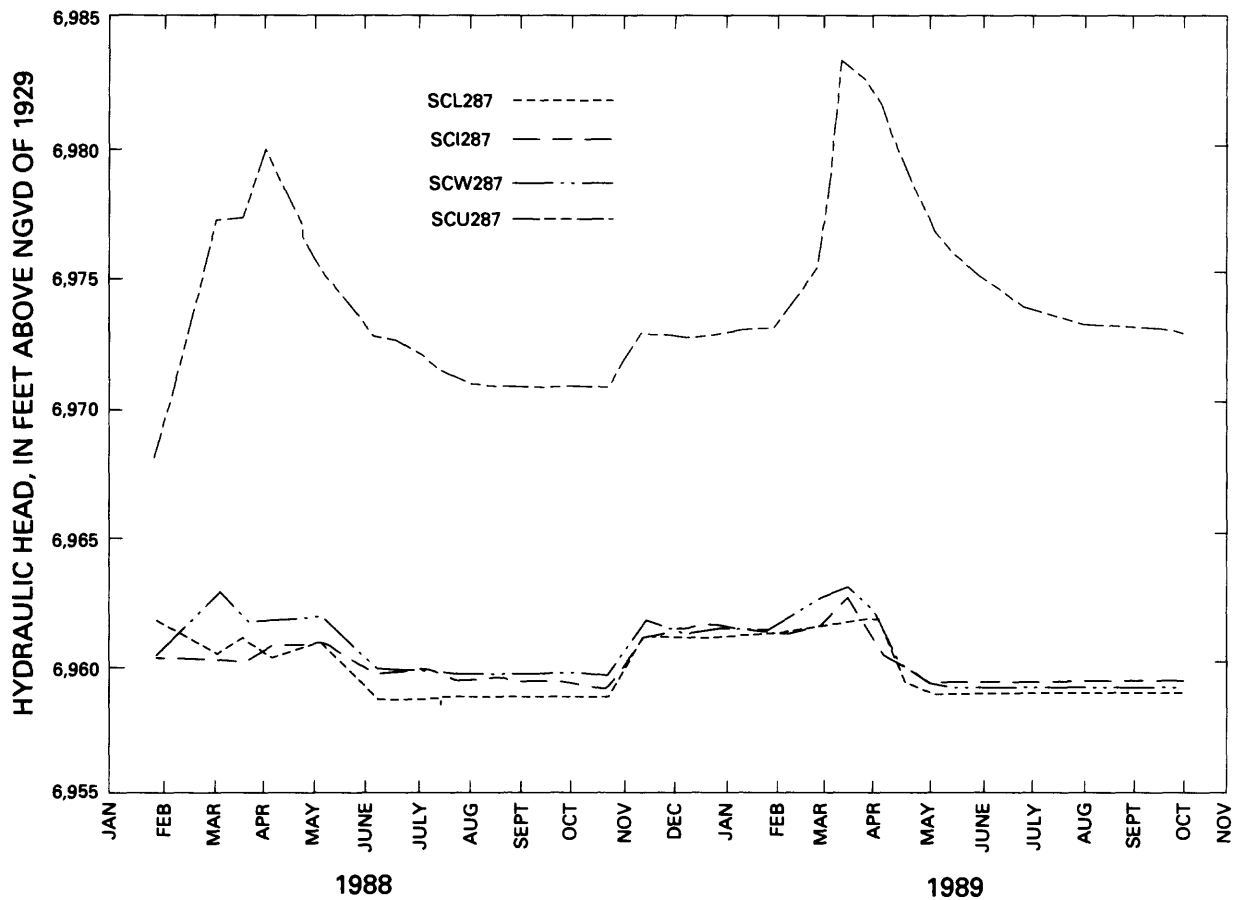


Figure 15.--Hydraulic head for bedrock wells at the Cow Camp Creek site.

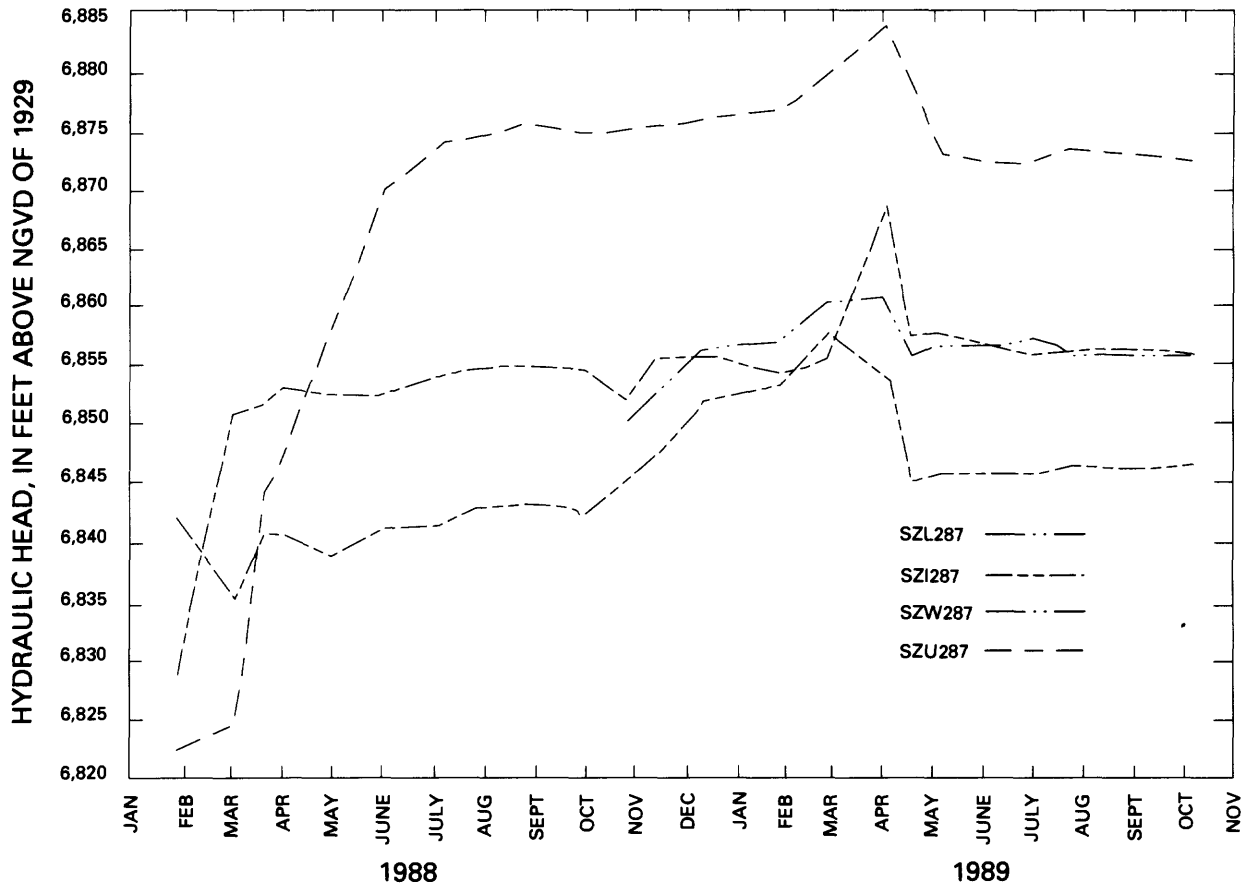


Figure 16.--Hydraulic head for bedrock wells at the Zuli site.

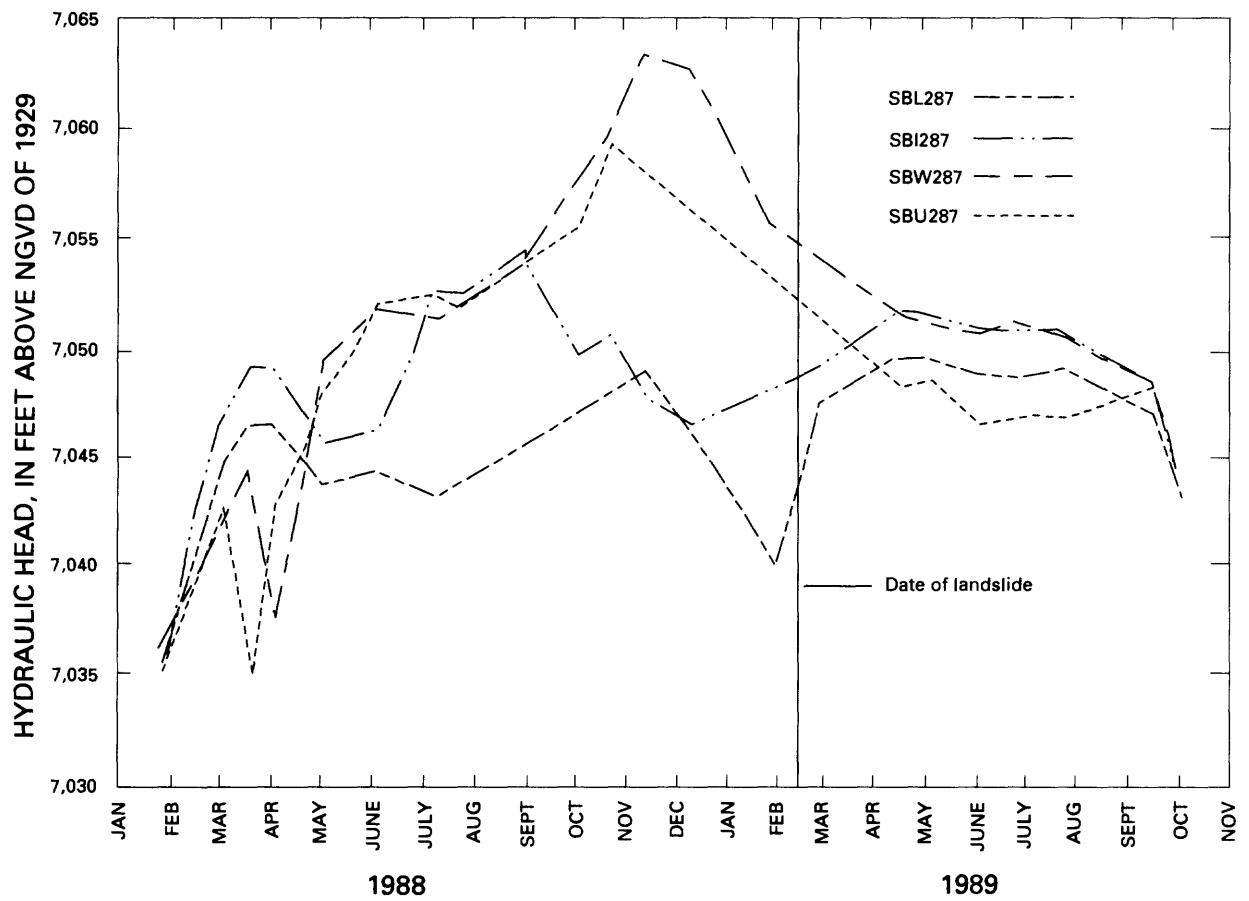


Figure 17.--Hydraulic head for bedrock wells at the Bond Creek site.

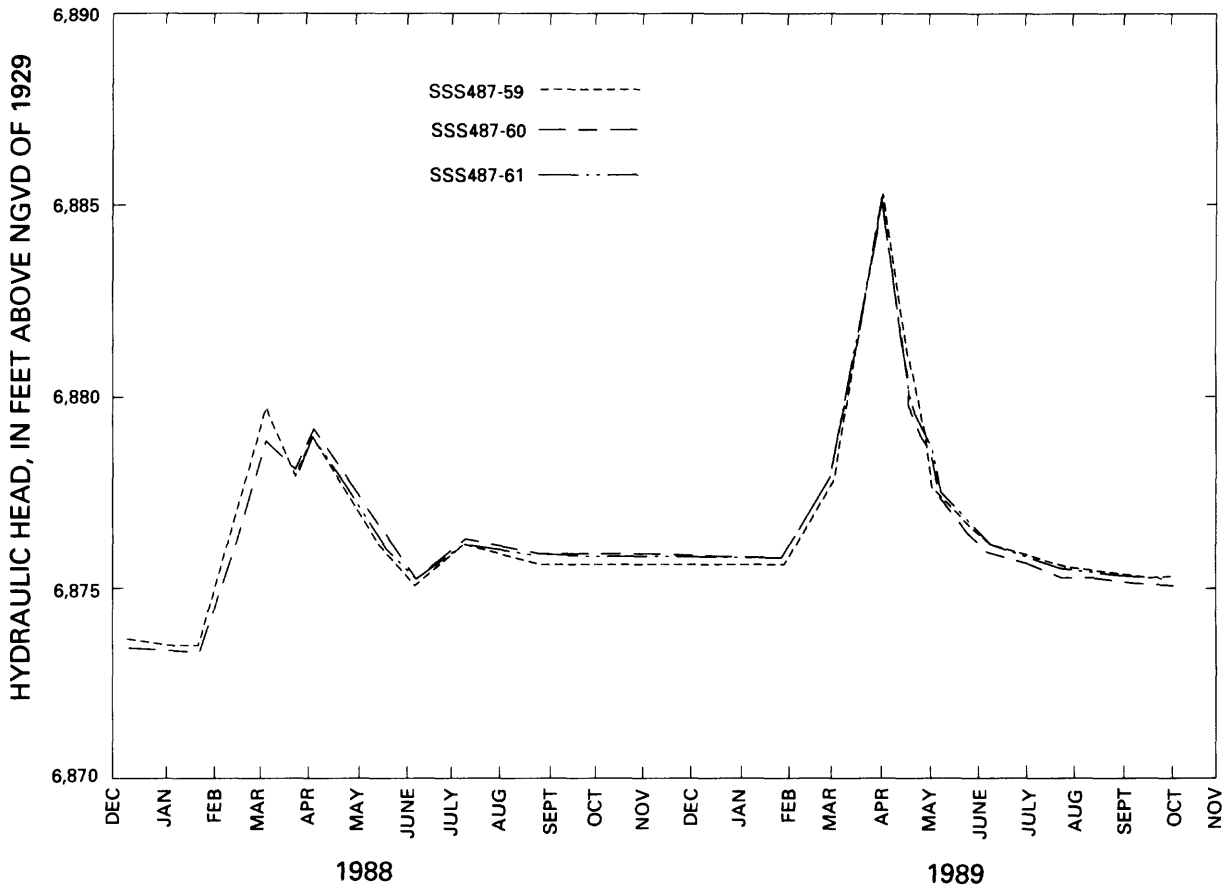


Figure 18.--Water levels for reclaimed-spoil wells at the Spring Creek site.

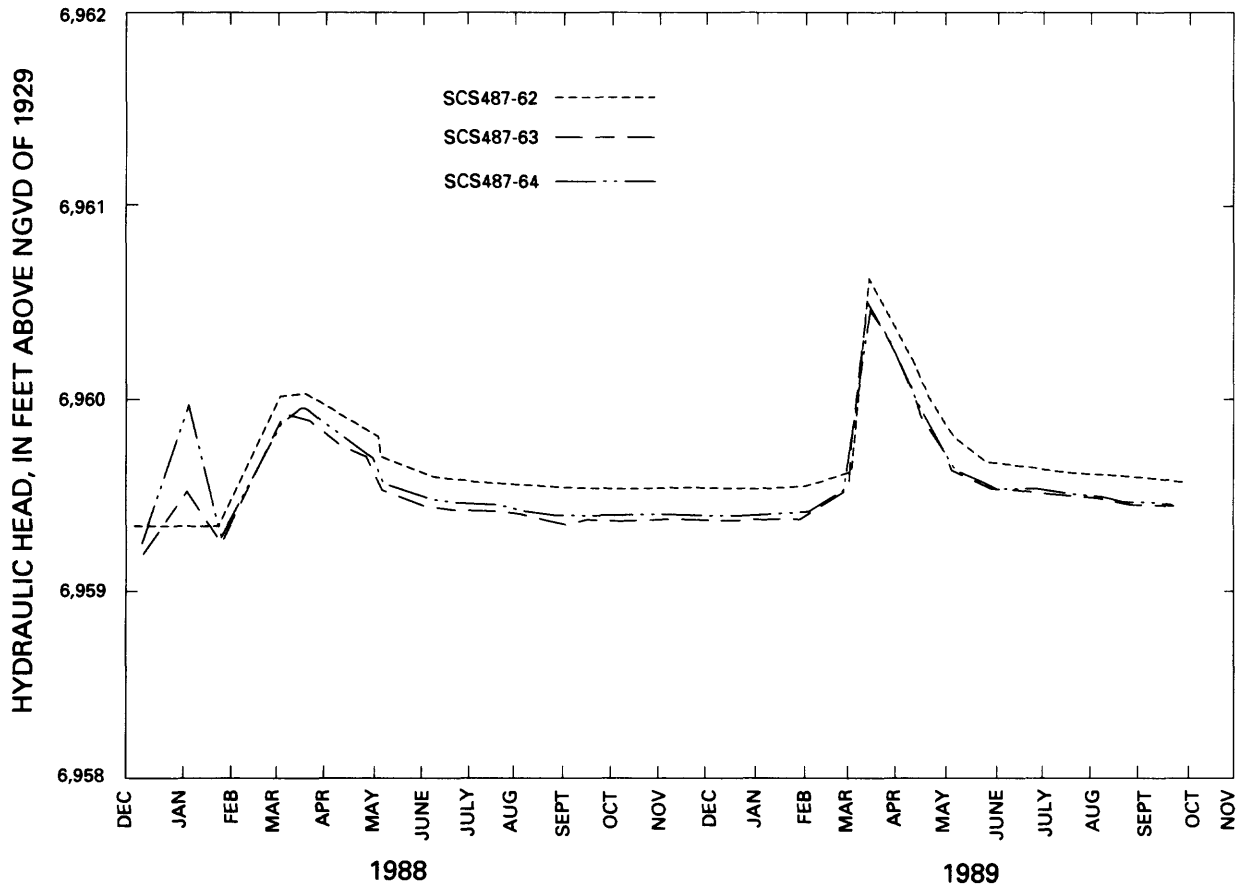


Figure 19.--Water levels for reclaimed-spoil wells at the Cow Camp Creek site.

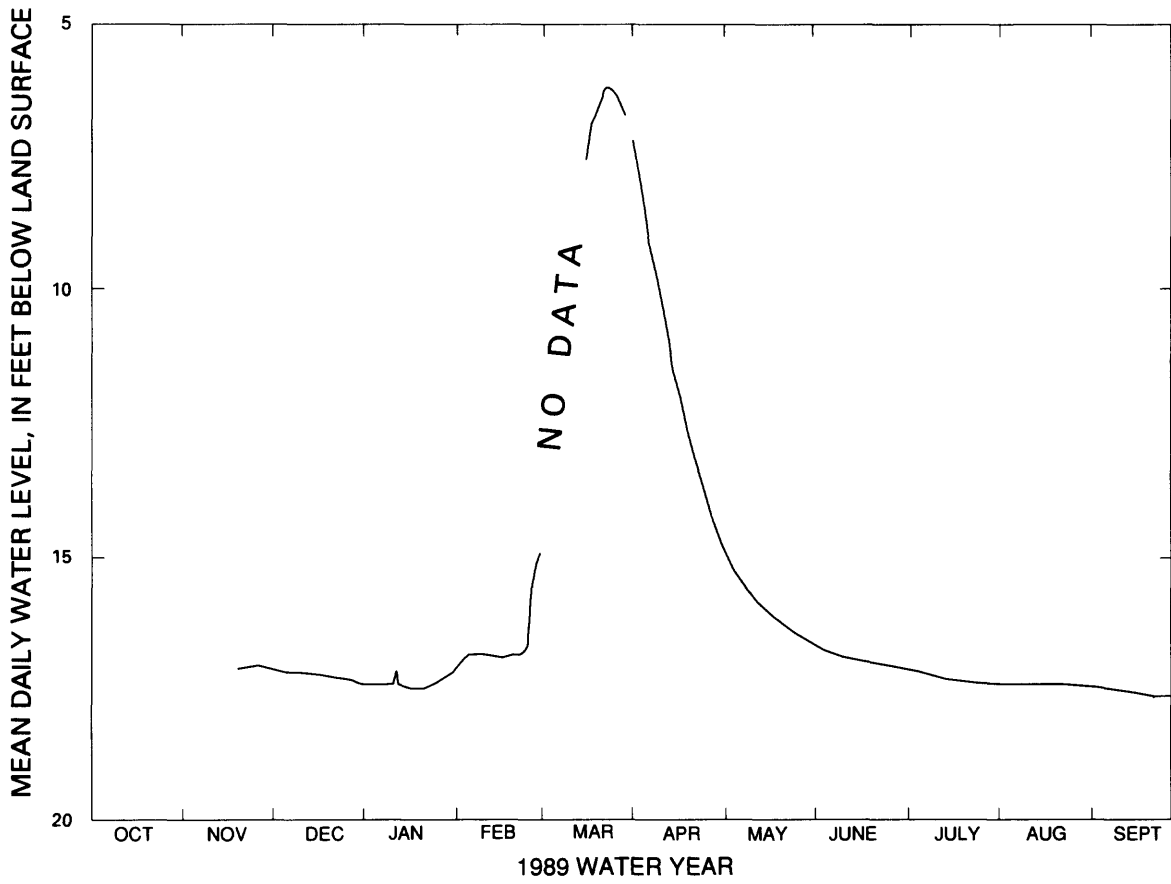


Figure 20.--Mean daily water levels for reclaimed-spoil well SSS487-60 at the Spring Creek site.

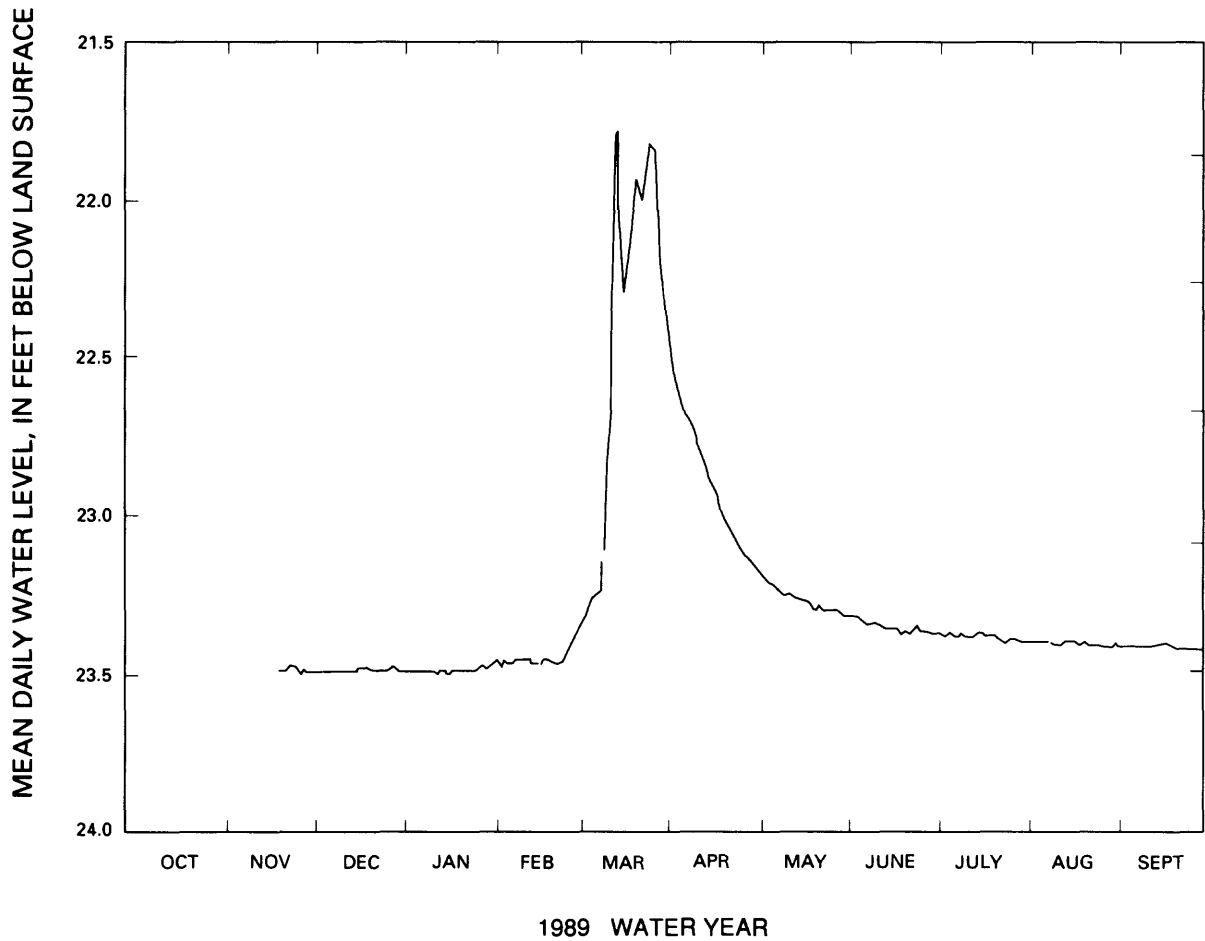


Figure 21.--Mean daily water levels for reclaimed-spoil well SCS487-63 at the Cow Camp Creek site.

For selected core samples (figs. 22 to 25), porosity, grain density, and permeability were analyzed by Core Laboratories, Aurora, Colorado (tables 15 to 18). Mineralogic composition of core samples from selected lithologic units at the Cow Camp Creek site was analyzed by the Office of Energy and Marine Geology, Branch of Petroleum Geology, U.S. Department of the Interior (table 19).

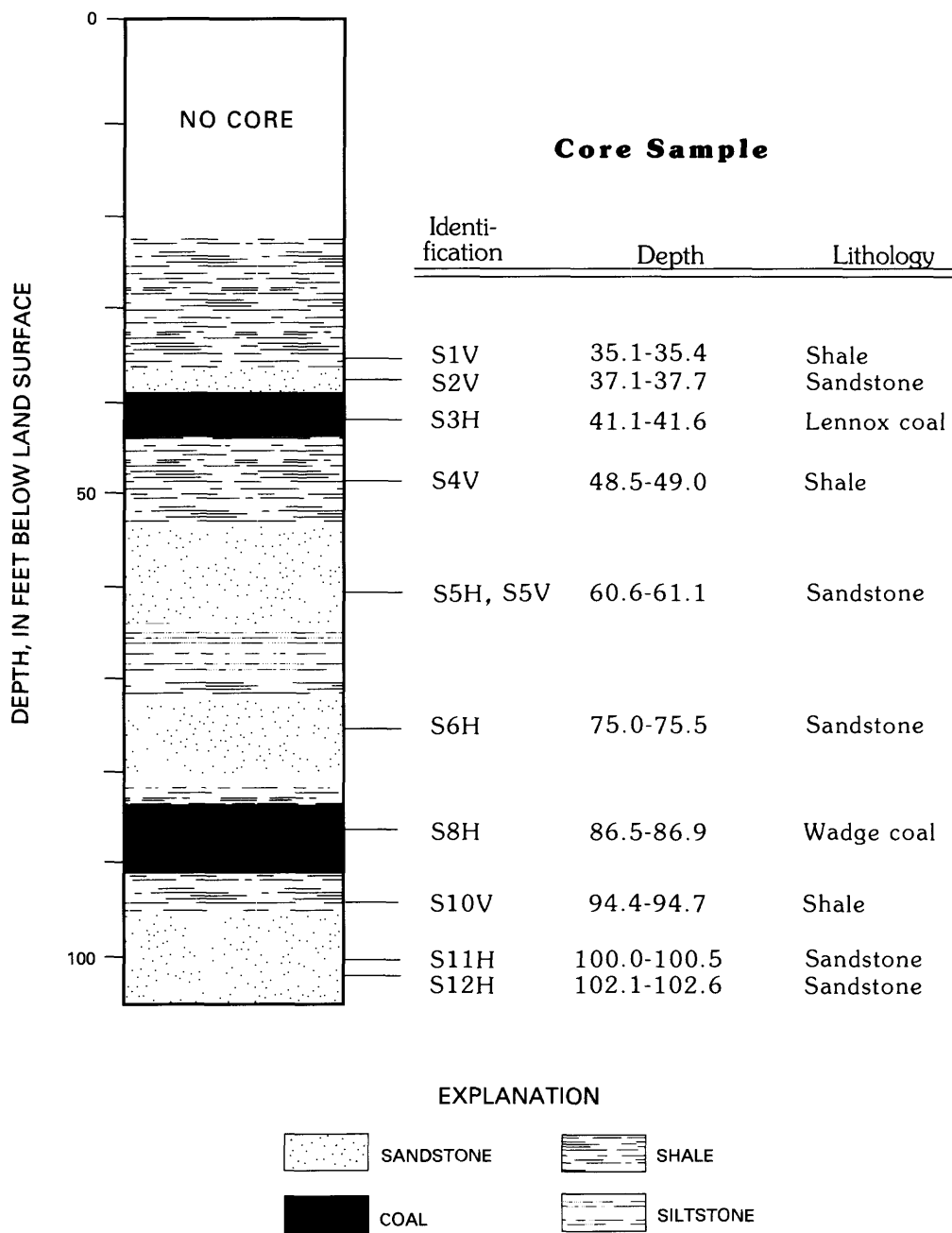


Figure 22.--Core-sample identification, depth, and lithology for the Spring Creek core hole.

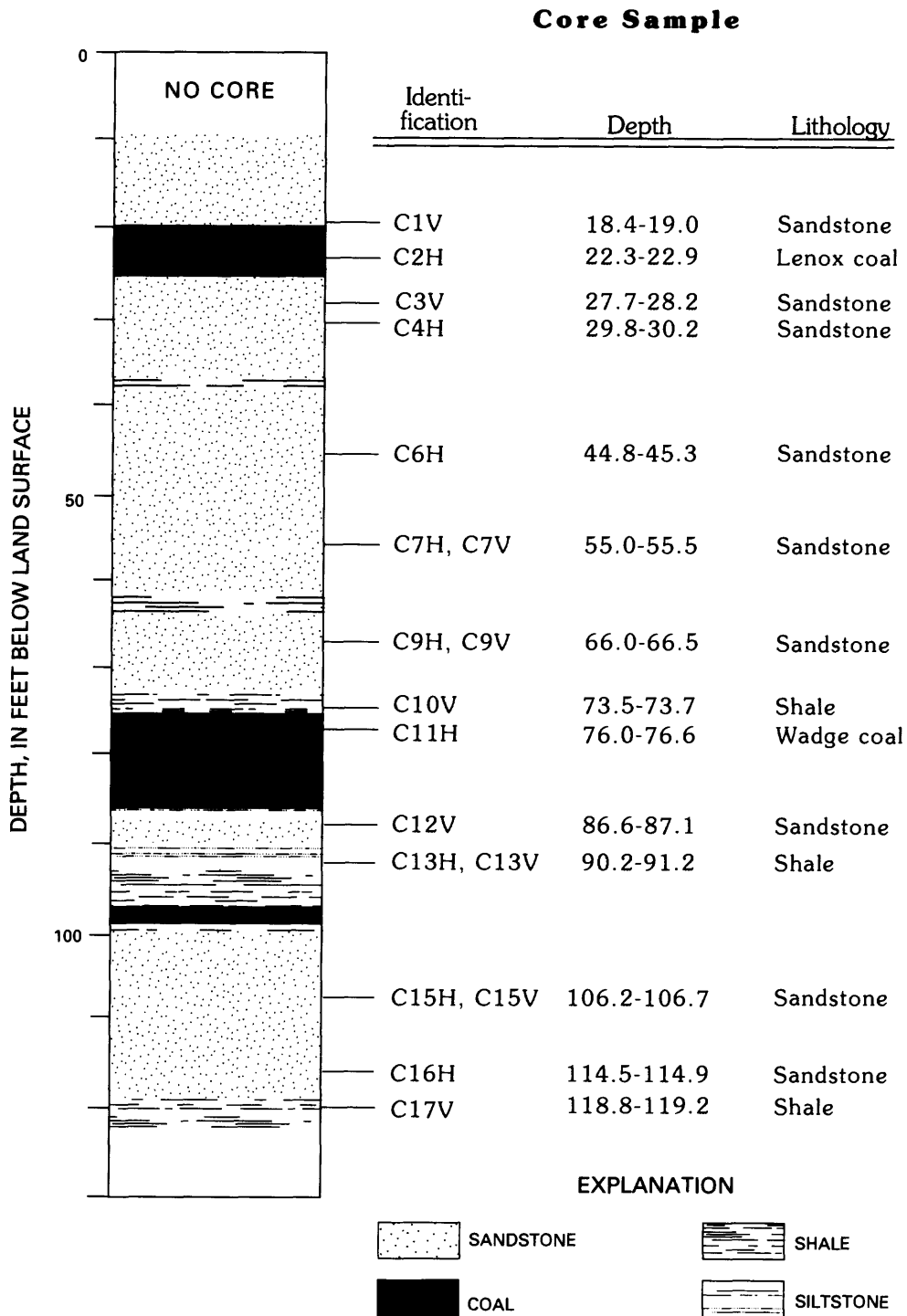


Figure 23.--Core-sample identification, depth, and lithology for the Cow Camp Creek core hole.

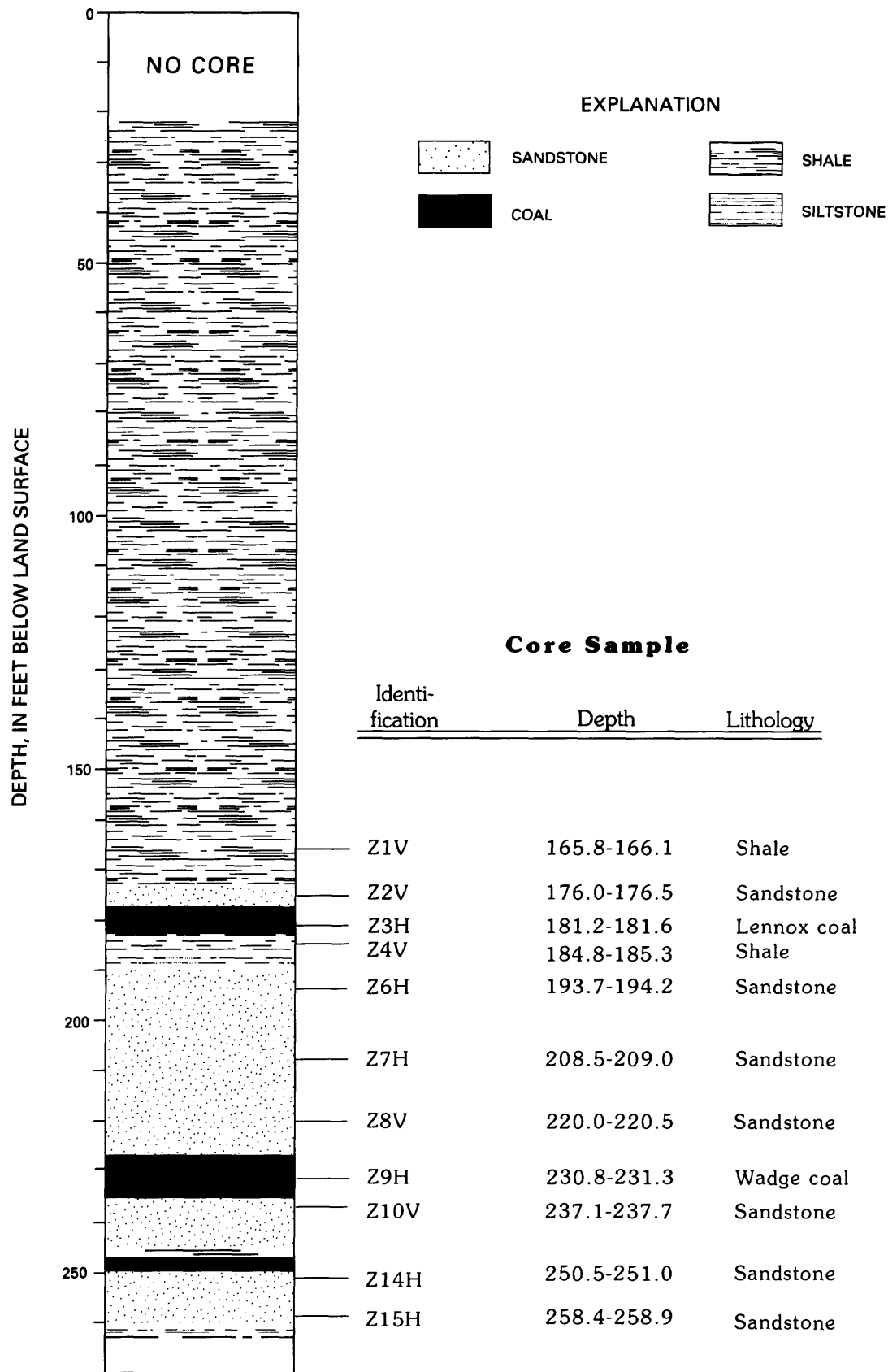


Figure 24.--Core-sample identification, depth, and lithology for the Zuli core hole.

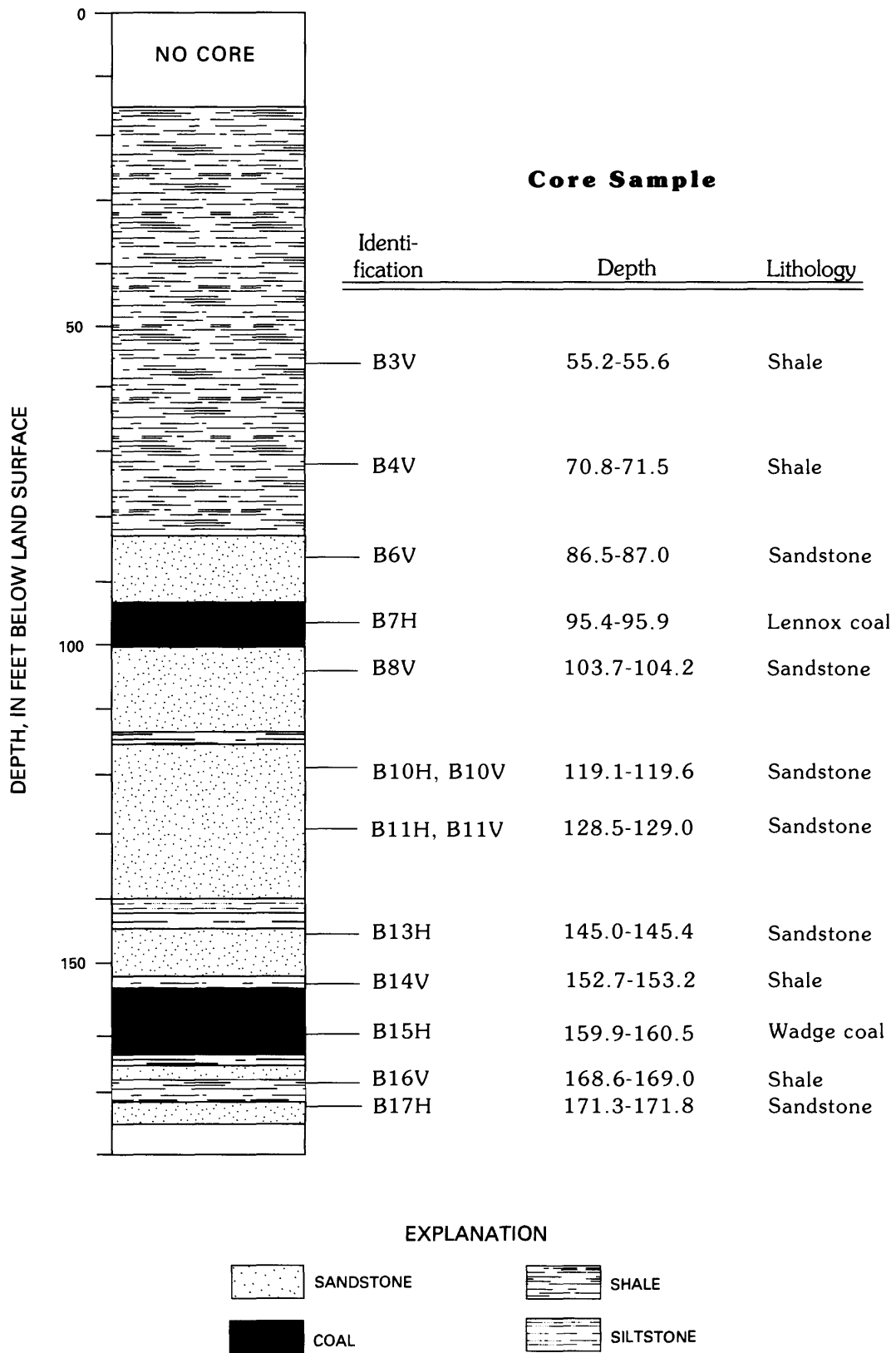


Figure 25.--Core-sample identification, depth, and lithology for the Bond Creek core hole.

Springs were monitored at the Spring Creek site (figs. 2 and 5; table 20) and at the Cow Camp Creek site (figs. 2 and 6; table 20). Spring stage was monitored with a staff gage and recorded every one-half hour on a punch tape with a digital recorder. Discharge measurements were made by collecting the discharge water in calibrated buckets. Hydrographs for the springs are plotted (figs. 26 and 27), and mean daily discharge information is listed (tables 21 to 24).

Water samples were collected for water-quality analysis from the wells except for well SCS487-65, which was dry during the period of sample collection (table 25). Water samples were collected for water-quality analysis from the springs and the lysimeters (table 26). The core samples also were combined with water and used for batch-mixing experiments (fig. 28; table 27). The batch-mixing experiments are discussed in Clark and Williams (1991).

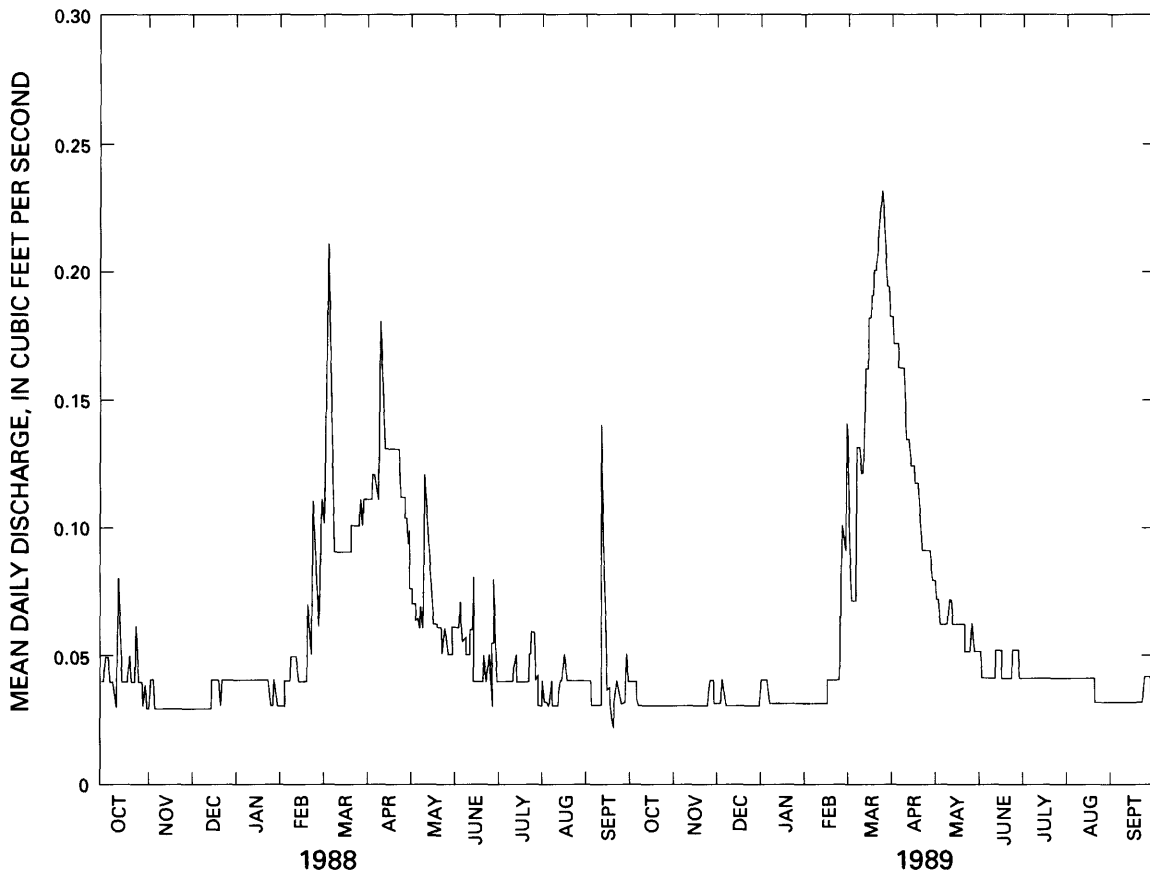


Figure 26.--Hydrograph showing mean daily discharge for the spring at the Spring Creek site, water years 1988 and 1989.

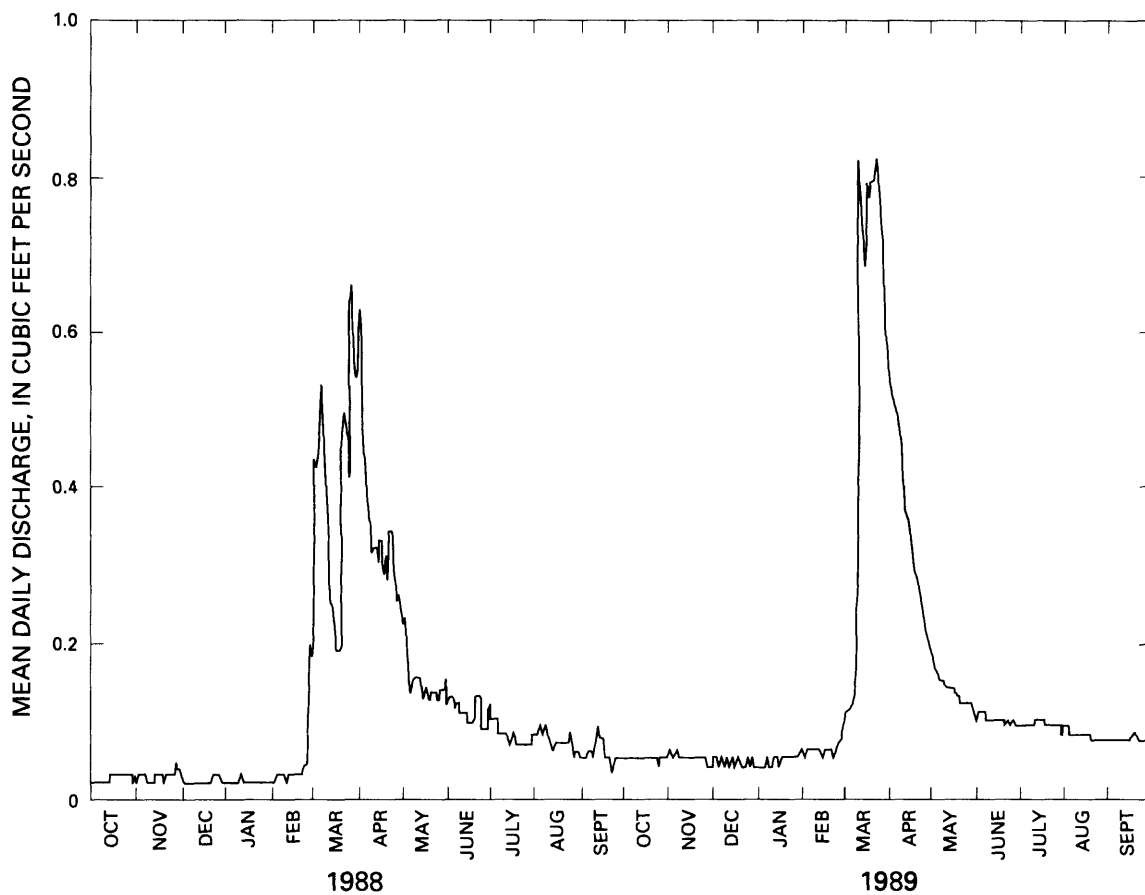


Figure 27.--Hydrograph showing mean daily discharge for the spring at the Cow Camp Creek site, water years 1988 and 1989.

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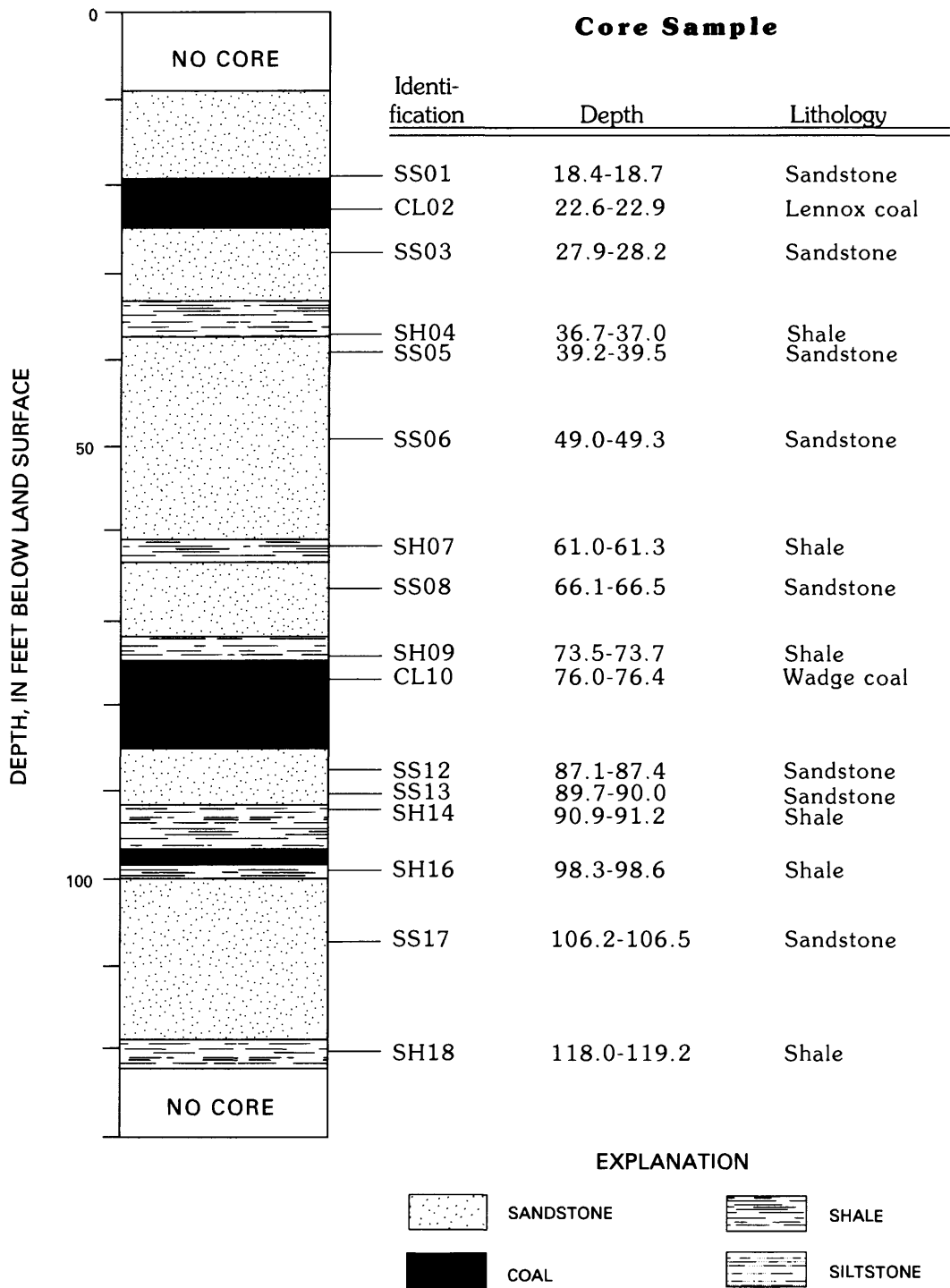


Figure 28.--Identification of depth and lithology of Cow Camp Creek core samples used for batch-mixing experiments.

DATA

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989

[--, no data]

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>OCTOBER 1987</u>								
1	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--	--
29	1	9	19	54	272	0.00	--	--
30	4	6	8	89	59	.30	--	--
31	1	7	14	79	284	.00	--	--

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>NOVEMBER 1987</u>								
1	3	8	16	79	185	0.12	--	--
2	3	6	12	84	155	.14	--	--
3	2	6	11	81	160	.00	--	--
4	0	6	14	74	308	.00	--	--
5	-1	8	18	58	298	.00	--	--
6	-1	6	12	73	161	.03	--	--
7	-1	1	5	92	83	.08	--	--
8	-2	2	10	82	276	.00	--	--
9	-4	3	12	62	293	.00	--	--
10	-5	0	10	75	137	.05	--	--
11	-7	-1	6	88	351	.06	--	--
12	-6	1	8	74	208	.00	--	--
13	-1	4	11	63	187	.00	--	--
14	-4	0	3	97	56	.27	--	--
15	-12	-5	-3	92	81	.13	--	--
16	-14	-8	-3	82	154	.00	--	--
17	-14	-7	-3	88	125	.10	--	--
18	-12	-8	-1	71	283	.00	--	--
19	-10	-3	5	61	264	.00	--	--
20	-5	2	9	54	257	.00	0.00	0.00
21	-7	0	7	60	165	.00	.00	.00
22	-7	-2	2	83	124	.00	.00	.03
23	-5	-2	5	86	192	.15	.15	.25
24	-12	-6	1	76	161	.00	.00	.00
25	-10	-4	4	64	209	.00	.00	.00
26	-5	-3	1	73	143	.00	.00	.00
27	-10	-6	-1	84	158	.00	.01	.00
28	-11	-5	4	67	239	.00	.00	.00
29	-9	-5	3	67	207	.00	.00	.00
30	-11	-5	2	71	214	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>DECEMBER 1987</u>								
1	-12	-4	1	68	179	0.02	0.03	0.00
2	-4	0	4	76	119	.00	.00	.01
3	-2	3	11	66	230	.00	.00	.00
4	-3	4	14	61	206	.00	.00	.00
5	-2	1	6	91	37	.25	.27	.35
6	-3	1	9	88	230	.00	.00	.00
7	-7	-1	8	89	143	.21	.11	.37
8	-11	-6	-1	80	233	.00	.00	.00
9	-9	-4	-1	82	101	.03	.03	.03
10	-3	2	9	79	111	.05	.02	.11
11	-8	-4	1	59	201	.00	.00	.00
12	-14	-10	-6	67	192	.00	.00	.00
13	-13	-10	-6	56	175	.00	.00	.00
14	-17	-13	-9	69	207	.00	.00	.00
15	-20	-13	-6	63	228	.00	.00	.00
16	-14	-7	-3	51	128	.00	.00	.00
17	-7	-3	2	88	105	.00	.00	.00
18	-8	-4	-2	97	70	.07	.06	.10
19	-13	-6	-3	95	42	.08	.09	.13
20	-17	-11	-3	74	137	.00	.00	.00
21	-11	-7	0	76	64	.05	.07	.07
22	-11	-6	-3	90	45	.80	.75	.45
23	-11	-8	-4	98	19	.44	.43	.89
24	--	--	--	--	--	.01	.02	.00
25	--	--	--	--	--	--	.00	.00
26	-28	-20	-14	81	82	--	.03	.03
27	-17	-10	-6	88	34	--	.07	.08
28	-12	-7	1	83	114	--	.00	.00
29	-12	-5	4	71	221	.00	.00	.00
30	-12	-8	2	87	152	.15	.14	.25
31	-14	-10	-6	82	56	.04	.03	.02

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>JANUARY 1988</u>								
1	--	--	--	--	--	0.02	0.02	0.02
2	--	--	--	--	--	.00	.00	.00
3	-23	-15	-9	62	200	.00	.00	.00
4	-17	-10	-6	72	152	.27	.32	.32
5	-9	-6	-4	97	59	.16	.25	.20
6	-10	-7	-4	98	35	.22	.14	.27
7	-10	-9	-5	94	59	.03	.05	.06
8	-10	-8	-4	96	27	.25	.24	.23
9	-11	-8	-5	96	21	.45	.40	.50
10	-7	-3	2	89	30	.06	.05	.07
11	-9	-3	6	82	158	.19	.11	.39
12	-16	-10	-7	69	190	.00	.00	.00
13	-18	-11	-6	73	178	.00	.00	.05
14	-13	-7	-2	76	180	.00	.00	.00
15	-10	-3	5	74	177	.05	.05	.11
16	-13	-9	-3	75	233	.00	.00	.00
17	-12	-7	-2	85	104	.10	.10	.13
18	-11	-7	-3	90	125	.29	.25	.22
19	-22	-12	-6	68	143	.00	.00	.00
20	-25	-16	-10	73	220	.01	.02	.02
21	-18	-12	-7	84	106	.04	.06	.06
22	-19	-12	-6	77	205	.00	.00	.00
23	-12	-8	-4	80	167	.00	.00	.05
24	-17	-12	-8	80	283	.00	.00	.00
25	-19	-11	-5	69	200	.00	.00	.00
26	-12	-7	-1	67	287	.00	.00	.00
27	-10	-3	5	66	292	.00	.00	.00
28	-9	-1	4	60	210	.00	.00	.00
29	-7	0	6	64	248	.00	.00	.08
30	-6	-2	2	95	186	.24	.23	.20
31	-7	-5	-2	99	66	.58	.55	.66

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>FEBRUARY 1988</u>								
1	-12	-7	-3	95	124	0.27	0.26	0.30
2	-8	-6	-3	96	46	.15	.14	.13
3	-17	-10	-4	75	69	.00	.00	.01
4	-19	-12	-1	68	117	.00	.00	.02
5	-17	-10	-1	67	348	.00	.00	.00
6	-16	-8	0	66	330	.00	.00	.00
7	-12	-6	2	69	289	.00	.00	.01
8	-6	-3	-1	89	78	.08	.09	.09
9	-7	-2	4	82	213	.07	.04	.15
10	-6	-3	1	83	290	.00	.00	.00
11	-7	-4	0	85	162	.00	.00	.00
12	-10	-4	5	73	358	.00	.00	.00
13	-10	-4	4	73	258	.05	.05	.17
14	-9	-6	-3	79	305	.00	.00	.00
15	-8	-3	3	71	331	.00	.00	.09
16	-11	-7	-2	86	275	.04	.03	.00
17	-13	-9	-2	79	390	.00	.00	.00
18	-14	-10	-5	73	260	.00	.00	.00
19	-14	-9	-3	82	398	.00	.00	.00
20	-8	-4	0	81	213	.00	.00	.00
21	-9	-3	5	77	387	.00	.00	.00
22	-9	-5	2	71	237	.00	.00	.00
23	-10	-5	5	67	410	.00	.00	.00
24	-10	-3	6	59	411	.00	.00	.00
25	-8	-1	8	57	420	.00	.00	.00
26	-8	-1	7	58	423	.00	.00	.00
27	-8	0	10	58	424	.00	.00	.00
28	-3	0	3	90	174	.10	.12	.12
29	0	4	9	68	307	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>MARCH 1988</u>								
1	-4	1	7	87	338	0.20	0.19	0.10
2	-5	-2	3	98	122	.02	.05	.05
3	-4	-1	3	86	413	.00	.00	.01
4	-7	-2	2	76	388	.07	.05	.13
5	-9	-2	4	60	454	.00	.00	.00
6	-6	1	8	63	383	.21	.08	.54
7	-11	-7	-4	92	387	.06	.10	.03
8	-12	-6	0	74	494	.00	.00	.00
9	-8	0	8	65	495	.00	.00	.00
10	-9	-5	1	94	163	.17	.18	.25
11	-12	-8	-5	85	384	.00	.00	.00
12	-15	-10	-6	87	373	.02	.02	.04
13	-15	-11	-7	78	467	.03	.02	.01
14	-15	-7	-1	67	503	.00	.00	.00
15	-10	-2	4	71	401	.02	.01	.01
16	-11	-6	-1	86	277	.17	.10	.26
17	-16	-10	-4	85	497	.02	.02	.00
18	-14	-7	1	67	538	.00	.00	.00
19	-10	-2	7	60	551	.00	.00	.01
20	-7	2	10	55	543	.00	.00	.00
21	-3	5	15	46	559	.00	.00	.00
22	-2	3	9	61	394	.00	.00	.00
23	-5	2	11	67	344	.15	.10	.35
24	-6	-3	1	78	429	.01	.00	.03
25	-3	3	7	54	188	.00	.00	.00
26	-2	5	11	61	577	.00	.00	.00
27	-7	5	16	52	487	.10	.09	.14
28	-12	-7	-2	57	488	.00	.00	.00
29	-11	-4	2	53	445	.00	.00	.01
30	-5	-3	-1	86	188	.11	.16	.10
31	-5	-1	5	57	575	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>APRIL 1988</u>								
1	-10	-2	7	69	631	0.00	0.00	0.00
2	-6	2	12	57	606	.00	.00	.00
3	-3	7	15	40	523	.00	.00	.00
4	-4	5	12	57	287	.05	.04	.07
5	-8	1	10	57	687	.08	.06	.13
6	-2	7	15	40	615	.00	.00	.00
7	-1	11	20	33	619	.00	.00	.00
8	-5	4	15	33	465	.00	.00	.02
9	-7	-3	4	66	461	.00	.00	.02
10	-9	0	10	43	649	.00	.00	.00
11	-3	7	16	29	636	.00	.00	.00
12	-1	10	19	28	630	.00	.00	.00
13	3	12	21	25	573	.00	.00	.00
14	5	12	20	29	520	.00	.00	.00
15	2	8	16	68	363	.00	.03	.02
16	5	11	21	47	618	.00	.00	.00
17	3	8	13	57	298	.00	.00	.00
18	-2	7	16	61	477	.02	.03	.05
19	2	7	14	74	330	.15	.14	.15
20	3	10	18	47	567	.00	.00	.00
21	1	6	12	66	224	.02	.02	.23
22	-1	2	9	76	269	.00	.00	.00
23	-3	2	9	75	410	.00	.00	.02
24	-3	3	9	79	452	.01	.00	.00
25	-5	0	8	94	186	.26	.22	.38
26	-9	0	9	60	709	.00	.00	.08
27	0	7	16	43	435	.00	.00	.00
28	3	11	18	35	417	.00	.00	.00
29	2	11	19	44	648	.00	.00	.00
30	2	14	23	28	658	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>MAY 1988</u>								
1	-5	7	16	48	265	0.17	0.17	0.23
2	-5	-2	4	85	301	.06	.01	.22
3	-4	3	12	56	696	.00	.00	.00
4	2	10	20	32	553	.00	.00	.00
5	7	15	23	19	587	.00	.00	.00
6	0	6	14	37	415	.00	.00	.00
7	-5	4	12	51	508	.14	.12	.17
8	-7	-1	8	94	325	.17	.11	.27
9	0	7	16	63	572	.00	.00	.00
10	5	8	15	53	536	.00	.00	.00
11	3	11	21	37	747	.00	.00	.00
12	4	15	24	29	733	.00	.00	.00
13	5	17	26	24	644	.00	.00	.00
14	1	14	22	28	738	.00	.00	.00
15	3	14	23	29	745	.00	.00	.00
16	8	18	27	22	641	.00	.00	.00
17	5	14	23	50	426	.29	.30	.26
18	4	8	15	90	375	.32	.36	.40
19	3	5	7	94	144	.24	.24	.34
20	0	6	13	68	552	.00	.00	.00
21	-1	7	14	55	581	.00	.00	.00
22	-1	9	17	47	609	.00	.00	.00
23	1	12	21	41	754	.00	.00	.00
24	5	15	25	36	749	.00	.00	.00
25	5	13	22	55	433	.02	.02	.05
26	4	15	22	50	570	.00	.00	.00
27	9	17	25	32	610	.00	.00	.00
28	6	17	25	29	654	.00	.00	.00
29	11	17	25	23	567	.00	.00	.00
30	0	5	11	73	271	.10	.10	.10
31	-2	7	14	59	584	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>JUNE 1988</u>								
1	4	10	17	49	611	0.00	0.00	0.00
2	7	14	22	44	737	.00	.00	.00
3	10	18	27	39	751	.00	.00	.00
4	11	20	29	37	723	.00	.00	.00
5	15	19	26	37	526	.00	.00	.00
6	8	18	27	29	740	.00	.00	.00
7	7	18	27	26	766	.00	.00	.00
8	7	18	27	23	774	.00	.00	.00
9	8	19	29	26	718	.00	.00	.00
10	14	20	27	26	654	.00	.00	.00
11	10	17	24	36	391	.00	.00	.00
12	10	17	26	34	651	.00	.00	.00
13	6	12	20	63	395	.17	.17	.10
14	5	15	24	56	752	.00	.00	.00
15	9	18	27	32	674	.00	.00	.00
16	10	18	28	33	642	.00	.00	.00
17	11	19	27	29	490	.00	.00	.00
18	10	19	26	41	599	.00	.00	.00
19	11	20	29	38	633	.00	.00	.00
20	15	21	29	36	694	.00	.00	.00
21	12	20	31	48	646	1.32	1.28	.57
22	14	20	29	51	620	.00	.00	.00
23	12	21	30	48	722	.00	.00	.00
24	13	22	32	36	757	.00	.00	.00
25	15	22	30	32	712	.00	.00	.00
26	13	19	27	49	541	.25	.23	.21
27	12	18	27	65	679	.00	.00	.00
28	12	16	24	82	367	.64	.67	.73
29	11	16	25	76	530	.00	.01	.03
30	9	17	25	53	763	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>JULY 1988</u>								
1	8	19	29	37	682	0.00	0.00	0.00
2	11	19	28	42	561	.00	.00	.00
3	10	20	29	40	584	.00	.00	.00
4	10	16	23	75	404	.11	.12	.26
5	11	19	28	50	600	.00	.00	.00
6	13	20	27	48	555	.00	.00	.00
7	11	20	29	45	637	.00	.00	.00
8	11	20	28	32	694	.00	.00	.00
9	10	19	27	31	626	.00	.00	.00
10	13	19	26	33	599	.00	.00	.00
11	9	19	27	35	595	.00	.00	.00
12	10	20	28	32	549	.00	.00	.00
13	11	21	31	26	745	.00	.00	.00
14	16	23	31	23	691	.00	.00	.00
15	11	21	30	21	598	.00	.00	.00
16	15	21	32	27	584	.00	.00	.00
17	11	20	30	29	610	.00	.00	.00
18	9	19	29	21	740	.00	.00	.00
19	7	17	27	31	709	.00	.00	.00
20	8	18	27	29	724	.00	.00	.00
21	6	20	31	20	739	.00	.00	.00
22	11	21	32	16	668	.00	.00	.00
23	13	21	29	16	547	.00	.00	.00
24	10	21	31	21	667	.00	.00	.00
25	13	22	32	18	657	.00	.00	.00
26	15	21	29	22	447	.00	.00	.00
27	12	19	28	40	514	.00	.00	.00
28	11	18	28	52	515	.00	.00	.02
29	10	18	29	58	578	.00	.00	.00
30	11	20	30	44	617	.00	.00	.03
31	12	20	31	43	549	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>AUGUST 1988</u>								
1	9	17	28	53	507	0.05	0.04	0.00
2	7	20	31	44	614	.00	.05	.03
3	11	17	27	66	463	.33	.32	.23
4	10	16	24	61	710	.00	.00	.00
5	6	18	28	37	676	.00	.00	.00
6	12	17	25	50	314	.00	.00	.00
7	8	15	23	72	484	.21	.20	.20
8	8	16	25	49	588	.00	.00	.00
9	7	17	27	31	675	.00	.00	.00
10	6	19	29	23	633	.00	.00	.00
11	8	20	29	21	570	.00	.00	.00
12	11	17	23	45	409	.02	.02	.19
13	7	18	28	38	588	.00	.00	.00
14	10	22	32	18	683	.00	.00	.00
15	12	20	30	32	406	.28	.30	.45
16	12	18	27	60	555	.00	.00	.00
17	12	19	26	45	414	.00	.00	.00
18	11	20	30	34	592	.00	.00	.00
19	10	20	30	25	630	.00	.00	.00
20	10	18	28	36	386	.03	.03	.05
21	11	17	25	67	351	.00	.00	.00
22	11	19	27	42	623	.00	.00	.00
23	7	19	30	23	647	.00	.00	.00
24	13	22	31	18	625	.00	.00	.00
25	10	21	31	16	590	.00	.00	.00
26	9	19	30	26	417	.02	.03	.00
27	12	18	25	37	596	.00	.00	.00
28	11	18	27	26	591	.00	.00	.00
29	10	19	28	21	535	.00	.00	.00
30	10	19	29	26	561	.00	.00	.00
31	10	18	29	26	482	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>SEPTEMBER 1988</u>								
1	10	18	29	24	587	0.00	0.00	0.00
2	11	19	28	25	524	.00	.00	.00
3	9	18	27	17	593	.00	.00	.00
4	7	17	27	18	605	.00	.00	.00
5	5	17	26	17	593	.00	.00	.00
6	6	17	28	16	523	.00	.00	.00
7	10	19	29	16	540	.00	.00	.00
8	8	17	28	16	574	.00	.00	.00
9	5	18	29	15	551	.00	.00	.00
10	12	17	22	30	285	.10	.07	.04
11	-1	6	14	86	95	1.13	1.14	1.23
12	2	5	8	93	131	.75	.86	.55
13	4	8	14	78	272	.00	.00	.02
14	1	6	11	85	233	.07	.10	.06
15	1	8	16	67	396	.00	.00	.00
16	2	12	23	47	537	.00	.00	.00
17	5	15	25	29	542	.00	.00	.00
18	-2	9	16	24	412	.00	.00	.00
19	-4	7	20	31	538	.00	.00	.00
20	4	16	24	17	528	.00	.00	.00
21	8	13	21	56	339	.02	.02	.07
22	3	9	16	69	293	.00	.00	.06
23	1	10	19	56	505	.00	.00	.00
24	2	12	22	40	443	.00	.00	.00
25	4	14	22	28	492	.00	.00	.00
26	3	13	22	23	360	.00	.00	.00
27	5	12	21	40	314	.00	.00	.00
28	-1	4	10	48	288	.00	.00	.00
29	-5	5	15	42	485	.00	.00	.00
30	-1	9	20	37	456	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>OCTOBER 1988</u>								
1	3	12	21	35	470	0.00	0.00	0.00
2	4	13	23	29	464	.00	.00	.00
3	3	13	23	25	408	.00	.00	.00
4	5	12	22	36	241	.00	.00	.00
5	5	11	20	50	354	.00	.00	.00
6	4	11	19	47	435	.00	.00	.00
7	1	9	17	52	333	.00	.00	.00
8	1	9	19	52	390	.00	.00	.00
9	2	7	13	51	255	.02	.01	.00
10	0	8	18	39	428	.00	.00	.00
11	-1	9	20	30	421	.00	.00	.00
12	0	11	20	25	311	.00	.00	.00
13	2	9	18	49	308	.00	.00	.00
14	4	10	19	45	250	.00	.00	.01
15	2	9	18	50	398	.00	.00	.00
16	2	9	19	40	369	.00	.00	.00
17	2	11	21	36	351	.00	.00	.00
18	6	12	19	35	315	.00	.00	.00
19	2	7	13	58	155	.06	.06	.07
20	-1	7	16	59	374	.00	.00	.00
21	0	9	19	34	379	.00	.00	.00
22	0	9	18	27	293	.00	.00	.00
23	-1	8	18	28	367	.00	.00	.00
24	1	8	18	28	351	.00	.00	.00
25	-1	8	17	29	343	.00	.00	.00
26	1	10	20	28	360	.00	.00	.00
27	0	8	16	24	338	.00	.00	.00
28	1	9	20	19	244	.00	.00	.00
29	4	9	17	31	214	.00	.00	.00
30	1	8	17	47	316	.00	.00	.00
31	-1	6	17	30	339	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
NOVEMBER 1988								
1	-3	7	17	29	258	0.00	0.00	0.00
2	3	8	15	41	211	.00	.00	.01
3	2	6	11	69	35	.33	.35	.37
4	1	3	7	56	150	.00	.00	.00
5	-2	2	8	48	306	.00	.00	.00
6	-4	6	15	41	242	.00	.00	.00
7	-2	3	10	36	305	.00	.00	.00
8	-7	0	6	69	34	.17	.10	--
9	-16	-5	-1	93	50	--	.50	--
10	-6	-1	4	85	120	.00	.00	1.25
11	-5	0	5	91	87	.24	.20	--
12	-7	-2	2	74	236	.00	.00	--
13	-1	2	6	81	138	.00	.00	--
14	-4	4	11	71	256	--	.22	.00
15	-11	-6	-3	91	209	--	.22	.00
16	-12	-6	1	83	139	.60	.02	.00
17	-9	-4	-1	85	128	--	.09	.05
18	-12	-6	-1	91	83	.00	.00	.02
19	-13	-8	-2	85	122	.00	.00	.00
20	-10	-6	0	76	289	.00	.00	.10
21	-10	-5	1	76	179	.00	.00	.42
22	-9	-3	3	72	216	.00	.00	.00
23	-3	5	12	63	255	.00	.00	.00
24	-9	-2	10	74	216	--	.03	.05
25	-9	-6	-1	84	212	--	.02	.00
26	-9	-7	-5	89	192	--	.09	.00
27	-11	-9	-5	74	209	.45	.06	.00
28	-10	-6	-2	74	95	--	.05	.00
29	-9	-6	-4	81	139	--	.02	.00
30	-9	-5	0	85	161	--	.04	.03

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>DECEMBER 1988</u>								
1	-11	-4	0	75	261	0.00	0.00	0.00
2	-4	-1	3	66	259	.00	.00	.02
3	-8	-2	5	66	257	.00	.00	.00
4	-9	-3	3	66	253	.00	.00	.19
5	-9	-2	5	62	252	.00	.00	.13
6	-10	-5	0	77	241	.00	.00	.08
7	-8	-4	1	82	46	.13	.15	.02
8	-16	-11	-5	85	233	.00	.00	.00
9	-15	-7	-2	74	125	.00	.00	.00
10	-8	-3	1	78	233	.00	.00	.16
11	-10	-5	-1	93	67	.04	.04	.00
12	-10	-3	3	78	191	.00	.00	.06
13	-7	-2	4	82	139	.00	.00	.00
14	-7	-4	0	80	92	.00	.00	.12
15	-14	-8	-5	82	168	--	.23	.06
16	-15	-10	-3	86	244	--	.03	.00
17	-14	-10	-3	85	263	--	.00	.00
18	-13	-5	3	73	259	--	.00	.00
19	-7	-4	-1	93	45	--	.09	.20
20	-10	-5	1	86	123	--	.16	.24
21	-10	-4	1	79	127	--	.00	.00
22	-8	-6	-3	68	236	--	.08	.19
23	-13	-7	-4	88	117	1.00	.09	.00
24	-15	-10	-5	75	152	--	.08	.18
25	-8	-2	4	82	133	--	.10	.02
26	-16	-10	-6	84	191	--	.07	.05
27	-22	-16	-11	73	215	--	.04	.18
28	-20	-15	-8	64	175	--	.00	.08
29	-19	-13	-7	74	238	--	.00	.00
30	-12	-8	-3	82	134	--	.02	.00
31	-13	-8	0	77	242	--	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
JANUARY 1989								
1	-11	-8	-4	91	49	--	0.07	0.03
2	-13	-7	-2	84	91	--	.03	.00
3	-10	-5	2	72	265	0.00	.00	.00
4	-11	-4	2	76	131	.00	.00	.10
5	-5	-2	1	93	81	--	.06	.02
6	-13	-6	3	83	106	--	.09	.00
7	-15	-12	-10	78	173	--	.12	.00
8	-17	-12	-10	68	199	--	.00	.08
9	-15	-10	-6	83	103	--	.04	.00
10	-9	-3	1	77	134	--	.02	.37
11	-17	-11	-5	82	165	--	.13	.08
12	-20	-16	-10	76	303	.00	.00	.00
13	-20	-13	-7	61	274	.00	.00	.03
14	-19	-11	-5	74	211	.00	.00	.02
15	-18	-12	-5	78	262	.13	.15	.28
16	-18	-10	-3	64	239	.00	.00	.03
17	-14	-8	0	68	245	.00	.00	.00
18	-14	-6	2	68	279	.00	.00	.18
19	-12	-6	2	76	280	.00	.00	.00
20	-12	-5	1	71	288	.00	.00	.00
21	-11	-5	2	68	290	.00	.00	.00
22	-12	-4	4	65	289	.00	.00	.13
23	-6	-1	5	64	232	.00	.00	.05
24	-10	-5	2	94	150	.00	.00	.00
25	-17	-11	-6	80	150	--	.17	.00
26	-21	-12	-4	65	315	--	.02	.00
27	-16	-10	-2	68	268	.00	.00	.00
28	-12	-9	-4	83	194	.00	.00	.00
29	-14	-8	-3	83	287	.00	.00	.00
30	-8	-2	4	73	304	.00	.00	.00
31	-8	-1	6	71	309	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>FEBRUARY 1989</u>								
1	-1	5	8	48	288	0.00	0.00	0.00
2	-17	-8	5	83	180	--	.07	.11
3	-20	-18	-16	85	35	--	.58	.57
4	-28	-24	-19	80	39	--	.35	.50
5	-34	-28	-17	76	186	--	.00	.00
6	-36	-29	-18	75	219	--	.00	.00
7	-31	-24	-14	79	262	--	.00	.00
8	-26	-20	-10	80	299	--	.00	.00
9	-19	-8	-2	83	199	--	.00	.00
10	-5	-2	3	94	165	--	.12	.09
11	-9	-4	0	97	169	--	.28	.27
12	-12	-7	-4	96	221	--	.11	.18
13	-16	-10	-4	93	280	--	.03	.04
14	-11	-10	-7	93	85	--	.22	.23
15	-15	-10	-4	82	138	--	.02	.04
16	-17	-7	1	71	448	--	.00	.00
17	-12	-4	5	73	366	--	.00	.00
18	-7	-2	2	87	227	--	.08	--
19	-10	-4	1	97	273	--	.27	--
20	-6	-5	-3	96	240	--	.12	--
21	-10	-6	1	86	176	--	.05	--
22	-11	-5	3	73	376	--	.00	.00
23	-6	-1	8	71	407	--	.00	.00
24	-8	1	7	73	420	--	.00	.00
25	2	4	11	70	369	--	.00	.00
26	-3	1	4	84	90	--	.10	.17
27	-10	-5	-2	70	312	--	.00	.00
28	-6	-3	3	62	446	--	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>MARCH 1989</u>								
1	--	--	--	--	--	0.00	0.00	0.00
2	--	--	--	--	--	.16	.18	.16
3	-16	-8	0	93	213	.36	.25	.49
4	-22	-17	-11	79	545	.01	.00	.01
5	-20	-10	-2	63	482	.00	.00	.00
6	-8	-2	4	70	303	.00	.00	.00
7	-3	2	6	79	190	.00	.00	.00
8	2	6	11	79	384	.00	.00	.00
9	3	8	16	64	471	.00	.00	.00
10	4	9	17	50	459	.00	.00	.00
11	1	7	17	57	383	.00	.00	.00
12	2	7	15	58	386	.00	.00	.00
13	-4	5	14	61	394	.00	.02	.02
14	-8	-4	1	65	378	.00	.00	.00
15	-10	-2	5	59	364	.00	.00	.00
16	-3	6	15	44	418	.00	.00	.00
17	-5	0	11	51	558	.03	.03	.09
18	-6	3	11	47	434	.00	.00	.00
19	-6	1	12	94	179	.15	.15	.23
20	-7	-3	2	84	572	.07	.03	.14
21	-7	-1	7	65	528	.00	.00	.00
22	-5	4	11	70	387	.02	.01	.01
23	-2	5	9	71	309	.00	.00	.00
24	1	7	14	54	528	.00	.00	.00
25	1	9	16	36	551	.00	.00	.00
26	3	8	14	52	359	.00	.00	.00
27	0	4	8	73	277	.00	.00	.00
28	-4	6	15	58	507	.03	.03	.02
29	-6	-1	4	93	213	.18	.12	.35
30	-6	-2	3	77	500	.05	.02	.13
31	-7	2	12	64	353	.09	.09	.14

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>APRIL 1989</u>								
1	-5	0	6	88	292	0.10	0.06	0.11
2	-5	3	11	75	227	.11	.08	.02
3	-5	-2	4	84	300	.04	.02	.16
4	-4	0	5	59	453	.00	.00	.00
5	-1	6	14	55	280	--	.00	.00
6	1	9	18	42	574	--	.00	.00
7	2	11	20	38	395	--	.00	.00
8	3	10	16	37	351	--	.00	.00
9	-7	0	6	51	653	--	.00	.00
10	-11	0	9	34	626	--	.00	.00
11	-1	4	12	53	427	--	.02	.00
12	-3	5	14	31	657	--	.00	.00
13	-4	6	16	32	642	--	.00	.00
14	1	9	19	31	620	--	.00	.00
15	2	11	20	38	406	--	.02	.06
16	4	10	17	64	375	--	.07	.00
17	5	13	21	44	456	--	.00	.00
18	3	11	21	40	631	--	.00	.00
19	3	14	23	33	468	--	.00	.00
20	8	16	24	27	449	--	.00	.00
21	6	16	23	21	337	--	.00	.00
22	8	17	23	18	557	--	.00	.00
23	7	16	23	17	670	--	.00	.00
24	7	14	21	17	624	--	.00	.00
25	4	13	21	21	643	--	.00	.00
26	0	8	14	32	476	--	.00	.00
27	-3	2	9	56	353	--	.00	.00
28	-3	2	9	70	402	--	.00	.00
29	-5	1	7	64	397	--	.00	.00
30	-4	2	10	58	526	--	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
(degrees Celsius)								
<u>MAY 1989</u>								
1	-3	7	16	46	577	--	0.04	0.04
2	3	8	15	74	417	--	.23	.27
3	2	7	14	63	386	--	.23	.20
4	0	8	15	52	443	--	.00	.00
5	0	10	20	44	717	--	.00	.00
6	4	13	23	31	710	--	.00	.00
7	6	16	24	30	511	--	.00	.00
8	6	14	23	54	528	--	.00	.00
9	4	15	25	51	544	--	.00	.00
10	9	14	22	51	443	--	.03	.02
11	5	13	22	43	545	--	.00	.00
12	-1	3	9	88	320	--	.11	.12
13	-1	7	14	64	567	--	.00	.00
14	1	4	11	85	217	0.49	.47	.59
15	2	6	13	82	394	.05	.02	.03
16	1	6	12	85	396	.01	.01	.00
17	2	9	17	69	679	.00	.00	.00
18	2	14	23	43	741	.00	.00	.00
19	1	8	16	36	735	.00	.00	.00
20	-1	11	22	32	753	.00	.00	.00
21	6	14	21	31	491	.00	.00	.00
22	4	16	26	29	735	.00	.00	.00
23	9	18	25	18	579	.00	.00	.00
24	3	9	17	32	692	.00	.00	.00
25	1	7	14	40	700	.00	.00	.00
26	-2	8	17	35	770	.00	.00	.00
27	0	14	25	26	743	.00	.00	.00
28	9	19	26	16	770	.00	.00	.00
29	11	19	25	17	758	.00	.00	.00
30	3	13	21	36	614	.00	.00	.00
31	1	9	16	60	725	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>JUNE 1989</u>								
1	2	11	21	40	741	0.00	0.00	0.00
2	2	13	23	30	748	.00	.00	.00
3	4	12	19	45	350	.00	.00	.00
4	2	10	21	69	501	.15	.14	.09
5	3	13	22	60	704	.00	.00	.00
6	6	11	18	60	358	.00	.00	.00
7	3	14	23	54	756	.00	.00	.00
8	7	13	21	62	348	.09	.15	.38
9	5	13	21	65	535	.00	.00	.00
10	6	13	20	67	363	.10	.10	.14
11	7	15	23	61	682	.00	.00	.00
12	6	12	19	64	504	.00	.00	.00
13	6	13	21	58	630	.00	.00	.00
14	6	15	23	39	758	.00	.00	.00
15	6	18	29	34	754	.00	.00	.00
16	9	20	29	35	726	.10	.10	.10
17	3	14	23	57	785	.00	.00	.00
18	6	19	30	38	758	.00	.00	.00
19	12	23	33	25	711	.00	.00	.00
20	10	22	28	19	625	.00	.00	.00
21	1	8	15	33	561	.00	.00	.00
22	-1	10	19	40	703	.00	.00	.00
23	6	12	17	45	421	.00	.00	.00
24	4	13	21	57	749	.00	.00	.00
25	3	14	25	57	629	.00	.00	.00
26	5	15	24	53	762	.00	.00	.00
27	5	18	28	34	729	.00	.00	.00
28	11	19	27	33	625	.00	.00	.00
29	10	19	27	38	613	.01	.01	.00
30	9	21	30	27	758	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>JULY 1989</u>								
1	9	20	29	21	781	0.00	0.00	0.00
2	8	20	31	19	775	.00	.00	.00
3	7	21	32	21	771	.00	.00	--
4	12	24	34	16	766	.00	.00	--
5	11	23	34	16	755	.00	.00	--
6	10	23	35	20	749	.00	.00	--
7	13	25	35	20	646	.00	.00	--
8	12	24	33	21	536	.00	.00	--
9	17	25	35	19	692	.00	.00	--
10	11	20	30	49	561	.09	.10	--
11	11	18	28	66	417	.04	.05	--
12	11	16	21	82	200	.57	.58	--
13	10	18	26	68	639	.03	.03	--
14	9	18	27	52	699	.00	.00	--
15	11	21	29	34	667	.00	.00	--
16	12	21	30	27	674	.00	.00	--
17	10	19	29	28	744	.00	.00	.00
18	8	18	28	36	728	.00	.00	.00
19	12	22	31	29	718	.00	.00	.00
20	14	23	32	29	693	.00	.00	.00
21	15	24	33	28	679	.00	.00	.00
22	14	20	29	52	469	.29	.28	.25
23	13	17	25	80	453	.40	.42	.42
24	9	16	25	76	557	.00	.00	.00
25	12	18	27	60	566	.00	.00	.00
26	12	19	28	52	635	.00	.00	.00
27	14	19	27	58	523	.00	.00	.00
28	11	19	26	68	386	.20	.10	.19
29	11	16	24	79	503	.00	.00	.00
30	10	18	27	65	603	.00	.00	.00
31	11	21	30	51	704	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>AUGUST 1989</u>								
1	13	18	25	70	340	0.29	0.30	0.40
2	12	17	25	77	431	.05	.04	.00
3	11	19	28	51	647	.00	.00	.00
4	11	19	26	50	513	.05	.05	.00
5	9	19	28	43	655	.00	.00	.00
6	10	19	27	39	650	.00	.00	.00
7	10	19	28	39	669	.00	.00	.00
8	11	21	30	32	587	.00	.00	.00
9	14	19	27	45	425	.00	.00	.00
10	11	18	28	58	565	.00	.00	.00
11	11	16	23	71	318	.07	.05	.20
12	10	14	19	91	309	.35	.43	.15
13	7	16	25	68	640	.00	.00	.00
14	11	17	25	52	492	.00	.00	.00
15	8	17	27	54	621	.00	.00	.00
16	10	18	28	49	576	.00	.00	.00
17	13	18	25	47	387	.00	.00	.00
18	11	17	24	49	621	.00	.00	.00
19	7	13	21	70	360	.15	.15	.32
20	6	13	21	72	391	.00	.00	.01
21	6	14	24	62	566	.00	.00	.00
22	7	16	26	47	622	.00	.00	.00
23	8	18	28	36	616	.00	.00	.00
24	7	18	26	26	624	.00	.00	.00
25	2	13	23	45	580	.00	.00	.00
26	4	16	26	29	621	.00	.00	.00
27	7	18	28	24	597	.00	.00	.00
28	6	17	28	25	628	.00	.00	.00
29	7	18	29	19	625	.00	.00	.00
30	11	20	29	19	419	.00	.00	.00
31	9	18	27	26	617	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>SEPTEMBER 1989</u>								
1	6	18	29	19	592	0.00	0.00	0.00
2	6	19	28	18	606	.00	.00	.00
3	6	18	28	20	583	.00	.00	.00
4	4	16	28	20	562	.00	.00	.00
5	6	17	26	25	464	.00	.00	.00
6	11	20	28	23	553	.00	.00	.00
7	15	21	29	19	550	.00	.00	.05
8	5	11	20	70	177	.23	.22	.26
9	4	9	19	76	511	.02	.02	.03
10	5	10	17	71	532	.00	.00	.00
11	-2	5	14	86	297	.02	.03	.15
12	2	5	7	95	81	.52	.54	.40
13	0	5	13	78	475	.00	.00	.00
14	-1	10	21	52	565	.00	.00	.00
15	3	13	24	35	556	.00	.00	.00
16	4	14	25	28	530	.00	.00	.00
17	8	17	26	27	430	.00	.00	.00
18	8	15	25	50	510	.00	.00	.00
19	3	14	25	56	448	.00	.00	.13
20	6	11	19	70	419	.38	.41	.29
21	2	7	14	84	378	.02	.03	.00
22	1	11	21	55	530	.00	.00	.00
23	7	14	24	43	492	.00	.00	.00
24	5	13	23	43	517	.00	.00	.00
25	2	14	25	31	507	.00	.00	.00
26	5	15	26	30	395	.00	.00	.00
27	8	15	24	46	343	.00	.00	.00
28	7	16	26	41	475	.00	.00	.00
29	9	17	27	30	445	.00	.00	.00
30	8	17	26	23	481	.00	.00	.00

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>OCTOBER 1989</u>								
1	1	11	18	41	487	0.00	0.00	0.00
2	2	14	23	27	457	.00	.00	.00
3	6	16	23	22	450	.00	.00	.00
4	2	9	15	48	340	.10	.10	.07
5	-4	4	14	55	466	.00	.00	.00
6	-3	7	19	38	426	.00	.00	.00
7	1	8	17	35	448	.00	.00	.00
8	0	8	18	33	446	.00	.00	.00
9	2	10	20	29	437	.00	.00	.00
10	1	11	23	30	436	.00	.00	.00
11	4	12	23	21	432	.00	.00	.00
12	2	12	24	20	428	--	--	--
13	2	13	24	18	415	--	--	--
14	7	14	25	17	345	--	--	--
15	4	8	16	69	111	--	--	--
16	-6	0	5	94	88	--	--	--
17	-6	0	9	80	317	--	--	--
18	-6	1	11	55	410	--	--	--
19	-4	4	16	31	413	--	--	--
20	-4	8	19	26	354	--	--	--
21	3	10	17	36	198	--	--	--
22	2	7	15	74	232	--	--	--
23	1	8	18	56	320	--	--	--
24	0	10	21	37	373	--	--	--
25	3	12	20	22	193	--	--	--
26	-7	1	11	83	107	--	--	--
27	-8	1	12	75	356	--	--	--
28	-10	-3	5	82	192	--	--	--
29	-10	-5	-2	87	147	--	--	--
30	-7	-2	5	68	321	--	--	--
31	-6	-2	6	72	216	--	--	--

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum (degrees Celsius)	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>NOVEMBER 1989</u>								
1	-10	-8	-3	89	118	--	--	--
2	-11	-4	5	63	348	--	--	--
3	-9	-1	6	57	227	--	--	--
4	-1	4	8	53	134	--	--	--
5	0	5	12	54	283	--	--	--
6	-7	-1	10	89	254	--	--	--
7	-8	-2	3	76	141	--	--	--
8	-8	0	6	52	251	--	--	--
9	-6	1	10	86	197	--	--	--
10	2	6	14	73	235	--	--	--
11	-2	6	17	64	303	--	--	--
12	-2	7	18	45	300	--	--	--
13	-1	7	15	39	296	--	--	--
14	-9	-1	10	61	93	--	--	--
15	-9	-5	1	61	277	--	--	--
16	-8	-2	3	52	127	--	--	--
17	-4	0	6	57	273	--	--	--
18	-7	0	9	58	249	--	--	--
19	-4	4	14	50	231	--	--	--
20	-2	6	19	47	276	--	--	--
21	-2	4	14	47	264	--	--	--
22	-7	0	10	59	269	--	--	--
23	-6	1	11	44	176	--	--	--
24	-5	4	9	47	68	--	--	--
25	-6	-4	5	96	154	--	--	--
26	-6	1	8	81	112	--	--	--
27	-9	-7	-4	93	195	--	--	--
28	-17	-10	-4	78	277	--	--	--
29	-16	-9	0	68	267	--	--	--
30	-15	-9	0	85	285	--	--	--

Table 1.--Air-temperature, relative-humidity, solar-radiation,
and precipitation data, October 1987-December 1989--Continued

Day of month	Air temperature (degrees Celsius)			Average relative humidity (percent)	Solar radiation (langleys)	Precipitation (inches)		
	Minimum	Average	Maximum			Spring Creek 1	Spring Creek 2	Cow Camp Creek
<u>DECEMBER 1989</u>								
1	-13	-8	0	84	311	--	--	--
2	-14	-7	1	72	270	--	--	--
3	-10	-3	5	59	255	--	--	--
4	-10	-2	5	60	190	--	--	--
5	-4	1	6	75	112	--	--	--
6	-5	-2	2	91	159	--	--	--
7	-10	-5	-1	87	76	--	--	--
8	-12	-5	3	68	226	--	--	--
9	-5	-1	5	70	127	--	--	--
10	-15	-8	-5	94	203	--	--	--
11	-18	-14	-9	87	86	--	--	--
12	-16	-10	-5	72	136	--	--	--
13	-15	-9	-4	92	66	--	--	--
14	-7	-4	0	85	45	--	--	--
15	-8	-5	-3	98	88	--	--	--
16	-12	-9	-6	96	47	--	--	--
17	-14	-10	-7	95	23	--	--	--
18	-18	-13	-8	92	38	--	--	--
19	-18	-11	-6	87	40	--	--	--
20	-11	-7	1	74	54	--	--	--
21	-12	-6	1	78	128	--	--	--
22	-20	-11	-5	91	64	--	--	--
23	-11	-5	1	80	241	--	--	--
24	-10	-6	1	84	241	--	--	--
25	-13	-7	1	75	249	--	--	--
26	-13	-6	1	63	243	--	--	--
27	-10	-4	3	61	214	--	--	--
28	-11	-5	0	67	175	--	--	--
29	-8	-5	-2	93	141	--	--	--
30	-14	-8	-5	94	72	--	--	--
31	-12	-8	-4	87	100	--	--	--

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989*

[--, no data]

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>OCTOBER 1987</u>				
1	--	--	--	--
2	--	--	--	--
3	--	--	--	--
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
21	--	--	--	--
22	--	--	--	--
23	--	--	--	--
24	--	--	--	--
25	--	--	--	--
26	--	--	--	--
27	--	--	--	--
28	--	--	--	--
29	4.25	2.51	87	52
30	3.28	1.91	95	52
31	4.74	2.84	88	51

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>NOVEMBER 1987</u>				
1	5.46	3.19	98	52
2	3.58	1.33	264	64
3	3.28	.43	52	76
4	4.36	2.30	97	56
5	5.90	3.43	85	52
6	5.03	.36	296	78
7	4.03	3.25	273	35
8	4.14	2.81	88	46
9	5.17	2.68	89	56
10	5.76	1.58	78	69
11	4.91	2.10	109	61
12	4.31	2.10	79	58
13	5.09	1.65	122	67
14	3.88	1.98	268	57
15	5.83	3.92	274	46
16	4.72	3.61	97	39
17	6.35	4.14	277	48
18	8.36	7.48	86	26
19	7.07	5.36	101	40
20	8.71	6.98	87	36
21	5.64	2.18	97	63
22	4.48	2.67	104	51
23	4.33	.62	140	75
24	4.38	1.65	107	64
25	6.44	4.38	92	46
26	4.92	2.91	89	52
27	3.92	.61	120	74
28	7.35	6.18	95	32
29	4.81	2.62	105	55
30	4.71	2.57	99	55

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>DECEMBER 1987</u>				
1	4.98	3.28	105	47
2	4.78	3.72	99	38
3	4.77	3.97	102	33
4	5.12	3.00	110	52
5	3.17	1.84	101	52
6	4.66	3.37	97	43
7	7.57	2.40	240	67
8	5.39	.47	57	77
9	6.07	3.70	86	51
10	8.98	4.09	254	60
11	12.22	11.54	272	19
12	5.48	1.51	259	69
13	10.82	10.54	80	13
14	5.05	1.25	267	70
15	5.85	4.78	103	35
16	6.60	4.61	92	44
17	3.56	1.46	98	62
18	3.24	.16	93	79
19	4.47	3.27	276	42
20	5.60	4.56	103	35
21	6.51	.46	217	78
22	5.05	3.52	91	45
23	5.91	1.25	65	72
24	--	--	--	--
25	--	--	--	--
26	3.62	2.37	98	48
27	4.40	.88	294	72
28	6.58	5.31	78	36
29	8.83	6.72	80	40
30	7.08	4.11	263	52
31	4.97	3.47	271	45

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JANUARY 1988</u>				
1	--	--	--	--
2	--	--	--	--
3	5.30	3.86	102	42
4	6.41	4.06	96	49
5	6.00	4.83	113	36
6	4.22	2.00	285	59
7	4.19	3.22	79	39
8	3.09	1.39	306	60
9	3.20	.54	320	74
10	4.96	2.95	81	51
11	9.78	3.99	254	62
12	8.29	4.85	280	52
13	8.53	6.24	81	42
14	6.53	4.79	104	42
15	8.97	1.60	228	73
16	8.42	2.07	80	70
17	7.54	5.17	90	45
18	9.11	6.74	83	41
19	5.48	3.57	79	48
20	8.32	6.43	105	39
21	3.87	1.40	63	65
22	9.15	7.53	106	34
23	11.00	8.03	291	42
24	4.81	1.79	329	64
25	6.59	4.47	115	46
26	8.08	6.78	126	32
27	6.91	4.62	108	47
28	7.90	5.98	91	40
29	5.31	1.67	121	67
30	5.89	4.81	296	35
31	3.57	.80	336	71

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>FEBRUARY 1988</u>				
1	3.75	1.16	87	67
2	2.03	.54	53	69
3	4.60	3.09	105	46
4	6.47	4.77	124	42
5	7.78	6.07	131	38
6	7.37	4.54	94	50
7	6.02	4.24	115	44
8	4.55	2.31	109	57
9	6.79	2.07	188	68
10	11.31	10.38	289	23
11	3.45	1.47	124	61
12	7.30	5.70	105	38
13	11.13	4.99	296	60
14	7.90	4.94	304	50
15	4.61	1.20	87	70
16	5.06	2.26	288	60
17	7.17	6.05	102	32
18	8.11	5.63	83	45
19	5.03	2.57	121	57
20	4.69	2.62	109	54
21	5.53	4.10	93	41
22	6.75	1.62	273	71
23	5.61	4.07	123	43
24	6.24	3.39	104	55
25	6.92	4.73	97	46
26	6.36	3.73	98	52
27	4.30	2.44	119	53
28	6.08	5.28	131	29
29	5.17	1.58	110	67

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>MARCH 1988</u>				
1	7.04	5.06	100	43
2	3.38	.82	274	71
3	4.34	1.79	270	62
4	7.95	5.21	282	48
5	6.48	4.49	113	45
6	6.94	1.54	165	71
7	10.07	8.80	285	29
8	6.33	4.10	108	48
9	9.36	7.36	91	37
10	5.30	1.86	310	65
11	7.45	6.43	284	30
12	4.36	1.12	275	70
13	6.59	.48	235	78
14	7.26	5.52	116	40
15	11.47	10.31	94	26
16	8.44	1.68	40	73
17	4.27	1.17	289	69
18	6.62	3.46	115	56
19	6.38	4.20	102	47
20	6.68	4.81	123	43
21	5.56	4.15	129	41
22	4.94	2.18	275	61
23	7.30	1.40	264	73
24	10.03	9.20	286	23
25	9.42	7.74	280	34
26	6.63	5.35	121	36
27	10.65	5.54	249	56
28	5.38	3.57	280	47
29	5.39	.64	177	76
30	8.35	7.91	95	19
31	12.49	12.00	95	16

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>APRIL 1988</u>				
1	4.69	1.31	250	69
2	6.35	2.79	139	61
3	7.24	3.39	199	59
4	6.46	2.81	252	61
5	6.02	3.18	277	56
6	8.55	7.32	107	31
7	6.88	4.09	132	52
8	8.69	6.16	279	44
9	6.06	2.53	282	62
10	8.04	4.31	103	55
11	8.86	7.43	103	33
12	6.79	5.36	108	37
13	8.87	7.33	99	34
14	11.01	10.32	98	20
15	5.58	2.88	108	56
16	12.80	12.39	93	14
17	7.32	4.94	92	46
18	5.60	.97	110	74
19	5.31	3.26	274	50
20	6.93	2.32	176	66
21	5.53	1.52	114	69
22	6.80	5.33	274	38
23	5.68	3.33	266	52
24	4.94	2.18	270	60
25	7.73	4.13	285	55
26	5.00	.36	300	78
27	6.18	1.10	292	73
28	7.31	4.48	89	50
29	6.98	.24	298	80
30	7.85	4.10	131	56

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>MAY 1988</u>				
1	8.52	4.76	272	54
2	9.02	7.75	282	30
3	5.29	2.10	92	63
4	10.12	6.77	103	47
5	10.26	6.21	115	51
6	10.71	6.49	243	51
7	13.36	11.87	272	27
8	6.17	4.70	284	40
9	6.59	1.97	276	68
10	6.06	.47	275	78
11	8.49	4.42	96	56
12	5.31	.36	7	78
13	8.28	.88	188	77
14	8.24	5.46	286	47
15	6.23	.30	150	79
16	8.21	2.80	101	66
17	6.49	1.30	152	72
18	6.38	.50	314	78
19	5.62	4.61	282	34
20	4.55	.50	7	76
21	6.19	2.39	86	63
22	5.87	1.18	107	72
23	5.95	1.13	104	73
24	6.10	.45	169	78
25	7.01	3.65	100	56
26	7.38	4.19	104	53
27	9.48	4.44	99	59
28	5.68	2.50	99	61
29	8.65	5.19	104	51
30	7.04	2.10	281	68
31	6.36	2.64	287	62

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JUNE 1988</u>				
1	4.97	3.35	284	46
2	4.40	.78	287	73
3	8.42	5.30	93	49
4	6.10	1.95	89	67
5	9.80	7.81	100	37
6	7.24	3.05	104	62
7	5.22	1.69	138	67
8	5.69	.68	238	76
9	9.02	3.46	100	64
10	11.56	4.52	118	63
11	7.90	6.22	100	37
12	8.98	7.03	98	38
13	6.42	3.58	93	54
14	4.41	1.17	68	69
15	7.56	3.26	76	61
16	6.13	1.53	91	70
17	8.53	5.71	101	47
18	4.48	1.68	139	64
19	6.30	4.11	103	48
20	6.83	4.11	105	51
21	7.36	4.49	94	51
22	8.71	7.05	94	35
23	5.26	2.73	92	56
24	6.71	4.06	91	51
25	10.96	10.43	94	18
26	7.29	5.58	100	39
27	6.65	3.96	106	51
28	4.27	1.23	162	68
29	4.73	1.22	101	70
30	4.82	1.64	125	66

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JULY 1988</u>				
1	4.46	2.73	85	50
2	6.73	4.65	108	45
3	7.07	4.46	93	49
4	4.75	1.96	99	62
5	9.04	7.35	99	35
6	5.80	3.40	110	52
7	5.50	1.45	155	70
8	6.01	.33	241	79
9	6.16	2.32	89	64
10	10.37	8.94	96	30
11	7.25	2.82	117	63
12	6.14	2.25	210	64
13	5.88	3.45	107	52
14	8.21	3.11	131	64
15	7.23	4.94	107	46
16	7.65	5.66	102	41
17	6.30	1.28	213	72
18	5.79	.38	109	78
19	5.59	.49	275	77
20	5.76	2.10	102	65
21	5.42	1.13	216	72
22	5.87	1.89	133	67
23	5.50	1.80	129	66
24	4.93	2.39	122	58
25	5.69	2.10	113	64
26	6.96	3.95	106	53
27	5.57	3.14	93	54
28	5.72	3.75	72	47
29	6.61	4.78	28	43
30	6.18	4.50	25	42
31	6.10	2.76	97	60

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>AUGUST 1988</u>				
1	5.84	1.01	153	74
2	5.48	1.78	78	67
3	4.40	1.99	305	60
4	4.29	.17	136	79
5	4.61	.62	150	75
6	5.42	.79	183	75
7	5.33	3.79	89	44
8	6.57	3.43	46	56
9	5.73	.86	59	75
10	5.49	.81	224	75
11	4.96	1.21	101	70
12	6.05	2.85	103	59
13	5.67	2.65	154	59
14	6.81	1.93	206	69
15	5.80	1.04	90	73
16	6.18	4.55	101	42
17	7.09	5.25	54	41
18	6.16	4.72	38	39
19	5.45	1.81	93	66
20	5.30	.41	184	78
21	5.39	2.94	89	55
22	5.52	.45	271	78
23	5.27	1.93	133	64
24	7.97	2.91	95	65
25	5.95	1.75	128	68
26	5.53	1.27	255	71
27	6.14	.64	302	77
28	6.91	1.80	73	70
29	6.85	3.28	96	58
30	5.66	.51	226	77
31	4.85	1.00	108	72

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>SEPTEMBER 1988</u>				
1	8.04	4.53	97	54
2	7.19	6.11	89	32
3	6.64	5.48	81	34
4	6.59	5.39	79	35
5	7.29	4.44	89	51
6	5.91	1.40	201	71
7	7.87	1.98	256	70
8	6.36	1.26	111	73
9	6.15	1.16	142	73
10	5.68	1.66	136	68
11	4.56	.28	136	78
12	4.65	3.01	74	48
13	7.84	5.29	76	46
14	3.74	3.48	48	22
15	4.78	1.26	340	69
16	4.64	2.84	53	50
17	7.96	3.04	31	64
18	9.60	5.04	263	56
19	5.59	3.53	97	49
20	7.28	4.41	82	51
21	6.68	3.31	53	58
22	5.92	4.62	15	38
23	5.14	2.97	47	53
24	5.26	2.82	60	55
25	6.73	.50	195	78
26	4.30	.84	92	73
27	5.85	1.58	260	69
28	7.16	4.57	279	49
29	5.00	1.25	126	70
30	5.84	.49	229	78

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>OCTOBER 1988</u>				
1	5.56	2.75	114	58
2	5.11	.22	104	79
3	5.26	.35	98	78
4	6.01	2.16	107	65
5	6.62	4.60	104	45
6	4.72	2.45	67	56
7	4.73	2.02	77	61
8	4.85	2.44	69	57
9	5.85	3.89	99	47
10	6.51	4.65	73	43
11	4.52	2.68	68	52
12	4.71	1.91	56	62
13	4.99	2.51	49	57
14	4.51	1.94	91	61
15	6.61	2.49	44	64
16	6.82	.79	257	76
17	7.16	3.10	278	61
18	5.47	1.42	285	70
19	5.26	3.40	112	48
20	5.61	2.53	117	60
21	6.30	4.20	86	47
22	6.81	2.57	49	64
23	5.84	1.89	70	67
24	6.47	2.32	92	65
25	6.74	2.53	109	64
26	7.47	.28	104	79
27	6.39	.28	282	79
28	6.37	1.60	182	70
29	5.73	3.50	104	51
30	5.65	1.63	37	68
31	5.44	3.84	91	44

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>NOVEMBER 1988</u>				
1	5.11	1.50	48	68
2	5.26	.19	153	80
3	7.70	5.47	288	44
4	12.05	11.04	287	23
5	6.21	2.71	290	61
6	6.46	2.83	335	61
7	5.50	1.02	292	73
8	4.76	1.17	123	70
9	5.84	1.90	285	67
10	6.35	3.99	121	49
11	9.79	--	--	--
12	5.14	--	--	--
13	5.34	--	--	--
14	6.89	--	--	--
15	6.40	--	--	--
16	5.06	--	--	--
17	5.42	--	--	--
18	3.97	--	--	--
19	3.62	--	--	--
20	5.19	--	--	--
21	4.92	--	--	--
22	5.73	--	--	--
23	5.75	--	--	--
24	9.13	--	--	--
25	3.45	--	--	--
26	7.49	--	--	--
27	9.20	--	--	--
28	8.23	--	--	--
29	8.08	--	--	--
30	5.01	--	--	--

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>DECEMBER 1988</u>				
1	8.88	--	--	--
2	11.44	--	--	--
3	5.77	--	--	--
4	6.07	--	--	--
5	7.04	--	--	--
6	6.08	--	--	--
7	6.80	--	--	--
8	3.94	--	--	--
9	7.17	--	--	--
10	3.63	--	--	--
11	4.14	--	--	--
12	5.87	--	--	--
13	5.39	--	--	--
14	5.57	--	--	--
15	9.45	--	--	--
16	4.20	--	--	--
17	3.07	--	--	--
18	4.26	--	--	--
19	4.37	--	--	--
20	5.49	--	--	--
21	9.42	--	--	--
22	8.53	--	--	--
23	7.63	--	--	--
24	8.57	--	--	--
25	10.07	--	--	--
26	8.49	--	--	--
27	6.79	--	--	--
28	7.47	--	--	--
29	4.85	--	--	--
30	6.31	--	--	--
31	6.13	--	--	--

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JANUARY 1989</u>				
1	2.81	--	--	--
2	3.63	--	--	--
3	5.95	--	--	--
4	7.49	--	--	--
5	4.31	--	--	--
6	8.04	--	--	--
7	6.26	--	--	--
8	7.80	--	--	--
9	5.50	--	--	--
10	6.36	--	--	--
11	7.70	--	--	--
12	8.87	--	--	--
13	8.31	--	--	--
14	4.91	--	--	--
15	5.82	--	--	--
16	6.03	--	--	--
17	5.91	--	--	--
18	7.30	--	--	--
19	6.22	--	--	--
20	6.51	--	--	--
21	6.90	--	--	--
22	5.48	--	--	--
23	4.76	--	--	--
24	4.36	--	--	--
25	3.98	--	--	--
26	8.53	--	--	--
27	4.34	--	--	--
28	3.36	--	--	--
29	7.06	--	--	--
30	5.98	--	--	--
31	5.20	--	--	--

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>FEBRUARY 1989</u>				
1	10.26	7.72	237	40
2	6.82	4.97	267	42
3	3.36	1.46	318	61
4	4.96	3.69	296	41
5	4.68	1.09	34	71
6	4.08	2.71	88	47
7	4.09	2.37	94	53
8	3.48	.90	54	70
9	6.07	3.46	100	53
10	3.54	1.94	91	54
11	2.94	.79	4	69
12	4.79	1.79	300	64
13	4.32	1.21	89	69
14	2.83	.40	256	75
15	5.19	3.93	103	40
16	7.14	4.94	94	45
17	4.75	3.10	97	48
18	6.06	4.23	90	45
19	3.08	.62	305	72
20	13.11	12.65	284	15
21	3.49	.63	37	73
22	8.28	6.98	99	32
23	4.91	3.45	100	44
24	5.63	3.46	93	50
25	4.74	3.56	108	40
26	5.88	3.07	295	56
27	4.71	2.35	286	57
28	4.73	2.05	112	61

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>MARCH 1989</u>				
1	--	--	--	--
2	--	--	--	--
3	6.15	3.86	292	49
4	4.64	2.34	59	57
5	6.98	4.71	88	46
6	8.10	6.74	93	33
7	8.86	7.71	87	29
8	6.14	4.45	98	43
9	5.92	4.24	124	43
10	7.34	5.34	131	42
11	4.73	2.68	107	53
12	5.77	3.85	115	47
13	8.81	3.96	255	60
14	11.40	10.54	281	22
15	3.96	1.44	275	65
16	5.65	1.82	171	67
17	11.09	8.50	274	39
18	6.31	2.51	121	63
19	4.57	.16	205	80
20	5.53	1.62	280	68
21	6.23	4.55	103	42
22	6.48	3.15	102	58
23	7.90	3.80	85	58
24	5.38	3.01	113	54
25	6.80	3.11	128	60
26	7.08	2.05	95	68
27	5.14	2.04	261	63
28	5.98	.58	162	77
29	5.84	4.35	270	41
30	7.47	4.22	278	53
31	7.04	.72	164	77

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>APRIL 1989</u>				
1	3.83	1.95	98	57
2	8.79	7.44	267	32
3	9.32	8.55	277	23
4	11.85	10.67	281	26
5	5.64	3.70	282	48
6	9.61	6.23	280	48
7	8.90	6.00	281	46
8	10.79	9.83	281	24
9	9.18	7.04	280	39
10	6.28	3.45	87	54
11	6.38	1.34	101	72
12	5.81	4.02	93	45
13	5.71	.07	113	81
14	7.33	1.52	149	72
15	7.56	2.13	234	69
16	7.06	3.18	281	60
17	8.73	4.77	273	55
18	7.86	2.62	281	66
19	6.42	2.13	122	66
20	6.48	3.79	96	52
21	7.33	2.62	159	65
22	8.85	3.82	159	61
23	8.21	5.16	121	49
24	7.49	4.93	121	47
25	6.94	2.02	139	68
26	8.06	1.73	235	72
27	5.87	3.78	271	48
28	5.84	.68	224	76
29	5.73	3.04	280	56
30	6.43	3.07	271	59

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>MAY 1989</u>				
1	7.65	3.63	275	59
2	7.19	1.65	96	71
3	7.84	4.48	272	53
4	8.85	7.20	282	35
5	6.69	1.70	289	70
6	6.38	.27	277	79
7	7.27	.51	165	78
8	8.14	1.37	78	74
9	8.70	5.34	82	50
10	11.39	9.67	92	31
11	8.84	5.60	89	49
12	4.94	2.23	269	60
13	7.31	2.88	89	63
14	9.93	7.90	86	37
15	7.89	4.92	84	50
16	5.08	.94	103	73
17	4.83	1.44	277	68
18	6.23	2.14	252	66
19	8.12	5.60	275	45
20	5.45	.06	309	81
21	6.49	1.02	183	74
22	6.37	.84	168	75
23	8.18	3.81	231	59
24	8.75	7.71	279	28
25	6.93	3.20	279	59
26	5.48	.80	70	75
27	7.10	1.45	199	72
28	8.40	3.98	170	59
29	7.44	2.69	186	65
30	7.24	3.36	243	59
31	7.01	3.15	274	60

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JUNE 1989</u>				
1	5.69	0.76	308	75
2	6.64	1.56	119	71
3	6.79	2.35	83	65
4	6.46	2.47	89	64
5	6.33	1.82	98	68
6	6.66	1.25	81	73
7	5.73	2.39	90	62
8	9.07	7.01	88	39
9	8.06	5.09	86	49
10	6.87	4.00	82	52
11	6.14	.29	3	79
12	5.56	2.64	83	59
13	4.58	1.46	275	67
14	6.37	.92	247	75
15	5.77	1.24	111	72
16	8.55	4.41	248	56
17	6.25	.58	347	77
18	6.28	1.48	109	71
19	7.40	1.22	167	74
20	9.46	6.26	239	47
21	7.45	3.79	281	57
22	5.56	1.68	75	68
23	6.62	1.82	73	69
24	6.61	1.74	283	70
25	6.44	1.91	262	68
26	6.04	1.20	286	72
27	6.21	.51	192	78
28	7.13	1.34	212	73
29	7.14	5.60	89	38
30	8.06	2.08	108	70

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>JULY 1989</u>				
1	7.24	1.86	191	70
2	5.71	3.45	89	51
3	5.78	1.81	99	67
4	6.69	1.50	90	71
5	5.09	.91	101	73
6	6.04	1.68	82	69
7	6.99	3.59	96	56
8	7.02	4.64	88	47
9	8.98	6.83	86	40
10	6.49	2.69	77	62
11	7.11	6.11	84	30
12	7.69	6.17	88	36
13	6.65	2.66	96	63
14	5.04	.84	91	74
15	7.56	3.49	92	59
16	6.91	2.41	193	65
17	7.98	2.09	270	70
18	5.08	1.55	91	68
19	6.42	2.35	94	64
20	7.55	5.28	83	44
21	8.46	6.45	83	39
22	6.40	2.35	79	64
23	6.31	2.53	94	63
24	5.00	2.70	89	55
25	8.52	6.75	85	37
26	9.19	8.60	82	21
27	5.35	2.49	99	59
28	5.97	4.33	92	42
29	5.64	2.37	92	62
30	6.05	4.61	84	40
31	6.79	5.35	80	37

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>AUGUST 1989</u>				
1	5.86	3.37	89	53
2	5.43	2.08	89	64
3	7.23	.85	171	76
4	6.84	2.17	109	67
5	6.09	3.08	90	57
6	6.67	3.56	85	55
7	7.33	2.89	70	63
8	7.43	4.99	84	46
9	5.63	.19	240	80
10	4.99	.66	97	75
11	4.22	1.28	128	68
12	4.09	2.17	101	55
13	4.92	2.05	77	62
14	6.98	.84	51	76
15	5.15	.78	280	75
16	6.90	3.41	84	58
17	10.45	9.91	86	18
18	7.43	3.70	249	57
19	5.85	1.75	73	68
20	5.20	1.09	77	72
21	5.81	.79	300	75
22	4.78	.21	23	79
23	5.58	.98	186	74
24	7.94	2.00	193	70
25	5.06	1.13	289	71
26	5.63	.52	288	77
27	6.53	1.50	230	71
28	5.69	.82	326	75
29	6.02	1.14	96	73
30	7.17	1.53	173	72
31	6.90	1.54	235	71

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>SEPTEMBER 1989</u>				
1	6.29	1.20	99	73
2	7.42	2.41	235	67
3	7.62	2.27	271	68
4	6.07	.96	92	74
5	6.02	1.63	147	69
6	8.16	2.93	136	65
7	7.65	3.14	163	62
8	5.13	.87	227	74
9	4.43	1.90	281	61
10	5.79	1.95	285	66
11	5.95	1.14	75	73
12	5.13	3.25	83	49
13	3.78	1.17	281	67
14	5.01	1.29	105	70
15	5.66	.38	356	78
16	5.31	2.60	87	58
17	6.68	2.16	150	67
18	6.54	.54	256	78
19	4.36	.56	37	76
20	7.03	.97	332	75
21	4.74	2.76	282	52
22	8.12	7.23	87	27
23	7.12	1.71	60	71
24	6.26	1.30	129	72
25	6.50	2.78	81	61
26	6.71	.89	353	75
27	5.70	3.10	93	55
28	5.44	.96	71	74
29	7.98	4.15	82	56
30	7.31	3.09	194	62

Table 2.--*Windspeed and wind-vector data,
October 1987-December 1989--Continued*

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>OCTOBER 1989</u>				
1	6.80	3.05	276	60
2	7.15	1.90	168	69
3	7.19	3.51	158	58
4	6.87	3.18	250	59
5	5.31	1.44	85	69
6	5.85	.34	12	79
7	6.03	.37	88	78
8	5.63	.92	89	74
9	6.18	1.44	101	71
10	6.40	1.22	106	73
11	7.71	1.67	285	72
12	5.48	.71	24	76
13	5.58	.48	61	77
14	5.66	1.35	116	71
15	3.70	.25	292	78
16	3.78	.77	304	72
17	4.60	1.00	97	72
18	4.43	1.82	94	62
19	7.40	5.45	86	42
20	4.47	1.33	71	68
21	4.54	.88	146	73
22	3.99	.52	344	76
23	5.32	1.44	111	69
24	5.68	1.70	105	68
25	8.49	5.93	103	45
26	5.87	3.39	264	53
27	5.83	4.68	102	36
28	6.88	2.69	268	63
29	4.10	2.06	273	57
30	4.30	.67	94	74
31	4.20	.42	219	77

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>NOVEMBER 1989</u>				
1	4.04	0.67	277	74
2	5.07	2.92	103	53
3	4.65	1.34	118	68
4	6.11	3.82	269	50
5	5.92	3.98	279	46
6	4.97	1.55	273	67
7	5.04	2.82	290	54
8	6.04	3.08	295	57
9	2.97	1.03	100	65
10	3.31	1.09	87	66
11	4.38	2.83	99	48
12	6.37	1.36	149	72
13	6.63	.96	219	75
14	8.55	7.03	279	34
15	6.49	3.38	289	56
16	4.86	3.49	116	43
17	4.85	1.02	85	72
18	5.05	2.44	100	58
19	5.06	3.51	83	45
20	5.81	4.18	96	43
21	5.61	1.63	91	68
22	5.38	2.15	86	63
23	4.59	2.71	96	52
24	6.60	3.06	244	59
25	5.19	.73	301	75
26	8.22	2.51	270	68
27	8.90	8.35	284	20
28	5.53	2.69	87	58
29	5.68	3.40	96	51
30	4.49	2.90	92	48

Table 2.--Windspeed and wind-vector data,
October 1987-December 1989--Continued

Day of month	Average windspeed (miles per hour)	Wind-vector magnitude (miles per hour)	Wind-vector direction (degrees from north)	Standard deviation of wind-vector direction (degrees)
<u>DECEMBER 1989</u>				
1	4.02	2.14	108	55
2	4.61	2.92	114	49
3	6.05	4.02	104	47
4	4.55	2.61	110	53
5	3.89	2.43	94	50
6	5.31	2.26	285	61
7	4.67	2.00	304	61
8	6.30	4.44	94	44
9	5.40	.87	205	74
10	5.18	2.89	296	54
11	4.20	1.01	320	71
12	4.99	3.37	120	46
13	3.14	.70	328	71
14	7.39	6.45	286	29
15	5.38	4.18	295	38
16	2.67	.95	326	65
17	1.94	.64	57	66
18	4.12	.66	329	74
19	4.85	3.27	113	46
20	5.52	4.28	108	38
21	6.10	1.02	230	74
22	5.76	4.74	105	34
23	5.46	3.03	102	54
24	5.98	4.89	103	35
25	6.54	4.12	80	49
26	6.85	4.65	91	46
27	8.80	6.91	80	38
28	5.13	3.41	101	47
29	4.44	1.84	83	62
30	4.28	2.49	306	52
31	6.72	6.00	79	26

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989

[--, no data]

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
<u>OCTOBER 1987</u>																
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	4.99	41.69	32.38	4.34	2.52	7.51	4.78	3.65	1.9	7.8	7.0	1.2	0.9	2.2	1.5	1.4
30	1.20	27.82	31.80	1.42	2.64	7.10	5.16	1.42	.9	6.0	7.5	.7	1.3	3.5	3.0	1.0
31	2.23	57.94	28.63	3.53	2.42	12.89	4.13	1.80	.9	9.4	6.3	1.2	1.0	3.0	1.4	.7

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
NOVEMBER 1987																
1	6.38	41.42	49.70	11.09	3.62	10.94	5.18	2.45	1.5	6.5	8.0	2.3	1.0	2.4	1.5	0.7
2	3.26	7.94	11.26	2.09	5.78	29.33	21.60	4.51	1.7	3.8	4.7	1.1	1.8	5.6	3.8	1.4
3	4.25	21.50	16.51	.79	2.11	16.61	12.77	3.86	1.8	7.1	4.8	.5	.9	4.2	3.4	1.2
4	3.48	25.13	47.11	5.98	1.75	9.22	7.27	4.42	1.0	5.6	9.1	1.5	.7	2.4	1.9	1.5
5	4.25	56.66	47.54	4.06	2.78	8.52	9.55	8.04	1.1	6.8	7.1	1.1	1.0	2.3	2.5	2.1
6	5.14	25.66	20.98	2.42	5.57	29.90	23.11	7.73	1.8	4.3	3.9	1.0	1.6	5.1	4.0	2.3
7	1.06	1.82	2.21	.29	2.57	41.50	41.21	5.86	.8	1.3	1.4	.2	1.4	7.9	8.5	2.3
8	4.56	42.24	35.23	4.70	1.20	6.26	3.31	1.73	1.6	8.2	7.2	1.4	.6	2.5	1.4	1.0
9	4.03	45.84	41.09	4.22	3.38	11.74	9.10	4.49	1.1	7.0	7.1	1.2	1.1	2.7	2.2	1.4
10	3.89	49.85	30.70	3.62	2.38	22.08	20.14	5.38	1.0	7.5	5.3	1.0	.8	3.4	3.5	1.3
11	2.64	25.51	47.64	10.03	2.47	15.58	10.56	3.29	1.0	5.3	8.3	2.0	.8	3.0	2.4	1.1
12	5.18	39.00	28.82	4.20	2.81	6.74	9.29	7.01	1.4	6.6	6.0	1.5	1.1	2.4	2.9	2.0
13	2.16	21.58	47.54	8.21	4.82	21.62	12.89	3.24	.8	3.9	7.8	1.7	1.3	4.2	3.1	1.1
14	2.57	7.56	7.63	3.17	3.77	33.77	30.58	3.96	1.5	2.7	2.4	1.7	1.7	7.1	5.3	1.4
15	2.66	7.54	7.25	.38	3.55	55.80	54.34	8.02	.9	1.8	1.6	.1	.6	8.2	8.6	2.0
16	2.35	38.52	54.19	8.30	1.32	3.10	3.07	2.30	.9	7.2	10.0	2.0	.7	1.1	1.1	.9
17	3.38	7.97	8.86	.86	4.61	55.66	60.17	10.42	1.1	2.1	2.2	.5	1.4	6.8	7.1	2.6
18	2.33	127.85	59.42	3.31	1.13	1.87	1.87	2.74	.6	12.0	7.9	.8	.4	.7	.6	.8
19	5.26	46.10	87.53	15.62	4.08	3.05	3.36	4.44	1.1	5.6	10.4	2.7	1.1	.9	1.0	1.1
20	8.11	104.45	74.86	5.90	4.13	3.19	3.67	4.56	1.2	9.9	8.4	1.0	.8	.8	.9	1.0
21	4.58	20.90	61.39	7.90	1.99	10.97	17.16	10.08	1.2	4.4	9.0	1.4	.7	2.0	2.9	2.2
22	.82	29.09	48.50	9.70	1.56	6.91	8.18	2.54	.4	6.1	9.6	2.1	.6	1.8	2.3	.9
23	1.92	19.30	30.19	6.98	2.33	23.54	17.62	1.94	1.0	4.5	6.9	1.8	.7	4.7	3.5	.8
24	1.78	20.64	42.36	9.17	2.71	9.26	16.46	2.42	.8	5.7	8.0	2.0	.8	2.1	3.6	.8
25	3.84	62.95	55.75	12.12	1.10	5.47	7.20	5.93	1.0	6.9	8.2	1.9	.4	1.7	2.1	1.7
26	.89	58.01	33.58	2.30	1.87	13.78	6.34	1.10	.3	8.8	6.5	1.1	.9	4.0	1.8	.5
27	1.97	29.71	13.27	8.38	6.96	18.22	11.50	3.98	1.0	4.9	3.4	1.9	2.0	5.5	3.5	1.5
28	2.64	84.58	68.16	12.86	2.30	3.12	.86	1.70	.7	8.2	10.1	2.4	.7	.8	.4	.5
29	1.85	25.63	56.57	6.48	1.70	13.94	6.86	2.11	.6	6.4	10.4	1.2	.5	2.5	1.4	.7
30	2.90	32.18	48.38	6.46	1.73	11.16	7.58	2.42	1.0	6.6	8.6	1.4	.8	2.8	1.9	.8

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
DECEMBER 1987																
1	2.93	27.00	60.02	12.46	2.57	4.73	5.28	4.22	1.0	5.0	9.7	2.5	1.1	1.7	1.6	1.3
2	3.14	32.62	61.78	8.42	1.25	2.62	2.88	2.02	1.1	6.9	11.1	1.7	.4	.8	1.1	.7
3	2.06	35.93	58.66	13.08	1.08	1.06	1.42	.96	.8	7.3	10.9	2.7	.5	.5	.6	.4
4	3.70	20.86	58.99	15.96	4.51	5.95	6.10	6.43	1.1	4.1	9.2	2.9	1.3	1.8	1.7	1.7
5	3.89	18.36	33.62	6.46	2.54	4.34	3.94	2.76	1.6	5.4	7.8	1.8	2.0	2.4	1.7	1.2
6	2.35	41.86	46.73	8.66	2.76	4.30	2.54	2.40	.8	6.8	9.6	2.3	1.0	1.6	.9	.7
7	1.46	11.33	41.95	10.39	8.69	54.72	50.04	3.05	.6	2.2	6.0	1.6	1.2	5.9	5.9	.7
8	2.74	31.94	29.98	3.67	2.35	19.75	32.62	5.95	1.1	4.8	5.1	.9	1.1	4.1	5.3	1.5
9	3.26	65.33	45.31	4.42	1.99	8.28	9.94	6.77	1.0	7.3	6.3	.9	.9	2.5	2.9	1.9
10	3.22	11.88	34.01	9.46	9.02	84.55	57.96	5.30	1.2	2.8	5.1	1.4	.9	6.5	4.9	1.2
11	.12	.02	.00	.07	1.87	139.68	144.34	7.37	.0	.0	.0	.0	.2	11.0	12.0	.7
12	2.23	17.59	23.83	1.70	5.78	45.58	30.41	4.15	.5	2.9	3.9	.6	1.6	7.8	5.4	1.2
13	.65	211.20	47.40	.22	.00	.00	.00	.00	.0	19.0	4.9	.0	.0	.0	.0	.0
14	1.37	20.74	19.46	2.02	1.90	41.35	29.35	4.90	.5	3.4	4.3	.6	.6	7.6	5.7	1.2
15	2.23	38.42	78.86	12.74	1.80	1.46	1.68	3.14	.7	5.7	11.4	2.6	.7	.7	.8	1.2
16	6.12	69.62	51.50	12.94	3.43	6.50	4.10	4.03	1.2	7.7	7.2	2.6	1.1	2.0	1.2	.9
17	4.61	15.10	30.12	12.24	2.98	3.94	6.62	9.53	1.8	4.1	6.2	3.2	1.3	1.8	2.4	3.1
18	4.78	12.05	19.32	4.13	3.26	15.82	11.76	6.43	1.6	2.8	4.4	1.4	1.7	5.8	4.1	2.2
19	1.92	3.82	5.66	.05	.82	42.79	46.49	5.54	1.4	2.4	2.5	.0	.4	7.2	8.5	1.6
20	3.55	36.79	73.01	13.90	1.25	1.80	1.94	1.90	1.1	6.6	11.1	2.4	.5	.6	.8	.7
21	4.30	32.35	31.37	4.94	6.82	45.94	22.99	7.27	1.1	3.9	5.1	1.1	1.4	6.0	3.6	1.7
22	3.34	54.65	39.10	9.36	2.78	4.03	3.58	4.18	1.2	6.4	7.1	2.4	1.7	2.1	1.5	1.5
23	1.75	48.22	31.20	1.61	1.51	17.04	35.21	5.14	.6	4.9	3.8	.7	.8	4.2	7.6	1.3
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	2.88	29.88	35.16	6.67	2.81	5.33	1.75	2.33	1.2	8.4	7.5	1.6	1.2	2.3	.9	.8
27	6.12	5.71	24.00	6.19	1.75	15.91	31.46	13.97	2.1	2.1	4.2	1.3	.8	3.5	5.8	3.8
28	7.85	98.30	36.26	2.81	1.01	2.02	4.37	5.02	2.0	10.5	6.0	.7	.6	.8	1.7	1.6
29	7.82	131.47	42.89	7.46	2.50	5.16	5.86	8.62	1.9	9.4	5.5	1.2	.7	1.6	1.5	2.0
30	2.18	10.06	15.36	1.15	12.72	67.37	55.61	5.42	1.1	2.6	3.7	.2	1.2	7.2	6.9	1.0
31	3.46	4.70	3.50	.74	7.34	49.01	42.12	7.97	1.3	1.9	1.3	.4	1.5	7.8	7.3	2.2

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
JANUARY 1988																
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	4.37	31.63	66.19	12.89	1.66	1.92	3.55	4.63	1.3	6.1	10.1	2.4	0.6	0.8	1.2	1.3
4	5.18	51.84	58.80	14.30	4.51	5.23	5.86	7.75	1.3	5.5	7.8	2.7	1.3	1.5	1.7	2.0
5	2.26	19.63	90.05	22.32	1.70	1.66	1.82	4.30	.8	3.5	12.6	3.5	.6	.8	.8	1.3
6	1.99	6.22	13.92	3.89	.91	17.95	49.90	6.38	1.4	3.0	4.3	1.0	.8	3.6	8.1	1.7
7	5.64	60.50	22.10	3.02	.89	2.21	2.90	2.95	2.4	9.7	5.9	1.2	.4	1.3	1.7	1.4
8	3.65	9.14	6.84	1.42	.86	10.46	31.03	10.58	2.3	4.4	2.6	.7	.6	3.2	7.1	2.9
9	5.45	13.73	13.08	1.15	1.78	16.08	18.86	6.19	2.1	4.0	3.7	.5	1.0	5.3	5.2	2.0
10	9.26	46.94	34.94	6.67	2.64	4.85	5.26	7.61	2.8	6.7	4.8	1.3	1.2	2.0	2.2	2.7
11	5.66	34.61	17.14	5.40	23.02	89.16	50.74	8.76	1.2	3.8	2.4	.9	1.9	7.1	4.8	1.7
12	2.83	18.43	14.02	.98	4.27	54.74	93.65	10.03	1.0	4.0	2.7	.2	.5	4.8	9.0	1.8
13	9.38	120.67	36.36	18.50	1.94	1.97	8.98	6.60	1.9	8.6	4.9	2.7	.6	.7	2.6	1.7
14	6.72	33.55	78.43	24.26	.86	2.09	3.91	6.36	1.9	4.5	9.5	3.4	.4	.7	1.4	1.8
15	5.42	26.21	40.68	18.10	11.93	59.16	39.98	13.13	1.2	2.9	4.1	2.1	1.5	5.2	4.3	2.5
16	4.80	40.20	74.95	6.48	.48	9.50	58.25	7.08	1.3	3.4	9.8	1.2	.2	1.2	5.2	1.6
17	10.34	67.51	56.42	25.70	1.54	2.90	4.37	11.64	2.1	6.2	6.7	3.5	.5	.9	1.3	2.6
18	3.96	103.92	78.84	1.32	.43	2.33	16.20	11.35	1.1	7.7	7.5	.5	.3	.9	3.3	2.5
19	21.34	38.18	47.52	10.15	.65	1.73	6.86	4.78	3.8	5.8	8.7	2.2	.2	.5	1.2	1.3
20	3.86	32.06	120.26	26.14	1.90	2.64	4.20	8.18	1.0	3.7	11.4	3.1	.5	.8	1.3	2.0
21	8.88	17.47	30.65	4.58	1.01	3.38	14.54	11.90	3.0	3.8	5.2	1.1	.7	1.5	4.4	3.8
22	6.26	34.56	134.83	33.07	.60	1.37	2.35	5.93	1.3	4.1	12.2	3.3	.3	.5	.8	1.4
23	7.97	10.32	10.70	4.06	2.26	35.90	169.44	22.73	1.7	1.6	1.2	.7	.7	3.1	12.0	2.8
24	8.59	9.50	20.18	3.82	1.08	5.40	42.26	24.07	2.3	2.4	4.5	.7	.5	1.3	7.1	5.0
25	5.98	26.64	60.31	48.31	1.56	2.64	4.82	7.37	1.6	3.6	7.7	5.8	.6	1.0	1.5	2.0
26	2.66	21.22	71.38	92.14	1.27	1.13	1.82	2.14	.7	2.8	8.6	9.6	.4	.5	.6	.7
27	6.26	40.18	61.37	37.58	3.72	2.88	4.46	8.95	1.8	3.8	7.1	5.1	1.0	1.0	1.6	2.4
28	5.35	68.18	84.60	12.55	2.06	3.50	5.88	7.15	1.5	6.6	8.2	2.1	.8	1.2	1.8	1.7
29	6.38	20.11	33.43	26.71	4.03	14.81	14.06	7.49	1.8	4.4	6.1	3.1	.9	2.7	2.9	1.9
30	3.34	2.88	.86	.36	2.66	21.19	80.40	29.42	1.0	1.1	.5	.1	.4	2.8	12.5	5.5
31	6.96	7.22	14.90	8.35	1.80	4.97	24.84	16.22	2.7	1.9	3.4	2.2	.8	1.8	6.4	4.7

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
FEBRUARY 1988																
1	5.11	15.24	31.51	8.42	1.61	4.20	15.98	7.58	1.9	3.4	6.6	2.9	0.9	1.5	3.7	2.8
2	7.85	9.24	9.77	4.13	1.54	4.78	4.94	5.78	3.6	4.8	4.2	1.5	1.1	2.9	2.9	2.8
3	6.02	15.10	61.68	13.73	1.18	2.66	4.54	5.21	2.0	3.0	11.1	2.3	.5	1.2	2.0	1.9
4	3.86	18.38	61.80	57.50	2.86	2.93	3.62	4.06	1.1	3.4	8.4	6.6	1.0	1.1	1.2	1.1
5	3.65	18.38	55.92	94.66	2.45	4.44	2.69	4.37	.8	2.4	6.8	9.0	.8	1.8	1.0	1.2
6	8.76	64.08	50.54	25.85	2.76	8.02	7.37	9.10	1.7	4.9	6.0	3.4	1.0	2.5	2.2	2.2
7	4.27	18.07	66.65	39.89	1.82	1.94	4.82	6.96	1.3	3.5	9.5	4.8	.6	.7	1.6	2.0
8	3.43	20.09	43.15	18.86	1.73	6.38	9.77	5.59	1.4	3.5	7.3	3.2	.8	2.4	3.2	2.2
9	4.10	12.58	34.87	29.71	9.43	50.93	17.78	3.43	1.4	2.8	5.5	4.8	1.1	4.7	2.5	1.0
10	2.54	.79	.10	.07	1.22	40.39	198.96	27.05	.6	.2	.0	.0	.2	3.6	15.3	3.9
11	1.85	3.31	40.70	12.98	2.30	6.60	10.70	4.18	1.1	1.3	7.6	2.9	1.5	3.2	4.4	1.8
12	4.32	54.31	66.43	40.37	1.01	1.58	2.95	4.15	1.2	5.9	8.8	4.8	.3	.6	1.0	1.2
13	5.52	35.52	22.03	9.72	2.71	32.81	138.24	20.40	1.2	3.0	2.2	1.5	.7	3.2	9.6	2.7
14	2.18	15.12	15.02	1.78	.36	9.79	116.76	28.27	.7	1.7	2.4	.4	.2	1.6	12.3	4.6
15	5.40	19.80	35.40	9.79	2.62	7.22	18.10	12.17	1.8	3.2	5.3	1.9	1.3	2.7	4.3	3.4
16	2.14	3.17	23.81	2.52	.94	15.55	61.75	11.52	.8	1.5	6.2	1.1	.5	2.9	8.2	2.5
17	.82	50.54	93.91	17.90	1.20	2.40	3.46	1.80	.4	4.9	11.5	3.3	.5	1.2	1.3	.8
18	6.22	95.69	57.94	5.54	.48	3.70	11.90	12.67	1.2	6.3	6.9	1.1	.2	1.3	3.4	3.2
19	2.47	16.27	44.21	29.88	2.88	7.68	10.44	6.43	.9	2.5	7.5	4.6	1.2	2.4	2.8	2.0
20	2.42	23.38	46.66	17.40	2.11	9.43	6.14	4.61	1.1	3.1	7.0	3.5	1.0	3.8	2.4	1.8
21	4.99	47.42	59.06	7.18	2.64	3.02	3.38	4.80	1.3	6.4	9.7	1.7	1.1	1.1	1.1	1.5
22	1.75	6.02	49.08	2.50	1.49	30.00	63.36	7.51	.6	1.8	10.0	.8	.4	3.2	6.0	1.1
23	1.56	10.75	69.65	37.49	1.32	5.04	5.54	3.26	.5	1.8	11.4	5.4	.5	1.7	1.6	1.0
24	5.83	36.22	48.74	29.81	3.12	6.77	8.35	10.34	1.2	4.1	6.6	4.0	1.0	2.2	2.4	2.5
25	6.10	58.22	59.71	23.28	2.28	4.37	6.05	5.83	1.1	5.6	8.4	3.2	.7	1.6	1.6	1.5
26	3.70	51.62	51.89	16.61	4.97	7.51	8.45	7.63	.9	4.8	7.3	2.9	1.3	2.4	2.4	2.0
27	2.93	11.45	53.86	9.91	10.30	6.07	4.03	4.46	1.0	2.7	9.4	2.5	3.8	2.0	1.3	1.2
28	.65	8.62	55.92	75.77	1.54	1.10	1.27	.86	.3	1.7	8.9	10.8	.6	.5	.6	.4
29	2.33	20.59	47.52	9.34	4.22	16.20	16.78	6.77	.7	2.8	6.7	2.0	1.4	4.4	4.1	1.8

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
<u>MARCH 1988</u>																
1	2.86	57.50	69.72	20.11	2.66	6.17	4.63	5.16	0.7	5.4	8.6	3.4	0.9	1.8	1.5	1.5
2	2.21	4.87	13.15	9.72	2.47	13.51	24.89	10.20	.9	1.5	3.8	2.7	1.1	4.4	6.6	3.0
3	2.45	5.14	10.61	10.56	3.26	28.51	33.05	10.34	.8	1.2	2.5	2.2	1.1	6.1	7.4	2.6
4	1.46	2.35	18.77	4.73	2.81	40.80	102.41	17.28	.5	.9	4.2	1.1	.6	4.4	10.0	2.2
5	3.70	27.86	68.59	36.86	3.58	4.10	4.49	6.17	1.0	3.3	8.8	5.3	1.1	1.3	1.3	1.7
6	1.97	15.55	36.65	37.73	9.43	21.48	33.62	9.89	.6	1.7	4.7	4.9	2.2	3.8	4.2	1.7
7	1.63	1.49	5.52	1.01	1.56	43.01	172.08	15.12	.5	.7	1.5	.3	.4	4.3	14.1	2.0
8	2.26	21.74	79.46	25.20	1.61	5.26	9.00	7.27	.8	2.5	9.7	4.1	.7	1.8	2.2	2.0
9	4.10	90.48	102.50	6.65	1.10	7.20	7.63	4.85	.9	7.8	9.3	1.2	.4	1.5	1.6	1.2
10	9.82	18.65	10.85	5.71	3.19	16.85	48.41	13.42	2.1	3.0	2.0	1.3	1.1	3.8	7.7	2.8
11	5.71	1.20	.46	.10	2.06	46.66	107.74	14.50	1.8	.5	.2	.1	.4	5.4	12.3	3.3
12	2.16	4.06	23.81	8.16	1.13	18.14	36.91	9.98	.7	1.6	7.2	1.8	.6	3.7	6.2	2.1
13	1.46	10.63	31.46	32.95	1.49	11.11	50.06	18.67	.5	1.4	5.2	4.9	.6	1.9	6.3	3.0
14	1.87	29.28	86.14	40.63	5.33	2.40	3.65	4.70	.6	3.0	9.8	6.0	1.2	.8	1.2	1.3
15	.65	107.66	150.22	6.96	1.15	2.62	4.06	1.92	.1	8.4	12.6	.9	.3	.4	.8	.4
16	2.50	21.60	82.70	.05	.31	12.00	58.75	24.65	.8	2.1	7.2	.0	.1	1.9	7.8	3.9
17	3.12	10.13	19.49	3.10	1.61	18.22	36.96	9.70	1.0	2.2	5.5	.9	.5	3.9	7.2	2.7
18	2.66	29.86	58.56	32.64	4.37	11.52	10.39	8.57	.6	3.2	6.7	4.2	1.2	3.0	2.7	2.2
19	10.54	35.54	68.06	20.28	4.32	4.61	4.01	5.35	1.9	5.0	8.5	3.0	1.2	1.4	1.3	1.5
20	2.06	31.18	52.30	57.84	2.71	7.73	3.00	3.31	.6	4.2	7.3	7.3	.9	1.7	1.0	1.0
21	2.23	12.89	53.06	51.62	3.79	4.44	2.86	2.45	.7	2.8	9.0	7.3	1.2	1.4	.9	.7
22	2.33	5.93	18.14	3.07	3.10	33.91	40.56	11.40	.8	1.8	4.1	1.0	.9	5.7	6.9	2.5
23	1.68	17.47	38.93	11.95	3.86	33.14	59.86	8.18	.5	2.8	6.2	2.1	.8	4.2	5.8	1.4
24	.65	.14	.05	.10	2.11	48.82	164.40	24.36	.1	.0	.0	.0	.2	5.2	15.6	2.7
25	2.66	1.87	5.88	.96	3.74	67.15	125.50	18.07	.6	.5	1.5	.3	.6	6.5	11.5	2.3
26	1.01	20.98	79.18	46.97	3.22	3.96	1.51	2.21	.4	3.4	11.3	6.1	.7	1.0	.4	.6
27	.22	1.68	28.80	35.78	11.57	80.38	91.56	5.59	.0	.4	3.7	3.8	1.3	6.7	7.4	.6
28	.94	2.14	12.72	2.35	1.68	30.22	69.86	8.95	.5	1.1	4.3	.9	.6	4.7	9.6	2.0
29	2.06	13.97	35.50	13.85	4.58	22.94	26.62	9.53	.7	2.2	5.9	3.0	1.2	4.0	4.5	2.4
30	.91	65.81	129.89	2.33	.07	.43	.74	.31	.2	8.3	14.1	.5	.0	.2	.3	.2
31	.19	99.94	194.64	3.05	.34	.14	.98	.22	.0	7.5	15.4	.6	.1	.0	.2	.0

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
APRIL 1988																
1	2.35	6.74	23.54	8.98	3.00	31.94	30.17	5.69	0.8	2.3	6.3	1.9	1.0	5.3	4.9	1.4
2	1.32	9.94	57.38	39.36	2.09	17.42	20.06	4.58	.5	2.0	9.3	5.4	.5	2.5	2.7	.9
3	1.63	5.14	36.46	32.47	16.85	66.91	12.02	2.16	.5	1.2	5.5	4.3	2.5	7.7	1.6	.6
4	2.09	7.25	25.06	7.61	11.23	52.42	44.74	4.51	.7	2.1	5.3	1.6	1.7	6.1	5.0	1.4
5	1.39	12.89	14.71	2.38	2.62	40.73	63.43	6.31	.5	4.2	3.8	.8	.6	5.0	7.8	1.2
6	1.75	47.23	117.65	30.98	2.42	1.37	1.61	2.04	.6	4.3	12.4	4.4	.6	.4	.5	.6
7	1.92	11.81	79.08	36.60	5.81	18.53	7.44	3.79	.6	2.3	9.9	4.9	1.2	2.6	1.4	1.1
8	2.93	2.74	13.51	5.86	4.44	51.65	112.94	14.35	.7	.7	2.8	1.3	1.0	5.2	10.2	2.0
9	1.82	7.10	27.29	1.92	2.57	32.42	59.50	12.53	.6	1.8	6.3	.6	.7	4.7	7.2	1.9
10	2.28	38.42	99.58	9.29	3.00	14.57	19.94	5.93	.7	3.8	10.5	1.4	.7	2.3	3.0	1.4
11	4.54	43.30	136.30	17.93	1.54	3.05	2.69	3.10	1.0	4.4	13.4	2.3	.4	.8	.8	.8
12	3.26	35.62	85.68	27.34	2.40	1.49	2.11	4.80	1.0	4.5	10.9	4.0	.7	.6	.8	1.5
13	3.41	57.07	125.57	13.85	1.32	2.21	3.31	6.14	.8	5.8	12.3	1.7	.3	.6	.9	1.5
14	1.75	73.68	174.72	11.35	1.30	.53	.34	.50	.3	6.0	15.0	1.8	.3	.1	.1	.1
15	1.99	24.79	64.80	11.21	3.24	12.72	12.58	2.45	.6	3.5	10.2	2.5	1.0	2.9	2.5	.8
16	.86	125.21	178.32	2.52	.17	.05	.00	.00	.1	9.9	13.5	.3	.0	.0	.0	.0
17	1.73	72.29	69.98	5.62	2.23	8.95	11.57	3.38	.6	6.8	8.9	1.3	.8	1.9	2.5	1.0
18	3.50	16.94	51.53	5.81	3.62	19.87	23.86	9.00	.9	3.1	7.3	1.4	1.0	4.1	4.2	1.8
19	1.44	4.20	11.26	2.59	4.44	40.15	53.02	10.18	.5	1.4	3.0	1.0	1.2	6.2	8.3	2.3
20	1.32	9.98	54.96	21.79	10.03	48.24	18.38	1.42	.5	2.1	8.5	3.3	1.6	5.2	2.1	.5
21	4.54	29.28	38.62	12.67	6.62	19.54	15.48	5.90	1.4	4.4	6.2	2.5	1.4	3.1	2.9	1.8
22	2.42	1.34	2.54	1.90	9.89	58.58	71.35	14.88	.9	.8	1.3	.6	1.8	7.2	8.1	3.0
23	1.80	3.70	11.98	5.21	8.33	47.78	46.73	10.56	.6	1.4	4.2	1.3	1.5	6.2	6.0	2.5
24	3.43	8.38	12.79	7.32	3.98	31.44	44.38	6.55	1.0	2.4	3.6	2.4	1.2	5.6	5.9	1.7
25	3.10	14.23	18.05	3.26	3.98	36.72	92.26	13.58	.9	2.3	2.9	1.0	.8	4.6	9.1	2.3
26	3.84	10.10	36.98	3.82	2.42	17.28	34.61	10.78	1.1	2.8	8.9	1.1	.6	2.5	4.8	2.1
27	2.83	14.30	37.15	5.21	1.80	22.42	52.85	11.47	.8	3.0	7.3	1.2	.5	3.0	6.2	2.0
28	7.39	59.98	68.40	9.89	3.02	6.60	12.12	7.82	1.4	6.9	7.7	1.7	.7	1.3	2.3	1.8
29	1.90	20.88	51.53	5.62	1.63	25.73	51.31	8.76	.5	3.5	8.0	1.0	.4	3.1	6.0	1.4
30	1.49	19.85	89.52	24.74	13.63	30.46	6.60	2.04	.4	2.4	10.1	3.9	2.0	3.4	1.2	.5

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
MAY 1988																
1	.53	5.57	17.21	15.58	10.97	41.98	96.77	15.96	0.1	0.8	2.7	2.6	1.8	4.6	9.6	1.8
2	.98	1.51	6.38	1.68	1.03	45.91	148.25	10.82	.4	.6	1.6	.5	.3	4.6	13.8	2.0
3	5.54	20.59	55.46	8.06	2.16	9.62	15.53	9.58	1.6	3.8	7.9	1.8	.7	2.3	3.2	2.6
4	1.92	65.52	124.42	11.71	6.72	23.40	8.35	.77	.3	5.2	11.0	2.0	1.1	3.0	1.1	.1
5	.46	52.61	117.79	22.75	16.20	29.90	5.98	.53	.1	3.8	10.4	3.1	2.2	3.4	.7	.1
6	.74	5.76	28.18	17.64	24.82	123.60	52.75	3.65	.2	.7	3.9	2.3	2.4	9.7	4.3	.5
7	.22	.12	.19	.41	13.44	131.06	157.68	17.38	.0	.0	.0	.0	1.1	9.4	11.6	1.8
8	.89	2.18	5.86	1.94	3.07	36.50	78.31	19.08	.3	.7	1.4	.6	.6	5.2	11.3	3.7
9	2.54	8.33	34.56	9.19	1.34	26.69	64.54	10.80	.8	2.3	6.6	1.8	.3	3.0	7.2	2.0
10	2.52	18.82	39.38	6.19	1.82	21.48	47.66	7.30	.8	3.5	7.8	1.6	.6	3.0	5.4	1.2
11	2.21	49.30	99.43	4.66	2.30	17.54	23.16	5.06	.5	4.4	10.0	1.0	.6	2.8	3.6	1.1
12	6.14	19.66	29.02	7.94	4.34	17.74	28.13	14.02	1.6	3.3	4.9	1.7	1.1	3.1	4.8	3.3
13	3.26	43.92	39.31	8.40	12.29	54.50	31.63	5.38	.8	3.9	4.5	1.5	2.0	6.3	3.7	1.2
14	3.19	6.38	18.19	1.06	1.68	40.58	111.17	15.36	.9	1.5	3.5	.4	.4	4.3	10.3	2.6
15	1.94	12.82	53.16	8.57	1.51	21.07	39.48	10.85	.6	2.6	9.0	1.4	.4	2.9	5.1	1.9
16	4.70	53.83	65.33	7.82	7.10	30.86	20.88	6.31	.9	4.5	6.9	1.5	1.2	4.2	3.1	1.4
17	3.19	17.71	48.41	16.99	8.62	30.77	21.19	8.74	.9	2.7	6.8	2.8	1.5	4.3	3.3	1.5
18	2.71	17.23	45.38	4.39	2.62	20.16	49.39	10.97	.8	2.2	5.0	1.2	.7	3.6	7.7	2.6
19	1.03	4.94	3.31	.41	.41	32.30	86.86	5.54	.4	1.8	1.7	.3	.3	6.0	11.3	2.1
20	6.84	19.70	24.77	3.79	2.71	17.66	24.74	8.59	1.5	4.4	5.1	1.3	1.2	4.1	4.2	2.1
21	6.94	43.15	49.54	6.24	2.28	16.66	19.22	4.39	1.4	6.5	7.8	1.3	.6	2.6	2.9	.9
22	3.07	29.16	43.54	9.62	3.34	21.84	24.29	5.95	.8	4.5	7.4	2.3	.8	3.1	3.6	1.4
23	2.30	21.72	55.70	3.96	2.33	22.82	26.81	6.84	.6	2.9	8.4	1.3	.7	3.9	4.4	1.6
24	3.43	16.73	46.13	8.78	4.27	24.74	34.34	7.94	.8	3.0	7.2	1.7	1.1	3.7	4.7	1.7
25	3.74	35.52	79.75	11.47	3.12	11.64	16.10	6.86	.9	4.1	9.5	2.0	.8	2.1	2.8	1.5
26	3.53	48.00	74.42	14.14	7.85	15.02	8.74	5.30	.8	5.2	8.4	2.4	1.6	2.5	1.8	1.3
27	1.30	55.06	105.17	5.93	3.17	23.52	29.21	4.27	.3	4.7	9.9	1.4	.7	2.8	3.3	.8
28	4.20	30.60	55.15	9.58	3.89	11.06	14.52	7.15	1.0	3.8	8.2	2.5	1.2	2.4	3.0	1.7
29	.72	39.94	111.53	15.89	3.89	10.49	19.99	5.26	.2	3.6	11.3	2.8	.8	1.6	2.7	.9
30	2.16	20.83	29.54	3.65	3.41	36.58	62.71	10.01	.5	2.3	3.9	.9	.9	5.6	8.2	1.6
31	3.31	10.66	23.69	4.75	1.99	26.71	67.90	13.30	.9	2.3	5.2	1.3	.7	3.4	7.7	2.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
JUNE 1988																
1	5.45	2.30	6.07	1.56	3.36	32.74	53.16	13.97	2.0	1.2	2.7	0.9	1.1	4.9	7.5	3.5
2	5.23	9.24	24.07	4.10	2.64	21.17	29.04	9.77	1.6	2.4	6.1	1.0	.7	3.9	5.5	2.5
3	2.47	67.03	89.95	6.60	2.69	9.89	17.33	6.22	.5	5.6	9.2	1.3	.7	2.1	3.0	1.2
4	4.97	38.95	45.48	6.94	4.85	15.46	20.06	9.34	1.1	4.6	6.2	1.6	1.3	3.2	3.7	2.1
5	1.94	66.17	133.01	13.85	3.41	9.89	4.97	1.99	.4	5.4	12.3	2.1	.7	1.5	1.0	.5
6	2.71	50.57	60.58	10.32	6.36	23.47	16.10	3.58	.7	5.0	7.6	2.0	1.5	3.8	2.5	.8
7	3.58	16.46	40.92	19.03	6.89	21.65	11.57	4.87	1.0	3.4	7.6	3.4	1.6	3.5	2.0	1.3
8	3.67	9.38	37.18	11.71	4.94	21.10	40.61	7.73	1.1	2.3	6.7	2.3	1.3	3.1	5.3	1.7
9	1.68	50.18	90.36	7.70	3.84	24.07	33.26	5.26	.4	4.5	8.9	1.4	.8	3.0	3.9	1.0
10	1.37	50.95	121.15	11.74	15.70	52.75	22.56	1.30	.2	3.5	8.4	1.4	1.8	5.7	2.5	.3
11	3.53	48.29	110.42	11.52	2.64	3.77	5.06	4.15	.8	4.9	11.7	2.2	.7	1.1	1.3	1.1
12	4.78	59.30	122.76	8.02	7.68	7.49	4.44	1.10	1.0	5.8	11.3	1.8	1.5	1.3	.9	.3
13	9.05	42.65	62.83	10.85	3.96	8.06	10.97	5.59	1.7	5.1	8.5	1.8	1.0	1.9	2.4	1.5
14	19.18	15.31	31.73	4.46	2.52	14.16	12.36	6.10	5.2	3.8	6.1	1.4	.7	2.4	2.4	1.9
15	31.97	50.88	49.87	6.22	6.10	20.98	12.98	2.57	3.7	5.5	6.1	1.3	1.2	3.3	2.1	.6
16	8.90	28.13	49.99	5.28	4.73	21.89	20.64	7.49	1.7	3.7	6.0	1.3	1.1	4.1	4.1	1.9
17	4.49	55.01	101.11	14.47	4.85	12.74	9.34	2.71	.6	5.2	10.6	2.2	.9	2.1	1.6	.7
18	2.81	13.01	31.58	23.88	7.22	14.38	8.83	5.62	.9	2.5	5.7	4.7	2.2	3.6	2.5	1.7
19	3.17	37.51	73.82	11.33	7.34	8.47	4.30	4.99	.9	4.8	9.0	2.4	1.8	2.0	1.3	1.6
20	3.84	33.34	83.50	11.76	7.92	12.07	8.88	2.62	1.0	4.0	9.6	2.5	1.7	2.3	2.0	.7
21	4.80	51.72	81.34	7.08	2.42	10.27	13.08	5.81	1.0	5.8	9.7	1.4	.7	1.7	2.1	1.3
22	2.88	69.12	116.81	2.52	1.87	7.39	6.22	2.35	.8	7.1	11.2	.7	.6	1.5	1.4	.7
23	5.38	38.14	47.86	6.22	3.22	9.60	9.07	6.65	1.4	5.8	7.7	1.7	1.0	2.2	2.2	1.8
24	4.90	46.37	75.00	3.86	2.76	10.49	11.26	6.07	1.3	5.7	8.4	1.1	.9	2.4	2.4	1.6
25	.41	105.74	151.27	4.82	.34	.10	.19	.19	.1	8.8	14.2	.6	.0	.0	.1	.0
26	1.70	49.39	97.27	9.48	1.75	6.00	7.20	2.06	.4	5.7	12.8	1.7	.4	1.1	1.3	.5
27	4.03	35.28	76.08	11.76	11.09	10.63	7.18	3.36	1.0	4.4	9.0	2.4	2.2	2.1	1.7	1.1
28	2.62	11.50	31.42	8.71	14.30	21.12	10.10	2.52	1.0	2.1	5.4	2.2	3.6	5.0	3.3	1.3
29	3.74	32.93	29.18	4.99	8.78	14.09	16.18	3.67	1.3	5.6	6.1	1.6	2.6	3.3	2.6	.8
30	5.83	30.96	23.06	12.05	24.26	9.00	6.38	3.98	1.5	5.7	4.6	2.7	4.5	2.0	1.5	1.3

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
JULY 1988																
1	19.10	40.61	21.24	14.16	8.28	2.11	0.67	0.70	3.8	7.8	5.4	3.8	2.1	0.6	0.2	0.2
2	5.30	35.23	79.68	19.06	9.55	6.46	3.86	2.18	1.4	4.3	9.5	3.3	2.3	1.5	1.0	.6
3	6.91	50.81	77.83	5.93	2.95	10.18	9.46	5.52	1.4	6.1	8.8	1.2	.7	2.0	2.0	1.5
4	9.46	20.81	41.83	12.31	3.98	8.81	9.05	7.61	2.3	3.7	7.3	2.8	1.3	2.1	2.2	2.2
5	8.04	70.18	104.54	23.18	5.04	2.81	2.62	.65	1.1	7.0	10.5	3.4	1.0	.4	.3	.1
6	3.60	31.85	55.56	24.72	3.86	8.14	8.26	3.00	.9	4.8	8.3	4.3	1.0	1.9	1.9	.8
7	3.24	14.54	45.24	8.52	14.74	28.63	12.24	4.66	1.0	2.5	7.7	2.1	2.3	4.4	2.5	1.3
8	3.98	17.45	38.14	8.57	4.15	25.85	36.46	9.46	1.0	2.8	6.1	1.7	1.2	3.9	5.1	2.0
9	5.35	45.98	45.67	6.79	3.41	17.42	17.71	5.40	1.1	5.3	6.6	1.6	1.2	3.6	3.3	1.3
10	1.92	95.38	126.98	13.22	3.24	4.27	2.90	.91	.3	7.6	11.8	2.0	.6	.8	.5	.2
11	3.55	39.53	61.92	10.15	17.78	24.46	11.78	4.63	.8	4.5	7.1	1.9	2.7	3.5	2.0	1.2
12	3.17	7.70	31.08	18.22	13.44	52.70	16.99	3.84	.9	1.7	5.6	3.1	2.3	6.8	2.4	1.0
13	3.58	31.94	62.90	16.34	5.47	7.99	9.22	3.48	1.0	4.9	9.9	2.8	1.2	1.6	1.6	.8
14	1.85	44.33	67.01	11.28	19.73	45.17	6.43	1.30	.4	4.6	7.4	2.0	2.9	5.4	.9	.4
15	2.86	31.97	96.89	17.04	4.37	9.00	7.39	4.03	.9	4.0	10.4	2.6	1.2	2.1	1.7	1.1
16	3.17	41.74	108.46	8.93	5.04	8.23	6.24	1.82	.6	4.9	12.2	1.8	1.2	1.6	1.2	.4
17	3.36	7.75	43.20	10.75	12.91	35.42	29.45	8.42	.9	1.8	7.1	1.7	1.9	4.7	4.0	1.8
18	3.98	13.18	50.38	6.55	1.39	21.12	32.95	9.17	1.1	3.1	8.9	1.2	.5	2.9	4.4	1.8
19	4.87	13.51	39.07	3.31	1.87	28.08	35.81	7.42	1.2	3.0	8.1	.9	.5	3.8	4.6	1.6
20	4.97	24.67	58.85	7.20	2.95	16.70	16.22	6.29	1.2	4.1	8.9	1.8	.9	3.1	2.6	1.3
21	4.70	14.76	25.78	9.89	13.13	35.28	19.75	6.43	1.3	3.3	5.0	2.1	2.2	4.9	3.4	1.7
22	2.78	13.63	55.08	19.56	4.87	20.04	17.83	6.86	.7	2.7	8.7	2.9	1.2	3.4	2.9	1.4
23	5.16	14.23	47.71	21.62	3.96	15.98	17.98	5.14	1.2	2.9	8.3	3.5	1.0	2.9	2.9	1.1
24	5.81	12.19	54.07	15.89	7.94	10.63	7.78	3.89	1.5	3.0	9.3	3.1	1.6	2.3	1.8	1.1
25	4.34	20.09	58.13	11.45	3.98	19.13	12.67	6.55	1.0	3.5	9.6	2.2	.9	3.0	2.3	1.4
26	2.78	35.40	82.06	12.43	4.20	13.08	12.02	4.99	.7	4.4	10.4	2.1	.9	2.2	2.2	1.1
27	11.98	20.23	69.96	6.22	2.74	4.49	9.84	8.04	2.4	3.5	10.9	1.5	.9	1.0	1.8	1.8
28	48.62	25.92	46.18	9.89	1.42	2.21	1.82	1.01	7.4	4.7	7.9	1.8	.4	.7	.7	.3
29	110.74	12.58	24.31	3.86	2.11	1.66	1.13	2.18	14.6	2.3	3.6	.9	.7	.6	.5	.7
30	107.21	11.18	22.25	3.29	.96	1.68	1.22	.48	17.6	1.3	3.2	.7	.3	.4	.3	.1
31	20.57	30.89	52.44	11.50	13.34	9.34	5.21	3.17	6.3	3.4	6.6	2.0	2.1	1.7	1.1	.7

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
AUGUST 1988																
1	8.54	21.96	36.00	5.93	21.62	25.78	15.29	4.80	2.1	3.4	5.0	1.5	3.6	4.3	2.6	1.2
2	12.07	40.30	32.14	5.40	4.70	15.77	15.48	5.45	2.7	5.5	5.1	1.4	1.2	3.1	3.1	1.7
3	23.71	4.90	6.60	2.66	3.77	25.27	27.86	10.54	4.9	1.4	2.1	1.0	1.2	4.8	5.6	2.9
4	4.39	11.62	32.62	3.82	3.24	20.23	20.04	6.91	1.3	2.8	6.9	1.1	1.4	4.5	4.1	1.8
5	3.74	8.62	35.14	12.96	4.56	16.30	20.57	8.50	1.1	2.4	7.2	2.9	1.3	3.1	3.8	2.1
6	3.07	8.26	36.98	19.44	3.10	20.98	30.22	7.80	.8	1.9	6.9	3.5	.9	3.7	4.5	1.6
7	12.98	42.55	51.65	11.09	1.18	3.24	3.26	1.82	3.1	6.9	8.3	2.6	.5	.9	.9	.7
8	72.31	16.30	40.99	3.46	3.14	7.68	10.97	2.69	9.6	2.1	6.6	.9	.9	1.4	1.8	.6
9	28.34	9.26	41.98	9.10	3.58	16.73	23.38	5.02	4.8	2.2	7.5	1.8	.8	2.4	3.3	1.1
10	3.65	10.61	34.90	9.82	6.55	27.74	31.27	7.01	1.1	2.4	6.3	2.1	1.4	4.3	4.7	1.6
11	7.15	21.72	36.14	10.49	5.88	14.14	15.77	7.44	1.5	3.9	6.7	2.0	1.5	3.4	3.1	1.8
12	3.72	35.18	56.93	12.86	5.18	10.70	14.66	5.81	1.0	4.9	9.0	2.7	1.2	1.8	2.3	1.1
13	4.20	10.25	44.26	28.18	17.26	22.90	6.53	2.33	1.2	2.5	8.1	4.3	2.4	3.4	1.2	.7
14	1.51	5.74	45.79	20.33	8.47	44.09	32.28	4.92	.5	1.2	7.4	3.2	1.3	5.1	4.1	1.1
15	5.88	28.82	39.05	9.48	3.98	17.04	25.99	8.59	1.3	3.9	5.7	1.9	1.1	3.3	4.6	2.0
16	12.29	29.66	75.12	18.96	5.45	1.37	1.27	3.98	2.9	4.5	10.0	3.3	1.2	.4	.5	1.1
17	86.90	30.96	44.38	2.69	2.09	1.06	.91	1.06	11.6	3.9	6.1	.6	.6	.4	.4	.4
18	95.78	24.72	17.11	2.21	.38	4.51	2.81	.29	12.9	5.4	3.4	.5	.1	.9	.6	.1
19	17.42	16.78	47.83	13.73	2.11	11.71	15.67	5.47	3.5	3.6	7.8	2.1	.6	2.1	2.7	1.4
20	4.63	11.35	37.34	9.34	5.38	24.50	24.34	10.03	1.1	2.5	6.4	2.4	1.5	3.7	3.9	2.2
21	18.46	31.20	50.95	10.44	2.83	7.15	5.59	2.62	4.3	4.2	8.4	2.2	.7	1.9	1.4	.5
22	4.03	15.84	34.90	5.23	3.24	26.74	33.72	8.54	1.2	3.5	6.8	1.3	.9	3.9	4.5	1.7
23	7.66	12.91	48.43	13.97	12.98	19.01	8.35	3.12	1.8	2.6	7.8	2.6	2.7	3.7	1.7	.8
24	2.16	38.35	86.45	3.14	1.80	22.27	29.35	7.73	.5	4.2	10.0	.6	.4	3.1	3.8	1.3
25	2.93	13.78	58.32	16.32	3.72	20.26	20.23	7.10	.7	2.6	9.2	2.7	.8	3.1	3.2	1.6
26	4.61	10.61	22.51	11.88	9.19	28.82	33.12	11.54	1.4	2.4	4.6	2.4	2.0	4.1	4.4	2.5
27	3.58	31.99	26.95	3.70	3.72	31.58	39.43	6.19	.8	4.5	5.0	1.3	1.2	4.4	5.3	1.2
28	4.39	47.16	48.58	2.64	2.11	23.04	28.46	9.29	.9	5.7	6.2	.7	.7	3.6	4.2	1.9
29	8.54	38.47	71.06	6.31	3.84	15.19	16.46	4.32	1.8	4.4	8.7	1.5	1.1	2.6	2.9	1.0
30	3.77	13.42	36.12	11.09	3.55	25.73	33.89	8.09	1.1	3.4	7.2	2.1	.9	3.6	4.1	1.6
31	5.90	18.46	36.62	9.26	5.86	16.56	14.98	8.33	1.6	3.9	7.0	2.0	1.4	2.9	2.9	2.1

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
SEPTEMBER 1988																
1	3.89	56.54	83.21	10.82	2.64	15.02	15.62	5.16	0.8	5.3	9.1	2.0	0.7	2.3	2.4	1.2
2	8.54	73.03	80.30	4.44	1.08	2.69	1.70	.94	1.4	9.8	10.3	.8	.3	.6	.4	.2
3	22.90	63.67	65.23	2.57	.72	.86	1.20	2.06	3.9	9.0	8.9	.5	.2	.3	.4	.6
4	34.08	51.77	67.63	2.14	.29	.65	.82	.60	5.9	7.7	8.9	.5	.1	.3	.3	.2
5	4.01	61.15	76.44	3.14	1.42	11.71	14.09	2.95	1.0	7.7	9.8	.6	.3	1.8	2.1	.6
6	6.43	13.15	30.22	11.21	22.27	33.65	17.21	7.44	1.7	3.2	5.5	1.8	2.9	4.2	2.7	1.8
7	1.49	9.29	43.85	17.57	2.69	39.17	64.78	10.03	.4	2.2	7.5	2.4	.5	3.4	6.0	1.5
8	1.87	17.33	61.78	11.04	1.03	19.44	31.56	8.59	.5	3.6	10.2	1.6	.2	2.5	4.0	1.3
9	2.54	11.16	53.14	19.61	2.09	18.79	32.23	7.78	.7	2.7	9.0	2.9	.6	2.5	4.2	1.4
10	2.88	22.99	37.58	22.34	7.73	20.71	15.86	6.14	.8	3.6	6.5	3.8	1.5	3.4	3.0	1.3
11	2.09	20.11	26.69	8.76	3.74	15.96	26.38	5.50	.7	3.1	5.7	2.5	1.3	3.8	5.4	1.5
12	38.76	18.46	40.92	4.92	1.10	3.79	2.02	1.49	6.9	3.8	7.3	1.5	.7	1.8	1.1	.7
13	44.23	62.33	57.48	3.41	4.51	9.10	4.99	2.14	4.7	7.2	7.2	.9	1.0	1.6	.8	.6
14	46.85	39.41	3.48	.05	.00	.00	.00	.00	12.8	9.3	1.8	.0	.0	.0	.0	.0
15	28.75	19.92	10.94	1.22	3.43	27.05	20.57	2.69	7.6	5.3	3.8	.4	.6	3.2	2.6	.6
16	49.22	22.32	28.25	6.84	.67	1.27	1.37	1.37	11.0	4.5	5.6	1.4	.3	.4	.4	.4
17	87.41	17.52	45.94	3.36	4.30	25.42	5.86	1.34	9.0	2.8	6.4	.7	.8	2.9	.9	.3
18	.94	.77	31.87	22.27	1.70	70.18	92.38	10.39	.2	.2	4.8	2.8	.3	6.0	8.4	1.2
19	4.06	36.24	67.22	3.84	3.00	11.66	5.16	2.95	1.0	5.7	11.9	.9	.8	1.9	1.1	.7
20	61.10	18.98	64.51	25.56	2.47	1.25	.58	.34	8.4	2.4	8.7	3.5	.5	.2	.2	.1
21	80.52	9.05	45.19	17.21	1.87	2.69	2.74	.94	13.1	1.2	5.7	2.4	.4	.5	.4	.2
22	116.52	3.41	13.78	5.42	.50	.31	1.32	.70	18.3	.8	2.8	1.0	.2	.1	.5	.3
23	65.35	10.44	35.62	7.51	1.01	1.51	1.32	.60	10.9	2.6	6.8	1.5	.4	.9	.6	.3
24	58.92	9.91	39.94	13.66	1.51	.62	.70	.84	9.5	2.4	7.9	2.7	.5	.3	.3	.3
25	30.86	9.38	33.67	20.30	8.98	37.08	18.65	2.52	3.8	2.3	6.3	3.6	1.4	4.0	1.9	.6
26	5.21	17.26	34.49	5.50	2.42	14.98	15.86	7.39	1.5	4.4	7.5	1.5	.8	3.0	3.2	2.0
27	2.76	11.62	26.64	7.20	6.24	38.95	36.50	10.18	.9	2.5	5.5	1.6	1.2	4.9	4.9	2.5
28	1.03	3.17	19.01	2.45	2.09	47.40	83.54	13.25	.3	.8	4.0	.5	.5	5.8	9.9	2.1
29	2.71	13.82	46.22	11.74	3.50	16.51	19.49	5.81	.8	3.3	9.0	2.2	1.0	2.9	3.3	1.4
30	3.12	11.40	42.17	9.17	2.62	26.42	37.08	7.94	.9	2.9	7.8	1.7	.7	3.4	4.8	1.7

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
OCTOBER 1988																
1	15.02	14.81	55.10	22.54	5.64	11.30	7.32	1.56	2.4	3.1	9.8	3.8	1.2	1.9	1.4	0.4
2	10.94	13.10	34.03	6.98	7.03	20.26	22.25	7.73	2.0	2.8	6.2	1.8	1.7	3.5	4.0	1.8
3	10.49	13.66	34.97	9.65	5.40	18.29	24.86	8.78	2.0	3.0	6.5	2.1	1.2	2.9	3.9	2.1
4	6.19	33.46	44.83	14.47	8.30	16.34	12.82	7.68	1.6	4.8	6.4	2.3	1.5	2.5	2.7	2.0
5	6.91	45.70	66.53	20.83	7.18	6.10	3.02	2.57	1.8	5.7	8.5	3.6	1.4	1.2	.8	.8
6	39.00	16.51	37.13	7.66	2.59	4.03	3.17	3.14	7.1	3.3	7.3	1.8	.9	1.3	1.2	1.1
7	31.61	11.88	42.89	9.17	2.54	7.94	4.03	3.26	5.8	2.8	8.6	1.9	.8	1.9	1.1	1.0
8	40.97	12.67	41.90	11.06	2.23	1.70	2.09	3.50	5.8	3.6	8.9	2.3	.7	.6	.9	1.2
9	19.49	19.49	75.43	16.34	1.61	2.40	2.83	2.86	4.2	3.0	11.0	2.9	.5	.6	.8	.9
10	48.70	28.39	70.68	2.95	.74	1.46	1.51	1.70	8.8	3.5	9.8	.6	.2	.3	.3	.4
11	43.51	11.88	32.59	7.01	3.79	2.95	3.22	3.41	7.8	3.2	7.0	1.7	1.0	.9	1.1	1.2
12	36.62	16.75	27.74	6.17	3.58	8.98	8.11	4.90	6.4	3.4	5.4	1.6	1.1	2.5	2.0	1.5
13	50.33	12.12	36.10	2.57	1.34	7.68	7.15	2.52	7.8	3.2	7.6	.7	.4	1.8	1.5	.8
14	25.66	14.90	37.37	9.84	5.09	10.97	3.53	.84	4.6	4.1	8.1	2.1	1.2	2.2	1.1	.4
15	57.46	14.50	40.66	4.63	1.73	16.15	20.71	2.64	5.9	3.3	9.2	1.0	.3	1.5	2.2	.5
16	1.30	10.15	53.35	7.01	1.13	29.26	52.92	8.40	.4	2.6	10.2	1.2	.4	3.0	5.0	1.1
17	.74	6.89	35.95	.91	2.38	39.12	77.57	8.14	.3	1.8	6.7	.2	.6	5.2	8.0	1.1
18	2.57	7.92	34.87	.60	1.06	27.72	46.03	10.10	.7	2.3	8.8	.4	.4	3.9	5.5	1.9
19	2.09	20.09	66.43	18.55	2.11	6.24	7.73	2.83	.6	4.1	12.0	3.4	.6	1.2	1.3	.6
20	2.71	16.27	59.71	22.10	1.13	10.85	16.10	5.54	.8	4.2	10.4	3.1	.4	1.5	2.4	1.1
21	49.03	14.26	68.11	18.41	.31	.38	.53	.12	8.2	2.8	10.2	2.4	.1	.1	.2	.0
22	61.94	9.65	43.15	18.48	.50	5.78	17.35	6.50	7.4	2.3	6.8	2.1	.2	.9	2.7	1.5
23	31.58	10.99	57.26	6.62	1.46	11.90	15.14	5.02	4.0	2.4	10.5	1.3	.4	1.8	2.2	1.2
24	21.41	17.21	69.60	11.16	.82	11.74	20.83	2.28	3.0	3.6	11.6	1.6	.1	1.3	2.3	.4
25	22.51	12.46	66.10	26.47	2.14	13.99	15.14	2.83	3.0	2.7	10.3	3.2	.4	1.7	1.9	.6
26	35.47	8.09	47.11	19.68	6.14	34.06	19.78	8.76	3.5	1.6	6.9	2.7	1.1	4.3	2.5	1.4
27	2.62	11.42	55.15	2.33	1.37	25.08	45.22	9.74	.6	2.7	9.9	.6	.4	3.2	4.8	1.6
28	2.16	8.26	43.49	25.66	7.18	31.90	28.20	5.71	.7	2.0	7.3	3.6	1.4	4.3	3.2	1.2
29	3.48	28.03	65.88	16.25	3.65	5.42	8.09	6.22	.8	4.4	10.8	2.8	.7	1.3	1.7	1.3
30	45.58	12.43	33.41	9.72	2.35	12.70	14.95	4.32	6.2	3.6	6.4	1.5	.6	2.2	2.4	1.1
31	23.50	20.50	72.60	10.13	.58	.82	1.30	1.03	4.9	4.1	12.2	1.5	.2	.2	.4	.3

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles								Wind duration per sector, in hours							
	(sectors are indicated as degrees from north)								(sectors are indicated as degrees from north)							
	0 to 45	45 to 90	90 to 135	135 to 180	180 to 225	225 to 270	270 to 315	315 to 360	0 to 45	45 to 90	90 to 135	135 to 180	180 to 225	225 to 270	270 to 315	315 to 360
NOVEMBER 1988																
1	42.41	12.50	32.42	6.84	6.05	13.56	4.37	4.49	5.9	3.5	6.8	1.7	1.3	2.2	1.1	1.4
2	16.06	8.09	35.02	13.22	3.70	20.95	23.28	5.81	2.4	2.4	8.0	2.7	.9	2.9	3.2	1.4
3	1.34	2.64	11.93	3.34	2.64	36.60	97.97	28.08	.4	.9	3.1	.8	.4	4.1	10.4	3.9
4	1.10	.41	.17	.26	.89	63.70	188.40	34.18	.3	.1	.0	.1	.1	4.8	14.7	3.6
5	4.27	9.53	21.79	.96	4.56	32.64	54.41	20.57	1.1	1.7	3.9	.3	.6	4.5	7.7	4.1
6	58.30	7.39	10.82	3.50	3.55	26.30	34.01	10.87	7.1	2.0	2.2	.8	.7	3.9	5.0	2.1
7	13.56	12.74	27.10	6.62	2.69	23.59	40.10	5.57	3.2	2.5	4.6	1.5	.9	4.0	6.0	1.2
8	2.47	22.20	35.21	11.95	3.22	18.24	18.41	2.54	.9	4.0	6.4	2.1	1.1	4.0	4.6	.9
9	1.39	18.65	21.70	2.30	3.65	27.82	55.63	8.90	.6	3.3	3.7	.7	.7	4.0	8.7	2.2
10	5.71	15.41	57.26	52.18	1.99	3.36	4.44	11.69	1.2	2.5	8.0	6.2	.7	1.1	1.3	2.7
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
<u>DECEMBER 1988</u>																
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
<u>JANUARY 1989</u>																
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles								Wind duration per sector, in hours							
	(sectors are indicated as degrees from north)								(sectors are indicated as degrees from north)							
	0 to 45	45 to 90	90 to 135	135 to 180	180 to 225	225 to 270	270 to 315	315 to 360	0 to 45	45 to 90	90 to 135	135 to 180	180 to 225	225 to 270	270 to 315	315 to 360
FEBRUARY 1989																
1	2.86	3.91	8.76	15.12	41.93	146.14	23.47	3.58	0.7	1.0	1.6	2.1	3.8	10.9	2.6	0.9
2	5.50	2.59	.79	1.20	16.85	73.49	45.65	16.22	1.3	.6	.2	.4	1.7	7.8	8.4	3.3
3	7.78	3.60	11.64	1.80	1.03	9.24	27.62	16.01	2.6	1.2	1.6	.6	.5	3.2	8.4	5.3
4	4.22	2.69	4.58	2.57	.74	13.03	73.92	16.56	1.3	.9	1.1	.6	.3	3.0	12.9	3.6
5	6.43	23.64	29.76	3.41	.34	5.93	32.06	9.89	2.0	5.9	6.0	.7	.1	1.2	5.6	2.2
6	6.53	36.05	31.70	11.06	1.37	3.86	2.02	4.30	1.9	8.9	6.8	2.0	.6	1.5	.8	1.1
7	6.38	27.74	37.92	8.42	2.54	8.16	2.52	3.79	2.0	6.7	7.1	1.7	1.0	3.0	1.1	1.1
8	6.17	18.41	18.70	4.80	4.08	7.10	9.43	13.39	1.8	5.5	5.0	1.3	1.3	2.5	2.7	3.4
9	6.43	29.06	64.06	19.20	2.14	3.79	7.08	12.29	1.7	3.8	7.8	2.9	.8	1.3	2.0	3.0
10	7.49	19.54	32.06	9.60	1.51	2.76	4.08	6.46	2.9	4.8	6.5	2.1	.8	1.7	2.0	2.6
11	9.43	9.58	15.19	1.61	.62	6.31	18.98	7.42	3.2	4.0	4.2	.6	.6	2.5	5.5	2.8
12	5.50	9.17	17.62	4.46	.89	15.10	49.20	11.88	1.7	2.2	3.0	.8	.4	3.2	9.4	3.0
13	5.93	14.98	41.52	6.00	1.37	9.12	20.04	4.18	1.9	3.7	9.6	1.7	.5	1.5	3.6	1.2
14	2.86	4.22	15.02	7.49	2.18	10.30	20.23	5.09	1.3	1.9	5.6	2.3	1.5	3.4	5.6	2.2
15	2.78	48.53	39.58	25.78	1.56	1.90	1.97	1.97	.9	7.4	7.6	4.6	.7	.9	.8	.8
16	4.87	74.54	50.30	22.49	2.35	3.05	5.38	7.49	1.0	6.1	8.1	3.3	.7	1.0	1.6	1.8
17	4.73	42.84	37.32	14.21	1.85	5.06	3.29	3.77	1.7	6.1	7.2	2.5	.8	2.6	1.4	1.4
18	6.05	62.18	50.98	9.05	1.82	3.72	6.22	4.70	1.9	7.8	6.6	1.6	.6	1.4	2.1	1.7
19	3.55	8.81	13.32	4.92	.79	10.34	25.92	5.90	1.4	2.7	2.8	1.2	.6	4.2	8.8	2.1
20	.02	.00	.00	.00	.38	48.60	257.04	8.52	.0	.0	.0	.0	.0	3.7	19.2	1.0
21	4.34	6.43	31.97	1.78	.82	5.66	22.10	9.74	2.2	2.0	6.3	.7	.5	2.1	6.4	3.4
22	4.06	76.49	91.56	18.82	.91	.72	1.73	3.53	1.1	7.9	10.3	2.2	.3	.2	.6	1.0
23	6.70	22.73	60.17	15.53	1.37	1.49	2.52	5.76	1.7	5.1	10.7	2.7	.5	.6	.8	1.5
24	6.00	49.61	40.42	18.60	2.98	4.32	4.99	7.49	1.5	6.7	6.9	2.8	1.0	1.4	1.5	1.9
25	3.00	17.16	65.52	18.17	.86	1.63	3.60	3.24	1.0	4.2	12.3	2.9	.4	.7	1.2	1.1
26	3.79	7.34	16.15	4.30	1.32	20.47	68.54	18.48	1.4	2.4	3.8	1.0	.4	2.9	8.5	3.3
27	1.13	3.62	19.58	1.44	.60	22.20	55.01	9.05	.4	1.1	5.5	.4	.3	4.6	9.5	2.0
28	2.11	19.68	45.38	16.75	1.51	7.80	15.50	4.51	.7	4.1	9.3	3.1	.6	1.9	3.0	1.1

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
MARCH 1989																
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	2.38	10.66	11.06	0.36	0.94	25.66	80.38	15.53	1.4	2.6	2.8	0.2	0.3	3.3	10.0	3.1
4	15.72	29.74	33.89	2.47	.22	2.26	15.53	9.77	4.2	5.0	6.2	.8	.1	.8	3.7	2.6
5	11.78	68.78	48.98	17.64	2.21	3.55	5.11	7.92	2.5	6.5	6.4	2.6	.7	1.4	1.6	1.8
6	7.58	78.62	89.52	9.53	1.22	2.18	1.68	3.34	1.7	7.9	10.2	1.3	.4	.7	.5	.9
7	6.36	127.49	62.33	8.76	1.27	1.75	1.73	2.38	1.6	10.7	7.4	1.6	.4	.6	.6	.8
8	4.39	55.92	49.97	22.99	1.80	3.00	3.14	5.52	1.2	6.9	8.0	3.2	.7	1.1	1.1	1.6
9	2.28	12.36	78.58	29.11	5.69	7.51	3.60	2.47	.7	3.0	10.4	3.8	1.8	2.3	1.0	.7
10	1.08	14.33	77.06	60.36	6.72	7.44	5.90	3.17	.3	2.7	9.3	6.1	1.7	1.8	1.2	.7
11	4.32	18.46	47.76	21.36	3.29	3.91	6.10	7.25	1.2	3.9	9.0	3.4	1.2	1.4	1.7	1.8
12	4.25	21.31	70.46	22.87	4.15	7.18	3.86	3.84	1.2	4.0	10.1	3.6	1.1	1.8	1.0	1.0
13	.84	6.98	35.98	12.00	10.92	65.14	71.52	7.92	.2	1.4	5.2	1.8	1.4	6.3	6.5	1.0
14	.22	.38	.38	.17	1.37	77.35	174.96	18.38	.0	.1	.1	.0	.2	6.5	14.7	2.0
15	2.64	5.21	13.68	3.79	5.98	24.12	27.22	11.30	.9	1.8	3.8	1.2	1.8	5.3	5.9	3.0
16	3.12	13.22	40.94	15.29	12.79	38.11	9.84	1.97	1.0	3.4	7.2	2.7	2.1	5.1	1.6	.6
17	.96	4.06	13.85	.67	8.42	90.67	133.27	14.11	.3	1.3	3.3	.2	.7	6.6	10.1	1.4
18	3.46	25.27	57.55	20.83	5.23	17.18	16.90	4.63	1.0	4.0	8.2	3.0	1.1	2.7	2.7	1.0
19	3.43	15.00	28.54	8.18	2.33	16.87	29.95	4.68	1.5	3.1	6.8	2.1	1.1	2.8	4.3	1.9
20	2.04	12.14	28.22	2.54	.72	34.25	43.13	9.26	.6	3.0	7.3	.8	.3	4.2	5.6	2.0
21	3.02	49.56	61.27	21.26	2.45	5.64	2.86	2.90	.6	5.8	9.8	3.7	.7	1.6	.8	.8
22	2.38	48.67	53.42	15.00	3.38	15.00	13.87	3.62	.6	6.0	8.4	3.0	1.0	2.3	2.0	.6
23	3.14	82.92	48.65	7.82	2.35	17.83	21.05	5.45	.8	8.3	6.1	1.4	.6	2.4	3.0	1.2
24	2.98	24.70	61.39	12.72	5.04	14.52	5.04	2.21	.9	4.8	10.2	2.4	1.1	2.6	1.2	.7
25	1.94	13.25	85.61	15.55	5.04	24.17	14.88	2.47	.5	2.4	12.4	2.7	.9	2.8	1.6	.6
26	1.87	43.25	55.44	9.67	2.59	19.42	28.68	8.52	.5	5.0	7.7	1.7	.6	2.6	4.0	1.6
27	2.54	4.18	21.38	6.70	5.59	37.85	36.91	7.27	.8	1.4	4.8	1.5	1.5	6.3	5.8	1.5
28	3.22	21.34	39.60	8.52	8.30	28.39	27.70	5.98	.8	3.8	7.2	1.8	1.7	4.0	3.5	1.1
29	.91	3.00	7.82	2.26	3.62	54.48	63.62	4.20	.4	.7	1.8	.8	.9	8.5	9.7	1.0
30	1.30	18.02	13.30	2.30	2.66	52.10	80.90	8.42	.5	2.7	3.6	.7	.6	5.8	8.1	1.7
31	3.65	31.54	42.36	8.93	7.97	39.65	29.09	5.30	.9	4.2	5.4	1.5	1.4	5.3	3.6	1.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
<u>APRIL 1989</u>																
1	1.87	33.36	30.02	6.38	2.09	8.66	7.70	1.51	0.6	6.6	8.5	2.3	0.9	2.2	2.0	0.6
2	2.14	1.58	1.82	1.39	11.47	97.82	86.81	7.56	.9	.8	.8	.4	1.7	9.5	8.2	1.4
3	.12	.00	.00	.12	4.27	74.47	132.12	12.43	.0	.0	.0	.0	.6	8.3	13.4	1.6
4	.84	1.27	3.31	.48	.98	78.77	180.72	17.76	.2	.4	.9	.2	.2	5.6	13.9	2.3
5	3.98	5.35	6.10	2.14	4.97	37.85	59.14	15.14	1.4	1.9	2.2	.8	1.3	5.4	7.7	2.9
6	3.02	11.95	20.45	.48	1.63	63.72	118.90	9.98	.9	2.9	4.6	.2	.3	4.7	8.8	1.4
7	1.39	8.93	17.02	.58	3.29	56.90	110.88	14.57	.5	2.4	3.7	.3	.7	5.1	9.6	1.7
8	.84	.38	.19	.05	2.42	78.26	154.80	21.48	.2	.1	.1	.0	.3	6.5	13.7	2.9
9	3.84	10.27	4.56	.98	2.64	70.70	112.44	14.18	1.0	1.9	1.0	.3	.5	6.4	10.3	2.3
10	6.67	46.54	60.00	4.03	3.26	10.99	11.09	7.18	1.6	5.9	8.5	1.0	.9	2.1	1.9	1.6
11	4.61	34.61	48.34	5.28	4.25	27.41	23.21	4.87	1.0	4.9	7.1	1.0	.9	4.4	3.5	1.0
12	10.08	41.33	61.22	11.38	3.84	2.81	4.22	3.79	1.9	6.7	9.5	2.3	.9	.7	.9	.9
13	2.83	19.30	39.72	6.29	2.62	27.26	29.52	8.78	.9	4.4	7.2	1.3	.6	3.6	4.0	1.8
14	1.03	11.59	72.14	16.37	1.61	30.58	35.86	6.60	.3	2.4	10.1	2.1	.3	3.4	4.1	1.2
15	3.26	12.53	39.62	13.54	9.38	56.09	40.39	6.02	.8	2.4	6.4	2.3	1.3	5.4	3.9	1.2
16	3.17	20.52	18.26	1.78	2.14	45.60	69.10	8.30	1.0	3.9	4.3	.7	.6	4.8	6.8	1.5
17	2.35	14.54	22.39	3.22	5.74	64.44	88.39	8.23	.6	2.6	4.4	.7	.8	6.0	7.6	1.1
18	1.99	19.34	38.21	.38	1.70	48.17	71.66	6.89	.5	4.1	6.8	.1	.2	4.7	6.4	1.0
19	4.94	33.74	49.22	11.62	12.26	28.01	10.61	3.31	1.2	5.0	7.1	2.0	2.0	3.9	1.9	.8
20	6.19	47.64	62.09	11.54	3.24	10.18	8.98	5.09	1.5	5.9	8.8	2.0	.7	1.8	1.8	1.2
21	.67	8.33	74.86	19.27	9.55	40.61	21.43	1.08	.2	1.4	11.0	2.7	1.4	4.5	2.4	.2
22	.22	28.58	66.89	29.47	22.51	57.17	7.06	.41	.0	3.1	9.3	3.8	2.3	4.6	.7	.1
23	.74	39.19	89.66	26.78	16.94	21.02	2.23	.48	.1	4.0	11.7	3.5	2.0	2.1	.3	.1
24	.72	34.42	87.74	22.80	13.92	17.98	1.75	.29	.1	3.6	12.2	3.4	2.0	2.2	.3	.0
25	2.76	38.78	43.37	14.16	14.14	40.94	8.66	3.24	.8	5.1	6.8	2.2	1.9	4.6	1.4	.9
26	1.51	24.48	39.55	12.26	12.05	49.51	49.06	4.90	.5	3.3	6.2	1.8	1.6	4.8	4.8	.9
27	3.17	5.04	9.65	1.39	6.82	53.14	52.08	8.86	.9	1.8	2.7	.5	1.3	7.3	7.2	2.0
28	3.38	21.72	30.50	8.09	7.20	35.06	28.58	5.14	.6	3.9	6.4	2.0	1.4	5.0	3.6	.9
29	3.70	13.54	8.52	2.23	4.68	41.21	52.01	11.04	.8	2.4	1.9	1.0	1.5	6.2	7.4	2.4
30	1.49	9.65	21.62	5.02	2.23	48.82	57.67	7.32	.5	2.4	5.3	1.3	.6	6.0	6.6	1.2

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
<u>MAY 1989</u>																
1	3.34	15.91	18.94	6.05	5.66	52.80	69.72	10.49	0.8	3.0	3.8	1.3	1.1	5.0	6.8	1.9
2	5.81	41.62	51.14	7.44	7.03	27.36	25.08	6.58	1.2	5.4	7.0	1.6	1.2	3.1	3.0	1.3
3	.82	13.32	16.27	1.87	9.48	61.15	75.10	9.94	.4	1.9	2.5	.6	1.4	6.7	8.6	1.7
4	3.46	2.45	5.64	.41	2.86	60.10	117.34	18.74	1.2	.7	1.2	.1	.6	5.6	10.9	3.2
5	3.84	20.02	33.10	.72	1.70	38.93	52.63	9.10	1.0	4.5	6.4	.2	.3	4.3	5.7	1.4
6	3.29	19.75	44.14	5.90	1.42	29.88	40.30	7.99	1.0	4.2	7.3	1.0	.3	3.5	5.0	1.4
7	3.70	31.63	45.89	8.86	5.06	35.86	39.02	4.06	1.0	4.9	6.7	1.5	1.0	4.2	3.9	.7
8	2.28	70.82	33.24	7.20	2.52	36.24	36.77	5.88	.6	7.3	4.9	1.3	.6	4.1	3.8	1.0
9	3.55	108.96	49.08	6.79	4.54	9.74	17.45	8.16	.8	9.8	5.2	1.1	.8	1.6	2.7	1.6
10	.60	149.04	98.33	9.77	7.15	8.04	.46	.02	.0	10.5	10.3	1.4	.8	.8	.0	.0
11	4.15	114.29	48.79	8.66	7.94	18.00	7.39	2.47	.9	9.9	5.8	1.4	1.2	2.5	1.4	.7
12	1.85	7.20	17.62	3.46	3.31	36.29	42.70	5.69	.7	2.5	5.0	1.1	1.1	6.2	6.0	1.2
13	3.38	67.01	49.01	3.58	2.76	26.59	19.13	3.41	.7	7.5	6.8	.6	.6	3.8	3.1	.7
14	3.65	138.07	72.77	1.58	2.78	12.43	5.47	1.39	.7	11.4	7.1	.5	.7	2.2	.9	.3
15	2.57	102.24	45.10	5.40	2.90	13.32	13.73	3.84	.6	9.7	6.1	1.4	.7	2.2	2.2	.9
16	2.64	22.99	38.95	6.38	3.65	20.98	17.88	7.51	.8	4.3	7.9	1.5	.9	3.6	2.9	1.7
17	3.22	11.62	20.88	3.34	2.33	31.10	35.26	7.61	1.2	3.2	4.8	1.2	.8	5.0	5.5	2.0
18	5.54	12.19	19.70	9.89	11.93	48.70	32.54	8.11	1.6	3.0	4.1	2.0	2.0	5.4	3.8	1.9
19	.62	5.50	16.68	.82	3.12	69.22	87.07	11.90	.2	1.3	3.2	.2	.4	7.5	9.6	1.5
20	4.30	21.60	32.83	3.89	4.49	29.66	24.65	8.54	1.2	4.9	6.1	.8	.8	4.0	3.8	2.1
21	4.03	21.17	41.06	9.26	11.52	40.34	22.06	5.59	1.2	4.1	6.6	1.7	1.6	4.6	2.7	1.3
22	2.52	22.49	45.74	6.89	7.54	37.13	25.73	4.54	.7	4.2	7.5	1.3	1.4	4.7	3.2	.9
23	2.11	16.25	26.11	11.59	24.46	86.95	25.61	3.24	.6	3.5	4.5	1.9	2.6	7.7	2.4	.6
24	2.14	.41	.46	.43	3.77	70.56	114.10	17.06	.5	.1	.2	.2	.7	7.6	11.9	2.5
25	3.41	15.79	19.54	2.38	2.88	51.07	60.26	10.37	.8	2.6	3.6	.8	1.0	6.0	7.0	1.8
26	6.34	23.02	36.91	8.18	2.30	18.05	24.02	11.42	1.4	4.2	6.6	1.6	.6	3.0	3.9	2.3
27	4.30	25.13	38.38	8.26	15.65	56.90	16.90	4.46	1.1	4.3	5.9	1.4	2.0	5.8	2.2	1.1
28	1.80	16.58	52.32	44.78	23.38	54.10	7.70	.79	.4	2.2	6.9	5.7	2.8	4.8	.8	.2
29	1.27	17.71	46.56	19.78	21.10	58.73	12.98	.43	.3	3.0	7.9	3.2	2.7	5.6	1.2	.1
30	2.50	8.69	24.82	8.83	18.12	70.56	34.15	5.78	.7	2.0	4.4	1.6	2.5	7.8	3.7	1.0
31	1.46	15.17	23.26	3.53	2.47	52.82	62.42	6.94	.6	3.2	4.7	.9	.6	6.0	6.9	1.1

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
JUNE 1989																
1	4.68	23.11	26.38	4.32	3.46	27.79	35.26	10.66	1.1	4.3	5.2	1.1	0.9	3.8	5.0	2.2
2	2.50	26.16	58.42	9.43	5.59	28.39	22.06	6.24	.6	3.8	8.0	1.6	1.2	4.2	3.1	1.2
3	3.14	69.72	33.07	3.86	4.58	24.65	20.11	3.36	.6	7.8	5.1	1.2	1.1	4.1	3.1	.7
4	4.20	55.97	42.84	3.24	5.83	22.87	13.56	5.83	1.1	7.0	6.2	.7	1.2	3.7	2.4	1.3
5	4.37	39.38	47.42	6.74	5.18	23.98	17.81	6.48	1.0	5.6	6.9	1.4	1.2	3.6	2.7	1.4
6	3.79	46.03	37.78	7.25	4.03	21.91	32.52	5.95	.8	6.8	6.2	1.5	.9	2.8	3.8	1.0
7	9.58	43.37	38.95	8.66	5.35	14.64	11.69	4.73	1.6	6.5	6.9	1.8	1.2	2.5	2.1	1.2
8	1.58	121.97	67.78	3.96	2.83	11.93	5.26	2.23	.3	11.0	7.9	.8	.6	1.9	.9	.5
9	3.07	96.26	54.24	5.18	3.43	13.37	12.00	5.45	.7	9.3	6.6	1.2	.8	2.1	2.0	1.2
10	4.82	76.66	44.35	5.35	3.29	10.25	12.36	6.84	1.0	8.2	6.4	1.3	.9	2.1	2.3	1.5
11	4.87	36.70	28.51	2.74	3.46	33.10	31.56	5.83	1.2	5.8	5.3	.8	.8	4.6	4.1	1.2
12	4.06	52.51	38.78	3.38	3.24	13.51	11.88	5.50	1.0	7.5	6.6	1.0	.9	3.0	2.6	1.4
13	2.95	10.03	16.92	4.46	4.22	30.24	30.98	9.41	.9	2.8	4.6	1.4	1.2	5.2	5.3	2.2
14	2.93	18.05	36.22	8.35	4.30	38.66	36.43	7.39	.9	3.6	6.0	1.6	.9	4.8	4.8	1.4
15	4.54	24.62	44.83	9.02	6.86	21.17	18.84	7.82	1.0	3.7	6.8	1.8	1.7	3.8	3.2	1.7
16	3.10	11.83	23.35	9.67	18.17	89.30	44.04	5.45	.8	2.6	4.1	1.6	2.0	7.7	3.9	1.1
17	3.50	41.11	23.42	2.76	2.74	30.74	35.88	9.07	1.0	5.7	4.0	.8	.7	4.4	5.1	1.9
18	4.85	35.18	46.66	5.83	7.03	30.98	16.44	3.22	1.2	6.0	6.7	1.2	1.3	4.2	2.3	.8
19	3.41	37.32	36.36	12.17	16.08	47.16	17.76	6.62	.7	4.2	4.9	2.2	2.4	5.3	2.3	1.6
20	.72	2.64	17.90	20.18	30.29	109.75	42.70	2.76	.1	.6	3.3	3.2	3.3	9.5	3.6	.3
21	3.74	25.32	6.84	4.46	4.58	53.18	68.69	11.02	.9	3.1	1.2	.9	1.1	6.4	8.0	2.1
22	6.14	44.64	30.38	5.09	4.08	17.69	16.63	7.94	1.3	6.8	5.2	1.2	1.1	3.3	3.1	1.7
23	7.18	58.85	31.34	4.06	3.65	25.18	22.99	5.04	1.5	7.2	4.4	.8	.9	4.3	3.6	1.1
24	1.63	22.46	28.58	2.18	2.64	40.30	49.87	10.25	.5	3.5	4.7	.4	.6	5.3	6.8	1.9
25	2.16	15.60	29.16	3.62	6.24	48.67	41.06	7.66	.6	3.6	5.5	.8	1.0	5.8	5.0	1.4
26	3.29	24.89	23.02	3.70	4.49	34.80	39.36	10.39	.9	4.6	4.5	.9	1.0	4.6	5.0	2.2
27	4.49	33.19	28.90	4.99	9.74	43.44	19.78	3.94	1.2	6.1	5.3	1.1	1.6	5.1	2.5	1.0
28	2.23	26.18	38.35	7.92	10.46	55.78	25.73	4.15	.6	3.7	6.1	1.6	1.5	6.4	3.1	.7
29	6.22	72.74	73.03	5.35	2.23	3.98	3.43	3.74	1.2	8.4	9.5	1.1	.6	.9	.9	.9
30	2.02	63.43	49.44	4.46	9.43	45.10	17.90	1.63	.5	7.5	6.3	.8	1.3	5.1	2.2	.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
<u>JULY 1989</u>																
1	1.94	13.25	49.10	19.10	10.54	49.51	24.41	5.02	0.5	2.6	7.2	2.8	1.5	5.4	2.8	0.9
2	10.06	45.24	50.23	9.82	2.83	7.27	6.10	4.80	2.0	7.6	7.6	1.8	.7	1.5	1.3	1.2
3	5.66	32.52	43.54	11.11	4.80	16.44	16.66	7.18	1.3	5.5	6.8	1.9	1.1	2.9	2.8	1.5
4	4.66	55.49	32.62	4.70	6.86	31.87	19.01	4.49	1.1	6.4	4.6	1.2	1.6	4.8	3.0	1.2
5	6.00	21.05	34.75	10.66	4.49	18.74	15.96	9.58	1.6	4.2	5.6	2.0	1.2	3.7	3.3	2.2
6	4.01	44.45	37.08	6.96	3.36	19.44	19.68	9.17	1.0	6.6	5.7	1.2	.8	3.3	3.3	1.8
7	2.28	66.96	47.64	10.49	7.54	16.66	9.91	5.64	.6	6.9	6.1	1.8	1.6	3.2	2.1	1.5
8	5.95	78.55	48.29	9.96	5.74	7.37	5.74	6.19	1.1	8.7	6.6	1.9	1.4	1.5	1.2	1.3
9	4.99	115.92	67.85	3.96	4.70	10.30	5.40	2.23	.8	11.3	7.3	.7	.9	1.6	.9	.4
10	4.73	64.82	34.92	4.75	3.48	13.97	19.56	8.62	1.1	7.4	5.9	1.0	.8	2.5	3.3	1.8
11	4.27	101.02	53.59	3.17	1.85	2.30	2.66	1.70	.9	12.0	7.6	.9	.6	.6	.7	.5
12	2.38	99.29	63.17	4.80	2.18	6.89	4.42	1.34	.7	10.0	8.4	1.1	.6	1.6	.9	.4
13	5.50	50.16	49.85	6.31	7.46	23.42	11.95	4.13	1.3	6.3	6.9	1.2	1.3	3.6	2.1	1.1
14	3.02	27.77	34.66	4.49	3.07	21.91	19.44	6.12	1.0	6.1	6.6	.9	.8	3.9	3.2	1.3
15	2.30	73.32	51.31	5.78	6.22	23.38	15.34	3.55	.5	7.9	6.6	1.2	1.3	3.3	2.3	.7
16	2.69	13.44	43.99	15.24	16.94	58.27	13.90	1.03	.8	2.7	7.2	2.6	2.3	6.2	1.6	.4
17	1.68	27.72	34.73	3.96	3.86	54.50	58.15	6.70	.5	5.3	5.9	.6	.5	4.9	5.1	.9
18	4.10	35.83	33.12	6.96	4.13	18.26	12.96	5.83	1.0	7.2	6.3	1.4	.9	3.3	2.3	1.2
19	5.47	45.50	49.30	5.74	6.19	22.63	13.97	4.75	1.0	6.1	6.5	1.2	1.4	3.7	2.7	1.2
20	4.61	100.42	47.62	2.83	2.93	11.26	7.99	3.02	1.0	10.9	6.1	.7	.6	2.2	1.5	.7
21	6.60	117.14	55.46	3.05	2.33	8.76	6.82	2.42	1.1	11.8	6.9	.7	.5	1.3	1.1	.5
22	7.27	54.60	37.73	6.31	2.71	19.49	16.94	7.70	1.3	7.2	6.0	1.4	.7	2.8	2.8	1.6
23	3.62	55.22	42.02	5.95	5.81	21.22	14.06	2.95	1.0	7.1	6.4	1.5	1.5	3.5	2.2	.7
24	4.75	42.65	40.97	5.26	3.05	8.71	8.78	4.94	1.4	6.4	7.2	1.5	1.0	2.5	2.4	1.4
25	3.43	117.10	61.90	3.89	2.16	6.79	6.98	2.18	.6	11.9	7.1	.7	.5	1.3	1.3	.5
26	8.38	145.30	62.81	3.19	.55	.12	.02	.19	1.1	14.6	7.4	.6	.1	.0	.0	.0
27	3.60	44.21	37.75	10.01	6.19	14.09	8.66	3.41	1.1	6.6	6.6	2.2	1.6	2.8	1.8	1.0
28	2.86	65.23	49.94	8.81	3.24	5.45	4.68	2.69	.9	8.4	7.8	2.1	1.1	1.5	1.2	.8
29	3.82	44.33	42.26	6.43	3.22	16.82	12.46	5.35	1.2	6.2	7.1	1.7	1.0	2.9	2.2	1.4
30	9.82	63.24	54.82	4.44	1.97	3.58	4.25	2.45	1.8	8.9	8.9	1.2	.6	.8	.9	.6
31	9.07	92.95	44.40	2.38	1.46	4.61	4.20	3.19	2.0	11.2	6.9	.6	.4	1.1	.9	.7

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)									Wind duration per sector, in hours (sectors are indicated as degrees from north)								
	0	45	90	135	180	225	270	315		0	45	90	135	180	225	270	315	
	to	to	to	to	to	to	to	to		to	to	to	to	to	to	to	to	
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360		
<u>AUGUST 1989</u>																		
1	3.46	61.22	40.56	6.62	4.13	10.06	9.24	4.85	1.0	7.2	6.8	1.8	1.3	2.2	2.1	1.3		
2	4.44	44.11	36.17	6.07	3.82	16.99	12.50	5.54	1.3	6.1	6.4	1.8	1.1	3.2	2.2	1.5		
3	4.22	32.78	43.25	5.71	11.81	45.96	24.65	4.73	1.0	4.6	6.2	1.0	1.7	5.4	3.0	1.0		
4	3.43	52.30	38.78	14.04	10.18	25.97	15.24	3.74	.9	6.4	6.2	2.3	1.7	3.5	1.9	.8		
5	8.16	44.30	52.58	7.92	3.65	12.17	11.06	5.59	1.7	6.6	7.9	1.5	.8	2.1	1.9	1.2		
6	10.27	60.58	47.40	9.31	3.41	14.45	9.46	4.49	1.7	7.8	6.8	1.7	.9	2.1	1.7	1.1		
7	9.94	75.48	33.41	3.67	2.66	22.44	20.76	6.62	1.5	8.6	5.2	.9	.6	2.8	2.7	1.3		
8	6.10	92.14	48.62	3.98	3.31	12.24	6.72	4.73	1.2	10.2	6.2	.9	.8	2.1	1.3	1.0		
9	3.34	26.57	28.44	4.46	5.98	31.92	25.37	8.14	1.0	4.5	5.3	1.1	1.2	4.6	4.0	2.0		
10	5.50	26.83	28.51	7.01	5.71	21.98	17.30	6.07	1.5	5.4	5.9	1.6	1.2	3.4	2.9	1.7		
11	2.64	18.55	29.38	14.02	7.63	14.02	10.97	3.77	.9	5.1	6.8	3.0	1.7	2.9	2.3	.9		
12	2.88	23.59	41.26	9.89	2.11	6.22	8.11	3.67	1.2	5.1	8.8	2.4	.8	1.9	2.2	1.3		
13	4.82	48.84	26.86	2.38	3.14	13.63	12.29	5.38	1.5	7.6	5.8	.7	.9	2.9	2.7	1.5		
14	4.25	47.71	35.86	2.23	3.26	28.78	38.23	6.53	1.0	6.5	5.5	.6	.8	3.9	4.4	1.2		
15	3.26	20.52	22.37	4.03	4.56	31.44	28.06	8.71	1.1	5.4	5.1	1.0	1.1	4.7	3.8	1.5		
16	3.74	76.03	40.08	4.78	4.13	17.90	14.26	4.25	.8	9.3	6.3	1.1	.9	2.5	2.1	.8		
17	2.35	157.73	86.88	2.26	.48	.48	.10	.43	.4	14.2	8.6	.3	.1	.1	.0	.1		
18	1.03	16.13	17.47	8.04	14.04	78.79	38.09	4.51	.4	2.1	3.3	1.7	2.2	8.5	4.7	.9		
19	6.10	50.98	29.59	5.09	3.26	18.14	20.52	5.90	1.6	6.8	5.7	1.5	.8	2.7	3.0	1.5		
20	4.90	37.46	29.59	3.58	2.81	21.58	19.18	4.94	1.5	6.2	5.3	1.0	.9	4.0	3.5	1.3		
21	7.99	20.83	26.95	4.51	3.94	29.06	36.34	8.74	2.0	4.3	5.2	1.1	.9	3.7	4.6	1.9		
22	5.21	20.16	26.69	4.20	4.70	21.74	21.55	9.43	1.4	4.4	5.4	1.1	1.4	4.1	3.9	2.0		
23	3.65	21.86	30.07	7.75	12.55	39.62	12.86	4.90	1.1	4.2	5.4	1.8	2.2	5.4	2.3	1.3		
24	1.80	23.26	44.95	19.97	15.36	54.14	27.41	3.36	.5	3.1	6.3	2.7	1.9	5.5	3.1	.7		
25	3.58	18.58	21.84	1.25	2.50	32.14	33.34	7.85	1.1	4.9	5.4	.5	.7	4.7	4.8	1.5		
26	4.82	21.14	26.35	6.96	4.97	28.87	30.41	10.49	1.2	4.5	4.9	1.5	1.1	3.9	4.2	2.2		
27	2.90	14.83	34.90	9.79	10.78	45.22	32.16	5.59	.8	3.1	6.2	1.9	1.8	5.2	3.6	1.1		
28	5.47	25.20	25.22	4.13	2.16	26.93	33.74	12.62	1.5	5.4	4.8	.9	.6	3.5	4.6	2.5		
29	4.30	39.77	37.97	3.82	4.99	29.50	19.37	4.20	1.1	6.9	6.4	.8	.9	3.9	2.8	.9		
30	1.27	23.62	53.06	7.15	13.22	52.49	17.38	3.67	.4	3.2	7.9	1.3	1.9	6.0	2.4	.8		
31	2.02	21.77	34.75	6.07	9.36	55.01	31.82	4.37	.6	4.7	6.1	1.1	1.2	5.7	3.5	.8		

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
SEPTEMBER 1989																
1	4.51	39.17	39.91	7.22	3.70	29.76	20.59	5.64	1.2	6.2	6.1	1.5	0.8	3.9	2.8	1.2
2	2.78	17.11	32.33	11.93	11.90	61.97	37.61	2.38	.8	3.8	5.7	2.2	1.8	5.9	3.2	.5
3	2.74	22.56	29.90	5.69	4.70	51.41	57.10	8.40	.8	4.3	5.5	1.2	.8	4.7	5.0	1.4
4	2.64	31.34	44.30	6.00	3.31	23.02	28.01	6.55	.7	6.4	7.4	1.2	.7	2.9	3.4	1.1
5	3.77	17.02	49.37	13.30	10.75	33.79	12.17	3.82	1.2	4.0	8.2	2.2	1.5	4.0	1.8	1.0
6	.79	37.61	67.70	17.81	13.30	45.24	12.58	.91	.1	3.9	9.6	2.7	1.7	4.3	1.3	.1
7	.07	7.06	79.70	15.89	17.76	51.48	11.42	.34	.0	1.1	11.8	2.2	2.2	5.4	1.2	.0
8	3.31	14.23	26.09	9.58	6.98	33.50	23.11	5.88	1.0	2.9	4.6	1.8	1.4	6.0	4.4	1.5
9	3.43	8.26	12.14	3.12	4.25	27.62	36.43	10.30	.9	1.7	2.6	1.0	1.5	5.9	7.3	2.7
10	3.07	16.70	20.30	2.78	3.05	35.45	46.06	10.68	.9	3.6	4.2	.8	.8	4.9	6.5	2.0
11	1.37	40.82	39.19	2.02	1.73	22.01	29.52	5.93	.4	6.2	6.6	.5	.5	3.7	4.6	1.3
12	2.66	60.67	34.66	3.00	1.18	6.29	9.24	4.75	.8	7.5	7.0	1.2	.6	2.1	2.8	1.8
13	2.23	10.68	13.34	1.66	4.01	24.19	25.73	8.14	.8	2.5	3.3	.7	1.7	6.3	6.0	2.2
14	3.82	20.66	40.80	10.32	4.20	15.98	15.58	7.97	1.2	4.2	6.8	2.0	1.1	3.2	3.2	2.0
15	4.99	23.74	30.98	6.00	4.73	21.14	32.81	10.51	1.2	4.7	5.7	1.4	1.1	3.0	4.5	2.1
16	5.52	42.07	43.08	6.29	2.64	11.54	10.20	5.45	1.3	7.4	7.2	1.3	.9	2.4	2.0	1.2
17	3.34	27.29	46.15	16.80	14.88	41.93	7.44	1.99	.9	4.3	7.3	2.7	2.2	4.7	1.1	.6
18	2.04	26.30	35.52	6.82	4.99	34.51	39.38	6.91	.6	4.8	6.8	1.3	.7	3.9	4.7	1.1
19	5.62	23.18	22.20	3.53	3.38	17.02	18.31	10.61	1.7	5.4	4.9	1.0	1.1	3.5	3.6	2.5
20	3.02	47.93	22.25	2.69	3.67	32.66	45.41	10.63	.6	5.4	3.3	.8	.8	4.5	6.2	2.1
21	.94	6.58	11.14	.62	2.06	32.90	48.29	10.87	.4	1.6	2.5	.3	.6	6.2	9.2	2.8
22	8.26	94.56	83.42	4.44	1.06	.89	1.03	1.08	1.3	10.4	10.1	.7	.3	.3	.4	.3
23	3.50	60.05	35.40	1.61	2.38	23.14	34.20	10.03	.8	6.9	4.9	.4	.5	3.3	4.8	2.1
24	1.63	23.42	54.86	9.00	2.88	30.05	24.48	3.62	.5	4.9	8.8	1.4	.6	3.9	3.0	.7
25	3.14	69.29	35.57	2.64	3.89	19.32	17.02	4.66	.7	8.4	5.4	.7	1.1	3.5	3.0	1.1
26	6.82	38.98	28.87	2.90	2.90	27.14	41.57	10.75	1.4	5.4	4.8	.8	.9	3.4	4.9	2.1
27	6.96	48.19	44.06	8.90	6.14	13.56	3.29	4.85	1.7	7.7	7.3	1.8	1.0	1.8	.9	1.4
28	4.03	34.85	31.70	3.58	3.55	20.71	22.13	9.26	1.0	5.4	5.5	.9	.9	3.8	4.1	2.1
29	1.06	95.16	47.40	1.27	1.78	19.42	20.98	4.30	.4	9.7	6.4	.3	.4	2.8	3.0	.8
30	2.21	11.18	40.39	24.77	22.68	62.14	10.39	1.58	.7	2.4	6.7	3.7	2.7	5.9	1.3	.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
OCTOBER 1989																
1	2.26	13.87	19.78	4.49	3.60	47.52	59.78	11.30	0.6	2.6	4.0	1.0	0.6	5.8	7.3	1.8
2	2.59	28.97	42.38	15.26	17.47	49.70	11.47	3.36	.7	3.7	6.4	2.7	2.5	5.4	1.7	.8
3	1.15	19.87	48.77	37.51	22.54	36.48	5.64	.72	.3	3.0	7.8	5.4	3.0	3.6	.7	.2
4	2.40	8.28	18.36	13.06	14.62	58.85	40.03	8.54	.7	2.0	3.5	1.8	1.9	6.9	5.2	1.8
5	2.64	31.92	42.96	3.17	1.56	19.63	20.28	5.04	.7	6.8	8.3	.7	.5	2.9	3.1	1.0
6	4.42	25.97	34.25	5.42	3.07	22.13	35.45	8.83	1.3	5.5	6.0	1.2	.8	3.0	4.2	1.7
7	1.30	30.62	39.50	4.44	2.14	28.75	31.63	5.98	.4	6.0	7.1	1.0	.5	3.7	4.1	1.1
8	2.30	26.42	43.87	5.62	1.68	21.84	24.36	8.71	.7	5.9	7.5	1.0	.4	3.1	3.5	1.8
9	1.44	36.98	46.15	8.30	2.11	23.52	25.25	4.42	.4	7.4	7.4	1.2	.5	3.0	3.2	.7
10	2.90	27.70	52.73	8.76	2.42	23.93	28.08	6.77	.8	5.3	8.3	1.4	.6	2.8	3.4	1.3
11	1.99	26.83	38.21	1.78	3.60	42.96	60.77	8.78	.6	5.3	6.7	.4	.5	3.8	5.2	1.2
12	4.22	29.81	30.14	3.02	2.06	20.83	29.50	11.50	1.2	5.9	5.7	.8	.6	3.0	4.2	2.3
13	5.23	26.06	33.29	7.87	2.62	19.54	30.17	8.52	1.5	5.7	5.8	1.4	.7	2.7	4.1	1.9
14	2.88	22.34	46.49	13.06	3.31	19.70	22.22	5.40	.8	5.0	8.0	2.2	.7	2.8	3.2	1.1
15	3.05	9.29	22.63	5.54	2.50	14.98	22.13	8.28	1.2	3.2	5.7	1.6	.8	3.8	5.0	2.4
16	2.02	18.12	13.06	2.35	2.02	17.23	28.66	6.89	.8	4.0	3.0	.9	.9	5.0	7.0	2.0
17	5.16	26.59	29.16	8.54	2.88	17.76	15.29	4.44	1.6	6.9	6.4	1.8	.8	2.7	2.3	1.2
18	4.46	26.66	38.47	6.19	4.01	10.80	9.86	5.30	1.4	6.0	7.4	1.5	1.2	2.4	2.2	1.5
19	2.23	98.16	50.40	5.11	3.41	7.66	7.42	3.05	.7	9.9	6.6	1.2	.9	1.8	1.7	.9
20	6.82	27.89	28.87	4.37	4.37	10.13	14.23	9.50	1.8	5.5	5.7	1.2	1.2	2.4	3.2	2.5
21	5.11	19.34	29.02	6.67	9.58	27.60	8.78	2.50	1.8	5.3	6.7	1.5	1.7	3.9	1.8	1.0
22	4.25	16.49	20.54	2.52	2.28	15.77	23.26	9.67	1.7	4.4	5.0	.9	.8	3.5	4.8	2.5
23	3.19	20.83	48.22	8.74	3.67	19.75	16.13	6.48	1.0	4.5	8.1	1.5	1.0	3.2	2.8	1.6
24	4.87	25.27	51.46	6.26	6.02	21.14	13.49	7.20	1.2	4.6	8.1	1.4	1.3	3.3	2.3	1.6
25	.94	82.73	72.26	20.64	9.48	14.93	2.21	.46	.3	7.8	9.1	2.8	1.4	1.9	.4	.1
26	.77	3.94	12.74	6.12	10.06	48.70	48.00	10.08	.2	1.4	3.3	1.6	1.5	6.5	7.1	2.1
27	3.41	37.92	77.86	12.50	1.44	3.34	2.11	1.10	1.2	6.7	11.5	2.0	.5	1.0	.6	.3
28	1.94	8.23	30.22	9.36	3.29	38.21	66.89	6.50	.6	2.1	5.8	1.7	.9	4.5	7.1	1.2
29	1.92	3.84	14.40	1.73	2.33	31.90	36.29	5.59	.8	1.6	5.1	.9	1.1	6.0	6.6	1.7
30	.84	25.18	29.30	2.81	3.31	18.60	17.83	4.87	.3	5.9	7.7	1.1	.9	3.8	3.1	1.2
31	1.85	10.87	26.64	8.45	1.99	21.74	23.64	5.16	.7	3.3	6.3	1.8	.7	4.9	4.6	1.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
	45	90	135	180	225	270	315	360	45	90	135	180	225	270	315	360
NOVEMBER 1989																
1	2.57	11.28	20.38	4.70	2.06	22.87	25.34	7.20	0.9	2.7	4.2	1.2	1.2	6.2	5.4	1.9
2	4.70	31.22	48.77	14.30	5.09	8.18	4.42	4.32	1.2	5.7	8.2	2.8	1.4	2.1	1.3	1.1
3	2.90	15.07	41.59	13.78	1.78	13.51	17.64	4.90	1.0	4.4	7.9	2.1	.7	3.0	3.5	1.2
4	1.30	7.94	10.82	1.13	7.34	56.14	54.67	7.03	.5	3.0	3.7	.5	1.5	7.0	6.3	1.3
5	2.06	5.21	8.30	2.02	4.13	43.56	63.86	12.26	.6	1.3	2.0	.6	1.0	6.5	9.1	2.5
6	.94	13.78	19.06	5.83	3.02	24.98	45.29	6.12	.4	2.9	4.6	1.9	1.1	4.2	7.4	1.4
7	3.62	4.80	11.59	3.55	2.38	21.26	57.46	15.41	1.3	1.6	2.6	.9	1.0	3.7	8.9	3.6
8	4.39	12.29	13.90	1.80	2.47	28.70	62.71	17.74	1.3	3.1	3.2	.7	.7	3.9	7.6	2.9
9	2.83	17.06	22.25	6.50	3.72	6.48	8.06	4.01	1.6	5.0	6.3	2.1	1.8	2.5	2.6	1.9
10	3.72	19.18	26.90	3.10	2.57	8.93	10.08	4.51	1.3	5.8	7.5	1.2	1.1	2.6	2.7	1.5
11	5.38	26.14	45.79	13.25	3.00	2.52	3.98	4.30	1.8	5.9	8.3	3.0	1.0	.9	1.4	1.4
12	4.63	21.50	46.37	15.48	6.48	35.64	17.95	4.15	1.3	5.0	6.6	2.3	1.2	4.0	2.2	1.1
13	2.50	26.45	33.62	6.55	10.66	46.25	28.06	4.63	.7	5.4	6.2	1.3	1.5	5.2	2.8	.7
14	1.49	3.96	4.13	.79	5.42	62.30	114.65	12.22	.5	.9	.9	.2	.8	6.6	11.7	2.1
15	2.38	10.68	18.55	.46	2.04	36.02	67.75	16.80	.7	2.4	3.6	.2	.6	4.4	8.2	3.5
16	2.06	11.28	68.11	21.72	1.42	2.54	5.28	3.96	.8	3.1	11.6	3.5	.6	1.0	1.7	1.4
17	1.46	28.20	38.88	.50	1.61	22.01	19.68	3.89	.5	6.8	8.5	.2	.5	3.6	3.0	.8
18	3.02	28.61	51.43	9.34	2.14	9.46	12.84	3.86	1.1	5.7	8.9	1.8	.8	2.0	2.6	1.0
19	6.24	58.03	36.46	4.56	3.02	4.27	4.32	3.86	1.7	9.4	6.5	1.3	.9	1.3	1.5	1.1
20	4.27	43.94	67.39	7.42	3.60	6.53	3.07	2.83	1.1	7.0	10.0	1.3	1.1	1.7	.8	.7
21	4.54	26.40	49.22	8.93	1.06	13.06	23.76	6.98	1.2	5.6	8.1	1.6	.4	2.1	3.3	1.4
22	1.46	35.21	50.04	3.55	1.03	12.29	20.04	5.18	.5	7.3	9.2	.6	.3	2.0	3.1	.9
23	4.75	30.43	46.34	9.94	2.30	5.62	7.08	3.29	1.5	7.2	8.1	1.8	.8	1.6	1.8	.9
24	1.87	10.46	20.71	7.73	17.02	61.30	34.82	4.32	.6	2.4	3.9	1.4	2.5	7.8	4.3	.9
25	2.02	21.91	25.99	2.93	2.06	22.54	39.29	7.30	.8	4.0	5.2	1.0	.7	3.9	6.5	1.8
26	2.78	25.51	27.14	10.68	6.36	47.16	69.02	8.26	.7	3.4	4.0	1.6	.9	4.9	6.8	1.4
27	.31	.05	.00	.02	.72	45.79	152.26	14.33	.1	.0	.0	.0	.1	4.9	16.1	2.6
28	3.77	35.52	53.14	8.06	.72	3.86	20.76	6.24	1.0	6.4	9.4	1.4	.3	.7	3.2	1.4
29	4.03	42.60	53.47	10.70	4.85	7.51	6.77	5.42	1.0	6.4	8.3	1.7	1.2	1.9	1.9	1.3
30	2.52	29.81	52.30	5.52	.96	4.39	6.62	5.23	.8	7.2	9.8	1.0	.4	1.3	1.8	1.4

Table 3.--Wind-run and wind-duration histogram data,
October 1987-December 1989--Continued

Day of month	Wind run per sector, in miles (sectors are indicated as degrees from north)								Wind duration per sector, in hours (sectors are indicated as degrees from north)							
	0	45	90	135	180	225	270	315	0	45	90	135	180	225	270	315
	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360	to 45	to 90	to 135	to 180	to 225	to 270	to 315	to 360
<u>DECEMBER 1989</u>																
1	3.58	14.78	45.84	11.86	2.57	6.60	6.24	4.46	1.4	4.6	9.2	2.3	1.0	2.0	1.8	1.3
2	2.88	13.34	55.46	20.69	3.62	3.84	4.46	5.74	1.0	3.4	9.3	3.7	1.5	1.7	1.6	1.6
3	4.20	35.62	66.02	18.38	6.31	3.98	4.27	5.95	1.0	5.3	9.4	2.7	1.4	1.2	1.2	1.6
4	3.58	18.14	48.82	18.14	3.00	5.66	5.95	5.30	1.3	4.9	8.0	2.7	.9	2.2	2.0	1.6
5	6.10	24.74	39.43	9.29	1.03	3.41	4.63	3.98	2.1	6.5	8.5	1.8	.5	1.3	1.7	1.2
6	1.51	11.26	20.06	1.82	.67	28.10	56.35	7.34	.7	3.5	5.4	.7	.3	4.2	7.5	1.5
7	1.58	10.61	16.15	1.90	.74	16.25	47.04	17.02	.6	2.1	3.2	.4	.3	3.4	9.4	4.3
8	5.76	49.30	66.60	11.35	2.28	4.15	4.22	6.70	1.3	6.6	9.0	1.9	.7	1.3	1.3	1.6
9	1.30	5.71	38.54	18.00	1.42	21.26	37.75	5.57	.5	1.8	7.4	2.9	.5	3.8	5.6	1.2
10	1.94	6.72	15.79	.26	1.06	19.10	64.30	14.47	.6	1.6	3.0	.1	.3	3.6	11.1	3.2
11	1.94	19.10	16.68	1.32	1.92	13.37	34.99	11.02	.6	3.5	4.1	.5	1.0	4.2	7.2	2.6
12	1.92	10.78	64.90	24.82	1.99	4.87	5.71	4.15	.6	2.6	10.6	4.2	.8	1.7	1.9	1.4
13	2.71	9.91	16.20	.82	1.73	10.46	22.46	10.18	1.2	3.1	3.8	.4	1.0	4.0	6.7	3.5
14	1.15	.22	.12	.31	3.05	46.03	100.99	24.89	.3	.0	.0	.1	.6	6.4	12.3	4.1
15	1.15	3.60	5.47	.77	.38	17.66	80.23	19.39	.7	1.7	1.4	.3	.2	2.9	12.6	4.0
16	5.64	8.93	8.40	.96	1.27	6.79	22.49	8.69	2.8	4.2	4.0	.5	.7	2.4	5.9	2.9
17	3.89	12.07	11.11	2.35	1.03	3.91	5.52	5.62	2.4	5.6	5.1	1.2	.7	2.4	3.2	2.7
18	3.72	13.87	23.26	3.91	.67	8.69	36.94	7.56	1.8	4.2	6.1	1.2	.4	1.9	6.2	1.8
19	4.54	22.06	44.38	31.82	2.18	2.90	2.90	4.82	1.5	5.2	7.9	4.6	.8	1.2	1.1	1.4
20	2.23	40.06	49.20	33.12	1.39	1.51	1.87	2.66	.9	6.5	8.7	4.9	.6	.6	.7	.9
21	1.51	4.01	34.80	26.54	1.25	17.02	50.90	9.65	.6	1.3	5.3	3.3	.5	3.4	7.4	2.0
22	3.60	28.85	84.38	14.42	.82	1.54	2.02	2.21	1.8	5.9	10.7	2.1	.4	1.1	.9	.9
23	5.59	33.10	42.41	25.75	2.21	4.49	6.84	9.34	1.5	5.0	6.4	3.5	.9	1.6	2.3	2.4
24	2.59	40.99	70.75	21.55	1.56	1.94	1.10	2.83	.7	6.6	10.8	3.0	.6	.8	.5	.8
25	9.53	59.30	51.17	8.35	2.45	3.36	6.94	13.78	1.9	7.0	6.4	1.4	.7	1.1	1.9	3.1
26	7.94	60.82	56.88	18.55	1.94	2.93	4.61	9.26	1.7	7.1	7.3	2.6	.6	.9	1.4	2.1
27	6.72	130.80	45.94	6.43	2.35	2.76	5.76	9.46	1.6	10.4	5.0	1.2	.8	.8	1.6	2.3
28	6.84	24.14	57.48	19.32	1.25	2.38	3.72	6.86	1.9	5.4	9.0	2.9	.4	.9	1.2	1.9
29	3.17	36.82	28.30	7.10	.77	7.10	13.66	8.69	1.4	5.0	6.1	1.6	.5	2.2	3.9	2.8
30	3.43	6.02	9.79	.58	.50	15.19	44.04	21.62	1.1	1.9	2.5	.3	.2	3.2	9.0	5.2
31	4.85	123.36	24.96	1.46	1.13	2.71	1.39	1.06	1.5	12.8	3.7	.7	1.0	2.1	1.2	.7

Table 4.--*Snow-course information for 1988 and 1989 at the Spring Creek, Cow Camp Creek, and soil-water control sites*

[All data are in inches; --, no data]

Date	Spring Creek		Cow Camp Creek		Soil-water control	
	Snow depth	Water content	Snow depth	Water content	Snow depth	Water content
01-26-88	17.2	4.5	--	--	--	--
01-27-88	--	--	17.9	4.4	--	--
01-28-88	--	--	--	--	17.9	4.5
02-29-88	.0	.0	10.8	3.2	--	--
03-01-88	--	--	--	--	12.1	4.0
01-30-89	6.1	2.0	--	--	--	--
01-31-89	--	--	11.9	3.0	15.4	3.4
03-02-89	5.2	1.6	14.0	4.8	18.6	5.8

Table 5.--Soil-water content at the Spring Creek site
during 1988 and 1989

[Contents in percent by volume; --, no measurement]

Date of measurement	Depth of measurement (feet)	Soil-water access tubes					
		1	2	3	4	5	6
01-26-88	1	19.9	16.6	18.7	15.0	19.6	16.6
01-26-88	2	18.4	14.5	17.3	13.8	20.0	16.8
01-26-88	3	20.0	18.2	9.6	14.4	12.9	13.2
01-26-88	4	18.7	17.4	10.7	16.4	13.1	13.2
01-26-88	5	17.2	13.4	17.9	15.0	--	9.3
01-26-88	6	14.5	17.2	16.7	15.9	--	--
01-26-88	7	--	12.3	17.7	17.6	--	--
01-26-88	8	--	10.3	18.8	20.9	--	--
01-26-88	9	--	--	--	16.0	--	--
02-29-88	1	19.8	20.0	21.0	21.4	21.5	18.3
02-29-88	2	19.9	20.0	17.8	17.0	21.3	18.1
02-29-88	3	19.5	18.2	9.7	18.7	15.1	14.8
02-29-88	4	19.4	16.5	10.1	18.3	15.7	15.8
02-29-88	5	17.5	13.1	17.3	14.6	--	11.7
02-29-88	6	15.3	16.7	16.7	15.4	--	--
02-29-88	7	--	12.3	17.2	17.1	--	--
02-29-88	8	--	10.3	18.1	20.2	--	--
02-29-88	9	--	--	--	15.6	--	--
04-06-88	1	20.5	21.2	20.9	21.1	21.2	17.9
04-06-88	2	20.8	21.1	18.4	17.4	21.1	18.2
04-06-88	3	20.4	20.7	10.1	19.6	14.9	15.3
04-06-88	4	19.9	18.9	10.8	19.9	14.5	16.0
04-06-88	5	18.1	13.9	18.1	15.5	--	--
04-06-88	6	15.1	17.6	17.2	15.6	--	--
04-06-88	7	--	12.5	18.0	17.8	--	--
04-06-88	8	--	10.4	19.1	20.9	--	--
04-06-88	9	--	--	--	16.1	--	--
05-04-88	1	20.3	20.8	20.4	20.5	20.6	17.6
05-04-88	2	20.6	20.4	17.8	16.9	20.1	18.3
05-04-88	3	19.8	20.4	10.1	19.1	14.1	15.5
05-04-88	4	19.0	19.1	10.3	19.5	14.2	16.1
05-04-88	5	17.4	14.0	17.8	15.6	--	11.9
05-04-88	6	15.0	17.2	17.0	15.7	--	--
05-04-88	7	--	12.5	17.8	17.3	--	--
05-04-88	8	--	10.2	18.6	20.1	--	--
05-04-88	9	--	--	--	15.7	--	--

Table 5.--Soil-water content at the Spring Creek site during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes					
		1	2	3	4	5	6
06-06-88	1	20.4	21.2	20.2	20.0	20.7	17.5
06-06-88	2	21.0	20.8	18.1	17.4	20.5	18.5
06-06-88	3	20.5	20.5	10.6	19.3	14.4	15.1
06-06-88	4	19.3	19.5	10.8	19.7	14.5	16.4
06-06-88	5	18.1	14.2	17.8	15.9	--	12.1
06-06-88	6	14.9	17.6	17.1	15.7	--	--
06-06-88	7	--	12.6	17.8	17.6	--	--
06-06-88	8	--	10.4	18.6	21.0	--	--
06-06-88	9	--	--	--	15.8	--	--
07-12-88	1	19.9	17.1	17.8	15.7	19.4	15.7
07-12-88	2	20.3	20.1	18.0	16.8	21.0	18.0
07-12-88	3	20.7	20.8	10.9	19.6	14.8	15.2
07-12-88	4	19.6	19.7	11.2	20.3	15.0	15.8
07-12-88	5	17.8	15.2	17.7	16.3	--	12.2
07-12-88	6	15.1	18.0	17.3	16.0	--	--
07-12-88	7	--	12.9	18.3	17.7	--	--
07-12-88	8	--	10.5	18.8	21.0	--	--
07-12-88	9	--	--	--	16.0	--	--
07-25-88	1	18.5	15.3	15.8	15.0	18.3	14.4
07-25-88	2	20.9	16.3	18.1	16.8	20.8	17.8
07-25-88	3	15.0	19.7	11.4	20.7	21.7	15.1
07-25-88	4	15.2	20.4	11.3	19.8	20.0	16.5
07-25-88	5	--	16.8	18.3	15.3	--	12.5
07-25-88	6	--	16.2	17.6	18.5	--	--
07-25-88	7	--	18.1	18.8	13.2	--	--
07-25-88	8	--	21.9	19.6	10.9	--	--
07-25-88	9	--	--	--	12.3	--	--
08-29-88	1	16.2	13.8	14.0	14.3	16.7	12.5
08-29-88	2	18.1	12.9	15.9	15.2	19.4	15.2
08-29-88	3	19.8	17.7	10.6	18.3	14.4	12.7
08-29-88	4	18.9	18.3	11.2	19.7	14.8	15.3
08-29-88	5	17.7	15.5	17.9	16.0	--	12.0
08-29-88	6	14.8	18.4	17.0	16.3	--	--
08-29-88	7	--	12.6	18.5	17.6	--	--
08-29-88	8	--	10.5	18.9	21.0	--	--
08-29-88	9	--	--	--	16.0	--	--

Table 5.--Soil-water content at the Spring Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes					
		1	2	3	4	5	6
10-05-88	1	18.0	14.6	14.9	15.0	17.1	13.8
10-05-88	2	18.8	12.7	15.0	15.1	19.6	15.0
10-05-88	3	19.8	16.6	10.0	17.9	14.5	12.8
10-05-88	4	19.0	17.8	11.3	19.4	14.6	15.1
10-05-88	5	17.6	15.0	17.3	16.2	--	11.5
10-05-88	6	14.6	18.1	16.6	15.8	--	--
10-05-88	7	--	12.6	18.0	17.1	--	--
10-05-88	8	--	10.2	18.2	20.7	--	--
10-05-88	9	--	--	--	15.8	--	--
11-16-88	1	19.5	13.6	19.4	14.8	18.9	13.5
11-16-88	2	19.5	12.7	15.0	14.6	19.6	14.7
11-16-88	3	20.0	16.2	9.9	17.0	14.1	12.2
11-16-88	4	18.8	17.3	11.0	19.2	14.2	14.4
11-16-88	5	18.0	14.3	17.3	16.0	--	11.2
11-16-88	6	14.8	17.8	16.2	16.0	--	--
11-16-88	7	--	12.1	18.0	17.0	--	--
11-16-88	8	--	10.1	18.6	20.6	--	--
11-16-88	9	--	--	--	15.5	--	--
12-12-88	1	20.0	17.2	19.6	17.8	20.0	16.4
12-12-88	2	20.3	13.0	15.4	14.9	19.8	17.1
12-12-88	3	19.7	16.3	9.8	17.6	13.9	13.6
12-12-88	4	18.5	17.1	10.9	19.2	14.4	15.6
12-12-88	5	17.5	14.5	17.5	16.1	--	11.9
12-12-88	6	14.7	17.6	16.6	16.5	--	--
12-12-88	7	--	12.4	18.1	17.2	--	--
12-12-88	8	--	10.2	18.4	20.4	--	--
12-12-88	9	--	--	--	15.5	--	--
01-30-89	1	20.4	20.0	20.6	20.3	20.9	17.1
01-30-89	2	20.4	18.3	17.6	17.5	20.1	17.8
01-30-89	3	20.1	16.7	11.2	18.9	15.4	14.6
01-30-89	4	18.8	17.1	11.8	19.2	15.3	15.9
01-30-89	5	18.0	14.2	17.6	16.4	--	12.1
01-30-89	6	15.0	17.9	16.7	16.8	--	--
01-30-89	7	--	13.1	18.2	17.3	--	--
01-30-89	8	--	10.7	18.8	20.7	--	--
01-30-89	9	--	--	--	15.9	--	--

Table 5.--Soil-water content at the Spring Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes					
		1	2	3	4	5	6
03-01-89	1	20.4	20.4	20.5	21.0	21.3	17.2
03-01-89	2	20.1	20.5	18.0	18.2	21.5	17.7
03-01-89	3	20.4	19.5	12.9	19.5	15.8	14.9
03-01-89	4	18.7	17.5	12.3	20.1	16.2	16.2
03-01-89	5	18.0	14.3	17.8	18.3	--	12.3
03-01-89	6	15.4	17.9	16.8	16.3	--	--
03-01-89	7	--	12.7	19.1	17.2	--	--
03-01-89	8	--	10.6	19.7	20.7	--	--
03-01-89	9	--	--	--	15.6	--	--
03-21-89	1	20.5	20.3	21.0	20.5	21.0	16.9
03-21-89	2	20.4	20.6	18.0	18.1	20.5	17.6
03-21-89	3	20.4	20.7	13.7	19.3	15.5	14.8
03-21-89	4	18.6	19.1	13.5	20.1	15.7	16.3
03-21-89	5	17.7	18.2	17.9	19.0	--	12.1
03-21-89	6	14.6	20.0	17.1	17.7	--	--
03-21-89	7	--	14.0	19.2	17.2	--	--
03-21-89	8	--	11.7	19.1	20.5	--	--
03-21-89	9	--	--	--	15.8	--	--
04-04-89	1	20.0	20.2	20.4	20.4	20.4	17.0
04-04-89	2	19.7	20.1	17.8	17.6	20.0	17.6
04-04-89	3	20.0	20.1	13.2	19.1	15.3	14.6
04-04-89	4	18.5	19.0	12.8	19.8	15.0	15.9
04-04-89	5	17.4	18.0	17.6	18.5	--	11.8
04-04-89	6	14.4	19.7	16.8	17.6	--	--
04-04-89	7	--	13.8	18.6	16.8	--	--
04-04-89	8	--	11.6	19.0	20.4	--	--
04-04-89	9	--	--	--	15.5	--	--
05-09-89	1	19.5	19.8	19.0	19.6	20.2	15.8
05-09-89	2	20.6	20.0	17.7	17.6	20.4	17.6
05-09-89	3	20.6	20.2	13.5	19.2	15.6	14.7
05-09-89	4	18.6	19.1	13.5	20.1	15.4	14.7
05-09-89	5	17.7	18.1	18.1	18.7	--	12.0
05-09-89	6	14.8	19.7	17.2	18.0	--	--
05-09-89	7	--	13.8	18.9	17.2	--	--
05-09-89	8	--	11.6	19.5	21.2	--	--
05-09-89	9	--	--	--	15.9	--	--

Table 5.--Soil-water content at the Spring Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measure- ment (feet)	Soil-water access tubes					
		1	2	3	4	5	6
06-07-89	1	17.5	15.1	14.7	14.8	17.1	13.4
06-07-89	2	20.0	16.4	17.2	16.6	19.7	15.6
06-07-89	3	20.3	19.9	13.5	19.1	15.2	15.7
06-07-89	4	18.5	18.7	13.5	20.4	15.5	14.1
06-07-89	5	17.5	17.8	18.1	18.2	--	15.8
06-07-89	6	14.4	19.5	17.2	18.2	--	--
06-07-89	7	--	13.7	19.0	17.4	--	--
06-07-89	8	--	11.4	19.5	21.1	--	--
06-07-89	9	--	--	--	15.9	--	--
07-19-89	1	15.7	12.7	13.5	13.1	14.9	11.9
07-19-89	2	17.2	12.6	14.5	15.1	16.9	13.2
07-19-89	3	19.3	15.1	12.6	17.9	14.3	11.3
07-19-89	4	17.3	17.8	13.3	19.9	15.1	14.8
07-19-89	5	17.5	16.9	17.9	18.1	--	11.9
07-19-89	6	14.5	19.2	16.8	18.0	--	--
07-19-89	7	--	13.5	19.1	17.2	--	--
07-19-89	8	--	11.0	19.2	21.0	--	--
07-19-89	9	--	--	--	15.7	--	--
08-31-89	1	14.9	12.7	13.3	13.5	15.4	11.8
08-31-89	2	16.4	12.2	13.9	14.9	16.5	12.9
08-31-89	3	19.2	13.8	12.0	17.3	13.6	10.8
08-31-89	4	17.6	16.4	12.9	19.3	15.0	13.9
08-31-89	5	17.2	14.8	18.1	18.2	--	11.7
08-31-89	6	14.6	19.0	16.6	18.4	--	--
08-31-89	7	--	13.5	19.2	17.4	--	--
08-31-89	8	--	11.1	19.1	21.3	--	--
08-31-89	9	--	--	--	15.7	--	--
10-03-89	1	15.5	12.5	13.7	13.4	15.4	11.9
10-03-89	2	17.4	12.2	13.5	15.3	16.1	13.3
10-03-89	3	19.8	13.8	11.2	16.6	13.2	10.7
10-03-89	4	17.7	16.0	12.8	19.3	14.8	13.3
10-03-89	5	17.4	15.0	17.6	17.6	--	11.2
10-03-89	6	14.4	18.9	16.6	18.1	--	--
10-03-89	7	--	13.2	19.0	16.9	--	--
10-03-89	8	--	10.8	19.2	21.0	--	--
10-03-89	9	--	--	--	16.1	--	--

Table 6.--Soil-water content at the Cow Camp Creek site during 1988 and 1989

[Contents in percent by volume; --, no measurement]

Date of measurement	Depth of measurement (feet)	Soil-water access tubes				
		1	2	3	4	5
01-07-88	1	14.8	15.0	11.0	13.4	14.8
01-07-88	2	13.1	13.1	9.2	16.0	16.5
01-07-88	3	14.7	16.4	9.0	15.5	15.1
01-07-88	4	16.5	16.2	8.8	16.8	16.5
01-07-88	5	16.3	15.8	--	17.4	16.0
01-07-88	6	17.3	15.8	--	17.4	16.0
01-07-88	7	15.3	17.0	--	14.2	11.5
01-07-88	8	--	16.5	--	14.1	12.5
01-27-88	1	14.7	15.3	10.2	13.7	15.3
01-27-88	2	13.4	13.6	9.5	16.4	16.2
01-27-88	3	14.8	15.8	9.1	15.7	14.6
01-27-88	4	16.6	16.3	9.2	17.0	16.7
01-27-88	5	16.1	16.4	--	17.5	15.8
01-27-88	6	16.9	16.1	--	16.1	16.7
01-27-88	7	14.7	16.6	--	13.8	11.2
01-27-88	8	--	16.7	--	14.4	12.6
02-29-88	1	17.2	16.4	13.1	16.4	17.2
02-29-88	2	14.9	15.9	10.3	16.7	17.0
02-29-88	3	14.8	16.2	8.9	16.3	16.1
02-29-88	4	16.1	15.6	8.7	16.9	14.1
02-29-88	5	15.5	15.5	--	17.7	16.2
02-29-88	6	16.5	15.6	--	17.0	14.6
02-29-88	7	14.4	16.3	--	14.3	16.0
02-29-88	8	--	15.8	--	17.3	10.8
04-12-88	1	17.2	16.5	13.3	16.6	17.7
04-12-88	2	15.6	16.6	14.9	17.4	18.1
04-12-88	3	17.0	17.4	17.1	17.5	16.7
04-12-88	4	17.5	16.8	17.0	17.8	17.8
04-12-88	5	17.0	16.7	--	17.8	16.8
04-12-88	6	17.6	15.8	--	17.3	17.8
04-12-88	7	15.2	16.8	--	14.4	12.3
04-12-88	8	--	16.4	--	15.3	14.6
05-04-88	1	16.5	16.3	14.3	15.9	17.5
05-04-88	2	15.3	16.0	15.1	17.1	18.1
05-04-88	3	16.7	17.2	16.8	17.6	16.7
05-04-88	4	17.8	16.5	16.7	18.1	17.9
05-04-88	5	16.9	16.4	--	18.2	17.0
05-04-88	6	17.4	15.9	--	17.2	17.6
05-04-88	7	14.9	16.6	--	14.1	11.9
05-04-88	8	--	16.4	--	14.9	13.8

Table 6.--Soil-water content at the Cow Camp Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measure- ment (feet)	Soil-water access tubes				
		1	2	3	4	5
05-04-88	1	16.5	16.3	14.3	15.9	17.5
05-04-88	2	15.3	16.0	15.1	17.1	18.1
05-04-88	3	16.7	17.2	16.8	17.6	16.7
05-04-88	4	17.8	16.5	16.7	18.1	17.9
05-04-88	5	16.9	16.4	--	18.2	17.0
05-04-88	6	17.4	15.9	--	17.2	17.6
05-04-88	7	14.9	16.6	--	14.1	11.9
05-04-88	8	--	16.4	--	14.9	13.8
06-06-88	1	13.4	14.9	9.2	14.3	14.4
06-06-88	2	14.9	15.8	13.2	17.3	18.2
06-06-88	3	17.0	17.0	15.9	17.4	16.6
06-06-88	4	18.1	17.1	16.7	18.1	18.2
06-06-88	5	17.4	16.9	--	18.1	17.0
06-06-88	6	17.6	16.1	--	17.5	17.8
06-06-88	7	15.4	16.8	--	14.5	11.8
06-06-88	8	--	16.4	--	15.5	13.6
07-12-88	1	13.2	12.8	8.7	12.5	13.2
07-12-88	2	14.4	14.9	10.6	17.3	17.3
07-12-88	3	16.6	17.0	12.1	17.1	16.2
07-12-88	4	17.9	17.2	13.3	18.1	17.8
07-12-88	5	17.5	17.1	--	18.5	17.1
07-12-88	6	17.7	16.5	--	17.5	17.6
07-12-88	7	15.4	17.1	--	14.6	11.8
07-12-88	8	--	16.8	--	15.8	14.0
07-25-88	1	11.9	12.0	7.6	11.6	11.6
07-25-88	2	14.1	14.1	9.7	16.5	16.6
07-25-88	3	16.1	16.8	10.9	17.0	16.0
07-25-88	4	18.0	17.2	11.3	18.1	18.0
07-25-88	5	17.0	17.0	--	18.2	17.4
07-25-88	6	18.0	16.4	--	17.3	18.0
07-25-88	7	15.3	17.3	--	14.6	11.9
07-25-88	8	--	16.9	--	15.5	14.0
08-29-88	1	11.8	12.0	7.2	11.3	11.8
08-29-88	2	13.6	13.7	9.1	16.4	16.0
08-29-88	3	15.6	15.6	10.0	16.6	14.4
08-29-88	4	17.3	16.9	9.8	17.5	17.5
08-29-88	5	16.6	16.7	--	17.9	16.5
08-29-88	6	17.6	16.3	--	17.4	17.6
08-29-88	7	15.4	16.8	--	14.3	11.5
08-29-88	8	--	16.6	--	15.4	13.9

Table 6.--Soil-water content at the Cow Camp Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measure- ment (feet)	Soil-water access tubes				
		1	2	3	4	5
10-05-88	1	11.9	12.3	9.7	11.1	13.8
10-05-88	2	13.0	12.9	10.6	15.8	15.8
10-05-88	3	15.2	15.3	9.8	15.9	14.0
10-05-88	4	17.0	16.0	9.5	17.2	17.0
10-05-88	5	16.5	16.1	--	17.2	15.3
10-05-88	6	17.2	16.0	--	17.2	16.8
10-05-88	7	15.0	16.5	--	13.7	11.5
10-05-88	8	--	16.4	--	15.0	13.9
11-14-88	1	11.9	13.0	10.9	12.2	15.6
11-14-88	2	13.2	13.1	9.4	15.7	16.5
11-14-88	3	15.0	15.3	10.0	15.7	14.5
11-14-88	4	16.9	16.5	9.6	17.2	17.4
11-14-88	5	16.4	16.3	--	17.5	15.9
11-14-88	6	17.6	15.9	--	17.1	17.1
11-14-88	7	15.3	16.4	--	13.9	11.9
11-14-88	8	--	16.6	--	14.8	13.9
12-13-88	1	13.7	15.3	14.7	15.3	16.6
12-13-88	2	13.8	13.7	14.4	16.4	16.5
12-13-88	3	15.4	15.7	10.3	15.9	14.0
12-13-88	4	17.5	16.4	10.1	17.2	17.3
12-13-88	5	16.5	16.6	--	18.1	15.9
12-13-88	6	17.9	16.5	--	17.6	17.0
12-13-88	7	15.5	17.3	--	14.0	11.6
12-13-88	8	--	16.8	--	14.9	13.7
01-31-89	1	13.9	15.1	14.2	16.2	16.3
01-31-89	2	13.3	13.3	13.5	16.2	15.9
01-31-89	3	14.6	15.0	10.7	15.6	14.0
01-31-89	4	16.0	16.1	9.6	16.6	16.4
01-31-89	5	15.9	15.9	--	17.1	15.0
01-31-89	6	17.0	15.6	--	16.6	16.2
01-31-89	7	14.7	16.1	--	13.5	11.0
01-31-89	8	--	16.0	--	14.2	13.0
03-01-89	1	13.8	15.2	14.3	16.6	16.2
03-01-89	2	13.1	13.5	13.5	17.0	15.8
03-01-89	3	14.6	15.1	11.2	16.3	13.8
03-01-89	4	16.0	16.0	9.7	16.4	16.4
03-01-89	5	15.7	15.8	--	16.8	14.7
03-01-89	6	16.6	15.8	--	16.6	16.2
03-01-89	7	14.6	15.8	--	13.4	10.9
03-01-89	8	--	16.3	--	13.9	12.7

Table 6.--Soil-water content at the Cow Camp Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measure- ment (feet)	Soil-water access tubes				
		1	2	3	4	5
03-22-89	1	17.1	17.0	15.4	17.4	18.6
03-22-89	2	15.2	17.0	15.7	17.7	17.8
03-22-89	3	17.4	16.4	17.1	17.6	16.6
03-22-89	4	17.7	16.8	16.4	18.2	18.1
03-22-89	5	16.7	16.4	--	18.1	16.5
03-22-89	6	17.4	16.0	--	17.2	17.7
03-22-89	7	15.3	16.2	--	14.5	12.0
03-22-89	8	--	16.2	--	--	14.6
04-05-89	1	16.9	16.8	14.5	17.3	18.3
04-05-89	2	15.0	17.2	15.4	17.4	17.8
04-05-89	3	17.5	16.3	16.2	17.6	16.4
04-05-89	4	17.6	16.6	16.1	18.1	18.0
04-05-89	5	16.5	16.0	--	18.3	16.7
04-05-89	6	17.3	16.0	--	17.1	17.3
04-05-89	7	15.2	16.1	--	14.0	11.9
04-05-89	8	--	16.3	--	16.2	14.4
05-09-89	1	15.9	15.6	10.9	15.8	16.0
05-09-89	2	14.9	16.0	13.8	17.3	17.4
05-09-89	3	17.2	16.4	15.5	17.6	16.0
05-09-89	4	17.9	16.8	15.5	18.0	18.0
05-09-89	5	17.3	16.1	--	17.8	16.0
05-09-89	6	17.4	16.3	--	17.3	17.7
05-09-89	7	15.1	16.2	--	14.0	11.7
05-09-89	8	--	16.3	--	15.4	14.0
06-07-89	1	13.3	13.5	8.8	13.4	12.9
06-07-89	2	14.5	15.3	11.1	17.1	16.2
06-07-89	3	16.8	16.4	12.7	17.5	15.5
06-07-89	4	17.7	16.9	14.4	18.2	17.8
06-07-89	5	17.0	16.3	--	17.7	16.2
06-07-89	6	17.2	16.4	--	17.2	17.2
06-07-89	7	15.0	16.2	--	13.8	11.4
06-07-89	8	--	16.5	--	15.4	13.8
07-19-89	1	12.7	11.9	9.4	12.3	13.1
07-19-89	2	13.4	13.1	10.8	16.2	15.0
07-19-89	3	16.1	15.0	10.0	16.8	14.0
07-19-89	4	17.4	16.3	10.3	17.4	17.6
07-19-89	5	16.7	16.5	--	17.6	15.6
07-19-89	6	17.4	16.4	--	17.0	16.8
07-19-89	7	14.9	16.1	--	13.9	11.1
07-19-89	8	--	16.4	--	--	13.4

Table 6.--Soil-water content at the Cow Camp Creek site
during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes				
		1	2	3	4	5
08-31-89	1	12.6	12.0	7.8	12.5	12.4
08-31-89	2	13.5	12.8	8.8	16.0	14.7
08-31-89	3	15.7	14.0	9.6	16.0	13.1
08-31-89	4	17.4	16.3	9.4	16.8	16.8
08-31-89	5	16.7	16.2	--	17.3	14.9
08-31-89	6	16.9	16.1	--	17.1	16.8
08-31-89	7	15.1	16.1	--	13.9	11.4
08-31-89	8	--	16.4	--	14.9	13.4
10-03-89	1	12.9	12.5	8.3	12.7	12.9
10-03-89	2	13.2	12.7	8.9	15.9	14.0
10-03-89	3	15.2	14.0	9.5	16.0	12.5
10-03-89	4	16.9	15.9	9.2	16.8	16.5
10-03-89	5	16.3	15.9	--	16.9	14.6
10-03-89	6	16.9	16.2	--	17.1	16.6
10-03-89	7	15.4	15.8	--	13.3	11.1
10-03-89	8	--	15.9	--	--	13.4

Table 7.--Soil-water content at the soil-water control site during 1988 and 1989

[Contents in percent by volume; --, no measurement]

Date of measurement	Depth of measurement (feet)	Soil-water access tubes							
		1	2	3	4	5	6	7	8
01-28-88	1	16.2	18.0	19.3	17.4	13.1	12.7	12.2	12.2
01-28-88	2	12.7	13.9	17.2	14.2	12.7	12.2	12.0	11.6
01-28-88	3	13.7	13.2	16.0	13.8	14.5	12.5	12.2	12.7
01-28-88	4	15.1	16.1	16.8	14.6	14.5	14.6	13.1	15.8
01-28-88	5	16.8	17.2	17.4	16.4	17.0	17.8	--	17.0
01-28-88	6	16.6	16.6	17.2	17.0	17.3	16.7	--	--
01-28-88	7	17.0	17.2	17.1	17.2	17.2	--	--	--
03-01-88	1	20.9	--	19.2	19.9	20.4	20.4	20.8	20.5
03-01-88	2	19.9	--	16.9	17.7	18.8	18.2	20.0	19.4
03-01-88	3	16.8	--	15.8	13.7	15.7	14.7	17.9	15.5
03-01-88	4	15.5	--	17.0	14.4	14.6	14.8	15.2	16.1
03-01-88	5	16.6	--	17.6	16.4	17.0	17.7	--	16.7
03-01-88	6	16.7	--	16.8	16.7	17.2	16.8	--	--
03-01-88	7	17.1	--	17.7	17.3	17.4	--	--	--
04-13-88	1	22.1	21.3	21.0	21.3	21.5	21.6	21.8	21.7
04-13-88	2	21.9	21.6	21.5	21.6	21.5	21.8	21.3	21.3
04-13-88	3	20.5	20.4	20.4	20.0	21.7	20.6	19.7	20.1
04-13-88	4	18.1	18.7	18.5	--	17.9	18.7	17.8	19.1
04-13-88	5	17.6	18.6	17.6	--	18.6	18.6	--	17.5
04-13-88	6	17.3	17.2	17.5	--	18.2	17.1	--	--
04-13-88	7	17.8	17.5	17.6	--	18.0	--	--	--
05-04-88	1	20.8	20.2	20.6	20.5	20.3	20.6	20.7	20.5
05-04-88	2	21.3	20.9	20.7	20.7	20.9	20.9	21.2	21.1
05-04-88	3	20.2	19.7	20.0	19.7	21.2	19.7	19.0	20.0
05-04-88	4	17.9	19.0	18.5	17.2	17.4	18.3	17.1	18.4
05-04-88	5	17.3	18.1	17.5	--	18.3	18.5	--	17.3
05-04-88	6	16.9	17.1	17.3	--	17.9	17.3	--	--
05-04-88	7	17.5	17.4	17.6	--	17.8	--	--	--
06-07-88	1	14.3	15.9	15.7	14.8	14.9	14.5	14.3	14.4
06-07-88	2	17.6	17.5	18.7	16.0	18.6	17.9	16.8	19.1
06-07-88	3	19.4	18.6	19.7	17.8	21.2	19.4	16.8	19.3
06-07-88	4	17.9	19.0	18.7	17.0	17.7	18.5	17.0	18.4
06-07-88	5	17.6	18.1	18.0	--	18.5	18.8	--	17.5
06-07-88	6	17.4	17.4	17.5	--	18.1	17.2	--	--
06-07-88	7	17.4	17.4	17.7	--	18.3	--	--	--

Table 7.--Soil-water content at the soil-water control site during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes							
		1	2	3	4	5	6	7	8
07-12-88	1	13.2	14.7	15.6	14.0	13.3	13.2	12.2	13.4
07-12-88	2	14.2	14.2	15.7	14.2	14.3	14.5	12.9	15.1
07-12-88	3	16.6	14.4	17.6	14.4	17.1	15.8	13.6	17.0
07-12-88	4	17.6	18.5	18.6	15.2	17.1	17.8	14.9	18.2
07-12-88	5	17.7	18.3	17.9	16.8	18.6	19.2	--	17.6
07-12-88	6	17.2	17.5	17.7	17.5	18.1	17.4	--	--
07-12-88	7	17.9	17.5	17.9	18.2	18.0	--	--	--
07-26-88	1	11.5	13.1	12.9	12.7	12.2	12.4	10.4	11.3
07-26-88	2	12.1	13.3	13.4	13.1	13.0	12.8	11.5	12.9
07-26-88	3	14.2	13.8	15.5	13.8	15.4	13.8	12.3	14.6
07-26-88	4	16.7	17.5	17.7	14.6	16.4	16.8	13.8	17.2
07-26-88	5	17.4	17.5	18.0	16.6	18.0	18.8	--	17.2
07-26-88	6	17.1	17.2	17.0	17.1	17.7	16.9	--	--
07-26-88	7	17.2	17.6	17.4	17.7	17.9	--	--	--
08-29-88	1	11.2	13.2	12.0	12.7	11.9	12.2	9.9	11.0
08-29-88	2	12.1	13.5	12.5	13.3	12.8	12.4	11.2	12.4
08-29-88	3	13.3	13.5	14.3	13.5	14.9	12.9	11.8	13.8
08-29-88	4	15.6	16.9	17.6	14.9	15.8	15.6	13.6	16.5
08-29-88	5	17.5	17.4	18.0	16.7	18.2	18.9	--	17.5
08-29-88	6	17.2	17.1	17.6	17.3	17.8	16.9	--	--
08-29-88	7	17.6	17.6	17.9	17.6	18.2	--	--	--
10-05-88	1	13.3	15.5	17.2	14.7	13.7	14.6	13.9	15.8
10-05-88	2	13.1	14.0	13.8	14.3	13.2	13.9	12.5	14.8
10-05-88	3	13.6	13.8	14.2	14.0	14.8	13.0	12.6	14.4
10-05-88	4	15.6	16.5	17.5	14.7	15.8	15.1	13.5	16.6
10-05-88	5	17.3	17.2	17.7	16.1	17.2	18.1	--	17.2
10-05-88	6	16.9	16.9	17.5	17.2	17.3	16.9	--	--
10-05-88	7	17.4	17.2	17.5	17.3	17.9	--	--	--
11-17-88	1	12.3	15.0	13.8	14.0	13.2	15.0	14.9	17.9
11-17-88	2	12.3	13.6	12.7	13.7	13.1	12.9	12.1	15.4
11-17-88	3	13.8	13.3	14.0	13.7	14.7	12.6	12.3	13.5
11-17-88	4	14.9	16.2	16.7	14.5	15.2	14.8	13.3	15.9
11-17-88	5	16.9	16.6	17.2	16.1	17.0	17.8	--	16.5
11-17-88	6	16.6	16.8	17.2	16.5	17.2	16.4	--	--
11-17-88	7	17.0	17.2	17.1	17.0	17.4	--	--	--

Table 7.--Soil-water content at the soil-water control site during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes							
		1	2	3	4	5	6	7	8
12-13-88	1	13.3	16.9	16.6	15.6	15.1	17.0	16.9	19.2
12-13-88	2	13.5	14.6	13.6	14.8	13.8	13.8	13.3	16.6
12-13-88	3	14.5	14.5	15.1	14.9	16.1	13.6	13.1	14.4
12-13-88	4	15.8	17.0	17.8	15.1	16.3	16.0	14.2	16.5
12-13-88	5	17.5	18.0	18.4	16.8	18.2	18.8	--	17.4
12-13-88	6	17.4	17.4	18.3	17.3	18.1	17.3	--	--
12-13-88	7	18.1	17.9	18.4	18.1	18.2	--	--	--
01-31-89	1	13.2	15.8	15.9	14.8	14.6	15.5	15.6	17.8
01-31-89	2	13.2	14.1	13.2	14.3	13.9	13.5	13.0	15.0
01-31-89	3	14.0	13.8	14.2	14.4	15.5	13.3	13.0	14.2
01-31-89	4	15.4	16.4	17.0	14.6	15.4	15.4	13.7	15.8
01-31-89	5	16.7	16.8	17.3	16.1	17.0	17.9	--	16.6
01-31-89	6	16.6	16.6	17.6	16.5	17.3	16.4	--	--
01-31-89	7	17.1	17.0	17.6	17.0	17.9	--	--	--
03-02-89	1	13.9	15.6	20.7	15.7	18.1	20.3	18.4	20.2
03-02-89	2	13.4	14.4	15.5	14.4	14.0	14.8	13.4	15.4
03-02-89	3	14.2	14.1	14.4	14.6	15.5	13.0	13.1	14.0
03-02-89	4	15.3	16.4	17.2	14.7	15.3	14.9	13.6	15.9
03-02-89	5	16.7	17.0	17.0	16.3	16.9	17.5	--	16.6
03-02-89	6	16.5	16.5	17.0	16.1	17.2	16.3	--	--
03-02-89	7	16.8	17.1	17.5	17.0	17.8	--	--	--
03-22-89	1	22.3	21.4	21.8	21.8	22.2	21.6	22.4	22.2
03-22-89	2	21.5	21.6	21.1	21.3	20.9	21.1	21.2	21.2
03-22-89	3	19.6	19.8	20.2	20.1	21.1	20.1	19.1	19.6
03-22-89	4	16.9	18.7	18.4	--	18.1	17.8	15.6	17.8
03-22-89	5	17.1	16.9	17.4	--	17.4	19.1	--	17.5
03-22-89	6	16.7	16.8	17.0	--	17.0	16.8	--	--
03-22-89	7	17.5	17.2	17.4	--	17.7	--	--	--
04-04-89	1	21.4	21.0	21.2	20.8	21.1	21.2	21.3	21.2
04-04-89	2	21.2	20.8	20.9	20.9	20.6	20.4	20.9	20.5
04-04-89	3	19.3	19.2	19.7	19.7	21.0	19.7	18.2	19.4
04-04-89	4	16.4	18.3	18.2	--	17.5	17.2	15.3	17.2
04-04-89	5	16.6	16.9	17.0	--	17.4	18.6	--	17.2
04-04-89	6	16.2	16.6	16.8	--	17.0	16.2	--	--
04-04-89	7	16.6	16.7	17.1	--	17.2	--	--	--

Table 7.--Soil-water content at the soil-water control site during 1988 and 1989--Continued

Date of measurement	Depth of measurement (feet)	Soil-water access tubes							
		1	2	3	4	5	6	7	8
05-09-89	1	18.9	18.9	18.9	18.5	18.2	18.0	19.2	18.2
05-09-89	2	20.8	20.4	20.3	19.9	20.6	20.6	20.2	20.4
05-09-89	3	20.2	19.3	20.1	19.9	21.1	19.6	18.4	19.6
05-09-89	4	17.6	18.6	18.5	--	17.8	17.8	15.7	17.4
05-09-89	5	17.1	17.3	17.6	--	17.9	18.8	--	17.4
05-09-89	6	17.1	17.0	17.4	--	17.3	17.1	--	--
05-09-89	7	17.3	17.1	17.7	--	17.8	--	--	--
06-07-89	1	13.6	14.8	14.8	14.4	13.5	13.5	13.3	12.6
06-07-89	2	16.4	15.3	17.0	14.7	16.2	15.4	14.5	15.8
06-07-89	3	18.4	16.8	19.5	15.7	20.2	17.8	14.4	18.6
06-07-89	4	17.3	18.4	19.0	16.2	17.4	17.2	15.0	17.4
06-07-89	5	17.4	17.1	17.5	16.4	17.6	18.8	--	16.9
06-07-89	6	16.7	16.9	17.2	16.6	17.4	16.7	--	--
06-07-89	7	17.1	17.0	17.2	17.2	17.8	--	--	--
07-19-89	1	11.9	14.0	13.6	13.0	11.9	12.3	11.5	10.7
07-19-89	2	12.6	13.7	13.6	13.4	12.8	12.6	11.8	12.4
07-19-89	3	13.8	13.8	15.6	13.5	14.9	13.7	12.1	14.0
07-19-89	4	16.0	16.8	18.4	14.3	16.1	16.0	13.6	16.1
07-19-89	5	17.0	16.9	17.7	16.2	17.2	18.6	--	16.8
07-19-89	6	16.5	16.8	17.4	16.3	17.1	16.3	--	--
07-19-89	7	17.1	17.3	17.6	17.3	17.3	--	--	--
08-31-89	1	11.7	13.5	12.2	13.1	11.8	12.2	11.0	11.1
08-31-89	2	12.3	13.5	12.6	13.3	12.7	12.4	11.5	12.9
08-31-89	3	13.9	14.0	14.4	13.8	14.8	12.8	11.9	13.7
08-31-89	4	15.7	16.5	17.7	14.8	15.8	15.2	13.4	15.6
08-31-89	5	16.9	16.4	17.6	16.1	17.2	18.1	--	16.5
08-31-89	6	16.6	16.5	17.4	16.3	17.4	16.4	--	--
08-31-89	7	16.9	16.8	17.3	16.7	17.5	--	--	--
10-03-89	1	11.6	13.7	13.1	13.3	12.0	12.6	11.1	11.8
10-03-89	2	12.3	13.6	12.4	13.2	12.8	13.0	11.6	12.6
10-03-89	3	13.6	13.8	14.0	13.9	15.1	12.6	12.0	13.9
10-03-89	4	15.4	16.2	17.5	14.8	15.5	14.8	13.4	15.3
10-03-89	5	16.6	16.7	17.5	15.9	16.8	18.2	--	16.2
10-03-89	6	16.8	16.5	17.3	16.2	16.8	16.3	--	--
10-03-89	7	17.1	17.1	17.4	16.5	17.6	--	--	--

Table 8.--Soil dry density at the Spring Creek, Cow Camp Creek,
and soil-water control sites, May 11, 1989

[Densities in grams per cubic centimeter; --, no measurement]

Depth of measurement (feet)	Soil-water access tubes							
	1	2	3	4	5	6		
<u>SPRING CREEK</u>								
1	1.67	1.58	1.57	1.54	1.56	1.69		
2	1.59	1.60	1.76	1.71	1.57	1.65		
3	1.54	1.60	1.96	1.78	1.83	1.68		
4	1.67	1.56	1.95	1.72	1.90	--		
5	1.76	--	1.73	1.79	--	--		
6	1.61	--	1.67	1.43	--	--		
7	--	--	1.61	1.61	--	--		
8	--	--	1.60	1.00	--	--		
<u>COW CAMP CREEK</u>								
Depth of measurement (feet)	Soil-water access tubes							
	1	2	3	4	5			
1	1.83	1.82	--	1.86	1.69			
2	1.93	1.80	--	1.84	1.75			
3	1.74	1.77	--	1.73	1.78			
4	1.81	1.85	--	1.73	1.79			
5	1.78	1.75	--	1.62	1.75			
6	1.83	1.73	--	1.65	1.60			
7	1.77	1.84	--	--	1.74			
8	--	1.71	--	--	--			
<u>SOIL-WATER CONTROL SITE</u>								
Depth of measurement (feet)	Soil-water access tubes							
	1	2	3	4	5	6	7	8
1	1.47	1.52	1.48	1.45	1.37	1.46	--	1.42
2	1.55	1.55	1.58	1.55	1.61	1.58	--	1.63
3	1.73	1.81	1.69	1.72	1.67	1.69	--	1.71
4	--	--	1.79	--	--	1.80	--	1.85
5	--	--	1.86	--	--	1.68	--	1.84
6	--	--	1.89	--	--	1.90	--	--
7	--	--	1.89	--	--	--	--	--

Table 9.--Well information

[feet above NGVD, feet above National Geodetic Vertical Datum of 1929;
Interburden, bedrock zone between Lennox coal and Wadge coal; Underburden,
bedrock zone below Wadge coal; Rec spoil, reclaimed spoil]

Site	Well identifi- cation ¹	Well name ²	Land-surface elevation (feet above NGVD)	Well depth (feet)	Interval of completion (feet below land surface)	Zone of completion
Spring Creek	SSL287	SL2	6,861	58	48-56	Lennox coal
Spring Creek	SSI287	SI2	6,860	80	56-80	Interburden
Spring Creek	SSW287	SW2	6,860	98	91-98	Wadge coal
Spring Creek	SSU487	SU4	6,861	105	95-105	Underburden
Spring Creek	SSU287	SU2	6,862	127	94-127	Underburden
Spring Creek	SSD487	SD4	6,860	194	179-193	Underburden
Spring Creek	SSS487-59	S59	6,899	33	6-33	Rec spoil
Spring Creek	SSS487-60	S60	6,893	23	3-23	Rec spoil
Spring Creek	SSS487-61	S61	6,892	26	7-26	Rec spoil
Cow Camp	SCL287	CL2	6,957	30	24-30	Lennox coal
Cow Camp	SCI287	CI2	6,957	70	40-70	Interburden
Cow Camp	SCW287	CW2	6,957	90	79-90	Wadge coal
Cow Camp	SCU287	CU2	6,957	122	103-122	Underburden
Cow Camp	SCS487-62	C62	6,976	52	4-52	Rec spoil
Cow Camp	SCS487-63	C63	6,982	38	7-38	Rec spoil
Cow Camp	SCS487-64	C64	6,980	37	7-37	Rec spoil
Cow Camp	SCS487-65	C65	6,997	25	7-25	Rec spoil
Zuli	SZL287	ZL2	6,822	182	176-182	Lennox coal
Zuli	SZI287	ZI2	6,819	222	190-222	Interburden
Zuli	SZW287	ZW2	6,823	228	220-228	Wadge coal
Zuli	SZU287	ZU2	6,820	265	251-265	Underburden
Bond Creek	SBL287	BL2	7,032	98	92-98	Lennox coal
Bond Creek	SBI287	BI2	7,031	150	113-150	Interburden
Bond Creek	SBW287	BW2	7,032	164	154-164	Wadge coal
Bond Creek	SBU287	BU2	7,030	175	167-175	Underburden

¹Well identifications were assigned as follows: The first letter (S), designates the Seneca II Coal Mine. The second letter (S, C, Z, or B) designates the site location as Spring Creek, Cow Camp Creek, Zuli, or Bond Creek. The third letter (L, I, W, U, D, or S) designates a specific zone of completion. These zones are the Lennox coal, Interburden, Wadge coal, Underburden, Deep underburden, or reclaimed Spoil. The number 2 or 4 designates the well-casing diameter, in inches, and 87 is the year the wells were drilled (1987). Wells completed in reclaimed spoil were assigned an additional well number by the Seneca II Coal Mine operators; these are indicated by a hyphen followed by the assigned well number.

²Well names were assigned to each well. For all wells, the first letter designates the site location. For bedrock wells, the second letter designates a specific zone of completion, and the number 2 or 4 designates casing diameter, in inches. For wells completed in reclaimed spoil, the last two digits indicate the well number assigned by the Seneca II Coal Mine operators.

Table 10.--*Summary of geophysical and lithologic logs*

[C, caliper; NG, natural gamma; SP, spontaneous potential; R, resistivity; GG, gamma-gamma; N, neutron; X, data; -, no data;]

Well name ¹	Lithologic logs		Geophysical logs					
	Core	Cuttings	C	NG	SP	R	GG	N
SL2	-	X	X	X	-	X	X	-
SI2	-	X	X	X	-	X	X	-
SW2	-	X	X	X	-	X	X	-
SU4	X	-	X	X	X	-	X	X
SU2	-	X	-	-	-	-	-	-
SD4	-	X	X	X	X	X	X	-
CL2	-	X	-	-	-	-	-	-
CI2	-	X	X	X	X	X	X	-
CW2	-	X	X	X	X	X	X	-
CU2	X	-	X	X	X	X	X	-
ZL2	-	X	X	X	X	X	X	-
ZI2	-	X	X	X	X	X	X	-
ZW2	-	X	-	-	-	-	-	-
ZU2	X	-	X	X	X	X	X	-
BL2	-	X	X	X	X	X	X	-
BI2	-	X	X	X	X	X	X	-
BW2	-	X	X	X	X	X	X	-
BU2	X	-	X	X	X	X	X	-

¹Well names were assigned to each well. For all wells the first letter (S, C, Z, or B) designates the site location as Spring Creek, Cow Camp Creek, Zuli, or Bond Creek. For bedrock wells, the second letter (L, I, W, U, and D) designates a specific zone of completion. These zones are the Lennox coal, Interburden, Wadge coal, Underburden, and Deep underburden. The number 2 or 4 designates the well-casing diameter, in inches.

Table 11.--Hydraulic-head data for bedrock wells

[Well ID corresponds to well identifications listed in table 9;
 --, no data collected]

Date of measurement	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
<u>SPRING CREEK SITE</u>			
	<u>WELL ID</u>	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SSL287</u>	<u>SSI287</u>	<u>SSW287</u>
01-26-88	4.96	4.60	10.39
03-04-88	6.00	7.17	14.83
03-22-88	5.97	7.56	14.71
04-04-88	6.21	7.14	10.62
05-04-88	6.92	9.85	9.05
06-06-88	6.67	7.86	12.15
07-12-88	7.32	8.25	13.46
07-26-88	7.18	8.14	13.30
08-29-88	6.95	7.98	10.53
10-04-88	7.41	8.09	12.91
10-26-88	7.64	7.98	13.07
11-14-88	9.97	10.88	12.20
12-13-88	9.51	10.19	12.20
	<u>WELL ID</u>	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SSL287</u>	<u>SSI287</u>	<u>SSW287</u>
01-30-89	9.28	9.49	8.73
02-28-89	11.13	11.34	14.04
04-04-89	12.70	19.00	14.70
04-19-89	9.17	10.32	16.89
05-08-89	8.48	9.58	14.47
06-05-89	8.01	8.91	13.33
06-26-89	7.88	8.68	13.13
07-25-89	7.97	8.63	13.15
09-11-89	7.88	8.45	12.87
10-03-89	7.90	8.86	12.85
	<u>WELL ID</u>	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SSU487</u>	<u>SSU287</u>	<u>SSD487</u>
01-26-88	9.69	4.43	69.60
03-04-88	14.18	6.44	68.20
03-22-88	13.94	7.20	68.89
04-04-88	14.11	--	71.00
05-04-88	13.62	8.02	73.07
06-06-88	12.10	7.12	73.77
07-12-88	12.74	7.95	74.00
07-26-88	12.67	7.75	74.69
08-29-88	12.30	7.49	74.46
10-04-88	12.30	7.93	74.00
10-26-88	12.40	8.05	74.20
11-14-88	14.25	8.52	76.16
12-13-88	14.02	8.29	--

Table 11.--Hydraulic-head data for bedrock wells--Continued

Date of measurement	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
<u>SPRING CREEK SITE--Continued</u>			
	<u>WELL ID</u> <u>SSU487</u>	<u>WELL ID</u> <u>SSU287</u>	<u>WELL ID</u> <u>SSD487</u>
01-30-89	12.40	6.28	73.00
02-28-89	15.87	9.51	75.08
04-04-89	21.87	12.06	76.00
04-19-89	16.37	10.22	74.08
05-08-89	10.27	8.01	74.31
06-05-89	12.81	8.58	74.31
06-26-89	12.65	8.38	74.54
07-25-89	12.63	8.40	74.77
09-11-89	12.33	8.61	74.77
10-03-89	12.24	8.52	74.77
<u>COW CAMP CREEK SITE</u>			
	<u>WELL ID</u> <u>SCL287</u>	<u>WELL ID</u> <u>SCI287</u>	
01-27-88	3.22	4.67	
03-07-88	3.15	3.26	
03-22-88	3.07	4.07	
04-04-88	3.56	3.26	
05-04-88	3.82	3.72	
06-06-88	1.70	2.55	
07-12-88	1.71	2.55	
07-26-88	1.71	2.30	
08-29-88	1.71	2.30	
10-04-88	1.71	2.00	
10-25-88	1.71	2.00	
11-14-88	3.97	3.97	
12-13-88	3.97	4.20	
	<u>WELL ID</u> <u>SCL287</u>	<u>WELL ID</u> <u>SCI287</u>	
01-31-89	4.20	4.20	
03-02-89	4.43	4.43	
03-16-89	4.66	5.35	
04-05-89	4.66	3.28	
04-19-89	2.17	2.55	
05-08-89	1.71	2.00	
06-05-89	1.71	2.00	
06-26-89	1.71	2.00	
07-25-89	1.71	2.00	
09-11-89	1.71	2.00	
10-03-89	1.71	2.00	

Table 11.--Hydraulic-head data for bedrock wells--Continued

Date of measurement	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
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COW CAMP CREEK SITE--Continued

	<u>WELL ID</u> <u>SCW287</u>	<u>WELL ID</u> <u>SCU287</u>
01-27-88	3.35	10.87
03-07-88	5.80	20.01
03-22-88	4.62	20.18
04-04-88	4.64	22.79
05-04-88	4.85	18.17
06-06-88	2.85	15.53
07-12-88	2.75	14.40
07-26-88	2.59	13.89
08-29-88	2.56	13.48
10-04-88	2.55	13.49
10-25-88	2.58	13.65
11-14-88	4.66	15.57
12-13-88	4.20	15.34

	<u>WELL ID</u> <u>SCW287</u>	<u>WELL ID</u> <u>SCU287</u>
01-31-89	4.43	15.80
03-02-89	5.58	18.34
03-16-89	5.82	26.20
04-05-89	4.66	24.81
04-19-89	2.72	22.29
05-08-89	2.00	19.40
06-05-89	2.00	17.53
06-26-89	2.00	16.63
07-25-89	2.00	15.98
09-11-89	2.00	15.59
10-03-89	2.00	15.45

ZULI SITE

	<u>WELL ID</u> <u>SZL287</u>	<u>WELL ID</u> <u>SZI287</u>
01-28-88	20.04	9.69
03-04-88	13.36	32.33
03-23-88	18.77	33.11
04-04-88	18.56	34.29
05-04-88	16.88	33.64
06-06-88	19.35	33.94
07-12-88	19.62	35.42
07-26-88	20.64	35.63
08-29-88	21.22	36.12
10-03-88	20.39	35.61
10-26-88	--	33.14
11-15-88	25.27	36.38
12-13-88	29.66	36.84

Table 11.--Hydraulic-head data for bedrock wells--Continued

Date of measurement	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
<u>ZULI SITE--Continued</u>		
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SZL287</u>	<u>SZI287</u>
01-31-89	31.04	35.22
02-28-89	35.43	38.68
04-06-89	31.51	39.84
04-19-89	22.72	38.33
05-08-89	23.53	38.56
06-05-89	23.39	37.64
07-05-89	23.53	36.86
07-25-89	24.00	36.95
09-11-89	23.88	36.72
10-12-89	24.18	36.62
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SZW287</u>	<u>SZU287</u>
01-28-88	--	2.61
03-04-88	--	4.92
03-23-88	--	24.23
06-06-88	--	50.66
07-12-88	--	54.35
07-26-88	--	56.66
08-29-88	--	55.74
10-03-88	--	54.82
10-26-88	27.12	--
11-15-88	29.67	--
12-13-88	33.36	--
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SZW287</u>	<u>SZU287</u>
01-31-89	34.06	56.78
02-28-88	37.06	--
04-06-89	37.52	63.94
04-19-88	32.64	--
05-08-89	33.68	52.97
06-05-89	33.48	52.51
07-05-89	33.94	52.28
07-25-89	33.01	52.97
09-11-89	32.99	52.51
10-12-89	32.67	52.28

Table 11.--Hydraulic-head data for bedrock wells--Continued

Date of measurement	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
<u>BOND CREEK SITE</u>		
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SBL287</u>	<u>SBI287</u>
01-27-88	3.67	4.78
03-05-88	12.69	16.53
03-22-88	14.41	18.15
04-04-88	14.43	17.99
05-04-88	11.62	14.71
06-06-88	12.31	15.33
07-12-88	11.06	21.80
07-26-88	11.76	21.52
08-29-88	13.26	23.39
10-04-88	15.05	18.75
10-25-88	15.98	19.68
11-14-88	16.85	16.97
12-13-88	13.85	15.58
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SBL287</u>	<u>SBI287</u>
01-31-89	7.84	--
03-01-89	15.47	18.12
04-19-89	17.57	20.76
05-08-89	17.23	20.32
06-05-89	16.74	19.91
06-26-89	16.56	19.70
07-25-89	16.88	19.84
09-18-89	14.80	17.34
10-03-89	10.71	11.91
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SBW287</u>	<u>SBU287</u>
01-25-88	4.30	4.92
03-05-88	--	12.66
03-22-88	12.56	4.78
04-04-88	5.27	12.49
05-04-88	17.32	17.86
06-06-88	19.80	21.99
07-12-88	19.29	22.36
07-26-88	19.86	21.78
08-29-88	21.62	23.54
10-04-88	25.66	25.29
10-25-88	28.23	29.24
11-14-88	31.27	--
12-13-88	30.58	--

Table 11.--*Hydraulic-head data for bedrock wells*--Continued

Date of measure- ment	Hydraulic head (feet above land surface)	Hydraulic head (feet above land surface)
<u>BOND CREEK SITE--Continued</u>		
	<u>WELL ID</u>	<u>WELL ID</u>
	<u>SBW287</u>	<u>SBU287</u>
01-31-89	23.42	--
03-01-89	--	--
04-19-89	19.33	18.01
05-08-89	18.99	18.36
06-05-89	18.59	16.51
06-26-89	19.12	16.70
07-25-89	18.53	16.74
09-18-89	16.31	18.01
10-03-89	11.57	13.30

Table 12.--Water-level data for reclaimed spoil wells

[Well ID corresponds to well identifications listed in table 9]

Date of measurement	Water level (feet below land surface)	Water level (feet below land surface)	Water level (feet below land surface)
<u>SPRING CREEK SITE</u>			
	<u>WELL ID</u> <u>SSS487-59</u>	<u>WELL ID</u> <u>SSS487-60</u>	<u>WELL ID</u> <u>SSS487-61</u>
12-07-87	25.27	19.52	17.68
01-26-88	25.36	19.43	17.81
03-07-88	18.88	14.01	12.35
03-23-88	20.76	14.88	13.21
04-05-88	19.65	13.78	12.10
05-10-88	22.18	16.30	14.66
06-07-88	23.62	17.73	16.10
07-11-88	22.54	16.63	15.00
07-25-88	22.67	16.76	15.13
08-30-88	23.06	17.15	15.51
10-05-88	23.07	17.16	15.52
11-14-88	23.08	17.17	15.53
12-13-88	23.15	17.24	15.59
	<u>WELL ID</u> <u>SSS487-59</u>	<u>WELL ID</u> <u>SSS487-60</u>	<u>WELL ID</u> <u>SSS487-61</u>
01-30-89	23.20	17.26	15.65
02-28-89	21.01	15.11	13.46
04-04-89	13.57	7.72	6.10
04-19-89	18.21	12.36	11.72
05-08-89	21.46	15.57	13.94
06-05-89	22.78	16.89	15.26
06-26-89	23.05	17.13	15.53
07-25-89	23.41	17.47	15.85
09-11-89	23.65	17.71	16.10
10-03-89	23.71	17.78	16.16

Table 12.--Water-level data for reclaimed spoil wells--Continued

Date of measurement	Water level (feet below land surface)	Water level (feet below land surface)	Water level (feet below land surface)
<u>COW CAMP CREEK SITE</u>			
	<u>WELL ID</u> <u>SCS487-62</u>	<u>WELL ID</u> <u>SCS487-63</u>	<u>WELL ID</u> <u>SCS487-64</u>
12-08-87	16.45	23.65	20.56
01-07-88	16.41	23.29	19.81
01-27-88	16.42	23.60	20.56
03-08-88	15.72	22.89	19.89
03-22-88	15.73	22.92	19.85
04-12-88	15.84	23.06	19.98
05-04-88	15.94	23.15	20.11
05-11-88	16.07	23.30	20.24
06-07-88	16.15	23.40	20.33
07-12-88	16.19	23.42	20.35
07-25-88	16.19	23.42	20.38
08-30-88	16.22	23.48	20.42
10-05-88	16.24	23.47	20.42
11-14-88	16.24	23.47	20.42
12-13-88	16.26	23.48	20.43
	<u>WELL ID</u> <u>SCS487-62</u>	<u>WELL ID</u> <u>SCS487-63</u>	<u>WELL ID</u> <u>SCS487-64</u>
01-31-89	16.24	23.46	20.42
03-02-89	16.11	23.32	20.29
03-16-89	15.13	22.34	19.31
04-05-89	15.45	22.66	19.63
04-19-89	15.77	22.99	19.95
05-08-89	16.02	23.23	20.20
06-05-89	16.12	23.34	20.30
06-26-89	16.13	23.35	20.32
07-25-89	16.16	23.38	20.34
09-11-89	16.19	23.41	20.38
10-03-89	16.21	23.42	20.39

Table 13.--Mean daily water levels for reclaimed spoil well SSS487-60 at the Spring Creek site

[--, no data; MEAN, mean water level; MAX, maximum water level; MIN, minimum water level; WL, water level]

MEAN VALUES OF DEPTH OF WATER LEVEL BELOW LAND SURFACE, IN FEET, WATER YEAR 1989												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	--	--	17.17	17.40	17.18	14.93	--	14.80	16.75	17.16	17.43	17.58
2	--	--	17.17	17.41	17.10	--	7.16	14.93	16.78	17.18	17.43	17.59
3	--	--	17.17	17.43	16.99	--	7.45	15.04	16.80	17.19	17.43	17.60
4	--	--	17.18	17.44	16.90	--	7.83	15.16	16.82	17.20	17.44	17.61
5	--	--	17.19	17.43	16.87	--	8.21	15.27	16.85	17.22	17.44	17.62
6	--	--	17.18	17.42	16.86	--	8.60	15.37	16.86	17.23	17.44	17.62
7	--	--	17.17	17.44	16.86	--	8.96	15.47	16.88	17.25	17.45	17.63
8	--	--	17.18	17.46	16.87	--	9.29	15.55	16.90	17.26	17.45	17.64
9	--	--	17.19	17.47	16.88	--	9.63	15.63	16.91	17.26	17.45	17.65
10	--	--	17.19	17.47	16.88	--	9.95	15.70	16.93	17.28	17.45	17.65
11	--	--	17.20	17.48	16.89	--	10.21	15.76	16.95	17.30	17.45	17.66
12	--	--	17.22	17.14	16.88	--	10.48	15.83	16.97	17.32	17.45	17.67
13	--	--	17.22	17.51	16.88	--	10.75	15.89	16.98	17.33	17.46	17.68
14	--	--	17.22	17.50	16.89	--	11.01	15.95	16.99	17.34	17.46	17.69
15	--	--	17.24	17.52	16.91	--	11.27	16.01	17.00	17.35	17.47	17.69
16	--	--	17.27	17.53	16.93	--	11.54	16.07	17.00	17.35	17.46	17.69
17	--	--	17.28	17.53	16.93	7.59	11.83	16.13	17.03	17.37	17.47	17.69
18	--	17.09	17.28	17.54	16.92	7.30	12.10	16.18	17.04	17.38	17.47	17.69
19	--	17.09	17.26	17.54	16.88	6.97	12.35	16.24	17.04	17.39	17.48	17.69
20	--	17.09	17.28	17.54	16.88	6.74	12.59	16.29	17.05	17.39	17.48	17.69
21	--	17.08	17.29	17.51	16.89	6.64	12.82	16.33	17.07	17.40	17.48	17.71
22	--	17.08	17.30	17.49	16.89	6.47	13.05	16.37	17.07	17.41	17.49	17.72
23	--	17.07	17.31	17.47	16.84	6.34	13.26	16.41	17.07	17.42	17.50	17.72
24	--	17.07	17.32	17.44	16.79	6.27	13.48	16.46	17.09	17.43	17.50	17.72
25	--	17.08	17.32	17.41	16.59	6.25	13.70	16.50	17.09	17.43	17.51	17.72
26	--	17.07	17.33	17.38	16.09	6.28	13.91	16.55	17.11	17.44	17.52	17.72
27	--	17.10	17.36	17.33	15.44	6.36	14.11	16.58	17.12	17.44	17.53	17.73
28	--	17.12	17.36	17.30	15.12	6.45	14.31	16.61	17.13	17.44	17.54	17.73
29	--	17.14	17.37	17.29	--	6.55	14.49	16.64	17.14	17.44	17.55	17.73
30	--	17.15	17.38	17.27	--	6.68	14.66	16.67	17.15	17.44	17.55	17.73
31	--	--	17.38	17.24	--	--	--	16.72	--	17.44	17.57	--
MEAN WL	--	--	17.26	17.43	16.75	--	--	15.97	16.99	17.34	17.48	17.68
MAX WL	--	--	17.38	17.54	17.18	--	--	16.72	17.15	17.44	17.57	17.73
MIN WL	--	--	17.17	17.14	15.12	--	--	14.80	16.75	17.16	17.43	17.58

Table 14.--Mean daily water levels for reclaimed spoil well SCS487-63 at the Cow Camp Creek site

[--, no data; MEAN, mean water level; MAX, maximum water level; MIN, minimum water level; WL, water level]

MEAN VALUES OF DEPTH OF WATER LEVEL BELOW LAND SURFACE, IN FEET, WATER YEAR 1989												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	--	--	23.49	23.49	23.45	23.36	22.47	23.18	23.32	23.37	23.39	23.41
2	--	--	23.49	23.49	23.46	23.32	22.53	23.19	23.32	23.37	23.39	23.41
3	--	--	23.49	23.49	23.47	23.30	22.58	23.20	23.32	23.38	23.39	23.41
4	--	--	23.49	23.49	23.45	23.30	22.63	23.21	23.32	23.37	23.39	23.41
5	--	--	23.49	23.49	23.46	23.28	22.66	23.22	23.33	23.37	23.39	23.41
6	--	--	23.48	23.49	23.46	23.26	22.68	23.22	23.34	23.38	23.39	23.41
7	--	--	23.48	23.49	23.45	23.26	22.69	23.23	23.35	23.38	23.39	23.41
8	--	--	23.49	23.49	23.45	23.26	22.72	23.23	23.34	23.38	23.39	23.41
9	--	--	23.49	23.49	23.45	23.22	22.76	23.24	23.34	23.37	23.40	23.41
10	--	--	23.48	23.49	23.45	23.08	22.78	23.25	23.34	23.38	23.40	23.41
11	--	--	23.48	23.49	23.45	22.80	22.81	23.24	23.35	23.38	23.40	23.41
12	--	--	23.49	23.50	23.45	22.50	22.84	23.25	23.35	23.38	23.40	23.41
13	--	--	23.49	23.49	23.46	22.13	22.87	23.25	23.35	23.38	23.39	23.41
14	--	--	23.48	23.48	23.46	21.76	22.89	23.26	23.35	23.37	23.39	23.41
15	--	--	23.49	23.50	23.46	22.06	22.90	23.26	23.35	23.37	23.40	23.41
16	--	--	23.50	23.50	23.46	22.29	22.92	23.26	23.35	23.37	23.39	23.41
17	--	--	23.49	23.49	23.45	22.22	22.95	23.27	23.37	23.38	23.40	23.40
18	--	23.48	23.48	23.49	23.45	22.14	22.97	23.27	23.36	23.38	23.40	23.41
19	--	23.48	23.47	23.49	23.45	22.01	22.99	23.29	23.36	23.38	23.40	23.41
20	--	23.48	23.48	23.49	23.46	21.92	23.01	23.29	23.36	23.38	23.39	23.42
21	--	23.48	23.48	23.49	23.46	21.97	23.03	23.28	23.37	23.38	23.40	23.42
22	--	23.48	23.48	23.49	23.46	21.99	23.05	23.29	23.36	23.39	23.40	23.42
23	--	23.47	23.48	23.49	23.45	21.92	23.07	23.29	23.35	23.39	23.40	23.42
24	--	23.47	23.48	23.49	23.45	21.86	23.09	23.30	23.36	23.39	23.40	23.42
25	--	23.48	23.48	23.49	23.45	21.81	23.11	23.30	23.36	23.38	23.40	23.42
26	--	23.48	23.48	23.49	23.42	21.82	23.12	23.30	23.36	23.39	23.41	23.42
27	--	23.50	23.48	23.47	23.41	21.94	23.14	23.30	23.36	23.39	23.41	23.42
28	--	23.48	23.47	23.47	23.38	22.06	23.15	23.30	23.37	23.39	23.41	23.42
29	--	23.49	23.48	23.47	--	22.17	23.16	23.31	23.37	23.39	23.41	23.42
30	--	23.49	23.48	23.47	--	22.29	23.18	23.31	23.37	23.39	23.40	23.42
31	--	--	23.48	23.47	--	22.39	--	23.33	--	23.39	23.41	--
MEAN WL	--	--	23.48	23.49	23.45	22.47	22.89	23.26	23.35	23.38	23.40	23.41
MAX WL	--	--	23.50	23.50	23.47	23.36	23.18	23.33	23.37	23.39	23.41	23.42
MIN WL	--	--	23.47	23.47	23.38	21.76	22.47	23.18	23.32	23.37	23.39	23.40

Table 15.--Porosity, grain density, and permeability of selected core samples from the Spring Creek site core hole

[Ka, permeability to air; Kl, Klinkenberg permeability to gas equivalent to that of a non reactive liquid; Kw, permeability to water; g/cm³, grams per cubic centimeter; mD, millidarcies; --, no measurement; <, less than]

Sample identification (see fig. 22) ¹	Depth (feet)	Lithology	Porosity (percent)	Grain density (g/cm ³)	Permeability (mD)		
					Ka	Kl	Kw
S1V	35.1-35.4	Shale	3.6	2.50	--	--	--
S2V	37.1-37.7	Sandstone	9.6	2.67	11.1	9.35	--
S3H	41.1-41.6	Lennox coal	7.1	1.35	2.37	--	<0.001
S4V	48.5-49.0	Shale	5.6	2.64	0.016	<0.01	--
S5H	60.6-61.1	Sandstone	16.7	2.67	2.02	1.29	.429
S5V	60.6-61.1	Sandstone	17.7	2.65	5.84	4.68	--
S6H	75.0-75.5	Sandstone	15.2	2.66	7.32	5.64	--
S8H	86.5-86.9	Wadge coal	6.7	1.34	--	--	--
S10V	94.4-94.7	Shale	6.2	2.40	<.01	<.01	--
S11H	100.0-100.5	Sandstone	10.8	2.67	.149	.046	.009
S12H	102.1-102.6	Sandstone	8.1	2.64	.011	<.01	<.001

¹Sample indentifications were designated as follows: The first letter of the identification corresponds to the site location, S indicating the Spring Creek site. The numeral represents the relative depth of the sample at each site, 1 indicates the shallowest and 12 the deepest. The last letter in the identification indicates the orientation of the sample; V indicates vertically oriented, and H indicates horizontally oriented.

Table 16.--Porosity, grain density, and permeability of selected core samples from the Cow Camp Creek site core hole

[Ka, permeability to air; Kl, Klinkenberg permeability to gas equivalent to that of a non reactive liquid; Kw, permeability to water; g/cm³, grams per cubic centimeter; mD, millidarcies; --, no measurement; <, less than]

Sample identification (see fig. 23) ¹	Depth (feet)	Lithology	Porosity (percent)	Grain density (g/cm ³)	Permeability (mD)		
					Ka	Kl	Kw
C1V	18.4-19.0	Sandstone	9.8	2.63	0.105	0.030	--
C2H	22.3-22.9	Lennox coal	6.2	1.38	1.76	--	--
C3V	27.7-28.2	Sandstone	11.2	2.67	.027	.010	--
C4H	29.8-30.2	Sandstone	9.2	2.64	46.5	43.9	--
C6H	44.8-45.3	Sandstone	16.7	2.66	4.59	3.35	1.28
C7H	55.0-55.5	Sandstone	15.4	2.66	1.75	1.22	--
C7V	55.0-55.5	Sandstone	15.4	2.64	.839	.500	--
C9H	66.0-66.5	Sandstone	15.7	2.66	7.71	5.97	1.57
C9V	66.0-66.5	Sandstone	16.0	2.65	1.96	1.35	--
C10V	73.5-73.7	Shale	3.4	2.57	--	--	--
C11H	76.0-76.6	Wadge coal	2.6	1.32	--	--	--
C12V	86.6-87.1	Sandstone	14.8	2.63	.247	.082	.009
C13H	90.2-91.2	Shale	5.0	2.56	.0013	.0007	--
C13V	90.2-91.2	Shale	5.4	2.59	.0016	.0004	--
C15H	106.2-106.7	Sandstone	10.5	2.68	.178	.059	.020
C15V	106.2-106.7	Sandstone	10.6	2.68	.067	.020	--
C16H	114.5-114.9	Sandstone	4.5	2.66	--	--	--
C17V	118.8-119.2	Shale	1.4	2.47	--	--	--

¹Sample indentifications were designated as follows: The first letter of the identification corresponds to the site location, C indicating the Cow Camp Creek site. The numeral represents the relative depth of the sample at each site; 1 indicates the shallowest and 20 the deepest. The last letter in the identification indicates the orientation of the sample; V indicates vertically oriented, and H indicates horizontally oriented.

Table 17.--Porosity, grain density, and permeability of selected core samples from the Zuli site core hole

[Ka, permeability to air; Kl, Klinkenberg permeability to gas equivalent to that of a non reactive liquid; Kw, permeability to water; g/cm³, grams per cubic centimeter; mD, millidarcies; --, no measurement; <, less than]

Sample identification (see fig. 24) ¹	Depth (feet)	Lithology	Porosity (percent)	Grain density (g/cm ³)	Permeability (mD)		
					Ka	Kl	Kw
Z1V	165.8-166.1	Shale	5.2	2.90	0.039	0.032	--
Z2V	176.0-176.5	Sandstone	6.0	2.64	.030	.010	--
Z3H	181.2-181.6	Lennox coal	2.8	1.30	.858	--	0.001
Z4V	184.8-185.3	Shale	3.8	2.32	--	--	--
Z6H	193.7-194.2	Sandstone	16.1	2.64	2.07	1.83	--
Z7H	208.5-209.0	Sandstone	18.5	2.65	22.7	19.2	7.97
Z8V	220.0-220.5	Sandstone	18.4	2.66	13.8	11.4	3.53
Z9H	230.8-231.3	Wadge coal	3.5	1.40	.152	--	<.001
Z10V	237.1-237.7	Sandstone	10.7	2.65	.022	<.01	--
Z14H	250.5-251.0	Sandstone	12.7	2.69	1.31	.754	--
Z15H	258.4-258.9	Sandstone	6.1	2.70	<.01	<.01	<.001

¹Sample indentifications were designated as follows: The first letter of the identification corresponds to the site location, Z indicating the Zuli site. The numeral represents the relative depth of the sample at each site; 1 indicates the shallowest and 15 the deepest. The last letter in the identification indicates the orientation of the sample; V indicates vertically oriented, and H indicates horizontally oriented.

Table 18.--Porosity, grain density, and permeability of selected core samples from the Bond Creek site core hole

[Ka, permeability to air; Kl, Klinkenberg permeability to gas equivalent to that of a non reactive liquid; Kw, permeability to water; g/cm³, grams per cubic centimeter; mD, millidarcies; --, no measurement; <, less than]

Sample identification (see fig. 25) ¹	Depth (feet)	Lithology	Porosity (percent)	Grain density (g/cm ³)	Permeability (mD)		
					Ka	Kl	Kw
B3V	55.2-55.6	Shale	3.6	2.55	--	--	--
B4V	70.8-71.5	Shale	5.5	2.64	--	--	--
B6V	86.5-87.0	Sandstone	9.9	2.66	0.249	0.109	--
B7H	95.4-95.9	Lennox coal	3.9	1.31	.118	--	<.001
B8V	103.7-104.2	Sandstone	9.3	2.63	.011	<.01	--
B10H	119.1-119.6	Sandstone	15.5	2.66	3.62	2.54	0.849
B10V	119.1-119.6	Sandstone	15.6	2.66	2.08	1.46	--
B11H	128.5-129.0	Sandstone	15.5	2.65	2.83	2.12	--
B11V	128.5-129.0	Sandstone	16.4	2.66	3.45	2.57	--
B13H	145.0-145.4	Sandstone	13.0	2.67	.951	.501	.146
B14V	152.7-153.2	Shale	4.3	2.59	--	--	--
B15H	159.9-160.5	Wadge coal	4.1	1.30	--	--	--
B16V	168.6-169.0	Shale	5.8	2.47	--	--	--
B17H	171.3-171.8	Sandstone	13.5	2.67	1.47	.891	.313

¹Sample indentifications were designated as follows: The first letter of the identification corresponds to the site location, B indicating the Bond Creek site. The numeral represents the relative depth of the sample at each site; 3 indicates the shallowest and 17 the deepest. The last letter in the identification indicates the orientation of the sample; V indicates vertically oriented, and H indicates horizontally oriented.

Table 19.--Mineral composition of core samples from selected lithologic units at the Cow Camp Creek site

[Mineralogy in percent by weight; <, less than; µm, micrometer; --, none detected; tr, less than 1 percent]

Sample identification (see fig. 28) ¹	Lithologic type	Bulk rock mineralogy											
		Quartz	Clay <2 µm	Calcite	Dolomite/ankerite	Plagioclase feldspar	Potassium feldspar	Pyrite	Siderite	Illite	Mixed layer clays	Kaolinite	Chlorite
SS01	Sandstone	66	20	--	7/--	3	2	2	--	5	23	70	2
SS03	Sandstone	65	18	--	10/--	2	2	tr	3	17	37	44	2
SH04	Shale	33	54	1	7/--	2	2	1	--	24	42	34	2
SS05	Sandstone	73	10	tr	7/--	4	4	2	--	14	20	64	2
SS06	Sandstone	71	9	tr	8/--	3	7	2	--	22	24	52	2
SH07	Shale	50	31	2	11/--	3	2	1	--	21	37	38	2
SS08	Sandstone	70	11	tr	8/3	4	4	--	--	14	18	63	5
SH09	Shale	30	56	--	7/--	2	2	3	--	23	50	25	2
SS12	Sandstone	72	16	--	1/--	6	5	tr	--	21	19	58	2
SS13	Sandstone	60	15	--	5/4	6	6	tr	3	9	19	70	2
SH14	Shale	63	19	--	3/1	5	4	--	5	17	26	47	2
SH16	Shale	75	14	--	1/--	5	4	1	--	16	20	62	2
SS17	Sandstone	54	18	3	8/3	5	7	--	4	20	15	63	2
SH18	Shale	30	58	2	4/--	2	1	2	1	17	56	25	2

COAL SAMPLES

Sample identification (see fig. 28) ¹	Organic content	Ash content	Sulfur content	Minerals contained within the ash and sulfur fraction							
				Quartz	Dolomite/ankerite	Plagioclase feldspar	Pyrite	Gypsum	Barite	Kaolinite	Smectite
CL02	90.5	6.5	3.0	1.0	tr/--	tr	3.0	tr	tr	2.5	tr
CL10	91.0	8.5	.5	3.4	--/--	1.0	--	--	tr	3.8	tr

¹Sample indentifications were designated as follows: The first letter of the identification corresponds to the site location, C indicating the Cow Camp Creek site. The number represents the relative depth of the sample; 1 indicates the shallowest, and 20 the deepest.

Table 20.--Spring and lysimeter information

[NGVD, National Geodetic Vertical Datum of 1929]

Site	Station identification	Land-surface elevation (feet above NGVD)
Spring Creek	SSSS87-SPRING	6,875
Spring Creek	SSLYS-LYSIMETER	6,955
Cow Camp Creek	SCSS87-SPRING	6,960
Cow Camp Creek	SCLYS-LYSIMETER	7,020

¹Station identifications were assigned as follows: The first letter (S), designates the Seneca II Coal Mine. The second letter (S or C) designates the site location as Spring Creek or Cow Camp Creek. The remaining alphanumeric characters designate the station as a spring or a lysimeter.

Table 21.--Mean daily discharge from the spring at the Spring Creek site during water year 1988

[---, no data; TOTAL, sum of the discharges; MEAN, mean discharge; MAX, maximum discharge; MIN, minimum discharge; ACRE-FT, acre-foot; CAL YR, calender year; WTR YR, water year]

DAY	MEAN VALUES OF DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	0.04	0.03	0.03	0.04	0.03	0.11	0.11	0.08	0.06	0.04	0.04	0.04
2	.04	.04	.03	.04	.03	.10	.11	.08	.06	.04	.03	.03
3	.05	.04	.03	.04	.04	.11	.11	.07	.06	.04	.03	.03
4	.05	.04	.03	.04	.04	.13	.11	.07	.07	.04	.03	.03
5	.05	.03	.03	.04	.04	.17	.11	.07	.06	.04	.03	.03
6	.04	.03	.03	.04	.04	.20	.12	.06	.06	.04	.03	.03
7	.04	.03	.03	.04	.04	.21	.12	.06	.05	.04	.04	.03
8	.04	.03	.03	.04	.04	.18	.12	.06	.05	.04	.03	.03
9	.03	.03	.03	.04	.05	.09	.11	.07	.05	.04	.03	.03
10	.03	.03	.03	.04	.05	.09	.11	.06	.05	.04	.03	.03
11	.04	.03	.03	.04	.05	.09	.12	.09	.05	.04	.03	.05
12	.06	.03	.03	.04	.05	.09	.18	.11	.06	.05	.03	.14
13	.08	.03	.03	.04	.05	.09	.14	.12	.08	.04	.04	.07
14	.06	.03	.03	.04	.04	.09	.13	.11	.08	.04	.04	.05
15	.04	.03	.04	.04	.04	.09	.13	.10	.04	.04	.04	.04
16	.04	.03	.04	.04	.04	.09	.13	.09	.04	.04	.05	.03
17	.04	.03	.04	.04	.04	.09	.13	.07	.04	.04	.04	.03
18	.04	.03	.04	.04	.04	.09	.13	.06	.04	.04	.04	.03
19	.05	.03	.04	.04	.04	.09	.13	.06	.04	.04	.04	.02
20	.04	.03	.03	.04	.04	.09	.13	.06	.04	.04	.04	.02
21	.04	.03	.04	.04	.07	.09	.13	.06	.04	.04	.04	.04
22	.04	.03	.04	.04	.05	.10	.13	.06	.05	.05	.04	.04
23	.06	.03	.04	.04	.07	.10	.13	.05	.04	.05	.04	.03
24	.06	.03	.04	.03	.11	.10	.13	.06	.05	.06	.04	.03
25	.04	.03	.04	.03	.08	.10	.12	.06	.05	.05	.04	.03
26	.04	.03	.04	.03	.07	.10	.11	.05	.04	.04	.04	.03
27	.04	.03	.04	.04	.07	.10	.11	.05	.03	.03	.04	.05
28	.03	.03	.04	.04	.06	.10	.10	.05	.08	.03	.04	.05
29	.04	.03	.04	.03	.08	.11	.10	.05	.06	.03	.04	.04
30	.03	.03	.04	.03	---	.10	.08	.06	.04	.03	.04	.04
31	.03	---	.04	.03	---	.10	---	.06	---	.03	.04	---
TOTAL	1.35	0.93	1.09	1.18	1.49	3.39	3.62	2.16	1.56	1.25	1.15	1.17
MEAN	.044	.031	.035	.038	.051	.11	.12	.070	.052	.040	.037	.039
MAX	.08	.04	.04	.04	.11	.21	.18	.12	.08	.06	.05	.14
MIN	.03	.03	.03	.03	.03	.09	.08	.05	.03	.03	.03	.02
ACRE-FT	2.7	1.8	2.2	2.3	3.0	6.7	7.2	4.3	3.1	2.5	2.3	2.3
WTR YR 1988	TOTAL 20.34		MEAN 0.056		MAX 0.21		MIN 0.02		ACRE-FT 40			

Table 22.--Mean daily discharge from the spring at the Spring Creek site during water year 1989

[---, no data; TOTAL, sum of the discharges; MEAN, mean discharge; MAX, maximum discharge; MIN, minimum discharge; ACRE-FT, acre-foot; CAL YR, calender year; WTR YR, water year]

DAY	MEAN VALUES OF DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	0.04	0.03	0.03	0.04	0.03	0.13	0.18	0.07	0.05	0.04	0.04	0.03
2	.04	.03	.04	.04	.03	.07	.17	.07	.04	.04	.04	.03
3	.04	.03	.04	.04	.03	.07	.17	.06	.04	.04	.04	.03
4	.04	.03	.03	.03	.03	.07	.17	.06	.04	.04	.04	.03
5	.03	.03	.03	.03	.03	.07	.16	.06	.04	.04	.04	.03
6	.03	.03	.03	.03	.03	.07	.16	.06	.04	.04	.04	.03
7	.03	.03	.03	.03	.03	.08	.16	.06	.04	.04	.04	.03
8	.03	.03	.03	.03	.03	.13	.16	.06	.04	.04	.04	.03
9	.03	.03	.03	.03	.03	.13	.16	.06	.04	.04	.04	.03
10	.03	.03	.03	.03	.03	.13	.14	.07	.04	.04	.04	.03
11	.03	.03	.03	.03	.03	.12	.13	.07	.04	.04	.04	.03
12	.03	.03	.03	.03	.03	.12	.13	.06	.05	.04	.04	.03
13	.03	.03	.03	.03	.03	.14	.13	.06	.05	.04	.04	.03
14	.03	.03	.03	.03	.04	.16	.12	.06	.05	.04	.04	.03
15	.03	.03	.03	.03	.04	.16	.12	.06	.05	.04	.04	.03
16	.03	.03	.03	.03	.04	.16	.12	.06	.04	.04	.04	.03
17	.03	.03	.03	.03	.04	.18	.12	.06	.04	.04	.04	.03
18	.03	.03	.03	.03	.04	.18	.11	.06	.04	.04	.03	.03
19	.03	.03	.03	.03	.04	.19	.11	.06	.04	.04	.03	.03
20	.03	.03	.03	.03	.04	.19	.11	.05	.04	.04	.03	.03
21	.03	.03	.03	.03	.04	.20	.09	.05	.04	.04	.03	.03
22	.03	.03	.03	.03	.04	.20	.09	.05	.05	.04	.03	.04
23	.03	.03	.03	.03	.09	.21	.09	.05	.05	.04	.03	.04
24	.03	.04	.03	.03	.10	.22	.09	.06	.05	.04	.03	.04
25	.03	.04	.03	.03	.10	.23	.09	.06	.05	.04	.03	.04
26	.03	.04	.03	.03	.09	.23	.09	.05	.05	.04	.03	.04
27	.03	.03	.03	.03	.09	.22	.09	.05	.04	.04	.03	.03
28	.03	.03	.03	.03	.14	.21	.08	.05	.04	.04	.03	.03
29	.03	.03	.03	.03	---	.20	.08	.05	.04	.04	.03	.03
30	.03	.03	.03	.03	---	.19	.07	.05	.04	.04	.03	.03
31	.03	---	.04	.03	---	.18	---	.05	---	.04	.03	---
TOTAL	0.97	0.93	0.96	0.96	1.36	4.84	3.69	1.80	1.30	1.24	1.10	0.95
MEAN	.031	.031	.031	.031	.049	.16	.12	.058	.043	.040	.035	.032
MAX	.04	.04	.04	.04	.14	.23	.18	.07	.05	.04	.04	.04
MIN	.03	.03	.03	.03	.03	.07	.07	.05	.04	.04	.03	.03
ACRE-FT	1.9	1.8	1.9	1.9	2.7	9.6	7.3	3.6	2.6	2.5	2.2	1.9
CAL YR 1988	TOTAL 19.83		MEAN 0.054	MAX 0.21	MIN 0.02	ACRE-FT 39						
WTR YR 1989	TOTAL 20.10		MEAN 0.055	MAX 0.23	MIN 0.03	ACRE-FT 40						

Table 23.--Mean daily discharge from the spring at the Cow Camp Creek site during water year 1988

--, no data; TOTAL, sum of the discharges; MEAN, mean discharge; MAX, maximum discharge; MIN, minimum discharge; ACRE-FT, acre-foot; CAL YR, calender year; WTR YR, water year]

DAY	MEAN VALUES OF DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1988											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	0.02	0.02	0.03	0.02	0.02	0.20	0.54	0.22	0.13	0.10	0.08	0.05
2	.02	.03	.02	.02	.02	.25	.61	.22	.12	.10	.08	.05
3	.02	.03	.02	.02	.02	.31	.63	.23	.12	.10	.08	.05
4	.02	.03	.02	.02	.02	.45	.60	.21	.13	.10	.08	.05
5	.02	.03	.02	.02	.03	.43	.50	.16	.13	.09	.09	.05
6	.02	.03	.02	.02	.03	.43	.50	.15	.12	.09	.08	.05
7	.02	.02	.02	.02	.03	.53	.46	.15	.12	.08	.08	.05
8	.02	.02	.02	.02	.03	.46	.42	.16	.12	.08	.09	.06
9	.02	.02	.02	.02	.03	.41	.38	.16	.12	.08	.09	.06
0	.02	.02	.02	.02	.03	.41	.36	.16	.11	.08	.08	.05
1	.02	.02	.02	.03	.02	.37	.34	.15	.11	.08	.07	.06
2	.02	.02	.02	.02	.03	.30	.31	.14	.11	.08	.06	.08
3	.03	.03	.02	.02	.03	.27	.32	.14	.11	.08	.07	.09
4	.03	.03	.02	.02	.03	.24	.31	.15	.11	.08	.06	.09
5	.03	.03	.02	.02	.03	.24	.32	.14	.11	.07	.07	.07
6	.03	.03	.02	.02	.03	.22	.30	.14	.11	.07	.07	.07
7	.03	.03	.02	.02	.03	.19	.33	.13	.10	.07	.07	.06
8	.03	.03	.02	.02	.03	.19	.33	.13	.10	.08	.07	.05
9	.03	.02	.02	.02	.03	.19	.30	.14	.10	.07	.07	.05
0	.03	.03	.02	.02	.03	.20	.31	.14	.10	.07	.07	.05
1	.03	.03	.02	.02	.03	.31	.29	.14	.11	.07	.07	.05
2	.03	.03	.02	.02	.03	.47	.28	.14	.13	.07	.07	.03
3	.03	.03	.03	.02	.04	.49	.32	.14	.13	.07	.07	.04
4	.03	.03	.03	.02	.04	.47	.34	.12	.12	.07	.07	.05
5	.03	.03	.03	.02	.05	.41	.34	.12	.09	.07	.08	.05
6	.03	.03	.03	.02	.08	.44	.33	.12	.09	.07	.07	.05
7	.03	.03	.03	.02	.13	.64	.30	.13	.09	.07	.06	.05
8	.02	.04	.02	.02	.20	.66	.26	.14	.09	.07	.05	.05
9	.02	.03	.02	.02	.19	.59	.24	.14	.12	.07	.06	.05
0	.03	.03	.02	.02	---	.56	.25	.14	.10	.08	.06	.05
1	.02	---	.02	.02	---	.53	---	.15	---	.08	.05	---
TOTAL	0.78	0.83	0.68	0.63	1.34	11.86	11.12	4.70	3.35	2.44	2.22	1.66
MEAN	.025	.028	.022	.020	.046	.38	.37	.15	.11	.079	.072	.055
MAX	.03	.04	.03	.03	.20	.66	.63	.23	.13	.10	.09	.09
MIN	.02	.02	.02	.02	.02	.19	.24	.12	.09	.07	.05	.03
ACRE-FT	1.5	1.6	1.3	1.2	2.7	24	22	9.3	6.6	4.8	4.4	3.3
CAL YR 1988	TOTAL 41.61		MEAN 0.11		MAX 0.66		MIN 0.02		ACRE-FT 83			

Table 24.--Mean daily discharge from the spring at the Cow Camp Creek site during water year 1989

[---, no data; TOTAL, sum of the discharges; MEAN, mean discharge; MAX, maximum discharge; MIN, minimum discharge; ACRE-FT, acre-foot; CAL YR, calender year; WTR YR, water year]

MEAN VALUES OF DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1988												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	0.05	0.05	0.04	0.04	0.06	0.08	0.57	0.18	0.10	0.09	0.09	0.07
2	.05	.06	.05	.04	.05	.10	.54	.17	.11	.09	.09	.07
3	.05	.06	.05	.04	.05	.11	.52	.16	.11	.09	.09	.07
4	.05	.05	.04	.04	.05	.11	.51	.16	.11	.09	.08	.07
5	.05	.05	.05	.04	.05	.11	.50	.15	.11	.09	.08	.07
6	.05	.06	.05	.04	.06	.12	.50	.15	.10	.09	.08	.07
7	.05	.06	.05	.05	.06	.12	.49	.15	.10	.09	.08	.07
8	.05	.05	.04	.04	.06	.12	.47	.15	.10	.09	.08	.07
9	.05	.05	.04	.04	.06	.13	.44	.15	.10	.09	.08	.07
10	.05	.05	.05	.05	.06	.20	.41	.14	.10	.09	.08	.07
11	.05	.05	.04	.05	.06	.32	.41	.14	.10	.09	.08	.07
12	.05	.05	.04	.05	.06	.48	.38	.14	.10	.10	.08	.07
13	.05	.05	.05	.05	.06	.66	.36	.14	.10	.10	.08	.07
14	.05	.05	.05	.05	.06	.82	.35	.14	.10	.10	.08	.07
15	.05	.05	.04	.04	.05	.74	.35	.14	.10	.10	.08	.07
16	.05	.05	.04	.05	.06	.65	.33	.14	.10	.10	.08	.07
17	.05	.05	.04	.05	.06	.67	.31	.13	.09	.10	.08	.08
18	.05	.05	.05	.05	.06	.69	.29	.13	.09	.09	.08	.08
19	.05	.05	.05	.05	.06	.75	.28	.12	.10	.09	.07	.07
20	.05	.05	.04	.05	.06	.79	.28	.12	.09	.09	.07	.07
21	.05	.05	.05	.05	.05	.77	.26	.12	.09	.09	.07	.07
22	.05	.05	.04	.05	.05	.77	.24	.12	.09	.09	.07	.07
23	.05	.05	.04	.05	.06	.79	.24	.12	.09	.09	.07	.07
24	.05	.05	.04	.05	.06	.79	.23	.12	.09	.09	.07	.07
25	.04	.05	.05	.05	.06	.82	.21	.12	.10	.09	.07	.07
26	.05	.05	.04	.05	.07	.82	.21	.12	.10	.09	.07	.07
27	.05	.04	.04	.05	.07	.79	.19	.12	.09	.09	.07	.07
28	.05	.05	.05	.05	.08	.71	.19	.12	.09	.09	.07	.07
29	.05	.04	.04	.05	---	.67	.18	.11	.09	.09	.07	.07
30	.05	.04	.04	.05	---	.63	.18	.11	.09	.09	.07	.08
31	.05	---	.04	.06	---	.59	---	.10	---	.08	.07	---
TOTAL	1.54	1.51	1.37	1.47	1.65	15.92	10.42	4.18	2.93	2.84	2.38	2.13
MEAN	.050	.050	.044	.047	.059	.51	.35	.13	.098	.092	.077	.071
MAX	.05	.06	.05	.06	.08	.82	.57	.18	.11	.10	.09	.08
MIN	.04	.04	.04	.04	.05	.08	.18	.10	.09	.08	.07	.07
ACRE-FT	3.1	3.0	2.7	2.9	3.3	32	21	8.3	5.8	5.6	4.7	4.2
CAL YR 1988	TOTAL 43.74		MEAN 0.12		MAX 0.66		MIN 0.02		ACRE-FT 87			
WTR YR 1989	TOTAL 48.34		MEAN 0.13		MAX 0.82		MIN 0.04		ACRE-FT 96			

Table 25.--Water-quality analyses for wells

[Well identification corresponds to wells listed in table 9; $\mu\text{S}/\text{CM}$, microsiemens per centimeter at 25 degrees Celsius; $^{\circ}\text{C}$, degrees Celsius; MG/L , milligrams per liter; NONCARB, noncarbonate; WH, whole; WAT, water; TOT, total; FLD, field; --, no data collected; <, less than; LAB, laboratory; DEG. C, degrees Celsius; $\mu\text{G}/\text{L}$, micrograms per liter; C-, carbon isotope; H-, hydrogen isotope; O-, oxygen isotope; S-, sulfur isotope; per mil, parts per thousand; PCI/L , picocuries per liter]

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL (MG/L AS CaCO_3)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO_3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	
<u>WELL IDENTIFICATION - SSL287</u>												
NOV 1987	08...	1030	58.00	6,861	5,000	7.4	--	920	460	150	130	1,100
MAR 1988	07...	1030	58.00	6,861	4,980	7.6	9.0	850	360	140	120	1,100
APR	05...	0945	58.00	6,861	4,850	7.5	9.0	760	260	120	110	990
MAY	10...	0845	58.00	6,861	4,800	7.6	9.0	910	430	130	140	940
JUNE	14...	1000	58.00	6,861	4,650	7.4	14.0	930	460	140	140	910
	14...	1150	58.00	6,861	4,740	7.6	12.5	920	410	150	130	910
	14...	1500	58.00	6,861	4,820	7.5	11.5	780	280	130	110	960
AUG	30...	0830	58.00	6,861	5,530	7.6	12.0	890	430	140	130	1,100
NOV	16...	0830	58.00	6,861	5,210	7.8	--	1,300	800	210	180	980
APR 1989	04...	1315	58.00	6,861	5,800	7.5	8.0	980	510	160	140	1,100
JUNE	07...	0930	58.00	6,861	5,860	7.7	9.0	1,100	600	180	150	1,100
SEPT	12...	1000	58.00	6,861	6,890	7.4	9.0	1,700	1,300	260	260	1,300

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO_3)	SULFATE DIS-SOLVED (MG/L AS SO_4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)
NOV 1987								
08...	7.4	454	2,900	17	0.3	9.2	4,690	4,600
MAR 1988								
07...	9.4	496	2,400	22	1.1	10	4,070	4,110
APR								
05...	7.6	502	2,400	17	1.1	8.8	3,950	3,960
MAY								
10...	8.5	478	2,500	23	1.2	8.7	4,090	4,050
JUNE								
14...	8.7	471	2,500	25	1.1	8.3	4,100	4,030
14...	8.4	504	2,400	22	1.1	9.3	4,000	3,950
14...	8.1	505	2,400	20	1.0	8.6	4,050	3,950
AUG								
30...	8.5	465	2,800	19	1.1	8.7	4,380	4,500
NOV								
16...	10	472	3,000	21	.9	9.3	4,680	4,710
APR 1989								
04...	10	478	3,000	16	1.1	8.4	4,750	4,730
JUNE								
07...	10	476	2,900	20	1.0	8.9	4,630	4,660
SEPT								
12...	12	452	4,000	15	.7	8.8	6,070	6,140

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
WELL IDENTIFICATION - SSL287--Continued									
NOV 1987 08...	<0.01	--	<0.10	4.80	6.2	0.5	5.3	0.02	0.02
MAR 1988 07...	<.01	--	<.10	4.40	5.7	.1	4.5	.05	<.01
APR 05...	<.01	--	<.10	1.00	1.3	3.0	4.0	.04	.04
MAY 10...	<.01	--	<.10	4.40	5.7	.4	4.8	.03	.02
JUNE 14...	.01	0.03	<.10	4.60	5.9	.0	4.5	.01	.01
14...	.01	.03	<.10	4.20	5.4	.0	3.8	.03	.04
14...	.02	.07	<.10	3.60	4.6	.3	3.9	.02	.02
AUG 30...	<.01	--	<.10	5.50	7.1	.0	4.5	.03	.02
NOV 16...	<.01	--	<.10	5.60	7.2	.0	4.9	.03	.02
APR 1989 04...	--	--	--	--	--	--	--	--	--
JUNE 07...	--	--	--	--	--	--	--	--	--
SEPT 12...	--	--	--	--	--	--	--	--	--

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
NOV 1987 08...	0.06	0.0	<10	1	20	<1	340	<2	<10	<6
MAR 1988 07...	--	.05	20	<1	26	<2	320	<3	<20	<9
APR 05...	.12	.0	<10	<1	20	<2	320	<3	<5	<9
MAY 10...	.06	.01	<10	<1	16	<2	320	<3	<20	<9
JUNE 14...	.03	.0	<10	<1	21	<.5	350	<1	<5	<3
14...	.12	.0	<10	<1	22	<.5	310	<1	<5	<3
14...	.06	.0	<10	<1	17	<.5	320	<1	<5	<3
AUG 30...	.06	.01	<10	<1	15	<.5	310	3	<5	<3
NOV 16...	.06	.01	<10	<1	14	<.5	330	<1	<5	<3
APR 1989 04...	--	--	10	<1	18	<3	300	<5	<30	<20
JUNE 07...	--	--	<10	<1	24	<2	330	<3	<20	<9
SEPT 12...	--	--	20	<1	14	<2	310	<3	<20	<9

Table 25.--Water-quality analyses for wells--Continued

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
<u>WELL IDENTIFICATION - SSL287--Continued</u>										
NOV 1987 08...	<20	110	<20	490	<20	<20	<1.0	6,200	<12	<6
MAR 1988 07...	<30	68	<30	460	<30	<30	<3.0	6,000	<20	10
APR 05...	<30	80	<30	370	<30	<10	<3.0	5,300	<18	12
MAY 10...	<30	34	<30	240	<30	<30	<3.0	6,500	<18	<9
JUNE 14...	<10	610	<10	490	<10	<10	1.0	5,900	<6	970
14...	<10	170	<10	690	<10	<10	<1.0	6,000	<6	20
14...	<10	120	<10	280	<10	<10	<1.0	2,600	<6	6
AUG 30...	<10	74	<10	200	<10	<10	9.0	6,200	<6	8
NOV 16...	<10	92	<10	330	<10	<10	<1.0	7,600	<6	7
APR 1989 04...	<50	210	50	350	<50	<50	<5.0	6,600	<30	25
JUNE 07...	<30	69	<30	340	<30	<30	<3.0	7,100	<18	11
SEPT 12...	<30	600	<30	560	<30	<30	<3.0	10,000	<18	30

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)
<u>WELL IDENTIFICATION - SSI287</u>										
NOV 1987 08...	1000	79.80	6,860	2,280	8.0	--	92	0	20	9.7
MAR 1988 04...	1230	79.80	6,860	2,910	7.9	7.5	170	0	35	19
APR 05...	1430	79.80	6,860	2,850	7.9	9.0	180	0	37	20
MAY 10...	0945	79.80	6,860	3,250	7.8	9.0	240	0	51	27
AUG 30...	0945	79.80	6,860	3,100	8.1	11.0	200	0	40	23
NOV 16...	0930	79.80	6,860	3,000	8.1	--	220	0	46	24
APR 1989 04...	1300	79.80	6,860	3,030	7.9	9.5	170	0	36	19
JUNE 07...	0900	79.80	6,860	3,110	8.0	10.5	170	0	37	19
SEPT 12...	1100	79.80	6,860	3,140	7.9	10.0	190	0	39	22

Table 25.--Water-quality analyses for wells--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
<u>WELL IDENTIFICATION - SSI287--Continued</u>									
NOV 1987 08...	600	4.4	539	850	12	2.1	8.5	1,740	1,830
MAR 1988 04...	670	5.3	542	1,000	15	.4	9.3	2,070	2,080
APR 05...	640	4.6	552	1,100	12	.4	8.6	2,090	2,160
MAY 10...	700	5.7	540	1,300	13	.4	8.9	2,310	2,440
AUG 30...	650	4.8	551	1,100	12	.3	9.0	2,040	2,170
NOV 16...	680	5.4	556	1,200	13	.3	9.3	2,210	2,320
APR 1989 04...	600	5.3	554	1,000	12	.4	8.6	2,040	2,020
JUNE 07...	660	5.4	557	1,000	9.1	.3	8.8	2,000	2,080
SEPT 12...	640	5.1	536	1,100	9.6	.3	8.7	2,120	2,150

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1987 08...	<0.01	<0.10	1.10	1.4	0.7	1.8	0.02	<0.01
MAR 1988 04...	<.01	<.10	1.40	1.8	.1	1.5	.01	<.01
APR 05...	<.01	<.10	1.50	1.9	.2	1.7	.02	.02
MAY 10...	<.01	<.10	2.70	3.5	.4	3.1	.02	<.01
AUG 30...	<.01	<.10	1.60	2.1	.5	2.1	.02	.01
NOV 16...	<.01	<.10	2.20	2.8	.0	1.8	.01	.01
APR 1989 04...	--	--	--	--	--	--	--	--
JUNE 07...	--	--	--	--	--	--	--	--
SEPT 12...	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
<u>WELL IDENTIFICATION - SSI287--Continued</u>										
NOV 1987 08...	--	0.02	<10	<1	32	<2	130	<3	<5	<9
MAR 1988 04...	--	.01	<10	<1	37	<2	130	7	<20	<9
APR 05...	0.06	.0	<10	<1	30	<2	130	<3	<20	<9
MAY 10...	--	.02	<10	<1	36	<2	140	<3	<20	<9
AUG 30...	.03	.01	<10	<1	27	<.5	130	<1	<5	<3
NOV 16...	.03	.0	<10	<1	28	<.5	140	<1	<5	<3
APR 1989 04...	--	--	<10	<1	21	<.5	140	<1	<5	<3
JUNE 07...	--	--	<10	<1	23	<2	140	<3	<20	<9
SEPT 12...	--	--	10	<1	20	<1	130	<2	<10	<6
DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 08...	<30	51	<30	11	<30	<30	<1.0	1,500	<18	<9
MAR 1988 04...	<30	160	<30	22	<30	<10	<3.0	2,300	<18	<9
APR 05...	<30	170	<30	20	<30	<30	<3.0	2,300	<18	<9
MAY 10...	<30	160	<30	23	<30	<30	3.0	3,300	<18	<9
AUG 30...	<10	200	<10	22	<10	<10	<1.0	2,500	<6	<3
NOV 16...	<10	220	<10	20	<10	<10	<1.0	2,800	<6	6
APR 1989 04...	<10	180	<10	19	<10	<10	<1.0	2,200	<6	7
JUNE 07...	<30	160	<30	20	<30	<30	<3.0	2,400	<18	<9
SEPT 12...	<20	210	<20	23	<20	<20	<2.0	2,400	<12	<6

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	SODIUM, DISSOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SSW287</u>											
NOV 1987											
08...	1015	98.50	6,860	1,710	8.0	--	36	0	8.8	3.2	470
MAR 1988											
07...	0945	98.50	6,860	1,775	8.2	6.0	31	0	6.7	3.3	460
APR											
05...	1015	98.50	6,860	1,810	8.2	10.0	18	5	5.7	--	440
MAY											
10...	0900	98.50	6,860	2,210	8.3	9.5	35	0	8.8	3.0	510
AUG											
30...	0900	98.50	6,860	2,150	8.6	11.0	28	0	6.8	2.5	480
NOV											
16...	0900	98.50	6,860	3,060	8.5	--	63	0	16	5.3	710
APR 1989											
04...	1400	98.50	6,860	1,930	8.3	9.0	22	0	5.4	1.9	440
JUNE											
07...	0915	98.50	6,860	2,820	8.4	10.0	49	0	13	3.8	630
SEPT											
12...	1015	98.50	6,860	2,270	8.3	9.5	32	0	8.2	2.6	530

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DISSOLVED (MG/L AS SO ₄)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 1987								
08...	3.2	622	400	22	0.9	11	1,300	1,290
MAR 1988								
07...	3.4	670	320	15	2.2	9.8	1,220	1,230
APR								
05...	2.6	--	300	14	2.3	9.8	1,160	--
MAY								
10...	3.3	641	530	19	2.1	7.5	1,470	1,470
AUG								
30...	2.8	643	440	18	1.9	7.5	1,330	1,350
NOV								
16...	4.4	544	1,000	34	1.5	8.0	2,140	2,110
APR 1989								
04...	2.8	658	360	17	2.3	7.7	1,240	1,230
JUNE								
07...	3.6	580	800	28	1.7	7.8	1,810	1,840
SEPT								
12...	3.1	631	540	22	2.0	8.1	1,490	1,500

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
WELL IDENTIFICATION - SSW287--Continued											
NOV 1987 08...	--	--	--	--	--	--	1.6	0.07	--	--	0.07
MAR 1988 07...	<0.01	--	<0.10	0.13	0.17	1.5	1.6	.12	<0.09	--	.12
APR 05...	.01	0.03	<.10	.90	1.2	.3	1.2	.07	.06	0.18	.01
MAY 10...	<.01	--	<.10	.62	.8	.78	1.4	.04	.03	.09	.01
AUG 30...	<.01	--	<.10	.45	.58	.75	1.2	.05	.05	.15	.0
NOV 16...	<.01	--	<.10	1.10	1.4	.0	1.0	.02	.02	.06	.0
APR 1989 04...	--	--	--	--	--	--	--	--	--	--	--
JUNE 07...	--	--	--	--	--	--	--	--	--	--	--
SEPT 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
NOV 1987 08...	300	2	75	<1	130	<2	<10	<6	<20	190	<20
MAR 1988 07...	5,000	<1	62	<.5	120	<3	<5	<3	<10	510	<10
APR 05...	450	1	62	<2	120	3	<20	<9	<30	340	50
MAY 10...	<10	<1	99	<2	120	<3	<20	<9	<30	74	<30
AUG 30...	<10	<1	84	1	110	1	<5	<3	<10	100	20
NOV 16...	10	<1	130	<.5	120	2	<5	<3	<10	140	<10
APR 1989 04...	130	1	61	<.5	110	<1	<5	<3	<10	190	<10
JUNE 07...	30	<1	110	<2	110	<3	<20	<9	<30	210	<30
SEPT 12...	30	1	80	<1	110	<2	<10	<6	<20	140	<20

Table 25.--Water-quality analyses for wells--Continued

DATE	MANGANESE, DIS-SOLVED (µG/L AS MN)	MOLYBDENUM, DIS-SOLVED (µG/L AS MO)	NICKEL, DIS-SOLVED (µG/L AS NI)	SILVER, DIS-SOLVED (µG/L AS AG)	STRONTIUM, DIS-SOLVED (µG/L AS SR)	VANADIUM, DIS-SOLVED (µG/L AS V)	ZINC, DIS-SOLVED (µG/L AS ZN)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	H-2/H-1 STABLE ISOTOPE RATIO PER MIL	O-18/O-16 STABLE ISOTOPE RATIO PER MIL	S-34/S-32 STABLE ISOTOPE RATIO PER MIL	TRITIUM TOTAL (PCI/L)
WELL IDENTIFICATION - SSW287--Continued												
NOV 1987 08...	160	<20	<20	<2.0	300	<12	<6	--	--	--	--	--
MAR 1988 07...	180	<10	<10	<1.0	220	<6	6	--	--	--	--	--
APR 05...	180	<30	<30	<3.0	220	<18	12	-1.3	-148	-19.5	2.90	<5.7
MAY 10...	310	<30	<30	<3.0	430	<18	<9	--	--	--	--	--
AUG 30...	340	<10	20	5.0	330	<6	7	-2.3	-145	-19.3	2.70	<5.7
NOV 16...	140	<10	<10	1.0	930	<6	6	--	--	--	--	--
APR 1989 04...	180	<10	<10	1.0	270	<6	4	--	--	--	--	--
JUNE 07...	190	<30	<30	<3.0	660	<18	<9	--	--	--	--	--
SEPT 12...	210	<20	<20	<2.0	430	<12	7	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
WELL IDENTIFICATION - SSU487											
NOV 1987 08...	0940	105.30	6,861	3,100	8.1	--	98	0	25	8.2	840
MAR 1988 04...	1035	105.30	6,861	3,320	8.1	9.5	87	0	22	7.4	820
APR 05...	1100	105.30	6,861	3,950	7.9	11.0	360	0	77	39	890
MAY 10...	1015	105.30	6,861	4,150	7.9	10.0	480	19	100	56	880
JUNE 15...	0900	105.30	6,861	3,970	7.9	11.0	430	0	91	49	850
15...	1115	105.30	6,861	3,590	8.0	10.5	130	0	30	12	800
15...	1300	105.30	6,861	3,800	7.9	11.0	170	0	40	16	840
AUG 30...	1015	105.30	6,861	3,950	8.3	10.5	240	0	53	25	830
NOV 16...	1030	105.30	6,861	3,940	8.4	--	250	0	59	25	910
APR 1989 04...	1115	105.30	6,861	3,880	8.1	10.0	170	0	40	17	830
JUNE 07...	0845	105.30	6,861	4,100	8.2	10.0	200	0	47	19	900
SEPT 12...	1215	105.30	6,861	3,880	8.2	10.0	150	0	36	14	840

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)			
<u>WELL IDENTIFICATION - SSU487--Continued</u>											
NOV 1987											
08...	5.1	475	1,400	40	1.2	7.9	2,560	2,610			
MAR 1988											
04...	5.7	504	1,200	32	1.3	9.0	2,380	2,400			
APR											
05...	8.8	472	1,800	39	.9	8.3	3,100	3,150			
MAY											
10...	7.5	466	1,900	42	.8	8.5	3,180	3,280			
JUNE											
15...	7.4	457	1,800	48	.7	9.3	3,140	3,140			
15...	5.3	484	1,400	40	1.1	7.8	2,570	2,590			
15...	5.8	472	1,500	44	.8	7.9	2,740	2,740			
AUG											
30...	6.6	477	1,600	46	.9	8.0	2,750	2,860			
NOV											
16...	6.9	483	1,800	54	.8	8.3	3,030	3,160			
APR 1989											
04...	6.4	487	1,500	49	1.3	8.0	2,740	2,750			
JUNE											
07...	6.6	478	1,600	50	1.0	8.2	2,820	2,920			
SEPT											
12...	5.9	488	1,500	46	1.2	7.9	2,650	2,740			
<hr/>											
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
NOV 1987											
08...	--	--	--	--	--	--	1.7	0.01	--	--	0.01
MAR 1988											
04...	<0.01	--	<0.10	1.20	1.5	0.8	2.0	.01	<0.01	--	.01
APR											
05...	<.01	--	<.10	2.10	2.7	.4	2.5	<.01	.01	0.03	--
MAY											
10...	<.01	--	<.10	2.20	2.8	.6	2.8	<.01	<.01	--	--
JUNE											
15...	.01	0.03	<.10	2.00	2.6	.1	2.1	<.01	<.01	--	--
15...	.01	.03	<.10	.94	1.2	.76	1.7	<.01	.01	.03	--
15...	.01	.03	<.10	1.70	2.2	.2	1.9	<.01	<.01	--	--
AUG											
30...	<.01	--	<.10	1.60	2.1	.6	2.2	.01	<.01	--	.01
NOV											
16...	<.01	--	<.10	2.50	3.2	.0	1.9	.01	<.01	--	.01
APR 1989											
04...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
07...	--	--	--	--	--	--	--	--	--	--	--
SEPT											
12...	--	--	--	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
<u>WELL IDENTIFICATION - SSU487--Continued</u>											
NOV 1987											
08...	<10	<1	48	<2	140	<3	<20	<9	<30	71	<30
MAR 1988											
04...	<200	<1	36	<2	130	7	<20	<9	<30	120	<30
APR											
05...	<10	<1	38	<2	140	<3	<20	<9	<10	160	<30
MAY											
10...	10	<1	32	<2	150	<3	<20	<9	<30	230	<30
JUNE											
15...	<10	<1	43	<.5	160	<1	<5	<3	<10	10	<10
15...	<10	<1	26	<2	140	<3	<20	<9	<30	44	<30
15...	<10	<1	29	<.5	160	<1	<5	<3	<10	63	<10
AUG											
30...	<10	<1	32	<.5	130	<1	<5	<3	<10	80	<10
NOV											
16...	<10	<1	31	<.5	130	<1	<5	<3	<10	67	<10
APR 1989											
04...	10	<1	30	<2	130	4	<20	<9	<30	51	<30
JUNE											
07...	10	<1	36	<2	130	<3	<20	<9	<30	50	<30
SEPT											
12...	20	<1	26	<1	120	<2	<10	<6	<20	28	<20

DATE	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DUS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
NOV 1987												
08...	7	<30	<30	<3.0	1,400	<6	<9	--	--	--	--	--
MAR 1988												
04...	12	<30	<30	<3.0	1,100	<18	<9	--	--	--	--	--
APR												
05...	47	<10	<10	<3.0	3,300	<18	<9	-9.0	-142	-18.2	1.30	26
MAY												
10...	73	<30	<30	<3.0	4,000	<18	13	--	--	--	--	--
JUNE												
15...	120	<10	<10	<1.0	3,600	<6	<3	--	--	--	--	--
15...	14	<30	<30	<3.0	1,500	<18	12	--	--	--	--	--
15...	17	<10	<10	2.0	1,900	<6	17	--	--	--	--	--
AUG												
30...	24	<10	10	<1.0	2,500	<6	9	-9.2	-140	-18.2	1.70	24
NOV												
16...	23	<10	<10	<1.0	2,700	<6	<3	--	--	--	--	--
APR 1989												
04...	15	<30	<30	<3.0	2,000	<18	<9	--	--	--	--	--
JUNE												
07...	21	<30	<30	<3.0	2,300	<18	<9	--	--	--	--	--
SEPT												
12...	11	<20	<20	<2.0	170	<12	<6	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL AS CaCO_3	HARDNESS NONCARB WH WAT TOT FLD AS CaCO_3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SSU287</u>											
NOV 1987											
08...	0915	127.00	6,861	1,150	8.4	--	11	0	3.1	0.83	300
MAR 1988											
04...	1100	127.00	6,861	1,520	8.6	10.0	15	0	4.2	1.1	380
APR											
05...	1330	127.00	6,861	1,620	8.7	10.5	56	0	12	6.1	370
MAY											
10...	1050	127.00	6,861	1,730	8.6	10.5	79	0	16	9.4	360
AUG											
30...	1115	127.00	6,861	1,600	8.9	11.0	28	0	6.6	2.7	340
NOV											
16...	1130	127.00	6,861	1,320	9.1	--	12	0	3.3	.86	320
APR 1989											
04...	1100	127.00	6,861	1,375	8.8	10.5	13	0	3.4	.98	310
JUNE											
07...	0800	127.00	6,861	1,360	8.9	10.5	12	0	3.2	.81	330
SEPT											
12...	1045	127.00	6,861	1,280	8.8	10.5	11	0	3.0	.79	300

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO_3)	SULFATE DIS-SOLVED (MG/L AS SO_4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)
<u>WELL IDENTIFICATION - SSU287--Continued</u>								
NOV 1987								
08...	1.9	425	230	7.0	0.8	7.4	818	807
MAR 1988								
04...	2.7	438	340	12	1.0	7.3	977	1,010
APR								
05...	3.3	443	430	13	.9	7.5	1,090	1,110
MAY								
10...	2.5	444	450	13	1.0	7.4	1,120	1,130
AUG								
30...	2.1	448	330	12	.9	7.3	950	971
NOV								
16...	2.0	451	250	10	1.0	7.6	870	866
APR 1989								
04...	2.0	447	260	10	1.1	7.3	849	863
JUNE								
07...	1.9	445	250	9.9	1.0	7.4	857	871
SEPT								
12...	1.9	452	210	9.9	1.1	7.2	795	805

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
<u>WELL IDENTIFICATION - SSU287--Continued</u>											
NOV 1987											
08...	<0.01	<0.10	0.43	0.55	0.37	0.8	0.03	0.01	0.03	0.02	10
MAR 1988											
04...	<.01	<.10	.08	.1	.42	.5	.03	<.01	--	.03	<10
APR											
05...	<.01	.10	.60	.77	.2	.8	.03	.02	.06	.01	<10
MAY											
10...	<.01	<.10	.45	.58	.35	.8	.02	.02	.06	.0	<10
AUG											
30...	<.01	<.10	.16	.21	.64	.8	.03	.02	.06	.01	<10
NOV											
16...	<.01	<.10	.11	.14	--	<.2	.03	.02	.06	.01	<10
APR 1989											
04...	--	--	--	--	--	--	--	--	--	--	<10
JUNE											
07...	--	--	--	--	--	--	--	--	--	--	10
SEPT											
12...	--	--	--	--	--	--	--	--	--	--	10

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
NOV 1987											
08...	<1	120	<0.5	50	<1	<5	<3	<10	19	<10	2
MAR 1988											
04...	<1	91	<.5	50	<2	<5	<3	<10	20	<10	3
APR											
05...	<1	100	<.5	50	1	<5	<3	<10	63	<10	14
MAY											
10...	<1	92	<.5	50	<1	<5	<3	<10	61	<10	21
AUG											
30...	<1	82	<.5	50	<1	<5	<3	<10	31	<10	6
NOV											
16...	<1	73	<.5	50	<1	<5	<3	<10	19	<10	3
APR 1989											
04...	<1	74	<.5	40	<1	<5	<3	<10	19	<10	3
JUNE											
07...	<1	70	<.5	40	<1	<5	<3	<10	23	<10	3
SEPT											
12...	<1	62	<.5	40	<1	<5	<3	<10	17	<10	4

Table 25.--Water-quality analyses for wells--Continued

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SSU287--Continued</u>											
NOV 1987											
08...	<10	<10	<1.0	160	<6	<3	--	--	--	--	--
MAR 1988											
04...	<10	<10	<1.0	230	<6	<3	--	--	--	--	--
APR											
05...	<10	<10	<1.0	450	<6	<3	-10.9	-144	-18.9	2.60	<5.7
MAY											
10...	<10	<10	<1.0	510	<6	<3	--	--	--	--	--
AUG											
30...	<10	20	<1.0	310	<6	9	-11.1	-143	-18.8	2.70	<5.7
NOV											
16...	<10	<10	<1.0	180	<6	6	--	--	--	--	--
APR 1989											
04...	<10	<10	<1.0	190	<6	<3	--	--	--	--	--
JUNE											
07...	<10	<10	<1.0	170	<6	<3	--	--	--	--	--
SEPT											
12...	<10	<10	<1.0	160	<6	<3	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SSD487</u>											
NOV 1987											
08...	1045	194.00	6,860	680	8.7	--	6	0	1.5	0.49	180
MAR 1988											
07...	1140	194.00	6,860	740	9.0	9.5	6	0	1.5	.53	190
APR											
05...	1600	194.00	6,860	760	9.0	11.0	5	0	1.4	.38	190
MAY											
10...	0830	194.00	6,860	790	9.0	10.5	6	0	1.6	.52	180
AUG											
30...	1140	194.00	6,860	870	9.2	11.5	6	0	1.5	.48	180
NOV											
16...	1115	194.00	6,860	750	9.4	--	5	0	1.3	.37	180
APR 1989											
04...	1030	194.00	6,860	793	9.0	10.5	5	0	1.3	.43	170
JUNE											
07...	0830	194.00	6,860	760	9.1	10.5	6	0	1.6	.45	190
SEPT											
12...	1200	194.00	6,860	765	9.1	11.0	5	0	1.4	.36	180

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
<u>WELL IDENTIFICATION - SSD487--Continued</u>								
NOV 1987 08...	1.3	384	44	1.8	0.4	7.5	474	468
MAR 1988 07...	1.4	384	42	2.6	.1	7.3	471	477
APR 05...	1.7	383	34	2.3	.2	7.3	464	467
MAY 10...	1.2	382	38	2.9	.2	7.2	456	462
AUG 30...	1.1	382	42	2.2	.1	7.1	470	464
NOV 16...	1.2	383	35	2.1	.2	7.5	460	458
APR 1989 04...	1.2	383	33	2.1	.1	7.3	458	445
JUNE 07...	1.2	381	33	2.1	.1	7.4	474	464
SEPT 12...	1.2	379	34	2.2	.1	7.0	464	454

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
NOV 1987 08...	<0.01	<0.10	0.25	0.32	--	<0.2	0.03	0.02	0.06	0.01	30
MAR 1988 07...	<.01	.10	.03	.04	0.37	.4	.03	.01	.03	.02	210
APR 05...	<.01	<.10	.16	.21	.14	.3	.03	.03	.09	.0	<10
MAY 10...	<.01	.12	.12	.15	--	<.2	.03	.03	.09	.0	<10
AUG 30...	<.01	<.10	.10	.13	.4	.5	.04	.03	.09	.01	<10
NOV 16...	<.01	<.10	.09	.12	--	<.2	.03	.02	.06	.01	<10
APR 1989 04...	--	--	--	--	--	--	--	--	--	--	<10
JUNE 07...	--	--	--	--	--	--	--	--	--	--	<10
SEPT 12...	--	--	--	--	--	--	--	--	--	--	10

Table 25.--Water-quality analyses for wells--Continued

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
<u>WELL IDENTIFICATION - SSD487--Continued</u>											
NOV 1987 08...	<1	34	<0.5	50	<1	<5	<3	<10	27	<10	2
MAR 1988 07...	<1	41	<.5	50	<1	<5	<3	<10	18	<10	1
APR 05...	<1	47	<.5	40	2	<5	<3	<10	12	<10	2
MAY 10...	<1	46	<.5	40	<1	<5	<3	<10	10	<10	2
AUG 30...	<1	45	<.5	50	<1	<5	<3	<10	9	<10	1
NOV 16...	<1	44	<.5	50	<1	<5	<3	<10	5	<10	<1
APR 1989 04...	<1	43	1	50	<1	<5	<3	<10	14	<10	4
JUNE 07...	<1	43	<.5	50	<1	<5	<3	<10	14	<10	2
SEPT 12...	<1	43	<.5	40	<1	<5	<3	<10	11	<10	2

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS SR)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM; DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
NOV 1987 08...	<10	<10	1.0	61	<6	<3	--	--	--	--	--
MAR 1988 07...	<10	<10	<1.0	64	<6	5	--	--	--	--	--
APR 05...	<10	<10	<1.0	66	<6	<3	-12.2	-142	-18.7	3.10	<5.7
MAY 10...	<10	<10	<1.0	67	<6	<3	--	--	--	--	--
AUG 30...	<10	<10	<1.0	65	<6	<3	-12.2	-141	-18.7	2.90	<5.7
NOV 16...	<10	<10	<1.0	62	<6	<3	--	--	--	--	--
APR 1989 04...	<10	<10	<1.0	64	<6	<3	--	-141	-18.7	--	--
JUNE 07...	<10	<10	<1.0	68	<6	<3	--	--	--	--	--
SEPT 12...	<10	<10	<1.0	65	<6	3	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
<u>WELL IDENTIFICATION - SSS487-59</u>												
NOV 1987	09...	1415	33.00	6,899	3,500	6.7	--	2,300	1,800	450	290	230
MAR 1988	07...	1220	33.00	6,899	3,670	6.7	9.0	2,400	2,000	460	310	180
APR	05...	1730	33.00	6,899	3,730	6.8	10.5	2,400	2,000	460	310	150
MAY	10...	1115	33.00	6,899	3,550	6.8	14.5	2,400	2,000	460	310	140
AUG	30...	1150	33.00	6,899	3,560	7.0	12.0	2,500	2,000	460	320	160

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	
NOV 1987	09...	10	498	2,100	39	0.3	10	3,680	3,440
MAR 1988	07...	13	451	2,100	29	.2	12	3,670	3,380
APR	05...	10	416	2,300	28	.3	11	3,730	3,530
MAY	10...	10	437	2,200	26	.3	10	3,680	3,480
AUG	30...	11	519	2,200	45	.3	9.3	3,700	3,570

DATE	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS NO ₂)	NITROGEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH ₄)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	
NOV 1987	09...	--	--	--	--	--	--	1.0	0.01	
MAR 1988	07...	--	<0.07	--	<12.0	0.07	0.09	1.0	1.1	.01
APR	05...	--	--	--	--	--	--	--	--	--
MAY	10...	13.7	.26	0.85	14.0	.12	.15	.98	1.1	<.01
AUG	30...	9.86	.14	.46	10.0	.13	.17	1.1	1.2	<.01

WELL IDENTIFICATION - SSS487-59--Continued

NOV 1987	09...	--	--	--	--	--	--	--	1.0	0.01
MAR 1988	07...	--	<0.07	--	<12.0	0.07	0.09	1.0	1.1	.01
APR	05...	--	--	--	--	--	--	--	--	--
MAY	10...	13.7	.26	0.85	14.0	.12	.15	.98	1.1	<.01
AUG	30...	9.86	.14	.46	10.0	.13	.17	1.1	1.2	<.01

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
WELL IDENTIFICATION - SSS487-59--Continued										
NOV 1987 09...	--	0.01	20	<1	38	<2	440	<3	<20	10
MAR 1988 07...	<0.01	.01	<10	<1	26	<2	500	6	<20	<10
APR 05...	--	--	<10	<1	27	<2	450	<3	<20	<9
MAY 10...	<.01	--	<10	<1	27	<2	440	<3	<20	<9
AUG 30...	<.01	--	<10	<1	22	<.5	430	6	<5	5

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 09...	<30	19	<30	1,900	<30	40	<3.0	7,300	<18	24
MAR 1988 07...	<40	15	<30	1,000	<30	<30	<3.0	7,100	<20	<40
APR 05...	<30	18	<30	560	<30	<30	<3.0	7,100	<18	26
MAY 10...	<30	10	<30	910	<30	<30	<3.0	7	<18	<9
AUG 30...	<10	4	<10	1,400	<10	<10	<1.0	8,000	<6	40

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION		PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
			OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)								
WELL IDENTIFICATION - SSS487-60												
NOV 1987	09...	1445	22.80	6,893	3,350	6.8	--	2,000	1,600	400	250	250
MAR 1988	07...	1100	22.80	6,893	3,600	6.8	8.0	2,400	2,000	450	310	170
APR	05...	1700	22.80	6,893	3,760	6.6	10.5	2,500	2,100	480	310	140
MAY	10...	1100	22.80	6,893	3,560	6.7	11.0	2,400	2,000	460	310	140
AUG	30...	1120	22.80	6,893	3,750	6.9	12.0	2,400	1,900	460	310	150

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)		
	NOV 1987	09...	9.6	435	1,900	37	0.3	12	3,370	3,130
MAR 1988	07...	11	401	2,100	24	.3	12	3,620	3,390	4.92
APR	05...	9.2	402	2,300	27	.3	11	3,740	3,610	5.09
MAY	10...	10	405	2,300	26	.3	11	3,680	3,570	5.00
AUG	30...	9.0	500	2,200	45	.3	9.6	3,690	3,530	5.02

DATE	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS NO ₂)	NITROGEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH ₄)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	
	NOV 1987	09...	--	--	--	--	--	--	0.8	<0.01
MAR 1988	07...	15.0	0.02	0.07	15.0	0.07	0.09	0.93	1.0	.01
APR	05...	20.0	.03	.1	20.0	.08	.1	.92	1.0	<.01
MAY	10...	13.9	.10	.33	14.0	.16	.21	.94	1.1	.01
AUG	30...	9.01	.09	.3	9.10	.13	.17	.77	.9	.01

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
<u>WELL IDENTIFICATION - SSS487-60--Continued</u>										
NOV 1987 09...	--	--	10	<1	45	<2	460	<3	<20	<9
MAR 1988 07...	<0.01	0.01	10	<1	28	<2	480	7	<20	<9
APR 05...	<.01	--	10	<1	26	<2	440	<3	<20	<9
MAY 10...	<.01	.01	10	<1	26	<2	450	<4	<5	<10
AUG 30...	<.01	.01	<10	<1	25	<.5	440	<1	<5	<3

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 09...	<30	25	<30	1,100	<30	<30	<3.0	5,900	<18	29
MAR 1988 07...	50	36	<30	450	<30	<30	<3.0	6,700	<18	53
APR 05...	<30	<9	<30	290	<30	<30	<3.0	7,000	<18	28
MAY 10...	<40	<12	<40	370	<40	<40	<4.0	6,800	<24	18
AUG 30...	<10	23	10	760	<10	<10	<1.0	7,700	<6	<3

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL (MG/L AS CaCO_3)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO_3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
WELL IDENTIFICATION - SSS487-61											
NOV 1987											
09...	1520	26.00	6,892	3,650	6.7	--	2,500	2,000	490	310	180
MAR 1988											
07...	1145	26.00	6,892	3,640	6.8	9.0	2,500	2,100	460	320	180
APR											
05...	1545	26.00	6,892	3,720	6.7	11.5	2,500	2,100	480	310	150
MAY											
10...	1030	26.00	6,892	3,500	6.8	12.0	2,400	2,100	460	310	140
JUNE											
09...	1130	26.00	6,892	3,600	6.6	13.0	2,300	1,800	420	300	140
09...	1140	26.00	6,892	3,680	6.6	12.0	2,300	1,800	420	300	140
09...	1150	26.00	6,892	3,680	6.6	12.0	2,300	1,800	410	300	150
AUG											
30...	1045	26.00	6,892	3,560	6.9	11.5	2,400	1,900	440	320	160
NOV											
16...	1200	26.00	6,892	3,550	7.0	--	2,400	1,900	450	310	180
APR 1989											
04...	1430	26.00	6,892	3,890	6.6	9.0	2,500	2,100	480	320	140
JUNE											
07...	1000	26.00	6,892	3,960	7.0	11.0	2,400	1,900	450	300	150
SEPT											
12...	1115	26.00	6,892	3,860	6.8	10.5	2,300	1,800	450	290	160
DATE		POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO_3)	SULFATE DISSOLVED (MG/L AS SO_4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)		
NOV 1987											
09...		9.6	494	2,100	35	1.1	13	3,710	3,440		
MAR 1988											
07...		11	416	2,200	24	.2	13	3,690	3,530		
APR											
05...		10	405	2,300	26	.3	11	3,730	3,630		
MAY											
10...		10	346	2,200	26	.3	11	3,670	3,430		
JUNE											
09...		10	446	2,200	44	.4	10	3,660	3,460		
09...		10	446	2,200	44	.4	9.9	3,660	3,460		
09...		10	445	2,200	44	.4	10	3,670	3,400		
AUG											
30...		10	504	2,200	45	.3	9.8	3,670	3,530		
NOV											
16...		9.0	494	2,200	51	.3	11	3,710	3,550		
APR 1989											
04...		10	403	2,300	37	.3	11	3,650	3,660		
JUNE											
07...		10	458	2,200	40	.3	10	3,660	3,440		
SEPT											
12...		11	496	2,200	48	.3	11	3,500	3,480		

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
<u>WELL IDENTIFICATION - SSS487-61--Continued</u>											
NOV 1987											
09...	--	--	--	--	--	--	--	0.8	0.01	--	0.01
MAR 1988											
07...	14.0	0.04	0.13	14.0	0.09	0.12	1.2	1.3	.01	<0.01	.01
APR											
05...	20.0	.04	.13	20.0	.11	.14	.89	1.0	.01	<.01	.01
MAY											
10...	13.9	.13	.43	14.0	.14	.18	1.5	1.6	<.01	<.01	--
JUNE											
09...	12.9	.11	.36	13.0	.10	.13	1.2	1.3	<.01	<.01	--
09...	13.9	.12	.39	14.0	.11	.14	1.3	1.4	<.01	<.01	--
09...	--	--	--	--	--	--	--	--	<.01	--	--
AUG											
30...	.17	.13	.43	8.30	.13	.17	.47	.6	.01	<.01	.01
NOV											
16...	8.40	.10	.33	8.50	.13	.17	.97	1.1	.01	<.01	.01
APR 1989											
04...	24.9	.08	.26	25.0	.07	.09	1.0	1.1	<.01	<.01	--
JUNE											
07...	--	--	--	--	--	--	--	--	--	--	--
SEPT											
12...	--	--	--	--	--	--	--	--	--	--	--

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
NOV 1987											
09...	<10	<1	37	<2	460	<3	<20	<9	<30	26	<30
MAR 1988											
07...	<10	<1	27	<2	470	5	<20	<9	50	18	<30
APR											
05...	20	<1	26	5	440	<3	<20	<9	<30	11	<30
MAY											
10...	<10	<1	25	<2	450	<4	<20	<10	<40	<12	<40
JUNE											
09...	10	1	20	<.5	480	<1	<5	3	<10	6	<10
09...	10	<1	20	<.5	470	<1	<5	3	<10	5	<10
09...	10	<1	22	<.5	470	<1	10	<3	<10	7	<10
AUG											
30...	10	<1	20	<.5	430	5	<5	7	<10	14	20
NOV											
16...	<10	<1	23	<.5	440	1	<5	4	20	7	<10
APR 1989											
04...	20	<1	24	<3	500	<5	<30	<20	<30	<15	<50
JUNE											
07...	30	<1	28	6	480	8	<20	<9	<30	37	<30
SEPT											
12...	20	<1	23	<1	460	<2	<10	9	<20	19	<20

Table 25.--Water-quality analyses for wells--Continued

DATE	MANGANESE, DIS-SOLVED (µG/L AS MN)	MOLYBDENUM, DIS-SOLVED (µG/L AS MO)	NICKEL, DIS-SOLVED (µG/L AS NI)	SILVER, DIS-SOLVED (µG/L AS AG)	STRONTIUM, DIS-SOLVED (µG/L AS SR)	VANADIUM, DIS-SOLVED (µG/L AS V)	ZINC, DIS-SOLVED (µG/L AS ZN)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	H-2/H-1 STABLE ISOTOPE RATIO PER MIL	O-18/O-16 STABLE ISOTOPE RATIO PER MIL	S-34/S-32 STABLE ISOTOPE RATIO PER MIL	TRITIUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SSS487-61--Continued</u>												
NOV 1987												
09...	770	<30	<30	<3.0	7,500	<18	24	--	--	--	--	--
MAR 1988												
07...	540	<30	<30	<3.0	7,300	<18	45	--	--	--	--	--
APR												
05...	310	<30	<30	<3.0	7,200	<18	26	-10.2	-135	-17.6	2.20	57
MAY												
10...	390	<40	<40	<4.0	7,000	<24	12	--	--	--	--	--
JUNE												
09...	600	<10	<10	<1.0	6,800	<6	21	--	--	--	--	--
09...	590	<10	<10	1.0	6,700	<6	19	--	--	--	--	--
09...	600	10	10	3.0	6,900	<6	21	--	--	--	--	--
AUG												
30...	870	<10	40	<1.0	7,400	<6	28	-10	-133	-17.5	.8	44
NOV												
16...	720	<10	10	<1.0	7,300	<6	22	--	--	--	--	--
APR 1989												
04...	430	<50	<50	<5.0	6,600	<30	27	--	-137	-17.8	--	48
JUNE												
07...	720	<30	<30	<3.0	6,800	<18	51	--	--	--	--	--
SEPT												
12...	990	<20	<20	4.0	8,300	<12	63	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)
<u>WELL IDENTIFICATION - SCL287</u>										
NOV 1987										
07...	1635	30.00	6,957	2,400	7.1	--	1,300	880	270	150
MAR 1988										
08...	0930	30.00	6,957	2,430	7.1	6.0	1,400	1,100	260	180
APR										
12...	1145	30.00	6,957	2,810	7.0	9.0	1,800	1,500	350	220
MAY										
11...	0915	30.00	6,957	2,800	7.1	9.0	1,600	1,300	310	200
AUG										
31...	1015	30.00	6,957	2,450	7.0	8.0	1,600	1,200	300	200
NOV										
15...	1500	30.00	6,957	2,550	7.0	--	1,400	1,000	280	180
APR 1989										
05...	1000	30.00	6,957	3,170	6.9	9.0	1,900	1,600	380	240
JUNE										
06...	1000	30.00	6,957	3,100	6.9	9.0	1,800	1,400	370	220
SEPT										
18...	1600	30.00	6,957	2,770	7.0	11.0	1,700	1,300	330	210

Table 25.--Water-quality analyses for wells--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
<u>WELL IDENTIFICATION - SCL287--Continued</u>									
NOV 1987									
07...	150	5.9	419	1,200	14	0.3	12	2,060	2,060
MAR 1988									
08...	140	6.8	312	1,300	17	.4	11	2,330	2,110
APR									
12...	120	6.1	325	1,600	14	.4	10	2,670	2,530
MAY									
11...	150	6.2	344	1,600	13	.5	11	2,610	2,500
AUG									
31...	130	7.0	388	1,400	14	.4	11	2,360	2,300
NOV									
15...	140	6.3	411	1,300	16	.4	11	2,270	2,190
APR 1989									
05...	95	7.0	387	1,800	16	.4	11	2,790	2,790
JUNE									
06...	120	6.8	412	1,700	14	.3	11	2,810	2,690
SEPT									
18...	130	7.1	434	1,500	13	.4	11	2,490	2,470

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1987								
07...	<0.01	<0.10	0.64	0.82	0.16	0.8	<0.01	<0.01
MAR 1988								
08...	<.01	.13	.44	.57	.36	.8	.01	.01
APR								
12...	<.01	3.00	.15	.19	.35	.5	<.01	<.01
MAY								
11...	<.01	.43	.45	.58	.75	1.2	<.01	<.01
AUG								
31...	<.01	<.10	.39	.5	.21	.6	<.01	<.01
NOV								
15...	<.01	<.10	.52	.67	.18	.7	<.01	<.01
APR 1989								
05...	--	--	--	--	--	--	--	--
JUNE								
06...	--	--	--	--	--	--	--	--
SEPT								
18...	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
<u>WELL IDENTIFICATION - SCL287--Continued</u>										
NOV 1987 07...	--	--	<10	<1	49	<2	190	<3	<20	<9
MAR 1988 08...	0.03	0.0	<10	<1	45	<2	180	3	<20	10
APR 12...	--	--	<10	<1	44	<2	190	<3	<20	10
MAY 11...	--	--	<10	<1	50	<2	190	<3	<20	<9
AUG 31...	--	--	<10	<1	39	<.5	180	5	<5	<3
NOV 15...	--	--	<10	<1	37	<.5	200	<1	<5	5
APR 1989 05...	--	--	<10	<1	38	<2	210	<3	<20	<9
JUNE 06...	--	--	<10	<1	42	<2	200	<3	<20	10
SEPT 18...	--	--	<10	2	35	<1	190	<2	<10	<6
DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 07...	<30	590	<30	670	<30	<30	<3.0	3,500	<18	12
MAR 1988 08...	<30	31	<30	830	<30	<30	3.0	4,000	<18	39
APR 12...	<30	22	<30	590	<30	<30	<3.0	4,100	<18	38
MAY 11...	<30	86	<30	570	<30	<30	<3.0	3,900	<18	14
AUG 31...	<10	520	<10	610	<10	<10	6.0	3,700	<6	27
NOV 15...	<10	250	<10	600	<10	10	<1.0	3,500	<6	29
APR 1989 05...	<30	31	<30	480	<30	40	<3.0	4,200	<18	45
JUNE 06...	<30	45	<30	560	<30	<30	<3.0	4,400	<18	43
SEPT 18...	<20	530	<20	610	<20	<20	<2.0	4,100	<12	45

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	SODIUM, DISSOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SCI287</u>											
NOV 1987											
07...	1430	70.00	6,957	1,400	7.9	--	46	0	10	5.0	320
MAR 1988											
08...	1230	70.00	6,957	1,520	8.2	7.0	31	0	7.0	3.1	350
APR											
12...	1040	70.00	6,957	1,900	8.5	9.0	44	0	10	4.5	420
MAY											
11...	0830	70.00	6,957	1,690	8.3	8.0	42	0	9.4	4.3	380
AUG											
31...	1330	70.00	6,957	1,480	8.4	10.0	39	0	8.6	4.1	370
NOV											
15...	1515	70.00	6,957	1,670	8.4	--	51	0	11	5.6	380
APR 1989											
05...	1015	70.00	6,957	2,130	8.3	8.5	48	0	11	4.8	450
JUNE											
06...	0900	70.00	6,957	2,250	8.3	9.5	47	0	11	4.5	480
SEPT											
18...	1545	70.00	6,957	2,120	8.3	10.0	48	0	11	4.7	480

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DISSOLVED (MG/L AS SO ₄)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
<u>WELL IDENTIFICATION - SCI287--Continued</u>								
NOV 1987								
07...	3.2	510	220	12	2.1	8.1	905	887
MAR 1988								
08...	3.1	545	240	11	1.1	7.0	950	950
APR								
12...	3.0	502	470	12	1.0	7.0	1,230	1,230
MAY								
11...	3.1	510	380	13	1.2	7.4	1,090	1,110
AUG								
31...	3.1	510	340	12	1.0	7.2	1,060	1,050
NOV								
15...	3.0	511	350	12	1.0	7.8	1,060	1,080
APR 1989								
05...	3.4	512	570	13	1.0	7.3	1,380	1,370
JUNE								
06...	3.3	503	540	12	.9	7.5	1,350	1,360
SEPT								
18...	3.5	500	590	12	.9	7.4	1,420	1,410

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
<u>WELL IDENTIFICATION - SCI287--Continued</u>									
NOV 1987 07...	--	--	--	--	--	--	2.5	0.03	--
MAR 1988 08...	0.01	0.03	<0.10	0.29	0.37	1.0	1.3	.03	0.03
APR 12...	<.01	--	<.10	.76	.98	.64	1.4	.03	.02
MAY 11...	<.01	--	<.10	.51	.66	.69	1.2	.04	.03
AUG 31...	<.01	--	<.10	.44	.57	.96	1.4	.03	.02
NOV 15...	<.01	--	<.10	.45	.58	.05	.5	.04	.03
APR 1989 05...	--	--	--	--	--	--	--	--	--
JUNE 06...	--	--	--	--	--	--	--	--	--
SEPT 18...	--	--	--	--	--	--	--	--	--

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
NOV 1987 07...	--	0.03	70	2	81	<0.5	160	<1	<5	<3
MAR 1988 08...	0.09	.0	20	2	180	<.5	160	2	<5	<3
APR 12...	.06	.01	<10	2	100	<2	150	<3	<20	<9
MAY 11...	.09	.01	<10	<1	69	<.5	160	<1	<5	<3
AUG 31...	.06	.01	<10	1	93	<.5	150	<1	<5	<3
NOV 15...	.09	.01	<10	1	69	<.5	160	<1	<5	<3
APR 1989 05...	--	--	<10	<1	99	<2	170	<3	<20	<9
JUNE 06...	--	--	<10	<1	84	<2	170	4	<20	<9
SEPT 18...	--	--	20	<1	68	<1	160	<2	<10	<6

Table 25.--Water-quality analyses for wells--Continued

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
<u>WELL IDENTIFICATION - SCI287--Continued</u>										
NOV 1987 07...	<10	39	<10	66	<10	<10	<1.0	320	<6	<3
MAR 1988 08...	<10	18	<10	30	<10	<10	2.0	360	<6	<3
APR 12...	<30	23	<30	31	<30	<10	<3.0	550	<18	<9
MAY 11...	<10	38	<10	50	<10	<10	<1.0	450	<6	<3
AUG 31...	<10	40	<10	36	<10	<10	<1.0	460	<6	<3
NOV 15...	<10	66	<10	58	<10	<10	<1.0	490	<6	35
APR 1989 05...	<30	25	<30	19	<30	40	<3.0	750	<18	10
JUNE 06...	<30	18	<30	30	<30	<30	<3.0	690	<18	<9
SEPT 18...	<20	17	<20	28	<20	<20	<2.0	710	<12	<6

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SCW287</u>											
NOV 1987 07...	1515	90.00	6,957	1,250	8.3	--	59	0	11	7.4	300
MAR 1988 08...	1130	90.00	6,957	1,470	8.2	9.0	58	0	8.7	8.5	330
APR 12...	1115	90.00	6,957	1,480	8.6	9.5	57	0	8.4	8.5	340
MAY 11...	0900	90.00	6,957	1,570	8.5	9.5	57	0	8.6	8.4	350
AUG 31...	1400	90.00	6,957	1,580	8.5	10.5	71	0	10	11	370
NOV 15...	1530	90.00	6,957	1,890	8.5	--	79	0	13	11	400
APR 1989 05...	1030	90.00	6,957	2,170	8.4	9.0	96	0	15	14	440
JUNE 06...	0945	90.00	6,957	2,180	8.3	9.5	100	0	16	15	470
SEPT 18...	1630	90.00	6,957	2,230	8.3	10.0	110	0	16	16	480

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
<u>WELL IDENTIFICATION - SCW287--Continued</u>								
NOV 1987 07...	3.1	554	150	3.4	0.1	12	828	821
MAR 1988 08...	3.3	531	260	4.7	1.2	9.5	950	947
APR 12...	2.6	508	320	4.1	1.3	9.3	984	1,000
MAY 11...	2.9	500	330	4.0	1.3	9.1	1,020	1,020
AUG 31...	3.2	474	430	4.3	1.1	9.1	1,110	1,130
NOV 15...	3.2	455	500	4.4	1.0	10	1,210	1,220
APR 1989 05...	3.9	421	700	10	1.0	9.2	1,420	1,450
JUNE 06...	3.8	414	700	11	1.0	9.4	1,450	1,480
SEPT 18...	3.9	397	780	4.1	.9	9.6	1,540	1,550

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
NOV 1987 07...	<0.01	<0.10	0.80	1.0	0.1	0.9	0.03	0.01	0.03	0.02	20
MAR 1988 08...	<.01	<.10	1.10	1.4	.1	1.2	.03	<.01	--	.03	<10
APR 12...	<.01	<.10	1.20	1.5	.0	1.0	.01	.01	.03	.0	10
MAY 11...	<.01	<.10	1.20	1.5	.0	1.2	.02	.02	.06	.0	<10
AUG 31...	<.01	<.10	1.20	1.5	.0	1.2	.02	.02	.06	.0	<10
NOV 15...	<.01	<.10	1.30	1.7	.0	1.3	.09	.09	.28	.0	<10
APR 1989 05...	--	--	--	--	--	--	--	--	--	--	<10
JUNE 06...	--	--	--	--	--	--	--	--	--	--	<10
SEPT 18...	--	--	--	--	--	--	--	--	--	--	<10

Table 25.--Water-quality analyses for wells--Continued

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
<u>WELL IDENTIFICATION - SCW287--Continued</u>											
NOV 1987											
07...	<1	130	<0.5	160	<1	<5	<3	<10	46	10	55
MAR 1988											
08...	<1	130	<.5	150	<1	<5	<3	<10	11	<10	14
APR											
12...	<1	94	<.5	150	<1	<5	<3	<10	7	<10	8
MAY											
11...	<1	74	<.5	150	<1	<5	<3	<10	7	<10	17
AUG											
31...	<1	74	<.5	140	<1	<5	<3	<10	10	<10	15
NOV											
15...	1	71	<.5	150	<1	<5	<3	<10	13	<10	59
APR 1989											
05...	<1	67	<2	150	<3	<20	<9	<30	13	40	18
JUNE											
06...	<1	67	<2	150	<3	<20	<9	<30	18	<30	19
SEPT											
18...	<1	63	<.5	140	<1	<5	<3	<10	14	<10	23

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
NOV 1987											
07...	<10	<10	<1.0	420	<6	<3	--	--	--	--	--
MAR 1988											
08...	<10	<10	<1.0	600	<6	<3	--	--	--	--	--
APR											
12...	<10	<10	<1.0	630	<6	<3	-21.6	-142	-18.8	-4.7	--
MAY											
11...	<10	<10	2.0	630	<6	<3	--	--	--	--	--
AUG											
31...	<10	<10	2.0	730	<6	5	-21.8	-142	-18.8	11.30	26
NOV											
15...	<10	<10	<1.0	680	<6	<3	--	--	--	--	--
APR 1989											
05...	<30	<30	<3.0	1,000	<18	<9	--	--	--	--	--
JUNE											
06...	<30	<30	<3.0	1,100	<18	<9	--	--	--	--	--
SEPT											
18...	<10	<10	<1.0	1,100	<6	<3	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL (MG/L AS CaCO_3)	HARDNESS NONCARBONATE (MG/L AS CaCO_3)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	SODIUM, DISSOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SCU287</u>											
NOV 1987											
07...	1430	122.00	6,957	1,010	8.2	--	9	0	2.4	0.63	240
MAR 1988											
08...	0920	122.00	6,957	1,010	8.3	9.5	11	0	3.1	.85	290
APR											
12...	1230	122.00	6,957	1,490	8.4	10.5	21	0	5.7	1.6	360
MAY											
11...	0845	122.00	6,957	1,430	8.5	10.5	18	0	4.9	1.3	340
JUNE											
16...	1040	122.00	6,957	1,510	8.4	17.5	15	0	4.1	1.1	300
16...	1050	122.00	6,957	1,560	8.6	11.0	14	0	3.9	1.0	290
AUG											
31...	1030	122.00	6,957	1,130	8.6	10.5	12	0	3.2	.85	280
NOV											
15...	1400	122.00	6,957	1,220	8.7	--	12	0	3.2	.86	280
APR 1989											
05...	0930	122.00	6,957	1,150	8.7	10.0	11	0	2.9	.83	250
JUNE											
06...	0930	122.00	6,957	1,160	8.7	10.5	10	0	2.8	.71	270
SEPT											
18...	1515	122.00	6,957	1,080	8.7	10.5	10	0	2.9	.74	270

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO_3)	SULFATE DISSOLVED (MG/L AS SO_4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 1987								
07...	1.8	475	98	3.3	1.0	7.5	656	640
MAR 1988								
08...	2.3	472	140	5.0	.8	8.0	724	733
APR								
12...	2.5	513	300	7.3	.6	9.8	989	996
MAY								
11...	2.5	503	250	6.9	.6	9.5	909	918
JUNE								
16...	2.1	588	110	4.9	2.2	8.4	811	786
16...	2.1	463	220	6.5	.8	7.9	825	811
AUG								
31...	2.1	467	180	6.8	.8	7.7	758	762
NOV								
15...	1.9	465	140	7.4	1.0	7.9	733	722
APR 1989								
05...	1.9	473	130	6.3	1.2	7.4	702	684
JUNE								
06...	1.8	471	120	6.5	1.1	7.4	688	693
SEPT								
18...	1.9	462	120	6.4	1.2	7.3	682	688

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
WELL IDENTIFICATION - SCU287--Continued											
NOV 1987											
07...	0.01	0.03	<0.10	0.29	0.37	0.21	0.5	0.03	0.04	0.12	0.0
MAR 1988											
08...	<.01	--	<.10	.03	.04	.77	.8	.02	.03	.09	.0
APR											
12...	<.01	--	<.10	.37	.48	.53	.9	.02	.02	.06	.0
MAY											
11...	<.01	--	<.10	.21	.27	.79	1.0	.02	.02	.06	.0
JUNE											
16...	.01	.03	<.10	.12	.15	.18	.3	.03	.04	.12	.0
16...	.01	.03	<.10	.15	.19	--	<.2	.02	.04	.12	.0
AUG											
31...	<.01	--	<.10	.17	.22	.73	.9	.03	.03	.09	.0
NOV											
15...	<.01	--	<.10	.09	.12	--	<.2	.03	.03	.09	.0
APR 1989											
05...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
SEPT											
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM, DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
NOV 1987											
07...	<10	<1	66	<0.5	50	1	<5	<3	<10	14	<10
MAR 1988											
08...	<10	<1	98	<.5	40	2	<5	<3	<10	23	<10
APR											
12...	<10	<1	190	<.5	60	3	<5	<3	<10	36	<10
MAY											
11...	<10	<1	160	<.5	60	<1	<5	<3	<10	29	<10
JUNE											
16...	<10	<1	110	<.5	90	<1	<5	<3	<10	51	<10
16...	<10	<1	120	<.5	60	<1	<5	<3	<10	26	<10
AUG											
31...	<10	<1	98	<.5	40	<1	<5	<3	<10	18	<10
NOV											
15...	<10	<1	94	<.5	40	<1	<5	<3	<10	21	<10
APR 1989											
05...	<10	<1	80	<.5	40	<1	<5	<3	<10	16	<10
JUNE											
06...	<10	<1	82	<.5	50	<1	<5	<3	<10	18	<10
SEPT											
18...	<10	2	78	<.5	40	<1	<5	<3	<10	19	<10

Table 25.--Water-quality analyses for wells--Continued

DATE	MANGANESE, DIS-SOLVED (µG/L AS MN)	MOLYBDENUM, DIS-SOLVED (µG/L AS MO)	NICKEL, DIS-SOLVED (µG/L AS NI)	SILVER, DIS-SOLVED (µG/L AS AG)	STRONTIUM, DIS-SOLVED (µG/L AS SR)	VANADIUM, DIS-SOLVED (µG/L AS V)	ZINC, DIS-SOLVED (µG/L AS ZN)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	H-2/H-1 STABLE ISOTOPE RATIO PER MIL	O-18/O-16 STABLE ISOTOPE RATIO PER MIL	S-34/S-32 STABLE ISOTOPE RATIO PER MIL	TRITIUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SCU287--Continued</u>												
NOV 1987												
07...	2	<10	<10	<1.0	100	<6	<3	--	--	--	--	--
MAR 1988												
08...	4	<10	<10	1.0	140	<6	<3	--	--	--	--	--
APR 12...	7	<10	<10	<1.0	260	<6	<3	-12.8	-142	-18.8	3.00	18
MAY 11...	6	<10	<10	<1.0	230	<6	<3	--	--	--	--	--
JUNE 16...	20	<10	<10	1.0	170	<6	5	--	--	--	--	--
16...	6	<10	<10	<1.0	180	<6	5	--	--	--	--	--
AUG 31...	2	<10	<10	<1.0	150	<6	<3	-11.9	-144	-19	3.60	7.0
NOV 15...	4	<10	<10	<1.0	140	<6	6	--	--	--	--	--
APR 1989												
05...	3	<10	<10	<1.0	120	<6	6	--	-142	-19.1	--	6.0
JUNE 06...	4	<10	<10	<1.0	120	<6	<3	--	--	--	--	--
SEPT 18...	3	<10	<10	<1.0	120	<6	<3	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SCS487-62</u>											
APR 1988											
12...	1500	51.50	6,976	3,000	7.0	14.0	2,000	1,600	400	230	130
MAY 11...	1130	51.50	6,976	3,000	7.0	10.5	1,800	1,400	360	210	160
JUNE 16...	1230	51.50	6,976	3,400	6.9	11.5	1,800	1,400	370	200	150
16...	1245	51.50	6,976	3,490	6.9	9.5	1,800	1,400	370	200	140
16...	1400	51.50	6,976	3,700	7.1	9.5	1,800	1,400	380	210	150
AUG 31...	1430	51.50	6,976	2,700	7.0	11.0	1,700	1,300	350	210	170
NOV 15...	1330	51.50	6,976	2,900	6.9	--	1,600	1,200	320	200	160
APR 1989											
05...	1130	51.50	6,976	3,280	6.9	9.5	2,200	1,800	440	260	71
JUNE 06...	1030	51.50	6,976	3,300	7.0	10.0	1,900	1,500	400	220	140
SEPT 18...	1500	51.50	6,976	3,070	6.9	10.5	1,800	1,400	380	210	150

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)			
<u>WELL IDENTIFICATION - SCS487-62--Continued</u>											
APR 1988											
12...	7.5	364	1,800	13	0.2	11	2,930	2,850			
MAY											
11...	7.5	363	1,800	14	.3	12	2,890	2,810			
JUNE											
16...	7.5	391	1,600	15	.3	13	2,780	2,610			
16...	7.8	399	1,600	16	.2	13	2,740	2,600			
16...	7.4	392	1,700	15	.3	13	2,870	2,730			
AUG											
31...	7.7	413	1,600	11	.2	13	2,750	2,620			
NOV											
15...	7.7	415	1,600	16	.2	13	2,710	2,570			
APR 1989											
05...	7.8	362	1,900	15	.2	10	2,930	2,990			
JUNE											
06...	7.6	407	1,800	16	.2	13	3,010	2,850			
SEPT											
18...	8.4	421	1,800	16	.2	13	2,790	2,830			
DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
APR 1988											
12...	--	<0.01	--	8.30	0.29	0.37	0.61	0.9	<0.01	<0.01	--
MAY											
11...	--	<.01	--	5.30	.18	.23	.62	.8	<.01	<.01	--
JUNE											
16...	2.28	.02	0.07	2.30	.29	.37	.81	1.1	<.01	<.01	--
16...	1.99	.01	.03	2.00	.53	.68	.77	1.3	<.01	<.01	--
16...	2.58	.02	.07	2.60	.24	.31	.76	1.0	<.01	<.01	--
AUG											
31...	--	<.01	--	.87	.24	.31	.46	.7	<.01	<.01	--
NOV											
15...	--	<.01	--	.71	.26	.33	.34	.6	.03	<.01	0.03
APR 1989											
05...	--	<.01	--	14.0	.07	.09	.53	.6	<.01	<.01	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
SEPT											
18...	--	--	--	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
WELL IDENTIFICATION - SCS487-62--Continued											
APR 1988											
12...	20	<1	50	2	210	4	<20	<9	<30	15	<30
MAY											
11...	<10	<1	45	<2	210	<3	<20	<9	<30	22	<30
JUNE											
16...	<10	<1	49	<2	210	<3	<20	<9	<30	14	<30
16...	<10	<1	53	<2	220	<3	<20	<9	<30	19	<30
16...	<10	<1	45	<2	210	<3	<20	<3	<30	14	<30
AUG											
31...	<10	<1	47	<.5	210	7	10	<3	<10	15	<10
NOV											
15...	<10	<1	46	.6	210	<1	<5	<3	20	20	<10
APR 1989											
05...	10	<1	37	<2	260	5	<20	<9	<30	13	<30
JUNE											
06...	<10	<1	40	<2	230	<3	<20	<9	<30	26	<30
SEPT											
18...	10	<1	37	<1	230	<2	<10	<6	<20	19	<20

DATE	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
APR 1988												
12...	550	<30	<30	<3.0	4,800	<18	31	-8.8	-135	-17.7	2.70	45
MAY												
11...	170	<30	<30	<3.0	3,700	<18	12	--	--	--	--	--
JUNE												
16...	230	<30	<30	<3.0	3,800	<18	28	--	--	--	--	--
16...	480	<30	<30	<3.0	3,900	<18	24	--	--	--	--	--
16...	170	<30	<30	<3.0	3,800	<6	27	--	--	--	--	--
AUG												
31...	260	<10	20	1.0	3,800	<6	25	-9.6	-137	-17.7	-0.6	48
NOV												
15...	240	<10	<10	1.0	3,800	<6	19	--	--	--	--	--
APR 1989												
05...	110	<30	<30	<3.0	4,800	<18	42	--	-138	-18.1	--	43
JUNE												
06...	190	<30	<30	<3.0	4,300	<18	42	--	--	--	--	--
SEPT												
18...	240	<20	<20	5.0	4,100	<12	40	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	SODIUM, DISSOLVED (MG/L AS Na)
WELL IDENTIFICATION - SCS487-63											
MAR 1988											
08...	1000	37.50	6,980	2,510	6.8	9.5	1,600	1,200	340	180	130
APR											
12...	1330	37.50	6,980	2,820	6.9	10.5	1,900	1,600	390	230	90
MAY											
11...	1100	37.50	6,980	3,000	7.0	10.5	1,800	1,500	370	220	92
AUG											
30...	1600	37.50	6,980	2,750	7.0	10.5	1,700	1,200	330	200	100

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DISSOLVED (MG/L AS SO ₄)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
MAR 1988								
08...	8.6	428	1,300	17	0.2	12	2,370	2,250
APR								
12...	7.8	376	1,700	15	.2	11	2,840	2,690
MAY								
11...	8.1	375	1,600	16	.3	11	2,680	2,560
AUG								
30...	7.9	442	1,400	17	.2	12	2,410	2,340

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO ₂)	NITROGEN, NO ₂ +NO ₃ DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH ₄)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)
MAR 1988									
08...	0.15	0.03	0.1	0.18	0.32	0.41	0.38	0.7	0.01
APR									
12...	--	<.01	--	3.40	.12	.15	.68	.8	<.01
MAY									
11...	1.97	.03	.1	2.00	.11	.14	1.1	1.2	<.01
AUG									
30...	--	<.01	--	<.10	.12	.15	.68	.8	<.01

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHORUS ORGANIC DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (µG/L AS AL)	ARSENIC DISSOLVED (µG/L AS AS)	BARIUM, DISSOLVED (µG/L AS BA)	BERYLLIUM, DISSOLVED (µG/L AS BE)	BORON, DISSOLVED (µG/L AS B)	CADMIUM DISSOLVED (µG/L AS CD)	CHROMIUM, DISSOLVED (µG/L AS CR)	COBALT, DISSOLVED (µG/L AS CO)
MAR 1988										
08...	<0.01	0.01	20	<1	50	<2	170	8	<20	20
APR										
12...	<.01	--	<10	<1	41	<2	160	<3	<20	10
MAY										
11...	<.01	--	<10	<1	41	<2	170	<3	<20	20
AUG										
30...	<.01	--	<10	<1	40	<.5	160	4	<5	9

Table 25.--Water-quality analyses for wells--Continued

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
<u>WELL IDENTIFICATION - SCS487-63--Continued</u>										
MAR 1988 08...	30	110	<30	1,400	<30	<30	5.0	4,700	<18	45
APR 12...	<30	9	<30	1,100	<30	<30	<3.0	4,500	<18	34
MAY 11...	<30	9	<30	1,300	<30	50	<3.0	4,800	<18	16
AUG 30...	<10	12	<10	1,500	<10	<10	<1.0	4,300	<6	28

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CACO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SCS487-64</u>											
NOV 1987 09...	1200	37.20	6,983	2,250	6.9	--	1,500	980	300	170	96
MAR 1988 08...	1430	37.20	6,983	2,930	6.8	8.0	1,700	1,300	350	210	150
MAY 11...	1300	37.20	6,983	3,100	6.9	10.0	1,800	1,400	360	220	140
AUG 30...	1630	37.20	6,983	2,920	7.0	10.5	1,800	1,400	360	230	140

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
NOV 1987 09...	5.2	473	1,000	16	0.3	17	2,000	1,890
MAR 1988 08...	6.8	400	1,500	16	.2	15	2,610	2,490
MAY 11...	6.4	401	1,700	14	.3	13	2,850	2,720
AUG 30...	6.5	434	1,600	16	.2	15	2,760	2,630

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	
<u>WELL IDENTIFICATION - SCS487-64--Continued</u>										
NOV 1987 09...	--	--	--	--	--	--	--	0.6	0.01	
MAR 1988 08...	--	<0.01	--	<3.00	0.09	0.12	0.41	.5	.01	
MAY 11...	3.69	.01	0.03	3.70	.11	.14	1.4	1.5	<.01	
AUG 30...	--	<.01	--	.41	.11	.14	.29	.4	<.01	
DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
NOV 1987 09...	--	0.01	20	<1	58	<1	150	<2	<10	7
MAR 1988 08...	<0.01	.01	<10	<1	52	<2	190	3	<20	<9
MAY 11...	<.01	--	<10	<1	51	<2	180	<3	<20	<9
AUG 30...	<.01	--	10	<1	53	<.5	170	4	<5	<3
DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 09...	<20	48	<20	2,600	<20	20	<2.0	2,000	<12	16
MAR 1988 08...	<30	35	<30	1,000	<30	<30	<3.0	3,000	<20	14
MAY 11...	<30	10	<30	1,300	<10	<30	<3.0	2,900	<18	<9
AUG 30...	<10	17	<10	1,600	<10	<10	<1.0	3,100	<6	18

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CACO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
<u>WELL IDENTIFICATION - SZL287</u>										
NOV 1987										
08...	1415	181.00	6,822	1,820	8.1	--	36	0	7.6	4.1
MAR 1988										
06...	1640	181.00	6,822	1,495	8.2	9.0	23	0	5.3	2.4
APR										
11...	1245	181.00	6,822	1,970	8.3	10.0	21	0	4.7	2.2
MAY										
09...	1245	181.00	6,822	2,000	8.3	10.5	19	0	4.3	1.9
SEPT										
01...	0900	181.00	6,822	1,950	8.3	11.0	19	0	4.3	1.9
NOV										
16...	1045	181.00	6,822	2,000	8.6	--	18	0	4.1	1.8
APR 1989										
06...	1345	181.00	6,822	2,070	8.3	10.5	18	0	4.2	1.8
JUNE										
06...	1445	181.00	6,822	2,090	8.2	10.0	18	0	4.4	1.7
SEPT										
12...	1430	181.00	6,822	2,090	8.3	10.0	18	0	4.1	1.7

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
NOV 1987									
08...	510	3.1	1,150	44	9.0	0.2	9.6	1,320	1,280
MAR 1988									
06...	550	2.9	1,190	27	8.6	2.4	9.6	1,330	1,320
APR									
11...	530	2.0	1,180	17	8.4	3.2	8.3	1,310	1,290
MAY									
09...	520	2.3	1,170	15	9.8	3.2	8.0	1,300	1,270
SEPT									
01...	530	2.1	1,180	12	8.6	2.8	8.4	1,290	1,280
NOV									
16...	520	2.3	1,190	16	9.0	2.8	8.4	1,300	1,280
APR 1989									
06...	510	2.3	1,180	13	8.3	2.9	8.2	1,290	1,260
JUNE									
06...	540	2.1	1,160	21	8.1	3.0	8.0	1,280	1,280
SEPT									
12...	520	2.2	1,150	25	8.8	3.0	8.0	1,260	1,260

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)		
WELL IDENTIFICATION - SZL287--Continued										
NOV 1987 08...	--	--	--	--	--	2.4	0.07	--		
MAR 1988 06...	<0.01	<0.10	0.50	0.64	1.1	1.6	.07	0.04		
APR 11...	<.01	<.10	1.00	1.3	.0	1.0	.06	.03		
MAY 09...	<.01	<.10	.72	.93	.88	1.6	.07	.07		
SEPT 01...	<.01	<.10	.55	.71	.95	1.5	.06	.03		
NOV 16...	<.01	<.10	.66	.85	.0	.6	.06	.03		
APR 1989 06...	--	--	--	--	--	--	--	--		
JUNE 06...	--	--	--	--	--	--	--	--		
SEPT 12...	--	--	--	--	--	--	--	--		
DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
NOV 1987 08...	--	0.07	30	1	34	<1	520	<2	<10	<6
MAR 1988 06...	0.12	.03	<10	<1	98	<2	520	8	<20	<9
APR 11...	.09	.03	<10	<1	93	<2	500	<3	<20	<9
MAY 09...	.21	.0	<10	<1	96	<1	520	<2	<10	<6
SEPT 01...	.09	.03	<10	<1	96	<.5	500	<1	<5	<3
NOV 16...	.09	.03	<10	<1	100	<.5	520	<1	<5	<3
APR 1989 06...	--	--	30	<1	95	<2	500	<3	<20	<9
JUNE 06...	--	--	20	<1	100	<2	520	<3	<20	<3
SEPT 12...	--	--	40	<1	99	<1	500	<3	<10	<3

Table 25.--Water-quality analyses for wells--Continued

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
<u>WELL IDENTIFICATION - SZL287--Continued</u>										
NOV 1987 08...	<20	35	<20	32	<20	<20	<2.0	190	<12	9
MAR 1988 06...	<30	51	<30	29	<30	<30	<3.0	180	<20	14
APR 11...	<30	42	<30	21	<30	<30	<3.0	180	<18	<9
MAY 09...	<20	37	<20	26	<20	<20	<2.0	180	<12	<6
SEPT 01...	<10	49	<10	20	<10	<10	<1.0	180	<6	8
NOV 16...	<10	30	<10	18	<10	<10	<1.0	180	<6	<3
APR 1989 06...	<30	140	<30	21	<30	<30	<3.0	170	<18	11
JUNE 06...	<30	61	<30	19	<30	<30	<3.0	180	<18	<9
SEPT 12...	<20	43	<20	19	<20	<20	<2.0	180	<12	<6

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SZI287</u>											
NOV 1987 08...	1445	222.00	6,819	1,180	8.4	--	11	0	2.8	0.99	320
MAR 1988 05...	1330	222.00	6,819	1,330	8.1	9.0	10	0	2.5	.89	330
APR 11...	1200	222.00	6,819	1,275	8.7	9.5	11	0	2.6	.94	330
MAY 09...	1200	222.00	6,819	1,370	8.7	12.0	10	0	2.4	.86	310
JUNE 16...	0830	222.00	6,819	1,550	8.0	16.0	10	0	2.6	.8	330
16...	0845	222.00	6,819	1,630	8.0	10.0	10	0	2.7	.84	320
16...	1330	222.00	6,819	1,607	8.6	11.0	9	0	2.0	.85	310
SEPT 01...	0830	222.00	6,819	1,260	8.8	11.5	10	0	2.5	.89	320
NOV 16...	0845	222.00	6,819	1,370	9.0	--	9	0	2.4	.74	320
APR 1989 06...	1300	222.00	6,819	1,310	8.7	10.0	10	0	2.7	.86	310
JUNE 06...	1400	222.00	6,819	1,275	8.7	10.5	10	0	2.4	.8	340
SEPT 12...	1345	222.00	6,819	1,300	8.7	10.5	10	0	2.7	.81	320

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	
<u>WELL IDENTIFICATION - SZI287--Continued</u>									
NOV 1987									
08...	2.0	655	69	3.3	1.0	7.9	806	801	
MAR 1988									
05...	2.2	650	75	4.1	2.0	7.7	813	815	
APR									
11...	1.8	660	87	3.7	2.1	7.6	834	833	
MAY									
09...	1.9	652	88	3.8	2.1	7.5	834	808	
JUNE									
16...	1.9	646	86	3.8	1.8	7.7	800	823	
16...	1.9	647	93	3.7	1.9	7.5	830	820	
16...	1.9	647	73	3.9	1.7	7.5	815	790	
SEPT									
01...	1.6	651	79	3.8	2.0	7.7	814	809	
NOV									
16...	1.9	651	67	3.9	1.9	7.9	810	797	
APR 1989									
06...	1.9	655	80	4.1	2.1	7.9	825	803	
JUNE									
06...	1.8	651	63	3.9	2.0	7.8	800	812	
SEPT									
12...	1.9	649	77	4.1	.2	7.5	805	804	
<u>WELL IDENTIFICATION - SZI287--Continued</u>									
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1987									
08...	<0.01	--	<0.10	0.32	0.41	0.68	1.0	0.03	0.02
MAR 1988									
05...	<.01	--	<.10	.10	.13	.9	1.0	.04	.03
APR									
11...	<.01	--	<.10	.44	.57	.46	.9	.03	.03
MAY									
09...	<.01	--	<.10	.15	.19	.75	.9	.03	.03
JUNE									
16...	.01	0.03	<.10	.27	.35	.33	.6	.03	.02
16...	.04	.13	<.10	.21	.27	.0	.2	.03	.04
16...	.01	.03	<.10	.19	.24	--	<.2	.02	.04
SEPT									
01...	<.01	--	<.10	.20	.26	.6	.8	.04	.03
NOV									
16...	<.01	--	<.10	.17	.22	--	<.2	.04	.04
APR 1989									
06...	--	--	--	--	--	--	--	--	--
JUNE									
06...	--	--	--	--	--	--	--	--	--
SEPT									
12...	--	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
<u>WELL IDENTIFICATION - SZI287--Continued</u>										
NOV 1987										
08...	0.06	0.01	<10	<1	100	<0.5	100	<1	<5	<3
MAR 1988										
05...	.09	.01	<10	<1	120	<.5	90	3	<5	<3
APR										
11...	.09	.0	<10	<1	130	<.5	90	<1	<5	<3
MAY										
09...	.09	.0	<10	<1	120	<.5	80	<1	<5	<3
JUNE										
16...	.06	.01	10	<1	120	<.5	110	<1	<5	<3
16...	.12	.0	<10	<1	120	<.5	90	<1	<5	<3
16...	.12	.0	<10	<1	120	<.5	90	<1	<5	<3
SEPT										
01...	.09	.01	<10	<1	120	<.5	80	<1	<5	<3
NOV										
16...	.12	.0	<10	<1	120	<.5	90	<1	<5	<3
APR 1989										
06...	--	--	20	<1	90	<.5	90	<1	<5	<3
JUNE										
06...	--	--	20	<1	110	<.5	90	<1	<5	<3
SEPT										
12...	--	--	20	<1	92	<.5	80	<1	<5	<3
DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987										
08...	<10	17	<10	7	<10	<10	<1.0	140	<6	3
MAR 1988										
05...	<10	22	<10	4	<10	<10	<1.0	150	<6	<3
APR										
11...	<10	20	10	4	<10	<10	<1.0	160	<6	<3
MAY										
09...	<10	19	<10	3	<10	<10	<1.0	150	<6	<3
JUNE										
16...	<10	21	<10	6	<10	<10	<1.0	150	<6	5
16...	<10	26	<10	6	<10	<10	<1.0	150	<6	<3
16...	<10	22	<10	5	<10	<10	1.0	150	<6	<3
SEPT										
01...	<10	24	<10	5	<10	<10	<1.0	150	<6	<3
NOV										
16...	<10	20	<10	4	<10	<10	<1.0	140	<6	<3
APR 1989										
06...	<10	40	<10	11	<10	<10	<1.0	130	<6	3
JUNE										
06...	<10	25	<10	6	<10	<10	<1.0	140	<6	4
SEPT										
12...	<10	39	<10	11	<10	<10	<1.0	140	<6	<3

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
WELL IDENTIFICATION - SZW287												
NOV 1988	16...	1015	237.30	6,817	1,240	8.9	--	10	0	2.6	0.82	310
APR 1989	06...	1315	237.30	6,817	1,170	8.5	11.0	13	0	3.2	1.2	280
JUNE	06...	1500	237.30	6,817	1,160	8.5	10.5	9	0	2.4	.72	310
SEPT	12...	1500	237.30	6,817	1,180	8.6	10.0	10	0	2.5	.75	300

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	
NOV 1988	16...	2.0	660	20	2.5	2.8	8.4	750	745
APR 1989	06...	2.0	660	21	2.4	3.1	10	678	719
JUNE	06...	1.8	657	13	2.4	3.0	8.0	738	736
SEPT	12...	1.9	651	13	2.6	3.1	8.2	739	723

DATE	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH ₄)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO ₄)	PHOSPHORUS ORGANIC DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (MG/L AS AL)	
NOV 1988	16...	<0.01	<0.10	0.12	0.15	--	<0.2	0.03	0.02	0.06	0.01	<10
APR 1989	06...	--	--	--	--	--	--	--	--	--	--	10
JUNE	06...	--	--	--	--	--	--	--	--	--	--	10
SEPT	12...	--	--	--	--	--	--	--	--	--	--	30

DATE	ARSENIC DIS-SOLVED (µG/L AS AS)	BARIUM, DIS-SOLVED (µG/L AS BA)	BERYLLIUM, DIS-SOLVED (µG/L AS BE)	BORON, DIS-SOLVED (µG/L AS B)	CADMIUM DIS-SOLVED (µG/L AS CD)	CHROMIUM, DIS-SOLVED (µG/L AS CR)	COBALT, DIS-SOLVED (µG/L AS CO)	COPPER, DIS-SOLVED (µG/L AS CU)	IRON, DIS-SOLVED (µG/L AS FE)	LEAD, DIS-SOLVED (µG/L AS PB)	MANGANESE, DIS-SOLVED (µG/L AS MN)	
NOV 1988	16...	<1	110	<0.5	90	<1	<5	<3	<10	10	<10	8
APR 1989	06...	1	71	<.5	90	<1	<5	<3	<10	19	<10	22
JUNE	06...	<1	110	<.5	90	<1	<5	<3	<10	23	<10	9
SEPT	12...	<1	94	<.5	80	<1	<5	<3	<10	39	<10	11

Table 25.--Water-quality analyses for wells--Continued

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SZW287--Continued</u>											
NOV 1988 16...	<10	<10	<1.0	120	<6	8	--	--	--	--	--
APR 1989 06...	<10	<10	<1.0	92	<6	31	--	--	--	--	--
JUNE 06...	<10	<10	<1.0	110	<6	<3	--	--	--	--	--
SEPT 12...	10	<10	<1.0	110	<6	6	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CACO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SZU287</u>											
MAR 1988 06...	1530	264.80	6,820	1,195	8.3	10.0	36	0	6.6	4.6	380
APR 11...	1215	264.80	6,820	1,220	8.6	10.5	35	22	6.0	4.7	290
MAY 09...	1230	264.80	6,820	1,235	8.4	10.0	31	0	5.5	4.2	290
SEPT 01...	0930	264.80	6,820	1,100	8.4	11.0	28	0	4.9	3.9	280
NOV 16...	1000	264.80	6,820	1,220	8.7	--	27	0	4.8	3.6	290
APR 1989 06...	1400	264.80	6,820	1,150	8.5	10.5	24	0	4.3	3.1	280
JUNE 06...	1430	264.80	6,820	1,130	8.5	10.0	22	0	4.0	2.8	300
SEPT 12...	1330	264.80	6,820	1,130	8.6	8.5	20	0	3.7	2.6	280

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
MAR 1988 06...	2.8	810	71	6.0	2.4	8.6	979	968
APR 11...	2.6	612	69	3.0	3.6	8.4	763	758
MAY 09...	1.9	612	55	2.7	3.8	8.2	746	739
SEPT 01...	1.9	612	47	2.3	4.1	8.2	733	720
NOV 16...	1.9	614	41	2.4	3.3	8.6	717	725
APR 1989 06...	1.8	615	33	2.2	.1	8.3	711	702
JUNE 06...	1.7	612	29	2.1	3.9	8.3	702	719
SEPT 12...	1.8	615	26	2.1	4.3	7.7	696	691

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
<u>WELL IDENTIFICATION - SZU287--Continued</u>											
MAR 1988											
06...	<0.01	<0.10	0.08	0.1	1.1	1.2	0.05	0.03	0.09	0.02	<10
APR											
11...	<.01	<.10	.06	.08	.54	.6	.04	.03	.09	.01	<10
MAY											
09...	<.01	<.10	.06	.08	.54	.6	.03	.02	.06	.01	<10
SEPT											
01...	<.01	<.10	.38	.49	.32	.7	.03	.02	.06	.01	20
NOV											
16...	<.01	<.10	.44	.57	.26	.7	.03	.03	.09	.0	30
APR 1989											
06...	--	--	--	--	--	--	--	--	--	--	40
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	30
SEPT											
12...	--	--	--	--	--	--	--	--	--	--	40

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
MAR 1988											
06...	<1	49	<0.5	230	3	<5	<3	<10	30	<10	31
APR											
11...	2	27	<.5	70	<1	<5	<3	<10	18	<10	30
MAY											
09...	2	28	<.5	60	<1	<5	<3	<10	40	<10	3
SEPT											
01...	1	28	<.5	70	<1	<5	<3	<10	41	<10	26
NOV											
16...	1	25	<.5	60	<1	<5	<3	<10	38	<10	30
APR 1989											
06...	1	29	<.5	70	<1	6	<3	<10	64	10	31
JUNE											
06...	1	23	<.5	70	<1	<5	<3	<10	60	<10	31
SEPT											
12...	<1	24	<.5	50	<1	<5	<3	<10	42	<10	29

Table 25.--Water-quality analyses for wells--Continued

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SZU287--Continued</u>											
MAR 1988											
06...	<10	<10	<1.0	170	<6	<20	--	--	--	--	--
APR											
11...	<10	<10	<1.0	140	<6	<3	-7.1	-149	-19.7	-9.2	<5.7
MAY											
09...	<10	<10	<1.0	130	<6	<3	--	--	--	--	--
SEPT											
01...	<10	<10	<1.0	120	<6	3	-7.6	-148	-19.8	-5.4	<5.7
NOV											
16...	<10	<10	<1.0	110	<6	5	--	--	--	--	--
APR 1989											
06...	<10	<10	<1.0	110	<6	9	--	--	--	--	--
JUNE											
06...	<10	<10	<1.0	98	<6	11	--	--	--	--	--
SEPT											
12...	10	<10	1.0	92	<6	<3	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)
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<u>WELL IDENTIFICATION - SBL287</u>											
NOV 1987											
07...	1300	98.50	7,032	1,150	8.0	--	120	0	24	15	
MAR 1988											
06...		1135	98.50	7,032	1,014	7.6	9.5	150	0	29	18
APR											
13...		1015	98.50	7,032	1,000	8.0	10.0	210	0	41	25
MAY											
10...		1400	98.50	7,032	1,080	7.8	9.0	220	0	45	26
AUG											
31...		0900	98.50	7,032	950	7.8	10.0	190	0	36	23
NOV											
15...		1000	98.50	7,032	1,130	8.2	--	130	0	26	16
MAR 1989											
01...		1100	98.50	7,032	--	8.0	8.5	130	0	25	16
APR											
06...		1030	98.50	7,032	1,130	8.1	9.0	98	0	19	12
MAY											
09...		1100	98.50	7,032	1,230	7.8	9.0	320	0	62	40
JUNE											
06...		1130	98.50	7,032	1,250	7.8	9.0	340	0	67	41
27...		0915	98.50	7,032	1,250	7.8	9.5	360	0	71	44
SEPT											
19...		1100	98.50	7,032	1,200	7.9	10.5	330	0	66	40

Table 25.--Water-quality analyses for wells--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CA _{CO} ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)
<u>WELL IDENTIFICATION - SBL287--Continued</u>									
NOV 1987 07...	230	3.0	543	86	4.2	0.3	12	697	701
MAR 1988 06...	210	2.9	480	68	4.9	.7	13	656	637
APR 13...	180	2.5	499	92	5.5	.6	14	642	663
MAY 10...	160	2.7	492	100	5.6	.7	15	636	653
AUG 31...	190	2.7	504	82	5.2	.7	13	647	658
NOV 15...	220	2.5	545	70	5.2	.8	12	678	682
MAR 1989 01...	230	2.5	558	64	5.1	.8	12	688	693
APR 06...	230	2.4	569	67	5.0	.9	11	695	690
MAY 09...	190	2.9	492	190	5.4	.6	14	786	804
JUNE 06...	170	3.0	481	240	5.5	.5	13	814	831
27...	160	3.3	445	240	5.8	.5	13	812	807
SEPT 19...	160	3.2	432	220	5.2	.6	13	692	769

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
<u>WELL IDENTIFICATION - SBL287--Continued</u>								
NOV 1987 07...	--	--	--	--	--	2.0	0.02	--
MAR 1988 06...	<0.01	<0.10	0.77	0.99	0.73	1.5	.01	0.01
APR 13...	<.01	<.10	1.60	2.1	.0	1.5	.01	<.01
MAY 10...	<.01	<.10	1.20	1.5	.6	1.8	<.01	<.01
AUG 31...	<.01	.16	.92	1.2	.08	1.0	.01	<.01
NOV 15...	<.01	<.10	.79	1.0	.01	.8	.03	.01
MAR 1989 01...	<.01	<.10	.98	1.3	.02	1.0	.03	.03
APR 06...	--	--	--	--	--	--	--	--
MAY 09...	<.01	<.10	1.70	2.2	.4	2.1	.01	<.01
JUNE 06...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
SEPT 19...	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
WELL IDENTIFICATION - SBL287--Continued										
NOV 1987										
07...	--	0.02	40	<1	45	<0.5	310	<1	<5	<3
MAR 1988										
06...	0.03	.0	<10	<1	110	<.5	300	2	<5	<3
APR										
13...	--	.01	<10	<1	120	<.5	270	2	<5	<3
MAY										
10...	--	--	<10	<1	110	<.5	260	<1	<5	<3
AUG										
31...	--	.01	<10	<1	110	<.5	260	<1	<5	<3
NOV										
15...	.03	.02	<10	<1	93	.6	300	<1	<5	<3
MAR 1989										
01...	.09	.0	<10	<1	96	<.5	300	<1	<5	<3
APR										
06...	--	--	<10	1	87	<.5	320	<1	<5	<3
MAY										
09...	--	.01	10	1	180	<2	270	23	<20	<9
JUNE										
06...	--	--	<10	<1	160	<.5	280	<1	<5	<3
27...	--	--	<10	4	150	<.5	270	<1	<5	<3
SEPT										
19...	--	--	<10	1	140	<.5	260	<1	<5	<3
DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987										
07...	<10	55	<10	120	<10	<10	<1.0	610	<6	<3
MAR 1988										
06...	<10	15	<10	42	<10	<10	<1.0	770	<6	3
APR										
13...	<10	100	10	33	<10	<10	2.0	1,000	<6	13
MAY										
10...	<10	170	<10	31	<10	<10	<1.0	1,000	<6	<3
AUG										
31...	<10	130	<10	35	<10	<10	3.0	880	<6	4
NOV										
15...	<10	150	<10	61	<10	<10	<1.0	680	<6	<3
MAR 1989										
01...	<10	120	<10	67	<10	<10	<1.0	680	<6	<3
APR										
06...	<10	130	<10	74	<10	<10	<1.0	560	<6	6
MAY										
09...	<30	<9	<30	74	<30	<30	<30	1,600	<18	23
JUNE										
06...	<10	280	<10	78	<10	<10	<1.0	1,600	<6	<3
27...	<10	240	<10	73	<10	<10	<1.0	1,600	<6	15
SEPT										
19...	<10	370	<10	94	<10	<10	<1.0	1,500	<6	8

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL (MG/L AS CaCO_3)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO_3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
<u>WELL IDENTIFICATION - SBI287</u>											
NOV 1987											
07...	0930	150.00	7,031	910	7.4	--	390	0	79	47	54
MAR 1988											
05...	1120	150.00	7,031	875	7.4	9.0	430	0	87	50	49
APR											
13...	0915	150.00	7,031	980	7.3	10.0	530	99	110	62	34
MAY											
10...	1300	150.00	7,031	930	7.1	12.5	460	30	95	53	38
JUNE											
15...	1330	150.00	7,031	733	7.2	10.0	280	0	53	35	88
15...	1340	150.00	7,031	927	7.1	10.0	410	0	82	50	54
15...	1350	150.00	7,031	918	7.1	10.0	410	0	82	50	53
AUG											
31...	0830	150.00	7,031	790	7.3	10.0	380	0	72	47	61
NOV											
15...	1030	150.00	7,031	940	7.4	--	370	0	73	46	70
MAR 1989											
01...	1030	150.00	7,031	--	7.4	8.5	390	0	74	49	70
APR											
06...	0930	150.00	7,031	1,040	7.3	9.5	440	0	86	53	62
MAY											
09...	1030	150.00	7,031	1,125	7.3	9.5	550	110	110	65	50
JUNE											
06...	1115	150.00	7,031	1,230	7.3	9.5	600	160	120	71	52
27...	0845	150.00	7,031	1,200	7.1	9.5	580	170	120	68	48
SEPT											
19...	1000	150.00	7,031	1,180	7.3	9.5	540	240	110	63	53

Table 25.--Water-quality analyses for wells--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	
<u>WELL IDENTIFICATION - SBI287--Continued</u>									
NOV 1987									
07...	3.0	419	84	3.5	0.9	18	526	545	
MAR 1988									
05...	3.0	436	87	5.7	.3	18	546	565	
APR									
13...	2.2	433	160	6.4	.3	18	639	655	
MAY									
10...	2.6	428	110	5.7	.3	18	554	582	
JUNE									
15...	2.9	411	63	4.1	.4	15	493	512	
15...	2.7	433	91	5.4	.2	17	532	566	
15...	2.7	431	84	5.4	.3	17	527	556	
AUG									
31...	2.9	422	63	4.4	.2	17	491	643	
NOV									
15...	2.9	430	61	4.5	.2	17	516	537	
MAR 1989									
01...	3.2	436	87	4.6	.2	16	553	579	
APR									
06...	3.5	448	140	4.4	.2	14	628	634	
MAY									
09...	3.6	437	230	4.8	.2	14	769	745	
JUNE									
06...	3.6	435	280	4.8	.2	15	742	811	
27...	3.9	416	280	5.2	.2	14	788	792	
SEPT									
19...	3.4	297	260	5.6	.2	14	641	690	
DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
NOV 1987									
07...	--	<0.01	--	<0.10	1.10	1.4	0.0	1.0	0.01
MAR 1988									
05...	--	<.01	--	<.10	.91	1.2	.09	1.0	.01
APR									
13...	--	<.01	--	<.10	.63	.81	.0	.6	<.01
MAY									
10...	--	<.01	--	<.10	.79	1.0	.11	.9	<.01
JUNE									
15...	--	.01	.03	<.10	1.20	1.5	.4	1.6	.01
15...	--	.01	.03	<.10	1.00	1.3	.2	1.2	<.01
15...	--	<.01	--	<.10	.99	1.3	.21	1.2	<.01
AUG									
31...	27.0	.02	.07	27.0	.93	1.2	1.2	2.1	<.01
NOV									
15...	--	<.01	--	.17	1.10	1.4	.1	1.2	<.01
MAR 1989									
01...	2.18	.02	.07	2.20	1.20	1.5	.3	1.5	<.01
APR									
06...	--	--	--	--	--	--	--	--	--
MAY									
09...	.28	.02	.07	.30	1.30	1.7	.3	1.6	<.01
JUNE									
06...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
SEPT									
19...	--	--	--	--	--	--	--	--	--

Table 25.--Water-quality analyses for wells--Continued

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)
WELL IDENTIFICATION - SBI287--Continued										
NOV 1987 07...	<0.01	0.01	<10	<1	680	<0.5	80	<1	<5	<3
MAR 1988 05...	<.01	.01	<10	<1	330	<.5	70	2	<5	<3
APR 13...	<.01	--	<10	<1	180	<.5	60	<1	<5	<3
MAY 10...	<.01	--	<10	<1	200	<.5	60	<1	<5	<3
JUNE 15...	<.01	.01	<10	<1	300	<.5	120	<1	<5	<3
15...	<.01	--	<10	<1	240	<.5	90	<1	<5	<3
15...	<.01	--	<10	<1	240	<.5	90	<1	<5	<3
AUG 31...	<.01	--	<10	<1	250	<.5	80	<1	<5	<3
NOV 15...	<.01	--	<10	<1	280	<.5	90	<1	<5	<3
MAR 1989 01...	<.01	--	<10	<1	240	<.5	90	<1	<5	<3
APR 06...	--	--	<10	<1	170	<.5	90	<1	<5	<3
MAY 09...	<.01	--	10	<1	130	<.5	90	7	<5	<3
JUNE 06...	--	--	<10	<1	120	<.5	80	<1	<5	<3
27...	--	--	<10	1	94	<.5	80	<1	<5	<3
SEPT 19...	--	--	<10	<1	91	<.5	80	<1	<5	<3

DATE	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
NOV 1987 07...	<10	220	<10	76	<10	<10	<1.0	1,900	<6	<3
MAR 1988 05...	<10	55	<10	85	<10	<10	<1.0	1,700	<6	4
APR 13...	<10	120	<10	78	<10	<10	<1.0	1,400	<6	4
MAY 10...	<10	190	<10	85	<10	<10	<1.0	1,600	<6	<3
JUNE 15...	<10	160	<10	60	<10	<10	<1.0	1,700	<6	4
15...	<10	140	<10	94	<10	<10	<1.0	1,900	<6	10
15...	<10	140	<10	92	<10	<10	1.0	1,800	<6	<3
AUG 31...	<10	170	<10	81	<10	<10	<1.0	1,800	<6	8
NOV 15...	<10	9	<10	84	<10	<10	<1.0	1,900	<6	5
MAR 1989 01...	<10	48	<10	93	<10	<10	<1.0	2,200	<6	9
APR 06...	<10	10	<10	92	<10	<10	1.0	2,200	<6	8
MAY 09...	<10	5	<10	110	<10	<10	<1.0	2,500	<6	5
JUNE 06...	<10	55	<10	120	<10	<10	<1.0	2,700	<6	8
27...	<10	78	<10	120	<10	<10	<1.0	2,400	<6	12
SEPT 19...	<10	63	<10	100	<10	<10	<1.0	2,300	<6	17

Table 25.--Water-quality analyses for wells--Continued

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SBW287</u>											
NOV 1987											
07...	1200	164.00	7,032	790	7.6	--	73	0	15	8.6	160
MAR 1988											
06...	1100	164.00	7,032	705	7.8	9.0	58	0	12	6.8	160
APR											
13...	0940	164.00	7,032	680	8.4	10.0	50	0	9.4	6.3	160
MAY											
10...	1415	164.00	7,032	720	8.2	10.5	49	0	9.3	6.2	150
JUNE											
15...	1450	164.00	7,032	650	8.1	11.0	52	0	9.7	6.5	160
15...	1500	164.00	7,032	755	8.2	10.0	52	0	9.7	6.5	160
16...	1630	164.00	7,032	881	8.3	9.5	52	0	9.9	6.4	150
AUG											
31...	0930	164.00	7,032	630	8.2	12.0	54	0	10	7.0	160
NOV											
15...	1130	164.00	7,032	735	8.3	--	55	0	10	7.0	160
MAR 1989											
01...	1145	164.00	7,032	--	8.0	8.5	53	0	10	6.6	160
APR											
06...	1000	164.00	7,032	720	8.1	9.0	53	0	10	6.7	150
MAY											
09...	1130	164.00	7,032	700	8.1	9.0	51	0	9.6	6.5	160
JUNE											
06...	1145	164.00	7,032	700	8.2	8.5	49	0	9.3	6.2	160
27...	0900	164.00	7,032	790	8.1	9.5	48	0	9.2	5.9	150
SEPT											
19...	1130	164.00	7,032	695	8.4	10.5	48	0	9.1	6.0	160

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)
NOV 1987								
07...	3.5	397	35	2.4	3.1	11	480	477
MAR 1988								
06...	3.4	399	18	2.5	1.0	10	452	454
APR								
13...	3.6	397	2.2	2.0	1.0	9.8	417	434
MAY								
10...	2.8	397	20	1.9	1.0	9.9	410	441
JUNE								
15...	2.7	393	6.8	2.0	.9	9.7	434	435
15...	2.8	392	4.8	2.3	1.0	9.7	433	433
16...	2.8	396	9.7	2.1	.9	9.8	438	431
AUG								
31...	3.0	382	17	2.2	.9	10	447	441
NOV								
15...	2.8	398	8.7	2.1	.9	10	438	442
MAR 1989								
01...	2.8	397	9.4	2.0	.9	10	433	441
APR								
06...	2.9	399	12	2.1	1.0	9.9	436	435
MAY								
09...	2.8	399	6.0	2.0	1.0	9.9	439	439
JUNE								
06...	2.7	397	2.0	2.0	1.0	10	432	432
27...	3.1	391	3.0	2.2	1.0	9.7	415	420
SEPT								
19...	2.8	384	<1.0	1.9	1.0	9.7	415	--

Table 25.--Water-quality analyses for wells--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)
<u>WELL IDENTIFICATION - SBW287--Continued</u>											
NOV 1987											
07...	--	--	--	--	--	--	0.9	0.04	--	--	0.04
MAR 1988											
06...	<0.01	--	<0.10	0.31	0.4	0.89	1.2	.05	<0.04	--	.05
APR											
13...	<.01	--	<.10	.49	.63	.41	.9	.02	.02	0.06	.0
MAY											
10...	<.01	--	<.10	.51	.66	.39	.9	.02	.02	.06	.0
JUNE											
15...	<.01	--	<.10	.34	.44	.16	.5	.03	.01	.03	.02
15...	<.01	--	<.10	.37	.48	.53	.9	.02	<.01	--	.02
16...	.01	0.03	<.10	.41	.53	.0	.3	.02	.03	.09	.0
AUG											
31...	<.01	--	<.10	.50	.64	.6	1.1	.03	.03	.09	.0
NOV											
15...	<.01	--	<.10	.47	.61	.03	.5	.03	.02	.06	.01
MAR 1989											
01...	<.01	--	<.10	.41	.53	.0	.4	.02	.01	.03	.01
APR											
06...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	<.01	--	<.10	.39	.5	.51	.9	.04	.03	.09	.01
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
SEPT											
19...	--	--	--	--	--	--	--	--	--	--	--

DATE	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)
NOV 1987											
07...	30	1	25	<1	250	<1	<5	<3	<10	30	<10
MAR 1988											
06...	<10	<1	110	<.5	300	2	<5	<3	<10	16	<10
APR											
13...	<10	<1	190	<.5	250	<1	<5	<3	<10	11	<10
MAY											
10...	<10	1	180	<.5	250	<1	<5	<3	<10	10	<10
JUNE											
15...	<10	<1	160	<.5	250	<1	<5	<3	<10	54	<10
15...	<10	5	180	<.5	250	1	<5	<3	<10	42	<10
16...	30	<1	170	<.5	250	<1	<5	<3	<10	12	<10
AUG											
31...	<10	1	160	<.5	240	<1	<5	<3	<10	23	<10
NOV											
15...	<10	1	180	<.5	260	<1	<5	<3	<10	11	<10
MAR 1989											
01...	<10	1	160	<.5	240	<1	<5	<3	<10	64	<10
APR											
06...	10	1	140	<.5	250	<1	<5	<3	<10	29	10
MAY											
09...	<10	1	160	2	260	2	<5	<3	<10	5	<10
JUNE											
06...	10	<1	170	<.5	250	<1	<5	<3	<10	96	<10
27...	<10	1	150	<.5	260	<1	<5	<3	<10	72	<10
SEPT											
19...	<10	2	190	<.5	250	<1	<5	<3	<10	75	<10

Table 25.--Water-quality analyses for wells--Continued

DATE	MANGANESE, DIS-SOLVED (µG/L AS MN)	MOLYBDENUM, DIS-SOLVED (µG/L AS MO)	NICKEL, DIS-SOLVED (µG/L AS NI)	SILVER, DIS-SOLVED (µG/L AS AG)	STRONTIUM, DIS-SOLVED (µG/L AS SR)	VANADIUM, DIS-SOLVED (µG/L AS V)	ZINC, DIS-SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRITIUM TOTAL (PCI/L)
<u>WELL IDENTIFICATION - SBW287--Continued</u>												
NOV 1987												
07...	82	<10	<10	<1.0	330	<6	12	--	--	--	--	--
MAR 1988												
06...	81	<10	<10	<1.0	370	<6	10	--	--	--	--	--
APR												
13...	48	<10	<10	<1.0	480	<6	<3	-1.5	-151	-20.3	--	<5.7
MAY												
10...	45	<10	<10	<1.0	480	<6	<3	--	--	--	--	--
JUNE												
15...	50	<10	<10	<1.0	480	<6	8	--	--	--	--	--
15...	45	<10	<10	1.0	500	<6	13	--	--	--	--	--
16...	50	<10	<10	<1.0	490	<6	<3	--	--	--	--	--
AUG												
31...	62	<10	<10	<1.0	500	<6	4	-2.2	-152	-20.1	-4.0	<5.7
NOV												
15...	57	<10	<10	<1.0	520	<6	4	--	--	--	--	--
MAR 1989												
01...	58	<10	<10	<1.0	510	<6	7	--	--	--	--	--
APR												
06...	56	<10	<10	<1.0	490	<6	8	--	--	--	--	--
MAY												
09...	62	<10	<10	<1.0	510	<6	<3	--	--	--	--	--
JUNE												
06...	59	<10	<10	<1.0	510	<6	<3	--	--	--	--	--
27...	59	<10	<10	<1.0	480	<6	7	--	--	--	--	--
SEPT												
19...	58	<10	<10	<1.0	530	<6	3	--	--	--	--	--

DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET ABOVE SEA LEVEL)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
<u>WELL IDENTIFICATION - SBU287</u>											
MAR 1988											
06...	1220	175.00	7,030	850	7.8	9.5	85	0	18	9.5	190
APR											
13...	0900	175.00	7,030	815	8.4	7.5	62	0	13	6.9	180
MAY											
10...	1330	175.00	7,030	850	8.2	10.5	58	0	13	6.1	170
AUG											
31...	1000	175.00	7,030	730	8.2	11.0	51	0	11	5.6	170
NOV											
15...	1100	175.00	7,030	824	8.3	--	46	0	10	5.0	180
MAR 1989											
01...	1115	175.00	7,030	--	8.1	8.5	46	0	10	4.9	180
APR											
06...	1045	175.00	7,030	785	8.2	9.0	45	0	10	4.8	170
MAY											
09...	1200	175.00	7,030	780	8.2	9.0	40	0	8.9	4.2	170
JUNE											
06...	1200	175.00	7,030	760	8.4	9.5	39	0	8.8	4.0	180
27...	0930	175.00	7,030	720	8.4	9.5	34	0	7.6	3.4	160
SEPT											
19...	1200	175.00	7,030	740	8.4	10.0	33	0	7.5	3.3	160

Table 25.--Water-quality analyses for wells--Continued

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)
<u>WELL IDENTIFICATION - SBU287--Continued</u>								
MAR 1988								
06...	4.5	379	100	6.2	0.9	11	564	570
APR								
13...	3.5	376	83	4.8	1.0	10	527	530
MAY								
10...	3.7	370	82	4.2	1.0	9.8	500	513
AUG								
31...	3.5	360	69	3.7	.9	9.5	493	491
NOV								
15...	3.3	364	64	3.5	.9	9.4	489	496
MAR 1989								
01...	3.4	367	53	3.8	.9	10	480	488
APR								
06...	3.4	368	55	3.3	1.0	10	475	479
MAY								
09...	3.4	372	51	2.3	.9	9.1	477	475
JUNE								
06...	3.3	371	47	2.9	.9	9.4	463	480
27...	3.4	364	33	2.7	.9	8.9	456	439
SEPT								
19...	3.0	356	26	2.3	1.0	9.0	434	426

DATE	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH ₄)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO ₄)	PHOSPHORUS ORGANIC DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (MG/L AS AL)
MAR 1988											
06...	<0.01	<0.10	0.73	0.94	0.27	1.0	.03	0.03	0.09	.0	<10
APR											
13...	<.01	<.10	.67	.86	.63	1.3	.05	.05	.15	.0	<10
MAY											
10...	<.05	<.10	.59	.76	.81	1.4	.03	.03	.09	.0	<10
AUG											
31...	<.01	<.10	.71	.91	.49	1.2	.03	.03	.09	.0	<10
NOV											
15...	<.01	<.10	.79	1.0	.01	.8	.05	.03	.09	.02	<10
MAR 1989											
01...	<.01	<.10	.78	1.0	.22	1.0	.06	.05	.15	.01	<10
APR											
06...	--	--	--	--	--	--	--	--	--	--	10
MAY											
09...	<.01	<.10	.55	.71	.65	1.2	.05	.04	.12	.01	<10
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	20
27...	--	--	--	--	--	--	--	--	--	--	10
SEPT											
19...	--	--	--	--	--	--	--	--	--	--	10

Table 25.--Water-quality analyses for wells--Continued

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
<u>WELL IDENTIFICATION - SBU287--Continued</u>											
MAR 1988	<1	110	<0.5	300	3	<5	<3	<10	68	<10	200
APR 13...	2	140	<.5	230	<1	<5	<3	<10	60	10	110
MAY 10...	3	130	<.5	240	<1	<5	<3	<10	12	<10	87
AUG 31...	<1	130	<.5	220	<1	<5	<3	<10	40	<10	77
NOV 15...	1	130	<.5	240	<1	<5	<3	<10	34	10	60
MAR 1989 01...	3	160	<.5	230	<1	<5	<3	<10	23	<10	63
APR 06...	3	150	<.5	240	1	<5	<3	<10	25	<10	64
MAY 09...	2	160	<.5	230	<1	<5	<3	<10	<3	10	46
JUNE 06...	2	150	<.5	240	<1	<5	<3	<10	43	<10	40
27...	1	150	<.5	240	<1	<5	<3	<10	29	10	30
SEPT 19...	2	170	<.5	220	<1	<5	<3	<10	27	<10	27
DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
MAR 1988 06...	<10	<10	<1.0	620	<6	<10	--	--	--	--	--
APR 13...	10	<10	<1.0	540	<6	22	-9.6	-152	-20	9.80	<5.7
MAY 10...	<10	<10	<1.0	500	<6	6	--	--	--	--	--
AUG 31...	<10	<10	2.0	460	<6	7	-9.5	-151	-20	-7.6	<5.7
NOV 15...	10	<10	1.0	460	<6	5	--	--	--	--	--
MAR 1989 01...	<10	<10	2.0	470	<6	<3	--	--	--	--	--
APR 06...	<10	<10	<1.0	450	<6	6	--	--	--	--	--
MAY 09...	<10	<10	<1.0	460	<6	<3	--	--	--	--	--
JUNE 06...	<10	<10	<1.0	430	<6	28	--	--	--	--	--
27...	<10	<10	<1.0	380	<6	<3	--	--	--	--	--
SEPT 19...	<10	<10	<1.0	390	<6	<3	--	--	--	--	--

Table 26.--Water-quality analyses for springs and lysimeters

[Site identification corresponds to sites listed in table 20; CFS, cubic feet per second; $\mu\text{S}/\text{CM}$, microsiemens per centimeter at 25 degrees Celsius; $^{\circ}\text{C}$, degrees Celsius; MG/L , milligrams per liter; NONCARB, noncarbonate; WH, whole; WAT, water; TOT, total; FLD, field; --, no data collected; DEG. C, degrees Celsius; AC-FT, acre-feet; <, less than; $\mu\text{G}/\text{L}$, micrograms per liter; C-, carbon isotope; H-, hydrogen isotope; O-, oxygen isotope; S-, sulfur isotope; per mil, parts per thousand; PCI/L , picocuries per liter]

DATE	TIME	SPRING-FLOW INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$)	PH (STANDARD UNITS)	TEMPERATURE WATER ($^{\circ}\text{C}$)	HARDNESS TOTAL (MG/L AS CaCO_3)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO_3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO AS K)	POTASSIUM, DIS-SOLVED (MG/L AS K)	
<u>SITE IDENTIFICATION - SSSS87-SPRING</u>													
NOV 1987	08...	1200	--	2,750	6.7	--	2,500	2,000	470	310	180	2	10
MAR 1988	03...	1400	0.122	4,010	6.9	12.0	2,700	2,200	470	360	220	2	14
APR	05...	1745	.133	4,010	6.7	11.0	2,400	2,000	460	310	150	1	10
MAY	09...	1530	.066	3,800	6.9	10.5	2,500	2,100	470	320	160	1	13
JUNE	08...	1100	--	3,880	6.8	11.0	2,400	1,900	430	320	160	1	3
AUG	30...	1300	.036	3,780	7.0	11.0	2,500	2,000	460	330	170	2	10
NOV	16...	1230	.034	3,580	7.1	--	2,400	1,900	440	310	180	2	10
APR 1989	04...	1200	.166	4,060	6.8	10.5	2,600	2,200	480	340	150	1	11
JUNE	07...	1030	--	4,050	7.0	10.5	2,500	2,000	470	310	150	1	10
SEPT	12...	0915	--	3,840	6.9	9.0	2,400	1,900	450	300	170	2	11

DATE	ALKALINITY (MG/L AS CaCO_3)	SULFATE DIS-SOLVED (MG/L AS SO_4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO_2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	
NOV 1987	08...	503	2,300	36	1.2	12	3,760	3,660	5.11	--	5.92	0.08
MAR 1988	03...	459	2,500	29	.2	11	4,100	3,890	5.58	1.28	--	<.04
APR	05...	416	2,300	28	.3	11	3,730	3,620	5.07	1.30	21.9	.10
MAY	09...	434	2,300	27	.3	10	3,780	3,630	5.14	.65	12.9	.07
JUNE	08...	462	2,300	38	.4	9.7	3,920	3,570	5.33	--	4.27	.03
AUG	30...	490	2,300	49	.2	11	3,830	3,660	5.21	.36	6.93	.07
NOV	16...	503	2,200	53	.3	10	3,800	3,530	5.17	.32	4.34	.06
APR 1989	04...	432	2,500	38	.3	11	3,800	3,890	5.17	1.74	22.0	.04
JUNE	07...	465	2,300	36	.3	10	3,780	3,570	5.14	--	--	--
SEPT	12...	482	2,300	54	.3	10	3,620	3,590	4.92	--	--	--

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
SITE IDENTIFICATION - SSSS87-SPRING--Continued											
NOV 1987 08...	0.26	6.00	0.11	0.14	0.89	1.0	<0.01	<0.01	--	--	<10
MAR 1988 03...	--	<11.0	.08	.1	1.1	1.2	.01	<.01	--	0.01	<10
APR 05...	.33	22.0	.09	.12	1.0	1.1	<.01	<.01	--	--	<10
MAY 09...	.23	13.0	.14	.18	.76	.9	.01	<.01	--	.01	<10
JUNE 08...	.1	4.30	.10	.13	1.0	1.1	.03	.02	0.06	.01	10
AUG 30...	.23	7.00	.13	.17	.57	.7	<.01	<.01	--	--	20
NOV 16...	.2	4.40	.15	.19	1.1	1.3	.01	<.01	--	.01	10
APR 1989 04...	.13	22.0	.08	.1	1.0	1.1	<.01	<.01	--	--	<10
JUNE 07...	--	--	--	--	--	--	--	--	--	--	<10
SEPT 12...	--	--	--	--	--	--	--	--	--	--	<10

DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
NOV 1987 08...	<1	28	<2	460	<3	<20	<9	<30	21	<30	770
MAR 1988 03...	<1	38	<2	430	<3	<20	<9	<30	12	<30	850
APR 05...	<1	27	<2	450	<3	<20	<9	<30	18	<30	560
MAY 09...	<1	24	<2	430	4	<20	<10	<40	14	<40	630
JUNE 08...	<1	21	<.5	420	<1	<5	5	<10	6	<10	720
AUG 30...	<1	24	<.5	420	9	10	4	<10	16	10	790
NOV 16...	<1	24	<.5	430	<1	<5	4	<10	9	<10	780
APR 1989 04...	<1	23	<3	490	<5	<20	<20	<50	<15	<50	680
JUNE 07...	<1	26	3	440	<3	<20	<9	<30	25	<30	760
SEPT 12...	<1	23	<2	430	<3	<20	<9	<30	9	<30	770

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
<u>SITE IDENTIFICATION - SSSS87-SPRING--Continued</u>											
NOV 1987 08...	<30	<30	<3.0	7,800	<18	28	--	--	--	--	--
MAR 1988 03...	<30	<30	<3.0	8,200	<18	<40	--	--	--	--	--
APR 05...	<30	<30	<3.0	7,100	<18	26	-9.7	-136	-17.7	0.6	47
MAY 09...	<40	<40	<4.0	7,400	<24	18	--	--	--	--	--
JUNE 08...	10	20	<1.0	7,400	<6	20	--	--	--	--	--
AUG 30...	<10	30	3.0	7,500	<6	27	-10.5	-133	-17.4	-1.1	53
NOV 16...	<10	20	<1.0	7,100	<6	22	--	--	--	--	--
APR 1989 04...	<30	<50	<5.0	7,100	<30	16	--	-136	-17.7	--	48
JUNE 07...	<30	<30	<3.0	7,200	<18	47	--	--	--	--	--
SEPT 12...	<30	<30	<3.0	7,200	<18	61	--	--	--	--	--

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CACO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CACO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
<u>SITE IDENTIFICATION - SSLYS-LYSIMETER</u>											
APR 1988 11...	1500	4,070	8.3	8.5	2,800	2,700	440	410	170	1	11
MAY 09...	1400	4,470	8.4	14.5	3,300	3,000	510	480	200	2	13
APR 1989 04...	1130	3,960	8.2	2.5	2,700	2,600	450	390	140	1	12

DATE	ALKA- LINITY (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
APR 1988 11...	130	3,000	12	0.8	3.7	4,290	4,190	13.9	0.07
MAY 09...	266	3,200	14	.8	6.3	4,690	4,660	14.5	.47
APR 1989 04...	104	2,900	10	.9	3.4	4,180	4,040	14.9	.13

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (MG/L AS AL)
SITE IDENTIFICATION - SSLYS-LYSIMETER--Continued											
APR 1988 11...	0.23	14.0	0.13	0.17	1.5	1.6	0.02	<0.01	--	0.02	20
MAY 09...	1.5	15.0	.43	.55	2.1	2.5	.01	<.01	--	.01	20
APR 1989 04...	.43	15.0	.09	.12	.91	1.0	.02	.09	0.28	.0	<10
DATE	ARSENIC DIS- SOLVED (µG/L AS AS)	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
APR 1988 11...	<1	28	<2	100	<3	<20	<9	<30	9	<30	130
MAY 09...	2	35	<3	170	<5	<30	<20	<50	22	<50	270
APR 1989 04...	<1	25	<3	100	<5	<20	<20	<50	<15	<50	30
DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
APR 1988 11...	<30	<30	<3.0	5,100	<18	30	--	-129	-17.2	-2.9	59
MAY 09...	<50	<50	<5.0	5,700	<30	69	-1.6	-123	-15.9	-2.7	63
APR 1989 04...	<50	<50	<5.0	5,000	<30	27	--	-127	-16.8	--	52

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	TIME	SPRING-FLOW INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (µS/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (°C)	HARDNESS TOTAL (MG/L AS CaCO ₃)	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	
SITE IDENTIFICATION - SCSS87-SPRING													
MAR 1988	07...	1430	--	2,610	6.9	9.0	1,700	1,300	340	200	140	2	7.7
APR	12...	0845	.281	2,850	7.0	7.0	1,800	1,500	370	220	140	1	6.5
MAY	11...	1015	.153	3,050	7.1	9.0	1,800	1,500	370	220	150	2	7.3
JUNE	08...	1300	--	2,970	7.1	15.0	1,700	1,400	350	210	140	1	7.3
AUG	31...	1130	.053	2,590	7.0	12.0	1,700	1,300	350	210	160	2	8.4
NOV	15...	1430	.050	2,820	7.3	--	1,600	1,200	320	200	150	2	7.4
APR 1989	05...	0900	.479	3,260	7.0	7.0	2,000	1,600	400	240	94	.9	7.7
JUNE	06...	1015	.103	3,250	7.1	12.0	2,000	1,600	400	240	110	1	6.1
SEPT	18...	1445	--	2,870	7.4	16.0	1,800	1,500	340	240	110	1	9.0

DATE	ALKALINITY (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	
MAR 1988	07...	369	1,500	15	0.2	12	2,520	2,590	3.43	--	1.82	0.28
APR	12...	328	1,700	12	.2	10	2,800	2,690	3.81	2.04	6.99	.01
MAY	11...	350	1,700	13	.3	9.8	2,870	2,720	3.90	1.12	7.07	.03
JUNE	08...	375	1,700	15	.4	7.5	2,830	2,710	3.85	--	10.9	.11
AUG	31...	405	1,600	10	.2	11	2,730	2,600	3.71	.37	--	<.01
NOV	15...	395	1,600	16	.2	8.8	2,600	2,550	3.54	.34	--	<.01
APR 1989	05...	373	1,900	16	.3	10	2,890	2,950	3.93	3.82	13.0	.03
JUNE	06...	408	1,800	14	.2	6.3	2,940	2,830	4.00	.79	--	--
SEPT	18...	335	1,700	19	.2	17	2,720	2,640	3.70	--	--	--

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)
<u>SITE IDENTIFICATION - SCS87-SPRING--Continued</u>											
MAR 1988											
07...	0.92	2.10	0.08	0.1	0.52	0.6	<0.01	<0.01	--	<10	<1
APR											
12...	.03	7.00	.08	.1	.62	.7	<.01	<.01	--	<10	<1
MAY											
11...	.1	7.10	.11	.14	1.7	1.8	.01	<.01	0.01	<10	<1
JUNE											
08...	.36	11.0	.12	.15	1.3	1.4	<.01	<.01	--	<10	<1
AUG											
31...	--	.85	.10	.13	.4	.5	<.01	<.01	--	<10	<1
NOV											
15...	--	.55	.11	.14	.29	.4	<.01	<.01	--	<10	<1
APR 1989											
05...	.1	13.0	.08	.1	.72	.8	<.01	<.01	--	20	<1
JUNE											
06...	--	--	--	--	--	--	--	--	--	<10	<1
SEPT											
18...	--	--	--	--	--	--	--	--	--	10	2

DATE	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)
MAR 1988										
07...	43	<2	200	4	<20	<9	<30	34	<30	320
APR										
12...	47	<2	190	<3	<20	<9	<30	12	<30	77
MAY										
11...	43	<2	210	<3	<20	<9	<30	22	<30	73
JUNE										
08...	35	<.5	210	<1	<5	<3	<10	7	<10	88
AUG										
31...	38	<.5	200	5	8	<3	<10	31	<10	150
NOV										
15...	37	<.5	200	<1	<5	<3	<10	19	<10	170
APR 1989										
05...	39	<2	220	3	<20	<9	<30	120	30	55
JUNE										
06...	35	<2	220	<3	<20	<9	<30	41	<30	110
SEPT										
18...	46	<1	200	<2	<10	<6	<20	150	<20	840

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	MOLYB- DENUM, -DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
<u>SITE IDENTIFICATION - SCSS87-SPRING--Continued</u>											
MAR 1988											
07...	<30	<30	6.0	4,200	<18	26	--	--	--	--	--
APR											
12...	<30	<30	<3.0	3,900	<18	30	-8.6	-137	-17.8	1.10	55
MAY											
11...	<30	<30	<3.0	4,000	<18	<9	--	--	--	--	--
JUNE											
08...	<10	<10	1.0	8,900	<6	17	--	--	--	--	--
AUG											
31...	<10	<10	1.0	4,100	<6	20	-9.0	-133	-17.7	-0.2	51
NOV											
15...	<10	<10	<1.0	4,000	<6	20	--	--	--	--	--
APR 1989											
05...	<30	50	<3.0	4,100	<18	45	--	-138	-18	--	42
JUNE											
06...	<30	<30	<3.0	4,500	<18	39	--	--	--	--	--
SEPT											
18...	<20	<20	<2.0	4,000	<12	18	--	--	--	--	--

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (µS/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (°C)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	HARD- NESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
<u>SITE IDENTIFICATION - SCLYS-LYSIMETER</u>											
APR 1988											
12...	1430	3,440	7.7	7.0	2,500	2,500	490	320	53	0.5	12
MAY											
11...	1315	3,450	8.0	13.5	2,500	2,300	490	310	55	.5	16
APR 1989											
05...	1200	3,450	8.1	2.5	2,300	2,100	410	300	50	.5	11

DATE	ALKA- LINITY (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
APR 1988									
12...	91	2,500	24	0.3	5.8	3,740	3,520	14.0	0.02
MAY									
11...	185	2,300	19	.4	18	3,620	3,370	9.39	.61
APR 1989									
05...	129	2,400	4.3	.3	6.1	--	3,260	--	--

Table 26.--Water-quality analyses for springs and lysimeters--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO ₂)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORGANIC DIS- SOLVED (MG/L AS P)	ALU- MINUM, DIS- SOLVED (µG/L AS AL)	ARSENIC DIS- SOLVED (µG/L AS AS)
<u>SITE IDENTIFICATION - SCLYS-LYSIMETER--Continued</u>											
APR 1988 12...	0.07	14.0	0.13	0.17	0.27	0.4	0.02	<0.01	0.02	<10	<1
MAY 11...	2.0	10.0	.20	.26	.9	1.1	<.01	<.01	--	10	<1
APR 1989 05...	--	--	--	--	--	--	--	--	--	<10	<1
DATE	BARIUM, DIS- SOLVED (µG/L AS BA)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE)	BORON, DIS- SOLVED (µG/L AS B)	CADMIUM DIS- SOLVED (µG/L AS CD)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR)	COBALT, DIS- SOLVED (µG/L AS CO)	COPPER, DIS- SOLVED (µG/L AS CU)	IRON, DIS- SOLVED (µG/L AS FE)	LEAD, DIS- SOLVED (µG/L AS PB)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	
APR 1988 12...	30	<2	40	<3	<20	<9	<30	<9	<30	26	
MAY 11...	30	<2	40	<4	<20	<10	<40	<12	<40	66	
APR 1989 05...	24	<.5	40	<1	<5	<3	<10	7	<10	33	
DATE	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	SILVER, DIS- SOLVED (µG/L AS AG)	STRON- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	H-2/ H-1 STABLE ISOTOPE RATIO PER MIL	O-18/ O-16 STABLE ISOTOPE RATIO PER MIL	S-34/ S-32 STABLE ISOTOPE RATIO PER MIL	TRIT- IUM TOTAL (PCI/L)
APR 1988 12...	<30	<30	<3.0	1,700	<18	51	-8.3	--	--	5.10	--
MAY 11...	<40	<40	<4.0	1,700	<24	130	--	-127	-16.3	5.00	48
APR 1989 05...	<10	<10	<1.0	1,500	<6	110	--	-133	-17.5	--	48

Table 27.--Water-quality information from Cow Camp Creek batch-mixing samples collected after 90 days of water-rock contact

[$\mu\text{S}/\text{CM}$, microsiemens per centimeter at 25 degrees Celsius; $^{\circ}\text{C}$, degrees Celsius; MG/L , milligrams per liter; $\mu\text{G}/\text{L}$, micrograms per liter; <, less than]

LITHO-LOGIC UNIT (SEE FIGURE 28) ¹	SAMPLE DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE ($\mu\text{S}/\text{CM}$)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER ($^{\circ}\text{C}$)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY (MG/L AS CaCO_3)	SULFATE DIS-SOLVED (MG/L AS SO_4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SS01	18.4-18.7	6,000	2.58	24.2	490	250	1.6	0.0	6,100	2.8
CL02	22.6-22.9	6,400	1.91	23.7	30	14	39	0.0	3,900	3.1
SS03	27.9-28.2	1,100	7.73	24.7	55	100	44	350	340	4.6
SH04	36.7-37.0	1,200	7.45	24.6	100	52	86	160	520	3.2
SS05	39.2-39.5	1,400	7.48	25.1	180	78	35	150	790	3.4
SS06	49.0-49.3	760	7.88	24.1	65	42	33	180	240	2.3
SH07	61.0-61.3	980	8.26	24.6	18	10	190	260	240	2.0
SS08	66.1-66.5	700	8.02	24.8	32	34	70	260	120	4.3
SH09	73.5-73.7	3,600	7.25	24.7	370	180	300	77	2,100	3.6
CL10	76.0-76.4	230	7.63	24.1	18	9.0	19	120	5.0	1.6
SS12	87.1-87.4	670	7.72	24.3	16	14	130	190	140	3.5
SS13	89.7-90.0	860	8.13	24.4	19	12	160	380	80	2.7
SH14	90.9-91.2	1,400	7.91	23.7	18	9.0	290	450	300	1.9
SH16	98.3-98.6	2,400	3.19	24.1	150	44	260	0.0	1,500	3.8
SS17	106.2-106.5	820	7.75	23.8	56	40	86	200	240	2.6
SH18	118.8-119.2	1,600	7.95	23.6	22	10	380	370	480	1.7

LITHO-LOGIC UNIT (SEE FIGURE 28)	IRON, DIS-SOLVED (MG/L AS FE)	SILICA, DIS-SOLVED (MG/L AS SI)	DIS-SOLVED SOLIDS SUM (MG/L)	ALU-MINUM DIS-SOLVED ($\mu\text{G}/\text{L}$ AS AL)	BARIUM, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS BA)	BERYL-LIUM, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS BE)	BORON, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS B)	CADMIUM DIS-SOLVED ($\mu\text{G}/\text{L}$ AS CD)	CHRO-MIUM, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS CR)	COBALT, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS CO)	COPPER, DIS-SOLVED ($\mu\text{G}/\text{L}$ AS CU)
SS01	1,700	49	8,700	95,000	7.0	43	1,500	470	220	6,800	160
CL02	1,100	6.4	5,100	7,900	10	<1.0	2,600	380	170	4,100	69
SS03	.10	1.8	980	<10	25	<1.0	24	<1.0	<1.0	<1.0	61
SH04	.10	4.9	980	<10	35	<1.0	210	<1.0	110	<1.0	22
SS05	.04	2.8	1,300	<10	28	<1.0	160	22	1.0	32	95
SS06	.03	2.9	610	<10	28	4.0	48	19	42	<1.0	23
SH07	.70	3.9	780	<10	63	<1.0	110	<1.0	52	<1.0	22
SS08	.03	2.2	580	<10	77	2.0	150	17	17	<1.0	83
SH09	.06	4.7	3,600	<10	16	<1.0	160	<1.0	33	7.0	110
CL10	.07	1.2	190	<10	320	<1.0	1,100	<1.0	74	<1.0	68
SS12	.14	4.3	530	<10	110	<1.0	26	<1.0	74	11	12
SS13	.07	2.8	730	<10	145	<1.0	30	<1.0	<1.0	10	15
SH14	.04	4.5	1,200	<10	58	<1.0	150	<1.0	24	<1.0	49
SH16	160	64	2,100	5,500	20	59	520	200	47	4,000	280
SS17	.20	58	660	<10	49	<1.0	21	<1.0	90	35	31
SH18	.08	2.4	1,300	<10	45	<1.0	12	8.0	91	<1.0	32

Table 27.--Water-quality information from Cow Camp Creek batch-mixing samples collected after 90 days of water-rock contact--Continued

LITHO- LOGIC UNIT (SEE FIGURE 28)	LEAD, DIS- SOLVED (µG/L AS PB)	LITHIUM, DIS- SOLVED (µG/L AS LI)	MANGA- NESE, DIS- SOLVED (µG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO)	NICKEL, DIS- SOLVED (µG/L AS NI)	STRONT- TIUM, DIS- SOLVED (µG/L AS SR)	VANA- DIUM, DIS- SOLVED (µG/L AS V)	ZINC, DIS- SOLVED (µG/L AS ZN)
SS01	<1.0	240	63,000	<10	2,400	300	510	8,300
CL02	71	56	830	<10	500	450	360	480
SS03	<1.0	59	28	<10	110	1,000	9.0	69
SH04	170	160	320	<10	240	3,200	27	59
SS05	<1.0	76	480	<10	140	2,500	25	120
SS06	33	68	100	<10	4.0	1,500	<1.0	63
SH07	<1.0	110	64	<10	120	780	29	85
SS08	260	67	46	<10	63	1,000	<1.0	90
SH09	<1.0	230	1,700	<10	130	8,900	19	150
CL10	<1.0	54	3.0	<10	160	280	23	130
SS12	<1.0	84	140	<10	180	640	2.0	45
SS13	24	91	48	<10	21	610	<1.0	51
SH14	<1.0	160	67	120	62	630	<1.0	120
SH16	180	200	290	<10	4,300	4,200	92	13,000
SS17	<1.0	71	65	49	100	1,100	17	85
SH18	130	200	290	34	190	750	25	63

¹Lithologic units are identified as follows: the first two letters indicate lithology (SS, sandstone; CL, coal; SH, shale), the last two numbers indicate relative depth (1 is shallowest, 18 is deepest).