STATE OF INDIANA
INDIANA DEPARTMENT OF CONSERVATION
DIVISION OF WATER RESOURCES

BULLETIN NO. 7

WATER LEVEL RECORDS OF INDIANA

Prepared Cooperatively by the

DIVISION OF WATER RESOURCES
INDIANA DEPARTMENT OF CONSERVATION
and the
GEOLOGICAL SURVEY
UNITED STATES DEPARTMENT OF THE INTERIOR

1956

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Harley G. Hook, Director

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DIVISION OF WATER RESOURCES

Charles H. Bechert, Director

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CONTENTS

INTRODUCTION

In order to learn more about ground-water reserves and to obtain accurate data on the changes of the ground-water level in various parts of the state, the Indiana Department of Conservation in cooperation with the United States Geological Survey, as early as 1935, inaugurated a program of periodically measuring the water level in a number of unused wells. This was the start of the observation well program which has continued uninterrupted for more than 20 years and has supplied important basic information essential to the evaluation of the state's ground-water resources. During that year and the year that followed the program included 71 observation wells, most of which were located on state properties.

In 1943 the 83rd General Assembly enacted a law authorizing the Indiana Department of Conservation to expand its activities in the study and investigation of the water resources of the State in cooperation with the U. S. Geological Survey. When this expanded program was put into effect, the observation well project was greatly enlarged; the newer wells being selected to provide a more uniform distribution throughout the state. Since 1943 a number of the early wells have been discarded and new ones added in order to improve the quality of the data obtained from this program. Figure 1 shows the location and distribution of the observation wells in the state contained in this report.

The records of water levels in observation wells have been published annually in the U. S. Geological Survey Water Supply Papers. Previous to 1952, the records of all observation wells in the state appeared in the water

supply papers but since that time only the records of 32 key wells have been published each year. A list of the water supply papers will be found on p. 111 The 32 key wells were selected on the basis of the geographical location, proximity to weather stations, geological conditions, and the length and quality of the available records. Changes in the ground-water levels in the key wells throughout the state for the year are covered in the annual reports. This report summarizes the records of the 32 key wells for their entire period of record and includes the records of other observation wells previously published in the water supply papers. Since all observation well records in the future are to be summarized for publication on a 5 year basis the records of those wells, not included in the 32 key wells, begin with the year 1950 in this report. These records facilitate the study of long range trends in ground water levels by combining the tabulated data in the annual reports.

The water-table, or ground-water level, is the surface of the saturated zone and its elevation not only varies in different localities but it fluctuates in a given area. The water table is not level, as the surface of a lake, but conforms in a general way to the broader features of the land surface and is higher, as a rule, under hills than in valleys. However, on the uplands this level is usually at a greater depth below the surface than it is in the lowlands. The water level may occur at the land surface where there are springs or natural lakes and swamps.

The infiltration of rainfall and melted snow causes the water level to rise, and it is lowered during periods of drought when there is relatively little recharge to ground-water reservoirs. Examples of such changes are shown

in figures 2, 3 and 4, which show fluctuations of water levels in observation wells over a period of years and the relation of these changes to precipitation recorded by nearby climatological stations. In figure 5 is shown the effect of a single rainfall of .75 of an inch on the water level in an observation well in Adams County. Also losses due to transpiration may have an effect on ground water levels. An example of this effect is shown in figure 6, which shows the decline in the water level in an observation well in Montgomery County.

In addition to these natural causes, ground-water levels are affected by the pumping of wells. The ever increasing demand for more water in both rural and suburban areas has resulted at times in withdrawals in excess of natural recharge in some localities and the effect of pumping is an important factor in making hydrologic and hydraulic studies of underground waters. An example of the effect that the pumping of a nearby well has on the water level in an observation well in Indianapolis is shown in figure 7.

The observation well program has a number of objectives, chief among which is to aid in the evaluation of available ground-water supplies. As a long term program it supplies basic information on ground-water conditions and the fluctuations of ground-water levels under varying climatic changes and local environments. The records obtained in the observation well program serve as a guide in the prediction of trends in ground-water levels so that some knowledge may be gained regarding future supplies. These data help in determining the factors that influence ground-water levels and all such data can be used in the study of water supply problems.

In this report observation wells are designated by a two-letter symbol

corresponding to the county name in which the well is located, followed by a number for successive wells. The first observation well in Allen County, for example, is designated as Al-1. Water levels are in feet below land surface datum, unless otherwise indicated. When the water level is above the land surface for some measurements and below at others, a minus and plus sign is used preceding the first entry in each column.

For the past several years, numerous reports regarding a general lowering of the water table in Indiana have been circulated. As a result of the dry periods many shallow wells, especially in the southern part of the state have failed. Such conditions have started rumors, some of which have been exaggerated, that have lead some people to believe that other wells in the state may go dry.

The water levels in much of Indiana have been lowering for the past five years. This situation is not alarming; it has occured before - such as in 1941 and 1944 - and will surely happen again; a natural situation. A period of normal or above normal precipitation causes correspondingly high water levels. The opposite is also true - a dry period is reflected in lower water levels.

A look at the records contained in this report shows that water levels have been on a downward trend since 1950. In that year and for a short time before, the levels in observation wells were relatively high, and a decline from these levels does not necessarily mean that they are below average. During the period, 1951-54, precipitation was less. In 1952, 1953 and 1954 annual precipitation was below normal; 1953 being the lowest in recent years.

Each year since 1950, seasonal recoveries in the fall have been occurring later, often coming during the first part of the following year and not reaching as high a level in some wells as during the previous year.

Toward the close of 1954, however, precipitation in the northern division of the state caused a reversal of water levels to the point that water levels in some observation wells were above average. Precipitation in the central division had raised many levels to about average. The southern division had less precipitation and, although water levels in some localities remained critically low; with indications that the levelling off period was approached.

Above-normal precipitation during the latter part of 1949 reversed many water levels, starting them on an upward seasonal trend. This condition, coupled with the fact that the 1950 precipitation in the state was above normal for all months except March, May, October, and November, caused water levels over practically the entire state to be relatively high. The fact that during 1950, sixty-eight of the one hundred and seventy reporting observation wells reached a new high for the period of record reflects the magnitude of this rise in water levels.

Because of the record-breaking above-normal precipitation in 1950, water levels in 1951 were above average, with many remaining so throughout that year. Precipitation during 1951 was above normal (but below 1950). During the recharge period at the end of the year, precipitation fell on frozen ground with the result that water levels were lower than at the end of the previous year but were still slightly above average. A dry spell in southern

Indiana was relieved by above-normal precipitation in November and December.

By 1952, a downward trend was in evidence. Water levels at the beginning of the year were near average or slightly above. In the central and northern divisions the water levels were close to average throughout most of the year. Moderate to heavy snowfall covered much of northern Indiana in December, but had little effect upon water levels. Declining water levels were noted in southern Indiana due to a rain-fall deficiency which was intensified by very hot temperatures particularly during the month of July. Widespread drought conditions were prevented by scattered rain-fall. Water levels at the end of the year were slow in recovering with many levels in southern Indiana being well below average.

In general, water levels over the entire state continued on a downward trend in 1953. Low levels of 1941 and 1944 were approached and even exceeded in observation wells in some localities. Seasonal recoveries that normally occur during the latter third of the calendar year did not reverse from seasonal downward trends until early 1954. More than one-third of the reporting observation wells reached all-time lows in 1953. This decline is tied in directly with precipitation which was more than eight inches deficient for the state. With very few exceptions, water levels in the southern division of the state remained well below average throughout the year. By the end of the year, water levels in observation wells in this division averaged more than four feet below average. By the end of 1953, water levels over the entire state were below average.

Seasonal recoveries in 1953 were late, but some occurred during the early part of the year 1954. The calendar year 1954 was started with water levels being below average over the entire state. Light precipitation during the first part of the year started slight upward trends in some wells, but, as late as March, seasonal recoveries (recharge) lagged in both magnitude and time with only a few water levels in the southern division showing slight reversals upward. Scattered precipitation in the state was not sufficient to over come the deficiencies realized during the previous two or three years and water levels remained below average. In the northern division heavy precipitation by the first of November brought the water levels in most wells up to or above average. A few wells in the central division were near average by the end of October, but in the southern division water levels declined and remained critically low.

ALLEN COUNTY

Al 3. City of Fort Wayne. Lawton Park, Clinton and E. Fourth Sts. SW¼SW¼ sec. 36, T. 13N., R. 12 E. Drilled unused artesian well in limestone, diameter 8 inches, reported depth 400 feet. Water level below lsd.

	1944		1945		1946	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			25	11.00	26	11.42
Feb			22	10.41	23	11.68
Mar			24	9.32	23	9.88
Apr			28	9.16	27	10.57
May	25	8.88	26	7.84	25	10.16
June	22	9.74	23	9.03	22	10.25
July	27	11.06	28	10.68	27	11.19
Aug	24	11.32	25	11.65	24	12.69
Sept	28	11.49	22	12.10	28	12.38
Oct	26	11.42	27	11.38	26	12.48
Nov	23	11.02	24	11.77	23	12.12
Dec	28	11.05	22	11.85	28	11.38

	1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan	25	12.70	24	10.49	22	8.79
Feb	22	9.98	28	9.57	27	7.58
Mar	22	10.38	27	7.83	19	8.86
Apr	26	8.83	25	8.73	23	9.64
May	24	9.02	22	9.31	28	9.58
June	28	9.67	26	10.91	25	10.55
July	26	10.59	26	11.39	23	11.20
Aug	23	11.42	28	11.95	27	11.83
Sept	27	11.70	25	12.48	10	11.68
Oct	25	11.84	23	12.46	22	11.10
Nov	22	11.67	27	11.67		
Dec	27	11.03	20	11.03		

BLACKFORD COUNTY

Bf 1. John L. and Katherine Wise. NW¼SW¼ sec. 2, T. 24 N., R. 10 E. Dug unused well, diameter 42 inches, depth 18 feet, cribbed with brick. Land-surface datum is 921 feet above msl. Water level below lsd.

	1945		1946		1947	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			26	3.02	25	6.99
Feb			23	3.15	22	5.19
Mar			23	.72	22	5.22
Apr			27	3.12	26	.87
May			25	2.47	24	1.75
June			22	3.02	28	2.50
July			27	3.74	26	3.82
Aug			24	4.64	23	4.70
Sept	27	5.48	28	5.70	27	5.53
Oct	27	5.92	26	6.47	25	6.26
Nov	24	6.14	23	7.27	22	6.88
Dec	22	5.73	28	7.98	27	7.80

	1948		1949	
Month	Day	Meas.	Day	Meas.
Jan	24	5.10	22	1.38
Feb	28	4.92	26	1.08
Mar	27	1.74	26	.86
Apr	24	2.32	23	1.95
May	22	2.39	28	3.46
June	26	3.64	24	4.36
July	24	4.06	23	4.48
Aug	28	4.94	28	5.30
Sept	25	5.71	24	6.02
Oct	23	6.23	22	6.05
Nov	27	5.68	26	6.32
Dec	25	2.69	24	5.05

HOWARD COUNTY

Ho 4. Howard L. and Earl M. Shenk. SW¼SW¼ sec. 24, T. 24 N., R. 4 E. Dug unused well, diameter 42 inches, depth 18 feet. Land-surface datum is 835 feet above msl. Water level below lsd.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			23	4.83	25	15.22	24	6.43	22	1.89
Feb			23	6.21	22	8.94	28	7.78	26	2.79
Mar	28	9.62	24	2.19	28	6.66	27	1.55	26	3.57
Apr	25	5.22	27	5.93	25	2.00	24	3.69	23	5.02
May	23	3.16	25	4.52	24	2.69	22	4.07	28	6.75
June	28	4.28	22	5.10	28	5.26	26	6.32	25	7.80
July	26	6.32	27	7.78	26	7.43	24	7.53	23	8.33
Aug	16	7.48	31	9.70	23	8.80	28	8.85	27	9.90
Sept	19	9.07	28	10.77	27	9.80	25	9.85	27	10.08
Oct	19	8.09	26	12.00	25	10.60	23	11.05	23	9.52
Nov	17	9.07	23	13.69	22	11.34	27	11.92	26	9.13
Dec	3	9.50	28	14.42	27	9.85	24	9.65	24	4.43

KOSCIUSKO COUNTY

Ko 2. State of Indiana. Wawasee State Fish Hatchery. NW¼NW¼ sec. 25, T. 34 N., R. 7 E. Driven unused artesian well in glacial drift, diameter 1½ inches, reported depth 87 feet. Land-surface datum is 865 feet above msl. Water level above lsd.

	1938		1939	
Month	Day	Meas.	Day	Meas.
Jan			15	2.80
Feb				
Mar				
Apr				
May				
June				
July				
Aug				
Sept				
Oct				
Nov	3	2.35		
Dec	1	2.64		

Ko 2. continued.

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan							25	2.50	31	4.73
Feb									15	4.69
Mar									23	5.10
Apr									4	4.83
May					20	3.36	17	2.88	15	5.00
June					15	3.65	17	2.79	18	4.94
July					15	3.23	19	3.00	19	4.96
Aug					17	3.21			19	4.31
Sept					2	3.17	15	3.02	20	4.42
Oct					1	3.19	2	2.98	21	4.52
Nov			5	2.6	14	3.19	2	2.75	16	4.46
Dec									16	4.33

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			26	2.58	25	1.50	24	1.50	22	1.58
Feb			16	2.52	22	1.67	28	1.54	26	2.00
Mar			23	2.69	22	1.58	27	2.21	12	2.08
Apr			27	2.48	26	1.77	24	2.19	23	2.02
May			25	2.67	24	2.21	22	2.20	28	2.03
June			22	2.58	28	2.23	26	2.21	25	2.27
July			20	2.50	26	1.92	24	2.04	23	2.17
Aug			24	2.23	23	1.63	28	1.79	27	2.05
Sept			28	2.04	27	1.48	25	1.51	24	1.85
Oct			26	2.05	24	1.50	23	1.42	22	1.81
Nov			23	1.54	22	1.46	27	1.38	26	1.62
Dec			23	1.46	27	1.58	25	1.35	24	1.54

LAPORTE COUNTY

Lp 2. State of Indiana. Kankakee State Game Preserve. SW¼SE¼ sec. 10, T. 33 N., R. 3 W. Drilled unused well in sand and gravel, diameter 6 inches, reported depth 115 feet. Land-surface datum is 671 feet above msl. Water level below lsd.

	1942		1943		1944		1945	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			15	3.71	15	5.90	15	6.20
Feb			15	3.55	16	6.90	19	6.00
Mar			15	4.14	1	4.90	19	5.40
Apr			30	4.02	30	1.90	15	4.80
May			15	2.74	15	2.90	2	4.40
June			15	2.49	15	4.50	4	4.20
July	23	7.30	15	4.74	1	5.40		
Aug	15	7.17	16	5.23	15	6.80	8	6.82
Sept	15	7.64	30	5.63	16	4.85	28	5.40
Oct	31	6.06	15	5.93	1	6.90	28	5.40
Nov	15	6.44	1	5.87	15	5.70	28	5.20
Dec	31	4.27			15	6.30	14	5.40

	1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	30	4.90	23	5.45	23	5.07	8	5.69
Feb	26	4.60	28	5.29	27	4.50	26	3.70
Mar			28	5.07	26	2.90	26	4.34
Apr			25	3.15	23	3.20	29	4.98
May			23	3.29	21	2.90	28	5.66
June			27	4.14	25	4.90	25	5.80
July			25	5.68	23	5.70	23	6.65
Aug			22	6.60	27	6.60	27	6.80
Sept	27	7.05	26	5.98	17	7.00	24	6.62
Oct	25	7.03	24	6.55	23	7.05	22	6.46
Nov	22	6.30	28	5.60	27	6.66	26	6.12
Dec	20	5.87	26	5.40	25	6.28	24	5.01

PULASKI COUNTY

Pu 1. State of Indiana. Jasper-Pulaski State Game Preserve. SW¼NE¼ sec. 18, T. 31 N., R. 4 W. Drilled unused artesian well in rock, diameter 4 inches, reported depth 149 feet, cased to 60 feet. Land-surface datum is 706 feet above msl. Water level below lsd.

	1935		1936		1937		1938		1939	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			16	11.94	16	10.63	14	10.20	30	8.79
Feb					16	10.43	28	9.11	15	7.96
Mar					15	11.21			31	7.49
Apr					15	9.92			29	7.39
May					15	10.13	30	9.92	30	8.09
June					15	10.18	16	9.22	29	8.17
July					30	10.58	16	9.69	30	9.01
Aug					21	10.91	31	9.79	25	9.72
Sept					14	11.01	30	9.19	30	10.02
Oct					20	10.69	31	9.29	16	10.34
Nov					15	10.57	30	9.19	30	10.49
Dec	16	11.99	2	11.45	14	10.16	31	9.39	14	10.02

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	15	10.29	15	8.09	21	8.18				
Feb	15	10.09	28	8.07	5	7.59				
Mar	14	9.49	15	7.77						
Apr	16	9.04	15	7.68	30	6.67				
May	31	7.65	19	8.88					27	6.13
June	15	7.49								
July	15	8.72	25	8.54						
Aug	31	9.69	16	9.29					1	8.79
Sept	30	10.09								
Oct	30	9.47	16	9.68						
Nov	18	8.99	29	8.28					2	10.05
Dec	17	8.69	16	8.14						

Pu 1, continued.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			28	7.14	27	7.85	27	8.44	24	7.08
Feb			25	6.60	24	7.83	23	8.55	21	6.34
Mar			25	6.21	24	7.54	22	7.27	22	6.18
Apr			22	6.85	28	6.65	26	6.69	29	6.48
May			27	6.45	27	6.10	24	6.14	23	6.59
June			10	7.04	23	6.34	28	6.32	27	6.13
July			22	8.05	28	7.75	26	7.28	11	6.98
Aug	27	8.47	26	9.29	25	8.66	23	8.13	22	8.40
Sept	24	8.73	23	9.60	30	9.11	27	9.17	26	9.34
Oct	22	7.99	28	10.08	27	9.19	18	9.45	24	9.14
Nov	26	7.72	25	8.76	24	8.66	23	8.90	28	9.02
Dec	24	7.54	30	8.51	22	8.24	27	8.38	26	7.52

ST. JOSEPH COUNTY

Sj 1. City of Mishawaka. Mishawaka Water and Light Dept. Virgil and Lindon Sts. SW¼SW¼ sec. 11, T. 37 N., R. 3 E. Driven unused well in sand, diameter 1¼ inches, depth 40 feet. Nearby well being pumped. Water level below lsd.

	1935		1936		1937		1938		1939	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			16	9.16	16	9.41	17	9.42	16	11.16
Feb			17	10.71	18	8.75	14	8.79	14	9.18
Mar			17	9.21	16	10.09	16	8.81	16	7.34
Apr			16	9.28	16	8.83	15	8.15	15	8.42
May			16	9.75	17	9.50	16	8.75	15	9.18
June			19	10.79	17	8.67	2	7.84	16	10.45
July			17	13.33	16	7.90	16	8.34	15	9.75
Aug			17	12.00	16	9.52	16	10.58	22	8.58
Sept			15	11.17	16	11.32	15	10.75	16	11.68
Oct	16	10.35	16	10.41	1	11.67	15	10.50	16	10.92
Nov	16	9.04	2	10.08	16	9.59	15	11.58	16	10.50
Dec	17	9.26	16	10.16	15	10.75	17	11.25	16	9.92

Sj 1, continued.

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	16	9.50	16	10.16	16	9.68	16	8.00	17	8.57
Feb	15	10.00	15	11.24	15	8.15	18	11.18	1	8.92
Mar	16	10.43	17	9.25	16	7.31	16	7.42	16	6.06
Apr	15	8.46	15	10.34	15	7.84	15	7.50	15	6.08
May	16	10.17	16	11.75	16	9.92	25	4.46	16	6.84
June	17	8.58	16	12.35	15	9.42	15	7.34	15	11.83
July	16	9.19	15	13.56	1	10.66	15	9.68	15	11.24
Aug	16	11.76	16	13.59	15	9.75	16	9.75	16	12.75
Sept	15	10.35	15	12.01	15	9.92	15	9.16	16	12.31
Oct	16	11.07	16	11.02	16	9.58	15	9.42	16	11.08
Nov	15	10.59	16	9.02	16	9.00	15	9.42	15	9.75
Dec	16	10.05	16	9.76	16	9.75	16	9.33	16	9.83

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	16	11.51	16	8.17	31	10.16	17	10.34	15	10.17
Feb	15	9.66	15	8.75	14	9.67	15	11.08	15	10.00
Mar	26	9.82	15	7.63	15	10.25	15	9.75	16	8.92
Apr	15	10.00	15	8.92	15	4.70	18	9.67	16	9.84
May	16	9.00	16	10.50	16	7.17	31	9.67	16	11.66
June	15	10.08	15	11.42	16	6.92	15	10.58	16	12.25
July	31	10.66	15	13.58	16	12.00	16	11.57	16	10.00
Aug	16	10.25	15	13.00	16	12.33	8	10.50	16	11.90
Sept	15	10.58	16	13.50	30	11.08	15	12.84	16	11.17
Oct	15	8.42	16	11.17	16	10.98	15	11.58	16	11.50
Nov	15	10.42	15	11.16	15	9.66	15	11.32	15	10.75
Dec	15	10.59	16	9.68	16	9.17	31	9.75	16	11.00

TIPPECANOE COUNTY

Tc 7. State of Indiana. Purdue University. Purdue Research Housing Project. SE¼SE¼ sec. 13, T. 23 N., R. 5 W. Drilled unused well, diameter 8 inches, depth 207 feet. Land-surface datum is 679 feet above msl. Water level is below lsd.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			5	165.38	27	166.00	25	165.65	25	165.34
Feb					25	165.81	25	165.49	25	164.14
Mar			25	164.54	25	165.80	25	165.28	25	163.40
Apr			25	164.48	25	165.66	25	164.42	25	163.41
May			25	164.67	25	164.91	25	164.21	25	163.61
June			24	164.92	9	164.82	25	164.29	25	163.53
July			25	165.14	25	164.43	25	164.52	25	163.97
Aug	24	165.62	25	165.42	25	164.72	25	164.72	25	164.27
Sept	21	165.95	24	165.65	25	165.16	25	165.14	25	164.46
Oct	26	165.69	21	165.91	25	165.43	25	165.36	25	164.80
Nov	23	165.54	25	165.88	25	165.61	25	165.49	25	164.64
Dec	21	165.58	25	166.16	25	165.74	25	165.72	25	164.84

STEUBEN COUNTY

Sb 1. State of Indiana. Pokagon State Park. SE¼NE¼ sec. 33, T. 38 N., R. 13 E. Driven unused artesian well in gravel, diameter 1½ inches, depth 14 feet. Land-surface datum is 1004 feet above msl. Water level above and below lsd.

	1935		1936		1937		1938		1939	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan					5	3.53				
Feb					15	3.08				
Mar					1	3.21			21	2.00
Apr					1	2.86			15	1.35
May					1	1.95			31	3.25
June					16	3.16				
July									31	4.05
Aug									31	4.65
Sept	16	6.25							30	5.50
Oct							19	3.88	30	5.40
Nov			4	3.60			14	4.19	30	5.40
Dec									30	5.50

Sb 1, continued.

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	30	5.15	15	3.20	31	3.50	16	+0.40	31	2.20
Feb			28	3.70	16	3.25	1	0.40	28	1.40
Mar	30	3.60	31	3.00	31	1.90	15	0.10	15	0.15
Apr	15	3.00	30	3.50			1	0.00	15	+0.15
May	31	3.10	26	2.30	2	2.55	15	1.50	17	0.20
June	15	3.20	30	2.00	16	2.85	15	+0.60	15	0.60
July	15	4.10	15	5.00	31	3.85	15	0.10	28	2.30
Aug	31	3.10	1	5.30	31	2.95	19	1.45	28	3.00
Sept	30	4.60	30	4.90	30	3.30	15	1.00	28	3.55
Oct	31	4.70			31	3.15	15	1.50	28	3.70
Nov	30	4.10	14	4.20	30	2.70	15	1.25	28	3.55
Dec	31	2.70	31	6.20	15	3.15	1	1.60	28	3.70

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	29	3.75	26	1.70	25	2.40	31	2.08	22	0.82
Feb	28	1.90	23	1.40	22	2.20	25	0.93	26	0.15
Mar	28	1.10	23	0.60	22	2.20	27	+0.33	26	0.46
Apr	28	0.65	27	1.40	26	+0.44	24	0.34	23	0.27
May	28	0.10	25	1.50	24	+0.31	22	0.24	28	0.68
June	28	0.70	22	2.10	21	0.29	26	1.27	25	0.26
July	28	1.80	27	3.00	26	1.54	24	2.10	24	1.74
Aug	25	2.50	31	3.90	30	1.64	28	2.52	27	2.98
Sept	28	3.10	28	4.40	27	2.59	25	3.99	24	3.50
Oct	13	1.90	26	4.60	25	3.19	30	4.25	22	2.52
Nov	24	2.18	23	4.00	25	2.60	27	3.62	26	2.82
Dec	26	2.10	28	3.40	27	1.65	25	3.03	24	0.97

FOUNTAIN COUNTY

Fo 1. Merchants and Farmers Telephone Co. Hillsboro. SE¼NW¼ sec. 12, T. 19 N., R. 7 W. Drilled unused well in rock, diameter 4 inches, depth 59 feet. Land-surface datum is 708 feet above msl. Water level below lsd.

	1944		1945		1946	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			24	42.29	23	40.17
Feb			21	42.20	25	39.36
Mar			28	42.15	27	39.45
Apr			25	41.14	17	39.69
May	26	40.68	23	40.57	28	39.23
June	28	39.51	26	39.96	25	37.49
July	26	40.98	24	40.55	23	38.94
Aug	23	41.76	21	40.09	29	40.30
Sept	27	42.12	27	41.21	17	40.74
Oct	25	42.11	24	40.47	22	41.10
Nov	24	42.19	28	40.84	26	41.30
Dec	27	42.06	26	41.05	24	41.45

	1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan	23	41.50	28	41.60	25	35.75
Feb	25	41.68	24	41.99	22	37.86
Mar	26	41.88	25	41.29	22	38.30
Apr	22	41.70	27	38.71	26	38.82
May	27	40.14	25	38.74	24	39.24
June	25	39.82	23	39.75	22	39.12
July	24	40.68	27	38.72	26	39.45
Aug	28	41.24	24	40.10	23	40.28
Sept	23	41.37	28	40.92	27	40.45
Oct	28	41.82	26	40.86	25	39.45
Nov	25	41.74	23	40.28	22	39.82
Dec	23	41.87	28	41.17	24	40.37

HENDRICKS COUNTY

Hd 1. Brocia A. and Anna M. Smith. SW¼SW¼ sec. 14, T. 14 N., R. 1 W. Drilled unused well, diameter 4 inches, depth 46 feet. Land-surface datum is 842 feet below msl. Water level below lsd.

	1944		1945		1946	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			22	8.36	28	3.07
Feb	25	5.35	26	7.67	25	1.98
Mar	27	1.70	26	2.82	25	.10
Apr	10	.38	23	1.70	22	3.02
May	29	.60	28	1.59	27	.98
June	26	3.40	25	1.40	24	3.70
July	24	5.10	22	4.00	22	5.22
Aug	28	6.22	27	5.59	26	6.43
Sept	25	7.45	24	6.34	23	7.08
Oct	23	7.46	29	5.29	28	7.90
Nov	27	7.81	26	4.29	25	8.08
Dec	25	8.24	24	4.65	23	7.25

	1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan	27	3.80	26	4.52	24	1.14
Feb	24	4.30	23	5.50	28	1.07
Mar	24	4.43	23	1.16	28	1.10
Apr	28	.95	26	1.77	25	2.49
May	19	2.18	24	2.91	23	3.75
June	23	1.78	28	4.88	27	4.37
July	28	4.34	26	5.45	25	5.50
Aug	25	4.89	23	6.35	22	6.40
Sept	23	5.50	27	7.26	26	6.98
Oct			24	7.67	24	6.60
Nov			29	5.50	28	6.98
Dec	22	6.90	27	3.75	26	5.60

MARION COUNTY

Ma 2. Indiana National Bank. 130 East Washington St., Indianapolis. SW¼SW¼ sec. 1, T. 15 N., R. 3 E. Drilled unused well in gravel, diameter 8 inches, depth 90 feet. Land-surface datum is 712.27 feet above msl. Nearby well being pumped. Water level below lsd.

	1935		1936		1937		1938		1939	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			18	46.40			25	47.41	25	47.91
Feb							24	46.50	23	47.56
Mar							22	46.86	28	47.81
Apr							27	47.77	26	48.33
May							24	48.67	23	49.90
June							28	51.09	26	54.99
July							26	54.05	25	56.48
Aug							23	55.11	29	56.51
Sept							27	54.51	26	57.21
Oct	31	47.00					25	52.02	24	57.03
Nov	30	47.20					25	51.30	29	51.25
Dec	16	46.80			22	49.40	28	49.34	25	50.71

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	25	49.28	23	54.64	26	54.60	25	53.79	25	53.52
Feb	25	48.80	25	53.77	24	53.02	25	53.18	25	53.18
Mar	25	48.93	26	53.92	28	52.63	25	52.62	25	53.03
Apr	22	50.02	25	55.45	25	53.86	27	53.09	25	52.65
May	25	52.98	26	60.90	23	55.95	25	54.89	25	57.12
June	25	57.85	23	64.17	27	61.01	25	61.14	25	62.36
July	25	60.68	28	67.99	25	64.79	25	63.91	25	65.97
Aug	12	62.16	25	69.86	26	65.65	25	66.10	25	68.39
Sept	25	61.73	25	70.53	26	64.31	25	62.11	25	66.83
Oct	25	59.90	23	66.54	24	60.42	25	58.95	25	62.66
Nov	25	57.57	24	60.83	28	54.68	25	56.04	25	60.12
Dec	24	56.27	22	58.02	26	55.00	25	54.50	25	58.11

Ma 2, continued.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	25	56.63	21	52.67	25	52.83	25	51.54	25	48.98
Feb	25	56.00	25	51.24	25	51.96	25	50.12	25	47.05
Mar	25	56.55	25	51.34	25	51.40	25	50.10	25	45.71
Apr	25	56.82	22	51.65	25	52.49	25	50.42	25	45.62
May	25	56.54	25	52.47	25	54.20	25	51.21	25	48.57
June	25	60.70	25	56.48	25	55.65	25	54.90	25	51.58
July	25	64.03	25	59.65	25	57.79	26	57.81	25	54.77
Aug	25	64.76	25	61.30	25	60.82	25	59.03	25	56.00
Sept	25	63.49	25	60.85	25	62.32	25	58.91	25	53.24
Oct	25	58.89	25	58.66	25	59.22	25	54.09	25	51.44
Nov	25	56.31	25	55.67	25	55.04	25	51.99	25	48.46
Dec	25	54.04	25	54.02	25	53.34	25	50.71	25	47.33

Ma 10. Federal Building. Meridian and Ohio Sts., Indianapolis. SW¼SW¼ sec. 1, T. 15 N., R. 3 E. Drilled unused artesian well in limestone, diameter 8 inches, reported depth 304 feet. Land-surface datum is 717.51 feet above msl. Nearby well being pumped. Water level below lsd.

	1939		1940		1941		1942		1943	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			23	41.39	28	46.24	23	46.07	25	56.66
Feb			13	40.64	25	46.37	11	44.88	27	56.15
Mar			26	41.22	26	46.28	28	45.97	27	56.31
Apr			23	43.52	21	47.95	25	46.55	24	56.21
May			21	44.98	27	52.43	23	48.76	22	57.83
June			14	51.12	24	56.31	27	55.27	21	63.96
July			20	52.71	22	58.87	25	57.63	26	65.94
Aug	29	49.60	26	53.73	29	60.78	22	57.99	23	66.60
Sept	26	48.13	25	51.85	16	60.73	26	54.06	27	62.17
Oct	24	44.80	23	50.59	24	55.82	24	51.54	25	60.52
Nov	29	43.46	27	48.73	28	50.09	28	48.27	22	58.77
Dec	20	43.22	31	47.31	26	48.19	28	47.64	27	57.28

Ia 10, continued.

	1944		1945		1946	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan	24	56.76	29	60.69	28	56.87
Feb	28	56.32	26	59.09	25	54.62
Mar	27	56.40	26	63.17	25	55.76
Apr	24	56.05	23	59.96	22	56.39
May	22	60.01	28	59.83	27	58.71
June	26	65.96	25	64.40	24	61.54
July	24	67.98	23	67.08	22	63.70
Aug	28	68.28	27	66.34	26	65.67
Sept	25	68.28	24	66.16	23	64.93
Oct	23	65.04	22	61.74	28	61.82
Nov	27	63.11	26	59.96	25	59.97
Dec	23	61.45	26	57.86	23	58.77

	1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan	27	58.02	26	55.63	24	54.34
Feb	24	55.92	24	54.84	22	53.00
Mar	24	56.16	22	54.87	28	52.02
Apr	28	57.14	26	55.57	25	51.94
May	26	59.87	24	57.15	23	55.28
June	23	61.49	28	59.37	27	58.13
July	28	63.19	26	60.45	25	61.13
Aug	25	65.51	23	62.87	22	61.74
Sept	22	64.94	27	62.14	26	58.17
Oct	27	62.52	25	58.40	24	56.40
Nov	17	60.73	22	57.14	28	53.35
Dec	22	57.89	27	55.56	27	51.87

Ma 28. Manuel W. Rabourn. SW¼NW¼ sec. 17, T. 14 N., R. 5 E. Dug unused well in glacial drift, diameter 42 inches, depth 24 feet, cribbed with brick. Land-surface datum is 819 feet above msl. Water level below lsd.

	1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			25	10.47	25	2.83
Feb			25	10.80	25	4.59
Mar			25	4.27	25	4.90
Apr			25	5.28	25	8.10
May			25	7.52	25	9.82
June			25	10.37	25	10.92
July			25	11.70	25	11.91
Aug	25	11.68	25	12.46	25	12.28
Sept	25	11.44	25	13.01	25	12.53
Oct	25	11.86	25	13.20	28	12.29
Nov	25	12.07	25	10.99	25	12.16
Dec	25	12.21	25	9.68	25	11.99

MADISON COUNTY

Md 7. State of Indiana. Mounds State Park. SE¼SW¼ sec. 16 T. 19 N., R. 8 E. Driven unused well, diameter 1¼ inches, depth 18.5 feet. Water level below lsd.

	1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	15	2.51			26	4.36	24	1.80
Feb	15	2.65			17	4.62	28	.50
Mar	1	1.98			15	3.82	25	2.00
Apr			28	2.64	19	0.00	18	1.75
May			21	1.30	24	1.06	23	3.00
June			9	0.51	14	2.60	27	3.79
July			28	1.30	6	2.99	25	4.06
Aug	7	13.9					22	4.92
Sept			23	3.72	27	4.64	26	5.79
Oct					24	6.27	24	6.37
Nov					22	6.48	28	6.89
Dec					27	6.17	26	7.20

MONTGOMERY COUNTY

My 1. Byron Banta. NE¼NW¼ sec. 36, T. 17 N., R. 6 W. Dug unused well in glacial drift, diameter 36 inches, depth 18 feet, cribbed with brick. Land-surface datum is 770 feet above msl. Water level below lsd.

	1935		1936		1937		1938		1939	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			4	13.64	15	6.28	22	11.53	31	8.66
Feb			19	12.22	16	8.45	16	10.10	16	8.74
Mar			17	9.82	15	9.65	14	7.47	15	6.91
Apr			16	10.24	15	7.79	29	9.95	15	9.62
May			15	9.70	18	9.54	28	10.39	31	11.88
June			15	12.60	15	10.55	29	9.68	15	11.78
July			15	13.90	16	9.90			31	12.28
Aug			17	15.39	20	13.00	31	11.74	17	12.35
Sept			15	15.67	1	13.37	30	13.40	22	14.71
Oct	15	14.80	15	12.34	18	13.40	17	14.18	16	15.73
Nov	15	13.13	17	10.66	18	12.60	15	14.61	19	16.25
Dec	16	13.54	31	9.37	16	9.94	15	12.86	21	16.40

	1940		1941		1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	15	16.33	31	13.95	14	11.40	15	6.90	31	12.85
Feb	20	15.66	28	13.20	13	8.37	1	9.40	28	8.50
Mar	16	12.78	31	12.97	6	12.09	14	10.41	30	8.42
Apr	30	9.44	28	11.47	20	9.12	16	7.46	15	6.00
May	17	9.91	14	11.36	22	8.15	1	8.50	21	8.42
June	14	9.72	29	9.96	24	9.09	15	9.10	30	11.42
July	24	13.80			31	11.41	28	10.81	28	11.79
Aug	28	15.63			15	13.05	31	12 43	28	11.92
Sept	25	16.02			30	15.05	15	13.45	25	12.50
Oct	29	15.62	16	14.80	31	15.69	15	13.50	25	12.62
Nov	26	15.75	24	9.55			30	12.50	29	11.81
Dec	30	14.60	18	11.80	15	13.80	31	12.85	25	11.89

My 1, continued.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	25	12.28	25	8.13	21	8.49	23	10.88	25	6.12
Feb	25	10.33	25	6.82	27	9.65	25	11.50	25	7.06
Mar	25	7.21	25	6.90	25	7.50	25	5.69	25	8.63
Apr	25	7.43	25	9.34	26	5.79	25	8.23	25	8.90
May	25	7.08	25	6.65	25	5.76	25	8.73	25	9.95
June	25	6.86	25	7.11	25	7.64	25	11.25	25	10.68
July	25	11.77	22	10.14	25	10.33	25	11.46	25	11.56
Aug	25	10.56	25	11.34	25	11.87	25	11.71	25	12.09
Sept	25	10.97	25	12.78	27	11.48	25	12.60	25	12.70
Oct	26	8.65	25	12.89	25	13.00	25	11.53	25	10.75
Nov	25	6.50	25	11.64	25	12.13	25	9.37	25	10.25
Dec	25	9.15	20	10.23	25	11.72	25	8.74	25	7.10

MORGAN COUNTY

Mg 3. State of Indiana. Morgan-Monroe State Forest. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 27, T. 11 N., R. 1 E. Drilled unused artesian well in rock, diameter 8 inches, depth 45 feet. Land-surface datum is 670 feet above msl. Water level below lsd.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			29	6.68	22	3.72	27	4.45	25	2.82
Feb			26	5.10	25	3.00	3	4.62	22	2.85
Mar			27	3.86	25	3.75	24	2.89	22	2.90
Apr			24	6.00	29	3.82	13	3.10	26	6.38
May			28	4.20	27	3.78	25	3.98	24	5.82
June			25	7.75	24	3.91	22	3.86	28	6.10
July			23	4.65	29	4.08	27	3.40	26	6.95
Aug	28	5.70	27	5.32	26	4.14	24	4.45	23	7.09
Sept	25	8.40	24	6.40	23	3.92	28	5.68	27	6.70
Oct	23	7.75	22	8.07	28	4.36	25	4.57	25	6.03
Nov	27	6.30	26	3.65	18	4.55	23	3.10	22	6.90
Dec	11	6.81	31	3.85	30	4.15	28	2.87	27	5.80

OWEN COUNTY

Ow 5. David R. Bronson. NW¼NE¼ sec. 30, T. 12 N., R. 4 W. Dug unused well, diameter 26 inches, depth 19 feet, cribbed with stone. Water level below lsd.

	1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			26	2.66	24	6.32	23	2.67
Feb			22	3.94	28	3.78	26	1.93
Mar			29	2.98	27	1.54	26	1.99
Apr			26	1.66	24	4.59	23	5.23
May			25	1.95	22	3.23	28	8.96
June	29	6.98	28	3.54	26	7.82	25	8.97
July	27	12.58	26	7.36	24	10.45	23	9.96
Aug	24	11.80	23	9.25	28	9.53	27	9.85
Sept	28	11.78	27	9.85	24	10.07	24	8.08
Oct	26	12.08	25	10.53	23	10.74	22	8.97
Nov	23	12.46	22	10.86	27	3.37	26	8.97
Dec	28	10.57	27	12.16	25	3.46	24	4.37

RANDOLPH COUNTY

Ra 1. Artie V. Keys SE¼NE¼ sec. 26, T. 20 N., R. 14 E. Drilled domestic artesian well in limestone, diameter 4 inches, depth 157 feet, cased to 148 feet. Water level below lsd.

	1942		1943		1944	
Month	Day	Meas.	Day	Meas.	Day	Meas.
Jan			15	14.11	31	17.33
Feb	16	9.19	15	13.62	29	16.23
Mar	16	7.64	15	14.04	31	13.15
Apr	16	6.97	15	13.76	30	13.09
May	15	8.50	15	12.87	31	14.36
June	15	8.79	15	13.78	30	15.35
July	15	10.43	15	14.84	31	16.30
Aug	15	9.65	15	15.70	31	16.88
Sept	15	9.90	15	16.19	30	17.54
Oct	15	10.00	15	16.71	31	17.89
Nov	15	10.75	15	16.92	30	17.94
Dec	15	10.05	15	17.17	31	18.12

Ra 1, continued.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan	31	18.43	15	13.24	31	14.01	31	14.69	31	12.08
Feb	28	16.55	28	13.47	28	14.63	29	13.87	28	12.85
Mar	31	14.00	31	12.77	31	13.65	31	12.66	31	12.51
Apr	30	13.34	30	14.32	30	12.41	30	13.79	30	13.37
May	31	13.95	31	13.17	31	13.15	31	14.47	30	14.07
June	30	13.50	30	14.12	30	14.16	30	14.61	30	13.74
July	31	14.90	31	15.17	31	14.85	31	15.24	31	14.34
Aug	31	15.70	31	16.37	31	15.45	31	16.24	31	15.51
Sept	30	15.84	30	17.17	30	15.97	30	16.67	30	16.08
Oct	31	15.29	31	17.56	31	15.91	31	16.41	31	15.89
Nov	30	14.37	30	17.50	30	16.02	30	13.15	30	16.35
Dec	31	13.71	31	16.61	31	15.42	31	13.17	31	15.55

WAYNE COUNTY

We 1. C. E. Rodenberg. Pershing. NW¼NE¼ sec. 25, T. 16 N., R. 12 E. Dug unused well in gravel, diameter 42 inches, depth 33 feet, cribbed with brick. Land-surface datum is 957 feet above msl. Water level below lsd.

	1945		1946		1947		1948		1949	
Month	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.	Day	Meas.
Jan			28	29.87	27	31.43	26	31.02	27	27.80
Feb			25	29.28	18	30.88	23	30.60	21	26.27
Mar			26	28.95	24	30.50	23	30.47	28	26.68
Apr			23	28.79	28	30.06	26	27.80	25	26.58
May			27	29.07	28	27.94	24	27.95	24	27.66
June			25	28.83	23	25.94	14	28.45	27	28.64
July	11	28.05	8	28.97	7	26.42			24	29.55
Aug	27	29.17	26	29.69	25	28.20	23	30.15	22	30.00
Sept	24	29.78	23	30.26	29	29.24	27	30.81	19	30.45
Oct	22	29.80	31	30.86	28	29.93	19	31.10	26	30.50
Nov	26	30.23	25	31.17	9	30.20	22	31.18	22	31.09
Dec	26	30.47	23	31.37	22	30.97	22	31.19	28	31.32