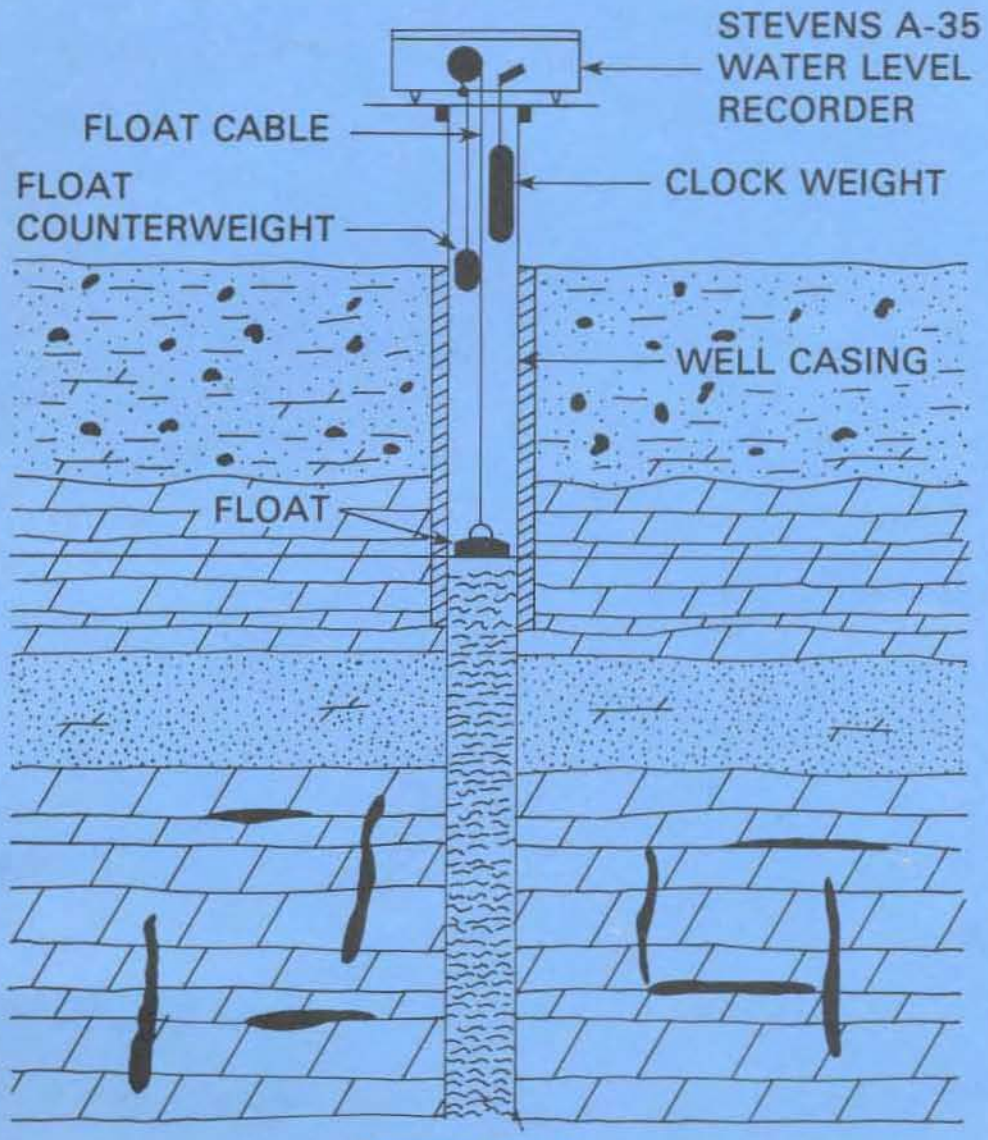
Water Resources Report No. 37

GROUNDWATER LEVEL DATA FOR MISSOURI 1985-1986

by
Wayne R. Berkas,
Cynthia Endicott, and
Pierce W. Cross



Prepared by the
MISSOURI DEPARTMENT OF NATURAL RESOURCES
Division of Geology and Land Survey
in cooperation with the
U.S. GEOLOGICAL SURVEY

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1989

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Library of Congress Card Catalog No. 89-060919
Missouri Classification No. MO/NR. Ge 9:37

Berkas, Wayne R., Endicott, Cynthia, and Cross, Pierce W., 1989, **GROUNDWATER LEVEL DATA FOR MISSOURI, 1985-1986:** Missouri Department of Natural Resources, Division of Geology and Land Survey, Water Resources Report No. 37, 83 p., 38 figs., 1 table.

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM (SI) UNITS

Multiply inch-pound units	by	To obtain SI units
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)

ABSTRACT

Continuous water levels from 36 wells in Missouri were monitored during 1985 and 1986 by the Missouri Department of Natural Resources, Division of Geology and Land Survey. Daily mean water levels are displayed in tables and also in hydrographs.

INTRODUCTION

Groundwater level monitoring is essential to managing groundwater aquifers. Fluctuations and long-term trends in groundwater levels vary in response to aquifer recharge and discharge. Recharge varies in response to precipitation and surface-water infiltration. Discharge varies in response to natural flow to springs and streams, flow to other aquifers, evapotranspiration, and well withdrawals.

Continuous groundwater levels have been recorded since 1955 by the Missouri Department of Natural Resources, Division of Geology and Land Survey (DGLS). The number and locations of wells represented by the water-level records have varied through the years to the 1986 number of 36. Some data from this network have been published in regional groundwater studies, but most have never been published.

The purpose of this report is to publish the daily mean 1985 and 1986 groundwater level data. Daily maximum, minimum, and mean water levels as well as hourly water levels will be placed in a computer data base to provide easier access to the data. This report is intended to make water managers aware of the groundwater level network in Missouri and the availability of the data.

This report represents cooperation between DGLS and the U.S. Geological Survey. Data from the groundwater level network can be obtained upon request from the Missouri Department of Natural Resources, Division of Geology and Land Survey, P.O. Box 250, Rolla, Missouri 65401.

GROUNDWATER LEVEL DATA

Continuous water-level data for 1985 through 1986 are presented for 36 wells. Locations of the wells are shown in figure 2. Information about each well is presented alphabetically by county.

Map Number and Well Name

Map numbers designate the well locations in figure 2. Each number consists of a county code and a unique letter. Each well is assigned the name of the nearest town or the name of the owner.

Well-identification Number

The well-identification number is a 15-digit number used as an internal control in the computer files. Although the number is formed from the latitude and longitude of a point believed to represent the well location, the number is an identifier, not a locator.

Locations

Three types of locations are given. The first is in accordance with the General Land Office survey coordinate system (fig. 1). The township, range, and section are followed by letters indicating quarter section, quarter-quarter section, and quarter-quarter-quarter section. Subdivisions of a section are designated letters a, b, c, and d, in counterclockwise order, starting in the northeast quarter. The second location type is latitude and longitude. The third is a written description of the well location.

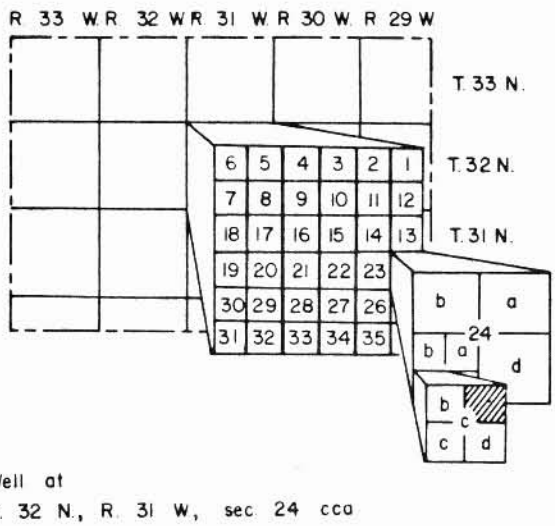

Figure 1--General Land Office survey coordinate system

Owner

The owner of the well is listed.

Formations Open to the Well

Geologic formations open to the well are listed. The generalized stratigraphic column for Missouri is shown in table 1, which is modified from Koenig (1961).

Well Characteristics

In each case, well characteristics of interest are the date of drilling, total depth, and casing information. If DGLS has a stratigraphic log of the well, the log number is listed.

Instrumentation

The most common type of well installation, a Stevens model A-35 strip-chart recorder, records water levels as continuous lines on a 10-inch-wide paper chart. The other type of installation, a Stevens model 7001 digital recorder, punches coded water levels on a paper tape at a specific time interval.

Datum

The land surface datum and the relation between the measuring point and the datum are listed.

Period of Processed Record

The period of processed record where daily maximum, minimum, and mean water levels are available also is the period for which unit values are available. Missing parts of the 1985 and 1986 period are explained.

Remarks

Other pertinant information about wells are noted here: for example, wells that yield saline water.

Table 1.--Generalized section of geologic units

[The stratigraphic nomenclature used in this report is that of the Missouri Department of Natural Resources, Division of Geology and Land Survey modified from Koenig (1961)]

SYSTEM	SERIES	GROUP	GEOLOGIC UNIT
Quaternary	Holocene		Alluvium
	Pleistocene		Loess, till and other drift, sand and gravel
Tertiary	(undifferentiated)		
Cretaceous	(undifferentiated)		
Pennsylvanian	(undifferentiated)		
Mississippian	Chesterian		(undifferentiated)
	Meramecian		(undifferentiated)
	Osagean		Keokuk Limestone Burlington Limestone Grand Falls Formation Reeds Spring Formation Pierson Formation
	Kinderhookian	Chouteau	Northview Formation Sedalia Formation Compton Formation
			Hannibal Formation
Devonian	(undifferentiated)		
Silurian	(undifferentiated)		
Ordovician	Cincinnatian		Orchard Creek Shale Thebes Sandstone Maquoketa Shale Cape Limestone
	Champlainian		Kimmswick Formation Decorah Formation Plattin Formation Rock Levee Formation Joachim Dolomite Dutchtown Formation St. Peter Sandstone Everton Formation
	Canadian		Smithville Formation Powell Dolomite Cotter Dolomite Swan Creek Member Jefferson City Dolomite Roubidoux Formation Gasconade Formation Gunter Sandstone Member
Cambrian	Upper Cambrian		Eminence Dolomite Potosi Dolomite
		Elvins	Derby-Doerun Dolomite Davis Dolomite
			Bonneterre Formation Lamotte Sandstone

REFERENCE CITED

Koenig, J.W., ed., 1961, The Stratigraphic Succession in Missouri: Missouri Geological Survey and Water Resources, 2nd series, v. 40, 185 p.

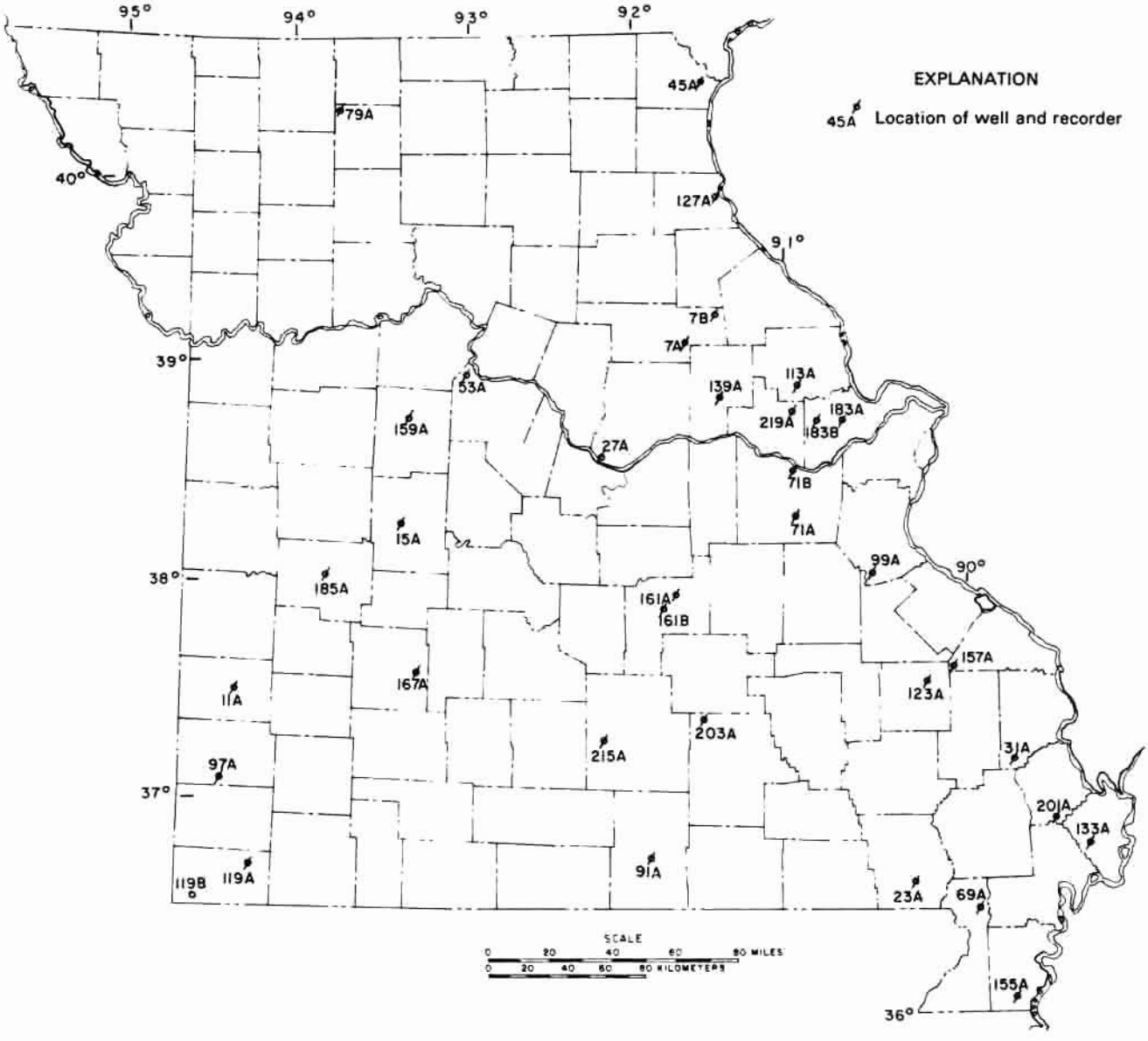

Figure 2--Groundwater monitoring wells

DATA

Map number	County	Well name	Page
7A	Audrain	Scotts Corner	8
7B	Audrain	Vandalia	10
11A	Barton	Lamar	12
15A	Benton	Warsaw	14
23A	Butler	Poplar Bluff	16
27A	Callaway	Jefferson City	18
31A	Cape Girardeau	Delta	20
45A	Clark	Wayland	22
53A	Cooper	Arrow Rock	24
69A	Dunklin	Malden	26
71A	Franklin	St. Clair	28
71B	Franklin	Washington	30
79A	Grundy	Spickard	32
91A	Howell	West Plains 2	34
97A	Jasper	Atlas Powder	36
99A	Jefferson	DeSoto	38
113A	Lincoln	Troy	40
119A	McDonald	Longview	42
119B	McDonald	Noel	44
123A	Madison	Fredericktown	46
127A	Marion	Hannibal	48
133A	Mississippi	East Prairie	50
139A	Montgomery	New Florence	52
155A	Pemiscot	Steele	54
157A	Perry	National Lead	56
159A	Pettis	Sedalia	58
161A	Phelps	Industrial Park	60
161B	Phelps	Rolla	62
167A	Polk	Halfway	64
183A	St. Charles	O'Fallon	66
183B	St. Charles	Wentzville	68
185A	St. Clair	Osceola	70
201A	Scott	Sikeston	72
203A	Shannon	Akers	74
215A	Texas	Fairview	76
219A	Warren	Wright City	78

COUNTY--Audrain

WELL IDENTIFICATION NUMBER--390950091384801

LOCATION--T.51N., R.7W., 25ccc, lat. 39°09'50", long. 91°38'48", in basement of Laddonia R-6 School, Scotts Corner, intersection of State Highway 54, State Highway 19, and County Road BB.
Owner: Laddonia R-6 School System

FORMATIONS OPEN TO THE WELL--Keokuk Limestone, Burlington Limestone, Chouteau Group, undifferentiated Devonian, Kimmswick Formation, Decorah Formation, Plattin Formation, Joachim Dolomite, and St. Peter Sandstone.

WELL CHARACTERISTICS--Total depth 650 feet, cased to unknown depth.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed April 1, 1981.

DATUM--Elevation of land surface datum is 795 feet, from topographic map.
Measuring point: Base of recorder platform, at land surface datum.

PERIOD OF PROCESSED RECORD--April 18, 1984, to present.
Missing record for 1985: Recorder malfunctioned for the period January 1 to June 26.
Missing record for 1986: Records not available after July 6.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	217.90	225.07	224.05	223.35	221.64	220.62
2	---	---	---	---	---	---	217.93	225.15	224.06	223.32	221.84	221.07
3	---	---	---	---	---	---	218.12	225.16	224.02	223.11	221.88	221.14
4	---	---	---	---	---	---	218.25	225.08	223.98	222.98	221.94	220.97
5	---	---	---	---	---	---	218.44	224.96	223.90	223.10	221.90	220.92
6	---	---	---	---	---	---	218.72	224.87	223.87	222.98	221.67	221.02
7	---	---	---	---	---	---	219.08	224.85	224.06	222.82	221.72	220.81
8	---	---	---	---	---	---	219.46	224.81	224.40	222.80	221.69	220.62
9	---	---	---	---	---	---	219.64	224.70	224.16	222.97	221.53	220.72
10	---	---	---	---	---	---	219.97	224.70	224.14	222.94	221.68	220.69
11	---	---	---	---	---	---	220.29	224.78	224.20	222.81	221.84	220.65
12	---	---	---	---	---	---	220.63	224.92	224.20	222.63	221.67	220.62
13	---	---	---	---	---	---	220.89	224.99	224.24	222.62	221.56	220.62
14	---	---	---	---	---	---	221.13	224.73	224.28	222.54	221.68	220.66
15	---	---	---	---	---	---	221.41	224.60	224.11	222.65	221.60	220.50
16	---	---	---	---	---	---	221.73	224.57	223.93	222.75	221.44	220.50
17	---	---	---	---	---	---	221.90	224.52	223.78	222.72	221.43	220.48
18	---	---	---	---	---	---	222.18	224.52	223.72	222.62	221.26	220.80
19	---	---	---	---	---	---	222.56	224.57	223.78	222.59	221.27	220.61
20	---	---	---	---	---	---	222.97	224.55	223.79	222.54	221.69	220.49
21	---	---	---	---	---	---	223.48	224.49	223.70	222.50	221.56	220.44
22	---	---	---	---	---	---	223.78	224.35	223.50	222.43	221.30	219.98
23	---	---	---	---	---	---	223.69	224.29	223.34	222.28	221.28	219.88
24	---	---	---	---	---	---	223.59	224.22	224.01	222.33	221.35	220.01
25	---	---	---	---	---	---	223.57	224.19	223.65	222.51	221.12	220.25
26	---	---	---	---	---	---	223.70	224.35	223.54	222.33	220.97	219.75
27	---	---	---	---	---	217.97	223.90	224.50	223.53	222.29	221.09	219.93
28	---	---	---	---	---	217.94	224.16	224.47	223.46	222.31	220.99	220.02
29	---	---	---	---	---	217.88	224.53	224.31	223.37	222.18	220.98	219.94
30	---	---	---	---	---	217.87	224.79	224.14	223.26	222.09	220.90	219.79
31	---	---	---	---	---	---	224.90	224.11	---	221.80	---	219.77

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	219.86	218.97	218.09	217.32	216.99	216.18	216.41	---	---	---	---	---
2	219.66	218.96	217.77	217.31	217.16	216.25	216.56	---	---	---	---	---
3	219.88	218.78	217.94	217.15	217.12	215.88	216.63	---	---	---	---	---
4	219.75	218.51	217.99	217.17	216.83	215.93	216.75	---	---	---	---	---
5	219.87	218.61	217.77	217.21	216.58	215.97	217.04	---	---	---	---	---
6	219.69	218.66	217.86	217.21	216.66	215.92	217.31	---	---	---	---	---
7	220.06	218.63	218.06	217.17	216.74	215.82	---	---	---	---	---	---
8	220.22	218.80	217.85	217.28	216.76	215.85	---	---	---	---	---	---
9	219.92	218.83	217.45	217.37	216.78	215.91	---	---	---	---	---	---
10	219.76	218.80	217.43	217.30	216.75	215.84	---	---	---	---	---	---
11	219.65	218.79	217.69	217.19	216.62	215.76	---	---	---	---	---	---
12	219.54	218.85	217.42	217.11	216.57	215.79	---	---	---	---	---	---
13	219.65	218.81	217.46	217.08	216.55	215.88	---	---	---	---	---	---
14	219.45	218.50	217.57	216.97	216.58	215.84	---	---	---	---	---	---
15	219.60	218.57	217.68	217.15	216.48	215.87	---	---	---	---	---	---
16	219.46	218.15	217.72	217.29	216.59	215.82	---	---	---	---	---	---
17	219.44	218.03	217.62	217.31	216.38	215.99	---	---	---	---	---	---
18	219.33	218.01	217.24	217.22	216.39	216.09	---	---	---	---	---	---
19	219.25	218.04	217.46	217.21	216.48	216.11	---	---	---	---	---	---
20	219.15	218.06	217.92	216.99	216.54	216.19	---	---	---	---	---	---
21	218.96	218.30	217.99	217.06	216.47	216.24	---	---	---	---	---	---
22	219.38	218.22	217.75	217.24	216.34	216.29	---	---	---	---	---	---
23	219.52	218.06	217.69	217.17	216.33	216.29	---	---	---	---	---	---
24	219.25	218.17	217.74	217.06	216.40	216.30	---	---	---	---	---	---
25	219.17	218.12	217.55	216.99	216.33	216.13	---	---	---	---	---	---
26	219.15	217.75	217.62	216.95	216.23	216.14	---	---	---	---	---	---
27	219.23	217.94	217.73	216.84	216.22	216.19	---	---	---	---	---	---
28	218.93	218.21	217.49	216.77	216.31	216.20	---	---	---	---	---	---
29	218.98	---	217.32	216.92	216.30	216.18	---	---	---	---	---	---
30	219.25	---	217.29	216.83	216.26	216.29	---	---	---	---	---	---
31	219.10	---	217.26	---	216.21	---	---	---	---	---	---	---

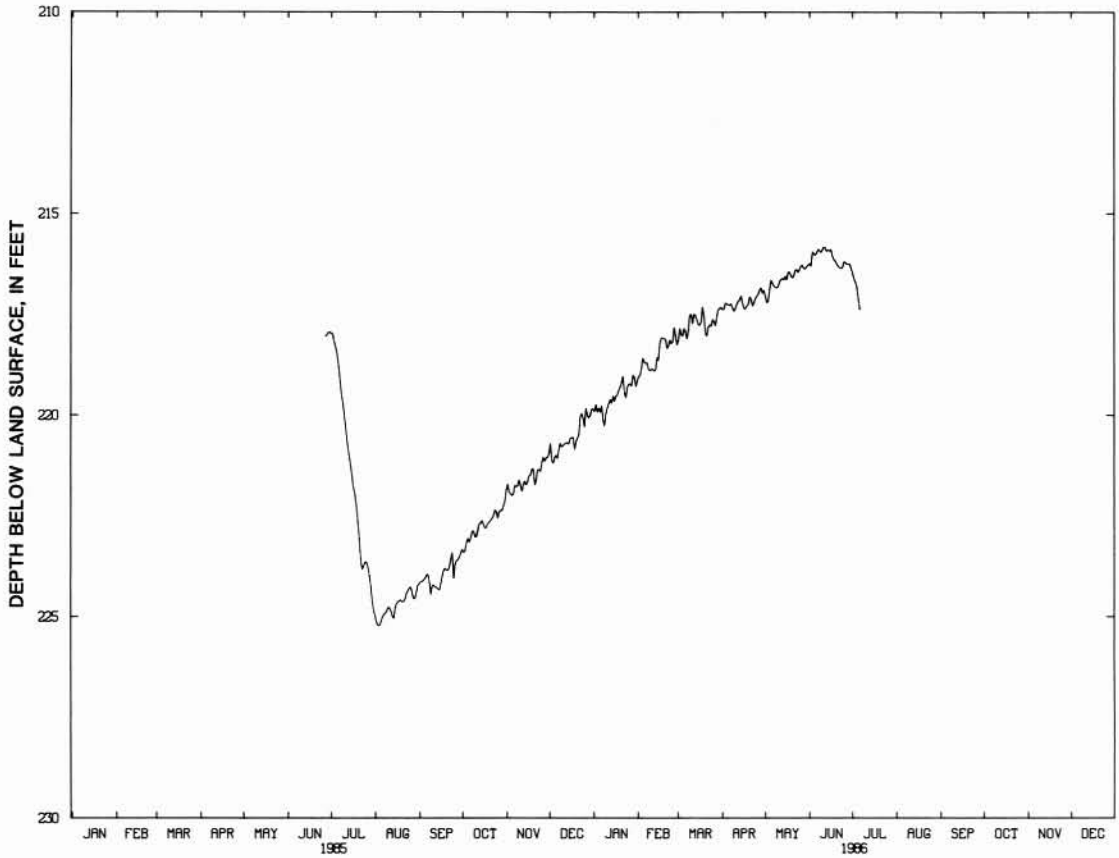

Figure 3.--Water level in observation well 7A, Scotts Corner, Audrain County.

COUNTY--Audrain

WELL IDENTIFICATION NUMBER--391825091285001

LOCATION--T.52N., R.5W., Sddd, lat. 39°18'25", long. 91°28'50", west of intersection of Highland Street and Walsh Boulevard in Vandalia, well number 3.
Owner: City of Vandalia

FORMATIONS OPEN TO THE WELL--Kimmswick Formation, Decorah Formation, Plattin Formation, Joachim Formation, and St. Peter Sandstone.

WELL CHARACTERISTICS--Drilled January 1, 1939, total depth 700 feet, 425 feet of 10-inch casing, open hole.
DGLS Log Number: 5,230

INSTRUMENTATION--Stevens model A-35 chart recorder.

DATUM--Elevation of land-surface datum is 765 feet, from topographic map.
Measuring point: Base of recorder platform, 1.6 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 17, 1970, to present.
Missing record for 1986: Recorder malfunctioned for the period December 1 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	209.10	209.26	208.84	208.74	208.18	208.02	208.19	208.13	208.03	208.97	208.51	208.62
2	209.41	209.29	209.06	208.60	208.33	207.98	208.12	208.17	208.10	208.94	208.77	209.11
3	209.32	209.39	208.76	208.44	208.41	208.11	208.08	208.10	208.02	208.79	208.89	209.08
4	209.04	209.28	208.60	208.15	208.27	208.10	207.96	208.00	207.98	208.72	209.00	208.91
5	209.15	208.98	209.20	208.24	208.14	208.13	207.96	207.94	207.94	208.90	208.91	208.93
6	208.92	209.10	209.29	208.56	208.22	208.12	208.10	207.92	208.02	208.85	208.72	209.03
7	209.00	209.41	208.94	208.79	208.24	208.08	208.15	207.95	208.16	208.75	208.86	208.84
8	209.21	209.39	209.10	208.91	208.30	208.00	208.11	207.98	208.16	208.80	208.85	208.80
9	209.19	209.16	209.19	208.88	208.24	208.02	208.01	207.92	208.14	208.97	208.70	208.88
10	209.16	209.01	208.97	208.65	208.11	208.06	208.04	208.00	208.25	208.97	208.93	208.87
11	209.43	209.01	208.66	208.67	207.90	207.99	208.04	208.05	208.38	208.88	209.09	208.84
12	209.45	209.10	209.02	208.70	207.96	208.11	208.05	207.91	208.45	208.76	208.93	208.84
13	208.99	209.10	208.92	208.61	208.03	208.15	208.03	207.96	208.59	208.84	208.87	208.88
14	209.00	209.12	209.04	208.45	207.91	208.04	208.05	207.95	208.64	208.80	209.04	208.89
15	209.19	209.10	209.10	208.38	208.05	207.94	208.11	207.94	208.53	208.93	208.94	208.82
16	208.94	208.92	208.97	208.51	208.02	207.96	208.21	207.95	208.36	209.06	208.87	208.82
17	208.80	209.22	209.01	208.50	208.07	207.97	208.22	207.94	208.25	209.06	208.90	208.83
18	208.67	209.26	208.95	208.43	208.06	208.00	208.17	208.02	208.38	208.99	208.76	209.12
19	209.00	209.23	208.83	208.17	208.03	208.06	208.17	208.06	208.64	209.02	208.83	208.89
20	209.30	209.10	208.91	208.34	208.05	208.01	208.16	208.10	208.77	209.03	209.26	208.93
21	209.19	208.97	208.85	208.34	208.16	207.92	208.07	208.10	208.72	209.01	209.11	208.82
22	209.20	208.95	208.69	208.23	208.18	208.03	208.07	208.03	208.58	208.94	208.95	208.48
23	208.97	208.85	208.66	208.17	208.20	208.09	208.11	207.97	208.56	208.81	208.96	208.39
24	208.79	209.03	208.75	208.30	208.15	208.11	208.00	207.95	208.80	208.96	209.07	208.71
25	209.08	209.14	208.99	208.31	208.07	208.07	208.00	208.01	208.66	209.12	208.81	208.84
26	209.20	209.10	208.81	208.25	207.95	208.03	208.13	208.14	208.68	208.99	208.73	208.39
27	208.98	209.33	208.47	208.30	207.97	208.08	208.18	208.28	208.74	209.04	208.82	208.69
28	209.07	209.12	208.33	208.44	208.10	208.15	208.12	208.25	208.83	209.06	208.83	208.67
29	209.02	---	208.61	208.42	208.01	208.16	208.14	208.11	208.79	208.96	208.88	208.69
30	208.99	---	208.55	208.26	207.85	208.18	208.09	208.00	208.84	208.86	208.77	208.48
31	209.20	---	208.41	---	207.92	---	208.01	208.00	---	208.58	---	208.65

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	208.64	208.58	208.31	208.08	207.91	207.59	207.50	207.40	207.82	207.89	208.33	---
2	208.42	208.61	208.09	208.01	208.08	207.75	207.58	207.42	207.77	207.87	208.32	---
3	208.65	208.34	208.29	207.86	208.06	207.74	207.67	207.50	207.77	207.91	208.51	---
4	208.62	208.20	208.29	207.90	207.81	207.66	207.55	207.58	207.72	207.76	208.45	---
5	208.71	208.41	208.08	207.95	207.58	207.61	207.53	207.51	207.74	207.79	208.24	---
6	208.75	208.32	208.21	208.00	207.61	207.57	207.63	207.38	207.82	207.99	208.20	---
7	209.16	208.49	208.43	207.91	207.69	207.53	207.72	207.35	207.91	208.12	208.12	---
8	209.15	208.63	208.21	208.00	207.72	207.62	207.66	207.34	208.00	208.11	208.17	---
9	208.81	208.72	207.86	208.05	207.75	207.66	207.53	207.37	208.00	208.00	208.07	---
10	208.80	208.65	207.87	207.94	207.74	207.60	207.47	207.34	207.85	208.08	208.21	---
11	208.63	208.69	208.10	207.79	207.69	207.53	207.38	207.44	207.69	208.21	208.51	---
12	208.70	208.76	207.82	207.76	207.68	207.65	207.32	207.57	207.59	208.05	208.42	---
13	208.69	208.52	207.91	207.78	207.63	207.80	207.43	207.55	207.88	207.95	208.44	---
14	208.64	208.46	208.01	207.69	207.65	207.74	207.56	207.43	208.02	208.09	208.65	---
15	208.68	208.38	208.14	207.85	207.57	207.65	207.53	207.37	208.02	208.03	208.78	---
16	208.57	208.06	208.21	207.98	207.70	207.71	207.51	207.36	207.95	208.12	208.40	---
17	208.57	208.09	208.12	207.97	207.53	207.89	207.52	207.37	208.07	208.18	208.14	---
18	208.50	208.04	207.72	207.88	207.66	207.84	207.53	207.49	207.95	208.14	208.03	---
19	208.51	208.18	208.02	207.92	207.75	207.74	207.46	207.56	207.90	208.29	208.03	---
20	208.41	208.19	208.49	207.65	207.80	207.77	207.45	207.55	207.92	208.37	208.18	---
21	208.35	208.44	208.54	207.79	207.72	207.76	207.50	207.57	207.99	208.36	208.09	---
22	208.84	208.37	208.31	207.97	207.62	207.73	207.54	207.65	208.02	208.30	208.12	---
23	208.83	208.25	208.37	207.90	207.63	207.74	207.58	207.60	207.95	208.24	208.23	---
24	208.55	208.38	208.37	207.80	207.73	207.76	207.50	207.60	207.83	208.18	208.05	---
25	208.63	208.28	208.15	207.71	207.73	207.79	207.36	207.63	207.74	208.19	208.19	---
26	208.72	207.90	208.26	207.71	207.66	207.72	207.36	207.56	207.76	208.10	208.34	---
27	208.68	208.16	208.36	207.64	207.67	207.66	207.34	207.56	207.90	207.88	208.09	---
28	208.32	208.43	208.16	207.64	207.72	207.62	207.28	207.70	207.89	208.02	208.13	---
29	208.70	---	208.02	207.76	207.75	207.61	207.34	207.89	207.93	208.12	208.33	---
30	208.76	---	208.04	207.67	207.71	207.51	207.35	207.86	207.87	208.18	208.26	---
31	208.59	---	208.02	---	207.64	---	207.25	207.84	---	208.34	---	---

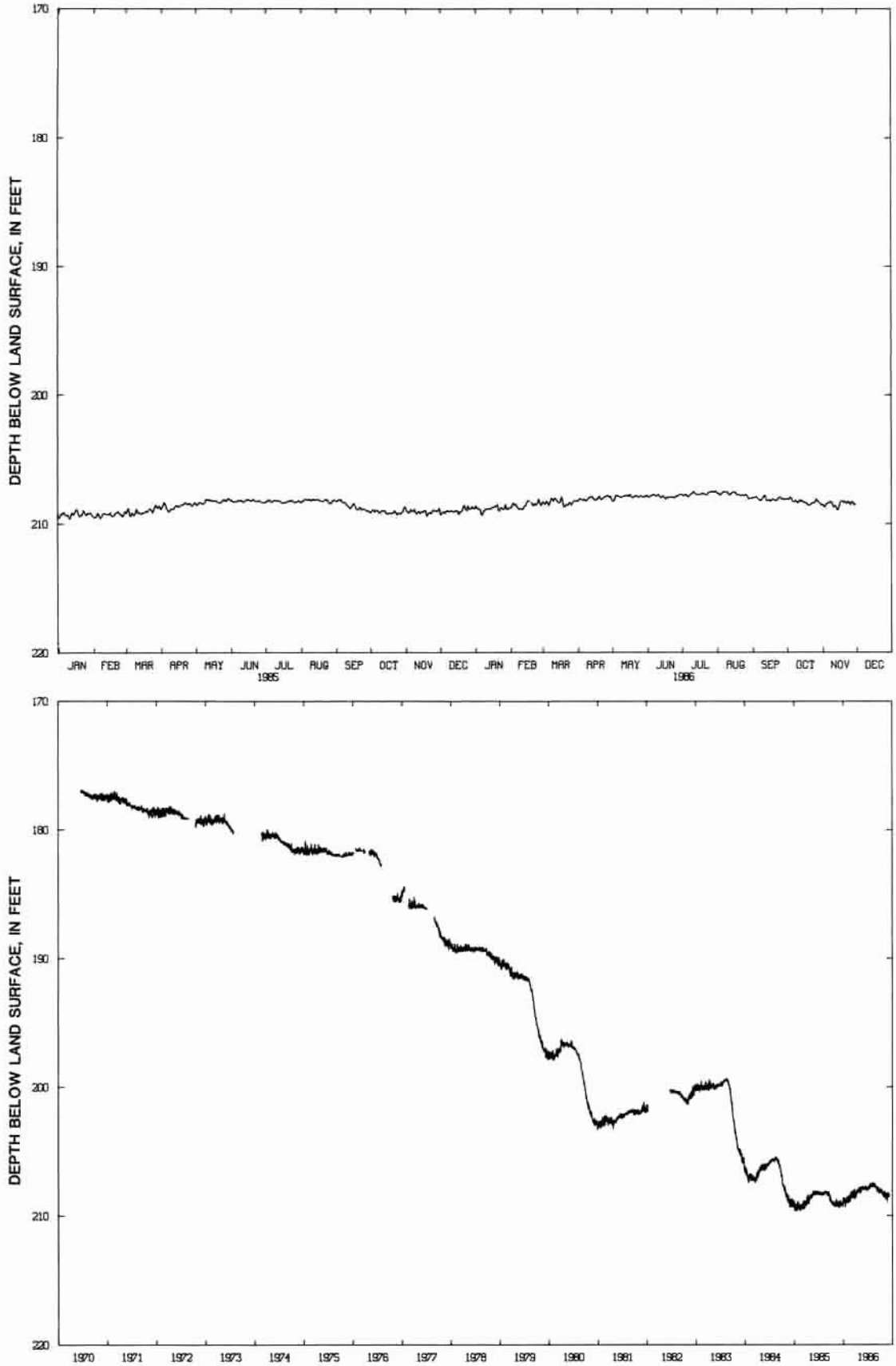

Figure 4.—Water level in observation well 7B, Vandalia, Audrain County.

COUNTY--Barton

WELL IDENTIFICATION NUMBER--373115094161501

LOCATION--T.32N., R.30W., 30abb, lat. 37°31'15", long. 94°16'15", Lamar Water and Light, well number 2.
Owner: City of Lamar

FORMATIONS OPEN TO THE WELL--Cotter Dolomite, Jefferson City Dolomite, Roubidoux Formation, and Gasconade Formation.

WELL CHARACTERISTICS--Unused municipal well, drilled April 1, 1954, total depth 981 feet, 575 feet of 8-inch casing, open hole.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed June 17, 1968.

DATUM--Elevation of land-surface datum is 975 feet, from topographic map.
Measuring point: Base of recorder platform, 2.3 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 17, 1968, to present.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	278.81	277.46	276.22	275.22	274.32	273.69	272.36	299.52	287.69	283.48	278.87	277.33
2	278.96	277.44	276.25	275.34	274.49	273.74	272.32	300.69	287.33	282.81	278.97	277.67
3	278.83	277.41	275.85	275.10	274.84	273.64	272.25	301.42	286.84	282.40	278.94	277.50
4	278.56	277.20	275.95	274.69	274.80	273.30	272.42	302.22	286.50	282.27	279.12	277.38
5	278.60	276.89	276.44	274.73	274.52	273.21	273.39	302.56	286.31	282.16	278.98	277.43
6	278.28	276.93	276.38	274.94	274.47	273.39	274.55	301.88	286.45	281.77	278.68	277.33
7	278.74	277.17	276.33	275.11	274.44	273.43	275.77	301.00	286.48	281.45	278.74	277.09
8	279.06	276.99	276.52	275.22	274.47	273.56	277.18	300.03	286.23	281.34	278.54	277.05
9	278.63	276.67	276.47	275.04	274.44	273.56	278.44	299.34	286.24	281.37	278.32	277.03
10	278.61	276.63	276.06	274.72	274.31	273.59	279.70	298.96	286.28	281.23	278.50	277.08
11	278.81	276.82	275.82	274.70	274.09	273.58	281.07	298.94	286.40	280.96	278.43	277.04
12	278.78	276.85	276.06	274.73	274.22	273.73	282.57	299.24	287.00	280.68	278.38	277.01
13	278.26	277.07	275.92	274.69	274.11	273.69	284.26	299.45	287.67	280.55	278.08	277.11
14	278.23	277.23	276.06	274.57	274.11	273.52	285.96	299.24	287.86	280.42	278.42	277.09
15	278.13	277.00	276.05	274.52	274.30	273.46	287.82	298.69	287.54	280.42	278.49	276.97
16	277.86	276.69	275.87	274.71	274.28	273.41	289.49	297.90	287.05	280.35	278.42	276.94
17	277.77	276.80	275.85	274.71	274.22	273.42	290.99	297.07	286.56	280.21	278.51	276.91
18	277.68	276.85	275.76	274.64	274.16	273.49	292.39	296.27	286.33	280.06	278.75	277.17
19	277.81	276.80	275.68	274.53	274.08	273.52	293.67	295.48	286.05	279.97	278.73	277.03
20	278.08	276.61	275.66	274.48	274.06	273.31	294.59	294.83	285.71	279.82	278.27	276.87
21	278.01	276.44	275.59	274.50	274.13	272.88	295.53	294.09	285.26	279.63	277.98	276.66
22	278.03	276.32	275.47	274.39	274.09	272.84	296.42	293.24	284.77	279.49	277.86	276.32
23	277.78	276.11	275.45	274.45	273.79	272.76	297.26	292.45	284.61	279.33	277.79	276.19
24	277.62	276.44	275.41	274.61	273.65	272.69	297.93	291.81	284.43	279.50	277.74	276.37
25	277.81	276.53	275.55	274.51	273.74	272.56	298.85	291.30	283.97	279.58	277.55	276.53
26	277.73	276.44	275.41	274.43	273.99	272.45	299.25	290.81	283.79	279.49	277.54	276.11
27	277.44	276.71	275.08	274.55	274.07	272.53	298.71	290.33	283.49	279.56	277.60	276.32
28	277.43	276.45	274.88	274.65	273.96	272.50	297.90	289.81	283.29	279.49	277.54	276.22
29	277.25	---	274.95	274.57	273.80	272.44	297.45	289.13	283.56	279.37	277.45	276.18
30	277.22	---	274.84	274.36	273.93	272.39	297.40	288.57	283.57	279.21	277.29	275.92
31	277.46	---	274.89	---	273.72	---	298.27	288.08	---	278.89	---	276.07

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	276.03	274.98	274.63	273.87	273.38	273.16	274.26	307.88	304.33	286.89	280.98	277.95
2	275.80	274.95	274.47	273.76	273.51	273.10	274.47	308.24	303.71	286.55	280.91	278.04
3	275.93	274.70	274.66	273.75	273.43	273.08	274.62	307.25	303.23	286.30	280.99	278.23
4	275.94	274.61	275.06	273.79	273.16	273.02	275.01	305.80	303.53	286.12	282.07	278.32
5	276.00	274.87	275.04	273.84	272.93	272.91	275.62	304.62	304.38	285.98	281.33	278.46
6	275.76	274.82	274.91	273.77	272.98	272.84	276.67	303.83	304.88	285.75	281.03	278.29
7	276.21	275.01	274.88	273.61	273.06	272.77	278.09	303.66	304.72	285.42	280.71	277.95
8	276.33	275.09	274.55	273.65	273.11	272.72	279.42	304.49	304.21	285.13	280.60	277.82
9	276.10	275.10	274.19	273.72	273.19	272.68	280.88	304.49	303.95	284.95	280.68	277.92
10	276.03	275.03	274.31	273.61	273.21	272.63	282.34	304.50	303.64	284.65	280.43	277.97
11	275.86	275.07	274.22	273.47	273.25	272.53	283.57	304.64	303.04	284.18	280.36	277.73
12	275.86	275.13	273.92	273.54	273.40	272.59	284.42	304.62	301.32	284.07	280.38	277.87
13	275.80	274.90	274.18	273.46	273.50	272.66	285.55	304.55	299.83	283.80	280.44	277.81
14	275.69	274.83	274.19	273.59	273.80	272.56	286.62	305.20	298.53	283.53	280.00	277.61
15	275.68	274.73	274.21	273.66	274.13	272.39	287.36	305.72	297.31	283.46	279.59	277.56
16	275.54	274.36	274.21	273.69	274.33	272.43	288.28	305.41	296.30	283.23	279.35	277.44
17	275.60	274.45	274.01	273.55	274.31	272.57	289.44	304.96	295.16	282.99	279.20	277.32
18	275.53	274.40	273.71	273.84	274.37	272.59	290.78	304.53	294.31	282.88	279.34	277.30
19	275.46	274.50	274.15	274.02	274.87	272.75	292.14	304.05	293.61	282.80	279.10	277.29
20	275.29	274.54	274.47	273.58	275.25	273.12	293.61	303.56	292.96	282.68	279.12	277.29
21	275.26	274.77	274.45	273.68	274.73	273.50	294.94	303.49	292.26	282.44	279.07	277.18
22	275.72	274.70	274.23	273.70	274.40	273.61	295.90	303.78	291.57	282.11	278.76	277.17
23	275.62	274.53	274.22	273.51	274.32	273.85	296.66	304.82	290.74	281.94	278.89	276.95
24	275.28	274.67	274.18	273.43	274.32	273.97	297.56	305.89	290.04	281.81	278.90	276.76
25	275.35	274.52	274.06	273.44	274.23	274.01	298.67	306.31	289.70	281.53	278.50	276.80
26	275.38	274.33	274.15	273.49	274.08	274.03	299.85	306.44	289.30	281.44	278.64	276.90
27	275.30	274.55	274.18	273.27	273.84	274.06	301.09	306.51	288.85	281.36	278.69	276.86
28	274.84	274.86	273.98	273.32	273.66	274.07	302.67	306.55	288.42	281.24	278.54	276.79
29	275.15	---	273.83	273.24	273.58	274.11	304.02	306.25	287.93	281.20	278.36	276.67
30	275.17	---	273.81	273.15	273.46	274.13	305.00	305.73	287.43	281.08	278.11	276.65
31	274.96	---	273.76	---	273.32	---	306.32	305.06	---	280.90	---	276.52

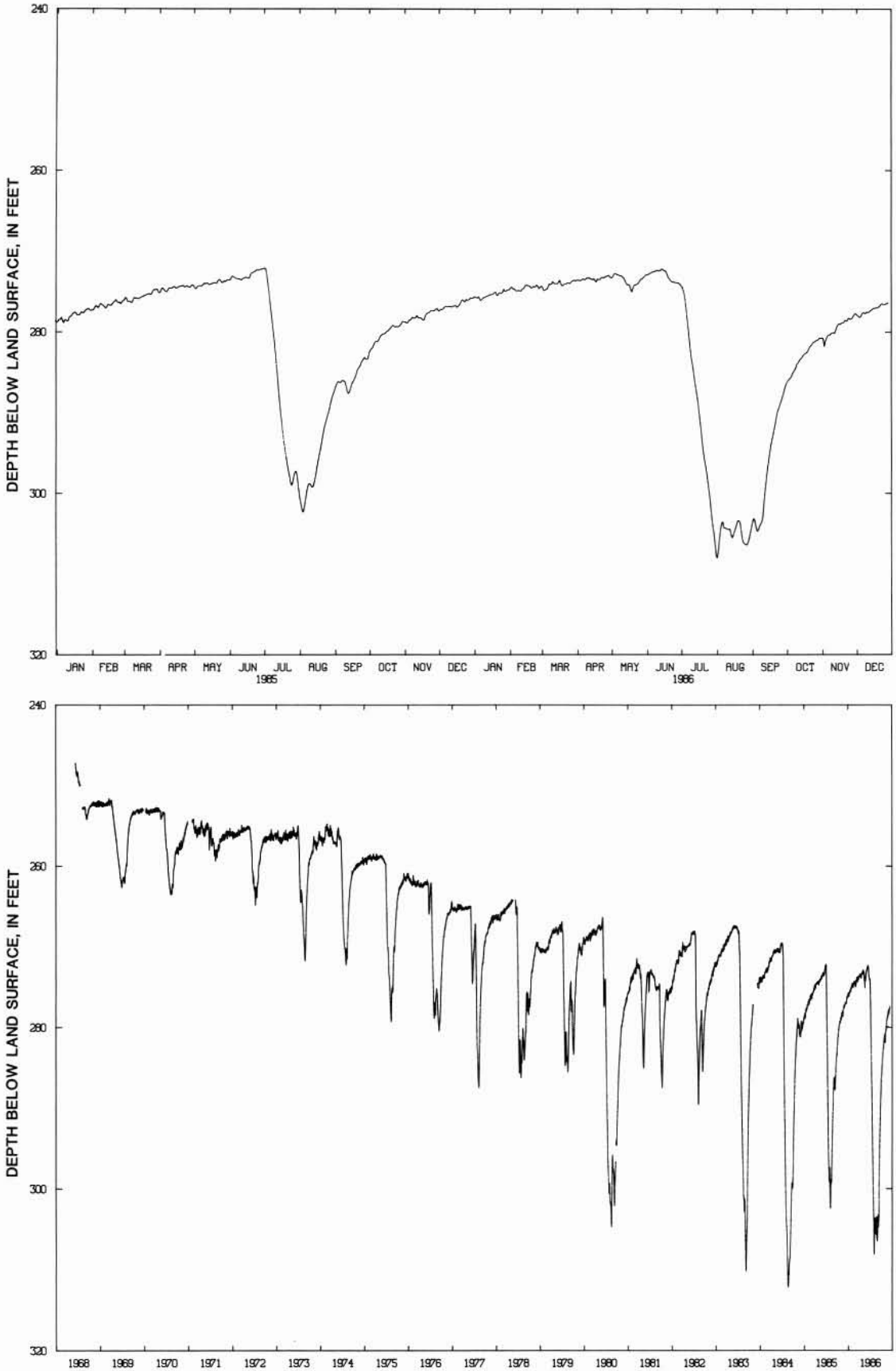

Figure 5.--Water level in observation well 11A, Lamar, Barton County.

COUNTY--Benton

WELL IDENTIFICATION NUMBER--381650093215001

LOCATION--T.40N., R.22W., 4bad, lat. 38°16'50" long. 93°21'50", approximately 2 miles north of the intersection of State Highways 65 and 7, on State Highway 65.
Owner: U.S. Army, Corps of Engineers.

FORMATIONS OPEN TO THE WELL--Gasconade Formation, Gunter Sandstone Member of Gasconade Formation, Eminence Dolomite, Potosi Sandstone Dolomite, Derby-Doerun Dolomite, Davis Dolomite, Bonneterre Formation, and Lamotte Sandstone.

WELL CHARACTERISTICS--Drilled September 20, 1955, total depth, 1,406 feet, 210 feet of 12-inch casing, open hole.
DGLS Log Number: 14,232

INSTRUMENTATION--Stevens model A-35 chart recorder, installed July 20, 1979.

DATUM--Elevation of land-surface datum is 740 feet, from topographic map.
Measuring point: Base of recorder platform, at land-surface datum.

PERIOD OF PROCESSED RECORD--July 20, 1979, to present.
Missing record for 1986: Recorder malfunctioned for the period February 6 to 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	32.31	31.79	28.77	26.82	29.46	30.36	28.55	30.90	31.45	33.05	31.74	28.51
2	32.21	31.87	28.58	26.73	29.65	30.35	28.61	31.14	31.57	32.95	31.96	28.72
3	31.86	31.90	27.96	26.61	29.83	30.46	28.66	31.10	31.54	32.79	32.03	28.47
4	31.46	31.69	28.05	26.48	29.77	30.34	28.70	31.05	31.56	32.78	32.15	28.34
5	31.37	31.55	28.14	26.74	29.78	30.24	28.85	31.02	31.58	32.94	32.27	28.40
6	31.01	31.77	27.85	27.12	29.97	30.05	29.11	31.05	31.70	32.80	32.42	28.41
7	31.00	32.01	27.44	27.43	29.98	29.90	29.31	31.13	31.88	32.70	32.28	28.26
8	30.97	31.86	27.43	27.60	30.05	29.63	29.46	31.17	31.94	32.78	32.27	28.34
9	30.75	31.66	27.33	27.57	30.04	29.51	29.54	31.16	31.98	32.95	32.42	28.37
10	30.77	31.69	26.94	27.43	29.95	29.37	29.76	31.30	32.07	32.97	32.24	28.40
11	31.00	31.82	26.62	27.56	29.78	29.22	29.88	31.36	32.21	32.89	32.04	28.36
12	30.91	31.87	26.75	27.65	29.95	29.18	30.01	31.30	32.28	32.81	32.17	28.20
13	30.47	31.88	26.55	27.63	29.95	29.01	30.16	31.40	32.43	32.82	32.25	28.26
14	30.57	31.91	26.57	27.55	29.90	28.78	30.30	31.44	32.54	32.76	32.08	28.17
15	30.59	31.76	26.49	27.55	30.07	28.66	30.50	31.46	32.49	32.81	31.82	28.15
16	30.46	31.78	26.35	27.76	30.09	28.61	30.66	31.46	32.36	32.80	31.62	28.16
17	30.41	31.96	26.34	27.81	30.11	28.55	30.14	31.51	32.27	32.71	31.36	28.28
18	30.46	31.98	26.22	27.84	30.09	28.43	29.65	31.59	32.43	32.58	30.93	28.49
19	30.85	31.83	26.13	27.86	30.09	28.33	29.88	31.60	32.90	32.54	30.72	28.30
20	31.13	31.67	26.17	28.01	30.16	28.15	29.96	31.64	33.25	32.46	30.68	28.46
21	31.16	31.49	26.13	28.15	30.30	28.02	29.97	31.62	33.14	32.35	30.11	28.30
22	31.22	31.26	26.05	28.14	30.34	28.14	30.05	31.53	32.96	32.19	29.77	28.21
23	31.07	30.88	26.13	28.32	30.42	28.17	30.14	31.42	32.96	32.03	29.56	28.29
24	31.10	30.70	26.28	28.61	30.40	28.18	30.14	31.40	33.17	32.12	29.37	28.71
25	31.55	30.19	26.48	28.71	30.34	28.15	30.24	31.41	33.00	32.22	28.98	28.75
26	31.52	29.93	26.37	28.82	30.28	28.12	30.44	31.43	33.01	32.09	28.87	28.61
27	31.43	29.69	26.18	29.07	30.35	28.26	30.51	31.48	32.98	32.11	28.79	28.94
28	31.54	29.10	26.25	29.33	30.46	28.32	30.53	31.47	33.01	32.12	28.74	28.92
29	31.47	---	26.56	29.40	30.40	28.37	30.61	31.36	32.96	32.05	28.64	29.03
30	31.57	---	26.49	29.36	30.23	28.44	30.63	31.34	33.00	32.01	28.44	28.95
31	31.78	---	26.54	---	30.33	---	30.71	31.36	---	31.80	---	29.29

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	29.31	30.68	31.09	31.08	31.33	30.67	31.94	33.28	34.09	33.13	26.04	28.37
2	29.33	30.59	30.98	30.89	31.46	30.80	32.07	33.35	34.08	32.43	26.06	28.50
3	29.55	30.25	31.17	30.82	31.40	30.82	32.07	33.49	34.07	31.46	25.90	28.75
4	29.81	30.18	31.18	30.83	31.15	30.79	32.00	33.48	34.14	31.08	25.89	28.90
5	29.81	30.16	31.00	30.88	30.99	30.79	32.04	33.40	34.17	30.49	25.90	28.90
6	29.96	---	31.10	30.84	31.04	30.77	32.20	33.40	34.29	29.90	25.97	28.82
7	30.39	---	31.20	30.71	31.12	30.81	32.28	33.46	34.42	29.22	25.94	28.70
8	30.38	---	30.93	30.80	31.16	30.90	32.25	33.53	34.35	28.69	26.16	28.67
9	30.19	---	30.67	30.75	31.24	30.90	32.20	33.54	34.20	28.37	26.54	28.87
10	30.26	---	30.82	30.55	31.29	30.90	32.19	33.60	34.08	27.85	26.58	29.00
11	30.18	---	30.83	30.39	31.29	30.91	32.15	33.74	34.15	27.37	26.66	28.85
12	30.37	30.76	30.60	30.39	31.28	31.08	32.18	33.74	34.39	27.15	26.94	29.08
13	30.25	30.49	30.78	30.28	31.26	31.23	32.34	33.74	34.47	26.78	27.10	29.15
14	30.37	30.69	30.82	30.44	31.25	31.22	32.36	33.72	34.42	26.55	26.84	29.02
15	30.33	30.52	30.91	30.63	31.16	31.18	32.35	33.69	34.40	26.44	26.77	29.03
16	30.35	30.32	30.93	30.70	31.21	31.27	32.35	33.71	34.44	26.21	26.86	29.03
17	30.38	30.45	30.74	30.67	31.06	31.45	32.41	33.82	34.32	26.09	26.97	29.09
18	30.38	30.45	30.47	30.66	31.07	31.45	32.47	33.90	34.29	26.07	27.38	29.21
19	30.37	30.61	30.92	30.81	31.00	31.43	32.50	33.88	34.30	26.03	27.37	29.25
20	30.21	30.75	31.27	30.64	30.85	31.52	32.61	33.90	34.41	25.94	27.70	29.46
21	30.45	30.97	31.28	30.86	30.64	31.57	32.72	33.99	34.40	25.86	27.80	29.71
22	30.80	30.94	31.11	31.05	30.42	31.64	32.80	33.97	34.31	25.70	27.76	29.74
23	30.63	30.82	31.21	31.01	30.42	31.71	32.82	33.98	34.09	25.69	28.12	29.63
24	30.48	30.99	31.15	30.96	30.48	31.79	32.76	33.98	34.00	25.62	28.28	29.60
25	30.62	30.86	31.04	30.94	30.46	31.83	32.79	33.96	34.03	25.52	28.13	29.79
26	30.75	30.70	31.20	30.97	30.43	31.86	32.97	34.00	34.00	25.60	28.40	29.97
27	30.53	30.98	31.20	30.92	30.45	31.87	33.02	34.11	33.93	25.71	28.53	30.04
28	30.39	31.21	31.06	31.03	30.51	31.89	32.97	34.23	33.86	25.72	28.53	30.03
29	30.80	---	30.98	31.11	30.61	31.90	33.01	34.16	33.72	25.87	28.50	29.98
30	30.68	---	31.00	31.09	30.64	31.90	33.01	34.13	33.47	25.84	28.49	30.04
31	30.57	---	30.98	---	30.66	---	33.15	34.12	---	25.84	---	30.01

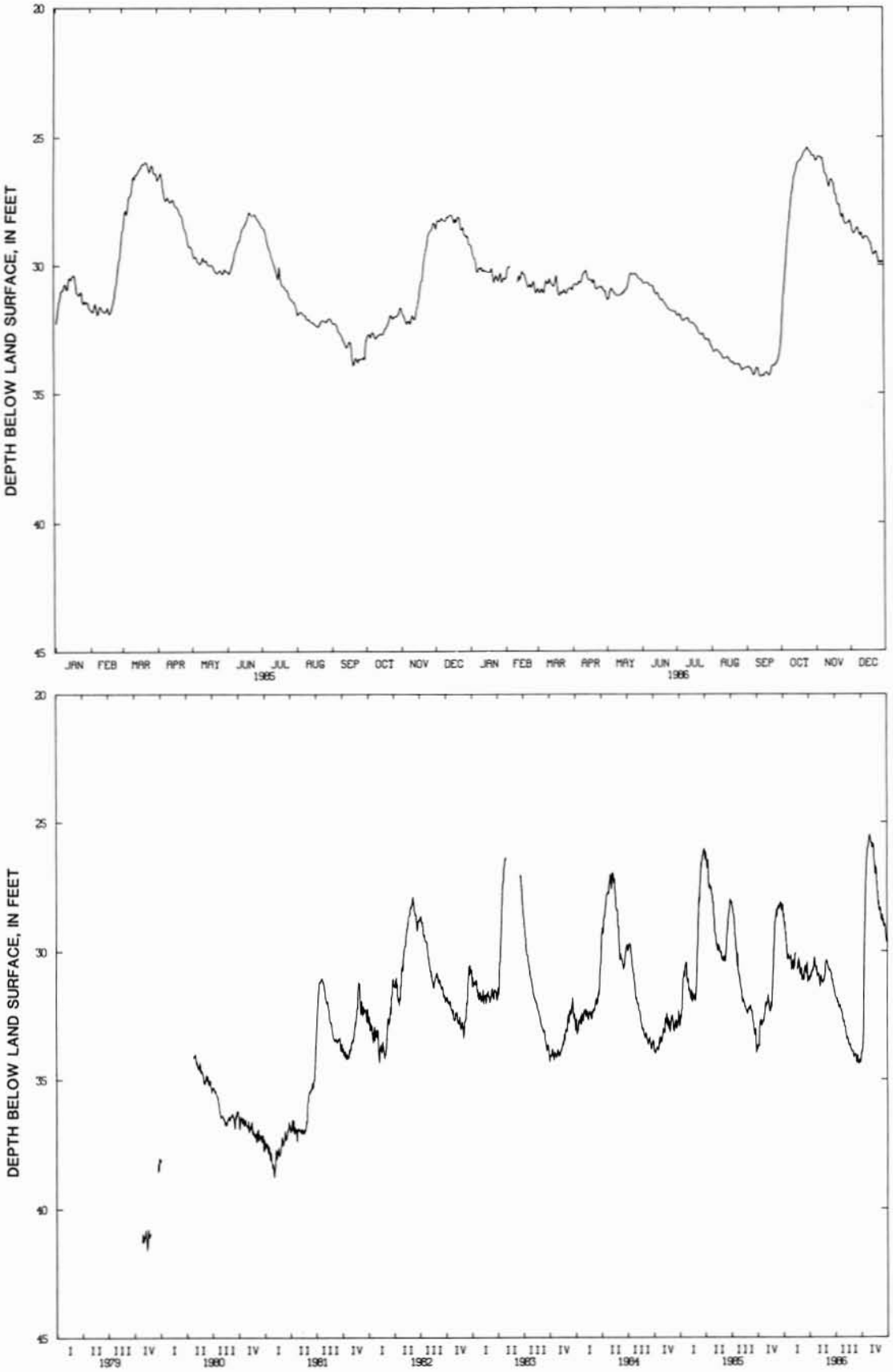

Figure 6.--Water level in observation well 15A, Warsaw, Benton County.

COUNTY--Butler

WELL IDENTIFICATION NUMBER--363756090240401

LOCATION--T.23N., R.6E., 22aba, lat. 36°37'58", long. 90°24'04", 0.5 miles east of State Highway 142, 2 miles south of intersection of State Highways 142 and 158.
Owner: Unknown

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Unknown

INSTRUMENTATION--Stevens model A-35 chart recorder, installed July 30, 1975.

DATUM--Elevation of land-surface datum is 309 feet, from topographic map.
Measuring point: Base of recorder platform, 1.2 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--May 17, 1984, to present.
Missing record for 1985: Recorder clock stopped for the period February 2 to 5; recorder malfunctioned for the period June 12 to August 14.
Missing record for 1986: Recorder malfunctioned for the period March 19 to July 16 and September 21 to October 13.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.68	7.63	7.25	9.06	11.72	12.86	---	---	24.77	16.98	15.61	13.17
2	6.10	---	6.97	9.31	11.62	12.74	---	---	24.95	16.93	15.61	12.96
3	6.16	---	7.05	9.24	11.41	12.42	---	---	24.64	16.88	15.58	13.07
4	6.11	---	6.97	9.17	11.44	12.21	---	---	24.34	16.83	15.57	13.27
5	6.38	---	6.49	8.98	11.47	11.93	---	---	24.51	16.80	15.52	13.43
6	6.34	6.92	6.33	8.59	11.42	11.75	---	---	24.45	16.76	15.45	13.52
7	6.37	6.59	6.46	8.41	11.41	11.53	---	---	24.40	16.72	15.44	13.74
8	6.48	6.57	6.37	8.36	11.38	11.10	---	---	24.35	16.68	15.40	13.96
9	6.43	6.72	6.38	8.40	11.41	10.66	---	---	21.60	16.65	15.34	14.06
10	6.40	6.86	6.55	8.57	11.48	10.59	---	---	18.85	16.60	15.32	14.25
11	6.68	6.98	6.94	8.55	11.61	10.56	---	---	18.49	16.56	15.30	14.53
12	6.77	6.85	6.50	8.52	11.56	---	---	---	18.29	16.52	15.18	14.82
13	6.50	6.80	6.47	8.67	11.59	---	---	---	18.15	16.49	15.08	15.07
14	6.48	6.81	6.40	9.21	11.60	---	---	---	18.04	16.43	15.07	14.99
15	6.79	6.83	6.23	9.66	11.51	---	---	25.29	17.96	16.40	15.01	15.28
16	6.67	6.89	6.34	9.46	11.65	---	---	25.27	17.88	16.37	14.88	15.46
17	6.64	6.67	6.32	9.42	11.67	---	---	25.57	17.82	16.33	14.85	15.64
18	6.52	6.71	6.31	9.50	11.68	---	---	25.27	17.77	16.29	14.77	15.57
19	6.38	6.81	6.43	9.58	11.72	---	---	25.28	17.71	16.25	14.69	15.75
20	6.07	6.88	6.47	9.59	11.73	---	---	24.89	17.64	16.21	14.69	15.99
21	6.27	6.91	6.66	9.62	11.77	---	---	24.83	17.57	16.17	14.54	16.02
22	6.47	7.10	6.87	9.72	12.24	---	---	24.80	17.49	16.13	14.48	16.43
23	6.75	7.74	6.92	9.75	12.55	---	---	24.74	17.42	16.07	14.42	16.54
24	7.00	8.05	6.91	9.80	12.61	---	---	24.67	17.35	16.05	14.37	16.53
25	6.89	7.72	6.74	9.80	12.72	---	---	24.36	17.31	16.02	14.26	16.24
26	6.85	7.49	6.90	9.89	12.85	---	---	24.55	17.24	15.97	14.13	16.54
27	7.26	7.14	7.20	10.66	12.89	---	---	24.49	17.17	15.93	13.88	16.54
28	7.32	7.16	7.37	10.87	12.86	---	---	24.40	17.13	15.88	13.57	16.49
29	7.42	---	7.32	10.86	12.93	---	---	24.37	17.08	15.83	13.59	16.61
30	7.66	---	7.95	11.03	13.04	---	---	24.17	17.03	15.79	13.50	16.67
31	7.58	---	8.83	---	12.98	---	---	24.44	---	15.69	---	16.76

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	16.56	16.79	18.12	---	---	---	---	17.26	18.17	---	16.87	15.99
2	16.76	16.79	17.94	---	---	---	---	17.40	18.10	---	16.86	15.96
3	16.71	17.29	18.13	---	---	---	---	17.50	18.03	---	16.82	15.99
4	16.77	17.98	18.25	---	---	---	---	17.58	17.96	---	16.79	16.00
5	16.53	18.01	18.13	---	---	---	---	17.64	17.90	---	16.74	15.99
6	16.72	17.76	18.33	---	---	---	---	17.69	17.91	---	16.74	15.94
7	16.46	17.82	18.51	---	---	---	---	17.75	17.97	---	16.72	15.90
8	16.28	17.87	18.52	---	---	---	---	17.79	17.97	---	16.67	15.85
9	16.52	17.86	18.34	---	---	---	---	17.88	17.98	---	16.68	15.77
10	16.73	17.80	18.13	---	---	---	---	17.96	18.00	---	16.67	15.84
11	16.73	17.87	17.91	---	---	---	---	18.01	18.02	---	16.62	15.78
12	16.80	17.99	17.93	---	---	---	---	18.05	18.05	---	16.61	15.75
13	16.70	17.99	17.72	---	---	---	---	18.08	18.10	---	16.64	15.80
14	16.89	17.72	17.67	---	---	---	---	18.08	18.14	17.23	16.57	15.74
15	16.66	17.86	17.65	---	---	---	---	17.99	18.17	17.22	16.51	15.69
16	16.75	17.44	17.70	---	---	---	---	17.95	18.16	17.19	16.46	15.67
17	16.79	17.20	17.65	---	---	---	16.63	18.05	18.17	17.17	16.43	15.62
18	16.90	17.21	17.33	---	---	---	16.73	18.11	18.19	17.16	16.39	15.60
19	16.93	17.29	---	---	---	---	16.82	18.12	18.24	17.14	16.41	15.58
20	16.91	17.35	---	---	---	---	16.87	18.09	18.28	17.11	16.33	15.55
21	17.02	17.64	---	---	---	---	16.89	18.09	---	17.08	16.36	15.56
22	16.65	17.66	---	---	---	---	16.93	18.16	---	17.06	16.29	15.54
23	16.55	17.62	---	---	---	---	17.07	18.12	---	17.04	16.24	15.48
24	16.79	17.74	---	---	---	---	17.18	18.04	---	17.01	16.25	15.39
25	16.86	17.80	---	---	---	---	17.27	18.01	---	16.96	16.20	15.40
26	16.84	17.46	---	---	---	---	17.38	18.16	---	16.95	16.12	15.42
27	16.73	17.70	---	---	---	---	17.45	18.24	---	16.94	16.19	15.40
28	17.01	18.08	---	---	---	---	17.45	18.23	---	16.93	16.13	15.37
29	16.91	---	---	---	---	---	17.29	18.26	---	16.92	16.08	15.32
30	16.59	---	---	---	---	---	17.21	18.30	---	16.91	16.04	15.29
31	16.76	---	---	---	---	---	17.24	18.26	---	16.88	---	15.28

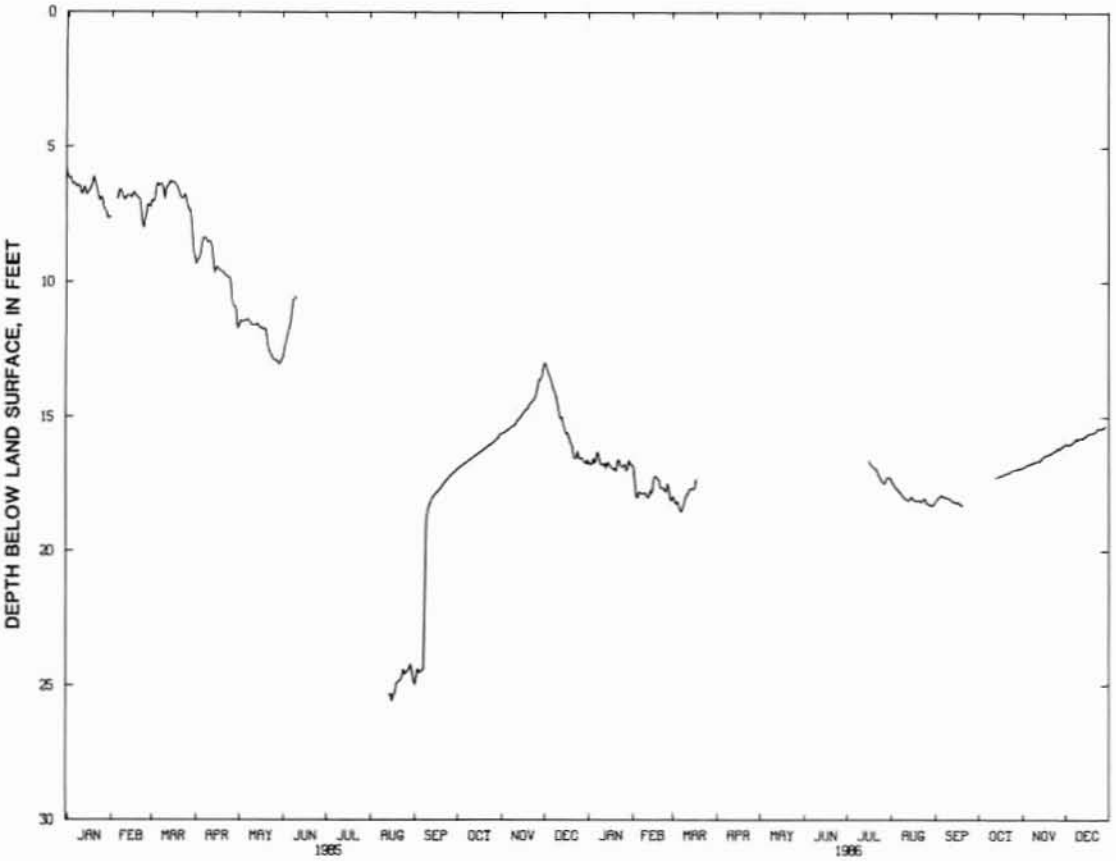

Figure 7.—Water level in observation well 23A, Poplar Bluff, Butler County.

COUNTY--Callaway

WELL IDENTIFICATION NUMBER--383549092094201

LOCATION--T.44N., R.11W., 10ccd, lat. 38°35'49", long. 92°09'42", Jefferson City Airport.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled April 20, 1956, total depth 95 feet, 60 feet of 8-inch casing, 31 feet of 4-inch casing, and 4 feet of 4-inch well screen.

INSTRUMENTATION--Stevens model 7001 digital recorder, installed May 1, 1980.

DATUM--Elevation of land-surface datum is 550.7 feet.
Measuring point: Base of recorder platform, 10.0 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--May 15, 1980, to present.
Missing record for 1985: Recorder clock stopped for the period April 15 to May 6.
Missing record for 1986: Recorder clock stopped for the period October 1 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22.51	23.68	20.28	20.90	---	21.26	19.89	22.72	23.01	24.14	22.93	20.09
2	22.53	22.85	20.37	20.97	---	21.23	19.99	22.77	23.10	24.10	23.01	20.23
3	22.60	22.67	20.49	21.09	---	20.88	20.08	22.81	23.14	24.02	23.03	20.20
4	22.74	22.48	20.60	21.12	---	20.41	20.16	22.85	23.20	24.01	23.07	20.26
5	22.77	22.27	20.56	21.19	---	20.23	20.29	22.88	23.26	24.02	23.07	20.41
6	22.83	22.02	20.53	21.27	---	20.11	20.43	22.94	23.33	23.98	23.09	20.54
7	22.91	21.68	20.62	21.30	21.04	19.86	20.54	22.99	23.40	23.97	23.20	20.57
8	22.96	21.42	20.57	21.25	21.11	19.80	20.63	23.03	23.44	24.03	23.23	20.70
9	23.03	21.30	20.01	21.19	21.13	19.82	20.71	23.06	23.49	24.09	23.27	20.79
10	23.08	21.08	19.97	21.09	21.14	19.71	20.84	23.13	23.56	24.11	23.42	20.57
11	23.19	20.90	20.09	20.99	21.14	19.09	20.95	23.15	23.62	24.09	23.48	19.37
12	23.25	20.82	20.04	21.00	21.28	19.02	21.06	23.14	23.68	24.00	23.49	19.33
13	23.31	20.57	20.06	20.94	21.21	19.35	21.17	23.19	23.75	23.91	23.37	19.37
14	23.34	20.33	20.06	20.93	20.82	20.06	21.29	23.13	23.79	23.76	23.03	19.43
15	23.38	20.27	20.17	---	20.89	20.14	21.41	23.00	23.82	23.64	22.78	19.58
16	23.47	20.17	20.33	---	20.86	20.27	21.52	23.03	23.85	23.50	22.69	19.74
17	23.55	20.06	20.44	---	20.86	19.41	21.62	23.06	23.90	23.36	22.59	19.92
18	23.58	20.01	20.50	---	20.87	18.61	21.71	23.13	23.96	23.26	22.07	20.19
19	23.61	20.12	20.50	---	20.87	18.59	21.81	23.10	23.99	23.21	21.38	20.24
20	23.65	20.00	20.37	---	20.88	18.58	21.91	23.07	24.02	23.17	21.13	20.47
21	23.72	20.01	20.29	---	20.86	18.66	21.98	23.12	24.04	23.11	20.94	20.57
22	23.78	20.01	20.36	---	20.92	18.79	22.08	23.02	24.07	23.06	20.86	20.65
23	23.84	20.01	20.36	---	20.99	18.91	22.16	22.59	24.13	23.02	20.83	20.78
24	23.89	20.07	20.35	---	21.03	19.06	22.19	22.64	24.16	23.07	20.85	21.01
25	23.93	20.08	20.42	---	21.04	19.17	22.27	22.67	24.11	23.08	20.82	21.13
26	23.97	20.13	20.57	---	21.07	19.25	22.37	22.71	24.12	23.04	20.84	21.12
27	24.05	20.22	20.61	---	21.16	19.40	22.44	22.76	24.10	23.06	20.80	21.37
28	24.09	20.25	20.66	---	21.25	19.53	22.49	22.78	24.11	23.06	20.86	21.42
29	24.11	---	20.71	---	21.26	19.64	22.57	22.78	24.09	23.04	20.88	21.56
30	24.15	---	20.79	---	21.20	19.77	22.62	22.84	24.14	23.01	20.86	21.58
31	24.08	---	20.87	---	21.24	---	22.68	22.91	---	22.96	---	21.77

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	21.82	24.00	23.91	24.32	24.11	22.18	23.02	22.75	23.84	---	---	---
2	21.88	23.83	23.97	24.28	24.08	22.21	23.08	22.81	23.88	---	---	---
3	22.04	23.25	24.01	24.18	23.99	22.20	23.12	22.92	23.90	---	---	---
4	22.14	23.00	23.99	24.20	23.86	22.20	23.09	22.98	23.93	---	---	---
5	22.20	23.09	24.02	24.21	23.79	22.22	23.08	23.02	23.98	---	---	---
6	22.30	23.00	24.08	24.17	23.78	22.23	23.09	23.06	24.01	---	---	---
7	22.45	22.91	24.13	24.09	23.79	22.27	23.10	23.13	24.06	---	---	---
8	22.48	22.89	24.09	24.05	23.79	22.32	23.07	23.20	24.09	---	---	---
9	22.50	22.86	24.13	23.98	23.78	22.33	23.00	23.25	24.10	---	---	---
10	22.61	22.80	24.22	23.89	23.76	22.33	22.90	23.29	24.12	---	---	---
11	22.65	22.81	24.22	23.83	23.73	22.35	22.79	23.37	24.12	---	---	---
12	22.77	22.85	24.24	23.82	23.70	22.43	22.69	23.41	24.14	---	---	---
13	22.82	22.84	24.31	23.78	23.65	22.49	22.62	23.44	24.18	---	---	---
14	22.93	22.89	24.33	23.79	23.59	22.49	22.52	23.47	24.17	---	---	---
15	23.00	22.97	24.36	23.83	23.52	22.50	22.40	23.51	24.15	---	---	---
16	23.07	22.96	24.36	23.83	23.47	22.56	22.28	23.50	24.18	---	---	---
17	23.15	23.14	24.30	23.82	23.36	22.64	22.19	23.50	24.17	---	---	---
18	23.21	23.24	24.25	23.82	23.28	22.62	22.11	23.50	24.18	---	---	---
19	23.28	23.34	24.39	23.85	23.18	22.60	22.03	23.49	24.22	---	---	---
20	23.31	23.47	24.41	23.80	23.03	22.63	22.02	23.51	24.25	---	---	---
21	23.38	23.52	24.38	23.90	22.86	22.66	22.03	23.55	24.23	---	---	---
22	23.51	23.57	24.30	23.94	22.68	22.70	22.08	23.58	24.20	---	---	---
23	23.51	23.61	24.31	23.93	22.56	22.75	22.12	23.60	24.09	---	---	---
24	23.51	23.70	24.23	23.92	22.47	22.81	22.14	23.65	23.87	---	---	---
25	23.61	23.68	24.19	23.94	22.39	22.85	22.18	23.67	23.84	---	---	---
26	23.67	23.76	24.24	23.97	22.32	22.86	22.27	23.71	23.79	---	---	---
27	23.70	23.88	24.23	23.96	22.30	22.88	22.32	23.73	23.55	---	---	---
28	23.72	23.92	24.19	24.03	22.27	22.92	22.39	23.75	23.35	---	---	---
29	23.86	---	24.20	24.05	22.26	22.95	22.49	23.77	23.25	---	---	---
30	23.90	---	24.24	24.07	22.23	22.98	22.55	23.79	23.07	---	---	---
31	23.93	---	24.27	---	22.20	---	22.64	23.82	---	---	---	---

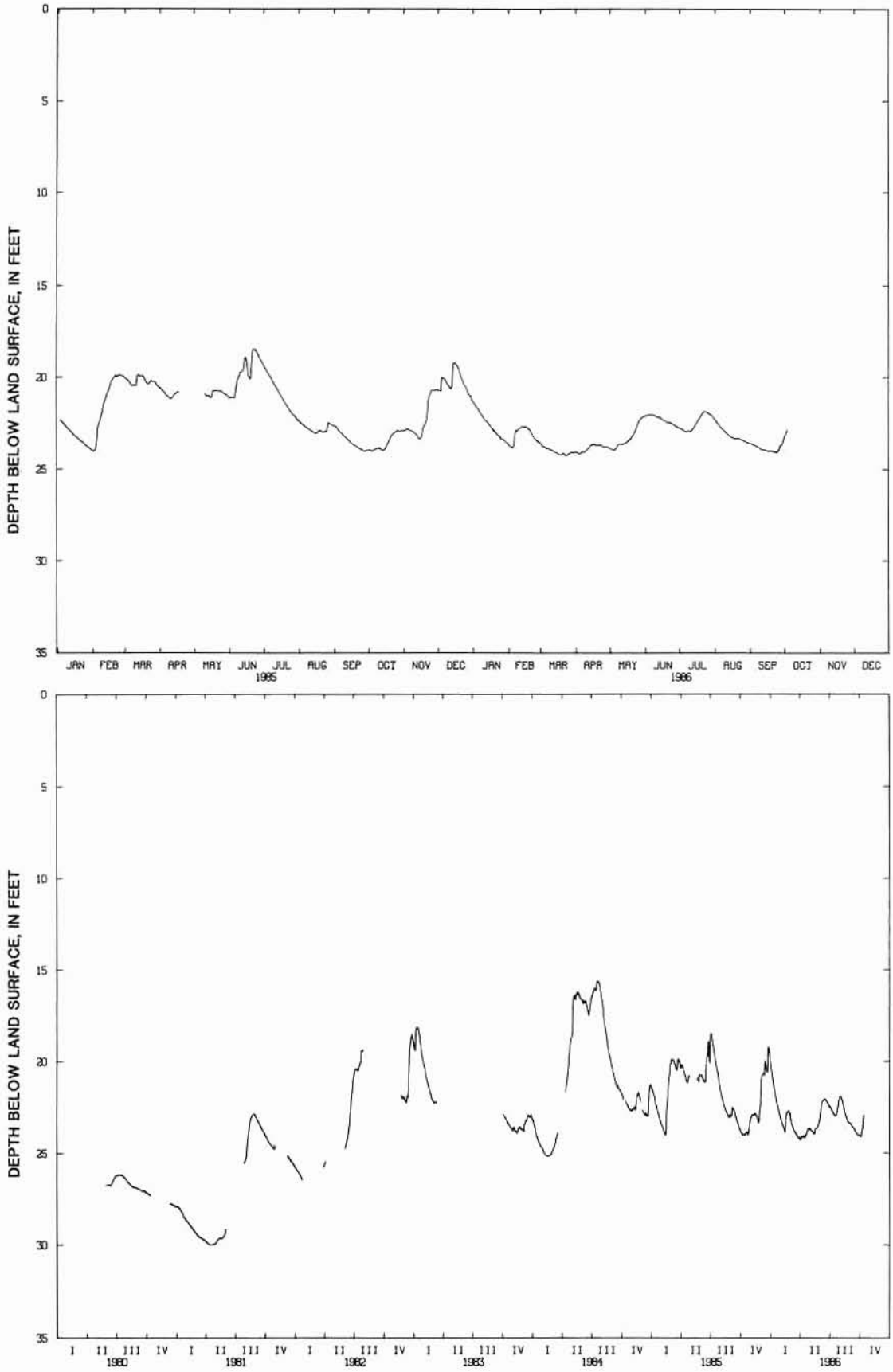

Figure 8.—Water level in observation well 27A, Jefferson City, Callaway County.

COUNTY--Cape Girardeau.

WELL IDENTIFICATION NUMBER--371125089445301

LOCATION--T.29N., R.12E., 8dbd, lat. 37°11'25", long. 89°44'53", 0.2 mile east of junction of State Highway 25 and County Road P, east of Delta.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled October 10, 1956, total depth 75 feet, 60 feet of 8-inch casing, 10.5 feet of 4-inch casing, and 4.5 feet of 4-inch well screen.

INSTRUMENTATION--Stevens model A-35 chart recorder from November 1, 1956, to November 6, 1980. Stevens model 7001 digital recorder, installed November 6, 1980.

DATUM--Elevation of land-surface datum is 335 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 6, 1980, to present.
Missing record for 1985: Recorder malfunctioned for the periods January 1 to 17 and August 5 to 13.
Missing record for 1986: Recorder malfunctioned for the period March 17 to July 17; records not available after November 26.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	17.54	14.22	12.99	14.25	16.97	16.91	19.36	17.77	19.62	17.08	14.71
2	---	17.59	14.25	12.81	14.00	16.85	16.96	19.36	17.98	19.63	16.98	15.00
3	---	17.69	14.20	13.06	14.24	16.78	17.02	19.32	18.14	19.60	17.08	15.19
4	---	17.69	14.15	13.57	14.53	16.76	17.14	19.23	18.29	19.54	17.21	15.24
5	---	17.58	14.37	13.92	14.75	16.79	17.25	---	18.39	19.49	17.28	15.26
6	---	17.69	14.52	14.14	14.96	16.77	17.43	---	18.52	19.41	17.33	15.41
7	---	17.87	14.49	14.36	14.88	16.48	17.58	---	18.66	19.35	17.53	15.49
8	---	17.94	14.52	14.58	14.80	16.30	17.71	---	18.76	19.37	17.69	15.59
9	---	17.90	14.54	14.74	14.94	16.27	18.14	---	18.81	19.42	17.76	15.73
10	---	17.80	14.43	14.82	15.13	16.29	18.61	---	18.88	19.38	17.89	15.71
11	---	17.25	14.23	14.92	15.27	16.25	18.91	---	18.99	19.36	18.01	15.23
12	---	16.71	14.36	15.07	15.43	16.33	19.20	---	19.07	19.34	17.78	14.90
13	---	16.52	14.39	15.14	15.37	16.37	19.42	---	19.18	19.28	17.27	14.99
14	---	16.46	14.23	14.96	15.32	16.40	19.66	18.80	19.25	19.05	17.00	15.16
15	---	16.43	14.23	14.37	15.48	16.47	19.72	18.87	19.27	18.89	16.81	15.26
16	---	16.39	14.29	14.45	15.61	16.62	19.91	18.91	19.25	18.81	16.35	15.38
17	---	16.46	14.42	14.68	15.73	16.51	20.00	18.90	19.27	18.70	16.11	15.50
18	16.19	16.23	14.60	14.84	15.84	16.13	20.06	18.89	19.37	18.62	15.96	15.73
19	16.40	15.92	14.71	14.98	15.95	16.08	20.04	18.96	19.45	18.57	15.70	15.81
20	16.66	15.65	14.83	15.14	16.07	16.13	19.89	19.02	19.51	18.54	15.26	16.03
21	16.71	15.44	14.92	15.31	16.19	16.16	19.74	19.30	19.51	18.53	15.03	16.16
22	16.79	15.26	14.91	15.42	16.08	16.23	19.73	19.45	19.52	18.50	15.07	16.20
23	16.86	14.55	14.95	15.54	15.83	16.30	19.78	19.06	19.54	18.41	15.13	16.31
24	16.88	13.99	15.03	15.66	15.86	16.41	19.77	17.50	19.67	18.39	15.18	16.56
25	17.05	13.77	15.24	15.75	16.01	16.31	19.63	16.13	19.61	18.40	15.14	16.71
26	17.25	13.93	15.35	15.67	16.15	16.16	19.37	15.75	19.62	18.34	15.09	16.71
27	17.18	14.26	15.32	14.62	16.32	16.32	19.23	15.84	19.65	18.37	14.65	16.93
28	17.27	14.33	15.34	13.94	16.50	16.47	19.19	16.22	19.64	18.36	14.28	17.02
29	17.39	---	15.45	13.83	16.62	16.61	19.23	16.73	19.58	18.31	14.43	17.12
30	17.42	---	14.93	14.18	16.70	16.78	19.27	17.16	19.55	18.12	14.63	17.12
31	17.49	---	13.65	---	16.83	---	19.30	17.49	---	17.66	---	17.30

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	17.39	18.69	17.16	---	---	---	---	18.88	19.50	18.80	17.79	---
2	17.40	18.31	17.20	---	---	---	---	18.82	19.54	18.62	17.74	---
3	17.52	16.99	17.31	---	---	---	---	18.88	19.59	18.50	17.69	---
4	17.62	16.09	17.32	---	---	---	---	19.02	19.63	18.45	17.57	---
5	17.70	15.78	17.36	---	---	---	---	19.09	19.69	18.36	17.53	---
6	17.77	15.65	17.49	---	---	---	---	19.10	19.83	18.22	17.56	---
7	17.99	15.67	17.56	---	---	---	---	19.17	19.95	18.05	17.59	---
8	18.02	15.71	17.51	---	---	---	---	19.10	19.94	17.91	17.72	---
9	17.96	15.77	17.49	---	---	---	---	18.84	19.95	17.78	17.88	---
10	18.03	15.88	17.66	---	---	---	---	18.67	19.94	17.62	17.88	---
11	18.06	16.10	17.17	---	---	---	---	18.69	20.03	17.48	17.96	---
12	18.15	16.28	16.23	---	---	---	---	18.74	20.12	17.43	18.13	---
13	18.15	16.29	16.00	---	---	---	---	18.79	20.21	17.34	18.05	---
14	18.26	16.50	16.03	---	---	---	---	18.86	20.19	17.35	17.99	---
15	18.32	16.57	16.12	---	---	---	---	18.86	20.18	17.36	18.02	---
16	18.36	16.35	16.17	---	---	---	---	18.76	20.15	17.35	18.09	---
17	18.38	15.99	---	---	---	---	---	18.76	20.09	17.43	18.23	---
18	18.32	15.93	---	---	---	---	17.26	18.76	20.02	17.48	18.25	---
19	18.30	16.06	---	---	---	---	17.37	18.74	19.95	17.49	18.37	---
20	18.27	16.26	---	---	---	---	17.49	18.80	19.93	17.49	18.42	---
21	18.34	16.41	---	---	---	---	17.92	18.87	19.90	17.50	18.43	---
22	18.49	16.50	---	---	---	---	18.31	18.91	19.81	17.52	18.56	---
23	18.42	16.56	---	---	---	---	18.65	18.97	19.65	17.52	18.41	---
24	18.30	16.72	---	---	---	---	18.84	19.03	19.58	17.44	18.36	---
25	18.30	16.66	---	---	---	---	18.80	19.10	19.54	17.45	18.37	---
26	18.35	16.78	---	---	---	---	18.62	19.18	19.44	17.54	18.25	---
27	18.32	17.10	---	---	---	---	18.46	19.30	19.32	17.65	---	---
28	18.30	17.21	---	---	---	---	18.52	19.38	19.19	17.70	---	---
29	18.58	---	---	---	---	---	18.69	19.40	19.09	17.76	---	---
30	18.64	---	---	---	---	---	18.86	19.43	18.98	17.76	---	---
31	18.65	---	---	---	---	---	18.95	19.46	---	17.77	---	---

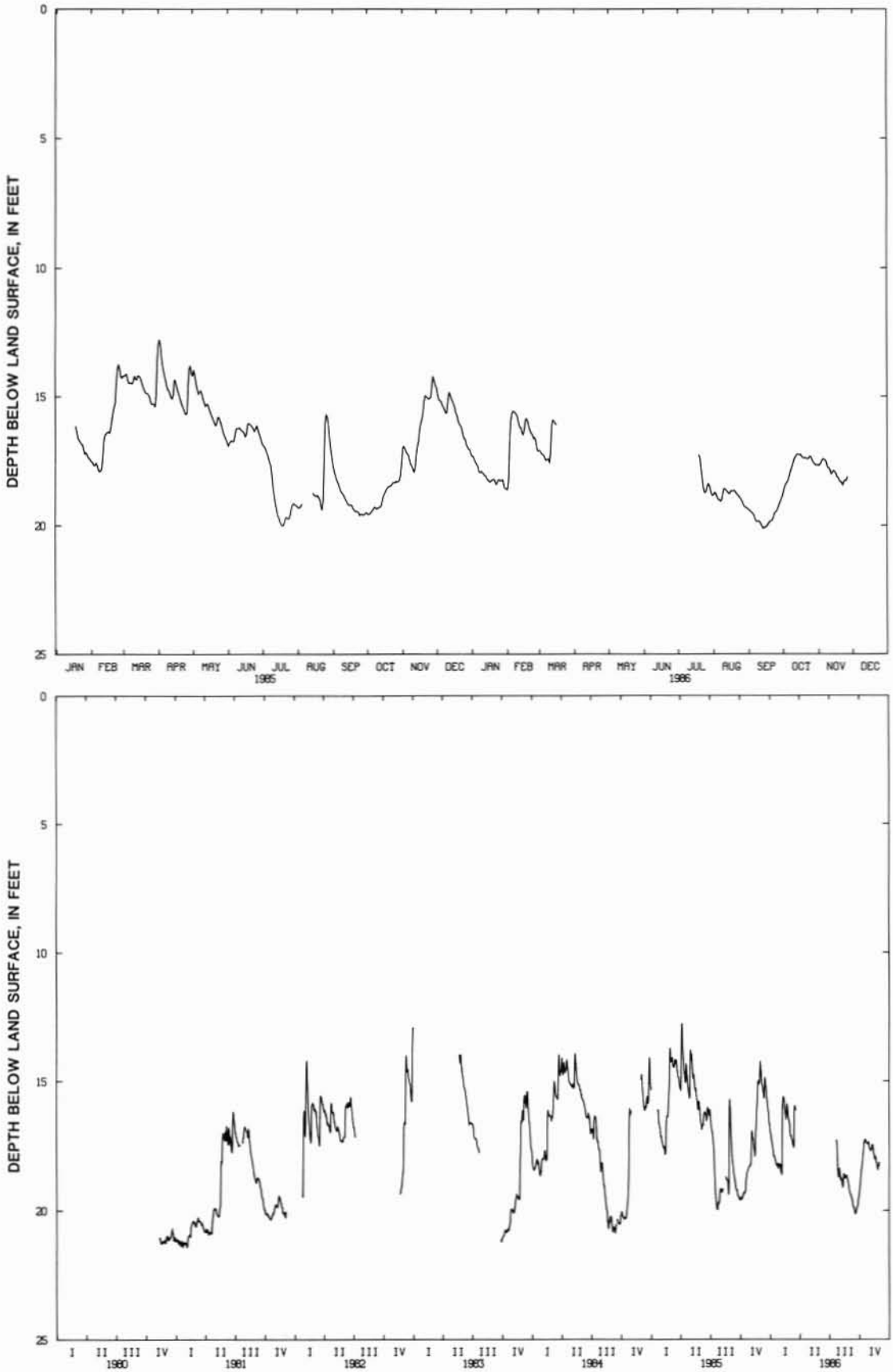

Figure 9.--Water level in observation well 31A, Delta, Cape Girardeau County.

COUNTY--Clark

WELL IDENTIFICATION NUMBER--402356091344001

LOCATION--T.65N., R.6W., 29cad, lat, 40°23'56", long 91°34'40", north edge of Wayland, County Highway B.
Owner: Citys of Kahoka and Wayland

FORMATIONS OPEN TO THE WELL--Alluvium and undifferentiated Pleistocene glacial drift.

WELL CHARACTERISTICS--Drilled on October 1, 1974, total depth 160 feet, casing depth unknown.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed October 8, 1974.

DATUM--Elevation of land-surface datum is 540 feet, from topographic map.
Measuring point: Base of recorder platform, 3.0 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--December 4, 1984, to present.
Missing record for 1985: Recorder clock stopped for the period October 2 to 12.
Missing record for 1986: Recorder malfunctioned for the period November 29 to December 1.

REMARKS--Well may be completed in a former channel of the Des Moines River.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	44.45	44.80	42.72	43.50	45.86	44.78	46.27	45.05	46.48	46.53	44.93	43.44
2	44.27	45.04	42.91	44.55	45.36	45.32	46.22	46.22	45.89	---	44.45	43.37
3	44.45	45.17	43.14	43.87	43.35	44.97	45.48	45.57	46.94	---	43.86	43.11
4	44.45	45.00	41.42	43.69	44.48	45.31	46.45	45.81	46.27	---	44.32	43.32
5	44.43	45.24	40.54	44.09	42.75	45.11	46.11	45.91	46.68	---	44.38	44.10
6	44.48	45.37	41.81	44.01	44.44	45.24	46.39	46.45	47.14	---	44.33	43.49
7	44.71	45.36	42.52	44.49	46.17	45.65	46.70	45.89	46.28	---	44.05	44.14
8	44.80	45.28	41.75	44.40	44.20	45.11	46.97	45.99	46.70	---	44.92	43.91
9	44.74	45.45	41.58	44.10	45.04	46.04	46.59	46.26	46.47	---	44.28	43.66
10	44.57	45.43	42.39	44.46	46.15	45.27	46.27	45.77	46.60	---	44.61	43.72
11	44.70	45.23	41.97	44.04	45.74	45.33	46.07	46.23	46.33	---	43.99	43.67
12	44.40	45.18	41.84	44.38	44.42	45.40	46.09	46.23	46.48	---	43.98	43.87
13	44.27	45.56	41.08	44.69	44.82	45.01	46.43	45.38	46.65	45.02	43.87	43.37
14	44.35	45.29	40.22	44.30	44.56	45.45	45.94	45.17	45.91	45.22	43.49	44.16
15	44.64	45.47	42.03	45.00	44.12	45.10	47.02	45.35	46.63	44.97	43.00	43.67
16	44.53	45.45	43.83	44.19	44.30	45.77	46.68	45.59	47.24	45.31	42.55	44.16
17	44.31	45.68	42.55	45.37	43.96	45.23	46.57	44.73	46.12	44.86	43.32	44.04
18	44.72	45.63	42.56	44.17	44.83	45.91	46.95	45.99	47.00	44.60	42.87	44.38
19	44.53	45.74	43.43	45.20	43.82	45.26	46.55	45.68	45.95	44.56	42.62	44.24
20	44.85	45.57	42.99	44.63	45.55	45.88	46.77	47.11	47.04	44.29	42.62	44.18
21	44.78	45.57	42.69	44.29	44.93	44.99	46.46	45.64	46.35	44.89	42.57	44.20
22	45.10	45.14	43.36	45.22	45.60	45.71	46.52	45.48	46.23	44.24	42.79	44.12
23	45.28	43.86	43.33	44.05	46.52	45.74	46.46	46.00	46.55	44.70	42.87	43.75
24	44.21	42.86	43.56	45.20	44.78	45.77	46.46	45.23	46.85	44.49	42.75	44.81
25	45.13	42.25	43.61	44.12	45.45	45.61	45.96	46.25	46.45	45.04	43.78	44.28
26	44.92	42.39	44.01	45.02	44.31	45.54	46.67	46.47	46.68	44.63	43.20	44.43
27	44.98	42.55	43.58	44.94	45.16	45.69	46.05	46.44	46.62	44.44	43.99	44.56
28	44.84	42.70	43.68	45.08	44.91	45.72	46.62	46.53	46.51	44.97	43.87	45.12
29	44.86	---	43.73	44.33	45.10	45.60	46.87	46.17	45.99	44.71	43.22	44.31
30	45.06	---	43.39	44.08	44.67	46.22	46.19	46.12	46.24	45.21	43.74	44.86
31	44.94	---	44.21	---	45.48	---	45.88	45.95	---	44.50	---	44.51

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	44.75	45.26	44.51	45.10	45.53	44.24	44.98	45.43	46.18	42.76	43.51	---
2	44.59	45.34	44.63	45.03	46.10	44.03	45.48	45.17	46.17	42.78	43.68	44.43
3	44.93	45.04	44.51	44.57	45.69	44.09	44.77	45.44	45.84	42.13	43.91	44.43
4	44.73	44.70	44.34	44.93	45.64	44.05	45.29	45.39	46.26	43.20	43.94	44.35
5	44.51	44.95	44.64	45.15	45.76	44.76	44.94	45.18	46.09	42.03	43.86	44.30
6	45.00	45.15	44.20	44.95	45.30	44.33	45.65	45.02	45.97	42.17	43.54	44.53
7	44.69	44.58	44.56	45.04	45.04	44.61	45.16	45.21	45.91	42.20	43.62	44.16
8	45.26	44.80	44.41	45.41	44.76	44.36	45.34	45.75	46.12	42.32	43.77	44.47
9	45.51	44.88	44.33	45.17	45.06	44.71	45.67	45.34	46.15	42.33	43.84	43.95
10	45.10	44.70	44.64	44.94	44.71	44.42	45.08	45.73	46.26	42.68	44.01	44.09
11	45.20	45.00	44.40	45.49	44.28	43.74	46.42	45.60	46.12	42.79	43.85	43.80
12	45.39	45.04	44.20	45.49	45.26	44.62	45.40	45.52	46.26	42.69	43.85	44.13
13	44.80	44.85	44.32	44.95	45.37	46.23	45.07	45.68	45.99	43.11	44.07	44.31
14	45.44	44.89	44.26	45.16	44.99	44.68	44.18	45.56	45.94	43.02	44.21	44.47
15	44.89	45.07	44.20	45.37	44.62	44.50	45.25	45.56	46.07	42.99	44.54	44.89
16	45.60	44.96	44.79	45.14	44.76	44.96	45.00	45.85	46.12	43.28	44.27	44.33
17	45.05	44.65	44.03	45.72	43.67	44.94	45.93	45.30	46.33	43.00	44.62	44.56
18	45.63	45.20	44.70	45.32	42.31	45.14	45.20	45.76	45.70	43.39	44.13	44.38
19	44.53	45.17	44.20	45.79	42.93	44.97	44.84	45.48	45.80	43.48	44.20	44.53
20	44.82	45.14	44.69	45.64	42.86	45.31	45.27	45.39	46.04	43.88	44.21	44.81
21	45.65	44.76	44.67	45.74	43.19	45.52	45.18	46.41	45.16	44.13	44.35	44.56
22	45.01	45.06	44.58	45.37	43.45	44.84	46.18	45.77	44.90	43.54	44.47	44.62
23	44.77	44.72	44.51	45.90	44.19	45.31	45.49	45.84	44.40	43.64	44.13	44.79
24	45.17	45.04	44.41	45.29	44.29	45.01	45.36	45.77	44.15	43.58	44.54	44.75
25	45.10	45.05	44.79	45.95	43.74	45.58	45.44	45.72	44.30	43.60	44.74	44.59
26	44.86	45.13	44.79	45.42	44.16	44.97	45.17	46.21	43.69	43.22	44.49	44.71
27	44.42	44.82	44.75	45.97	44.09	45.93	45.33	45.88	44.11	43.16	44.52	44.90
28	45.18	44.71	44.73	45.68	44.17	44.98	45.14	45.89	44.43	43.04	44.55	44.80
29	45.33	---	44.84	45.57	43.26	45.60	45.23	45.85	44.20	43.10	---	45.11
30	45.53	---	44.66	45.91	43.67	45.25	44.69	46.21	42.85	43.24	---	44.84
31	44.80	---	45.11	---	43.25	---	45.62	45.98	---	43.18	---	44.97

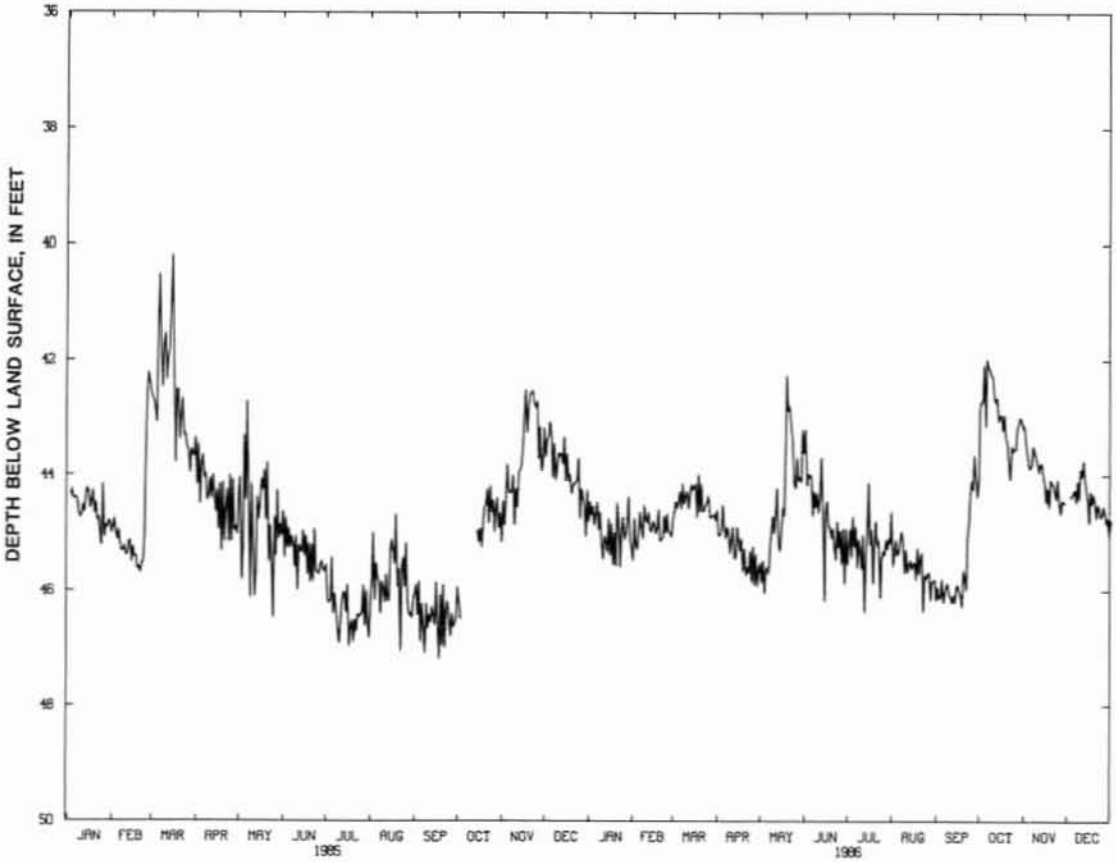

Figure 10.--Water level in observation well 45A, Wayland, Clark County.

COUNTY--Cooper

WELL IDENTIFICATION NUMBER--390207092570801

LOCATION--T.49N., R.19W., 12bac, lat. 39°02'07", long. 92°57'08", 2.5 miles south of Arrow Rock, State Highway 41.
Owner: Richard Durham

FORMATIONS OPEN TO THE WELL--Burlington Limestone, Sedalia Formation, and Chouteau Group.

WELL CHARACTERISTICS--Total depth 230 feet.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed March 29, 1962.

DATUM--Elevation of land-surface datum is 700 feet, from topographic map.
Measuring point: Base of platform recorder, 1.3 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--January 15, 1980, to present.
Missing record for 1985: Recorder clock malfunctioned for the period March 20 to December 31.
Missing record for 1986: Recorder clock malfunctioned for the period January 1 to March 4; record not available after March 4.

REMARKS--Yields saline water, appears to be an obstruction at 58.9 feet.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	55.47	57.69	51.91	---	---	---	---	---	---	---	---	---
2	54.64	57.72	52.44	---	---	---	---	---	---	---	---	---
3	55.63	57.79	52.33	---	---	---	---	---	---	---	---	---
4	56.28	57.78	49.67	---	---	---	---	---	---	---	---	---
5	56.68	57.69	46.89	---	---	---	---	---	---	---	---	---
6	56.82	57.80	45.76	---	---	---	---	---	---	---	---	---
7	57.01	58.01	46.95	---	---	---	---	---	---	---	---	---
8	57.15	57.99	49.49	---	---	---	---	---	---	---	---	---
9	57.18	57.89	51.47	---	---	---	---	---	---	---	---	---
10	57.21	57.89	52.29	---	---	---	---	---	---	---	---	---
11	57.38	57.97	52.74	---	---	---	---	---	---	---	---	---
12	57.44	58.02	53.60	---	---	---	---	---	---	---	---	---
13	57.25	58.02	53.95	---	---	---	---	---	---	---	---	---
14	57.31	58.02	54.47	---	---	---	---	---	---	---	---	---
15	57.37	57.98	54.72	---	---	---	---	---	---	---	---	---
16	57.28	57.94	54.91	---	---	---	---	---	---	---	---	---
17	57.27	58.11	55.21	---	---	---	---	---	---	---	---	---
18	57.22	58.14	55.37	---	---	---	---	---	---	---	---	---
19	57.38	58.10	55.50	---	---	---	---	---	---	---	---	---
20	57.54	58.02	---	---	---	---	---	---	---	---	---	---
21	57.51	57.93	---	---	---	---	---	---	---	---	---	---
22	57.54	57.45	---	---	---	---	---	---	---	---	---	---
23	57.45	54.59	---	---	---	---	---	---	---	---	---	---
24	57.39	52.58	---	---	---	---	---	---	---	---	---	---
25	57.55	50.44	---	---	---	---	---	---	---	---	---	---
26	57.59	49.39	---	---	---	---	---	---	---	---	---	---
27	57.49	49.58	---	---	---	---	---	---	---	---	---	---
28	57.54	51.23	---	---	---	---	---	---	---	---	---	---
29	57.52	---	---	---	---	---	---	---	---	---	---	---
30	57.54	---	---	---	---	---	---	---	---	---	---	---
31	57.66	---	---	---	---	---	---	---	---	---	---	---

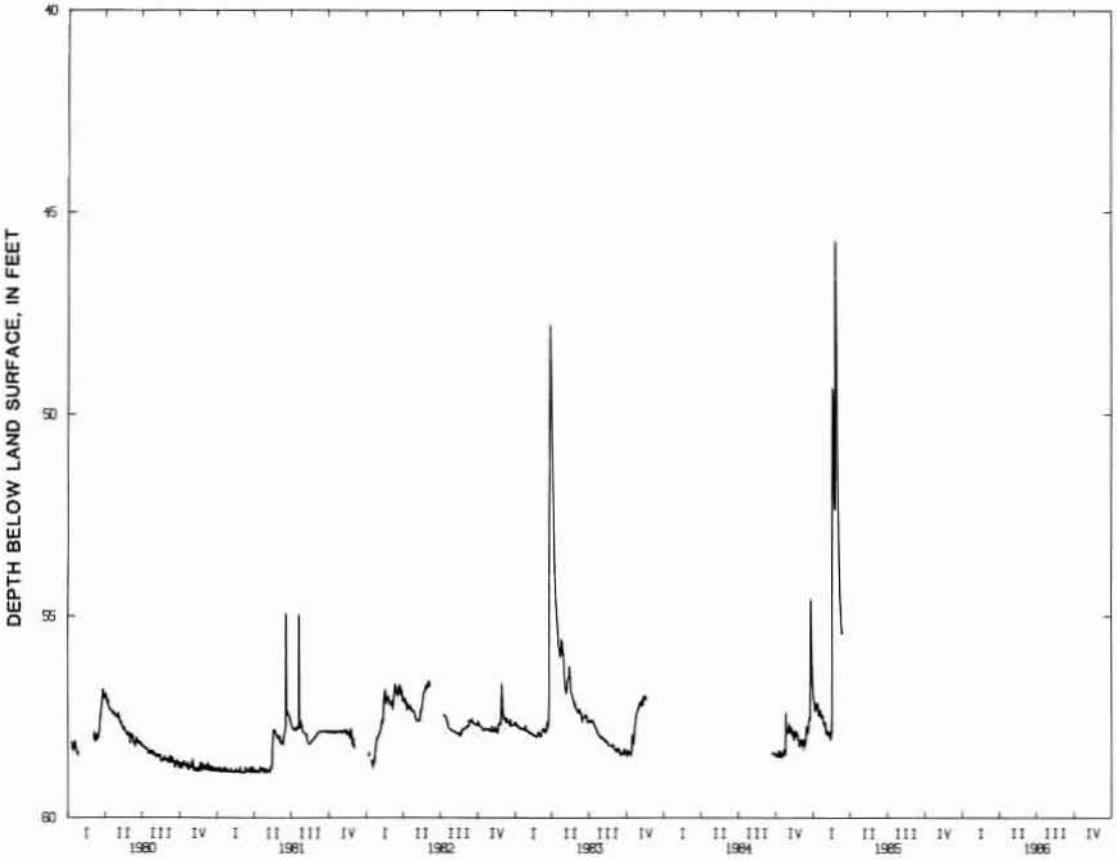

Figure 11.—Water level in observation well 53A, Arrow Rock, Cooper County.

COUNTY--Dunklin

WELL IDENTIFICATION NUMBER--362957089581901

LOCATION--T.22N., R.10E., 34cdc, lat. 36°29'57", long. 89°58'19", 0.1 mile north of junction of State Highways 62 and 25, at McGuire, 4 miles south of Malden.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled August 8, 1956, total depth 108 feet, 62 feet of 8-inch casing, 42 feet of 4-inch casing, and 4 feet of 4-inch well screen.
DGLE Log Number: 14,673

INSTRUMENTATION--Stevens model A-35 chart recorder, installed August 8, 1956; Stevens model 7001 digital recorder, after December 17, 1980.

DATUM--Elevation of land-surface datum is 287 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--December 17, 1980, to July 15, 1986.
Missing record for 1985: Recorder clock stopped for the period August 14 to October 9.
Missing record for 1986: Recorder clock stopped for the period July 12 to 15; records not available after July 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10.63	11.18	10.61	11.15	10.64	11.74	12.74	13.42	---	---	15.79	15.47
2	10.45	11.22	10.64	11.03	10.60	11.78	12.76	13.46	---	---	15.81	15.42
3	10.28	11.26	10.62	10.94	10.58	11.83	12.78	13.48	---	---	15.82	15.35
4	10.17	11.26	10.65	10.89	10.57	11.86	12.80	13.51	---	---	15.84	15.29
5	10.17	11.26	10.80	10.89	10.57	11.91	12.82	13.53	---	---	15.84	15.24
6	10.15	11.33	10.85	10.97	10.60	11.94	12.84	13.56	---	---	15.84	15.21
7	10.18	11.39	10.84	11.03	10.65	11.98	12.84	13.59	---	---	15.86	15.17
8	10.25	11.42	10.89	11.09	10.71	12.01	12.84	13.62	---	---	15.87	15.14
9	10.28	11.43	10.94	11.13	10.77	12.05	12.85	13.65	---	---	15.88	15.12
10	10.32	11.44	10.92	11.14	10.81	12.09	12.86	13.68	---	15.37	15.90	15.10
11	10.44	11.45	10.87	11.20	10.85	12.12	12.88	13.71	---	15.39	15.92	15.08
12	10.47	11.45	10.99	11.25	10.91	12.15	12.90	13.74	---	15.42	15.92	15.06
13	10.44	11.45	10.99	11.26	10.96	12.18	12.93	13.77	---	15.44	15.93	15.05
14	10.49	11.46	11.03	11.27	11.01	12.21	12.95	---	---	15.47	15.94	15.04
15	10.57	11.47	11.06	11.29	11.07	12.23	12.97	---	---	15.50	15.95	15.02
16	10.57	11.45	11.06	11.34	11.10	12.27	13.00	---	---	15.53	15.95	15.00
17	10.61	11.50	11.10	11.37	11.14	12.31	13.03	---	---	15.55	15.95	14.98
18	10.62	11.46	11.13	11.40	11.19	12.34	13.05	---	---	15.58	15.95	14.99
19	10.70	11.39	11.15	11.42	11.24	12.38	13.08	---	---	15.59	15.95	14.96
20	10.78	11.33	11.17	11.44	11.28	12.41	13.10	---	---	15.61	15.97	14.96
21	10.80	11.27	11.17	11.47	11.33	12.44	13.12	---	---	15.62	15.92	14.94
22	10.83	11.22	11.20	11.50	11.36	12.48	13.15	---	---	15.64	15.90	14.91
23	10.85	11.13	11.22	11.52	11.40	12.52	13.18	---	---	15.65	15.89	14.90
24	10.87	11.03	11.25	11.55	11.43	12.55	13.21	---	---	15.68	15.88	14.91
25	10.94	10.88	11.30	11.57	11.46	12.58	13.24	---	---	15.70	15.85	14.93
26	10.99	10.76	11.30	11.59	11.50	12.60	13.27	---	---	15.71	15.82	14.89
27	10.98	10.71	11.29	11.35	11.54	12.63	13.29	---	---	15.73	15.80	14.91
28	11.04	10.65	11.32	11.05	11.58	12.66	13.31	---	---	15.75	15.73	14.91
29	11.07	---	11.35	10.87	11.62	12.68	13.34	---	---	15.76	15.65	14.91
30	11.09	---	11.35	10.74	11.65	12.71	13.37	---	---	15.78	15.55	14.90
31	11.15	---	11.28	---	11.69	---	13.40	---	---	15.78	---	14.92

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.96	15.44	14.09	13.93	13.71	12.55	12.18	---	---	---	---	---
2	14.94	15.44	14.06	13.94	13.76	12.54	12.23	---	---	---	---	---
3	14.98	15.36	14.09	13.96	13.78	12.53	12.28	---	---	---	---	---
4	14.99	15.24	14.09	14.00	13.77	12.52	12.31	---	---	---	---	---
5	15.04	15.14	14.07	14.03	13.77	12.50	12.36	---	---	---	---	---
6	15.04	15.01	14.11	14.04	13.81	12.48	12.41	---	---	---	---	---
7	15.11	14.91	14.15	14.04	13.84	12.46	12.45	---	---	---	---	---
8	15.13	14.80	14.14	13.97	13.87	12.44	12.48	---	---	---	---	---
9	15.12	14.70	14.13	13.88	13.90	12.33	12.52	---	---	---	---	---
10	15.13	14.61	14.14	13.81	13.92	12.16	12.56	---	---	---	---	---
11	15.15	14.52	14.18	13.76	13.93	11.96	12.60	---	---	---	---	---
12	15.16	14.46	14.12	13.72	13.95	11.81	---	---	---	---	---	---
13	15.19	14.39	14.08	13.69	13.96	11.72	---	---	---	---	---	---
14	15.19	14.33	14.05	13.65	13.98	11.64	---	---	---	---	---	---
15	15.23	14.30	14.02	13.63	13.82	11.60	---	---	---	---	---	---
16	15.24	14.24	14.00	13.62	13.53	11.59	---	---	---	---	---	---
17	15.26	14.21	13.97	13.60	13.38	11.60	---	---	---	---	---	---
18	15.26	14.18	13.93	13.60	13.29	11.63	---	---	---	---	---	---
19	15.28	14.17	13.95	13.59	13.21	11.65	---	---	---	---	---	---
20	15.28	14.15	13.95	13.57	13.15	11.71	---	---	---	---	---	---
21	15.29	14.16	13.93	13.58	13.10	11.76	---	---	---	---	---	---
22	15.33	14.13	13.91	13.60	13.06	11.81	---	---	---	---	---	---
23	15.34	14.11	13.90	13.60	13.03	11.86	---	---	---	---	---	---
24	15.33	14.12	13.89	13.59	13.01	11.91	---	---	---	---	---	---
25	15.35	14.09	13.88	13.59	12.90	11.97	---	---	---	---	---	---
26	15.36	14.06	13.88	13.60	12.81	12.00	---	---	---	---	---	---
27	15.38	14.08	13.89	13.60	12.74	12.04	---	---	---	---	---	---
28	15.36	14.11	13.89	13.62	12.68	12.07	---	---	---	---	---	---
29	15.40	---	13.88	13.66	12.63	12.11	---	---	---	---	---	---
30	15.42	---	13.89	13.67	12.59	12.14	---	---	---	---	---	---
31	15.43	---	13.91	---	12.57	---	---	---	---	---	---	---

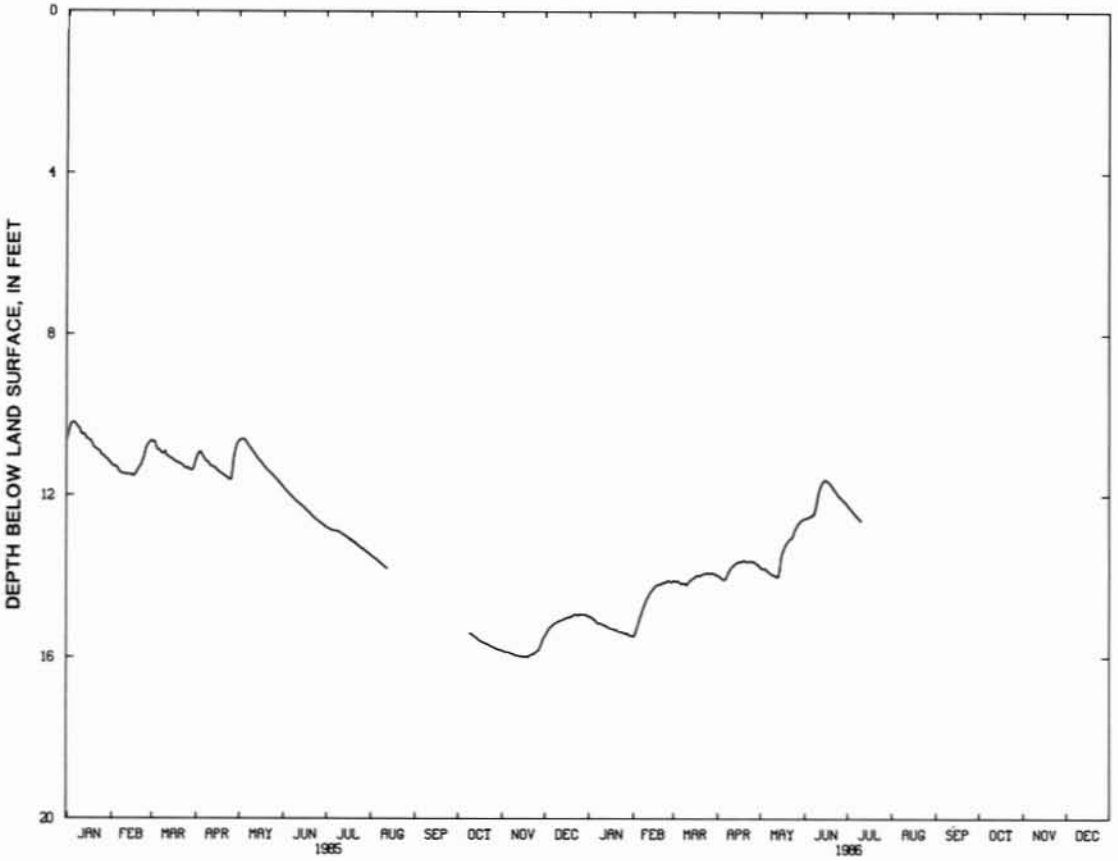

Figure 12.—Water level in observation well 69A, Malden, Dunklin County.

COUNTY--Franklin

WELL IDENTIFICATION NUMBER--382100090592801

LOCATION--T.42N., R.1W., 26ddb, lat. 38°21'00", long. 90°59'28", Missouri Highway Department maintenance buildings, north outerbound road to Interstate 44, between State Highway 47 intersection and exit 239.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Roubidoux Formation and Gasconade Formation.

WELL CHARACTERISTICS--Drilled April 28, 1956, total depth 255 feet, 80 feet of 8-inch casing, open hole.
DGLS Log Number: 14,462

INSTRUMENTATION--Stevens model 7001 digital recorder, installed April 1, 1980.

DATUM--Elevation of land-surface datum, 739 feet.
Measuring point: Base of recorder platform, 2.2 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--April 2, 1980, to present.
Missing record for 1985: Recorder clock stopped for the periods March 19 to April 30 and May 8 to 9.
Missing record for 1986: Recorder clock stopped for the periods July 23 to October 10 and December 9 to 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	58.49	60.37	59.63	---	58.42	59.54	58.85	60.23	59.31	60.29	59.88	57.84
2	58.80	60.44	59.84	---	58.56	59.51	58.86	60.26	59.40	60.24	60.06	58.31
3	58.71	60.60	59.55	---	58.58	59.56	58.84	60.18	59.34	60.10	60.13	58.33
4	58.50	60.53	59.42	---	58.42	59.44	58.81	60.13	59.32	60.05	60.22	58.16
5	58.72	60.32	59.93	---	58.41	59.32	58.85	60.09	59.32	60.21	60.15	58.17
6	58.57	60.54	59.92	---	58.55	59.15	59.03	60.07	59.44	60.18	59.99	58.32
7	58.67	60.90	59.55	---	58.63	58.84	59.16	59.93	59.59	60.13	60.15	58.17
8	58.91	60.93	59.60	---	---	58.71	59.17	59.87	59.61	60.18	60.15	58.14
9	58.92	60.74	59.60	---	---	58.66	59.12	59.82	59.56	60.33	60.03	58.27
10	58.92	60.60	59.30	---	58.66	58.69	59.15	59.87	59.67	60.28	60.15	58.28
11	59.24	60.60	58.90	---	58.52	58.31	59.23	59.93	59.81	60.22	60.22	58.09
12	59.31	60.72	59.17	---	58.61	58.17	59.27	59.84	59.88	60.12	60.01	57.95
13	58.90	60.78	59.04	---	58.75	58.22	59.33	59.89	60.02	60.16	59.85	57.98
14	58.93	60.82	59.14	---	58.68	58.18	59.40	59.91	60.07	60.12	59.69	58.12
15	59.21	60.80	59.18	---	58.86	58.13	59.50	59.88	59.98	60.27	59.30	58.06
16	59.03	60.64	59.05	---	58.87	58.21	59.64	59.87	59.84	60.39	59.06	58.09
17	58.96	60.97	59.11	---	58.93	58.24	59.70	59.88	59.76	60.39	59.07	58.11
18	58.89	61.04	59.10	---	59.01	58.19	59.74	59.95	59.92	60.35	58.80	58.45
19	59.26	60.99	---	---	59.04	58.24	59.82	59.98	59.99	60.37	58.40	58.27
20	59.66	60.87	---	---	59.09	58.23	59.88	59.91	59.97	60.37	58.74	58.31
21	59.59	60.72	---	---	59.21	58.18	59.88	59.84	59.92	60.37	58.60	58.31
22	59.63	60.41	---	---	59.22	58.31	59.98	59.76	59.84	60.34	58.49	57.99
23	59.51	59.89	---	---	59.32	58.40	60.09	59.53	59.89	60.24	58.56	57.99
24	59.42	59.83	---	---	59.31	58.45	60.11	59.29	60.13	60.36	58.69	58.29
25	59.79	59.93	---	---	59.28	58.46	60.17	59.25	59.97	60.52	58.49	58.58
26	60.04	59.92	---	---	59.21	58.46	60.16	59.34	60.01	60.40	58.32	58.24
27	59.85	60.16	---	---	59.26	58.55	60.18	59.45	60.08	60.43	58.17	58.56
28	59.98	59.91	---	---	59.43	58.68	60.14	59.42	60.18	60.43	58.01	58.63
29	60.02	---	---	---	59.40	58.74	60.18	59.28	60.12	60.34	58.09	58.69
30	60.01	---	---	---	59.29	58.80	60.19	59.22	60.18	60.23	58.03	58.57
31	60.26	---	---	---	59.37	---	60.15	59.25	---	59.97	---	58.74

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	58.85	59.47	58.92	59.04	59.62	59.97	60.56	---	---	---	59.62	58.76
2	58.65	59.43	58.71	59.01	59.76	60.14	60.66	---	---	---	59.66	58.74
3	58.89	58.77	58.96	58.90	59.76	60.20	60.72	---	---	---	59.44	58.97
4	58.87	58.09	59.00	59.00	59.56	60.18	60.62	---	---	---	59.40	59.07
5	59.06	58.23	58.81	59.09	59.36	60.14	60.64	---	---	---	59.21	58.93
6	59.00	58.17	58.99	59.14	59.43	60.10	60.74	---	---	---	59.22	58.77
7	59.42	58.28	59.22	59.09	59.54	60.08	60.80	---	---	---	59.12	58.60
8	59.51	58.44	59.06	59.18	59.59	60.19	60.72	---	---	---	59.15	58.51
9	59.21	58.51	58.77	59.27	59.66	60.27	60.63	---	---	---	59.38	---
10	59.12	58.45	58.82	59.19	59.71	60.24	60.62	---	---	---	59.27	---
11	59.08	58.49	59.08	59.08	59.70	60.17	60.62	---	---	58.87	59.25	---
12	59.09	58.60	58.74	59.09	59.75	60.29	60.65	---	---	59.01	59.42	---
13	59.22	58.51	58.75	59.18	59.76	60.45	60.82	---	---	59.11	59.48	---
14	59.06	58.32	58.83	59.14	59.82	60.42	60.91	---	---	59.21	59.10	---
15	59.26	58.47	58.92	59.34	59.77	60.31	60.89	---	---	59.39	58.91	---
16	59.17	58.13	58.99	59.47	59.89	60.36	60.87	---	---	59.41	58.88	---
17	59.19	58.19	58.91	59.47	59.79	60.54	60.90	---	---	59.51	58.92	---
18	59.14	58.22	58.53	59.43	59.90	60.54	60.90	---	---	59.65	59.19	---
19	59.16	58.37	58.77	59.46	60.02	60.48	60.84	---	---	59.71	59.02	---
20	59.14	58.43	59.27	59.22	60.07	60.54	60.87	---	---	59.69	59.26	---
21	59.03	58.73	59.33	59.34	60.01	60.58	60.92	---	---	59.65	59.29	---
22	59.51	58.70	59.11	59.57	59.90	60.57	60.99	---	---	59.59	59.14	---
23	59.61	58.60	59.08	59.55	59.92	60.57	---	---	---	59.61	59.43	---
24	59.33	58.77	59.14	59.43	60.02	60.60	---	---	---	59.54	59.46	---
25	59.34	58.71	58.96	59.35	60.01	60.65	---	---	---	59.27	59.15	---
26	59.42	58.35	59.02	59.35	59.96	60.62	---	---	---	59.30	59.37	---
27	59.52	58.67	59.16	59.35	59.98	60.60	---	---	---	59.39	59.41	---
28	59.19	59.00	59.02	59.35	60.02	60.57	---	---	---	59.41	59.31	---
29	59.42	---	58.90	59.52	60.06	60.58	---	---	---	59.50	59.25	---
30	59.68	---	58.94	59.45	60.04	60.53	---	---	---	59.54	59.17	---
31	59.52	---	58.97	---	59.99	---	---	---	---	59.49	---	---

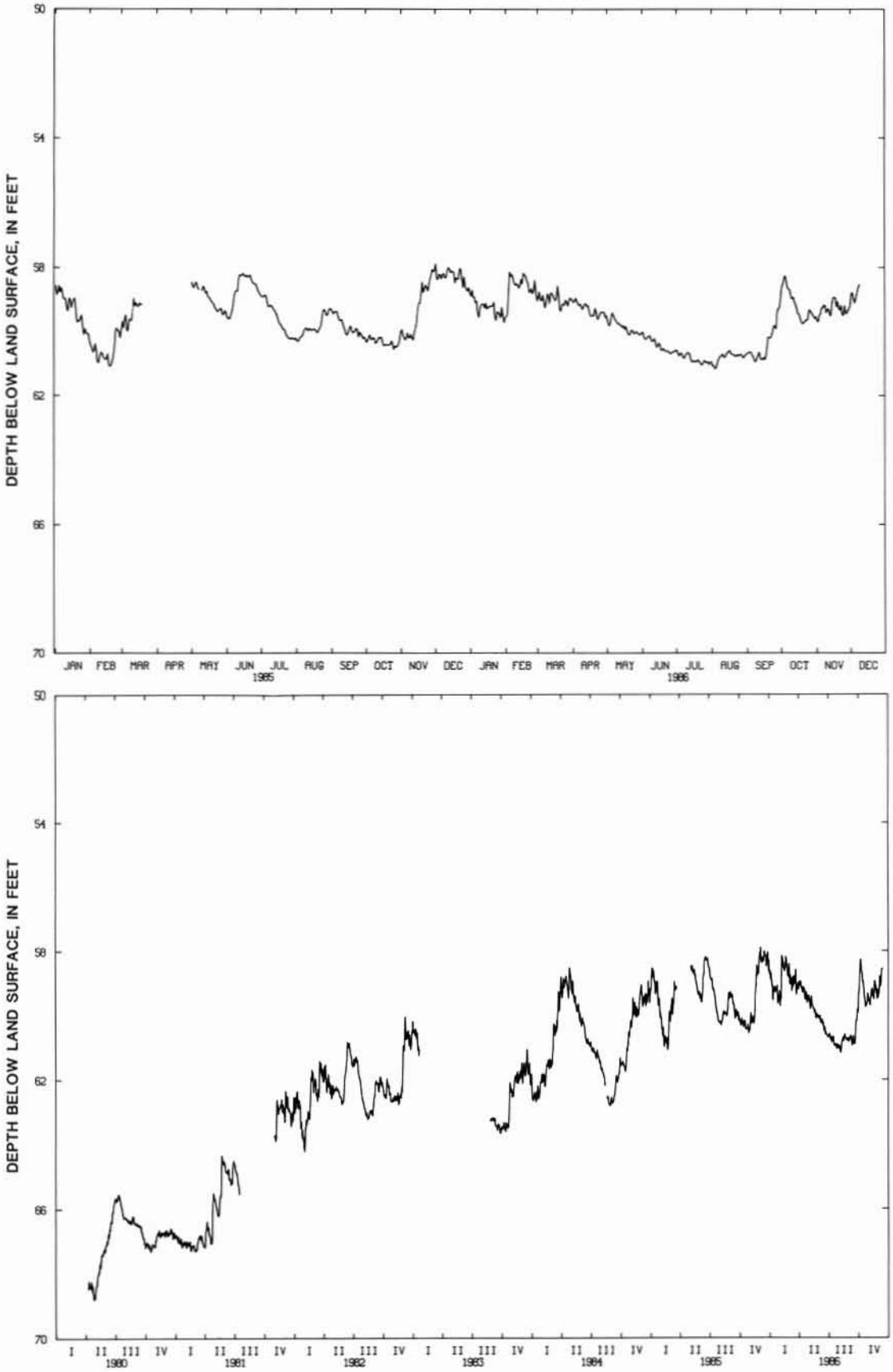

Figure 13.—Water level in observation well 71A, St. Clair, Franklin County.

COUNTY--Franklin

WELL IDENTIFICATION NUMBER--383212091012301

LOCATION--T.44N., R.1W., 27cbb, lat. 38°32'12", long. 91°01'23", east of Washington, 0.5 miles south of junction of State Highway 100 and County Road A, and 0.25 miles west of County Road A.
Owner: Everet Marquart

FORMATIONS OPEN TO THE WELL--Jefferson City Dolomite, Roubidoux Foramtion, Gasconade Formation, Eminence Dolomite, Potosi Dolomite, Derby-Doerun Dolomite, Davis Dolomite, and Bonneterre Formation.

WELL CHARACTERISTICS--Drilled January 1, 1931, total depth 1,360 feet, 76 feet of 10-inch casing, open hole.
DGLS Log Number: 2,402

INSTRUMENTATION--Stevens model A-35 chart recorder, installed April 30, 1956.

DATUM--Elevation of land-surface datum is 575 feet, from topographic map.
Measuring point: Base of recorder platform, 2.6 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--July 27, 1964, to present.

REMARKS--Obstruction at 337 feet.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	69.17	67.84	65.16	67.34	67.27	69.52	68.13	74.23	74.43	75.95	71.71	72.73
2	69.59	67.84	65.36	67.00	67.46	69.45	68.17	74.39	74.23	75.64	71.89	72.48
3	69.40	68.07	65.58	66.84	67.61	69.31	68.07	74.45	74.02	75.27	71.91	72.26
4	68.92	68.12	66.42	66.72	67.46	69.27	68.14	74.16	73.94	75.10	71.77	72.30
5	68.89	68.35	66.43	66.82	67.29	69.28	68.26	73.68	73.88	75.16	71.66	72.40
6	68.70	68.15	66.24	66.93	67.28	69.27	68.71	73.50	73.95	75.08	71.62	72.41
7	68.52	67.72	66.55	66.86	67.34	69.21	69.00	73.43	74.32	74.87	71.98	72.33
8	68.52	67.40	66.84	66.62	67.49	69.05	69.12	73.41	74.75	74.72	72.18	72.09
9	68.41	67.46	66.78	66.56	67.64	68.81	69.35	73.54	75.02	74.66	72.31	72.21
10	68.17	67.66	66.92	66.45	67.81	68.61	69.75	73.91	75.37	74.40	72.29	72.15
11	68.32	67.82	67.54	66.49	67.81	68.36	70.21	74.26	75.66	74.36	72.21	71.98
12	68.48	67.69	67.83	66.62	67.99	68.28	70.66	74.36	75.90	74.17	72.12	71.99
13	68.06	67.55	67.83	66.52	68.13	68.24	71.20	74.46	76.25	73.92	72.20	71.93
14	67.73	67.30	67.92	66.29	67.86	68.15	71.88	74.59	76.40	73.52	72.49	71.86
15	67.92	66.87	67.83	66.04	67.90	68.04	72.56	74.79	76.35	73.33	72.66	71.65
16	67.75	66.63	67.82	66.14	67.82	68.05	73.16	74.80	76.21	73.28	72.84	71.41
17	67.76	66.08	67.87	66.28	67.67	68.03	73.43	74.87	76.04	73.11	73.04	71.24
18	67.72	65.56	68.07	66.36	67.64	68.00	73.68	75.09	76.23	72.87	73.17	71.24
19	68.11	65.36	67.76	66.49	67.65	67.89	73.96	75.14	76.46	72.78	73.17	71.22
20	68.52	65.33	67.72	66.54	67.74	67.77	74.20	74.96	76.59	72.56	73.17	71.11
21	68.45	65.25	67.68	66.59	67.92	68.10	74.33	74.74	76.75	72.23	73.20	70.99
22	68.44	65.13	67.57	66.59	67.89	68.24	74.30	74.50	76.81	71.93	73.00	70.95
23	68.11	65.06	67.58	66.59	68.02	68.16	74.54	74.42	76.70	71.71	72.78	70.88
24	67.69	65.02	67.68	66.79	68.04	68.30	74.82	74.48	76.66	71.71	72.84	70.72
25	67.70	64.89	67.86	66.96	68.31	68.35	74.92	74.68	76.32	71.89	72.85	70.51
26	67.94	65.09	67.73	67.06	68.84	68.44	74.89	74.72	76.16	71.92	72.90	70.32
27	67.79	64.90	67.48	67.24	69.24	68.49	74.89	74.80	76.13	72.04	72.97	70.19
28	67.80	64.76	67.43	67.44	69.67	68.29	74.51	74.66	76.13	71.90	72.92	70.07
29	67.77	---	67.78	67.30	69.66	68.00	74.13	74.55	76.09	71.76	73.08	70.28
30	67.60	---	67.71	67.26	69.33	67.94	74.01	74.46	76.11	71.96	72.88	70.43
31	67.69	---	67.41	---	69.23	---	74.03	74.52	---	71.89	---	70.51

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	70.64	70.67	72.43	72.50	74.26	75.68	77.48	79.12	78.16	77.15	70.63	71.33
2	70.76	70.74	72.17	72.74	74.28	75.75	77.52	79.03	78.27	77.07	70.69	71.67
3	70.59	71.16	72.24	72.93	74.18	75.94	77.61	78.93	78.43	76.81	71.28	71.37
4	70.54	71.80	72.06	73.26	74.05	75.78	77.76	78.74	78.47	76.65	71.52	70.94
5	70.79	71.88	71.95	73.53	74.22	75.61	78.12	78.36	78.40	76.21	71.60	70.58
6	70.92	72.19	71.96	73.54	74.49	75.69	78.26	78.13	78.44	75.54	71.42	70.50
7	70.75	72.49	72.06	73.51	74.69	75.82	78.21	77.92	78.46	74.99	71.25	70.52
8	70.71	72.36	71.60	73.80	74.72	75.90	78.06	77.86	78.48	74.68	71.20	70.71
9	70.95	72.36	71.75	74.10	74.77	76.12	78.18	77.75	78.56	74.58	71.27	70.95
10	71.05	72.53	71.83	74.11	75.03	76.10	78.49	77.60	78.72	74.33	71.09	70.64
11	71.03	72.63	72.04	74.35	75.03	76.09	78.87	77.50	78.85	73.93	70.89	70.59
12	70.92	72.69	72.42	74.52	74.94	76.19	78.58	77.63	79.01	73.61	71.07	70.60
13	70.91	72.62	72.57	74.65	75.21	76.51	78.40	77.95	79.10	73.09	71.62	70.23
14	70.88	72.58	72.45	74.58	75.38	76.38	78.34	78.15	79.21	72.66	71.65	70.34
15	71.13	72.48	72.24	74.50	75.61	76.16	78.33	78.29	79.36	72.56	71.53	70.75
16	71.16	72.73	72.04	74.52	75.37	76.00	78.47	78.05	79.62	72.45	71.29	71.00
17	71.11	72.93	72.10	74.46	75.22	75.83	78.73	77.43	79.83	72.43	71.25	71.03
18	71.13	72.85	72.18	74.31	75.25	75.82	78.82	77.12	79.87	72.47	71.44	70.86
19	71.02	72.52	72.08	74.04	75.60	75.98	78.77	77.30	79.84	72.19	71.09	70.59
20	71.12	72.50	72.30	74.34	75.55	76.18	78.77	77.37	79.66	71.65	71.15	70.39
21	71.44	72.30	72.10	74.23	75.57	76.36	78.80	77.56	79.23	71.43	70.65	70.04
22	71.46	72.83	72.23	73.87	75.63	76.51	78.75	77.81	78.75	71.40	70.61	70.00
23	71.56	72.96	72.10	73.80	75.82	76.64	78.75	77.73	78.39	71.47	70.57	70.28
24	71.23	72.49	72.28	73.81	76.03	76.74	78.74	77.62	78.16	71.52	70.39	70.44
25	70.99	72.53	72.63	73.90	75.90	76.56	78.69	77.63	77.93	71.34	70.55	70.31
26	71.15	72.59	72.66	74.01	75.62	76.76	78.61	77.72	77.64	71.24	70.75	70.11
27	70.72	72.28	72.32	74.11	75.85	76.81	78.57	78.02	77.37	71.11	70.31	70.17
28	70.45	72.15	72.31	74.28	76.00	76.77	78.77	78.30	77.27	71.12	70.33	70.14
29	70.28	---	72.12	74.32	75.95	76.83	79.01	78.36	77.21	71.01	70.66	70.17
30	70.31	---	71.76	74.35	75.97	77.11	79.13	78.37	77.25	70.80	70.91	70.19
31	70.57	---	72.06	---	75.93	---	79.12	78.19	---	70.76	---	70.01

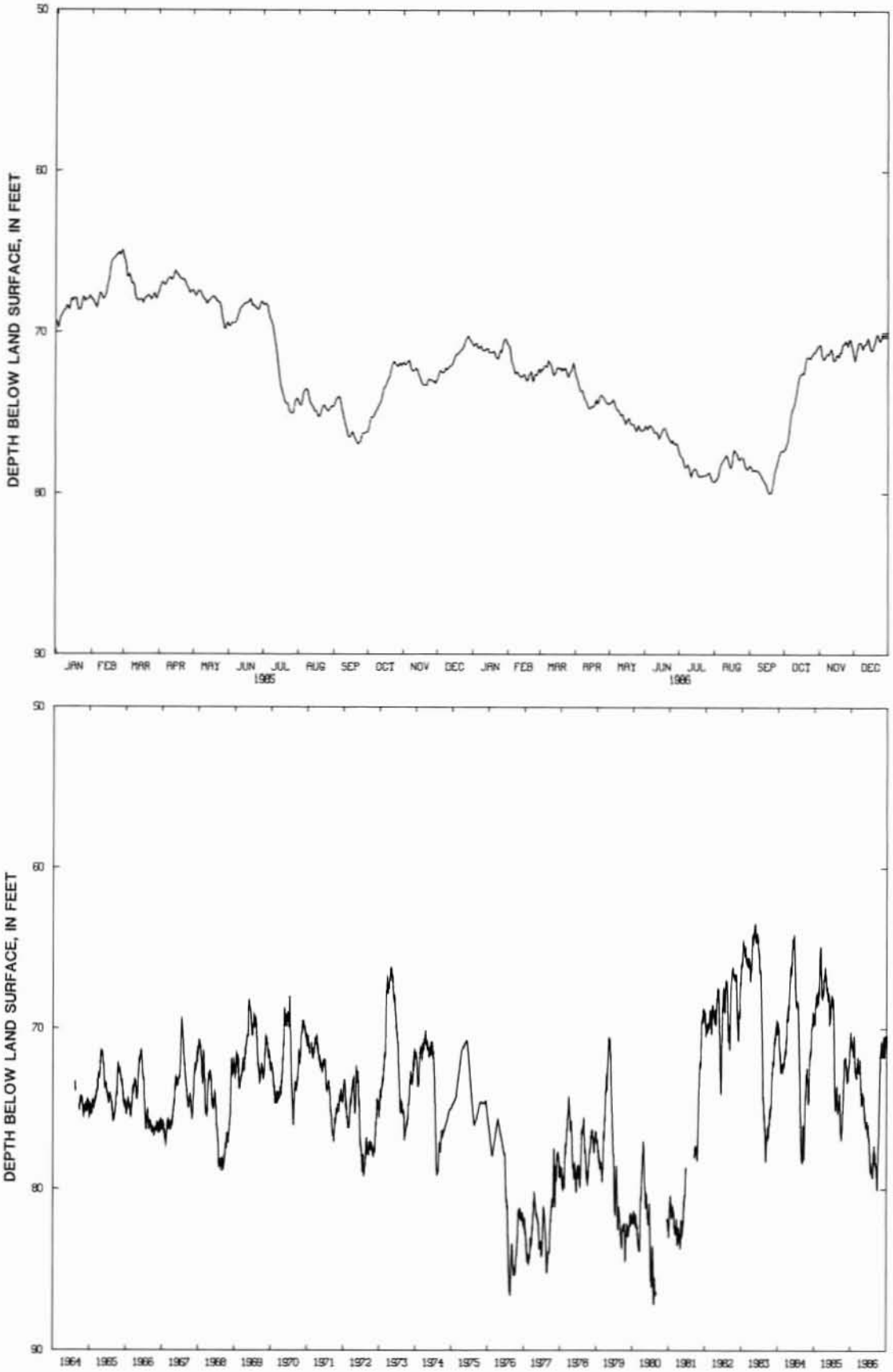

Figure 14.—Water level in observation well 71B, Washington, Franklin County.

COUNTY--Grundy

WELL IDENTIFICATION NUMBER--401444093442001

LOCATION--T.63N., R.25W., 20bdb, lat. 40°14'44", long. 93°44'20", approximately 8 miles west of Spickard State Highway C, University of Missouri Agriculture Center.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Glacial drift.

WELL CHARACTERISTICS--Drilled October 31, 1958, total depth 140 feet, 136 feet of casing, and 4 feet of well screen.

INSTRUMENTATION--Stevens model A-35 chart recorder installed November 5, 1958; Stevens model 7001 digital recorder, after December 22, 1980.

DATUM--Elevation of land-surface datum is 788 feet.
Measuring point: Base of recorder platform, 2.5 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--December 1984 to May 28, 1986.
Missing record for 1985: Recorder clock stopped for the period January 1 to June 25.
Missing record for 1986: Records not available after May 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	11.10	17.81	15.55	14.08	13.01	12.29
2	---	---	---	---	---	---	11.08	17.71	15.52	14.03	13.03	12.35
3	---	---	---	---	---	---	11.08	17.59	15.46	13.97	13.03	12.32
4	---	---	---	---	---	---	11.08	17.46	15.42	13.93	13.03	12.28
5	---	---	---	---	---	---	11.21	17.35	15.36	13.94	12.99	12.27
6	---	---	---	---	---	---	11.46	17.26	15.33	13.92	12.93	12.27
7	---	---	---	---	---	---	11.82	17.19	15.31	13.89	12.92	12.22
8	---	---	---	---	---	---	12.25	17.11	15.28	13.87	12.89	12.20
9	---	---	---	---	---	---	12.69	17.03	15.24	13.82	12.85	12.21
10	---	---	---	---	---	---	13.15	16.96	15.22	13.76	12.87	12.19
11	---	---	---	---	---	---	13.62	16.90	15.20	13.72	12.88	12.15
12	---	---	---	---	---	---	13.97	16.80	15.16	13.65	12.81	12.13
13	---	---	---	---	---	---	14.32	16.73	15.14	13.63	12.76	12.13
14	---	---	---	---	---	---	14.67	16.65	15.11	13.60	12.76	12.10
15	---	---	---	---	---	---	15.07	16.58	15.05	13.58	12.72	12.07
16	---	---	---	---	---	---	15.47	16.51	14.97	13.57	12.67	12.06
17	---	---	---	---	---	---	15.89	16.44	14.90	13.54	12.65	12.05
18	---	---	---	---	---	---	16.28	16.40	14.88	13.49	12.59	12.10
19	---	---	---	---	---	---	16.59	16.30	14.85	13.44	12.59	12.04
20	---	---	---	---	---	---	16.81	16.23	14.82	13.42	12.64	12.03
21	---	---	---	---	---	---	16.96	16.17	14.66	13.37	12.61	12.00
22	---	---	---	---	---	---	17.22	16.08	14.55	13.31	12.55	11.92
23	---	---	---	---	---	---	17.45	16.02	14.46	13.26	12.54	11.90
24	---	---	---	---	---	---	17.63	15.96	14.45	13.27	12.54	11.94
25	---	---	---	---	---	---	17.78	15.91	14.38	13.27	12.47	11.96
26	---	---	---	---	---	11.02	18.04	15.87	14.35	13.22	12.44	11.85
27	---	---	---	---	---	11.05	18.15	15.84	14.32	13.22	12.45	11.90
28	---	---	---	---	---	11.13	18.16	15.79	14.29	13.21	12.43	11.89
29	---	---	---	---	---	11.13	18.12	15.71	14.18	13.17	12.42	11.88
30	---	---	---	---	---	11.11	18.01	15.65	14.09	13.13	12.37	11.83
31	---	---	---	---	---	---	17.89	15.60	---	13.06	---	11.85

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11.83	11.55	11.23	10.96	10.72	---	---	---	---	---	---	---
2	11.78	11.55	11.23	10.86	10.72	---	---	---	---	---	---	---
3	11.81	11.49	11.26	10.80	10.65	---	---	---	---	---	---	---
4	11.82	11.42	11.23	10.80	10.63	---	---	---	---	---	---	---
5	11.81	11.45	11.22	10.82	10.58	---	---	---	---	---	---	---
6	11.82	11.44	11.24	10.81	10.53	---	---	---	---	---	---	---
7	11.88	11.45	11.24	10.81	10.53	---	---	---	---	---	---	---
8	11.86	11.46	11.16	10.83	10.51	---	---	---	---	---	---	---
9	11.78	11.47	11.12	10.82	10.48	---	---	---	---	---	---	---
10	11.78	11.46	11.15	10.78	10.44	---	---	---	---	---	---	---
11	11.74	11.45	11.12	10.76	10.44	---	---	---	---	---	---	---
12	11.76	11.45	11.06	10.76	10.41	---	---	---	---	---	---	---
13	11.72	11.39	11.07	10.71	10.41	---	---	---	---	---	---	---
14	11.71	11.37	11.08	10.74	10.39	---	---	---	---	---	---	---
15	11.70	11.33	11.10	10.76	10.35	---	---	---	---	---	---	---
16	11.67	11.27	11.10	10.77	10.31	---	---	---	---	---	---	---
17	11.67	11.27	11.00	10.72	10.31	---	---	---	---	---	---	---
18	11.66	11.26	10.96	10.72	10.32	---	---	---	---	---	---	---
19	11.66	11.28	11.06	10.70	10.32	---	---	---	---	---	---	---
20	11.61	11.31	11.09	10.68	10.31	---	---	---	---	---	---	---
21	11.61	11.32	11.06	10.72	10.29	---	---	---	---	---	---	---
22	11.65	11.29	11.03	10.71	10.28	---	---	---	---	---	---	---
23	11.64	11.28	11.06	10.67	10.30	---	---	---	---	---	---	---
24	11.60	11.29	11.00	10.67	10.31	---	---	---	---	---	---	---
25	11.61	11.24	11.01	10.67	10.29	---	---	---	---	---	---	---
26	11.63	11.22	11.03	10.65	10.27	---	---	---	---	---	---	---
27	11.61	11.27	11.00	10.61	10.22	---	---	---	---	---	---	---
28	11.55	11.28	10.96	10.64	---	---	---	---	---	---	---	---
29	11.60	---	10.96	10.61	---	---	---	---	---	---	---	---
30	11.60	---	10.96	10.67	---	---	---	---	---	---	---	---
31	11.55	---	10.96	---	---	---	---	---	---	---	---	---

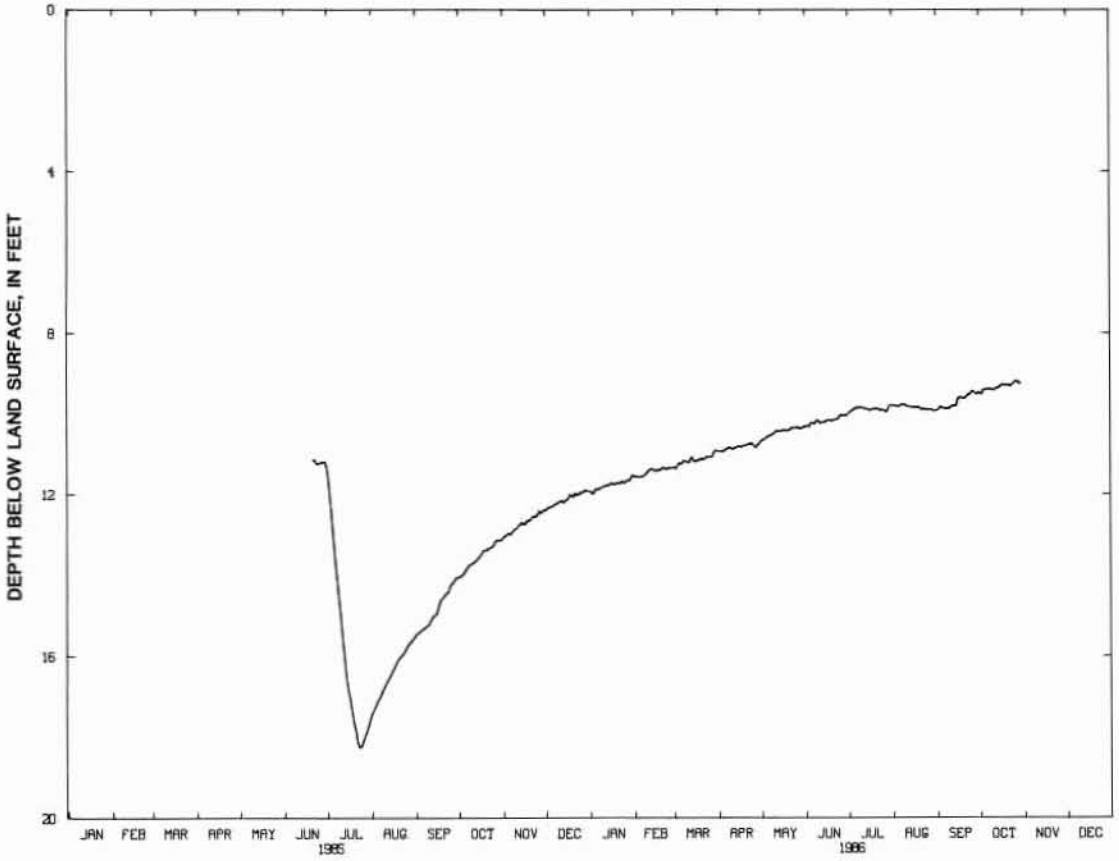

Figure 15.--Water level in observation well 79A, Spickard, Grundy County.

COUNTY--Howell

WELL IDENTIFICATION NUMBER--364400091512002

LOCATION--T.24N., R.8W., 21cac, lat. 36°44'00", long. 91°51'20", West Plains City Utilities Office.

FORMATIONS OPEN TO THE WELL--Gunter Sandstone Member of the Gasconade Formation, Eminence Dolomite, and Potosi Dolomite.

WELL CHARACTERISTICS--Drilled June 28, 1914, total depth 1,305 feet, 800 feet of 8-inch casing, open hole.
DGLS Log Number: 1,697

INSTRUMENTATION--Stevens model A-35 chart recorder, installed December 1, 1955.

DATUM--Elevation of land-surface datum is 958.5 feet, from levels.
Measuring point: Base of recorder platform, 2.0 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--December 18, 1984, to present.
Missing record for 1985: Recorder malfunctioned for the periods January 6 to March 7 and March 30 to May 2.
Missing record for 1986: Recorder malfunctioned for the period April 6 to 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	31.80	---	---	---	---	75.58	166.89	207.63	220.34	224.32	213.61	111.77
2	29.21	---	---	---	---	77.55	169.98	208.62	221.04	224.75	215.62	110.23
3	28.41	---	---	---	27.58	78.61	172.61	209.12	221.32	224.95	217.86	110.95
4	28.24	---	---	---	27.71	81.64	175.06	208.81	219.52	225.27	219.66	112.99
5	28.62	---	---	---	28.05	85.21	178.12	208.74	217.22	225.57	220.99	116.00
6	---	---	---	---	28.85	88.87	181.54	210.06	218.77	225.62	221.77	120.92
7	---	---	---	---	29.70	91.96	183.83	211.12	217.23	226.04	222.66	127.31
8	---	---	42.99	---	30.76	94.80	186.84	212.09	206.12	226.33	223.63	131.99
9	---	---	41.85	---	32.01	98.09	189.56	213.43	214.19	226.80	223.84	136.95
10	---	---	41.01	---	33.18	101.95	190.92	214.03	218.00	227.00	224.12	141.65
11	---	---	40.62	---	33.94	105.92	193.15	213.79	219.56	227.03	224.78	141.57
12	---	---	40.88	---	35.12	109.65	195.89	214.83	220.15	226.98	224.59	135.21
13	---	---	40.90	---	35.02	113.71	197.21	215.56	220.99	226.88	219.42	134.64
14	---	---	40.52	---	35.65	118.14	198.56	215.33	221.91	215.73	220.80	136.13
15	---	---	40.29	---	37.10	121.88	200.79	215.56	222.15	211.86	218.05	138.79
16	---	---	39.76	---	38.55	125.25	202.38	214.15	222.82	217.50	211.68	142.06
17	---	---	39.70	---	39.91	128.37	201.22	214.80	223.35	219.62	214.40	146.44
18	---	---	40.49	---	41.51	129.04	203.34	218.26	223.91	220.73	202.20	151.42
19	---	---	41.54	---	43.08	131.78	204.83	219.37	224.04	219.40	162.23	156.66
20	---	---	42.47	---	44.99	135.33	205.32	219.47	224.75	219.23	126.29	160.72
21	---	---	43.14	---	46.98	139.68	204.05	220.01	224.65	215.27	113.35	164.45
22	---	---	44.01	---	48.77	139.09	193.01	220.34	224.29	217.05	110.12	168.43
23	---	---	44.77	---	50.89	134.78	194.79	218.85	224.53	218.69	111.21	172.15
24	---	---	45.45	---	52.94	138.91	198.00	218.24	224.60	219.93	114.92	176.06
25	---	---	46.92	---	55.03	144.03	200.10	218.17	223.10	221.13	121.61	180.37
26	---	---	48.38	---	57.75	148.73	198.79	218.95	219.56	221.98	129.66	184.15
27	---	---	49.80	---	60.87	152.92	200.62	219.32	221.48	222.53	127.94	188.33
28	---	---	50.84	---	64.02	156.90	202.05	219.44	222.73	223.18	116.87	190.75
29	---	---	52.42	---	66.70	160.18	203.94	219.63	223.14	223.72	113.00	193.11
30	---	---	---	---	69.59	163.21	205.31	219.98	223.75	224.29	112.82	195.60
31	---	---	---	---	72.73	---	206.61	220.29	---	221.73	---	199.08

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	201.96	219.52	210.59	217.11	183.43	215.58	207.37	224.53	229.69	233.50	235.00	231.84
2	204.30	217.47	210.86	217.64	186.03	215.96	208.58	219.91	229.91	225.90	235.67	231.26
3	206.76	192.00	211.71	216.26	189.27	208.83	210.10	220.12	230.47	227.50	235.99	232.24
4	207.86	180.16	212.68	215.49	192.45	210.55	211.45	221.49	230.97	230.23	234.64	233.05
5	209.25	173.70	212.88	186.27	196.19	212.65	213.00	222.60	231.29	232.52	225.17	233.25
6	209.71	171.00	213.72	168.98	199.92	194.77	214.36	223.10	231.72	235.46	226.01	233.28
7	210.30	159.36	214.33	164.99	203.38	169.85	215.47	223.68	231.59	236.71	227.78	232.62
8	211.03	153.73	214.55	153.58	205.77	160.42	216.54	224.05	231.98	236.42	227.94	227.18
9	211.42	153.61	214.36	145.57	208.36	148.52	217.70	224.44	232.55	237.79	229.10	219.59
10	211.62	156.50	214.64	143.09	209.36	138.23	218.75	224.34	234.30	237.83	230.14	219.59
11	211.86	160.78	215.62	143.95	196.18	132.89	220.21	225.24	234.67	237.53	230.97	221.43
12	212.19	165.57	203.49	146.60	190.83	131.81	218.97	225.81	234.24	233.22	231.07	223.47
13	212.77	170.36	198.26	150.40	194.05	134.88	218.41	226.23	234.39	232.37	232.59	225.04
14	213.11	174.26	200.22	154.03	198.78	139.65	219.19	226.62	234.93	234.17	232.94	226.29
15	214.37	177.99	202.17	156.91	200.63	144.31	219.79	226.93	234.00	235.79	233.21	227.95
16	214.98	181.07	204.57	161.72	198.89	149.83	220.19	225.62	230.69	236.38	233.44	229.14
17	215.55	183.68	206.64	166.28	200.79	156.99	220.51	226.11	231.82	236.41	234.22	229.14
18	215.79	186.39	206.92	170.53	201.58	163.58	221.29	227.03	231.68	236.72	234.92	229.94
19	216.01	188.97	202.98	174.67	204.57	169.94	221.59	227.47	233.19	237.53	235.22	230.73
20	216.32	191.57	204.69	171.47	207.22	177.05	221.20	227.36	234.03	237.54	235.22	231.24
21	216.69	195.19	205.96	160.64	209.85	183.90	221.85	227.98	234.20	236.89	235.64	231.72
22	218.10	198.96	207.85	157.68	212.38	188.81	222.31	229.29	234.73	236.92	235.54	232.55
23	219.43	201.48	208.77	157.84	214.01	178.52	222.16	229.93	235.36	232.65	235.42	232.88
24	219.76	203.55	210.11	159.78	215.08	173.07	221.91	229.03	235.78	223.24	236.05	232.92
25	219.82	205.59	211.43	162.56	215.26	179.92	222.49	229.44	236.69	221.79	235.04	233.04
26	219.82	206.49	212.61	165.69	214.58	186.51	221.77	229.38	237.24	225.88	231.80	233.61
27	219.71	207.87	213.52	168.12	215.82	192.16	221.06	229.12	236.43	228.56	231.63	233.99
28	218.95	209.53	214.44	171.61	213.87	196.45	222.10	229.15	236.44	230.76	232.18	234.18
29	218.86	---	214.92	175.96	213.21	200.97	223.05	229.38	236.68	232.10	232.10	234.75
30	218.72	---	215.53	180.02	214.82	204.85	223.47	229.39	236.76	233.28	232.17	235.12
31	218.68	---	216.16	---	215.80	---	223.99	229.28	---	234.26	---	235.26

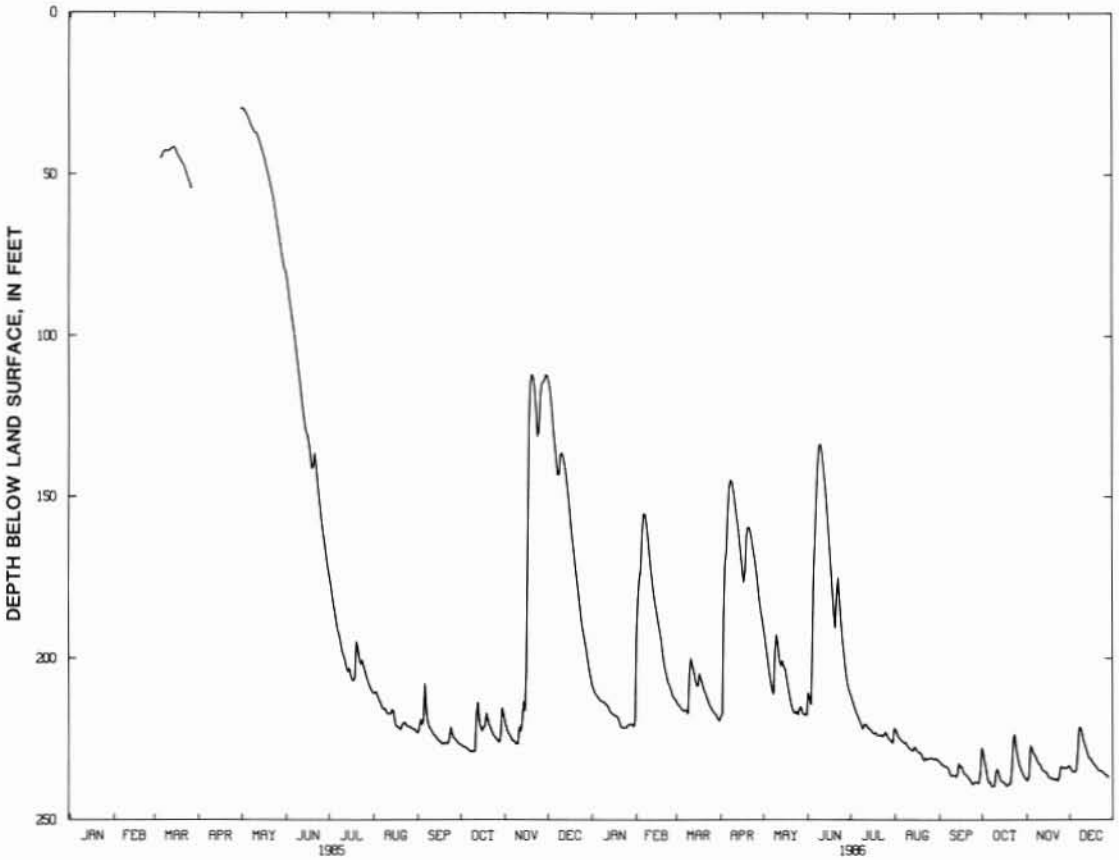

Figure 16.--Water level in observation well 91A, West Plains, Howell County.

COUNTY--Jasper

WELL IDENTIFICATION NUMBER--370600094223501

LOCATION--T.28N., R.32W., 36dcb, lat. 37°6'00", long. 94°22'35", 0.8 miles north of Old Highway 66, County Road AA, Atlas Chemical Industries, Inc.
Owner: Atlas Chemical Industries, Inc.

FORMATIONS OPEN TO THE WELL--Cotter Dolomite, Jefferson City Dolomite, Roubidoux Formation, Gasconade Formation, Eminence Dolomite, Potosi Dolomite, Bonneterre Formation, Lamotte Sandstone, and undifferentiated Precambrian.

WELL CHARACTERISTICS--Drilled January 25, 1941, total depth 1,747 feet, 375 feet of 10-inch casing, open hole.
DGLS Log Number: 6,507

INSTRUMENTATION--Stevens model A-35 chart recorder, installed February 8, 1956.

DATUM--Elevation of land-surface datum is 970 feet, from topographic map.
Measuring point: Base of recorder platform, 3.5 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--August 9, 1978, to present.
Missing record for 1985: Recorder clock stopped for periods January 1 to March 5 and December 1 to 25.
Missing record for 1986: Recorder malfunctioned for periods February 9 to 15 and August 11 to November 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	5.26	6.31	8.72	7.93	11.00	10.22	11.40	10.26	---
2	---	---	---	5.53	6.06	8.72	8.05	10.97	10.30	11.33	10.39	---
3	---	---	---	5.69	6.13	8.71	8.14	10.93	10.32	11.29	10.51	---
4	---	---	---	5.87	6.27	8.70	8.24	10.89	10.44	11.40	10.63	---
5	---	---	---	5.61	6.48	8.30	8.44	10.82	10.57	11.47	10.62	---
6	---	---	5.81	5.15	6.76	7.92	8.81	10.82	10.69	11.42	10.65	---
7	---	---	5.87	5.46	6.91	7.39	8.99	10.77	10.84	11.41	10.77	---
8	---	---	6.14	5.72	6.77	7.10	9.09	10.82	10.90	11.51	10.76	---
9	---	---	6.41	5.89	6.66	7.16	9.14	10.95	10.96	11.62	10.76	---
10	---	---	6.47	6.02	6.74	6.73	9.30	11.09	11.09	11.69	10.91	---
11	---	---	6.52	6.27	6.90	6.53	9.63	11.14	11.25	11.75	10.93	---
12	---	---	6.74	6.50	7.22	6.95	9.97	11.22	11.43	11.81	10.71	---
13	---	---	6.75	6.69	7.23	7.38	10.35	11.44	11.52	11.90	7.21	---
14	---	---	6.90	6.77	6.70	7.72	10.68	11.15	11.48	11.80	4.71	---
15	---	---	6.96	6.88	6.65	7.94	11.03	10.91	11.43	11.68	4.17	---
16	---	---	7.02	7.08	6.78	8.09	11.32	10.84	11.40	11.61	5.00	---
17	---	---	7.16	7.19	6.96	8.24	11.61	10.86	11.56	11.63	5.74	---
18	---	---	7.24	7.31	7.21	8.39	11.69	10.77	11.84	11.56	5.50	---
19	---	---	7.34	7.41	7.45	8.52	11.64	10.65	11.91	11.15	4.39	---
20	---	---	7.48	7.57	7.68	8.60	11.54	10.66	11.90	10.93	4.93	---
21	---	---	7.57	7.75	7.89	8.78	11.44	10.67	11.86	10.87	5.28	---
22	---	---	7.71	7.81	8.03	6.91	11.37	10.17	11.78	10.88	5.76	---
23	---	---	7.92	7.93	8.19	5.45	11.31	9.12	11.78	10.96	6.15	---
24	---	---	8.06	8.08	8.27	5.97	11.23	8.93	11.76	11.15	6.43	---
25	---	---	8.23	8.12	8.34	6.38	11.19	9.05	11.62	11.25	6.62	---
26	---	---	8.25	8.20	8.43	6.75	11.09	9.26	11.58	11.25	6.87	8.00
27	---	---	8.20	8.34	8.56	7.10	11.04	9.47	11.52	11.31	7.13	8.19
28	---	---	8.28	8.43	8.70	7.32	11.01	9.65	11.55	11.31	7.30	8.29
29	---	---	7.98	8.47	8.68	7.52	11.01	9.79	11.49	11.20	7.37	8.38
30	---	---	5.61	7.83	8.50	7.76	10.98	9.94	11.46	10.72	7.48	8.44
31	---	---	4.64	---	8.67	---	10.98	10.08	---	10.28	---	8.64

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.65	9.85	9.32	13.80	10.49	10.68	9.11	10.65	---	---	---	8.35
2	8.75	9.87	9.35	13.62	10.37	10.73	9.31	10.64	---	---	---	8.33
3	8.82	9.71	9.50	13.53	10.27	10.73	9.43	10.66	---	---	---	8.43
4	9.02	9.56	9.54	12.51	10.18	10.72	9.54	10.67	---	---	---	8.41
5	8.97	9.51	9.52	11.21	10.16	10.64	9.68	10.65	---	---	---	8.42
6	9.06	9.32	9.65	10.94	10.25	10.62	9.87	10.65	---	---	---	8.50
7	9.27	9.10	9.72	10.75	10.35	10.65	9.99	10.67	---	---	---	8.47
8	9.24	8.87	9.68	9.56	10.42	10.69	10.00	10.65	---	---	8.86	8.43
9	9.19	---	9.67	8.93	10.53	10.67	9.99	10.65	---	---	8.88	8.49
10	9.26	---	9.81	8.85	10.59	10.66	9.99	10.66	---	---	8.92	8.47
11	9.25	---	9.83	8.90	10.66	10.49	9.99	---	---	---	8.94	8.43
12	9.36	---	9.34	9.06	10.76	10.44	10.01	---	---	---	8.93	8.39
13	9.29	---	9.00	9.25	10.85	10.44	10.13	---	---	---	8.98	8.37
14	9.37	---	8.90	9.45	10.91	10.42	10.18	---	---	---	9.02	8.39
15	9.39	---	8.99	9.53	10.84	10.38	10.21	---	---	---	8.98	8.47
16	9.43	8.75	9.05	9.56	10.83	10.43	10.25	---	---	---	8.94	8.52
17	9.47	8.69	9.06	9.58	10.67	10.44	10.29	---	---	---	8.75	8.54
18	9.49	8.59	9.05	9.71	10.49	10.30	10.32	---	---	---	8.47	8.52
19	9.51	8.62	9.35	9.89	10.40	10.24	10.34	---	---	---	8.31	8.52
20	9.47	8.69	9.53	9.85	10.36	10.26	10.38	---	---	---	8.26	8.49
21	9.62	8.84	9.55	10.02	10.31	10.27	10.42	---	---	---	8.32	8.47
22	9.77	8.87	9.55	10.12	10.25	10.30	10.43	---	---	---	8.37	8.47
23	9.70	8.87	9.71	10.12	10.36	9.54	10.38	---	---	---	8.34	8.43
24	9.64	9.02	9.91	10.16	10.47	8.77	10.39	---	---	---	8.27	8.35
25	9.75	9.02	10.26	10.22	10.52	8.47	10.43	---	---	---	8.26	8.39
26	9.80	9.02	10.96	10.29	10.54	8.50	10.47	---	---	---	8.18	8.40
27	9.76	9.19	11.56	10.31	10.57	8.68	10.50	---	---	---	8.13	8.41
28	9.64	9.35	12.04	10.43	10.61	8.76	10.53	---	---	---	8.14	8.44
29	9.88	---	12.53	10.45	10.65	8.83	10.55	---	---	---	8.20	8.45
30	9.85	---	13.02	10.50	10.67	8.93	10.56	---	---	---	8.26	8.49
31	9.79	---	13.48	---	10.66	---	10.59	---	---	---	---	8.52

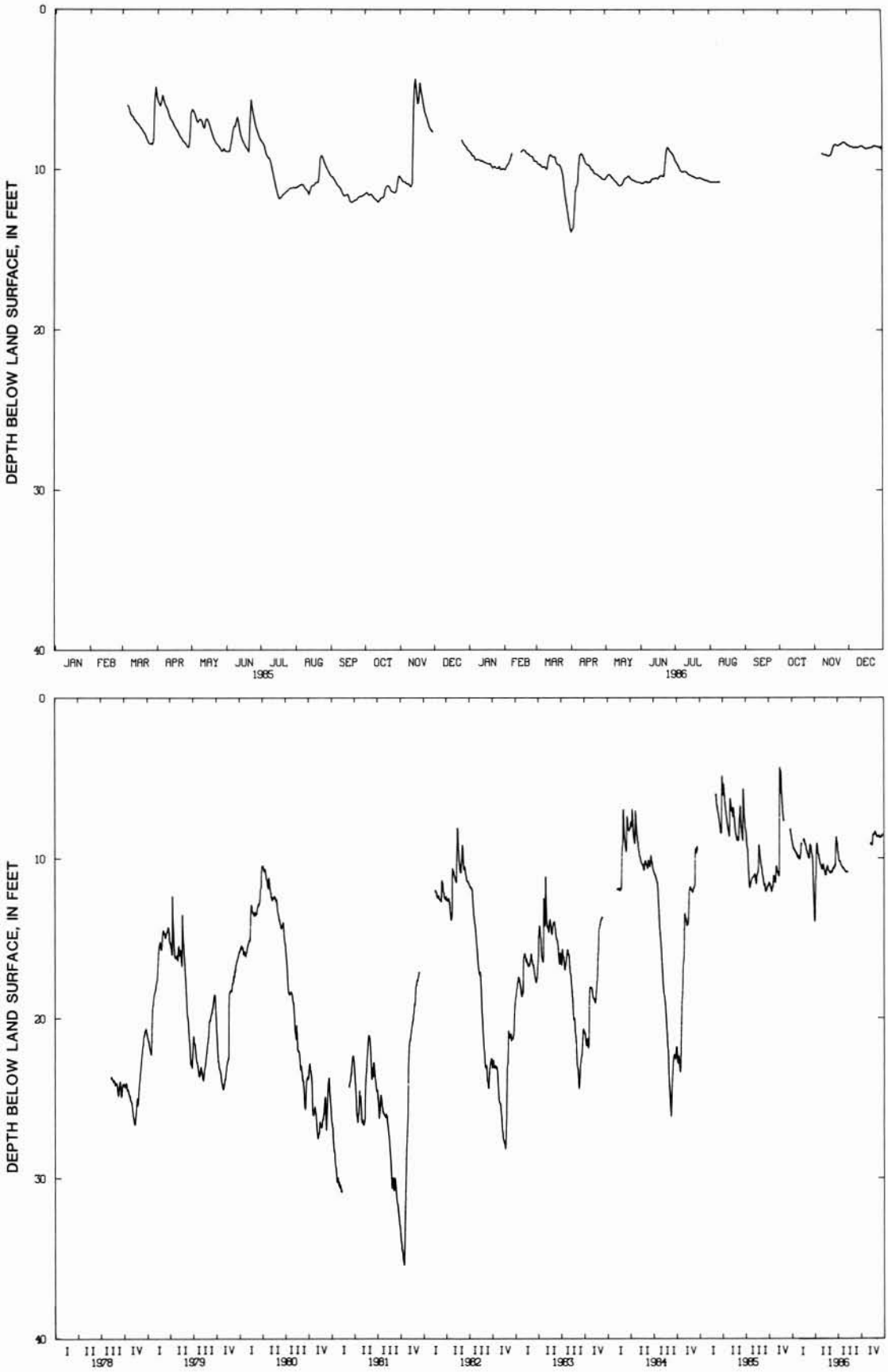

Figure 17.--Water level in observation well 97A, Atlas Powder, Jasper County.

COUNTY--Jefferson

WELL IDENTIFICATION NUMBER--380501090335501

LOCATION--T.39N., R.4E., 22dab, lat. 38°05'01", long. 90°33'55", 2.5 miles south of Desoto, County Road E.
Owner: Charles L. Campbell

FORMATIONS OPEN TO THE WELL--Jefferson City Dolomite, Roubidoux Formation, Gasconade Formation, Eminence Dolomite, Potosi Dolomite, Derby-Doerun Dolomite, Davis Dolomite, and Bonneterre Formation.

WELL CHARACTERISTICS--Mineral test hole, total depth 1,500 feet, cased to an unknown depth.

INSTRUMENTATION--Stevens model A-35 recorder, installed November 18, 1960.

DATUM--Elevation of land-surface datum is 790 feet, from topographic map.
Measuring point: Base of recorder platform, 0.9 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 6, 1984, to present.
Missing record for 1985: Recorder clock stopped for periods January 20 to February 8 and August 11 to December 31.
Missing record for 1986: Recorder clock stopped for periods January 1 to March 13, March 21 to May 21, and May 25 to July 23.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	119.45	---	119.16	118.96	118.41	118.62	118.91	119.07	---	---	---	---
2	121.08	---	118.92	119.09	118.71	118.57	118.81	119.11	---	---	---	---
3	121.15	---	119.15	118.26	119.47	118.84	118.49	118.79	---	---	---	---
4	119.78	---	117.73	117.37	119.44	118.99	118.15	118.53	---	---	---	---
5	119.95	---	119.07	117.31	118.91	119.02	117.91	118.37	---	---	---	---
6	119.66	---	120.61	118.61	118.90	119.09	118.38	118.40	---	---	---	---
7	119.40	---	119.90	119.74	119.15	118.79	118.86	118.53	---	---	---	---
8	120.12	---	119.23	120.44	119.39	118.76	118.82	118.51	---	---	---	---
9	120.39	121.35	119.83	120.64	119.42	118.55	118.44	118.54	---	---	---	---
10	119.97	120.24	119.49	119.84	119.06	118.81	118.23	118.91	---	---	---	---
11	120.89	119.29	118.02	119.31	118.37	118.49	118.39	---	---	---	---	---
12	121.51	119.20	118.63	119.60	118.17	118.78	118.39	---	---	---	---	---
13	120.08	119.62	118.82	119.39	118.57	119.20	118.44	---	---	---	---	---
14	119.12	119.85	119.03	118.75	118.38	118.95	118.48	---	---	---	---	---
15	120.07	119.95	119.50	118.26	118.71	118.43	118.61	---	---	---	---	---
16	119.61	119.70	119.05	118.69	118.74	118.37	118.99	---	---	---	---	---
17	118.91	119.51	118.94	119.20	118.60	118.47	119.04	---	---	---	---	---
18	118.30	120.48	119.00	119.00	118.77	118.55	118.88	---	---	---	---	---
19	119.19	120.57	118.55	118.80	118.69	118.68	118.85	---	---	---	---	---
20	---	120.13	118.55	118.61	118.66	118.75	118.64	---	---	---	---	---
21	---	119.64	118.48	118.67	118.92	118.45	118.33	---	---	---	---	---
22	---	119.24	117.92	118.43	118.93	118.57	118.37	---	---	---	---	---
23	---	119.01	117.89	118.17	119.14	118.91	118.45	---	---	---	---	---
24	---	118.65	118.13	118.36	119.08	118.96	118.25	---	---	---	---	---
25	---	119.67	119.16	118.78	118.82	118.89	118.39	---	---	---	---	---
26	---	119.72	119.22	118.59	118.39	118.61	118.84	---	---	---	---	---
27	---	120.02	118.03	118.64	118.18	118.55	118.95	---	---	---	---	---
28	---	120.49	117.29	119.17	118.66	118.78	118.79	---	---	---	---	---
29	---	---	117.89	119.41	118.71	118.86	118.86	---	---	---	---	---
30	---	---	118.22	119.05	118.21	118.87	118.63	---	---	---	---	---
31	---	---	117.80	---	118.01	---	118.60	---	---	---	---	---

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	---	118.47	117.86	117.43	120.45	115.67
2	---	---	---	---	---	---	---	118.55	117.65	116.82	118.67	118.02
3	---	---	---	---	---	---	---	119.46	117.34	117.74	117.79	120.12
4	---	---	---	---	---	---	---	119.50	117.91	118.96	116.82	121.25
5	---	---	---	---	---	---	---	118.37	118.32	119.67	117.57	120.26
6	---	---	---	---	---	---	---	117.53	119.15	119.01	117.53	118.68
7	---	---	---	---	---	---	---	117.52	119.47	118.50	117.30	117.07
8	---	---	---	---	---	---	---	117.70	118.48	119.30	119.24	116.53
9	---	---	---	---	---	---	---	117.71	117.09	118.93	120.00	118.97
10	---	---	---	---	---	---	---	118.00	115.99	117.71	119.33	118.28
11	---	---	---	---	---	---	---	119.17	117.82	117.90	119.99	118.49
12	---	---	---	---	---	---	---	119.16	119.29	118.12	122.37	120.78
13	---	---	---	---	---	---	---	118.26	119.31	118.27	120.13	119.73
14	---	---	117.70	---	---	---	---	117.55	118.60	119.08	117.24	118.99
15	---	---	118.54	---	---	---	---	117.37	119.17	118.75	115.76	118.63
16	---	---	119.57	---	---	---	---	117.42	118.30	119.04	115.83	117.60
17	---	---	119.49	---	---	---	---	118.22	117.99	119.91	116.42	117.80
18	---	---	116.90	---	---	---	---	118.66	118.11	120.17	117.56	118.08
19	---	---	117.17	---	---	---	---	118.54	118.56	119.68	116.55	118.07
20	---	---	121.30	---	---	---	---	118.68	118.58	118.98	118.49	119.35
21	---	---	---	---	---	---	---	119.05	117.79	118.21	117.49	119.67
22	---	---	---	---	117.70	---	---	118.50	116.74	118.01	117.27	118.20
23	---	---	---	---	118.00	---	---	118.51	116.38	117.52	119.13	116.15
24	---	---	---	---	118.56	---	118.57	118.28	117.22	115.77	117.78	116.72
25	---	---	---	---	---	---	117.57	117.95	117.97	116.47	116.64	118.53
26	---	---	---	---	---	---	117.48	117.91	118.12	117.78	119.07	119.18
27	---	---	---	---	---	---	117.54	119.08	118.23	118.47	119.16	119.12
28	---	---	---	---	---	---	117.27	119.86	117.76	119.08	118.61	117.81
29	---	---	---	---	---	---	117.92	119.33	117.81	119.78	117.90	117.77
30	---	---	---	---	---	---	117.74	118.88	117.73	119.44	116.61	118.13
31	---	---	---	---	---	---	117.39	118.18	---	119.91	---	117.32

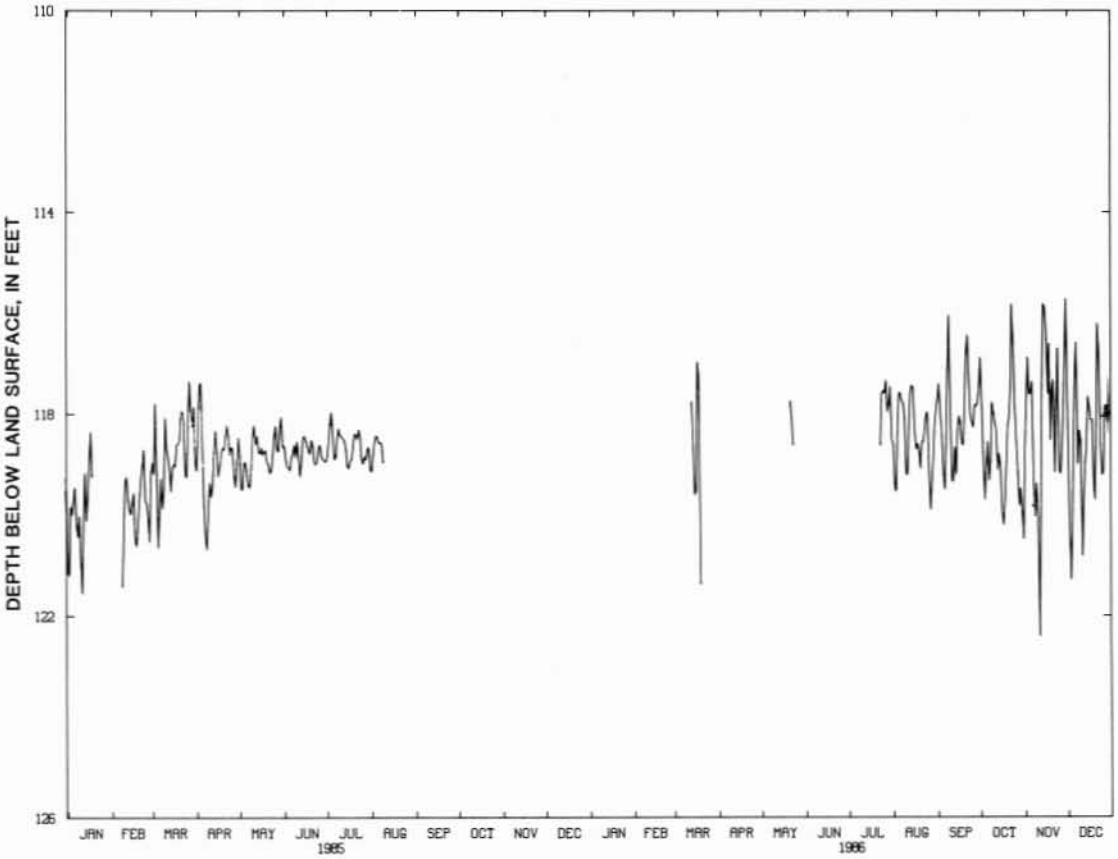

Figure 18.--Water level in observation well 99A, DeSoto, Jefferson County.

COUNTY--Lincoln

WELL IDENTIFICATION NUMBER--385836090584201

LOCATION--T.49N., R.1W., 26dac, lat. 38°58'36", long. 90°58'42", corner of Cap and Geis Streets in Troy, well number 4.
Owner: City of Troy

FORMATIONS OPEN TO THE WELL--Kimmswick Formation, Decorah Formation, Plattin Formation, Joachim Dolomite, and St. Peter Sandstone.

WELL CHARACTERISTICS--Drilled April 12, 1946, total depth 813 feet, 400 feet of 8-inch casing, open hole.
DGLS Log Number: 9,108

INSTRUMENTATION--Stevens model A-35 chart recorder, installed April 15, 1980.

DATUM--Elevation of land-surface datum is 535 feet, from topographic map.
Measuring point: Base of recorder platform, at land-surface datum.

PERIOD OF PROCESSED RECORD--December 18, 1980, to present.
Missing record for 1985: Recorder malfunctioned for periods January 1 to 2, January 11 to 14, and January 20 to December 31.
Missing record for 1986: Recorder malfunctioned for periods January 1 to April 23, April 28 to June 4, June 24 to 28, July 15 to August 24, September 2 to 17, October 6 to 12, October 30 to November 13, November 18 to 23, and December 11 to 20.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	168.95	---	---	---	---	---	---	---	---	---	---	---
4	167.72	---	---	---	---	---	---	---	---	---	---	---
5	167.66	---	---	---	---	---	---	---	---	---	---	---
6	168.96	---	---	---	---	---	---	---	---	---	---	---
7	169.00	---	---	---	---	---	---	---	---	---	---	---
8	167.90	---	---	---	---	---	---	---	---	---	---	---
9	167.03	---	---	---	---	---	---	---	---	---	---	---
10	166.19	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	165.14	---	---	---	---	---	---	---	---	---	---	---
16	164.48	---	---	---	---	---	---	---	---	---	---	---
17	163.56	---	---	---	---	---	---	---	---	---	---	---
18	163.42	---	---	---	---	---	---	---	---	---	---	---
19	162.84	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	126.51	---	125.78	125.53	---	120.21
2	---	---	---	---	---	---	126.64	---	---	126.05	---	120.39
3	---	---	---	---	---	---	126.81	---	---	126.42	---	120.75
4	---	---	---	---	---	---	126.70	---	---	126.45	---	120.98
5	---	---	---	---	---	130.16	126.23	---	---	125.66	---	120.99
6	---	---	---	---	---	129.93	125.88	---	---	---	---	120.90
7	---	---	---	---	---	129.60	125.50	---	---	---	---	120.41
8	---	---	---	---	---	128.71	125.07	---	---	---	---	120.08
9	---	---	---	---	---	128.03	124.77	---	---	---	---	120.78
10	---	---	---	---	---	128.38	124.72	---	---	---	---	121.84
11	---	---	---	---	---	128.88	124.66	---	---	---	---	---
12	---	---	---	---	---	128.86	124.66	---	---	---	---	---
13	---	---	---	---	---	128.70	124.56	---	---	124.69	---	---
14	---	---	---	---	---	128.16	124.34	---	---	124.27	124.79	---
15	---	---	---	---	---	127.20	---	---	---	124.80	124.18	---
16	---	---	---	---	---	126.61	---	---	---	125.08	123.31	---
17	---	---	---	---	---	127.37	---	---	---	125.55	122.91	---
18	---	---	---	---	---	127.97	---	---	126.51	125.65	---	---
19	---	---	---	---	---	128.47	---	---	126.58	124.84	---	---
20	---	---	---	---	---	129.01	---	---	126.32	124.27	---	---
21	---	---	---	---	---	128.79	---	---	125.82	124.62	---	123.89
22	---	---	---	---	---	127.90	---	---	125.44	124.94	---	124.24
23	---	---	---	---	---	127.31	---	---	125.48	125.33	---	124.42
24	---	---	---	128.03	---	---	---	---	125.50	125.55	122.77	124.83
25	---	---	---	128.28	---	---	---	125.94	125.65	125.25	122.46	125.31
26	---	---	---	128.25	---	---	---	126.33	125.79	124.39	122.52	125.56
27	---	---	---	126.94	---	---	---	126.75	125.70	123.88	122.31	125.92
28	---	---	---	---	---	---	---	127.05	125.30	123.76	121.66	126.54
29	---	---	---	---	---	127.09	---	127.06	124.92	123.81	121.11	127.07
30	---	---	---	---	---	126.60	---	126.70	125.26	---	120.59	127.40
31	---	---	---	---	---	---	---	126.20	---	---	---	127.84

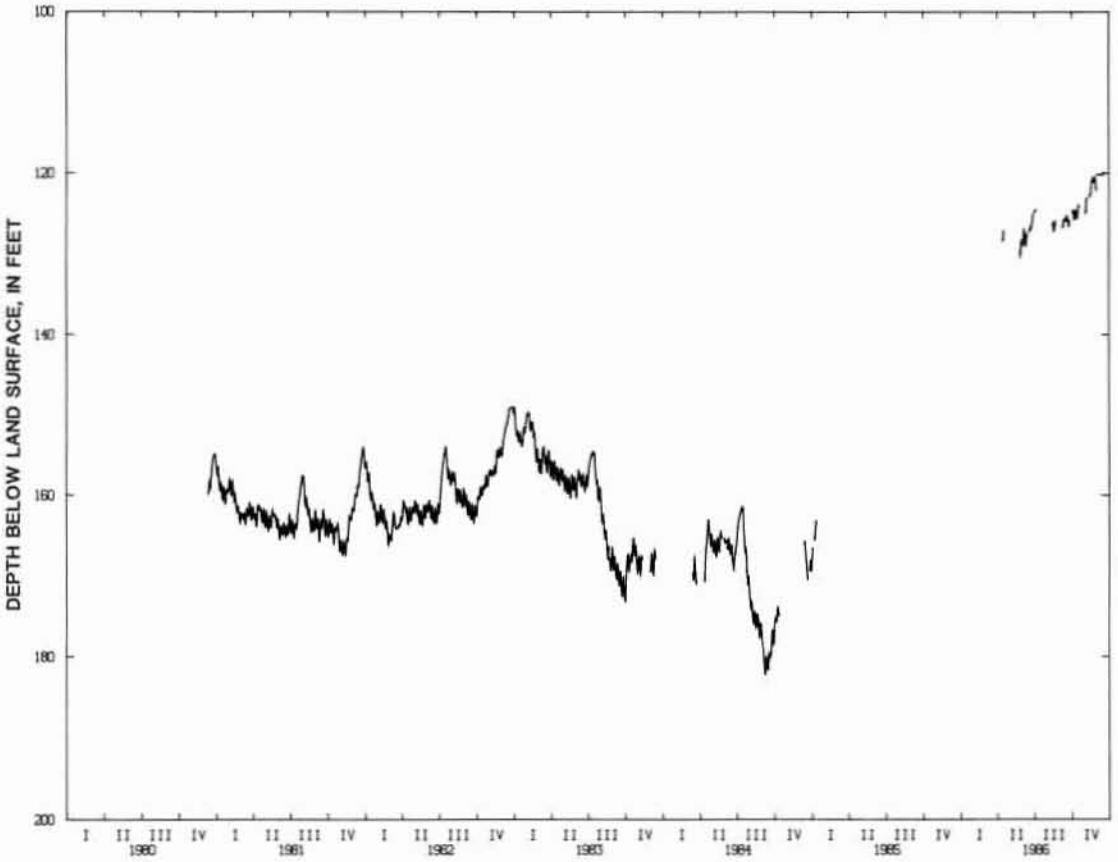

Figure 19.—Water level in observation well 113A, Troy, Lincoln County.

COUNTY--McDonald

WELL IDENTIFICATION NUMBER--364317094421701

LOCATION--T.23N., R.30W., 18aad, lat. 36°43'17", long. 94°42'17", 0.2 mile south of Longview, State Highway 76, Missouri Highway Department.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Keokuk Limestone, Burlington Limestone, Reeds Spring Formation, Northview Formation, and Compton Formation.

WELL CHARACTERISTICS--Drilled December 31, 1955, total depth 346 feet, 44 feet of 8-inch casing, open.
DGLS Log Number: 14,147

INSTRUMENTATION--Stevens model A-35 chart recorder, installed January 3, 1956.

DATUM--Elevation of land-surface datum is 1,290 feet, from topographic map.
Measuring point: Base of recorder platform, 2.2 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 6, 1984, to present.
Missing record for 1986: Recorder clock stopped for the period October 14 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	158.20	157.53	156.16	155.66	154.66	153.46	153.87	157.83	158.19	157.58	157.82	156.95
2	158.38	157.38	156.23	155.52	154.76	153.56	154.07	157.74	158.47	157.49	158.13	157.17
3	158.18	157.32	155.99	155.15	154.85	153.55	154.26	157.68	158.42	157.42	158.29	157.12
4	157.95	157.11	155.89	154.82	154.81	153.52	154.16	157.42	158.39	157.68	158.41	156.87
5	157.96	157.01	156.42	154.78	154.74	153.41	154.18	157.25	158.81	158.02	158.39	156.77
6	157.77	157.05	156.50	155.11	154.76	153.30	154.27	157.23	158.46	157.83	158.19	156.68
7	157.80	157.24	156.31	155.37	154.88	153.28	154.60	157.22	158.36	157.66	158.40	156.48
8	157.90	157.17	156.32	155.43	154.99	153.16	154.81	157.25	158.24	157.64	158.52	156.40
9	157.79	156.83	156.44	155.31	155.13	153.11	155.33	157.18	158.35	157.90	158.54	156.33
10	157.80	156.67	156.26	155.03	155.22	153.14	156.00	157.23	158.22	157.91	158.79	156.32
11	158.14	156.82	156.06	155.02	154.95	153.04	156.34	157.32	158.17	157.84	159.24	156.27
12	158.18	156.90	156.35	155.02	154.96	153.18	156.40	157.30	158.15	157.75	159.33	156.20
13	157.90	156.84	156.25	154.99	154.95	153.15	156.72	157.59	158.08	157.79	159.43	156.11
14	157.82	156.90	156.43	154.86	154.89	153.01	156.58	157.66	158.08	157.80	159.59	156.19
15	157.77	156.82	156.59	154.72	154.94	152.96	156.31	157.58	158.04	157.87	159.67	156.14
16	157.31	156.58	156.65	154.86	154.65	152.98	156.44	157.55	157.79	158.04	159.79	156.16
17	157.15	156.80	156.80	155.02	154.43	152.97	156.95	157.59	157.58	158.03	159.45	156.14
18	156.89	156.90	156.86	154.99	154.27	153.10	156.94	157.69	157.60	157.96	159.06	156.31
19	157.01	156.93	156.81	155.05	154.12	153.20	157.03	157.68	157.63	157.92	159.12	156.41
20	157.48	156.77	156.84	155.04	154.01	153.18	157.37	157.70	157.56	157.93	159.48	156.31
21	157.40	156.66	156.84	154.98	153.98	153.06	157.80	157.69	157.44	157.95	158.94	156.29
22	157.47	156.62	156.69	155.17	153.85	153.07	158.00	157.61	157.32	157.97	158.34	156.01
23	157.35	156.36	156.59	155.23	153.87	153.22	157.60	157.55	157.48	157.89	157.88	155.94
24	157.12	156.40	156.58	155.01	153.85	153.37	157.35	157.65	157.59	158.09	157.63	156.08
25	157.23	156.47	156.58	155.01	153.77	153.46	157.21	157.73	157.44	158.30	157.31	156.38
26	157.40	156.43	156.41	155.01	153.92	153.44	157.22	157.88	157.53	158.21	157.14	156.64
27	157.23	156.62	156.11	155.12	153.80	153.50	157.29	158.03	157.44	158.17	157.12	156.61
28	157.87	156.46	156.01	155.19	153.70	153.60	157.12	158.19	157.47	158.17	157.12	156.49
29	157.59	---	155.91	155.12	153.54	153.62	157.11	158.28	157.44	158.06	157.05	156.41
30	157.31	---	155.63	154.89	153.33	153.68	157.17	158.14	157.53	158.06	156.90	156.21
31	157.49	---	155.52	---	153.38	---	157.69	158.16	---	157.94	---	156.26

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	156.32	157.62	159.42	157.29	156.18	156.11	156.39	159.40	159.16	158.72	---	---
2	156.16	157.35	159.64	157.27	156.22	156.21	156.48	159.20	159.27	158.61	---	---
3	156.34	156.98	159.61	156.95	156.38	156.26	156.78	158.95	159.29	158.78	---	---
4	156.40	156.76	159.50	156.88	156.33	156.27	156.66	158.72	159.73	158.80	---	---
5	156.58	157.03	159.61	156.86	155.95	156.02	156.55	158.56	160.56	158.69	---	---
6	156.35	156.94	159.46	156.94	155.94	155.74	156.66	158.37	160.49	158.65	---	---
7	156.71	157.08	158.94	157.05	155.94	155.58	156.78	158.18	160.45	158.67	---	---
8	157.02	157.40	158.83	156.95	155.91	155.49	156.74	158.08	160.36	158.87	---	---
9	156.97	157.50	159.24	156.80	155.89	155.46	156.84	157.98	160.21	158.88	---	---
10	156.80	157.52	159.53	156.67	155.87	155.45	156.86	157.94	160.19	158.90	---	---
11	156.79	157.62	159.42	156.45	155.83	155.33	156.84	157.99	160.15	159.12	---	---
12	156.93	157.72	159.65	156.24	155.77	155.35	156.97	157.93	160.35	159.12	---	---
13	156.99	158.33	159.61	156.17	155.70	155.45	157.09	157.95	160.42	159.11	---	---
14	156.88	158.48	159.45	156.12	155.64	155.46	157.27	158.33	160.47	---	---	---
15	157.03	158.87	159.29	156.27	155.56	155.40	157.33	158.54	160.38	---	---	---
16	157.09	159.36	159.19	156.32	155.77	155.39	157.33	158.29	160.34	---	---	---
17	157.22	159.56	159.13	156.11	155.66	155.50	157.49	158.25	160.20	---	---	---
18	157.28	159.72	159.31	155.95	155.76	155.54	157.75	158.32	160.34	---	---	---
19	157.24	159.68	159.32	156.06	155.85	155.49	157.88	158.36	161.09	---	---	---
20	157.15	159.66	158.75	155.89	155.88	155.54	158.26	158.38	160.62	---	---	---
21	157.21	159.32	158.45	155.99	155.83	155.61	158.40	158.53	160.24	---	---	---
22	157.71	159.31	158.43	156.22	155.66	155.59	158.34	158.59	159.94	---	---	---
23	157.63	159.36	158.48	156.09	155.64	155.69	158.33	158.61	159.73	---	---	---
24	157.17	159.26	158.30	156.01	155.81	156.04	158.53	158.67	159.56	---	---	---
25	157.21	159.17	158.43	155.91	155.78	156.26	158.72	158.77	159.52	---	---	---
26	157.21	159.55	158.48	155.79	155.79	156.21	158.76	158.84	159.53	---	---	---
27	157.31	159.63	158.58	155.76	155.80	156.42	158.87	158.88	159.42	---	---	---
28	157.06	159.32	158.16	155.85	155.87	156.47	159.14	159.03	159.49	---	---	---
29	157.24	---	157.81	155.85	156.05	156.36	159.36	159.10	159.27	---	---	---
30	157.46	---	157.62	155.84	156.15	156.37	159.53	159.06	159.00	---	---	---
31	157.96	---	157.50	---	156.10	---	159.60	159.15	---	---	---	---

Figure 20.—Water level in observation well 119A, Longview, McDonald County.

COUNTY--McDonald

WELL IDENTIFICATION NUMBER--363237094290901

LOCATION--T.21N., R.33W., 22aa, lat. 36°32'37", long. 94°29'9", Noel Water Company, Noel.
Owner: Noel Water Company, Inc.

FORMATIONS OPEN TO THE WELL--Swan Creek Member of the Cotter Dolomite, Roubidoux Formation, and Gasconade Formation.

WELL CHARACTERISTICS--Drilled December 19, 1931, total depth 850 feet, 99 feet of 6-inch casing, open hole.
DGLS Log Number: 3,451

INSTRUMENTATION--Stevens model A-35 chart recorder, installed May 2, 1962.

DATUM--Elevation of land-surface datum is 830 feet, from topographic map.
Measuring point: Base of recorder platform, 1.7 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--December 11, 1984, to present.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	181.19	189.15	182.15	174.11	179.64	187.86	184.22	178.34	185.80	184.91	184.39	165.56
2	180.25	185.24	177.40	170.48	182.06	195.94	188.61	176.69	192.26	186.60	181.73	168.89
3	176.20	178.91	169.65	167.86	184.13	193.94	191.20	178.99	190.46	187.87	173.57	175.09
4	174.39	178.01	171.02	166.56	181.39	188.86	192.34	187.21	186.55	189.04	175.47	177.57
5	170.71	179.49	176.62	165.79	172.24	186.30	193.11	187.17	186.29	186.59	180.67	179.46
6	164.29	181.42	178.72	168.22	173.34	184.64	189.34	181.99	188.97	178.01	182.61	181.05
7	166.74	182.94	179.68	177.56	178.18	183.62	182.01	178.83	184.48	179.12	183.80	181.11
8	171.19	183.78	180.49	176.72	180.98	186.46	183.54	177.21	176.39	183.53	184.58	175.25
9	172.91	182.07	175.45	171.02	183.00	193.23	188.82	177.12	178.18	186.48	179.10	173.82
10	173.69	175.19	167.98	168.09	184.05	192.15	191.02	181.51	183.93	188.28	171.49	178.39
11	171.56	176.15	169.87	166.68	189.86	188.55	191.83	189.12	186.61	188.68	173.96	177.54
12	173.84	181.47	175.31	165.80	196.22	166.01	193.08	187.77	188.18	182.34	179.11	176.17
13	181.11	180.39	177.90	169.92	194.19	184.86	191.24	182.70	189.63	174.83	181.73	179.87
14	177.41	181.30	179.19	176.62	189.66	186.56	186.47	180.97	190.79	177.17	183.11	181.48
15	172.01	183.96	179.23	175.64	186.84	187.09	187.18	180.00	187.80	182.35	184.04	175.61
16	169.15	181.08	175.42	171.01	184.94	182.58	190.47	178.96	185.49	183.66	180.11	175.30
17	166.58	174.99	168.49	168.25	183.54	181.09	192.23	183.85	186.98	185.78	170.55	179.71
16	165.17	176.23	170.03	166.39	182.60	185.50	193.60	191.75	185.89	187.04	172.20	182.23
19	168.92	180.58	175.44	165.42	186.51	188.15	194.50	190.40	188.57	181.30	177.62	184.13
20	174.03	182.41	178.26	167.59	187.48	189.32	191.19	186.03	191.58	174.17	175.85	185.20
21	176.20	183.42	180.27	172.78	184.72	190.29	183.90	186.96	190.10	176.45	176.52	178.52
22	180.74	183.69	181.01	173.24	183.16	191.33	182.62	188.37	184.73	181.32	180.33	170.82
23	182.70	180.63	177.46	178.07	181.55	187.66	178.50	189.23	184.16	183.42	177.71	172.40
24	185.26	173.23	170.41	181.31	180.20	185.95	176.58	186.60	186.87	184.14	168.84	171.87
25	187.66	173.86	171.42	183.11	183.45	188.90	175.81	192.41	188.76	185.73	170.51	165.36
26	184.77	178.73	172.03	185.21	192.85	190.80	177.49	190.53	189.61	179.78	175.66	167.66
27	178.91	181.32	169.47	180.32	198.11	192.00	180.68	185.39	189.53	172.77	178.41	173.27
28	179.69	182.56	167.24	173.57	194.49	192.98	187.20	181.90	188.51	174.65	173.89	173.04
29	183.16	---	166.12	174.70	188.58	190.62	187.48	179.84	181.25	179.69	172.46	176.01
30	185.75	---	170.28	177.55	184.48	183.51	185.92	178.34	181.96	182.07	172.23	176.77
31	187.31	---	175.02	---	183.39	---	182.48	179.24	---	183.28	---	173.24

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	176.58	175.88	178.18	177.19	184.22	171.07	181.32	178.59	194.98	182.79	184.37	194.14
2	177.44	168.82	170.10	180.02	185.41	174.15	180.56	183.37	191.42	180.89	177.55	188.46
3	174.10	170.50	171.71	182.09	179.99	178.92	178.86	190.76	188.14	180.32	180.27	185.21
4	177.90	174.01	176.76	183.41	171.31	181.79	183.30	187.27	186.18	185.96	183.86	182.96
5	183.61	176.56	179.80	178.81	172.89	183.54	191.39	183.14	184.79	192.63	186.22	181.59
6	181.53	177.78	181.52	170.31	178.82	184.65	195.75	181.40	183.10	188.83	187.63	180.56
7	176.79	178.94	180.46	171.54	182.01	182.45	190.31	180.28	187.79	185.54	188.85	185.17
8	175.60	176.22	176.99	175.43	184.16	173.67	184.96	179.24	185.58	186.69	185.13	186.67
9	177.31	167.71	169.06	179.00	183.90	175.80	181.96	178.09	184.89	188.47	178.37	184.80
10	178.54	168.52	170.79	181.38	183.01	180.17	179.92	183.51	183.74	189.61	180.56	182.91
11	178.88	174.24	176.19	182.73	185.76	182.69	178.86	182.53	182.75	190.20	184.72	181.56
12	173.88	177.54	179.10	179.06	188.16	184.66	185.69	180.01	180.97	184.34	188.38	180.58
13	172.39	179.35	181.30	173.75	185.58	186.14	193.00	178.46	181.21	185.09	190.20	185.26
14	175.71	181.17	182.63	174.12	183.69	183.39	189.97	177.59	185.10	187.40	189.39	192.68
15	178.38	178.08	177.43	178.61	182.66	174.71	185.66	177.45	184.02	188.57	185.66	191.26
16	179.64	168.74	169.37	181.18	181.37	176.90	182.83	183.07	183.16	189.35	179.20	187.14
17	180.66	170.23	171.07	182.67	184.20	182.20	180.82	189.42	182.63	189.75	181.57	184.87
18	176.33	174.88	176.07	183.68	193.01	184.65	180.02	186.30	181.21	186.08	184.20	183.21
19	167.45	177.93	179.57	185.46	192.29	182.24	186.03	182.79	179.61	180.21	183.80	182.29
20	169.23	179.76	181.84	181.51	187.86	179.91	190.46	180.86	184.00	183.09	185.10	186.73
21	174.51	181.22	183.43	179.01	185.58	181.40	187.36	179.30	189.99	186.72	190.33	193.46
22	177.45	177.69	179.38	181.77	185.69	189.98	182.39	178.26	193.03	189.20	196.08	198.16
23	179.46	169.36	170.05	183.82	186.74	188.47	180.14	183.96	189.70	189.28	199.21	202.16
24	180.42	170.70	171.62	185.11	186.40	183.48	178.51	190.86	186.47	190.61	195.05	198.57
25	175.41	175.77	177.11	186.26	179.56	180.62	180.42	188.10	184.48	185.19	190.83	192.72
26	167.37	178.95	178.82	183.15	173.73	179.24	184.68	184.89	182.68	178.77	187.23	194.64
27	169.16	181.08	180.76	173.68	175.98	178.06	187.80	183.05	185.17	182.40	190.68	195.77
28	173.88	182.57	182.18	174.56	180.00	181.92	186.06	181.92	191.73	184.92	190.71	191.64
29	177.17	---	178.31	179.48	182.73	191.02	183.27	181.00	187.84	186.93	191.33	193.09
30	178.67	---	170.12	182.18	183.83	187.11	182.09	184.19	183.90	188.00	197.52	198.09
31	179.16	---	171.55	---	178.61	---	179.13	190.28	---	188.81	---	200.98

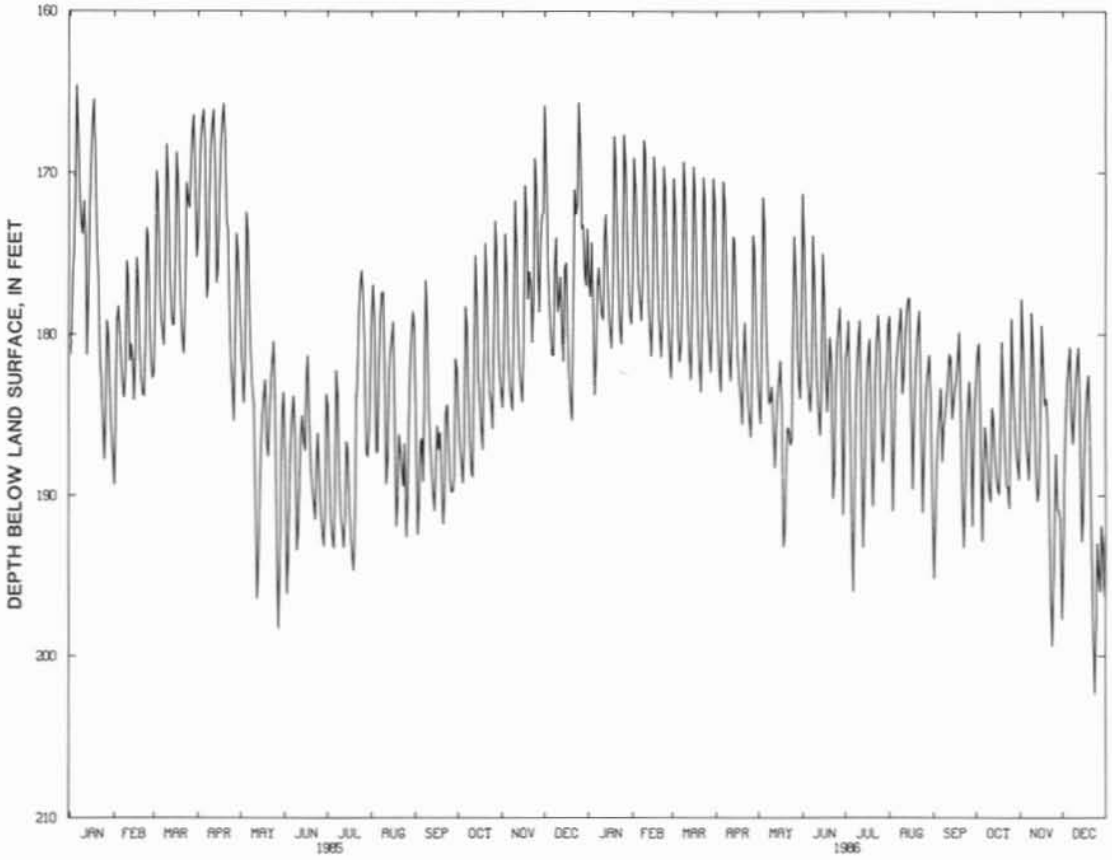

Figure 21.--Water level in observation well 119B, Noel, McDonald County.

COUNTY--Madison

WELL IDENTIFICATION NUMBER--372202090180501

LOCATION--T.33N., R.7E., 20bcd, lat. 37°22'02", long. 90°18'05", approximately 2 miles south of Fredericktown, State Highway 72.
Owner: City of Fredericktown

FORMATIONS OPEN TO THE WELL--Bonneterre Formation and Lamotte Sandstone.

WELL CHARACTERISTICS--Drilled February 4, 1939, total depth 590 feet, 187 feet of 8-inch casing, open hole.
DGLS Log Number: 5,330

INSTRUMENTATION--Stevens model A-35 chart recorder, installed November 18, 1958.

DATUM--Elevation of land-surface datum is 857 feet.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 27, 1964, to present.
Missing record for 1985: Recorder clock stopped for the period January 1 to March 14; recorder malfunctioned for the period July 29 to August 13.
Missing record for 1986: Records not available for the period April 9 to July 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	97.36	97.08	97.12	96.00	---	100.36	101.29	101.66	99.55
2	---	---	---	97.24	97.17	97.12	96.00	---	100.38	101.27	101.95	99.88
3	---	---	---	96.90	97.32	97.25	95.97	---	100.27	101.15	102.06	99.76
4	---	---	---	96.58	97.24	97.25	95.92	---	100.26	101.16	102.14	99.57
5	---	---	---	96.46	97.10	97.31	95.99	---	100.27	101.31	102.06	99.49
6	---	---	---	96.73	97.08	97.30	96.19	---	100.38	101.32	101.88	99.56
7	---	---	---	96.86	97.05	97.24	96.31	---	100.51	101.31	102.02	99.40
8	---	---	---	96.91	97.05	97.22	96.35	---	100.54	101.43	102.03	99.37
9	---	---	---	96.88	97.01	97.14	96.32	---	100.51	101.55	101.92	99.45
10	---	---	---	96.68	96.90	97.09	96.42	---	100.64	101.52	102.03	99.46
11	---	---	---	96.64	96.73	96.93	96.51	---	100.81	101.52	102.17	99.47
12	---	---	---	96.72	96.72	96.96	96.62	---	100.92	101.51	102.06	99.49
13	---	---	---	96.64	96.76	96.90	96.74	---	101.09	101.58	101.98	99.60
14	---	---	---	96.48	96.72	96.70	96.82	101.03	101.18	101.59	102.04	99.70
15	---	---	97.32	96.41	96.84	96.48	96.96	101.02	101.14	101.77	101.87	99.61
16	---	---	97.18	96.59	96.79	96.42	97.11	101.02	101.04	101.95	101.79	99.59
17	---	---	97.20	96.73	96.76	96.36	97.19	101.04	101.04	101.98	101.70	99.60
18	---	---	97.21	96.73	96.81	96.28	97.26	101.07	101.23	101.96	101.46	99.85
19	---	---	97.10	96.75	96.79	96.26	97.35	101.08	101.18	101.96	101.33	99.65
20	---	---	97.11	96.77	96.81	96.16	97.35	101.10	100.94	101.94	101.50	99.71
21	---	---	97.03	96.83	96.88	96.04	97.37	101.10	100.77	101.95	101.10	99.61
22	---	---	96.93	96.81	96.84	96.05	97.46	101.03	100.68	101.93	100.84	99.34
23	---	---	97.00	96.82	96.94	96.03	97.54	100.93	100.74	101.84	100.66	99.28
24	---	---	97.09	96.92	96.94	96.00	97.59	100.81	100.97	101.96	100.54	99.58
25	---	---	97.38	97.04	96.91	95.91	97.65	100.83	100.81	102.11	100.23	99.78
26	---	---	97.37	97.02	96.85	95.85	97.77	100.90	100.92	101.99	100.04	99.52
27	---	---	97.11	97.08	96.84	95.87	97.83	100.92	101.04	102.02	99.96	99.81
28	---	---	96.98	97.24	96.96	95.91	97.85	100.79	101.18	101.98	99.96	99.81
29	---	---	97.16	97.30	96.98	95.94	---	100.57	101.10	101.91	99.90	99.91
30	---	---	97.16	97.22	96.92	95.97	---	100.39	101.20	101.83	99.70	99.78
31	---	---	97.10	---	96.96	---	---	100.33	---	101.59	---	100.00

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	100.08	101.53	100.70	100.11	---	---	---	98.40	99.90	101.10	101.85	101.59
2	99.94	101.51	100.64	99.99	---	---	---	98.46	99.93	101.15	101.88	101.58
3	100.17	101.29	100.83	100.04	---	---	---	98.63	99.93	101.07	101.69	101.88
4	100.22	101.24	100.79	100.16	---	---	---	98.70	99.97	101.13	101.61	102.03
5	100.35	101.35	100.71	100.21	---	---	---	98.64	100.09	101.32	101.49	102.04
6	100.40	101.19	100.88	100.21	---	---	---	98.60	100.18	101.43	101.63	101.86
7	100.83	101.36	101.08	100.18	---	---	---	98.66	100.34	101.42	101.61	101.62
8	100.86	101.33	100.83	100.32	---	---	---	98.72	100.39	101.36	101.60	101.39
9	100.60	101.25	100.67	---	---	---	---	98.78	100.34	101.45	101.85	101.36
10	100.60	101.06	100.89	---	---	---	---	98.80	100.25	101.48	101.84	101.58
11	100.53	101.07	100.79	---	---	---	---	98.98	100.18	101.39	101.77	101.37
12	100.62	101.07	100.72	---	---	---	---	99.04	100.46	101.38	101.86	101.46
13	100.58	100.74	100.88	---	---	---	---	99.00	100.64	101.46	102.10	101.63
14	100.65	100.69	100.95	---	---	---	---	98.96	100.67	101.48	101.78	101.40
15	100.74	100.53	101.03	---	---	---	---	98.98	100.65	101.59	101.50	101.32
16	100.73	100.27	101.05	---	---	---	---	98.99	100.77	101.57	101.33	101.23
17	100.75	100.30	100.80	---	---	---	97.60	99.12	100.71	101.59	101.34	101.08
18	100.67	100.30	100.53	---	---	---	97.64	99.23	100.72	101.71	101.44	101.15
19	100.77	100.45	100.97	---	---	---	97.62	99.27	100.78	101.76	101.54	101.14
20	100.76	100.55	101.16	---	---	---	97.67	99.32	100.85	101.71	101.50	101.18
21	100.85	100.70	101.03	---	---	---	97.79	99.44	100.90	101.65	101.74	101.33
22	101.31	100.69	100.73	---	---	---	97.93	99.47	100.86	101.59	101.60	101.30
23	101.29	100.58	100.73	---	---	---	97.98	99.47	100.78	101.59	101.67	101.06
24	101.09	100.76	100.52	---	---	---	97.95	99.55	100.74	101.52	101.87	100.88
25	101.16	100.49	100.35	---	---	---	97.93	99.57	100.86	101.30	101.63	101.08
26	101.25	100.32	100.40	---	---	---	97.99	99.58	101.00	101.42	101.65	101.29
27	101.25	100.71	100.32	---	---	---	98.05	99.68	101.03	101.58	101.94	101.33
28	101.04	100.84	100.16	---	---	---	98.08	99.89	101.10	101.68	101.91	101.34
29	101.49	---	100.07	---	---	---	98.20	99.94	101.07	101.73	101.85	101.17
30	101.56	---	100.07	---	---	---	98.20	99.92	101.11	101.80	101.74	101.28
31	101.48	---	100.06	---	---	---	98.24	99.92	---	101.77	---	101.29

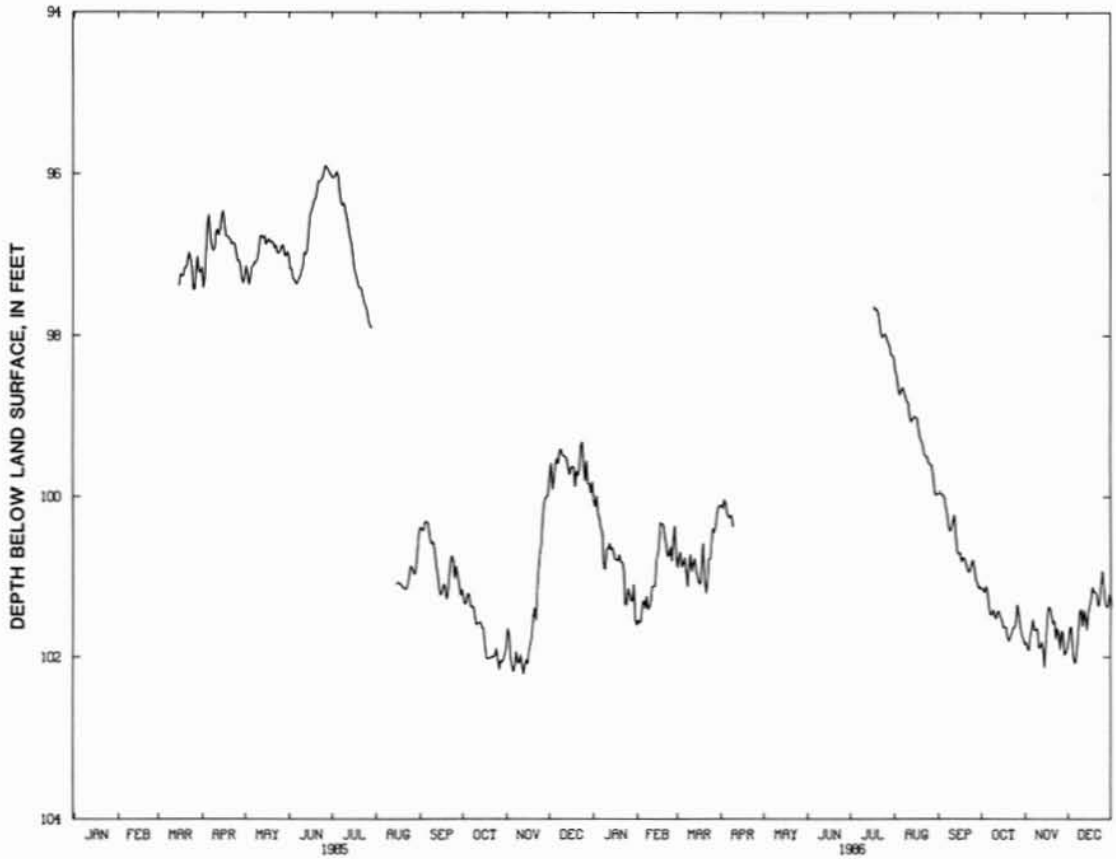

Figure 22.--Water level in observation well 123A, Fredericktown, Madison County.

COUNTY--Marion

WELL IDENTIFICATION NUMBER--395043091262601

LOCATION--T.58N., R.5W., 10ab, lat. 39°50'43", long. 91°26'26", 4.1 miles east of Palmyra, State Highway 169, 3.2 miles north on County Road JJ, the Rural Electric Association Northwest Power Plant.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled May 22, 1957, total depth 85 feet, 58 feet of 8-inch casing, 23 feet of 4-inch casing, and 4 feet of 4-inch well screen.
DGLS Log Number: 16,183

INSTRUMENTATION--Stevens model A-35 chart recorder, installed May 28, 1957.

DATUM--Elevation of land-surface datum is 480 feet, from topographic map.
Measuring point: Base of recorder platform, 4.0 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 14, 1984, to present.
Missing record for 1985: Recorder malfunctioned for the period November 14 to December 31.
Missing record for 1986: Recorder malfunctioned for the periods January 1 to February 19 and October 4 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	24.18	25.58	18.54	26.00	26.54	29.37	32.59	30.45	33.24	31.19	27.51	---
2	26.47	25.48	18.57	25.48	25.98	29.65	32.59	31.45	33.08	31.10	26.05	---
3	28.95	25.37	22.56	25.44	26.08	29.99	32.56	32.39	33.00	30.40	26.05	---
4	29.60	25.26	27.33	25.07	26.22	30.54	32.62	32.71	32.96	29.98	26.81	---
5	29.15	25.15	28.08	24.68	26.33	30.58	32.59	33.06	32.84	29.89	27.43	---
6	29.19	25.05	28.16	24.42	26.21	30.82	32.90	33.46	32.97	29.59	27.71	---
7	29.07	24.94	27.19	24.17	26.26	31.03	33.13	33.67	33.24	29.42	28.05	---
8	28.53	24.83	25.92	23.83	26.21	31.02	33.33	33.53	32.97	29.46	27.84	---
9	28.14	24.73	30.63	23.62	26.04	31.15	33.59	33.34	32.67	29.26	27.79	---
10	28.42	24.62	30.19	23.37	26.17	31.35	33.67	33.20	32.56	28.59	27.14	---
11	28.67	24.51	26.75	23.08	26.22	31.52	33.84	33.59	32.45	26.61	26.83	---
12	28.90	24.41	24.82	22.91	26.17	31.66	34.02	33.58	31.93	26.20	27.03	---
13	28.92	24.30	24.95	23.04	25.61	31.60	34.14	33.40	31.69	26.34	25.29	---
14	29.37	23.96	24.12	23.31	25.50	31.40	34.15	33.11	31.62	26.33	---	---
15	29.30	23.24	24.61	23.60	25.77	31.16	34.38	32.62	31.62	26.46	---	---
16	28.42	22.30	25.03	23.98	26.10	31.32	34.05	32.32	31.65	26.79	---	---
17	27.64	21.92	25.16	24.32	26.51	31.62	34.14	32.73	31.59	26.69	---	---
18	27.17	21.66	25.13	24.73	26.91	31.92	34.01	33.05	31.09	26.58	---	---
19	27.20	21.23	25.16	25.19	27.30	32.00	33.46	32.88	31.02	25.34	---	---
20	26.87	21.15	25.29	25.85	28.05	32.08	33.46	32.58	31.04	24.70	---	---
21	26.76	20.85	25.57	26.39	28.19	32.16	33.47	32.37	31.12	24.62	---	---
22	26.65	20.44	25.84	26.72	28.24	32.13	33.32	32.51	31.16	25.05	---	---
23	26.54	20.06	26.10	26.93	28.58	31.89	33.40	32.44	31.07	25.60	---	---
24	26.44	19.77	26.53	27.05	28.93	32.02	33.10	32.84	31.36	26.04	---	---
25	26.33	19.64	26.68	27.08	28.90	32.16	33.34	33.23	31.48	25.97	---	---
26	26.22	19.17	26.82	26.98	29.16	32.18	33.74	33.44	31.39	26.34	---	---
27	26.12	18.93	26.84	26.74	29.26	32.32	33.85	33.41	31.30	26.70	---	---
28	26.01	18.71	26.79	26.77	29.31	32.20	33.27	33.09	31.42	26.99	---	---
29	25.90	---	26.81	26.79	29.57	32.31	33.04	32.80	31.41	27.47	---	---
30	25.80	---	26.56	26.79	29.58	32.45	33.05	32.93	31.13	27.94	---	---
31	25.69	---	26.13	---	29.32	---	31.91	33.25	---	28.30	---	---

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	30.43	23.44	23.83	20.12	27.45	27.36	29.32	20.28	---	---
2	---	---	30.81	23.69	23.55	20.89	26.63	27.22	29.57	17.60	---	---
3	---	---	30.66	23.68	23.83	21.70	26.09	27.23	29.70	16.58	---	---
4	---	---	30.46	23.79	24.30	22.54	26.05	27.32	29.66	---	---	---
5	---	---	30.26	23.71	24.54	23.26	26.27	27.44	29.57	---	---	---
6	---	---	29.99	23.32	24.75	23.47	26.50	27.43	29.50	---	---	---
7	---	---	29.48	22.79	24.50	23.65	26.71	27.16	29.48	---	---	---
8	---	---	29.83	22.40	23.85	23.91	26.72	26.87	29.76	---	---	---
9	---	---	30.03	22.10	24.09	24.73	26.27	27.07	30.04	---	---	---
10	---	---	29.68	21.82	24.37	25.68	24.57	27.27	30.10	---	---	---
11	---	---	29.05	21.65	24.58	26.65	22.66	27.82	30.18	---	---	---
12	---	---	27.97	21.54	24.67	27.16	22.13	28.12	30.34	---	---	---
13	---	---	26.98	21.39	24.60	27.28	22.07	28.44	29.87	---	---	---
14	---	---	26.23	21.11	24.47	27.38	21.44	28.57	29.87	---	---	---
15	---	---	26.24	20.87	24.14	27.15	21.69	28.65	29.39	---	---	---
16	---	---	26.33	20.65	23.93	27.32	23.32	28.35	29.10	---	---	---
17	---	---	26.17	20.51	22.59	28.03	25.06	27.33	29.22	---	---	---
18	---	---	26.20	20.59	19.82	28.35	26.33	27.62	28.97	---	---	---
19	---	---	26.28	20.74	17.69	28.35	27.16	27.44	28.17	---	---	---
20	---	30.88	25.63	20.92	17.20	28.28	27.39	27.16	28.26	---	---	---
21	---	30.80	25.03	20.97	17.76	28.32	27.53	27.25	27.67	---	---	---
22	---	30.72	24.57	21.05	18.82	28.58	27.71	27.76	24.30	---	---	---
23	---	30.86	24.08	21.25	19.45	28.71	27.80	28.06	23.21	---	---	---
24	---	31.35	23.57	21.56	20.05	28.91	27.86	28.53	23.28	---	---	---
25	---	31.37	23.29	21.97	20.58	28.70	27.86	28.80	23.08	---	---	---
26	---	31.39	23.13	22.44	20.97	28.29	27.70	29.02	21.29	---	---	---
27	---	30.73	22.90	22.87	21.16	28.23	27.49	29.11	20.23	---	---	---
28	---	30.16	22.81	23.23	21.11	28.19	27.37	28.97	20.58	---	---	---
29	---	---	22.84	23.59	20.86	28.18	27.12	29.23	21.49	---	---	---
30	---	---	23.03	23.79	20.13	27.98	26.87	29.31	21.71	---	---	---
31	---	---	23.23	---	19.72	---	27.09	29.07	---	---	---	---

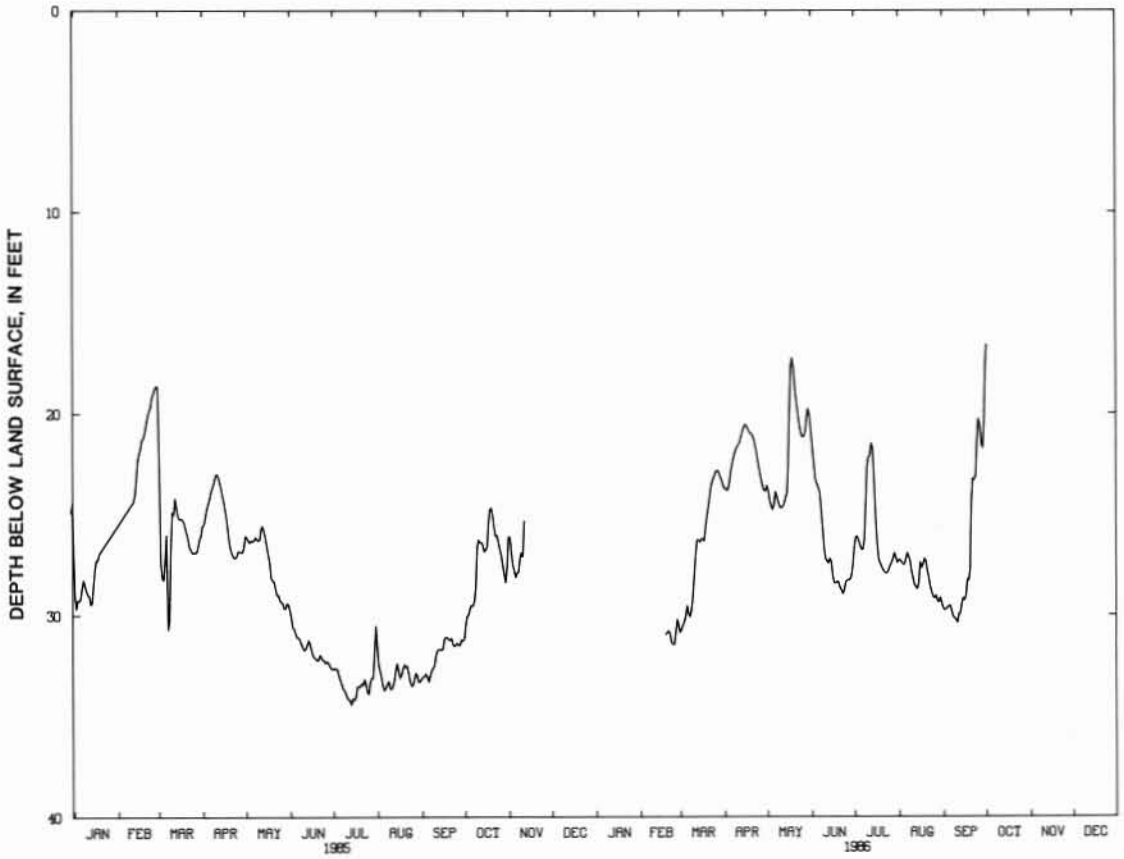

Figure 23.--Water level in observation well 127A, Marion County.

COUNTY--Mississippi

WELL IDENTIFICATION NUMBER--364646089212201

LOCATION--T.25N., R.16E., 29ccb, lat. 36°46'46", long. 89°21'22", 0.2 miles north of junction of State Highways 80 and 102, State Highway 102, 1 mile east of East Prairie, next to old Highway Department buildings.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled October 15, 1956, total depth 117 feet, 64 feet of 8-inch casing, 49 feet of 4-inch casing, and 4 feet of 4-inch well screen.

INSTRUMENTATION--Stevens model A-35 chart recorder installed November 1, 1956; Stevens model 7001 digital recorder, after November 8, 1980.

DATUM--Elevation of land-surface datum is 305 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 8, 1980, to present.
Missing record for 1985: Recorder clock stopped for the period July 3 to August 14.
Missing record for 1986: Recorder clock stopped for the period April 8 to July 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.88	7.97	6.29	6.57	6.07	8.41	9.11	---	11.20	11.71	9.26	8.42
2	5.19	8.01	6.38	6.71	5.52	8.45	9.16	---	11.24	11.70	9.35	8.53
3	5.53	8.11	6.42	6.84	5.64	8.52	---	---	11.26	11.71	9.48	8.57
4	5.79	8.11	6.44	7.01	6.01	8.76	---	---	11.28	11.74	9.56	8.63
5	6.06	8.08	6.41	7.17	6.34	9.39	---	---	11.26	11.74	9.60	8.75
6	6.10	8.22	6.52	7.31	6.64	9.11	---	---	11.26	11.74	9.72	8.79
7	6.14	8.35	6.59	7.44	6.85	8.81	---	---	11.31	11.76	9.79	8.82
8	6.21	8.38	6.76	7.58	7.00	8.81	---	---	11.33	11.77	9.81	8.92
9	6.23	8.36	6.65	7.67	7.16	8.84	---	---	11.34	11.76	9.87	8.96
10	6.26	8.29	6.57	7.72	7.30	8.89	---	---	11.38	11.76	9.91	8.73
11	6.41	7.65	6.51	7.82	7.40	8.86	---	---	11.40	11.77	9.76	8.32
12	6.52	7.26	6.80	7.93	7.53	8.82	---	---	11.43	11.78	9.48	8.30
13	6.57	7.13	6.87	7.97	7.65	8.85	---	---	11.46	11.73	9.42	8.48
14	6.73	7.09	6.81	7.87	7.75	8.88	---	---	11.48	11.72	9.41	8.53
15	6.97	7.12	6.85	7.48	7.88	8.90	---	10.90	11.48	11.75	8.98	8.60
16	7.03	7.15	6.91	7.50	7.94	8.97	---	10.89	11.49	11.75	8.82	8.65
17	7.10	7.28	7.07	7.60	8.03	8.81	---	10.92	11.52	11.75	8.85	8.80
18	7.14	7.06	7.23	7.68	8.14	8.28	---	10.96	11.57	11.74	8.94	8.82
19	7.22	6.81	7.31	7.78	8.22	8.32	---	10.98	11.58	11.08	9.07	8.87
20	7.40	6.49	7.42	7.88	8.30	8.44	---	10.99	11.84	10.76	9.06	8.96
21	7.42	6.10	7.46	7.99	8.38	8.55	---	11.03	11.85	10.78	9.13	8.92
22	7.49	5.59	7.30	8.05	8.13	8.63	---	11.05	11.75	10.71	9.23	8.99
23	7.53	5.07	7.15	8.12	7.60	8.67	---	11.01	11.75	10.63	9.32	9.09
24	7.57	4.96	7.20	8.18	7.54	8.76	---	10.96	11.69	10.62	9.34	9.23
25	7.72	5.23	7.41	8.25	7.65	8.77	---	10.98	11.67	10.61	9.34	9.18
26	7.84	5.55	7.49	8.25	7.78	8.77	---	11.04	11.68	10.65	8.86	9.26
27	7.79	5.96	7.49	6.68	7.90	8.85	---	11.07	11.70	10.66	8.19	9.33
28	7.90	6.20	7.55	5.73	8.03	8.93	---	11.09	11.70	10.67	8.14	9.35
29	7.99	---	7.68	5.86	8.13	8.99	---	11.10	11.70	10.12	8.21	9.37
30	7.98	---	7.68	6.14	8.19	9.05	---	11.12	11.71	9.48	8.22	9.41
31	8.00	---	6.83	---	8.28	---	---	11.16	---	9.24	---	9.50

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.47	9.64	8.71	9.08	---	---	---	10.49	11.07	11.57	11.72	11.02
2	9.54	7.97	8.83	9.10	---	---	---	10.52	11.10	11.56	11.72	10.94
3	9.55	7.17	8.90	9.17	---	---	---	10.57	11.12	11.59	11.71	10.98
4	9.65	6.92	8.89	9.18	---	---	---	10.60	11.14	11.61	11.66	11.02
5	9.62	6.92	8.98	9.20	---	---	---	10.62	11.17	11.64	11.62	11.03
6	9.73	6.93	9.07	9.21	---	---	---	10.62	11.21	11.65	11.64	11.03
7	9.77	7.08	9.10	9.20	---	---	---	10.60	11.24	11.65	11.55	11.02
8	9.73	7.28	9.08	---	---	---	---	10.60	11.26	11.66	11.22	10.87
9	9.72	7.49	9.09	---	---	---	---	10.57	11.27	11.67	11.19	10.20
10	9.77	7.74	9.19	---	---	---	---	10.42	11.29	11.67	11.20	10.12
11	9.78	7.94	8.42	---	---	---	---	10.46	11.30	11.67	11.21	10.18
12	9.84	8.07	7.63	---	---	---	---	10.51	11.34	11.67	11.25	10.31
13	9.82	8.07	7.61	---	---	---	---	10.55	11.37	11.68	11.27	10.36
14	9.90	8.24	7.77	---	---	---	---	10.60	11.37	11.70	11.23	10.37
15	9.90	8.12	7.94	---	---	---	---	10.61	11.39	11.71	11.22	10.41
16	9.92	7.60	8.06	---	---	---	9.95	10.51	11.41	11.71	11.23	10.43
17	9.87	7.40	8.06	---	---	---	10.0	10.56	11.41	11.73	11.25	10.45
18	9.50	7.49	8.24	---	---	---	10.04	10.63	11.39	11.75	11.29	10.51
19	9.43	7.65	8.47	---	---	---	10.07	10.67	11.40	11.75	11.27	10.53
20	9.43	7.90	8.57	---	---	---	10.13	10.72	11.43	11.76	11.31	10.59
21	9.57	8.03	8.59	---	---	---	10.19	10.77	11.44	11.76	11.33	10.63
22	9.62	8.14	8.63	---	---	---	10.24	10.79	11.44	11.76	11.30	10.62
23	9.57	8.27	8.72	---	---	---	10.26	10.83	11.45	11.76	11.34	10.49
24	9.58	8.39	8.74	---	---	---	10.30	10.85	11.48	11.66	11.36	10.20
25	9.63	8.33	8.80	---	---	---	10.34	10.88	11.51	11.55	11.20	10.22
26	9.70	8.50	8.87	---	---	---	10.35	10.91	11.53	11.58	11.10	10.25
27	9.66	8.69	8.90	---	---	---	10.33	10.95	11.55	11.63	11.11	10.28
28	9.74	8.73	8.92	---	---	---	10.37	11.00	11.56	11.66	11.12	10.30
29	9.86	---	8.96	---	---	---	10.34	11.01	11.57	11.68	11.12	10.30
30	9.84	---	9.02	---	---	---	10.37	11.04	11.59	11.70	11.12	10.38
31	9.86	---	9.05	---	---	---	10.43	11.06	---	11.71	---	10.38

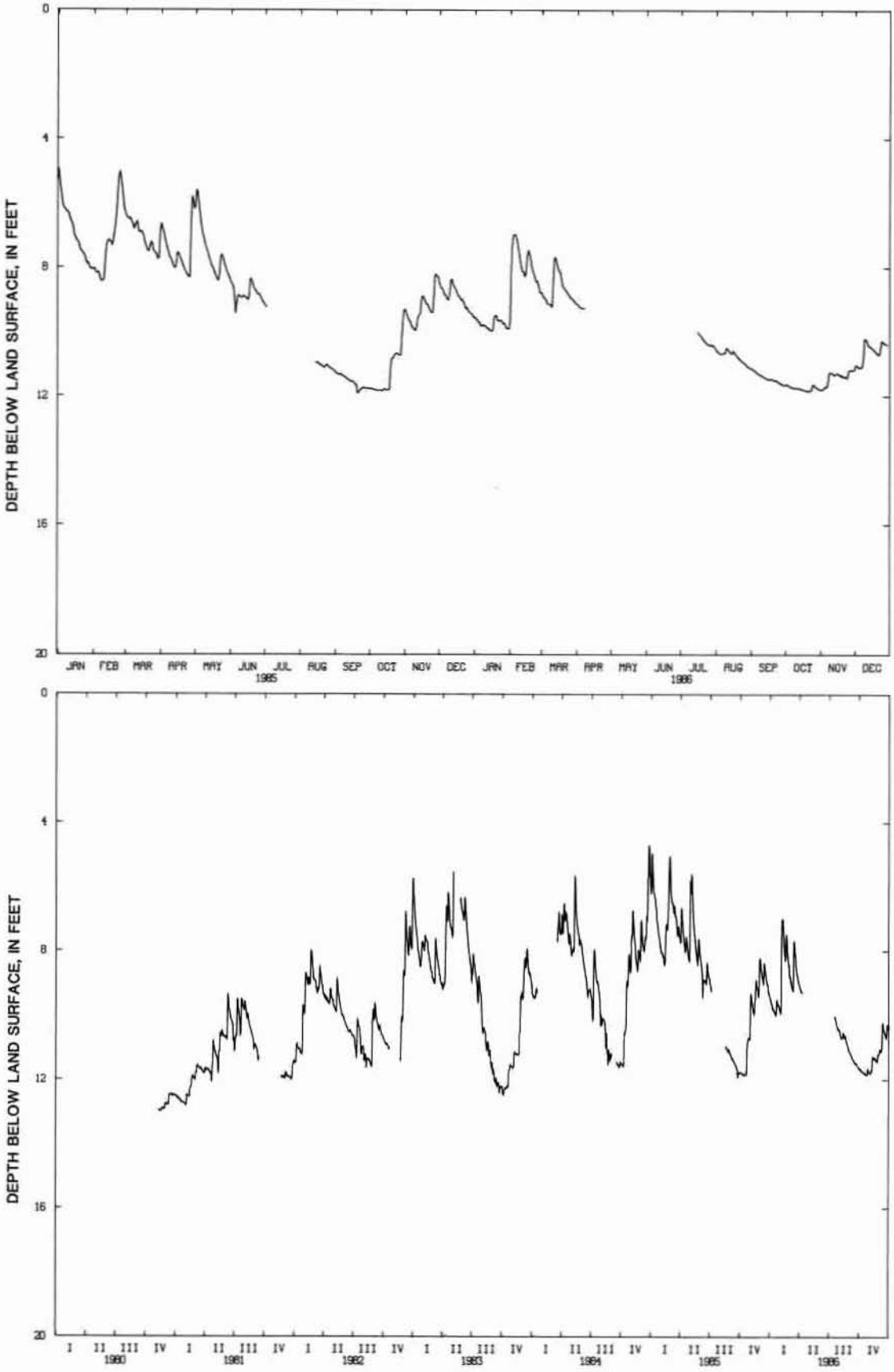

Figure 24.—Water level in observation well 133A, East Prairie, Mississippi County.

COUNTY--Montgomery

WELL IDENTIFICATION NUMBER--385432091264701

LOCATION--T.48N., R.5W., 23cca, lat 38°54'32", long. 91°26'47", New Florence Water Tower, well number 1-A.
Owner: City of New Florence

FORMATIONS OPEN TO THE WELL--Joachim Dolomite, St. Peter Sandstone, Powell Dolomite, Jefferson City Dolomite, and Roubidoux Formation.

WELL CHARACTERISTICS--Drilled April 1, 1956, total depth 1,030 feet, 323 feet of 8-inch casing, open hole.
DGLS Log Number: 14,429

INSTRUMENTATION--Stevens model A-35 chart recorder, installed May 29, 1981.

DATUM--Elevation of land-surface datum is 877 feet, from topographic map.
Measuring point: Base of recorder platform, at land surface.

PERIOD OF PROCESSED PERIOD--June 15, 1984, to present.
Missing record for 1985: Recorder malfunctioned for the periods January 17, February 1 to 2, February 10 to 20, February 28 to March 4, and May 10 to 13.
Missing record for 1986: Recorder malfunctioned for the period October 2 to December 3.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	329.54	---	---	328.70	327.92	328.53	328.65	330.95	329.85	330.16	329.78	329.75
2	329.83	---	---	328.56	328.14	328.53	328.54	330.84	329.92	330.12	330.03	330.25
3	329.67	329.77	---	328.39	328.19	328.66	328.32	330.73	329.76	329.98	330.13	330.20
4	329.45	329.51	---	328.10	328.02	328.55	328.39	330.60	329.73	329.93	330.24	330.04
5	329.59	329.26	329.45	328.17	327.92	328.62	328.43	330.54	329.75	330.08	330.16	330.05
6	329.32	329.34	329.58	328.52	328.01	328.51	328.83	330.49	329.77	330.08	329.97	330.14
7	329.53	329.71	329.11	328.74	328.02	328.49	328.98	330.43	329.89	330.05	330.09	329.94
8	329.64	329.51	329.25	328.86	328.11	328.51	329.03	330.42	329.88	330.03	330.08	329.91
9	329.54	329.33	329.34	328.83	328.01	328.38	329.00	330.43	329.83	330.24	329.94	329.98
10	329.54	---	329.09	328.59	---	328.45	329.17	330.40	329.92	330.21	330.13	329.95
11	329.81	---	328.80	328.60	---	328.39	329.31	330.42	330.01	330.13	330.30	329.92
12	329.83	---	329.12	328.74	---	328.54	329.40	330.15	330.01	330.03	330.16	329.95
13	329.48	---	328.98	328.53	---	328.60	329.50	330.18	330.27	330.08	330.09	329.96
14	329.46	---	329.12	328.37	328.37	328.47	329.64	330.11	330.26	330.01	330.27	330.02
15	329.64	---	329.19	328.31	328.54	328.39	329.67	330.16	330.15	330.19	330.31	329.95
16	329.32	---	329.05	328.47	328.47	328.41	329.89	330.13	329.97	330.36	330.10	329.95
17	---	---	329.08	328.46	328.44	328.38	330.17	330.11	329.85	330.34	330.13	329.91
18	329.01	---	329.02	328.53	328.49	328.43	330.36	330.22	329.98	330.26	329.98	330.22
19	329.38	---	328.90	328.33	328.45	328.48	330.55	330.20	330.01	330.29	330.19	330.06
20	329.72	---	328.95	328.22	328.48	328.44	330.56	330.28	329.99	330.29	330.48	330.11
21	329.62	329.19	328.90	328.13	328.56	328.34	330.53	330.23	329.90	330.28	330.30	330.04
22	329.55	329.18	328.76	328.01	328.52	328.44	330.55	330.13	329.76	330.23	330.13	329.69
23	329.28	329.17	328.69	327.89	328.59	328.34	330.61	330.06	329.84	330.07	330.15	329.61
24	329.22	329.25	328.82	328.06	328.61	328.35	330.65	329.95	330.06	330.24	330.21	329.87
25	329.47	329.36	329.00	328.04	328.56	328.51	330.65	329.98	329.86	330.39	329.98	330.04
26	329.58	329.31	328.84	327.97	328.44	328.48	330.79	330.12	329.89	330.26	329.87	329.64
27	329.40	329.47	328.60	328.08	328.40	328.52	330.75	330.09	329.98	330.33	329.94	329.90
28	329.46	---	328.16	328.20	328.54	328.56	330.77	329.95	330.03	330.32	329.98	329.87
29	329.38	---	328.58	328.16	328.42	328.59	330.89	329.79	330.04	330.21	329.99	329.89
30	329.35	---	328.49	327.95	328.45	328.60	330.75	329.83	330.07	330.13	329.89	329.74
31	329.52	---	328.38	---	328.50	---	330.82	329.83	---	329.83	---	329.84

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	329.86	329.77	329.71	329.57	329.58	329.48	330.00	331.70	332.65	332.48	---	---
2	329.65	329.81	329.50	329.50	329.71	329.62	330.09	331.82	332.60	---	---	---
3	329.83	329.56	329.69	329.35	329.70	329.60	330.11	331.96	332.48	---	---	---
4	329.80	329.37	329.69	329.39	329.49	329.56	330.01	331.97	332.44	---	---	331.91
5	329.98	329.57	329.49	329.46	329.28	329.49	329.98	331.85	332.45	---	---	331.97
6	329.93	329.49	329.65	329.50	329.30	329.39	330.09	331.70	332.45	---	---	331.82
7	330.32	329.62	329.87	329.43	329.40	329.38	330.18	331.70	332.56	---	---	331.63
8	330.39	329.80	329.66	329.55	329.46	329.48	330.07	331.68	332.51	---	---	331.52
9	330.09	329.94	329.34	329.59	329.50	329.50	329.99	331.66	332.30	---	---	331.56
10	330.04	329.85	329.32	329.48	329.49	329.46	329.92	331.57	332.15	---	---	331.75
11	329.90	329.87	329.51	329.34	329.46	329.39	329.87	331.68	331.99	---	---	331.53
12	329.95	329.94	329.24	329.33	329.47	329.51	329.89	331.66	332.27	---	---	331.68
13	329.98	329.81	329.34	329.33	329.39	329.65	330.04	331.52	332.40	---	---	331.84
14	329.86	329.63	329.43	329.26	329.39	329.59	330.11	331.41	332.39	---	---	331.64
15	329.95	329.66	329.56	329.45	329.34	329.47	330.10	331.58	332.38	---	---	331.65
16	329.82	329.31	329.63	329.55	329.44	329.55	330.11	331.75	332.39	---	---	331.62
17	329.84	329.32	329.53	329.53	329.34	329.71	330.14	331.88	332.21	---	---	332.00
18	329.75	329.31	329.12	329.45	329.49	329.66	330.16	331.96	332.19	---	---	331.63
19	329.74	329.45	329.45	329.50	329.58	329.58	330.10	332.03	332.18	---	---	331.56
20	329.69	329.49	329.91	329.22	329.57	329.62	330.13	332.10	332.28	---	---	331.60
21	329.56	329.73	329.96	329.40	329.53	329.64	330.24	332.24	332.31	---	---	331.76
22	330.03	329.68	329.78	329.57	329.42	329.61	330.48	332.27	332.25	---	---	331.70
23	330.07	329.55	329.82	329.53	329.44	329.64	330.75	332.23	332.15	---	---	331.52
24	329.76	329.68	329.84	329.45	329.55	329.69	330.93	332.27	332.07	---	---	331.32
25	329.78	329.58	329.64	329.39	329.55	329.76	330.96	332.21	332.00	---	---	331.38
26	329.83	329.22	329.72	329.37	329.49	329.90	331.10	332.27	332.07	---	---	331.56
27	329.90	329.47	329.83	329.30	329.50	330.04	331.14	332.47	332.06	---	---	331.57
28	329.55	329.75	329.65	329.28	329.50	330.10	331.25	332.81	332.10	---	---	331.53
29	329.81	---	329.52	329.41	329.54	330.10	331.38	332.85	332.06	---	---	331.31
30	329.96	---	329.53	329.33	329.52	330.01	331.34	332.78	331.99	---	---	331.42
31	329.80	---	329.53	---	329.51	---	331.40	332.72	---	---	---	331.35

Figure 25.--Water level in observation well 139A, New Florence, Montgomery County.

COUNTY--Pemiscot

WELL IDENTIFICATION NUMBER--360422089484801

LOCATION--T.17N., R.11E., 36abb, lat 36°04'22", long. 89°48'48", Missouri Highway Department Maintenance buildings, approximately 2 miles south of State Highways 164 and 161, east outer boundary road to Interstate 55.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled August 22, 1956, total depth 132 feet, 62 feet of 8-inch casing, 66 feet of 4-inch casing, and 4 feet of 4-inch well screen.
DGLS Log Number: 14,804

INSTRUMENTATION--Stevens model 7001 digital recorder, installed November 6, 1980.

DATUM--Elevation of land-surface datum is 260 feet, from topographic map.
Measuring point: Base of recorder, 1.6 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 6, 1980, to present.
Missing record for 1985: Recorder malfunctioned for periods January 1 to January 18 and February 1 to March 15; recorder clock stopped for period June 2 to August 14.
Missing record for 1986: Recorder clock stopped for the period April 10 to August 9; records not available after August 9.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	10.66	10.80	11.50	---	---	14.49	15.15	15.11	14.27
2	---	---	---	10.69	10.56	---	---	---	14.53	15.16	15.07	14.27
3	---	---	---	10.69	10.53	---	---	---	14.55	15.17	15.04	14.22
4	---	---	---	10.73	10.55	---	---	---	14.58	15.20	15.03	14.18
5	---	---	---	10.81	10.58	---	---	---	14.55	15.23	15.03	14.16
6	---	---	---	10.95	10.65	---	---	---	14.53	15.24	15.01	14.17
7	---	---	---	11.03	10.71	---	---	---	14.58	15.26	15.04	14.16
8	---	---	---	11.09	10.79	---	---	---	14.59	15.29	15.06	14.15
9	---	---	---	11.14	10.87	---	---	---	14.59	15.32	15.05	14.17
10	---	---	---	11.15	10.93	---	---	---	14.63	15.33	15.08	14.18
11	---	---	---	11.20	10.98	---	---	---	14.66	15.34	15.11	14.13
12	---	---	---	11.26	11.06	---	---	---	14.69	15.36	15.12	14.06
13	---	---	---	11.28	11.14	---	---	---	14.73	15.38	15.12	14.04
14	---	---	---	11.26	11.20	---	---	---	14.76	15.38	15.14	14.06
15	---	---	---	11.19	11.26	---	---	14.00	14.77	15.39	15.15	14.03
16	---	---	10.18	11.28	11.28	---	---	13.95	14.78	15.42	15.09	14.03
17	---	---	10.27	11.34	11.34	---	---	14.02	14.81	15.43	15.03	14.02
18	---	---	10.35	11.37	11.41	---	---	14.07	14.85	15.44	14.99	14.07
19	9.79	---	10.41	11.40	11.48	---	---	14.10	14.88	15.44	14.98	14.06
20	9.97	---	10.47	11.44	11.54	---	---	14.14	14.90	15.43	15.01	14.06
21	10.00	---	10.48	11.48	11.59	---	---	14.18	14.92	15.44	14.96	14.07
22	10.07	---	10.48	11.50	11.27	---	---	14.21	14.94	15.45	14.95	14.03
23	10.11	---	10.54	11.52	11.02	---	---	14.23	14.97	15.43	14.96	14.05
24	10.15	---	10.59	11.54	11.00	---	---	14.25	15.02	15.42	14.97	14.09
25	10.26	---	10.71	11.56	11.02	---	---	14.24	15.00	15.43	14.95	14.17
26	10.37	---	10.73	11.58	11.06	---	---	14.28	15.03	15.42	14.94	14.13
27	10.34	---	10.73	11.46	11.13	---	---	14.32	15.06	15.44	14.76	14.18
28	10.43	---	10.77	11.15	11.21	---	---	14.35	15.09	15.43	14.51	14.20
29	10.52	---	10.84	11.06	11.28	---	---	14.37	15.10	15.44	14.41	14.22
30	10.54	---	10.88	11.02	11.32	---	---	14.40	15.12	15.42	14.35	14.23
31	10.27	---	10.71	---	11.40	---	---	14.43	---	15.28	---	14.25

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.31	14.60	12.74	12.74	---	---	---	---	---	---	---	---
2	14.29	14.58	12.71	12.76	---	---	---	---	---	---	---	---
3	14.33	14.36	12.79	12.80	---	---	---	---	---	---	---	---
4	14.35	13.83	12.83	12.85	---	---	---	---	---	---	---	---
5	14.41	13.42	12.82	12.85	---	---	---	---	---	---	---	---
6	14.40	13.21	12.89	12.85	---	---	---	---	---	---	---	---
7	14.48	13.10	12.95	12.84	---	---	---	---	---	---	---	---
8	14.51	13.04	12.97	12.73	---	---	---	---	---	---	---	---
9	14.49	12.99	12.96	---	---	---	---	---	---	---	---	---
10	14.48	12.94	12.99	---	---	---	---	---	---	---	---	---
11	14.51	12.96	13.05	---	---	---	---	---	---	---	---	---
12	14.53	12.97	12.60	---	---	---	---	---	---	---	---	---
13	14.56	12.96	12.19	---	---	---	---	---	---	---	---	---
14	14.55	12.88	12.13	---	---	---	---	---	---	---	---	---
15	14.61	12.79	12.18	---	---	---	---	---	---	---	---	---
16	14.62	12.60	12.22	---	---	---	---	---	---	---	---	---
17	14.63	12.48	12.24	---	---	---	---	---	---	---	---	---
18	14.60	12.45	12.20	---	---	---	---	---	---	---	---	---
19	14.49	12.45	12.28	---	---	---	---	---	---	---	---	---
20	14.47	12.44	12.38	---	---	---	---	---	---	---	---	---
21	14.45	12.51	12.42	---	---	---	---	---	---	---	---	---
22	14.52	12.51	12.42	---	---	---	---	---	---	---	---	---
23	14.53	12.50	12.43	---	---	---	---	---	---	---	---	---
24	14.49	12.56	12.48	---	---	---	---	---	---	---	---	---
25	14.49	12.58	12.50	---	---	---	---	---	---	---	---	---
26	14.50	12.52	12.54	---	---	---	---	---	---	---	---	---
27	14.54	12.62	12.59	---	---	---	---	---	---	---	---	---
28	14.50	12.72	12.61	---	---	---	---	---	---	---	---	---
29	14.54	---	12.63	---	---	---	---	---	---	---	---	---
30	14.61	---	12.66	---	---	---	---	---	---	---	---	---
31	14.59	---	12.71	---	---	---	---	---	---	---	---	---

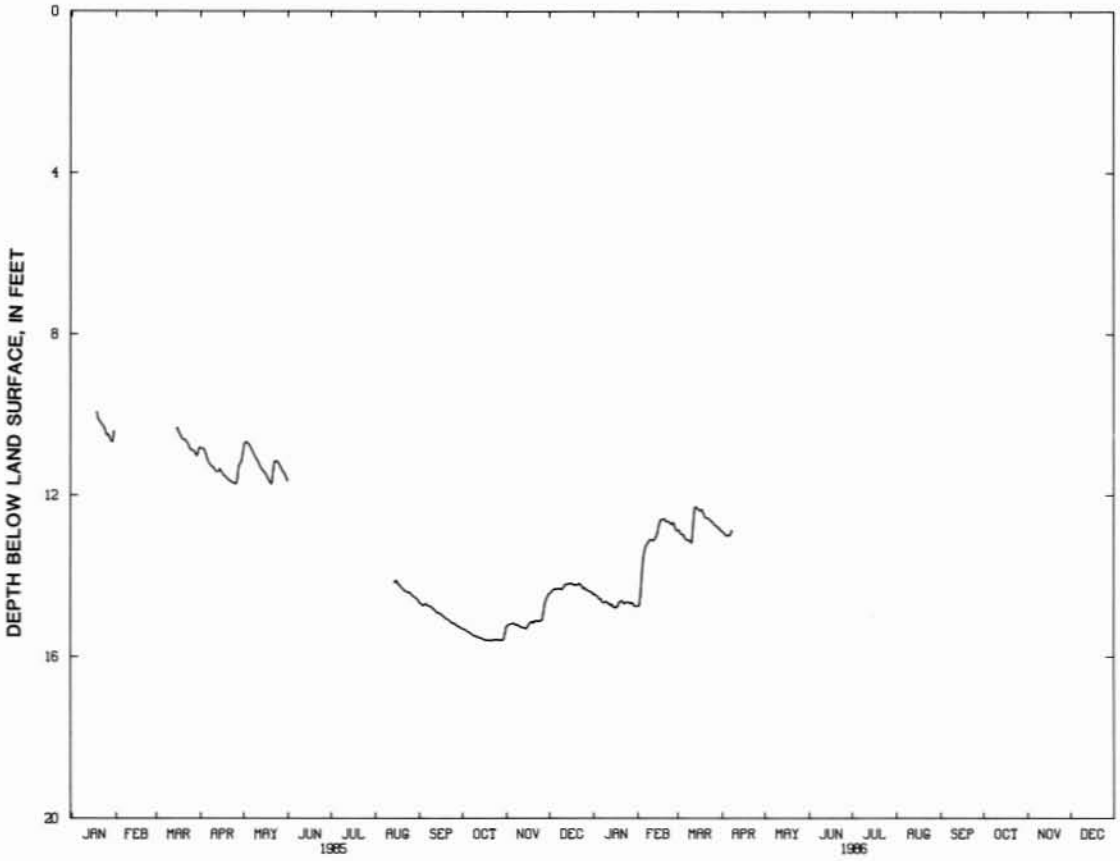

Figure 26.--Water level in observation well 115A, Steele, Pemiscot County.

COUNTY--Perry

WELL IDENTIFICATION NUMBER--373559090082901

LOCATION--T.34N., R.8E., 34cdb, lat. 37°35'59", long. 90°08'29", 1.5 miles east of Higdon, County Road J.
Owner: National Lead, Bunker Hill Mining Company

FORMATIONS OPEN TO THE WELL--700 feet of unknown bedrock, Derby-Doerun Dolomite, Davis Dolomite, Bonneterre Formation, and Lamotte Sandstone.

WELL CHARACTERISTICS--Mineral test hole, total depth 1,526 feet, cased to an unknown depth.
DGLS Log Number: P.H. 17

INSTRUMENTATION--Stevens model A-35 chart recorder, installed July 18, 1960.

DATUM--Elevation of land-surface datum is 1,010 feet, from topographic map.
Measuring point: Base of recorder platform, 1.4 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--May 18,1983, to present.
Missing record for 1985: Recorder clock stopped for periods January 20 to 22 and May 20 to August 13.
Missing record for 1986: Records not available for the period April 9 to July 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	181.45	181.22	180.45	180.27	179.46	---	---	---	178.25	178.80	178.40	177.65
2	181.81	181.32	180.60	180.21	179.56	---	---	---	178.31	178.75	178.70	178.10
3	181.66	181.44	180.29	179.94	179.75	---	---	---	178.20	178.64	178.78	178.16
4	181.32	181.25	180.30	179.66	179.68	---	---	---	178.17	178.61	178.79	177.99
5	181.47	180.96	180.85	179.62	179.56	---	---	---	178.16	178.79	178.66	177.90
6	181.33	181.16	180.90	180.03	179.57	---	---	---	178.25	178.79	178.45	178.01
7	181.27	181.48	180.63	180.27	179.59	---	---	---	178.34	178.75	178.57	177.87
8	181.44	181.46	180.70	180.40	179.66	---	---	---	178.31	178.79	178.66	177.75
9	181.43	181.24	180.78	180.35	179.64	---	---	---	178.21	178.90	178.54	177.82
10	181.31	180.97	180.53	180.15	179.54	---	---	---	178.30	178.80	178.63	177.80
11	181.58	180.85	180.25	180.08	179.37	---	---	---	178.45	178.73	178.81	177.72
12	181.66	180.88	180.54	180.15	179.38	---	---	---	178.54	178.68	178.68	177.74
13	181.24	180.95	180.48	180.02	179.45	---	---	---	178.67	178.70	178.50	177.73
14	181.05	180.97	180.62	179.78	179.40	---	---	178.42	178.68	178.67	178.47	177.90
15	181.28	180.92	180.68	179.64	179.50	---	---	178.36	178.57	178.80	178.37	177.81
16	181.07	180.83	180.52	179.79	179.42	---	---	178.36	178.43	178.92	178.28	177.79
17	180.85	181.11	180.52	179.90	179.39	---	---	178.38	178.41	178.89	178.33	177.76
18	180.66	181.13	180.56	179.84	179.43	---	---	178.40	178.59	178.81	178.20	178.05
19	180.90	181.03	180.43	179.76	179.42	---	---	178.40	178.65	178.76	178.13	177.91
20	---	180.91	180.40	179.72	---	---	---	178.39	178.59	178.70	178.49	177.85
21	---	180.79	180.31	179.73	---	---	---	178.37	178.50	178.72	178.34	177.81
22	---	180.70	180.21	179.64	---	---	---	178.30	178.45	178.71	178.15	177.42
23	180.97	180.50	180.28	179.58	---	---	---	178.20	178.49	178.62	178.15	177.32
24	180.78	180.67	180.40	179.63	---	---	---	178.07	178.76	178.76	178.20	177.57
25	181.06	180.75	180.67	179.70	---	---	---	178.10	178.54	178.92	178.03	177.83
26	181.23	180.73	180.60	179.64	---	---	---	178.24	178.57	178.76	177.86	177.52
27	180.95	180.93	180.25	179.65	---	---	---	178.38	178.67	178.78	177.87	177.71
28	181.01	180.71	180.04	179.79	---	---	---	178.38	178.77	178.74	177.89	177.72
29	181.02	---	180.13	179.80	---	---	---	178.23	178.67	178.65	177.94	177.72
30	180.91	---	180.09	179.66	---	---	---	178.11	178.68	178.58	177.85	177.57
31	181.13	---	180.00	---	---	---	---	178.15	---	178.38	---	177.65

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	177.78	178.01	177.38	177.12	---	---	---	177.05	176.38	176.12	176.47	176.58
2	177.56	178.00	177.15	177.01	---	---	---	177.04	176.37	176.13	176.47	176.50
3	177.71	177.67	177.36	176.95	---	---	---	177.13	176.33	176.03	176.25	176.78
4	177.68	177.46	177.36	177.05	---	---	---	177.08	176.32	176.09	176.20	176.94
5	177.86	177.62	177.16	177.10	---	---	---	176.93	176.40	176.24	176.12	176.95
6	177.80	177.44	177.29	177.08	---	---	---	176.83	176.41	176.29	176.31	176.77
7	178.19	177.67	177.51	176.99	---	---	---	176.84	176.49	176.21	176.30	176.57
8	178.27	177.79	177.31	177.03	---	---	---	176.84	176.45	176.12	176.31	176.42
9	177.95	177.81	177.06	---	---	---	---	176.85	176.32	176.23	176.56	176.50
10	177.84	177.70	177.06	---	---	---	---	176.81	176.19	176.23	176.51	176.79
11	177.78	177.75	177.18	---	---	---	---	176.96	176.10	176.10	176.46	176.60
12	177.79	177.83	176.95	---	---	---	---	176.95	176.37	176.09	176.57	176.75
13	177.86	177.66	177.05	---	---	---	---	176.83	176.46	176.13	176.78	176.94
14	177.81	177.43	177.14	---	---	---	---	176.73	176.38	176.14	176.44	176.71
15	177.98	177.46	177.28	---	---	---	---	176.71	176.29	176.26	176.22	176.65
16	177.92	177.11	177.36	---	---	---	---	176.69	176.35	176.21	176.18	176.60
17	177.89	177.08	177.25	---	---	---	177.05	176.77	176.22	176.21	176.30	176.49
18	177.77	177.07	176.83	---	---	---	177.03	176.81	176.19	176.33	176.46	176.62
19	177.79	177.18	177.24	---	---	---	176.95	176.76	176.23	176.35	176.54	176.63
20	177.80	177.22	177.66	---	---	---	176.93	176.73	176.29	176.28	176.50	176.69
21	177.77	177.46	177.73	---	---	---	177.02	176.78	176.28	176.23	176.72	176.86
22	178.24	177.42	177.53	---	---	---	177.10	176.73	176.18	176.19	176.55	176.79
23	178.27	177.28	177.52	---	---	---	177.09	176.64	176.07	176.22	176.62	176.51
24	177.97	177.41	177.48	---	---	---	177.00	176.65	176.05	176.16	176.81	176.39
25	177.93	177.28	177.32	---	---	---	176.92	176.59	176.15	175.98	176.53	176.65
26	177.93	176.86	177.38	---	---	---	176.95	176.53	176.23	176.15	176.63	176.83
27	177.99	177.17	177.42	---	---	---	176.95	176.55	176.19	176.32	176.92	176.82
28	177.69	177.45	177.27	---	---	---	176.93	176.67	176.22	176.40	176.83	176.77
29	178.01	---	177.14	---	---	---	176.99	176.60	176.13	176.41	176.76	176.59
30	178.20	---	177.12	---	---	---	176.95	176.51	176.16	176.47	176.69	176.74
31	178.04	---	177.11	---	---	---	176.91	176.44	---	176.41	---	176.74

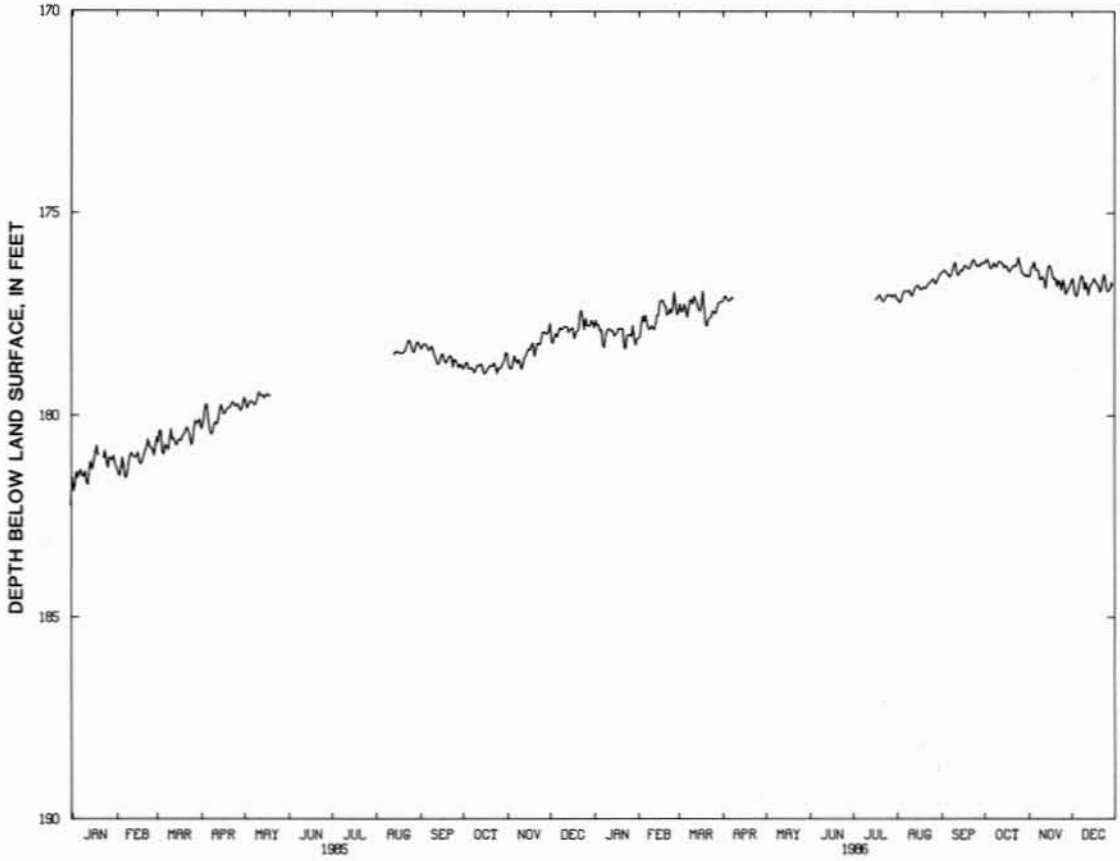

Figure 27.--Water level in observation well 157A, National Lead, Perry County.

COUNTY--Pettis

WELL IDENTIFICATION NUMBER--384830093192501

LOCATION--T.47N., R.22W., 34cad, lat. 38°48'30", long. 93°19'25", 5 miles west of Sedalia, County Road T.
Owner: Oliver Funk

FORMATIONS OPEN TO THE WELL--Jefferson City Dolomite, Roubidoux Formation, Gasconade Formation, Eminence Dolomite, Potosi Dolomite, Derby-Doerun Dolomite, and Davis Dolomite.

WELL CHARACTERISTICS--Drilled May 6, 1971, total depth 1,410 feet, 432 feet of 13-inch casing, open hole.
DGLS Log Number: 26,814

INSTRUMENTATION--Stevens model A-35 chart recorder, installed January 12, 1973.

DATUM--Elevation of land-surface datum is 825 feet, from topographic map.
Measuring point: Base of recorder platform, 2.9 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--January 12, 1973, to present.
Missing record for 1985: Recorder malfunctioned for the periods February 1 to 8 and August 21 to December 31.
Missing record for 1986: Recorder malfunctioned for the period January 1 to March 4; records are not available after March 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	146.67	---	145.14	144.94	144.94	144.68	144.60	144.93	---	---	---	---
2	146.83	---	145.12	144.74	145.05	144.64	144.53	144.85	---	---	---	---
3	146.71	---	145.69	144.91	145.07	144.68	144.63	144.83	---	---	---	---
4	146.49	---	145.64	145.20	144.90	144.63	144.73	144.80	---	---	---	---
5	146.56	---	145.39	145.42	144.82	144.63	144.74	144.80	---	---	---	---
6	146.34	---	145.61	145.51	144.91	144.52	144.69	144.85	---	---	---	---
7	146.49	---	145.62	145.40	144.92	144.63	144.64	144.83	---	---	---	---
8	146.61	---	145.31	145.17	144.98	144.55	144.69	144.80	---	---	---	---
9	146.49	145.63	145.29	145.20	144.89	144.62	144.66	144.95	---	---	---	---
10	146.60	145.58	145.45	145.24	144.68	144.72	144.62	144.95	---	---	---	---
11	146.89	145.69	145.45	145.18	144.58	144.62	144.66	144.83	---	---	---	---
12	146.80	145.69	145.58	145.08	144.74	144.52	144.70	144.89	---	---	---	---
13	146.36	145.70	145.51	144.97	144.57	144.51	144.80	144.91	---	---	---	---
14	146.52	145.69	145.51	145.07	144.73	144.50	144.84	144.89	---	---	---	---
15	146.48	145.45	145.51	145.13	144.76	144.60	144.82	144.88	---	---	---	---
16	146.30	145.71	145.37	145.03	144.75	144.64	144.79	144.88	---	---	---	---
17	146.17	145.76	145.36	144.98	144.71	144.62	144.82	144.94	---	---	---	---
18	146.21	145.66	145.38	144.89	144.65	144.46	144.78	145.01	---	---	---	---
19	146.50	145.48	145.26	144.91	144.70	144.53	144.72	145.02	---	---	---	---
20	146.69	145.39	145.17	144.89	144.79	144.63	144.73	145.04	---	---	---	---
21	146.61	145.32	145.23	144.77	144.81	144.64	144.73	---	---	---	---	---
22	146.57	145.33	145.42	144.83	144.80	144.62	144.65	---	---	---	---	---
23	146.30	145.55	145.43	144.98	144.72	144.57	144.71	---	---	---	---	---
24	146.20	145.48	145.14	144.93	144.59	144.61	144.84	---	---	---	---	---
25	146.58	145.72	144.91	144.87	144.54	144.73	144.88	---	---	---	---	---
26	146.45	145.59	145.00	144.95	144.66	144.75	144.84	---	---	---	---	---
27	146.33	145.28	145.19	145.09	144.61	144.75	144.87	---	---	---	---	---
28	146.38	145.46	144.99	145.08	144.45	144.77	144.84	---	---	---	---	---
29	146.25	---	145.16	144.97	144.50	144.75	144.77	---	---	---	---	---
30	146.46	---	145.34	144.82	144.58	144.69	144.88	---	---	---	---	---
31	146.58	---	145.10	---	144.55	---	144.97	---	---	---	---	---

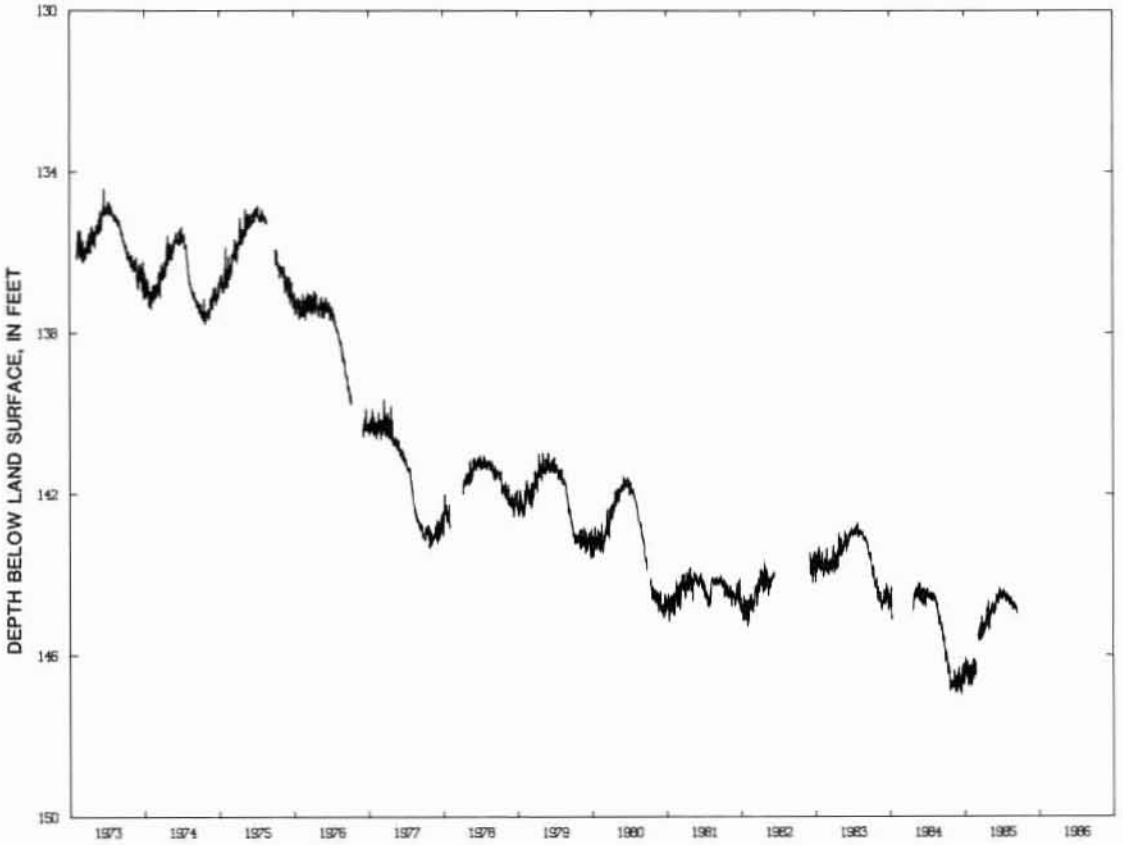

Figure 28.—Water level in observation well 159A, Sedalia, Pettis County.

COUNTY--Phelps

WELL IDENTIFICATION NUMBER--375850091432201

LOCATION--T.38N., R.07W., 29cbc, lat. 37°58'50", long. 91°43'22", 5 miles east of Rolla, County Highway V, Phelps County Industrial Park, east 0.3 mile at water tower.
Owner: Rolla Industrial Park

FORMATIONS OPEN TO THE WELL--Gasconade Formation and Eminence Dolomite

WELL CHARACTERISTICS--Drilled April 1954, total depth 800 feet, 400 feet of 8-inch casing, open hole.
DGLS Log Number: 25,796

INSTRUMENTATION--Stevens model 7001 digital recorder installed, January 20, 1980.

DATUM--Elevation of land-surface datum is 1,189 feet.
Measuring point: Base of recorder platform, 2.4 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--January 20, 1980, to present.
Missing record for 1985: Recorder clock stopped for periods March 31 to May 15, June 11 to June 13; recorder malfunctioned for the period July 26 to August 6.
Missing record for 1986: Recorder clock stopped for period November 1 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	306.56	315.31	319.68	---	---	280.45	271.07	---	275.90	277.30	277.32	272.69
2	307.40	315.42	319.36	---	---	280.50	271.81	---	275.28	277.36	277.13	275.63
3	307.43	315.81	318.28	---	---	280.46	271.89	---	275.35	277.86	276.60	279.01
4	307.50	315.32	315.65	---	---	280.35	271.34	---	276.01	278.04	276.72	279.92
5	307.56	315.37	315.63	---	---	280.40	270.73	---	276.62	277.76	276.96	281.96
6	306.75	316.26	315.26	---	---	279.73	270.12	---	277.21	277.60	279.02	282.40
7	306.88	316.47	315.21	---	---	279.34	269.29	273.39	277.32	277.65	278.37	282.41
8	307.53	316.43	313.78	---	---	278.92	269.64	273.69	277.49	278.23	277.87	279.59
9	307.76	316.01	313.48	---	---	278.13	269.87	273.96	277.02	278.63	276.88	279.86
10	307.94	317.10	316.43	---	---	276.94	269.08	273.98	277.77	278.24	276.17	279.81
11	308.24	321.50	318.77	---	---	---	269.90	274.03	277.57	278.07	276.49	279.86
12	308.74	323.28	317.95	---	---	---	270.44	273.94	276.81	277.45	276.78	279.46
13	309.05	323.41	318.24	---	---	---	269.34	274.36	276.94	276.85	277.00	279.49
14	312.02	323.05	318.13	---	---	273.99	268.40	274.73	276.26	276.93	277.67	278.63
15	317.02	321.83	316.39	---	---	272.69	267.43	274.80	275.28	277.50	277.89	277.81
16	317.73	321.87	315.66	---	312.30	271.73	267.58	275.03	275.24	278.12	277.97	278.43
17	317.36	322.71	311.83	---	312.35	272.62	267.32	275.30	276.31	276.93	278.50	277.00
18	318.27	321.83	310.73	---	312.51	273.23	267.70	274.93	276.75	277.85	278.89	275.42
19	318.68	316.41	312.03	---	311.80	273.11	267.39	275.83	276.86	278.42	278.74	277.47
20	314.74	315.69	311.62	---	311.13	272.64	268.02	276.01	277.79	277.51	278.82	278.08
21	313.87	314.21	310.15	---	300.55	272.39	268.38	275.88	277.17	277.28	278.32	276.95
22	314.35	312.59	308.98	---	292.84	272.19	274.34	276.34	276.25	277.82	278.42	275.55
23	314.85	311.74	308.52	---	288.30	272.63	278.15	276.32	275.95	281.14	277.92	275.93
24	315.20	313.11	311.68	---	285.20	273.70	274.93	275.44	275.78	287.66	277.50	276.27
25	314.10	317.50	313.47	---	283.31	273.09	274.92	274.90	275.98	283.28	277.29	276.19
26	313.75	319.07	313.59	---	283.45	272.56	---	276.03	275.96	281.18	277.86	274.95
27	317.34	319.70	313.22	---	283.72	272.21	---	275.98	276.41	279.33	277.59	273.89
28	320.33	319.96	313.57	---	283.45	271.77	---	276.55	276.76	278.88	274.11	273.24
29	320.81	---	313.23	---	283.00	270.97	---	276.81	276.42	278.36	276.00	272.83
30	316.77	---	312.41	---	282.26	270.52	---	276.35	276.79	277.79	274.85	272.27
31	315.25	---	---	---	280.58	---	---	276.00	---	277.65	---	272.48

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	272.35	270.60	270.65	284.52	295.33	310.10	295.83	298.92	310.21	305.34	---	---
2	273.39	269.98	270.18	290.56	298.80	294.10	295.07	300.82	309.93	304.37	---	---
3	274.17	269.45	269.99	294.08	291.92	286.41	296.80	302.63	309.35	304.12	---	---
4	274.96	270.76	271.62	293.12	297.37	283.43	300.35	302.23	308.64	305.40	---	---
5	273.12	272.25	272.44	294.51	288.55	282.42	301.12	301.53	306.05	305.80	---	---
6	272.97	272.90	272.29	294.35	283.12	282.45	301.07	300.28	304.53	304.93	---	---
7	273.42	273.00	272.16	294.45	282.83	279.26	300.09	300.24	305.43	304.62	---	---
8	271.89	272.57	272.16	294.64	288.69	276.92	299.32	300.94	305.82	304.69	---	---
9	272.15	271.22	271.00	292.33	284.78	276.01	299.36	303.86	305.88	303.77	---	---
10	271.08	271.12	270.16	291.72	282.15	276.06	299.84	306.76	305.46	303.31	---	---
11	270.48	270.39	270.99	291.95	280.22	274.93	297.62	307.82	305.41	304.30	---	---
12	269.66	270.29	271.22	292.44	278.09	276.00	297.93	308.40	305.28	304.50	---	---
13	270.08	270.05	269.90	292.62	276.46	278.80	299.08	308.07	305.14	305.28	---	---
14	270.47	269.82	269.20	293.06	275.82	283.21	299.27	307.69	304.93	305.23	---	---
15	270.42	269.63	269.72	292.90	275.14	286.24	299.40	308.74	299.76	304.49	---	---
16	269.97	268.64	270.47	296.95	274.58	287.69	298.08	309.23	300.57	302.86	---	---
17	269.98	268.55	269.73	299.07	273.99	288.30	296.96	309.12	300.75	302.72	---	---
18	269.67	268.50	270.30	299.29	273.70	288.65	296.90	309.91	299.99	302.13	---	---
19	269.07	270.30	271.67	299.63	273.26	291.90	296.57	309.52	299.88	300.40	---	---
20	269.53	273.03	272.10	300.55	272.35	294.31	296.67	308.28	300.47	299.98	---	---
21	271.02	273.58	273.05	299.58	272.74	295.44	296.80	307.65	300.23	299.76	---	---
22	271.90	272.88	273.63	298.81	273.18	296.29	296.77	308.62	300.10	299.25	---	---
23	271.80	271.56	273.58	297.40	273.46	297.14	296.80	309.30	300.31	298.96	---	---
24	271.96	270.75	272.95	295.96	274.71	296.53	296.57	309.44	300.28	298.56	---	---
25	272.24	270.77	272.32	295.52	274.22	295.75	299.81	308.91	299.48	299.71	---	---
26	271.33	269.54	271.58	295.45	273.50	296.93	300.75	309.30	299.35	302.64	---	---
27	271.26	269.66	271.79	295.14	272.70	295.93	300.97	308.47	301.75	303.65	---	---
28	270.16	270.31	271.66	294.69	272.05	295.38	301.95	307.93	305.16	303.32	---	---
29	269.99	---	274.81	293.62	272.15	295.92	302.04	308.56	305.48	303.14	---	---
30	270.42	---	279.51	293.28	273.16	296.02	301.57	310.21	305.37	302.95	---	---
31	270.58	---	282.22	---	296.48	---	301.35	310.84	---	302.60	---	---

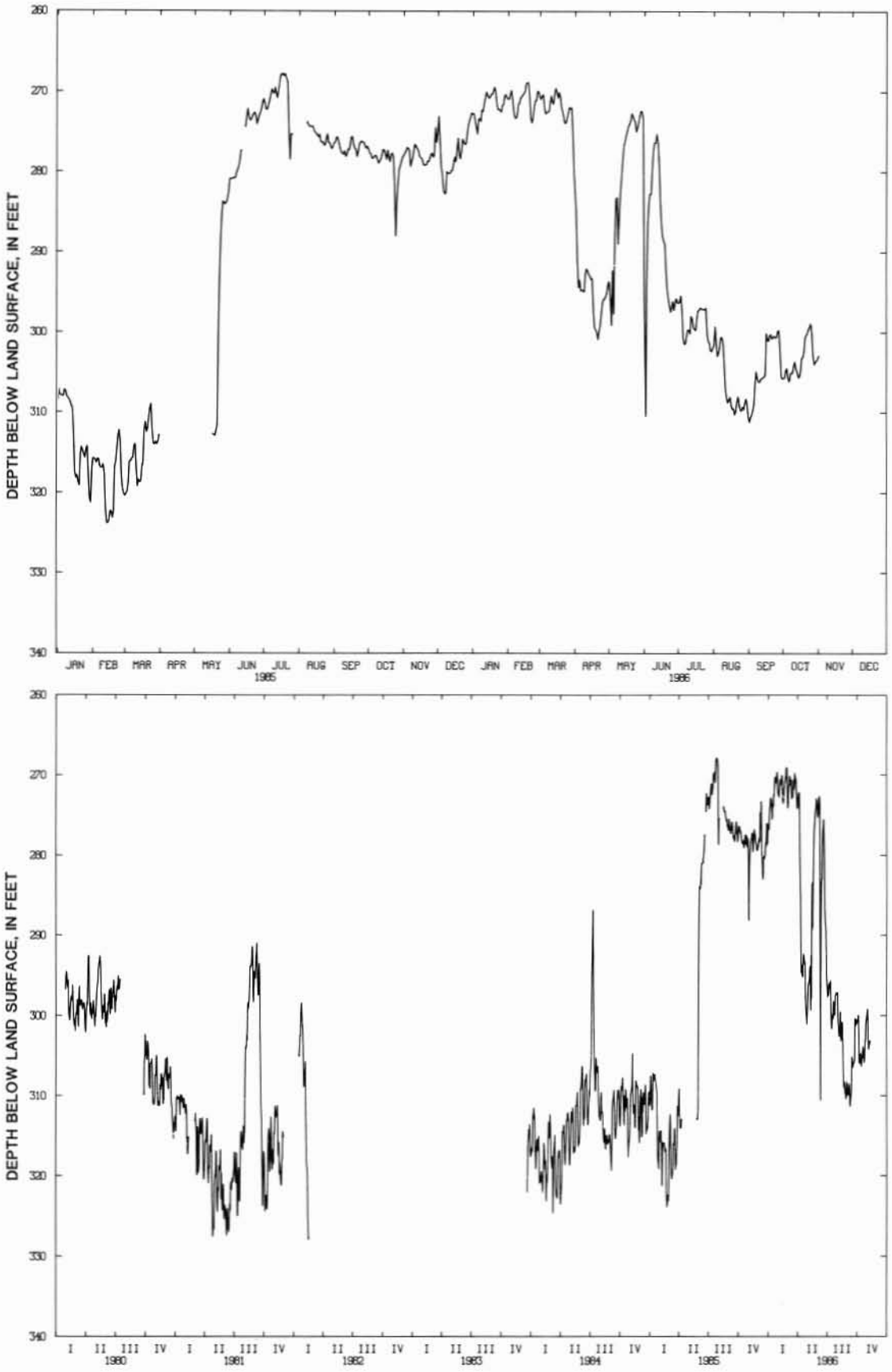

Figure 29.--Water level in observation well 161A, Industrial Park, Phelps County.

COUNTY--Phelps

WELL IDENTIFICATION NUMBER--375625091480401

LOCATION--T.37N., R.8W., 10cca, lat. 37°56'25", long. 91°48'04", Rolla Inn (formerly Holiday Inn).
Owner: Rolla Inn

FORMATIONS OPEN TO THE WELL--Gunter Sandstone Member of the Gasconade Formation and Eminence Dolomite.

WELL CHARACTERISTICS--Drilled July 1, 1962, total depth 650 feet, 420 feet of 6-inch casing, open hole.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed January 2, 1968.

DATUM--Elevation of land-surface datum is 975 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 7, 1983, to present.
Missing record for 1985: Recorder malfunctioned for the periods January 1 to 18, March 4 to 5, August 4 to 12, August 22 to 26, September 2 to 3, September 7 to 8, September 11 to 13, September 22 to 23, September 26 to 30, November 5 to 6, November 16 to 17, November 25 to 28, December 7, and December 9 to 13; recorder clock stopped for the periods January 19 to February 13 and December 14 to 26.
Missing record for 1986: Recorder malfunctioned for the periods January 13 to 21, February 5 to March 23, April 3 to 10, April 13 to 17, April 20 to 22, and April 24 to 28; recorder clock stopped for the period January 27 to February 1; records not available after July 20.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	173.01	172.29	171.35	172.36	174.61	182.37	180.88	176.18	176.65	176.71
2	---	---	173.70	171.34	170.64	174.17	176.38	182.09	---	175.53	176.03	176.71
3	---	---	172.72	170.40	170.49	174.30	176.60	180.51	---	175.51	177.71	178.25
4	---	---	---	169.99	172.39	173.46	175.91	---	181.69	175.45	177.94	178.09
5	---	---	---	171.53	173.03	172.68	175.14	---	181.79	175.63	---	177.14
6	---	---	173.34	171.60	172.52	172.41	175.54	---	180.60	177.86	---	176.21
7	---	---	174.10	170.68	171.62	174.51	178.14	---	---	178.06	179.70	---
8	---	---	173.60	169.96	171.18	175.12	178.84	---	---	177.49	182.91	177.81
9	---	---	172.65	171.46	172.76	174.67	177.76	---	182.49	177.08	182.00	---
10	---	---	171.62	171.55	173.31	173.52	176.76	---	182.61	176.49	180.31	---
11	---	---	172.26	170.93	172.60	172.86	177.06	---	---	177.99	178.44	---
12	---	---	172.76	170.18	171.72	174.84	179.81	---	---	178.50	177.56	---
13	---	---	172.14	169.66	171.01	175.33	181.04	178.44	---	177.46	179.29	---
14	---	173.38	171.45	171.49	172.33	176.32	180.54	177.19	183.12	177.05	179.49	---
15	---	173.47	170.96	172.01	172.51	176.16	179.56	176.63	182.66	179.33	178.34	---
16	---	172.92	171.09	171.55	171.65	175.27	179.42	178.59	181.14	179.35	---	---
17	---	172.64	171.31	170.86	170.57	176.32	181.48	179.09	180.03	177.87	---	---
18	---	172.38	170.84	170.33	169.86	176.52	181.92	178.35	180.30	178.35	178.83	---
19	---	173.76	170.53	172.20	170.82	175.76	181.16	177.11	182.63	181.14	178.92	---
20	---	174.03	172.29	172.79	170.80	174.66	181.65	177.26	182.19	180.54	179.04	---
21	---	173.49	172.68	171.92	170.29	173.88	182.64	179.51	180.79	178.58	178.02	---
22	---	172.62	172.01	170.75	169.50	176.00	184.28	---	---	177.92	177.41	---
23	---	172.00	171.22	170.44	169.65	176.90	184.00	---	---	179.65	179.33	---
24	---	173.55	170.80	172.25	171.62	176.06	182.46	---	181.07	179.94	179.69	---
25	---	173.55	172.15	172.60	171.73	174.95	181.11	---	181.05	179.32	---	---
26	---	172.84	172.21	172.10	171.28	174.27	181.12	---	---	180.42	---	---
27	---	172.27	171.53	171.37	171.21	176.62	183.30	180.39	---	179.62	---	173.89
28	---	171.46	170.78	170.84	173.37	177.14	183.22	179.33	---	177.72	---	172.51
29	---	---	170.90	171.86	174.04	176.46	181.74	178.38	---	176.90	179.23	173.39
30	---	---	172.33	171.81	173.29	175.25	180.23	178.60	---	178.67	177.90	174.94
31	---	---	172.87	---	172.50	---	180.17	180.84	---	178.11	---	175.64

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	175.42	---	---	175.17	173.15	178.24	177.84	---	---	---	---	---
2	173.75	177.58	---	176.35	175.64	178.69	178.06	---	---	---	---	---
3	173.81	176.31	---	---	176.35	177.70	177.14	---	---	---	---	---
4	174.55	177.31	---	---	175.69	176.38	176.08	---	---	---	---	---
5	174.44	---	---	---	174.50	175.85	175.94	---	---	---	---	---
6	174.55	---	---	---	174.30	178.15	178.03	---	---	---	---	---
7	177.41	---	---	---	176.61	178.92	178.64	---	---	---	---	---
8	177.49	---	---	---	177.36	178.06	178.54	---	---	---	---	---
9	176.42	---	---	---	177.18	176.50	177.69	---	---	---	---	---
10	175.45	---	---	---	176.71	175.93	177.03	---	---	---	---	---
11	175.98	---	---	173.08	176.40	177.73	178.88	---	---	---	---	---
12	177.26	---	---	175.08	177.65	178.40	179.40	---	---	---	---	---
13	---	---	---	---	177.58	177.91	178.68	---	---	---	---	---
14	---	---	---	---	176.84	176.59	177.75	---	---	---	---	---
15	---	---	---	---	175.75	176.25	177.06	---	---	---	---	---
16	---	---	---	---	175.35	177.47	179.25	---	---	---	---	---
17	---	---	---	---	177.25	177.72	179.37	---	---	---	---	---
18	---	---	---	176.08	177.88	176.84	177.96	---	---	---	---	---
19	---	---	---	175.62	176.85	175.65	176.76	---	---	---	---	---
20	---	---	---	---	175.68	175.54	176.75	---	---	---	---	---
21	---	---	---	---	174.88	177.63	---	---	---	---	---	---
22	176.59	---	---	---	176.75	178.21	---	---	---	---	---	---
23	177.41	---	---	176.11	177.32	177.47	---	---	---	---	---	---
24	176.70	---	178.27	---	176.70	176.85	---	---	---	---	---	---
25	175.68	---	177.41	---	175.97	176.27	---	---	---	---	---	---
26	175.24	---	176.42	---	175.31	178.03	---	---	---	---	---	---
27	---	---	176.04	---	177.10	178.63	---	---	---	---	---	---
28	---	---	177.57	---	177.96	177.88	---	---	---	---	---	---
29	---	---	177.62	174.29	177.75	176.84	---	---	---	---	---	---
30	---	---	176.56	173.25	176.85	176.19	---	---	---	---	---	---
31	---	---	175.53	---	176.18	---	---	---	---	---	---	---

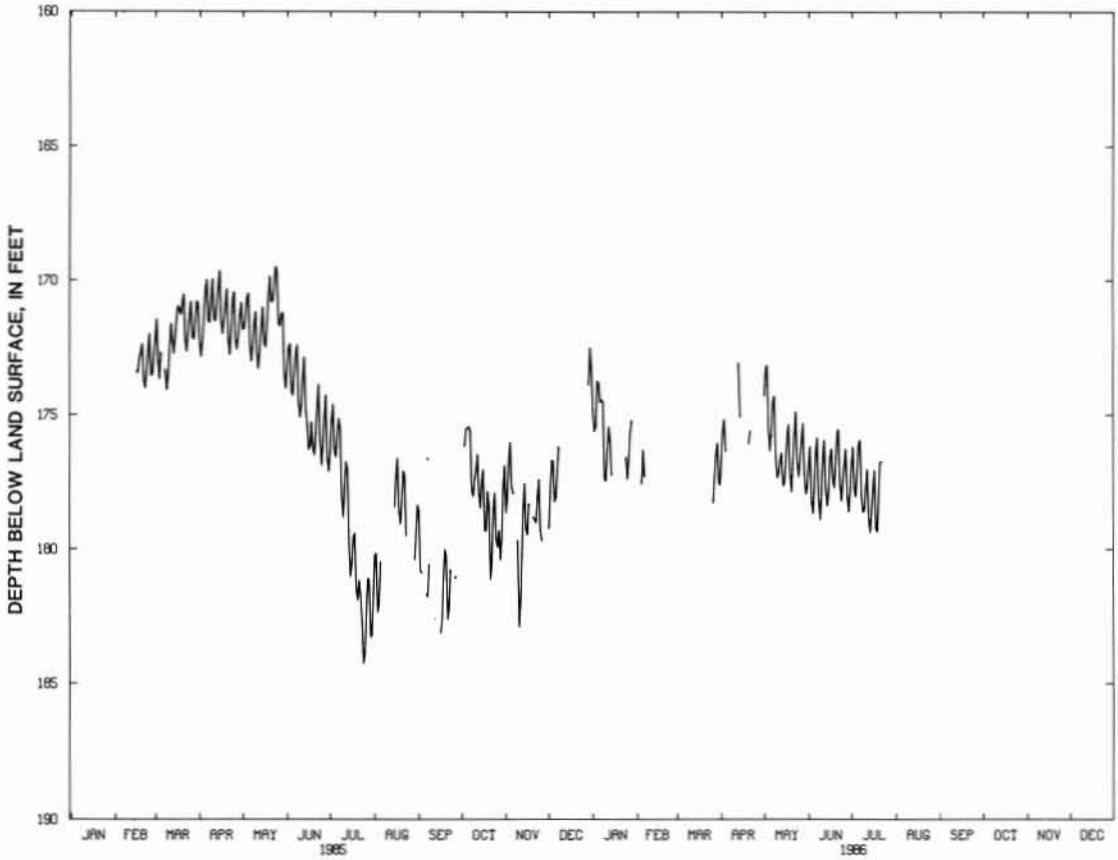

Figure 30.--Water level in observation well 161B, Rolla, Phelps County.

COUNTY--Polk

WELL IDENTIFICATION NUMBER--373701093151601

LOCATION--T.33N., R.21W., 5adc, lat. 37°37'01", long. 93°15'16", 0.2 miles east of junction of State Highway 32 and County Road H, east of Halfway, Missouri Highway Department buildings.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Cotter Dolomite and Jefferson City Dolomite.

WELL CHARACTERISTICS--Drilled March 5, 1956, total depth 200 feet, 43 feet of 8-inch casing, open hole.
DGLS Log Number: 14,308

INSTRUMENTATION--Stevens model A-35 chart recorder, installed March 5, 1956.

DATUM--Elevation of land-surface datum is 1,114 feet, from topographic map.
Measuring point: Base of recorder platform, 2.2 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 14, 1983, to present.
Missing record for 1986: Recorder clock stopped for the period August 25 to December 31.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	49.72	51.49	46.43	44.46	45.79	47.91	47.63	52.74	53.47	57.47	57.44	57.82
2	49.64	51.66	46.43	44.30	45.56	48.10	48.04	52.81	53.73	57.57	57.32	57.61
3	49.79	51.99	46.43	44.14	45.24	48.42	48.13	52.90	53.63	57.69	57.24	57.32
4	50.04	51.95	46.07	43.92	45.19	48.63	48.23	52.79	53.58	57.94	57.01	57.51
5	50.00	51.69	46.23	43.78	45.36	48.58	48.21	52.85	53.73	58.28	56.94	57.28
6	50.02	51.68	46.43	43.65	45.37	48.42	48.35	53.01	53.95	58.39	57.08	57.00
7	49.95	52.00	46.14	43.56	45.22	48.34	48.56	53.17	54.28	58.50	56.84	56.86
8	49.78	52.22	46.13	43.55	45.27	47.95	48.76	53.51	54.19	58.31	56.72	56.71
9	49.86	52.05	45.91	43.73	46.51	47.72	48.95	53.53	54.46	58.17	56.79	56.56
10	49.93	51.74	45.53	43.82	46.66	47.76	49.04	53.80	54.50	57.88	56.53	56.17
11	49.51	51.45	44.83	43.76	46.69	47.72	49.18	53.97	54.43	57.73	56.61	55.84
12	49.03	51.27	44.76	43.39	46.69	47.69	49.37	54.05	54.57	57.53	56.54	55.52
13	49.21	51.14	44.57	43.17	46.44	47.77	49.60	54.26	54.52	57.58	56.53	55.44
14	49.66	51.27	44.47	43.09	46.87	48.07	49.88	54.25	54.61	57.69	57.19	55.14
15	50.08	50.93	44.50	43.06	46.91	47.79	50.66	53.99	54.78	57.55	58.35	55.37
16	50.09	50.40	44.44	42.94	46.99	47.66	50.51	53.95	54.75	57.37	59.10	55.03
17	50.26	50.42	44.56	42.97	47.43	47.60	51.01	53.98	54.77	57.47	59.44	55.17
18	49.90	50.64	44.83	43.35	47.60	47.61	51.41	54.03	54.77	57.34	59.93	55.01
19	49.91	50.11	44.79	43.99	47.52	47.52	51.60	53.93	54.93	57.38	60.64	54.98
20	50.70	49.44	44.91	44.65	47.58	47.47	51.97	53.95	54.96	57.36	60.72	54.92
21	50.93	48.82	44.93	44.20	47.86	47.41	52.36	53.96	54.94	57.48	60.74	54.52
22	50.94	48.35	44.94	44.09	48.07	47.38	52.08	53.69	55.06	57.42	60.28	54.61
23	50.71	47.53	45.00	44.26	47.98	47.19	51.87	53.21	55.09	57.38	60.06	54.73
24	50.56	46.94	45.17	44.30	48.05	46.84	52.33	52.96	55.49	57.40	60.15	55.01
25	50.65	46.86	45.41	44.18	48.30	46.85	52.28	53.00	55.38	57.54	59.88	54.75
26	50.93	46.67	45.66	44.44	48.38	47.02	52.12	53.12	55.50	57.29	59.48	54.85
27	50.71	46.78	45.63	44.64	48.32	47.07	52.39	53.18	55.82	57.31	59.29	55.07
28	50.73	46.75	45.44	44.67	48.29	47.11	52.30	53.27	56.43	57.21	58.82	54.99
29	50.90	---	45.35	44.90	48.13	47.39	52.33	53.13	57.01	57.06	58.64	55.00
30	50.83	---	45.63	45.40	48.06	47.54	52.52	53.10	57.22	56.96	58.48	54.93
31	51.15	---	45.09	---	48.04	---	52.69	53.34	---	57.24	---	55.24

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	55.24	51.24	49.08	48.20	49.21	49.60	50.27	47.66	---	---	---	---
2	55.13	51.56	49.18	47.97	49.19	49.93	50.08	47.44	---	---	---	---
3	55.12	51.81	48.87	47.83	48.78	49.99	50.21	47.17	---	---	---	---
4	55.37	51.50	48.77	47.65	48.43	49.99	49.73	47.21	---	---	---	---
5	55.26	50.42	48.85	47.54	48.22	49.97	49.71	46.92	---	---	---	---
6	55.33	49.82	48.61	47.20	48.23	49.54	49.82	46.60	---	---	---	---
7	55.62	49.89	48.33	46.89	48.46	48.92	49.99	46.71	---	---	---	---
8	55.48	50.20	48.50	47.46	48.51	48.70	49.84	46.59	---	---	---	---
9	55.44	50.24	48.61	47.86	48.89	48.56	50.66	46.50	---	---	---	---
10	55.30	50.27	48.30	48.18	49.58	48.67	50.21	46.35	---	---	---	---
11	55.14	50.07	48.19	48.42	50.65	48.59	50.08	46.32	---	---	---	---
12	54.93	49.90	48.77	48.26	50.00	48.60	49.92	46.14	---	---	---	---
13	54.87	50.16	48.85	48.31	50.18	48.77	49.87	45.69	---	---	---	---
14	54.74	50.21	48.54	48.23	49.82	48.60	49.70	45.55	---	---	---	---
15	54.60	50.24	48.46	48.10	49.11	48.75	49.75	45.57	---	---	---	---
16	54.52	50.50	48.33	48.03	48.61	48.73	49.79	45.53	---	---	---	---
17	54.43	50.80	48.43	47.97	48.35	49.02	49.90	45.43	---	---	---	---
18	54.38	49.76	48.61	47.92	48.09	49.08	49.96	45.07	---	---	---	---
19	54.18	50.26	49.58	48.13	48.04	49.24	50.12	45.08	---	---	---	---
20	53.94	50.31	49.56	47.94	48.21	49.05	50.07	45.03	---	---	---	---
21	53.81	50.10	48.66	48.03	48.34	48.96	49.91	45.40	---	---	---	---
22	53.59	49.94	48.12	48.38	48.30	48.87	49.62	45.52	---	---	---	---
23	53.44	49.93	48.15	48.73	48.13	48.79	49.81	45.41	---	---	---	---
24	53.61	49.41	48.16	48.85	48.17	49.19	49.57	45.44	---	---	---	---
25	53.38	49.62	48.03	48.90	48.28	49.95	49.50	---	---	---	---	---
26	53.06	49.91	48.05	48.95	48.37	49.88	49.46	---	---	---	---	---
27	52.84	49.34	48.30	48.95	48.42	49.92	49.57	---	---	---	---	---
28	53.10	48.99	48.14	49.08	48.65	49.86	49.38	---	---	---	---	---
29	52.89	---	48.11	49.45	48.84	50.32	49.00	---	---	---	---	---
30	52.48	---	48.04	49.41	49.08	50.56	48.28	---	---	---	---	---
31	52.47	---	48.20	---	49.23	---	48.12	---	---	---	---	---

Figure 31.--Water level in observation well 167A, Halfway, Polk County.

COUNTY--St. Charles

WELL IDENTIFICATION NUMBER--384836090420201

LOCATION--T.47N., R.3E., 29aaa, lat. 38°48'36", long. 90°40'02", building in O'Fallon City Hall parking lot.
Owner: City of O'Fallon

FORMATIONS OPEN TO THE WELL--Plattin Formation, Joachim Dolomite, and St. Peter Sandstone.

WELL CHARACTERISTICS--Drilled September 20, 1940, total depth 833 feet, 33 feet of 10-inch casing, 375 feet of 8-inch casing, open hole.
DGLS Log Number: 6,414

INSTRUMENTATION--Stevens model A-35 chart recorder, installed May 6, 1981.

DATUM--Elevation of land-surface datum is 565 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--February 18 to December 12, 1986.
Missing record for 1986: Recorder malfunctioned for the periods June 6 to 11, July 6 to 22, July 27 to August 21, September 21 to 29, and October 12 to 24; records not available after December 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	231.32	228.98	233.55	240.47	253.94	---	254.86	250.37	259.58	256.32
2	---	---	232.02	228.72	234.45	241.77	252.95	---	257.44	251.42	258.94	255.30
3	---	---	231.41	228.86	234.51	243.49	253.32	---	258.96	252.29	259.11	254.13
4	---	---	230.38	228.77	234.48	244.71	254.28	---	258.21	253.64	258.21	253.33
5	---	---	230.88	228.84	234.42	243.76	252.85	---	257.75	253.17	258.06	252.84
6	---	---	230.73	229.34	234.57	---	---	---	257.12	252.60	258.43	253.19
7	---	---	229.89	228.51	233.95	---	---	---	256.41	253.47	259.61	254.69
8	---	---	230.79	226.98	234.14	---	---	---	257.39	253.75	259.95	255.38
9	---	---	231.90	226.72	234.10	---	---	---	258.02	254.26	259.11	255.37
10	---	---	231.29	227.27	234.33	---	---	---	257.61	255.43	258.96	255.63
11	---	---	230.46	227.56	235.14	---	---	---	256.53	256.79	257.84	255.55
12	---	---	230.86	227.91	234.68	245.85	---	---	255.70	---	256.94	---
13	---	---	230.41	228.25	233.67	246.07	---	---	254.21	---	256.80	---
14	---	---	230.41	227.80	234.45	246.65	---	---	253.68	---	257.29	---
15	---	---	230.73	226.32	234.82	247.10	---	---	254.75	---	256.84	---
16	---	---	230.67	225.99	235.43	248.60	---	---	253.59	---	255.53	---
17	---	---	229.95	226.69	235.80	251.72	---	---	252.80	---	255.72	---
18	---	---	229.34	227.42	237.70	252.02	---	---	252.21	---	255.76	---
19	---	234.41	230.11	226.93	238.34	251.60	---	---	250.92	---	256.87	---
20	---	235.13	230.05	226.46	239.36	251.55	---	---	249.57	---	257.15	---
21	---	235.38	229.90	226.64	241.20	252.16	---	---	---	---	256.57	---
22	---	234.58	230.52	227.51	241.98	252.04	---	255.51	---	---	257.35	---
23	---	233.45	231.27	227.94	241.37	252.73	247.86	255.75	---	---	258.26	---
24	---	233.34	231.51	229.00	241.28	254.95	248.77	254.83	---	---	258.07	---
25	---	233.71	230.61	229.82	241.79	255.59	249.03	256.42	---	259.20	257.90	---
26	---	232.23	230.95	230.73	242.46	254.58	250.27	258.18	---	258.10	256.91	---
27	---	231.56	230.76	230.41	241.99	252.76	---	258.65	---	258.16	256.84	---
28	---	231.24	230.77	229.98	241.43	251.32	---	258.88	---	258.32	255.82	---
29	---	---	230.56	228.73	241.45	254.59	---	258.37	---	258.67	255.71	---
30	---	---	230.82	231.98	240.94	254.72	---	257.08	248.97	258.80	256.50	---
31	---	---	230.32	---	240.51	---	---	255.42	---	259.55	---	---

Figure 32.--Water level in observation well 183A, O'Fallon, St. Charles County.

COUNTY--St. Charles

WELL IDENTIFICATION NUMBER--384848090504001

LOCATION--T.47N.,R.2E., 19cca, lat. 38°48'48", long. 90°50'40", west side of Wall Street, north of Pearce Boulevard, Wentzville, well number 2.
Owner: City of Wentzville

FORMATIONS OPEN TO THE WELL--Kimmswick Formation, Decorah Formation, Plattin Formation, Joachim Dolomite, St. Peter Sandstone, Powell Dolomite, Cotter Dolomite, Jefferson City Dolomite, and Roubidoux Formation.

WELL CHARACTERISTICS--Drilled February 1, 1943, total depth 1,337 feet, 380 feet of 10-inch casing, open hole.
DGLS Log Numbers: 8,083 and 11,827

INSTRUMENTATION--Stevens model A-35 chart recorder, installed May 13, 1980.

DATUM--Elevation of land-surface datum is 608 feet, from topographic map.
Measuring point: Base of recorder platform, at land-surface datum.

PERIOD OF PROCESSED RECORD--August 29, 1984, to present.
Missing record for 1985: Recorder malfunctioned for periods March 9 to 10, March 12 to 13, August 12 to October 3, October 30 to November 19, and November 26 to December 31.
Missing record for 1986: Recorder malfunctioned for the period January 1 to 25.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	234.80	235.65	235.80	204.15	203.43	202.45	202.01	199.01	---	---	---	---
2	235.31	235.76	235.81	204.15	203.30	202.48	202.03	198.97	---	---	---	---
3	235.18	235.98	235.20	204.24	203.12	202.42	202.10	199.00	---	---	---	---
4	235.18	236.26	234.83	204.41	203.16	202.48	202.11	207.66	---	202.48	---	---
5	235.39	236.20	235.52	204.33	203.29	202.49	202.08	213.70	---	199.98	---	---
6	235.25	236.27	235.43	204.08	203.24	202.53	201.94	205.66	---	199.38	---	---
7	235.37	236.32	227.12	203.82	203.19	202.49	201.83	203.20	---	199.17	---	---
8	235.60	236.19	229.78	203.83	203.12	202.48	201.75	202.01	---	198.88	---	---
9	235.49	235.93	---	203.74	203.10	202.47	201.64	201.37	---	198.58	---	---
10	235.54	235.65	---	203.81	203.14	202.34	201.47	200.87	---	198.50	---	---
11	235.80	235.64	225.93	203.76	203.17	202.42	201.27	200.56	---	198.51	---	---
12	235.81	235.69	---	203.61	203.18	202.36	200.82	---	---	200.53	---	---
13	235.29	235.66	---	203.61	203.11	202.33	200.29	---	---	199.73	---	---
14	235.42	235.69	209.86	203.74	203.18	202.40	200.27	---	---	199.34	---	---
15	235.58	235.60	207.59	203.80	203.08	202.54	200.76	---	---	199.07	---	---
16	235.26	234.82	206.56	203.66	203.11	202.53	200.93	---	---	198.86	---	---
17	235.16	234.06	205.97	203.61	203.11	202.52	200.90	---	---	198.79	---	---
18	235.11	233.01	205.62	203.67	203.11	202.56	199.98	---	---	198.84	---	---
19	235.37	231.51	205.28	203.66	203.11	202.53	199.56	---	---	198.82	---	---
20	235.61	233.76	204.97	203.53	203.07	202.60	199.41	---	---	198.87	199.29	---
21	235.61	234.33	204.80	203.47	202.92	202.64	199.47	---	---	198.92	199.43	---
22	235.71	234.71	204.81	203.57	202.88	202.51	199.59	---	---	198.91	199.64	---
23	235.50	234.85	204.73	203.64	202.74	202.46	199.57	---	---	198.81	199.62	---
24	235.42	235.12	204.56	203.60	202.73	202.48	199.00	---	---	198.64	199.59	---
25	235.76	235.13	204.36	203.51	202.71	202.26	198.90	---	---	198.44	199.82	---
26	235.74	235.34	204.33	203.51	202.67	202.23	198.88	---	---	198.49	---	---
27	234.31	235.96	204.55	203.45	202.64	202.18	198.89	---	---	198.52	---	---
28	235.16	235.35	204.61	203.30	202.54	202.10	198.98	---	---	198.53	---	---
29	235.33	---	204.34	203.26	202.61	202.06	199.00	---	---	201.16	---	---
30	235.39	---	204.31	203.27	202.68	202.04	198.97	---	---	---	---	---
31	235.49	---	204.47	---	202.59	---	199.03	---	---	---	---	---

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	200.51	201.42	201.46	205.16	199.53	231.87	199.75	177.14	170.27	167.63	166.90
2	---	200.67	201.69	201.32	204.53	199.31	227.58	197.66	176.78	170.05	167.44	166.39
3	---	201.32	201.53	201.44	204.06	200.74	215.18	196.02	176.38	170.24	167.27	166.13
4	---	202.85	201.50	207.39	203.84	203.08	210.10	194.47	176.07	170.54	167.10	165.99
5	---	203.87	201.68	222.81	203.63	201.13	207.29	192.99	175.85	170.62	167.00	165.60
6	---	203.67	201.54	230.60	203.16	200.33	205.44	191.72	175.63	170.58	166.97	165.24
7	---	202.37	201.30	228.19	202.65	199.96	204.20	190.60	175.44	170.39	166.65	164.84
8	---	201.72	201.50	218.28	202.20	199.72	203.37	189.62	175.14	170.46	166.65	164.59
9	---	202.86	201.80	213.89	201.79	199.55	202.74	188.65	174.81	171.99	166.73	164.58
10	---	202.19	201.77	211.81	201.56	199.47	202.27	187.82	174.39	170.91	166.53	164.31
11	---	201.77	201.59	208.71	201.50	199.41	201.90	187.15	174.09	170.38	166.50	164.08
12	---	201.53	201.85	207.06	201.44	200.57	201.54	186.42	174.14	170.23	166.56	164.22
13	---	201.52	201.75	206.08	201.30	199.44	201.18	185.61	174.06	170.02	166.38	163.96
14	---	201.71	201.64	205.30	201.17	199.18	200.92	184.90	173.84	169.89	165.94	163.77
15	---	201.57	201.54	214.48	201.01	199.13	200.76	184.29	173.63	169.78	165.67	163.58
16	---	201.81	201.51	226.97	200.77	199.02	200.54	183.69	173.45	169.55	165.52	163.38
17	---	201.86	201.60	232.33	200.71	198.72	203.51	183.25	173.08	169.49	166.02	163.26
18	---	201.79	202.81	235.88	200.52	198.80	202.75	182.77	172.82	169.46	167.50	163.06
19	---	201.69	201.96	237.55	200.38	198.89	201.41	182.28	172.60	169.28	166.16	162.94
20	---	201.62	201.44	239.36	200.26	198.72	200.66	181.81	172.43	169.09	165.98	162.94
21	---	201.40	201.34	235.59	200.18	198.51	201.80	181.38	172.18	168.95	165.63	162.87
22	---	201.45	201.49	222.84	200.14	198.40	203.18	180.93	171.87	168.75	165.33	162.58
23	---	201.53	201.39	217.87	199.95	198.32	210.25	180.49	171.58	168.58	165.36	162.25
24	---	201.46	201.41	214.57	199.80	198.15	227.56	180.08	171.30	168.37	165.49	162.13
25	---	201.54	201.49	211.93	199.77	197.88	231.36	180.79	171.25	168.03	175.74	162.15
26	199.94	201.85	201.35	210.08	199.89	196.82	218.56	179.79	171.09	168.02	173.77	162.13
27	199.98	201.62	201.28	208.66	200.45	196.62	211.98	179.24	171.01	168.02	170.23	162.02
28	200.32	201.37	201.41	207.60	200.04	209.91	207.78	178.86	170.83	168.00	168.61	161.71
29	200.27	---	201.49	206.67	199.87	221.66	209.76	178.39	170.61	167.99	167.64	161.64
30	200.07	---	201.50	205.97	199.70	228.30	204.97	177.97	170.46	167.78	167.11	161.56
31	200.32	---	201.53	---	199.64	---	202.50	177.55	---	167.63	---	---

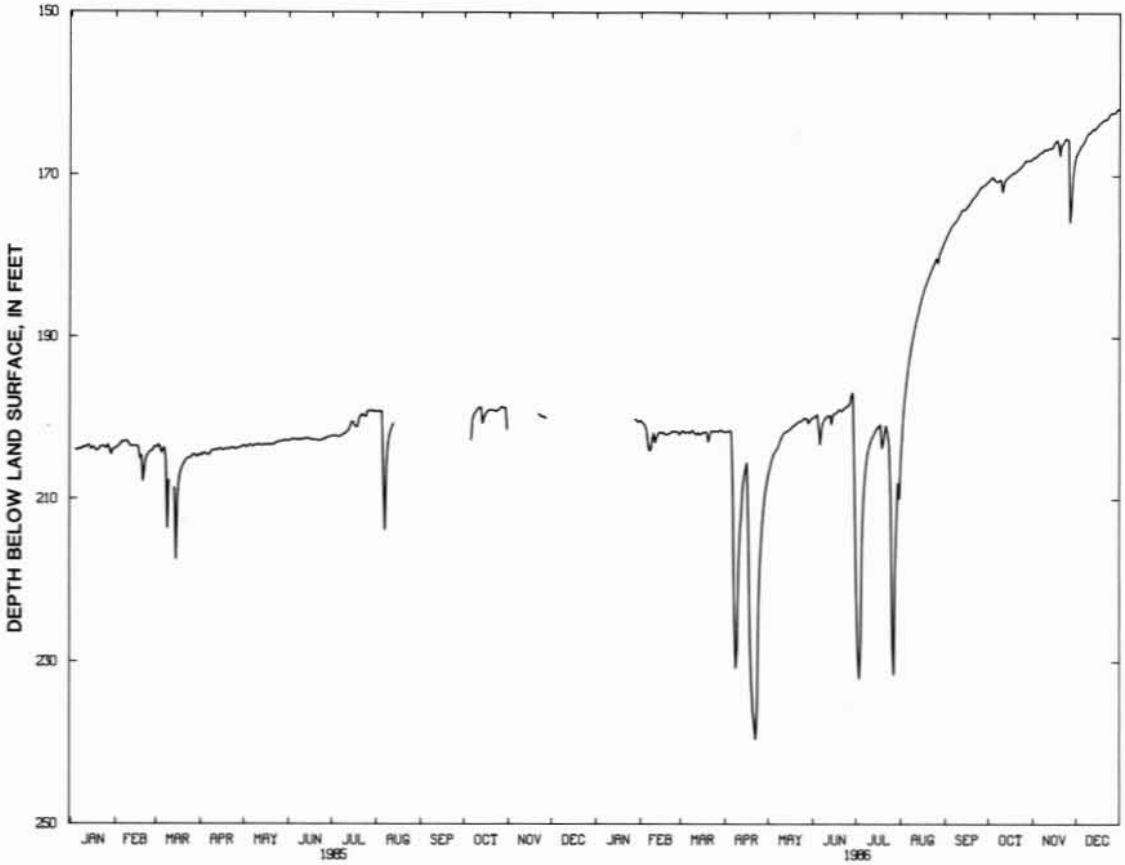

Figure 33.--Water level in observation well 183B, Wentzville, St. Charles County.

COUNTY--St. Clair

WELL IDENTIFICATION NUMBER--380230093464701

LOCATION--T.38N., R.26W., 22cbd, lat. 38°02'30", long. 93°46'47", approximately 5 miles west of Osceola.
Owner: Kathryn J. Wixted

FORMATIONS OPEN TO THE WELL--Undifferentiated Pennsylvanian, Sedalia Formation, Chouteau Group, Jefferson City Dolomite, Roubidoux Formation, Gasconade Formation, and Eminence Dolomite.

WELL CHARACTERISTICS--Oil test well, drilled August 1, 1957, total depth 875 feet, 20 feet of 6-inch casing, open hole.
DGLS Log Number: 17,450

INSTRUMENTATION--Stevens model A-35 chart recorder, installed November 12, 1958.

DATUM--Elevation of land-surface datum is 875 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 13, 1984, to present.
Missing record for 1985: Recorder malfunctioned for the period September 14 to October 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	107.98	107.36	106.02	106.76	106.59	106.61	106.97	107.21	107.59	---	106.66	106.94
2	108.42	107.42	106.36	106.51	107.05	106.55	106.89	107.17	107.53	---	106.99	107.46
3	108.16	107.56	105.49	105.96	107.25	106.85	106.67	107.29	107.66	---	107.13	107.28
4	107.54	107.21	105.71	105.28	106.93	106.83	106.40	107.37	107.72	---	107.29	107.13
5	107.72	106.66	107.04	105.62	106.67	106.93	106.39	107.41	107.75	107.16	107.13	107.20
6	107.13	106.94	107.03	105.02	106.97	106.83	106.65	107.43	107.66	106.98	106.94	107.21
7	107.40	107.67	106.36	104.37	107.00	106.90	106.82	107.38	107.50	106.79	107.13	106.96
8	107.65	107.37	106.75	104.09	107.21	106.63	106.79	107.41	107.46	106.88	107.05	106.94
9	107.31	106.65	106.98	104.36	107.09	106.69	106.54	107.49	107.48	107.11	106.88	106.97
10	107.52	106.48	106.33	104.89	106.71	106.67	106.58	107.35	107.42	107.12	107.22	107.05
11	108.32	106.83	105.79	104.74	106.21	106.65	106.56	107.33	107.29	107.01	107.39	107.10
12	108.36	107.00	106.56	104.62	106.50	106.97	106.48	107.47	107.28	106.89	107.20	107.06
13	107.16	106.91	106.37	104.77	106.43	106.97	106.50	107.41	107.17	106.95	107.14	107.12
14	107.23	107.00	106.74	105.09	106.47	106.63	106.56	107.40	---	106.97	107.34	107.17
15	107.28	106.84	106.77	105.36	106.96	106.53	106.74	107.40	---	107.17	107.22	107.09
16	106.75	106.39	106.54	105.04	106.97	106.50	106.93	107.44	---	107.26	107.20	107.08
17	106.53	107.03	106.69	105.03	106.96	106.61	107.01	107.42	---	107.20	107.12	107.04
18	106.30	107.18	106.45	105.21	106.85	106.80	107.15	107.33	---	107.11	106.92	107.39
19	106.98	106.99	106.21	105.43	106.72	106.86	107.15	107.35	---	107.18	107.11	107.08
20	107.90	106.57	106.27	105.51	106.74	106.57	107.19	107.28	---	107.18	107.60	107.16
21	107.71	106.26	106.17	105.51	106.97	106.36	107.29	107.34	---	107.11	107.30	107.03
22	107.59	106.23	105.88	105.80	107.00	106.70	107.31	107.45	---	106.97	107.18	106.66
23	106.94	105.99	105.99	106.13	107.15	106.78	107.32	107.52	---	106.84	107.15	106.57
24	106.54	106.58	106.22	106.64	106.94	106.82	107.42	107.48	---	107.08	107.18	106.87
25	107.27	106.67	106.63	106.53	106.69	106.69	107.35	107.41	---	107.26	106.91	107.12
26	107.39	106.72	106.29	106.37	106.43	106.56	107.18	107.31	---	107.11	106.85	106.63
27	106.82	107.23	105.91	106.71	106.57	106.89	107.17	107.23	---	107.16	106.98	106.93
28	106.94	106.63	106.18	107.09	106.72	106.99	107.25	107.27	---	107.13	107.02	106.87
29	106.64	---	105.93	107.01	106.56	106.97	107.25	107.46	---	107.03	106.99	106.89
30	106.67	---	105.96	106.63	106.18	106.95	107.31	107.57	---	106.96	106.85	106.61
31	107.32	---	106.10	---	106.55	---	107.36	107.63	---	106.64	---	106.84

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	106.84	106.73	106.84	106.80	106.92	106.66	106.59	106.74	106.65	106.56	106.85	106.28
2	106.59	106.77	106.66	106.58	107.10	106.77	106.77	106.77	106.61	106.53	106.92	106.44
3	106.82	106.49	106.92	106.45	107.03	106.75	106.76	106.90	106.56	106.42	106.60	106.80
4	106.86	106.31	106.91	106.55	106.69	106.68	106.62	106.83	106.61	106.60	106.49	107.02
5	107.03	106.60	106.65	106.69	106.43	106.62	106.62	106.64	106.68	106.77	106.42	106.99
6	106.82	106.55	106.81	106.75	106.46	106.54	106.81	106.55	106.72	106.86	106.43	106.79
7	107.38	106.78	106.98	106.64	106.56	106.56	106.90	106.57	106.91	106.72	106.31	106.57
8	107.50	106.96	106.68	106.82	106.54	106.65	106.81	106.61	106.82	106.62	106.46	106.47
9	107.15	107.06	106.31	106.90	106.59	106.65	106.66	106.59	106.59	106.76	106.85	106.65
10	107.05	107.00	106.44	106.72	106.63	106.63	106.56	106.64	106.39	106.69	106.78	106.86
11	106.89	107.06	106.57	106.51	106.61	106.61	106.49	106.82	106.37	106.44	106.84	106.59
12	106.98	107.16	106.22	106.48	106.61	106.78	106.50	106.77	106.73	106.61	107.03	106.81
13	106.95	106.90	106.50	106.42	106.59	106.91	106.76	106.63	106.83	106.60	107.26	106.90
14	106.77	106.77	106.63	106.50	106.58	106.81	106.83	106.55	106.80	106.54	106.75	106.75
15	106.85	106.68	106.78	106.76	106.55	106.68	106.82	106.52	106.75	106.69	106.42	106.73
16	106.72	106.23	106.83	106.84	106.69	106.77	106.79	106.52	106.78	106.66	106.26	106.67
17	106.78	106.33	106.65	106.71	106.63	106.95	106.81	106.64	106.61	106.62	106.21	106.61
18	106.72	106.29	106.27	106.61	106.79	106.91	106.79	106.75	106.60	106.72	106.45	106.67
19	106.72	106.48	106.85	106.78	106.90	106.79	106.72	106.71	106.62	106.84	106.30	106.58
20	106.52	106.59	107.35	106.48	106.91	106.80	106.77	106.72	106.71	106.80	106.46	106.66
21	106.47	106.91	107.39	106.72	106.79	106.79	106.79	106.82	106.71	106.69	106.55	106.87
22	107.10	106.86	107.12	106.89	106.59	106.78	106.83	106.76	106.59	106.51	106.29	106.80
23	107.09	106.68	107.15	106.75	106.64	106.80	106.79	106.74	106.44	106.49	106.57	106.52
24	106.70	106.89	107.12	106.64	106.81	106.82	106.84	106.71	106.32	106.43	106.71	106.37
25	106.86	106.72	106.90	106.56	106.81	106.79	106.57	106.65	106.42	106.30	106.35	106.54
26	106.99	106.42	107.05	106.51	106.74	106.75	106.57	106.65	106.57	106.38	106.58	106.74
27	107.02	106.70	107.10	106.41	106.72	106.71	106.51	106.77	106.60	106.49	106.76	106.78
28	106.50	107.03	106.88	106.57	106.75	106.67	106.54	106.96	106.65	106.52	106.69	106.74
29	106.82	---	106.72	106.61	106.82	106.62	106.57	106.86	106.58	106.72	106.58	106.59
30	106.94	---	106.71	106.57	106.79	106.53	106.51	106.77	106.60	106.72	106.42	106.67
31	106.70	---	106.68	---	106.72	---	106.60	106.72	---	106.63	---	106.59

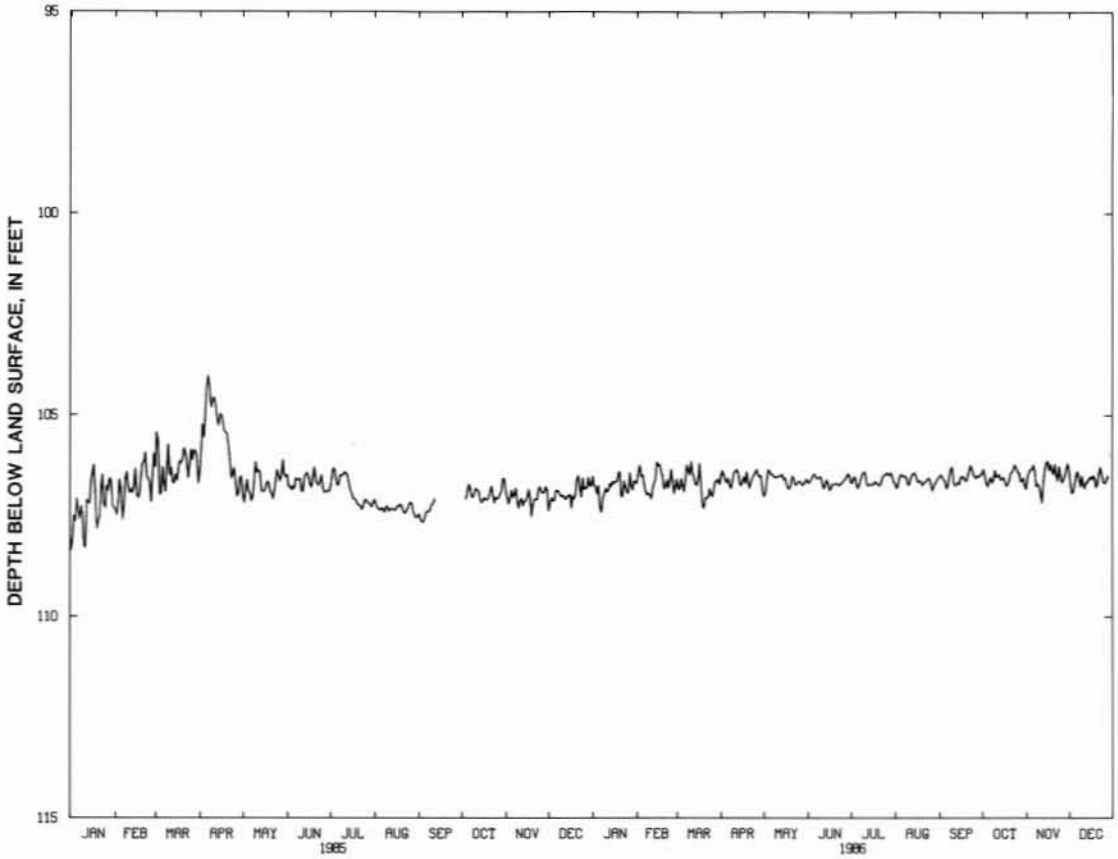

Figure 34.--Water level in observation well 185A, Osceola, St. Clair County.

COUNTY--Scott

WELL IDENTIFICATION NUMBER--365319089330501

LOCATION--T.26N., R.14.E., 21bab, lat. 36°53'19", long. 89°33'05", Highway Department maintenance yard, Edward Street, approximately 1 mile north of State Highway 62 intersection, Sikeston.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey.

FORMATIONS OPEN TO THE WELL--Alluvium

WELL CHARACTERISTICS--Drilled October 12, 1956, total depth 145 feet, 57 feet of 8-inch casing, 84.5 feet of 4-inch casing, and 4.5 feet of 4-inch well screen.
DGLS Log Number: 15,041

INSTUMENTATION--Stevens model A-35 chart recorder installed November 1, 1956; Stevens model 7001 digital recorder, after November 6, 1980.

DATUM--Elevation of land-surface datum is 310 feet.
Measuring point: Base of recorder, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--November 6, 1980, to present.
Missing record for 1985: Recorder clock stopped for the period June 9 to August 14.
Missing record for 1986: Records not available after January 23.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.86	8.93	8.02	7.99	7.43	8.87	---	---	8.88	9.54	8.64	7.25
2	7.08	8.98	8.11	8.02	7.63	8.94	---	---	8.93	9.55	8.54	7.36
3	7.26	9.02	8.18	8.11	7.81	9.01	---	---	8.97	9.56	8.51	7.46
4	7.40	9.04	8.23	8.19	7.96	9.06	---	---	9.01	9.57	8.52	7.54
5	7.53	9.06	8.30	8.23	8.08	9.10	---	---	8.98	9.59	8.54	7.61
6	7.60	9.10	8.37	8.34	8.09	9.11	---	---	8.98	9.60	8.57	7.69
7	7.68	9.15	8.42	8.44	8.18	9.14	---	---	9.03	9.62	8.62	7.75
8	7.75	9.18	8.47	8.53	8.29	9.07	---	---	9.06	9.63	8.67	7.80
9	7.81	9.20	8.48	8.59	8.36	---	---	---	9.08	9.65	8.70	7.86
10	7.88	9.12	8.50	8.66	8.44	---	---	---	9.11	9.66	8.74	7.89
11	7.98	8.70	8.51	8.72	8.51	---	---	---	9.15	9.66	8.75	7.70
12	8.06	8.63	8.59	8.77	8.57	---	---	---	9.17	9.67	8.60	7.56
13	8.12	8.63	8.60	8.62	8.53	---	---	---	9.21	9.67	8.50	7.59
14	8.19	8.68	8.56	8.50	8.61	---	---	---	9.23	9.62	8.48	7.69
15	8.28	8.73	8.63	8.58	8.67	---	---	9.28	9.25	9.58	8.47	7.76
16	8.33	8.78	8.69	8.66	8.74	---	---	9.23	9.27	9.60	8.29	7.81
17	8.38	8.80	8.75	8.75	8.80	---	---	9.26	9.30	9.62	8.22	7.86
18	8.41	8.70	8.79	8.81	8.86	---	---	9.31	9.34	9.63	8.19	7.93
19	8.47	8.63	8.84	8.87	8.93	---	---	9.31	9.37	9.63	8.18	7.96
20	8.55	8.56	8.87	8.92	8.68	---	---	9.23	9.39	9.55	8.12	8.01
21	8.59	8.49	8.83	8.96	8.42	---	---	9.27	9.41	9.51	8.09	8.05
22	8.65	8.32	8.83	8.95	8.44	---	---	9.30	9.43	9.52	8.11	8.06
23	8.69	8.01	8.88	8.93	8.53	---	---	9.23	9.45	9.47	8.16	8.09
24	8.72	7.63	8.94	8.99	8.62	---	---	8.87	9.47	9.39	8.22	8.13
25	8.77	7.58	8.98	8.65	8.71	---	---	8.63	9.47	9.37	8.25	8.18
26	8.82	7.67	8.99	7.72	8.78	---	---	8.56	9.46	9.36	8.13	8.20
27	8.84	7.84	9.01	7.59	8.85	---	---	8.55	9.49	9.37	7.56	8.25
28	8.89	7.96	9.05	7.63	8.89	---	---	8.61	9.51	9.37	7.19	8.27
29	8.92	---	8.95	7.62	8.95	---	---	8.69	9.52	9.38	7.16	8.31
30	8.94	---	8.23	7.34	9.01	---	---	8.75	9.53	9.19	7.23	8.33
31	8.89	---	8.01	---	8.85	---	---	8.81	---	8.89	---	8.36

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.40	---	---	---	---	---	---	---	---	---	---	---
2	8.41	---	---	---	---	---	---	---	---	---	---	---
3	8.44	---	---	---	---	---	---	---	---	---	---	---
4	8.45	---	---	---	---	---	---	---	---	---	---	---
5	8.49	---	---	---	---	---	---	---	---	---	---	---
6	8.51	---	---	---	---	---	---	---	---	---	---	---
7	8.55	---	---	---	---	---	---	---	---	---	---	---
8	8.58	---	---	---	---	---	---	---	---	---	---	---
9	8.59	---	---	---	---	---	---	---	---	---	---	---
10	8.62	---	---	---	---	---	---	---	---	---	---	---
11	8.63	---	---	---	---	---	---	---	---	---	---	---
12	8.66	---	---	---	---	---	---	---	---	---	---	---
13	8.67	---	---	---	---	---	---	---	---	---	---	---
14	8.71	---	---	---	---	---	---	---	---	---	---	---
15	8.79	---	---	---	---	---	---	---	---	---	---	---
16	8.86	---	---	---	---	---	---	---	---	---	---	---
17	8.80	---	---	---	---	---	---	---	---	---	---	---
18	8.52	---	---	---	---	---	---	---	---	---	---	---
19	8.49	---	---	---	---	---	---	---	---	---	---	---
20	8.50	---	---	---	---	---	---	---	---	---	---	---
21	8.57	---	---	---	---	---	---	---	---	---	---	---
22	8.60	---	---	---	---	---	---	---	---	---	---	---
23	8.64	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

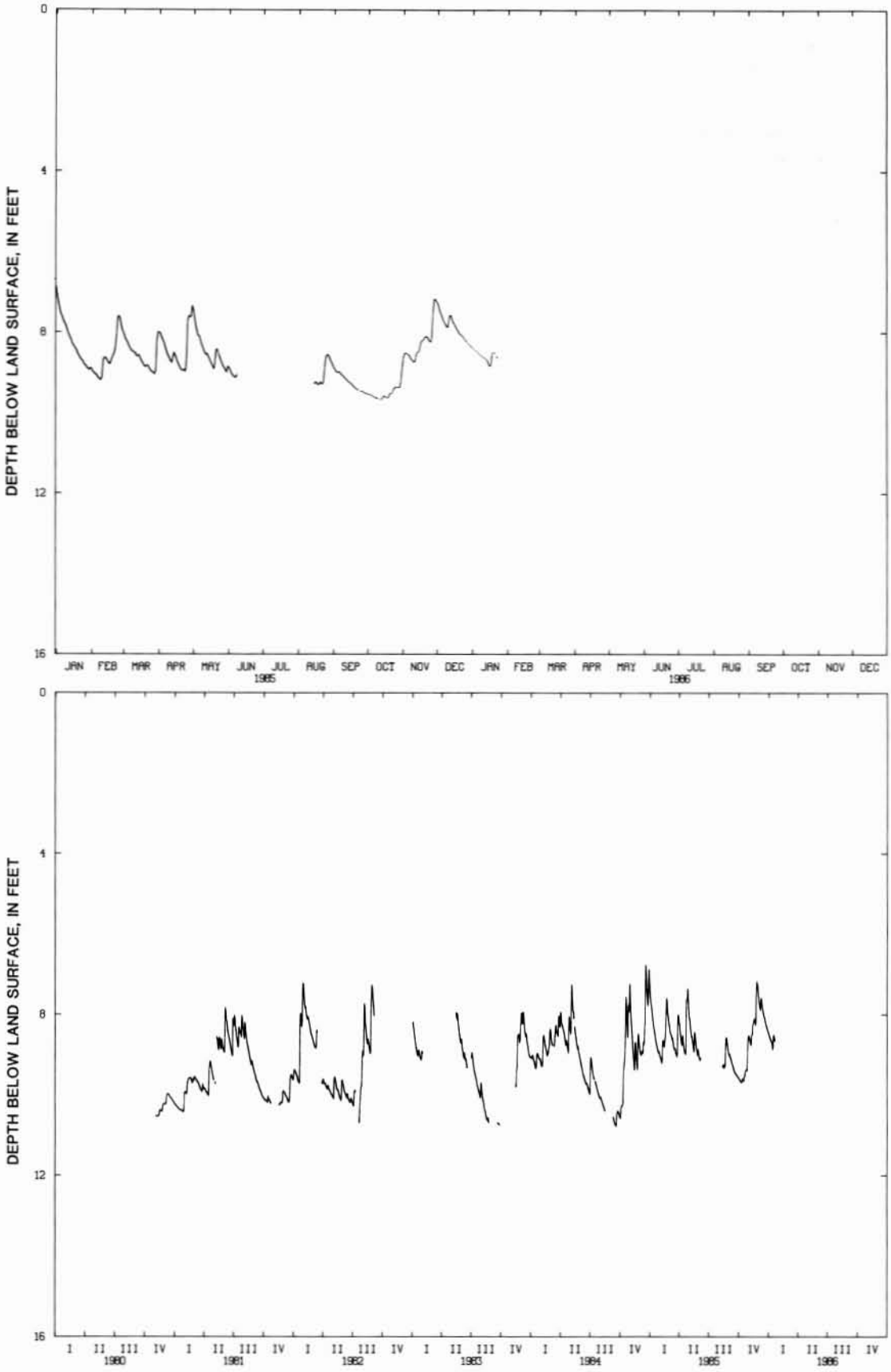

Figure 35.--Water level in observation well 201A, Sikeston, Scott County.

COUNTY--Shannon

WELL IDENTIFICATION NUMBER--372153091322301

LOCATION--T.31N., R.6W., 24dda, lat. 37°21'53', long. 91°32'23", approximately 1 mile southeast of Akers.
Owner: U.S. Department of the Interior, National Park Service

FORMATIONS OPEN TO THE WELL--Eminence Dolomite and Potosi Dolomite.

WELL CHARACTERISTICS--Total depth 425 feet, cased to an unknown depth.

INSTRUMENTATION--Stevens model A-35 chart recorder, installed November 15, 1971.

DATUM.--Elevation of land-surface datum is 865 feet, from topographic map.
Measuring point: Base of recorder platform, 1.8 feet above land-surface datum.

PERIOD OF PROCESSED RECORD.--December 4, 1980, to present.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	52.96	56.85	53.99	52.23	52.33	55.14	53.11	57.14	59.38	61.24	62.15	55.71
2	53.02	57.02	54.21	52.20	52.18	55.23	53.29	57.28	59.47	61.24	62.24	55.87
3	52.96	57.18	54.11	52.11	52.18	55.40	53.44	57.35	59.46	61.21	62.32	55.80
4	52.89	57.15	54.14	52.08	52.19	55.41	53.55	57.40	59.50	61.22	62.40	55.68
5	53.14	57.10	54.48	52.24	52.14	55.41	53.70	57.40	59.56	61.39	62.46	55.69
6	53.15	57.35	54.52	52.50	51.95	55.00	53.94	57.48	59.67	61.42	62.50	55.83
7	53.32	57.65	54.38	52.74	52.13	54.33	54.15	57.58	59.80	61.43	62.67	55.82
8	53.58	57.69	54.52	52.90	52.31	54.03	54.28	57.69	59.82	61.48	62.70	55.83
9	53.68	57.63	54.66	52.96	52.44	53.92	54.36	57.77	59.82	61.63	62.66	56.01
10	53.81	57.59	54.57	52.94	52.52	53.02	54.48	57.88	59.92	61.64	62.79	56.08
11	54.19	57.72	54.15	53.07	52.55	52.62	54.65	58.02	60.05	61.65	62.90	56.06
12	54.37	57.89	54.39	53.25	52.76	52.54	54.78	58.05	60.09	61.67	62.83	55.87
13	54.21	57.98	54.32	53.30	52.93	52.56	54.93	58.15	60.21	61.74	62.59	55.72
14	54.33	58.08	54.41	53.24	53.05	52.56	55.07	58.20	60.28	61.77	62.53	55.87
15	54.61	58.11	54.45	53.22	53.33	52.61	55.21	58.22	60.27	61.88	62.39	55.81
16	54.60	58.10	54.39	53.41	53.44	52.75	55.39	58.25	60.18	62.02	62.21	55.85
17	54.68	58.37	54.49	53.54	53.58	51.90	55.51	58.35	60.14	62.05	62.10	55.90
18	54.73	58.43	54.55	53.59	53.74	50.11	55.61	58.46	60.29	62.06	61.88	56.15
19	55.07	58.39	54.57	53.64	53.88	50.71	55.74	58.55	60.43	62.10	57.15	56.20
20	55.48	58.31	54.68	53.74	54.02	50.96	55.83	58.64	60.50	62.12	57.88	56.19
21	55.54	58.16	54.70	53.88	54.14	51.15	55.90	58.72	60.52	62.15	57.72	56.34
22	55.63	57.86	54.75	53.93	54.11	51.40	56.02	58.75	60.51	62.18	57.46	56.19
23	55.60	54.56	54.92	53.81	54.13	51.57	56.15	58.73	60.57	62.16	57.35	56.25
24	55.65	53.43	55.09	53.47	54.22	51.77	56.25	58.73	60.81	62.25	57.34	56.38
25	56.01	53.93	55.37	53.32	54.29	51.93	56.37	58.86	60.73	62.41	57.20	56.72
26	56.16	53.96	55.39	53.24	54.35	52.09	56.50	59.01	60.81	62.36	57.04	57.02
27	56.09	54.19	55.28	53.31	54.48	52.31	56.65	59.15	60.91	62.41	56.67	56.91
28	56.28	54.12	55.31	53.46	54.67	52.52	56.72	59.20	61.03	62.47	56.11	56.95
29	56.37	---	55.28	53.52	54.76	52.72	56.84	59.19	61.04	62.44	55.99	56.97
30	56.44	---	53.31	53.46	54.79	52.90	56.94	59.20	61.09	62.46	55.90	57.06
31	56.73	---	51.99	---	54.95	---	56.99	59.27	---	62.34	---	57.08

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	57.35	60.10	61.06	62.28	61.30	61.64	60.93	62.55	63.94	64.50	65.05	65.26
2	57.32	60.17	60.94	62.26	61.43	61.75	61.07	62.59	63.98	64.12	65.03	65.28
3	57.43	60.08	61.12	62.25	61.45	61.81	61.15	62.73	63.98	64.15	65.14	65.30
4	57.54	60.05	61.16	62.37	61.34	61.82	61.16	62.76	64.04	64.26	65.16	65.32
5	57.82	60.26	61.07	62.40	61.25	61.82	61.23	62.74	64.10	64.39	65.25	65.34
6	57.78	60.22	61.21	62.42	61.33	61.80	61.37	62.75	64.16	64.46	65.22	65.36
7	58.04	60.40	61.34	62.10	61.43	61.83	61.45	62.81	64.26	64.46	65.26	65.38
8	58.33	60.49	61.28	61.43	61.47	61.90	61.45	62.85	64.26	64.45	65.22	65.40
9	58.28	60.53	61.16	61.16	61.54	61.64	61.45	62.91	64.24	64.53	65.20	65.42
10	58.21	60.51	61.22	60.98	61.58	60.70	61.48	62.95	64.21	64.53	65.13	65.44
11	58.33	60.60	61.40	60.82	61.56	60.36	61.51	63.08	64.22	64.47	65.08	65.46
12	58.36	60.71	61.25	60.76	61.59	60.33	61.57	63.12	64.42	64.52	65.01	65.48
13	58.54	60.66	61.41	60.75	61.61	60.35	61.73	63.12	64.49	64.53	64.89	65.50
14	58.48	60.55	61.51	60.73	61.58	60.25	61.82	63.13	64.49	64.55	65.07	65.52
15	58.74	60.67	61.61	60.85	61.52	60.18	61.86	63.17	64.50	64.65	65.02	65.54
16	58.86	60.45	61.68	60.88	61.52	60.22	61.90	63.19	64.56	64.65	65.00	65.56
17	58.92	60.48	61.65	60.85	61.39	60.33	61.97	63.31	64.53	64.67	65.05	65.58
18	58.95	60.52	61.43	60.84	61.46	60.33	62.02	63.40	64.55	64.76	65.18	65.60
19	59.04	60.61	61.75	60.87	61.54	60.31	62.04	63.42	64.61	64.82	65.17	65.62
20	59.10	60.65	62.03	60.69	61.59	60.31	62.08	63.47	64.67	64.81	65.24	65.64
21	59.14	60.85	62.07	60.86	61.57	60.39	62.18	63.56	64.69	64.81	65.34	65.66
22	59.55	60.82	61.97	61.01	61.53	60.46	62.28	63.57	64.68	64.79	65.25	65.67
23	59.61	60.76	61.99	61.01	61.58	60.51	62.33	63.59	64.65	64.82	65.36	65.69
24	59.48	60.89	62.04	60.97	61.68	60.59	62.32	63.65	64.67	64.81	65.43	65.71
25	59.59	60.87	61.98	60.96	61.62	60.67	62.32	63.67	64.77	64.73	65.26	65.73
26	59.69	60.65	62.08	60.99	61.58	60.71	62.26	63.70	64.85	64.84	65.17	65.75
27	59.79	60.87	62.17	60.98	61.64	60.75	62.16	63.76	64.86	64.93	65.19	65.77
28	59.62	61.10	62.14	61.06	61.63	60.76	62.23	63.88	64.91	64.98	65.21	65.79
29	59.91	---	62.12	61.17	61.60	60.84	62.34	63.89	64.91	65.08	65.22	65.81
30	60.09	---	62.17	61.15	61.60	60.86	62.36	63.91	64.93	65.12	65.24	65.83
31	60.04	---	62.21	---	61.61	---	62.42	63.92	---	65.14	---	65.85

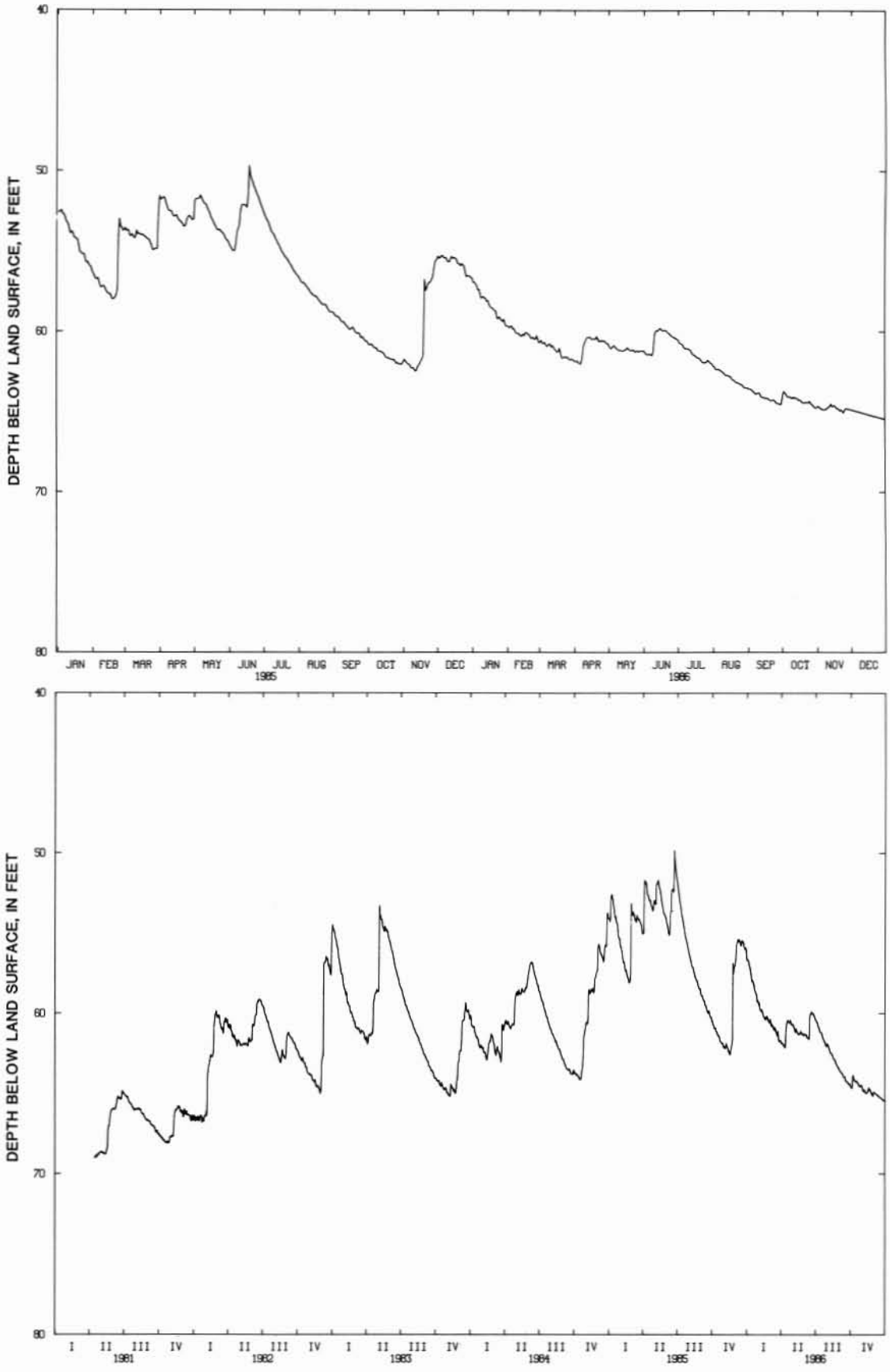

Figure 36.--Water level in observation well 203A, Akers, Shannon County.

COUNTY--Texas

WELL IDENTIFICATION NUMBER--371800092094501

LOCATION--T.30N., R.11W., 17dda, lat. 37°18'00", long. 92°09'45", Missouri Highway Department buildings, 0.2 miles north of Fairview, State Highway 38.
Owner: Missouri Department of Natural Resources, Division of Geology and Land Survey

FORMATIONS OPEN TO THE WELL--Cotter Dolomite, Jefferson City Dolomite, Roubidoux Formation, and Gasconade Formation.

WELL CHARACTERISTICS--Drilled February 25, 1956, total depth 481 feet, 50 feet of 8-inch casing, open hole.
DGLS Log Number: 14,295

INSTRUMENTATION--Stevens model A-35 chart recorder, installed February 27, 1956.

DATUM--Elevation of land-surface datum is 1,465 feet, from topographic map.
Measuring point: Base of recorder platform, 2.1 feet above land-surface datum.

PERIOD OF PROCESSED RECORD--June 8, 1983, to present.
Missing record for 1986: Recorder malfunctioned for the periods April 13 to 26 and May 30 to June 28; records not available after November 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	252.99	255.46	252.69	250.62	248.96	253.01	249.51	260.01	262.61	269.34	272.77	261.72
2	253.08	255.70	252.58	250.32	249.02	253.22	249.69	260.33	262.86	269.45	272.75	261.70
3	252.69	256.00	252.26	249.92	249.11	253.50	249.96	260.59	263.14	269.50	272.62	261.31
4	252.33	256.03	252.02	249.48	248.90	253.48	250.31	260.98	263.39	269.63	272.55	260.79
5	252.19	256.01	252.28	249.32	248.83	253.27	250.57	261.03	263.63	269.92	272.44	260.39
6	251.95	256.38	252.23	249.49	248.90	252.90	250.90	261.34	263.89	270.00	272.51	260.13
7	251.81	256.91	251.89	249.60	248.92	252.54	251.25	261.48	264.23	270.10	272.52	259.73
8	251.86	256.99	251.82	249.60	249.00	252.08	251.51	261.69	264.53	270.29	272.51	259.44
9	251.95	256.94	251.80	249.54	249.08	251.70	251.70	261.99	264.75	270.61	272.41	259.31
10	252.27	257.05	251.54	249.27	249.08	251.37	252.09	262.30	265.21	270.75	272.70	259.12
11	252.27	257.21	251.17	249.24	249.07	250.95	252.60	262.65	265.78	270.82	272.92	258.96
12	252.36	257.17	251.31	249.24	249.41	250.71	252.94	262.84	266.18	270.86	272.91	259.06
13	252.02	256.97	251.03	249.13	249.63	250.48	253.41	263.18	266.18	271.00	272.84	259.33
14	252.06	256.81	251.01	249.00	249.86	250.15	253.82	263.32	266.32	271.07	272.62	259.46
15	252.27	256.53	250.89	248.94	250.26	249.86	254.18	263.48	266.53	271.31	272.09	259.79
16	252.20	256.24	250.63	249.07	250.44	249.76	254.55	263.58	266.65	271.53	271.40	259.99
17	252.26	256.37	250.65	249.08	250.53	249.67	254.96	263.71	266.76	271.62	270.64	260.21
18	252.31	256.33	250.55	248.95	250.71	249.62	255.42	263.98	267.11	271.67	269.66	260.23
19	252.60	256.17	250.40	248.88	250.97	249.56	256.06	264.12	267.49	271.78	268.82	260.38
20	253.17	255.93	250.34	248.84	251.25	249.35	256.41	264.27	267.89	271.87	268.30	260.57
21	253.46	255.60	250.26	248.93	251.57	249.18	257.13	264.42	267.90	272.17	267.38	260.65
22	253.58	255.26	250.21	248.99	251.71	249.14	257.52	264.45	267.79	272.37	266.51	260.98
23	253.71	254.83	250.27	248.96	251.91	249.08	257.51	264.33	267.93	272.36	265.82	261.00
24	253.83	254.65	250.41	249.12	251.86	249.01	257.76	263.95	268.20	272.38	265.33	261.08
25	254.17	254.29	250.73	249.08	251.83	248.88	257.96	263.47	268.19	273.11	264.71	261.03
26	254.40	253.83	250.78	248.98	251.89	248.80	258.23	263.16	268.39	272.85	264.37	261.33
27	254.38	253.64	250.61	249.00	252.06	248.81	258.58	262.77	268.56	272.81	263.74	260.71
28	254.63	253.18	250.59	249.18	252.27	248.89	259.06	262.50	268.78	273.11	263.23	260.44
29	254.80	---	250.66	249.16	252.37	249.03	259.47	262.27	268.87	273.34	262.76	260.81
30	254.89	---	250.64	249.10	252.48	249.38	259.66	262.22	269.09	273.30	262.23	260.99
31	255.23	---	250.57	---	252.71	---	259.76	262.32	---	273.05	---	260.98

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	260.79	263.72	259.48	260.34	259.36	---	263.28	271.25	276.96	279.99	272.15	---
2	260.83	263.99	259.57	260.53	259.76	---	263.53	271.34	277.12	279.18	272.29	---
3	260.63	264.23	259.38	260.60	259.91	---	263.78	271.54	277.41	277.90	272.35	---
4	260.54	264.29	259.17	260.87	259.98	---	264.02	271.91	277.42	276.78	272.34	---
5	260.21	264.13	259.01	261.08	260.07	---	264.25	272.10	277.61	276.02	272.18	---
6	260.22	263.97	259.23	261.10	260.37	---	264.68	272.15	277.76	275.42	271.84	---
7	259.83	263.84	259.48	260.90	260.69	---	265.24	272.23	278.09	274.95	271.12	---
8	259.46	263.48	259.72	260.51	260.91	---	265.56	272.40	278.17	274.63	270.34	---
9	259.40	263.00	259.74	260.18	261.14	---	265.95	272.54	278.19	274.50	269.81	---
10	259.30	262.44	259.83	259.61	261.38	---	266.09	272.70	278.21	274.44	269.33	---
11	259.07	261.97	260.24	258.95	261.52	---	266.25	273.03	278.26	274.25	268.68	---
12	259.24	261.63	260.11	258.43	261.71	---	266.38	273.33	278.52	274.12	268.24	---
13	259.54	261.28	260.13	---	261.85	---	266.62	273.50	278.74	273.84	268.11	---
14	259.61	260.72	259.96	---	262.00	---	266.90	273.86	278.93	273.08	267.59	---
15	260.05	260.60	259.70	---	262.12	---	267.23	274.20	279.02	272.54	266.99	---
16	260.24	260.11	259.47	---	262.33	---	267.68	274.08	279.22	272.03	266.61	---
17	260.47	259.90	259.15	---	262.21	---	267.87	274.28	279.26	271.59	266.45	---
18	260.61	259.79	258.60	---	262.14	---	268.09	274.58	279.28	271.43	266.32	---
19	260.84	259.58	258.66	---	262.03	---	268.52	274.86	279.38	271.50	266.43	---
20	261.01	259.30	258.86	---	261.89	---	268.72	274.95	279.53	271.51	266.27	---
21	261.19	259.23	258.94	---	261.73	---	268.96	275.21	279.60	271.57	266.55	---
22	261.73	259.22	258.88	---	261.65	---	269.39	275.58	279.64	271.61	266.51	---
23	261.99	259.43	258.89	---	261.77	---	269.56	275.76	279.67	271.78	266.61	---
24	262.02	259.50	259.06	---	262.01	---	269.87	275.75	279.69	272.08	267.01	---
25	262.23	259.56	259.09	---	262.18	---	270.09	275.90	279.85	272.12	267.10	---
26	262.47	259.88	259.25	---	262.34	---	270.19	276.16	280.10	272.06	267.00	---
27	262.72	259.79	259.48	258.19	262.55	---	270.15	276.44	280.15	272.12	267.43	---
28	262.68	259.50	259.60	258.44	262.68	---	270.36	276.46	280.30	272.21	267.50	---
29	263.05	---	259.67	258.75	262.57	262.66	270.56	276.60	280.35	272.23	267.46	---
30	263.46	---	259.85	258.94	---	263.18	271.00	276.72	280.38	272.24	---	---
31	263.55	---	260.07	---	---	---	271.16	276.84	---	272.13	---	---

Figure 37.--Water level in observation well 215A, Fairview, Texas County.

COUNTY--Warren

WELL IDENTIFICATION NUMBER--384925091011001

LOCATION--T.47N., R.1W., 21aac, lat. 38°49'25", long. 91°01'10", in Wright City, well number 2.
Owner: City of Wright City

FORMATIONS OPEN TO THE WELL--Kimmswick Formation, Decorah Formation, Plattin Formation, Joachim Dolomite, St. Peter Sandstone, Powell Dolomite, Jefferson City Dolomite, and Roubidoux Formation.

WELL CHARACTERISTICS--Drilled December 1, 1945, total depth 1,175 feet, 230 feet of 8-inch casing, open hole.
DGLS Log Number: 9,024

INSTRUMENTATION--Stevens model A-35 chart recorder, installed July 29, 1981.

DATUM--Elevation of land-surface datum is 695 feet, from topographic map.
Measuring point: Base of recorder platform, at land surface.

PERIOD OF PROCESSED RECORD--December 5, 1984, to present.
Missing record for 1985: Recorder vandalized for the period January 1 to May 13; recorder malfunctioned for the periods July 17 to 23 and October 3 to November 19; recorder clock stopped for the period December 24 to 31.
Missing record for 1986: Recorder clock stopped for the periods January 1 to February 3 and February 18 to April 23.

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	205.58	205.85	207.68	207.51	207.34	---	207.43
2	---	---	---	---	---	205.52	205.75	207.69	207.60	207.39	---	207.83
3	---	---	---	---	---	205.52	205.66	207.61	207.55	---	---	207.99
4	---	---	---	---	---	205.51	205.56	207.44	207.51	---	---	208.01
5	---	---	---	---	---	205.56	205.55	207.21	207.60	---	---	208.13
6	---	---	---	---	---	205.57	205.66	207.13	207.77	---	---	208.31
7	---	---	---	---	---	205.48	205.72	207.16	208.04	---	---	207.93
8	---	---	---	---	---	205.51	205.78	207.23	208.20	---	---	207.75
9	---	---	---	---	---	205.46	205.95	207.31	208.07	---	---	207.65
10	---	---	---	---	---	205.41	206.24	207.44	208.02	---	---	207.66
11	---	---	---	---	---	205.31	206.49	207.51	208.23	---	---	207.50
12	---	---	---	---	---	205.44	206.75	207.29	208.32	---	---	207.43
13	---	---	---	---	---	205.44	206.99	207.24	208.47	---	---	207.63
14	---	---	---	---	204.83	205.35	207.10	207.34	208.62	---	---	207.90
15	---	---	---	---	205.00	205.27	207.29	207.35	208.59	---	---	207.97
16	---	---	---	---	205.05	205.23	207.66	207.44	208.34	---	---	207.91
17	---	---	---	---	205.11	205.18	---	207.52	208.11	---	---	207.92
18	---	---	---	---	205.16	205.18	---	207.55	208.12	---	---	208.10
19	---	---	---	---	205.13	205.23	---	207.48	208.26	---	---	207.72
20	---	---	---	---	205.16	205.26	---	207.45	208.39	---	208.01	207.65
21	---	---	---	---	205.34	205.26	---	207.48	208.33	---	207.98	207.45
22	---	---	---	---	205.44	205.46	---	207.48	208.23	---	207.93	207.12
23	---	---	---	---	205.58	205.55	---	207.44	207.99	---	208.02	206.90
24	---	---	---	---	205.64	205.55	207.63	207.39	207.87	---	207.97	---
25	---	---	---	---	205.74	205.61	207.65	207.34	207.84	---	207.62	---
26	---	---	---	---	205.70	205.66	207.73	207.30	207.60	---	207.54	---
27	---	---	---	---	205.59	205.81	207.77	207.36	207.58	---	207.84	---
28	---	---	---	---	205.61	205.97	207.69	207.45	207.53	---	208.04	---
29	---	---	---	---	205.52	206.03	207.56	207.39	207.57	---	207.95	---
30	---	---	---	---	205.40	205.97	207.54	207.31	207.37	---	207.65	---
31	---	---	---	---	205.43	---	207.61	207.43	---	---	---	---

WATER LEVEL, IN FEET BELOW LAND SURFACE, THROUGH CALENDAR YEAR 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	209.69	209.80	209.87	209.67	209.52	208.54	208.59	207.15
2	---	---	---	---	209.66	209.57	209.90	209.58	209.35	208.48	208.33	207.29
3	---	---	---	---	209.63	209.40	210.40	209.58	209.20	208.44	208.04	207.48
4	---	207.66	---	---	209.59	209.84	210.28	209.48	209.28	208.55	207.91	207.62
5	---	207.40	---	---	209.56	210.09	209.97	209.37	209.37	208.63	207.83	207.51
6	---	207.56	---	---	209.58	209.95	209.87	209.35	209.44	208.59	207.83	207.31
7	---	207.58	---	---	209.63	209.73	209.73	209.28	209.47	208.51	207.73	207.06
8	---	207.61	---	---	209.66	209.95	209.43	209.18	209.30	208.57	207.89	206.91
9	---	207.68	---	---	209.77	210.05	209.47	209.15	209.20	208.73	208.06	207.15
10	---	207.59	---	---	209.76	209.74	209.50	209.15	209.16	208.64	207.88	207.01
11	---	207.47	---	---	209.79	209.48	209.47	209.19	209.19	208.50	207.88	206.98
12	---	207.20	---	---	209.50	209.55	209.24	209.19	209.49	208.57	208.06	207.27
13	---	207.28	---	---	208.99	209.72	209.05	209.06	209.71	208.47	207.93	207.07
14	---	207.80	---	---	208.56	209.75	208.88	209.01	209.65	208.55	207.59	207.05
15	---	207.83	---	---	208.61	209.89	208.72	209.09	209.58	208.60	208.15	207.13
16	---	207.70	---	---	209.08	209.96	208.62	209.09	209.56	208.50	208.80	207.29
17	---	207.78	---	---	209.05	210.01	208.57	209.15	209.40	208.59	208.74	207.27
18	---	---	---	---	209.13	209.84	208.60	209.12	209.38	208.67	208.77	207.24
19	---	---	---	---	209.16	209.73	208.37	209.09	209.43	208.58	208.34	207.15
20	---	---	---	---	208.98	209.82	208.10	209.11	209.59	208.46	208.44	206.92
21	---	---	---	---	208.89	210.00	208.05	209.23	209.51	208.45	208.25	206.94
22	---	---	---	---	209.10	210.39	208.65	209.22	209.32	208.33	208.08	207.16
23	---	---	---	---	209.55	210.30	209.31	209.28	209.21	208.44	208.23	207.40
24	---	---	---	208.90	210.01	209.33	209.76	209.31	209.00	208.44	208.16	207.43
25	---	---	---	209.06	209.91	208.63	210.16	209.26	209.05	208.36	207.90	207.41
26	---	---	---	209.44	209.56	209.00	210.34	209.29	209.05	208.46	208.11	207.49
27	---	---	---	209.67	209.37	209.95	209.63	209.45	208.98	208.49	208.05	207.54
28	---	---	---	209.83	209.45	210.33	209.12	209.58	208.88	208.55	207.77	207.71
29	---	---	---	209.92	209.66	209.91	209.34	209.70	208.70	208.73	207.58	207.63
30	---	---	---	209.69	209.79	209.57	209.72	209.91	208.57	208.74	207.38	207.66
31	---	---	---	---	209.87	---	209.72	209.84	---	208.62	---	207.72

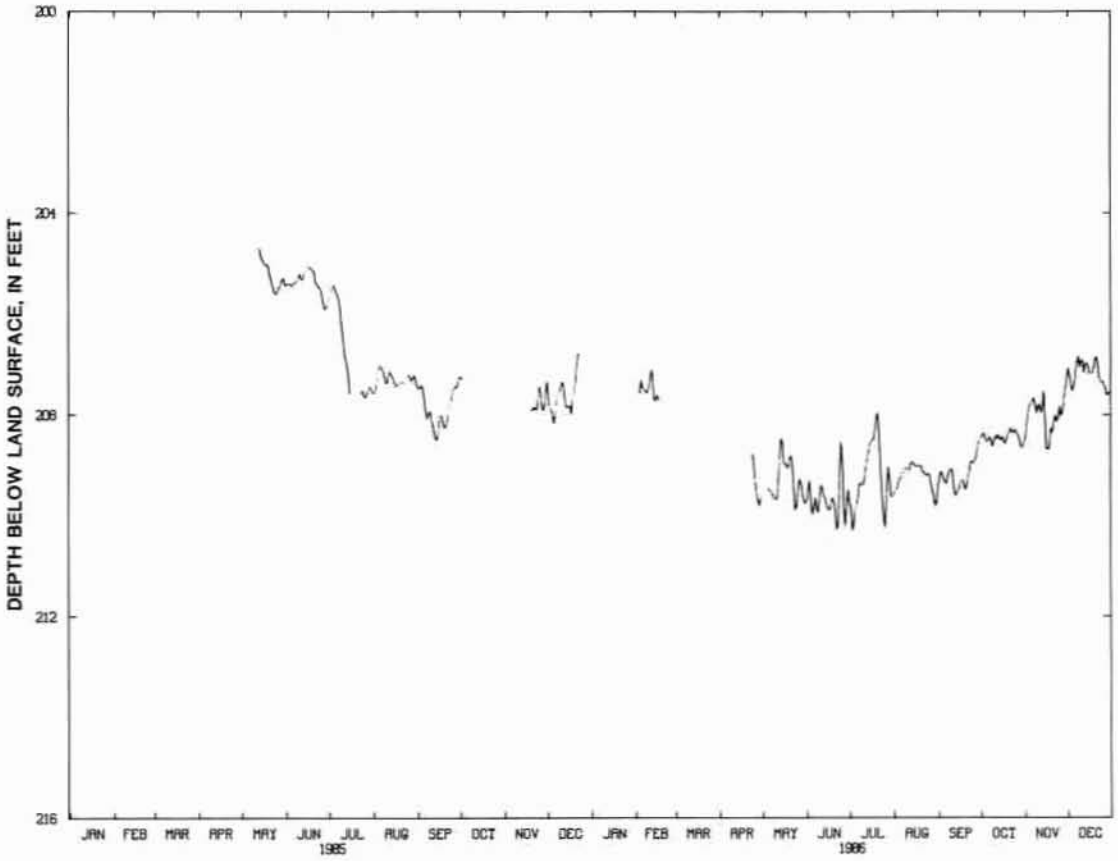

Figure 38.--Water level in observation well 219A, Wright City, Warren County.

MISSOURI DEPARTMENT OF NATURAL RESOURCES

March 1989

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