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**J. A. Krug, Secretary**

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**W. E. Wrather, Director**

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**Water-Supply Paper 988**

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**WATER LEVELS AND ARTESIAN PRESSURE  
IN OBSERVATION WELLS IN THE  
UNITED STATES IN 1943**

**PART 3. NORTH-CENTRAL STATES**

**BY**

**O. E. MEINZER, L. K. WENZEL**

**and others**

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**Prepared in cooperation with the States of**

**ILLINOIS, IOWA, KANSAS, MINNESOTA, MISSOURI, NEBRASKA**

**NORTH DAKOTA, SOUTH DAKOTA, and WISCONSIN**

**and other agencies**



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# WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES IN 1943

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## Part 3. NORTH-CENTRAL STATES

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### INTRODUCTION

By O. E. Meinzer and L. K. Wenzel

#### Significance of records of water level and artesian pressure

The rock formations of the earth are great natural underground reservoirs in which a part of the water derived from rain and snow is stored to supply wells and springs to maintain the flow of streams during periods of fair weather. Water levels in wells register the stages of these natural reservoirs; they show the extent to which water supplies are depleted by drought or by heavy pumping, whether for public waterworks, irrigation, or industrial uses, and the extent to which they are replenished in seasons of abundant rainfall or melting snow. The changes in pressure recorded on flowing wells indicate depletion or replenishment of the artesian reservoirs.

#### Annual publication of records by Geological Survey

The regular publication of records of water level and artesian pressure in the United States was begun by the Geological Survey in 1935 and has continued yearly since. The records for the entire country were published in a single volume each year through 1939. Beginning with 1940 the records have been published in six volumes, covering the northeastern, southeastern, north-central, south-central, northwestern, and southwestern sections of the country. Hawaii is included in the southwestern section. (See fig. 1.) The following table gives the numbers of these reports. This series of water-supply papers is in a sense an inventory, year by year, of the ground-water supplies of such parts of the country as have been covered.

Water-supply papers on water levels and artesian pressure in observation wells in the United States

Year	North-eastern States	South-eastern States	North-central States	South-central States	North-western States	South-western States and Hawaii
1935	777	777	777	777	777	777
1936	817	817	817	817	817	817
1937	840	840	840	840	840	840
1938	845	845	845	845	845	845
1939	886	886	886	886	886	886
1940	906	907	908	909	910	911
1941	936	937	938	939	940	941
1942	944	945	946	947	948	949
1943	986	987	988	989	990	991

## Scope of present volume

The present volume covers the north-central States and gives records of water level and artesian pressure in about 1,315 observation wells of the Geological Survey and cooperating agencies in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin. Of these wells, 31 are equipped with automatic water-stage recorders. For some wells not previously reported complete records of water level are given in this volume, including those for the years before 1943. For wells whose previous records have been published this volume gives only the current records. If a complete description of a well has been published in a previous report, only the well number or the well number and a brief identifying description are given in this report. The numbers in parentheses immediately following a well number are those of the water-supply papers in which earlier records of that well are given and the pages on which they appear. An asterisk indicates that a description of the well is given in the paper whose number is so marked. This report includes about 16,980 individual determinations of water level and artesian pressure.

## Land-surface datum

Hitherto, in Geological Survey reports, the water levels and artesian pressures for some wells have been given in feet above or below the measuring points and for other wells in feet above or below sea level or above or below various assumed datum planes. It was considered inadvisable to adopt a standard procedure in expressing water levels and artesian heads until after a period of trial with datum planes of different kinds. The time has now come, however, for the adoption of a uniform practice as to

datum in making the records to be published in the annual water-level reports. It has become evident that the water levels, in each well should be expressed with reference to a permanent datum plane established for that well in order to preserve the continuity of the record if the measuring point is changed. The chief objection to the use of datum planes other than land surface has

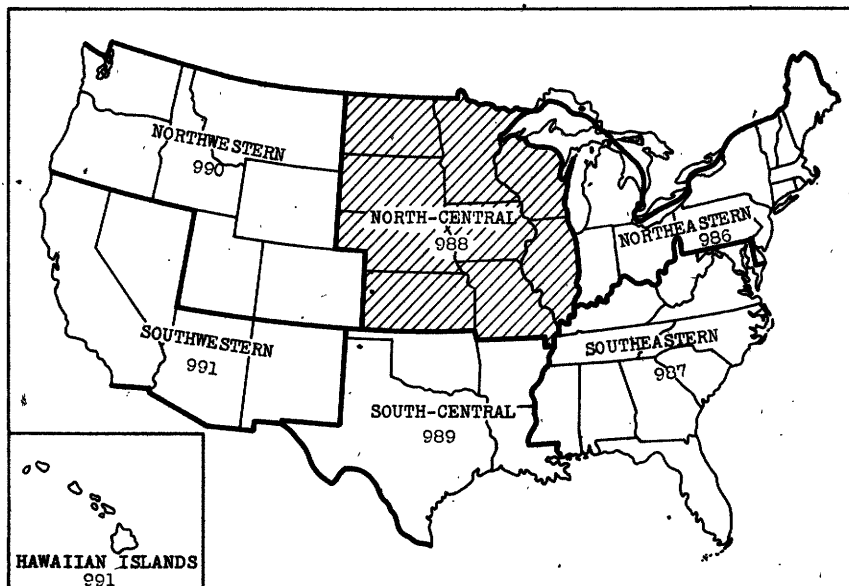


Figure 1.--Outline map of the United States showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1943. The shaded section represents the part of the country covered by this volume.

been that the significance of the water level with respect to the land surface is thereby concealed. It appears, however, that this objection can be overcome by using a precise datum plane that approximates the land surface.

The adoption of land-surface datum planes as the standard to be used in expressing water levels and artesian heads will not prevent the use of other datum planes for the summary tables and for maps and graphs in the annual water-level reports or in other reports. The use of the sea-level datum and the 10-foot datum planes are to be encouraged for purposes of study and interpretation, but the land-surface datum planes will be used exclusively for publishing original records. Bench marks must be established, as heretofore,

near each observation well to prevent the loss of the precise record if the measuring point or the well itself is destroyed. New data as to the positions of the measuring point and of the bench marks, in feet above or below land-surface datum plane, will be published in the appropriate annual reports.

In accordance with the above, the water levels and artesian heads for all wells listed in this report are given in reference to land-surface datum planes. If the water levels or artesian heads are referred to land-surface datum for the first time, a conversion factor is given in the descriptive matter preceding them in order to facilitate comparison of the older and newer records. Wherever the conversion factor is given in the report for 1942, it is not repeated in this report.

#### Network of key observation wells

During 1942 the Geological Survey established a network of key observation wells in order to make available current information on general ground-water conditions over the country. These wells were selected because the fluctuations of water level in them are believed to be typical, and they represent the general fluctuations that occur in the parts of the country in which the wells are situated. At the end of 1942 the network included about 130 wells in 40 States. About 40 of the wells were established expressly for the network in 1942; the other 90 were selected from wells measured regularly in connection with cooperative ground-water investigations. The coverage of the country is still far from adequate, and it is expected that some wells not now included will be added to the network from time to time.

#### General summary of changes in ground-water level in 1943 in the north-central part of the United States

In 1943 the precipitation in Kansas, Missouri, Nebraska, South Dakota, and Wisconsin was below normal, but it was above normal in Illinois, Iowa, Minnesota, and North Dakota. The fluctuations of both water level and artesian pressure in wells depend, however, on many factors besides the amount of precipitation. In certain of the observation wells there are fluctuations caused by differences in the rate of pumping or artesian flow from other wells in the area, but most of the observation wells are not noticeably affected by pumping or artesian flow.

## Acknowledgments

Acknowledgments for effective services in the preparation of this water-supply paper are due Misses Dorothy M. Ireland, Nauvoo Morris, and Gladys A. Case; Mrs. Susan H. Washburn, and Mrs. Bertha K. Dale. Miss Ireland had general charge of the assembling and typing of the several reports; Mrs. Washburn edited all of the reports; and Mrs. Bertha K. Dale prepared the illustrations.

# ILLINOIS

By H. Garland Hershey

## PROGRAM OF WORK

Measurements of water level were continued in 1943 in the one well in Illinois on the Nation-wide network of observation wells maintained by the Geological Survey, United States Department of the Interior. This well is at Princeton, Bureau County. It is equipped with a float-tape gage and was first observed in November 1942. During 1943 a total of 51 observations were made at a rate of about one each week.

## FLUCTUATIONS OF WATER LEVEL

There was considerable fluctuation of the water level in the well at Princeton during 1943. By January 2 it had risen 5.2 feet above its stage on December 26, 1942, and from then until May 15 its general trend was upward. After May 15 began a gradual decline, which continued until the end of the year, when the water level was 3.9 feet below its stage at the end of the preceding year.

## WATER-LEVEL MEASUREMENTS

### Bureau County

R. E. Neff (\*946, p. 10). In Princeton, in sec. 9, T. 16 N., R. 9 W. Measuring point is 0.2 foot above land-surface datum. Equipped with float-tape gage. Measurements made by Nick Hansen.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.42	Apr. 3	9.53	July 8	11.16	Oct. 23	18.41
9	9.98	10	8.93	10	11.62	30	18.51
16	10.63	17	9.62	17	12.63	Nov. 6	18.38
23	10.98	24	8.97	31	13.52	13	18.63
30	11.22	May 1	4.72	Aug. 7	14.39	20	18.52
Feb. 6	7.16	8	5.03	14	14.76	27	18.44
13	8.55	15	2.94	21	14.77	Dec. 2	18.52
20	8.44	22	3.93	28	14.92	4	18.52
27	9.04	29	5.73	Sept. 11	14.92	11	18.51
Mar. 6	9.75	June 5	6.53	19	14.93	18	18.51
13	9.92	12	7.18	25	14.92	26	18.52
20	8.77	19	8.34	Oct. 8	17.73	31	18.52
27	9.32	26	9.53	22	18.38		

## IOWA

By W. E. Hale and D. A. Barton

### PROGRAM OF WORK

Water-level measurements in observation wells in Iowa were begun in 1934 by the Geological Survey, United States Department of the Interior, in the Tarkio Creek Valley, which is in southwestern Iowa and northwestern Missouri--a program in which the Soil Conservation Service of the United States Department of Agriculture cooperated for several years. In 1938 the Federal Geological Survey and the Iowa Geological Survey began a cooperative investigation of the ground-water resources of the State as a whole, which necessitated obtaining records of water levels in wells in as many parts of the State as feasible. The more general program of well measurements thus begun and the program in the Tarkio Creek area were continued separately each year until 1943, when it was decided to include all the observation wells in Iowa under one program, in which the Federal and State Surveys would cooperate. Accordingly, the wells in Iowa in the Tarkio Creek area were put under the general program for Iowa, and the wells in Missouri in the Tarkio Creek area were put under the general program for Missouri.

At the beginning of 1943 the program in Iowa included 288 wells. During the year 4 wells were added and 23 were dropped; at the end of the year, therefore, the program included 269 wells. Automatic water-stage recorders were maintained on 10 wells. The water level was measured weekly in about 10 wells, monthly in about 95 wells, and quarterly in most of the remaining wells. In all, about 2,370 individual measurements were made in 1943 in connection with the observation-well program, and many others were made in wells not included under that program but observed in connection with pumping tests and in connection with the detailed investigation of ground-water resources in each of several localities scattered throughout the State.

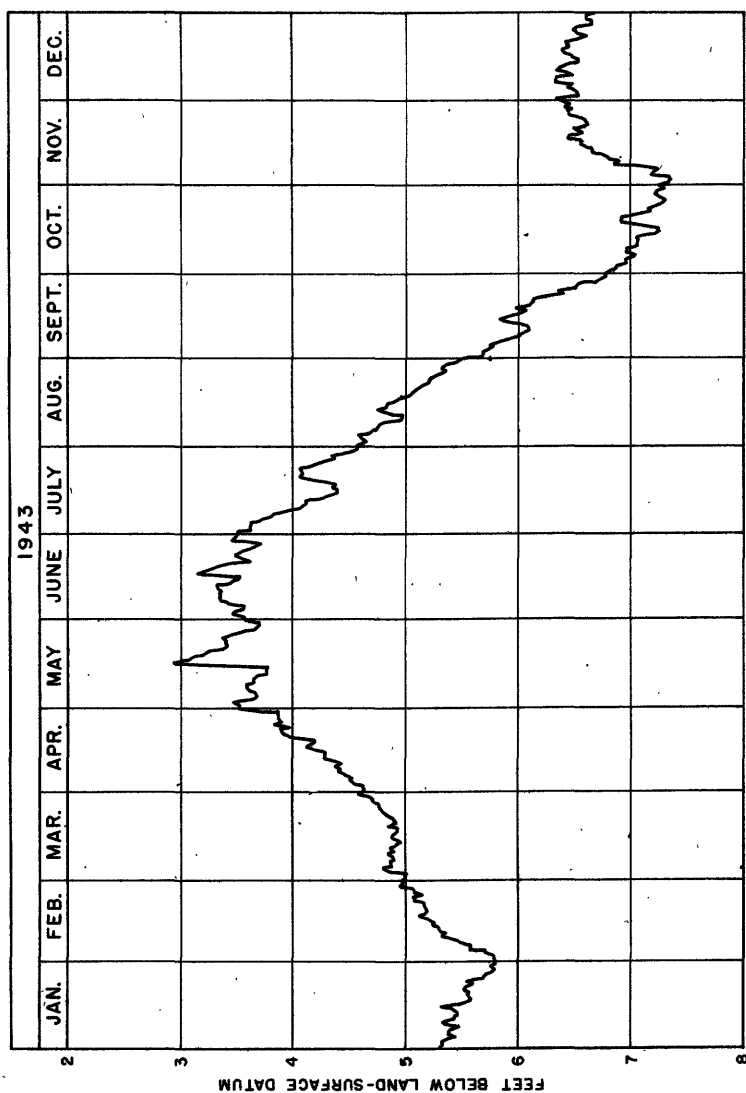


Figure 2.--Graph showing fluctuations of water level during 1943 in well 87-28-22N1, near Harcourt, Webster County, Iowa.



## FLUCTUATIONS OF WATER LEVEL

The average precipitation for Iowa in 1943 was 31.20 inches, which is 0.32 inch below the 70-year average. Precipitation was below normal during the first four and during the last four months of the year. In general, the water levels in shallow wells, which were somewhat lower in December 1942 than in December 1941, were still lower in December 1943. The following table shows the average net change in water levels in shallow wells, by counties, in 1943:

Average net change in water levels, in feet, in shallow wells  
in Iowa, 1943

County	Number of wells	Average net change	County	Number of wells	Average net change
Adair	6	-1.77	Linn	6	-2.39
Buena Vista	6	-.29	Lyon	1	-1.28
Calhoun	5	+.25	Madison	1	-1.12
Cerro Gordo	16	-.27	Marion	6	-2.23
Clay-Palo Alto	a 4	+.55	Montgomery-Page	b 9	-1.13
Dickinson	1	+.53	O'Brien	1	-1.04
Emmet	1	+2.20	Page	c 1	-1.94
Hardin	1	-2.38	Polk	1	-.56
Harrison	1	+.27	Sac	4	+.29
Iowa	1	-.12	Story	2	-1.96
Jasper	1	+1.30	Warren	2	-.54
Jefferson	1	+.50	Webster	15	-1.08
Johnson	2	-2.57			

The fluctuation of water level in a shallow unused well in the southern part of Webster County, near Harcourt, is shown in figure 2. The well is 41.8 feet deep and taps water in glacial drift. This aquifer is confined over a large part of Webster County and receives most of its recharge in places where the sandy drift material extends to the surface. The graph shows that the water level fluctuated markedly in phase with rainy and dry periods. Lesser fluctuations are caused by changes in atmospheric pressure. This well is representative of the several shallow observation wells in Webster County.

a These wells, 1 in Clay County and 3 in Palo Alto County, are all in the vicinity of Lost Island Lake.

b These 9 wells are in the Tarkio Creek Valley. Another well in Page County but not in this valley is listed separately below, opposite the entry "Page."

c The Page County wells included in the 9 entered opposite "Montgomery-Page" are in the Tarkio Creek Valley. This well is listed separately because it is not in that valley.

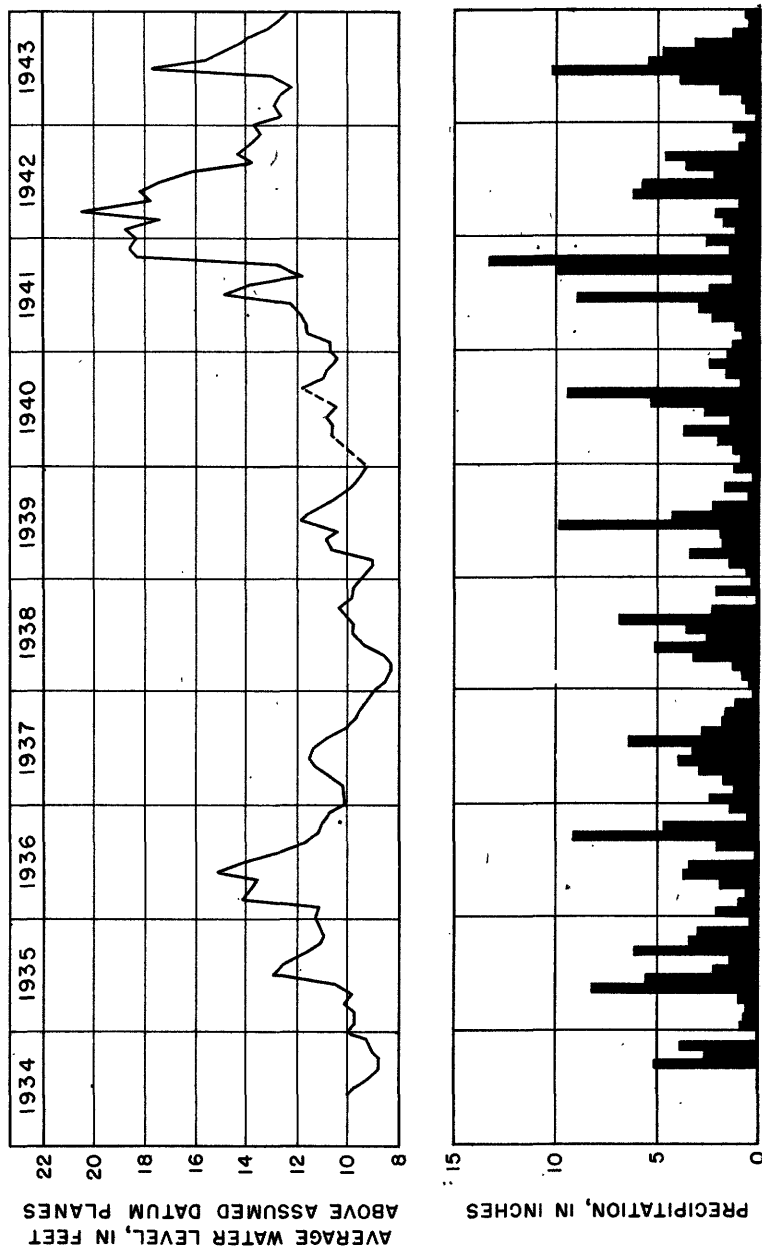


Figure 3.--Graph showing fluctuations of the average water level in 9 to 12 wells in the Tarkio Creek Valley, Iowa-Mo., and precipitation at Shenandoah, Iowa.

In the Tarkio Creek area, which covers parts of Montgomery and Page Counties, in Iowa, and of Atchison County, in Missouri, water-level measurements are made monthly in shallow observation wells. The measurements in 1943 were made by D. L. Hummel. The records of the water levels in wells in the Missouri part of the area are given in the section of this volume that deals with that State.

Water-level measurements in 11 wells in the Tarkio Creek area (Nos. 1, 2, 5, 6, 7, 10, 11, 12, 14, 15, 17) were used in computing the average water level for each month of 1943. These averages are given in the following table:

Average water levels, in feet above assumed datum planes, in 11 observation wells in the Tarkio Creek area, Iowa-Mo., 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 23, 26	12.62	May 25, 27	12.82	Sept. 23, 28	14.02
Feb. 22, 23	12.88	June 28, 29	17.65	Oct. 28, 29	13.19
Mar. 24, 25	12.66	July 29, 30	15.48	Nov. 27, 29	12.65
Apr. 26, 27	12.18	Aug. 26, 27	14.81	Dec. 29, 30	12.33

From the record high, in March 1942, there was a general decline of the average water level that continued until April 1943. In May it rose slightly, and in June, owing to heavy rains in that month, it rose until it reached its highest stage of the year, which was 5.47 feet above its lowest stage, reached in April. During the remainder of the year it declined progressively, until at the end of December it was 5.32 feet below its stage in June and only 0.15 foot above its low point for the year. The fluctuation of the average water level in this area and the precipitation since August 1934, by months, is shown in figure 3. The lowest average water level during the period of record was reached in March 1938, and the highest was reached in March 1942.

Well 83-7-11E1, at Cedar Rapids, Linn County, is typical of wells affected by industrial pumping. Figure 4 shows the fluctuations of water level in this well in 1943. In the graph the daily noon water level is shown as a point unless the fluctuation is more than 0.4 foot. A fluctuation of more than 0.4 foot is shown as a vertical line connecting the high and the low water level for the day. This well is 195 feet deep and taps water in the dolomite from which most of the wells in the Cedar Rapids area draw their supply. A large amount of water is pumped from this aquifer for use in industry and air conditioning. Well 83-7-11E1 is situated about

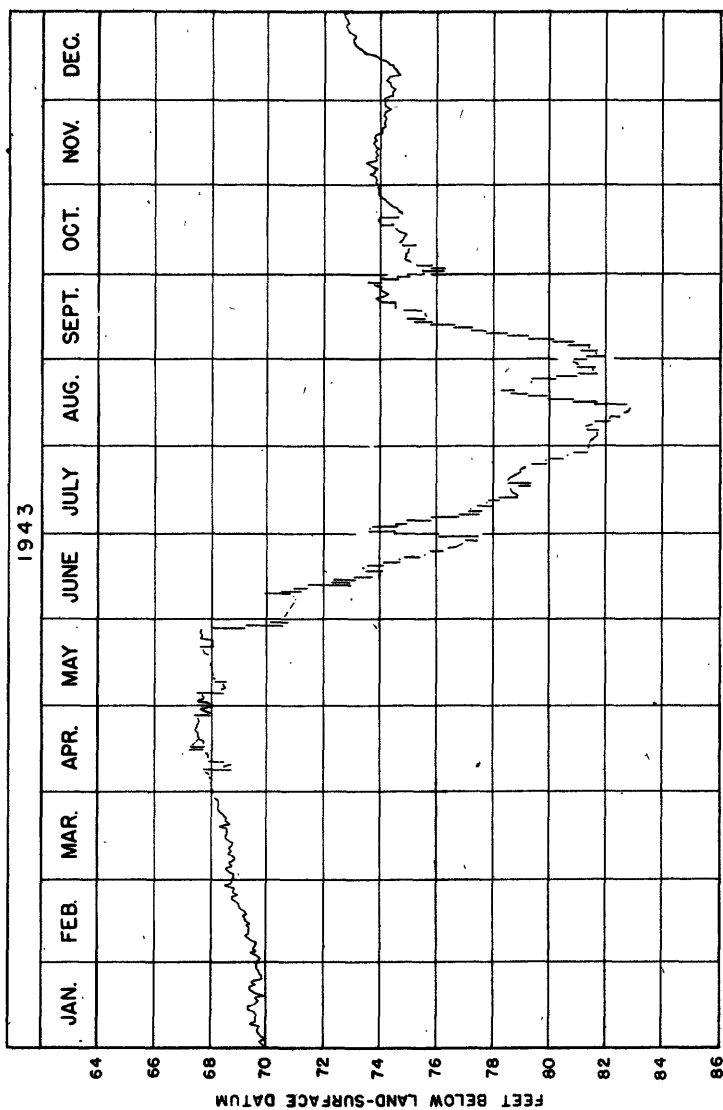


Figure 4.--Graph showing fluctuations of water level during 1943 in well 83-7-11E1, at Cedar Rapids, Iowa, caused by pumping in the vicinity.

3 miles north of the heavily pumped area and about half a mile from a well used largely to obtain water for air conditioning. It is affected markedly by this heavily pumped nearby well. The smaller fluctuations are the result of changes in barometric pressure. On December 31, 1943, the water level in well 83-7-11E1 was 72.80 feet below land-surface datum, which is 2.8 feet lower than its stage on December 31, 1942, and 4.8 feet lower than its stage on December 31, 1941.

The fluctuation of the water level in an unused municipally owned well in Mason City, Cerro Gordo County (well 96-20-3L2), is shown in figure 5. The daily fluctuation is shown by a line connecting the high and the low water level for the day. This well is 1,219 feet deep. It is cased from the surface to a depth of 99 feet and from 349 to 710 feet. The principal aquifer is the Jordan sandstone. Other city-owned wells and a number of industrial wells are similarly constructed. Well 96-20-3L2 is in a heavily pumped section and reflects fairly accurately the trend in the water level in deeper aquifers in the Mason City area.

#### WELL-NUMBERING SYSTEM

The numbers assigned by the Federal Geological Survey to its observation wells in Iowa, other than those in the Tarkio Creek area, show the location of the wells according to the rectangular system for subdivision of public land. Each number is made up of three segments, separated by hyphens. The first and second segments indicate the township and range, and the third indicates the section, one of the 40-acre subdivisions of the section as shown in the accompanying diagram, and, by its serial number, a particular well. In the second segment of the number of the only existing

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

observation well in the State east of the fifth principal meridian (well 81-6R-22H1, in Clinton County), the letter E is added after the digit representing the range and will be added in the numbers of any wells established east of this meridian in the future. In the numbers of other wells, it is understood that the range indicated is west of the meridian.

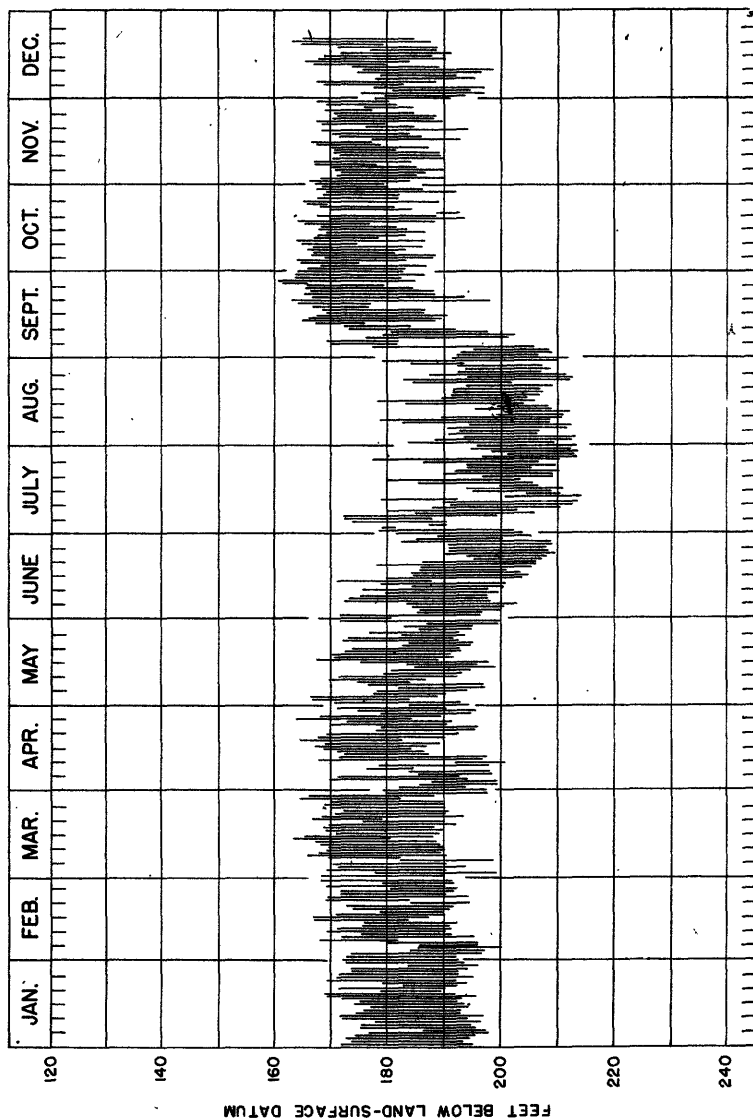


Figure 5.--Graph showing fluctuations of water level during 1943 in well 96-20-312, at Mason City, Iowa, caused by pumping in the vicinity.

For example, the number 76-31-25P1 indicates a well in T. 76 N., R. 31 W., in the SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, whose serial number is 1.

The wells in the Tarkio Creek area, which were observed for several years in cooperation with the Soil Conservation Service of the United States Department of Agriculture, are numbered consecutively in the order of their establishment. These wells were the first in Iowa to be observed by the Geological Survey and bear the numbers originally assigned to them.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adair County

76-31-25P1 (#946, p. 17). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, T. 76 N., R. 31 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	4.29	Apr. 27	2.35	July 28	3.43	Oct. 28	5.34
Feb. 25	4.54	May 26	2.66	Aug. 25	3.64	Nov. 29	5.48
Mar. 23	2.78	June 29	2.74	Oct. 1	4.88	Dec. 13	5.59

76-31-29P1 (#946, p. 17). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 76 N., R. 31 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	11.08	Apr. 27	10.80	July 28	8.80	Oct. 28	12.43
Feb. 25	11.72	May 26	7.82	Aug. 25	9.32	Nov. 29	13.01
Mar. 23	11.16	June 29	6.23	Oct. 1	11.52	Dec. 13	13.22

75-31-15B1 (#908, p. 10; 938, p. 9; 946, p. 17). John E. Soderberg. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 75 N., R. 31 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	3.70	Apr. 26	3.88	July 29	1.47	Oct. 28	5.05
Feb. 25	4.19	May 28	2.03	Aug. 26	1.85	Nov. 29	5.85
Mar. 23	4.41	June 29	1.68	Oct. 1	3.80	Dec. 13	5.96

75-31-18B1 (#908, p. 10; 938, p. 9; 946, p. 17). Charles Gilham. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 75 N., R. 31 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	10.02	Apr. 27	9.86	July 28	9.88	Oct. 28	10.46
Feb. 25	9.95	May 28	9.29	Aug. 25	9.54	Nov. 29	10.20
Mar. 23	9.87	June 29	9.14	Oct. 1	10.36	Dec. 13	10.07

75-30-3N1 (#946, p. 17). Elmer Phillips. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 75 N., R. 30 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	13.10	Apr. 26	12.83	July 28	8.19	Oct. 28	14.70
Feb. 25	13.49	May 26	8.41	Aug. 25	11.15	Nov. 29	15.25
Mar. 23	12.83	June 29	4.63	Oct. 1	14.18	Dec. 13	15.47

75-30-8A1 (#908, p. 10; 938, p. 10; 946, p. 17). Edward Snethen and Earnest Miller. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 75 N., R. 30 W. Measuring point is 1.1 feet above land-surface datum. Well abandoned Dec. 13; measurements discontinued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.50	Apr. 26	18.23	July 28	5.95	Oct. 28	19.80
Feb. 25	14.79	May 26	6.07	Aug. 25	7.14	Nov. 29	23.84
Mar. 23	12.82	June 29	4.84	Oct. 1	11.19	Dec. 13	20.12

a Pumped shortly before measurement.

75-30-17E1 (\*946, p. 18). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 75 N., R. 30 W. Measuring point is 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	1.82	Apr. 26	0.14	July 29	1.35	Oct. 28	2.20
Feb. 25	.77	May 28	.10	Aug. 26	.55	Nov. 29	.85
Mar. 23	+.18	June 29	.96	Oct. 1	1.04	Dec. 13	.78

#### Benton County

85-10-16M3 (\*886, p. 116; 908, p. 10; 938, p. 10; 946, p. 18). City of Vinton well 3. Measuring point is 1.0 foot above land-surface datum. No measurements made in 1943.

#### Buena Vista County

##### Vicinity of Storm Lake

91-37-32E1 (\*908, p. 10; 938, p. 10; 946, p. 18). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 91 N., R. 37 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 3.34; June 28, 2.39; Sept. 17, 4.21; Dec. 14, 3.70.

90-37-3E1 (\*908, p. 11; 938, p. 10; 946, p. 18). Emil Schmitz. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 90 N., R. 37 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 8.82; June 28, 4.72; Sept. 16, 9.53; Dec. 14, 11.82.

90-37-3M1 (\*908, p. 11; 938, p. 10; 946, p. 18). L. B. Watt. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 90 N., R. 37 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 15.54; June 28, 11.03; Sept. 16, 16.20; Dec. 14, 17.68.

90-37-11J1 (\*908, p. 11; 938, p. 10; 946, p. 18). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 90 N., R. 37 W. Measuring point is 0.55 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 0.82; June 28, 0.56; Sept. 16, 3.00; Dec. 14, 3.04.

90-37-22J1 (\*908, p. 11; 938, p. 10; 946, p. 18). William Monteful. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 90 N., R. 37 W. Measuring point is 1.0 foot above land-surface datum. Well abandoned; measurements discontinued.

90-37-23D1 (\*908, p. 11; 938, p. 10; 946, p. 18). Biggens Bros. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 90 N., R. 37 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 18.83; June 28, 18.05; Sept. 16, 18.66; Dec. 14, 18.70.

90-37-34E1 (\*938, p. 11; 946, p. 18). Ed. Zinn. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 90 N., R. 37 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 8.75; June 28, 7.90; Sept. 16, 10.16; Dec. 14, 9.88.

#### Calhoun County

##### Vicinity of Twin Lakes

89-32-28N1 (\*908, p. 11; 938, p. 11; 946, p. 19). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 89 N., R. 32 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.63; June 22, 4.88; Sept. 16, 5.99; Dec. 16, 5.83.



89-32-31R1 (\*908, p. 11; 938, p. 11; 946, p. 19). E. F. Legg. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 89 N., R. 32 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 10.77; June 22, 9.75; Sept. 16, 9.45; Dec. 16, a/12.42.

89-32-33N1 (\*908, p. 11; 938, p. 11; 946, p. 19). Ben Burns. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 89 N., R. 32 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 3.47; June 22, 3.91; Sept. 16, 6.17; Dec. 16, 5.93.

88-33-1B1 (\*908, p. 12; 938, p. 11; 946, p. 19). Mr. Burns. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 88 N., R. 33 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 11.58; June 22, 11.50; Sept. 16, 14.73; Dec. 16, 16.82.

88-33-1D1 (\*908, p. 12; 938, p. 11; 946, p. 19). George Voss. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 1, T. 88 N., R. 33 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 10.00; June 22, 9.05; Dec. 16, 10.22.

#### Carroll County

85-35-7N1 (\*946, p. 19). City of Breda. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 85 N., R. 35 W. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 192.00; June 28, 191.52; Sept. 16, 191.66; Dec. 14, 189.32.

85-35-18D1 (\*908, p. 12; 938, p. 11; 946, p. 19). City of Breda. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 85 N., R. 35 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, b/201.03; June 28, 193.36; Sept. 16, b/200.48; Dec. 14, 191.96.

84-34-25F1 (\*886, p. 116; \*908, p. 12; 938, p. 12; 946, p. 19). City of Carroll test hole 1. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 84 N., R. 34 W. Measuring point is 0.5 foot above land-surface datum. Nearby well pumping at time of each measurement. Water levels, in feet below land-surface datum, 1943: Mar. 24, 40.79; June 18, 42.94; June 28, 44.63; Sept. 16, 41.64; Dec. 14, 40.93.

#### Cerro Gordo County

97-22-9R1 (\*938, p. 12; 946, p. 19). L. C. Zobel. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 97 N., R. 22 W. Measuring point is 2.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, c/34.70; June 23, 33.65; Sept. 16, 32.67; Dec. 22, 33.37.

97-22-16H1 (\*938, p. 12; 946, p. 19). Vern Hennis. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 97 N., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 16.04; June 23, 14.28; Sept. 16, 14.74; Dec. 22, 16.15.

97-22-21J1 (\*938, p. 12; 946, p. 20). E. M. Fankell. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 97 N., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 14.69; June 23, 17.10; Sept. 16, 15.30; Dec. 22, 15.12.

97-22-21J2 (\*938, p. 12; 946, p. 20). E. M. Fankell. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 97 N., R. 22 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 14.27; June 23, 11.52; Sept. 16, 14.08; Dec. 22, 14.56.

a Pumped shortly before measurement.

b Nearby well pumping.

c Windmill pumping slowly.

97-22-36H1 (\*938, p. 12; 946, p. 20). James Kern. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 97 N., R. 22 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 22.56; June 23, 22.64; Sept. 16, 23.28; Dec. 22, 23.60.

97-22-36H2 (\*938, p. 12; 946, p. 20). James Kern. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 97 N., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 23.65; June 23, 23.78; Dec. 22, 24.89.

97-21-9E1 (\*938, p. 12; 946, p. 20). E. H. Phillips. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 97 N., R. 21 W. Measuring point is 3.4 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 95.17; June 23, 95.98; Sept. 16, 96.03; Dec. 22, 96.87.

97-21-9E2 (\*938, p. 12; 946, p. 20). E. H. Phillips. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 97 N., R. 21 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 29.85; June 23, 30.23; Sept. 16, 30.14; Dec. 22, 30.65.

97-21-18M1 (\*938, p. 13; 946, p. 20). W. D. Hurd. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 97 N., R. 21 W. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 18, 11.54. Well abandoned, measurements discontinued.

97-21-18M2 (\*938, p. 13; 946, p. 20). W. D. Hurd. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 97 N., R. 21 W. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 9.70; June 23, 9.28; Sept. 16, 8.83.

97-21-25R1 (\*938, p. 13; 946, p. 20). Etna Life Insurance Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 97 N., R. 21 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 23.58; Sept. 16, 23.49.

97-20-11D2 (\*938, p. 13; 946, p. 20). C. H. Sloan. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 97 N., R. 20 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 5.40; June 24, 5.43; Sept. 17, 7.29; Dec. 22, 8.23.

97-20-17N1 (\*938, p. 13; 946, p. 20). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 97 N., R. 20 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 9.13; June 24, 11.20; Sept. 17, 10.83; Dec. 22, 11.46.

97-20-24H1 (\*938, p. 13; 946, p. 20). Mrs. Vinnie Shanks. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 97 N., R. 20 W. Measuring point is 0.4 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 5.11; June 24, 5.85; Sept. 17, 6.33; Dec. 22, 7.17.

97-20-24H2 (\*938, p. 13; 946, p. 20). Mrs. Vinnie Shanks. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 97 N., R. 20 W. Measuring point is 4.2 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 56.75; June 24, 56.68; Sept. 17, 56.85; Dec. 22, 57.59.

97-20-27D1 (\*938, p. 13; 946, p. 21). Claude Quimby. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 97 N., R. 20 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 13.11; June 24, 18.87; Sept. 17, 17.90; Dec. 22, 18.88.

97-20-28L1. American Crystal Sugar Co. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 97 N., R. 20 W., Drilled industrial well, diameter 1 foot, depth 1,347 feet. Measuring point, floor of pump house, at land-surface datum, which is 1,162.54 feet above mean sea level. Equipped with turbine pump. Taps water in St. Peter and Jordan sandstones. Water levels, in feet below land-surface datum, 1943: June 25, 169.4; Sept. 17, 171.03; Dec. 23, 169.15.

a Pumped shortly before measurement.

97-20-32H1 (\*938, p. 13; 946, p. 21). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 97 N., R. 20 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 16.09; June 23, 17.58; Sept. 16, 16.92; Dec. 22, 17.98.

97-19-5N1 (\*938, p. 13; 946, p. 21). Chicago, Milwaukee, St. Paul & Pacific R. R. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 97 N., R. 19 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 17.45; June 24, 17.66; Sept. 17, 17.55; Dec. 22, 18.26.

97-19-16H1 (\*938, p. 13; 946, p. 21). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 97 N., R. 19 W. Measuring point is 0.35 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 4.42; June 24, 5.04; Sept. 17, 5.20; Dec. 22, 6.27.

97-19-21H2 (\*938, p. 13; 946, p. 21). Mrs. Oscar Engstrom. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 97 N., R. 19 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 5.07; June 24, 6.58; Sept. 17, 6.93; Dec. 22, 7.83.

97-19-23H1 (\*938, p. 14; 946, p. 21). Jos. Senior. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 97 N., R. 19 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 24, 22.78; Sept. 17, 23.18; Dec. 22, 24.72.

97-19-30R1 (\*938, p. 14; 946, p. 21). E. Stebbens. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 97 N., R. 19 W. Measuring point is 0.75 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 8.85; June 24, 13.90; Sept. 17, 11.63; Dec. 22, 11.98.

97-19-30R2 (\*938, p. 14; 946, p. 21). E. Stebbens. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 97 N., R. 19 W. Measuring point is 5.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: June 24, 14.80. Well abandoned; measurements discontinued.

96-22-7Q1 (\*938, p. 14; 946, p. 21). W. S. Overgaard. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7 T. 96 N., R. 22 W. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 22.64; Sept. 16, 22.43; Dec. 20, 22.71.

96-22-7Q2 (\*938, p. 14; 946, p. 21). W. S. Overgaard. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7 T. 96 N., R. 22 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 9.70; June 23, 9.53; Sept. 16, 10.59; Dec. 20, 10.45.

96-22-12P1 (\*908, p. 12; 938, p. 14; 946, p. 21). Daughters of American Revolution Camp. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 96 N., R. 22 W. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 42.75; June 23, 42.54; Sept. 16, 42.84; Dec. 20, 42.73.

96-22-14B1 (\*908, p. 12; 938, p. 14; 946, p. 21). A. A. Adams. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 96 N., R. 22 W. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 27.40; June 23, 28.10; Sept. 16, 27.40; Dec. 20, 27.71.

96-22-14C1 (\*908, p. 12; 938, p. 14; 946, p. 21). Fred Stephens. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 96 N., R. 22 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 33.20; June 23, 33.10; Sept. 16, 33.31; Dec. 20, 33.14.

96-22-20C1 (\*908, p. 13; 938, p. 14; 946, p. 22). The Willow Inn. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 96 N., R. 22 W. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 5.29; June 23, 5.75; Sept. 16, 5.21; Dec. 20, 5.36.

96-22-20L1 (\*908, p. 13; 938, p. 15; 946, p. 22). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 96 N., R. 22 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 30.93; June 23, 35.24; Sept. 16, 31.76; Dec. 20, 31.26.

96-22-23Q1 (\*908, p. 13; 938, p. 15; 946, p. 22). H. R. Anderson. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 96 N., R. 22 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 20.86; June 23, 17.20; Sept. 17, 20.16; Dec. 21, 20.46.

96-22-25D2 (\*908, p. 13; 938, p. 15; 946, p. 22). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 96 N., R. 22 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 6.06; Sept. 17, 6.44; Dec. 21, 6.71.

96-22-30H1 (\*938, p. 15; 946, p. 22). Mrs. Francis Skene. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 96 N., R. 22 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 12.23; June 23, 12.16; Sept. 16, 14.04; Dec. 20, 15.09.

96-22-30H2 (\*938, p. 15; 946, p. 22). Mrs. Francis Skene. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 96 N., R. 22 W. Measuring point is 5.4 feet below land-surface datum. Well abandoned; measurements discontinued.

96-21-2G1 (\*938, p. 15; 946, p. 22). S. P. Skovgaard. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 96 N., R. 21 W. Measuring point is 1.8 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 11.66; Sept. 16, 12.43; Dec. 22, 12.69.

96-21-5G1 (\*938, p. 15; 946, p. 22). Farmers National Life Insurance Co. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 96 N., R. 21 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 24.15; June 23, 24.40; Sept. 16, 24.79; Dec. 22, 25.47.

96-21-13E1 (\*908, p. 13; 938, p. 15; 946, p. 22). Mason City & Clear Lake Ry. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 96 N., R. 21 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 4.60; June 24, 5.52; Sept. 11, 5.88; Dec. 20, 6.47.

96-21-17C1 (\*908, p. 13; 938, p. 15; 946, p. 22). Clear Lake Sand & Gravel Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 96 N., R. 21 W. Measuring point is 6.4 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 17.95; June 25, 18.10; Sept. 16, 18.25; Dec. 20, 18.14.

96-21-17M1 (\*908, p. 13; 938, p. 16; 946, p. 22). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 96 N., R. 21 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 2.30; June 25, 2.71; Sept. 17, 2.70; Dec. 20, 2.72.

96-21-18H1 (\*908, p. 13; 938, p. 16; 946, p. 22). Sam Kennedy. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 96 N., R. 21 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 9.70; June 25, 10.49; Sept. 17, 10.51; Dec. 20, 11.00.

96-21-19N1 (\*938, p. 16; 946, p. 22). Mr. Harms. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 96 N., R. 21 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 9.78; June 25, 26.79; Sept. 17, 24.05; Dec. 21, 21.72.

96-21-22A1 (\*938, p. 16; 946, p. 22). D. S. Mabb. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 96 N., R. 21 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 23.45; June 24, 28.05; Sept. 17, 19.63; Dec. 20, 21.33.

96-21-23R1 (\*938, p. 16; 946, p. 23). Elmer and Williard Thrums. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 96 N., R. 21 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 5.82; June 24, 5.70; Sept. 16, 8.33; Dec. 20, 7.59.

96-21-33A1 (\*938, p. 16; 946, p. 23). Ivor Toft. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 96 N., R. 21 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 22.33; Sept. 17, 20.57; Dec. 20, 21.12.

96-20-312 (\*938, p. 16; 946, p. 23). Mason City well 8. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 96 N., R. 20 W. Measuring point is 4.8 feet below land-surface datum.

Daily high and low water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	172.0	194.8	172.5	192.1	168.1	190.0	182.2	193.7
2	173.6	193.4	173.3	196.5	177.6	199.0	186.2	199.0
3	173.0	194.0	183.8	197.1	169.2	190.3	187.9	198.8
4	174.0	195.5	185.0	200.0	170.9	193.3	169.5	193.8
5	176.6	197.8	185.2	195.8	170.0	190.6	171.0	192.6
6	186.3	197.1	180.1	195.9	182.3	198.3	185.5	198.2
7	175.0	195.4	167.9	181.8	169.2	182.3	183.8	198.1
8	175.0	194.7	171.4	195.0	165.9	190.3	176.0	184.1
9	177.6	196.1	174.9	191.2	167.9	189.5	178.5	197.8
10	171.9	194.2	169.1	190.4	169.1	189.8	192.0	200.5
11	171.6	196.8	170.8	190.9	169.5	189.7	167.9	196.9
12	174.0	193.0	175.1	190.9	168.2	189.0	171.5	197.6
13	175.8	193.0	175.4	192.1	167.1	188.6	171.9	187.0
14	176.9	194.2	166.7	183.5	163.2	180.3	171.4	186.2
15	174.2	193.5	166.8	183.8	165.7	188.2	168.5	183.8
16	174.8	192.7	169.8	190.0	170.7	189.0	166.9	186.7
17	171.7	193.0	178.3	190.2	169.3	189.4	168.7	188.8
18	169.1	195.6	173.9	190.9	168.8	188.4	164.3	182.3
19	169.0	192.0	172.3	191.5	169.2	192.0	167.5	190.0
20	178.3	189.5	183.7	194.4	175.7	190.2	168.9	192.3
21	171.0	190.2	168.9	183.7	166.7	179.0	177.8	195.6
22	182.8	194.3	168.9	194.4	168.2	193.3	178.9	195.9
23	179.1	193.8	171.5	190.5	170.5	190.2	169.9	190.7
24	169.0	192.1	171.6	191.7	172.4	190.6	172.7	191.5
25	170.8	195.0	180.4	192.1	169.5	189.8	163.7	184.2
26	171.0	192.5	168.8	190.5	169.1	189.9	167.6	189.3
27	173.0	192.3	178.9	191.6	170.4	189.4	178.5	194.6
28	173.3	194.1	167.9	191.3	164.5	182.2	174.7	195.6
29	183.5	195.8	.....	.....	166.1	188.4	170.9	190.2
30	172.4	193.3	.....	.....	180.0	197.2	183.5	194.3
31	172.4	192.6	.....	.....	179.3	197.2	.....	.....

Daily high and low water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	170.4	192.6	171.5	196.3	178.2	202.5	183.3	209.0
2	166.5	183.8	185.1	196.6	178.9	181.4	188.0	212.5
3	166.3	188.5	185.7	199.9	186.9	190.1	193.3	213.1
4	177.3	190.1	184.1	200.7	173.5	190.1	190.6	206.3
5	177.9	194.1	183.2	202.6	172.2	187.4	192.5	207.0
6	181.5	197.0	172.1	198.1	172.0	199.1	190.3	211.6
7	176.5	196.6	173.3	197.9	184.6	205.8	193.9	212.3
8	174.4	184.0	175.0	197.5	179.7	202.6	182.3	208.6
9	169.4	186.6	179.1	199.1	188.0	210.5	178.4	208.6
10	171.3	192.4	175.3	198.1	191.1	212.2	189.1	210.5
11	179.0	193.0	184.4	200.1	189.7	213.3	199.1	211.0
12	180.7	194.3	178.8	200.7	178.9	192.0	200.6	212.1
13	184.5	198.5	170.9	187.5	200.8	214.0	195.1	209.1
14	183.3	196.0	179.5	203.3	202.0	210.6	199.1	208.3
15	175.1	197.7	184.1	204.2	194.5	208.7	182.6	203.7
16	167.4	188.5	184.1	203.6	193.8	211.0	177.8	205.8
17	170.5	191.6	185.7	200.9	199.8	206.6	189.4	204.5
18	170.2	191.4	185.9	205.4	184.4	205.7	191.0	206.8
19	172.3	192.6	177.6	206.0	179.5	203.5	191.1	207.3
20	173.6	193.0	186.0	206.0	196.9	209.1	191.6	206.8

## 22 WATER LEVELS AND ARTESIAN PRESSURE, 1943, NORTH-CENTRAL STATES

96-20-3L2. Mason City well 8--Continued.

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
21	182.4	194.4	195.1	207.1	189.5	208.9	193.9	209.0
22	183.7	194.8	193.6	207.9	191.7	209.9	183.9	201.7
23	171.7	192.5	189.8	209.4	193.5	205.0	182.5	212.0
24	172.6	191.7	190.9	208.4	193.6	209.5	193.6	212.4
25	181.8	193.6	190.7	208.2	185.9	206.6	186.8	211.6
26	176.5	192.6	190.8	208.9	176.8	210.3	192.0	207.0
27	184.9	194.6	182.2	208.9	196.2	213.1	193.3	208.6
28	182.7	194.9	184.9	205.2	201.0	212.7	192.1	207.3
29	186.6	199.4	188.4	205.2	198.1	213.3	183.3	193.2
30	171.4	199.9	181.1	203.6	194.4	212.5	178.6	210.0
31	167.5	180.5	.....	.....	195.5	212.7	190.9	211.6

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	191.8	206.6	165.3	183.1	165.8	183.6	179.1	193.5
2	192.4	208.8	167.9	186.4	167.8	189.6	175.2	196.9
3	194.8	208.4	164.3	174.7	170.8	185.0	180.5	194.3
4	176.8	205.4	163.5	183.1	171.3	186.3	177.3	196.6
5	169.7	181.6	168.5	187.8	170.3	189.8	168.2	182.4
6	168.6	181.7	166.2	188.3	169.9	184.8	167.1	188.2
7	175.6	201.0	166.6	181.1	166.8	177.8	177.2	194.6
8	179.2	202.3	165.5	182.9	166.6	183.9	178.5	192.0
9	180.1	197.6	166.3	185.9	170.0	189.9	174.2	196.6
10	172.8	191.8	164.3	174.4	171.4	189.1	175.4	198.3
11	172.0	183.6	163.6	186.2	170.3	188.7	173.3	188.8
12	166.5	175.7	166.8	178.3	170.3	181.2	166.5	179.4
13	164.8	188.1	167.3	183.0	169.7	186.7	165.0	183.5
14	165.6	189.4	168.9	186.4	167.2	178.4	167.3	190.0
15	167.0	190.3	167.3	183.3	166.1	176.8	168.3	187.5
16	168.6	186.0	167.8	181.4	176.8	192.6	171.1	190.9
17	168.0	186.3	165.0	176.8	171.0	185.7	176.3	188.5
18	166.2	176.3	164.2	188.2	170.0	183.7	170.8	188.6
19	163.7	176.7	169.0	193.6	168.2	193.9	164.5	179.1
20	162.7	197.9	167.3	188.5	176.0	184.4	162.8	187.4
21	166.3	193.2	188.3	192.5	168.1	179.2	164.8	184.5
22	165.0	188.3	169.5	183.8	167.2	189.3	.....	.....
23	166.0	187.8	167.7	180.8	170.1	188.0	.....	.....
24	165.4	184.1	165.3	169.1	170.7	188.4	.....	.....
25	165.5	179.0	164.8	188.8	170.3	184.2	.....	.....
26	161.0	165.5	167.1	182.5	168.2	176.9	.....	.....
27	160.3	184.7	168.3	181.8	175.3	184.2	.....	.....
28	163.4	182.3	168.7	191.8	168.7	181.3	.....	.....
29	163.5	186.3	167.1	185.8	167.2	180.2	.....	.....
30	163.9	182.5	168.2	179.9	177.4	190.8	.....	.....
31	.....	.....	166.7	179.2	.....	.....	.....	.....

96-20-3P1 (\*938, p. 16; 946, p. 25). Minneapolis & St. Louis Ry.  
SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 96 N., R. 20 W. Measuring point is 6.3 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943:  
Mar. 20, 44.22; June 24, 45.25; Sept. 17, 46.12; Dec. 22, 49.23.

96-20-5J1 (\*938, p. 16; 946, p. 25). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 96 N., R. 20 W.  
Measuring point is 1.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 8.60; June 25, 9.77; Sept. 17, 9.43; Dec. 23, 10.44.

96-20-16J1 (\*886, p. 116; 908, p. 14; 938, p. 17; 946, p. 25). Mason City well 11. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 96 N., R. 20 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 196.10; June 25, 212.38.

96-20-29A1 (\*938, p. 17; 946, p. 25). Ray Kirk. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 96 N., R. 20 W. Measuring point is 0.1 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 15.35; June 23, 16.11; Sept. 15, 16.10; Dec. 23, 16.81.

96-20-36N1 (\*938, p. 17; 946, p. 25). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 96 N., R. 20 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 0.50; June 24, 3.50; Sept. 15, 3.10; Dec. 21, 3.52.

96-19-3M1 (\*938, p. 17; 946, p. 25). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 96 N., R. 19 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 60.75; June 24, 60.65; Sept. 17, 61.27; Dec. 21, 61.70.

96-19-18R1 (\*938, p. 17; 946, p. 25). Chicago, Milwaukee, St. Paul, & Pacific R. R. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 96 N., R. 19 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 7.14; June 24, 9.07; Sept. 17, 9.34; Dec. 21, 9.65.

96-19-18R2 (\*938, p. 17; 946, p. 25). R. L. Billings. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 96 N., R. 19 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 6.28; June 24, 8.32; Sept. 17, well abandoned; measurements discontinued.

96-19-27E1 (\*938, p. 17; 946, p. 25). Independent Order of Foresters. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 96 N., R. 19 W. Measuring point is 1.3 feet above land-surface datum. Well abandoned; measurements discontinued.

95-22-3B1 (\*938, p. 17; 946, p. 25). Knut Olson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 95 N., R. 22 W. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 17.10; June 23, 16.95; Sept. 16, 17.07; Dec. 21, 17.11.

95-22-5M1 (\*938, p. 17; 946, p. 26). School district. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 95 N., R. 22 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 5.79; June 23, 7.23; Sept. 16, 7.70; Dec. 21, 7.45.

95-22-8C1 (\*938, p. 18; 946, p. 26). Jurgensen Bros. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 95 N., R. 22 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 16.33; June 23, 15.84; Sept. 16, 15.16; Dec. 21, 15.59.

95-22-34E1 (\*938, p. 18; 946, p. 26). J. G. Linden. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 95 N., R. 22 W. Measuring point is 1.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 29.72; Sept. 16, 29.88; Dec. 21, 30.38.

95-21-2H1 (\*938, p. 18; 946, p. 26). Amy J. Houck. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 95 N., R. 21 W. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 36.43; Sept. 16, 36.55; Dec. 21, 35.51.

95-21-7D1 (\*938, p. 18; 946, p. 26). Commissioner of Insurance of Iowa. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 95 N., R. 21 W. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 12.80; June 24, 12.01; Sept. 17, 14.70; Dec. 21, 15.50.

95-21-7P1 (\*938, p. 18; 946, p. 26). Art Enobnit. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 95 N., R. 21 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 19, 13.18; June 24, 13.24. Well abandoned; measurements discontinued.

95-21-12D2 (\*938, p. 18; 946, p. 26). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 95 N., R. 21 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 4.70; June 24, 4.79; Sept. 16, 4.72; Dec. 21, 5.36.

95-21-27Q1 (\*938, p. 18; 946, p. 26). Dave Blankenship. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 95 N., R. 21 W. Measuring point is 2.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 20.20; Sept. 16, 20.37; Dec. 21, 21.50.

95-20-3B1 (\*938, p. 18; 946, p. 26). Farmers Cooperative Society. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 95 N., R. 20 W. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 11.61; June 24, 12.04; Sept. 15, 11.32; Dec. 21, 7.56.

95-20-5J2 (\*938, p. 18; 946, p. 26). Will Hunt. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 95 N., R. 20 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 21, 6.67; June 23, 7.57; Sept. 15, 9.19; Dec. 23, 10.85.

95-20-20C1 (\*938, p. 19; 946, p. 27). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 95 N., R. 20 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 6.79; Sept. 16, 6.58; Dec. 23, 6.79.

95-20-27Q1 (\*938, p. 19; 946, p. 27). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 95 N., R. 20 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 3.03; June 22, 3.27; Sept. 15, 3.68; Dec. 21, 4.64.

95-20-33C1 (\*938, p. 19; 946, p. 27). Iowa State College. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 95 N., R. 20 W. Measuring point is 1.0 foot above land-surface datum. Well abandoned; measurements discontinued.

95-19-9H1 (\*938, p. 19; 946, p. 27). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 95 N., R. 19 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 12.37; June 24, 12.45; Sept. 15, 13.16; Dec. 21, 14.98.

95-19-18M1 (\*938, p. 19; 946, p. 27). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 95 N., R. 19 W. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 1.94; June 26, 2.69; Sept. 15, 2.56; Dec. 21, 2.94.

95-19-26D2 (\*938, p. 19; 946, p. 27). National Life Insurance Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 95 N., R. 19 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 23.88; June 24, 31.48; Sept. 15, 28.48; Dec. 21, a/35.08.

95-19-30P1 (\*938, p. 19; 946, p. 27). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 95 N., R. 19 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 5.29; June 26, 5.84; Sept. 15, b/9.34; Dec. 21, 9.67.

95-19-30P2 (\*938, p. 19; 946, p. 27). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 95 N., R. 19 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 3.90; June 26, 4.56; Sept. 15, 5.36; Dec. 21, 6.69.

94-22-8D1 (\*938, p. 19; 946, p. 27). Mr. Dugan. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 94 N., R. 22 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 11.92; June 24, 11.98; Sept. 16, 13.00; Dec. 21, 13.55.

94-22-20D1 (\*938, p. 19; 946, p. 27). Pete Wohler. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 94 N., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 3.68; June 24, 4.71; Sept. 16, 4.53; Dec. 21, 3.95.

94-22-24J1 (\*938, p. 19; 946, p. 27). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 94 N., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 9.58; June 24, 11.26; Sept. 16, 13.02; Dec. 21, 13.24.

a Nearby well pumping.

b Pumped shortly before measurement.



94-22-24J2 (\*938, p. 19; 946, p. 27). Town of Thornton. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 94 N., R. 22 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 74.37; June 24, 74.02; Sept. 16, 74.70; Dec. 21, 73.43.

94-22-24J3 (\*938, p. 10; 946, p. 28). Mel Bowen. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 94 N., R. 22 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 17.53; June 24, 16.09; Sept. 16, 18.61; Dec. 21, 16.25.

94-21-5R1 (\*938, p. 20; 946, p. 28). Lauritz Schoneman. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 94 N., R. 21 W. Measuring point is 0.9 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 20, 17.70; June 24, 17.70; Sept. 16, 19.14; Dec. 21, 20.16.

94-21-10D2 (\*938, p. 20; 946, p. 28). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 94 N., R. 21 W. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 17.27; June 24, 18.68; Sept. 16, 19.37; Dec. 21, 20.12.

94-21-24A1 (\*938, p. 20; 946, p. 28). Titus Management Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 94 N., R. 21 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 5.46; June 24, 6.67; Sept. 16, 7.41; Dec. 23, 8.10.

94-21-28R1 (\*938, p. 20; 946, p. 28). School district. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 94 N., R. 21 W. Measuring point is 0.3 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 3.85; June 24, 6.66; Sept. 16, 6.72. Well abandoned; measurements discontinued.

94-20-3K1 (\*938, p. 20; 946, p. 28). City of Rockwell. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 94 N., R. 20 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 6.24. Well abandoned; measurements discontinued.

94-20-5P1 (\*938, p. 20; 946, p. 28). James P. Conrin. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 94 N., R. 20 W. Measuring point is 5.8 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 18, 19.26; June 26, 20.05; Sept. 16, 20.25; Dec. 23, 20.57.

94-20-22H2 (\*938, p. 20; 946, p. 28). Mike Curley. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 94 N., R. 20 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 14.56; June 22, 19.54; Sept. 15, 21.48; Dec. 21, 24.03.

94-20-25J2 (\*938, p. 20; 946, p. 28). Equitable Life Assurance Society. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 94 N., R. 20 W. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 4.47; June 24, 5.53; Sept. 15, 6.15. Well abandoned; measurements discontinued.

94-19-3N1 (\*938, p. 20; 946, p. 28). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 94 N., R. 19 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 4.70; June 24, 8.09; Sept. 15, 11.53; Dec. 21, 12.35.

94-19-16R1 (\*938, p. 20; 946, p. 28). Edmond Kelsh. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 94 N., R. 19 W. Measuring point is 1.25 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 24, 14.47; Sept. 15, 16.80; Dec. 21, 20.04.

94-19-21P1 (\*938, p. 20; 946, p. 28). William Hogan Estate. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 94 N., R. 19 W. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 31.42; Sept. 15, 32.76; Dec. 21, 33.31.

94-19-25N1 (\*938, p. 21; 946, p. 29). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, T. 94 N., R. 19 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 3.38; June 24, 5.80; Sept. 15, 7.60; Dec. 21, 9.53.

Cherokee County

92-40-26P1 (\*886, p. 116; 908, p. 14; 938, p. 21; 946, p. 29). City of Cherokee well 2 south. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 92 N., R. 40 W. Measuring point is 0.2 foot below land-surface datum. Measurements by D. Kennedy, Cherokee Water Works.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 19	15.9	Mar. 16	15.2	May 7	15.7		
	a 23.1		a 21.4		a 23.0	Dec. 30	a 23.2
Feb. 4	15.8	Apr. 7	15.8	Nov. 4	18.4		16.8
	a 21.6		a 21.9				a 21.7

Clay County

96-35-3R1 (\*908, p. 14; 938, p. 21; 946, p. 29). Allis Wilson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 96 N., R. 35 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 2.65; June 24, 3.28; Sept. 17, 3.16; Dec. 16, 3.48.

Clinton County

81-6E-22H1 (\*908, p. 14; 938, p. 21; 946, p. 29). E. I. duPont de Nemours & Co. well 2. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 81 N., R. 6 E. Measuring point is 2.0 feet above land-surface datum. Measurements made by E. I. duPont de Nemours & Co.

Water level, in feet below land-surface datum, 1943

Jan. 7	b 57.1	Mar. 18	b 55.9	June 25	b 71.4	Sept. 8	b 62.2
15	b 53.6	23	b 59.6	July 3	b 67.9	20	b 62.2
21	b 52.2	Apr. 9	b 61.0	6	b 69.1	29	b 64.0
25	b 48.3	19	b 60.8	9	b 66.1	3	b 64.3
28	c 35.0	23	b 59.2	10	b 67.4	20	b 64.5
Feb. 3	b 48.1	May 12	b 62.2	15	b 67.4	Nov. 10	b 64.0
11	b 51.8	20	b 60.3	17	d 70.9	22	b 65.6
Mar. 2	b 58.0	June 3	b 60.6	19	b 61.0	27	b 62.2
5	b 56.6	10	b 56.4	28	b 66.8	29	b 58.7
10	b 55.7	21	b 67.5	Aug. 7	b 64.6		

81-7E-6K1 (\*908, p. 14; 938, p. 21; 946, p. 30). W. Atlee Burpee Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 81 N., R. 7 E. Measuring point is at land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 21, 74.83.

Decatur County

69-25-29R1 (\*908, p. 14; 938, p. 22; 946, p. 30). Sam Gassett. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 69 N., R. 25 W. Measuring point is at land-surface datum. No measurements made in 1943.

Dickinson County

99-36-6G1 (\*938, p. 22; 946, p. 30). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 99 N., R. 36 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet with reference to land-surface datum, 1943: Mar. 25, +0.45; June 25, +0.55; Sept. 17, -0.16; Dec. 15, -0.81.

- a Pumping.
- b Pumping; owner's well 1 idle.
- c Owner's well 1 pumping.
- d Pumping; owner's well 1 also pumping.

Emmet County

100-32-11R1 (\*886, p. 116; 908, p. 15; 938, p. 22; 946, p. 30). Okamanpedan State Park. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 100 N., R. 32 W. Measuring point is 0.25 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 61.69; June 24, 61.64; Sept. 17, 61.94.

99-34-14B1 (\*886, p. 116; 908, p. 15; 938, p. 22; 946, p. 30). City of Estherville well 3. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 99 N., R. 34 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, a/108.47; Sept. 16, b/108.52.

99-32-10E1 (\*908, p. 15; 938, p. 22; 946, p. 30). C. E. Birney. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 99 N., R. 32 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 4.03; June 24, 3.50; Sept. 17, 4.23; Dec. 16, 4.44. Well abandoned; measurements discontinued.

99-31-31J1 (\*938, p. 22; 946, p. 30). Chicago & North Western Ry. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 99 N., R. 31 W. Measuring point, top of plank covering of well pit, 0.2 foot above land-surface datum. Well abandoned; measurements discontinued.

Hardin County

89-20-7E1 (\*938, p. 22; 946, p. 30). Wm. H. Gilbert. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 89 N., R. 20 W. Measuring point is 0.2 foot above land-surface datum. Measurements made by Wm. H. Gilbert.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	15.89	Apr. 12	14.85	June 6	14.99	Aug. 29	16.74
Feb. 7	15.50	18	14.75	20	15.55	Sept. 12	16.36
21	14.80	May 2	14.72	July 11	15.88	Oct. 17	17.27
28	15.01	9	14.80	25	16.14	31	17.28
Mar. 7	14.93	16	14.45	Aug. 15	16.70	Dec. 23	17.46
21	14.90	30	14.80				

Harrison County

80-42-11Q1 (\*908, p. 15; 938, p. 22; 946, p. 31). City of Woodbine. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 80 N., R. 42 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 23	17.68	Aug. 1	13.52	Oct. 1	13.43	Dec. 1	14.48
June 28	12.55	Sept. 1	12.60	Nov. 2	14.27		

79-41-34N1 (\*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 79 N., R. 41 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: June 28, 46.43; Sept. 30, 46.26; Dec. 13, 46.45.

78-42-11A1 (\*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31). Mutual Benefit Life Insurance Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 78 N., R. 42 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 25.36; June 28, 25.93; Sept. 30, 25.40; Dec. 13, 26.25.

78-42-12Q1 (\*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 78 N., R. 42 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 28, 22.79; Sept. 30, 24.07; Dec. 13, 23.67.

a Shut down for 5 hours.

b Shut down for 10 minutes.

Ida County

89-40-35D1 (\*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31). City of Holstein well 3. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 89 N., R. 40 W. No measurements made in 1943.

Iowa County

80-9-3L1 (\*946, p. 31). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 80 N., R. 9 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	3.76	May 26	2.50	Aug. 24	4.22	Nov. 29	4.27
Feb. 25	80	28	2.85	28	4.29	Dec. 13	3.95
Mar. 27	2.32	June 21	3.09	Oct. 1	4.60	24	4.17
Apr. 27	1.76	July 27	4.60	28	4.50		

Jasper County

80-18-31C1 (\*908, p. 16; 938, p. 23; 946, p. 32). Maynard Lust. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 80 N., R. 18 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	21.88	May 28	13.40	Aug. 28	14.38	Nov. 29	20.85
Mar. 27	23.13	June 21	11.94	Oct. 1	15.22	Dec. 24	22.55
Apr. 27	22.70	July 27	13.85	28	17.17		

Jefferson County

72-10-26A1 (\*946, p. 32). Dr. Charles Carter. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 72 N., R. 10 W. Measuring point is 0.3 foot above land-surface datum. Highest observed water level during year, 18.91 feet below land-surface datum on Jan. 1; lowest, 24.88 feet below land-surface datum on May 16.

Water level at noon, in feet below land-surface datum, 1942-43

(From recorder charts)

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	24.88	23.82	22.95	22.34	21.59	19.51
2	.....	24.85	23.80	23.01	.....	21.50	19.47
3	.....	24.82	23.70	23.03	22.35	21.45	19.41
4	.....	24.83	23.69	22.94	22.28	21.44	19.43
5	.....	24.85	23.62	22.92	22.28	21.37	19.49
6	.....	24.81	23.56	22.92	22.27	21.26	19.50
7	.....	24.77	23.52	.....	22.19	21.20	19.55
8	.....	24.74	23.49	.....	22.13	21.16	19.60
9	.....	24.66	23.40	.....	22.05	21.15	19.63
10	.....	24.59	23.34	.....	21.99	21.03	19.60
11	25.23	24.55	23.34	.....	21.98	20.94	19.56
12	25.22	24.51	23.34	.....	21.89	20.91	19.49
13	25.22	24.48	23.37	.....	21.83	20.91	19.48
14	25.22	24.37	23.40	.....	21.83	20.90	19.47
15	25.19	24.27	23.41	22.41	21.82	20.70	19.44
16	25.19	24.18	23.41	22.36	21.75	18.91	19.49
17	25.15	24.17	23.39	22.36	21.77	19.15	19.45
18	25.16	.....	23.38	22.37	21.78	19.36	19.43
19	25.20	.....	23.34	22.33	21.82	19.52	19.42
20	25.22	.....	23.26	22.35	21.78	19.63	19.38
21	.....	24.10	23.21	22.39	21.76	19.74	19.37
22	.....	24.02	23.16	22.74	21.73	19.82	19.40
23	25.10	23.95	23.06	22.84	21.70	19.83	19.38
24	25.08	23.88	23.04	22.79	21.87	19.78	19.36
25	25.07	.....	23.07	22.73	21.79	19.71	19.36
26	25.03	.....	23.06	22.67	21.75	19.66	19.35
27	24.97	.....	23.02	22.62	21.58	19.66	19.34
28	24.96	.....	22.96	22.59	21.61	19.68	19.33

a Pumped for short time beginning at 12:20 p.m.

72-10-26A1. Dr. Charles Carter--Continued.

Water level at noon, in feet below land-surface datum, 1942-43  
(From recorder charts)

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
29	24.94	.....	.....	22.57	21.58	19.68	19.39
30	24.93	.....	.....	22.43	21.56	19.65	19.46
31	24.91	.....	.....	22.38	.....	19.58	.....

Water level at noon, in feet below land-surface datum, 1942-43  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.51	20.88	20.84	22.66	23.75	24.12
2	19.55	20.90	20.90	22.73	23.82	24.11
3	19.59	20.85	20.95	22.81	23.67	24.16
4	19.57	20.86	20.99	22.90	23.87	23.17
5	19.56	20.93	21.00	22.98	23.84	24.18
6	19.57	21.00	21.01	23.05	23.84	24.15
7	19.61	21.02	21.06	23.12	23.70	24.17
8	19.68	21.00	21.14	23.15	23.77	24.14
9	19.74	20.98	21.24	23.15	23.81	24.19
10	19.78	20.98	21.33	22.18	23.89	24.24
11	19.84	20.98	21.42	23.23	23.97	24.27
12	19.88	20.92	21.49	23.26	23.99	24.22
13	19.95	20.88	21.52	23.23	24.02	24.25
14	19.96	20.88	21.54	23.28	24.06	24.29
15	20.03	20.88	21.57	23.38	24.05	24.35
16	20.06	20.86	21.65	23.43	24.08	24.42
17	20.08	20.86	21.77	23.47	24.07	24.45
18	20.18	20.88	21.86	23.47	24.04	24.44
19	20.23	20.89	21.90	23.49	24.06	24.42
20	20.28	20.86	21.96	23.49	24.08	24.44
21	20.35	20.84	22.00	23.50	24.08	24.40
22	20.41	20.81	22.04	23.57	24.15	24.42
23	20.49	20.78	22.15	23.62	24.21	24.47
24	20.55	20.76	22.22	23.65	24.25	24.51
25	20.60	20.75	22.28	23.70	24.25	24.49
26	20.66	20.74	22.36	23.75	24.22	24.45
27	20.71	20.77	22.40	23.77	24.21	24.45
28	20.75	20.81	22.47	23.76	24.18	24.47
29	20.73	20.82	22.54	23.74	24.17	24.48
30	20.78	20.83	22.61	23.73	24.15	24.46
31	20.85	20.83	.....	23.70	.....	24.47

Johnson County

80-5-9K2 (\*908, p. 16; 938, p. 23; 946, p. 32). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 80 N., R. 5 W. Measuring point is 2.3 feet above land-surface datum. Highest observed water level during year, 0.39 foot below land-surface datum on Apr. 29; lowest, 4.04 feet below land-surface datum on Sept. 17.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.82	3.03	2.23	1.57	0.81	1.65	2.36	3.15	3.51	3.24	3.60	3.70
2	.81	3.02	2.33	1.76	1.01	.59	2.45	3.25	3.56	3.29	3.64	3.76
3	.82	2.09	2.39	1.83	1.36	.84	2.53	2.30	3.60	3.34	3.67	3.79
4	1.03	1.17	2.44	1.85	1.54	1.24	2.07	1.28	3.63	3.38	3.63	3.78
5	1.26	.88	2.64	2.02	1.68	.70	1.77	1.81	1.63	3.41	3.67	3.77
6	1.38	.72	2.67	2.08	.91	.44	2.03	2.18	1.01	3.45	3.70	3.54
7	1.46	....	2.80	.71	1.37	.78	2.23	2.40	1.60	3.46	2.55	3.28
8	1.56	....	2.84	.96	1.55	.84	2.40	2.54	1.73	3.48	2.66	3.24
9	1.54	....	2.83	1.01	1.75	.98	2.52	2.66	2.20	3.49	2.92	3.36
10	1.70	....	2.89	1.22	1.67	1.17	2.63	2.80	2.36	3.57	2.99	3.34
11	1.74	....	2.92	1.41	1.59	.76	2.70	2.88	2.53	3.59	3.10	3.34
12	1.88	....	2.92	.99	1.89	.66	2.87	2.91	2.60	3.60	3.12	3.36

80-5-9K2. Geological Survey, U. S. Dept. of Interior--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	1.99	....	2.83	1.34	2.00	0.76	2.86	1.77	2.79	3.48	3.21	3.46
14	2.00	....	2.80	1.60	2.13	1.05	1.18	2.31	2.95	3.62	3.26	3.54
15	2.04	....	....	1.72	1.84	.48	1.82	2.44	3.32	3.66	3.28	3.57
16	2.23	2.27	....	1.83	.53	.43	.86	2.52	3.72	3.66	3.36	3.61
17	2.34	2.48	....	2.03	.64	.48	1.68	2.67	4.04	3.66	3.33	3.60
18	2.36	2.47	....	2.09	.44	.75	2.06	2.82	2.28	3.66	3.38	3.61
19	2.52	2.37	....	2.13	.42	1.09	2.09	2.89	2.43	3.69	3.47	3.62
20	2.48	1.58	....	2.21	.45	1.39	2.32	2.98	2.53	3.70	3.48	3.68
21	2.46	1.40	-1.52	2.32	.65	.54	2.44	3.06	2.58	3.60	3.51	3.68
22	2.52	1.36	1.37	2.37	.90	.89	2.59	3.12	2.74	3.65	3.62	3.73
23	2.61	1.28	.77	1.97	1.11	1.16	2.69	3.08	2.86	3.68	3.62	3.77
24	2.60	1.57	.64	2.14	.73	1.46	2.77	3.16	2.86	3.70	3.63	3.76
25	2.80	1.75	.73	2.21	1.10	1.72	2.86	3.24	2.98	3.70	3.63	3.75
26	2.86	1.93	.87	2.31	1.32	1.90	2.94	3.24	3.00	3.70	3.63	3.76
27	2.88	1.96	1.08	.55	1.54	2.05	3.01	3.24	3.05	3.70	3.68	3.82
28	2.90	2.10	1.28	.81	1.75	1.94	3.04	3.30	3.14	3.70	3.67	3.83
29	2.91	....	1.39	.39	1.91	2.18	3.07	3.32	3.18	3.73	3.71	3.84
30	2.96	....	1.41	.56	1.76	2.30	3.16	3.36	3.21	3.76	3.71	3.83
31	2.95	....	1.49	....	1.53	....	3.26	3.42	....	3.54	....	3.88

80-5-22M1 (\*938, p. 24; 946, p. 33). Chicago, Rock Island & Pacific Ry. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 80 N., R. 5 W. Measuring point is 0.3 foot above land-surface datum. Highest observed water level during year, less than 5.95 feet on several days in April, May, and June. At this level the water overflows into well 80-5-22M2, which is a drilled well inside well 80-5-22M1. Lowest observed water level during year, 15.77 feet on Oct. 22.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.90	....	11.64	9.69	(a)	8.57	9.78	12.30	13.62	14.33	15.67	15.18
2	10.04	....	11.84	9.89	(a)	7.29	9.88	12.39	13.80	14.44	15.69	15.28
3	10.12	....	11.80	10.03	(a)	6.04	9.99	12.50	13.94	14.55	15.70	15.39
4	10.35	....	11.64	9.84	5.97	6.02	10.07	12.30	14.05	14.67	15.61	15.38
5	10.53	....	11.88	10.08	6.16	6.35	10.16	12.06	14.00	14.76	15.54	15.41
6	10.46	....	11.95	10.22	6.60	6.34	10.25	11.93	13.89	14.85	15.55	15.36
7	10.60	....	12.13	9.99	6.97	(a)	10.38	11.84	13.61	14.93	15.36	15.37
8	10.80	....	12.27	9.67	7.38	(a)	10.48	11.85	13.78	15.02	15.12	15.23
9	10.72	9.78	12.23	9.39	7.78	(a)	10.57	11.92	13.79	15.09	15.08	15.29
10	10.90	9.64	12.30	9.37	8.00	6.14	10.64	12.11	13.80	15.16	15.05	15.28
11	11.04	9.92	12.40	9.36	8.22	6.54	10.73	12.25	13.85	15.27	15.02	15.24
12	11.24	10.25	12.42	9.16	8.57	6.68	10.83	12.34	13.80	15.34	14.85	15.08
13	11.37	10.54	12.44	9.20	8.88	6.93	10.95	12.38	13.40	15.34	14.80	15.16
14	11.18	10.81	12.37	9.41	9.09	7.19	11.05	12.34	13.11	15.47	14.79	....
15	11.27	10.94	12.11	9.52	9.14	7.42	11.00	12.28	13.02	15.58	14.68	....
16	11.37	11.16	10.84	9.44	7.40	7.24	10.92	12.25	13.06	15.62	14.72	....
17	11.70	11.28	10.49	9.85	(a)	6.89	10.87	12.32	13.15	15.63	14.35	....
18	11.80	11.54	10.37	9.96	(a)	6.77	10.89	12.38	13.12	15.65	14.63	....
19	11.84	11.58	10.17	9.97	(a)	6.89	10.85	12.43	13.10	15.68	14.72	....
20	....	11.42	10.37	10.06	(a)	7.24	10.87	12.48	13.20	15.70	14.77	....
21	....	11.49	10.52	10.23	(a)	7.33	10.89	12.58	13.23	15.71	14.78	....
22	....	11.45	10.45	10.33	(a)	7.45	11.04	12.69	13.33	15.77	14.93	....
23	....	11.36	10.02	10.46	(a)	7.73	11.16	12.80	13.52	15.74	15.00	....
24	....	11.51	9.62	10.48	(a)	8.06	11.27	12.94	13.60	15.72	15.02	....
25	....	11.62	9.43	10.47	6.04	8.42	11.37	13.07	13.70	15.71	14.99	....
26	....	11.54	9.35	10.58	6.45	8.71	11.52	13.18	13.82	15.70	14.94	....
27	....	11.49	9.42	6.70	7.02	8.95	11.63	13.29	13.88	15.65	14.94	....
28	....	11.49	9.54	(a)	7.49	9.15	11.76	13.35	14.02	15.60	15.01	....
29	....	....	9.61	(a)	7.84	9.45	11.85	13.38	14.15	15.56	15.07	....
30	....	....	9.52	(a)	8.17	9.67	12.05	13.45	14.25	15.59	15.12	....
31	....	....	9.51	....	8.37	....	12.22	13.51	....	15.60	....	....

a Less than 5.95 feet.

80-5-22M2 (\*938, p. 24; 946, p. 34). Chicago, Rock Island, & Pacific Ry. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 80 N., R. 5 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	14.78	Mar. 31	14.82	June 18	13.89	Oct. 10	16.16
16	15.49	Apr. 22	15.43	July 9	15.04		

### Linn County

85-6-19J1 (\*908, p. 17; 938, p. 24; \*946, p. 34). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 85 N., R. 6 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	4.56	Apr. 30	3.82	July 30	4.90	Oct. 28	5.04
Feb. 27	4.30	May 29	4.27	Aug. 30	4.75	Nov. 30	4.85
Mar. 29	4.26	June 30	4.55	Sept. 27	5.05	Dec. 31	5.17

85-6-26D1 (\*908, p. 17; 938, p. 24; 946, p. 34). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 85 N., R. 6 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	3.94	Apr. 30	1.78	July 30	5.35	Oct. 28	7.35
Feb. 27	1.83	May 29	3.08	Aug. 30	6.00	Nov. 29	7.52
Mar. 29	1.76	June 30	3.53	Sept. 27	6.75	Dec. 31	7.19

85-6-29B1 (\*908, p. 17; 938, p. 25; 946, p. 34). Earl Balderson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 85 N., R. 6 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	58.77	Apr. 30	58.24	July 30	58.68	Oct. 28	61.04
Feb. 27	58.67	May 29	58.07	Aug. 30	59.83	Nov. 30	61.73
Mar. 29	58.97	June 30	58.13	Sept. 27	60.31	Dec. 31	62.15

85-6-30D1 (\*946, p. 34). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 85 N., R. 6 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 27	12.27	May 29	12.32	Aug. 30	14.56	Nov. 30	15.77
Mar. 29	12.13	June 30	12.65	Sept. 27	15.45	Dec. 31	15.60
Apr. 30	11.41	July 30	14.07	Oct. 28	15.87		

84-7-13E1 (\*908, p. 18; 938, p. 25; 946, p. 35). Alfred Rinderknecht. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 84 N., R. 7 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	4.78	Apr. 30	2.92	July 30	5.52	Oct. 28	7.30
Feb. 27	3.75	May 29	3.68	Aug. 30	5.29	Nov. 30	7.38
Mar. 29	3.29	June 30	4.37	Sept. 27	5.26	Dec. 31	6.68

84-6-20N1 (\*908, p. 18; 938, p. 25; 946, p. 35). Geological Survey, U. S. Dept. of Interior. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 84 N., R. 6 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	5.11	Apr. 30	4.02	July 30	6.36	Oct. 28	7.12
Feb. 27	4.28	May 29	4.18	Aug. 30	5.30	Nov. 30	7.02
Mar. 29	4.24	June 30	4.83	Sept. 27	6.45	Dec. 31	6.02

84-6-22F1 (\*908, p. 18; 938, p. 25; 946, p. 35). C. A. Wissler. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 84 N., R. 6 W. Measuring point is 0.5 foot above land-surface datum.

83-7-11E1. Louis Maresh--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Nov.	Dec.
28	69.73	68.76	68.28	74.17	72.81
29	69.67	.....	68.14	74.18	72.74
30	69.68	.....	.....	74.16	72.70
31	69.68	.....	.....	.....	72.80

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	April		May		June		July	
	High	Low	High	Low	High	Low	High	Low
1	.....	.....	a67.96	.....	.....	.....	73.62	74.56
2	.....	.....	a67.53	.....	.....	.....	a73.64	.....
3	.....	.....	a67.79	.....	.....	.....	73.76	74.68
4	.....	.....	a67.74	.....	.....	.....	74.56	74.98
5	.....	.....	67.52	68.45	.....	.....	74.98	75.84
6	a67.95	.....	a68.38	.....	.....	.....	75.84	76.82
7	a67.81	.....	a68.54	.....	a71.00	.....	76.82	77.56
8	67.79	68.79	a68.46	.....	a70.95	.....	77.20	77.61
9	a68.46	.....	68.18	68.58	69.93	70.85	a77.21	.....
10	a68.71	.....	a68.13	.....	70.52	71.23	77.45	77.96
11	67.94	68.49	.....	.....	70.97	71.47	a77.82	.....
12	a67.92	.....	.....	.....	71.48	72.95	77.81	78.25
13	a67.94	.....	.....	.....	72.31	72.95	78.25	78.87
14	a67.87	.....	.....	.....	72.37	73.12	a78.91	.....
15	67.29	67.77	.....	.....	73.12	73.75	a78.69	.....
16	67.29	67.77	.....	.....	a73.99	.....	a78.66	.....
17	a67.73	.....	a67.99	.....	73.53	74.09	78.81	79.31
18	a67.72	.....	a67.95	.....	a73.40	.....	78.51	79.33
19	a67.57	.....	a67.80	.....	73.58	74.15	a78.51	.....
20	a67.53	.....	a67.74	.....	74.15	74.74	a78.57	.....
21	67.52	.....	67.65	68.15	a74.74	.....	a78.77	.....
22	a67.44	.....	a68.09	.....	74.92	75.44	a78.96	.....
23	a67.48	.....	a68.09	.....	a75.60	.....	a78.97	.....
24	67.52	.....	a67.68	.....	75.79	76.26	a79.13	.....
25	a67.57	.....	a67.70	.....	a76.39	.....	79.36	79.90
26	67.58	.....	a67.63	.....	a76.76	.....	a79.90	.....
27	67.45	67.92	a67.66	.....	a76.94	.....	80.08	80.50
28	a67.93	.....	68.12	69.29	76.99	77.50	a80.66	.....
29	a67.65	.....	69.29	70.59	76.11	77.50	80.85	81.33
30	a68.04	.....	70.12	70.75	74.56	76.11	a81.35	.....
31	.....	.....	a70.56	.....	.....	.....	.....	.....

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	August		September		October	
	High	Low	High	Low	High	Low
1	.....	.....	81.32	81.92	75.49	76.23
2	a 81.45	.....	a 81.65	.....	75.80	76.25
3	a 81.57	.....	81.10	81.65	75.27	75.80
4	a 81.68	.....	a 81.37	.....	a 75.02	.....
5	a 81.68	.....	80.67	81.42	a 74.82	.....
6	81.34	81.79	80.15	80.86	a 74.89	.....
7	a 81.26	.....	79.27	80.15	a 74.90	.....
8	a 81.54	.....	78.50	79.27	a 74.98	.....
9	81.60	82.19	77.72	78.50	a 75.03	.....
10	a 82.11	.....	77.24	77.72	74.79	75.22
11	82.15	82.48	76.60	77.27	a 74.65	.....
12	a 82.63	.....	75.80	76.60	a 74.80	.....
13	a 82.77	.....	75.27	75.80	a 74.82	.....
14	a 82.85	.....	74.90	75.59	a 74.90	.....
15	81.62	82.73	a 75.63	.....	a 74.72	.....
16	80.87	81.64	a 75.59	.....	a 74.55	.....
17	79.94	80.87	74.83	75.46	74.05	74.47

a Daily fluctuation less than 0.4 foot.



## 84-6-22Fl. C. A. Wissler--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	5.01	Apr. 30	3.82	July 30	5.49	Oct. 28	7.12
Feb. 27	a 4.33	May 29	3.80	Aug. 30	5.89	Nov. 30	7.54
Mar. 29	3.96	June 30	4.44	Sept. 27	6.48	Dec. 31	7.24

83-7-1Bl (#938, p. 25; 946, p. 35). City of Marion. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 83 N., R. 7 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	7.88	July 30	5.70	Sept. 27	6.32	Nov. 30	7.07
Apr. 30	7.56	Aug. 30	5.93	Oct. 28	6.74	Dec. 31	7.38
May 29	6.58						

83-7-2Pl (#908, p. 18; 938, p. 26; 946, p. 35). Mr. Hollenbeck. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 83 N., R. 7 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 30	30.43	Apr. 30	28.05	July 30	30.30	Oct. 28	31.68
Feb. 27	27.97	May 29	26.34	Aug. 30	30.96	Nov. 30	31.93
Mar. 29	27.97	June 30	25.74	Sept. 27	31.93	Dec. 31	31.33

83-7-6Bl (#908, p. 19; 938, p. 26; 946, p. 35). Schrimper Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 83 N., R. 7 W. Measuring point is 0.25 foot above land-surface datum. Well abandoned Nov. 30; measurements discontinued.

Water level, in feet below land-surface datum, 1943

Feb. 27	54.04	May 29	52.57	July 30	53.98	Oct. 28	64.12
Apr. 30	54.43	June 30	53.20	Aug. 30	58.86		

83-7-11Bl (#938, p. 26; 946, p. 35). Louis Maresh. In Cedar Rapids, in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 83 N., R. 7 W., on 36th St., N.E. Measuring point is at land-surface datum. Highest observed water level during year, 67.29 feet below land-surface datum on Apr. 15 and 16; lowest, 82.85 feet below land-surface datum on Aug. 14.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Nov.	Dec.
1	69.91	69.84	68.90	73.84	74.11
2	69.88	69.74	68.89	73.84	74.40
3	69.79	69.48	68.65	73.83	74.44
4	70.01	69.68	68.55	73.62	74.50
5	69.81	69.55	68.80	73.77	74.35
6	69.71	69.63	68.70	73.82	74.33
7	69.72	69.67	68.89	73.67	74.19
8	69.75	69.46	68.85	73.49	74.29
9	69.43	69.27	68.65	73.84	74.65
10	69.68	69.39	68.77	73.82	74.59
11	69.61	69.40	68.70	73.88	74.49
12	69.69	69.40	68.75	73.81	74.41
13	69.60	69.37	68.81	73.91	74.27
14	69.36	69.45	68.67	73.80	74.18
15	69.36	69.30	68.54	73.74	73.91
16	69.68	69.17	68.60	73.85	73.74
17	69.77	69.33	68.61	73.78	73.39
18	69.64	69.24	68.60	73.86	73.28
19	69.95	69.05	68.34	74.01	73.19
20	69.64	69.03	68.70	74.00	73.09
21	69.46	68.99	68.56	74.13	73.02
22	69.42	68.83	68.59	74.12	73.09
23	69.66	68.80	68.47	74.14	73.10
24	69.51	69.02	68.35	74.20	72.88
25	69.84	68.84	68.28	74.14	72.81
26	69.82	68.90	68.29	74.19	72.77
27	69.77	68.56	68.28	74.33	72.85

a Depth to ice.

83-7-11E1. Louis Maresh--Continued.

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	August		September		October	
	High	Low	High	Low	High	Low
18	79.23	79.94	a 74.55	.....	a 74.00	.....
19	78.64	79.23	a 74.53	.....	a 73.91	.....
20	78.30	78.77	a 74.04	.....	a 73.99	74.60
21	.....	.....	a 73.81	.....	a 74.77	.....
22	.....	.....	a 74.13	.....	a 74.65	.....
23	.....	79.38	a 74.31	.....	a 74.57	.....
24	79.38	80.26	a 73.96	.....	a 74.39	.....
25	80.26	81.01	a 74.03	.....	a 74.26	.....
26	81.01	81.66	a 73.79	.....	a 74.17	.....
27	a 81.54	.....	73.52	74.02	a 74.02	.....
28	80.99	81.60	74.02	74.62	a 73.92	.....
29	.....	81.00	74.59	74.99	a 73.91	.....
30	.....	80.84	74.94	75.49	a 73.94	.....
31	80.84	81.32	.....	.....	a 73.90	.....

83-7-16D1 (\*908, p. 19; 938, p. 27; 946, p. 37). City of Cedar Rapids.  
In Shaver Park, Cedar Rapids, in NW $\frac{1}{4}$  sec. 16, T. 83 N., R. 7 W. Measuring  
point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	86.27	Apr. 30	84.00	Aug. 30	87.25	Nov. 30	88.13
Feb. 27	84.88	May 29	83.62	Sept. 27	87.86	Dec. 31	88.61
Mar. 29	84.36	July 30	b 86.66	Oct. 28	88.27		

83-7-16J1 (\*908, p. 19; 938, p. 27; 946, p. 37). City of Cedar Rapids.  
In Daniels Park, Cedar Rapids, in NE $\frac{1}{4}$  sec. 16, T. 83 N., R. 7 W. Measuring  
point is 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	30.90	Apr. 30	30.29	July 30	b 29.28	Oct. 28	29.50
Feb. 27	b 30.43	May 29	b 29.44	Aug. 30	b 29.50	Nov. 30	b 29.87
Mar. 29	b 30.73	June 30	b 29.27	Sept. 27	29.50	Dec. 31	30.03

83-7-17L1 (\*908, p. 19; 938, p. 27; 946, p. 37). City of Cedar Rapids.  
In Ellis Park, Cedar Rapids, in NE $\frac{1}{4}$  sec. 17, T. 83 N., R. 7 W. Measuring  
point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	20.07	Apr. 30	18.94	July 30	20.00	Oct. 28	20.18
Feb. 27	17.92	May 29	18.98	Aug. 30	19.81	Nov. 30	20.10
Mar. 29	18.27	June 30	19.10	Sept. 27	20.21	Dec. 31	20.47

83-7-21K1. Wapsi Valley Creamery. In Cedar Rapids, in NW $\frac{1}{4}$  sec. 21,  
T. 83 N., R. 7 W. Unused drilled well, diameter 8 to 6-5/8 inches, depth  
156 feet. Cased from +1.7 feet to 28.3 feet with 8-inch casing, and from  
21.3 feet to 105 feet with 6-5/8-inch casing. Taps water in rocks of  
Silurian age. Measuring point, top of casing, 1.05 feet above concrete  
floor and 1.75 feet above land-surface datum.Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Aug.	20	58.43	Aug. 31	58.71	Sept. 11	58.54	Sept. 22	58.49
	21	58.47	Sept. 1	58.78	12	58.32	23	58.46
	22	58.35	2	58.79	13	58.26	24	58.47
	23	58.40	3	58.82	14	58.47	25	58.43
	24	58.67	4	58.75	15	58.55	26	58.25
	25	58.75	5	58.36	16	58.60	27	58.17
	26	58.72	6	58.20	17	58.55	28	58.21
	27	58.70	7	58.28	18	58.47	29	58.26
	28	58.63	8	58.45	19	58.11	30	58.25
	29	58.38	9	58.46	20	58.19	Oct. 1	58.21
	30	58.55	10	58.52	21	58.35	2	58.22

a Daily fluctuation less than 0.4 foot.

b Pumped shortly before measurement.

## 83-7-21K1. Wapsi Valley Creamery--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 3	58.03	Oct. 25	57.43	Nov. 20	57.29	Dec. 11	57.22
4	57.93	26	57.48	21	57.51	12	56.91
5	58.08	27	57.50	22	57.20	13	56.95
6	58.09	28	57.50	23	57.33	14	57.17
7	58.03	29	57.51	24	57.35	15	57.23
8	58.00	30	57.55	25	57.02	16	57.28
9	57.93	31	57.43	26	57.11	17	57.15
10	57.77	Nov. 1	57.41	27	57.31	18	57.19
11	57.78	2	57.49	28	56.90	19	56.93
12	57.89	3	57.48	29	57.06	20	57.01
13	57.91	4	57.45	30	57.15	21	57.28
14	57.91	5	57.49	Dec. 1	57.11	22	57.33
15	57.83	6	57.47	2	57.20	23	57.33
16	57.79	7	57.39	3	57.12	24	57.23
17	57.67	8	57.25	4	57.11	25	56.84
18	57.51	9	57.35	5	56.80	26	56.73
19	57.63	10	57.30	6	57.05	27	57.03
20	57.64	11	57.31	7	57.19	28	57.24
21	57.71	12	57.30	8	57.28	29	57.32
22	57.64	13	57.21	9	57.33	30	57.32
23	57.58	14	57.00	10	57.30	31	57.22
24	57.46	15	57.35				

83-7-21L1 (#908, pp. 19-20; 938, p. 28; 946, pp. 37-39). City of Cedar Rapids. In Cedar Rapids, in NE 1/4 sec. 21, T. 83 N., R. 7 W., at north end of Second Street, N.E. Measuring point is about 2.3 feet above original land-surface datum. Highest observed water level during year, 29.00 feet below land-surface datum on Jan. 2; lowest, 55.55 feet below land-surface datum on Aug. 13.

Daily high and low water levels, in feet below land-surface datum, 1941  
(From recorder charts)

Day	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	29.53	32.94	32.15	38.20	.....	.....	36.89	39.82	35.00	39.25	35.16	45.35
2	29.00	31.89	35.60	38.56	.....	.....	36.17	39.37	31.89	35.35	38.36	47.01
3	29.85	34.60	36.24	38.63	.....	.....	32.97	36.17	31.27	37.70	29.05	39.05
4	30.40	35.12	36.39	38.72	.....	.....	29.68	33.04	34.20	38.91	40.49	44.44
5	33.33	35.64	35.90	37.81	.....	.....	31.52	37.69	34.44	40.62	37.84	41.17
6	32.75	35.14	34.99	36.48	.....	.....	35.42	38.76	35.48	39.33	36.46	39.97
7	32.61	36.74	33.36	35.17	.....	.....	36.00	40.70	35.56	37.62	34.11	40.81
8	34.48	37.10	32.86	37.25	.....	.....	37.13	39.73	34.18	36.80	35.78	41.04
9	33.21	.....	34.77	37.90	.....	.....	36.63	39.85	34.36	35.52	33.55	40.85
10	.....	.....	36.25	38.71	.....	.....	34.34	38.14	34.42	40.91	36.18	42.41
11	.....	.....	35.58	38.29	.....	.....	32.41	35.11	36.83	41.80	38.77	43.48
12	.....	.....	34.89	37.31	.....	.....	30.34	38.49	38.25	42.17	37.45	50.48
13	.....	.....	34.50	37.36	.....	.....	34.76	37.93	37.46	41.41	36.79	44.70
14	.....	.....	33.70	41.07	.....	.....	36.51	39.62	37.50	39.94	34.68	49.31
15	.....	.....	32.40	38.61	.....	.....	35.36	39.67	34.79	37.50	40.72	49.25
16	.....	.....	36.90	39.13	.....	.....	35.17	36.91	32.76	35.64	39.19	46.88
17	.....	.....	37.08	39.82	.....	37.30	34.51	36.58	31.69	40.13	37.53	45.67
18	.....	.....	35.78	38.31	34.61	37.72	31.47	35.37	38.69	41.25	39.39	47.07
19	.....	.....	35.36	40.30	34.49	36.75	31.05	36.59	37.36	41.68	38.56	48.35
20	.....	.....	35.44	37.56	32.51	34.77	33.26	37.38	36.31	39.53	38.88	46.28
21	.....	.....	33.91	35.18	29.56	33.74	33.19	38.58	36.20	39.78	35.59	49.63
22	.....	.....	32.20	36.01	27.79	36.97	34.02	39.02	36.24	40.42	39.68	51.70
23	.....	.....	32.82	36.00	29.92	39.23	34.05	38.10	35.35	41.02	41.84	51.70
24	.....	.....	33.07	38.89	36.18	38.66	34.79	38.16	34.20	41.85	41.67	52.00
25	.....	.....	34.72	37.61	34.99	38.10	31.74	34.79	38.61	41.91	42.33	50.18
26	.....	.....	33.10	36.22	32.43	35.91	30.50	38.69	38.39	41.45	40.02	49.62
27	.....	.....	32.98	33.90	31.25	33.57	34.48	38.76	39.49	43.72	39.04	46.07
28	.....	.....	30.38	32.59	29.90	32.80	34.38	38.28	37.02	42.05	38.00	48.82
29	.....	.....	.....	.....	30.57	42.90	34.67	38.47	37.06	43.97	38.65	43.35
30	34.40	36.80	.....	.....	40.20	44.26	34.73	37.04	32.90	37.32	36.29	40.15
31	29.43	35.02	.....	.....	37.92	40.20	.....	.....	32.83	39.09	.....	.....

83-7-2111. City of Cedar Rapids--Continued.  
Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	33.00	39.88	45.40	50.60	48.68	54.77	41.44	45.95	34.35	39.78	32.30	37.60
2	32.64	42.45	45.63	(a)	49.20	54.26	41.05	44.47	36.40	40.72	32.59	38.58
3	37.90	46.40	48.34	(a)	48.79	54.01	(b)	42.05	36.20	40.85	31.58	37.18
4	37.81	43.81	48.30	(a)	48.61	53.94	(b)	42.34	36.26	40.70	31.48	35.78
5	33.95	38.31	48.93	54.20	45.34	51.50	(b)	44.63	41.58	36.06	30.20	32.40
6	34.31	46.64	48.68	(a)	42.34	46.26	(b)	43.82	36.80	39.50	30.23	38.52
7	36.36	49.72	48.97	(a)	41.28	47.75	(b)	43.18	(c)	37.00	36.14	39.78
8	38.44	50.70	45.16	53.08	45.34	49.02	(b)	42.28	(c)	38.30	36.45	40.62
9	41.08	51.39	45.62	(a)	45.13	49.68	(b)	41.40	35.31	38.14	36.62	40.69
10	39.13	48.30	49.67	(a)	45.87	48.97	(b)	(b)	34.88	38.10	36.63	40.20
11	38.42	45.98	50.10	(a)	46.27	48.96	(b)	41.80	34.73	38.88	34.70	38.72
12	35.66	50.70	50.20	(a)	42.44	47.58	37.60	44.31	34.87	38.84	30.55	34.70
13	40.53	51.90	48.83	55.55	41.66	48.70	38.82	43.82	(c)	38.84	29.90	38.35
14	41.67	51.24	48.00	54.00	45.97	50.21	39.15	42.32	(c)	37.00	35.22	39.87
15	41.83	51.40	45.30	52.20	46.50	49.67	37.60	41.44	(c)	38.15	36.32	40.65
16	41.60	50.82	43.40	49.90	47.29	50.54	37.55	42.27	36.20	39.52	37.17	41.55
17	40.31	47.67	45.28	49.90	47.08	49.80	(c)	40.90	36.93	39.87	35.22	39.82
18	37.55	44.19	46.83	50.98	45.70	47.98	(c)	39.50	36.30	39.78	35.92	39.60
19	37.90	50.22	46.98	51.61	40.42	45.70	35.02	40.43	36.01	39.26	32.90	36.00
20	40.66	(a)	45.72	52.46	(b)	47.03	36.25	40.60	35.77	37.76	32.67	40.47
21	46.82	(a)	47.24	51.68	43.81	47.60	37.01	41.54	(c)	35.85	36.70	42.00
22	48.30	(a)	45.28	49.24	45.90	48.83	36.45	39.78	(c)	38.52	37.15	41.23
23	47.70	54.02	44.47	53.02	44.63	49.07	35.64	38.50	36.34	39.90	37.15	40.99
24	46.63	52.94	48.75	55.57	46.10	48.70	(c)	36.30	36.86	40.28	32.30	38.08
25	44.42	50.00	49.17	54.87	44.25	47.70	(c)	38.10	(c)	37.58	30.50	32.30
26	42.70	(a)	48.63	54.07	(b)	44.25	35.20	39.30	(c)	38.70	29.92	34.82
27	47.52	(a)	48.57	52.48	(b)	45.16	35.55	39.55	34.82	39.47	30.55	38.89
28	48.40	(a)	47.76	52.40	40.68	45.34	35.58	40.20	(c)	34.82	36.47	40.61
29	47.82	(a)	46.17	51.41	41.56	46.58	(c)	40.40	(c)	36.78	37.40	41.03
30	48.10	(a)	44.05	53.94	41.30	46.10	36.80	40.18	34.26	38.08	38.00	40.66
31	46.48	54.05	48.07	55.34	.....	.....	34.38	38.23	.....	.....	35.34	38.00

83-7-21P1 (#938, p. 28; 946, p. 39). Kresge Co. In Cedar Rapids, in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 83 N., R. 7 W., at corner of First Ave. S.E., and Third St. N.E. Measuring point is about 5.8 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	46.15	Apr. 30	47.73	Sept. 27	58.27	Nov. 30	44.89
Feb. 27	43.35	June 30	56.40	Oct. 28	46.96	Dec. 1	45.15
Mar. 29	44.87						

83-7-21Q1 (#938, p. 28; 946, p. 39). Iowa Theater. In Cedar Rapids, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 83 N., R. 7 W., at corner of First Ave., S.E. and Third St., N.E. Measuring point is 5.60 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	44.57	Mar. 29	42.24	Oct. 28	45.60	Dec. 31	43.34
Feb. 27	42.16	Apr. 30	45.22	Nov. 30	42.91		

83-7-23G1 (#908, p. 20; 938, p. 29; 946, p. 39). City of Cedar Rapids. In Bever Park, Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 83 N., R. 7 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	3.28	Apr. 30	2.50	July 30	3.15	Oct. 28	3.20
Feb. 27	3.84	May 29	2.41	Aug. 30	3.31	Nov. 30	3.20
Mar. 29	2.75	June 30	2.56	Sept. 27	3.44	Dec. 31	3.38

a More than 54.32 feet.

b Less than 40.42 feet.

c Less than 34.34 feet.

83-7-24A1 (\*908, p. 20; 938, p. 29; 946, p. 39). John Zrudsky. In Cedar Rapids, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 83 N., R. 7 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	28.25	Apr. 30	26.76	July 30	34.50	Oct. 28	32.59
Feb. 27	27.14	May 29	29.26	Aug. 30	27.81	Nov. 30	28.58
Mar. 29	26.93	June 30	26.46	Sept. 27	28.17	Dec. 31	28.45

83-7-28G2 (\*908, p. 20; 938, pp. 28-29; 946, pp. 39-40). Cedar Rapids Gas Co. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 83 N., R. 7 W., at corner of Eighth Ave. SE. and First St. NE. Measuring point is at land-surface datum. Highest observed water level during year, 37.75 feet below land-surface datum on Oct. 18; lowest, 62.50 feet below land-surface datum on July 29.

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	44.28	46.20	48.65	53.08	44.70	50.13	43.49	46.82	42.24	44.31	38.65	47.98
2	44.18	47.37	48.61	52.88	48.34	50.85	44.09	46.78	39.32	42.38	42.65	53.80
3	44.00	47.00	47.49	49.76	49.13	51.44	37.96	44.52	39.38	44.79	46.25	56.36
4	45.86	52.10	47.83	50.88	49.78	53.00	.....	.....	42.37	46.59	49.15	52.98
5	49.57	54.00	47.82	52.52	51.20	53.26	.....	40.57	43.26	48.74	45.60	50.50
6	47.61	52.43	48.34	52.70	50.78	52.47	40.56	43.62	45.02	48.46	42.51	46.48
7	46.81	53.00	48.08	50.65	46.74	50.92	41.83	45.83	45.28	47.44	40.65	46.92
8	46.72	51.91	46.46	48.48	46.60	50.92	43.33	46.88	44.26	47.43	44.58	47.50
9	45.31	50.83	46.78	52.16	49.26	51.37	44.25	47.05	41.56	45.16	45.32	48.40
10	44.02	45.31	48.18	53.59	48.50	50.37	44.28	46.50	41.61	46.48	45.00	49.90
11	43.90	49.31	50.85	54.23	48.08	50.29	40.50	44.65	44.49	48.12	40.95	51.03
12	45.43	52.96	51.04	53.39	45.96	49.59	40.50	44.84	45.50	48.70	46.71	57.12
13	49.50	53.66	50.23	52.57	44.89	47.03	42.39	46.59	45.68	48.62	47.25	54.45
14	49.70	52.00	47.13	50.23	41.86	45.69	43.23	46.33	45.78	49.08	45.10	58.45
15	48.71	51.61	47.06	52.26	41.68	47.25	43.28	47.85	45.18	48.17	52.63	57.86
16	48.71	51.11	50.45	52.16	46.75	52.28	43.45	46.85	45.18	39.20	50.78	58.18
17	46.62	48.71	49.48	52.42	50.57	53.41	43.67	45.81	39.20	44.84	49.55	56.83
18	46.44	51.30	47.78	52.96	51.18	54.43	40.20	43.77	43.30	47.49	48.64	57.80
19	49.12	52.14	48.01	51.80	51.17	53.20	40.22	44.11	46.55	49.68	50.02	58.46
20	49.43	53.00	47.33	49.58	47.34	51.78	41.93	44.81	47.09	50.55	45.50	56.79
21	49.62	52.55	45.05	47.33	41.62	47.34	42.25	44.71	47.90	51.94	42.18	57.47
22	49.76	53.58	44.92	49.35	41.51	45.27	42.47	45.81	48.94	51.94	51.21	60.85
23	48.44	52.69	47.25	49.97	43.33	45.82	42.66	47.23	43.24	49.75	53.27	62.13
24	45.34	48.26	47.40	52.40	43.74	46.63	42.97	45.49	42.63	50.90	54.60	62.47
25	47.63	53.28	49.07	51.38	44.22	46.07	40.00	43.90	47.26	50.28	54.15	62.32
26	50.53	52.80	47.54	49.80	43.49	46.00	40.00	44.32	47.77	50.80	56.39	62.02
27	49.67	52.13	45.65	49.30	42.42	44.40	42.21	45.59	48.28	50.34	48.35	60.80
28	49.73	53.00	44.33	46.20	40.80	42.42	42.93	48.35	46.00	53.13	44.95	57.36
29	48.65	51.40	.....	.....	40.70	45.32	42.85	44.85	49.84	54.53	49.81	54.00
30	47.43	51.26	.....	.....	44.07	47.83	42.40	44.73	41.70	50.75	47.52	51.16
31	48.21	51.26	.....	.....	44.08	45.36	.....	.....	39.24	41.84	.....	.....

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	45.09	48.30	48.80	60.05	52.75	60.94	48.50	51.99	39.13	46.40	40.44	43.72
2	43.84	50.32	46.71	57.82	53.07	60.83	49.03	52.10	42.84	47.04	41.22	45.32
3	46.80	55.70	51.63	58.56	53.62	61.31	46.02	49.70	42.37	47.70	41.24	44.53
4	43.84	52.73	54.37	61.00	55.47	60.92	45.00	49.48	42.29	45.16	40.51	43.76
5	40.69	46.00	56.12	61.32	48.26	58.44	47.09	50.28	42.42	47.18	39.58	41.85
6	44.44	55.95	52.79	61.40	47.45	50.72	45.94	49.90	42.37	46.73	39.14	46.30
7	48.16	58.34	53.43	62.01	45.58	52.28	52.33	45.94	40.20	42.37	42.40	45.40
8	49.29	59.02	47.50	60.98	47.53	50.87	51.10	54.16	39.75	41.80	40.81	43.78
9	50.30	59.55	46.90	59.13	48.00	50.02	49.43	52.68	41.59	45.19	41.11	44.38
10	50.10	59.00	52.83	60.86	47.78	50.63	47.58	50.18	40.76	45.59	41.12	44.74
11	44.38	58.16	53.63	62.13	48.58	50.48	47.20	42.50	40.92	45.33	40.96	44.51

83-7-28G2. Cedar Rapids Gas Co.--Continued.

Daily high and low water levels, in feet below land-surface datum, 1943  
(From recorder charts)

Day	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
12	42.65	56.54	54.27	62.29	44.59	48.58	39.97	43.17	40.73	42.53	40.54	44.18
13	50.08	60.12	53.69	59.49	44.03	.....	40.20	44.10	39.50	42.18	43.72	46.35
14	51.97	60.26	50.34	58.80	.....	.....	39.61	44.29	39.59	41.00	42.80	45.84
15	52.08	59.62	43.94	55.75	.....	.....	40.61	44.87	40.27	42.69	42.35	44.76
16	51.72	59.76	43.20	55.64	.....	.....	40.71	43.95	39.58	44.90	.....	.....
17	51.89	59.70	51.78	57.10	47.33	53.10	38.18	40.71	39.80	43.70	.....	.....
18	46.42	58.12	50.24	56.70	47.10	52.54	37.75	42.14	39.77	43.60	.....	.....
19	45.19	58.30	50.20	57.01	43.24	46.39	40.72	43.47	40.17	43.95	.....	.....
20	50.94	60.12	49.55	58.10	52.85	48.83	41.86	44.52	40.97	43.20	40.30	45.97
21	51.77	60.84	49.95	56.03	46.95	50.26	42.74	45.92	39.70	41.85	40.15	43.58
22	52.40	60.10	45.48	55.66	48.13	50.85	42.02	44.40	39.28	43.77	40.53	46.12
23	51.17	59.07	43.89	55.62	48.06	51.08	42.06	43.79	40.46	45.47	41.72	45.35
24	50.15	58.20	48.44	58.16	47.76	50.22	39.02	42.06	40.31	45.31	41.11	44.13
25	47.23	57.47	49.75	57.95	47.27	49.68	38.13	44.02	39.77	42.17	39.72	41.44
26	46.59	59.36	49.44	57.70	44.07	47.57	41.06	44.63	39.32	42.92	41.24	42.07
27	52.10	61.88	49.17	56.70	43.47	48.75	40.55	43.11	41.69	45.83	41.42	45.89
28	56.31	61.76	49.85	56.51	47.00	51.02	40.83	43.72	39.72	44.10	42.71	46.20
29	54.02	62.50	.....	55.02	48.38	52.10	41.16	45.25	39.26	42.75	42.03	44.52
30	54.35	62.31	43.60	57.49	49.10	51.28	41.80	43.82	40.56	43.53	40.87	46.00
31	.....	61.44	51.27	60.05	.....	.....	39.64	41.80	.....	.....	41.98	44.91

83-7-32G1 (\*908, p. 21; 938, pp. 29-30; 946, p. 41). Floyd Felter. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 83 N., R. 7 W., at corner of 22d Ave. SW. and 11th St. NE. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	77.80	Apr. 30	77.20	July 30	79.36	Oct. 28	77.68
Feb. 27	77.67	May 29	76.60	Aug. 30	78.90	Nov. 30	77.57
Mar. 29	77.58	June 30	77.67	Sept. 27	78.33	Dec. 31	78.14

83-7-33F1 (\*908, p. 21; 938, p. 30; 946, p. 41). In Cedar Rapids, in SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 83 N., R. 7 W., at corner of 22d Ave. and K St. SW. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	71.76	Apr. 30	71.64	July 30	69.70	Oct. 28	69.78
Feb. 27	71.69	May 29	71.27	Aug. 30	69.41	Nov. 30	70.10
Mar. 29	71.67	June 30	70.51	Sept. 27	69.55	Dec. 31	70.35

83-6-30B1 (\*908, pp. 21-22; 938, p. 30; 946, p. 41). Mr. Katz. In Cedar Rapids, in NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 83 N., R. 6 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	50.97	Apr. 30	49.66	July 30	49.68	Oct. 28	50.72
Feb. 27	50.13	May 29	49.04	Aug. 30	49.99	Nov. 30	50.95
Mar. 29	49.61	June 30	48.86	Sept. 27	50.45	Dec. 31	51.10

Lyon County

99-44-26R1 (\*908, p. 22; 938, p. 30; 946, p. 41). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 99 N., R. 44 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 4.45; June 25, 0.65. Well destroyed Sept. 16; measurements discontinued.

99-43-11H1 (\*908, p. 22; 938, p. 31; 946, p. 41). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 99 N., R. 43 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 1.60; June 25, 0.65; Sept. 17, 3.38; Dec. 15, 3.22.

98-48-24M1 (\*886, p. 118; 908, p. 22; 938, p. 31; 946, p. 41). A. C. Hanson. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 98 N., R. 48 W. Measuring point is 1.8 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Apr. 6, 10.20.

#### Madison County

76-28-2B1 (\*908, p. 22; 938, p. 31; 946, p. 41). Glen Newton. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 76 N., R. 28 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	15.17	Apr. 26	15.45	July 28	20.34	Oct. 28	18.12
Feb. 25	15.53	May 26	15.16	Aug. 25	20.42	Nov. 29	16.47
Mar. 23	15.34	June 29	17.89	Oct. 1	20.59	Dec. 13	16.25

76-26-26F1 (\*946, pp. 41-42). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 76 N., R. 26 W. Measuring point is at land-surface datum. Well abandoned; measurements discontinued.

#### Marion County

75-20-22H1 (\*908, p. 22; 938, p. 31; 946, p. 42). Union Central Life Insurance Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 75 N., R. 20 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	5.18	Apr. 26	4.48	July 28	5.33	Oct. 28	4.83
Feb. 25	6.82	May 26	2.99	Aug. 26	5.03	Nov. 29	5.32
Mar. 22	6.25	June 29	4.07	Oct. 1	4.53	Dec. 13	4.97

75-20-31C2 (\*908, p. 23; 938, p. 31; 946, p. 42). Miss Amanda Elliot. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 75 N., R. 20 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	8.21	Apr. 26	8.53	July 28	7.65	Oct. 28	10.71
Feb. 25	14.45	May 26	4.83	Aug. 26	8.34	Nov. 29	11.41
Mar. 22	11.12	June 29	5.82	Oct. 1	9.94	Dec. 13	11.75

74-21-11A1 (\*946, p. 42). Mr. Riddel. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 74 N., R. 21 W. Measuring point is 0.1 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	7.95	Apr. 26	7.50	July 28	9.51	Oct. 28	12.17
Feb. 25	7.73	May 26	5.71	Aug. 26	10.23	Nov. 29	12.09
Mar. 22	7.35	June 29	6.88	Oct. 1	11.53	Dec. 13	12.18

74-21-15H1 (\*946, p. 42). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 74 N., R. 21 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.94	Apr. 26	3.43	July 28	4.90	Oct. 28	11.09
Feb. 25	3.87	May 26	2.52	Aug. 26	5.60	Nov. 29	11.86
Mar. 22	3.40	June 29	3.36	Oct. 1	9.82	Dec. 13	12.49

74-20-2M1 (\*908, p. 23; 938, p. 32; 946, p. 42). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 74 N., R. 20 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	3.50	May 26	3.16	Aug. 26	3.02	Nov. 29	3.25
Mar. 22	3.47	June 29	3.14	Oct. 1	3.12	Dec. 13	3.27
Apr. 26	3.33	July 28	5.00	28	3.20		

a. Pumped shortly before measurement.

74-20-16M1 (\*908, p. 23; 938, p. 32; 946, p. 43). G. Wendall. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 74 N., R. 20 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	22.01	Apr. 26	20.77	July 28	18.75	Oct. 28	20.35
Feb. 25	21.90	May 26	15.14	Aug. 26	19.55	Nov. 29	20.52
Mar. 22	21.68	June 29	16.75	Oct. 1	20.38	Dec. 13	20.71

74-20-22C1 (\*946, p. 43). Grant DeWitt. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 74 N., R. 20 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 28	8.30	Apr. 26	7.95	July 28	8.19	Oct. 28	11.74
Feb. 25	8.45	May 26	4.48	Aug. 26	8.37	Nov. 29	11.90
Mar. 23	8.65	June 29	5.79	Oct. 1	10.46	Dec. 13	12.81

74-20-33D1 (\*908; p. 23; 938, p. 32; 946, p. 43). T. V. Beebout. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 74 N., R. 20 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 28	21.10	Apr. 26	19.85	July 28	13.99	Oct. 28	14.60
Feb. 25	20.73	May 26	18.64	Aug. 26	14.11	Nov. 29	14.73
Mar. 23	20.33	June 29	13.93	Oct. 1	14.37	Dec. 13	14.75

### Montgomery County

71-36-21R1 (\*946, p. 43). City of Villisca well 1. In Villisca, in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 71 N., R. 36 W. Measuring point is 2.0 feet below land-surface datum. Measurements made by C. J. Sandquist, water superintendent.

Water level, in feet below land-surface datum, 1943

Jan. 1	a 15.70	Apr. 2	17.15	May 27	ab 11.55	Aug. 31	a 13.10
Feb. 1	16.80	May 4	a 16.20	July 8	a 9.30	Oct. 6	a 17.00
Mar. 3	a 16.00						

### Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by D. L. Hummel).

7 (\*777, pp. 63-64; \*817, pp. 56, 57-59; \*840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 122; 908, p. 36; 938, p. 39; 946, p. 55). E. F. Holquist. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 71 N., R. 38 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	23.42	Apr. 27	23.65	July 30	19.76	Oct. 29	23.58
Feb. 23	23.76	May 27	20.68	Aug. 27	21.48	Nov. 29	23.72
Mar. 25	23.89	June 29	14.50	Sept. 28	23.01	Dec. 27	24.23

72 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 45; 946, p. 55). O. A. Milner. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 72 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	11.60	Apr. 27	11.73	July 30	8.97	Oct. 29	12.23
Feb. 23	11.88	May 27	8.63	Aug. 26	10.37	Nov. 27	12.49
Mar. 25	12.08	June 29	5.11	Sept. 28	11.75	Dec. 30	12.84

73 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 46; 946, p. 55). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 72 N., R. 38 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	16.15	Apr. 27	17.01	July 30	15.37	Oct. 29	17.30
Feb. 23	16.22	May 27	15.34	Aug. 26	15.85	Nov. 27	17.62
Mar. 25	15.26	June 29	13.72	Sept. 28	16.69	Dec. 30	17.96

a Owner's wells 2 and 3 pumping. b Measured by Geological Survey.



78 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; 946, p. 55). Mr. Mainquist. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 71 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	7.19	Apr. 27	5.60	July 30	4.84	Oct. 29	7.06
Feb. 23	7.29	May 27	4.98	Aug. 27	5.44	Nov. 27	7.36
Mar. 25	6.45	June 29	3.51	Sept. 28	6.71	Dec. 30	7.88

79 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; 946, p. 55). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 71 N., R. 38 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	17.17	Apr. 27	(a)	July 30	12.26	Oct. 28	16.30
Feb. 23	(a)	May 27	17.08	Aug. 27	12.95	Nov. 27	17.31
Mar. 25	(a)	June 29	9.98	Sept. 28	12.19	Dec. 30	(a)

81 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 135; 908, p. 37; 938, p. 46; 946, p. 56). L. G. Bergren. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 71 N., R. 38 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	8.48	Apr. 27	8.02	Aug. 27	8.43	Nov. 27	8.99
Feb. 23	8.59	May 27	7.56	Sept. 28	8.87	Dec. 30	9.13
Mar. 25	7.83	June 28	6.52	Oct. 28	8.96		

82 (\*840, pp. 93, 98-99; 845, p. 92; 886, p. 135; 908, p. 37; 938, p. 47; 946, p. 56). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 72 N., R. 37 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	22.12	Apr. 27	24.51	July 30	19.26	Oct. 28	22.16
Feb. 23	23.29	May 27	21.07	Aug. 27	18.94	Nov. 27	23.68
Mar. 25	21.88	June 29	17.07	Sept. 28	20.89	Dec. 30	25.54

#### Muscatine County

76-2-14D1 (\*886, p. 118; 908, p. 24; 938, p. 32; 946, p. 43). City of Muscatine test well 4. In Muscatine, in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 76 N., R. 2 W. Measuring point is 1.5 feet above land-surface datum. Measurements by P. J. Haverkamp, Muscatine Water & Electric Plant.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.40	Mar. 5	8.91	May 7	6.72	June 25	8.27
8	9.86	12	8.30	14	8.09	July 2	4.73
15	10.06	19	7.80	21	6.82	9	4.15
22	8.44	26	7.40	28	8.24	22	6.74
29	8.77	Apr. 2	6.89	June 4	7.63	Aug. 13	10.13
Feb. 12	9.48	9	5.96	11	5.45	Oct. 22	11.55
19	10.07	16	6.04	18	5.65	29	11.27
26	9.15	23	4.97				

76-2-15A1 (\*908, p. 24; 938, p. 32; 946, p. 43). City of Muscatine test well 5. In Muscatine, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 76 N., R. 2 W. Measuring point is 2.1 feet above land-surface datum. Measurements by P. J. Haverkamp, Muscatine Water & Electric Plant.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.70	Mar. 5	7.33	May 7	4.84	June 25	3.84
8	7.90	12	7.03	14	5.88	July 2	3.47
15	8.26	19	6.40	21	4.82	9	3.06
22	7.22	26	5.90	28	5.93	22	4.15
29	7.26	Apr. 2	5.63	June 4	6.13	Aug. 13	7.98
Feb. 12	7.68	9	4.88	11	4.09	Oct. 22	9.79
19	8.12	16	4.78	18	4.31	29	9.42
26	7.71	23	3.80				

a Dry.

O'Brien County

94-40-22G1 (#946, p. 44). A. F. Meier. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 94 N., R. 40 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 10.73; June 28, 8.02; Sept. 17, 10.64; Dec. 14, 12.99.

94-40-22J1 (#938, p. 32; #946, p. 44). Illinois Central Railroad. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 94 N., R. 40 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 235.63; June 28, 235.47; Sept. 17, well bridged; measurements discontinued.

Osceola County

99-41-18C2 (#908, p. 24; 938, p. 33; 946, p. 44). City of Sibley. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 99 N., R. 41 W. Measuring point is at land-surface datum. Water level, in feet below land-surface datum, 1943: June 25, 22.47.

Page County

69-36-31K1 (#908, p. 24; 938, p. 33; 946, p. 44). City of Clarinda. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 69 N., R. 36 W. Measuring point is 0.85 foot above land-surface datum. Highest observed water level during year, 12.50 feet below land-surface datum on June 12; lowest 21.37 feet below land-surface datum on Dec. 9.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.19	20.17	20.30	20.00	20.16	15.32	18.89	19.52	.....	20.90	20.70	
2	19.20	.....	20.51	20.26	.....	15.44	18.85	19.55	.....	20.90	21.08	
3	19.26	.....	20.15	20.15	.....	15.54	18.52	19.52	.....	20.79	21.17	
4	19.66	.....	.....	19.86	.....	15.64	18.33	19.49	.....	20.49	21.05	
5	19.44	19.45	20.26	20.21	.....	15.87	18.43	19.43	19.95	20.58	20.94	
6	19.11	19.79	20.29	.....	19.97	.....	16.12	18.39	19.53	19.90	20.58	21.09
7	19.36	19.75	20.48	.....	20.07	14.73	16.31	18.22	19.61	19.66	20.69	20.91
8	19.49	19.51	20.34	.....	20.18	14.39	16.45	18.03	19.75	20.09	20.65	20.84
9	19.03	19.37	20.15	.....	20.16	14.33	16.53	18.15	19.83	20.11	21.03	21.37
10	19.37	19.79	20.38	.....	.....	14.29	16.62	18.28	19.75	20.27	21.02	21.16
11	19.41	19.96	20.25	.....	.....	13.33	16.75	18.28	19.77	20.29	20.93	21.01
12	19.53	20.03	20.27	.....	20.23	12.50	16.88	18.22	19.73	20.18	20.89	20.90
13	19.51	.....	20.35	.....	20.31	12.57	17.01	18.28	19.57	20.21	20.89	21.12
14	19.11	.....	20.17	20.20	20.21	12.78	17.25	18.55	19.31	20.61	20.82	21.26
15	18.97	.....	19.86	.....	19.65	12.79	17.28	18.49	19.51	20.74	20.77	21.35
16	19.48	.....	20.32	.....	19.38	12.55	17.27	18.70	19.69	20.66	20.85	21.28
17	19.90	.....	20.47	20.25	19.05	12.55	17.66	18.89	19.77	20.55	20.53	21.21
18	.....	.....	20.39	.....	18.91	12.75	17.74	18.97	19.50	20.38	20.61	21.03
19	.....	.....	20.18	20.00	18.71	13.00	17.66	18.93	19.57	20.36	20.91	21.07
20	.....	.....	20.58	19.88	18.66	13.34	17.68	18.93	19.73	20.36	20.79	21.13
21	.....	.....	20.58	19.87	18.67	13.75	17.72	19.03	19.55	20.73	20.94	20.88
22	.....	.....	20.43	19.83	.....	14.07	17.99	19.07	19.79	20.79	21.15	21.11
23	.....	19.76	20.17	20.12	18.36	14.29	18.05	19.07	20.03	20.69	21.15	21.27
24	.....	20.27	.....	19.92	18.25	14.49	18.17	19.24	19.83	20.73	21.07	20.95
25	.....	20.28	.....	20.00	18.22	14.78	18.34	19.25	19.95	20.83	20.82	20.79
26	.....	20.28	.....	19.87	18.31	14.93	18.45	19.33	19.89	20.78	20.82	20.73
27	.....	.....	.....	.....	18.49	15.04	18.47	19.51	19.89	20.63	20.86	21.03
28	.....	.....	.....	20.21	18.45	15.15	18.47	19.50	20.05	20.43	20.72	20.99
29	19.86	.....	19.95	.....	.....	15.27	18.54	19.40	20.10	20.51	20.93	20.93
30	19.97	.....	19.73	20.26	.....	15.32	18.83	19.41	20.07	20.50	20.77	20.77
31	20.08	.....	19.80	.....	.....	.....	18.68	19.35	.....	20.65	.....	21.01

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by D. L. Hummel.)

5 (#777, pp. 63, 64; #817, pp. 56-59; #840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 31; 938, p. 39; 946, p. 56). John Toft. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 68 N., R. 38 W. Measuring point is 1.0 foot above land-surface datum.

## 5. John Toft--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	15.82	Apr. 26	16.06	July 29	12.26	Oct. 28	15.80
Feb. 22	15.94	May 25	15.01	Aug. 26	13.90	Nov. 29	15.88
Mar. 24	15.84	June 28	6.95	Sept. 23	15.38	* Dec. 29	15.92

6 (\*777, pp. 63-64; \*817, pp. 56-59; \*840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 122; 908, p. 31; 938, p. 39; 946, p. 56). T. Slickerveer. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 69 N., R. 38 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	3.74	Apr. 27	3.95	July 30	4.33	Oct. 28	3.92
Feb. 23	3.56	May 27	3.73	Aug. 27	3.99	Nov. 27	3.94
Mar. 25	3.10	June 29	3.79	Sept. 28	4.24	Dec. 30	3.88

10 (\*777, pp. 63-65; \*817, pp. 56-59; \*840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 39; 946, p. 56). R. Palmquist. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 70 N., R. 37 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	25.57	Apr. 27	26.01	July 30	24.71	Oct. 29	25.10
Feb. 23	25.75	May 27	26.04	Aug. 27	24.28	Nov. 27	25.40
Mar. 25	25.89	June 29	25.02	Sept. 28	23.80	Dec. 30	25.13

11 (\*777, pp. 64-65; \*817, pp. 56, 59-61; \*840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 56). R. Palmquist. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 70 N., R. 37 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	7.91	Apr. 27	8.08	July 30	7.11	Oct. 29	7.77
Feb. 23	8.03	May 27	6.71	Aug. 27	7.19	Nov. 27	7.91
Mar. 25	7.99	June 29	5.97	Sept. 26	7.26	Dec. 30	8.00

12 (\*777, pp. 64-65; \*817, pp. 56, 59-61; \*840, pp. 92, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 57). Amil Windhorst. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 69 N., R. 37 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	27.03	Apr. 27	26.95	July 30	17.98	Oct. 28	21.54
Feb. 23	24.61	May 27	25.98	Aug. 27	19.26	Nov. 27	22.75
Mar. 25	25.51	June 29	14.96	Sept. 28	20.38	Dec. 30	24.44

13 (\*817, pp. 57, 59-61; \*840, pp. 92, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 57). Amil Windhorst. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 69 N., R. 37 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 23	21.99	Apr. 27	25.22	July 30	16.38	Oct. 28	32.24
Feb. 23	27.75	May 27	20.15	Aug. 27	18.15	Nov. 27	42.48
Mar. 25	28.37	June 29	14.91	Sept. 28	25.52	Dec. 30	53.66

14 (\*777, pp. 64-65; \*817, pp. 57, 59-61; \*840, pp. 92-94; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 14; 946, p. 57). Floyd Hoskins. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 68 N., R. 38 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	21.91	Apr. 26	23.47	July 29	14.25	Oct. 28	20.87
Feb. 22	21.23	May 25	24.08	Aug. 26	15.86	Nov. 29	23.42
Mar. 2	21.62	June 28	9.82	Sept. 23	17.65	Dec. 29	24.38

15 (\*777, pp. 64-65; \*817, pp. 57, 59-61; \*840, pp. 92-94; 845, p. 86; 886, p. 124; 908, p. 32; 938, p. 40; 946, p. 57). Metropolitan Life Insurance Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 67 N., R. 38 W. Measuring point is 2.2 feet above land-surface datum.

## 15. Metropolitan Life Insurance Co.--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	6.44	Apr. 26	6.86	July 29	5.38	Oct. 28	6.16
Feb. 22	6.60	May 15	5.85	Aug. 26	5.55	Nov. 29	6.48
Mar. 24	6.68	June 28	2.82	Sept. 23	5.81	Dec. 29	6.67

16 (\*777, pp. 64-65; \*817, pp. 57, 59-61; \*840, pp. 92-94; 845, p. 86; 886, p. 124; 908, p. 32; 938, p. 40; 946, p. 57). Metropolitan Life Insurance Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 67 N., R. 38 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	(a)	Apr. 26	(a)	Aug. 26	15.88	Nov. 29	(a)
Feb. 22	(a)	June 28	10.82	Sept. 23	15.85	Dec. 16	(a)
Mar. 24	(a)	July 29	14.22	Oct. 28	16.40		

17 (\*777, pp. 64-65; \*817, pp. 57; 59-61; \*840, pp. 92-94; 845, p. 86; 886, p. 124; 908, p. 32; 938, p. 40; 946, p. 57). Albert Nordholm. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 67 N., R. 38 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	17.56	Apr. 26	17.95	July 29	15.80	Oct. 28	17.43
Feb. 22	17.60	May 25	17.76	Aug. 26	16.54	Nov. 29	17.94
Mar. 25	17.76	June 28	14.90	Sept. 23	17.11	Dec. 29	18.05

38 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 128; 908, p. 32; 938, p. 42; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	23.44	Apr. 26	25.12	July 29	14.24	Oct. 28	20.37
Feb. 22	23.94	May 25	23.78	Aug. 26	15.91	Nov. 29	21.72
Mar. 24	24.68	June 28	11.81	Sept. 23	17.37	Dec. 29	22.78

39 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 128; 908, p. 32; 938, p. 42; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	22.49	Apr. 26	25.13	Aug. 26	14.84	Nov. 29	20.76
Feb. 22	23.00	June 28	9.56	Sept. 23	17.44	Dec. 29	22.00
Mar. 24	23.68	July 29	12.67	Oct. 28	19.60		

40 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 128; 908, p. 32; 938, p. 43; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum. Well destroyed; measurements discontinued.

Water level, in feet below land-surface datum, 1943

Jan. 26	20.85	Apr. 26	22.16	July 29	11.32	Oct. 28	18.50
Feb. 22	20.96	May 25	19.43	Aug. 26	14.20	Nov. 29	(a)
Mar. 24	21.79	June 28	6.27	Sept. 23	16.66		

41 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 128; 908, p. 32; 938, p. 43; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	19.52	Apr. 26	20.53	July 29	10.01	Oct. 28	17.38
Feb. 22	19.78	May 25	15.53	Aug. 26	12.77	Nov. 29	18.95
Mar. 24	20.75	June 28	5.64	Sept. 23	15.34	Dec. 29	19.91

42 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 129; 908, p. 32; 938, p. 43; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

a Dry.

## 42. Elsie Nordstrom--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.05	May 25	14.86	Aug. 26	11.14	Nov. 29	20.04
Feb. 22	21.19	June 28	6.40	Sept. 23	14.47	Dec. 29	18.04
Apr. 26	21.43	July 29	8.01	Oct. 28	18.60		

43 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 129; 908, p. 33; 938, p. 43; 946, p. 58). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	13.03	Apr. 26	19.86	July 29	7.32	Oct. 28	16.06
Feb. 22	18.19	May 25	11.49	Aug. 26	11.37	Nov. 29	17.20
Mar. 24	18.79	June 28	3.81	Sept. 23	14.09	Dec. 29	17.72

44 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 129; 908, p. 33; 938, p. 43; 946, pp. 58-59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	17.56	Apr. 26	17.68	July 29	6.71	Oct. 28	15.57
Feb. 22	17.59	May 25	9.98	Aug. 26	11.22	Nov. 29	16.77
Mar. 24	18.58	June 28	3.26	Sept. 23	13.90	Dec. 29	17.35

44A (\*886, p. 130; 908, p. 33; 938, p. 43; 946, p. 59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	17.09	Apr. 26	16.77	July 29	6.78	Oct. 28	16.09
Feb. 22	16.69	May 25	8.66	Aug. 26	11.97	Nov. 29	17.13
Mar. 24	17.84	June 28	3.45	Sept. 23	14.34	Dec. 29	17.73

45 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 130; 908, p. 33; 938, p. 43; 946, p. 59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	16.92	Apr. 26	16.30	July 29	6.09	Oct. 28	15.50
Feb. 22	16.14	May 25	8.09	Aug. 26	11.20	Nov. 29	16.56
Mar. 24	17.70	June 28	3.00	Sept. 23	12.92	Dec. 29	15.60

46 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 130; 908, p. 33; 938, p. 44; 946, p. 59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum. Well destroyed; measurements discontinued after Dec. 29, 1943.

Water level, in feet below land-surface datum, 1943

Jan. 26	15.39	Mar. 24	16.09	May 25	7.15	Oct. 28	14.22
Feb. 22	14.60	Apr. 26	14.63	June 28	2.44	Nov. 29	15.25

47 (\*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 130; 908, p. 33; 938, p. 44; 946, p. 59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	14.86	Apr. 26	14.59	July 29	5.83	Oct. 28	12.49
Feb. 22	13.80	May 25	8.29	Aug. 26	9.22	Nov. 29	13.37
Mar. 24	15.36	June 28	3.67	Sept. 23	11.69	Dec. 29	14.53

49 (\*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 33; 938, p. 44; 946, p. 59). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	22.77	Apr. 27	24.85	July 29	14.57	Oct. 28	20.07
Feb. 22	23.37	May 25	24.27	Aug. 26	16.84	Nov. 29	21.40
Mar. 24	24.14	June 28	13.89	Sept. 23	18.40	Dec. 29	22.40

50 (\*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 44; 946, p. 59, 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.37	Apr. 27	23.26	July 29	11.84	Oct. 28	18.49
Feb. 22	22.01	May 25	23.32	Aug. 26	13.72	Nov. 29	19.95
Mar. 24	22.68	June 28	10.13	Sept. 28	16.34	Dec. 29	20.89

51 (\*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 44; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	20.77	Apr. 27	22.04	July 29	11.23	Oct. 28	17.23
Feb. 22	21.09	May 25	22.10	Aug. 26	13.11	Nov. 29	19.42
Mar. 24	21.59	June 28	9.24	Sept. 23	14.97	Dec. 29	19.93

52 (\*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 44; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	24.82	Apr. 27	26.38	July 29	11.95	Oct. 28	20.31
Feb. 22	25.28	May 25	26.37	Aug. 26	13.90	Nov. 29	22.19
Mar. 24	24.73	June 28	8.37	Sept. 23	17.47	Dec. 29	23.44

54 (\*340, pp. 93, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 44; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.8 foot above land-surface datum. Well destroyed; measurements discontinued after June 28, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 26	27.00	Mar. 24	29.08	May 25	30.44
Feb. 22	28.17	Apr. 27	30.09		

55 (\*840, pp. 93, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 45; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.8 foot above land-surface datum. Well destroyed; measurements discontinued after June 28, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 26	27.98	Mar. 24	29.57	May 25	29.78
Feb. 22	28.79	Apr. 27	30.39		

56 (\*340, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 46; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 26	29.37	Mar. 24	31.32	May 25	30.18
Feb. 22	28.38	Apr. 27	32.17	June 23	13.80

57 (\*840, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 45; 946, p. 60). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.9 foot above land surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	18.71	Apr. 27	20.09	July 23	5.72	Oct. 28	15.12
Feb. 22	19.12	May 25	17.60	Aug. 26	9.93	Nov. 29	16.56
Mar. 24	19.77	June 28	4.24	Sept. 23	13.29	Dec. 29	17.47

58 (\*840, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 45; 946, p. 61). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	13.68	Apr. 27	14.02	July 29	11.46	Oct. 28	13.12
Feb. 22	13.60	May 25	12.58	Aug. 26	12.38	Nov. 29	23.45
Mar. 24	13.70	June 28	9.78	Sept. 23	13.13	Dec. 29	13.76

59 (\*840, pp. 97-98; 845, p. 91; 886, p. 132; 908, p. 34; 938, p. 45; 946, p. 61). Frank Goodner. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 69 N., R. 39 W. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: June 28, 13.41.

70 (\*840, pp. 93, 98; 845, p. 91; 886, p. 133; 908, p. 34; 938, p. 45; 946, p. 61). John Snyder. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 69 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	7.84	Apr. 26	8.68	July 29	6.64	Oct. 28	8.96
Feb. 22	8.68	May 25	5.18	Aug. 26	7.75	Nov. 29	9.15
Mar. 24	5.48	June 28	3.20	Sept. 23	8.57	Dec. 29	9.28

71 (\*840, pp. 93; 98; 845, p. 91; 886, p. 133; 908, p. 35; 938, p. 45; 936, p. 61). John Snyder. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 69 N., R. 38 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	7.30	Apr. 26	7.31	July 29	6.33	Oct. 28	7.14
Feb. 22	7.33	May 25	6.31	Aug. 26	6.46	Nov. 29	7.31
Mar. 24	7.13	June 28	4.48	Sept. 23	6.82	Dec. 29	7.44

74 (\*840, pp. 93, 98; 845, p. 91; 886, p. 133; 908, p. 35; 938, p. 46; 946, p. 61). Fred Miller. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 69 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.01	Apr. 26	21.72	July 29	14.68	Oct. 28	18.27
Feb. 22	21.50	May 25	21.36	Aug. 26	16.48	Nov. 29	19.17
Mar. 24	21.95	June 28	12.21	Sept. 23	17.56	Dec. 29	20.42

75 (\*840, pp. 93, 98; 845, p. 91; 886, p. 134; 908, p. 35; 938, p. 46; 946, p. 61). I. W. Runyon. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 68 N., R. 38 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	38.96	Apr. 26	37.84	July 29	27.24	Oct. 28	37.94
Feb. 22	38.52	May 25	32.39	Aug. 26	32.68	Nov. 29	38.39
Mar. 24	38.60	June 28	16.20	Sept. 23	37.15	Dec. 29	38.49

76 (\*840, pp. 93, 98; 845, p. 91; 886, p. 134; 908, p. 35; 938, p. 46; 946, p. 61). Metropolitan Life Insurance Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 68 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	12.33	Apr. 26	12.56	July 29	11.40	Oct. 28	12.36
Feb. 22	12.43	May 25	12.15	Aug. 26	11.93	Nov. 29	12.66
Mar. 24	12.47	June 28	8.20	Sept. 23	12.27	Dec. 29	12.60

80 (\*840, pp. 93, 98; 845, p. 92; 886, p. 135; 908, p. 35; 938, p. 46; 946, p. 62). Mr. Burton. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 69 N., R. 38 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	27.09	Apr. 27	28.30	July 20	20.75	Oct. 28	26.20
Feb. 23	28.09	May 27	23.06	Aug. 27	16.90	Nov. 27	27.82
Mar. 25	28.23	June 29	16.30	Sept. 28	23.98	Dec. 30	29.14

83 (\*886, p. 135; 908, p. 35; 938, p. 47; 946, p. 62). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 69 N., 39 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	23.98	Apr. 27	25.68	July 29	17.97	Oct. 28	22.00
Feb. 22	24.39	May 25	25.34	Aug. 26	19.27	Nov. 29	23.29
Mar. 24	25.05	June 28	17.60	Sept. 23	20.63	Dec. 29	24.11

84 (\*886, p. 136; 908, p. 35; 938, p. 47; 946, p. 62). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	22.70	Apr. 27	24.46	July 29	17.40	Oct. 28	20.87
Feb. 22	23.23	May 25	23.33	Aug. 26	18.51	Nov. 29	22.04
Mar. 24	23.87	June 28	16.66	Sept. 23	19.69	Dec. 29	22.91

85 (\*886, p. 136; 908, p. 35; 938, p. 47; 946, p. 62). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	19.79	Apr. 27	21.46	July 29	14.69	Oct. 28	18.45
Feb. 22	20.39	May 25	19.34	Aug. 26	15.79	Nov. 29	19.22
Mar. 24	20.77	June 28	13.56	Sept. 23	16.95	Dec. 29	20.17

86 (\*886, p. 136; 908, p. 36; 938, p. 47; 946, p. 62). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	16.64	Apr. 27	18.30	July 29	11.68	Oct. 28	15.08
Feb. 22	17.18	May 25	15.58	Aug. 26	12.71	Nov. 29	16.10
Mar. 24	17.32	June 28	10.42	Sept. 23	13.95	Dec. 29	17.02

87 (\*886, p. 137; 908, p. 36; 938, p. 47; 946, p. 62). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 69 N., R. 39 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	11.56	Apr. 27	13.15	July 29	7.19	Oct. 28	10.18
Feb. 22	12.15	May 25	8.90	Aug. 26	8.14	Nov. 29	11.18
Mar. 24	12.14	June 28	5.76	Sept. 23	9.27	Dec. 29	12.02

#### Palo Alto County

##### Vicinity of Lost Island Lake

97-34-29N1 (\*908, p. 24; 938, p. 33; 946, p. 45). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 97 N., R. 34 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 0.95; June 24, 1.69; Sept. 17, 1.61.

97-34-29N2 (\*908, p. 24; 938, p. 34; 946, p. 45). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 97 N., R. 34 W. Measuring point is 1.5 feet above land-surface datum. Well flowing; no measurements made in 1943.

97-34-30Q1 (\*908, p. 24; 938, p. 34; 946, p. 45). Norman Broadwell. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 97 N., R. 34 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 17.00; June 24, 17.19; Sept. 17, 16.47; Dec. 16, 17.02.

97-34-32P1 (\*908, p. 24; 938, p. 34; 946, p. 45). Lost Island State Park. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 97 N., R. 34 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 8.59; June 24, 8.07; Sept. 17, 7.39; Dec. 16, 8.23.



96-34-6J1 (\*908, p. 25; 938, p. 34; 946, p. 45). Electric Park. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 96 N., R. 34 W. Measuring point is 3.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 0.70; June 24, 1.86; Sept. 17, 2.01; Dec. 16, 0.31.

Plymouth County

91-48-19M1 (\*836, p. 119; 908, p. 25; 938, p. 34; 946, p. 45). Joe Tracy. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 91 N., R. 48 W. Measuring point is 2.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 54.50; June 28, 52.18; Sept. 30, 55.04; Dec. 15, 55.99.

Polk County

78-24-4P1. S. S. Kresge Co. In Des Moines, in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 78 N., R. 24 W. Unused drilled well, diameter 12 inches, depth 57.80 feet. Taps water in alluvial sand and gravel. Measuring point, top of steel plate over well at  $\frac{1}{2}$ -inch hole, 6.95 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Aug. 24	30.97	Oct. 28	28.17	Dec. 24	28.28
Oct. 1	28.85	Nov. 29	28.21		

79-22-22A1 (\*908, p. 25; 938, p. 34; 946, p. 45). J. G. Reed. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 79 N., R. 22 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	5.10	Apr. 27	3.87	July 27	4.95	Oct. 28	5.12
Feb. 25	4.49	May 28	3.74	Aug. 28	4.41	Nov. 29	5.18
Mar. 27	4.18	June 21	3.67	Oct. 1	5.22	Dec. 24	5.70

Poweshiek County

78-15-1R1. Ben Harding. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 78 N., R. 15 W. Unused dug well, diameter 36 inches, depth 21.0 feet. Measuring point, top of concrete slab cover, 0.5 foot above land-surface datum. Taps water in glacial drift.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 26	3.66	Aug. 26	7.21	Oct. 28	11.42	Dec. 13	11.13
July 28	9.20	Oct. 1	10.04	Nov. 29	11.26		

Sac County

89-38-11J1 (\*946, p. 46). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 89 N., R. 38 W. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 2.16; June 28, 1.50; Sept. 16, 3.30; Dec. 14, 4.10.

89-38-26A2 (\*908, p. 25; 938, p. 34; 946, p. 46). City of Schaller. In Schaller, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 89 N., R. 38 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 220.23; June 28, 220.22; Sept. 16, 220.52; Dec. 14, 220.66.

86-36-2C1 (\*908, p. 25; 938, p. 25; 946, p. 46). John Christian. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 86 N., R. 36 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 1.97; June 28, 1.50; Sept. 16, 2.67; Dec. 14, 3.03.

86-36-2E1 (\*908, p. 25; 938, p. 35; 946, p. 46). Albert Culver, Jr. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 86 N., R. 36 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet with reference to land-surface datum, 1943: Mar. 24, +0.11; June 28, -0.12; Sept. 16, +0.37; Dec. 14, +0.80.

86-36-4N1 (\*908, p. 25; 938, p. 35; 946, p. 46). Iowa State Conservation Commission. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 86 N., R. 36 W. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.63; June 23, 4.29; Sept. 16, 3.98; Dec. 14, 4.61.

#### Sioux County

95-45-5A1 (\*886, p. 119; 903, p. 26; 938, p. 35; 946, p. 46). City of Sioux Center. In Sioux Center, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 95 N., R. 45 W. Measuring point is 3.75 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 267.57; June 28, 267.79; Dec. 15, 268.25.

#### Story County

83-24-4Q1 (\*886, p. 119; 903, p. 26; 938, pp. 35-36; 946, pp. 46-47). Iowa State College. In Ames, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 33 N., R. 24 W. Equipped with automatic water-stage recorder until Aug. 23, when recorder was removed. Measuring point is 3.3 feet above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	40.65	40.91	40.55	40.31	40.44	40.20	41.10	42.59
2	40.70	40.79	40.66	40.54	40.15	40.75	40.91	42.42
3	40.70	40.46	40.49	40.48	40.37	41.03	41.48	42.58
4	40.96	40.56	40.30	40.38	40.31	41.01	41.21	42.60
5	40.87	40.44	40.51	40.52	40.08	40.70	40.90	42.39
6	40.72	40.58	40.48	40.42	40.09	40.50	40.94	42.34
7	40.77	40.58	40.64	40.27	40.13	40.37	41.32	42.18
8	.....	40.47	40.60	40.34	40.17	40.31	41.78	41.72
9	.....	40.30	40.46	40.25	40.18	40.18	41.74	41.85
10	.....	40.42	40.56	40.40	40.07	40.09	41.94	42.45
11	.....	40.54	40.47	40.31	40.05	39.94	41.71	42.55
12	.....	40.63	40.47	40.19	40.13	40.34	41.83	42.44
13	.....	40.69	40.50	40.27	40.18	40.45	42.15	42.38
14	.....	40.79	40.41	40.37	40.16	40.95	42.43	42.56
15	.....	40.70	40.20	40.27	39.88	41.10	42.38	42.02
16	.....	40.64	40.30	40.25	39.96	40.90	42.25	42.08
17	.....	40.63	40.42	40.46	40.03	40.85	42.42	41.60
18	.....	40.62	40.47	40.43	40.04	41.00	42.02	41.35
19	.....	40.51	40.30	40.40	39.98	41.36	42.37	.....
20	.....	40.46	40.58	40.33	39.97	41.08	42.35	.....
21	40.52	40.48	40.62	40.31	40.00	41.42	42.27	.....
22	40.47	40.34	40.64	40.29	39.97	41.70	42.46	.....
23	40.67	40.25	40.52	40.37	39.88	41.96	42.55	41.27
24	40.56	40.52	40.46	40.26	39.70	42.16	42.57	41.82
25	40.85	40.53	40.39	40.34	39.68	42.25	42.36	42.05
26	40.92	40.57	42.42	40.28	39.72	42.32	42.70	42.20
27	40.89	40.31	40.43	40.23	39.85	41.81	42.90	41.94
28	40.84	40.38	40.45	40.45	39.90	41.85	43.02	.....
29	40.75	.....	40.38	40.20	40.31	41.75	42.98	.....
30	40.78	.....	40.21	40.45	40.23	41.43	43.35	.....
31	40.83	.....	40.25	.....	40.14	.....	43.10	.....

83-24-20J1 (\*886, p. 120; 908, p. 26; 938, p. 36; 946, p. 47). Agricultural Engineering Experiment Station. Near Ames, in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 83 N., R. 24 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	a 16.36	Apr. 1	a 17.55	June 30	a 10.60	Oct. 13	a 13.30
Feb. 4	a 17.20	May 1	a 14.50	Aug. 8	a 6.40	Dec. 1	a 18.20
Mar. 10	a 17.20	June 2	a 10.25	Sept. 1	a 9.70	24	18.67
27	17.02	21	9.25	14	10.93		

a Measured by D. E. Lagenbacher.

33-24-4R1 (\*946, p. 47). Iowa State College. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 83 N., R. 24 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 17.43; June 21, 13.21; Sept. 14, 15.34; Dec. 24, 17.81.

#### Warren County

77-25-12R1 (\*946, p. 47-48). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 77 N., R. 25 W. Measuring point is 1.6 feet above land-surface datum.

#### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	2.17	Apr. 27	1.88	July 28	1.89	Oct. 28	1.92
Feb. 25	2.06	May 28	1.83	Aug. 25	1.17	Nov. 29	2.03
Mar. 23	1.73	June 29	1.85	Oct. 1	1.63	Dec. 13	2.04

76-25-3Q1 (\*908, p. 26; 938, p. 36; 946, p. 48). Iowa State College. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 76 N., R. 25 W. Measuring point is 0.3 foot above land-surface datum.

#### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	11.02	Apr. 27	10.05	July 28	9.50	Oct. 28	12.32
Feb. 25	11.50	May 28	7.15	Aug. 25	8.89	Nov. 29	13.09
Mar. 23	11.79	June 29	6.51	Oct. 1	11.12	Dec. 13	13.59

#### Wayne County

67-23-20Q1 (\*908, p. 26; 938, p. 36; 946, p. 48). L. P. Bryan. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 67 N., R. 23 W. Measuring point is 0.25 foot above land-surface datum. No measurements made in 1943.

#### Webster County

90-30-26A1 (\*946, p. 48). County of Webster. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 90 N., R. 30 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 8.10; June 22, 6.68; Sept. 16, 10.33; Dec. 17, 11.86.

90-30-32D2. (\*946, p. 48). William J. Jondle. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 90 N., R. 30 W. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.88; June 22, 3.19; Sept. 16, 4.64; Dec. 17, 9.12.

90-29-25E1 (\*946, p. 43). School district. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 90 N., R. 29 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 3.66; June 22, 2.48. Sept. 16, well filled in; measurements discontinued.

90-28-1B1 (\*946, p. 48). Ed Askland. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 90 N., R. 28 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 4.73; June 23, 3.68; Sept. 16, 3.11; Dec. 17, 7.20.

90-28-15D4 (\*946, p. 48). L. O. Myrland. Near Badger, in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 90 N., R. 28 W. Measuring point is 1.1 feet above land surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 9.30; June 23, 7.67; Sept. 15, 9.10; Dec. 17, 11.98.

90-28-8Q1 (\*946, p. 48). Mr. Hovey. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 90 N., R. 28 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 7.15; June 23, 6.20; Sept. 15, 7.92; Dec. 17, 7.98.

90-28-34Q1 (\*946, p. 48). Mr. McGill. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 90 N., R. 28 W. Measuring point is 0.9 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 2.16; June 23, 3.09; Sept. 15, 6.54; Dec. 17, 9.50.

90-27-4D1 (\*946, p. 49). Ole Maage. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 90 N., R. 27 W. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 5.18; June 23, 5.13; Sept. 16, 6.08; Dec. 17, 6.60.

90-27-22K1 (\*946, p. 49). Joe Rieckert. Near Vincent, in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 90 N., R. 27 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 15.35; June 23, 14.75; Sept. 15, 16.43; Dec. 17, 17.37.

90-27-31N1 (\*946, p. 49). C. S. Knudson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 90 N., R. 27 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 8.53; June 23, 5.95; Sept. 15, 8.42; Dec. 17, 10.03.

89-30-18J1 (\*946, p. 49). Dan Cain. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 89 N., R. 30 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.16; June 22, 5.10; Sept. 16, 8.93; Dec. 17, 7.34.

89-30-23R1 (\*946, p. 49). Johnson Township Consolidated School. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 89 N., R. 30 W. Measuring point is 6.4 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Sept. 16, 31.90; Dec. 16, 32.03.

89-29-16N1 (\*946, p. 49). Mr. Stromberg. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 89 N., R. 29 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 79.29; June 22, 80.58; Sept. 16, 32.15; Dec. 17, 31.15.

39-28-21Q1 (\*946, p. 49). Lietchfield Real Estate Co. Near Fort Dodge, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 89 N., R. 28 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 8.00; June 23, 6.39; Sept. 15, 8.70; Dec. 17, 9.45.

39-28-21Q2 (\*946, p. 49). Lietchfield Real Estate Co. In Fort Dodge, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 89 N., R. 28 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 23, 36.15; Sept. 15, a/ 32.70.

39-27-19H1 (\*946, p. 49). Henry Scharf. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 89 N., R. 27 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 6.34; June 23, 5.45; Sept. 15, 8.97; Dec. 17, 11.32.

38-30-5R1 (\*946, p. 49). J. F. Kusterer Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 88 N., R. 30 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 11.11; June 22, 7.63; Sept. 15, b/ 19.00; Dec. 16, b/ 21.78.

88-29-6H1 (\*946, p. 49). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 88 N., R. 29 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 48.43; June 22, well abandoned; measurements discontinued.

88-29-11G1 (\*946, p. 49). Charles Matson. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 88 N., R. 29 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.49; June 23, 4.80; Sept. 15, 7.65; Dec. 17, 7.83.

88-29-23A1 (\*946, p. 50). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 88 N., R. 29 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.43; June 23, 4.44; Sept. 15, 10.30; Dec. 17, 11.63.

88-28-12D2 (\*946, p. 50). Lou E. Hivelay. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 88 N., R. 28 W. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 3.32; June 23, 3.58; Sept. 15, 5.74; Dec. 17, 6.53.

a Pumped shortly before measurement.  
b Affected by pumping of nearby well.

98-27-4A2 (\*946, p. 50). Mr. Jones. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 88 N., R. 27 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 4.96; June 23, 5.40; Sept. 15, 9.94; Dec. 17, 10.64.

97-30-9A1 (\*946, p. 50). D. Click. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 87 N., R. 30 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.70; June 22, 4.51; Sept. 15, 6.30; Dec. 17, 9.36.

97-30-12L1 (\*946, p. 50). Town of Callender. In Callender, in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 87 N., R. 30 W. Measuring point is level with land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 16.64; June 22, 12.03; Sept. 15, 12.58; Dec. 17, 18.46.

97-30-30R1 (\*946, p. 50). School District No. 9. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 87 N., R. 30 W. Measuring point is at land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.75; June 22, 4.69; Sept. 15, 7.30; Dec. 17, 7.35.

97-29-2P2 (\*946, p. 50). Otto Blomquist. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 87 N., R. 29 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 2.65; June 23, 2.67; Sept. 25, 4.05; Dec. 17, 4.53.

97-29-24D1 (\*946, p. 50). School district. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 87 N., R. 29 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.46; June 23, 3.46; Sept. 15, 7.17; Dec. 17, 7.45.

97-29-30D1 (\*946, p. 50). Otto Norberg. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 87 N., R. 29 W. Measuring point is 0.7 foot above land-surface datum (published incorrectly in Water-Supply Paper 946 as 1.0 foot above land-surface datum). Water levels, in feet below land-surface datum, 1943: Mar. 26, 3.61; June 22, 2.17; Sept. 15, 5.73; Dec. 17, 6.48.

97-28-5Q1 (\*946, p. 50). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 87 N., R. 28 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 3.63; June 23, 3.46; Sept. 15, 4.34; Dec. 17, 4.63.

97-28-12H1 (\*946, p. 50). Near Lehigh, in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 87 N., R. 28 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 10.13; June 23, 9.29; Sept. 15, 12.54; Dec. 17, 14.18.

97-28-12Q1 (\*946, p. 50). Thomas Timmons, Jr. Near Lehigh, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 87 N., R. 28 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.84; June 23, 3.28; Sept. 15, 8.00; Dec. 17, 9.67.

97-28-29N1 (\*946, p. 51). Grant Spangler. About 4 miles northeast of Harcourt, in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 87 N., R. 28 W. Measuring point is 4.1 feet above land-surface datum. Highest observed water level during year, 2.92 feet below land-surface datum on May 16; lowest, 7.34 feet below land-surface datum on Nov. 2.

Correction.--In Water-Supply Paper 946, on p. 51, the height of the measuring point above land-surface datum is erroneously given as 1.0 foot. As this error makes each entry in the table of water levels for 1942 also erroneous, a corrected table for 1942 is here given.

Water level at noon, in feet below land-surface datum, 1942  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 23	4.24	Oct. 30	4.32	Nov. 6	4.50	Nov. 13	4.60
24	4.25	31	4.38	7	4.47	14	4.56
25	4.28	Nov. 1	4.32	8	4.48	15	4.50
26	4.29	2	4.42	9	4.41	16	4.51
27	4.29	3	4.45	10	4.55	17	4.61
28	4.29	4	4.32	11	4.55	18	4.63
29	4.29	5	4.41	12	4.50	19	4.59

87-28-29N1--Continued.

Water level at noon, in feet below land-surface datum, 1942  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 20	4.66	Dec. 1	4.74	Dec. 12	4.99	Dec. 22	5.15
21	4.72	2	4.80	13	5.03	23	5.18
22	4.71	3	4.76	14	5.03	24	5.27
23	4.65	4	4.82	15	5.04	25	5.24
24	4.59	5	4.83	16	5.06	26	5.27
25	4.61	6	4.85	17	5.04	27	5.27
26	4.73	7	4.86	18	5.19	28	5.22
27	4.68	8	4.87	19	5.21	29	5.21
28	4.68	9	4.89	20	5.25	30	5.25
29	4.73	10	4.92	21	5.15	31	5.21
30	4.68	11	4.96				

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.29	5.78	4.99	4.61	3.50	3.56	3.51	4.57	5.65	6.81	7.32	6.36
2	5.31	5.74	5.00	4.62	3.46	3.45	3.60	4.63	5.67	6.84	7.34	6.53
3	5.32	5.68	4.85	4.53	3.63	3.49	3.61	4.60	5.72	6.87	7.32	6.52
4	5.42	5.69	4.78	4.49	3.66	3.55	3.61	4.57	5.75	6.94	7.18	6.49
5	5.36	5.56	4.87	4.50	3.65	3.55	3.68	4.66	5.73	6.96	7.20	6.43
6	5.37	5.54	4.85	4.44	3.61	3.42	3.74	4.70	5.84	7.01	7.22	6.49
7	5.42	5.49	4.88	4.40	3.56	3.33	3.80	4.73	5.93	7.03	7.06	6.33
8	5.46	5.42	4.86	4.40	3.58	3.33	3.90	4.76	6.01	6.99	6.86	6.34
9	5.31	5.32	4.83	4.36	3.62	3.33	3.98	4.83	6.04	6.98	6.89	6.50
10	5.41	5.33	4.89	4.40	3.61	3.35	4.04	4.93	6.09	7.07	6.80	6.42
11	5.42	5.30	4.85	4.32	3.65	3.31	4.11	4.97	6.10	7.07	6.74	6.34
12	5.45	5.29	4.90	4.25	3.74	3.32	4.10	4.83	6.02	7.06	6.65	6.38
13	5.43	5.23	4.94	4.25	3.74	3.42	4.23	4.75	5.91	7.04	6.63	6.44
14	5.38	5.23	4.90	4.25	3.76	3.49	4.31	4.81	5.82	7.21	6.60	6.52
15	5.30	5.17	4.84	4.18	3.44	3.51	4.37	4.82	5.91	7.26	6.55	6.51
16	5.49	5.10	4.88	4.10	2.92	3.14	4.38	4.87	6.02	7.23	6.57	6.48
17	5.56	5.16	4.91	4.13	3.03	3.20	4.33	4.92	6.08	7.10	6.43	6.42
18	5.53	5.17	4.92	4.16	3.12	3.27	4.37	4.99	5.99	6.93	6.47	6.40
19	5.54	5.14	4.82	4.07	3.19	3.34	4.23	5.04	6.10	6.92	6.57	6.44
20	5.54	5.13	4.90	3.95	3.26	3.48	4.17	5.07	6.12	6.93	6.50	6.46
21	5.50	5.13	4.89	3.89	3.34	3.61	4.06	5.11	6.12	7.08	6.57	6.42
22	5.52	5.05	4.86	3.87	3.40	3.50	4.06	5.13	6.28	7.16	6.62	6.55
23	5.58	5.04	4.80	3.95	3.39	3.47	4.07	5.20	6.39	7.17	6.60	6.61
24	5.53	5.14	4.79	3.82	3.39	3.53	4.09	5.22	6.37	7.22	6.55	6.52
25	5.67	5.07	4.74	3.89	3.36	3.57	4.19	5.25	6.50	7.29	6.44	6.49
26	5.70	5.06	4.74	3.85	3.45	3.64	4.26	5.31	6.52	7.31	6.43	6.53
27	5.74	4.93	4.70	3.84	3.54	3.72	4.35	5.36	6.58	7.27	6.47	6.65
28	5.77	4.96	4.69	3.83	3.63	3.43	4.32	5.32	6.70	7.21	6.41	6.64
29	5.73	....	4.64	3.64	3.68	3.44	4.45	5.37	6.77	7.26	6.46	6.61
30	5.77	....	4.57	3.50	3.67	3.49	4.54	5.46	6.79	7.30	6.41	6.59
31	5.78	....	4.59	....	3.56	....	4.55	5.51	....	7.24	....	6.67

87-27-4N1 (\*946, p. 51). Mrs. W. H. Goodrich. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 87 N., R. 27 W. Measuring point is 0.1 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.33; June 23, 4.91; Sept. 15, 7.16; Dec. 17, 6.56.

87-27-18M1 (\*946, p. 51). J. B. Marsh. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 87 N., R. 27 W. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 122.50; June 23, 122.23.

86-30-5C1 (\*946, p. 51). E. C. Monson. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 86 N., R. 30 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 56.80; June 22, 56.97; Sept. 15, 56.94; Dec. 17, 56.98.

86-30-12B1 (\*946, p. 51). Frank Schwartz. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 86 N., R. 30 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 4.63; June 22, 2.40; Sept. 15, 4.93; Dec. 17, 5.55.

86-29-14A1 (\*946, p. 51). F. E. Castenson. Near Harcourt, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 86 N., R. 29 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 5.02; June 22, 3.45; Sept. 15, 6.37; Dec. 17, 6.29.

86-28-9R1 (\*946, p. 51). W. Van Bloom. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 86 N., R. 28 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 7.06; June 22, 4.99; Sept. 15, 6.60; Dec. 17, 8.43.

86-28-14H1 (\*946, p. 51). Town of Dayton. In Dayton, in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 86 N., R. 28 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 69.94; June 22, 70.10; Sept. 15, 70.64; Dec. 17, 70.58.

86-27-4D1 (\*946, p. 52). Mr. Davis. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 86 N., R. 27 W. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 27, 106.07; June 23, 105.71; Sept. 15, 105.75; Dec. 17, 105.54.

#### Woodbury County

89-48-23B1 (\*886, p. 120; \*908, p. 27; 938, p. 36; 946, p. 52). City of Sioux City Riverside Station well. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 89 N., R. 48 W. Measuring point is 8.0 feet below land-surface datum. Measurements made by Ed Harbeck, of the Sioux City Water Works.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	16.19	Apr. 9	12.00	June 2	15.58	Sept. 10	15.08
Mar. 2	15.25	15	12.54	July 2	12.58	Nov. 3	15.42
Apr. 2	14.00	May 2	13.88	Aug. 15	14.75		

89-47-22B1 (\*886, p. 120; 908, p. 27; 938, p. 36; 946, p. 52). City of Sioux City Lowell 4. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23 T. 89 N., R. 47 W. Measuring point is at land-surface datum. Water levels affected by nearby pumping wells. Measurements made by Tim Kemper and R. R. Bates, of the Sioux City Water Works.

Water level, in feet below land-surface datum, 1943

Feb. 2	37.58	May 2	36.66	Aug. 2	38.50	Nov. 2	40.00
Mar. 2	36.75	June 2	39.50	Sept. 2	39.60	Dec. 3	39.50
Apr. 2	37.10	July 2	39.75	Oct. 2	41.30		

## KANSAS

### INTRODUCTION

By S. W. Lohman

The observation-well program in Kansas, which has been in progress for several years, was continued in 1943 by the Geological Survey, United States Department of the Interior, in cooperation with the State Geological Survey of Kansas, the Division of Water Resources of the Kansas State Board of Agriculture, and the Division of Sanitation of the Kansas State Board of Health. In addition to the State agencies named, the City of Wichita cooperated in Harvey, McPherson, and Sedgwick Counties, and the Soil Conservation Service of the United States Department of Agriculture cooperated in Jewell County. Two counties not heretofore included, Dickinson and Wyandotte, were added to the program in 1943, making 37 counties in which wells were observed during the year. (See fig. 6.)

Results of cooperative ground-water investigations in the following counties were published in 1943: Ellis,<sup>1/</sup> Ford,<sup>2/</sup> Hamilton,<sup>3/</sup> Kearny,<sup>3/</sup> Meade,<sup>4/</sup> and Russell.<sup>1/</sup> During the year cooperative investigations were begun in the following areas: Kansas River Valley in Wyandotte County, by V. C. Fishel; Smoky Hill and Kansas River Valleys in Saline, Dickinson, and Geary Counties, by B. F. Latta; lower Arkansas River Valley in Sedgwick, Sumner, and Cowley Counties, by C. C. Williams; and Russell County, for the City of Russell, by T. G. McLaughlin. Field work was continued in the

<sup>1/</sup> Frye, J. C., and Brazil, J. J., Ground water in the oil-field areas of Ellis and Russell Counties, Kans.: Kansas Geol. Survey Bull. 50, 104 pp., 1943 (1944).

<sup>2/</sup> Waite, H. A., Geology and ground-water resources of Ford County, Kans.: Kansas Geol. Survey Bull. 43, 250 pp., 1942 (1943).

<sup>3/</sup> McLaughlin, T. G., Geology and ground-water resources of Hamilton and Kearny Counties, Kans.: Kansas Geol. Survey Bull. 49, 220 pp., 1943 (1944).

<sup>4/</sup> Frye, J. C., Geology and ground-water resources of Meade County, Kans.: Kansas Geol. Survey Bull. 45, 152 pp., 1942 (1943).



## STATE OF KANSAS

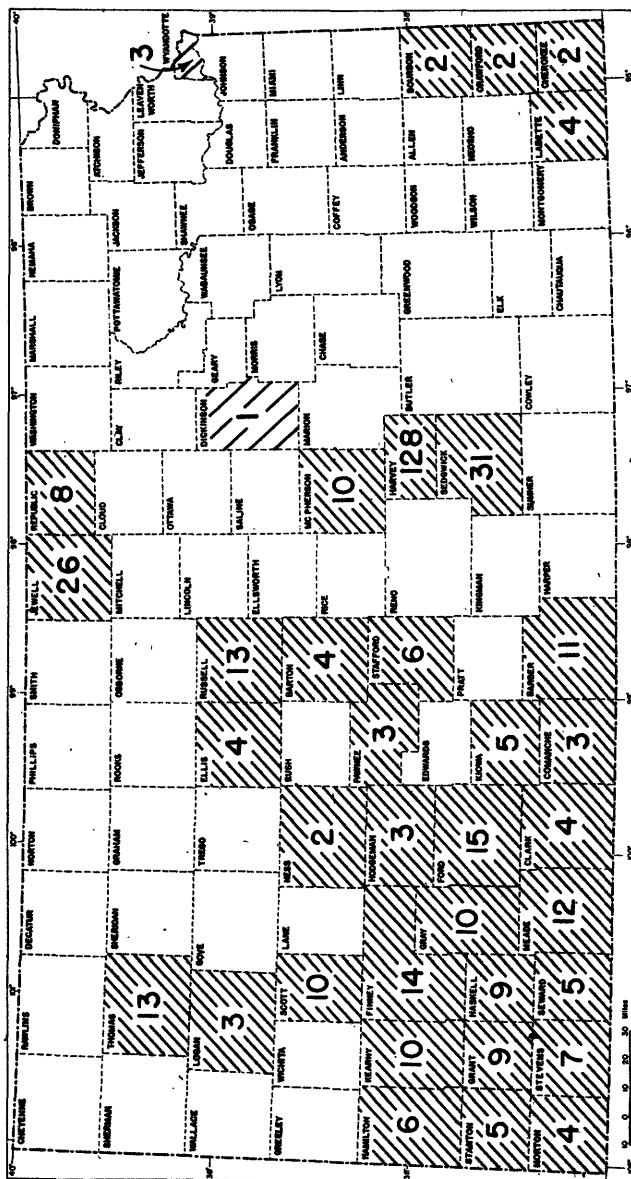


Figure 6.--Map of Kansas showing counties in which observation-well programs were being maintained at the close of 1943. Number of wells under observation at close of year indicated by figures. Programs established prior to 1943 indicated by closely spaced lines; those established during 1943, by widely spaced lines.

following areas: The deep-water area in the southeastern part of the State, by G. E. Abernathy and C. C. Williams; the "Equus beds" area in Harvey, McPherson, and Sedgwick Counties, by C. C. Williams; Seward County, by T. G. McLaughlin and C. W. Hibbard; and Cloud County, by V. C. Fishel. Also, a large amount of work was done in developing ground-water supplies for war industries and military establishments both in Kansas and in adjacent States.

At the beginning of 1943, periodic water-level measurements were being made in 448 observation wells in the State. During the year measurements were discontinued in 60 wells and begun or resumed in 19 wells. At the end of the year, 407 wells were under observation. Of the 439 wells measured in 1943, including both those in which measurements were discontinued and those in which measurements were begun during the year, 39 were measured quarterly, 269 monthly, 99 semi-monthly, and 21 weekly, and automatic water-stage recorders were maintained on 11. The recorders on 4 of these 11 wells--3 in Scott County and 1 in Finney County--are maintained by the Division of Water Resources of the Kansas State Board of Agriculture. During the year 5,969 wetted-tape water-level measurements were made in the State. For convenience, the data embodied in this paragraph have been arranged in tabular form, by counties, as follows:

Observation-well program in Kansas, by counties, in 1943

County	Observer	Wells included at beginning of year	Wells discontinued during year	Wells added during year	Wells included at end of year
Barber	(a)	13	2	0	11
Barton	(a)	6	2	0	4
Bourbon	G. E. Abernathy	2	0	0	2
Cherokee	W. L. Stiles, G. E. Abernathy	2	0	0	2
Clark	(a)	8	4	0	4
Comanche	(a)	7	4	0	3
Crawford	J. P. Biddle, G. E. Abernathy	4	2	0	2
Dickinson	E. L. Mulanax	0	0	1	1
Ellis	J. C. McFarland, Allen Graffham	4	0	0	4
Finney	(a)	16	2	0	14
Ford	(a)	16	1	0	15
Grant	(a)	14	5	0	9
Gray	(a)	13	3	0	10
Hamilton	(a)	6	0	0	6
Harvey	G. H. von Hein	121	0	7	128
Haskell	(a)	12	3	0	9
Hodgeman	(a)	3	0	0	3
Jewell	John Diamond	38	12	1	26
Kearny	(a)	12	3	1	10
Kiowa	(a)	6	1	0	5

a W. W. Wilson, Allen Graffham, Melvin Scanlan, and Howard Palmer.

## Observation-well program in Kansas, by counties, in 1943--Cont.

County	Observer	Wells included at beginning of year	Wells discontinued during year	Wells added during year	Wells included at end of year
Labette	John Wayenberg	1	0	3	4
Logan	(a)	4	1	0	3
McPherson	G. H. von Hein	9	1	1	9
Meade	(a)	15	3	0	12
Morton	(a)	6	2	0	4
Ness	(a)	2	0	0	2
Pawnee	(a)	3	0	0	3
Republic	Local observers	9	1	0	8
Russell	J. C. McFarland, Allen Graffham	14	1	0	13
Scott	(a)	10	0	0	10
Sedgwick	G. H. von Hein	30	0	1	31
Seward	(a)	6	1	0	5
Stafford	(a)	8	2	0	6
Stanton	(a)	6	1	0	5
Stevens	(a)	9	2	0	7
Thomas	(a)	13	2	2	13
Wyandotte	Local observers	0	0	3	3
		448	60	19	407

## Frequency of measurement of wells and number of wetted-tape measurements made in Kansas, by counties, in 1943

County	Wells measured quarterly	Wells measured monthly	Wells measured semi- monthly	Wells measured weekly	Wells equipped with recorders	Wetted-tape measurements made during year
Barber	0	12	0	0	0	122
Barton	0	6	0	0	0	54
Bourbon	0	2	0	0	0	24
Cherokee	0	2	0	0	0	27
Clark	2	5	0	0	0	61
Comanche	2	4	0	0	0	34
Crawford	0	2	0	0	0	23
Dickinson	0	1	0	0	0	6
Ellis	4	0	0	0	0	14
Finney	0	15	0	0	1	149
Ford	0	16	0	0	0	160
Grant	0	11	0	0	0	100
Gray	0	13	0	0	0	124
Hamilton	0	6	0	0	0	69
Harvey	1	15	95	15	2	2,614
Haskell	0	11	0	0	0	111
Hodgeman	1	2	0	0	0	23
Jewell	0	26	0	0	0	268
Kearny	0	12	0	0	0	127
Kiowa	0	6	0	0	0	52
Labette	0	0	4	0	0	57
Logan	0	4	0	0	0	40
McPherson	10	1	0	0	0	44
Meade	0	12	0	0	1	167
Morton	0	5	0	0	0	41
Ness	0	2	0	0	0	22
Pawnee	0	3	0	0	0	33
Republic	0	7	0	0	1	119
Russell	13	0	0	0	0	44
Scott	0	7	0	0	3	112
Sedgwick	0	22	0	6	3	734
Seward	0	6	0	0	0	52
Stafford	0	8	0	0	0	75
Stanton	0	6	0	0	0	43
Stevens	0	8	0	0	0	76
Thomas	4	10	0	0	0	133
Wyandotte	2	1	0	0	0	6
	39	269	99	21	11	5,959

a W. W. Wilson, Allen Graffham, Melvin Scanlan, and Howard Palmer.

## FLUCTUATIONS OF WATER LEVEL

The trends in ground-water levels and in precipitation during 1943 in each of the 35 counties in Kansas in which water-level records for a year or longer are available are indicated in the table that follows. Detailed records of water-level trends are tabulated under each of these counties.

Relation between the percentage of wells in Kansas in which the highest and lowest water levels of record were recorded in 1943, the percentage of wells in which there was a net rise in water level during 1943, and the precipitation during 1943, by counties

County	Number of wells observed entire year	Percentage of wells in which highest water levels of record were recorded	Percentage of wells in which lowest water levels of record were recorded	Percentage of wells having a net rise in water level	Precipitation at nearest Weather Bureau station Percentage of normal	Station
Barber	11	36	27	36	73	Medicine Lodge
Barton	4	50	100	25	87	Great Bend
Bourbon	2	0	100	0	109	Ft. Scott
Cherokee	2	100	100	0	105	Columbus
Clark	4	0	25	0	58	Ashland
Comanche	3	33	0	0	61	Coldwater
Crawford	2	50	100	0	117	Pittsburg
Ellis	2	50	100	0	67	Hays
Finney	14	57	29	14	70	Garden City
Ford	15	7	20	7	70	Dodge City
Grant	9	67	44	56	71	Ulysses
Gray	11	27	27	27	86	Cimarron
Hamilton	6	67	33	33	51	Syracuse
Harvey	a 25	25	24	0	103	Newton
Haskell	9	67	56	67	70	Sublette
Hodgeman	2	50	0	100	78	Jetmore
Jewell	26	35	0	19	80	Mankato
Kearny	10	50	40	20	63	Lakin
Kiowa	5	100	40	80	74	Greensburg
Labette	1	100	100	0	129	Parsons
Logan	3	100	100	33	79	Oakley
McPherson	10	33	20	20	76	McPherson
Meade	12	25	17	16	75	Plains
Morton	4	50	50	25	105	Elkhart
Ness	2	0	50	0	65	Ness City
Pawnee	3	33	33	0	67	Larned
Republic	8	87	75	50	102	Belleville
Russell	8	25	50	25	92	Russell
Scott	b 10	10	100	20	50	Scott City
Sedgwick	30	33	13	3	99	Wichita
Seward	5	40	0	60	75	Liberal
Stafford	6	66	17	33	80	Hudson
Stanton	3	66	0	33	59	Johnson
Stevens	6	83	83	50	83	Hugoton
Thomas	12	67	83	50	78	Colby

As indicated in the preceding table, the precipitation in 1943 was normal or above normal in only 7 of the 35 counties and ranged from only 50 percent of normal, in Scott County, to 129 percent of normal, in Labette County. Six of the seven counties receiving normal or greater than normal

a Excludes 97 wells pumped or affected by pumping.

b Many wells affected by pumping of nearby irrigation wells.

precipitation in 1943 are in the central and southeastern parts of the State; in the western part, Morton County alone, among the counties listed, received greater than normal precipitation. Because of this general deficiency in precipitation, the water levels in most wells in 27 of the counties declined during the year. The highest stages of record were reached in some wells in most counties, but the lowest stages of record were reached in more than half of the wells in 12 counties:

## WELL DESCRIPTIONS AND WATER-LEVEL RECORDS

Barber County

By L. C. Menzie

Highest and lowest recorded water levels in 12 wells in Barber County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	3	75.11	Aug. 20, Nov. 8, 1943	82.99	Oct. 17, 1940
2	3	11.94	Apr. 22, 1942	13.90	Aug. 20, 1943
3	3	9.05	May 26, 1942	15.42	Oct. 21, 1940
4	3	14.25	Nov. 20, 1941	16.30	Aug. 20, 1943
5	3	22.35	May 26, 1942	30.15	Sept. 24, 1941
7	3	15.36	Mar. 25, 1943	17.82	Oct. 21, 1940
8	3	8.87	Nov. 21, 1941	17.48	Mar. 21, 1941
9	3	1.97	May 8, 1941	4.54	Aug. 21, 1943
10	3	102.55	Nov. 7, 1943	103.85	Oct. 22, 1940
all	3	45.21	June 10, 1942	47.72	Oct. 22, 1940
12	3	3.59	Apr. 22, 1942	11.68	Oct. 22, 1940
13	3	8.53	Oct. 22, 1942	16.99	Oct. 22, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 12 wells in Barber County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
1	7.88	+0.91	+7.88
2	1.96	-.15	+.06
3	6.37	-.46	+2.40
4	2.05	-.41	+.06
5	7.80	-1.27	+3.15
7	2.46	+.41	+1.79
8	8.61	-1.04	+1.20
9	2.57	-1.26	+.07
10	1.30	+.33	+1.30
11	2.51	(c)	+1.57
12	8.09	-4.42	+2.58
13	8.46	-4.67	+3.71

a Measurement discontinued after Mar. 25, 1943.

b Between last measurement in 1942 and last measurement in 1943.

c Records for 1943 incomplete.

1 (\*908, p. 39; 938, p. 53; 946, p. 70). D. S. Shaw. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 31 S., R. 15 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	75.76	Apr. 28	75.93	Aug. 20	75.11	Nov. 4	75.33
Feb. 17	75.81	June 24	76.01	Sept. 10	75.34	8	75.11
Mar. 25	75.88	July 22	75.21	Oct. 6	75.80		

2 (\*908, p. 39; 938, p. 53; 946, p. 70). Russell Lake. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 31 S., R. 14 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	12.54	Apr. 28	12.70	Aug. 20	13.90	Nov. 4	12.86
Feb. 17	12.48	June 24	12.68	Sept. 10	13.12	8	12.84
Mar. 25	12.64	July 22	13.72	Oct. 6	13.21		

3 (\*908, p. 40; 938, p. 53; 946, p. 70). Mrs. Grier. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 32 S., R. 12 W. Measuring point is 3.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	12.97	Apr. 28	12.92	Aug. 20	13.97	Nov. 4	13.27
Feb. 17	12.73	June 24	13.43	Sept. 10	13.89	8	13.02
Mar. 25	12.95	July 22	13.56	Oct. 6	13.91		

4 (\*908, p. 40; 938, p. 53; 946, p. 70). Madge Evans. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 32 S., R. 12 W. Measuring point is 2.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	15.49	Apr. 28	15.65	Aug. 20	16.30	Nov. 4	15.96
Feb. 17	15.44	June 24	15.93	Sept. 10	16.24	8	15.84
Mar. 25	15.55	July 22	16.03	Oct. 6	16.25		

5 (\*908, p. 40; 938, p. 53; 946, p. 70). R. Kenney. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 1, T. 33 S., R. 12 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	25.42	Apr. 28	25.59	Aug. 20	27.44	Nov. 4	25.72
Feb. 17	24.91	June 24	26.19	Sept. 10	23.39	8	25.70
Mar. 25	25.74	July 22	26.76	Oct. 6	26.28		

6 (\*908, p. 40; 938, p. 54; 946, p. 70). F. H. Boffs and Ben Barthlow. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 33 S., R. 12 W. Measurements discontinued after October 1942.

7 (\*938, p. 54; 946, p. 70). E. B. Moots. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 33, T. 32 S., R. 12 W. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	15.69	Apr. 28	15.64	Aug. 20	16.34	Nov. 4	16.25
Feb. 17	15.76	June 24	16.49	Sept. 10	15.92	8	16.03
Mar. 25	15.56	July 22	15.78	Oct. 6	16.87		

8 (\*908, p. 40; 938, p. 54; 946, p. 71). P. Brock. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 34 S., R. 15 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	15.56	Apr. 29	16.07	Aug. 21	16.02	Nov. 3	15.80
Feb. 16	15.94	June 25	16.19	Sept. 10	16.01	7	15.91
Mar. 25	16.11	July 23	16.08	Oct. 5	15.86		

9 (\*908, p. 40; 938, p. 54; 946, p. 71). V. D. Wells. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 34 S., R. 15 W. Measuring point is 3.5 feet above land-surface datum.

9 (#908, p. 40; 938, p. 54; 946, p. 71). V. D. Wells--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	2.51	Apr. 29	2.39	Aug. 21	4.54	Nov. 3	4.05
Feb. 16	2.33	June 25	2.46	Oct. 5	4.15	7	3.69
Mar. 25	2.42	July 23	3.96				

10 (#908, p. 40; 938, p. 54; 946, p. 71). G. H. Davis. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 35 S., R. 15 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	102.95	Apr. 29	102.66	Aug. 21	102.72	Nov. 3	102.63
Feb. 16	102.85	June 25	102.72	Sept. 10	102.73	7	102.55
Mar. 25	102.91	July 23	102.75	Oct. 5	102.75		

11 (#908, p. 40; 938, p. 54; 946, p. 71). A. Achenbach. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 35 S., R. 12 W. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after Mar. 25, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 25, 45.49; Feb. 16, 46.19; Mar. 25, 46.15.

12 (#908, p. 40; 938, p. 54; 946, p. 71). B. Mills. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 33 S., R. 10 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	4.88	Apr. 28	4.67	Aug. 20	7.67	Nov. 4	8.66
Feb. 17	3.90	June 24	5.05	Sept. 10	8.62	8	9.10
Mar. 25	4.75	July 22	6.64	Oct. 6	9.05		

13 (#908, p. 40; 938, p. 54; 946, p. 71). J. A. Hrencher. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 32 S., R. 10 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	9.20	Apr. 28	9.58	Aug. 20	11.98	Nov. 4	12.83
Feb. 17	9.12	June 24	9.98	Sept. 10	12.32	8	13.28
Mar. 25	8.81	July 22	11.48	Oct. 6	12.66		

### Barton County

By B. F. Latta

Altitudes of the measuring points of 53 wells in Barton County, including 6 observation wells, were established by spirit leveling during November and December 1943 by C. K. Bayne and Estel Green. Two bench marks were also established at each of four of the wells--Nos. 1, 2, 16, and 43. Descriptions of the bench marks and the altitudes established are included in this report.

Highest and lowest recorded water levels in 4 wells in Barton County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	1.5	2.75	Oct. 24, 1942	5.38	Dec. 21, 1943
2	1.5	33.50	Oct. 27, 1942	34.58	Oct. 12, 1943
16	1	27.93	May 22, 1943	29.55	Feb. 19, 1943
43	1	19.88	June 2, 1943	21.14	Dec. 21, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 4 wells in Barton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
1	2.63	-2.00	-2.43
2	1.08	-.86	-.74
16	1.62	+.80	+.72
43	1.26	-.95	-.61

1 (\*946, p. 72). F. Panning. SE. corner sec. 3, T. 20 S., R. 11 W. Measuring point is 0.4 foot above land-surface datum, which is 1.36 feet below bench mark 1, 1.29 feet below bench mark 2, and 1,760.6 feet above sea level. Bench mark 1 is copper washer in corner power pole, about 50 feet southeast of well; bench mark 2 is copper washer in corner fence post southwest of well, on east side of private driveway.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	3.42	Apr. 22	3.52	July 21	4.37	Oct. 11	5.17
Feb. 19	3.57	May 22	3.88	Aug. 4	4.02	Nov. 4	5.14
Mar. 24	3.77	June 2	3.80	Sept. 14	4.92	Dec. 21	5.38

2 (\*946, p. 72). W. Otte. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 19 S., R. 14 W. Measuring point is 0.3 foot above land-surface datum, which is 0.01 foot below bench mark 1, 4.98 feet above bench mark 2, and 1,902.8 feet above sea level. Bench mark 1 is copper washer in power pole 150 feet west and 40 feet north from well; bench mark 2 is copper washer in power pole 150 feet west and 200 feet south from well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	33.68	Apr. 22	33.95	July 14	33.98	Nov. 10	34.11
Feb. 19	33.67	May 22	33.83	Aug. 4	34.09	Dec. 21	34.47
Mar. 24	33.64	June 2	34.00	Oct. 12	34.58		

5 (\*946, p. 72). L. C. Miller. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 19 S., R. 13 W. Measuring point is 0.5 foot above land-surface datum and 1,861.8 feet above sea level. Measurements discontinued after June 2, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 27	10.27	Mar. 24	10.46	June 2	10.94
Feb. 19	10.36	May 22	10.78		

16 (\*946, p. 72). Mr. Techmann. NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 20 S., R. 13 W. Measuring point is 1.1 feet above land-surface datum, which is 1.18 feet above bench mark 1, 4.28 feet above bench mark 2, and 1,856.1 feet above sea level. Bench mark 1 is copper washer in south gatepost, on west side of road, about 250 feet east and 60 feet north from well; bench mark 2 is copper washer in fence post, on west side of road, about 250 feet east and 40 feet south from well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	28.57	Apr. 22	28.55	July 21	28.48	Oct. 12	28.00
Feb. 19	29.55	May 22	27.93	Aug. 4	28.23	Nov. 4	28.16
Mar. 24	28.19	June 2	27.11	Sept. 14	28.42	Dec. 21	28.61

35 (\*946, p. 72). Lario Oil Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 19 S., R. 11 W. Measuring point is 1.5 feet above land-surface datum and 1,785.2 feet above sea level. Well destroyed; measurements discontinued after Feb. 19, 1943. Water level, in feet below land-surface datum, 1943: Jan. 27, 29.87; Feb. 19, 29.78.

a Between last measurement in 1942 and last measurement in 1943.



43 (\*946, p. 72). M. Hagen. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 20 S., R. 11 W. Measuring point is 0.5 foot above land-surface datum, which is 0.05 foot below bench mark 1, 1.65 feet below bench mark 2, and 1,798.1 feet above sea level. Bench mark 1 is cross cut in top of northwest concrete footing of oil-well derrick, about 60 feet east of well; bench mark 2 is copper washer in power pole, on west side of road and about 250 feet west of well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	20.09	Apr. 22	19.97	July 21	20.28	Oct. 12	21.07
Feb. 19	20.05	May 22	20.48	Aug. 4	20.45	Nov. 4	21.04
Mar. 24	20.02	June 2	19.88	Sept. 14	20.92	Dec. 21	21.14

### Bourbon County

By C. C. Williams

Highest and lowest recorded water levels in 2 wells in Bourbon County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	2	180.30	Sept. 10, 1942	182.24	July 23, 1943
2	2	55.90	July 29, 1942	59.09	Jan. 24, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 2 wells in Bourbon County

Well	Difference between highest and lowest levels	Net decline in 1943 a/	Net decline for period of record
1	1.96	1.37	1.75
2	3.19	.80	2.69

1 (\*946, p. 73). City of Fort Scott. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 25 S., R. 25 E. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	181.06	Apr. 24	180.62	July 23	182.24	Oct. 30	182.15
Feb. 24	180.99	May 24	181.24	Aug. 30	182.00	Nov. 27	182.05
Mar. 24	180.48	June 24	181.35	Sept. 23	181.92	Dec. 27	182.05

2 (\*946, p. 73). City of Fort Scott. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 25 S., R. 25 E. Measuring point is 4.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	59.09	Apr. 24	58.39	July 23	58.55	Oct. 30	58.53
Feb. 24	58.09	May 24	58.55	Aug. 30	58.35	Nov. 27	58.73
Mar. 24	58.25	June 24	58.49	Sept. 23	58.30	Dec. 27	58.79

a Between last measurement in 1942 and last measurement in 1943.

Cherokee County

By C. C. Williams

Highest and lowest recorded water levels in 2 wells in Cherokee County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	2	5.50	May 26, 1943	13.60	Oct. 25, 1943
105a	2	158.09	Mar. 25, 1943	161.55	Nov. 27, 1943
					Dec. 27, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 2 wells in Cherokee County

Well	Difference between highest and lowest levels	Net decline in 1943 a/	Net decline for period of record
1	8.10	4.70	2.36
105a	3.46	2.65	2.65

1 (\*946, p. 74). W. L. Stiles. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 34 S., R. 23 E. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.09	Apr. 25	9.40	July 5	9.30	Oct. 25	13.60
Feb. 25	10.70	May 6	8.10	25	11.30	Nov. 26	12.80
Mar. 27	10.70	26	5.50	Aug. 26	13.40	Dec. 26	13.40
Apr. 8	10.18	June 5	6.50	Sept. 25	9.30		

105a (\*946, p. 74). Barnsdall Zinc Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 29 N., R. 34 W. Measuring point is 1.0 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 24	158.90	Apr. 24	160.99	July 23	161.50	Oct. 30	161.50
Feb. 24	158.90	May 24	161.45	Aug. 26	161.50	Nov. 27	161.55
Mar. 25	158.09	June 24	161.45	Sept. 30	161.53	Dec. 27	161.55

Clark County

By L. C. Menzie

Highest and lowest recorded water levels in 8 wells in Clark County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1 b/	3	23.16	June 11, 1942	25.85	May 7, 1941
5	3	25.88	Nov. 26, 1942	29.10	May 7, 1941
6 c/	3	26.73	June 20, 1941	27.69	Oct. 5, 1943
7	3	34.65	Sept. 29, 1942	35.98	Aug. 27, 1941
10	3	14.55	May 8, 1942	16.89	July 23, 1943
11 d/	3	27.60	May 8, 1942	28.97	Sept. 23, 1941
12	3	67.02	Nov. 26, 1942	68.59	Oct. 21, 1941
13 e/	3	32.00	July 18, 1942	33.29	May 7, 1941

a Between last measurement in 1942 and last measurement in 1943.

b Measurements discontinued after July 23, 1943

c Measurements discontinued after Nov. 7, 1943.

d Measurements discontinued after Mar. 26, 1943.

e Measurements discontinued after Apr. 29, 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 8 wells in Clark County

Well	Difference between highest and lowest levels	Net decline in 1943 a/	Net rise (+) or net decline (-) for period of record
1	2.69	(b)	-1.13
5	3.22	1.16	+1.69
6	0.96	.61	+0.06
7	1.33	.60	+0.41
10	2.34	.93	-.12
11	1.37	(b)	+0.72
12	1.57	.31	+0.87
13	1.29	(b)	+0.95

1 (#908, p. 41; 938, p. 53; 946, p. 75). Central Life Assurance Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 34 S., R. 25 W. Measuring point is 1.0 foot below land-surface datum. Measurements discontinued after July 23, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 25, 24.45; July 23, 24.72 (well pumping).

5 (#908, p. 42; 938, p. 56; 946, p. 75). Winnie Floyd. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 33 S., R. 25 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	26.06	Apr. 29	26.29	Aug. 21	(c)	Nov. 3	27.07
Feb. 16	26.01	June 25	26.72	Sept. 9	(c)	11	27.04
Mar. 26	26.13	July 23	(c)	Oct. 5	27.05		

6 (#908, p. 42; 938, p. 56; 946, p. 75). District School. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 35 S., R. 21 W. Measuring point is level with land-surface datum. Measurements discontinued after Nov. 7, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	26.99	Apr. 29	26.95	Aug. 21	27.53	Nov. 3	27.60
Feb. 16	26.98	June 25	27.04	Sept. 9	27.45	7	27.52
Mar. 25	26.96	July 23	27.29	Oct. 5	27.69		

7 (#908, p. 42; 938, p. 56; 946, p. 75). M. C. Harper. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 33 S., R. 21 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	34.81	Apr. 29	34.74	Aug. 21	35.08	Nov. 3	35.34
Feb. 16	34.71	June 25	34.82	Sept. 9	35.19	7	(d)
Mar. 25	34.79	July 23	35.06	Oct. 5	35.33		

10 (#908, p. 42; 938, p. 56; 946, p. 76). J. F. Folks Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 32 S., R. 23 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	15.58	Apr. 29	15.48	Aug. 21	16.89	Nov. 3	16.43
Feb. 16	15.63	June 25	15.54	Sept. 9	16.69	7	16.46
Mar. 26	15.65	July 23	16.29	Oct. 5	16.78		

11 (#908, p. 42; 938, p. 56; 946, p. 76). James O. Folks. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 36 S., R. 24 W. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after Mar. 26, 1943. Water levels, in feet below land-surface datum, 1943: Feb. 16, 27.61; Mar. 26, 27.73.

12 (#908, p. 42; 938, p. 57; 946, p. 76). Ralph Gardner. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 33 S., R. 24 W. Measuring point is 0.5 foot above land-surface datum.

a Between last measurement in 1942 and last measurement in 1943.

b Record for 1943 incomplete.

c Well pumping.

d Measurement impossible because of rain.

## 12. Ralph Gardner--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	67.16	Apr. 29	67.04	Aug. 21	67.16	Nov. 3	67.31
Feb. 16	67.10	June 25	67.09	Sept. 9	67.21	7	67.33
Mar. 26	67.06	July 23	67.08	Oct. 5	67.31		

13 (\*938, p. 37; 946, p. 76). W. H. Shattook. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 31 S., R. 21 W. Measuring point is 0.1 foot above land-surface datum. Measurements discontinued after Apr. 29, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 25, 32.39; Apr. 29, 32.43.

## Comanche County

By L. C. Menzie

Highest and lowest recorded water levels in 6 wells in Comanche County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	3	39.23	Oct. 23, 1942	40.52	June 20, 1941
2 a/	3	16.60	June 11, 1942	17.72	Nov. 20, 1940
3 b/	3	83.67	Dec. 27, 1940	90.50	Jan. 22, 1942
6 c/	3	78.18	May 27, 1942	79.36	Nov. 27, 1940
7	3	36.00	May 27, 1942	58.53	Jan. 22, 1941
9	3	88.63	Apr. 29, 1943	90.39	Sept. 23, 1941

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 6 wells in Comanche County

Well	Difference between highest and lowest levels	Net decline in 1943 d/	Net rise (+) or net decline (-) for period of record
1	1.29	0.61	+0.29
2	1.12	(e)	+60
3	6.83	(e)	-98
6	1.18	.77	-02
7	22.53	6.08	+7.09
9	1.76	.16	-.48

1 (\*908, p. 43; 938, p. 58; 946, p. 77). A. A. Carpenter. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 33 S., R. 20 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	39.32	Apr. 29	39.54	Aug. 21	39.77	Nov. 3	39.86
Feb. 16	39.34	June 25	39.67	Sept. 9	39.89	7	39.88
Mar. 25	39.47	July 22	39.77	Oct. 5	39.84		

2 (\*908, p. 43; 938, p. 58; 946, p. 77). Nina Clark. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 31 S., R. 31 W. Measuring point is 0.2 foot above land-surface datum. Measurements discontinued after Aug. 21, 1943.

Water level, in feet below land-surface datum, 1943

Jan. 25	16.78	Mar. 25	17.15	June 25	17.14	Aug. 21	17.25
Feb. 16	17.04	Apr. 29	17.18	July 22	18.24		

a Measurements discontinued after Aug. 21, 1943.

b Measurements discontinued after June 25, 1943.

c Measurements discontinued after Oct. 5, 1943.

d Between last measurement in 1942 and last measurement in 1943.

e Record for 1943 incomplete.

3 (\*908, p. 44; 938, p. 58; 946, p. 77). E. Deewall. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 31 S., R. 18 W. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after June 25, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 25, 85.79; Feb. 16, 85.15; Mar. 25, 85.23; June 25, 85.32.

6 (\*908, p. 44; 938, p. 58; 946, p. 77). Christopher Nickolson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 35 S., R. 18 W. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after Oct. 5, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 25, 78.87; Mar. 25, 78.79; June 25, 78.63; Oct. 5, 79.19.

7 (\*908, p. 44; 938, p. 58; 946, p. 77). W. D. Aitken. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 34 S., R. 17 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 25	38.28	Aug. 21	38.89	Nov. 7	43.30
Mar. 25	38.41	Oct. 5	40.58		

8 (\*908, p. 44; 938, p. 58; 946, p. 77). Christopher Beitler. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 33 S., R. 17 W. Measurements discontinued after November 1942.

9 (\*908, p. 44; 938, p. 58; 946, p. 77). H. R. Burnette. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 32 S., R. 17 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 16, 89.43; Apr. 29, 88.63; Nov. 3, 89.60.

### Crawford County

By C. C. Williams

Highest and lowest recorded water levels in 2 wells in Crawford County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	2	2.03	May 26, 1943	9.12	Aug. 25, 1943
24	2	262.10	Sept. 10, 1942	264.49	Sept. 23, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 2 wells in Crawford County

Well	Difference between highest and lowest levels	Net decline in 1943 $\frac{a}{b}$	Net decline for period of record
1	7.09	3.20	2.05
24	2.39	.09	.57

1 (\*946, p. 78). John P. Biddle. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 31 S., R. 25 E. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	2.50	Apr. 10	4.63	July 25	4.52	Oct. 25	5.02
25	4.50	25	5.36	Aug. 25	9.12	Nov. 25	6.30
Feb. 25	3.23	May 26	2.03	Sept. 25	7.90		

a Between last measurement in 1942 and last measurement in 1943.

24 (\*946, p. 78). City of Girard. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 29 S., R. 23 E. Measuring point is 3.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	263.16	Apr. 24	263.06	July 23	264.39	Oct. 30	264.20
Feb. 24	263.95	May 24	263.85	Aug. 26	264.29	Nov. 27	264.08
Mar. 24	263.99	June 24	264.16	Sept. 23	264.49	Dec. 27	264.08

74 (\*946, p. 78). City of Pittsburg. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 30 S., R. 25 E. Measurements discontinued after Dec. 24, 1942.

75 (\*946, p. 78). City of Pittsburg. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 30 S., R. 25 E. Measurements discontinued after Dec. 24, 1942.

#### Dickinson County

By B. F. Latta.

An investigation of the ground-water resources of the Smoky Hill River Valley in Saline, Dickinson, and Geary Counties was begun in 1943 with the establishment of an observation well in Enterprise, Dickinson County. This is the southeastermost of four shallow wells in the alluvium of the Smoky Hill Valley from which the city of Enterprise draws its public supply. The four wells are connected to one pump, and their aggregate yield is reported to be 500 gallons a minute. Monthly measurements of water level in this well were begun June 1. They are being made by E. L. Mulanax, an employee of the city, who made six measurements during the year.

City of Enterprise. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 13 S., R. 3 E. Drilled public-supply well, diameter 8 inches, depth 38 feet. Southeastermost of four wells connected to one turbine pump. Measuring point, top edge of manhole, on north side, level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
June 1	19.93	Aug. 1	19.6	Oct. 1	19.8
July 2	17.15	Sept. 1	21.2	Dec. 2	21.5

#### Ellis County

By L. C. Menzie

Highest and lowest recorded water levels in 4 wells in Ellis County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
190	2	12.50	Jan. 26, 1943	14.42	June 28, 1943
215	2	13.25	Apr. 15, 1942	15.15	Apr. 7, 1943
218	2	28.80	July 3, 1942	54.67	Dec. 22, 1943
225	2	43.56	July 3, 1942	53.92	Nov. 16, 1941

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 4 wells in Ellis County

Well	Difference between highest and lowest levels	Net decline in 1943 a/	Net rise (+) or net decline (-) for period of record
190	1.92	1.30	-1.36
215	1.90	(b)	-.54
218	15.87	9.0	-.73
225	10.36	(b)	+2.83

190 (#938, p. 60; 946, p. 79). Ben Schulte. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 14 S., R. 16 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 12.50; Apr. 7, 14.27; June 28, 14.42; Dec. 22, 15.16.

215 (#938, p. 60; 946, p. 79). A. H. Romine. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 11 S., R. 16 W. Measuring point is 2.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 14.47; Apr. 7, 15.15; June 28, 14.86.

218 (#938, p. 60; 946, p. 80). W. W. Bomis. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 12 S., R. 17 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 47.35; Apr. 7, 48.73; June 28, 48.75; Dec. 22, 54.67.

225 (#938, p. 60; 946, p. 80). Ray Smith. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 12 S., R. 17 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 47.70; Apr. 7, 48.31; June 28, 51.09.

#### Finney County

By B. F. Latta

Highest and lowest recorded water levels in 16 wells in Finney County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	7.5	5.43	June 9, 1943	11.46	Mar. 8, 1941
2	4	108.48	Apr. 1, 1943	109.82	Oct. 25, 1943
5	4	21.05	Sept. 16, 1943	22.54	Jan. 28, 1940
6	4	15.25	June 21, 1940	18.88	Dec. 19, 1943
7	4	77.49	Oct. 25, 1943	78.22	June 22, 1940
8	4	74.42	Sept. 20, 1940	75.25	June 21, 1940
10 c/	3.5	6.54	June 7, 1943	12.73	Sept. 20, 1940
13	4	d .76	May 5, 1942	4.63	Sept. 23, 1939
14 e/	3.5	46.73	Mar. 2, 1942	48.26	Jan. 2, 1943
15	4	9.34	June 25, 1943	14.40	Sept. 20, 1940
16	4	33.08	Oct. 2, 1943	42.42	May 19, 1941
17	4	.71	May 5, 1942	7.81	Oct. 26, 1939
23	4	43.13	July 13, 1943	45.30	Feb. 17, 1940
26	4	69.40	July 13, 1943	71.60	Apr. 24, 1941
1002	1	112.22	Dec. 29, 1942	f 116.67	Nov. 30, 1943
1005	1	115.04	Nov. 30, 1942	117.12	Oct. 27, 1943

a Between last measurement in 1942 and last measurement in 1943.

b Record for 1943 incomplete.

c Measurements discontinued after June 7, 1943.

d Feet above land-surface datum. High water in nearby Arkansas River caused water level to rise in casing to a point above land surface.

e Measurements discontinued Mar. 1, 1943.

f Does not include measurements affected by pumping.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 16 wells in Finney County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
1	6.03	-1.56	+0.57
2	1.34	-1.20	-.66
5	1.49	-.11	+1.30
6	3.63	-1.16	-2.74
7	.73	0	+4.1
8	.83	+.14	+4.48
10	6.19	(b)	+4.08
13	5.39	-.83	+1.47
14	1.53	(b)	0
15	5.06	-1.02	+2.93
16	9.34	-.12	+2.91
17	7.10	-2.91	+2.09
23	2.17	-.04	+1.42
26	2.20	+4.2	+1.92
1002	4.45	-4.45	-2.87
1005	2.08	-.60	-.60

1 (#886, p. 139; 908, p. 49; 938, p. 62; 946, p. 82). Mrs. A. M. Reid, NE 1/4 sec. 9, T. 24 S., R. 33 W. Measuring point is 0.4 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 19.60 feet. Water levels supplied through courtesy of Division of Water Resources of Kansas State Board of Agriculture.

Mean daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	7.10	7.08	7.11	7.05	6.80	6.33	6.83	7.49	7.86	8.22	8.53
2	7.10	7.05	7.11	7.11	7.06	6.80	6.27	6.87	7.50	7.88	8.24	8.53
3	7.14	7.06	7.07	7.09	7.08	6.83	6.22	6.91	7.51	7.89	8.24	8.54
4	7.15	7.06	7.05	7.12	7.06	6.85	6.22	6.96	7.53	7.90	8.25	8.55
5	7.11	7.05	7.07	7.11	7.06	6.85	6.27	7.00	7.54	7.91	8.28	8.55
6	7.12	7.10	7.10	7.08	7.09	6.86	6.32	7.02	7.56	7.93	8.27	8.57
7	7.13	7.08	7.09	7.08	7.10	6.78	6.36	7.05	7.57	7.94	8.29	8.57
8	7.13	7.05	7.07	7.03	7.12	5.59	6.39	7.08	7.50	7.95	8.31	8.58
9	7.10	7.05	7.06	7.01	7.12	5.43	6.42	7.11	7.61	7.96	8.33	8.59
10	7.10	7.11	7.10	7.01	7.09	5.64	6.44	7.14	7.62	7.97	8.34	8.60
11	7.12	7.11	7.07	7.01	7.08	5.80	6.47	7.16	7.64	6.98	8.35	8.59
12	7.11	7.14	7.07	7.02	7.11	5.91	6.49	7.18	7.66	8.00	8.36	8.60
13	7.10	7.13	7.08	7.03	7.10	5.99	6.44	7.17	7.67	8.02	8.37	8.60
14	7.08	7.12	7.06	7.03	7.06	6.05	6.47	7.15	7.68	8.03	8.37	8.61
15	....	7.13	7.06	7.00	7.04	6.10	6.49	7.19	7.69	8.04	8.38	8.62
16	7.12	7.11	7.09	7.01	7.06	6.15	6.52	7.22	7.70	8.04	8.39	8.63
17	7.12	7.10	7.08	7.03	7.07	6.17	6.51	7.25	7.71	8.05	8.40	8.63
18	7.12	7.10	7.07	7.02	7.06	6.20	6.51	7.27	7.72	8.05	8.41	8.63
19	7.13	7.08	7.10	7.01	7.05	6.22	6.53	7.30	7.74	8.05	8.42	8.64
20	7.07	7.08	7.15	7.00	7.03	6.24	6.54	7.32	7.75	8.08	8.42	8.64
21	7.06	7.07	7.13	7.00	7.02	6.28	6.50	7.34	7.76	8.09	8.44	8.65
22	7.05	7.04	7.10	7.01	7.01	6.30	6.36	7.36	7.78	8.10	8.45	8.66
23	7.06	7.06	7.09	7.02	7.00	6.33	6.45	7.39	7.80	8.11	8.47	8.67
24	7.08	7.10	7.10	7.00	7.02	6.36	6.56	7.41	7.80	8.13	8.47	8.66
25	7.12	7.10	7.09	7.02	7.01	6.38	6.61	7.44	7.81	8.15	8.47	8.66
26	7.11	7.11	7.09	7.00	7.02	6.40	6.64	7.46	7.82	8.15	8.49	8.66
27	7.08	7.07	7.08	7.04	6.97	6.40	6.67	7.45	7.83	8.15	8.49	8.68
28	7.07	7.06	7.09	7.04	6.89	6.40	6.69	7.44	7.84	8.16	8.51	8.68
29	7.08	....	7.08	7.03	6.85	6.39	6.72	7.44	7.85	8.17	8.52	8.67
30	7.07	....	7.06	7.08	6.81	6.37	6.76	7.45	7.85	8.18	8.52	8.67
31	7.11	....	7.11	....	6.80	....	6.80	7.47	....	8.20	....	8.68

a Between last measurement in 1942 and last measurement in 1943.  
b Records for 1943 incomplete.



2 (\*886, p. 141; 908, p. 49; 938, p. 62; 946, p. 82). Maggie B. Smith. NE. corner NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 26 S., R. 32 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	108.49	Mar. 1	108.52	May 4	108.51	July 13	109.17
Feb. 1	108.49	Apr. 1	108.48	June 7	108.53	Oct. 25	109.82

5 (\*886, p. 142; 908, p. 49; 938, p. 63; 946, p. 82). E. Alberta Reeves. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 21 S., R. 32 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	22.07	Apr. 16	21.96	July 4	21.98	Oct. 21	22.13
Feb. 12	22.06	May 6	22.01	Aug. 7	22.08	Nov. 11	22.13
Mar. 20	22.09	June 10	22.05	Sept. 16	21.05	Dec. 14	22.15

6 (\*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 82). T. A. Meakel. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 21 S., R. 29 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	17.98	Apr. 23	18.41	July 13	17.58	Nov. 8	18.70
Feb. 18	18.14	May 21	18.36	Aug. 3	17.77	Dec. 19	18.88
Mar. 25	18.30	June 1	18.39	Sept. 13	18.39		

7 (\*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83). Marion Russell. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 26 S., R. 33 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	77.70	Apr. 1	77.70	July 13	77.57	Nov. 15	77.73
Feb. 1	77.63	May 4	77.69	Oct. 25	77.49	Dec. 28	77.68
Mar. 1	77.65	June 7	77.71				

8 (\*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83). O. G. Reeve. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 25 S., R. 33 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	74.62	Apr. 1	74.63	July 13	74.62	Oct. 25	74.63
Feb. 1	74.66	May 4	74.65	Aug. 11	74.72	Nov. 15	74.56
Mar. 1	74.73	June 7	74.66	Sept. 23	74.63	Dec. 28	74.56

10 (\*886, p. 143; 908, p. 50; 938, p. 63; 946, p. 83). L. R. McBeth. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 24 S., R. 33 W. Measuring point is level with land-surface datum and 2.0 feet below measuring point in use prior to May 5, 1942. Measurements discontinued after June 7, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.84	Mar. 1	6.60	May 1	6.70
Feb. 1	6.91	Apr. 1	6.63	June 7	6.54

13 (\*886, p. 143; 908, p. 50; 938, p. 64; 946, p. 83). Edwin Wehrley. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 25 S., R. 31 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	2.04	Apr. 2	2.15	July 19	3.28	Oct. 4	3.70
Feb. 19	2.27	May 25	2.73	Aug. 18	3.77	Nov. 2	3.45
Mar. 16	2.33	June 7	2.81	Sept. 9	3.88	Dec. 6	3.16

14 (\*886, p. 143; 908, p. 50; 938, p. 64; 946, p. 83). John A. Hunter. NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 26 S., R. 32 W. Measuring point is level with land-surface datum. Measurements discontinued Mar. 1, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 2, 48.26; Feb. 1, 47.42; Mar. 1, 47.53.

15 (\*886, p. 143; 908, p. 51; 938, p. 64; 946, p. 84). Floyd A. Edwards. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 24 S., R. 33 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	9.92	Apr. 25	9.69	July 25	9.88	Oct. 25	11.05
Feb. 25	9.89	May 25	9.78	Aug. 25	10.44	Nov. 25	11.15
Mar. 25	9.88	June 25	9.34	Sept. 25	10.82	Dec. 25	10.93

16 (\*886, p. 143; 908, p. 51; 938, p. 64; 946, p. 84). George L. Meeker. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 24 S., R. 34 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 2	35.57	Apr. 1	37.01	July 13	34.16	Oct. 2	33.08
Feb. 1	36.12	May 1	36.06	Aug. 11	33.11	Nov. 5	34.31
Mar. 1	36.57	June 7	34.69	Sept. 18	33.40	Dec. 4	35.14

17 (\*886, p. 144; 908, p. 51; 938, p. 64; 946, p. 84). SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 24 S., R. 33 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 2	2.50	Apr. 1	2.73	July 13	3.85	Oct. 2	5.70
Feb. 1	2.56	May 1	3.00	Aug. 11	4.83	Nov. 5	5.64
Mar. 1	2.81	June 7	3.32	Sept. 3	5.02		

23 (\*886, p. 144; 908, p. 51; 938, p. 65; 946, p. 84). J. E. Ely. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 23 S., R. 32 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 2	43.79	Apr. 1	43.70	July 13	43.13	Oct. 21	43.66
Feb. 1	43.59	May 4	43.68	Aug. 11	43.14	Nov. 23	43.77
Mar. 26	43.66	June 7	43.66	Sept. 16	43.48	Dec. 14	43.77

26 (\*886, p. 145; 908, p. 52; 938, p. 65; 946, p. 85). Garden City Experiment Station. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 24 S., R. 32 W. Measuring point is level with land-surface datum and 0.89 foot below measuring point in use prior to May 23, 1940.

Water level, in feet below land-surface datum, 1943

Jan. 2	69.98	Apr. 1	69.50	July 13	69.40	Oct. 21	69.65
Feb. 1	69.64	May 4	69.61	Aug. 11	69.65	Nov. 23	69.47
Mar. 26	69.71	June 7	69.73	Sept. 16	70.43	Dec. 19	69.54

1002 (\*946, p. 85). United States Army. SW $\frac{1}{4}$  sec. 27, T. 24 S., R. 31 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 31	114.83	Apr. 30	118.47	July 2	1136.5	Oct. 27	115.90
Feb. 25	114.38	May 31	119.63	Aug. 2	118.5	Nov. 30	116.67

1005 (\*946, p. 85). United States Army. SW $\frac{1}{4}$  sec. 27, T. 24 S., R. 31 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 31	116.71	Apr. 30	119.03	July 2	1138.14	Oct. 27	117.12
Feb. 25	116.28	May 31	119.25	Aug. 2	1120.18	Nov. 30	116.64

a. Well recently pumped.

b. Well pumping.

## Ford County

By L. C. Menzie

Highest and lowest recorded water levels in 18 wells in Ford County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
2	5	26.35	Mar. 20, 1940	27.78	Sept. 5, 1939
8	5	.86	May 13, 1942	8.17	Nov. 7, 1939
11	5	7.69	June 3, 1942	12.31	Jan. 24, 1940
38	5	39.87	Oct. 6, 1941	42.08	May 16, 1940
41	5	45.49	July 22, 1940	46.53	July 1, 1939
57	5	4.74	May 15, 1942	9.93	Oct. 2, 1939
59	5	14.49	May 15, 1942	17.21	Sept. 5, 1939
65	5	13.61	May 13, 1942	17.70	Oct. 2, 1939
79B a/	5	16.75	Jan. 20, 1941	25.39	Aug. 1, 1939
79C	5	13.25	Jan. 2, 1942	19.69	Oct. 2, 1939
96	5	7.60	July 2, 1942	10.22	Sept. 5, 1939
237	5	85.40	May 25, 1943	86.42	Nov. 8, 1939
343	5	75.64	Dec. 4, 1941	76.36	Aug. 19, 1943
1002	1	104.10	Oct. 24, 1942	b 184.09	Nov. 26, 1942
1003	1	101.39	Oct. 24, 1942	106.88	Sept. 11, 1943
1004	1	98.54	Nov. 26, 1942	b 120.81	May 25, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 18 wells in Ford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 c/	Net rise (+) or net decline (-) for period of record
2	1.43	-0.90	-0.26
8	7.31	-1.41	-.03
11	4.62	-1.05	+.72
38	2.21	-.29	+.54
41	1.04	+1.45	-.35
57	5.19	-.94	-.20
59	2.72	-.08	+.74
65	4.09	-1.17	-.06
79B	8.64	(d)	+1.94
79C	6.44	-2.79	+.31
96	2.62	-.36	+.92
237	1.02	-.56	-.25
343	.72	-.01	-.04
1002	80.08	-.99	-3.90
1003	5.49	-1.92	-1.18
1004	22.27	-2.19	-1.74

2 (#845, p. 96; 886, p. 151; 908, p. 57; 938, p. 66; 946, p. 86).  
L. A. Lamb. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 28 S., R. 22 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	27.02	Apr. 27	27.09	July 20	27.06	Oct. 7	27.12
Feb. 18	27.04	May 25	27.01	Aug. 19	27.10	Nov. 5	27.75
Mar. 16	27.02	June 23	27.05	Sept. 11	27.14		

8 (#845, p. 96; 886, p. 151; 908, p. 57; 938, p. 67; 946, p. 86).  
F. H. Diehl. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 26 S., R. 25 W. Measuring point is 0.8 foot above land-surface datum.

a Measurements discontinued after Mar. 16, 1943.

b Well pumping.

c Between last measurement in 1942 and last measurement in 1943.

d Record for 1943 incomplete.

## 8. F. H. Diehl--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	4.79	Apr. 27	5.07	July 20	5.57	Nov. 5	6.45
Feb. 18	4.95	May 25	5.29	Sept. 11	6.99	Dec. 9	6.42
Mar. 16	5.05	June 23	4.97	Oct. 7	6.68		

11 (\*845, p. 96; 886, p. 151; 908, p. 58; 938, p. 67; 946, p. 86).  
Geo. W. Mollitor. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 21 S., R. 21 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	10.05	Apr. 27	10.24	July 20	10.53	Oct. 7	10.85
Feb. 18	10.08	May 25	10.35	Aug. 19	10.73	Nov. 5	10.45
Mar. 16	10.13	June 23	10.29	Sept. 11	10.68	Dec. 9	11.06

38 (\*845, p. 95; 886, p. 159; 908, p. 56; 936, p. 67; 946, p. 86).  
F. Buns. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 26 S., R. 24 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	40.62	Apr. 27	40.76	July 20	40.82	Nov. 5	40.90
Feb. 18	40.66	May 25	40.69	Sept. 11	40.90	Dec. 9	40.89
Mar. 16	40.71	June 23	40.77	Oct. 7	40.83		

41 (\*845, p. 96; 886, p. 150; 908, p. 57; 938, p. 67; 946, p. 87).  
J. J. Burghardt. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 25 S., R. 21 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	46.09	Mar. 16	46.01	May 25	46.13	Oct. 7	46.40
Feb. 18	46.04	Apr. 27	46.20	June 23	46.18		

57 (\*845, p. 98; 886, p. 153; 908, p. 58; 938, p. 67; 946, p. 87).  
Andrew Bogner. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 26 S., R. 26 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	6.98	Apr. 27	7.03	July 20	7.60	Oct. 7	8.10
Feb. 18	7.01	May 25	7.31	Aug. 19	7.82	Nov. 5	7.98
Mar. 16	7.18	June 23	7.33	Sept. 11	7.94	Dec. 9	7.96

59 (\*845, p. 98; 886, p. 153; 906, p. 58; 938, p. 67; 946, p. 87).  
Ward Byers Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 25 S., R. 26 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	15.62	Apr. 27	15.86	July 20	15.99	Oct. 7	16.14
Feb. 18	15.71	May 25	16.01	Aug. 19	16.31	Nov. 5	16.05
Mar. 16	15.91	June 23	15.91	Sept. 11	16.22	Dec. 9	15.92

65 (\*845, p. 98; 886, p. 154; 908, p. 59; 938, p. 67; 946, p. 87).  
John N. Clark. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 26 S., R. 25 W. Measuring point is 1.1 foot above land-surface datum and 0.1 foot above measuring point used prior to Oct. 2, 1939.

Water level, in feet below land-surface datum, 1943

Jan. 27	15.70	Apr. 27	16.05	July 20	16.98	Oct. 7	17.37
Feb. 18	15.75	May 25	16.24	Aug. 19	17.23	Nov. 5	17.05
Mar. 16	16.02	June 23	16.29	Sept. 11	17.34		

79B (\*845, p. 98; 886, p. 155; 908, p. 59; 938, p. 68; 946, p. 87).  
O. N. Nevins. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 26 S., R. 24 W. Measuring point is 9.3 foot below land-surface datum. Measurements discontinued after Mar. 16, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 27, 19.36; Feb. 18, 19.42; Mar. 16, 19.45.

79C (\*845, p. 99; 886, p. 155; 908, p. 59; 938, p. 68; 946, p. 87).  
O. N. Nevins. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 26 S., R. 24 W. Measuring point is 9.0  
feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	15.39	May 25	16.30	Aug. 19	17.58	Nov. 5	18.41
Feb. 18	15.43	June 23	16.53	Sept. 11	17.97	Dec. 9	18.21
Mar. 16	15.49	July 20	17.16	Oct. 7	18.25		

96 (\*845, p. 99; 886, p. 155; 908, p. 60; 938, p. 68; 946, p. 87).  
Henry Hattrup. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 26 S., R. 21 W. Measuring point is 0.8  
foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	8.30	Apr. 27	8.39	July 20	8.83	Oct. 7	8.52
Feb. 18	8.28	May 25	8.51	Aug. 19	9.02	Nov. 5	8.63
Mar. 16	8.26	June 23	8.69	Sept. 11	8.29	Dec. 9	8.74

237 (\*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88). Atchison,  
Topeka & Santa Fe Railway. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 25 S., R. 22 W. Measuring  
point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	85.66	Apr. 27	85.57	July 20	85.76	Oct. 7	85.89
Feb. 18	85.65	May 25	85.40	Aug. 19	86.00	Nov. 5	85.88
Mar. 16	85.58	June 23	85.46	Sept. 11	85.90	Dec. 9	86.24

343 (\*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88). B. A.  
Schuette. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 26 S., R. 26 W. Measuring point is 0.6 foot  
above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	76.14	Apr. 27	76.19	July 20	76.20	Oct. 7	76.23
Feb. 18	76.16	May 25	76.14	Aug. 19	76.36	Nov. 11	76.12
Mar. 16	76.22	June 23	76.16	Sept. 11	76.34		

1002 (\*946, p. 88). U. S. Army. Center SE $\frac{1}{4}$  sec. 12, T. 26 S.,  
R. 25 W. Measuring point is 1.09 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	105.32	Apr. 27	106.73	Aug. 19	117.68	Nov. 5	107.58
Feb. 18	104.58	May 25	106.44	Sept. 11	108.04	Dec. 9	(a)
Mar. 16	104.58	June 23	105.40				

1003 (\*946, p. 88). U. S. Army. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 26 S., R. 26 W.  
Measuring point is 0.65 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	102.58	Apr. 27	103.45	June 23	103.65	Sept. 11	106.88
Feb. 18	102.78	May 25	105.06	Aug. 19	109.52	Nov. 5	104.65

1004 (\*946, p. 88). U. S. Army. Center NE $\frac{1}{4}$  sec. 13, T. 26 S.,  
R. 26 E. Measuring point is 1.09 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 27	99.37	May 25	a 120.81	Aug. 19	105.55
Apr. 27	100.04	June 23	100.25	Nov. 5	100.97

a Pumping.

## Grant County

By T. G. McLaughlin

Highest and lowest recorded water levels in 11 wells in Grant County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	3	42.41	May 27, 1943	45.06	Sept. 16, 1941
4	3	84.43	Sept. 24, 1943	87.52	May 14, 1941
5	3	66.54	Oct. 16, 1941	67.00	May 14, 1941
7	3	82.06	Jan. 8, 1942	82.76	Sept. 25, 1943
8	3	58.79	Aug. 11, 1941	59.30	Nov. 15, 1943
9	3	71.91	June 18, 1943	72.49	Nov. 17, 1941
10 a/	2	7.24	May 11, 1942	12.19	Sept. 16, 1941
11	3	46.93	June 18, 1943	47.32	July 12, 1943
13	3	105.56	July 12, 1943	106.58	July 14, 1941
14	3	129.47	Sept. 25, 1943	130.47	May 30, 1941
15 b/	2	73.93	Jan. 8, Apr. 16, 1942	74.18	Aug. 11, 1941

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 11 wells in Grant County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 c/	Net rise (+) or net decline (-) for period of record
1	2.65	+0.38	+1.65
4	3.09	+32	+2.81
5	.46	-1.04	-.62
7	.70	-.03	-.25
8	.51	-.38	-.27
9	.58	+.27	+.28
10	4.95	(d)	+2.94
11	.39	-.02	+.17
13	1.02	+.13	+.61
14	1.00	+1.26	+.82
15	.25	(d)	+.05

1 (\*938, p. 69; 946, p. 89). F. C. Williams. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 27 S., R. 37 W. Measuring point is 0.45 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	43.43	Apr. 26	43.28	July 12	42.53	Oct. 27	42.62
Feb. 3	43.37	May 27	42.41	Aug. 28	42.72	Nov. 16	42.80
Mar. 9	43.31	June 18	42.58	Sept. 24	42.61	Dec. 3	42.78

2 (\*938, p. 69; 946, p. 89). J. B. Shorier. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 27 S., R. 38 W. Measurements discontinued after Dec. 31, 1942.3 (\*938, p. 69; 946, p. 89). A. G. Dyck. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 28 S., R. 38 W. Measurements discontinued after Dec. 31, 1942.4 (\*938, p. 70; 946, p. 89). F. J. Andes. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 27 S., R. 38 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	85.00	Apr. 26	84.63	July 12	84.60	Oct. 26	84.58
Feb. 3	85.15	May 27	84.63	Aug. 28	84.61	Nov. 16	84.71
Mar. 9	84.72	June 18	84.65	Sept. 24	84.43		

a Measurements discontinued March 1943.

b Measurements discontinued after Jan. 4, 1943.

c Between last measurement in 1942 and last measurement in 1943.

d Record for 1943 incomplete.

5 (\*938, p. 70; 946, p. 89). C. L. Jury. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 27 S., R. 37 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	66.68	Apr. 26	66.55	July 12	66.59	Oct. 26	66.68
Feb. 3	66.61	May 27	66.58	Aug. 28	66.67	Nov. 16	66.64
Mar. 9	66.61	June 18	66.61	Sept. 24	66.69	Dec. 28	67.62

6 (\*938, p. 70; 946, p. 89). Craig Howard. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 27 S., R. 35 W. Measurements discontinued after Dec. 31, 1942.

7 (\*938, p. 70; 946, p. 90). Ethel W. Hoffman. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 28 S., R. 36 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	82.42	Apr. 26	82.12	July 12	82.26	Oct. 27	82.29
Feb. 3	82.26	May 27	82.16	Aug. 29	(a)	Nov. 15	82.38
Mar. 9	82.21	June 18	82.31	Sept. 25	82.76		

8 (\*938, p. 70; 946, p. 90). E. O. Stuart. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 29 S., R. 35 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	58.94	Apr. 26	59.06	July 12	59.23	Oct. 27	59.27
Feb. 3	59.13	May 27	59.11	Aug. 29	59.25	Nov. 15	59.30
Mar. 9	59.08	June 18	59.22	Sept. 25	59.29		

9 (\*938, p. 70; 946, p. 90). William Robinson. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 28 S., R. 37 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	72.20	Apr. 26	72.02	July 12	71.96	Oct. 27	(b)
Feb. 3	72.13	May 27	71.98	Aug. 29	71.94	Nov. 15	71.98
Mar. 9	72.14	June 18	71.91	Sept. 25	(b)		

10 (\*938, p. 70; 946, p. 90). E. F. Fowler and Harry Joyce. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 30 S., R. 37 W. Measuring point is level with land-surface datum. Measurements discontinued after March 1943. Water levels, in feet below land-surface datum, 1943: Jan. 4, 8.47; Feb. 3, 8.52; Mar. 10, 8.54.

11 (\*938, p. 71; 946, p. 90). J. A. Hoffman. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 28 S., R. 38 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	47.00	Apr. 26	46.94	July 12	47.32	Oct. 27	47.16
Feb. 3	46.96	May 27	46.99	Aug. 28	47.00	Nov. 16	47.06
Mar. 9	46.94	June 18	46.93	Sept. 24	47.06		

13 (\*938, p. 71; 946, p. 90). Fred Powell. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 29 S., R. 36 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	106.10	Apr. 26	106.05	July 12	105.56	Oct. 27	105.96
Feb. 3	106.08	May 27	106.12	Aug. 29	105.91	Nov. 15	105.94
Mar. 9	106.11	June 18	106.09	Sept. 25	105.94		

14 (\*938, p. 71; 946, p. 90). Mr. Hall. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 28 S., R. 36 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	129.93	Apr. 26	129.69	July 12	129.70	Oct. 27	129.60
Feb. 3	129.91	May 27	129.76	Aug. 29	129.69	Nov. 15	129.65
Mar. 9	129.79	June 18	129.81	Sept. 25	129.47		

15 (\*938, p. 71; 946, p. 90). Perry Campbell. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 29 S., R. 37 W. Measuring point is 0.1 foot below land-surface datum. Measurements discontinued after Jan. 4, 1943. Water level, in feet below land-surface datum, 1943: Jan. 4, 74.02.

a Pumping.

b Well plugged.

## Gray County

By B. F. Latta

Highest and lowest recorded water levels in 12 wells in Gray County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	4	3.48	June 13, 1941	7.56	Oct. 8, 1940
3	4	164.61	Apr. 19, 1943	165.98	Aug. 18, 1943
7	4	76.51	Nov. 2, 1943	77.70	May 22, 1940
8	4	1.03	Sept. 2, 1942	8.20	Oct. 7, 1939
11	4	58.17	Oct. 21, 1942	59.74	Aug. 18, 1943
17	4	83.48	Sept. 9, 1942	84.95	May 24, 1941
18	4	48.11	Oct. 21, 1942	49.25	Aug. 29, 1940
19 a/	3.5	9.93	July 2, 1942	13.52	Aug. 29, 1940
20	4	17.55	May 15, 1942	21.53	Nov. 4, 1940
23	4	111.31	Mar. 22, 1940	114.76	July 19, 1943
27 b/	4	54.79	Mar. 18, 1941	57.04	Feb. 15, 1940
28	4	78.89	Sept. 9, 1943	80.10	Dec. 14, 1939
					Jan. 26,
					July 23, 1940

Difference between highest and lowest recorded water levels and net  
change in water level, in feet, in 1943 and for period of record,  
in 12 wells in Gray County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 c/	Net rise (+) or net decline (-) for period of record
1	4.08	-0.95	+0.96
3	1.37	-.06	+.21
7	1.29	+.17	+.57
8	7.17	-2.15	+4.82
11	1.57	-.24	+.21
17	1.47	-.57	+.37
18	1.14	-.22	+.35
19	3.59	(d)	+1.46
20	3.98	-.99	+.04
23	3.45	-.33	-.20
27	3.05	+.33	+1.31
28	1.21	+.46	+.93

1 (\*886, p. 158; 908, p. 63; 938, p. 73; 946, p. 92). G. A. Hard.  
NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 25 S., R. 29 W. Measuring point is 1.0 foot above  
land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	5.25	Apr. 19	4.16	July 19	5.66	Oct. 4	6.98
Feb. 19	5.36	May 25	4.53	Aug. 18	5.67	Nov. 2	6.89
Mar. 16	5.36	June 23	5.02	Sept. 11	6.12	Dec. 6	6.38

3 (\*886, p. 159; 908, p. 63; 938, p. 73; 946, p. 92). N. A. Mans.  
NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 28 S., R. 27 W. Measuring point is level with land-  
surface datum.

- a Measurements discontinued June 23, 1943.
- b Measurements discontinued Nov. 5, 1943.
- c Between last measurement in 1942 and last measurement in 1943.
- d Record for 1943 incomplete.



## 3. N. A. Mans--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	164.73	Apr. 19	164.61	July 19	164.63	Nov. 2	164.65
Feb. 19	164.75	May 26	164.69	Aug. 18	165.98	Dec. 6	164.82
Mar. 17	164.76	June 26	164.65	Oct. 4	165.33		

7 (\*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92). P. Bristenbach et al. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 26 S., R. 29 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 19	77.09	May 26	77.15	Aug. 18	76.98	Nov. 2	76.51
Mar. 17	77.13	June 26	77.12	Sept. 9	76.88	Dec. 6	76.91
Apr. 19	77.11	July 19	76.88	Oct. 4	76.79		

8 (\*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92). NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 26 S., R. 28 W. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 28	1.61	Apr. 19	2.11	July 19	2.91	Oct. 7	3.34
Feb. 19	1.82	May 26	2.36	Aug. 18	2.89	Nov. 5	3.34
Mar. 16	2.05	June 23	2.63	Sept. 11	3.12	Dec. 9	3.38

9 (\*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92). L. Naftziger. NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 24 S., R. 29 W. Measurements discontinued after July 1942.

11 (\*886, p. 159; 908, p. 64; 938, p. 74; 946, p. 92). J. D. Wetmore. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 29 S., R. 28 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 28	58.18	Apr. 19	58.19	July 19	58.23	Oct. 4	58.34
Feb. 19	58.20	May 26	58.20	Aug. 18	59.74	Nov. 2	58.40
Mar. 17	58.21	June 26	58.19	Sept. 9	58.38	Dec. 6	58.43

17 (\*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93). V. E. Yeager. NE. corner NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 28 S., R. 29 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 5	83.92	May 26	83.70	Aug. 18	83.95	Nov. 2	84.02
Mar. 17	84.06	June 26	83.72	Sept. 9	84.10	Dec. 6	84.25
Apr. 19	83.90	July 19	83.82	Oct. 4	83.98		

18 (\*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93). W. H. Mace. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25, T. 29 S., R. 29 W. Measuring point beginning Sept. 9, 1943, top of casing, level with land-surface datum and 0.8 foot below former measuring point.

Water level, in feet below land-surface datum, 1943

Feb. 19	48.29	Apr. 19	48.35	June 26	48.34	Oct. 4	48.65
Mar. 17	48.32	May 26	48.37	Sept. 9	48.63	Dec. 6	48.64

19 (\*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93). M. E. Kraushaar. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 25 S., R. 29 W. Measuring point is 1.5 feet above land-surface. Measurements discontinued after June 23, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 19	11.57	Apr. 19	11.36	June 23	11.91
Mar. 16	11.59	May 25	11.86		

20 (\*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93). H. and E. Fischer. SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 25 S., R. 30 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	20.41	Mar. 16	20.14	May 25	20.16	Oct. 4	21.44
Feb. 19	20.04	Apr. 19	20.10	June 23	20.31	Nov. 2	21.36

23 (\*886, p. 160; 908, p. 65; 938, p. 75; 946, p. 93). Fry. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 28 S., R. 29 W., in Montezuma. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	112.70	May 26	112.98	Aug. 18	112.12	Nov. 2	113.09
Mar. 17	112.90	June 26	112.91	Sept. 9	113.43	Dec. 6	112.19
Apr. 19	113.00	July 19	114.76	Oct. 4	112.80		

27 (\*886, p. 161; 908, p. 66; 938, p. 75; 946, p. 93). H. E. Hettrick. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 26 S., R. 28 W. Measuring point is 3.0 feet above land-surface datum. Measurements discontinued after Nov. 5, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	56.54	Apr. 19	56.43	July 19	56.44	Oct. 7	56.39
Feb. 19	56.63	May 26	56.48	Aug. 18	56.45	Nov. 5	56.27
Mar. 17	56.47						

28 (\*886, p. 161; 908, p. 66; 938, p. 75; 946, p. 94). W. H. McLaughton. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 27 S., R. 29 W. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	79.59	May 26	79.64	Aug. 18	79.03	Nov. 2	78.90
Mar. 17	79.61	June 26	79.60	Sept. 9	78.39	Dec. 6	79.13
Apr. 19	79.62	July 19	79.23	Oct. 4	79.19		

### Hamilton County

By T. G. McLaughlin

Highest and lowest recorded water levels in 6 wells in Hamilton County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
3	4	11.57	July 7, 1942	14.67	Nov. 16, 1939
6	4	49.74	May 20, 1942	53.74	Nov. 16, 1939
7	4	43.68	July 15, 1943	46.00	Nov. 27, 1940
8	4	146.72	Nov. 5, 1943	149.08	Aug. 12, 1943
16	4	84.57	Apr. 20, 1943	86.30	July 15, 1943
17	4	39.47	Aug. 12, 1943	43.48	May 15, 1940
					July 18, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 6 wells in Hamilton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
3	3.10	-0.30	+0.30
6	4.00	-1.09	+6.5
7	2.32	+46	+1.91
8	2.76	+15	-.01
16	1.73	-.73	+14
17	4.01	-.92	+2.47

a Between last measurement in 1942 and last measurement in 1943.

3 (\*886, p. 162; 908, p. 69; 938, p. 77; 946, p. 95). B. Rees.  
SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 24 S., R. 40 W. Measuring point is 0.25 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	12.95	Apr. 20	13.16	Aug. 12	12.35	Nov. 5	13.15
Feb. 22	13.04	May 3	13.21	Sept. 10	12.79	Dec. 4	13.27
Mar. 23	13.21	June 12	13.26	Oct. 2	13.13		

6 (\*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95). Belle Heinlein.  
SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 24 S., R. 39 W. Measuring point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	51.69	Apr. 20	51.92	Aug. 12	51.67	Nov. 6	53.05
Feb. 22	51.77	May 3	52.02	Sept. 4	52.93	Dec. 4	52.79
Mar. 23	51.93	June 12	52.07	Oct. 2	53.40		

7 (\*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95). I. E. Martin.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 23 S., R. 40 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	44.46	Apr. 20	43.99	July 15	43.68	Oct. 1	43.86
Feb. 22	44.51	May 3	43.96	Aug. 12	43.72	Nov. 5	43.74
Mar. 23	43.79	June 12	43.91	Sept. 3	43.72	Dec. 4	43.86

8 (\*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95). R. D. Woodman.  
SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 22 S., R. 40 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	147.03	Apr. 20	146.98	July 15	147.88	Nov. 5	146.72
Feb. 22	147.02	May 3	146.91	Aug. 12	149.08	Dec. 4	146.93
Mar. 23	146.35	June 12	147.08	Oct. 8	146.76		

16 (\*886, p. 163; 908, p. 70; 938, p. 78; 946, p. 96). Charles H. Miller.  
SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 25 S., R. 39 W. Measuring point is 0.1 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	84.88	Apr. 20	84.57	July 15	86.20	Oct. 2	85.97
Feb. 22	84.86	May 3	84.61	Aug. 12	85.46	Nov. 6	85.40
Mar. 23	84.85	June 12	84.63	Sept. 4	85.93	Dec. 3	85.58

17 (\*886, p. 163; 908, p. 70; 938, p. 78; 946, p. 96). Thomas A. Wells.  
NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 25 S., R. 39 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	39.89	Apr. 20	39.98	July 15	40.30	Oct. 2	40.29
Feb. 22	39.83	May 3	39.96	Aug. 12	39.47	Nov. 6	40.37
Mar. 23	39.79	June 12	39.99	Sept. 4	40.21	Dec. 3	40.79

## Harvey County

By C. C. Williams and G. H. von Hein

Highest and lowest recorded water levels in 25 wells in Harvey County that are not affected by pumping, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
72	6	20.28	July 20, 1943	25.35	Oct. 7, 1937
294	6	34.00	Nov. 2, 1942	40.92	Apr. 3, 4, 5, 1938
325	6	8.80	Aug. 2, 1943	13.01	June 4, 1939
701	6	34.90	Dec. 2, 1942	44.25	Nov. 2, 1938
817	5	11.60	Oct. 9, 1942	17.12	Oct. 25, 1940
824	5	9.98	May 4, 1942	18.16	Nov. 5, 1940
831	5	15.35	May 4, 1942	20.54	Nov. 5, 1940
832	5	15.44	May 4, 1942	20.35	Nov. 5, 1940
833	5	6.58	May 4, 1942	11.13	Dec. 2, 1943
852	5	12.24	July 7, 1942	16.66	Nov. 5, 1940
853	5	6.62	June 26, 1942	11.13	Dec. 31, 1943
854	5	9.12	June 26, 1942	14.87	Nov. 1, 1940
875	5	a +.06	Jan. 15, 1943	6.04	Oct. 25, 1940
876	5	23.90	Aug. 13, 1943	27.83	Nov. 8, 1940
877	5	12.08	Jan. 15, 1943	14.95	Jan. 27, 28, 1941
880	5	3.76	July 5, 1941	6.97	Dec. 31, 1943
881	5	3.24	July 5, 1941	7.08	Dec. 31, 1943
888	5	a +.21	July 5, 1941	8.95	Oct. 27, 1939
889	5	2.87	May 24, 1940	8.13	Dec. 10, 1943
890	5	1.46	Oct. 1, 1942	7.07	Nov. 5, 1940
891	5	a +.46	May 11, 1942	4.22	Sept. 3, 1941
892	5	a +.89	May 11, 1942	3.92	Oct. 3, 1940
893	5	a +.97	May 4, 1942	3.77	Nov. 5, 1940
1174	3	4.49	Oct. 29, 1942	9.01	Jan. 27, 1941
1187	3	6.59	July 7, 1942	10.13	Dec. 2, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 25 wells in Harvey County that are not affected by pumping

Well	Difference between highest and lowest levels	Net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
72	5.07	(c)	+5.07
294	10.92	2.62	+3.74
325	4.21	.72	+2.76
701	9.45	.21	+4.98
817	5.62	2.26	-.61
824	8.18	2.92	+.54
831	5.19	2.10	-.45
832	4.91	1.90	-.54
833	4.55	3.17	-2.87
852	4.42	2.74	-.84
853	4.51	2.87	-1.99
854	5.75	2.15	-.08
875	6.10	3.38	+.91
876	4.03	.35	+.37
877	2.97	1.00	+1.51
880	3.21	2.00	-.92
881	3.34	1.94	-1.26
888	9.16	5.70	-1.15
889	5.26	2.20	-1.99
890	5.61	2.78	+.26

a Water level above land-surface datum.

b Between last measurement in 1942 and last measurement in 1943.

c Record for 1943 incomplete.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 25 wells in Harvey County that are not affected by pumping--Cont.

Well	Difference between highest and lowest levels	Net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
891	4.68	1.32	-0.40
392	4.31	1.38	+.21
893	4.64	1.32	+.27
1174	4.52	1.20	+1.88
1187	3.54	3.13	+.17

Highest and lowest recorded water levels in 103 wells in Harvey County that are pumped or affected by pumping, in feet below land-surface datum

(Measurements made when these or nearby wells were not pumping)

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
2	6	2.40	Apr. 26, 1942	8.99	Dec. 31, 1943
3	5	7.09	June 12, 1942	19.29	Dec. 1, 1943
65d	5	46.17	Oct. 5, 1938	53.41	Dec. 31, 1943
			Dec. 21, 1943		
86	3	17.38	July 1, 1943	18.96	Sept. 30, 1943
87	3	17.00	Oct. 30, 1943	18.54	May 16, 1941
87a	3	18.12	July 1, 1943	19.10	Sept. 30, 1943
506	5	8.50	Oct. 7, 1942	16.36	Aug. 11, 1941
507	5	3.96	May 24, 1940	14.56	Dec. 10, 1943
821	5	12.03	Aug. 21, 1939	18.87	Oct. 22, 1943
839	5	9.62	Aug. 21, 1939	17.48	Dec. 31, 1943
872	5	17.65	Mar. 11, 1939	30.05	Dec. 1, 1943
873	5	17.61	Mar. 11, 1939	30.39	Dec. 1, 1943
874	5	20.04	May 27, 1940	41.14	Dec. 1, 1943
878	5	16.25	June 3, 1940	23.47	Dec. 31, 1943
879	5	17.52	May 27, 1940	26.70	Dec. 24, 1943
			June 3, 1940		
885	5	13.35	Aug. 21, 1939	21.12	Dec. 31, 1943
884	5	13.34	Aug. 21, 1939	20.59	Dec. 1, 1943
885	5	13.22	Aug. 21, 1939	21.75	July 3, 1943
886	5	2.34	Aug. 21, 1939	13.68	Dec. 31, 1943
887	5	2.72	May 27, 1940	14.76	Dec. 31, 1943
894	5	9.56	May 27, 1940	19.21	Dec. 1, 1943
895	5	10.04	May 27, 1940	21.82	Nov. 9, 1943
1112	4	16.75	July 6, 1942	17.89	Nov. 4, 1940
1136	3	9.99	June 19, 1942	12.69	Dec. 31, 1943
1188	3	3.69	June 26, 1942	9.04	Dec. 5, 1943
1189	3	6.50	Apr. 26, 1942	10.84	Dec. 31, 1943
1192	3	15.56	Mar. 1, 22,	16.42	May 28, 1941
			1943		
2072	2.5	32.96	Oct. 25, 1941	34.43	Dec. 31, 1943
M-1	5	13.56	Apr. 13, 1939	34.36	Apr. 19, 1943
M-1a	5	17.47	June 3, 1940	34.59	June 3, 1940
M-1b	5	15.94	June 3, 1940	30.02	June 3, 1940
M-2	5	18.33	May 4, 1939	43.53	Apr. 13, 1942
					Oct. 5, 1943
M-2a	5	17.94	June 3, 1940	40.90	Sept. 9, 1940
M-2b	5	20.25	May 27, 1940	38.00	Apr. 13, 1943
M-3	5	23.20	May 8, 1939	40.57	Aug. 25, 1941
M-3a	5	19.93	May 27, 1940	37.72	Aug. 25, 1941
M-3b	5	23.13	May 27, 1940	42.90	Aug. 25, 1941
M-4	5	23.12	May 27, 1940	43.60	Apr. 13, 1942
M-4a	5	22.37	May 27, 1940	41.96	Oct. 5, 1943
M-4b	5	23.91	May 27, 1940	41.58	Oct. 5, 1943
M-5	5	20.33	May 16, 1939	38.46	Oct. 8, 1940
M-5a	5	17.79	June 3, 1940	30.07	Dec. 1, 1943
M-5b	5	17.82	May 27, 1940	29.72	Dec. 1, 1943

a Between last measurement in 1942 and last measurement in 1943.

Highest and lowest recorded water levels in 103 wells in Harvey County that are pumped or affected by pumping, in feet below land-surface datum--Continued

(Measurements made when these or nearby wells were not pumping)

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
M-6	5	19.05	May 27, 1940	28.33	Jan. 21, 1943
M-6a	5	18.63	June 3, 1940	28.01	Oct. 5, 1943
M-6b	5	18.46	June 3, 1940	27.76	Oct. 5, 1943
M-7	5	11.03	June 13, 1939	20.03	Dec. 1, 1943
M-7a	5	11.20	Aug. 21, 1939	20.13	Dec. 1, 1943
M-7b	5	11.24	Aug. 21, 1939	20.24	Dec. 1, 1943
M-8	5	15.93	May 27, 1940	26.78	Oct. 5, 1943
M-8a	5	14.72	June 3, 1940	24.31	Oct. 5, 1943
M-8b	5	13.30	June 3, 1940	23.31	Oct. 5, 1943
M-9	5	10.82	May 27, 1940	23.35	Sept. 7, 1943
M-9a	5	10.40	May 27, 1940	22.57	Dec. 1, 1943
M-9b	5	9.12	May 27, 1940	21.18	Dec. 1, 1943
M-10	5	12.05	May 27, 1940	25.79	Oct. 5, 1943
M-10a	5	11.24	May 27, 1940	24.30	Oct. 5, 1943
M-10b	5	10.44	May 27, 1940	23.15	Oct. 5, 1943
M-11	5	7.11	May 27, 1940	18.97	Oct. 5, 1943
M-11a	5	6.38	May 27, 1940	18.31	Dec. 1, 1943
M-11b	5	7.67	May 27, 1940	19.99	July 21, 1942
M-12	5	11.41	Aug. 21, 1939	28.94	July 3, 1943
M-12a	5	10.73	May 27, 1940	27.21	July 3, 1943
M-12b	5	11.70	Aug. 21, 1939	20.17	July 3, 1943
M-13	5	8.27	Aug. 21, 1939	19.50	Dec. 1, 1943
M-13a	5	7.89	May 27, 1940	19.58	Dec. 1, 1943
M-13b	5	7.63	May 27, 1940	20.48	Dec. 1, 1943
M-14	5	9.07	May 27, 1940	24.30	Nov. 9, 1943
M-14a	5	8.31	Apr. 4, 1939	24.35	Nov. 9, 1943
M-14b	5	8.16	May 15, 27, 1940	24.15	Nov. 9, 1943
M-15	5	13.92	Apr. 17, 1939	22.13	July 3, 1943
M-15a	5	12.49	May 27, 1940	22.74	July 3, 1943
M-15b	5	13.45	May 27, 1940	23.79	July 3, 1943
M-16	5	10.71	Aug. 21, 1939	20.79	Nov. 9, 1943
M-16a	5	10.93	Aug. 21, 1939	21.12	Nov. 9, 1943
M-16b	5	11.02	May 27, 1940	19.30	Nov. 9, 1943
M-17	5	6.58	Aug. 21, 1939	16.09	Dec. 1, 1943
M-17a	5	5.66	Aug. 21, 1939	14.54	Dec. 1, 1943
M-17b	5	4.01	Aug. 21, 1939	13.02	Dec. 1, 1943
M-18	5	10.00	Aug. 21, 1939	17.49	Sept. 10, 1941
M-18a	5	9.62	Aug. 21, 1939	16.88	Dec. 1, 1943
M-18b	5	9.38	Aug. 21, 1939	16.55	Dec. 1, 1943
M-19	5	10.32	Aug. 21, 1939	17.70	Dec. 1, 1943
M-19a	5	13.11	Aug. 21, 1939	20.06	Dec. 1, 1943
M-19b	5	11.47	Aug. 21, 1939	18.60	Dec. 1, 1943
M-20	5	9.74	May 27, 1940	22.96	Dec. 1, 1943
M-20a	5	9.28	May 27, 1940	22.99	Dec. 1, 1943
M-20b	5	8.49	May 27, 1940	23.62	Dec. 1, 1943
M-21	5	8.32	Aug. 21, 1939	16.73	Dec. 1, 1943
M-21a	5	8.50	Aug. 21, 1939	17.06	Dec. 1, 1943
M-21b	5	8.08	Aug. 21, 1939	16.68	Dec. 1, 1943
M-22	5	9.20	Aug. 21, 1939	19.16	Nov. 9, 1943
M-22a	5	8.49	Aug. 21, 1939	17.50	Nov. 9, 1943
M-22b	5	9.23	Aug. 21, 1939	18.35	Nov. 9, 1943
M-23	5	7.85	Aug. 21, 1939	17.03	Dec. 23, 1940
M-23a	5	8.27	Aug. 21, 1939	15.73	Oct. 5, 1943
M-23b	5	7.50	Aug. 21, 1939	15.04	Oct. 5, 1943
M-24	5	8.71	Aug. 21, 1939	15.35	Nov. 9, 1943
M-24a	5	8.98	Aug. 21, 1939	15.66	Nov. 9, 1943
M-24b	5	11.17	Aug. 28, 1939	17.50	Nov. 9, 1943
M-25	5	5.54	Aug. 21, 1939	10.96	Dec. 1, 1943
M-25a	5	5.31	Aug. 21, 1939	11.48	Dec. 1, 1943
M-25b	5	6.89	Aug. 21, 1939	13.00	Aug. 25, 1941

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 103 wells in Harvey County that are pumped or affected by pumping

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <u>a</u> /	Net rise (+) or net decline (-) for period of record
2	6.59	-2.44	-3.10
3	12.20	-2.39	-9.93
66d	7.24	-4.02	-7.24
86	1.08	-.60	-.08
87	1.54	-.59	+.92
87a	.98	-.31	-.38
506	7.96	-2.04	-.84
507	10.60	-1.55	-3.38
821	6.94	-1.47	-6.29
839	7.96	-3.04	-5.49
872	12.40	-2.41	-12.24
873	12.78	-2.48	-12.75
874	21.10	-4.30	-19.96
878	7.22	-1.67	-6.99
879	9.18	-2.49	-8.31
883	7.77	-1.70	-5.99
884	7.25	-1.13	-5.43
885	8.53	+.19	-5.16
886	11.34	-3.67	-10.23
887	12.04	-3.97	-11.28
894	9.65	-2.05	-8.01
895	11.73	-.39	-8.90
1112	1.14	-.77	-.37
1186	2.90	-1.45	-.58
1188	5.35	-3.39	-3.43
1189	4.34	-1.50	-2.99
1192	.86	-.73	+.05
2072	1.47	-.78	-1.47
M-1	15.80	+.96	-6.95
M-1a	17.12	+.51	-7.26
M-1b	14.08	+.67	-7.72
M-2	25.20	-4.76	-25.20
M-2a	23.06	-8.40	-18.15
M-2b	17.75	-6.90	-16.93
M-3	17.37	-.10	-13.71
M-3a	17.79	+.33	-10.43
M-3b	19.77	+.26	-10.34
M-4	20.48	-6.66	-20.32
M-4a	19.09	-6.37	-17.78
M-4b	17.67	-6.71	-17.56
M-5	18.13	-5.97	-16.32
M-5a	12.28	-4.60	-11.71
M-5b	11.90	-4.38	-11.27
M-6	9.28	-1.10	-5.92
M-6a	9.38	-1.21	-8.73
M-6b	9.30	-1.31	-8.61
M-7	9.00	-3.20	-7.77
M-7a	8.93	-3.37	-8.06
M-7b	9.00	-3.23	-8.09
M-8	10.85	-.44	-8.66
M-8a	10.09	+.16	-8.61
M-8b	10.01	+.46	-8.50
M-9	12.53	-2.76	-11.79
M-9a	12.17	-2.73	-11.59
M-9b	12.06	-2.64	-11.44
M-10	13.74	-2.12	-11.53
M-10a	13.06	-2.44	-12.51
M-10b	12.71	-1.97	-12.00
M-11	11.36	-2.12	-11.16
M-11a	11.93	-2.44	-11.23
M-11b	12.32	-2.51	-11.23
M-12	17.58	-3.36	-11.39

a Calculated from last measurement of 1942 and last of 1943 made when these or nearby wells were not pumping.

b Calculated from measurements made when these or nearby wells were not pumping.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 103 wells in Harvey County that are pumped or affected by pumping--  
Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a/</sup>	Net rise (+) or net decline (-) for period of record <sup>b/</sup>
M-12a	16.48	-3.44	-11.96
M-12b	16.47	-3.31	-12.04
M-13	11.23	-1.90	-9.77
M-13a	11.69	-2.78	-10.54
M-13b	12.85	-3.13	-11.68
M-14	15.23	-3.67	-15.62
M-14a	16.04	-3.74	-16.04
M-14b	15.99	-3.90	-15.97
M-15	8.21	-2.98	-9.57
M-15a	10.25	-3.96	-9.56
M-15b	10.34	-3.97	-9.64
M-16	10.03	-3.43	-9.24
M-16a	10.19	-3.52	-9.26
M-16b	8.28	-2.12	-7.52
M-17	9.51	-5.11	-8.79
M-17a	8.88	-4.43	-7.37
M-17b	9.01	-4.45	-6.64
M-18	7.49	-3.27	-6.48
M-18a	7.26	-3.17	-6.24
M-18b	7.17	-3.26	-6.02
M-19	6.88	-1.33	-5.63
M-19a	6.95	-1.93	-4.66
M-19b	7.13	-2.40	-4.76
M-20	13.22	-1.34	-11.73
M-20a	13.71	-2.88	-12.15
M-20b	15.13	-2.92	-12.04
M-21	8.41	-4.47	-6.18
M-21a	9.56	-4.61	-6.38
M-21b	8.60	-4.48	-6.29
M-22	8.96	-4.11	-5.64
M-22a	9.01	-4.32	-6.35
M-22b	9.07	-4.64	-6.10
M-23	9.18	-4.01	-3.50
M-23a	7.46	-4.03	-3.78
M-23b	7.54	-4.08	-3.84
M-24	6.64	-3.67	-4.14
M-24a	6.78	-3.34	-4.65
M-24b	6.33	-3.85	-4.05
M-25	5.42	-2.93	-2.45
M-25a	6.17	-3.21	-1.68
M-25b	6.11	-3.27	-4.57

Pumpage from city of Wichita wells M-1 to M-25, in millions of gallons, in 1943 and since beginning of pumping, Sept. 1, 1940

Well	1943	Total 1940-43	Well	1943	Total 1940-43
M-1	334.7	830.4	M-14	272.9	704.0
M-2	110.4	423.1	M-15	343.2	699.8
M-3	338.4	746.7	M-16	325.9	740.1
M-4	81.3	284.2	M-17	307.3	795.1
M-5	89.1	433.5	M-18	260.0	868.4
M-6	181.4	576.9	M-19	115.6	384.6
M-7	230.2	723.5	M-20	236.2	616.7
M-8	272.5	730.9	M-21	352.8	987.9
M-9	240.1	709.5	M-22	93.1	321.1
M-10	276.9	685.4	M-23	276.5	714.6
M-11	279.9	732.3	M-24	368.6	824.3
M-12	197.3	634.2	M-25	287.3	745.3
M-13	276.6	719.7		6,148.7	16,632.2

<sup>a</sup> Calculated from last measurement of 1942 and last of 1943 made when these or nearby wells were not pumping.

<sup>b</sup> Calculated from measurements made when these or nearby wells were not pumping.



## Wells not affected by pumping

72 (\*840, p. 102; 845, p. 118; 886, p. 202; 908, p. 77; 938, p. 83; 946, p. 102). Anna Hertzler. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 22 S., R. 1 W. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: July 20, 20.28.

294 (\*840, p. 103; 845, p. 118; 886, p. 202; 908, p. 77; 938, p. 84; 946, p. 102). Owner of well, J. B. Schmidt; lessee, Hollow Oil Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 22 S., R. 3 W. Measuring point is 3.0 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	34.42	Apr. 5	34.67	July 15	35.56	Sept. 28	36.42
Feb. 1	34.45	28	34.91	Aug. 2	35.34	Oct. 30	36.63
Mar. 2	34.53	June 2	35.17	Sept. 2	35.90	Dec. 2	36.90

325 (\*840, p. 103; 845, p. 120; 886, p. 203; 908, p. 78; 938, p. 84; 946, p. 102). A. L. Gouldner. SW corner SE $\frac{1}{4}$  sec. 19, T. 23 S., R. 3 W. Measuring point is 1.2 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	9.17	Apr. 28	8.97	Sept. 2	9.17	Oct. 29	9.58
Feb. 2	9.02	June 2	8.98	Oct. 1	9.52	Nov. 30	9.92
Mar. 2	9.03	July 8	9.25	6	9.56	Dec. 31	10.01
31	8.98	Aug. 2	8.90				

701 (\*845, p. 121; 886, p. 204; 908, p. 79; 938, p. 85; 946, p. 102). Dr. V. E. Cheskey. NE corner NW $\frac{1}{4}$  sec. 3, T. 23 S., R. 1 W. Measuring point is 0.5 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	35.87	Mar. 31	35.38	July 8	35.23	Oct. 6	35.07
Feb. 2	35.56	Apr. 28	35.36	Aug. 2	35.15	30	35.00
Mar. 2	35.55	June 2	35.25	Sept. 2	35.10	Dec. 2	35.01

817 (\*845, p. 121; 886, p. 204; 908, p. 79; 938, p. 85; 946, pp. 102, 103). City of Wichita. NW corner sec. 1, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	13.36	Apr. 9	14.23	July 9	15.23	Oct. 8	16.16
15	13.01	16	14.23	16	15.28	15	16.23
22	13.18	23	14.41	23	14.10	22	16.23
29	13.46	30	14.58	30	14.73	29	15.40
Feb. 5	13.16	May 7	14.64	Aug. 6	14.73	Nov. 5	15.57
12	13.46	14	14.66	13	15.25	12	15.75
19	13.54	21	14.80	20	15.55	19	15.78
26	13.94	26	14.68	27	15.78	26	15.81
Mar. 8	13.97	June 4	14.76	Sept. 3	15.73	Dec. 3	15.90
12	13.91	11	14.44	10	15.94	10	15.83
19	14.14	18	14.35	17	16.03	17	15.93
26	14.13	25	14.30	24	16.03	24	15.88
Apr. 2	14.25	July 2	14.95	Oct. 1	16.09	31	15.85

824 (\*845, p. 122; 886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103). City of Wichita. SE corner sec. 22, T. 24 S., R. 1 W. Measuring point is 2.6 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	10.90	Mar. 31	10.38	July 8	11.65	Oct. 6	13.46
Feb. 2	10.35	Apr. 28	10.56	Aug. 2	11.77	30	13.74
Mar. 2	10.46	June 2	10.76	Sept. 2	12.58	Dec. 2	14.00

831 (\*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103). City of Wichita. NE corner sec. 19, T. 24 S., R. 1 W. Measuring point is 1.0 foot above land-surface datum.

## 831. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	17.25	Apr. 28	18.22	Aug. 2	18.09	Oct. 30	18.64
Mar. 15	17.50	June 2	18.14	Sept. 2	18.75	Dec. 2	19.30
51	17.90	July 8	18.54	Oct. 6	19.13		

832 (\*886, p. 205; 908, p. 90; 938, p. 86; 946, p. 103). City of Wichita. NE. corner sec. 19, T. 24 S., R. 1 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 2	17.35	Apr. 28	18.24	Aug. 2	18.13	Oct. 30	18.50
Mar. 15	17.47	June 2	18.11	Sept. 2	18.80	Dec. 2	19.22
31	17.95	July 8	18.58	Oct. 6	19.45		

833 (\*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103). City of Wichita. SW. corner sec. 19, T. 24 S., R. 1 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	7.72	Mar. 31	8.42	July 8	9.56	Oct. 6	10.77
Feb. 2	7.95	Apr. 28	8.60	Aug. 2	9.68	30	10.83
Mar. 8	8.18	June 2	8.61	Sept. 2	10.27	Dec. 2	11.13

852 (\*886, p. 206; 908, p. 80; 938, p. 86; 946, p. 103). City of Wichita. NE. corner sec. 29, T. 24 S., R. 1 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	13.20	Mar. 31	13.90	July 8	14.81	Oct. 6	15.88
Feb. 1	13.32	Apr. 28	14.24	Aug. 2	14.86	30	15.54
Mar. 8	13.45	June 2	14.18	Sept. 2	15.25	Dec. 2	15.99

853 (\*845, p. 122; 886, p. 206; 908, p. 80; 938, p. 87; 946, p. 103). City of Wichita. NW. corner sec. 13, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	7.98	Apr. 9	8.93	July 16	9.94	Oct. 22	10.97
15	7.48	16	8.92	23	8.95	29	10.70
22	7.74	23	9.13	Aug. 6	9.60	Nov. 5	10.81
29	8.04	30	9.31	13	9.77	12	10.90
Feb. 5	7.93	May 7	9.34	20	9.96	19	10.96
12	8.21	14	9.37	27	10.16	26	11.01
19	8.30	21	9.36	Sept. 3	10.27	30	11.01
26	8.57	26	9.36	10	10.37	Dec. 3	11.06
Mar. 8	8.67	June 4	9.43	17	10.50	10	11.05
12	8.60	11	9.42	24	10.57	17	11.07
19	8.71	18	9.54	Oct. 1	10.63	24	11.09
26	7.79	25	9.66	6	10.70	31	11.13
Apr. 2	8.95	July 2	9.73	15	10.82		

854 (\*845, p. 122; 886, p. 206; 908, p. 81; 938, p. 87; 946, p. 104). City of Wichita. SW. corner sec. 23, T. 23 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	10.96	Apr. 9	11.02	July 10	11.94	Oct. 8	12.41
15	10.52	16	11.14	16	11.86	15	12.62
22	10.77	23	11.34	23	9.78	22	12.64
29	10.54	30	11.50	30	10.53	29	12.23
Feb. 5	10.22	May 7	11.45	Aug. 6	10.40	Nov. 5	12.39
12	10.68	14	11.45	13	10.81	12	12.59
19	10.61	21	11.49	20	11.11	19	12.60
26	10.95	26	11.54	27	11.31	26	12.60
Mar. 8	10.89	June 4	11.71	Sept. 3	11.78	Dec. 3	12.71
12	10.75	11	11.38	10	11.95	10	12.70
19	10.97	18	11.58	17	12.19	17	12.64
26	10.95	25	11.76	24	12.25	24	12.59
Apr. 2	11.14	July 2	11.75	Oct. 1	12.37	31	12.72

875 (\*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104). Owner of well, city of Wichita; owner of property, A. B. Havelly. SE. corner sec. 17, T. 23 S., R. 3 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	0.52	Apr. 9	0.71	July 9	2.36	Oct. 8	3.51
15	+0.06	16	.89	16	2.54	15	3.97
22	.53	23	1.32	23	.59	22	3.71
29	.97	30	1.64	30	1.26	29	3.29
Feb. 5	.25	May 7	1.49	Aug. 6	1.24	Nov. 5	3.38
12	.31	14	1.23	13	1.75	12	3.68
19	.53	21	.94	20	2.12	19	3.64
26	1.04	26	1.16	27	2.97	26	3.58
Mar. 8	.89	June 4	1.56	Sept. 3	3.08	Dec. 3	3.67
12	.55	11	1.20	10	3.24	10	3.77
19	.99	18	1.70	17	3.55	17	3.67
26	.77	25	2.07	24	3.45	24	3.50
Apr. 2	1.05	July 2	2.11	Oct. 1	3.53	31	3.71

876 (\*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104). Owner of well, city of Wichita; owner of property, A. B. Havelly. SE. corner sec. 17, T. 23 S., R. 3 W. Measuring point is 2.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	24.26	Apr. 9	25.10	July 9	24.36	Oct. 8	24.56
15	24.21	16	24.22	16	24.41	15	24.44
22	24.17	23	24.17	23	24.25	22	24.49
29	24.22	30	24.17	30	23.98	29	24.35
Feb. 5	24.13	May 7	24.20	Aug. 6	23.92	Nov. 5	24.38
12	24.18	14	24.21	13	23.90	12	24.40
19	24.20	21	24.20	20	23.98	19	24.40
26	24.20	26	24.19	27	23.98	26	24.53
Mar. 8	24.29	June 4	24.18	Sept. 3	24.10	Dec. 3	24.68
12	24.17	11	24.22	10	24.21	10	24.75
19	24.15	18	24.27	17	24.30	17	24.94
26	24.16	25	24.31	24	24.37	24	24.76
Apr. 2	24.19	July 2	24.34	Oct. 1	24.44	31	24.58

877 (\*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104). Owner of well, city of Wichita; owner of property, A. B. Havelly. SE. corner sec. 17, T. 23 S., R. 3 W. Measuring point is 2.7 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.21	12.26	12.21	12.24	12.29	12.27	12.52	12.17	12.39	12.68	12.83	13.03
2	12.21	12.27	12.25	12.27	12.34	12.27	12.49	12.16	12.40	12.70	12.85	13.10
3	12.28	12.15	12.25	12.27	12.38	12.31	12.49	12.18	12.42	12.71	12.85	13.11
4	12.29	12.16	12.21	12.27	12.37	12.37	12.49	12.21	12.42	12.73	12.83	13.11
5	12.29	12.14	12.18	12.29	12.34	12.38	12.51	12.22	12.41	12.74	12.82	13.11
6	12.21	12.17	.....	12.28	12.35	12.38	12.53	12.14	12.47	12.76	12.82	13.11
7	12.20	12.17	.....	12.23	12.37	12.38	12.53	12.13	12.49	12.77	12.85	13.11
8	12.21	12.14	12.28	12.23	12.39	12.37	12.55	12.11	12.52	12.76	12.86	13.13
9	12.19	12.09	12.26	12.19	12.39	12.37	12.55	12.13	12.54	12.75	12.86	13.17
10	12.17	12.17	12.25	12.22	12.35	12.37	12.55	12.14	12.51	12.77	12.86	13.15
11	12.17	12.18	12.24	12.23	12.36	12.37	12.55	12.14	12.48	12.78	12.86	13.15
12	12.17	12.21	12.21	12.23	12.38	12.38	12.57	12.14	12.50	12.77	12.88	13.15
13	12.15	12.21	12.18	12.29	12.39	12.39	12.58	12.15	12.52	12.81	12.88	13.16
14	12.10	12.22	12.17	12.32	12.39	12.40	12.60	12.18	12.50	12.86	12.96	13.21
15	12.08	12.23	12.13	12.32	12.36	12.40	12.60	12.18	12.53	12.88	12.89	13.22
16	12.12	12.23	12.17	12.28	12.37	12.42	12.57	12.21	12.56	12.98	12.89	13.23
17	12.14	12.19	12.18	12.31	12.38	12.46	12.46	12.23	12.57	12.96	12.88	13.24
18	12.22	12.19	12.18	12.31	12.38	12.47	12.46	12.24	12.56	12.84	12.88	13.22
19	12.27	12.18	12.20	12.31	12.36	12.46	12.32	12.24	12.55	12.83	12.90	13.23
20	12.26	12.15	12.23	12.30	12.37	12.46	12.24	12.22	12.56	12.86	12.90	13.23
21	12.16	12.16	12.24	12.28	12.38	12.47	12.20	12.23	12.55	12.89	12.95	13.19
22	12.14	12.15	12.24	12.29	12.37	12.47	12.18	12.24	12.57	12.96	12.98	13.24
23	12.15	12.14	12.22	12.33	12.34	12.47	12.18	12.26	12.59	12.75	12.99	13.25
24	12.18	12.20	12.19	12.32	12.31	12.47	12.17	12.28	12.59	12.82	13.01	13.24

a Water level 0.06 foot above land-surface datum.

877.--Continued.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	12.25	12.22	12.19	12.29	12.31	12.49	12.18	12.30	12.59	12.83	13.00	13.20
26	12.27	12.24	12.17	12.29	12.32	12.50	12.18	12.33	12.59	12.83	13.00	13.19
27	12.27	12.23	12.17	12.33	12.34	12.49	12.17	12.36	12.61	12.93	13.02	13.21
28	12.26	12.16	12.19	12.34	12.35	12.49	12.16	12.36	12.63	12.80	13.02	13.19
29	12.24	.....	12.20	12.33	12.34	12.52	12.14	12.36	12.63	12.79	13.03	13.19
30	12.23	.....	12.19	12.38	12.32	12.52	12.17	12.35	12.65	12.75	13.03	13.18
31	12.25	.....	12.22	.....	12.25	.....	12.17	12.36	.....	12.90	.....	13.21

880 (\*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105). Owner of well, city of Wichita; owner of property, Peter Miller. SE. corner sec. 11, T. 24 S., R. 3 W. Measuring point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.07	Apr. 23	5.04	July 23	4.62	Oct. 22	6.36
15	4.22	30	5.22	30	5.21	29	6.61
22	4.26	May 7	5.35	Aug. 6	5.25	Nov. 5	6.73
29	4.26	14	5.31	13	5.57	12	6.85
Feb. 5	4.19	21	5.22	20	5.38	19	6.89
12	4.40	26	5.34	27	6.16	26	6.92
19	4.43	June 4	5.43	Sept. 3	6.30	30	6.95
26	4.67	11	5.50	10	6.40	Dec. 3	6.95
Mar. 8	4.67	18	5.66	17	6.51	17	6.83
19	4.65	25	5.78	24	6.56	24	6.90
26	4.75	July 2	5.88	Oct. 1	6.61	31	6.97
Apr. 2	4.83	9	5.99	8	6.78		
16	4.85	16	6.12	15	6.93		

881 (\*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105). Owner of well, city of Wichita; owner of property, Peter Miller. SE. corner sec. 11, T. 24 S., R. 3 W. Measuring point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.35	Apr. 23	5.20	July 23	4.91	Oct. 15	6.81
15	3.89	30	5.36	30	5.44	22	6.96
22	4.48	May 7	5.46	Aug. 6	5.49	29	6.75
29	4.67	14	5.46	13	5.79	Nov. 5	6.95
Feb. 5	4.41	21	5.38	20	6.07	12	6.95
12	4.63	26	5.48	27	6.33	19	6.99
19	4.65	June 4	5.57	Sept. 3	6.41	26	7.03
26	4.35	11	5.63	10	6.54	Dec. 3	7.05
Mar. 8	4.38	18	5.78	17	6.65	17	6.96
19	4.90	25	5.91	24	6.74	24	7.02
26	4.94	July 2	6.00	Oct. 1	6.84	31	7.08
Apr. 2	5.02	9	6.13	8	6.96		
16	5.03	16	6.23				

888 (\*886, p. 212; 908, p. 85; 938, p. 91; 946, p. 105). Owner of well, city of Wichita; owner of property, C. K. Ellis. NW. corner sec. 17, T. 23 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	0.71	Apr. 9	1.02	July 9	4.85	Oct. 8	6.30
15	.27	16	1.41	16	5.16	15	6.49
22	.61	23	1.96	23	1.90	22	6.47
29	1.04	30	2.41	30	2.93	29	6.00
Feb. 5	.35	May 7	2.57	Aug. 8	1.17	Nov. 5	6.06
12	.68	14	2.23	13	3.21	12	6.17
19	.65	21	1.98	20	4.15	19	6.17
26	1.23	26	2.45	27	5.11	26	6.29
Mar. 8	.92	June 4	2.65	Sept. 3	5.66	Dec. 3	6.46
12	.38	11	2.51	10	5.31	10	6.47
19	.92	18	3.16	17	5.98	17	6.32
26	.87	25	3.88	24	6.01	24	6.23
Apr. 2	1.67	July 2	4.17	Oct. 1	6.11	31	6.18

889 (\*886, p. 212; 908, p. 85; 938, p. 91; 946, p. 106). Owner of well, city of Wichita; owner of property, C. K. Ellis. NW. corner sec. 17, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.41	Apr. 9	5.22	July 9	6.26	Oct. 8	7.44
15	3.95	16	5.31	16	6.76	15	7.69
22	4.15	23	5.37	23	5.16	22	7.41
29	4.36	30	5.58	30	5.57	29	6.59
Feb. 5	4.30	May 7	5.61	Aug. 6	5.49	Nov. 5	6.60
12	4.50	14	5.80	13	5.67	12	6.37
19	4.41	21	5.45	20	5.98	19	6.74
26	4.90	26	5.12	27	6.37	26	7.66
Mar. 8	4.98	June 4	5.48	Sept. 3	6.69	Dec. 3	8.03
12	4.98	11	5.68	10	6.30	10	8.13
19	4.43	18	5.87	17	6.18	17	8.09
26	4.62	25	5.68	24	6.28	24	6.93
Apr. 2	5.07	July 2	5.71	Oct. 1	6.87	31	6.39

890 (\*886, p. 212; 908, p. 85; 938, p. 92; 946, p. 106). Owner of well, city of Wichita; owner of property, J. F. Gorgenson. NE. corner SE $\frac{1}{4}$  sec. 21, T. 24 S., R. 3 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	1.55	Apr. 28	2.73	Aug. 2	3.71	Oct. 29	4.92
Feb. 1	1.76	June 2	3.05	Sept. 2	4.67	Nov. 30	5.11
Mar. 2	2.15	July 8	4.12	Oct. 1	4.95	Dec. 31	5.11
31	2.30	24	3.33	7	5.05		

891 (\*886, p. 213; 908, p. 85; 938, p. 92; 946, p. 106). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	1.44	Apr. 28	2.91	Aug. 2	3.27	Oct. 30	3.51
Feb. 2	1.50	June 2	2.83	Sept. 2	4.02	Dec. 2	3.60
Mar. 2	1.92	July 8	3.70	Oct. 7	3.86		

892 (\*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W. Measuring point is 1.9 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	1.04	Mar. 31	1.78	July 8	2.91	Oct. 7	3.13
Feb. 2	1.18	Apr. 28	2.05	Aug. 2	2.47	30	2.76
Mar. 2	1.66	June 2	1.99	Sept. 2	3.28	Dec. 2	2.96

893 (\*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W. Measuring point is 1.9 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	0.72	Mar. 31	1.41	July 8	2.51	Oct. 7	2.88
Feb. 2	.92	Apr. 28	1.68	Aug. 2	1.80	30	2.60
Mar. 2	1.28	June 2	1.65	Sept. 2	2.87	Dec. 2	2.63

1174 (\*908, p. 87; 938, p. 93; 946, p. 106). City of Wichita. SW. corner sec. 32, T. 24 S., R. 1 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	5.20	Mar. 22	5.86	May 26	5.73	Sept. 7	7.85
Feb. 1	5.47	Apr. 1	6.01	June 3	5.90	Oct. 5	8.28
17	5.39	19	5.78	July 3	6.82	Nov. 9	8.55
Mar. 1	5.43	29	5.92	Aug. 3	7.07	Dec. 1	8.40

1187. City of Wichita. NW. corner sec. 29, T. 24 S., R. 1 W. Driven well, diameter 1.25 inches, depth 28.5 feet below land surface. Measuring point, top of 1½-inch pipe, 1.5 feet above land-surface datum and 1,375.44 feet above sea level.

Water level, in feet below land-surface datum, 1941-43

Date	Water level	Date	Water level	Date	Water level
May 28, 1941	10.30	Mar. 8, 1943	8.07	Sept. 2, 1943	9.67
July 7, 1942	6.59	31	8.27	Oct. 6	9.99
Aug. 5	7.48	Apr. 28	8.58	30	9.77
Oct. 1	7.80	June 2	8.52	Dec. 2	10.13
Nov. 2	7.00	July 8	9.22		
Feb. 2, 1943	7.60	Aug. 2	8.99		

Wells pumped or affected by pumping <sup>a/</sup>

2 (\*946, p. 112). Langwalter Estate. NW¼SW¼NW¼ sec. 23, T. 24 S., R. 2 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	5.93	July 2	8.00	Sept. 10	8.27	Nov. 5	8.41
Feb. 5	6.30	23	5.14	17	8.31	12	8.44
Mar. 12	6.90	30	6.95	24	8.32	19	8.51
Apr. 2	7.29	Aug. 6	7.61	Oct. 1	8.33	26	8.60
16	7.55	13	7.55	6	8.35	Dec. 3	8.70
May 14	7.87	20	7.80	15	8.42	17	8.83
21	7.90	27	8.03	22	8.43	24	8.92
June 4	7.90	Sept. 2	8.19	29	8.39	31	8.99
18	7.91						

3. Mrs. Emma Linn Webster. SE¼SE¼SW¼ sec. 8, T. 24 S., R. 2 W. Abandoned drilled well, diameter 6 inches, depth 60 feet below land surface. Measuring point, top of casing, on south side, 1.6 feet above land-surface datum, 2.24 feet above bench mark 17B, and 1,415.61 feet above sea level. Bench mark 17B, established Aug. 20, 1938, is nail and washer in top of south end of west abutment cap of first timber bridge west of well.

Water level, in feet below land-surface datum, 1937, 1940-41, 1943

Date	Water level	Date	Water level	Date	Water level
Aug. 25, 1937	9.36	Dec. 2, 1940	12.88	Mar. 22, 1943	b 16.68
June 12, 1940	7.09	9	12.37	Apr. 1	b 16.19
Oct. 7	11.64	24	12.77	19	16.90
14	11.65	30	12.69	May 26	17.21
21	b 13.40	Jan. 20, 1941	12.49	July 3	b 19.03
28	b 13.40	28	b 14.71	Aug. 3	b 19.24
Nov. 4	12.05	Apr. 17	b 15.41	Sept. 7	18.38
11	12.09	29	b 18.04	Nov. 9	b 20.70
19	b 14.31	June 4	b 17.33	Dec. 1	19.29

66d. City of Newton. SW¼SW¼NE¼ sec. 32, T. 23 S., R. 1 W. Unused drilled well near other pumping wells, diameter 8 inches, depth 113 feet below land surface. Measuring point, top of 8-inch iron casing, on east side, 1.0 foot above land-surface datum and 1,398.8 feet above sea level.

Water level, in feet below land-surface datum, 1938, 1943

Date	Water level	Date	Water level	Date	Water level
Oct. 5, 1938	46.17	Oct. 13, 1943	52.50	Dec. 21, 1943	46.17
June 17, 1943	50.39	30	46.47	31	53.41
18	48.42	Dec. 2	46.75		

a Most measurements reported for wells 883, 884, 885, 886, 887, 894, 895, and 1,112 are affected by pumping at nearby Wichita municipal-supply wells. Because dates of measurement of pumped wells and of observation wells do not coincide, no footnotes designating pumping effect are included with the water-level records for these wells.

b Nearby well pumping.

86. City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 23 S., R. 2 W. Used drilled city-supply well, diameter 18 inches, depth 107 feet below land surface. Equipped with centrifugal pump; yield, 450 gallons a minute. Measuring point, top of concrete well casing, inside edge, east side, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1941, 1943

Date	Water level	Date	Water level	Date	Water level
May 16, 1941	18.74	Aug. 2, 1943	18.40	Oct. 30, 1943	18.13
June 29, 1943	18.22	Sept. 1	18.76	Nov. 30	18.76
July 1	17.88	30	13.96	Dec. 31	18.32

87. City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 23 S., R. 2 W. Used drilled city-supply well, diameter 18 inches, depth 106 feet below land surface. This well and well 87a are pumped with the same centrifugal pump; combined yield, 450 gallons a minute. Measuring point, top of concrete well casing, inside edge, on east side, 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1941, 1943

May 16, 1941	18.54	Sept. 1, 1943	a 31.42	Nov. 30, 1943	17.41
July 1, 1943	17.03	30	17.92	Dec. 31	17.62
Aug. 2	17.37	Oct. 30	17.00		

87a. City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 23 S., R. 2 W., 12 feet south of well 87. Used drilled city-supply well, diameter 18 inches, depth 95 feet below land surface. This well and well 87 are pumped with the same centrifugal pump; combined yield, 450 gallons a minute. Measuring point, top of concrete well casing, inside edge, on east side, 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1941, 1943

May 16, 1941	18.55	Sept. 1, 1943	a 32.55	Nov. 30, 1943	18.85
July 1, 1943	18.12	30	19.10	Dec. 31	18.93
Aug. 2	a 32.30	Oct. 30	18.27		

506 (\*845, p. 120; 886, p. 203; 908, p. 78; 938, p. 84; 946, pr. 107, 108). Owner of well, city of Wichita; owner of property, W. G. Backhaus. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 23 S., R. 2 W. Measuring point is 3.1 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.39	13.53	14.08	14.15	14.80	14.72	15.05	14.14	15.29	15.70	15.33	15.91
2	13.36	13.51	14.11	14.17	14.82	14.71	15.09	14.23	15.32	15.74	15.34	15.96
3	13.23	13.37	14.11	14.18	14.85	14.81	15.11	14.33	15.35	15.78	15.33	15.97
4	13.18	13.24	14.13	14.24	14.84	14.86	15.13	14.43	15.36	15.82	15.29	15.97
5	13.11	12.76	14.16	14.25	14.86	14.92	15.18	14.46	15.36	15.85	15.25	15.97
6	12.96	12.81	.....	14.23	14.90	14.96	15.18	13.90	15.35	15.87	15.26	15.99
7	13.04	12.84	.....	14.26	14.92	14.99	15.22	13.43	15.34	15.89	15.27	15.98
8	13.06	12.86	14.16	14.27	14.96	14.98	15.24	13.50	15.33	15.91	15.27	16.03
9	13.05	12.95	.....	14.25	14.95	14.95	15.26	13.79	15.32	15.93	15.28	16.05
10	13.07	13.10	.....	14.30	14.92	14.63	15.29	13.96	15.31	15.96	15.28	16.02
11	13.10	13.14	.....	14.30	.....	14.28	15.33	14.10	15.31	15.97	15.28	16.02
12	13.10	13.22	14.17	14.31	.....	14.46	15.46	14.22	15.31	15.99	15.29	16.03
13	13.05	13.25	14.16	14.39	.....	14.60	15.68	14.33	15.31	16.01	15.28	16.03
14	12.96	13.30	14.15	14.43	14.98	14.71	15.63	14.41	15.32	16.04	15.27	16.07
15	12.83	13.38	14.05	14.43	15.02	14.79	15.54	14.48	15.36	16.04	15.29	16.07
16	12.98	13.38	14.05	14.48	15.04	14.90	15.52	14.56	15.38	16.02	15.30	16.01
17	13.01	13.41	14.00	14.55	15.03	14.70	15.32	14.63	15.38	16.01	15.33	16.02
18	13.10	13.43	13.93	14.57	14.99	14.31	14.51	14.67	15.37	16.00	15.43	15.91
19	13.11	13.44	13.91	14.59	14.89	14.32	13.14	14.70	15.44	16.01	15.50	15.93
20	13.02	13.56	13.95	14.60	14.83	14.46	12.40	14.77	15.49	16.04	15.53	15.91
21	13.02	13.62	13.96	14.61	14.82	14.57	12.44	14.33	15.52	16.05	15.64	15.70
22	13.05	13.65	13.94	14.66	14.91	14.70	12.65	14.88	15.53	16.04	15.69	15.67
23	13.17	13.78	13.95	14.69	14.79	14.80	12.86	14.94	15.53	15.97	15.74	15.66
24	13.23	13.87	13.96	14.67	14.77	14.82	13.07	14.99	15.48	15.65	15.76	15.62
25	13.27	13.89	13.97	14.70	14.70	14.87	13.27	15.04	15.45	15.22	15.79	15.56
26	13.23	13.95	14.00	14.71	14.40	14.91	13.42	15.09	15.45	14.79	15.82	15.52

a Well pumping.

## 506--Continued.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	13.28	13.94	14.02	14.76	14.26	14.93	13.55	15.14	15.47	14.85	15.83	15.51
28	13.32	13.97	14.06	14.76	14.33	14.97	13.67	15.16	15.53	14.95	15.88	15.44
29	13.34	.....	14.07	14.15	14.49	15.02	13.92	15.19	15.59	15.04	15.99	15.44
30	13.39	.....	14.06	14.90	14.57	15.05	13.94	15.23	15.65	15.14	15.99	15.40
31	13.52	.....	14.13	.....	14.66	.....	14.04	15.25	.....	15.25	.....	15.43

507 (\*845, p. 120; 886, p. 203; 908, p. 79; 938, p. 85; 946, p. 108). Owner of well, city of Wichita; owner of property, W. G. Bachhaus. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 23 S., R. 2 W. Measuring point is 3.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	8.98	Apr. 9	9.99	July 9	12.55	Oct. 9	13.53
15	8.69	16	11.33	16	12.92	15	13.62
22	8.62	23	11.74	23	11.28	22	13.55
29	8.68	30	11.75	30	11.96	29	12.40
Feb. 5	8.50	May 7	14.92	Aug. 6	10.48	Nov. 5	11.20
12	8.25	14	12.27	13	11.95	12	10.75
19	8.41	21	11.67	20	12.09	19	12.31
26	10.60	26	10.45	27	12.33	26	14.00
Mar. 8	11.39	June 4	12.05	Sept. 3	12.66	Dec. 3	14.41
12	11.14	11	11.60	10	11.25	10	14.56
19	10.50	18	11.97	17	11.01	17	13.44
26	8.92	25	11.65	24	10.96	24	11.08
Apr. 2	9.38	July 2	12.00	Oct. 1	12.68	31	10.51

821 (\*886, p. 204; 908, p. 79; 938, p. 86; 946, p. 108). City of Wichita. NW. corner sec. 6, T. 24 S., R. 2 W. Deepened 5 feet Nov. 17, 1943--from 18.0 feet to 23.0 feet below land surface. Measuring point, which remains unchanged, is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	17.13	Apr. 13	17.10	July 16	17.51	Oct. 15	17.92
15	17.14	23	17.14	23	17.53	22	18.97
22	17.11	30	17.19	30	17.47	29	17.90
29	17.13	May 7	17.22	Aug. 6	17.50	Nov. 5	17.94
Feb. 5	17.11	14	17.29	13	17.52	12	17.98
12	17.05	21	17.30	20	17.53	17	18.08
19	17.01	26	17.34	27	17.57	19	18.12
26	17.00	June 4	17.36	Sept. 3	17.58	26	18.19
Mar. 8	17.00	11	17.40	10	17.63	30	18.22
12	16.99	18	17.43	17	17.67	Dec. 3	18.25
19	16.99	25	17.46	24	17.72	17	18.31
26	16.98	July 2	17.47	Oct. 1	17.75	24	18.50
Apr. 2	17.00	9	17.49	8	17.78	31	18.55
9	17.05						

839 (\*845, p. 122; 886, p. 206; 908, p. 80; 938, p. 36; 946, p. 108). City of Wichita. NE. corner sec. 35, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	14.30	Apr. 1	13.98	July 3	16.06	Oct. 29	16.80
Feb. 1	14.58	19	13.97	Aug. 3	16.06	Nov. 9	17.05
17	14.41	29	14.25	Sept. 7	16.61	30	16.24
Mar. 1	13.94	May 26	14.94	Oct. 1	16.72	Dec. 1	16.94
22	13.91	June 3	14.98	5	16.73	31	17.48

872 (\*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.



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Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	26.12	Apr. 1	24.93	July 2	26.45	Oct. 29	27.46
Feb. 1	25.13	19	25.53	Aug. 3	26.02	Nov. 9	29.15
17	24.76	29	27.53	Sept. 7	29.03	30	30.02
Mar. 1	24.87	May 26	27.62	Oct. 1	26.79	Dec. 1	30.05
22	24.74	June 3	27.65	5	26.36	31	29.94

873 (\*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	26.34	Apr. 1	25.13	June 3	27.99	Oct. 1	26.98
Feb. 1	25.30	19	25.72	July 2	26.61	5	27.05
17	24.90	29	10.49	Aug. 3	26.21	Nov. 9	29.45
Mar. 1	25.00	May 26	27.96	Sept. 7	29.38	Dec. 1	30.39
22	24.95						

874 (\*886, p. 207; 908, p. 81; 938, p. 88; 946, p. 109). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	35.71	Apr. 1	33.17	June 3	37.34	Oct. 1	36.14
Feb. 1	29.78	19	33.62	July 2	34.75	5	36.53
17	29.90	29	40.10	Aug. 3	33.06	Nov. 9	38.15
Mar. 1	30.77	May 26	37.24	Sept. 7	38.91	Dec. 1	41.14
22	30.10						

878 (\*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109). Owner of well, city of Wichita; owner of property, C. Cadwell. SE. corner sec. 1, T. 24 S., R. 3 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	21.31	Apr. 9	21.81	July 9	22.29	Oct. 9	22.86
15	21.31	16	21.33	16	22.36	15	22.91
22	21.33	23	21.38	23	22.32	22	22.98
29	21.35	30	21.91	30	22.38	29	23.00
Feb. 5	21.83	May 7	21.97	Aug. 6	22.38	Nov. 5	23.05
12	21.33	14	21.98	13	22.42	12	23.10
19	21.31	21	22.02	20	22.48	19	23.14
26	21.32	26	22.05	27	22.54	26	23.20
Mar. 8	21.84	June 4	22.09	Sept. 3	22.60	Dec. 3	23.25
12	21.92	11	22.11	10	22.65	17	23.36
19	21.31	18	22.17	17	22.71	24	23.41
26	21.79	25	22.23	24	22.77	31	23.47
Apr. 2	21.30	July 2	22.25	Oct. 1	22.81		

879 (\*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109). Owner of well, city of Wichita; owner of property, C. Cadwell. SE. corner sec. 1, T. 24 S., R. 3 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	24.29	Apr. 9	23.89	July 9	25.10	Oct. 8	25.64
15	24.21	16	24.04	16	24.91	15	25.87
22	24.10	23	24.32	23	25.09	22	25.95
29	24.28	30	24.52	30	25.14	29	25.91
Feb. 5	23.96	May 7	24.57	Aug. 6	25.04	Nov. 5	26.03
12	24.21	14	24.53	13	25.42	12	26.12
19	24.08	21	24.61	20	25.48	19	26.10
26	24.06	26	24.54	27	25.64	26	26.00
Mar. 8	24.09	June 4	24.82	Sept. 3	25.58	Dec. 3	26.18
12	24.07	11	24.81	10	25.67	17	26.50
19	23.84	18	24.91	17	25.81	24	26.70
26	23.96	25	24.98	24	25.67	31	26.69
Apr. 2	23.85	July 2	25.00	Oct. 1	25.49		

883 (\*886, p. 210; 908, p. 84; 938, p. 90; 946, p. 110). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	17.39	Apr. 1	19.54	July 3	20.50	Oct. 29	19.27
Feb. 1	19.15	19	19.89	Aug. 3	20.45	Nov. 9	19.20
17	19.34	29	20.21	Sept. 7	19.40	30	20.25
Mar. 1	18.12	May 26	19.89	Oct. 1	19.18	Dec. 1	20.33
22	18.37	June 3	20.26	5	19.17	31	21.12

884 (\*886, p. 211; 908, p. 84; 938, p. 90; 946, p. 110). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	17.41	Apr. 1	19.48	June 3	20.28	Oct. 1	19.20
Feb. 5	19.16	19	19.84	July 3	20.49	5	19.20
17	19.89	29	20.23	Aug. 3	20.41	Nov. 9	19.29
Mar. 1	18.18	May 26	19.63	Sept. 7	19.49	Dec. 1	20.59
22	18.63						

885 (\*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	17.36	Apr. 1	20.74	June 2	21.28	Oct. 1	19.08
Feb. 1	20.42	19	20.86	July 3	21.75	5	19.08
17	20.95	29	21.14	Aug. 3	21.25	Nov. 9	19.17
Mar. 1	17.98	May 26	20.76	Sept. 7	19.33	Dec. 1	20.22
22	18.34						

886 (\*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110). Owner of well, city of Wichita; owner of property, E. H. Haiber. NE. corner NW. sec. 16, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	10.01	Apr. 1	10.60	July 3	12.45	Oct. 29	12.82
Feb. 1	10.43	19	10.80	Aug. 3	12.03	Nov. 9	13.03
17	10.52	29	11.04	Sept. 7	12.78	30	13.53
Mar. 1	10.43	May 26	11.87	Oct. 1	13.33	Dec. 1	13.45
22	10.26	June 4	12.36	5	13.30	31	13.68

887 (\*886, p. 211; 908, p. 85; 938, p. 91; 946, p. 110). Owner of well, city of Wichita; owner of property, F. H. Haiber. NE. corner NW. sec. 16, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	10.77	Apr. 1	11.36	July 3	13.75	Oct. 5	14.41
Feb. 1	11.38	19	11.62	Aug. 3	13.10	Nov. 9	13.14
17	11.33	29	12.04	Sept. 7	13.63	Dec. 1	14.30
Mar. 1	11.28	May 26	12.70	Oct. 1	14.45	31	14.76
22	10.94	June 4	13.50				

894 (\*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 110). Owner of well, city of Wichita; owner of property, H. A. Lawrence. NE. corner sec. 18, T. 24 S., R. 2 W. Measuring point is 3.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	17.04	Mar. 22	17.27	May 26	17.31	Sept. 7	18.59
Feb. 1	16.90	Apr. 1	16.86	June 4	17.37	Oct. 5	18.80
17	16.87	19	16.95	July 3	17.95	Nov. 9	19.09
Mar. 1	16.80	29	17.01	Aug. 3	18.19	Dec. 1	19.21

895 (\*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 111). Owner of well, city of Wichita; owner of property, H. A. Lawrence. NE. corner sec. 18, T. 24 S., R. 2 W. Measuring point is 2.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jun. 22	17.49	Mar. 22	18.03	May 26	18.85	Sept. 7	20.14
Feb. 1	18.61	Apr. 1	17.70	June 4	19.05	Oct. 5	20.21
17	18.51	19	18.24	July 3	20.55	Nov. 9	21.82
Mar. 1	17.98	29	19.28	Aug. 3	20.68	Dec. 1	20.10

1112 (\*886, p. 214; 908, p. 87; 938, p. 93; 946, p. 111). Owner, M. H. Miller; tenant, A. C. Unruh. NW. corner NE $\frac{1}{4}$  sec. 31, T. 23 S., R. 2 W. Measuring point is 1.8 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	16.90	Mar. 22	16.88	May 26	17.09	Sept. 7	17.52
Feb. 1	16.80	Apr. 1	16.87	June 3	17.08	Oct. 5	17.67
17	16.88	19	16.93	July 2	17.32	Nov. 9	17.77
Mar. 1	16.90	29	16.95	Aug. 3	17.21	Dec. 1	17.77

1186 (\*946, p. 111). City of Wichita. SW. corner sec. 13, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	10.93	Apr. 9	11.66	July 9	12.14	Oct. 15	12.53
15	10.80	16	11.68	16	12.21	22	12.54
22	11.12	23	11.74	23	10.97	29	12.50
29	11.25	30	11.79	Aug. 6	11.99	Nov. 5	12.55
Feb. 2	10.57	May 7	11.82	13	12.07	12	12.55
12	11.25	14	11.84	20	12.21	19	12.57
19	11.36	21	11.69	27	12.30	26	12.59
26	11.43	26	11.87	Sept. 3	12.37	Dec. 3	12.62
Mar. 8	11.50	June 4	11.89	10	12.40	10	12.62
12	11.39	11	11.91	17	12.45	17	12.66
19	11.56	18	11.98	24	12.45	24	12.68
26	11.58	25	12.08	Oct. 1	12.46	31	12.69
Apr. 2	11.64	July 2	12.07	6	12.48		

1188 (\*946, p. 111). City of Wichita. NE. corner sec. 21, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	5.87	May 14	6.55	July 30	6.50	Oct. 8	8.33
Feb. 5	5.97	21	6.42	Aug. 20	7.39	29	8.59
Mar. 19	6.23	June 18	7.08	Sept. 3	7.64	Dec. 3	9.04
Apr. 2	6.61	July 2	7.30	17	7.72	31	9.01
30	6.76						

1189 (\*946, p. 112). City of Wichita. SW. corner sec. 16, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	7.42	Apr. 30	8.86	July 30	8.65	Oct. 8	10.29
29	7.44	May 14	9.18	Aug. 20	9.39	29	10.08
Feb. 5	7.28	21	9.18	Sept. 3	9.88	Dec. 3	10.76
Mar. 19	8.30	June 18	9.28	17	10.09	31	10.84
Apr. 2	8.25	July 2	9.34				

1192 (\*938, p. 93; 946, p. 112). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	15.60	Mar. 22	15.56	May 26	15.77	Sept. 7	16.25
Feb. 1	15.60	Apr. 1	15.57	June 3	15.78	Oct. 5	16.35
17	15.57	19	15.61	July 2	16.02	Nov. 9	16.35
Mar. 1	15.56	29	16.66	Aug. 3	16.08	Dec. 2	16.37

2072. Owner, Peter Hoops and others; tenant, N. T. Unruh. NE $\frac{1}{4}$  sec. 5, T. 24 S., R. 2 W. Unused driven well, diameter 3 inches, depth 45.2 feet below land surface. Measuring point, top of 3-inch casing, on east side, 0.6 foot above land-surface datum and 1,441.26 feet above sea level.

Water level, in feet below land-surface datum, 1941-43

Date	Water level	Date	Water level	Date	Water level
Oct. 25, 1941	32.96	Mar. 12, 1943	33.76	Aug. 13, 1943	34.10
Aug. 18, 1942	33.43	19	33.78	20	34.11
Nov. 13	33.57	26	33.80	27	34.12
20	33.57	Apr. 2	33.81	Sept. 3	34.14
27	33.58	9	33.81	17	34.16
Dec. 4	33.60	30	33.86	24	34.18
11	33.60	May 7	33.88	Oct. 1	34.20
18	33.63	14	33.97	8	34.21
24	33.63	21	33.90	15	34.23
31	33.65	26	33.91	22	34.25
Jan. 8, 1943	33.67	June 4	33.94	29	34.26
15	33.68	11	33.95	Nov. 5	34.27
22	33.69	18	33.96	12	34.28
29	33.71	July 2	34.00	19	34.31
Feb. 5	33.71	9	34.02	26	34.33
12	33.73	16	34.03	Dec. 3	34.34
19	33.73	23	34.06	17	34.39
26	33.75	30	34.06	24	34.39
Mar. 8	33.76	Aug. 6	34.08	31	34.43

M-1 (\*908, p. 88; 938, p. 93; 946, p. 112). City of Wichita. NW corner sec. 29, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21 a	70.90	Mar. 22 a	70.37	May 26	27.94	Sept. 7	29.70
Feb. 1 a	71.69	Apr. 1 a	72.23	June 4	28.64	Oct. 5 a	74.77
17 a	70.00	19	34.36	July 2	27.10	Nov. 9	27.51
Mar. 1 a	72.60	29 a	67.73	Aug. 3 a	70.72	Dec. 1 a	73.88

M-1a (\*908, p. 89; 938, p. 94; 946, p. 112). City of Wichita. NW corner sec. 29, T. 23 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21 b	34.40	Mar. 22 b	32.72	May 26	25.62	Sept. 7	27.19
Feb. 1 b	34.12	Apr. 1 b	35.74	June 4	26.10	Oct. 5 b	38.06
17 b	32.83	19	30.99	July 2	25.59	Nov. 9	25.42
Mar. 1 b	36.23	29 b	34.46	Aug. 3 b	35.11	Dec. 1 b	39.95

M-1b (\*908, p. 89; 938, p. 94; 946, p. 112). City of Wichita. NW corner sec. 29, T. 23 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21 b	31.50	Mar. 22 b	29.86	May 26	24.48	Sept. 7	26.00
Feb. 1 b	31.16	Apr. 1 b	32.71	June 4	24.90	Oct. 5 b	35.79
17 b	30.04	19	29.51	July 2	24.39	Nov. 9	24.30
Mar. 1 b	32.85	29 b	31.75	Aug. 3 b	32.50	Dec. 1 b	37.33

M-2 (\*908, p. 89; 938, p. 94; 946, p. 113). City of Wichita. NE $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	37.77	Mar. 22	33.84	May 26 a	96.83	Sept. 7 a	97.47
Feb. 1	35.27	Apr. 1	36.67	June 4 a	95.35	Oct. 5	43.53
17	35.16	19 a	91.14	July 2 a	93.93	Nov. 9 a	94.71
Mar. 1	39.86	29	39.39	Aug. 3	41.89	Dec. 1 a	93.17

a Well pumping.

b Well M-1 pumping.

M-2a (\*908, p. 90; 938, p. 94; 946, p. 113). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	31.95	Mar. 22	30.16	May 26	a 30.57	Sept. 7	a 31.07
Feb. 1	31.38	Apr. 1	33.22	June 4	a 30.68	Oct. 5	a 36.48
17	30.75	19	a 33.64	July 2	a 30.10	Nov. 9	a 30.03
Mar. 1	33.85	29	32.87	Aug. 3	34.25	Dec. 1	a 40.12

M-2b (\*908, p. 90; 938, p. 94; 946, p. 113). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	33.05	Mar. 22	30.72	June 4	a 33.30	Oct. 5	38.21
Feb. 1	31.86	Apr. 1	34.48	July 2	a 32.77	Nov. 9	a 33.71
17	32.60	19	a 33.64	Aug. 3	a 37.54	Dec. 1	a 42.03
Mar. 1	34.13	29	33.75	Sept. 7	32.80		

M-3 (\*908, p. 91; 938, p. 94; 946, p. 113). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	35.25	Mar. 22	33.04	May 26	37.35	Sept. 7	37.73
Feb. 1	34.06	Apr. 1	35.23	June 4	b 73.37	Oct. 5	b 75.93
17	33.12	19	b 72.19	July 2	b 73.64	Nov. 9	36.91
Mar. 1	b 72.57	29	b 68.61	Aug. 3	b 72.53	Dec. 1	b 75.48

M-3a (\*908, p. 91; 938, p. 95; 946, p. 113). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	32.43	Mar. 22	29.87	May 26	34.13	Sept. 7	33.34
Feb. 1	30.41	Apr. 1	32.47	June 4	c 39.10	Oct. 5	c 42.37
17	30.15	19	c 37.88	July 2	c 38.41	Nov. 9	33.53
Mar. 1	c 37.60	29	c 37.65	Aug. 3	c 40.62	Dec. 1	c 44.73

M-3b (\*908, p. 92; 938, p. 95; 946, p. 113). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	36.30	Mar. 22	33.67	May 26	37.85	Sept. 7	36.80
Feb. 1	33.78	Apr. 1	36.28	June 4	c 42.18	Oct. 5	c 45.75
17	33.69	19	c 40.79	July 2	c 41.51	Nov. 9	37.34
Mar. 1	c 40.36	29	c 40.53	Aug. 3	c 43.82	Dec. 1	c 48.06

M-4 (\*908, p. 92; 938, p. 95; 946, p. 113). City of Wichita. SE corner sec. 30, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	37.18	Mar. 22	34.77	May 26	b 77.73	Sept. 7	36.84
Feb. 1	b 76.16	Apr. 1	37.64	June 4	39.14	Oct. 5	43.50
17	b 75.74	19	37.58	July 2	38.23	Nov. 9	b 74.53
Mar. 1	36.89	29	37.63	Aug. 3	b 76.13	Dec. 1	b 79.73

M-4a (\*908, p. 93; 938, p. 95; 946, p. 114). City of Wichita. SE corner sec. 30, T. 23 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

- a Well M-2 pumping.
- b Well pumping.
- c Well M-3 pumping.

## M-4a. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	35.75	Mar. 22	33.43	May 26	a 39.49	Sept. 7	35.89
Feb. 1	a 34.83	Apr. 1	36.24	June 4	37.58	Oct. 5	41.96
17	a 36.07	19	36.46	July 2	36.80	Nov. 9	a 39.90
Mar. 1	36.25	29	36.48	Aug. 3	a 41.79	Dec. 1	a 46.11

M-4b (\*908, p. 93; 938, p. 95; 946, p. 114). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	36.18	Mar. 22	33.97	May 26	a 39.58	Sept. 7	36.37
Feb. 1	a 35.10	Apr. 1	36.63	June 4	37.60	Oct. 5	41.58
17	a 36.22	19	36.74	July 2	37.06	Nov. 9	a 38.59
Mar. 1	36.62	29	36.83	Aug. 3	a 41.42	Dec. 1	a 45.72

M-5 (\*908, p. 94; 938, p. 96; 946, p. 114). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	b 90.41	Mar. 22	b 91.31	May 26	30.74	Sept. 7	30.96
Feb. 1	30.93	Apr. 1	b 90.96	June 3	32.03	Oct. 5	b 95.61
17	27.68	19	30.20	July 2	30.13	Nov. 9	31.51
Mar. 1	28.68	29	30.27	Aug. 3	31.20	Dec. 1	34.68

M-5a (\*908, p. 94; 938, p. 96; 946, p. 114). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 26.22	Mar. 22	c 25.00	May 26	27.43	Sept. 7	28.55
Feb. 1	24.84	Apr. 1	c 25.38	June 3	27.53	Oct. 5	c 27.44
17	24.51	19	25.52	July 2	26.29	Nov. 9	28.69
Mar. 1	24.83	29	27.36	Aug. 3	26.28	Dec. 1	30.07

M-5b (\*908, p. 95; 938, p. 96; 946, p. 114). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 25.95	Mar. 22	c 24.72	May 26	27.26	Sept. 7	28.32
Feb. 1	24.90	Apr. 1	c 25.10	June 3	27.33	Oct. 5	c 27.03
17	24.54	19	25.38	July 2	26.10	Nov. 9	28.51
Mar. 1	24.75	29	27.16	Aug. 3	26.05	Dec. 1	29.72

M-6 (\*908, p. 95; 938, p. 96; 946, p. 114). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	28.33	Mar. 22	25.78	May 26	b 74.59	Sept. 7	b 74.34
Feb. 1	26.06	Apr. 1	26.08	June 3	b 72.54	Oct. 5	28.11
17	25.68	19	26.83	July 2	27.78	Nov. 9	b 73.94
Mar. 1	25.85	29	b 67.44	Aug. 3	27.10	Dec. 1	b 76.41

M-6a (\*908, p. 96; 938, p. 96; 946, p. 114). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	27.22	Mar. 22	25.91	May 26	d 29.00	Sept. 7	d 28.38
Feb. 1	26.21	Apr. 1	26.04	June 3	d 29.01	Oct. 5	28.01
17	25.83	19	26.65	July 2	27.58	Nov. 9	d 30.44
Mar. 1	25.95	29	d 28.82	Aug. 3	27.13	Dec. 1	d 31.59

a Well M-4 pumping.  
b Well pumping.

c Well M-5 pumping.  
d Well M-6 pumping.

M-6b (\*908, p. 96; 938, p. 97; 946, p. 115). City of Wichita. S.  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec. 32, T. 23 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	26.95	Mar. 22	25.55	May 26	a 28.57	Sept. 7	a 29.90
Feb. 1	25.91	Apr. 1	25.85	June 3	a 28.60	Oct. 5	a 27.76
17	25.54	19	26.35	July 2	27.60	Nov. 9	a 29.98
Mar. 1	25.67	29	a 28.49	Aug. 3	26.89	Dec. 1	a 31.00

M-7 (\*908, p. 97; 938, p. 97; 946, p. 115). City of Wichita. NW. corner SW  $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	16.33	Mar. 22	17.40	May 26	b 26.95	Sept. 7	b 28.03
Feb. 1	16.43	Apr. 1	17.25	June 4	b 27.12	Oct. 5	19.27
17	16.69	19	b 25.54	July 2	18.11	Nov. 9	b 27.41
Mar. 1	b 25.24	29	b 25.53	Aug. 3	b 26.35	Dec. 1	20.03

M-7a (\*908, p. 97; 938, p. 97; 946, p. 115). City of Wichita. NW. corner SW  $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	16.29	Mar. 22	17.34	May 26	c 21.26	Sept. 7	c 21.88
Feb. 1	16.39	Apr. 1	17.20	June 4	c 21.35	Oct. 5	19.34
17	16.63	19	c 20.10	July 2	18.11	Nov. 9	c 21.70
Mar. 1	c 19.63	29	c 20.35	Aug. 3	c 20.92	Dec. 1	20.13

M-7b (\*908, p. 98; 938, p. 97; 946, p. 115). City of Wichita. NW. corner SW  $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	16.55	Mar. 22	17.66	May 26	c 20.11	Sept. 7	c 20.80
Feb. 1	16.64	Apr. 1	17.50	June 4	c 20.26	Oct. 5	19.61
17	16.94	19	c 19.10	July 2	18.35	Nov. 9	c 20.68
Mar. 1	c 18.54	29	c 19.33	Aug. 3	c 19.89	Dec. 1	20.24

M-8 (\*908, p. 98; 938, p. 97; 946, p. 115). City of Wichita. SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 6, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	b 82.41	Mar. 22	24.42	May 26	26.52	Sept. 7	b 84.15
Feb. 1	24.64	Apr. 1	24.56	June 3	26.63	Oct. 5	26.78
17	24.29	19	b 79.09	July 2	b 79.67	Nov. 9	b 80.26
Mar. 1	24.51	29	b 75.53	Aug. 3	25.76	Dec. 1	b 82.23

M-8a (\*908, p. 99; 938, p. 98; 946, p. 115). City of Wichita. SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 6, T. 24 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	d 24.07	Mar. 22	22.71	May 26	24.06	Sept. 7	d 25.61
Feb. 1	23.48	Apr. 1	22.72	June 3	24.14	Oct. 5	24.81
17	22.99	19	d 23.45	July 2	d 24.75	Nov. 9	d 25.97
Mar. 1	22.89	29	d 24.13	Aug. 3	24.06	Dec. 1	d 26.52

M-8b (\*908, p. 99; 938, p. 98; 946, p. 116). City of Wichita. SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 6, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

a Well M-6 pumping.  
b Well pumping.

c Well M-7 pumping.  
d Well M-8 pumping.

## M-8b. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	a 22.67	Mar. 22	21.22	May 26	22.75	Sept. 7	a 24.29
Feb. 1	22.00	Apr. 1	21.27	June 3	22.78	Oct. 5	23.31
17	21.48	19	a 22.02	July 2	a 23.31	Nov. 9	a 24.64
Mar. 1	21.39	29	a 22.88	Aug. 3	22.54	Dec. 1	a 25.28

M-9 (\*908, p. 99; 938, p. 98; 946, p. 116). City of Wichita. ~~NE~~<sup>SE</sup> sec. 6, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	21.03	Mar. 22	b 47.46	May 26	21.53	Sept. 7	23.35
Feb. 1	20.59	Apr. 1	20.05	June 3	b 47.73	Oct. 5	b 50.61
17	b 47.46	19	20.72	July 3	22.48	Nov. 9	b 48.79
Mar. 1	b 47.32	29	21.37	Aug. 3	b 47.21	Dec. 1	23.29

M-9a (\*908, p. 100; 938, p. 98; 946, p. 116). City of Wichita. ~~NW~~<sup>NW</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	20.36	Mar. 22	c 20.28	May 26	20.56	Sept. 7	22.35
Feb. 1	20.23	Apr. 1	19.78	June 3	c 21.32	Oct. 5	c 22.76
17	c 20.86	19	19.64	July 3	21.29	Nov. 9	c 23.21
Mar. 1	c 20.69	29	20.21	Aug. 3	c 22.15	Dec. 1	22.57

M-9b (\*908, p. 100; 938, p. 98; 946, p. 116). City of Wichita. ~~NW~~<sup>NW</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	19.10	Mar. 22	c 18.75	May 26	19.27	Sept. 7	21.10
Feb. 1	18.91	Apr. 1	18.50	June 3	c 19.76	Oct. 5	c 21.20
17	c 19.26	19	18.35	July 3	20.04	Nov. 9	c 21.68
Mar. 1	c 19.07	29	18.93	Aug. 3	c 20.67	Dec. 1	21.18

M-10 (\*908, p. 101; 938, p. 98; 946, p. 116). City of Wichita. ~~NE~~<sup>NE</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	b 64.89	Mar. 22	22.69	May 26	b 65.31	Sept. 7	b 68.34
Feb. 1	22.26	Apr. 1	22.53	June 3	24.14	Oct. 5	25.79
17	b 64.57	19	b 62.68	July 3	b 64.50	Nov. 9	b 63.48
Mar. 1	23.32	29	b 59.42	Aug. 3	24.92	Dec. 1	b 66.16

M-10a (\*908, p. 101; 938, p. 99; 946, p. 116). City of Wichita. ~~NE~~<sup>NE</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	d 24.38	Mar. 22	21.50	May 26	d 24.78	Sept. 7	d 26.50
Feb. 1	21.37	Apr. 1	21.33	June 4	22.26	Oct. 5	24.30
17	d 24.39	19	d 23.35	July 3	d 25.59	Nov. 9	d 26.36
Mar. 1	21.77	29	d 24.13	Aug. 3	23.28	Dec. 1	d 26.92

M-10b (\*908, p. 102; 938, p. 99; 946, p. 117). City of Wichita. ~~NE~~<sup>NE</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	d 21.65	Mar. 22	20.49	May 26	d 22.05	Sept. 7	d 23.73
Feb. 1	20.70	Apr. 1	20.31	June 4	21.29	Oct. 5	23.15
17	d 21.55	19	d 20.66	July 3	d 22.77	Nov. 9	d 23.58
Mar. 1	20.80	29	d 21.51	Aug. 3	22.09	Dec. 1	d 24.23

M-11 (\*908, p. 102; 938, p. 99; 946, p. 117). City of Wichita. ~~SW~~<sup>SW</sup> sec. 8, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 22	16.86	Mar. 22	16.73	May 26	b 36.83	Sept. 7	b 39.96
Feb. 1	b 36.43	Apr. 1	16.50	June 4	b 37.32	Oct. 5	18.97
17	16.96	19	b 35.53	July 3	b 38.01	Nov. 9	b 38.39
Mar. 1	16.83	29	b 34.66	Aug. 3	b 37.94	Dec. 1	18.83

a Well M-8 pumping.

b Well pumping.

c Well M-9 pumping.

d Well M-10 pumping.



M-11a (\*908, p. 103; 938, p. 99; 946, p. 117). City of Wichita.  
SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	16.53	Mar. 22	15.83	May 26	a 17.66	Sept. 7	a 20.00
Feb. 1	a 17.11	Apr. 1	15.71	June 4	a 18.21	Oct. 5	18.20
17	16.08	19	a 16.74	July 3	a 18.91	Nov. 9	a 20.25
Mar. 1	15.96	29	a 17.57	Aug. 3	a 19.35	Dec. 1	18.31

M-11b (\*908, p. 103; 938, p. 99; 946, p. 117). City of Wichita.  
SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	17.83	Mar. 22	17.11	June 4	a 18.62	Oct. 5	19.53
Feb. 1	a 17.53	Apr. 1	17.04	July 3	a 19.31	Nov. 9	a 20.68
17	17.43	19	a 17.09	Aug. 3	a 19.78	Dec. 1	19.65
Mar. 1	17.27	29	a 18.02	Sept. 7	a 20.35		

M-12 (\*908, p. 104; 938, p. 99; 946, p. 117). City of Wichita.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	21.53	Mar. 22	21.44	May 26	b 49.28	Sept. 7	24.45
Feb. 1	20.67	Apr. 1	22.19	June 4	b 48.92	Oct. 5	24.73
17	22.18	19	b 47.33	July 3	28.94	Nov. 9	25.19
Mar. 1	b 48.80	29	b 45.40	Aug. 3	24.23	Dec. 1	24.54

M-12a (\*908, p. 104; 938, p. 100; 946, p. 117). City of Wichita.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	20.78	Mar. 22	20.76	May 26	c 27.07	Sept. 7	23.66
Feb. 1	19.96	Apr. 1	21.57	June 4	c 26.94	Oct. 5	24.13
17	21.43	19	c 25.70	July 3	27.21	Nov. 9	24.58
Mar. 1	c 25.98	29	c 25.90	Aug. 3	23.46	Dec. 1	23.93

M-12b (\*908, p. 104; 938, p. 100; 946, p. 117). City of Wichita.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	21.72	Mar. 22	21.86	May 26	c 27.79	Sept. 7	24.70
Feb. 1	21.08	Apr. 1	22.73	June 4	c 27.65	Oct. 5	24.23
17	22.53	19	c 26.36	July 3	28.17	Nov. 9	25.65
Mar. 1	c 26.60	29	c 26.61	Aug. 3	24.47	Dec. 1	25.00

M-13 (\*908, p. 105; 938, p. 100; 946, p. 118). City of Wichita.  
NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	16.29	Mar. 22	17.19	May 26	18.18	Sept. 7	19.03
Feb. 1	16.27	Apr. 1	b 39.73	June 4	18.04	Oct. 5	19.65
17	b 39.51	19	17.25	July 3	b 41.41	Nov. 9	b 41.78
Mar. 1	17.32	29	b 37.68	Aug. 3	b 40.25	Dec. 1	19.50

M-13a (\*908, p. 105; 938, p. 100; 946, p. 118). City of Wichita.  
NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

- a Well M-11 pumping.
- b Well pumping.
- c Well M-12 pumping.

## M-13a. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	16.13	Mar. 22	16.91	May 26	17.46	Sept. 7	18.61
Feb. 1	16.14	Apr. 1	a 18.17	June 4	17.57	Oct. 5	19.20
17	a 17.87	19	17.08	July 3	a 18.91	Nov. 9	a 20.79
Mar. 1	16.65	29	a 18.01	Aug. 3	a 19.24	Dec. 1	19.58

M-13b (\*908, p. 106; 938, p. 100; 946, p. 118). City of Wichita.  
NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	16.78	Mar. 22	17.62	May 26	18.04	Sept. 7	19.26
Feb. 1	16.94	Apr. 1	a 18.17	June 4	18.28	Oct. 5	20.01
17	a 17.91	19	17.72	July 3	a 18.61	Nov. 9	a 21.02
Mar. 1	17.27	29	a 17.81	Aug. 3	a 19.01	Dec. 1	20.48

M-14 (\*908, p. 106; 938, p. 101; 946, p. 118). City of Wichita.  
NW corner NW $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	b 35.36	Mar. 22	b 35.91	May 26	b 37.28	Sept. 7	b 39.30
Feb. 1	b 36.33	Apr. 1	b 36.67	June 4	23.81	Oct. 5	b 41.45
17	b 36.79	19	19.32	July 3	20.00	Nov. 9	24.30
Mar. 1	19.08	29	19.26	Aug. 3	20.36	Dec. 1	b 40.26

M-14a (\*908, p. 107; 938, p. 101; 946, p. 118). City of Wichita.  
NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	c 25.65	Mar. 22	c 25.72	May 26	c 27.44	Sept. 7	c 28.83
Feb. 1	c 26.55	Apr. 1	c 27.10	June 4	24.00	Oct. 5	c 28.98
17	c 26.94	19	18.93	July 3	19.29	Nov. 9	24.35
Mar. 1	18.61	29	18.61	Aug. 3	19.89	Dec. 1	c 29.34

M-14b (\*908, p. 107; 938, p. 101; 946, p. 118). City of Wichita.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	c 22.05	Mar. 22	c 22.54	May 26	c 23.94	Sept. 7	c 25.18
Feb. 1	c 23.05	Apr. 1	c 23.73	June 4	23.18	Oct. 5	c 25.79
17	c 23.53	19	18.91	July 3	19.26	Nov. 9	24.15
Mar. 1	18.58	29	18.51	Aug. 3	19.87	Dec. 1	c 26.29

M-15 (\*908, p. 108; 938, p. 101; 946, p. 118). City of Wichita.  
SE corner NE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	b 42.02	Mar. 22	b 41.93	May 26	b 44.53	Sept. 7	b 48.41
Feb. 1	b 42.13	Apr. 1	b 41.48	June 3	b 42.92	Oct. 5	b 46.97
17	b 41.92	19	b 42.51	July 3	22.13	Nov. 9	b 47.51
Mar. 1	b 42.97	29	20.29	Aug. 3	b 44.13	Dec. 1	b 46.72

M-15a (\*908, p. 108; 938, p. 101; 946, p. 119). City of Wichita.  
SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	d 26.25	Mar. 22	d 25.22	May 26	d 26.35	Sept. 7	d 29.17
Feb. 1	d 26.63	Apr. 1	d 25.20	June 3	d 26.72	Oct. 5	d 29.04
17	d 26.49	19	d 25.94	July 3	22.74	Nov. 9	d 27.27
Mar. 1	d 26.00	29	19.95	Aug. 3	d 27.94	Dec. 1	d 28.95

a Well M-13 pumping,  
b Well pumping.

c Well M-14 pumping.  
d Well M-15 pumping.

M-15b (\*908, p. 109; 938, p. 101; 946, p. 119). City of Wichita.  
SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	a 25.97	Mar. 22	a 24.77	May 26	a 25.95	Sept. 7	a 28.72
Feb. 1	a 26.27	Apr. 1	a 24.81	June 3	a 26.47	Oct. 5	a 28.87
17	a 26.14	19	a 25.61	July 3	23.79	Nov. 9	a 26.96
Mar. 1	a 25.49	29	20.98	Aug. 3	a 27.72	Dec. 1	a 28.87

M-16 (\*908, p. 109; 938, p. 102; 946, p. 119). City of Wichita.  
SE. corner SE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	b 47.83	Mar. 22	18.75	May 26	18.93	Sept. 7	b 51.53
Feb. 1	b 47.62	Apr. 1	18.73	June 3	b 50.05	Oct. 5	b 50.83
17	b 47.13	19	18.70	July 3	b 49.92	Nov. 9	20.79
Mar. 1	18.46	29	17.71	Aug. 3	b 47.71	Dec. 1	b 51.48

M-16a (\*908, p. 110; 938, p. 102; 946, p. 119). City of Wichita.  
SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	c 24.63	Mar. 22	18.82	May 26	19.31	Sept. 7	c 27.34
Feb. 1	c 25.20	Apr. 1	18.97	June 3	c 25.47	Oct. 5	c 27.70
17	c 24.91	19	19.07	July 3	c 26.12	Nov. 9	21.12
Mar. 1	18.70	29	18.13	Aug. 3	c 26.58	Dec. 1	c 27.89

M-16b (\*908, p. 110; 938, p. 102; 946, p. 119). City of Wichita.  
SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 24 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	c 17.40	Mar. 22	17.13	May 26	17.50	Sept. 7	c 19.44
Feb. 1	c 17.62	Apr. 1	17.20	June 3	c 20.14	Oct. 5	c 19.89
17	c 17.70	19	17.36	July 3	c 18.55	Nov. 9	19.30
Mar. 1	17.00	29	16.96	Aug. 3	c 19.10	Dec. 1	c 20.37

M-17 (\*908, p. 111; 938, p. 102; 946, p. 119). City of Wichita.  
NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.97	Mar. 22	b 36.92	May 26	12.13	Sept. 7	14.00
Feb. 1	b 35.02	Apr. 1	b 36.23	June 3	b 35.55	Oct. 5	b 38.43
17	12.16	19	12.18	July 3	b 36.73	Nov. 9	14.90
Mar. 1	11.60	29	b 35.77	Aug. 3	b 36.01	Dec. 1	16.09

M-17a (\*908, p. 111; 938, p. 102; 946, p. 119). City of Wichita.  
NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	10.84	Mar. 22	d 12.20	May 26	10.85	Sept. 7	12.45
Feb. 1	d 12.10	Apr. 1	d 12.50	June 3	d 12.20	Oct. 5	d 14.54
17	10.70	19	11.11	July 3	d 13.16	Nov. 9	14.37
Mar. 1	10.44	29	d 12.48	Aug. 3	d 13.37	Dec. 1	14.54

M-17b (\*908, p. 112; 938, p. 103; 946, p. 120). City of Wichita.  
NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

a Well M-15 pumping.  
b Well pumping.

c Well M-16 pumping.  
d Well M-17 pumping.

## 108 WATER LEVELS AND ARTESIAN PRESSURE, 1943, NORTH-CENTRAL STATES

## M-17b. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	9.38	Mar. 22	a 10.24	May 26	9.33	Sept. 7	11.06
Feb. 1	a 10.14	Apr. 1	a 10.49	June 3	a 10.17	Oct. 5	a 12.68
17	9.32	19	9.60	July 3	a 11.28	Nov. 9	12.84
Mar. 1	8.97	29	a 10.43	Aug. 3	a 11.65	Dec. 1	13.02

## M-18 (\*908, p. 112; 938, p. 103; 946, p. 120). City of Wichita.

SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	b 37.44	Mar. 22	b 37.51	May 26	15.60	Sept. 7	16.32
Feb. 1	b 40.34	Apr. 1	b 40.23	June 3	15.33	Oct. 5	15.91
17	b 39.61	19	15.89	July 3	b 42.10	Nov. 9	15.89
Mar. 1	14.59	29	b 37.40	Aug. 3	b 33.67	Dec. 1	17.35

## M-18a (\*908, p. 113; 938, p. 103; 946, p. 120). City of Wichita.

SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 24 S., R. 2 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 26.00	Mar. 22	c 25.90	May 26	15.38	Sept. 7	15.86
Feb. 1	c 27.78	Apr. 1	c 27.90	June 3	15.07	Oct. 5	15.42
17	c 27.62	19	15.59	July 3	c 28.94	Nov. 9	15.42
Mar. 1	14.28	29	c 26.41	Aug. 3	c 25.00	Dec. 1	16.88

## M-18b (\*908, p. 113; 938, p. 103; 946, p. 120). City of Wichita.

SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 24 S., R. 2 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 19.97	Mar. 22	c 23.54	May 26	14.83	Sept. 7	15.50
Feb. 1	c 21.02	Apr. 1	c 21.30	June 3	14.59	Oct. 5	15.17
17	c 21.07	19	15.05	July 3	c 21.92	Nov. 9	15.18
Mar. 1	13.85	29	c 20.35	Aug. 3	c 20.10	Dec. 1	16.55

## M-19 (\*908, p. 113; 938, p. 103; 946, p. 120). City of Wichita.

NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	15.01	Mar. 22	15.90	May 26	b 31.70	Sept. 7	16.79
Feb. 1	b 32.95	Apr. 1	b 32.88	June 3	b 31.73	Oct. 5	16.52
17	b 32.67	19	b 31.02	July 3	b 35.03	Nov. 9	16.62
Mar. 1	15.47	29	b 31.27	Aug. 3	b 22.25	Dec. 1	17.70

## M-19a (\*908, p. 114; 938, p. 104; 946, p. 120). City of Wichita.

NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 24 S., R. 2 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	17.22	Mar. 22	18.22	May 26	d 21.26	Sept. 7	19.20
Feb. 1	d 20.75	Apr. 1	d 21.10	June 3	d 21.55	Oct. 5	18.93
17	d 21.29	19	d 21.22	July 3	d 22.09	Nov. 9	19.02
Mar. 1	d 17.84	29	d 21.50	Aug. 3	d 21.56	Dec. 1	20.06

## M-19b (\*908, p. 114; 938, p. 104; 946, p. 121). City of Wichita.

NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	16.22	Mar. 22	17.06	May 26	d 18.04	Sept. 7	18.00
Feb. 1	d 17.30	Apr. 1	d 17.80	June 3	d 18.07	Oct. 5	17.59
17	d 17.94	19	d 18.10	July 3	d 18.37	Nov. 9	17.63
Mar. 1	16.66	29	d 18.22	Aug. 3	d 18.55	Dec. 1	18.60

a Well M-17 pumping.

b Well M-17 pumping.

c Well M-18 pumping.

d Well M-19 pumping.

M-20 (\*908, p. 115; 938, p. 104; 946, p. 121). City of Wichita.  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	19.78	Mar. 22	a 46.37	May 26	21.34	Sept. 7	22.51
Feb. 1	19.43	Apr. 1	a 46.56	June 3	21.35	Oct. 5	a 56.85
17	20.59	19	20.91	July 3	a 49.03	Nov. 9	a 55.03
Mar. 1	a 46.48	29	21.43	Aug. 3	a 52.61	Dec. 1	22.96

M-20a (\*908, p. 115; 938, p. 104; 946, p. 121). City of Wichita.  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	19.53	Mar. 22	b 20.64	May 26	20.35	Sept. 7	21.99
Feb. 1	19.33	Apr. 1	b 20.51	June 3	20.33	Oct. 5	b 23.16
17	19.67	19	20.13	July 3	b 21.81	Nov. 9	b 23.71
Mar. 1	b 19.36	29	20.14	Aug. 3	b 22.24	Dec. 1	22.99

M-20b (\*908, p. 116; 938, p. 104; 946, p. 121). City of Wichita.  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	20.14	Mar. 22	b 21.07	May 26	20.90	Sept. 7	22.55
Feb. 1	19.99	Apr. 1	b 20.99	June 3	20.96	Oct. 5	b 23.52
17	20.29	19	20.80	July 3	b 22.11	Nov. 9	b 24.27
Mar. 1	b 20.78	29	20.69	Aug. 3	b 22.55	Dec. 1	23.62

M-21 (\*908, p. 116; 938, p. 104; 946, p. 121). City of Wichita.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.54	Mar. 22	a 27.00	May 26	a 27.37	Sept. 7	a 30.71
Feb. 1	12.03	Apr. 1	a 28.61	June 3	13.43	Oct. 5	a 32.31
17	11.64	19	a 27.43	July 3	13.76	Nov. 9	a 30.60
Mar. 1	a 27.31	29	14.17	Aug. 3	a 27.15	Dec. 1	16.73

M-21a (\*908, p. 117; 938, p. 105; 946, p. 121). City of Wichita.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 0.8 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.75	Mar. 22	c 19.14	May 26	c 19.13	Sept. 7	c 21.48
Feb. 1	12.22	Apr. 1	c 19.79	June 3	13.71	Oct. 5	c 22.28
17	11.85	19	c 19.50	July 3	14.02	Nov. 9	c 20.99
Mar. 1	c 18.42	29	14.48	Aug. 3	c 20.13	Dec. 1	17.06

M-21b (\*908, p. 117; 938, p. 105; 946, p. 122). City of Wichita.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.48	Mar. 22	c 16.81	May 26	c 17.77	Sept. 7	c 18.97
Feb. 1	11.91	Apr. 1	c 17.27	June 3	13.47	Oct. 5	c 19.61
17	11.60	19	c 17.28	July 3	13.70	Nov. 9	c 18.50
Mar. 1	c 16.25	29	14.27	Aug. 3	c 17.98	Dec. 1	16.68

M-22 (\*908, p. 118; 938, p. 105; 946, p. 122). City of Wichita.  
SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

- a Well pumping.
- b Well M-20 pumping.
- c Well M-21 pumping.

## M-22. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	12.98	Mar. 22	15.13	May 26	15.27	Sept. 7	17.70
Feb. 1	13.85	Apr. 1	15.21	June 3	14.76	Oct. 5	17.80
17	13.14	19	15.40	July 3	15.34	Nov. 9	18.16
Mar. 1	14.58	29	14.98	Aug. 3 a	32.13	Dec. 1	17.98

M-22a (\*908, p. 118; 938, p. 105; 946, p. 122). City of Wichita.  
 SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	12.37	Mar. 22	14.53	May 26	14.68	Sept. 7	17.27
Feb. 1	13.16	Apr. 1	14.62	June 3	14.12	Oct. 5	17.28
17	12.42	19	14.84	July 3	14.70	Nov. 9	17.50
Mar. 1	13.92	29	14.37	Aug. 3 b	21.68	Dec. 1	17.40

M-22b (\*908, p. 119; 938, p. 105; 946, p. 122). City of Wichita.  
 SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 24 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	12.80	Mar. 22	15.35	May 26	15.40	Sept. 7	18.14
Feb. 1	13.69	Apr. 1	15.46	June 3	14.70	Oct. 5	18.18
17	12.87	19	15.71	July 3	15.39	Nov. 9	18.35
Mar. 1	14.70	29	15.10	Aug. 3 b	18.81	Dec. 1	18.22

M-23 (\*908, p. 119; 938, p. 106; 946, p. 122). City of Wichita.  
 SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	a 40.63	Mar. 22	12.20	May 26	a 40.58	Sept. 7	15.25
Feb. 1	a 43.95	Apr. 1	12.33	June 3	a 41.73	Oct. 5	15.46
17	a 42.10	19	11.78	July 3	14.32	Nov. 9	a 44.23
Mar. 1	11.58	29	a 39.08	Aug. 3	a 40.23	Dec. 1	15.02

M-23a (\*908, p. 120; 938, p. 106; 946, p. 122). City of Wichita.  
 SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 15.35	Mar. 22	12.52	May 26	c 16.09	Sept. 7	15.66
Feb. 1	c 15.49	Apr. 1	12.62	June 3	c 16.38	Oct. 5	15.73
17	c 14.94	19	12.51	July 3	14.51	Nov. 9	c 18.35
Mar. 1	12.40	29	c 15.52	Aug. 3	c 17.13	Dec. 1	15.67

M-23b (\*908, p. 120; 938, p. 106; 946, p. 123). City of Wichita.  
 SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	c 13.65	Mar. 22	11.91	May 26	c 14.32	Sept. 7	14.97
Feb. 1	c 13.79	Apr. 1	11.97	June 3	c 14.60	Oct. 5	15.04
17	c 13.42	19	11.87	July 3	13.79	Nov. 9	c 16.58
Mar. 1	11.78	29	c 13.81	Aug. 3	c 15.52	Dec. 1	15.00

M-24 (\*908, p. 121; 938, p. 106; 946, p. 123). City of Wichita.  
 SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 21	11.42	Mar. 22	11.82	May 26	a 32.27	Sept. 7	a 32.69
Feb. 1	11.31	Apr. 1	11.63	June 3	a 32.71	Oct. 5	a 32.86
17	11.08	19	a 30.68	July 3	a 35.66	Nov. 9	15.35
Mar. 1	a 32.53	29	a 31.83	Aug. 3	a 30.69	Dec. 1	a 29.83

a Well pumping.

b Well M-22 pumping.

c Well M-23 pumping.

M-24a (\*908, p. 121; 938, p. 106; 946, p. 123). City of Wichita.  
SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.57	Mar. 22	12.00	May 26	a 17.51	Sept. 7	a 18.88
Feb. 1	11.49	Apr. 1	11.83	June 3	a 17.93	Oct. 5	a 19.13
17	11.26	19	a 17.45	July 3	a 18.80	Nov. 9	15.66
Mar. 1	a 16.63	29	a 17.33	Aug. 3	a 18.30	Dec. 1	a 18.64

M-24b (\*908, p. 122; 938, p. 107; 946, p. 123). City of Wichita.  
SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 24 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	13.37	Mar. 22	14.05	May 26	a 16.37	Sept. 7	a 18.15
Feb. 1	13.35	Apr. 1	13.86	June 3	a 16.69	Oct. 5	a 18.47
17	13.16	19	a 15.65	July 3	a 17.27	Nov. 9	17.50
Mar. 1	a 15.23	29	a 16.18	Aug. 3	a 17.58	Dec. 1	a 18.45

M-25 (\*908, p. 122; 938, p. 107; 946, p. 123). City of Wichita.  
SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 24 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	b 33.39	Mar. 22	b 30.96	May 26	9.03	Sept. 7	b 37.45
Feb. 1	8.61	Apr. 1	b 34.93	June 3	b 36.08	Oct. 5	b 41.22
17	8.12	19	7.99	July 3	b 40.97	Nov. 9	b 38.98
Mar. 1	7.71	29	9.05	Aug. 3	b 34.31	Dec. 1	10.56

M-25a (\*908, p. 123; 938, p. 107; 946, p. 123). City of Wichita.  
SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 24 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	c 10.63	Mar. 22	c 10.29	May 26	9.17	Sept. 7	c 13.10
Feb. 1	8.68	Apr. 1	c 10.74	June 3	c 11.42	Oct. 5	c 13.69
17	8.40	19	8.41	July 3	c 12.63	Nov. 9	c 13.85
Mar. 1	8.10	29	8.99	Aug. 3	c 12.71	Dec. 1	11.48

M-25b (\*908, p. 123; 938, p. 107; 946, p. 124). City of Wichita.  
NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 1, T. 25 S., R. 2 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	c 11.63	Mar. 22	c 11.34	May 26	10.65	Sept. 7	c 14.20
Feb. 1	10.10	Apr. 1	c 11.71	June 3	c 12.48	Oct. 5	c 14.80
17	9.79	19	9.97	July 3	c 13.60	Nov. 9	c 14.94
Mar. 1	9.57	29	10.53	Aug. 3	c 13.00	Dec. 1	12.94

a Well M-24 pumping.

b Well pumping.

c Well M-25 pumping.

Haskell County

By T. G. McLaughlin

Highest and lowest recorded water levels in 11 wells in Haskell County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	2.5	108.85	Nov. 17, 1943	109.38	Nov. 1, 1941
4	2.5	197.04	Dec. 28, 1943	197.78	Sept. 17, 1941
5 a/	2	161.00	Dec. 3, 1941	161.38	Mar. 12, 1943
6	2.5	155.96	July 29, 1941	158.06	Aug. 27, 1943
7	2.5	187.38	Nov. 17, 1943	188.20	Sept. 23, 1943
9	2.5	207.54	Dec. 28, 1943	208.78	Aug. 9, 1943
10	2.5	47.96	Aug. 9, 1943	50.73	Sept. 17, 1941
11	2.5	183.84	Dec. 28, 1943	184.73	Aug. 27, 1943
12	2.5	179.40	Nov. 3, 1941	182.05	Nov. 13, 1942
14	2.5	151.72	July 15, 1942	153.10	Aug. 29, 1943
			Aug. 5, 1942		
15 a/	1.5	220.74	Oct. 1, 1942	221.75	Feb. 3, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 11 wells in Haskell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
1	0.53	-0.10	+0.06
4	.74	+62	+61
5	.38	(c)	-.03
6	2.10	+20	-.30
7	.82	+26	+12
9	1.24	+36	+14
10	2.77	-1.48	-.22
11	.89	+82	+80
12	2.65	+1.16	-.43
14	1.38	-.12	+02
15	1.01	(c)	+13

1 (\*938, p. 108; 946, p. 125). E. A. Davis. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 27 S., R. 33 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	109.00	Apr. 26	108.89	July 12	108.99	Oct. 25	108.96
Feb. 3	108.98	May 27	108.86	Aug. 9	109.07	Nov. 17	108.85
Mar. 12	108.99	June 15	109.09	Sept. 23	108.97	Dec. 28	108.98

4 (\*938, p. 108; 946, p. 125). Dean Nelson. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 28 S., R. 32 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	197.74	Apr. 22	197.71	July 6	197.07	Oct. 25	197.09
Feb. 5	197.72	May 10	197.66	Aug. 9	197.66	Nov. 17	197.07
Mar. 12	197.69	June 17	197.12	Sept. 23	197.16	Dec. 28	197.04

5 (\*938, p. 108; 946, p. 125). C. D. Jennings. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 29 S., R. 31 W. Measuring point is 0.2 foot above land-surface datum. Measurements discontinued after May 1943.

a Measurements discontinued in May 1943.

b Between last measurement in 1942 and last measurement in 1943.

c Record for 1943 incomplete.



## 5. C. D. Jennings--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 6	161.29	Mar. 12	161.38	May 10	161.14
Feb. 5	161.36	Apr. 22	161.17		

6 (\*938, p. 108; 946, p. 125). Copeland State Bank. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 29 S., R. 31 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	156.73	May 10	156.53	Aug. 27	158.06	Oct. 25	157.32
Feb. 5	156.75	June 17	156.50	Sept. 23	157.36	Nov. 17	156.45
Mar. 22	156.68	July 6	156.93				

7 (\*938, p. 109; 946, p. 125). Etta McCoy. NW $\frac{1}{4}$ HW $\frac{1}{4}$  sec. 2, T. 30 S., R. 32 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	187.71	Apr. 22	187.63	July 6	187.44	Oct. 25	187.66
Feb. 5	187.69	May 10	187.59	Aug. 27	187.99	Nov. 17	187.38
Mar. 12	187.73	June 17	187.57	Sept. 23	188.20		

9 (\*938, p. 109; 946, p. 125). Bessie Custer. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 30 S., R. 34 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	207.89	Apr. 22	207.73	July 6	207.68	Oct. 25	207.62
Feb. 5	207.61	May 10	207.65	Aug. 9	208.78	Nov. 17	207.60
Mar. 11	207.68	June 15	207.63	Sept. 23	207.68	Dec. 28	207.54

10 (\*908, p. 109; 946, p. 125). Eli Stoops. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 30 S., R. 34 W. Measuring point is 5.8 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	48.68	Apr. 22	48.86	July 6	48.98	Oct. 25	49.80
Feb. 5	48.75	May 10	48.98	Aug. 9	47.96	Nov. 17	49.92
Mar. 11	49.00	June 15	48.48	Sept. 23	49.48	Dec. 28	50.09

11 (\*938, p. 109; 946, p. 126). L. C. Leonard. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 30 S., R. 32 W. Measuring point beginning Apr. 22, 1943, top of casing, 0.6 foot above former measuring point and 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	184.74	Apr. 22	184.56	July 6	184.53	Oct. 25	184.47
Feb. 5	184.72	May 10	184.58	Aug. 27	184.73	Nov. 17	184.31
Mar. 12	184.69	June 17	184.45	Sept. 23	184.62	Dec. 28	183.84

12 (\*938, p. 109; 946, p. 126). Sybol Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 30 S., R. 32 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	181.51	Apr. 22	181.59	July 6	180.96	Oct. 25	180.96
Feb. 5	181.60	May 10	181.57	Aug. 27	181.67	Nov. 17	180.89
Mar. 12	181.62	June 17	181.54	Sept. 23	180.99		

13 (\*938, p. 109; 946, p. 126). School district. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 27 S., R. 32 W. Measurements discontinued after Dec. 31, 1942.

14 (\*938, p. 110; 946, p. 126). William Dreyer. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 27 S., R. 34 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	151.79	Apr. 26	151.79	July 12	151.87	Oct. 27	151.87
Feb. 3	151.93	May 27	151.83	Aug. 29	153.10	Nov. 15	151.90
Mar. 12	151.88	June 18	151.87	Sept. 25	151.88		

15 (\*938, p. 110; 946, p. 126). M. H. Eubank. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 28 S., R. 34 W. Measuring point is 1.2 feet above land-surface datum. Measurements discontinued after May 1943. Water levels, in feet below land-surface datum, 1943: Jan. 4, 221.71; Feb. 3, 221.75; May 27, 221.49.

#### Hodgeman County

By L. C. Menzie

Highest and lowest recorded water levels in 3 wells in Hodgeman County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
3	3	32.78	Aug. 2, 1941	34.77	Sept. 20, 1940
4	3	25.27	July 12, 1941	27.52	Oct. 2, 1941
5	3	29.80	Nov. 8, 1943	33.08	Oct. 29, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 3 wells in Hodgeman County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise for period of record
3	1.99	-0.73	1.01
4	2.25	+ .50	1.74
5	3.28	+ .33	1.39

3 (\*908, p. 125; 938, p. 110; 946, p. 126). W. J. Fox. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 21 S., R. 22 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Sept. 13, 34.18; Dec. 20, 33.68.

4 (\*908, p. 125; 938, p. 111; 946, p. 126). William Macey. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 22 S., R. 22 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	25.63	May 21	25.78	Aug. 3	27.12	Nov. 8	25.52
Feb. 19	25.57	June 1	25.95	Sept. 13	25.45	Dec. 20	25.29
Mar. 25	25.58	July 13	25.93				

5 (\*908, p. 125; 938, p. 111; 946, p. 126). Roy Klein. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 22 S., R. 22 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	30.78	Apr. 23	30.64	Aug. 3	31.82	Nov. 8	29.80
Feb. 19	30.73	May 21	31.38	Sept. 14	30.84	Dec. 20	30.64
Mar. 25	30.69	June 1	31.34	Oct. 11	31.03		

a Between last measurement in 1942 and last measurement in 1943.

Jewell County

By V. C. Fishel and R. W. McCall

Highest and lowest recorded water levels in 27 wells in Jewell County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
4	10	36.68	Sept. 25, 1942	53.50	Apr. 2, 1936
6	10	40.09	July 30, 1943	46.76	Oct. 13, 1937
8	10	4.16	Apr. 26, 1943	68.06	Aug. 23, 1934
12	10	63.59	Sept. 25, 1942	77.79	June 8, 1938
14	10	16.25	May 26, 1942	46.69	Mar. 20, 1934
18	10	15.49	July 30, 1943	30.77	May 2, 1935
22	10	10.89	June 26, 1943	25.68	Aug. 10, 1934
25	10	9.73	Jan. 26, 1942	15.72	Mar. 2, 1935
30	10	34.99	Apr. 26, 1943	43.45	Sept. 20, 1940
34	10	10.25	Feb. 19, 1942	33.92	Aug. 19, 1940
40	10	37.89	Oct. 21, 1943	43.13	Oct. 6, 1937
41	9	16.94	June 30, 1943	27.38	May 23, 1941
42	9	25.24	June 21, 1935	31.10	May 11, 1935
43	9	3.04	June 22, 1942	16.16	Mar. 28, 1935
44	9	6.49	June 30, 1943	24.03	May 9, 1935
45	9	25.50	May 21, 1936	34.39	Dec. 21, 1940
46	9	.75	Jan. 26, 1942	17.54	Aug. 30, 1934
47	9	2.07	Aug. 28, 1942	13.84	May 9, 1935
48	9	8.64	July 28, 1942	27.19	Oct. 26, 1934
49	9	16.59	Sept. 25, 1942	46.83	Nov. 24, 1934
50	9	14.54	June 30, 1943	36.25	Nov. 28, 1934
51	9	.07	Jan. 28, 1942	17.25	Sept. 26, 1934
64	8	56.66	Jan. 26, 1942	65.90	Jan. 19, 1938
65	8	9.62	Nov. 23, 1942	38.10	Aug. 20, 1940
66	8	11.29	Oct. 28, 1942	27.55	Oct. 23, 1940
67	9	9.78	July 28, 1942	27.34	Dec. 2, 1940
69	7	13.55	Sept. 25, 1942	24.50	Aug. 19, 1940

Difference between highest and lowest recorded water levels and net  
change in water level, in feet, in 1943 and for period of record,  
in 27 wells in Jewell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a</sup>	Net rise for period of record
4	16.82	-0.01	9.50
6	6.67	-.90	.29
8	63.90	-3.01	43.27
12	14.20	-1.26	5.40
14	30.44	-2.17	23.05
18	15.28	+1.73	10.72
22	14.79	+.80	10.93
25	5.99	-1.51	2.10
30	8.46	+1.77	1.27
34	23.67	-7.07	2.91
40	6.24	+.49	4.12
41	10.44	.00	6.52
42	5.86	-.73	2.73
43	13.12	(b)	8.58
44	17.54	-1.37	6.69
45	8.89	-1.08	2.02
46	16.79	-3.65	11.38
47	.77	-2.33	4.39
48	18.55	-2.41	7.46
49	30.24	-3.23	13.95
50	21.71	-.35	19.05
51	17.18	-3.14	12.32

<sup>a</sup> From Jan. 6, 1943, to Dec. 30, 1943.<sup>b</sup> Measurements discontinued after Jan. 6, 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 27 wells in Jewell County--Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise for period of record
64	9.24	+0.48	5.21
65	28.48	-.59	19.41
66	16.26	-1.56	5.97
67	17.56	-.72	7.89
69	10.35	-.23	3.68

4 (\*777, pp. 67-68; \*817, pp. 65-67; \*840, pp. 110-112; \*845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). Harvey Sloan. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 3 S., R. 9 W. Measuring point is 0.2 foot below land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 59.38 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	39.04	Apr. 26	39.12	July 30	37.34	Nov. 27	38.21
29	37.97	May 31	38.99	Aug. 27	38.18	Dec. 30	39.05
Mar. 4	37.76	June 30	37.39	Oct. 21	38.23		

6 (\*777, pp. 67-68; \*817, pp. 65-67; \*840, pp. 110-112; \*845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). H. C. Doud. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 3 S., R. 9 W. Measuring point is 1.2 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 54.53 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	40.91	Apr. 26	40.79	July 30	40.09	Nov. 27	41.24
29	41.51	May 31	40.89	Aug. 27	40.65	Dec. 30	41.81
Mar. 4	41.71	June 30	40.51	Oct. 21	40.89		

8 (\*777, pp. 67-68; \*817, pp. 65-67; \*840, pp. 110-112; \*845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). Will Zadina. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 3 S., R. 9 W. Measuring point is 2.0 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 76.08 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	16.89	Apr. 26	4.16	July 30	12.39	Nov. 27	20.09
29	14.76	May 31	9.05	Aug. 27	15.91	Dec. 30	19.90
Mar. 4	13.45	June 30	7.89	Oct. 21	18.91		

12 (\*777, pp. 67-68; \*817, pp. 65-67; \*840, pp. 110-112; \*845, p. 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 129, 131). M. W. Howe. Lot 4 of sec. 30, T. 3 S., R. 9 W. Measuring point is 1.3 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 85.70 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	66.48	Apr. 26	64.27	Aug. 27	83.68	Nov. 27	77.05
29	67.11	June 30	64.60	Oct. 21	66.59	Dec. 30	67.74
Mar. 4	67.29	July 30	64.80				

14 (\*777, p. 67; \*817, pp. 65-67; \*840, pp. 110-112; \*845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). C. Walker. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 3 S., R. 9 W. Measuring point is 1.0 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 55.48 feet.

a From Jan. 6, 1943, to Dec. 30, 1943.

## 14. C. Walker--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	21.47	Apr. 26	22.71	Aug. 27	20.50	Nov. 27	22.78
29	22.08	June 30	20.36	Oct. 21	20.66	Dec. 30	23.64
Mar. 4	22.59	July 30	20.30				

18 (\*777, pp. 67-68; #817, pp. 65-67; #840, pp. 110-112; #845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). Martin JohaneK. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 3 S., R. 10 W. Measuring point is 1.6 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 40.28 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	19.38	Apr. 26	16.78	July 30	15.49	Nov. 27	17.34
29	18.39	May 31	15.95	Aug. 27	17.38	Dec. 30	17.65
Mar. 4	17.90	June 30	15.90	Oct. 21	17.14		

22 (\*777, pp. 68-69; #817, pp. 65, 69; #840, pp. 110, 114, 117; #845, pp. 105, 111, 114; 886, p. 172; 908, p. 130; 938, p. 114; 946, pp. 129, 131). Meyer Miles. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 5 S., R. 9 W. Measuring point is 3.0 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 35.16 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	13.89	Apr. 26	12.40	Aug. 27	12.01	Nov. 27	12.99
29	13.83	June 26	10.89	Oct. 21	12.91	Dec. 30	13.09
Mar. 4	13.59	July 30	11.24				

25 (\*777, pp. 68, 69; #817, pp. 65, 69; #840, pp. 110, 112; 845, pp. 105, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). J. N. Sorrell. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 5 S., R. 9 W. Measuring point is 1.6 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 24.87 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	10.88	Apr. 26	11.46	Aug. 27	12.65	Nov. 27	12.24
25	11.73	June 30	11.59	Oct. 21	11.89	Dec. 30	12.39
Mar. 4	11.90	July 30	11.49				

30 (\*777, pp. 68, 69; #817, pp. 65, 69; #840, pp. 110, 114, 117; 845, pp. 105, 111, 114; 886, p. 172; 908, p. 130; 938, p. 114; 946, pp. 129-131). Fred van Wey. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 4 S., R. 9 W. Measuring point is 1.9 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 50.65 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	37.34	Apr. 26	34.99	July 30	36.46	Nov. 27	37.49
29	37.49	May 31	35.29	Aug. 27	36.54	Dec. 30	35.57
Mar. 4	35.88	June 30	35.11	Oct. 21	37.53		

34 (#817, pp. 65, 77; #840, pp. 110, 114, 118; #845, pp. 105, 111; 886, p. 172; 908, p. 130; 938, p. 114; 946, p. 131). Glen Kindler. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 3 S., R. 10 W. Measuring point is 0.8 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.36 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	16.12	Apr. 26	14.21	July 30	19.14	Nov. 27	23.29
29	16.32	May 31	15.95	Aug. 27	20.56	Dec. 30	23.69
Mar. 4	13.00	June 30	17.29	Oct. 21	24.19		

34A (\*817, pp. 65, 77; \*840, pp. 110, 114; \*845, pp. 105, 111, 114; 886, p. 172; 908, p. 130; 938, p. 114; 946, p. 131). Glen Kindler. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 3 S., R. 10 W. Measurements discontinued after Nov. 23, 1942.

34B (\*817, pp. 65, 77; \*840, pp. 111, 114; \*845, pp. 105, 111; 886, p. 172; 908, p. 130; 938, p. 114; 946, p. 131). Glen Kindler. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 3 S., R. 10 W. Measurements discontinued after Nov. 23, 1942.

34C (\*817, pp. 65, 77; \*840, pp. 111, 114; \*845, pp. 105, 111; 886, p. 172; 908, p. 130; 938, p. 114; 946, p. 131). Glen Kindler. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 3 S., R. 10 W. Measurements discontinued after Nov. 23, 1942.

40 (\*777, pp. 68, 69; \*817, pp. 65, 69; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131). R. L. McDaniel. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 4 S., R. 9 W. Measuring point is 0.9 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 52.58 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	38.69	Apr. 26	39.49	Aug. 27	38.17	Nov. 27	38.43
29	39.39	June 30	38.25	Oct. 21	37.89	Dec. 30	38.20
Mar. 4	39.91	July 30	38.26				

41 (\*777, pp. 68, 69; \*817, pp. 65, 69; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131). Walter Dietz. Lot 16 of sec. 6, T. 5 S., R. 9 W. Measuring point is 1.5 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 36.07 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	18.95	Apr. 26	18.28	Aug. 27	18.39	Nov. 27	19.49
29	19.48	June 30	16.94	Oct. 21	19.27	Dec. 30	19.29
Mar. 4	18.59	July 30	17.44				

42 (\*777, pp. 68, 69; \*817, pp. 65, 69; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131). L. Sowdermilk. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 6 S., R. 9 W. Measuring point is 0.5 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 40.86 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	26.41	Apr. 26	25.74	Aug. 27	26.66	Nov. 27	27.20
29	26.47	June 30	26.01	Oct. 21	27.43	Dec. 30	27.14
Mar. 4	26.30	July 30	25.99				

43 (\*817, pp. 65, 69; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131). S. Branagan. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 5 S., R. 9 W. Measuring point is 2.0 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 25.32 feet. Water level, in feet below land-surface datum, 1943: Jan. 6, 5.02.

44 (\*777, pp. 68, 69; \*817, pp. 66, 71; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131). Cleo. Gimple. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 4 S., R. 9 W. Measuring point is 1.5 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 32.46 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	7.20	Apr. 26	7.29	Aug. 27	7.48	Nov. 27	9.29
29	7.75	June 30	6.49	Oct. 21	8.71	Dec. 30	8.57
Mar. 4	7.44	July 30	7.85				

45 (\*777, pp. 68, 69; \*817, pp. 66, 71; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131). Victor Yapp. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 4 S., R. 10 W. Measuring point is 0.9 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 41.03 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	26.92	Apr. 26	26.11	July 30	26.16	Nov. 27	28.66
29	26.89	May 31	25.69	Aug. 27	27.54	Dec. 30	28.00
Mar. 4	27.04	June 30	26.09	Oct. 21	28.60		

46 (\*817, pp. 66, 71; \*840, pp. 111, 113; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, pp. 113, 114; 946, pp. 130, 131). Ralph Wierenga. Lot 3 of sec. 19, T. 5 S., R. 9 W. Measuring point is 2.2 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 26.36 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	1.54	Apr. 26	1.71	Aug. 27	4.79	Nov. 27	5.39
29	2.05	June 30	2.10	Oct. 21	5.44	Dec. 30	5.19
Mar. 4	2.69	July 30	3.35				

47 (\*817, pp. 66, 71; \*840, pp. 111, 114; \*845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, pp. 113, 114; 946, p. 131). Meyer Miles. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 5 S., R. 9 W. Measuring point is 1.2 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 23.32 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	5.26	Apr. 26	3.28	Aug. 27	6.06	Nov. 27	7.67
29	5.21	June 30	4.65	Oct. 21	7.09	Dec. 30	7.59
Mar. 4	5.34	July 30	4.86				

48 (\*777, pp. 68, 69; \*817, pp. 66, 71; \*840, pp. 111, 114; \*845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132). Frank Rogers. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 4 S., R. 10 W. Measuring point is 2.0 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 36.06 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.98	Apr. 26	14.79	July 30	10.21	Nov. 27	18.21
29	17.78	May 31	11.86	Aug. 27	11.69	Dec. 30	18.39
Mar. 4	17.60	June 30	10.38	Oct. 21	16.64		

49 (\*777, pp. 68, 69; \*817, pp. 66, 71; \*840, pp. 111, 114; \*845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 114; 946, pp. 130, 131). E. Underwood. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 3 S., R. 9 W. Measuring point is 1.7 feet above land-surface datum. To convert water levels from assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 49.90 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	18.97	Apr. 26	17.49	July 30	19.07	Nov. 27	21.42
29	19.31	May 31	18.71	Aug. 27	19.54	Dec. 30	22.20
Mar. 4	18.59	June 30	17.19	Oct. 21	20.96		

50 (\*777, pp. 68, 69; \*817, pp. 66, 71; \*840, pp. 111, 114; \*845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 114; 946, pp. 130, 131). S. Strom. Lot 15 of sec. 31, T. 3 S., R. 9 W. Measuring point is 0.4 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 46.22 feet.

## 50. S. Strom--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.99	Apr. 26	14.58	Aug. 27	17.54	Nov. 27	16.49
29	15.90	June 30	14.54	Oct. 21	17.61	Dec. 30	16.34
Mar. 4	15.49	July 30	16.06				

51 (\*817, pp. 66, 76; \*840, pp. 111, 116, 119; \*845, pp. 107, 113, 115; 886, p. 173; 908, p. 131; 938, pp. 113, 114; 946, p. 131). L. C. Beeler Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 4 S., R. 9 W. Measuring point is 2.5 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.00 feet.

Water level, in feet below land-surface datum, 1943

Jan. 6	1.79	Apr. 26	1.71	Aug. 27	4.05	Nov. 27	4.59
29	2.42	June 30	2.79	Oct. 21	3.97	Dec. 30	4.93
Mar. 4	1.78	July 30	3.28				

52 (\*817, pp. 66, 74; \*840, pp. 111, 115; \*845, pp. 107, 112; 886, p. 172; 908, p. 130; 938, pp. 113, 115; 946, p. 132). L. C. Beeler Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

53 (\*817, pp. 66, 74; \*840, pp. 111, 115; \*845, pp. 107, 112; 886, p. 172; 908, p. 130; 938, pp. 113, 115; 946, p. 132). L. C. Beeler Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

54 (\*817, pp. 66, 74; \*840, pp. 111, 115; \*845, pp. 107, 112; 886, p. 172; 908, p. 130; 938, pp. 113, 115; 946, p. 132). L. C. Beeler Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

55 (\*817, pp. 66, 74; \*840, pp. 111, 115; \*845, pp. 107, 112; 886, p. 172; 908, p. 130; 938, pp. 113, 115; 946, p. 132). L. C. Beeler Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

57 (\*817, pp. 66, 74; \*840, pp. 111, 115; \*845, pp. 107, 112; 886, p. 172; 908, p. 130; 938, pp. 113, 115; 946, p. 132). L. C. Beeler Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

61 (\*817, pp. 66, 76; \*840, pp. 111, 116; \*845, pp. 107, 113; 886, p. 173; 908, p. 131; 938, pp. 113, 114; 946, p. 131). L. C. Beeler Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

62 (\*817, pp. 66, 76; \*840, pp. 111, 116; \*845, pp. 107, 113; 886, p. 173; 908, p. 131; 938, pp. 113, 114; 946, p. 131). L. C. Beeler Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

63 (\*817, pp. 66, 76; \*840, pp. 111, 116; \*845, pp. 107, 113; 886, p. 173; 908, p. 131; 938, pp. 113, 114; 946, p. 131). L. C. Beeler Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 4 S., R. 9 W. Measurements discontinued after Nov. 23, 1942.

64 (\*840, pp. 111, 114; \*845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132). Chris Vandeventer, former owner. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T. 3 S., R. 8 W. Measuring point is 1.0 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 76.32 feet.

Water level, in feet below land-surface datum, 1943

Jan. 29	58.84	May 31	58.32	Aug. 27	58.16	Nov. 27	59.39
Mar. 4	58.41	June 30	56.99	Oct. 21	58.86	Dec. 30	59.61
Apr. 26	57.72	July 30	57.66				



65 (#840, pp. 111, 114; #845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 114; 946, p. 131). Mrs. B. M. Parkhurst. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 3 S., R. 9 W. Measuring point is 1.9 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 42.14 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.63	Apr. 26	9.76	Aug. 27	11.20	Nov. 27	10.30
29	10.61	June 30	9.62	Oct. 21	11.54	Dec. 30	11.22
Mar. 4	10.50	July 30	10.59				

66 (#840, pp. 111, 114; #845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132). A. E. Cook farm. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 5 S., R. 10 W. Measuring point is 0.3 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 33.61 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	14.58	Apr. 26	11.29	Aug. 27	14.44	Nov. 27	15.91
29	14.62	June 30	13.39	Oct. 21	15.66	Dec. 30	16.14
Mar. 4	14.50	July 30	13.59				

67 (#840, pp. 111, 114; #845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132). Albert Rose. Lot 14 of sec. 6, T. 5 S., R. 9 W. Measuring point is 0.5 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 31.90 feet. Measurements discontinued after Oct. 21, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.79	Mar. 4	12.54	June 30	9.78	Aug. 27	12.20
29	12.89	Apr. 26	11.09	July 30	10.71	Oct. 21	13.51

69 (#840, pp. 111, 119; #845, pp. 109, 115; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132). Walter Dietz. NW $\frac{1}{4}$  lot 2 of sec. 7, T. 5 S., R. 9 W. Measuring point is 4.5 feet below land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 30.32 feet.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.26	Apr. 26	14.35	Aug. 27	15.41	Nov. 27	15.80
29	15.26	June 30	13.55	Oct. 21	15.91	Dec. 30	15.49
Mar. 4	14.92	July 30	14.60				

### Kearny County

By T. G. McLaughlin.

Highest and lowest recorded water levels in 12 wells in Kearny County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	4	6.54	June 26, 1942	12.13	Sept. 10, 1943
2	4	50.39	Dec. 4, 1943	59.74	Sept. 20, 1940
3a/	4	91.74	Dec. 20, 1939	94.83	Nov. 10, 1941
7	4	49.41	May 9, 1942	53.37	Oct. 16, 1939
11	4	12.56	June 26, 1942	15.37	Mar. 15, 1941
12A	1	8.22	June 12, 1943	11.09	Nov. 6, 1943
13	4	1.47	May 9, 1942	8.93	Dec. 20, 1939
16	4	43.42	July 15, 1943	47.81	July 3, 1941
19	4	130.37	Dec. 3, 1943	131.33	Oct. 26, 1943
23	4	173.93	Oct. 24, 1939	b 178.42	Oct. 26, 1943
26 c/	3.5	86.30	Oct. 24, 1939	86.55	May 6, 1941
28	4	121.41	Nov. 5, 1943	123.85	Feb. 19, 1940
					Oct. 22, 1940

a Measurements discontinued July 1943.

b Affected by pumping.

c Measurements discontinued June 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 12 wells in Kearny County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a</sup>	Net rise (+) or net decline (-) for period of record
1	5.59	-1.60	+0.86
2	9.35	+5.43	+8.09
3	3.09	(b)	+8.89
7	3.96	-1.84	+1.77
11	2.81	-1.59	+6.0
12	7.23	-1.94	+3.13
12A	2.87	-1.90	-1.90
13	7.46	-1.43	+1.57
16	4.39	-1.38	+1.18
19	.96	+6.8	+5.0
23	4.49	(b)	-3.79
28	2.44	-1.38	+1.96

1 (#886, p. 164; 908, p. 133; #938, p. 116; 946, p. 133). R. T. Beatty. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 24 S., R. 36 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	8.66	Apr. 20	9.06	July 23	9.88	Nov. 6	10.68
Feb. 22	8.96	May 3	9.23	Sept. 10	12.13	Dec. 4	10.47
Mar. 23	8.87	June 12	9.47	Oct. 2	10.63		

2 (#886, p. 164; 908, p. 133; #938, p. 116; 946, p. 133). C. E. Worthen. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 24 S., R. 36 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	54.67	Apr. 20	55.43	July 15	52.70	Oct. 2	55.58
Feb. 22	54.15	May 3	53.35	Aug. 12	53.85	Nov. 6	56.5
Mar. 23	55.62	June 12	53.41	Sept. 10	55.71	Dec. 4	50.39

3 (#886, p. 164; 908, p. 133; #938, p. 116; 946, p. 133). F. G. Worthen. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 23 S., R. 36 W. Measuring point is 0.6 foot above land-surface datum. Measurements discontinued after July 15, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	93.28	Mar. 23	93.22	May 3	93.28	July 15	93.14
Feb. 22	93.19	Apr. 20	93.26	June 12	93.18		

7 (#886, p. 164; 908, p. 134; #938, p. 117; 946, p. 134). C. H. Browne. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 25 S., R. 37 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	50.72	Apr. 3	51.00	July 3	50.68	Oct. 2	52.03
Feb. 6	50.96	May 1	51.03	Aug. 8	51.06	Nov. 6	51.81
Mar. 6	50.91	June 4	50.77	Sept. 11	51.72	Dec. 4	51.60

11 (#886, p. 165; 908, p. 134; #938, p. 117; 946, p. 134). P. J. Fichter. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 25 S., R. 36 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.08	Apr. 3	13.23	July 15	12.71	Oct. 2	13.33
Feb. 22	13.13	May 3	13.38	Aug. 12	12.93	Nov. 6	13.46
Mar. 23	13.26	June 12	12.61	Sept. 10	13.19	Dec. 4	13.58

a Between last measurement in 1942 and last measurement in 1943.

b Record for 1943 incomplete.

12 (#886, p. 165; 908, p. 134; #938, p. 117; 946, p. 134). J. E. Beymer. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 24 S., R. 35 W. Measurements discontinued after Dec. 31, 1942. (See well 12A.)

12A. J. E. Beymer. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 24 S., R. 35 W. Third south well of battery of 6 wells (well 12 is second south well of same battery). Dug and drilled irrigation well, diameter 15 inches, depth 47.0 feet. Equipped with centrifugal pump. Measuring point, top of concrete wall at west side, 0.6 foot above land-surface datum, which is level with land-surface datum of well 12.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.19	Apr. 3	9.34	July 15	9.09	Oct. 9	10.98
Feb. 22	9.14	May 3	9.38	Aug. 12	9.75	Nov. 6	11.09
Mar. 23	9.33	June 12	8.22	Sept. 10	10.38		

13 (#886, p. 165; 908, p. 134; #938, p. 117; 946, p. 134). D. S. Nicholson. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 25 S., R. 37 W. Measuring point is 0.4 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 2	5.02	Apr. 3	5.82	July 3	5.85	Oct. 2	7.52
Feb. 6	5.62	May 1	5.85	Aug. 8	6.47	Nov. 6	7.69
Mar. 6	5.75	June 4	6.00	Sept. 11	7.20	Dec. 4	6.99

16 (#886, p. 165; #908, p. 134; 938, p. 118; 946, p. 134). C. B. Campbell. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 23 S., R. 35 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	43.95	Apr. 20	43.66	July 15	43.42	Oct. 1	43.88
Feb. 22	43.61	May 3	43.68	Aug. 12	43.51	Nov. 5	43.98
Mar. 23	43.65	June 12	43.62	Sept. 3	43.76	Dec. 4	44.30

19 (#886, p. 165; 908, p. 135; #938, p. 118; 946, p. 135). E. M. Beymer. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 26 S., R. 38 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	131.09	Apr. 20	130.96	July 15	130.88	Oct. 26	131.33
Feb. 22	131.11	May 3	130.94	Aug. 12	130.86	Nov. 16	131.11
Mar. 23	131.16	June 12	130.97	Sept. 24	131.30	Dec. 3	130.37

23 (#886, p. 166; 908, p. 135; #938, p. 118; 946, p. 135). James Coghill. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 26 S., R. 37 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 7	174.56	Mar. 23	174.61	May 3	174.59	Aug. 12	177.30
Feb. 22	174.58	Apr. 20	174.65	June 12	174.61	Oct. 26	178.42

26 (#886, p. 166; 908, p. 135; #938, p. 118; 946, p. 135). Anna Davidson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 26 S., R. 37 W. Measuring point is 0.4 foot above land-surface datum. Measurements discontinued after June 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 7	85.96	Mar. 23	85.97	May 3	85.98
Feb. 22	85.94	Apr. 20	85.91	June 12	86.00

28 (#886, p. 166; 908, p. 135; #938, p. 118; 946, p. 135). Harry Tate. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 22 S., R. 37 W. Measuring point is 0.5 foot above land-surface datum.

## 28. Harry Tate--Continued.

Water level, in feet below land-surface datum, 1943					
Date	Water level	Date	Water level	Date	Water level
Jan. 7	121.46	Apr. 20	121.59	July 15	121.78
Feb. 22	121.66	May 3	121.60	Aug. 12	121.58
Mar. 23	121.63	June 12	121.63	Sept. 3	121.52
				Oct. 1	121.52
				Nov. 5	121.41
				Dec. 4	121.81

## Kiowa County

By B. F. Latta

Highest and lowest recorded water levels in 5 wells in Kiowa County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
4	3	75.37	Oct. 6, 1943	76.07	Aug. 20, 1943
5	3	39.85	Aug. 20, 1943	42.46	July 21, 1943
7	3	31.33	June 23, 1943	32.51	Mar. 22, 1941
8	3	25.38	Dec. 8, 1943	26.62	Apr. 28, 1941
10	3	104.86	Dec. 8, 1943	106.77	Oct. 24, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 5 wells in Kiowa County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a</sup>	Net rise for period of record
4	0.70	+0.21	0.14
5	2.61	+31	.36
7	1.18	-.03	.83
8	1.24	+35	.58
10	1.91	+36	1.91

2 (\*938, p. 119; 946, p. 136). D. McLaughlin. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 29 S., R. 20 W. Measurements discontinued after Sept. 28, 1942.

4 (\*908, p. 137; 938, p. 119; 946, p. 136). H. E. Davis. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 28 S., R. 16 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	75.73	Apr. 28	75.59	Aug. 20	76.07	Nov. 4	75.39
Feb. 17	75.69	June 24	75.48	Sept. 10	75.52	Dec. 8	75.38
Mar. 24	75.62	July 21	75.70	Oct. 6	75.37		

5 (\*908, p. 137; 938, pp. 119-120; 946, p. 136). L. W. Grimes. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 27 S., R. 17 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	41.03	Apr. 28	40.89	Aug. 20	39.85	Nov. 4	40.72
Feb. 17	41.00	June 24	40.78	Sept. 10	41.02	Dec. 8	40.67
Mar. 24	40.92	July 21	42.46	Oct. 6	40.71		

7 (\*908, p. 137; 938, p. 120; 946, p. 136). A. C. Weaver. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 27 S., R. 18 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	31.39	Apr. 28	31.36	Aug. 20	31.48	Nov. 5	31.36
Feb. 18	31.41	June 23	31.33	Sept. 10	31.44	Dec. 8	31.42
Mar. 24	31.39	July 21	31.49	Oct. 6	31.42		

a For the period Dec. 18, 1942, to Dec. 8, 1943.

8 (\*908, p. 137; 938, p. 120; 946, p. 136). E. E. Miller. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 27 S., R. 18 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	25.72	Apr. 28	25.76	Aug. 20	25.97	Nov. 5	25.69
Feb. 18	25.75	June 23	25.81	Oct. 6	25.81	Dec. 8	25.38
Mar. 24	25.82	July 21	25.90				

10 (\*908, p. 137; 938, p. 120; 946, p. 136). J. E. Ely. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 30 S., R. 18 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	105.18	Apr. 28	105.58	Sept. 10	105.13	Nov. 5	105.43
Feb. 18	105.59	June 23	105.61	Oct. 6	105.42	Dec. 8	104.86
Mar. 24	105.62						

### Labette County

By C. C. Williams

1 (\*946, p. 137). J. Ballah; formerly owned by Ralph A. Grove. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 31 S., R. 21 E. Measuring point is 3.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	8.88	July 16	9.00	Sept. 16	12.82	Nov. 15	12.52
June 2	5.25	Aug. 1	10.55	Oct. 2	12.81	Dec. 1	13.11
16	4.74	16	11.75	17	12.93	15	13.30
July 1	3.30	Sept. 1	12.60	Nov. 1	12.46		

2. C. Givens. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 31 S., R. 21 E. Abandoned domestic supply well, diameter  $1\frac{1}{2}$  inches, depth 15.3 feet below land surface. Measuring point, top of  $1\frac{1}{2}$ -inch pipe, 2.3 feet above land-surface datum and 834.04 feet above sea level.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Oct. 12, 1942	2.27	Aug. 1, 1943	8.40	Oct. 17, 1943	13.62
June 2, 1943	1.75	16	11.20	Nov. 1	12.25
16	1.50	Sept. 1	12.45	15	12.23
July 1	1.60	16	12.75	Dec. 1	12.06
16	6.40	Oct. 2	12.67	15	12.00

3. B. H. Foster. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 31 S., R. 21 E. Abandoned domestic well, diameter  $1\frac{1}{2}$  inches, depth 19.2 feet below land surface. Measuring point, top of pitcher pump, plunger removed, 0.8 foot above top of  $1\frac{1}{2}$ -inch pipe, 4.2 feet above land-surface datum and 832.21 feet above sea level.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Oct. 12, 1942	2.96	Aug. 1, 1943	6.40	Oct. 17, 1943	9.80
June 2, 1943	2.00	16	7.90	Nov. 1	9.06
16	1.56	Sept. 1	9.30	15	9.61
July 1	1.80	16	10.08	Dec. 1	9.80
16	4.20	Oct. 2	10.47	15	9.36

4. Roy Schierenberg. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 32 S., R. 21 E. Abandoned domestic well, diameter  $1\frac{1}{2}$  inches, depth 14.9 feet below land surface. Measuring point, top of pitcher-pump base, on inside edge, on  $1\frac{1}{2}$ -inch pipe 2.0 feet above land-surface datum and 829.93 feet above sea level.

## 4. Roy Schierenberg--Continued.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Oct. 15, 1942	9.14	Aug. 1, 1943	9.90	Oct. 17, 1943	11.83
June 2, 1943	4.64	16	10.20	Nov. 1	11.78
16	5.70	Sept. 1	11.20	15	11.83
July 1	5.50	16	11.63	Dec. 1	11.96
16	7.40	Oct. 2	11.93	15	11.02

## Logan County

By S. W. Lohman

Highest and lowest recorded water levels in 4 wells in Logan County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	1	96.56	Apr. 12, 1943	97.43	Oct. 21, 1943
2	1	59.66	Mar. 19, 1943	60.14	Nov. 11, 1943
3 a/	.5	80.49	May 5, 1943	81.45	Oct. 7, 1942
4	1	33.48	Nov. 23, 1943	34.85	Aug. 6, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 4 wells in Logan County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
1	0.87	-0.19	-0.07
2	.48	-.32	-.37
3	.96	+.11	+.20
4	.97	+.16	+.11

1 (\*946, p. 138). Octon Estate. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 11 S., R. 32 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	97.08	Apr. 12	96.56	July 3	97.11	Oct. 21	97.43
Feb. 11	97.07	May 5	96.69	Aug. 6	97.25	Nov. 11	97.38
Mar. 19	97.06	June 8	96.98	Sept. 16	97.41	23	97.29

2 (\*946, p. 138). J. J. Schultz. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 11 S., R. 32 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	59.89	Apr. 12	59.88	July 3	59.98	Oct. 21	60.10
Feb. 11	59.86	May 5	59.85	Aug. 6	(c)	Nov. 11	60.14
Mar. 19	59.66	June 8	59.92	Sept. 16	60.11	23	(c)

3 (\*946, p. 138). Mamie L. Landon. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 12 S., R. 32 W. Measuring point is 0.7 foot above land-surface datum. Measurements discontinued after June 8, 1943.

a Discontinued after June 8, 1943.

b Between last measurement in 1942 and last measurement in 1943.

c Pumping.

## 3. Mamie L. Landon--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 11	80.65	Mar. 19	80.58	May 5	80.49
Feb. 11	80.63	Apr. 12	80.54	June 8	80.55

4 (#946, p. 138). L. L. Garrison Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 13 S., R. 32 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	33.65	Apr. 12	33.62	July 3	33.58	Oct. 21	33.61
Feb. 11	33.64	May 5	33.59	Aug. 6	34.85	Nov. 11	33.59
Mar. 19	33.63	June 8	33.57	Sept. 16	33.68	23	33.48

## McPherson County

By C. C. Williams and G. H. von Hein

Highest and lowest recorded water levels in 10 wells in McPherson County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
19	5	68.40	Aug. 11, 1939	70.81	Sept. 28, 1943
243	6	82.09	Sept. 2, 1938	83.09	Oct. 28, 1937
249	6	25.72	Oct. 1, 1942	a 36.13	Apr. 2, 1940
250	6	37.54	July 20, 1943	a 45.87	July 29, 1938
260	6	21.18	Oct. 1, 1942	27.85	Nov. 4, 1937
262	6	22.42	Oct. 1, 1942	b 41.35	Nov. 2, 1938
309	6	24.70	Dec. 2, 1942	37.26	Mar. 26, 1938
310	6	8.24	Jan. 14, 1943	19.39	Nov. 4, 1937
			July 20, 1943		
311	6	8.87	Jan. 14, 1943	13.06	Dec. 31, 1939
1501a	.5	27.03	Dec. 20, 1943	32.90	Dec. 2, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 10 wells in McPherson County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 c/	Net rise (+) or net decline (-) for period of record
19	2.41	-0.58	-2.21
243	1.00	-.13	+.08
249	10.41	-4.37	+1.31
250	8.33	+.77	+4.66
260	6.67	-3.59	+2.48
262	18.93	-3.57	+3.57
309	12.56	-2.48	+9.56
310	11.15	+.06	+10.96
311	4.19	-1.52	+1.24
1501a	5.87	(d)	+.43

a Measured after well had been pumped.

b Measured while pumping.

c Between last measurement in 1942 and last measurement in 1943.

d Record for 1943 incomplete.

19 (\*840, p. 103; 845, p. 123; 886, p. 214; 908, p. 139; 938, p. 121; 946, p. 139). Scott Montgomery. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 19 S., R. 3 W. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after Sept. 28, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 14, 70.18; Apr. 5, 70.13; July 20, 70.38; Sept. 28, 71.81.

243 (\*840, p. 104; 845, p. 123; 886, p. 214; 908, p. 139; 938, p. 121; 946, p. 139). Emma Bergstrom. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 19 S., R. 3 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 14	82.86	July 20	82.92	Dec. 20	83.01
Apr. 5	82.93	Sept. 28	82.95		

249 (\*840, p. 104; 845, p. 123; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139). Prudential Life Insurance Co. SE. corner sec. 5, T. 18 S., R. 3 W. Measuring point beginning Sept. 28, 1943, top edge of opening in wooden well platform, 2.40 feet below former measuring point, 1.6 feet above land surface and about 1,455 feet above sea level.

Water level, in feet below land-surface datum, 1943

Jan. 14	28.07	July 20	28.66	Dec. 20	b 32.38
Apr. 5	28.90	Sept. 28	ab 31.69		

250 (\*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139). John Weed. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 19 S., R. 4 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 14	38.46	July 20	37.54	Dec. 20	38.04
Apr. 5	38.21	Sept. 28	37.83		

260 (\*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139). John Rawson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 33, T. 17 S., R. 4 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 14	22.12	July 20	23.52	Dec. 20	25.37
Apr. 5	22.62	Sept. 28	24.75		

262 (\*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139). P. A. Olsen. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 18 S., R. 5 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 14	23.98	July 20	24.95	Dec. 20	26.51
Apr. 5	25.87	Sept. 28	25.68		

309 (\*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 122; \*946, p. 139). Mrs. Ida Tuxhorn. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 21 S., R. 4 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	25.34	Apr. 5	25.87	Sept. 2	25.63	Oct. 30	26.18
Feb. 2	25.35	28	25.93	28	26.13	Dec. 2	27.18
Mar. 2	25.88	Aug. 2	24.83				

310 (\*845, p. 125; 886, p. 216; 908, p. 140; 938, p. 122; 946, p. 139). City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 21 S., R. 2 W. Measuring point is level with land-surface datum.

a New measuring point beginning this date.

b Well pumping.



## 310. City of Moundridge--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 14	8.24	July 20	8.24	Dec. 20	8.35
Apr. 5	8.29	Sept. 28	8.53		

311 (\*845, p. 125; 886, p. 216; 908, p. 140; 938, p. 122; 946, p. 140).  
City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 21 S., R. 2 W. Measuring point  
is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 14	8.87	July 20	9.61	Dec. 20	10.96
Apr. 5	9.97	Sept. 28	11.39		

1501a. City of Moundridge. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 21 S., R. 2 W.  
Drilled municipal-supply well, diameter 24 inches, reported depth 106 feet.  
Measuring point, top of opening in concrete pump base at draw-down gage,  
1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 29	27.50	Sept. 2	27.46	Oct. 30	28.76	Dec. 6	27.22
Aug. 2	27.68	28	28.70	Dec. 2	a 32.93	20	27.06

## Meade County

By S. W. Lohman and L. C. Menzie

Highest and lowest recorded water levels in 13 wells in Meade County,  
in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
2	4.5	19.47	May 12, 1942	21.68	Sept. 29, 1939
10	4.5	13.10	June 10, 1941	18.91	Aug. 3, 1939
27	4.5	17.04	Mar. 17, 1943	19.64	Oct. 29, 1939
33	4.5	37.33	Nov. 23, 1942	38.75	Nov. 3, 1943
34	4.5	146.52	May 12, 1942	150.39	Oct. 29, 1939
36	4.5	156.57	Jan. 21, 1941	159.96	Sept. 20, 1940
45	4.5	2.24	July 1, 1942	4.10	Aug. 31, 1939
55	4.5	84.87	Sept. 30, 1930	85.92	Sept. 20, 1940
61	4.5	59.99	Sept. 9, 1943	60.77	May 17, 1940
76 b/	4.5	26.10	Sept. 1, 1939	36.73	July 19, 1943
77	4.5	62.58	Feb. 19, 1943	67.12	Sept. 9, 1943
88	4.5	41.95	May 12, 1942	46.20	July 1, 1942
234	4.5	13.32	June 20, 1943	c 15.52	Aug. 31, 1939

Difference between highest and lowest recorded water levels and net  
change in water level, in feet, in 1943 and for period of record,  
in 13 wells in Meade County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 d/	Net rise (+) or net decline (-) for period of record
2	2.21	-1.51	+0.03
10	5.81	-.46	+3.71
27	2.60	-.15	+1.12
33	1.42	-.45	-.21
34	3.87	+1.18	-.09
36	3.39	-.82	+3.36

a Nearby well pumping.

b Measurements discontinued after July 1943.

c Unaffected by nearby pumping.

d Between last measurement in 1942 and last measurement in 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 13 wells in Meade County--Continued.

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
45	1.86	-0.95	-0.03
55	1.05	-.22	+.12
61	.78	+.19	+.53
76	10.63	(b)	-6.86
77	4.54	-.60	-.10
88	4.25	-1.33	+.35
234	2.20	-.41	+1.64

2 (\*886, p. 175; 908, p. 143; 938, p. 123; 946, p. 141). W. A. Ellison. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 30 S., R. 26 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	19.55	Apr. 27	20.32	July 20	20.68	Oct. 4	21.06
Feb. 18	19.55	May 26	19.94	Aug. 19	21.56	Nov. 2	21.06
Mar. 17	19.56	June 26	19.86	Sept. 9	21.50	6	20.87

10 (\*886, p. 176; 906, p. 143; 938, p. 124; 946, p. 141). Fred Borchers. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 33 S., R. 28 E. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	14.09	May 26	13.89	Aug. 18	14.67	Nov. 3	14.52
Mar. 17	13.86	June 25	13.94	Sept. 9	14.76	7	14.44
Apr. 27	13.82	July 19	14.38	Oct. 5	14.74		

27 (\*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 141). Ira C. Rees. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 30 S., R. 26 W. Measuring point is 0.9 foot above land-surface datum and 1.1 feet below measuring point in use before Jan. 6, 1942.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	17.08	Apr. 27	17.08	July 20	17.29	Oct. 4	17.29
Feb. 18	17.07	May 26	17.13	Aug. 19	17.27	Nov. 2	17.32
Mar. 17	17.04	June 26	17.16	Sept. 9	17.32	6	17.34

33 (\*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142). W. L. Woodruff. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 33 S., R. 26 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	37.38	Apr. 27	37.41	Sept. 9	37.92	Nov. 7	37.80
Mar. 17	37.43	June 25	37.44	Nov. 3	38.75		

34 (\*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142). District school. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 33 S., R. 27 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	147.0	June 25	146.94	Sept. 9	146.97	Nov. 3	147.15
Mar. 17	146.99	July 19	146.86	Oct. 5	147.16	7	146.77
Apr. 27	146.96						

36 (\*886, p. 177; 908, p. 143; 938, p. 124; 946, p. 142). Tony Steinke. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 32 S., R. 27 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	157.27	June 25	157.11	Sept. 9	157.29	Nov. 2	157.38
Mar. 17	157.04	July 19	157.06	Oct. 4	157.29	6	157.95
Apr. 27	156.99	Aug. 18	157.16				

40 (\*886, p. 177; 908, p. 144; 938, p. 124; 946, p. 142). J. A. and D. F. Collingwood. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 31 S., R. 29 W. Measurements discontinued after Oct. 21, 1942.

42 (\*886, p. 177; 908, p. 144; 938, p. 125; 946, p. 142). H. Jenkinson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 30 S., R. 29 W. Measurements discontinued after Nov. 23, 1942.

a Between last measurement in 1942 and last measurement in 1943.

b Record for 1943 incomplete.

45 (\*886, p. 177; 908, p. 144; 938, p. 125; 946, p. 142). Joseph Rooke. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 30 S., R. 27 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	2.51	Apr. 27	2.49	July 20	2.76	Oct. 4	2.79
Feb. 18	2.50	May 26	2.51	Aug. 19	3.18	Nov. 2	3.04
Mar. 17	2.52	June 26	2.62	Sept. 9	3.07	6	3.40

55 (\*886, p. 178; 908, p. 144; 938, p. 125; 946, p. 142). G. W. Farris. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 30 S., R. 28 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	85.45	Apr. 27	85.41	July 19	85.38	Oct. 4	85.76
Feb. 19	85.47	May 26	85.44	Aug. 18	85.47	Nov. 6	85.65
Mar. 17	85.49	June 26	85.45	Sept. 9	85.47		

61 (\*886, p. 178; 908, p. 144; 938, p. 125; 946, p. 143). John Meyer. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 31 S., R. 27 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	60.14	July 19	60.01	Sept. 9	59.99	Nov. 2	60.01
Mar. 17	60.16	Aug. 18	60.00	Oct. 4	60.02	Dec. 6	60.03
June 25	60.04						

76 (\*886, p. 176; 908, p. 143; 938, p. 125; 946, p. 143). R. L. L. Barnstable. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 34 S., R. 28 W. Measuring point is 1.6 feet above land-surface datum. Measurements discontinued after July 19, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 19	35.69	Apr. 27	35.32	June 25	35.49
Mar. 17	35.95	May 26	35.56	July 19	36.73

77 (\*886, p. 178; 908, p. 145; 938, p. 126; 946, p. 143). J. W. Wood. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 32 S., R. 28 W. Measuring point is 2.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	62.67	Apr. 27	62.83	July 19	63.39	Oct. 5	63.40
Feb. 19	62.58	May 26	62.79	Aug. 18	63.57	Nov. 3	63.22
Mar. 17	62.63	June 26	62.75	Sept. 9	67.12		

88 (\*886, p. 179; 908, p. 145; 938, p. 126; 946, p. 143). H. V. Gulick. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 31 S., R. 28 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	42.81	May 26	42.31	July 20	43.67	Nov. 2	44.09
Apr. 27	42.26	June 26	42.44	Sept. 9	44.52		

234 (\*886, p. 279; 908, p. 145; 938, p. 126; 946, pp. 143-144). Christopher Sobba. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 30 S., R. 27 W. Measuring point is 0.2 foot above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.48	.....	13.50	13.44	14.22	13.48	13.42	14.30	(a)	13.73	13.83	13.90
2	13.45	.....	13.50	13.45	13.92	13.53	13.40	14.28	(a)	13.72	13.83	13.90
3	13.52	.....	13.43	13.45	13.86	13.53	13.42	14.22	16.56	13.73	13.83	13.90
4	13.55	.....	13.45	13.53	13.79	13.55	13.44	14.24	14.45	13.73	13.80	13.89
5	13.57	.....	13.47	13.54	13.71	13.59	13.48	14.17	14.32	13.74	13.77	13.87

a Nearby irrigation well pumping.

## 234. Christopher Sobba--Continued.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	13.50	.....	13.48	13.50	13.71	13.59	13.50	14.13	14.26	13.74	13.83	13.89
7	13.53	.....	.....	13.51	13.71	13.57	13.53	14.07	14.20	13.75	13.85	13.88
8	13.52	.....	.....	13.49	13.71	13.52	13.56	14.01	14.17	13.71	13.85	13.85
9	.....	.....	.....	13.48	13.70	13.50	13.57	13.96	14.12	13.71	13.86	13.86
10	.....	.....	.....	13.48	13.67	13.47	13.58	13.91	14.00	13.72	13.86	13.86
11	.....	.....	.....	13.48	13.68	13.45	13.59	13.85	13.98	13.71	13.85	13.83
12	.....	al3.44	13.50	13.72	13.45	13.63	13.81	13.97	13.71	13.87	13.85	13.85
13	.....	.....	13.48	13.51	13.72	13.45	13.67	13.85	13.98	13.73	13.86	13.84
14	.....	al3.46	13.46	13.52	13.70	13.43	13.69	13.88	13.96	13.75	13.84	13.90
15	.....	.....	13.46	13.51	.....	13.43	13.64	13.85	13.91	13.76	13.86	13.89
16	.....	.....	13.48	13.55	.....	13.40	13.62	13.88	13.92	13.76	13.86	13.89
17	.....	.....	13.48	13.56	13.65	13.40	13.65	14.09	13.91	13.81	13.84	13.89
18	.....	.....	13.45	13.53	13.65	13.35	13.64	13.94	13.89	13.81	13.84	13.87
19	.....	.....	13.49	13.53	13.65	13.37	13.61	13.94	13.92	13.81	13.87	13.88
20	.....	.....	13.52	13.48	13.65	13.32	(b)	13.95	13.92	13.87	13.86	13.88
21	.....	13.40	13.54	13.45	13.66	13.33	(b)	13.96	13.89	13.91	13.88	13.85
22	.....	13.45	13.52	13.47	13.64	13.34	(b)	13.95	13.90	13.89	13.88	13.87
23	.....	13.48	13.50	13.49	13.61	13.35	al8.70	13.97	13.92	13.86	13.88	13.88
24	.....	13.48	13.48	13.46	13.56	13.39	(b)	14.03	13.83	13.87	13.88	13.87
25	.....	13.51	13.47	13.49	13.56	13.41	(b)	14.12	13.79	13.88	13.88	13.85
26	.....	13.50	13.45	13.49	13.52	13.43	(b)	14.16	13.79	13.86	13.88	13.89
27	.....	13.44	13.44	13.56	13.50	13.42	(b)	14.15	13.77	13.84	13.89	13.89
28	.....	13.49	13.43	bl5.50	13.49	13.41	(b)	14.15	13.75	13.80	13.89	13.89
29	.....	.....	13.43	bl8.04	13.49	13.42	15.50	14.11	13.75	13.79	13.87	13.88
30	.....	.....	13.42	15.70	13.46	13.42	14.57	(b)	13.74	13.78	13.85	13.88
31	.....	.....	13.44	.....	13.46	.....	14.54	(b)	.....	13.88	.....	13.88

Morton County

By L. C. Menzie

Highest and lowest recorded water levels in 5 wells in Morton County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
22	4.5	72.95	Aug. 28, 1943	75.45	Jan. 6, 1941
			Sept. 24, 1943		
65	4.5	52.45	Aug. 19, 1942	53.75	Mar. 13, 1941
			Nov. 12, 1942		
93 c/	4.5	157.23	Jan. 5, 1943	158.64	Oct. 27, 1939
114	4.5	225.62	Aug. 25, 1939	228.40	Oct. 26, 1943
117	4.5	165.06	May 11, 1943	166.48	Aug. 28, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 5 wells in Morton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 d/	Net rise (+) or net decline (-) for period of record
22	2.50	+0.52	+0.44
65	1.30	-.20	+.43
93	1.41	(e)	+1.19
114	2.78	-.03	-.03
117	1.42	-.31	+.61

a Wetted-tape measurement.

b Nearby irrigation well pumping.

c Measurements discontinued after Mar. 11, 1943.

d Between last measurement in 1942 and last measurement in 1943.

e Record for 1943 incomplete.

22 (\*886, p. 181; 908, p. 148; 938, p. 127; 946, p. 145). A. E. Wilcox. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 31 S., R. 43 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	73.38	Apr. 23	73.46	July 5	73.24	Oct. 26	73.04
Feb. 4	73.43	May 11	73.43	Aug. 28	72.95	Nov. 16	73.11
Mar. 11	73.48	June 14	73.41	Sept. 24	72.95		

54 (\*886, p. 181; 908, p. 149; 938, p. 127; 946, p. 145). V. W. Dickinson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 33 S., R. 40 W. Measurements discontinued after Dec. 10, 1942.

65 (\*886, p. 181; 908, p. 149; 938, p. 127; 946, p. 145). John Hentschel. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 33 S., R. 42 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	52.58	Apr. 23	52.78	July 5	52.84	Oct. 26	52.75
Feb. 4	52.63	May 11	52.73	Aug. 28	52.75	Nov. 16	52.76
Mar. 11	52.69	June 14	52.69	Sept. 24	52.74		

93 (\*886, p. 182; 908, p. 149; 938, p. 127; 946, p. 145). Ira Webb. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 34 S., R. 41 W. Measuring point is 1.5 feet above land-surface datum. Measurements discontinued after Mar. 11, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 5, 157.23; Feb. 4, 157.27; Mar. 11, 157.26.

114 (\*886, p. 183; 908, p. 150; 938, p. 128; 946, p. 145). J. L. Kniffen. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 35 S., R. 41 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	225.88	Apr. 23	225.89	June 14	225.84	Oct. 26	228.40
Feb. 4	225.90	May 11	225.86	Sept. 24	227.37	Nov. 16	225.91

117 (\*886, p. 183; 908, p. 150; 938, p. 128; 946, p. 145). W. C. Washburn. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 34 S., R. 42 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	165.12	Mar. 11	165.10	May 11	165.06	Aug. 28	166.48
Feb. 4	165.30	Apr. 23	165.29	June 14	165.14	Oct. 26	165.58

### Ness County

By L. C. Menzie

Highest and lowest recorded water levels in 2 wells in Ness County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	3	33.16	June 6, 1941	34.91	Aug. 27, 1940
2	3	24.26	Aug. 2, 1941	25.85	Nov. 8, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 2 wells in Ness County

Well	Difference between highest and lowest levels	Net decline in 1943 a/	Net rise (+) or net decline (-) for period of record
1	1.75	0.23	+0.28
2	1.59	.80	-3.05

a For the period Dec. 14, 1942, through Dec. 20, 1943.

1 (\*908, p. 181; 938, p. 128; 946, p. 146). J. E. Ficken. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 20 S., R. 23 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	34.42	Apr. 21	34.39	Aug. 3	34.27	Nov. 8	34.49
Feb. 18	34.39	June 1	34.54	Sept. 13	34.37	Dec. 20	34.63
Mar. 23	34.37	July 13	34.32	Oct. 11	34.40		

2 (\*908, p. 151; 938, p. 123, p. 123; 946, p. 146). G. L. Whitley. SW. corner sec. 20, T. 20 S., R. 22 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	24.70	Apr. 21	24.63	Aug. 3	25.41	Nov. 8	25.85
Feb. 18	24.65	June 1	25.37	Sept. 13	25.66	Dec. 20	25.55
Mar. 23	24.62	July 13	24.53	Oct. 11	25.74		

### Pawnee County

By L. C. Menzie

Highest and lowest recorded water levels in 3 wells in Pawnee County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
6	3	22.02	Nov. 24, 1942	24.02	Nov. 28, 1940
7	3	25.18	Nov. 24, 1942	27.62	Dec. 20, 1943
8	3	13.42	Apr. 22, 1943	18.32	Sept. 20, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 3 wells in Pawnee County

Well	Difference between highest, and lowest levels	Net decline in 1943 a/	Net rise (+) or net decline (-) for period of record
6	2.00	0.09	+1.08
7	2.44	2.42	-.12
8	4.90	1.19	+2.92

6 (\*908, p. 151; 938, p. 129; 946, p. 146). Frank Elmore. SW. corner sec. 27, T. 21 S., R. 19 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	22.32	Apr. 23	22.05	July 13	23.22	Oct. 11	22.78
Feb. 19	22.33	May 21	22.49	Aug. 3	23.82	Nov. 8	22.63
Mar. 25	22.74	June 1	22.40	Sept. 14	22.62	Dec. 20	22.51

7 (\*908, p. 151; 938, p. 129; 946, p. 147). Ralph Lupfer. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 22 S., R. 17 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	25.20	June 1	25.77	Sept. 14	26.20	Nov. 8	27.33
Feb. 19	25.24	July 13	26.16	Oct. 11	27.21	Dec. 20	27.62
Mar. 25	25.22	Aug. 4	26.32				

8 (\*908, p. 151; 938, p. 129; 946, p. 147). F. B. Reed. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 22 S., R. 16 W. Measuring point is 1.5 feet above land-surface datum.

a For the period Dec. 15, 1942, through Dec. 20, 1943.

## 8. F. B. Reed--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	13.55	Apr. 22	13.42	July 13	14.74	Nov. 8	14.88
Feb. 19	13.44	May 21	13.58	Sept. 14	15.17	Dec. 20	14.87
Mar. 25	13.43	June 1	14.38	Oct. 11	15.32		

Republic County

By V. C. Fishel

Highest and lowest recorded water levels in 9 wells in Republic County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
40	2	33.90	Apr. 25, 1943	35.46	Sept. 6, 1942
95	2	44.99	June 25, 1943		
158	2	14.58	June 11, 1942	45.50	Oct. 27, 1942
172	2	.90	Aug. 25, 1943	15.97	Feb. 25, 1943
			June 12, 1943	7.98	Oct. 31 to Nov. 5, 1943
188	2	15.60	May 25, 1943	18.40	Nov. 25, 1943
202	2	33.50	Aug. 3, 1943	35.75	Aug. 29, 1943
204 <sup>a</sup>	1	37.45	Feb. 23, 1943	37.65	Aug. 24, 1942
209	2	31.73	Aug. 30, 1943	33.60	Oct. 31, 1943
230	2	4.78	Sept. 25, 1942	9.25	Dec. 26, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 9 wells in Republic County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>b</sup>	Net rise (+) or net decline (-) for period of record
40	1.56	+0.10	+1.26
95	.51	+.04	-.33
158	1.39	-.02	-.53
172	7.08	-1.14	-1.39
188	2.80	+1.10	+.72
202	2.25	+.02	+.07
204	.20	(c)	+.14
209	1.87	-.72	-.07
230	4.47	-1.47	-2.80

40 (#946, p. 148). City of Republic. S. 24 NW 1/4 sec. 31, T. 1 S., R. 4 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	34.40	May 25	34.30	July 25	34.80	Sept. 25	34.00
Mar. 25	34.30	June 25	33.90	Aug. 25	34.00	Dec. 25	34.20
Apr. 25	33.90						

95 (#946, p. 148). H. E. Nixon. SW 1/4 NW 1/4 sec. 14, T. 2 S., R. 3 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 20	45.16	May 25	45.28	Aug. 24	45.32
Apr. 27	45.34	July 25	45.12	Sept. 27	45.32

<sup>a</sup> Measurements discontinued Apr. 22, 1943.<sup>b</sup> Between last measurement in 1942 and last measurement in 1943.<sup>c</sup> Record for 1943 incomplete.

158 (\*946, p. 148). A. J. Dickerman. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 3 S., R. 4 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	15.78	Apr. 25	15.80	July 25	15.51	Oct. 25	15.45
Feb. 25	15.97	May 25	15.67	Aug. 25	14.58	Nov. 25	14.90
Mar. 25	15.82	June 25	14.60	Sept. 25	15.15	Dec. 25	15.42

172 (\*946, p. 148). City of Scandia. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 3 S., R. 4 W. Measuring point is 2.7 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.25	6.21	6.52	6.69	6.40	6.87	6.11	7.18	....	....	7.98	7.74
2	6.18	6.21	6.54	6.72	6.42	6.90	6.19	....	....	....	7.98	7.73
3	6.13	6.13	6.60	6.73	6.47	6.92	6.26	....	....	7.78	7.98	7.72
4	....	5.99	6.65	6.74	6.51	6.92	6.31	....	....	7.78	7.98	7.71
5	....	5.60	6.68	6.76	6.53	6.81	6.31	....	....	7.79	7.98	7.70
6	....	5.86	6.68	6.78	....	6.73	6.17	....	7.77	7.79	7.97	7.69
7	....	6.05	6.68	6.79	6.30	6.73	6.05	....	7.79	7.79	7.97	7.67
8	....	6.15	6.66	6.80	6.46	5.60	6.04	7.37	7.79	7.79	7.97	7.66
9	....	6.22	6.69	6.80	6.52	5.76	6.17	7.39	7.79	7.79	7.97	7.65
10	....	6.29	6.71	6.80	6.60	5.69	6.27	7.41	7.78	7.79	7.96	7.64
11	....	6.31	6.71	5.36	6.65	5.62	6.36	7.43	7.75	....	7.96	7.62
12	....	6.28	6.71	5.10	6.69	.90	....	7.45	7.75	....	7.94	7.61
13	....	6.19	6.70	3.98	6.72	2.15	....	7.46	7.65	....	7.93	7.60
14	....	6.34	6.69	4.02	6.74	3.10	....	7.47	7.65	....	7.92	7.59
15	....	6.39	6.66	4.20	6.74	3.68	....	7.50	7.65	....	7.91	7.58
16	....	6.42	6.59	4.56	6.71	4.33	....	7.40	7.65	....	7.90	7.58
17	....	6.47	6.49	4.96	6.63	4.34	....	7.41	7.66	7.92	7.97	7.57
18	....	6.50	6.49	5.40	6.66	4.34	6.71	7.44	7.68	7.92	7.89	7.56
19	6.24	6.52	6.49	5.59	6.69	4.34	....	7.45	7.69	7.92	7.87	7.55
20	6.24	6.52	6.55	5.72	6.72	4.34	....	7.46	....	7.92	7.86	7.54
21	6.23	6.46	6.60	5.82	6.74	4.62	....	7.49	....	7.93	7.85	7.52
22	6.23	6.34	6.64	5.91	6.76	5.02	....	7.51	....	7.94	7.84	7.51
23	6.23	6.26	6.64	6.00	6.77	5.03	....	7.63	....	7.94	7.84	7.50
24	6.22	6.34	6.64	6.07	6.75	5.21	....	7.65	....	7.95	7.82	7.49
25	6.22	6.40	6.64	6.13	6.76	5.39	6.96	7.67	....	7.95	7.81	7.48
26	6.22	6.43	6.64	6.18	6.77	5.53	....	7.69	7.72	7.96	7.80	7.46
27	6.22	6.48	6.64	6.23	6.78	5.63	....	7.71	....	7.96	7.78	7.45
28	6.22	6.50	6.64	6.28	6.82	5.77	....	7.73	....	7.97	7.78	7.44
29	6.22	....	6.65	6.32	6.84	5.90	....	7.70	....	7.97	7.77	7.42
30	6.22	....	6.65	6.36	6.85	6.01	....	....	....	7.97	7.75	7.41
31	6.21	....	6.67	....	6.86	....	....	....	....	7.98	....	7.39

188 (\*946, p. 149). City of Courtland. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 3 S., R. 5 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	17.70	Apr. 25	15.90	Aug. 25	15.60	Nov. 25	18.40
Feb. 25	17.60	May 25	15.60	Sept. 25	17.70	Dec. 25	17.60
Mar. 25	17.60	July 25	16.40	Oct. 25	18.10		

202 (\*946, p. 149). C. E. Erickson. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 4 S., R. 5 W. Measuring point is 1.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 28	34.80	May 30	34.60	Aug. 29	35.79	Oct. 28	34.48
Mar. 22	34.50	Aug. 3	33.50	Sept. 26	34.49		

204 (\*946, p. 149). Chicago, Burlington, & Quincy Railroad. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 4 S., R. 2 W. Measuring point is 2.0 foot above land-surface datum. Measurements discontinued after Apr. 22. Water levels, in feet below land-surface datum, 1943: Jan. 21, 37.41; Feb. 23, 37.45; Mar. 25, 37.45; Apr. 22, 37.50.



209 (\*946, p. 149). Glenn B. Snapp. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 4 S., R. 3 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	32.88	Mar. 25	32.30	Aug. 30	31.73	Oct. 31	33.60
25	32.90	Apr. 30	31.80	Oct. 1	32.80	Dec. 1	33.39
Feb. 25	32.47						

230 (\*946, p. 149). Lloyd Blosser. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 4 S., R. 4 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	7.97	May 25	7.79	Sept. 26	8.82	Nov. 25	9.17
Mar. 25	8.07	July 30	7.23	Oct. 26	9.08	Dec. 26	9.25
Apr. 25	6.10	Aug. 26	7.84				

### Russell County

By L. C. Menzie

Highest and lowest recorded water levels in 13 wells in Russell County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
8	2	93.90	Oct. 3, 1941	121.0	Nov. 20, 1942
45	2	18.9	Apr. 14, 1942	24.28	Aug. 20, 1941
80	2	3.4	Apr. 14, 1942	7.76	June 29, 1943
81	2	101.85	Aug. 29, 1941	134.35	June 29, 1943
95	2	7.4	Mar. 5, 1942	11.38	Dec. 20, 1943
116	2	131.53	July 1, 1942	155.17	Sept. 6, 1941
117	2	4.7	Apr. 13, 1942	10.61	Dec. 20, 1943
126	2	32.0	Feb. 4, 1942	38.02	Jan. 13, 1943
146	2	14.59	Apr. 8, 1943	16.20	Sept. 1, 1942
148	2	3.81	Apr. 8, 1943	7.92	Oct. 2, 1941
149	2	20.2	Jan. 9, 1942	21.54	June 29, 1943
			Feb. 5, 1942		
151	2	132.89	Sept. 1, 1942	173.98	Feb. 4, 1942
152	2	14.39	June 30, 1943	26.45	Sept. 22, 1941

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 13 wells in Russell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <u>a</u>	Net rise (+) or net decline (-) for period of record
8	27.10	(b)	-23.73
45	5.38	-1.24	+ .78
80	3.36	(b)	-3.05
81	32.45	(b)	-32.50
95	3.98	-.35	-2.10
116	23.64	(b)	+14.34
117	5.91	-4.25	-4.03
126	6.02	+1.57	+ .38
146	1.61	-1.17	-.37
148	4.11	(b)	+3.19
149	1.34	+ .11	+ .02
151	41.08	-6.62	-.57
152	12.06	-3.53	+5.40

a Between last measurement in 1942 and last measurement in 1943.

b Record for 1943 incomplete.

8 (\*938, p. 130; 946, p. 150). F. C. and A. Ptacek. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 15 S., R. 12 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 120.7; Apr. 8, 119.49; June 29, 120.43.

27 (\*938, p. 130; 946, p. 151). G. M. and A. E. Rogg. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 15 S., R. 13 W. Measurements discontinued after Sept. 1, 1942.

45 (\*938, p. 130; 946, p. 151). Jacob Flegler. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 15 S., R. 14 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 22.24; Apr. 8, 21.34; June 29, 22.31; Dec. 20, 23.50.

80 (\*938, p. 130; 946, p. 151). Joseph Furthmyer, Jr. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 14 S., R. 15 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 3.94; Apr. 8, 5.69; June 29, 7.76.

81 (\*938, p. 130; 946, p. 151). Joseph Furthmyer, Jr. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 14 S., R. 15 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 131.67; Apr. 8, 133.65; June 29, 134.35.

95 (\*938, p. 131; 946, p. 151). George J. Gobleman. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 11 S., R. 15 W. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 10.24; Apr. 7, 10.58; June 28, 10.13; Dec. 20, 11.38.

116 (\*938, p. 131; 946, p. 151). George P. Bender. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 13 S., R. 14 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 140.49; Apr. 7, 142.09; June 28, 140.83.

117 (\*938, p. 131; 946, p. 152). Marie Dutt and others. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 13 S., R. 14 W. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 26, 5.88; Apr. 7, 7.54; June 28, 6.85; Dec. 20, 10.61.

126 (\*938, p. 131; 946, p. 152). Bertha Dewald. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 13 S., R. 13 W. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 38.02; Apr. 8, 36.62; June 29, 36.08; Dec. 20, 34.74.

146 (\*938, p. 131; 946, p. 152). D. P. Steinle. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 14 S., R. 12 W. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 14.90; Apr. 8, 14.59; June 29, 15.40; Dec. 20, 16.17.

148 (\*938, p. 131; 946, p. 152). John Penix. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 14 S., R. 13 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 5.66; Apr. 8, 3.81; June 29, 4.69.

149 (\*938, p. 131; 946, p. 152). George Boxberger, Jr. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 14 S., R. 14 W. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Apr. 8, 20.78; June 29, 21.54; Dec. 20, 20.84.

151 (\*938, p. 131; 946, p. 152). D. D. Beisel. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 14 S., R. 12 W. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 159.09; Apr. 8, 158.27; June 29, 157.59; Dec. 20, 170.40.

152 (\*938, p. 132; 946, p. 152). D. D. Beisel. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 14 S., R. 12 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 13, 19.69; Apr. 8, 18.43; June 29, 17.96; Dec. 20, 21.05.

## Scott County

By Betty Ball and S. W. Lohman

Highest and lowest recorded water levels in 10 wells in Scott County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	12	55.89	May 14, 16, 1934	66.26	Oct. 16, 1943
1A	3	53.42	Aug. 16-18, 1940	56.16	Dec. 30, 31, 1943
2	10	21.01	Apr. 25, 1939	27.29	Dec. 20-22, 1943
3	4	67.94	May 30, 1934	76.14	Sept. 16, 1943
9	4	47.77	Sept. 8, 1939	52.70	Oct. 21, 1943
19	4	45.38	Apr. 18, 1940	49.52	Sept. 16, 1943
32	4	37.79	Sept. 20-22, 1939	42.30	Nov. 11, 1943
39	4	68.52	June 24, 1940	68.76	Apr. 16, 1943
			Sept. 21, 1940		
48	4	30.16	June 25, 1941	31.05	Oct. 21, 1943
50	4	97.30	July 4, 1943	97.95	Aug. 6, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 10 wells in Scott County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
1	10.37	-1.65	-6.81
1A	2.74	-1.60	-6.70
2	6.28	-2.49	-2.74
3	8.20	-1.20	-.57
9	4.93	-1.45	-4.59
19	4.14	-1.56	-1.43
32	4.51	-1.16	-2.26
39	.24	+1.4	-.05
48	.99	-.40	-.52
50	.65	+0.7	+3.35

1 (#886, p. 187; 908, p. 157; 938, p. 133; 946, p. 154). Mrs. Rosine Smith. NW. corner sec. 9, T. 20 S., R. 33 W. Measuring point is 0.8 foot above land-surface datum and 2,974.3 feet above sea level. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 70.01.

Mean daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	61.48	61.34	61.29	61.23	61.27	63.31	62.06	63.47	.....	.....	64.00	63.35
2	61.46	61.31	61.30	61.22	61.27	63.11	62.03	63.32	.....	.....	63.96	63.36
3	61.47	61.32	61.27	61.21	61.28	63.81	62.01	63.22	.....	.....	63.90	63.35
4	61.47	61.32	61.26	61.20	61.25	64.31	62.00	63.12	.....	.....	63.85	63.34
5	61.43	61.31	61.27	61.21	61.24	64.68	61.99	63.05	.....	.....	63.82	63.31
6	61.43	61.34	61.28	61.48	61.26	64.29	61.97	.....	.....	.....	63.80	63.33
7	61.43	61.31	61.28	61.93	61.26	63.55	61.96	.....	.....	64.81	63.78	63.29
8	61.42	61.30	61.26	61.62	61.26	63.25	61.94	.....	.....	64.93	63.75	63.30
9	61.39	61.29	61.26	61.54	61.26	63.03	61.94	.....	.....	65.63	63.73	63.30
10	61.40	61.31	61.28	61.47	61.25	62.88	61.92	.....	.....	65.51	63.71	63.29
11	61.39	61.31	61.26	61.43	61.25	62.75	61.91	.....	.....	64.94	63.69	63.26
12	61.38	.....	61.26	61.42	61.26	62.67	61.90	.....	.....	64.63	63.69	63.26
13	61.38	.....	61.26	61.41	61.26	62.59	61.90	.....	.....	64.42	63.65	63.23
14	61.37	.....	61.25	61.39	61.25	62.53	.....	.....	.....	64.97	63.64	63.26
15	61.36	61.31	61.25	61.35	61.25	62.47	.....	.....	.....	65.48	63.62	63.23
16	61.39	61.29	61.27	61.35	61.27	62.42	.....	.....	.....	66.26	63.60	63.22
17	61.39	61.30	61.26	61.35	61.27	62.37	.....	.....	64.17	66.02	63.58	63.21

a Between last measurement in 1942 and last measurement in 1943.

## 1. Mrs. Rosine Smith--Continued.

Mean daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
18	61.38	61.31	61.24	61.34	61.28	62.33	.....	.....	64.05	65.82	63.56	63.20
19	61.38	61.30	61.25	61.33	61.28	62.28	.....	.....	63.96	66.24	63.54	63.21
20	61.35	61.31	61.25	61.31	61.88	62.25	.....	.....	64.46	65.79	63.51	63.19
21	61.35	61.30	61.26	61.30	62.88	62.23	.....	.....	65.06	65.23	63.51	63.19
22	61.34	61.29	61.23	61.30	62.95	62.20	.....	.....	64.81	64.93	63.50	63.18
23	61.35	61.31	61.21	61.31	62.55	62.17	.....	.....	64.41	64.74	63.47	63.18
24	61.35	61.33	61.22	61.28	63.21	62.15	.....	.....	64.19	64.59	63.45	63.16
25	61.37	61.32	61.22	61.29	63.58	62.14	.....	.....	64.04	64.47	63.44	63.15
26	61.36	61.32	61.22	61.28	63.33	62.12	.....	.....	63.93	64.36	63.43	63.15
27	61.35	61.29	61.22	61.29	62.89	62.10	.....	.....	63.84	64.27	63.40	63.16
28	61.34	61.29	61.22	61.28	62.65	62.14	64.35	.....	63.77	64.19	63.39	63.15
29	61.34	.....	61.21	61.26	62.50	62.23	64.28	.....	.....	64.12	63.38	63.12
30	61.34	.....	61.19	61.28	62.39	62.11	63.96	.....	.....	64.07	63.37	63.13
31	61.36	.....	61.22	.....	62.85	.....	63.67	.....	.....	64.04	.....	63.13

1A (#908, p. 157; 938, p. 134; 946, p. 155). Division of Water Resources, Kansas State Board of Agriculture. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 20 S., R. 33 W. Measuring point is 0.8 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 60.48.

Mean daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.56	54.50	54.49	54.43	54.55	54.82	54.90	55.01	55.20	.....	55.88	56.04
2	54.56	54.49	54.48	54.43	54.57	54.82	54.90	55.02	55.20	.....	55.89	56.04
3	54.56	54.49	54.48	54.42	54.58	54.83	54.90	55.03	55.21	.....	55.90	56.05
4	54.56	54.49	54.48	54.42	54.59	54.85	54.90	55.04	55.21	.....	55.91	56.06
5	54.55	54.48	54.48	54.42	54.61	54.85	54.90	55.05	55.22	.....	55.91	56.07
6	54.55	54.48	54.47	54.42	54.64	54.85	54.90	55.05	55.23	.....	55.92	56.08
7	54.55	54.48	54.47	54.42	54.66	54.86	54.90	55.05	55.23	.....	55.92	56.08
8	54.54	54.48	54.47	54.41	54.67	54.87	54.90	55.06	55.24	55.66	55.93	56.08
9	54.54	54.48	54.47	54.41	54.68	54.87	54.90	55.06	55.25	55.67	55.94	56.09
10	54.54	54.48	54.47	54.41	54.68	54.87	54.90	55.06	55.27	55.68	55.94	56.09
11	54.54	54.48	54.47	54.41	54.69	54.87	54.90	55.06	55.28	55.69	55.95	56.09
12	54.54	54.48	54.47	54.41	54.71	54.88	54.90	55.07	55.29	55.70	55.95	56.10
13	54.54	54.48	54.46	54.41	54.72	54.88	54.90	55.08	55.30	55.71	55.95	56.10
14	54.53	54.48	54.46	54.41	54.73	54.88	54.90	55.10	55.31	55.72	55.96	56.11
15	54.53	54.48	54.46	54.40	54.74	54.88	54.90	55.11	55.33	55.73	55.96	56.11
16	54.53	54.48	54.45	54.40	54.76	54.88	54.90	55.12	55.34	55.75	55.96	56.11
17	54.53	54.49	54.45	54.40	54.77	54.89	54.91	55.12	.....	55.75	55.96	56.12
18	54.53	54.49	54.45	54.40	54.77	54.89	54.91	55.13	.....	55.76	55.97	56.12
19	54.53	54.50	54.45	54.40	54.78	54.89	54.91	55.14	.....	55.77	55.98	56.13
20	54.52	54.50	54.45	54.40	54.78	54.89	54.92	55.14	.....	55.78	55.99	56.13
21	54.51	54.50	54.45	54.40	54.79	54.89	54.92	55.15	.....	55.79	55.99	56.13
22	54.51	54.50	54.44	54.40	54.79	54.89	54.93	55.16	.....	55.80	56.00	56.13
23	54.51	54.50	54.44	54.40	54.79	54.89	54.94	55.16	.....	55.81	56.00	56.14
24	54.51	54.50	54.44	54.41	54.80	54.89	54.95	55.17	.....	55.82	56.01	56.14
25	54.52	54.50	54.44	54.42	54.80	54.90	54.96	55.17	.....	55.83	56.01	56.14
26	54.51	54.50	54.44	54.44	54.80	54.90	54.97	55.17	.....	55.84	56.02	56.15
27	54.51	54.50	54.44	54.47	54.81	54.90	54.98	55.17	.....	55.84	56.02	56.15
28	54.50	54.49	54.44	54.49	54.81	54.90	54.98	55.18	.....	55.85	56.03	56.15
29	54.50	.....	54.43	54.51	54.82	54.90	54.99	55.18	.....	55.86	56.03	56.15
30	54.50	.....	54.43	54.53	54.82	54.90	55.00	55.19	.....	55.87	56.03	56.16
31	54.50	.....	54.43	.....	54.82	.....	55.01	55.19	.....	55.88	.....	56.16

2 (#886, p. 191; 908, p. 158; 938, p. 134; 946, p. 155). E. E. Coffin. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 18 S., R. 33 W. Measuring point is 0.2 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 34.86.

## 2. E. E. Coffin--Continued.

Mean daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.74	34.60	34.46	34.32	34.34	34.80	35.11	35.45	35.88	36.49	36.90	37.16
2	34.73	34.60	34.46	34.32	34.36	34.81	35.11	35.46	35.90	36.52	36.91	37.17
3	34.73	34.59	34.46	34.31	34.38	34.93	35.12	35.47	35.92	.....	36.92	37.17
4	34.72	34.58	34.45	34.31	34.40	34.85	35.13	35.49	35.94	.....	36.93	37.18
5	34.72	34.57	34.45	34.31	34.42	34.86	35.14	35.50	35.96	.....	36.95	37.18
6	34.71	34.56	34.44	34.31	34.45	34.87	35.14	35.52	35.98	36.57	36.96	.....
7	34.70	34.56	34.44	34.31	34.46	34.88	35.15	35.53	36.01	36.58	36.97	.....
8	34.69	34.55	34.43	34.31	34.48	34.89	35.16	35.55	36.02	36.59	36.98	.....
9	34.69	34.54	34.43	34.30	34.49	34.90	35.17	35.56	36.05	36.60	37.00	.....
10	34.69	34.54	34.43	34.30	34.51	34.91	35.18	35.58	36.07	36.61	37.01	.....
11	34.68	34.54	34.42	34.30	34.53	34.92	35.19	35.58	36.08	36.62	37.02	.....
12	34.68	34.53	34.42	34.30	34.54	34.93	35.19	35.60	36.10	36.65	37.03	.....
13	34.68	34.53	34.42	34.30	34.56	34.93	35.20	35.61	36.12	36.64	37.04	.....
14	34.67	34.52	34.42	34.30	34.58	34.94	35.21	35.62	36.14	36.65	37.05	.....
15	34.67	34.52	34.41	34.30	34.59	34.95	35.22	35.64	36.16	36.66	37.06	.....
16	34.67	34.51	34.41	34.30	34.61	34.96	35.23	35.65	36.18	36.67	37.06	37.22
17	34.68	34.50	34.40	34.30	34.62	34.97	35.24	35.66	36.20	36.69	37.07	37.22
18	34.67	34.51	34.40	34.29	34.64	34.98	35.25	35.68	36.21	36.70	37.08	37.22
19	34.67	34.50	34.39	34.29	34.65	34.99	35.26	35.69	36.23	36.71	37.08	37.22
20	34.66	34.50	34.39	34.28	34.66	35.00	35.27	35.71	36.26	36.73	37.09	37.23
21	34.65	34.49	34.39	34.28	34.68	35.01	35.29	35.71	36.28	36.74	37.10	37.23
22	34.65	34.49	34.38	34.29	34.70	35.02	35.30	35.73	36.31	36.76	37.11	37.23
23	34.65	34.48	34.37	34.29	34.71	35.03	35.32	35.74	36.33	36.78	37.11	.....
24	34.65	34.48	34.36	34.29	34.72	35.04	35.34	35.76	36.35	36.79	37.12	.....
25	34.64	34.47	34.36	34.30	34.73	35.05	35.35	35.78	36.37	36.80	37.12	.....
26	34.64	34.47	34.35	34.29	34.74	35.06	35.36	35.80	36.39	36.81	37.12	.....
27	34.63	34.46	34.34	34.29	34.75	35.07	35.37	35.81	36.42	36.82	37.13	.....
28	34.62	34.46	34.34	34.28	34.76	35.08	35.39	35.83	36.44	36.84	37.14	.....
29	34.62	.....	34.34	34.30	34.76	35.09	35.40	35.84	36.46	36.86	37.15	.....
30	34.61	.....	34.33	34.33	34.77	35.10	35.41	35.86	36.47	36.87	37.15	.....
31	34.61	.....	34.33	.....	34.79	.....	35.43	35.87	.....	36.88	.....	.....

3 (\*886, p. 194; 908, p. 158; 938, p. 135; 946, p. 156). Claude Hughes. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 18 S., R. 33 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	69.65	Apr. 16	69.51	Sept. 16	76.14	Nov. 11	71.23
Feb. 11	69.39	June 10	69.14	Oct. 21	71.50	Dec. 16	70.85
Mar. 20	69.43	July 4	73.74				

9 (\*886, p. 195; 908, p. 159; 938, p. 135; 946, p. 156). Mrs. Rosine Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 19 S., R. 33 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 11	50.91	Apr. 12	50.77	Aug. 6	52.60	Nov. 11	52.49
Feb. 11	50.86	June 10	50.74	Sept. 16	52.46	Dec. 14	52.36
Mar. 19	50.77	July 3	51.24	Oct. 21	52.70		

19 (\*886, p. 195; 908, p. 160; 938, p. 136; 946, p. 156). J. Dyer. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 18 S., R. 33 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 11	46.96	Apr. 12	46.00	Sept. 16	49.52	Nov. 11	48.58
Feb. 11	46.79	July 4	49.07	Oct. 21	48.92	Dec. 15	48.52
Mar. 19	46.62	Aug. 7	47.72				

32 (\*886, p. 196; 908, p. 160; 938, p. 136; 946, p. 157). E. J. Roark. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 19 S., R. 33 W. Measuring point is level with land-surface datum.

## 32. E. J. Roark--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	41.08	Apr. 12	41.03	Aug. 6	41.57	Nov. 11	42.30
Feb. 12	41.00	June 10	41.23	Sept. 16	41.78	Dec. 14	42.24
Mar. 19	41.01	July 3	41.29	Oct. 6	41.93		

39 (#886, p. 197; 908, p. 162; 938, p. 138; 946, p. 157). Henry F. Poos Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 18 S., R. 31 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 12	68.72	Apr. 16	68.76	Aug. 6	68.62	Nov. 11	68.62
Feb. 12	68.73	June 3	68.58	Sept. 16	68.60	Dec. 16	68.58
Mar. 20	68.74	July 4	68.57	Oct. 21	68.61		

48 (#886, p. 198; 908, p. 162; 938, p. 138; 946, p. 158). P. Roark. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25, T. 20 S., R. 33 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 11	30.64	Apr. 12	30.78	Aug. 6	31.01	Nov. 11	30.98
Feb. 11	30.73	June 8	30.84	Sept. 16	30.95	Dec. 14	31.04
Mar. 19	30.78	July 4	30.84	Oct. 21	31.05		

50 (#886, p. 198; 908, p. 163; 938, p. 138; 946, p. 158). F. M. Houston. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 19 S., R. 32 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 12	97.46	Apr. 16	97.38	Aug. 6	97.95	Nov. 11	97.46
Feb. 11	97.33	June 10	97.36	Sept. 16	97.42	Dec. 20	97.39
Mar. 20	97.39	July 4	97.30	Oct. 21	97.44		

Sedgwick County

By Betty Ball and C. C. Williams

Highest and lowest recorded water levels in 31 wells in Sedgwick County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
11	6	56.01	Aug. 2, 1943	60.34	July 4, 1938
12	6	14.59	Sept. 2, 1943	18.99	Apr. 1, 2, 8, 9, 11, 12, 1938
26	6	6.60	May 15, 1942	23.18	Jan. 29, 1940
28	6	12.78	Jan. 5, 1943	19.08	Feb. 1, 1938
307	6	9.80	June 15, 1940	13.74	Dec. 14, 15, 1943
502	1	14.22	Dec. 31, 1942	24.56	Oct. 12, 1943
800	5	13.08	Aug. 2, 1943	19.69	Apr. 3, 1940
802	5	1.96	May 11, 1942	7.64	Oct. 8, 1943
804	5	.79	May 11, 1942	4.70	Oct. 8, 1943
805	5	2.01	Feb. 3, 1942	5.68	Dec. 3, 1940
806	5	14.95	Feb. 8, 1943	17.61	Nov. 5, 1940
807	5	20.15	Feb. 8, 1943	23.04	Jan. 2, 1941
808	5	20.04	Nov. 2, 1938	23.47	Mar. 4, 1941
809	5	8.92	Nov. 2, 1942	14.68	Jan. 2, 1941
810	5	7.09	Oct. 9, 1942	13.38	Aug. 30, 1940
811	5	3.85	June 26, 1942	8.96	Nov. 22, 1940
812	5	8.00	Oct. 23, 1942	12.62	Jan. 10, 1941

Highest and lowest recorded water levels in 31 wells in Sedgwick County;  
in feet below land-surface datum--Continued

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
814	5	11.12	Nov. 2, 1942	17.11	Dec. 3, 1940 Jan. 2, 1941 Feb. 3, 1941 Mar. 4, 1941 May 1, 1941
815	5	9.58	Oct. 30, 1942	14.04	Jan. 24, 1941 Jan. 31, 1941
816	5	7.57	Jan. 15, 1943	12.51	Jan. 24, 1941 Jan. 31, 1941
825	5	9.00	Feb. 2, 1943	14.53	Nov. 5, 1940
826	5	7.47	Apr. 28, 1942	13.01	Nov. 5, 1940
830	5	24.12	Sept. 9, 1938	28.62	Oct. 3, 1940
834	5	7.21	May 11, 1942	11.70	Oct. 3, 1940
838	5	22.51	Feb. 2, 1943	26.91	Nov. 5, 1940
840	5	1.67	July 5, 1941	7.75	Nov. 22, 1940
842	5	2.75	Jan. 8, 1943	7.27	Nov. 5, 1940
845	5	12.95	July 7, 1942	15.95	Apr. 3, 1940
846	5	14.31	July 7, 1942	17.35	Apr. 3, 1940
847	5	13.37	July 7, 1942	17.59	Apr. 3, 1940 May 1, 1941
870	5	4.25	Jan. 8, 1943	8.30	Nov. 5, 1940

Difference between highest and lowest recorded water levels and net  
change in water level, in feet, in 1943 and for period of record,  
in 31 wells in Sedgwick County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a</sup>	Net rise (+) or net decline (-) for period of record
11	4.33	+0.43	+2.58
12	4.40	-1.56	+4.53
26	16.58	-1.56	+7.67
28	6.30	-2.43	+3.08
307	3.94	-3.45	-.80
502	10.34	-8.63	-8.63
800	6.61	-.84	+2.92
802	5.68	-2.37	-2.82
804	3.91	-2.79	-2.12
805	3.67	-2.50	-1.45
806	2.66	-1.88	+.47
807	2.89	-2.09	+.05
808	3.43	-.89	+1.76
809	5.76	-3.74	-.14
810	6.29	-2.37	-1.65
811	5.11	-3.14	-1.12
812	4.62	-3.13	+.02
814	5.99	-2.43	+1.56
815	4.46	-2.47	+.76
816	4.94	-3.20	+.21
825	5.53	-1.65	+2.27
826	5.54	-2.54	-.94
830	4.50	-2.54	+.32
834	4.49	-2.45	-.13
838	4.40	-2.66	+.19
840	6.08	-4.64	+1.06
842	4.52	-4.04	-.54
845	3.00	-.74	+.67
846	3.04	-1.32	-.39
847	4.22	-1.47	-.61
870	4.05	-3.39	-1.21

<sup>a</sup> Between last measurement in 1942 and last measurement in 1943.

11 (\*840, p. 105; 845, p. 126; 886, p. 217; 908, p. 165; 938, p. 140; 946, p. 160). J. H. Heim. SE. corner sec. 22, T. 26 S., R. 3 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	56.64	Mar. 31	56.29	July 10	56.05	Oct. 8	56.06
Feb. 8	56.52	Apr. 28	56.50	Aug. 2	56.01	30	56.03
Mar. 2	56.49	June 3	56.20	Sept. 2	56.01	Dec. 2	56.21

12 (\*840, p. 105; 845, p. 126; 886, p. 217; 908, p. 166; 938, p. 140; 946, p. 160). Dr. A. D. Updegraph. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 25 S., R. 1 W. Measuring point is 2.99 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.34	15.33	15.47	15.71	15.93	15.96	15.98	15.74	16.08	16.39	16.56	16.73
2	15.32	15.31	15.48	15.72	15.92	15.95	15.99	15.73	16.09	16.40	16.56	16.75
3	15.38	15.31	15.48	15.72	15.94	15.98	15.99	15.76	16.10	16.41	16.55	16.75
4	15.38	15.31	15.47	15.73	15.93	16.02	15.99	15.79	16.11	16.41	16.53	16.75
5	15.36	15.30	15.49	15.74	15.93	16.03	16.02	15.80	16.11	16.42	16.52	16.74
6	15.29	15.32	.....	15.72	15.94	16.03	16.02	15.81	16.13	16.43	16.56	16.77
7	15.29	15.30	.....	15.73	15.96	16.04	16.03	15.79	16.14	16.44	16.58	16.76
8	15.30	15.25	15.53	15.74	15.96	16.05	16.04	15.77	16.16	16.46	16.59	16.78
9	15.26	15.25	15.54	15.75	15.96	16.05	16.05	15.78	16.17	16.47	16.61	16.81
10	15.27	15.31	15.56	15.76	15.96	16.02	16.06	15.79	16.18	16.48	16.62	16.80
11	15.27	15.31	15.55	15.76	15.98	15.98	16.06	15.79	16.19	16.48	16.62	16.80
12	15.26	15.34	15.56	15.78	15.99	15.95	16.07	15.80	16.20	16.49	16.62	16.80
13	15.25	15.34	15.57	15.80	16.00	15.96	16.08	15.82	16.21	16.51	16.62	16.80
14	15.22	15.36	15.56	15.81	16.00	15.95	16.09	15.83	16.21	16.53	16.63	16.81
15	15.19	15.38	15.58	15.79	16.00	15.94	16.08	15.84	16.24	16.54	16.64	16.81
16	15.27	15.38	15.59	15.81	16.01	15.96	16.08	15.87	16.25	16.54	16.64	16.83
17	15.27	15.36	15.60	15.82	16.02	15.97	16.11	15.89	16.26	16.54	16.63	16.83
18	.....	15.38	15.58	15.83	16.03	15.96	16.10	15.90	16.25	16.55	16.65	16.81
19	.....	15.37	15.61	15.83	16.03	15.93	16.04	15.90	16.27	16.55	16.66	16.83
20	.....	15.38	15.62	15.83	16.04	15.91	15.96	15.91	16.27	16.57	16.66	16.83
21	15.19	15.39	15.63	15.83	16.04	15.91	15.90	15.93	16.28	16.58	16.68	16.83
22	15.18	15.37	15.63	15.86	16.02	15.91	15.85	15.94	16.30	16.59	16.70	16.85
23	15.23	15.41	15.63	15.87	16.01	15.90	15.82	15.95	16.31	16.60	16.70	16.85
24	15.25	15.44	15.64	15.85	16.01	15.91	15.79	15.98	16.32	16.61	16.71	16.85
25	15.28	15.45	15.64	15.88	16.01	15.92	15.79	15.99	16.33	16.60	16.70	16.84
26	15.29	15.46	15.65	15.87	16.00	15.93	15.78	16.01	16.34	16.58	16.70	16.87
27	15.28	15.44	15.66	15.90	16.01	15.92	15.76	16.02	16.35	16.55	16.71	16.87
28	15.26	15.44	15.67	15.99	16.01	15.96	15.75	16.03	16.36	16.51	16.72	16.88
29	15.27	.....	15.68	15.99	15.99	15.98	15.74	16.04	16.37	16.54	16.72	16.88
30	15.28	.....	15.67	15.93	15.96	15.98	15.75	16.04	16.38	16.50	16.72	16.89
31	15.32	.....	15.69	.....	15.95	.....	15.75	16.06	.....	16.53	.....	16.90

26 (\*840, p. 105; 845, p. 127; 886, p. 217; 908, p. 166; 938, p. 141; 946, p. 161). Wichita Water Co. SW $\frac{1}{4}$  sec. 18, T. 27 S., R. 1 W. Measuring point is 3.0 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.37	10.48	10.74	10.77	10.98	11.05	11.26	11.42	13.85	11.64	11.32	11.62
2	10.40	10.43	10.76	10.76	11.00	11.08	11.28	11.50	12.81	11.64	11.34	11.67
3	10.41	10.36	10.73	10.74	11.01	11.13	11.30	12.65	12.53	11.64	11.36	11.87
4	10.39	10.29	10.71	10.79	11.02	11.17	11.33	13.82	12.41	11.65	11.37	11.64
5	10.33	10.15	10.74	10.79	11.05	11.17	11.36	13.75	12.31	11.66	11.39	11.63
6	10.31	10.16	10.94	10.76	11.08	11.19	11.38	13.03	12.23	11.66	11.45	11.64
7	10.31	10.15	11.04	10.81	11.10	11.20	11.39	12.92	12.18	11.67	11.48	11.62
8	10.22	10.13	11.04	10.82	11.11	11.21	11.41	13.15	12.14	11.68	11.50	11.62
9	10.10	10.20	10.99	10.81	11.12	11.21	11.43	14.05	11.40	11.70	11.53	11.64
10	10.03	10.27	10.90	10.82	11.10	11.17	11.45	14.07	10.95	11.71	11.54	11.62
11	10.01	10.28	10.81	10.83	11.08	11.13	11.47	12.95	11.03	11.71	11.55	11.57
12	10.00	10.35	10.78	10.81	11.13	11.10	11.59	13.95	11.11	11.72	11.57	11.54
13	9.92	10.40	10.79	10.81	11.13	11.06	11.57	14.57	11.17	11.75	11.57	11.55



## 26. Wichita Water Co.--Continued.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	9.91	10.44	10.77	10.77	11.13	10.87	11.57	13.42	11.23	11.78	11.58	11.58
15	9.89	10.49	10.77	10.71	11.16	10.85	11.57	13.85	11.30	11.79	11.60	11.68
16	10.02	10.49	10.79	10.64	11.17	10.88	11.59	14.14	11.34	11.80	11.61	11.71
17	10.02	10.52	10.77	10.63	11.17	10.89	11.59	12.39	11.36	11.78	11.60	11.71
18	10.35	10.53	10.75	10.67	11.16	10.84	11.39	12.16	11.39	11.78	11.63	11.68
19	10.64	10.55	10.81	10.69	11.10	10.81	10.99	12.05	11.43	11.79	11.64	11.65
20	.....	10.58	10.84	10.74	11.02	10.87	10.77	13.65	11.45	11.80	11.63	11.64
21	.....	10.59	10.86	10.77	10.98	10.87	10.69	14.65	11.48	11.81	11.66	11.56
22	10.56	10.58	10.85	10.83	10.92	10.92	10.74	14.66	11.52	11.78	11.66	11.55
23	10.57	10.63	10.85	10.85	10.92	10.95	10.76	15.19	11.55	11.70	11.67	11.62
24	10.49	10.66	10.85	10.85	10.93	10.99	10.83	14.45	11.55	11.66	11.67	11.66
25	10.54	10.67	10.83	10.89	10.91	11.03	10.89	15.05	11.57	11.50	11.65	11.66
26	10.65	10.69	10.81	10.90	10.96	11.08	10.99	15.08	11.59	11.33	11.64	11.61
27	10.67	10.67	10.79	10.95	11.00	11.12	11.10	14.60	11.61	11.33	11.63	11.58
28	10.55	10.69	10.79	10.95	11.01	11.17	11.17	15.03	11.64	11.29	11.64	11.73
29	10.58	.....	10.78	10.95	11.03	11.20	11.26	14.40	11.64	11.22	11.64	11.76
30	10.55	.....	10.76	10.98	11.04	11.23	11.34	14.75	11.63	11.21	11.63	11.75
31	10.52	.....	10.77	.....	11.04	.....	11.39	15.00	.....	11.29	.....	11.73

28 (\*840, p. 106; 845, p. 127; 886, p. 218; 908, p. 167; 938, p. 141; 946, p. 161). Ada M. Davis.  $NE\frac{1}{4}NW\frac{1}{4}NE\frac{1}{4}$  sec. 1, T. 25 S., R. 1 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	12.78	Mar. 31	13.04	July 6	13.97	Oct. 6	15.49
Feb. 2	12.93	Apr. 28	13.46	Aug. 2	13.80	30	15.21
Mar. 2	13.39	June 2	12.82	Sept. 2	15.08	Dec. 2	15.21

307 (\*840, p. 107; 845, p. 128; 886, p. 218; 908, p. 167; 938, p. 142; 946, p. 162). J. R. Clark.  $NW\frac{1}{4}NW\frac{1}{4}SW\frac{1}{4}$  sec. 1, T. 25 S., R. 2 W. Measuring point is 2.79 feet above land-surface datum.

Lowest daily water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.23	10.05	10.24	10.52	10.95	11.11	11.71	.....	12.70	13.20	13.50	13.66
2	10.19	10.01	10.27	10.54	10.98	11.15	11.74	.....	12.72	13.22	13.51	13.68
3	10.17	9.96	10.27	10.53	11.01	11.21	11.76	.....	12.74	13.23	13.51	13.69
4	10.15	9.96	10.28	10.55	10.98	11.25	11.76	.....	12.75	13.25	13.51	13.69
5	10.13	9.96	10.31	10.55	11.01	11.27	11.79	.....	12.77	13.27	13.51	13.71
6	10.07	9.98	.....	10.51	11.04	11.28	11.81	12.21	12.78	13.28	13.52	13.71
7	10.08	9.96	.....	10.52	11.06	11.30	11.83	12.23	12.80	13.29	13.52	13.71
8	10.09	9.90	10.38	10.52	11.07	11.32	11.85	12.25	12.83	13.30	13.54	13.73
9	10.07	9.91	10.39	10.52	11.07	11.32	11.87	.....	12.84	13.31	13.54	13.73
10	10.05	9.97	10.42	10.56	11.08	11.31	11.89	.....	12.86	13.33	13.56	13.73
11	10.04	9.97	10.41	10.56	11.09	11.34	11.91	.....	12.87	13.34	13.57	13.73
12	10.03	9.98	10.44	10.56	11.12	11.38	11.93	.....	12.88	13.35	13.59	13.73
13	10.01	9.97	10.46	10.59	11.13	11.40	11.95	12.35	12.90	13.37	13.60	13.73
14	9.99	9.98	10.44	10.60	11.14	11.42	11.97	12.37	12.92	13.38	13.60	13.74
15	9.97	9.98	10.46	10.60	11.16	11.45	11.95	12.39	12.95	13.41	13.59	13.74
16	10.05	9.98	10.47	10.65	11.18	11.45	11.98	12.41	12.97	13.42	13.61	13.73
17	10.04	9.94	10.48	10.66	11.18	11.45	11.97	12.42	12.98	13.43	13.62	13.72
18	10.07	9.94	10.46	10.68	11.18	11.48	11.93	12.44	12.99	13.44	13.62	13.72
19	10.10	9.92	10.50	10.68	11.15	11.50	11.85	12.46	13.01	13.45	13.62	13.71
20	10.06	9.94	10.51	10.69	11.13	11.52	11.85	12.48	13.02	13.46	13.61	13.71
21	10.00	9.96	10.52	10.70	11.14	11.54	11.90	12.49	13.04	13.47	13.62	13.70
22	10.00	9.95	10.51	10.75	11.13	11.57	11.94	12.51	13.06	13.48	13.62	13.70
23	10.04	10.04	10.49	10.77	11.13	11.59	11.96	12.53	13.08	13.47	13.63	13.69
24	10.06	10.11	10.50	10.76	11.12	11.60	11.99	12.56	13.10	13.47	13.63	13.69
25	10.09	10.12	10.49	10.79	10.99	11.62	12.00	12.58	13.10	13.47	13.64	13.69
26	10.10	10.17	10.48	10.81	10.99	11.63	12.02	12.61	13.11	13.47	13.64	13.68
27	10.09	10.15	10.48	10.87	11.03	11.64	12.03	12.64	13.13	13.48	13.64	13.68
28	10.04	10.17	10.50	10.87	11.06	11.66	12.04	12.65	13.14	13.48	13.65	13.67
29	10.02	.....	10.51	10.90	11.07	11.68	12.07	12.67	13.15	13.49	13.65	13.67
30	10.02	.....	10.48	10.95	11.08	11.69	12.08	12.69	13.18	13.50	13.66	13.67
31	10.05	.....	10.51	.....	11.08	.....	.....	12.71	.....	13.51	.....	13.68

502. Kansas Gas & Electric Co. NW. corner sec. 29, T. 26 S., R. 1 E. Used industrial well, diameter 24 inches, depth 42.8 feet. Measuring point, top of 1-inch nipple in pump base, 2.8 feet above land-surface datum, and 1,327.7 feet above sea level.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 4, 1942	15.61	Mar. 4, 1943	21.68	July 6, 1943	15.74
31	14.22	Apr. 2	23.43	Sept. 7	24.31
Jan. 11, 1943	21.41	9	15.50	Oct. 12	24.56
Feb. 5	21.35	May 3	15.56	Nov. 4	23.70
11	14.27	17	23.95	Dec. 7	23.85
26	14.86	June 14	14.82	30	24.24

800 (\*845, p. 129; 886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162). City of Wichita. SW. corner sec. 33, T. 26 S., R. 1 E. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water	Date	Water	Date	Water	Date	Water
Jan. 5	14.00	Mar. 31	13.97	July 6	13.85	Oct. 6	14.15
Feb. 2	13.75	Apr. 28	14.07	Aug. 2	13.08	30	14.39
Mar. 2	13.93	June 2	13.57	Sept. 2	13.72	Dec. 1	14.84

802 (\*886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162). City of Wichita. NW. corner sec. 1, T. 27 S., R. 1 W. Measuring point is 0.75 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	5.18	Mar. 31	6.34	July 10	6.95	Oct. 8	7.64
Feb. 8	5.46	Apr. 28	6.41	Aug. 2	6.73	30	7.34
Mar. 2	6.16	June 3	6.31	Sept. 2	7.27	Dec. 2	7.55

804 (\*845, p. 130; 886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162). City of Wichita. SE. corner sec. 16, T. 26 S., R. 1 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	1.42	Mar. 31	2.46	July 10	3.19	Oct. 8	4.70
Feb. 8	1.65	Apr. 28	2.57	Aug. 2	3.33	30	4.30
Mar. 2	2.24	June 3	2.25	Sept. 2	4.18	Dec. 2	4.21

805 (\*845, p. 130; 886, p. 219; 908, p. 168; 938, p. 142; 946, p. 162). City of Wichita. NW $\frac{1}{4}$  corner NE $\frac{1}{4}$  sec. 19, T. 26 S., R. 1 W. Measuring point is 3.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	2.06	Mar. 31	2.93	July 10	3.93	Oct. 8	4.74
Feb. 8	2.30	Apr. 28	3.13	Aug. 2	4.12	30	4.58
Mar. 2	2.78	June 3	2.98	Sept. 2	4.75	Dec. 2	4.56

806 (\*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163). City of Wichita. NW $\frac{1}{4}$  corner SW $\frac{1}{4}$  sec. 15, T. 26 S., R. 2 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 8	14.95	Apr. 28	15.38	Aug. 2	15.93	Oct. 30	16.63
Mar. 2	15.20	June 3	15.45	Sept. 2	16.36	Dec. 2	16.83
31	15.24	July 10	15.87	Oct. 8	16.59		

807 (\*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163). City of Wichita. NW. corner sec. 10, T. 26 S., R. 2 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 8	20.15	Apr. 28	20.63	Aug. 2	21.20	Oct. 30	22.10
Mar. 2	20.42	June 3	20.81	Sept. 2	21.65	Dec. 2	22.24
31	20.51	July 10	21.16	Oct. 8	21.99		

808 (\*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163).  
City of Wichita. SW. corner NW $\frac{1}{4}$  sec. 18, T. 26 S., R. 2 W. Measuring  
point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	20.79	Mar. 31	20.56	July 10	21.05	Oct. 8	21.53
Feb. 8	20.62	Apr. 28	20.71	Aug. 2	21.14	30	21.58
Mar. 2	20.75	June 3	20.77	Sept. 2	21.37	Dec. 2	21.68

809 (\*845, p. 131; 886, p. 220; 908, p. 168; 938, p. 143; \*946, p. 163).  
City of Wichita. NW. corner sec. 21, T. 26 S., R. 1 E. Measuring point is  
3.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	9.06	Mar. 31	9.64	July 6	10.57	Oct. 6	12.33
Feb. 8	9.15	Apr. 28	10.12	Aug. 2	10.58	30	12.59
Mar. 2	9.62	June 2	9.78	Sept. 2	11.62	Dec. 2	12.80

810 (\*845, p. 131; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163).  
City of Wichita. NE. corner SE $\frac{1}{4}$  sec. 35, T. 26 S., R. 1 W. Measuring  
point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	10.28	Apr. 9	11.28	July 9	11.76	Oct. 8	12.56
15	10.17	16	11.25	16	11.89	15	12.63
22	10.25	23	11.38	23	10.13	22	12.65
29	10.45	30	11.48	30	10.93	29	11.96
Feb. 5	10.15	May 7	11.59	Aug. 6	11.33	Nov. 5	12.16
12	10.48	14	11.62	13	11.51	12	12.35
19	10.68	21	11.53	20	11.79	19	12.46
26	10.68	28	11.31	27	12.06	26	12.53
Mar. 8	11.01	June 4	11.47	Sept. 3	12.18	30	12.55
12	10.95	11	11.10	10	12.27	Dec. 3	12.58
19	11.07	18	11.33	17	12.37	17	12.61
26	11.14	25	11.21	24	12.45	24	12.61
Apr. 2	11.23	July 2	11.58	Oct. 1	12.57	31	12.65

811 (\*845, p. 131; 886, p. 221; 908, p. 168; 938, p. 143; 946, p. 163).  
City of Wichita. SE. corner sec. 33, T. 25 S., R. 1 W. Measuring point is  
1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	5.45	Apr. 9	6.48	July 9	7.39	Oct. 8	8.41
15	5.31	16	6.30	16	7.48	15	8.41
22	5.55	23	6.54	23	7.14	22	8.45
29	5.74	30	6.64	30	7.38	29	8.45
Feb. 5	5.67	May 7	6.75	Aug. 6	7.62	Nov. 5	8.46
12	5.91	14	6.81	13	7.73	12	8.47
19	5.96	21	6.57	20	7.90	19	8.50
26	6.14	28	6.58	27	8.05	26	8.54
Mar. 8	6.24	June 4	6.80	Sept. 3	8.17	30	8.51
12	6.22	11	6.91	10	8.23	Dec. 3	8.52
19	6.33	18	7.00	17	8.29	17	8.54
26	6.68	25	7.17	24	8.31	24	8.55
Apr. 2	6.47	July 2	7.24	Oct. 1	8.36	31	8.59

812 (\*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164).  
City of Wichita. NW. corner sec. 27, T. 25 S., R. 1 W. Measuring point is  
0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	8.32	Feb. 19	8.54	Apr. 2	9.00	May 14	9.31
15	8.11	26	8.69	9	8.98	21	9.14
22	8.19	Mar. 8	8.74	16	8.94	28	9.13
29	8.35	12	8.73	23	9.11	June 4	9.26
Feb. 5	8.29	19	8.84	30	9.22	11	9.28
12	8.54	26	8.88	May 7	9.25	18	9.39

## 812. City of Wichita--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 25	9.49	Aug. 13	9.95	Oct. 1	10.72	Nov. 19	11.16
July 2	9.60	20	10.08	8	10.81	26	11.21
9	9.70	27	10.25	15	10.90	30	11.22
16	9.79	Sept. 3	10.35	22	10.96	Dec. 3	11.31
23	9.45	10	10.45	29	10.91	17	11.36
30	9.70	17	10.57	Nov. 5	11.00	24	11.37
Aug. 6	9.85	24	10.65	12	11.11	31	11.45

814 (\*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164).  
City of Wichita. SE. corner sec. 14, T. 25 S., R. 1 W. Measuring point is  
1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	11.84	Mar. 31	12.60	July 6	13.15	Oct. 6	13.81
Feb. 2	12.00	Apr. 28	12.86	Aug. 2	13.05	30	13.98
Mar. 2	12.37	June 2	12.79	Sept. 2	13.44	Dec. 2	14.27

815 (\*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164).  
City of Wichita. NE. corner sec. 17, T. 25 S., R. 1 W. Measuring point is  
1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	9.98	Apr. 9	10.37	July 9	10.91	Oct. 8	11.81
15	9.82	16	10.41	16	10.98	15	11.88
22	9.79	23	10.50	23	10.87	22	11.94
29	9.83	30	10.55	30	10.93	29	11.97
Feb. 5	9.84	May 7	10.59	Aug. 6	11.02	Nov. 5	12.03
12	9.99	14	10.64	13	11.07	12	12.10
19	10.01	21	10.70	20	11.17	19	12.15
26	10.10	28	10.66	27	11.27	26	12.21
Mar. 8	10.15	June 4	10.68	Sept. 3	11.35	30	12.23
12	10.19	11	10.67	10	11.46	Dec. 3	12.25
19	10.23	18	10.73	17	11.55	17	12.35
26	10.28	25	10.78	24	11.63	24	12.38
Apr. 2	10.35	July 2	10.83	Oct. 1	11.71	31	12.45

816 (\*845, p. 133; 886, p. 222; 908, p. 169; 938, p. 144; 946, p. 165).  
City of Wichita. SE. corner sec. 7, T. 25 S., R. 1 W. Measuring point is  
1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 8	7.75	Apr. 9	8.25	July 9	8.78	Oct. 8	10.11
15	7.57	16	8.17	16	8.89	15	10.21
22	7.63	23	8.28	23	8.72	22	10.29
29	7.75	30	8.35	30	8.90	29	10.34
Feb. 5	7.74	May 7	8.40	Aug. 6	9.01	Nov. 5	10.42
12	7.90	14	8.46	13	9.15	12	10.51
19	7.94	21	8.44	20	9.30	19	10.58
26	8.00	28	8.25	27	9.47	26	10.65
Mar. 8	8.04	June 4	8.31	Sept. 3	9.60	30	10.67
12	8.04	11	8.34	10	9.71	Dec. 3	10.71
19	8.11	18	8.48	17	9.83	17	10.84
26	8.15	25	8.58	24	9.94	24	10.88
Apr. 2	8.23	July 2	8.70	Oct. 1	10.02	31	10.95

825 (\*845, p. 133; 886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165).  
City of Wichita. NE. corner sec. 3, T. 25 S., R. 1 W. Measuring point is  
1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	9.28	Mar. 31	9.16	July 6	9.49	Oct. 6	10.77
Feb. 2	9.00	Apr. 28	9.01	Aug. 2	9.78	30	10.70
Mar. 2	9.31	June 4	8.67	Sept. 2	10.49	Dec. 2	10.93

828 (#886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165). City of Wichita. NE. corner sec. 5, T. 25 S., R. 1 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	8.66	Mar. 22	9.53	May 26	9.70	Oct. 5	11.10
Feb. 1	9.06	Apr. 1	9.63	June 3	9.83	Nov. 9	11.06
17	9.15	19	9.76	July 2	10.14	Dec. 1	11.20
Mar. 1	9.38	29	9.86	Aug. 3	10.11		

830 (#845, p. 133; 886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165). City of Wichita. SW. corner sec. 30, T. 25 S., R. 2 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	24.76	Mar. 31	25.20	July 10	26.42	Oct. 8	27.28
Feb. 2	24.82	Apr. 28	25.49	Aug. 2	26.35	30	27.21
Mar. 2	25.09	June 3	25.57	Sept. 2	27.09	Dec. 2	27.30

834 (#845, p. 133; 886, p. 223; 908, p. 170; 938, p. 145; 946, p. 165). City of Wichita. SW. corner sec. 9, T. 25 S., R. 3 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	7.97	Mar. 31	8.75	July 10	9.98	Oct. 8	10.51
Feb. 2	8.11	Apr. 28	9.03	Aug. 2	9.54	30	10.26
Mar. 2	8.59	June 3	9.31	Sept. 2	10.52	Dec. 2	10.43

838 (#845, p. 133; 886, p. 223; 908, p. 170; 938, p. 145; 946, p. 165). City of Wichita. NE. corner NW $\frac{1}{4}$  sec. 33, T. 25 S., R. 3 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	22.51	Apr. 28	23.26	Aug. 2	23.84	Oct. 30	24.96
Mar. 2	22.91	June 3	23.51	Sept. 2	24.61	Dec. 2	25.17
31	23.00	July 10	24.08	Oct. 8	24.87		

840 (#908, p. 170; 938, p. 145; 946, p. 165). Owner of well, city of Wichita; owner of property, C. A. Berger. NE. corner sec. 9, T. 25 S., R. 2 W. Measuring point is 1.3 feet above land-surface datum and 4.62 feet below measuring point in use before Feb. 21, 1941.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.92	Apr. 23	4.23	July 16	5.54	Oct. 8	7.18
29	3.57	30	4.41	23	4.73	15	7.26
Feb. 5	3.17	May 7	4.60	30	5.17	22	7.32
12	3.51	14	4.67	Aug. 6	5.57	29	7.31
19	3.65	21	4.32	13	5.92	Nov. 5	7.37
26	3.88	28	4.00	20	6.22	12	7.41
Mar. 8	4.04	June 4	4.22	27	6.49	19	7.44
12	3.94	11	4.38	Sept. 3	6.68	26	7.49
19	4.10	18	4.64	10	6.82	Dec. 3	7.52
26	4.18	25	4.83	17	6.94	17	7.50
Apr. 2	4.30	July 2	5.03	24	7.02	24	7.51
9	4.31	9	5.28	Oct. 1	7.11	31	7.56
16	3.96						

842 (#886, p. 223; 908, p. 171; 938, p. 145; 946, p. 166). City of Wichita. SW. corner sec. 16, T. 25 S., R. 2 W. Measuring point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.75	Mar. 31	4.04	July 8	5.15	Oct. 7	6.81
Feb. 2	3.34	Apr. 28	4.25	Aug. 2	5.07	30	6.72
Mar. 2	3.83	June 2	4.39	Sept. 2	6.40	Dec. 2	6.79

845 (\*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T. 27 S., R. 1 E. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.36	Mar. 31	13.76	July 10	13.86	Oct. 8	14.08
Feb. 8	13.24	Apr. 28	13.82	Aug. 2	13.50	30	13.73
Mar. 2	13.69	June 3	13.76	Sept. 2	13.88	Dec. 2	14.10

846 (\*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 27 S., R. 1 E. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.15	Mar. 31	15.87	July 10	16.17	Oct. 8	16.45
Feb. 8	15.01	Apr. 28	15.94	Aug. 2	15.86	30	15.85
Mar. 2	15.77	June 3	15.95	Sept. 2	16.35	Dec. 2	16.47

847 (\*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166). City of Wichita. SW corner SE $\frac{1}{4}$  sec. 6, T. 27 S., R. 1 E. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.29	Mar. 31	15.78	July 10	16.15	Oct. 8	16.61
Feb. 8	14.95	Apr. 28	15.88	Aug. 2	15.72	30	16.23
Mar. 2	15.59	June 3	15.85	Sept. 2	16.42	Dec. 2	16.76

870 (\*908, p. 171; 938, p. 146; 946, p. 166). W. Williams. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 25 S., R. 2 W. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.25	Mar. 31	4.95	July 8	6.15	Oct. 30	7.53
Feb. 2	4.45	Apr. 28	5.53	Aug. 2	6.12	Dec. 2	7.64
Mar. 2	4.75	June 2	4.78	Oct. 7	7.59		

### Seward County

By L. C. Menzie

Highest and lowest recorded water levels in 6 wells in Seward County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
15	3	16.31	Oct. 25, 1943	18.00	Aug. 26, 1940
106	3	207.28	May 10, 1943	208.32	July 19, 1941
108	3	106.07	Nov. 13, 1942	110.78	Apr. 21, 1941
122	3	202.08	July 19, 1941	203.63	Aug. 5, 1940
159	3	94.44	Jan. 17, 1941	95.55	Dec. 19, 1940
165 a/	3	142.18	June 17, 1942	168.88	Dec. 18, 1941

a Measurements discontinued after Apr. 22, 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 6 wells in Seward County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
15	1.69	+0.02	+0.22
106	1.04	+0.50	+0.64
108	4.69	-1.29	+2.91
122	1.55	-0.04	+0.83
159	1.11	+0.24	+0.49
165	26.70	(b)	+12.15

15 (\*908, p. 173; 938, p. 147; 946, p. 167). R. H. Hitch. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 32 S., R. 33 W. Measuring point is 0.2 foot above land-surface datum, and 1.1 feet below measuring point in use before July 8, 1942.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	16.45	Apr. 22	16.43	July 6	16.81	Nov. 17	16.61
Feb. 5	16.48	May 10	16.41	Aug. 27	17.05	Dec. 28	16.50
Mar. 11	16.51	June 17	16.47	Oct. 25	16.31		

106 (\*908, p. 173; 938, p. 147; 946, pp. 167-168). Kansas City Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 32 S., R. 34 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	207.82	Mar. 11	207.62	May 10	207.28	Nov. 17	207.30
Feb. 5	207.58	Apr. 22	207.43	June 18	207.31		

108 (\*908, p. 173; 938, p. 147; 946, p. 168). C. D. Day. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 31 S., R. 34 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	106.30	Mar. 11	106.33	May 10	106.65	July 6	106.99
Feb. 5	106.30	Apr. 22	106.63	June 15	106.88	Nov. 17	107.42

122 (\*908, p. 173; 938, p. 148; 946, p. 168). Mrs. Flora Atwell. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 33 S., R. 31 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	202.93	Apr. 22	202.83	July 6	202.88	Oct. 25	202.93
Feb. 5	202.89	May 10	202.85	Aug. 27	202.99	Nov. 17	202.80
Mar. 12	202.87	June 17	202.89	Sept. 23	203.15		

159 (\*908, p. 174; 938, p. 148; 946, p. 168). Liberal Gas Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 35 S., R. 34 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	95.07	Apr. 22	94.96	July 6	94.96	Oct. 25	94.93
Feb. 5	95.09	May 10	94.93	Aug. 27	94.98	Nov. 17	94.89
Mar. 12	95.01	June 17	94.91	Sept. 23	94.95		

165 (\*908, p. 174; 938, p. 148; 946, p. 168). Griffith and Baughman. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 31 S., R. 33 W. Measuring point is 0.5 foot above land-surface datum. Measurements discontinued after Apr. 22, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 6, 156.05; Feb. 5, 155.59; Mar. 12, 155.87; Apr. 22, 155.46.

- a Between last measurement in 1942 and last measurement in 1943.  
b Record for 1943 incomplete.

Stafford County

By B. F. Latta

The altitudes of the measuring points of about 87 wells, including 8 observation wells, were established by spirit leveling during the fall of 1943 by C. K. Bayne and Estel Green. Two bench marks were established at each of 6 of the observation wells--Nos. 3, 19, 25, 26, 29, and 63; at the other two--Nos. 38 and 40-- bench marks were not established, because measurements in these wells were discontinued early in the year. The altitudes and descriptions of the bench marks for the six observation wells mentioned are included in this report.

Highest and lowest recorded water levels in 6 wells in Stafford County, in feet below land-surface datum.

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
3	1.5	16.63	Oct. 21, 1942	20.06	Oct. 12, 1943
19	1.5	9.17	June 2, 1943	11.04	Aug. 1, 1942
25	1.5	21.33	June 24, 1942	25.35	Aug. 1, 1942
26	1.5	16.97	July 21, 1943	20.11	Aug. 3, 1942
29	1.5	19.07	Nov. 24, 1942	22.84	Aug. 4, 1942
63	1.5	18.04	July 22, 1943	20.66	Aug. 26, 1942

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 6 wells in Stafford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 <sup>a</sup>	Net rise (+) or net decline (-) for period of record
3	3.43	-2.75	-1.26
19	1.87	-.01	+1.11
25	4.02	-.65	+3.01
26	3.14	+.33	+2.38
29	3.77	-1.06	+2.47
63	2.62	+.21	+1.32

3 (\*946, p. 170). B. Fritzmeier. SW. corner SW $\frac{1}{4}$  sec. 12, T. 23 S., R. 12 W. Measuring point is 0.5 foot above land-surface datum, 6.19 feet above bench mark 1, 4.34 feet above bench mark 2, and 1,849.7 feet above sea level. Bench mark 1 is copper washer in west pole of double telephone poles at road corner, about 200 feet west and 300 feet south of well; bench mark 2 is copper washer in telephone pole, about 200 feet west of well, on east side of road.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	16.99	Apr. 28	17.45	Aug. 4	19.21	Nov. 4	19.78
Feb. 17	17.00	June 24	17.31	Sept. 14	20.01	Dec. 21	19.65
Mar. 24	17.12	July 22	18.57	Oct. 12	20.06		

<sup>a</sup> Between last measurement in 1942 and last measurement in 1943.



19 (#946, p. 170). Atlantic Refining Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 21 S., R. 13 W. Measuring point is 0.4 foot above land-surface datum, 1.59 feet below bench mark 1, 1.68 feet below bench mark 2, and 1,881.2 feet above sea level. Bench mark 1 is cross cut in northeast corner of southeast concrete footing of oil well derrick, about 75 feet west of well; bench mark 2 is cross cut in top of water tank, on west side, about 50 feet southeast of well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.64	Apr. 22	9.33	July 21	9.44	Oct. 11	9.88
Feb. 19	9.56	May 22	9.30	Aug. 4	9.66	Nov. 4	9.66
Mar. 24	9.44	June 2	9.17	Sept. 14	9.84	Dec. 21	9.93

25 (#946, p. 170). Continental Oil Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 25 S., R. 13 W. Measuring point is 0.4 foot above land-surface datum, 0.9 foot below bench mark 1, 0.43 foot above bench mark 2, and 1,922.4 feet above sea level. Bench mark 1 is cross cut in top southwest corner of southwest concrete footing of oil well derrick, about 90 feet north of well; bench mark 2 is cross cut in southeast corner of concrete box at east end of tank battery, about 500 feet west of well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.68	Apr. 28	21.39	Aug. 5	21.56	Nov. 4	21.95
Feb. 17	21.50	June 24	21.33	Sept. 14	21.61	Dec. 21	22.34
Mar. 24	21.37	July 22	21.45	Oct. 11	21.82		

26 (#946, p. 170). Stanolind Oil Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 22 S., R. 12 W. Measuring point is 0.7 foot above land-surface datum, 0.53 foot above bench mark 1, 4.52 feet below bench mark 2, and 1,859.3 feet above sea level. Bench mark 1 is cross cut in top of northwest concrete footing of oil well derrick, about 100 feet east of well; bench mark 2 is copper washer in southeast side of 36-inch cottonwood tree, on east side of road and about 500 feet west of well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	17.79	Apr. 22	17.42	July 21	16.97	Oct. 11	17.43
Feb. 19	17.62	May 22	18.21	Aug. 4	17.05	Nov. 4	17.25
Mar. 24	17.52	June 2	17.21	Sept. 14	17.24	Dec. 21	17.73

29 (#946, p. 170). Atlantic Refining Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 24 S., R. 13 W. Measuring point is 0.4 foot above land-surface datum, 1.0 foot above bench mark 1, 1.83 feet below bench mark 2, and 1,934.1 feet above sea level. Bench mark 1 is copper washer in telephone pole, about 190 feet east and 60 feet south of well; bench mark 2 is cross cut in top southeast corner of southeast concrete footing of oil well derrick, about 70 feet west of well.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	19.33	Apr. 28	19.27	Aug. 5	19.47	Nov. 4	19.92
Feb. 17	19.25	June 24	19.09	Sept. 14	19.78	Dec. 21	20.37
Mar. 24	19.29	July 22	19.22	Oct. 11	19.83		

38 (#946, p. 170). H. F. Cornwell. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 23 S., R. 14 W. Measuring point is 0.5 foot above land-surface datum and 1,944.7 feet above sea level. Measurements discontinued after Apr. 28, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 26, 22.02; Feb. 17, 21.43; Mar. 24, 21.96; Apr. 28, 22.06.

40 (#946, p. 170). W. Nagel. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 24 S., R. 15 W. Measuring point is 0.5 foot above land-surface datum and 2,017.5 feet above sea level. Measurements discontinued after Mar. 24, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 26, 16.56; Feb. 17, 16.55; Mar. 24, 16.61.

63 (\*946, p. 171). G. W. Buckles. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 24 S., R. 11 W. Measuring point is 0.6 foot above land-surface datum, 0.25 foot below bench mark 1, 2.52 feet below bench mark 2, and 1,826.4 feet above sea level. Bench mark 1 is cross cut in top southwest corner of southwest concrete footing of oil well derrick, about 350 feet north of well; bench mark 2 is cross cut in concrete foundation at northwest corner of oil heater unit, about 350 feet south of well, at north end of tank battery.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	19.44	Apr. 28	19.22	Aug. 4	18.98	Nov. 4	19.10
Feb. 17	19.35	June 24	19.07	Sept. 14	18.97	Dec. 21	19.34
Mar. 24	19.27	July 22	18.04	Oct. 11	19.03		

#### Stanton County

By B. F. Latta

Highest and lowest recorded water levels in 5 wells in Stanton County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
13	4.5	49.02	Oct. 12, 1942	51.83	Apr. 23, 1940
47	4.5	70.48	Aug. 28, 1943	71.08	May 12, 1941
62 a/	4.5	120.10	Mar. 10, 1943	144.32	Mar. 13, 1941
93	4.5	174.58	Nov. 16, 1943	175.60	Oct. 9, 1939
146 a/	4.5	41.68	Jan. 5, 1943	46.30	Apr. 22, 1940
					May 14, 1940
					June 18, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 5 wells in Stanton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
13	2.81	-0.74	+1.45
47	.60	-.40	-.28
62	24.22	(c)	+19.67
93	1.02	+.49	+.87
146	4.62	(c)	+4.47

13 (\*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 171). L. Y. Carrithers. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 27 S., R. 40 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	49.17	May 11	49.24	Aug. 28	49.70	Oct. 26	49.44
Mar. 10	49.24	June 14	49.18	Sept. 24	49.98	Nov. 16	49.88
Apr. 23	49.21	July 5	49.38				

47 (\*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 172). Southwestern College. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 28 S., R. 39 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 4	70.67	May 11	70.51	Aug. 28	70.48	Oct. 27	70.95
Mar. 10	70.56	June 14	70.56	Sept. 24	71.07	Nov. 16	70.89
Apr. 23	70.54	July 5	70.54				

a Measurements discontinued after June 14, 1943.

b Between last measurement in 1942 and last measurement in 1943.

c Records for 1943 incomplete.

62 (\*886, p. 226; 908, p. 178; 938, p. 149; 946, p. 172). H. Bearman. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 28 S., R. 41 W. Measuring point is level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 5	131.34	Mar. 10	120.10	May 11	121.16
Feb. 4	128.07	Apr. 23	123.62	June 14	120.86

68 (\*886, p. 226; 908, p. 178; 938, p. 149; 946, p. 172). C. D. Wartman. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 28 S., R. 42 W. Measurements discontinued after Oct. 12, 1942.

93 (\*886, p. 226; 908, p. 178; 938, p. 149; 946, p. 172). J. Plummer. Center of NE $\frac{1}{4}$  sec. 11, T. 29 S., R. 41 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	174.96	Apr. 23	174.87	July 5	174.91	Oct. 26	174.81
Feb. 4	175.00	May 11	174.83	Aug. 28	174.75	Nov. 16	174.58
Mar. 11	174.91	June 14	174.81	Sept. 24	174.70		

146 (\*886, p. 227; \*908, p. 178; 938, p. 149; 946, p. 172). C. M. Harrison. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 30 S., R. 43 W. Measuring point is level with land-surface datum and 0.5 foot below measuring point in use before Oct. 25, 1940.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 5	41.68	Mar. 11	41.79	May 11	41.79
Feb. 4	41.73	Apr. 23	41.83	June 14	41.76

### Stevens County

By T. G. McLaughlin

The altitudes of the measuring points of all observation wells in Stevens County were determined by spirit leveling in December 1943 by

C. K. Bayne and Estel Greene.

Highest and lowest recorded water levels in 8 wells in Stevens County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
10	1.5	80.59	Feb. 4, 1943	a 91.73	Oct. 26, 1943
12	1.5	112.81	Nov. 16, 1943	113.38	July 28, 1942
21	1.5	87.03	Mar. 23, 1943	87.63	July 12, 1943
26	1.5	92.01	Aug. 28, 1943	92.20	July 5, 1943
			Nov. 16, 1943		
27 b/	1	118.57	Feb. 4, 1943	119.27	Nov. 13, 1943
28	1.5	132.26	May 10, 1943	132.64	Sept. 23, 1943
29	1.5	121.32	May 10, 1943	122.41	Nov. 17, 1943
30	1.5	105.42	Oct. 12, 1942	106.84	Sept. 23, 1943

a Well affected by pumping.

b Measurements discontinued in March 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 8 wells in Stevens County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
10	11.14	(b)	c -10.05
12	.57	+.43	+.57
21	.80	-.35	-.37
26	.19	+.09	+.10
27	.70	(b)	-.26
28	.38	.00	-.15
29	1.09	-.53	-.63
30	1.42	+.12	.00

10 (\*946, p. 173). T. P. Patterson. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 33 S., R. 37 W. Measuring point is 3,120.8 feet above sea level and level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	81.20	Mar. 11	80.71	May 11	83.50	July 5	82.25
Feb. 4	80.59	Apr. 23	80.95	June 14	82.23	Oct. 26	91.73

12 (\*946, p. 173). Mack Greenwood. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 33 S., R. 38 W. Measuring point is 3,190.2 feet above sea level and 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	113.14	Apr. 23	113.05	July 5	112.92	Oct. 26	112.82
Feb. 4	113.10	May 11	113.01	Aug. 28	112.87	Nov. 16	112.81
Mar. 11	113.11	June 14	112.97	Sept. 24	112.88		

15 (\*946, p. 173). F. H. Crump. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 33 S., R. 37 W. Measuring point is 3,097.4 feet above sea level and 0.5 foot above land-surface datum. Measurements discontinued after Dec. 31, 1942.

21 (\*946, p. 173). B. W. Parsons. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 31 S., R. 37 W. Measuring point is 3,078.8 feet above sea level and level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	87.22	Apr. 23	87.03	July 12	87.63	Oct. 25	87.59
Feb. 3	87.24	May 27	87.29	Aug. 28	87.42	Nov. 17	87.53
Mar. 10	87.07	June 18	87.21				

26 (\*946, p. 174). Panhandle Eastern Pipeline Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 33 S., R. 38 W. Measuring point is 3,143.2 feet above sea level and 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	91.46	Apr. 23	91.53	July 5	91.60	Oct. 26	91.47
Feb. 4	91.42	May 11	91.45	Aug. 28	91.41	Nov. 16	91.41
Mar. 11	91.51	June 14	91.43	Sept. 24	91.54		

27 (\*946, p. 174). Carrie Winter. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 32 S., R. 36 W. Measuring point is 3,072.3 feet above sea level and level with land-surface datum. Measurements discontinued after Mar. 3, 1943. Water levels, in feet below land-surface datum, 1943; Jan. 6, 118.83; Feb. 4, 118.57; Mar. 3, 119.00.

- a Between last measurement in 1942 and last measurement in 1943.
- b Records for 1943 incomplete.
- c Last measurement in 1943 affected by pumping.

28 (#946, p. 174). C. E. Dudley. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 31 S., R. 36 W. Measuring point is 3,068.5 feet above sea level and level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	132.50	Apr. 22	132.40	July 6	132.35	Oct. 25	132.52
Feb. 4	132.52	May 10	132.26	Aug. 28	132.28	Nov. 17	132.59
Mar. 11	132.53	June 14	132.31	Sept. 23	132.64		

29 (#946, p. 174). Eunice Bateman: NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 32 S., R. 36 W. Measuring point is 3,058.0 feet above sea level and level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	121.89	Apr. 22	121.67	July 6	121.53	Oct. 25	121.60
Feb. 4	121.34	May 10	121.32	Aug. 28	121.67	Nov. 17	122.41
Mar. 11	121.42	June 14	121.39	Sept. 23	121.75		

30 (#946, p. 174). Central Life Assurance Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 33 S., R. 36 W. Measuring point is 3,030.2 feet above sea level and 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	105.95	Apr. 22	105.97	July 6	105.96	Oct. 25	105.97
Feb. 4	106.19	May 10	105.93	Aug. 28	105.97	Nov. 17	106.00
Mar. 11	106.13	June 14	105.91	Sept. 23	106.84		

### Thomas County

By Betty Ball

Highest and lowest recorded water levels in 14 wells in Thomas County, in feet below land-surface datum

Well	Length of record (years)	Highest level (feet)	Date	Lowest level (feet)	Date
1	1.5	124.14	Oct. 17, 1943	126.17	July 13, 1942
2	1.5	48.43	Oct. 17, 1943	48.73	July 3, 1943
4	1.5	83.25	Nov. 11, 1943	83.59	Dec. 23, 1943
7	1.5	124.34	June 9, 1943	125.71	Oct. 7, 1943
9	1.5	72.03	July 14, 1942	73.07	Aug. 7, 1943
12	1.5	89.99	Jan. 11, 1943	90.43	Dec. 14, 1942
13	1.5	63.04	July 14, 1942	68.07	Apr. 12, 1943
21	1.5	105.17	Oct. 7, 1942	109.55	Sept. 16, 1943
25	1.5	116.01	Dec. 23, 1943	116.18	Feb. 11, 1943
26	1.5	111.64	July 3, 1943	111.82	Sept. 16, 1942
29 a/	1	115.76	Dec. 14, 1942	117.70	Feb. 11, 1943
32	1.5	148.03	Dec. 23, 1943	148.68	Sept. 16, 1942
33	1.5	116.81	Dec. 23, 1943	117.24	Aug. 7, 1943
62	1.5	97.65	Nov. 27, 1942	98.05	Aug. 7, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 14 wells in Thomas County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 b/	Net rise (+) or net decline (-) for period of record
1	2.03	+0.12	+3.59
2	.40	+.03	-.02
4	.34	-.25	-.07
7	1.37	-.14	+.06

a Measurements discontinued Apr. 12, 1943.

b Between last measurement in 1942 and last measurement in 1943.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1943 and for period of record, in 14 wells in Thomas County--Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1943 a/	Net rise (+) or net decline (-) for period of record
9	1.04	-0.44	-0.59
12	.44	-.10	+.47
13	5.03	-1.70	-1.80
21	4.38	-.58	+.38
25	.17	+.17	-.18
26	.18	+.06	+.71
29	1.94	(b)	+.67
32	.65	+.44	+1.95
33	.43	+.23	+1.90
62	.40	-.02	+.27

1 (\*946, p. 175). Earl W. Dawes. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 9 S., R. 36 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	124.20	Apr. 13	124.23	July 3	124.16	Oct. 17	124.14
Feb. 12	124.44	May 6	124.18	Aug. 7	124.20	Nov. 11	124.18
Mar. 19	124.36	June 9	124.15	Sept. 16	124.80	Dec. 23	124.08

2 (\*946, p. 175). Lem Fulwider. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 8 S., R. 36 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	48.56	Apr. 13	48.68	July 3	48.73	Oct. 17	48.43
Feb. 12	48.64	May 6	48.71	Aug. 7	48.72	Nov. 11	48.48
Mar. 19	48.61	June 9	48.71	Sept. 16	48.58	Dec. 23	48.53

4. Will Guise. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 7 S., R. 36 W. Unused stock well, diameter 6 inches, depth 96.0 feet below land surface. Measuring point, top of concrete well curb, on north side, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
July 13, 1942	83.52	May 6, 1943	83.22	Nov. 11, 1943	83.25
Feb. 12, 1943	83.34	Aug. 7	84.44	Dec. 23	83.59

7 (\*946, p. 176). George Strait. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 8 S., R. 36 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	124.62	Apr. 13	124.81	July 3	125.06	Oct. 17	125.07
Feb. 12	124.59	May 6	124.76	Aug. 7	124.86	Nov. 11	124.59
Mar. 19	124.48	June 9	124.34	Sept. 16	124.70	Dec. 23	124.76

8 (\*946, p. 176). Mr. Sloan. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 7 S., R. 33 W. Measuring point is 0.3 foot below land-surface datum. Measurements discontinued after Dec. 14, 1942.

9. Mr. Sloan. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 7 S., R. 33 W. Unused irrigation well, diameter 14 inches, depth 101.1 feet below land surface. Measuring point, top of casing, on west side, 0.4 foot above land-surface datum.

a Between last measurement in 1942 and last measurement in 1943.  
b Records for 1943 incomplete.

## 9. Mr. Sloan--Continued.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
July 14, 1942	72.43	May 5, 1943	72.71	Sept. 16, 1943	72.96
Jan. 12, 1943	72.58	June 8	72.69	Oct. 15	72.96
Feb. 11	72.72	July 3	72.76	Nov. 11	72.96
Mar. 19	72.74	Aug. 7	73.07	Dec. 23	73.02
Apr. 12	72.67				

12 (#946, p. 176). W. A. Atha. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 7 S., R. 31 W.  
Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	89.99	Apr. 12	90.03	July 3	90.15	Oct. 15	90.30
Feb. 11	90.04	May 5	90.11	Aug. 7	90.35	Nov. 11	90.27
Mar. 19	90.06	June 8	90.01	Sept. 16	90.16	Dec. 23	90.09

13 (#946, p. 176). H. V. Christensen. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 8 S.,  
R. 31 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	63.44	Apr. 12	68.07	July 3	65.36	Oct. 15	65.22
Feb. 11	63.51	May 5	68.03	Aug. 6	65.10	Nov. 11	65.28
Mar. 19	63.48	June 8	66.43	Sept. 16	65.14	Dec. 23	65.14

21 (#946, p. 176). W. J. Campbell. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 7 S., R. 34 W.  
Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	106.80	Apr. 12	106.78	July 3	107.86	Oct. 17	108.57
Feb. 11	106.91	May 5	107.01	Aug. 7	109.28	Nov. 11	107.74
Mar. 19	106.81	June 8	107.21	Sept. 16	109.55	Dec. 23	107.38

25 (#946, p. 176). Roy Zeiglemeyer. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 6 S., R. 32 W.  
Measuring point is 0.3 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 11	116.18	Aug. 7	116.04	Dec. 23	116.01
May 5	116.15	Nov. 11	116.05		

26 (#946, p. 176). T. A. Ryan. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 8 S., R. 32 W.  
Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	111.73	Apr. 12	111.75	July 3	111.64	Oct. 20	111.69
Feb. 11	111.82	May 5	111.69	Aug. 6	111.66	Nov. 11	111.68
Mar. 19	111.72	June 8	111.67	Sept. 16	111.70	Dec. 23	111.67

29 (#946, p. 176). Leo Murphy. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 9 S., R. 31 W.  
Measuring point is 1.4 feet above land-surface datum. Measurements discontinued after Apr. 12, 1943. Water levels, in feet below land-surface datum, 1943: Jan. 11, 115.79; Feb. 11, 115.89; Mar. 19, 115.84; Apr. 12, 117.59.

32 (#946, p. 177). F. D. Hoover. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 8 S., R. 35 W.  
Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	148.47	Apr. 13	148.46	July 3	148.53	Oct. 17	148.50
Feb. 12	148.49	May 6	148.49	Aug. 7	148.68	Nov. 11	148.49
Mar. 19	148.43	June 9	148.47	Sept. 16	148.65	Dec. 23	148.03

33 (\*946, p. 177). Arch Ball. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 9 S., R. 33 W. Measuring point is 1.6 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 11	117.04	Aug. 7	117.24	Dec. 23	116.81
May 5	116.95	Nov. 11	116.92		

62 (\*946, p. 177). H. A. Hills. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 10 S., R. 34 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 11	97.85	Aug. 7	97.97	Dec. 23	97.87
May 5	97.87	Nov. 11	98.05		

#### Wyandotte County

By V. C. Fishel

An investigation of the ground-water resources of the Kansas and Missouri River Valleys in Wyandotte County was begun in 1943 with the establishment of three observation wells in the Kansas River Valley. Special emphasis is being laid on conditions in the industrialized areas of Kansas City (Kans.). Periodic measurements are being made in the three wells by the wetted-tape method, and six measurements in all were made during the year. For well 30-2, in Bonner Springs, scattered measurements made prior to 1943 are included in this report.

138. P. S. Judy. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 11 S., R. 24 E. 0.1 mile north of Kansas Avenue and 0.65 mile west of Carlisle Road. Drainage well, diameter 18 inches, depth 41.4 feet, in alluvium of Kansas River Valley. Measuring point, top of casing, 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Sept. 3, 23.75; Nov. 22, 26.05.

147. South well. Santa Fe Railway. In Morris, NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 11 S., R. 24 E. Drilled well, used by stockyards, diameter 18 inches, depth 66.7 feet, in alluvium of Kansas River Valley. Measuring point, top of pipe, south of pump, 1.93 feet above concrete floor of pump house and 3.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Nov. 22, 27.53; Dec. 12, 27.55.

165. Northwest well. City of Bonner Springs. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 11 S., R. 23 E. Used drilled municipal well, diameter 14 inches, depth 56.5 feet. Measuring point, top-edge of concrete floor beside well, 3.5 feet above land-surface datum. Equipped with electrically driven turbine pump.

Water level, in feet below land-surface datum, 1936-37, 1939, 1943

Date	Water level	Date	Water level	Date	Water level
Nov. 10, 1936	28.5	Apr. 1, 1939	27.5	Aug. 14, 1943	23.5
Apr. 13, 1937	29.5	Sept. 4	26.5	Sept. 1	25.79
Sept. 1	27.5				



## MINNESOTA

By A. L. Greenlee

### PROGRAM OF WORK

Periodic measurements of water level in observation wells in Minnesota were continued in 1943 by the Geological Survey, United States Department of the Interior. At the beginning of the year the program included eight wells. During the year seven wells were dropped from the program and two were added, making a total of three under observation at the end of the year. In all, 192 individual measurements of water level were made in 1943. None of the wells is equipped with automatic water-stage recorders.

Of the eight wells making up the program at the beginning of 1943, seven are in the so-called Fargo artesian area, which lies partly in Clay County, Minn., and partly in Cass County, N. Dak. These seven wells were observed in cooperation with the North Dakota Geological Survey and the City of Fargo, as were also the wells in the North Dakota part of the area. Measurements were discontinued in all the wells in Clay County after June 1943.

The two wells added to the program in 1943 are well 135, located in the upper Mississippi River drainage basin near the town of Deer River, in Itasca County, and well 136 located in the St. Louis River drainage basin at the town of Eveleth in St. Louis County. The weekly measurements in these two wells total 46 for the year.

### FLUCTUATIONS OF WATER LEVEL

The fluctuations of water level in wells in the Fargo artesian area are briefly discussed in the section of this volume that deals with North Dakota, under Cass County. (See pp. 309-316.)

In the water-table well near Hanska, Brown County, the water level fluctuated through a range of 3.65 feet during the year and was 1.08 feet higher at the end of the year than at the beginning. During the 5-month period of its measurement in 1942--August to December--the water level in this well declined 0.66 foot.

US wells 135 and 136 are also water-table wells. It is anticipated that well 135 will be influenced by impounded Lake Winnibigoshish, which is in turn controlled by flood gates by the Corps of Engineers, United States Army. The period of measurement is as yet too short to estimate the extent of this influence. The water level in well 136 fluctuated 1.74 feet during the 6-month period of measurement.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Brown County

108-30-9 (\*946, pp. 178-179). Erwin Kjelshus. Sec. 9, T. 108 N., R. 30 W., near Hanska. Measuring point is 0.4 foot above land-surface datum. Measurements made by Erwin Kjelshus.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	5.98	Mar. 30	5.60	July 14	4.25	Oct. 4	4.80
12	5.98	Apr. 5	5.67	21	4.31	12	4.88
19	6.12	13	5.45	26	4.39	18	4.90
26	6.27	19	5.29	Aug. 2	4.24	25	5.02
Feb. 2	6.42	27	4.99	9	4.43	Nov. 2	5.10
9	6.55	May 3	4.88	16	4.39	9	4.80
15	6.71	10	4.90	23	4.50	16	4.69
23	6.38	18	3.06	30	4.49	29	4.50
Mar. 1	6.01	24	3.10	Sept. 7	4.17	Dec. 7	4.43
8	6.13	June 1	3.36	14	4.25	13	4.53
15	5.92	7	3.80	20	4.44	20	4.69
23	5.67	July 2	4.29	28	4.68	28	4.90

Clay County

3 (\*908, p. 180; 938, p. 151; 946, p. 179). City of Moorhead. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 140 N., R. 48 W. Measurements discontinued July 27, 1942.

5 (\*908, p. 180; 938, p. 151; 946, p. 179). Wm. Bailey. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 139 N., R. 48 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum subtract from 129.38. Measurements discontinued June 26, 1943.

## Water level, in feet below land-surface datum, 1943

Jan. 2	34.28	Feb. 27	34.11	Apr. 10	34.00	May 22	34.09
9	34.24	Mar. 6	33.98	17	33.95	29	34.08
23	34.04	13	34.01	24	34.04	June 5	34.03
30	34.06	20	33.99	May 1	34.04	12	34.05
Feb. 6	34.07	27	33.98	8	34.05	21	34.01
13	34.07	Apr. 2	33.97	15	34.06	26	34.02
20	34.03						

7 (\*908, p. 180; 938, p. 152; 938, p. 179). Andrew Gunderson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 140 N., R. 48 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 137.00. Measurements discontinued June 26, 1943.

## Water level, in feet below land-surface datum, 1943

Jan. 2	42.24	Feb. 20	42.21	Apr. 10	42.35	May 22	42.46
9	42.15	27	42.17	17	42.60	29	42.42
16	42.19	Mar. 6	42.20	24	42.54	June 5	42.25
23	42.21	13	42.24	May 1	42.43	12	42.26
30	42.23	27	42.12	8	42.50	21	42.45
Feb. 6	42.16	Apr. 2	42.20	15	42.58	26	42.40
13	42.22						

8 (\*908, p. 180; 938, p. 152; 946, p. 180). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 140 N., R. 48 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.98. Measurements discontinued June 26, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	21.14	Feb. 20	21.02	Arr. 10	21.14	May 22	21.19
9	21.03	27	20.94	17	21.19	29	21.06
16	21.05	Mar. 6	21.09	24	21.02	June 5	20.98
23	21.08	13	21.10	May 1	21.18	12	20.90
30	21.09	20	21.07	8	21.21	21	21.03
Feb. 6	21.05	27	21.03	15	21.13	26	20.97
13	21.08	Apr. 2	21.00				

24 (\*938, p. 152; 946, p. 180). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 139 N., R. 47 W. To convert water levels from feet above assumed datum as published in previous reports, to feet below land-surface datum, subtract from 119.98. Measurements discontinued June 26, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	18.65	May 3	18.66	May 29	18.55	June 21	18.33
24	18.64	15	18.69	June 5	18.35	26	18.14
May 1	18.64	22	13.73	12	13.35		

25 (\*938, p. 153; 946, p. 180). SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 139 N., R. 47 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.16. Measurements discontinued June 26, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	18.38	May 8	18.81	May 29	18.70	June 21	18.44
24	13.80	15	18.79	June 5	18.53	26	13.28
May 1	18.80	22	13.79	12	18.36		

26a (\*939, p. 153; 946, p. 130). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 139 N., R. 47 W. Well destroyed Nov. 12, 1942; measurements discontinued.

#### Itasca County

US 135. Corps of Engineers, U. S. Army, SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 146 N., R. 27 W., near town of Deer River. Driven well, 1 $\frac{1}{2}$  inches, depth 30 feet, used for observation only. Measuring point, top of casing, 4 feet above land surface. Well shows influence of impounded Lake Winnibigoshish.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 26	18.38	Sept. 6	13.04	Oct. 18	18.65	Nov. 29	19.32
Aug. 2	18.27	13	18.14	25	13.80	Dec. 6	19.41
9	18.16	20	18.22	Nov. 1	18.92	13	19.55
16	18.10	27	18.35	8	18.99	20	19.66
23	18.04	Oct. 4	18.49	15	19.10	27	19.75
30	18.06	11	18.54	22	19.24		

#### St. Louis County

US 136. Herman A. Katola. Lot 3, sec. 4, T. 56 N., R. 17 W., near Eveleth, in basement of Katola residence. Dug domestic well, diameter 16 inches, depth 9.55 feet. Measuring point, filed mark on pump pipe, at about land surface.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 27	6.78	Sept. 5	7.26	Oct. 17	7.50	Nov. 28	7.67
Aug. 1	6.97	12	6.92	24	7.51	Dec. 5	7.55
8	6.82	19	7.10	31	7.58	12	7.67
15	6.63	26	7.25	Nov. 7	7.44	19	7.67
22	6.01	Oct. 3	7.69	14	7.39	26	7.75
29	7.14	10	7.50	21	7.63		

## MISSOURI

By W. E. Hale, S. W. Lohman, and D. A. Barton

### PROGRAM OF WORK

At the end of 1943 the Nation-wide network of observation wells maintained by the Geological Survey, United States Department of the Interior, was represented in Missouri by 21 wells, in all of which measurements of water level had been made monthly or more frequently for at least a year. In 18 of the wells, all in Atchison County, measurements were begun in 1934 in connection with an investigation of ground-water conditions in the Tarkio Creek area, which includes also parts of Montgomery and Page Counties, Iowa. Two of the remaining observation wells in the State are in Phelps County, and the third is in Grundy County. During 1943 the measurements made in the 21 wells in Missouri totaled 313. None of the wells are equipped with water-stage recorders.

A bench mark was set at each of the Phelps County wells on December 1, 1943, by W. G. Stephan, engineer of the Rolla office of the Survey's division of surface water, and W. L. Ayres, assistant. The measurements in these two wells were made by engineers of the above-mentioned office, through the courtesy of H. C. Beckman, district engineer. The measurements in the Atchison County wells were made by D. L. Hummel, and those in the Grundy County well by W. H. Estes, owner of the well.

### FLUCTUATIONS OF WATER LEVEL

The wells in Phelps and Grundy Counties showed a more or less steady decline in water level in 1943, which, in one of the Phelps County wells, increased considerably during the period July to December. The fluctuations in the wells in Atchison County, which is in the Tarkio Creek area, are discussed with those of other wells in that area in the section of this volume that deals with Iowa. (See pp. 40-41; and 42-48.)

## WATER-LEVEL MEASUREMENTS

## Atchison County

## Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by D. L. Hummel.)

1. (\*777, pp. 63-64; \*817, pp. 56-59; \*840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; 946, p. 181). W. R. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	12.46	Apr. 26	13.71	July 29	10.04	Oct. 28	13.57
Feb. 22	11.83	May 25	13.98	Aug. 26	10.97	Nov. 29	14.36
Mar. 24	13.20	June 28	9.66	Sept. 23	12.39	Dec. 29	14.60

2 (\*777, pp. 63-64; \*817, pp. 56-59; \*840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; 946, p. 182). H. W. Klutas. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 66 N., R. 40 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	9.66	Apr. 26	9.70	July 29	8.54	Oct. 28	9.46
Feb. 22	9.75	May 25	9.46	Aug. 26	8.40	Nov. 29	9.40
Mar. 24	9.60	June 28	7.76	Sept. 23	9.06	Dec. 29	9.57

20 (\*840, pp. 92, 95; 845, pp. 87-88; 886, p. 124; 908, p. 181; 938, p. 40; 946, p. 182). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 65 N., R. 40 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	22.72	Apr. 26	23.92	July 29	20.02	Oct. 28	23.12
Feb. 22	22.82	May 25	22.79	Aug. 26	21.28	Nov. 29	23.67
Mar. 24	23.31	June 28	16.59	Sept. 23	22.16	Dec. 29	24.05

21 (\*840, pp. 92, 95; 845, pp. 87-88; 886, p. 124; 908, p. 181; 938, p. 41; 946, p. 182). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 65 N., R. 40 W. Measuring point is 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.40	Apr. 26	22.73	July 29	17.75	Oct. 28	20.59
Feb. 22	21.60	May 25	21.90	Aug. 26	18.68	Nov. 29	21.33
Mar. 24	22.24	June 28	16.96	Sept. 23	19.56	Dec. 29	22.15

22 (\*840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 908, p. 182; 938, p. 41; 946, p. 182). J. A. McAllister. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	11.46	Apr. 26	12.72	July 29	10.78	Oct. 28	11.94
Feb. 22	11.58	May 25	11.66	Aug. 26	11.10	Nov. 29	12.00
Mar. 24	11.56	June 28	9.76	Sept. 23	11.62	Dec. 29	12.65

23 (\*840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 938, p. 41; 946, p. 182). J. A. McAllister. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	11.54	Apr. 26	12.18	July 29	11.15	Oct. 28	12.61
Feb. 22	11.59	May 25	12.34	Aug. 26	11.34	Nov. 29	12.55
Mar. 24	12.00	June 28	10.68	Sept. 23	11.66	Dec. 29	13.25

24 (\*840, pp. 92, 95; 886, p. 125; 908, p. 182; 938, p. 41; 946, p. 182). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

## 24.--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	4.55	Apr. 26	4.71	July 29	3.69	Oct. 28	4.96
Feb. 22	4.69	May 25	4.67	Aug. 26	3.60	Nov. 29	4.22
Mar. 24	4.65	June 28	3.66	Sept. 23	2.99	Dec. 29	4.45

25 (#840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 908, p. 182; 938, p. 41; 946, p. 183). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 66 N., R. 40 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	46.79	Apr. 26	47.74	July 29	40.68	Oct. 28	41.09
Feb. 22	46.68	May 25	46.95	Aug. 26	42.97	Nov. 29	46.46
Mar. 24	47.37	June 28	37.99	Sept. 23	44.57	Dec. 29	47.01

27 (#840, pp. 92, 95; 845, pp. 87-88; 886, p. 126; 908, p. 182; 938, p. 41; 946, p. 183). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 66 N., R. 40 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	43.01	Apr. 26	43.96	July 29	40.45	Oct. 28	42.40
Feb. 22	43.48	May 25	43.98	Aug. 26	40.79	Nov. 29	42.93
Mar. 24	43.66	June 28	40.37	Sept. 23	41.50	Dec. 23	45.61

28 (#840, pp. 92, 95; 845, pp. 87-88; 886, p. 126; 908, p. 182; 938, p. 41; 946, p. 183). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	18.30	Apr. 26	19.05	July 29	13.43	Oct. 28	18.32
Feb. 22	18.26	May 25	18.75	Aug. 26	16.05	Nov. 29	18.94
Mar. 24	18.76	June 28	5.83	Sept. 23	17.38	Dec. 29	17.15

29 (#840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 126; 908, p. 182; 938, p. 41; 946, p. 183). Edwin Rolf. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 66 N., R. 40 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	12.43	Apr. 26	12.94	July 29	10.67	Oct. 28	12.93
Feb. 22	12.49	May 25	12.84	Aug. 26	12.45	Nov. 29	12.97
Mar. 24	12.83	June 28	6.78	Sept. 23	13.09	Dec. 29	13.13

30 (#840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 126; 908, p. 182; 938, p. 41; 946, p. 183). W. F. Marshall. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	12.30	Apr. 26	13.30	July 23	9.83	Oct. 28	12.19
Feb. 22	12.63	May 25	13.04	Aug. 26	10.65	Nov. 29	12.70
Mar. 24	13.01	June 28	8.50	Sept. 23	11.48	Dec. 29	13.25

31 (#840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 126; 908, p. 183; 938, p. 42; 946, p. 183). W. F. Marshall. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	4.25	Apr. 26	5.54	July 29	3.34	Oct. 28	4.60
Feb. 22	4.59	May 25	5.60	Aug. 26	3.93	Nov. 29	5.05
Mar. 24	5.11	June 28	2.80	Sept. 23	4.46	Dec. 29	5.57

32 (#840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; 946, pp. 183-184). W. F. Marshall. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 26	15.35	Apr. 26	16.09	July 29	13.77	Oct. 28	15.93
Feb. 22	15.47	May 25	17.73	Aug. 26	14.47	Nov. 29	16.14
Mar. 24	15.90	June 28	10.26	Sept. 23	15.32	Dec. 29	17.65

33 (\*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; 946, p. 184). W. F. Marshall. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	17.76	Apr. 26	18.13	July 29	16.13	Oct. 28	17.85
Feb. 22	17.66	May 25	17.64	Aug. 26	17.49	Nov. 29	18.20
Mar. 24	17.96	June 28	15.25	Sept. 23	17.86	Dec. 29	18.27

34 (\*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; 946, p. 184). W. F. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	8.93	Apr. 26	8.74	July 29	6.45	Oct. 28	8.79
Feb. 22	9.05	May 25	6.80	Aug. 26	7.28	Nov. 29	9.27
Mar. 24	8.77	June 28	4.84	Sept. 23	7.96	Dec. 29	9.84

35 (\*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; 946, p. 184). W. F. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.96	Apr. 26	21.90	July 29	16.90	Oct. 28	21.90
Feb. 22	22.10	May 25	22.15	Aug. 26	17.76	Nov. 29	23.25
Mar. 24	21.71	June 28	14.30	Sept. 23	19.76	Dec. 29	11.27

36 (\*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; 946, p. 184). George Rolf. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 66 N., R. 40 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	29.93	Apr. 26	30.64	July 29	27.92	Oct. 28	29.22
Feb. 22	30.04	May 25	30.79	Aug. 26	27.45	Nov. 29	30.12
Mar. 24	30.47	June 28	29.59	Sept. 23	28.88	Dec. 29	30.18

#### Grundy County

US 113 (\*946, p. 184). Wiley H. Estes. In Trenton, in sec. 17, T. 61 N., R. 24 W., on property of owner at 105 E. Fourth Street. Measuring point is at land-surface datum. Measurements made by owner.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	2.74	Apr. 4	3.20	July 2	3.15	Sept. 28	5.65
11	3.40	17	4.62	11	3.68	Oct. 10	5.90
23	4.18	25	3.75	20	4.75	14	5.94
Feb. 2	4.98	May 3	3.37	28	4.52	20	6.02
9	4.98	10	3.95	Aug. 3	4.14	25	6.12
16	4.95	15	3.98	10	4.41	Nov. 6	6.34
23	4.98	22	3.86	17	4.82	14	6.46
Mar. 3	4.90	June 1	4.67	24	4.84	25	6.58
15	5.25	10	1.20	Sept. 1	5.75	Dec. 8	6.68
22	4.50	15	1.96	14	5.30	19	6.76
27	3.25	26	2.75	21	5.45		

#### Phelps County

US 98 (\*946, p. 185). S. V. Allen. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 37 N., R. 10 W. Bench mark, established Dec. 1, 1943, is chiseled square on concrete well curb 1 foot south of well casing. Measuring point is 0.17 foot above bench mark and 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.25	Apr. 1	7.14	July 3	6.95	Oct. 2	9.18
Feb. 1	7.54	May 1	7.17	Aug. 3	7.69	Dec. 1	9.00
Mar. 1	7.58	June 2	7.01	Sept. 1	9.17		

US 98a (\*946, p. 185). Fred Pillman. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 37 N., R. 10 W. Bench mark, established Dec. 1, 1943, is chiseled square in concrete well curb 5 feet south and 3 feet west from well, 1 foot northeast of 18-inch elm tree. Measuring point is 0.66 foot above bench mark and 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.31	Apr. 1	7.85	July 3	6.02	Oct. 2	13.61
Feb. 1	8.61	May 1	6.90	Aug. 3	9.72	Dec. 1	13.20
Mar. 1	8.81	June 2	5.85	Sept. 1	12.79		



## NEBRASKA

By H. A. Waite

### PROGRAM OF WORK

The State-wide program of water-level measurements in observation wells in Nebraska, begun in 1934 by the Geological Survey, United States Department of the Interior, in cooperation with the Conservation and Survey Division of the University of Nebraska, was continued in 1943. Records of water level in the wells and some interpretation of the fluctuations of the water levels are given in the annual reports of the Geological Survey on water levels and artesian pressure. The reports already published are Water-Supply Papers 777, 817, 840, 845, 886, 908, 938 and 946.

It was not practicable in 1943 to visit all the wells in the State included in the program. All are listed in this report, however, by county and number, under the heading "Well descriptions and water-level measurements". (See pp. 187-300.)

Measurements of water level were made in 1943 in each of 354 wells, among which are 247 in the observation of which the following organizations are cooperating informally: Grand Island Water Department, 48 wells in Hall County and 2 in Merrick County; Fish and Wildlife Service, United States Department of the Interior, 9 wells in Garden County; Central Nebraska Public Power and Irrigation District, 1 well in Arthur County, 21 wells in Dawson County, 2 wells in Garden County, 22 wells in Gosper County, 65 wells in Keith County, 68 wells in Lincoln County, and 7 wells in Phelps County. The daily tape measurements given for well 85 in Morrill County were furnished by the Nebraska Department of Roads and Irrigation.

In June 1943 an observation well was drilled in the Platte River Valley south of O'Fallons, and equipped with an 8-day automatic water-stage recorder, which is serviced each week by Warren Doolittle, of the Platte Valley Public Power and Irrigation District. Another observation well was drilled in November 1943 in the Middle Loup River Valley southwest

of Arcadia; this well was equipped in December 1943 with an 8-day automatic water-stage recorder, which is serviced each week by Keith Essex, of the Middle Loup River Public Power and Irrigation District. The water-level records for each of these wells are given under the county in which the well is situated.

In this report there are included for the first time the complete water-level records for 124 observation wells that are measured monthly by the Central Nebraska Public Power and Irrigation District and tables showing the monthly and the average daily pumpage, over a period of years, for the municipal supplies of Grand Island and Lincoln.

Statements on ground-water conditions in Nebraska, prepared currently for the Geological Survey Monthly Water Resources Review, are based on the fluctuations of water level in eight key wells, selected for this purpose. Monthly measurements were continued in these wells during 1943, and two wells were added to the group. In one of these, US well 129, situated several miles west of Gibbon, measurements were begun in April. (See under Buffalo County.) In the other, US well 150, near Columbus, the measurements are made by the Loup River Public Power District, which discontinued its observation of key well US 61, also near Columbus, when that well became plugged, in April. The complete record of one of the eight key wells, situated just west of the Lincoln city well field near Ashland (well 2-6600W or US 62), which is measured monthly by the city of Lincoln, is given in this report for the first time. (See under Saunders County.)

In all, 2,862 individual measurements of water level were made in Nebraska in 1943.

#### FLUCTUATIONS OF WATER LEVEL

The precipitation in Nebraska in 1943 was 17.18 inches, which is 5.28 inches below normal and 7.99 inches below the precipitation in 1942. As a result, the water levels in many of the observation wells had net declines for the year. This is especially true of wells in the vicinity of Grand Island, where the precipitation was below normal in each of the 12 months of 1943 and where, as a consequence, water levels in general declined. The precipitation for the year at Grand Island was 14.89 inches, which is 12.17 inches below normal and 10.69 inches less than in 1942. The water levels in 19 wells showed net declines during the year ranging from 0.30 foot

to 5.13 feet and averaging 1.22 feet; in 4 wells the water levels showed net rises during the year ranging from 0.04 foot to 2.63 feet.

The two following tables give, for each observation well in the State, the highest and the lowest water level of record and the difference between them, the length of record, and the net change in water level in 1943 and the net change during the period of record.

Highest and lowest recorded water levels, in feet below land-surface datum, in observation wells in Nebraska

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Arthur County</u>				
N31	2.31	May 7, 1942	6.32	Aug. 29, 1940
<u>Blaine County</u>				
211	2.49	June 8, 1935	5.17	Aug. 10, 1937
<u>Buffalo County</u>				
263	7.63	June 20, 1932	12.65	Oct. 27, 1940
265	16.54	May 20, 1931	22.00	Nov. 9, 1942
267	16.62	June 20, 1932	23.05	Oct. 15, 1941
268	9.25	June 20, 1932	15.68	Oct. 27, 1940
		June 27, 1932		
270	22.55	June 9, 1931	28.53	Oct. 15, 1941
274	1.59	Apr. 25, 1933	6.92	Oct. 29, 1936
278	7.26	Apr. 2, 1943	11.90	Nov. 3, 1934
<u>Cass County</u>				
18	10.75	Oct. 20, 1942	20.39	Nov. 20, 1939
<u>Chase County</u>				
153	62.96	June 17, 1935	63.92	Aug. 21, 1935
<u>Cherry County</u>				
116	2.91	June 15, 1942	6.38	Sept. 12, 1936
146	1.00	June 1, 1942	5.33	Sept. 29, 1934
				July 8, 1941
256	4.46	June 6, 1935	9.54	Oct. 1, 1941
399	1.88	Mar. 29, 1940	3.38	Aug. 9, 1937
<u>Cuming County</u>				
61	12.96	Mar. 19, 1936	17.14	Oct. 9, 1937
69	4.86	May 27, 1935	8.93	Oct. 10, 1941
<u>Dawes County</u>				
123	16.79	Aug. 22, 1942	21.51	Aug. 27, 1934
<u>Dawson County</u>				
280	7.58	Apr. 7, 1931	13.32	Oct. 16, 1937
281	23.83	Oct. 27, 1930	33.22	July 24, 1940
282	7.00	May 4, 1931	11.82	Sept. 21, 1934
283	5.63	Apr. 6, 1931	12.55	Sept. 21, 1934
284	6.22	Apr. 13, 1931	17.44	Sept. 21, 1934
285	4.96	June 12, 1935	12.84	Sept. 21, 1934
286	10.07	Oct. 27, 1930	17.27	Sept. 21, 1934
287	11.88	July 20, 1931	18.90	July 24, 1940
288	11.68	May 25, 1931	18.81	July 24, 1940
289	4.82	Apr. 6, 1931	11.64	Aug. 21, 1934
290	4.57	May 11, 1931	12.35	Aug. 21, 1934
291	1.67	June 12, 1935	8.68	Aug. 21, 1934
292	3.29	June 12, 1935	9.27	Sept. 21, 1934
293	3.07	June 2, 1932	7.92	Aug. 21, 1934

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Dawson County--Continued</u>				
294	2.80	June 13, 1943	7.45	Aug. 21, 1934
295	5.98	June 12, 1935	8.99	Aug. 21, 1934
296	4.23	June 19, 1932	7.14	Oct. 22, 1941
297	3.00	May 9, 1933	7.24	Aug. 14, 1934
298	2.74	May 9, 1933	6.48	Sept. 21, 1934
299	1.88	Feb. 25, 1932	5.55	Nov. 14, 1934
300	1.23	Feb. 25, 1932	2.75	Aug. 10, 1937
301	.95	Feb. 25, 1932	5.86	Sept. 16, 1936
302	2.83	Feb. 25, 1932	7.62	Nov. 14, 1934
303	.10	May 3, 1933	5.21	Sept. 30, 1940
304	4.82	Feb. 25, 1932	9.20	Sept. 30, 1940
305	15.11	Apr. 6, 1931	19.54	Nov. 2, 1940
306	13.42	Dec. 14, 1943	22.90	July 24, 1940
308	10.00	Oct. 20, 1930	17.98	Aug. 21, 1934
314	9.82	June 18, 1935	13.19	Aug. 10, 1937
317	2.28	June 10, 1939	6.29	Sept. 21, 1934
318	3.94	Nov. 7, 1943	16.19	Oct. 1, 1940
319	3.85	June 6, 1936	7.45	Nov. 5, 1940
U44	8.66	Nov. 10, 1943	14.30	Oct. 2, 1939
U45	9.40	Sept. 11, 1942	13.78	Sept. 5, 1939
U48	8.94	Oct. 12, 1943	19.78	May 1, 1941
U49	1.03	Apr. 7, 1939	5.04	Aug. 4, 1939
U51	6.55	May 5, 1943	9.57	Oct. 3, 1939
U52	4.08	Mar. 2, 1939	7.17	Oct. 1, 1940
U53	2.05	Apr. 29, 1942	5.30	Aug. 30, 1940
U54	6.40	July 10, 1942	9.96	Nov. 4, 1940
U55	3.79	July 10, 1942	6.75	Oct. 1, 1940
U56	11.15	Dec. 14, 1943	16.22	Aug. 30, 1940
U57	5.28	July 9, 1943	9.04	Sept. 30, 1940
U58	9.24	Apr. 6, 1939	15.62	Aug. 7, 1943
U59	10.76	Dec. 14, 1943	17.28	Nov. 2, 1940
U60	11.26	Mar. 2, 1939	15.49	Aug. 29, 1940
U61	11.48	Dec. 14, 1943	19.82	Nov. 5, 1940
U62	9.75	May 5, 1939	14.38	Mar. 5, 1940
U63	6.82	Apr. 6, 1939	10.16	Dec. 5, 1939
U64	2.84	Apr. 6, 1939	6.84	Nov. 2, 1940
U73	35.82	Dec. 14, 1943	52.93	Aug. 29, 1940
U74	27.10	Sept. 1, 1942	28.54	Sept. 1, 1941
U75	40.37	Oct. 2, 1942	43.26	Aug. 30, 1940
<u>Dodge County</u>				
401	6.76	July 9, 1940	9.33	Oct. 18, 1940
455	2.43	Mar. 20, 1940	5.37	Oct. 22, 1940
456	4.68	Oct. 14, 1943	7.29	Feb. 21, 1940
457	4.87	Mar. 20, 1940	8.14	Feb. 3, 1940
458	10.22	Oct. 26, 1942	12.37	Oct. 9, 1941
459	11.91	Oct. 14, 1943	14.19	Oct. 22, 1940
460	13.44	Oct. 14, 1943	16.88	Mar. 20, 1940
461	11.86	Oct. 26, 1942	14.29	Oct. 22, 1940
462	9.17	Oct. 8, 1941	13.33	Feb. 3, 1940
464	7.49	Oct. 26, 1942	12.21	Feb. 3, 1940
467	23.63	Oct. 8, 1941	31.92	Feb. 3, 1940
468	60.86	Oct. 8, 1941	68.72	Mar. 20, 1940
<u>Dundy County</u>				
361	28.90	Nov. 27, 1942	30.63	Sept. 19, 1936
380	4.42	June 12, 1936	5.93	July 29, 1940
445	7.89	Oct. 28, 1941	9.74	Oct. 28, 1938

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Furnas County</u>				
147	99.91	Aug. 11, 1936	100.20	Jan. 4, 1943
395	28.99	June 13, 1936	30.82	Dec. 10, 1939
<u>Garden County</u>				
3	3.16	May 4, 1934	7.18	Nov. 5, 1937
4	.44	Feb. 12, 1934	4.84	Nov. 23, 1937
5	2.48	June 6, 1935	6.66	Aug. 20, 1937
12	3.30	July 24, 1935	7.87	July 29, 1934
17	3.78	May 23, 1935	6.64	Nov. 30, 1938
19	3.66	June 6, 1935	7.49	Oct. 9, 1937
21	2.00	June 6, 1935	5.12	Aug. 19, 1937
25	2.09	June 20, 1935	5.86	Sept. 29, 1939
27	4.30	Oct. 21, 1934	8.04	Apr. 2, 1938
				Jan. 13, 1938
S11	16.75	June 10, 1941	19.10	Dec. 15, 1939
S13	16.43	Aug. 5, 1943	21.45	May 5, 1938
				June 1, 1937
<u>Gosper County</u>				
1	3.14	May 2, 1940	6.65	Mar. 5, 1940
2	3.09	Aug. 7, 1943	5.98	Oct. 3, 1939
3	8.36	Mar. 6, 1942	12.30	Nov. 1, 1937
4	4.99	June 4, 1942	9.11	July 27, 1940
307	14.72	Dec. 14, 1943	24.18	Nov. 5, 1940
U76	181.89	Dec. 14, 1942	223.87	Jan. 3, 1941
U81	8.83	Sept. 14, 1943	16.40	Sept. 30, 1940
U82	23.56	Aug. 7, 1943	31.96	Sept. 30, 1940
U83	24.19	Sept. 30, 1940	32.56	Nov. 2, 1940
U84	42.92	Aug. 7, 1943	50.83	Sept. 30, 1940
U85	27.86	July 9, 1943	34.74	Sept. 30, 1940
U86	19.53	Aug. 7, 1943	28.10	Sept. 30, 1940
U87	13.39	Aug. 7, 1943	21.62	Sept. 30, 1940
U88	9.20	July 21, 1942	15.76	Sept. 30, 1940
U89	3.01	June 4, 1942	10.18	Sept. 30, 1940
U90	2.25	Sept. 15, 1942	10.48	Sept. 30, 1940
U92	5.51	Oct. 2, 1942	13.97	Sept. 30, 1940
U93	7.83	Oct. 2, 1942	15.63	Sept. 30, 1940
U95	31.45	July 9, 1943	34.07	Oct. 6, 1941
U96	2.97	Oct. 2, 1942	9.52	Sept. 30, 1940
U97	7.95	Aug. 4, 1942	12.72	Nov. 2, 1940
U98	9.36	Aug. 4, 1942	13.27	Nov. 2, 1940
U99	15.77	July 21, 1942	17.96	Sept. 2, 1941
<u>Hall County</u>				
245	1.40	June 6, 1931	8.82	Dec. 24, 1940
246	19.52	June 20, 1932	38.35	July 18, 1934
247	19.92	Oct. 9, 1930	38.82	July 31, 1933
		Oct. 21, 1930		
248	15.92	July 11, 1932	28.15	Aug. 11, 1931
249	29.04	May 20, 1931	38.60	July 18, 1934
258	15.67	June 23, 1931	34.70	Aug. 4, 1931
		June 30, 1931		
259	2.47	May 6, 1931	20.60	Aug. 20, 1936
260	18.83	June 27, 1932	26.72	July 22, 1931
GI203	9.65	Apr. 7, 1936	12.80	Dec. 24, 1940
GI204	9.50	Mar. 31, 1936	12.80	Dec. 24, 1940
		Apr. 7, 1936		
GI207	12.55	Dec. 20, 1935	17.63	Nov. 2, 1940
GI208	11.42	Jan. 28, 1942	19.05	Feb. 5, 1941
GI209	12.90	Mar. 13, 1936	16.70	July 27, 1940
GI210	16.60	Mar. 13, 1936	23.25	Aug. 28, 1941
		Mar. 27, 1936		

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Hall County--Continued</u>				
GI211	13.90	Jan. 25, 1936	18.90	Aug. 28, 1941
GI212	19.64	Nov. 13, 1943	25.50	July 27, 1940
GI214	15.20	June 12, 1936	24.25	July 27, 1940
GI215	21.10	Mar. 27, 1936	26.15	Apr. 18, 1941
				Feb. 5, 1941
GI216	27.35	Mar. 27, 1936	33.65	Aug. 28, 1941
				Nov. 2, 1940
GI217	28.00	Feb. 28, 1936	33.70	Dec. 24, 1940
GI218	21.45	Feb. 1, 1936	25.50	Dec. 24, 1940
GI219	5.70	May 15, 1938	8.40	Feb. 13, 1937
GI220	5.80	May 12, 1936	9.00	Dec. 24, 1940
GI221	28.50	Feb. 29, 1936	35.40	July 19, 1941
GI222	25.90	Feb. 28, 1936	31.40	July 19, 1941
GI223	6.16	Nov. 17, 1942	17.45	Nov. 2, 1940
GI224	8.20	Apr. 18, 1936	18.66	May 21, 1943
		May 3, 1936		
		May 23, 1936		
GI225	6.95	Dec. 15, 1935	11.00	Dec. 24, 1940
GI226	31.50	Feb. 29, 1936	41.95	Aug. 28, 1941
GI227	29.70	Nov. 30, 1935	36.62	Nov. 2, 1940
GI229	32.90	Feb. 19, 1937	42.45	Nov. 2, 1940
GI230	30.60	Feb. 19, 1937	35.65	Feb. 5, 1941
GI231	31.25	Mar. 27, 1936	37.34	Nov. 2, 1940
GI232	16.40	Dec. 13, 1935	21.25	Feb. 5, 1941
		Feb. 25, 1936		
GI233	20.50	Feb. 25, 1936	26.35	Feb. 5, 1941
GI234	23.70	Mar. 3, 1936	33.75	Nov. 2, 1940
GI236	21.60	Mar. 3, 1936	26.37	Nov. 2, 1940
		Mar. 13, 1936		
GI237	28.52	Apr. 10, 1936	33.15	Feb. 5, 1941
GI238	28.30	Mar. 27, 1936	33.60	July 27, 1940
GI239	6.95	May 12, 1936	10.42	July 17, 1942
GI240	4.40	Mar. 31, 1936	8.75	Dec. 6, 1942
GI241	6.15	Mar. 31, 1936	14.22	Oct. 11, 1943
		May 2, 1936		
GI242	19.60	Dec. 2, 1935	26.00	Dec. 24, 1940
GI243	1.90	May 29, 1938	6.05	Oct. 17, 1936
GI244	3.40	Sept. 11, 1938	7.30	Dec. 24, 1940
GI246	4.10	Mar. 31, 1936	7.15	Dec. 24, 1940
GI247	2.70	May 29, 1938	6.10	Dec. 24, 1940
GI248	1.95	May 29, 1938	6.70	Dec. 24, 1940
GI249	2.95	May 29, 1938	6.55	Dec. 24, 1940
GI250	1.90	May 29, 1938	6.35	Dec. 24, 1940
GI251	8.00	Dec. 2, 1935	12.00	Dec. 24, 1940
		Dec. 7, 1935		
GI252	7.30	Dec. 15, 1935	12.40	Dec. 24, 1940
				Mar. 26, 1941
GI253	11.15	Dec. 2, 1935	15.75	Mar. 26, 1941
GI254	14.50	Mar. 15, 1936	19.95	Dec. 24, 1940
GI255	8.00	May 29, 1938	17.70	Dec. 28, 1935
<u>Hayes County</u>				
446	7.64	Apr. 9, 1937	14.44	Sept. 11, 1943
<u>Hitchcock County</u>				
362	9.92	Dec. 3, 1942	11.35	Dec. 9, 1939
<u>Holt County</u>				
203	4.00	June 4, 1935	9.77	Sept. 14, 1936
428	5.82	July 12, 1938	8.96	Oct. 30, 1940

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Howard County</u>				
59	64.73	Feb. 21, 1935	66.35	Oct. 29, 1940
<u>Kearney County</u>				
266	7.31	June 20, 1932	21.60	Aug. 29, 1934
<u>Keith County</u>				
93	6.90	May 8, 1942	15.29	Sept. 17, 1936
350	12.52	June 26, 1938	15.62	July 26, 1940
E1	4.47	Apr. 3, 1939	9.30	Dec. 2, 1941
E2	4.40	Apr. 3, 1939	10.08	July 24, 1940
E3	6.17	Apr. 3, 1939	10.31	July 24, 1940
E6	4.30	Mar. 2, 1942	8.35	Aug. 28, 1940
E7	2.61	Apr. 7, 1939	5.24	Aug. 28, 1940
E8	3.04	Oct. 6, 1942	7.56	Sept. 30, 1940
E9	2.60	June 6, 1941	5.79	Aug. 28, 1940
E11	3.08	June 2, 1939	6.09	Sept. 30, 1940
E12	3.37	Apr. 5, 1939	6.73	Nov. 1, 1940
E13	2.52	Apr. 5, 1939	6.59	Aug. 28, 1940
E14	3.98	Apr. 5, 1939	8.96	Aug. 3, 1943
E15	1.55	Apr. 5, 1939	7.17	Aug. 28, 1940
E16	5.20	Apr. 5, 1939	9.24	Aug. 30, 1940
E17	2.78	Mar. 2, 1942	6.43	Aug. 30, 1940
E18	3.94	Sept. 10, 1938	6.42	Aug. 30, 1940
E19	2.47	Feb. 27, 1939	5.79	Nov. 5, 1941
E20	2.96	July 10, 1943	4.94	May 1, 1940
E21	2.83	Sept. 7, 1942	6.34	Aug. 30, 1940
E37	4.61	May 8, 1942	10.25	Sept. 27, 1940
N4	16.40	Aug. 13, 1936	19.26	Dec. 2, 1941
N5	7.36	May 31, 1938	10.40	Dec. 2, 1941
N6	.88	June 30, 1938	5.05	Oct. 3, 1941
N7	4.94	May 31, 1938	10.32	Dec. 2, 1941
N8	a+.26	May 31, 1938	2.50	Oct. 3, 1941
N9	10.25	May 4, 1942	17.76	July 16, 1936
N10	8.37	May 31, 1937	11.00	Aug. 28, 1940
N11	17.16	Aug. 6, 1942	15.58	Sept. 4, 1941
N12	7.63	May 4, 1942	10.24	Mar. 30, 1942
N13	5.11	May 4, 1942	8.63	Nov. 5, 1943
N14	8.58	Sept. 29, 1938	11.48	Apr. 12, 1941
N15	3.02	May 4, 1942	6.39	Aug. 28, 1940
N16	9.32	May 31, 1939	12.38	July 24, 1940
N17	3.39	Aug. 3, 1943	9.32	Sept. 30, 1940
N18	b22.03	Dec. 8, 1943	34.29	Mar. 30, 1942
N19	9.79	Apr. 3, 1939	11.85	Sept. 4, 1941
N20	7.68	May 4, 1938	10.47	Dec. 1, 1937
N23	c1.78	Nov. 4, 1943	18.78	Oct. 5, 1943
N24	6.02	June 1, 1938	8.95	Mar. 27, 1940
N25	b22.90	June 1, 1938	35.84	Sept. 2, 1941
N26	7.90	July 30, 1936	10.90	May 7, 1942
N27	8.49	June 1, 1943	12.40	Feb. 2, 1942
N28	8.44	Feb. 2, 1937	10.52	Feb. 26, 1942
N30	5.87	Aug. 7, 1942	9.80	Feb. 2, 1942
N32	10.96	July 8, 1937	12.69	Apr. 30, 1942
N33	10.22	May 7, 1942	12.78	Feb. 4, 1941
				Oct. 1, 1941

a Water level in feet above land surface.

b Water level in well affected by changes in storage in Lake McConaughy.\*

c Well flooded during period January to October 1943.

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Keith County--Continued.</u>				
N37	10.44	May 2, 1941	20.46	Sept. 30, 1936
N40	10.08	Feb. 29, 1940	12.95	Aug. 29, 1940
N41	a55.63	Oct. 5, 1943	83.86	Mar. 3, 1942
N42	a55.20	Aug. 3, 1943	95.17	Nov. 28, 1940
S10	15.04	Dec. 8, 1943	23.11	Nov. 2, 1937
S16	185.72	May 13, 1943	188.45	May 3, 1937
S18	158.65	May 13, 1943	163.38	Oct. 3, 1941
S19	a153.31	Nov. 5, 1943	166.90	Oct. 6, 1942
S20	177.70	Mar. 17, 1943	182.62	Apr. 2, 1937
S21	101.59	Mar. 17, 1943	105.80	July 25, 1940
S22	a91.58	Sept. 14, 1943	108.45	Mar. 3, 1941
S23	106.87	Sept. 14, 1943	109.49	Mar. 3, 1941
S24	70.72	Nov. 1, 1938	73.96	Dec. 1, 1941
S25	1.48	Aug. 12, 1942	7.41	Oct. 31, 1940
S26	9.27	May 8, 1942	15.79	Aug. 2, 1943
S27	8.04	May 8, 1942	13.85	Aug. 2, 1939
S28	2.03	May 8, 1942	6.32	Jan. 28, 1943
S29	9.94	May 8, 1942	14.59	Oct. 6, 1943
S32	a19.81	July 7, 1943	58.09	Jan. 2, 1941
				Feb. 4, 1941
				July 3, 1941
S34	a34.01	July 8, 1943	60.07	Oct. 31, 1940
<u>Keya Paha County</u>				
375	1.52	Mar. 29, 1940	3.61	Oct. 31, 1940
<u>Kimball County</u>				
88	33.67	June 15, 1935	35.04	July 28, 1940
<u>Knox County</u>				
335	8.60	Dec. 24, 1935	11.98	Oct. 30, 1940
		Mar. 25, 1936		
<u>Lincoln County</u>				
US600	3.30	June 20, 1943	5.42	Sept. 28, 1943
241	2.88	July 2, 1935	7.07	Oct. 2, 1943
242	11.61	May 13, 1943	19.92	Aug. 30, 1941
405	1.31	Feb. 28, 1941	4.60	Sept. 17, 1936
E22	2.57	Oct. 6, 1941	5.74	Aug. 30, 1940
E23	2.15	Sept. 7, 1942	5.48	Sept. 3, 1941
E24	1.04	Feb. 3, 1941	3.82	Aug. 30, 1940
E25	.37	Sept. 7, 1942	4.70	July 26, 1940
E26	8.16	Sept. 10, 1942	10.77	Aug. 30, 1940
E27	6.87	Sept. 10, 1942	11.01	Dec. 30, 1940
E28	1.94	Aug. 8, 1942	7.16	Aug. 30, 1940
E29	2.30	Sept. 15, 1943	6.84	Mar. 19, 1943
E30	2.62	May 8, 1942	6.00	May 7, 1941
E31	2.53	May 8, 1942	5.69	Aug. 2, 1939
E32	2.02	May 8, 1942	4.27	Aug. 2, 1939
E33	+28	May 8, 1942	3.34	Aug. 6, 1939
E34	1.57	May 8, 1942	4.25	Aug. 30, 1940
E35	3.77	May 8, 1942	6.27	Aug. 2, 1939
		Sept. 10, 1943		Nov. 6, 1939
E36	1.94	May 8, 1942	6.11	July 26, 1940
E38	9.57	May 8, 1942	13.37	Sept. 27, 1940
E39	3.49	May 8, 1942	7.40	Sept. 27, 1940

a Water level in well affected by changes in storage in Lake McConaughy.



Highest and lowest recorded water levels, in feet below land-surface datum, in observation wells in Nebraska--Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Lincoln County--Continued.</u>				
U3	2.10	May 6, 1938	5.67	July 26, 1940
U4	2.41	Dec. 3, 1937	6.92	Sept. 1, 1939
U5	1.03	May 5, 1937	4.72	July 26, 1940
U6	1.42	Feb. 2, 1937	5.04	July 7, 1943
U7	2.40	May 8, 1942	5.53	Sept. 13, 1943
U8	1.56	May 8, 1942	6.08	Sept. 13, 1943
U9	.65	May 1, 1942	7.28	Sept. 15, 1936
U10	2.42	May 11, 1942	10.57	Aug. 28, 1936
U11	1.37	Apr. 6, 1939	5.35	Nov. 1, 1939
				Dec. 4, 1942
U12	9.09	Sept. 11, 1942	15.98	Aug. 2, 1937
U13	1.86	Apr. 30, 1941	8.74	Aug. 3, 1939
U14	5.15	Sept. 11, 1942	12.30	Sept. 15, 1936
U15	1.57	May 11, 1942	5.45	Aug. 15, 1936
U16	4.60	Feb. 2, 1938	7.05	July 26, 1940
U17	2.14	May 8, 1942	6.31	July 26, 1940
U18	2.98	May 8, 1942	6.45	Oct. 2, 1939
U19	3.28	May 8, 1942	7.08	Oct. 2, 1939
U20	.85	Apr. 30, 1941	4.60	Sept. 5, 1939
U21	8.95	Sept. 11, 1942	14.61	Oct. 1, 1940
U22	4.60	July 30, 1941	10.84	Aug. 3, 1939
U23	5.24	May 1, 1942	10.48	Nov. 1, 1939
U24	3.05	Apr. 7, 1939	5.57	Sept. 17, 1943
U25	3.85	Mar. 3, 1939	6.46	Sept. 30, 1940
U26	3.28	Apr. 7, 1939	6.31	Aug. 30, 1941
U27	1.05	May 1, 1942	6.48	Aug. 29, 1940
U28	2.78	May 1, 1942	6.62	Sept. 6, 1939
U29	.75	May 1, 1942	4.33	Aug. 29, 1940
U30	2.45	May 1, 1942	5.07	Sept. 6, 1939
U31	1.74	Sept. 11, 1942	7.36	Nov. 1, 1939
U32	12.06	Mar. 4, 1943	16.85	Oct. 1, 1940
U33	29.74	Nov. 8, 1943	37.43	Oct. 1, 1940
U34	15.37	Nov. 8, 1943	18.68	Oct. 1, 1940
U35	2.58	May 12, 1943	10.65	Nov. 1, 1939
U36	1.40	May 1, 1942	5.13	Aug. 4, 1939
U37	2.53	Feb. 2, 1943	7.87	Aug. 29, 1940
U38	6.66	May 6, 1943	14.07	Oct. 2, 1939
U39	3.02	July 1, 1941	9.02	Oct. 2, 1939
U40	11.70	Nov. 10, 1943	21.62	Apr. 6, 1939
U41	6.32	Aug. 3, 1942	16.19	July 29, 1940
U42	11.24	July 8, 1943	21.38	Oct. 2, 1939
U43	29.77	Oct. 11, 1943	42.36	June 5, 1939
U46	1.90	June 14, 1943	5.47	Sept. 5, 1939
U50	5.86	July 6, 1942	13.44	Nov. 1, 1939
U77	22.90	June 14, 1943	31.65	Nov. 4, 1940
U78	19.82	June 14, 1943	27.86	Nov. 4, 1940
U79	17.51	June 14, 1943	25.02	Oct. 1, 1940
U80	31.05	Oct. 1, 1940	25.29	Nov. 10, 1943
J81	26.29	June 14, 1943	38.90	Nov. 1, 1939
J82	17.03	June 14, 1943	26.96	Nov. 1, 1939
J83	22.98	Oct. 11, 1943	33.66	Oct. 2, 1939
J84	14.87	June 14, 1943	23.40	Oct. 2, 1939
<u>Madison County</u>				
110	.04	Aug. 5, 1935	3.25	Aug. 18, 1936
<u>Merrick County</u>				
GI200	3.80	May 15, 1938	6.30	Aug. 29, 1936
GI201	7.92	Mar. 24, 1943	11.20	Sept. 19, 1936
				Dec. 24, 1940

Highest and lowest recorded water levels, in feet below  
land-surface datum, in observation wells in Nebraska--  
Continued.

Well	Highest recorded water level (feet)	Date	Lowest recorded water level (feet)	Date
<u>Morrill County</u>				
85	2.00	May 14, 1942	5.42	Aug. 16-21, 1940
<u>Nemaha County</u>				
11	11.37	May 19, 1936	20.56	July 6, 1940
<u>Phelps County</u>				
5	7.08	June 4, 1942	12.22	Nov. 1, 1937
6	10.70	June 15, 1938	16.25	Nov. 1, 1937
7	6.53	June 15, 1938	12.67	July 2, 1940
8	2.10	June 4, 1942	7.42	Sept. 30, 1940
9	7.06	May 6, 1943	11.01	Sept. 30, 1940
10	9.02	Sept. 15, 1942	13.90	Sept. 30, 1940
		July 9, 1943		
11	5.01	June 4, 1942	9.19	Nov. 2, 1940
275	7.75	May 9, 1933	12.23	Oct. 27, 1940
276	12.14	July 9, 1935	15.91	Aug. 3, 1931
277	.94	Feb. 23, 1932	6.15	Oct. 30, 1936
<u>Platte County</u>				
US150	60.8	Mar. 27, 1940	71.23	July 30, 1937
		Apr. 24, 1940		
<u>Redwillow County</u>				
137	11.63	July 20, 1935	13.49	Oct. 21, 1937
139	18.37	June 21, 1935	21.40	Sept. 18, 1936
494	5.38	Oct. 28, 1941	8.91	Sept. 17, 1943
<u>Richardson County</u>				
5	21.27	May 19, 1936	31.73	Oct. 22, 1934
408	4.83	May 19, 1936	15.80	Aug. 19, 1940
416	3.69	Aug. 27, 1940	18.03	Oct. 29, 1940
419	1.83	Oct. 16, 1942	7.61	Aug. 19, 1940
<u>Rock County</u>				
117	1.97	May 1, 1942	5.47	Nov. 22, 1935
<u>Saunders County</u>				
2-6600W	2.69	Mar. 9, 1939	7.92	Aug. 30, 1934
<u>Sherman County</u>				
58	5.00	Nov. 12, 1942	8.14	Sept. 15, 1936

Length of record, difference between highest and lowest water levels,  
net change in water level in 1943, and net change in water level  
during period of record in observation wells in Nebraska

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Arthur County</u>				
N31	8	4.01	-0.81	-0.55
<u>Blaine County</u>				
211	10	2.68	-.33	-.38

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Buffalo County</u>				
263	14	5.02	.....	+0.17
265	14	5.46	.....	-3.35
267	14	6.43	.....	-1.80
268	14	6.43	.....	-2.39
270	14	5.98	-.09	-3.28
274	14	5.33	.....	-.41
278	13	4.64	.....	+3.62
<u>Cass County</u>				
18	10	9.64	.....	+4.99
<u>Chase County</u>				
153	10	.96	.....	+1.14
<u>Cherry County</u>				
116	8	3.47	.....	+0.03
146	10	4.33	.....	+2.00
256	10	5.08	.....	-1.26
399	8	1.50	.....	+0.05
<u>Cuming County</u>				
61	10	4.18	.....	-.78
69	10	4.07	.....	-3.15
<u>Dawes County</u>				
123	10	4.72	-.81	+3.26
<u>Dawson County</u>				
280	14	5.74	.....	-.53
281	14	9.45	+87	-2.41
282	14	4.88	+1.24	-2.07
283	14	6.82	+0.09	-3.03
284	14	7.22	+0.05	-2.76
285	14	7.88	+12	-2.96
286	14	7.20	+0.02	-3.59
287	14	6.92	-.02	-4.00
288	14	7.13	-.15	-3.90
289	14	7.26	-.43	-3.90
290	14	7.78	-.62	-4.01
291	14	7.31	-.85	-4.27
292	14	5.98	-.89	-3.09
293	14	4.85	-.34	-.96
294	14	4.65	-.04	-.58
295	14	3.01	+16	-.06
296	14	2.91	-.04	-.98
297	14	4.24	-.31	-.86
298	14	3.74	+62	-.24
299	14	3.67	-.32	-1.02
300	14	3.98	-.40	-1.38
301	14	4.91	-.24	-.61
302	14	4.79	-.19	-.69
303	14	5.11	-.16	-.71
304	14	4.38	+10	-.55
305	14	4.43	+88	+46
306	14	9.48	+1.93	+1.68
308	14	7.98	.....	-2.57
314	12	3.37	.....	-.57

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Dawson County--Continued</u>				
317	13	4.01	.....	+0.40
318	13	12.25	+1.81	+3.01
319	13	3.60	.....	-.26
U44	6	5.64	+1.36	+2.08
U45	6	4.38	+1.22	+3.22
U48	6	10.84	+3.49	+8.22
U49	6	4.01	-.99	-.07
U51	6	3.02	+1.14	+1.56
U52	5	3.09	-.36	-1.75
U53	5	3.25	-.69	-.26
U54	5	3.56	+1.28	+1.90
U55	5	2.96	-.16	-.57
U56	5	5.07	+1.70	+2.36
U57	5	3.76	+1.79	+1.31
U58	5	6.38	+1.91	+2.21
U59	5	6.52	+2.99	+4.60
U60	5	4.23	+1.73	-.12
U61	5	8.34	+2.68	+4.02
U62	5	4.63	+1.24	-1.98
U63	5	3.34	-.17	-1.65
U64	5	4.00	-.02	-1.67
U73	4	17.11	+6.33	+17.11
U74	4	1.44	.....	-1.22
U75	4	2.89	.....	+2.89
<u>Dodge County</u>				
401	8	2.57	.....	-.17
455	4	2.94	.....	-2.24
456	4	1.61	.....	+1.61
457	4	3.27	.....	+1.72
458	4	2.15	.....	+1.89
459	4	2.28	.....	+1.07
460	4	2.44	.....	+2.40
461	4	2.43	.....	+2.02
462	4	4.16	.....	+2.73
464	4	4.72	.....	+4.45
467	4	8.29	.....	+5.91
468	4	7.86	.....	+5.89
<u>Dundy County</u>				
361	9	1.73	.....	-.14
380	9	1.51	.....	-1.14
445	8	1.85	.....	-.87
<u>Furnas County</u>				
147	10	1.29	.....	-1.12
395	8	1.83	.....	-.76
<u>Garden County</u>				
3	11	4.02	.....	-3.06
4	11	4.40	-1.30	-3.00
5	11	4.18	.....	+.78
12	10	4.57	-.50	-.05
17	10	2.86	.....	+.52
19	10	3.83	.....	+2.18
21	10	3.12	.....	+1.84
25	10	3.77	.....	+.23
27	10	3.74	.....	-2.04
S11	8	2.35	-.16	-.18
S13	8	5.02	-1.00	+3.39

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Gosper County</u>				
1	6	3.51	+0.82	-0.30
2	6	2.89	-.13	+.06
3	7	3.94	-.03	+2.86
4	7	4.12	-.36	+1.09
307	12	9.46	+3.11	+3.47
U76	4	41.98	+22.17	+41.48
U81	4	7.57	+.80	+6.22
U82	4	8.40	-.45	+7.92
U83	4	8.37	-.48	-1.82
U84	4	7.91	+.92	+7.88
U85	4	6.88	-.16	+6.24
U86	4	8.57	-.65	+7.79
U87	4	8.23	-.57	+7.58
U88	4	6.56	-.14	+5.76
U89	4	7.17	-.01	+5.66
U90	4	8.23	-.27	+7.05
U92	4	8.46	-.72	+6.90
U93	4	7.80	-.70	+6.59
U95	4	2.62	-.58	+1.48
U96	4	6.55	-.98	+3.48
U97	4	4.77	+.52	+1.17
U98	4	3.91	+1.31	+2.74
U99	4	2.19	+.04	+1.18
<u>Hall County</u>				
245	12	7.42	.....	+2.71
246	13	19.83	.....	-1.36
247	14	18.90	.....	-5.03
248	14	12.23	.....	-2.69
249	14	14.56	.....	-6.02
258	14	19.03	.....	-5.30
259	14	18.13	.....	-1.28
260	14	7.89	.....	-3.41
GI203	9	3.15	-.65	-1.60
GI204	9	3.30	-.30	-1.89
GI207	9	5.08	.....	-2.67
GI208	9	7.63	-.91	-3.53
GI209	9	3.80	-.70	-2.70
GI210	9	6.65	-.94	-1.90
GI211	9	5.00	+.24	-2.65
GI212	9	5.86	+2.63	+.06
GI214	9	9.05	-1.20	-4.31
GI215	9	5.05	.....	-1.16
GI216	9	6.30	-2.67	-4.13
GI217	9	5.70	-1.19	-1.60
GI218	9	4.05	.....	-.77
GI219	9	2.70	a-1.17	-.28
GI220	9	3.20	.....	+.32
GI221	9	6.90	.....	-1.36
GI222	9	5.50	-1.27	-2.32
GI223	9	11.29	-.71	+3.49
GI224	9	10.46	-5.13	-5.70
GI225	9	4.05	.....	-.67
GI226	9	10.45	-.97	-1.85
GI227	9	6.92	-1.08	-2.92
GI229	9	9.55	.....	+.79
GI230	9	5.05	-.44	+.58
GI231	9	6.09	-1.00	-.64

a For period March to October.

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Hall County--Continued</u>				
GI232	9	4.85	-0.51	-2.31
GI233	9	5.85	+ .50	-.95
GI234	9	10.05	+ .04	+5.88
GI236	9	4.77	.00	-1.96
GI237	9	4.63	-.92	-2.70
GI238	9	5.30	-1.51	-4.20
GI239	9	3.47	.....	-1.53
GI240	9	4.35	.....	-.69
GI241	9	8.07	.....	-7.42
GI242	9	6.40	.....	-3.12
GI243	9	4.15	.....	-.53
GI244	9	3.90	.....	-.42
GI246	9	3.05	.....	-.32
GI247	9	3.40	.....	-.82
GI248	9	4.75	.....	-.56
GI249	9	3.60	.....	-.25
GI250	9	4.45	.....	-.72
GI251	9	4.00	.....	-2.46
GI252	9	5.10	.....	-2.46
GI253	9	4.10	.....	-2.39
GI254	9	5.25	.....	-2.76
GI255	9	9.70	.....	-1.17
<u>Hayes County</u>				
446	8	6.80	.....	-1.86
<u>Hitchcock County</u>				
362	9	1.41	.....	-.76
<u>Holt County</u>				
203	10	5.77	4.59	+ .47
428	8	3.14	.....	-.47
<u>Howard County</u>				
59	10	1.62	.....	-.22
<u>Kearney County</u>				
266	14	14.29	.....	-.85
<u>Keith County</u>				
93	10	8.39	-.81	-5.04
350	9	3.10	.....	-.81
E1	6	4.83	-.06	-1.94
E2	6	5.68	-.16	-2.05
E3	6	4.14	-.11	-2.07
E6	6	4.05	-.96	-.51
E7	6	2.63	-.59	-.06
E8	6	4.52	-2.50	-.60
E9	6	3.19	-.66	-.96
E11	6	3.01	-.87	-.84
E12	6	3.36	-.84	-1.10
E13	6	4.07	-.97	-.13
E14	6	4.98	1.69	+ .60
E15	6	5.62	-1.72	-.68
E16	6	4.04	-.96	+ .16
E17	6	3.65	-1.12	+ .28
E18	6	2.48	+ .18	-1.74
E19	6	3.32	-.34	-.55

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Keith County--Continued</u>				
E20	6	1.98	+0.58	+1.08
E21	6	3.51	+1.17	-1.20
E37	6	5.64	-1.65	-.73
N4	8	2.86	+2.24	-.74
N5	8	3.14	-.16	-2.00
N6	8	4.17	-.31	-1.12
N7	8	5.38	-.81	-1.46
N8	8	2.76	-.47	+.93
N9	8	3.51	-.83	-.93
N10	8	2.63	-.43	+.31
N11	8	2.42	-.52	-.45
N12	8	2.61	-.48	-1.37
N13	8	3.52	-.26	-1.63
N14	8	2.90	-.48	-.62
N15	8	3.37	-4.90	-4.10
N16	8	4.06	-.25	-.55
N17	8	5.93	+.27	-1.85
N18	8	12.26	+9.22	+9.52
N19	8	2.06	-.19	+.31
N20	8	2.79	-.98	-.53
N23	8	17.00	.....	+13.90
N24	8	2.93	-.15	.00
N25	8	12.94	-.08	-1.39
N26	8	3.00	-.38	-2.18
N27	8	3.91	-.68	-1.19
N28	8	2.08	-.55	-.44
N30	8	3.93	-1.09	-.72
N32	8	1.73	-.11	-1.13
N33	8	2.56	-.24	-.46
N37	8	10.02	-1.78	+6.26
N40	8	2.87	-.63	+.80
N41	8	27.73	+8.97	+17.96
N42	8	39.97	+18.75	+35.31
S10	8	8.07	+1.48	+5.46
S16	7	2.73	+.60	+1.03
S18	8	4.73	+2.72	+1.84
S19	8	13.59	+9.81	+12.65
S20	7	4.92	+2.57	+3.02
S21	8	4.21	-.03	-.37
S22	8	16.97	+8.01	+15.93
S23	8	2.62	+1.33	+1.71
S24	8	3.24	+1.33	+.02
S25	7	5.93	-1.49	+.93
S26	8	6.52	-2.26	-.38
S27	8	5.81	-1.23	+.50
S28	8	4.29	-1.76	-.28
S29	8	4.65	-1.24	-.55
S32	7	38.28	+6.55	+35.02
S34	7	26.06	+3.34	+22.33
<u>Keya Paha County</u>				
375	9	2.09	.....	-.33
<u>Kimball County</u>				
88	10	1.37	-.22	-.24
<u>Knox County</u>				
335	9	3.38	.....	-1.81

Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Lincoln County</u>				
US600	1/2	2.12	.....	.....
241	10	4.09	-1.54	-1.41
242	10	8.31	-.21	+4.96
405	8	3.29	+3.36	+6.64
E22	6	3.17	+1.12	-.05
E23	6	3.33	+1.35	+1.15
E24	6	2.78	-.14	+1.14
E25	6	4.33	+1.21	-1.63
E26	6	2.61	-.55	-1.27
E27	6	4.14	-.49	-.68
E28	6	5.22	+1.54	-.99
E29	6	4.54	+1.33	-.80
E30	6	3.38	-.33	-.32
E31	6	3.16	-.43	+2.28
E32	6	2.25	-.14	+1.16
E33	6	3.62	-.44	-.03
E34	6	2.68	+1.39	-.26
E35	6	2.50	+1.38	-.78
E36	6	4.17	-.32	-.52
E38	6	3.80	-.55	-.51
E39	6	3.91	-.66	-1.05
U3	8	3.57	-.30	+1.08
U4	8	4.51	-1.02	+1.92
U5	8	3.69	-1.02	+1.50
U6	8	3.65	+1.08	+1.05
U7	8	3.13	-.49	-.79
U8	8	4.52	-.69	-.56
U9	8	6.63	-.98	+3.70
U10	8	8.15	-2.30	+5.07
U11	8	3.98	+1.63	+1.25
U12	8	6.89	-.54	+4.27
U13	8	6.88	-.14	+3.21
U14	8	7.15	+1.20	+5.23
U15	8	3.88	-.21	+2.54
U16	8	2.45	-.72	-.15
U17	6	3.17	-.30	+1.04
U18	6	3.47	-.13	+1.09
U19	6	3.80	-.12	-.39
U20	6	3.75	+1.16	+1.58
U21	6	5.66	-.30	+3.24
U22	6	6.24	-.05	+3.76
U23	6	5.24	-.15	+3.15
U24	6	2.52	-.32	-1.10
U25	6	2.61	-.27	-1.45
U26	6	3.03	-.32	-1.33
U27	6	5.43	-3.08	-.58
U28	6	3.84	-.77	-.63
U29	6	3.58	-.81	+1.33
U30	6	2.62	-.36	-1.23
U31	6	5.62	-.33	+1.03
U32	6	4.79	-.02	+2.38
U33	6	7.69	+1.63	+7.08
U34	6	3.31	+1.87	+1.85
U35	6	8.07	+1.12	+5.02
U36	6	3.73	-.56	-.93
U37	6	5.34	-.60	-1.39
U38	6	7.41	+3.68	+4.07
U39	6	6.00	+1.15	+2.13



Length of record, difference between highest and lowest water levels, net change in water level in 1943, and net change in water level during period of record in observation wells in Nebraska--Cont.

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1943 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Lincoln County--Continued</u>				
U40	6	9.92	+2.14	+9.10
U41	6	9.87	+1.77	+3.87
U42	6	10.14	+2.18	+6.46
U43	6	12.59	+3.42	+11.87
U46	5	3.57	+4.44	+1.04
U50	6	7.58	.....	+3.04
U77	4	8.75	-.30	+7.42
U78	4	8.04	-.52	+6.50
U79	4	7.51	-.49	+6.92
U80	4	5.76	+1.18	-5.76
JS1	6	2.61	+7.83	+7.13
JS2	6	9.93	-.04	+4.67
JS3	6	10.68	+1.19	+8.57
JS4	6	8.53	+3.33	+6.37
<u>Madison County</u>				
110	9	3.21	.....	-.50
<u>Merrick County</u>				
GI200	9	2.50	.....	-.42
GI201	9	3.28	.....	+1.10
<u>Morrill County</u>				
85	14	3.00	.00	-.46
<u>Nemaha County</u>				
11	10	9.19	.....	+6.30
<u>Phelps County</u>				
275	14	4.48	.....	-.59
276	14	3.77	.....	+1.78
277	13	5.21	.....	-.84
5	7	5.14	-.14	+3.31
6	7	5.55	-.07	+4.07
7	7	6.14	-.11	+3.72
8	6	5.32	-.27	+1.57
9	6	3.95	-.36	+1.80
10	6	4.88	-.26	+3.47
11	6	4.18	-.35	-3.06
<u>Platte County</u>				
US150	9	10.43	-1.70	+4.70
<u>Redwillow County</u>				
137	10	1.68	.....	+1.07
139	10	3.03	.....	+1.14
494	4	3.53	.....	-1.27
<u>Richardson County</u>				
5	10	10.46	.....	+4.50
408	8	10.97	.....	-6.58
416	8	14.34	.....	+4.05
419	8	5.78	.....	+2.26
<u>Rock County</u>				
117	10	3.50	.....	+1.98
<u>Saunders County</u>				
2-6600W	11	5.23	-.74	+1.79
<u>Sherman County</u>				
58	10	3.14	.....	-2.68

## PUMPAGE

The cities of Lincoln and Grand Island have developed systems of public supply that are worthy of note. The public supply for Lincoln is pumped from six wells constructed on the flood plain of the Platte River about 3 miles north of Ashland. Pumping from the Lincoln well field near Ashland began in August 1932, and by the end of 1943 approximately 31,427.2 million gallons of water had been withdrawn from the ground-water reservoir. The public supply for Grand Island is pumped from a group of wells--most of them within the city proper--drilled into the Pleistocene sands and gravels of the Platte Valley. A report on the Grand Island wells was published in 1940.<sup>1/</sup> Since that report was written, three new wells have been added to the group, namely, the South Locust Street well, which began operation in July 1938, the Harrison Street well, which began operation in October 1941, and the Parkview well, which began operation in August 1943.

The monthly and the average daily pumpage from these two ground-water developments for their periods of record are given in the tables that follow.

Monthly pumpage, in millions of gallons, for municipal supply of Lincoln, Nebr., 1932-43

	1932	1933	1934	1935	1936	1937
Jan. ....	204.2	136.6	187.1	186.2	203.8	
Feb. ....	187.0	164.2	167.2	193.0	190.7	
Mar. ....	205.0	188.5	199.2	204.4	200.6	
Apr. ....	210.0	194.8	193.6	188.8	158.5	
May ....	213.8	236.0	188.7	234.8	262.9	
June ....	263.6	249.9	192.0	296.4	254.5	
July ....	212.6	308.9	236.9	354.5	322.5	
Aug. 98.5	197.2	278.1	255.8	319.8	317.7	
Sept. 186.1	169.4	206.5	181.3	228.2	297.6	
Oct. 204.9	132.6	176.9	154.0	236.4	204.8	
Nov. 201.8	106.4	196.6	90.1	209.2	217.1	
Dec. 203.2	133.9	171.7	182.9	201.2	188.8	
Total	894.5	2,235.7	2,508.7	2,228.8	2,832.9	2,819.5

	1938	1939	1940	1941	1942	1943
Jan. 208.7	196.1	195.8	193.4	198.5	248.2	
Feb. 192.2	185.6	182.8	181.2	178.4	227.6	
Mar. 211.1	212.9	193.9	195.1	199.3	253.5	
Apr. 189.5	223.7	177.1	173.8	213.8	246.9	
May 216.4	284.6	246.5	289.2	243.4	290.0	
June 245.8	267.4	290.7	286.3	292.4	324.6	
July 304.9	325.0	374.3	382.4	372.5	379.8	
Aug. 298.9	300.6	290.7	377.8	399.8	377.1	
Sept. 201.6	324.3	314.1	277.0	269.3	334.0	
Oct. 207.2	232.7	264.4	201.2	234.1	304.8	
Nov. 116.3	222.8	170.8	197.7	200.5	237.4	
Dec. 141.1	203.4	201.5	205.3	241.8	263.9	
Total	2,533.7	2,979.1	2,902.3	2,960.4	3,043.8	3,487.8

<sup>1/</sup> Wenzel, L. K., Local overdevelopment of ground-water supplies, with special reference to conditions at Grand Island, Nebr.: U. S. Geol. Survey Water-Supply Paper 836-E, pp. 244-247, 1940.

Average daily pumpage, in millions of gallons, for municipal supply of Lincoln, Nebr., 1932-43

1932	a 5.84	1935	6.10	1938	6.94	1941	8.11
1933	6.12	1936	7.76	1939	8.16	1942	8.34
1934	6.87	1937	7.72	1940	7.95	1943	9.53

Monthly pumpage, in millions of gallons, for municipal supply of Grand Island, Nebr., 1936-43

	1936	1937	1938	1939	1940	1941	1942	1943
Jan.	133.8	93.0	98.9	107.4	125.7	100.6	126.0	156.6
Feb.	95.6	83.3	88.2	89.7	99.8	82.5	88.4	151.6
Mar.	111.8	96.7	112.5	108.5	100.9	108.1	132.5	177.0
Apr.	154.3	131.3	140.7	154.8	144.8	111.1	128.9	212.3
May	172.8	165.1	162.2	195.6	190.6	159.7	137.2	223.6
June	215.1	173.6	181.9	209.8	229.2	134.9	251.9	244.3
July	291.2	236.3	242.4	248.2	245.6	254.5	225.1	301.3
Aug.	241.0	239.3	189.8	251.1	240.6	251.3	250.4	299.6
Sept.	194.6	194.7	199.0	241.5	198.8	174.3	202.3	250.1
Oct.	153.6	163.0	191.4	192.2	172.8	148.4	198.4	235.2
Nov.	104.2	139.3	135.7	144.1	132.6	134.7	168.9	188.9
Dec.	104.4	101.6	112.2	131.6	118.4	131.1	161.3	189.4
Total	1,972.4	1,817.2	1,854.9	2,074.5	1,999.8	1,791.4	2,071.3	2,629.9

Average daily pumpage, in millions of gallons, for municipal supply of Grand Island, Nebr., 1918-43

1918	b 1.64	1925	b 2.15	1932	4.11	1938	5.08
1919	b 1.53	1926	b 2.29	1933	4.90	1939	5.68
1920	b 1.44	1927	b 2.12	1934	5.72	1940	5.47
1921	b 1.59	1928	b 2.51	1935	5.34	1941	4.90
1922	b 1.76	1929	3.65	1936	5.41	1942	5.67
1923	b 1.83	1930	3.52	1937	5.00	1943	7.20
1924	b 2.04	1931	4.16				

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

193 (\*817, p. 92; 840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). H. Fricke. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 7 N., R. 10 W. No measurements made in 1943.

448 (\*886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 6 N., R. 10 W. No measurements made in 1943.

Antelope County

202 (\*817, p. 92; 840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 24 N., R. 6 W. No measurements made in 1943.

Arthur County

N31. Central Nebraska Public Power and Irrigation District. SW. corner SE $\frac{1}{4}$  sec. 31, T. 17 N., R. 39 W. Bored observation well, diameter 4 inches, depth 8.9 feet. Measuring point, top of casing, 2,544.95 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,544.56 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1936	4.40	Oct. 16, 1936	4.52	Apr. 2, 1937	4.28
Aug. 13	4.50	Nov. 4	4.46	May 4	4.42
28	4.58	30	4.44	June 1	4.60
Sept. 14	4.60	Dec. 31	4.42	July 8	4.93
Oct. 1	4.58	Mar. 1, 1937	4.42	Aug. 4	4.60

a Pumping from the Ashland well field began in August 1932.

b Does not include water pumped for use in condenser at municipal electric plant.

## N31. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Sept. 7, 1937	4.05	Sept. 30, 1939	5.57	Oct. 1, 1941	6.24
Nov. 3	4.58	Oct. 30	5.49	Nov. 4	5.85
Dec. 2	4.60	Dec. 1	5.43	Dec. 2	5.78
31	4.65	Jan. 4, 1940	5.45	Feb. 2, 1942	5.87
Feb. 1, 1938	4.65	Feb. 29	5.40	26	5.88
Mar. 1	4.63	Apr. 1	5.42	Apr. 2	5.64
Apr. 1	4.70	30	5.40	May 7	2.31
May 5	4.37	May 24	5.54	Aug. 7	3.83
June 1	3.90	June 27	5.76	Sept. 9	4.01
July 1	4.19	July 25	6.05	Oct. 7	4.05
Aug. 31	4.84	Aug. 29	6.32	Nov. 11	4.09
Sept. 30	4.67	Oct. 1	6.31	Dec. 16	4.06
Nov. 1	4.66	31	6.08	Jan. 26, 1943	4.14
30	4.73	Jan. 2, 1941	6.08	Mar. 17	4.15
Dec. 30	4.80	Feb. 4	6.07	May 14	4.20
Jan. 31, 1939	4.72	Mar. 3	6.06	June 10	4.28
Feb. 28	4.82	Apr. 7	5.93	July 8	4.49
Apr. 4	4.54	May 2	5.56	Aug. 8	4.72
May 2	4.55	June 10	5.25	Sept. 14	5.00
June 1	4.59	July 5	5.40	Oct. 6	5.07
30	4.89	Aug. 4	5.75	Nov. 6	4.97
Aug. 1	5.30	Sept. 2	6.12	Dec. 8	4.95
31	5.51				

250 (\*840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 17 N., R. 38 W. No measurements made in 1943.

Banner County

238 (\*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). F. Grant. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 19 N., R. 55 W. No measurements made in 1943.

354 (\*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). A. Andersen. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 17 N., R. 55 W. No measurements made in 1943.

Blaine County

210 (\*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 23 N., R. 22 W. No measurements made in 1943.

211 (\*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 22 N., R. 24 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.72.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	3.83	Apr. 28	4.53	July 29	4.65	Oct. 29	4.58
Feb. 26	3.62	May 29	3.99	Aug. 29	4.75	Nov. 28	4.24
Mar. 29	3.54	June 28	4.55	Sept. 28	4.86	Dec. 29	4.16

237 (\*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). Cox & Sons. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 24 N., R. 25 W. No measurements made in 1943.

433 (\*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 24 N., R. 25 W. No measurements made in 1943.

434 (\*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 23 N., R. 22 W. No measurements made in 1943.

#### Boone County

201 (\*817, p. 94; 840, p. 191; 845, p. 169; 886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 21 N., R. 7 W. No measurements made in 1943.

207 (\*817, p. 94; 840, p. 191; 845, p. 169; 886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 18 N., R. 7 W. No measurements made in 1943.

425 (\*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 21 N., R. 7 W. No measurements made in 1943.

426 (\*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 18 N., R. 7 W. No measurements made in 1943.

#### Box Butte County

129 (\*817, p. 94; 840, p. 191; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190). M. Jacobson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 25 N., R. 50 W. No measurements made in 1943.

338 (\*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190). E. Wildy. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 27 N., R. 49 W. No measurements made in 1943.

378 (\*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 28 N., R. 51 W. No measurements made in 1943.

473 (Box Butte 2 in \*845, p. 169; 886, p. 290; 946, p. 190). Mrs. E. A. Wells. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 25 N., R. 48 W. No measurements made in 1943.

474 (Box Butte 3 in \*845, p. 170; 886, p. 290; 946, p. 190). John Nolan. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 24 N., R. 50 W. No measurements made in 1943.

475 (Box Butte 5 in \*845, p. 170; 886, p. 290; 946, p. 190). Dr. G. D. Shepard. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 25 N., R. 52 W. No measurements made in 1943.

476 (Box Butte 6 in \*845, p. 170; 886, p. 290; 946, p. 190). Mr. Bailey. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 24 N., R. 52 W. No measurements made in 1943.

477 (Box Butte 7 in \*845, p. 170; 886, p. 291; 946, p. 191). C. A. Allen. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 25 N., R. 51 W. No measurements made in 1943.

478 (Box Butte 8 in \*845, p. 170; 886, p. 291; 946, p. 191). O. J. Wilkens. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, T. 26 N., R. 51 W. No measurements made in 1943.

479 (Box Butte 9 in \*845, p. 170; 886, p. 291; 946, p. 191). Lew Bauer. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 26 N., R. 52 W. No measurements made in 1943.

480 (Box Butte 10 in \*845, p. 171; 946, p. 191). Mrs. L. A. Rosenberg. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 26 N., R. 50 W. No measurements made in 1943.

481 (Box Butte 12 in \*845, p. 171; 946, p. 191). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 27 N., R. 50 W. No measurements made in 1943.

482 (Box Butte 13 in \*845, p. 171; 886, p. 291; 946, p. 191). W. J. Gregg. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 28 N., R. 51 W. No measurements made in 1943.

483 (Box Butte 15 in \*845, p. 171; 886, p. 291; 946, p. 191). Mr. Shremik. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 27 N., R. 47 W. No measurements made in 1943.

Boyd County

74 (\*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). A. Christman. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 34 N., R. 13 W. No measurements made in 1943.

75 (\*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). E. Engelhaupt. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 33 N., R. 13 W. No measurements made in 1943.

209 (\*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). University of Nebraska. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 32 N., R. 10 W. No measurements made in 1943.

Brown County

243 (\*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). T. Bower. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 30 N., R. 22 W. No measurements made in 1943.

Buffalo County

52 (\*817, p. 96; 840, p. 192; 845, p. 172; 946, p. 192). W. Starks. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 12 N., R. 14 W. No measurements made in 1943.

232 (\*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192). W. Buettner. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 10 N., R. 17 W. No measurements made in 1943.

263 (\*817, p. 97; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192). E. Stubblefield. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 9 N., R. 13 W. (Shown incorrectly as the NW $\frac{1}{4}$  of the SW $\frac{1}{4}$  in Water-Supply Paper 946.) To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.62. Water level, in feet below land-surface datum, 1943: Nov. 8, 10.78.

264 (\*817, p. 97; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 946, p. 192). B. Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 9 N., R. 15 W. No measurements made in 1943.

265 (\*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192). F. Scott. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 9 N., R. 13 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.29. Water levels, in feet below land-surface datum, 1943: Apr. 2, 21.39; Nov. 8, 21.49.

267 (\*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). M. Davis. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 9 N., R. 14 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.47. Water levels, in feet below land-surface datum, 1943: Apr. 2, 20.43; Nov. 8, 20.18.

268 (\*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). C. Nicholson. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 9 N., R. 14 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.75. Water level, in feet below land-surface datum, 1943: Nov. 8, 12.67.

269 (\*817, p. 99; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). W. Adair. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 9 N., R. 14 W. No measurements made in 1943.

270 (\*817, p. 99; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). T. Lewis. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 9 N., R. 14 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 124.96.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 2	26.14	May 29	25.96	Aug. 30	27.24	Nov. 29	27.20
15	26.07	June 29	26.12	Sept. 27	27.23	Dec. 29	26.23
29	25.94	July 29	26.22	Oct. 29	27.19		

272 (\*817, p. 100; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). C. Aldeen. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 9 N., R. 15 W. No measurements made in 1943.

273 (\*817, p. 100; 840, p. 193; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). J. Wolford. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 9 N., R. 15 W. No measurements made in 1943.

274 (\*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). M. Garvin. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 8 N., R. 16 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.92. Water level, in feet below land-surface datum, 1943: Nov. 8, 4.91.

278 (\*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 8 N., R. 17 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.08. Water level, in feet below land-surface datum, 1943: Apr. 2, 7.26.

#### Burt County

64 (\*817, p. 102; 840, p. 193; 845, p. 172; \*946, p. 192). Tom Turk. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 21 N., R. 11 E. No measurements made in 1943.

402 (\*886, p. 292; 908, p. 190; 938, p. 158; 946, p. 193). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 22 N., R. 8 E. No measurements made in 1943.

#### Butler County

508 (\*946, p. 193). University of Nebraska. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 14 N., R. 3 E. No measurements made in 1943.

#### Cass County

16 (\*817, p. 103; 840, p. 194; 845, p. 173; 886, p. 292; 908, p. 190; 938, p. 159; 946, p. 193). J. Wiedeman. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 12 N., R. 9 E. No measurements made in 1943.

18 (\*817, p. 103; 840, p. 194; 845, p. 173; 886, p. 292; 908, p. 190; 938, p. 159; 946, p. 193). W. Stine. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 10 N., R. 13 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 117.21. Water level, in feet below land-surface datum, 1943: Sept. 22, 12.66.

#### Cedar County

65 (\*817, p. 103; 840, p. 194; 845, p. 173; 908, p. 191; 946, p. 193). University of Nebraska. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 28 N., R. 3 E. No measurements made in 1943.

66 (\*817, p. 103; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193). J. Leise. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 31 N., R. 2 E. No measurements made in 1943.

369 (\*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 193). H. Kleinberg. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 32 N., R. 2 E. No measurements made in 1943.

#### Chase County

152 (\*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 193). A. Banks. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 7 N., R. 38 W. No measurements made in 1943.

153 (\*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193). J. Redden. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 5 N., R. 36 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 163.46. Water level, in feet below land-surface datum, 1943: Sept. 11, 63.60.

Cherry County

115 (\*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). Nebraska Agricultural College. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 34 N., R. 27 W. No measurements made in 1943.

116 (\*840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). University of Nebraska. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 31 N., R. 25 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.79. Water level, in feet below land-surface datum, 1943: Mar. 11, 4.54.

146. University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 34 N., R. 27 W. Driven observation well, diameter 1 inch, depth 6 feet. Measuring point, top of pipe, level with land-surface datum.

Water level, in feet below land-surface datum, 1934-35, 1941, 1943

Date	Water level	Date	Water level	Date	Water level
Sept. 29, 1934	5.33	July 13, 1935	1.70	Mar. 15, 1941	3.96
Oct. 17	5.00	Aug. 13	3.00	June 1	1.00
Nov. 9	3.72	Mar. 15, 1941	4.59	Aug. 24	3.00
Jan. 2, 1935	3.50	June 1	4.96	Oct. 1	4.17
Feb. 23	3.36	July 8	5.33	Mar. 11, 1943	3.00
Apr. 18	2.81	Oct. 1	4.71	May 1	3.33
June 5	1.39				

256 (\*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). University of Nebraska. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 34 N., R. 36 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.67. Water levels, in feet below land-surface datum, 1943: Mar. 11, 7.82; May 15, 7.94.

312 (\*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). R. Osborne. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 26 N., R. 32 W. No measurements made in 1943.

399 (\*840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). University of Nebraska. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 35 N., R. 27 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.45. Water level, in feet below land-surface datum, 1943: May 15, 2.18.

431 (\*886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). University of Nebraska. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 34 N., R. 38 W. No measurements made in 1943.

Cheyenne County

87 (\*777, p. 92; 817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). A. Linn. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 15 N., R. 49 W. No measurements made in 1943.

90 (\*817, p. 106; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 194). W. Goding. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 14 N., R. 52 W. No measurements made in 1943.

91 (\*817, p. 106; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). F. Mather Estate. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 14 N., R. 50 W. No measurements made in 1943.

92 (\*817, p. 106; 840, p. 196; 845, p. 173; 886, p. 293; 908, p. 192; 938, p. 159; 946, p. 194). G. Fay. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 12 N., R. 51 W. No measurements made in 1943.

444a (\*938, p. 159; 946, p. 194). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 14 N., R. 47 W. No measurements made in 1943.



Golfax County

37 (\*817, p. 106; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 194). H. Schlemmer. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 17 N., R. 4 E. No measurements made in 1943.

332 (\*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 194). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 20 N., R. 4 E. No measurements made in 1943.

343a (\*938, p. 160; 946, p. 195). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 20 N., R. 2 E. No measurements made in 1943.

Cumming County

61 (\*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 23 N., R. 7 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.67 for those since Oct. 25, 1936, and from 116.26 for those before Oct. 25, 1936. Water level, in feet below land-surface datum, 1943: Oct. 14, 17.01.

69 (\*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 21 N., R. 6 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.49 for those since Oct. 24, 1936, and from 105.61 for those before Oct. 24, 1936. Water level, in feet below land-surface datum, 1943: Oct. 14, 8.88.

Custer County

53 (\*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). L. Owen. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 19 N., R. 18 W. No measurements made in 1943.

195 (\*817, p. 108; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). C. Cooper. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 15 N., R. 18 W. No measurements made in 1943.

196 (\*817, p. 108; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 946, p. 195). W. Crouch. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 19 N., R. 22 W. No measurements made in 1943.

219 (\*817, p. 108; 840, p. 197; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 15 N., R. 23 W. No measurements made in 1943.

220 (\*817, p. 108; 840, p. 197; 845, p. 173; 886, p. 294; 908, p. 192; 946, p. 195). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 17 N., R. 25 W. No measurements made in 1943.

325 (\*817, p. 108; 840, p. 197; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). C. Cooper. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 15 N., R. 18 W. No measurements made in 1943.

435 (\*886, p. 295; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 17 N., R. 25 W. No measurements made in 1943.

436 (\*886, p. 295; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 16 N., R. 23 W. No measurements made in 1943.

Dakota County

104 (\*777, p. 92; 817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 192; 946, p. 195). R. Nelson. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 27 N., R. 8 E. No measurements made in 1943.

453 (\*886, p. 295; 908, p. 192; 938, p. 160; 946, p. 195). John Boyle. SE $\frac{1}{4}$  sec. 21, T. 29 N., R. 5 E. No measurements made in 1943.

Dawes County

123 (\*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 195). T. Moody. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 31 N., R. 52 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.03.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	17.44	May 29	16.84	Sept. 2	18.15	Nov. 29	18.13
Mar. 29	17.35	June 30	16.86	28	18.48	Dec. 28	18.25
Apr. 29	17.06	July 29	17.55	Oct. 30	18.42		

315 (\*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). A. McIntyre. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 33 N., R. 48 W. No measurements made in 1943.

396 (\*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). W. Howard. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 32 N., R. 51 W. No measurements made in 1943.

Dawson County

99 (\*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). L. Tell Estate. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 9 N., R. 25 W. No measurements made in 1945.

280 (\*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). J. Brick. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 9 N., R. 20 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.40. Water levels, in feet below land-surface datum, 1945: Apr. 2, 9.38; Nov. 8, 10.82.

281. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 11 N., R. 21 W. Driven observation well, diameter  $1\frac{1}{2}$  inches, depth 51.8 feet. Measuring point up to and including July 22, 1936, top of casing, 2,466.21 feet above sea level, 1.8 feet above land-surface datum; new 1-inch well established May 25, 1940, depth 57 feet. Measuring point, top of casing, 2,464.91 feet above sea level, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1950-36, 1940-43

Date	Water level	Date	Water level	Date	Water level
Oct. 27, 1930	23.83	Dec. 6, 1932	26.42	June 12, 1935	24.45
Nov. 3	24.12	Jan. 4, 1933	26.50	July 1	24.51
Dec. 1	24.48	Feb. 1	26.60	16	24.82
Jan. 5, 1931	24.99	Mar. 7	26.74	Aug. 17	25.33
Feb. 2	25.17	Apr. 5	26.83	Sept. 17	24.99
Mar. 2	25.30	May 3	26.01	Oct. 24	24.58
Apr. 6	25.37	June 6	25.71	Nov. 27	24.39
May 4	25.24	July 5	25.97	Dec. 31	24.79
June 1	25.08	Aug. 2	26.21	Jan. 20, 1936	25.01
July 6	24.82	Sept. 20	25.98	Mar. 28	25.39
Aug. 3	25.08	Oct. 20	26.23	June 5	24.74
Sept. 7	25.54	Nov. 18	26.16	July 22	25.38
Oct. 5	25.57	Dec. 20	26.41	24, 1940	33.28
Nov. 3	25.20	Jan. 20, 1934	26.57	Nov. 5	27.31
Dec. 3	25.00	Feb. 21	26.44	Oct. 22, 1941	25.65
Jan. 7, 1932	25.30	Mar. 21	26.76	Nov. 5, 1942	25.89
Feb. 4	25.53	Apr. 19	26.84	Apr. 4, 1943	27.11
Mar. 3	24.84	May 18	26.78	May 9	26.47
Apr. 5	25.51	June 17	27.19	June 13	25.63
May 5	25.60	July 17	27.49	July 18	25.70
June 2	25.78	Aug. 21	28.52	Aug. 22	30.64
July 5	25.50	Sept. 21	27.83	Sept. 25	24.97
Aug. 2	25.68	Nov. 14	25.78	Oct. 29	25.52
Sept. 6	25.85	Dec. 24	25.55	Nov. 28	25.90
Oct. 5	26.03	Feb. 28, 1935	25.97	Dec. 26	26.24
Nov. 2	26.31	Apr. 22	25.63		

282. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 10 N., R. 21 W. Driven observation well, diameter  $1\frac{1}{2}$  inches, depth 11.3 feet. Measuring point, up to and including July 22, 1936, top of casing, 2,442.28 feet above sea level, 0.6 foot above land-surface datum; new 1-inch well established May 24, 1940, depth 22.5 feet. Measuring point, top of casing, 2,443.08 feet above sea level, 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1930-36, 1940-43

Date	Water level	Date	Water level	Date	Water level
Oct. 12, 1930	7.28	Dec. 6, 1932	9.62	Apr. 22, 1935	9.07
Nov. 3	7.06	Jan. 4, 1933	9.66	June 12	7.21
Dec. 1	7.17	Feb. 1	9.71	July 16	7.35
Jan. 5, 1931	7.30	Mar. 7	9.74	Aug. 17	8.76
Feb. 2	7.53	Apr. 5	9.64	Sept. 17	8.40
Mar. 2	7.55	May 3	9.34	Oct. 24	8.80
Apr. 6	7.02	June 6	9.11	Nov. 27	8.54
May 4	7.00	July 5	9.39	Dec. 31	8.40
June 1	7.40	Aug. 2	9.63	Jan. 20, 1936	8.48
July 6	7.91	Sept. 20	9.72	Mar. 28	8.63
Aug. 3	8.45	Oct. 20	9.75	June 5	8.11
Sept. 7	9.28	Nov. 18	9.51	July 22	8.97
Oct. 5	9.46	Dec. 20	9.61	24, 1940	10.57
Nov. 3	9.11	Jan. 20, 1934	9.61	Nov. 5	10.32
Dec. 3	8.68	Feb. 21	9.68	Oct. 22, 1941	8.32
Jan. 7, 1932	8.72	Mar. 21	9.72	Nov. 5, 1942	8.85
Feb. 4	8.79	Apr. 19	9.83	Apr. 4, 1943	9.79
Mar. 3	8.40	May 18	9.83	May 9	9.53
Apr. 5	8.53	June 17	10.45	June 13	9.46
May 5	8.71	July 17	10.79	July 18	9.16
June 2	8.81	Aug. 21	11.83	Aug. 22	8.62
July 5	8.81	Sept. 21	11.88	Sept. 25	8.16
Aug. 2	8.91	Nov. 14	9.99	Oct. 29	8.33
Sept. 6	9.25	Dec. 24	9.51	Nov. 28	8.37
Oct. 5	9.44	Feb. 28, 1935	9.51	Dec. 26	8.55
Nov. 2	9.57				

283 (\*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.69.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	8.95	July 18	8.84	Sept. 25	8.69	Nov. 28	8.86
May 9	8.61	Aug. 22	9.06	Oct. 29	8.88	Dec. 26	8.86

284 (\*817, p. 111; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 10 N., R. 21 W. University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.38.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	9.54	July 18	9.06	Sept. 25	9.42	Nov. 28	9.44
May 9	8.87	Aug. 22	9.43	Oct. 29	9.27	Dec. 26	9.49
June 13	8.85						

285 (\*817, p. 111; 840, p. 198; 908, p. 193; 938, p. 160; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.67.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	9.09	July 18	8.57	Sept. 25	9.22	Nov. 28	8.90
May 9	8.62	Aug. 22	8.31	Oct. 29	8.79	Dec. 26	8.97

286 (\*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 245; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.80.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	13.83	July 18	13.34	Sept. 25	14.28	Nov. 28	13.76
May 9	13.60	Aug. 22	13.87	Oct. 29	13.77	Dec. 26	13.81
June 13	13.18						

287 (\*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.42.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	16.05	July 18	15.03	Sept. 25	15.96	Nov. 28	16.02
May 9	16.00	Aug. 22	15.94	Oct. 29	15.94	Dec. 26	16.07

288 (\*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.81.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	15.80	July 18	14.85	Sept. 25	15.55	Nov. 28	15.95
May 9	14.69	Aug. 22	16.97	Oct. 29	15.95	Dec. 26	15.95
June 13	14.79						

289 (\*817, p. 113; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.66.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	8.21	July 18	7.53	Sept. 25	3.79	Nov. 28	8.70
May 9	7.88	Aug. 22	9.85	Oct. 29	8.91	Dec. 26	8.64
June 13	7.14						

290 (\*817, p. 113; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.47.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	8.68	July 18	5.36	Sept. 25	8.92	Nov. 28	9.48
May 9	7.79	Aug. 22	7.49	Oct. 29	9.42	Dec. 26	9.30
June 13	6.85						

291 (\*817, p. 114; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.87.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	5.63	July 18	4.85	Sept. 25	6.08	Nov. 28	6.54
May 9	5.08	Aug. 22	4.90	Oct. 29	6.47	Dec. 26	6.48

292 (\*817, p. 114; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 10 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.17.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 4	6.68	Sept. 25	7.15	Nov. 28	7.68
May 9	6.41	Oct. 29	7.62	Dec. 26	7.57

293 (\*817, p. 114; 840, p. 198; 845, p. 174; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.89.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	5.30	July 18	5.75	Sept. 26	6.26	Nov. 28	5.71
May 9	5.21	Aug. 22	6.12	Oct. 29	5.89	Dec. 26	5.64
June 13	4.15						

294 (\*817, p. 115; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.08.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	4.40	July 18	4.36	Sept. 26	5.10	Nov. 28	4.60
May 9	4.20	Aug. 22	5.24	Oct. 29	4.87	Dec. 26	4.44
June 13	2.80						

295 (\*817, p. 115; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.45.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	7.35	July 18	7.22	Sept. 26	8.02	Nov. 28	7.25
May 9	7.41	Aug. 22	8.06	Oct. 29	7.75	Dec. 26	7.19
June 13	6.28						

296 (\*817, p. 116; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 9 N., R. 21 W. New driven observation well, diameter 1 inch, depth 19.5 feet, established on May 23, 1940, at location of old well, after old well was destroyed. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.9.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	6.60	July 18	6.54	Sept. 26	6.92	Nov. 28	6.72
May 9	6.62	Aug. 22	6.79	Oct. 29	6.87	Dec. 26	6.64
June 13	5.89						

297 (\*817, p. 116; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.65.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	5.07	June 13	3.42	Aug. 22	4.44	Oct. 29	5.33
May 9	4.52	July 18	4.01	Sept. 26	4.96	Nov. 28	5.38

298 (#817, p. 116; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.82.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	5.06	July 18	4.53	Sept. 26	5.18	Nov. 28	4.44
May 9	4.71	Aug. 22	5.48	Oct. 29	5.38		

299 (#817, p. 117; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.76.

Water level, in feet below land-surface datum, 1943

Apr. 4	3.80	June 13	2.34	Aug. 22	4.50	Oct. 29	4.15
May 9	3.71	July 18	4.00	Sept. 26	4.23	Nov. 28	4.12

300 (#817, p. 117; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 100.39.

Water level, in feet below land-surface datum, 1943

Apr. 4	0.67	June 13	+0.10	Aug. 22	1.54	Oct. 29	1.09
May 9	.66	July 18	1.15	Sept. 26	1.33	Nov. 28	1.07

301 (#817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.07.

Water level, in feet below land-surface datum, 1943

Jan. 4	2.92	May 5	3.11	Aug. 7	3.23	Oct. 29	3.25
Feb. 1	2.08	9	3.14	22	4.52	Nov. 9	3.15
Mar. 3	3.63	June 4	3.63	Sept. 14	3.81	28	3.22
Apr. 4	3.19	July 9	3.51	26	4.06	Dec. 14	3.16
5	3.24	18	4.18	Oct. 12	3.98		

302 (#817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.10.

Water level, in feet below land-surface datum, 1943

Jan. 4	4.88	May 5	4.94	July 18	5.98	Oct. 12	5.74
Feb. 1	4.15	9	5.03	Aug. 7	5.71	Nov. 29	5.27
Mar. 3	5.29	June 4	5.45	22	6.41	Nov. 9	5.13
Apr. 4	5.14	15	4.35	Sept. 14	5.61	28	5.24
5	5.12	July 9	5.30	26	5.86	Dec. 14	5.07

303 (#817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.45.

Water level, in feet below land-surface datum, 1943

Jan. 4	2.77	May 5	2.70	Aug. 7	3.82	Oct. 12	3.30
Feb. 1	2.28	9	2.80	22	4.18	Nov. 9	2.99
Mar. 3	2.82	June 4	3.24	Sept. 14	3.58	28	2.97
Apr. 4	2.92	July 9	3.02	26	3.47	Dec. 14	2.93
5	2.88	18	3.61	29	3.08		

304 (\*817, p. 119; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.53.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	6.68	May 5	6.42	July 18	6.83	Oct. 12	6.80
Feb. 1	6.13	9	6.55	Aug. 7	7.56	29	6.72
Mar. 3	6.62	June 4	6.78	22	7.73	Nov. 9	6.66
Apr. 4	6.76	15	5.96	Sept. 14	7.01	28	6.63
5	6.70	July 9	6.54	26	7.07	Dec. 14	6.58

305 (\*817, p. 119; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 161; 946, p. 197). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 117.52.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.52	May 5	15.63	July 18	15.73	Oct. 12	16.02
Feb. 1	16.20	9	15.81	Aug. 7	18.40	29	15.92
Mar. 3	16.06	June 4	16.05	22	17.95	Nov. 9	15.82
Apr. 4	16.20	15	15.22	Sept. 14	17.04	28	15.67
5	16.06	July 9	15.42	26	16.43	Dec. 14	15.64

306 (\*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 161; 946, p. 198). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.61.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	15.35	May 5	14.50	July 18	13.98	Oct. 13	14.16
Feb. 1	15.05	9	14.21	Aug. 7	17.17	29	13.88
Mar. 3	14.74	June 4	14.14	22	17.17	Nov. 28	13.56
Apr. 4	14.61	15	13.79	Sept. 14	15.43	Dec. 14	13.42
5	14.52	July 9	13.57	26	14.64		

308 (\*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198). E. Fleming. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 10 N., R. 23 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.54. Water level, in feet below land-surface datum, 1943: Nov. 7, 14.93.

309 (\*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198). J. Owings. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 11 N., R. 24 W. No measurements made in 1943.

310 (\*817, p. 121; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 946, p. 198). J. Block. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 12 N., R. 25 W. No measurements made in 1943.

311 (\*817, p. 121; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198). E. Clark. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 11 N., R. 25 W. No measurements made in 1943.

314 (\*817, p. 121; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 194; 946, p. 198). C. Myers. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.96. Water levels, in feet below land-surface datum, 1943: Apr. 3, 10.95; Nov. 7, 11.19.

317 (\*817, p. 121; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 9 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.96. Water levels, in feet below land-surface datum, 1943: Apr. 3, 3.77; Nov. 7, 4.04.

## 200 WATER LEVELS AND ARTESIAN PRESSURE, 1943, NORTH-CENTRAL STATES

318 (#817, p. 122; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 9 N., R. 22 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.21.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.70	Apr. 5	13.16	Aug. 7	12.54	Nov. 7	12.28
Feb. 1	13.48	May 5	12.82	Sept. 14	12.82	9	12.25
Mar. 3	13.28	June 4	13.04	Oct. 12	12.55	Dec. 14	11.89
Apr. 3	13.15	July 9	12.37				

319 (#817, p. 122; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 10 N., R. 22 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.71. Water levels, in feet below land-surface datum, 1943: Apr. 3, 4.11; Nov. 7, 5.72.

U44. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 11 N., R. 25 W. Bored observation well, diameter 2 inches, depth 32 feet. Measuring point, top of casing, 2,595.71 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,594.50 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	10.74	July 1, 1940	11.40	Apr. 8, 1942	11.96
Dec. 2	10.61	29	11.77	May 1	11.80
Jan. 4, 1939	11.04	Aug. 30	12.04	June 3	11.47
Feb. 3	11.50	Oct. 1	12.95	July 6	10.05
Mar. 2	11.82	Nov. 4	12.27	Aug. 3	10.18
Apr. 6	12.28	Jan. 3, 1941	12.80	Sept. 11	9.43
May 5	12.45	Feb. 3	12.97	Oct. 2	9.58
June 5	12.58	Mar. 3	13.03	Dec. 4	9.85
July 5	12.58	31	13.06	Jan. 7, 1943	10.02
Aug. 3	13.02	May 1	12.89	Feb. 3	10.09
Sept. 5	13.74	June 2	12.70	Mar. 4	10.20
Oct. 2	14.30	July 1	12.77	Apr. 7	10.32
Nov. 1	12.78	30	11.93	May 8	9.81
Dec. 6	9.42	Sept. 1	12.34	June 15	9.07
Jan. 6, 1940	10.10	Oct. 7	12.06	July 8	9.35
30	10.87	Nov. 4	11.97	Aug. 9	9.63
Mar. 4	11.40	29	12.02	Sept. 18	9.75
Apr. 5	11.90	Jan. 5, 1942	12.13	Oct. 11	9.50
May 3	11.17	Feb. 3	12.17	Nov. 10	8.66
28	11.49	Mar. 2	12.22		

U45. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 11 N., R. 25 W. Used drilled irrigation well, diameter 22 inches, depth 46 feet. Measuring point, top of 6- by 8-inch beam south side, 2,583.06 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,583.00 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	13.65	Aug. 3	12.95	May 3, 1940	11.38
Dec. 2	12.83	Sept. 5	13.78	28	10.80
Jan. 4, 1939	12.50	Oct. 2	14.21	July 1	10.30
Feb. 3	12.37	Nov. 1	12.87	29	11.17
Mar. 2	12.29	Dec. 6	10.50	Oct. 1	12.82
Apr. 6	12.33	Jan. 6, 1940	10.58	Nov. 4	11.83
May 5	12.45	30	10.80	Jan. 3, 1941	11.63
June 5	12.75	Mar. 4	10.69	Feb. 3	11.64
July 5	12.82	Apr. 5	11.23	Mar. 3	12.03



## U45. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Mar. 31, 1941	12.23	Feb. 3, 1942	11.91	Feb. 3, 1943	10.78
May 1	11.93	Mar. 2	12.02	Mar. 4	10.88
June 2	12.30	Apr. 8	11.49	Apr. 7	11.00
July 1	12.58	May 1	11.16	May 8	10.32
30	11.81	June 3	11.05	June 15	10.04
Sept. 1	12.60	July 6	9.75	July 8	9.57
Oct. 7	11.66	Sept. 11	9.40	Sept. 18	10.47
Nov. 4	11.48	Oct. 2	9.90	Oct. 11	10.68
29	11.66	Dec. 4	10.43	Nov. 10	10.43
Jan. 5, 1942	11.85	Jan. 7, 1943	10.65		

U48. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 10 N., R. 24 W. Bored observation well, diameter 2 inches, depth 35 feet. Measuring point, top of casing, 2,540.68 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,539.70 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	17.72	July 29	17.25	Apr. 29	15.99
Dec. 2	15.94	Aug. 30	17.63	June 4	15.59
Jan. 4, 1939	16.81	Oct. 1	18.48	July 10	14.15
Feb. 3	17.47	Nov. 4	17.75	Aug. 4	13.30
Mar. 2	17.77	Jan. 3, 1941	18.77	Sept. 1	12.88
Apr. 6	18.45	Feb. 3	19.15	Oct. 2	12.42
May 5	16.93	Mar. 3	19.42	Nov. 6	12.84
June 5	15.64	31	19.63	Dec. 3	12.86
July 5	15.62	May 1	19.78	Jan. 4, 1943	12.99
Aug. 3	16.55	June 2	18.33	Feb. 1	12.89
Sept. 5	17.35	July 1	17.47	Mar. 3	12.98
Oct. 2	18.16	30	16.40	Apr. 5	11.94
Nov. 1	18.15	Sept. 1	16.59	May 5	12.02
Dec. 6	14.56	Oct. 6	13.98	June 4	11.54
Jan. 6, 1940	14.57	Nov. 4	14.52	July 6	10.10
30	15.34	29	14.97	Aug. 7	9.55
Mar. 4	16.17	Jan. 5, 1942	15.56	Sept. 14	7.90
Apr. 5	16.87	Feb. 2	15.84	Oct. 12	8.94
May 3	16.18	Mar. 3	16.02	Nov. 9	9.40
28	16.10	Apr. 7	16.06	Dec. 14	9.50
July 1	16.61				

U49. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 11 N., R. 25 W. Bored observation well, diameter 2 inches, depth 15 feet. Measuring point, top of casing, 2,672.67 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,672.03 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	2.96	Jan. 30, 1940	1.95	May 30, 1941	2.46
Dec. 2	2.46	Mar. 5	1.07	June 30	3.22
Jan. 5, 1939	2.08	Apr. 3	1.87	July 28	3.38
Feb. 3	1.70	May 1	2.26	Sept. 2	3.06
Mar. 3	1.45	29	3.06	Oct. 7	1.80
Apr. 7	1.03	July 2	3.40	Nov. 4	1.77
May 6	2.03	27	3.82	29	1.99
June 6	2.95	Aug. 29	3.94	Jan. 7, 1942	2.40
July 6	2.73	Sept. 30	3.58	Feb. 3	1.66
Aug. 4	5.04	Nov. 2	2.93	Mar. 2	1.73
Sept. 5	4.12	Dec. 31	1.55	Apr. 8	1.62
Oct. 4	3.78	Feb. 2, 1941	1.17	30	1.25
Nov. 6	3.20	Mar. 1	1.13	June 2	1.76
Dec. 4	2.75	29	1.40	July 21	3.41
Jan. 7, 1940	2.33	May 1	1.40	30	3.35

## U49. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 14, 1942	1.52	Mar. 1, 1943	1.87	Aug. 6, 1943	3.99
Oct. 1	1.73	Apr. 7	2.14	Sept. 17	3.53
Dec. 1	1.90	May 6	2.46	Oct. 11	3.39
Jan. 5, 1943	2.05	June 5	3.06	Nov. 10	3.04
Feb. 2	1.97	July 7	3.59		

U51. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 9 N., R. 23 W. Bored observation well, diameter 2 inches, depth 16 feet. Measuring point, top of casing, 2,484.93 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 2,484.22 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	8.47	Aug. 30, 1940	9.52	Apr. 29, 1942	7.90
Feb. 3	8.46	Oct. 1	9.43	June 4	7.22
Mar. 2	8.35	Nov. 4	9.09	July 10	6.57
Apr. 6	8.35	Jan. 3, 1941	7.93	Aug. 4	7.24
May 5	8.50	Feb. 3	7.68	Sept. 11	7.19
June 5	8.68	Mar. 3	7.73	Oct. 2	6.70
July 5	8.17	31	7.88	Nov. 6	6.96
Aug. 3	8.78	May 1	7.62	Dec. 3	6.98
Sept. 5	9.30	June 2	7.90	Jan. 4, 1943	7.05
Oct. 3	9.57	July 1	8.21	Feb. 1	6.99
Nov. 1	9.23	30	7.72	Mar. 3	6.91
Dec. 5	8.49	Sept. 1	8.42	Apr. 5	7.01
Jan. 29, 1940	7.52	Oct. 6	7.72	May 5	6.55
Mar. 4	7.37	Nov. 4	7.55	June 4	6.99
Apr. 4	7.60	29	7.40	Aug. 7	7.57
May 2	7.65	Jan. 5, 1942	7.33	Sept. 14	7.45
28	7.94	Feb. 2	7.31	Oct. 12	7.26
July 1	8.44	Mar. 3	7.24	Nov. 9	7.10
29	9.09	Apr. 7	7.15	Dec. 14	6.91

U52. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, 2,442.53 feet above sea level, 1.7 feet above land-surface datum. Reference point, top of iron pin, 2,440.91 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	4.40	Nov. 4, 1940	6.26	July 10, 1942	5.40
Feb. 3	4.39	Jan. 3, 1941	5.40	Aug. 4	6.55
Mar. 2	4.08	Feb. 3	5.25	Sept. 1	6.68
Apr. 6	4.44	Mar. 3	5.23	Oct. 2	6.13
May 5	5.09	31	5.51	Nov. 6	6.27
June 5	5.64	May 1	5.48	Dec. 3	6.13
July 5	5.31	June 2	5.79	Jan. 4, 1943	5.79
Aug. 3	6.08	July 1	6.06	Feb. 1	5.42
Sept. 6	6.47	30	6.42	Mar. 3	5.83
Oct. 3	6.97	Sept. 1	7.03	Apr. 5	5.92
Nov. 1	5.85	Oct. 6	5.95	May 5	5.82
Dec. 5	5.39	Nov. 5	5.81	June 4	6.23
Apr. 4, 1940	5.10	28	5.70	July 9	6.15
May 2	5.22	Jan. 5, 1942	5.68	Aug. 7	6.47
28	5.64	Feb. 2	5.42	Sept. 14	6.47
July 1	6.29	Mar. 3	5.34	Oct. 12	6.48
29	6.74	Apr. 7	5.48	Nov. 9	6.28
Aug. 30	7.03	29	4.85	Dec. 14	6.15
Oct. 1	7.17	June 4	5.86		

U53. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 1, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, 2,437.70 feet above sea level, 1.4 feet above land-surface datum. Reference point, top of iron pin, 2,436.39 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	3.25	Oct. 1, 1940	5.26	June 4, 1942	2.76
Feb. 3	3.04	Nov. 4	4.62	July 10	2.32
Mar. 2	2.80	Jan. 3, 1941	3.54	Aug. 4	3.65
Apr. 6	2.40	Feb. 3	3.21	Sept. 1	4.23
May 5	3.00	Mar. 3	3.18	Oct. 2	2.99
June 5	3.54	31	3.21	Nov. 6	3.25
July 5	2.43	May 1	2.72	Dec. 3	3.06
Aug. 3	4.30	June 2	3.22	Jan. 4, 1943	2.32
Sept. 6	4.79	July 1	3.64	Feb. 1	2.98
Oct. 3	5.08	30	4.30	Mar. 3	2.73
Nov. 1	4.42	Sept. 1	5.04	Apr. 5	2.90
Dec. 5	3.80	Oct. 6	3.98	May 5	3.05
Jan. 29, 1940	3.35	Nov. 5	3.88	June 4	3.60
Mar. 4	2.39	28	3.67	July 9	2.87
Apr. 4	2.89	Jan. 5, 1942	3.61	Aug. 7	4.51
May 2	2.96	Feb. 2	3.06	Sept. 14	4.50
28	3.73	Mar. 3	2.93	Oct. 12	4.16
July 1	4.43	Apr. 7	2.68	Nov. 9	3.73
29	5.04	29	2.05	Dec. 14	3.51
Aug. 30	5.30				

U54. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 12, T. 9 N., R. 23 W. Bored observation well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, 2,440.02 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 2,439.81 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	9.37	Oct. 1, 1940	9.92	June 4, 1942	8.52
Feb. 3	9.28	Nov. 4	9.96	July 10	6.40
Mar. 2	9.22	Jan. 3, 1941	9.78	Aug. 4	7.14
Apr. 6	9.17	Feb. 3	9.74	Sept. 1	7.60
May 5	9.11	Mar. 3	9.70	Oct. 2	7.54
June 5	9.08	31	9.67	Nov. 6	7.67
July 5	8.74	May 1	9.59	Dec. 3	7.74
Aug. 3	9.00	June 2	9.26	Jan. 4, 1943	7.75
Sept. 6	9.30	July 1	9.34	Feb. 1	7.88
Oct. 3	9.52	30	9.40	Mar. 3	7.97
Nov. 1	9.62	Sept. 1	9.64	Apr. 5	7.97
Dec. 5	9.58	Oct. 6	9.67	May 5	7.81
Jan. 29, 1940	9.30	Nov. 5	9.57	June 4	7.72
Mar. 4	9.16	28	9.55	July 9	6.66
Apr. 4	9.10	Jan. 5, 1942	9.55	Aug. 7	7.28
May 2	9.05	Feb. 2	9.54	Sept. 14	7.67
28	9.04	Mar. 3	9.51	Oct. 12	7.78
July 1	9.19	Apr. 7	9.42	Nov. 9	7.68
29	9.46	29	9.34	Dec. 14	7.47
Aug. 30	9.73				

U55. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches, depth 12 feet. Measuring point, top of casing, 2,432.27 feet above sea level, 1.9 feet above land-surface datum. Reference point, top of iron pin, 2,430.56 feet above sea level. Measurements supplied through the courtesy of Central Nebraska Public Power and Irrigation District.

U55. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	4.91	Oct. 1, 1940	6.75	June 4, 1942	4.51
Feb. 3	4.66	Nov. 4	6.45	July 10	3.79
Mar. 2	4.51	Jan. 3, 1941	5.89	Aug. 4	4.97
Apr. 6	4.31	Feb. 3	5.76	Sept. 1	5.57
May 5	4.20	Mar. 3	5.71	Oct. 2	5.04
June 5	4.65	31	5.66	Nov. 6	5.31
July 5	4.00	May 1	5.38	Dec. 3	5.37
Aug. 3	5.55	June 2	5.26	Jan. 4, 1943	5.32
Sept. 6	6.05	July 2	5.39	Feb. 1	5.24
Oct. 3	6.39	30	5.80	Mar. 3	5.11
Nov. 1	5.83	Sept. 1	6.37	Apr. 5	5.22
Dec. 5	5.39	Oct. 6	6.10	May 5	4.93
Jan. 29, 1940	5.10	Nov. 5	5.94	June 4	5.36
Mar. 4	4.45	28	5.80	July 9	4.64
Apr. 4	4.90	Jan. 5, 1942	5.80	Aug. 7	5.77
May 2	4.41	Feb. 2	5.65	Sept. 14	6.02
29	5.35	Mar. 3	5.60	Oct. 12	5.88
July 1	5.87	Apr. 7	5.38	Nov. 9	5.56
29	6.27	29	5.04	Dec. 14	5.43
Aug. 30	6.56				

U56. Central Nebraska Public Power and Irrigation District. ~~SE1/4~~  
sec. 16, T. 9 N., R. 22 W. Used bored irrigation well, diameter 24 inches.  
Measuring point, top of casing, 2,423.14 feet above sea level, 0.6 foot  
above land-surface datum. Reference point, top of iron pin, 2,422.90 feet  
above sea level. Measurements supplied through courtesy of Central Nebraska  
Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	13.51	Oct. 1, 1940	15.36	June 4, 1942	12.95
Feb. 3	13.22	Nov. 4	15.18	July 10	12.20
Mar. 2	13.10	Jan. 3, 1941	14.45	Oct. 2	13.11
Apr. 6	13.11	Feb. 3	14.10	Nov. 6	13.15
May 5	13.44	Mar. 3	14.11	Dec. 3	13.09
June 5	13.69	31	13.92	Jan. 4, 1943	12.85
Aug. 3	14.60	May 1	13.80	Feb. 1	12.63
Sept. 6	14.51	June 2	13.88	Mar. 3	12.38
Oct. 3	14.73	July 2	13.90	Apr. 5	12.33
Nov. 1	14.51	Oct. 6	14.84	May 5	11.95
Dec. 5	14.58	Nov. 5	14.57	June 4	12.04
Jan. 29, 1940	13.57	28	14.35	July 9	11.45
Mar. 4	13.32	Jan. 5, 1942	14.09	Sept. 14	12.20
Apr. 4	13.51	Feb. 2	14.00	Oct. 12	11.82
May 2	13.52	Mar. 3	13.76	Nov. 9	11.56
29	14.04	Apr. 7	13.75	Dec. 14	11.15
Aug. 30	16.22	29	15.54		

U57. Central Nebraska Public Power and Irrigation District. ~~NE1/4~~  
sec. 23, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches.  
Measuring point, top of casing, 2,407.66 feet above sea level, 1.0 foot  
above land-surface datum. Reference point, top of iron pin, 2,406.78 feet  
above sea level. Measurements supplied through courtesy of Central Nebraska  
Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	6.29	Dec. 5, 1939	7.22	Jan. 30, 1941	7.30
Feb. 3	6.32	Mar. 4, 1940	6.40	Mar. 4	7.33
Mar. 2	6.16	Apr. 4	6.87	30	7.25
Apr. 6	6.17	May 2	6.90	May 1	7.23
May 5	6.77	29	7.42	June 2	6.89
June 5	7.26	July 2	7.89	July 2	7.39
July 5	6.55	27	8.43	30	7.71
Aug. 3	7.55	Aug. 29	8.88	Sept. 1	8.56
Sept. 6	8.26	Sept. 30	9.04	Oct. 6	7.88
Oct. 3	8.57	Nov. 2	8.44	Nov. 5	7.65
Nov. 1	7.71	Dec. 30	7.33	28	7.51

## U57. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 5, 1942	7.23	Oct. 2, 1942	6.88	June 4, 1943	6.41
Feb. 2	7.19	Nov. 6	7.00	July 9	5.28
Mar. 3	6.97	Dec. 3	6.93	Aug. 7	6.32
Apr. 7	7.18	Jan. 4, 1943	6.77	Sept. 14	6.08
29	6.82	Feb. 1	6.30	Oct. 12	6.15
June 4	5.91	Mar. 3	6.56	Nov. 9	6.06
July 10	5.79	Apr. 5	6.59	Dec. 14	5.98
Aug. 4	7.13	May 5	6.10		

U58. Central Nebraska Public Power and Irrigation District. NE<sup>1</sup>NE<sup>1</sup> sec. 26, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches, depth 15 feet. Measuring point, top of casing, 2,403.56 feet above sea level, 1.5 feet above land-surface datum. Reference point, top of iron pin, 2,403.06 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	9.58	Aug. 29, 1940	12.26	June 4, 1942	9.77
Feb. 3	9.42	Sept. 30	12.47	July 10	9.75
Mar. 2	9.40	Nov. 2	12.18	Aug. 4	10.96
Apr. 6	9.24	Dec. 30	11.13	Sept. 4	10.85
May 5	9.82	Jan. 30, 1941	11.07	Oct. 2	10.79
June 5	10.22	Mar. 4	11.03	Nov. 6	10.62
July 5	10.13	30	10.90	Dec. 3	10.39
Aug. 3	11.15	May 1	10.78	Jan. 4, 1943	10.28
Sept. 6	11.46	June 3	10.79	Feb. 1	9.99
Oct. 3	11.74	July 2	11.00	Mar. 3	9.94
Nov. 1	11.25	30	11.36	Apr. 5	9.89
Dec. 5	10.81	Sept. 1	12.09	May 5	9.69
Jan. 7, 1940	10.45	Oct. 6	11.94	June 4	10.19
29	10.14	Nov. 5	11.68	July 9	9.77
Mar. 4	9.73	28	11.47	Aug. 7	15.62
Apr. 4	10.16	Jan. 5, 1942	11.29	Sept. 14	10.87
May 2	10.28	Feb. 2	11.14	Oct. 12	10.23
29	10.83	Mar. 3	10.95	Nov. 9	9.64
July 2	11.21	Apr. 7	10.71	Dec. 4	9.57
27	10.82	29	10.58		

U59. Central Nebraska Public Power and Irrigation District. SW<sup>1</sup>SE<sup>1</sup> sec. 25, T. 9 N., R. 22 W. Bored observation well, diameter 2 inches, depth 20 feet. Measuring point, top of casing, 2,400.03 feet above sea level, 1.1 feet above land-surface datum. Reference point, top of iron pin, 2,399.09 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	15.36	Aug. 29, 1940	16.93	June 1, 1942	15.28
Feb. 3	15.18	Sept. 30	17.18	July 10	14.58
Mar. 2	15.10	Nov. 2	17.28	Aug. 4	14.76
Apr. 6	14.99	Dec. 30	16.76	Sept. 4	15.09
May 5	15.26	Jan. 30, 1941	16.65	Oct. 2	14.60
June 5	15.70	Mar. 4	16.57	Nov. 6	14.32
July 5	15.44	30	16.52	Dec. 3	14.05
Aug. 4	15.90	May 1	16.42	Jan. 4, 1943	13.75
Sept. 6	16.26	June 3	16.42	Feb. 1	13.44
Oct. 3	16.58	July 2	16.39	Mar. 3	13.10
Nov. 1	16.54	30	16.57	Apr. 5	12.82
Dec. 5	16.26	Sept. 2	16.98	May 5	12.41
Jan. 6, 1940	16.04	Oct. 6	17.22	June 4	12.28
29	16.88	Nov. 5	17.22	July 9	11.90
Mar. 5	15.56	28	17.04	Aug. 7	12.22
Apr. 4	15.52	Jan. 5, 1942	16.82	Sept. 14	12.15
May 2	15.66	Feb. 2	16.82	Oct. 12	11.71
29	16.10	Mar. 3	16.35	Nov. 9	11.37
July 2	16.37	Apr. 7	15.94	Dec. 14	10.76
27	16.65	29	15.85		

U60. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 9 N., R. 21 W. Bored observation well, diameter 2 inches, depth 17 feet. Measuring point, top of casing, 2,388.72 feet above sea level, 0.2 foot above land-surface datum. Reference point, top of iron pin, 2,388.72 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	11.40	Aug. 29, 1940	15.49	June 1, 1942	12.37
Feb. 3	11.46	Sept. 30	15.09	July 10	11.75
Mar. 2	11.26	Nov. 2	15.10	Aug. 4	13.20
Apr. 6	11.28	Dec. 30	13.61	Sept. 4	13.25
May 5	12.00	Jan. 30, 1941	13.77	Oct. 2	12.64
June 6	12.36	Mar. 4	13.75	Nov. 6	12.56
July 5	12.10	30	13.51	Dec. 3	12.39
Aug. 10	14.39	May 1	13.36	Jan. 4, 1943	12.25
Sept. 6	14.00	June 3	13.30	Feb. 1	11.98
Oct. 3	14.04	July 2	13.40	Mar. 3	12.03
Nov. 2	13.57	30	14.29	Apr. 5	11.96
Dec. 5	13.08	Sept. 2	15.19	May 5	11.50
Jan. 6, 1940	12.70	Oct. 6	14.93	June 4	11.90
29	12.40	Nov. 5	14.72	July 9	11.43
Mar. 5	11.97	28	14.55	Aug. 7	13.40
Apr. 4	12.55	Jan. 5, 1942	14.29	Sept. 14	12.82
May 2	13.19	Feb. 2	14.09	Oct. 12	12.05
29	13.57	Mar. 3	13.93	Nov. 9	11.76
July 2	14.19	Apr. 7	13.32	Dec. 14	11.52
27	15.38	29	13.07		

U61. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 9 N., R. 21 W. Bored observation well, diameter 2 inches, depth 22 feet. Measuring point, top of casing, 2,389.20 feet above sea level, 2.0 feet above land-surface datum. Reference point, top of iron pin, 2,387.92 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	15.50	Aug. 29, 1940	19.33	Apr. 29, 1942	16.92
Feb. 3	15.30	Sept. 30	19.51	June 1	16.48
Mar. 2	15.17	Nov. 2	19.77	July 10	15.63
Apr. 6	15.06	5	19.82	Aug. 4	15.59
May 5	15.17	Dec. 30	19.60	Sept. 4	15.79
June 6	15.11	Jan. 30, 1941	19.45	Oct. 2	15.15
July 5	14.74	Mar. 4	19.33	Nov. 6	14.73
Aug. 4	15.47	30	19.23	Dec. 3	14.47
Sept. 6	16.10	May 1	19.13	Jan. 4, 1943	14.16
Oct. 3	16.40	June 3	18.95	Feb. 1	13.33
Nov. 2	16.64	July 2	18.71	Mar. 3	13.46
Dec. 5	16.87	30	18.86	Apr. 5	13.17
Jan. 6, 1940	16.74	Sept. 2	19.12	May 5	12.76
29	17.22	Oct. 6	18.79	June 4	12.66
Mar. 5	17.39	Nov. 5	18.58	July 9	12.08
Apr. 4	17.52	28	18.43	Aug. 7	13.05
May 2	17.63	Jan. 6, 1942	18.02	Sept. 14	12.80
29	17.75	Feb. 2	17.85	Oct. 12	12.17
July 2	18.24	Mar. 3	17.57	Nov. 9	11.84
27	18.75	Apr. 7	17.19	Dec. 14	11.48

U62. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 9 N., R. 21 W. Bored observation well, diameter 2 inches, Measuring point, top of casing, 2,378.47 feet above sea level, 2.0 feet above land-surface datum. Reference point, top of iron pin, 2,376.52 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

U62. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	10.08	Mar. 5, 1940	14.38	Nov. 20, 1942	12.26
Feb. 3	9.92	Apr. 4	(a)	Dec. 3	12.26
Mar. 3	9.90	Nov. 28, 1941	13.73	Jan. 4, 1943	12.30
Apr. 6	9.80	Jan. 6, 1942	13.51	Feb. 1	12.18
May 5	9.75	Feb. 2	13.39	Mar. 3	12.16
June 6	9.79	Mar. 3	13.25	Apr. 5	12.16
July 5	9.81	Apr. 7	13.19	May 5	11.87
Aug. 3	11.95	29	13.05	June 4	11.98
Sept. 6	12.22	June 1	12.58	July 9	11.56
Oct. 3	12.73	July 21	11.73	Aug. 7	13.12
Nov. 2	13.26	Aug. 4	12.60	Sept. 15	12.02
Dec. 5	13.35	Sept. 4	12.69	Oct. 13	11.97
Jan. 7, 1940	14.15	Oct. 2	12.12	Nov. 9	12.06
29	14.27				

U63. Central Nebraska Public Power and Irrigation District. NE1NW1 sec. 4, T. 8 N., R. 21 W. Bored observation well, diameter 2 inches, depth 7 feet. Measuring point, top of casing, 2,368.46 feet above sea level, 0.3 foot below land-surface datum. Reference point, top of iron pin, 2,368.71 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	7.20	July 30, 1941	9.51	Oct. 2, 1942	8.42
Feb. 3	7.17	Sept. 2	9.61	Nov. 20	8.67
Mar. 3	7.18	Oct. 6	9.53	Dec. 8	8.67
Apr. 6	6.82	Nov. 6	9.31	Jan. 4, 1943	8.68
May 5	7.40	28	9.19	Feb. 1	8.57
June 6	8.10	Jan. 6, 1942	9.00	Mar. 3	8.59
July 5	8.09	Feb. 2	8.92	Apr. 5	8.64
Aug. 4	9.04	Mar. 3	8.76	May 6	8.54
Sept. 6	9.69	Apr. 7	8.75	June 4	8.69
Oct. 3	10.00	29	8.55	July 9	8.22
Nov. 2	10.00	June 4	7.54	Aug. 7	8.72
Dec. 5	10.16	July 21	8.02	Sept. 15	8.05
Jan. 7, 1940	(b)	Aug. 4	8.39	Oct. 13	8.69
June 3, 1941	9.77	Sept. 4	8.22	Nov. 9	8.85
July 2	9.45				

U64. Central Nebraska Public Power and Irrigation District. NE1NE1 sec. 32, T. 9 N., R. 21 W. Bored observation well, diameter 2 inches, depth 10 feet. Measuring point, top of casing, 2,375.03 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,374.33 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Jan. 4, 1939	2.90	May 29, 1940	4.70	Nov. 28, 1941	5.28
Feb. 3	3.27	July 2	5.05	Jan. 6, 1942	5.05
Mar. 3	3.27	27	5.55	Feb. 2	4.95
Apr. 6	2.84	Aug. 29	6.01	Mar. 3	4.89
May 5	3.61	Sept. 30	6.36	Apr. 7	4.65
June 6	3.78	Nov. 2	6.84	29	4.26
July 5	3.64	Dec. 30	5.13	June 1	3.80
Aug. 4	4.65	Jan. 30, 1941	5.17	July 21	5.30
Sept. 6	5.12	Mar. 4	5.13	Aug. 4	5.81
Oct. 3	5.48	Apr. 8	4.70	Sept. 4	3.80
Nov. 2	4.88	May 2	4.80	Oct. 2	4.64
Dec. 5	4.53	June 3	4.47	Nov. 20	4.71
Jan. 7, 1940	4.15	July 2	4.75	Dec. 3	4.65
29	4.10	30	6.68	Jan. 4, 1943	4.55
Mar. 5	3.92	Sept. 2	6.04	Feb. 1	4.40
Apr. 4	4.27	Oct. 6	5.91	Mar. 3	4.48
May 2	4.40	Nov. 6	5.49	Apr. 5	4.49

a Well dry from Apr. 4, 1940, to Nov. 28, 1941.

b Well dry from Jan. 7, 1940, to June 3, 1941.

## U64. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
May 5, 1943	4.13	Aug. 7, 1943	5.07	Oct. 13, 1943	4.71
June 4	4.66	Sept. 15	4.44	Nov. 9	4.57
July 9	4.13				

U73. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 9 N., R. 21 W. Used drilled irrigation well. Measuring point, 2,429.90 feet above sea level, 0.7 foot below land-surface datum. Reference point, top of iron pin, 2,429.23 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Aug. 29, 1940	52.93	Nov. 28, 1941	51.00	Dec. 3, 1942	42.84
Sept. 30	52.34	Jan. 6, 1942	50.24	Jan. 4, 1943	42.15
Nov. 2	52.38	Feb. 2	49.60	Feb. 1	41.49
Dec. 30	52.44	Mar. 3	48.82	Mar. 3	40.78
Jan. 30, 1941	52.41	Apr. 7	48.23	Apr. 5	40.17
Mar. 4	52.43	29	47.65	June 4	39.06
30	52.34	June 1	46.90	July 9	38.28
May 1	52.30	July 10	45.98	Sept. 14	37.59
June 3	52.25	Sept. 4	44.96	Oct. 12	36.88
July 2	52.05	Oct. 2	44.21	Nov. 9	36.45
Oct. 6	52.02	Nov. 6	43.39	Dec. 14	35.82
Nov. 5	51.44				

U74. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 9 N., R. 22 W. Used irrigation well. Measuring point, 2,447.89 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,447.82 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Aug. 30, 1940	28.32	June 2, 1941	28.05	Mar. 3, 1942	27.93
Oct. 1	28.40	July 2	27.98	Apr. 7	27.86
Nov. 4	28.37	Sept. 1	28.54	29	27.77
Jan. 3, 1941	28.39	Oct. 6	28.30	June 4	27.53
Feb. 3	28.05	Nov. 5	28.24	July 10	27.12
Mar. 3	28.24	28	28.17	Sept. 1	27.00
31	28.17	Jan. 5, 1942	28.08	Oct. 2	(a)
May 1	28.13	Feb. 2	28.02		

U75. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 9 N., R. 22 W. Used drilled irrigation well. Measuring point, 2,459.20 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,459.10 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Aug. 30, 1940	43.26	June 2, 1941	42.83	Mar. 3, 1942	41.31
Oct. 1	41.87	July 2	42.48	Apr. 7	41.30
Nov. 4	41.76	Sept. 1	41.99	29	41.12
Jan. 3, 1941	41.75	Oct. 6	41.76	June 4	40.99
Feb. 3	41.65	Nov. 5	41.66	July 10	40.70
Mar. 3	41.55	28	41.65	Sept. 1	40.92
31	41.77	Jan. 5, 1942	41.48	Oct. 2	b 40.37
May 1	41.43	Feb. 2	41.40		

a Pumping; pumphouse locked since Nov. 6, 1942.

b Pumphouse locked since Dec. 3, 1942.



Deuel County

94 (\*817, p. 122; 840, p. 200; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). W. Kimball. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 12 N., R. 42 W. No measurements made in 1943.

130 (\*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). Mrs. Jacobson. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 13 N., R. 45 W. No measurements made in 1943.

Dixon County

107 (\*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). F. Beyeler. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 31 N., R. 4 E. No measurements made in 1943.

333 (\*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). F. Mille. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 30 N., R. 6 E. No measurements made in 1943.

340 (\*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). P. Lamb. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 31 N., R. 5 E. No measurements made in 1943.

Dodge County

31 (\*817, p. 124; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 946, p. 199). J. Wieser. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 17 N., R. 9 W. No measurements made in 1943.

34 (\*817, p. 124; 840, p. 201; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 199). R. Mahaffey. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 17 N., R. 6 E. No measurements made in 1943.

401 (\*840, p. 201; 845, p. 174; 886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199). University of Nebraska. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 18 N., R. 9 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.08. Water level, in feet below land-surface datum, 1943: Oct. 14, 9.21.

420 (\*886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 17 N., R. 6 E. No measurements made in 1943.

455. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 14 feet. Measuring point, top of casing, 1,199.02 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Feb. 21, 1940	2.92	Oct. 22, 1940	5.37	Oct. 26, 1942	4.79
Mar. 20	2.43	9, 1941	4.33	14, 1943	5.16
July 10	4.23				

456. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 19 feet. Measuring point, top of casing, 1,199.44 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 21, 1940	6.29	July 10, 1940	5.26	Oct. 26, 1942	4.74
Mar. 20	5.55	Oct. 9, 1941	5.27	14, 1943	4.68

457. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 20 feet. Measuring point, top of casing, 1,199.88 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940, 1942-43

Feb. 3, 1940	8.14	July 10, 1940	5.30	Oct. 26, 1942	6.18
Mar. 20	4.87	Oct. 22	7.44	14, 1943	6.42

458. SW. corner sec. 15, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 20 feet. Measuring point, top of casing, 1,202.90 feet above sea level, 1.0 foot above land-surface datum.

458.--Continued.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Feb. 3, 1940	12.21	Oct. 22, 1940	12.21	Oct. 26, 1942	10.22
Mar. 20	12.33	9, 1941	12.37	14, 1943	10.32
July 10	11.43				

459. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 18 feet. Measuring point, top of casing, 1,203.60 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	12.98	Oct. 22, 1940	14.19	Oct. 26, 1942	11.95
Mar. 20	13.18	9, 1941	13.97	14, 1943	11.91
July 10	13.70				

460. NE. corner sec. 16, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 26 feet. Measuring point, top of casing, 1,201.77 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	15.84	Oct. 22, 1940	15.92	Oct. 26, 1942	13.49
Mar. 20	15.88	9, 1941	15.51	14, 1943	13.44
July 10	14.81				

461. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 30 feet. Measuring point, top of casing, 1,198.83 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	13.96	Oct. 22, 1940	14.29	Oct. 26, 1942	11.86
Mar. 20	13.96	8, 1941	11.99	14, 1943	11.94

462. SE. corner sec. 4, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 31 feet. Measuring point, top of casing, 1,199.64 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	13.33	Oct. 8, 1941	9.17	Oct. 14, 1943	10.60
Mar. 20	13.32	26, 1942	10.22		

464. NE. corner sec. 4, T. 17 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 34 feet. Measuring point, top of casing, 1,198.05 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	12.21	Oct. 22, 1940	9.33	Oct. 26, 1942	7.49
Mar. 20	11.02	8, 1941	9.07	14, 1943	7.76
July 10	8.95				

467. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 18 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 52.5 feet. Measuring point, top of casing, 1,218.40 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	31.92	Oct. 8, 1941	23.63	Oct. 14, 1943	26.01
Mar. 20	30.95	26, 1942	25.14		

468. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 18 N., R. 8 E. Drilled observation well, diameter 2 inches, depth 85 feet. Measuring point, top of casing, 1,263.76 feet above sea level, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

Feb. 3, 1940	68.56	Oct. 8, 1941	60.86	Oct. 14, 1943	62.67
Mar. 20	68.72	26, 1942	61.78		

Douglas County

24 (\*817, p. 124; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199). Robinson Seed Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 15 N., R. 10 E. No measurements made in 1943.

Dundy County

177 (\*817, p. 124; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 162; 946, p. 199). G. Russell. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 3 N., R. 37 W. No measurements made in 1943.

361 (\*817, p. 125; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 946, p. 199). O. Scrivner. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 1 N., R. 41 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.18. Water level, in feet below land-surface datum, 1943: Sept. 8, 30.30.

380 (\*817, p. 125; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 162; 946, p. 199). L. Krutsinger. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 1 N., R. 39 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.18. Water level, in feet below land-surface datum, 1943: Sept. 8, 6.01.

445 (\*886, p. 298; 908, p. 196; 938, p. 163; 946, p. 199). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 1 N., R. 38 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.79. Water level, in feet below land-surface datum, 1943: Sept. 8, 9.70.

Fillmore County

174 (\*817, p. 125; 840, p. 202; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 163; 946, p. 199). G. Taylor. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 7 N., R. 2 W. No measurements made in 1943.

191 (\*817, p. 125; 840, p. 202; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 163; 946, p. 199). E. Zelenke. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 7 N., R. 2 W. No measurements made in 1943.

Franklin County

156 (\*817, p. 126; 840, p. 202; 845, p. 175; 886, p. 298; 908, p. 198; 938, p. 163; 946, p. 199). J. Wessels. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 2 N., R. 15 W. No measurements made in 1943.

221 (\*817, p. 126; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 199). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 3 N., R. 14 W. No measurements made in 1943.

224 (\*817, p. 126; 840, p. 202; 845, p. 174; 886, p. 299; 908, p. 196; 946, p. 199). Gilgen Bros. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 4 N., R. 14 W. No measurements made in 1943.

Frontier County

136 (\*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 200). O. Worley. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 7 N., R. 27 W. No measurements made in 1943.

Furnas County

145 (\*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 147; 946, p. 200). G. Sayer. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 4 N., R. 25 W. No measurements made in 1943.

147 (\*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 147; 946, p. 200). H. Lambert. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 3 N., R. 23 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 199.01. Water level, in feet below land-surface datum, 1943: Jan. 4, 100.20.

148 (\*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 300; 908, p. 196; 938, p. 163; 946, p. 200). E. Stockton. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 2 N., R. 22 W. No measurements made in 1943.

149 (\*817, p. 127; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 196; 946, p. 200). S. Shoemaker. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 1 N., R. 25 W. No measurements made in 1943.

180 (\*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 196; 946, p. 200). A. Askey. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 3 N., R. 21 W. No measurements made in 1943.

387 (\*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 946, p. 200). J. Loar. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 2 N., R. 25 W. No measurements made in 1943.

388 (\*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163). E. Hunt. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 2 N., R. 25 W. No measurements made in 1943.

395 (\*840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200). O. V. Moore. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 4 N., R. 23 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 129.92. Water level, in feet below land-surface datum, 1943: Sept. 13, 30.23.

#### Gage County

199 (\*840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 946, p. 200). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 6 N., R. 8 E. No measurements made in 1943.

230 (\*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200). J. Witzenburg. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 2 N., R. 6 E. No measurements made in 1943.

231 (\*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200). E. Miller. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 5 N., R. 5 E. No measurements made in 1943.

#### Garden County

3 (\*777, p. 93; 817, p. 129; 840, p. 203; 845, p. 175; 886, p. 300; 946, p. 200). Crescent Lake Migratory Bird Refuge. North side of Crescent Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. To convert water levels from feet above sea level minus 3,700, as published in previous reports, to feet below land-surface datum, subtract from 3,791.8. Water levels, in feet below land-surface datum, 1943: Mar. 4, 6.61; June 8, 6.51.

4 (\*886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200). U. S. key well 59. Crescent Lake Migratory Bird Refuge. North side of Island Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. To convert water levels from feet above sea level minus 3,000, as published in previous reports, to feet below land-surface datum, subtract from 3,803.00.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	3.01	Apr. 7	2.91	July 5	3.71	Sept. 30	4.71
11	2.91	14	2.71	17	3.91	Oct. 5	4.71
17	2.81	22	2.81	22	4.01	11	4.71
23	2.81	30	2.91	30	4.41	26	4.51
Mar. 1	2.71	June 1	2.71	Aug. 6	4.41	31	4.41
4	2.81	7	2.81	14	4.51	Nov. 1	4.41
20	2.71	18	3.01	18	4.61	30	4.01
27	2.71	22	3.21	26	4.71	Dec. 31	4.01
31	2.71	30	3.51	31	4.71		

5 (\*908, p. 197; 938, p. 164; 946, p. 201). Crescent Lake Migratory Bird Refuge. Northwest of Smith Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,800, as published in previous reports, to feet below land-surface datum, subtract from 3,841.8. Water levels, in feet below land-surface datum, 1943: Mar. 8, 2.92; June 9, 3.02.

12 (\*908, p. 199; 938, p. 164; 946, p. 201). Crescent Lake Migratory Bird Refuge. Northwest corner of refuge. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,800, as published in previous reports, to feet below land-surface datum, subtract from 3,851.02.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	4.75	Mar. 31	4.55	June 16	4.15	Aug. 10	4.90
11	4.75	Apr. 7	4.55	24	4.25	25	5.20
17	4.65	14	4.35	July 6	4.55	Oct. 5	5.35
23	4.65	22	4.45	23	4.65	11	5.45
Mar. 8	4.65	30	4.45	28	4.55	26	5.35
20	4.65	June 9	4.15	Aug. 6	4.95	31	5.25
27	4.55						

17 (\*886, p. 301; 908, p. 200; 938, p. 164; 946, p. 201). Crescent Lake Migratory Bird Refuge. Half a mile south of Bean Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,800, as published in previous reports, to feet below land-surface datum, subtract from 3,832.75. Water levels, in feet below land-surface datum, 1943: Mar. 8, 4.22; June 9, 4.42.

19 (\*886, p. 302; 908, p. 200; 938, p. 164; 946, p. 201). Crescent Lake Migratory Bird Refuge. 1 mile southwest of Swan Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,800, as published in previous reports, to feet below land-surface datum, subtract from 3,815.07. Water levels, in feet below land-surface datum, 1943: Mar. 8, 4.56; June 5, 4.36.

21 (\*886, p. 303; 908, p. 200; 938, p. 165; 946, p. 201). Crescent Lake Migratory Bird Refuge. West of Blue Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,700, as published in previous reports, to feet below land-surface datum, subtract from 3,796.11. Water levels, in feet below land-surface datum, 1943: Mar. 8, 3.02; June 5, 2.82.

25 (\*886, p. 304; 908, p. 200; 938, p. 165; 946, p. 201). Crescent Lake Migratory Bird Refuge. Half a mile south of Goose Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,800, as published in previous reports, to feet below land-surface datum, subtract from 3,828.50. Water levels, in feet below land-surface datum, 1943: Mar. 8, 4.06; June 9, 3.16.

27 (\*908, p. 200; 938, p. 165; 946, p. 201). Crescent Lake Migratory Bird Refuge. West of Island Lake. Measurement supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of the Interior. To convert water levels from feet above sea level minus 3,700, as published in previous reports, to feet below land-surface datum, subtract from 3,798.19. Water levels, in feet below land-surface datum, 1943: Mar. 4, 7.20; June 8, 7.10.

218 (\*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 17 N., R. 46 W. No measurements made in 1943.

326 (#817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). G. Morris. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 17 N., R. 44 W. No measurements made in 1943.

S11. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 15 N., R. 42 W. Unused drilled well, diameter 4 inches, depth over 50 feet. Measuring point, top of casing, 3,533.72 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 3,332.74 feet above sea level.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 14, 1936	18.80	July 1, 1938	17.63	Apr. 1, 1940	18.75
28	18.85	Aug. 31	17.80	30	18.68
Sept. 14	18.89	Sept. 30	17.54	Aug. 29	18.86
30	18.94	Nov. 1	17.82	Oct. 1	19.02
Oct. 16	18.96	30	17.98	31	19.07
Nov. 30	18.99	Dec. 30	18.18	Jan. 2, 1941	19.03
Dec. 31	18.91	Jan. 31, 1939	18.16	Feb. 4	19.01
Mar. 1, 1937	18.96	Feb. 28	18.17	Mar. 3	18.96
Apr. 2	18.70	Apr. 4	17.84	Apr. 9	18.61
May 3	18.67	May 2	17.79	May 2	18.39
June 1	18.67	June 1	17.76	June 10	16.75
July 7	18.50	30	18.09	Nov. 11, 1942	18.71
Aug. 8	17.08	Aug. 1	18.50	Dec. 16	18.72
Nov. 3	18.46	31	18.72	Jan. 26, 1943	18.82
Dec. 2	18.45	Sept. 30	18.80	Mar. 17	18.86
31	18.51	Oct. 30	18.92	May 14	18.22
Feb. 1, 1938	18.52	Dec. 1	18.98	June 10	18.61
Mar. 1	18.54	Jan. 4, 1940	18.96	July 8	18.71
Apr. 1	18.50	Feb. 2	18.88	Aug. 5	18.80
May 5	19.10	29	18.81	Sept. 14	18.98
June 1	17.74				

S13. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 15 N., R. 42 W. Bored observation well, diameter 4 inches, depth 22 feet. Measuring point, top of casing, 3,292.62 feet above sea level, 0.5 foot below land-surface datum. Reference point, top of iron pin, 3,293.10 feet above sea level.

Water level, in feet below land-surface datum, 1936-43

Oct. 16, 1936	21.14	Feb. 28, 1939	20.15	June 10, 1941	17.13
Nov. 5	20.50	May 2	20.90	July 3	17.65
30	20.86	June 1	17.83	Aug. 4	18.03
Dec. 31	20.90	30	18.39	Sept. 2	18.48
Mar. 2, 1937	20.41	Aug. 1	18.69	Oct. 1	18.19
Apr. 2	20.91	31	18.72	Nov. 4	17.87
May 3	21.14	Sept. 30	18.55	Dec. 1	17.77
June 1	21.45	Oct. 30	18.19	Feb. 2, 1942	17.14
July 7	21.44	Dec. 1	18.18	26	17.80
Aug. 3	21.37	Jan. 4, 1940	17.70	Apr. 2	17.60
Nov. 3	20.80	Feb. 2	16.93	May 7	16.95
Dec. 2	20.57	29	17.67	Aug. 7	17.86
31	20.22	Apr. 1	18.16	Sept. 9	18.18
Feb. 1, 1938	20.32	30	18.15	Oct. 7	18.25
Mar. 1	20.72	May 24	18.38	Nov. 11	16.65
Apr. 1	20.92	June 27	18.11	Dec. 16	16.78
May 5	20.74	July 25	18.01	Jan. 26, 1943	16.75
June 1	20.68	Aug. 29	17.17	Mar. 17	17.30
July 1	20.85	Oct. 1	18.35	May 14	17.76
Aug. 31	21.14	31	18.31	June 10	17.11
Sept. 30	20.85	Jan. 2, 1941	17.91	July 8	17.55
Nov. 1	20.68	Feb. 4	17.92	Aug. 5	16.43
30	20.28	Mar. 3	17.91	Sept. 14	17.06
Dec. 30	20.18	Apr. 10	18.05	Nov. 6	17.75
Jan. 31, 1939	20.38	May 5	18.02		

Garfield County

55 (#817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). F. Robke. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 21 N., R. 16 W.  
No measurements made in 1943.

Gosper County

1. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 8 N., R. 21 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 10 feet. Measuring point, top of casing, 2,352.71 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,351.71 feet above sea level. Measurements furnished through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Dec. 31, 1938	5.33	Sept. 30, 1940	6.28	June 4, 1942	3.76
Feb. 1, 1939	4.81	Nov. 2	6.30	July 21	3.73
Mar. 3	4.73	Dec. 30	5.31	Aug. 4	4.08
Apr. 6	4.09	Jan. 30, 1941	5.32	Sept. 15	4.09
May 5	4.22	Mar. 4	5.39	Oct. 2	4.57
June 6	4.90	Apr. 8	4.87	Nov. 20	5.07
July 5	4.98	May 2	4.01	Dec. 8	4.79
Aug. 4	5.53	June 3	5.07	Jan. 7, 1943	4.81
Sept. 6	5.90	July 2	5.43	Feb. 1	5.16
Oct. 3	6.12	30	4.35	Mar. 3	5.29
Nov. 2	5.67	Sept. 2	5.18	Apr. 5	5.12
Dec. 5	5.25	Oct. 6	4.88	May 6	4.61
Mar. 5, 1940	6.65	Nov. 6	5.25	June 4	5.16
Apr. 4	4.44	28	5.19	July 9	5.51
May 2	3.14	Jan. 6, 1942	5.07	Aug. 7	4.77
29	5.26	Feb. 2	4.45	Sept. 15	5.40
July 2	5.52	Mar. 6	3.80	Oct. 13	5.67
27	6.05	Apr. 7	3.55	Nov. 9	5.63
Aug. 29	6.14	29	3.40		

2. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 8 N., R. 21 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 17 feet. Measuring point, top of casing, 2,352.40 feet above sea level, 4.6 feet above land-surface datum. Reference point, top of iron pin, 2,347.80 feet above sea level. Measurements furnished through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Dec. 31, 1938	4.46	Aug. 29, 1940	5.97	Apr. 29, 1942	3.43
Feb. 1, 1939	3.73	Sept. 30	5.90	June 4	3.81
Mar. 3	3.52	Nov. 2	5.78	July 21	3.90
Apr. 6	3.59	Dec. 30	4.75	Aug. 4	3.27
May 5	3.95	Jan. 30, 1941	4.76	Sept. 15	3.84
June 6	4.56	Mar. 4	4.93	Oct. 2	4.10
July 5	4.50	Apr. 8	4.61	Nov. 20	4.40
Aug. 4	5.23	May 2	3.97	Dec. 8	4.32
Sept. 6	5.73	June 3	4.76	Jan. 7, 1943	4.27
Oct. 3	5.98	July 2	5.17	Feb. 1	4.31
Nov. 2	5.30	30	4.67	Mar. 3	4.39
Dec. 5	4.76	Sept. 2	5.32	Apr. 5	4.21
Jan. 7, 1940	4.49	Oct. 6	5.11	May 6	3.89
29	4.22	Nov. 6	5.01	June 4	4.15
Mar. 5	4.11	28	4.73	July 9	4.44
Apr. 4	4.33	Jan. 6, 1942	4.73	Aug. 7	3.09
May 2	3.96	Feb. 2	4.09	Sept. 15	3.99
29	5.00	Mar. 6	3.72	Oct. 13	4.38
July 2	5.45	Apr. 7	3.85	Nov. 9	4.40
27	5.84				

3. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 12, T. 8 N., R. 21 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 18 feet. Measuring point, top of casing, 2,351.70 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,351.62 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Nov. 1, 1937	12.30	Sept. 6, 1939	10.30	Nov. 3, 1941	10.00
Dec. 1	11.15	Oct. 3	10.52	28	9.93
Jan. 1, 1938	9.92	Nov. 2	10.19	Jan. 6, 1942	9.83
Feb. 1	9.54	Dec. 5	9.90	Feb. 2	9.30
Mar. 1	9.17	Jan. 7, 1940	9.74	Mar. 6	8.36
Apr. 1	9.26	29	9.54	Apr. 7	9.03
15	9.22	Mar. 5	9.38	29	8.74
May 2	8.97	Apr. 4	9.35	June 4	8.67
16	9.08	May 2	9.11	July 21	9.07
June 1	8.42	29	9.79	Aug. 4	8.74
15	9.18	July 2	10.35	Sept. 15	9.05
July 1	9.33	27	10.70	Oct. 2	9.26
Aug. 16	10.14	Aug. 29	10.75	Nov. 20	9.42
Sept. 1	9.91	Sept. 30	10.64	Dec. 8	9.42
Oct. 1	9.49	Nov. 2	10.63	Jan. 7, 1943	9.41
Nov. 1	9.51	Dec. 30	9.88	Feb. 1	9.47
Dec. 1	9.42	Jan. 30, 1941	9.92	Mar. 3	9.50
31	9.57	Mar. 4	9.95	Apr. 5	9.38
Feb. 1, 1939	9.05	Apr. 8	9.72	May 6	9.08
Mar. 3	8.85	May 2	9.14	June 4	9.21
Apr. 6	8.84	June 3	9.44	July 9	9.10
May 5	8.94	July 2	8.87	Aug. 7	8.77
June 6	9.30	30	9.13	Sept. 15	9.01
July 5	9.30	Sept. 2	10.26	Oct. 13	9.25
Aug. 4	9.90	Oct. 6	10.07	Nov. 9	9.34

4. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$  NE $\frac{1}{4}$  sec. 12, T. 8 N., R. 21 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 18 feet. Measuring point, top of casing, 2,345.42 feet above sea level, 1.7 feet above land-surface datum. Reference point, top of iron pin, 2,343.75 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1937-43

Nov. 1, 1937	7.75	Sept. 6, 1939	8.13	Nov. 6, 1941	7.85
Dec. 1	7.18	Oct. 3	8.63	28	7.68
Jan. 1, 1938	6.89	Nov. 2	7.96	Jan. 6, 1942	7.73
Feb. 1	6.92	Dec. 5	7.42	Feb. 2	7.04
Mar. 1	6.49	Jan. 7, 1940	7.13	Mar. 6	6.41
Apr. 1	6.73	29	6.59	Apr. 7	6.15
15	6.78	Mar. 5	6.59	29	5.64
May 2	6.28	Apr. 4	6.91	June 4	4.99
16	6.34	May 2	6.95	July 21	6.73
June 1	5.98	29	7.51	Aug. 4	7.23
15	6.43	July 2	8.65	Sept. 15	6.13
July 1	6.62	27	9.11	Oct. 2	6.51
Aug. 16	8.12	Aug. 29	8.89	Nov. 20	6.59
Sept. 1	7.41	Sept. 30	8.76	Dec. 8	6.38
Oct. 1	6.87	Nov. 2	8.83	Jan. 7, 1943	6.30
Nov. 1	6.85	Dec. 30	7.50	Feb. 1	6.35
Dec. 1	6.62	Feb. 2, 1941	7.38	Mar. 3	6.38
31	6.86	Mar. 4	7.55	Apr. 5	6.52
Feb. 1, 1939	6.15	Apr. 8	7.32	May 6	5.85
Mar. 3	5.94	May 2	6.85	June 4	6.42
Apr. 6	6.02	June 3	7.05	July 9	6.52
May 5	6.55	July 2	7.66	Aug. 7	7.15
June 6	6.63	30	7.42	Sept. 15	6.68
July 5	6.73	Sept. 2	8.24	Oct. 13	6.77
Aug. 4	7.60	Oct. 6	8.02	Nov. 9	6.66



183 (\*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). M. Berntson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 5 N., R. 22 W. No measurements made in 1943.

307 (\*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). University of Nebraska. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 8 N., R. 21 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 119.51. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	17.83	May 5	16.35	July 18	15.56	Oct. 12	15.44
Feb. 1	17.48	9	16.36	Aug. 7	16.29	29	15.24
Mar. 3	17.14	June 4	16.15	22	16.87	Nov. 9	15.17
Apr. 4	16.78	15	15.87	Sept. 14	15.91	28	14.90
5	16.79	July 9	15.60	26	15.66	Dec. 14	14.72

447 (\*886, p. 305; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 5 N., R. 22 W. No measurements made in 1943.

U76. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 8 N., R. 22 W. Abandoned farm well. Measuring point, 2,615.96 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 2,615.93 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Aug. 31, 1940	223.37	Nov. 8, 1941	220.32	Dec. 3, 1942	205.42
Oct. 2	222.71	28	219.95	Jan. 7, 1943	204.06
Nov. 4	223.47	Jan. 6, 1942	219.54	Feb. 1	202.02
Jan. 3, 1941	223.87	Feb. 3	218.21	Mar. 3	199.59
Feb. 5	222.28	Mar. 3	217.05	Apr. 5	197.91
Mar. 3	222.44	Apr. 7	216.72	May 5	195.29
31	221.99	29	215.35	June 4	194.02
May 2	221.90	June 4	214.18	July 6	191.83
June 3	222.07	July 10	212.71	Aug. 10	189.30
July 3	222.57	Aug. 4	211.69	Sept. 14	188.14
30	221.85	Sept. 4	210.24	Oct. 12	184.75
Sept. 1	221.27	Oct. 2	208.70	Nov. 9	184.08
Oct. 6	221.46	Nov. 6	207.23	Dec. 14	181.89

U81. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 25 feet. Measuring point, top of casing, 2,376.81 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 2,376.24 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	16.40	Nov. 28, 1941	12.87	Jan. 4, 1943	10.98
Nov. 2	16.19	Jan. 6, 1942	12.64	Feb. 1	10.83
Dec. 30	15.69	Feb. 2	12.56	Mar. 3	10.79
Jan. 30, 1941	15.36	Mar. 3	12.39	Apr. 5	10.73
Mar. 4	15.15	Apr. 7	12.33	May 5	10.49
Apr. 4	14.91	29	12.17	June 4	10.45
May 2	14.64	June 1	11.78	July 9	10.11
June 3	14.03	July 21	10.89	Aug. 7	10.26
July 2	13.54	Aug. 4	11.04	Sept. 14	8.83
30	12.42	Sept. 4	11.45	Oct. 13	9.72
Sept. 2	13.44	Oct. 2	11.09	Nov. 9	10.06
Oct. 6	13.24	Nov. 20	11.00	Dec. 14	10.18
Nov. 6	12.99	Dec. 3	10.99		

U82. Central Nebraska Public Power and Irrigation District. NE<sub>1</sub>SE<sub>4</sub> sec. 6, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 59 feet. Measuring point, top of casing, 2,384.21 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 2,383.49 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	31.96	Nov. 28, 1941	24.44	Jan. 4, 1943	23.59
Nov. 2	30.47	Jan. 6, 1942	24.20	Feb. 1	24.12
Dec. 30	29.20	Feb. 2	24.14	Mar. 3	24.14
Jan. 30, 1941	28.66	Mar. 3	24.58	Apr. 5	24.06
Mar. 4	28.63	Apr. 7	24.34	May 5	23.88
Apr. 4	28.61	29	24.84	June 4	23.92
May 2	26.85	June 1	24.33	July 9	23.80
June 3	26.15	July 21	24.47	Aug. 7	23.56
July 2	26.09	Aug. 4	24.36	Sept. 14	24.19
30	25.16	Sept. 4	23.84	Oct. 13	24.44
Sept. 2	24.90	Oct. 2	23.82	Nov. 9	24.07
Oct. 6	24.68	Nov. 20	24.12	Dec. 14	24.04
Nov. 6	24.58	Dec. 3	24.34		

U83. Central Nebraska Public Power and Irrigation District. NE<sub>1</sub>SE<sub>4</sub> sec. 6, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 59 feet. Measuring point, top of casing, 2,385.82 feet above sea level, 1.5 feet above land-surface datum. Reference point, top of iron pin, 2,384.35 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	24.19	Nov. 28, 1941	26.15	Jan. 4, 1943	25.53
Nov. 2	32.56	Jan. 6, 1942	25.88	Feb. 1	25.86
Dec. 30	31.16	Feb. 2	25.86	Mar. 3	25.94
Jan. 30, 1941	30.45	Mar. 3	26.29	Apr. 5	25.94
Mar. 4	30.57	Apr. 7	26.03	May 5	25.68
Apr. 4	30.42	29	26.25	June 4	25.86
May 2	28.70	June 1	25.96	July 9	25.72
June 3	27.73	July 21	26.30	Aug. 7	25.41
July 2	27.94	Aug. 4	26.19	Sept. 14	26.03
30	26.89	Sept. 4	25.79	Oct. 13	26.39
Sept. 2	26.72	Oct. 2	25.68	Nov. 9	26.06
Oct. 6	26.36	Nov. 20	25.99	Dec. 14	26.01
Nov. 6	26.29	Dec. 3	26.09		

U84. Central Nebraska Public Power and Irrigation District. SE<sub>1</sub>SE<sub>4</sub> sec. 6, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 60 feet. Measuring point, top of casing, 2,404.31 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,403.82 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	50.83	Nov. 28, 1941	45.91	Jan. 4, 1943	43.87
Nov. 2	50.39	Jan. 6, 1942	45.59	Feb. 1	43.61
Dec. 30	49.58	Feb. 2	45.53	Mar. 3	43.53
Jan. 30, 1941	49.21	Mar. 3	45.30	Apr. 5	43.44
Mar. 4	49.05	Apr. 7	44.96	May 5	43.25
Apr. 4	48.84	29	45.12	June 4	43.29
May 2	48.44	June 1	44.90	July 9	43.03
June 3	47.46	July 21	44.69	Aug. 7	42.92
July 2	47.36	Aug. 4	44.65	Sept. 14	42.99
30	46.98	Sept. 4	44.71	Oct. 13	43.11
Sept. 2	46.72	Oct. 2	44.36	Nov. 9	43.08
Oct. 6	46.39	Nov. 20	44.14	Dec. 14	42.95
Nov. 6	46.09	Dec. 3	44.01		

U85. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 40 feet. Measuring point, top of casing, 2,385.73 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 2,385.77 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	34.74	Nov. 28, 1941	29.35	Dec. 3, 1942	28.40
Nov. 2	34.20	Jan. 6, 1942	29.00	Jan. 4, 1943	28.34
Dec. 30	33.24	Feb. 2	28.98	Feb. 1	28.18
Jan. 30, 1941	32.79	Mar. 3	28.77	Mar. 3	28.18
Mar. 4	32.53	Apr. 7	28.87	Apr. 5	28.16
Apr. 8	32.23	29	28.70	May 5	28.03
May 2	31.85	June 1	28.56	June 4	28.14
June 3	31.04	July 21	28.45	July 9	27.86
July 2	30.68	Aug. 4	28.59	Aug. 7	28.14
30	30.26	Sept. 4	28.15	Sept. 15	28.70
Sept. 2	30.12	Oct. 2	28.75	Oct. 13	28.62
Oct. 6	29.85	Nov. 20	28.49	Nov. 9	28.50
Nov. 6	29.53				

U86. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 37 feet. Measuring point, top of casing, 2,378.09 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,378.10 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	28.10	Nov. 28, 1941	20.09	Dec. 3, 1942	20.34
Nov. 2	26.48	Jan. 6, 1942	19.83	Jan. 4, 1943	19.66
Dec. 30	25.07	Feb. 2	19.84	Feb. 1	20.05
Jan. 30, 1941	24.47	Mar. 3	20.21	Mar. 3	20.28
Mar. 4	24.14	Apr. 7	20.08	Apr. 5	20.14
Apr. 8	24.46	29	20.34	May 5	20.01
May 2	22.66	June 1	20.07	June 4	20.00
June 3	21.89	July 21	20.33	July 9	19.79
July 2	21.80	Aug. 4	20.19	Aug. 7	19.53
30	20.84	Sept. 4	19.76	Sept. 15	20.27
Sept. 2	20.58	Oct. 2	19.73	Oct. 13	20.54
Oct. 6	20.45	Nov. 20	19.90	Nov. 9	20.31
Nov. 6	20.24				

U87. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 30 feet. Measuring point, top of casing, 2,372.59 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,372.49 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	21.62	Nov. 28, 1941	13.84	Dec. 3, 1942	14.17
Nov. 2	20.16	Jan. 6, 1942	13.59	Jan. 4, 1943	13.47
Dec. 30	18.77	Feb. 2	13.77	Feb. 1	13.91
Jan. 30, 1941	18.15	Mar. 3	14.01	Mar. 3	14.16
Mar. 4	18.12	Apr. 7	13.69	Apr. 5	14.02
Apr. 8	18.17	29	14.19	May 5	13.86
May 2	16.28	June 1	13.86	June 4	13.88
June 3	15.53	July 21	14.04	July 9	13.67
July 2	15.50	Aug. 4	13.93	Aug. 7	13.39
30	14.50	Sept. 4	13.46	Sept. 15	14.03
Sept. 2	14.29	Oct. 2	13.46	Oct. 13	14.33
Oct. 6	14.07	Nov. 20	13.87	Nov. 9	14.04
Nov. 6	13.97				

## 220 WATER LEVELS AND ARTESIAN PRESSURE, 1943, NORTH-CENTRAL STATES

U88. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 21 feet. Measuring point, top of casing, 2,370.82 feet above sea level, 0.2 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,370.59 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	15.76	Nov. 6, 1941	10.58	Dec. 3, 1942	9.78
Nov. 2	15.17	28	10.45	Jan. 4, 1943	9.86
Dec. 30	14.04	Jan. 6, 1942	10.23	Feb. 1	9.77
Jan. 30, 1941	13.47	Feb. 2	10.25	Mar. 3	9.83
Mar. 4	13.19	Mar. 3	10.08	Apr. 5	9.88
Apr. 8	12.84	Apr. 7	10.17	May 5	9.57
May 2	12.42	29	9.99	June 4	9.84
June 3	11.60	June 1	9.62	July 9	9.44
July 2	11.16	July 21	9.20	Aug. 7	9.74
30	10.95	Aug. 4	9.48	Sept. 15	9.64
Sept. 2	10.98	Oct. 2	9.55	Oct. 13	9.85
Oct. 6	10.79	Nov. 20	9.79	Nov. 9	10.00

U89. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 17 feet. Measuring point, top of casing, 2,362.06 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,361.54 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	10.18	Nov. 28, 1941	5.01	Dec. 8, 1942	4.35
Nov. 2	9.08	Jan. 6, 1942	4.92	Jan. 4, 1943	4.51
Dec. 30	7.05	Feb. 2	4.90	Feb. 1	4.62
Jan. 30, 1941	6.76	Mar. 3	4.85	Mar. 3	4.69
Mar. 4	6.74	Apr. 7	4.38	Apr. 5	4.73
Apr. 8	6.37	29	3.85	May 6	4.56
May 2	5.60	June 4	3.01	June 4	4.57
June 3	5.02	July 21	4.14	July 9	4.54
July 2	5.09	Aug. 4	4.49	Aug. 7	4.57
30	4.79	Sept. 4	4.10	Sept. 15	4.23
Sept. 2	4.83	15	3.78	Oct. 13	4.34
Oct. 6	4.77	Oct. 2	4.00	Nov. 9	4.52
Nov. 6	4.89	Nov. 20	4.31		

U90. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 17 feet. Measuring point, top of casing, 2,361.05 feet above sea level, 0.2 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,360.85 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	10.48	Nov. 23, 1941	4.38	Dec. 8, 1942	2.98
Nov. 2	8.94	Jan. 6, 1942	4.55	Jan. 4, 1943	3.16
Dec. 30	7.27	Feb. 2	4.12	Feb. 1	3.30
Jan. 30, 1941	6.78	Mar. 3	4.00	Mar. 3	3.40
Mar. 4	6.78	Apr. 7	3.27	Apr. 5	3.44
Apr. 8	6.74	29	2.95	May 6	3.45
May 2	5.06	June 4	2.05	June 4	3.45
June 3	4.34	July 21	3.16	July 9	3.43
July 2	4.52	Aug. 4	3.30	Aug. 7	3.40
30	3.73	Sept. 15	2.25	Sept. 15	3.38
Sept. 2	3.45	Oct. 2	2.52	Oct. 13	3.40
Oct. 6	3.73	Nov. 20	2.90	Nov. 9	3.43
Nov. 6	3.97				

U92. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 4, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 21 feet. Measuring point, top of casing, 2,363.30 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 5 feet south of well, 2,363.58 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	13.97	Nov. 28, 1941	6.72	Dec. 8, 1942	6.15
Nov. 2	12.24	Jan. 6, 1942	7.33	Jan. 7, 1943	6.35
Dec. 30	10.78	Feb. 2	6.90	Feb. 1	6.42
Jan. 30, 1941	10.19	Mar. 3	6.91	Mar. 3	6.71
Mar. 4	10.15	Apr. 7	6.15	Apr. 5	6.50
Apr. 8	10.10	29	6.53	May 6	6.36
May 2	8.51	June 4	5.79	June 4	6.26
June 3	7.57	July 21	6.19	July 9	6.00
July 2	7.59	Aug. 4	6.04	Aug. 7	6.10
30	6.78	Sept. 15	5.65	Sept. 15	6.72
Sept. 2	6.50	Oct. 2	5.51	Oct. 13	6.88
Oct. 6	6.73	Nov. 20	5.95	Nov. 9	7.07
Nov. 6	6.85				

U93. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 4, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 21 feet. Measuring point, top of casing, 2,364.66 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,364.27 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	15.63	Nov. 28, 1941	9.30	Dec. 8, 1942	8.05
Nov. 2	14.19	Jan. 6, 1942	9.42	Jan. 7, 1943	8.34
Dec. 30	12.74	Feb. 2	9.23	Feb. 1	8.53
Jan. 30, 1941	12.14	Mar. 3	9.03	Mar. 3	8.57
Mar. 4	12.01	Apr. 7	8.66	Apr. 5	8.57
Apr. 8	11.72	29	8.25	May 6	8.35
May 2	10.90	June 4	7.91	June 4	8.43
June 3	9.90	July 21	8.06	July 9	7.94
July 2	9.68	Aug. 4	8.18	Aug. 7	8.62
30	9.26	Sept. 15	8.04	Sept. 15	8.99
Sept. 2	9.50	Oct. 2	7.83	Oct. 13	8.99
Oct. 6	9.23	Nov. 20	7.96	Nov. 9	9.04
Nov. 6	9.22				

U95. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 9, T. 8 N., R. 21 W. Used irrigation well. Measuring point, not described, 2,384.64 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin,  $1\frac{1}{2}$  feet northeast of measuring point, 2,383.75 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Nov. 2, 1940	33.93	Nov. 28, 1941	33.49	Jan. 7, 1943	31.87
Dec. 30	33.94	Jan. 6, 1942	33.24	Feb. 1	31.81
Jan. 30, 1941	33.90	Feb. 2	33.07	Mar. 3	31.71
Mar. 4	33.84	Mar. 6	32.90	Apr. 5	31.70
Apr. 8	33.76	Apr. 7	32.77	May 6	31.62
May 2	33.68	29	32.62	June 4	31.62
June 3	33.50	June 4	32.43	July 9	31.45
July 2	33.33	Sept. 15	32.61	Sept. 15	32.99
Oct. 6	34.07	Nov. 20	32.16	Oct. 13	32.45
Nov. 6	33.69	Dec. 8	32.01	Nov. 9	32.45

U96. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 16 feet. Measuring point, top of casing, 2,359.03 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 2 feet northwest of well, 2,359.11 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	9.52	Nov. 28, 1941	5.41	Dec. 8, 1942	4.58
Nov. 2	7.87	Jan. 6, 1942	5.75	Jan. 4, 1943	5.06
Dec. 30	6.58	Feb. 2	5.74	Feb. 1	5.22
Jan. 30, 1941	6.48	Mar. 6	5.38	Mar. 3	5.38
Mar. 4	6.68	Apr. 7	4.94	Apr. 5	4.99
Apr. 8	6.56	29	4.39	May 6	4.53
May 2	5.11	June 4	3.83	June 4	4.35
June 3	4.52	July 21	4.01	July 9	4.41
July 2	4.55	Aug. 4	4.02	Aug. 7	4.74
30	4.19	Sept. 15	3.11	Sept. 15	5.30
Sept. 2	3.90	Oct. 2	2.97	Oct. 13	5.76
Oct. 6	4.71	Nov. 20	3.31	Nov. 9	6.04
Nov. 6	5.19				

U97. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 20 feet. Measuring point, top of casing, 2,358.21 feet above sea level, level with land-surface datum. Reference point, top of iron pin,  $\frac{1}{2}$  foot east of well, 2,358.21 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	12.70	Nov. 28, 1941	12.41	Dec. 8, 1942	11.82
Nov. 2	12.72	Jan. 6, 1942	12.20	Jan. 7, 1943	12.05
Dec. 30	12.55	Feb. 2	10.98	Feb. 1	12.12
Jan. 30, 1941	12.46	Mar. 6	10.21	Mar. 3	12.17
Mar. 4	12.52	Apr. 7	9.71	Apr. 5	11.05
Apr. 8	11.96	29	9.64	Apr. 6	10.59
May 2	9.79	June 4	11.41	June 4	10.56
June 3	12.18	July 21	9.27	July 9	11.03
July 2	12.26	Aug. 4	7.95	Aug. 7	8.25
30	9.74	Sept. 15	11.05	Sept. 15	10.28
Sept. 2	12.29	Oct. 2	10.55	Oct. 13	10.86
Oct. 6	12.44	Nov. 20	11.79	Nov. 9	11.53
Nov. 6	12.44				

U98. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 8 N., R. 21 W. Drilled observation well, diameter 2 inches, depth 20 feet. Measuring point, top of casing, 2,359.05 feet above sea level, 0.2 foot above land-surface datum. Reference point, top of iron pin, 2 feet north of well, 2,358.83 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Sept. 30, 1940	13.14	Nov. 28, 1941	12.88	Dec. 8, 1942	11.33
Nov. 2	13.27	Jan. 6, 1942	12.77	Jan. 7, 1943	11.71
Dec. 30	13.12	Feb. 2	12.26	Feb. 1	11.92
Jan. 30, 1941	13.09	Mar. 6	11.10	Mar. 3	12.11
Mar. 4	13.06	Apr. 7	11.06	Apr. 5	12.20
Apr. 8	12.82	29	10.64	Apr. 6	11.87
May 2	11.53	June 4	11.33	June 4	11.70
June 3	12.43	July 21	10.50	July 9	11.55
July 2	12.60	Aug. 4	9.36	Aug. 7	9.81
30	11.27	Sept. 15	10.42	Sept. 15	10.16
Sept. 2	12.58	Oct. 2	10.68	Oct. 13	10.23
Oct. 6	12.89	Nov. 20	11.03	Nov. 9	10.40
Nov. 6	12.89				

U99. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 8 N., R. 21 W. Used irrigation well. Measuring point, not described, 2,362.74 feet above sea level, 0.3 foot above land-surface datum. Reference point, top of iron pin, 24 feet east and 12 feet north of measuring point, 2,362.41 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Nov. 2, 1940	17.32	Nov. 28, 1941	17.32	Dec. 8, 1942	16.15
Dec. 30	17.36	Jan. 6, 1942	17.30	Jan. 7, 1943	16.18
Jan. 30, 1941	17.48	Feb. 2	17.23	Feb. 1	16.24
Mar. 4	17.35	Mar. 6	17.06	Mar. 3	16.27
Apr. 8	17.36	Apr. 7	16.88	Apr. 5	16.36
May 2	17.27	29	16.71	May 6	16.18
June 3	17.02	June 4	16.31	June 4	16.09
July 2	16.92	July 21	15.77	July 9	15.94
Sept. 2	17.96	Sept. 15	16.22	Sept. 15	16.71
Oct. 6	17.44	Oct. 2	16.03	Oct. 13	16.16
Nov. 6	17.35	Nov. 20	16.01	Nov. 9	16.14

#### Grant County

215 (\*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25, T. 24 N., R. 37 W. No measurements made in 1943.

216 (\*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 24 N., R. 40 W. No measurements made in 1943.

#### Greeley County

206 (\*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 20 N., R. 9 W. No measurements made in 1943.

347 (\*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 17 N., R. 10 W. No measurements made in 1943.

#### Hall County

244 (\*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). C. Cole. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 10 N., R. 9 W. No measurements made in 1943.

245 (\*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.59. Water level, in feet below land-surface datum, 1943: Nov. 2, 7.75.

246 (\*817, p. 132; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). F. Dahlstrom. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 10 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 122.62. Water level, in feet below land-surface datum, 1943: Nov. 2, 22.84.

247 (\*817, p. 132; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 946, p. 203). E. Batie. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 11 N., R. 11 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.65. Water level, in feet below land-surface datum, 1943: Nov. 2, 24.95.

248. W. A. Bouton. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 10 N., R. 11 W. Drilled irrigation well, diameter 24 inches, depth 58.7 feet. Measuring point, top of casing, 0.2 foot above land-surface datum. New well established Dec. 20, 1934, diameter 24 inches, depth 52.52 feet below land-surface datum. Measuring point level with land-surface datum.

Water level, in feet above land-surface datum, 1930-43

Date	Water level	Date	Water level	Date	Water level
Oct. 9, 1930	16.95	Dec. 5, 1932	16.88	Apr. 13, 1935	18.63
Nov. 5	16.19	Jan. 2, 1933	17.00	May 30	18.46
Dec. 2	16.19	Feb. 6	17.15	July 1	16.13
Jan. 6, 1931	16.42	Mar. 6	17.23	8	16.21
Feb. 3	16.63	Apr. 3	17.25	Sept. 9	17.18
Mar. 4	16.60	May 1	17.25	Oct. 14	16.98
Apr. 1	16.65	June 5	17.27	Nov. 18	17.05
May 5	16.68	July 3	17.53	Dec. 21	17.17
June 2	16.59	Aug. 7	18.18	Jan. 10, 1936	17.23
July 7	16.65	Sept. 18	18.06	Mar. 21	17.24
Aug. 4	17.73	Oct. 18	18.04	May 27	17.55
Sept. 1	17.85	Nov. 16	18.07	Aug. 20	19.87
Oct. 6	17.68	Dec. 18	18.06	Oct. 29	18.65
Nov. 2	17.65	Jan. 18, 1934	18.07	Mar. 27, 1937	18.71
Dec. 9	17.61	Feb. 19	18.07	June 11	18.55
Jan. 4, 1932	17.59	Mar. 19	18.06	Aug. 8	19.56
Feb. 1	17.53	Apr. 17	18.08	Oct. 10	19.24
Mar. 7	17.16	May 1	18.32	19, 1938	19.14
Apr. 4	16.81	June 19	18.59	May 31, 1939	19.20
May 2	16.74	July 18	18.93	Nov. 24	20.04
June 6	16.76	Aug. 20	19.55	Mar. 25, 1940	19.81
July 4	16.02	Sept. 20	18.98	Oct. 27	20.20
Aug. 1	16.74	Nov. 2	18.95	15, 1941	20.73
Sept. 5	16.33	Dec. 20	18.80	Nov. 9, 1942	19.14
Oct. 3	16.71	Feb. 18, 1935	18.76	8, 1943	19.86
Nov. 7	16.80				

249 (\*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). F. Hughes. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 11 N., R. 11 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 131.22. Water levels, in feet below land-surface datum, 1943: Apr. 2, 34.71; Nov. 2, 35.42.

258 (\*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). J. Weldon. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 10 N., R. 11 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 117.97. Water levels, in feet below land-surface datum, 1943: Apr. 2, 20.60; Nov. 2, 21.30.

259 (\*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). J. Kipp. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 9 N., R. 12 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.73. Water level, in feet below land-surface datum, 1943: Nov. 8, 7.06.

260 (\*817, p. 134; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). S. Spahr. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 9 N., R. 12 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.96. Water level, in feet below land-surface datum, 1943: Nov. 8, 23.33.

261 (\*317, p. 134; 840, p. 205; 845, p. 134; 886, p. 306; 908, p. 203; 946, p. 203). J. Barron. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 10 N., R. 12 W. No measurements made in 1943.

GI202 (\*886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 12 N., R. 9 W. No measurements made in 1943.



GI203 (\*836-E, pp. 252, 271; \*886, p. 307; 908, p. 203; 938, p. 166; 946, p. 203). City of Grand Island. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 12 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.20. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 11.25; Aug. 23, 12.25; Oct. 11, 11.90.

GI204 (\*836-E, pp. 252, 271; \*886, p. 307; 908, p. 203; 938, p. 166; 946, p. 203). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 12 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.62. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 11.34; Aug. 23, 11.50; Oct. 11, 11.64.

GI207 (\*836-E, pp. 252, 272; \*886, p. 307; 908, p. 203; 938, p. 166; 946, p. 204). City of Grand Island. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.65. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 15.32; May 21, 15.62.

GI208 (\*836-E, pp. 252, 272; \*886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204). City of Grand Island. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.7. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 16	15.92	Aug. 2	16.34	Nov. 13	16.83
May 21	15.50	Sept. 25	16.75		

GI209 (\*836-E, pp. 252, 272; \*886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 117.4. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	15.20	Aug. 2	15.84	Nov. 13	15.90
May 21	15.15	Sept. 25	15.96		

GI210 (\*836-E, pp. 252, 272; \*886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204). City of Grand Island. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.75. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 18.46; May 21, 21.75; Sept. 25, 18.75; Nov. 13, 19.40.

GI211 (\*836-E, pp. 252, 272; \*886, p. 309; 908, p. 203; 938, p. 167; 946, p. 204). City of Grand Island. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.27. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	17.44	Aug. 2	17.34	Nov. 13	17.20
May 21	16.66	Sept. 25	17.42		

GI212 (\*836-E, pp. 252, 272; \*886, p. 309; 908, p. 203; 938, p. 166; 946, p. 204). City of Grand Island. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 122.30. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 22.27; May 21, 21.30; Aug. 2, 24.08; Nov. 13, 19.64.

GI214 (\*836-E, pp. 252, 273; \*886, p. 309; 908, p. 203; 938, p. 167; 946, p. 204). City of Grand Island. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 11 N., R. 9 W. Total depth of well increased after March 1938. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.55. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 16	19.96	Aug. 2	21.66	Nov. 13	21.16
May 21	20.34	Sept. 25	21.66		

GI215 (\*836-E, pp. 252, 273; \*886, p. 309; 908, p. 204; 938, p. 167; 946, p. 204). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.35. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1943: Feb. 16, 22.66.

GI216 (\*836-E, pp. 252, 273; \*886, p. 309; 908, p. 204; 938, p. 167; 946, p. 204). City of Grand Island. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.37. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	29.66	Aug. 2	30.34	Nov. 13	32.33
May 21	29.75	Sept. 25	31.00		

GI217 (\*836-E, pp. 252, 273; \*886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.80. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 29.91; Aug. 2, 31.42; Sept. 25, 31.62; Nov. 13, 31.10.

GI218 (\*836-E, pp. 252, 273; \*886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.60. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1943: Mar. 24, 22.92.

GI219 (\*836-E, pp. 252, 274; \*886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.02. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 6.16; Aug. 23, 6.88; Oct. 11, 7.33.

GI220 (\*836-E, pp. 252, 274; \*886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205). NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.35. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1943: Mar. 24, 6.38.

GI221 (\*836-E, pp. 252, 274; \*886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 132.25. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Aug. 2, 33.34; Sept. 25, 33.20; Nov. 13, 32.06.

GI222 (\*836-E, pp. 252, 274; \*886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 128.75. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 28.25; Aug. 2, 29.25; Sept. 25, 29.54; Nov. 13, 29.52.

GI223 (\*836-E, pp. 252, 274; \*886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.42. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 16	9.75	Aug. 2	6.62	Nov. 13	10.46
May 21	11.66	Sept. 25	6.83		

GI224 (\*836-E, pp. 252, 275; \*886, p. 311; 908, p. 204; 946, p. 205). City of Grand Island. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.70. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	9.62	Aug. 2	9.66	Nov. 13	14.75
May 21	18.66	Sept. 25	10.08		

GI225 (\*836-E, pp. 252, 275; \*886, p. 312; 908, p. 204; 938, p. 167; 946, p. 205). City of Grand Island. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.95. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1943: Oct. 11, 8.62.

GI226 (\*836-E, pp. 253, 275; \*886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 136.35. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	34.78	Aug. 2	39.25	Nov. 13	35.75
May 21	36.08	Sept. 25	37.66		

GI227 (\*836-E, pp. 253, 275; \*886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 133.72. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	31.54	Aug. 2	33.54	Nov. 13	32.62
May 21	32.35	Sept. 25	33.20		

GI228 (\*886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. No measurements made in 1943.

GI229 (\*836-E, pp. 253, 276; \*886, p. 313; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 140.77. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1943: Feb. 16, 38.46.

GI230 (\*836-E, pp. 253, 276; \*886, p. 313; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 134.12. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	32.18	Aug. 2	33.38	Nov. 13	32.62
May 21	32.50	Sept. 25	32.64		

GI231 (\*836-E, pp. 253, 276; \*886, p. 313; 908, p. 205; 938, p. 167; 946, p. 206). City of Grand Island. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 134.5. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 33.04; May 21, 33.75; Sept. 25, 34.52; Nov. 3, 34.04.

GI232 (\*836-E, pp. 253, 276; \*886, p. 313; 908, p. 205; 938, p. 167; 946, p. 206). City of Grand Island. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.57. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 16	18.25	Aug. 2	19.34	Nov. 13	18.76
May 21	18.66	Sept. 25	19.04		

GI233 (\*836-E, pp. 253, 276; \*886, p. 314; 908, p. 205; 938, p. 167; 946, p. 206). City of Grand Island. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.60. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 22.66; May 21, 23.00; Sept. 25, 22.29; Nov. 13, 22.15.

GI234 (\*836-E, pp. 253, 277; \*886, p. 314; 908, p. 205; 938, p. 167; 946, p. 206). City of Grand Island. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 132.85.

Water level, in feet below land-surface datum, 1943

Feb. 16	24.66	Aug. 2	30.75	Nov. 13	24.62
May 21	30.28	Sept. 25	24.75		

GI236 (\*836-E, pp. 253, 277; \*886, p. 314; 908, p. 205; 938, p. 167; 946, p. 207). City of Grand Island. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 124.80. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 24.16; Nov. 13, 24.16.

GI237 (\*836-E, pp. 253, 277; \*886, p. 314; 903, p. 205; 938, p. 167; 946, p. 207). City of Grand Island. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 131.07. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1943

Feb. 16	30.83	Aug. 2	32.12	Nov. 13	31.75
May 21	30.75	Oct. 25	31.60		

GI238 (\*836-E, pp. 253, 277; \*886, p. 315; 908, p. 205; 938, p. 167; 946, p. 207). City of Grand Island. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.75. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Feb. 16, 31.29; May 21, 31.08; Sept. 25, 32.70; Nov. 13, 32.80.

GI239 (\*836-E, pp. 253, 277; \*886, p. 315; 908, p. 205; 938, p. 167; 946, p. 207). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.58. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 10.25; Aug. 2, 9.08.

GI240 (\*836-E, pp. 253, 278; \*886, p. 315; 908, p. 205; 938, p. 163; 946, p. 207). City of Grand Island. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.33. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.58; Aug. 23, 5.08; Oct. 11, 6.14.

GI241 (\*836-E, pp. 253, 278; \*886, p. 315; 908, p. 205; 938, p. 168; 946, p. 207). City of Grand Island. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.92. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 11.54; Aug. 23, 12.30; Oct. 11, 14.22.

GI242 (\*836-E, pp. 253, 278; \*886, p. 316; 908, p. 205; 938, p. 168; 946, p. 207). City of Grand Island. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.40. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 22.75; Aug. 23, 22.46; Oct. 11, 22.72.

GI243 (\*836-E, pp. 253, 278; \*886, p. 316; 908, p. 205; 946, p. 207). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.35. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 3.96; Aug. 23, 4.25; Oct. 11, 4.98.

GI244 (\*836-E, pp. 253, 278; \*886, p. 316; 908, p. 205; 938, p. 168; 946, p. 207). City of Grand Island. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.92. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.79; Aug. 23, 5.18; Oct. 11, 5.52.

GI246 (\*836-E, pp. 253, 279; \*886, p. 316; 908, p. 205; 938, p. 168; 946, p. 208). City of Grand Island. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.02. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.92; Aug. 23, 4.92; Oct. 11, 5.52.

GI247 (\*836-E, pp. 253, 279; \*886, p. 317; 908, p. 205; 938, p. 168; 946, p. 208). City of Grand Island. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.18. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 3.12; Aug. 23, 4.87; Oct. 11, 5.22.

GI248 (\*836-E, pp. 253, 279; \*886, p. 317; 908, p. 205; 938, p. 168; 946, p. 208). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 10 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.00. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.34; Aug. 23, 5.70; Oct. 11, 5.96.

GI249 (\*836-E, pp. 253, 279; \*886, p. 317; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 10 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.15. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.25; Aug. 23, 5.27; Oct. 11, 5.60.

GI250 (\*836-E, pp. 253, 279; \*886, p. 317; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 10 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.60. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 3.92; Aug. 23, 5.33; Oct. 11, 5.87.

GI251 (\*836-E, pp. 253, 280; \*886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 12 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.10. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 10.34; Aug. 23, 10.36; Oct. 11, 10.46.

GI252 (\*836-E, pp. 253, 280; \*886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 12 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.00. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 13.42; Aug. 23, 13.50; Oct. 11, 13.54.

GI253 (\*836-E, pp. 253, 280; \*886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 11 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.15. Measurements supplied through courtesy of Grand Island Water Department.

GI254 (\*836-E, pp. 253, 280; \*886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208). City of Grand Island. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 11 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.90. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 17.66; Aug. 23, 17.58; Oct. 11, 17.56.

GI255 (\*836-E, pp. 253, 280; \*886, p. 319; 946, p. 208). City of Grand Island. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 11 N., R. 10 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.65. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1943: Mar. 24, 8.83; Aug. 23, 9.58; Oct. 11, 9.87.

#### Hamilton County

158 (\*817, p. 135; 840, p. 205; 845, p. 176; 938, p. 168; 946, p. 209). O. Swedberg. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 11 N., R. 6 W. No measurements made in 1943.

160 (\*817, p. 135; 840, p. 205; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). R. Phillips. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 9 N., R. 8 W. No measurements made in 1943.

173 (\*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). T. Wild. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 9 N., R. 6 W. No measurements made in 1943.

330 (\*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 946, p. 209). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 13 N., R. 6 W. No measurements made in 1943.

#### Harlan County

155 (\*817, p. 135; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). C. Feese. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 2 N., R. 18 W. No measurements made in 1943.

222 (\*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 946, p. 209). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 3 N., R. 17 W. No measurements made in 1943.

329 (\*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). G. Remke. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 3 N., R. 17 W. No measurements made in 1943.

389 (\*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). H. McArthur. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 2 N., R. 18 W. No measurements made in 1943.

Hayes County

141 (\*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 269; 946, p. 209). E. Joy. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 5 N., R. 32 W. No measurements made in 1943.

142 (\*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 169; 946, p. 209). Laird & Ward. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 7 N., R. 32 W. No measurements made in 1943.

446 (\*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209). University of Nebraska. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 5 N., R. 33 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.60. Water level, in feet below land-surface datum, 1943: Sept. 11, 14.44.

Hitchcock County

140 (\*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209). A. Nowka. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 4 N., R. 32 W. No measurements made in 1943.

178 (\*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209). O. Brownfield. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 2 N., R. 35 W. No measurements made in 1943.

362 (\*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). S. Lawrence. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 3 N., R. 33 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.87. Water level, in feet below land-surface datum, 1943: Sept. 9, 10.91.

Holt County

112 (\*817, p. 137; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 946, p. 210). G. Shoemaker. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 29 N., R. 12 W. No measurements made in 1943.

113 (\*817, p. 137; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 946, p. 210). F. Juracek. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 29 N., R. 14 W. No measurements made in 1943.

203 (\*817, p. 137; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). Key well U.S. 56. University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 27 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.35.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	8.47	Apr. 28	8.49	July 29	9.30	Nov. 28	8.78
Feb. 19	8.49	May 29	8.85	Aug. 29	9.15	Dec. 30	7.88
Mar. 27	8.84						

373 (\*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 28 N., R. 14 W. No measurements made in 1943.

374 (\*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). L. Nessen. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 27 N., R. 14 W. No measurements made in 1943.

424 (\*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 26 N., R. 12 W. No measurements made in 1943.

428 (\*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 27 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.34. Water level, in feet below land-surface datum, 1943: Nov. 28, 8.43.

Hooker County

214 (\*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 24 N., R. 35 W. No measurements made in 1943.

Howard County

46 (\*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 14 N., R. 10 W. No measurements made in 1943.

51 (\*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210). Placke Estate. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 13 N., R. 9 W. No measurements made in 1943.

59 (\*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210). M. Augustyn. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 16 N., R. 11 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 165.30. Water level, in feet below land-surface datum, 1943: Nov. 4, 65.98.

98 (\*817, p. 159; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 210). O. Young. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 13 N., R. 12 W. No measurements made in 1943.

346 (\*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 209; 938, p. 169; 946, p. 210). University of Nebraska. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 15 N., R. 10 W. No measurements made in 1943.

Jefferson County

226 (\*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 210). C. Ellis. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 2 N., R. 4 E. No measurements made in 1943.

227 (\*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 946, p. 211). R. Garrett. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 1 N., R. 4 E. No measurements made in 1943.

228 (\*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). A. Knispel. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 3 N., R. 1 E. No measurements made in 1943.

229 (\*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). E. Simpkins. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 4 N., R. 2 E. No measurements made in 1943.

Johnson County

2 (\*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). L. Miller. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 6 N., R. 9 E. No measurements made in 1943.

31 (\*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). E. Graf. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 4 N., R. 11 E. No measurements made in 1943.

Kearney County

181 (\*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211). E. Carlson. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 6 N., R. 16 W. No measurements made in 1943.

266 (\*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211). H. Jensen. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 8 N., R. 14 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.32. Water level, in feet below land-surface datum, 1943: Nov. 8, 9.78.



Keith County

93 (\*817, p. 141; 840, p. 208; 845, p. 177; 908, p. 208; 938, p. 170; 946, p. 211). D. Thiessen. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 13 N., R. 35 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.81 for those since Oct. 31, 1938, and from 114.53 for those before Oct. 31, 1938.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	9.18	June 12	8.99	Sept. 15	9.60	Nov. 6	10.03
Mar. 19	8.96	July 9	8.79	Oct. 4	9.81	Dec. 9	9.99
May 18	9.01	Aug. 2	8.54				

255 (\*817, p. 141; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211). University of Nebraska. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 16 N., R. 38 W. No measurements made in 1943.

348 (\*817, p. 141; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 946, p. 211). E. Puempke. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 13 N., R. 35 W. No measurements made in 1943.

350 (\*817, p. 142; 840, p. 209; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211). NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 13 N., R. 37 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.78. Water levels, in feet below land-surface datum, 1943: Jan. 28, 12.56; Mar. 19, 12.56; July 9, 13.03; Sept. 15, 14.61.

358 (\*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 322; 908, p. 209; 938, p. 170; 946, p. 212). G. McGinley. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 13 N., R. 39 W. No measurements made in 1943.

360 (\*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 322; 908, p. 209; 938, p. 170; 946, p. 212). G. Peters Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 13 N., R. 39 W. No measurements made in 1943.

El. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 15 N., R. 38 W. Bored observation well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, 3,132.58 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 3,131.88 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 30, 1938	5.69	Mar. 27, 1940	7.10	Dec. 2, 1941	9.30
Sept. 29	6.53	Apr. 29	7.18	Mar. 3, 1942	8.94
Oct. 31	5.63	May 23	7.58	30	8.42
Nov. 29	5.34	June 26	7.95	May 4	6.78
Dec. 29	5.34	July 24	8.50	Aug. 10	7.89
Jan. 30, 1939	5.28	Aug. 28	8.61	Sept. 8	7.87
Feb. 27	5.45	Sept. 30	8.85	Oct. 6	8.08
Apr. 3	4.47	Nov. 1	8.35	Nov. 10	8.14
May 1	5.23	Dec. 31	7.89	Dec. 11	7.90
31	5.58	Jan. 31, 1941	7.83	Jan. 25, 1943	7.57
June 29	6.40	Feb. 26	8.38	Mar. 11	7.84
July 31	7.24	Apr. 12	8.06	May 13	7.36
Aug. 30	7.60	May 1	7.19	June 4	7.63
Sept. 29	7.70	June 6	8.17	July 6	7.95
Oct. 28	7.32	July 2	8.19	Aug. 4	7.91
Nov. 29	7.28	Aug. 2	8.50	Sept. 17	7.88
Jan. 2, 1940	7.14	Sept. 4	8.67	Oct. 6	7.82
Feb. 1	6.96	Oct. 3	8.52	Nov. 4	7.65
28	6.90	Nov. 6	9.04	Dec. 7	7.63

E2. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 15 N., R. 38 W. Bored observation well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, 3,133.26 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,132.41 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 30, 1938	5.22	Mar. 27, 1940	8.21	Oct. 3, 1941	7.28
Oct. 1	4.92	Apr. 29	8.35	Nov. 6	9.24
31	4.85	May 23	9.01	Dec. 2	9.27
Nov. 29	4.56	June 26	9.18	Mar. 3, 1942	9.05
Dec. 29	4.82	July 24	10.08	30	8.30
Jan. 30, 1939	4.84	Aug. 28	9.31	May 4	8.03
Feb. 27	5.22	Sept. 30	9.98	Aug. 11	6.29
Apr. 3	4.40	Nov. 1	9.36	Sept. 10	7.10
May 1	5.32	Dec. 31	8.66	Oct. 6	7.68
31	5.55	Jan. 31, 1941	8.55	Nov. 10	7.96
June 29	5.90	Feb. 26	9.44	Dec. 11	7.21
July 31	7.37	Apr. 12	(a)	Jan. 25, 1943	7.11
Aug. 30	8.05	May 5	9.25	Mar. 11	7.88
Sept. 29	8.48	13	8.49	July 7	7.34
Oct. 28	7.78	June 4	6.89	Aug. 4	6.27
Nov. 29	7.88	6	7.23	Sept. 17	7.04
Jan. 2, 1940	7.32	July 2	7.25	Oct. 6	7.06
Feb. 1	7.25	Aug. 2	7.19	Nov. 4	7.09
28	7.44	Sept. 4	7.90	Dec. 7	7.27

E3. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 15 N., R. 38 W. Bored observation well, diameter 2 inches, depth 14 feet. Measuring point, top of casing, 3,133.11 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,132.51 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Aug. 30, 1938	7.08	Mar. 27, 1940	8.52	Dec. 2, 1941	(a)
Oct. 1	6.80	Apr. 29	8.59	Mar. 3, 1942	(a)
31	6.63	May 23	9.10	30	10.10
Nov. 29	6.28	June 26	9.45	May 4	9.25
Dec. 29	6.53	July 24	10.31	Aug. 11	8.25
Jan. 30, 1939	6.80	Aug. 28	9.55	Sept. 10	9.02
Feb. 27	6.90	Sept. 30	10.05	Oct. 6	9.59
Apr. 3	6.17	Nov. 1	9.41	Nov. 10	9.81
May 1	7.13	Dec. 31	8.70	Dec. 11	8.96
31	7.33	Jan. 31, 1941	8.58	Jan. 25, 1943	9.04
June 29	8.07	Feb. 26	9.43	Mar. 11	9.79
July 31	9.25	Apr. 12	8.74	May 13	8.78
Aug. 30	9.57	May 1	9.25	June 4	9.25
Sept. 29	9.36	June 6	9.98	July 7	9.38
Oct. 28	8.36	July 2	8.99	Aug. 4	8.33
Nov. 29	8.29	Aug. 2	9.06	Sept. 17	9.00
Jan. 2, 1940	7.67	Sept. 4	9.57	Oct. 6	9.00
Feb. 1	7.62	Oct. 3	9.07	Nov. 4	9.02
28	7.76	Nov. 6	(a)	Dec. 7	9.15

E6. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 15 N., R. 38 W. Bored observation well, diameter 2 inches, depth 14.4 feet. Measuring point, top of casing, 3,123.21 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 3,122.53 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## E6. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 30, 1938	7.27	Mar. 27, 1940	7.00	Dec. 4, 1941	7.67
Oct. 1	7.17	Apr. 29	7.00	Mar. 2, 1942	4.30
31	7.28	May 23	7.06	30	6.75
Nov. 29	7.17	June 26	7.26	Aug. 10	7.06
Dec. 29	7.12	July 24	8.16	Sept. 8	7.00
Jan. 30, 1939	7.21	Aug. 28	8.55	Oct. 6	7.03
Feb. 27	7.21	Sept. 30	8.25	Nov. 10	6.98
Apr. 3	6.83	Nov. 1	7.70	Dec. 11	6.97
May 1	6.55	Dec. 31	7.17	Jan. 25, 1943	6.82
31	6.74	Jan. 31, 1941	7.13	Mar. 11	7.00
June 29	7.25	Feb. 26	7.08	May 13	6.76
July 31	7.65	Apr. 5	6.93	June 4	6.97
Aug. 30	7.05	May 5	6.73	July 6	7.27
Sept. 29	7.42	June 6	6.87	Aug. 3	7.77
Oct. 28	7.30	July 2	7.26	Sept. 13	8.19
Nov. 29	7.30	Aug. 2	7.68	Oct. 5	8.04
Jan. 2, 1940	7.28	Sept. 3	7.95	Nov. 4	7.79
Feb. 1	6.94	Oct. 6	7.51	Dec. 7	7.78
28	7.01	Nov. 5	7.71		

E7. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 5, T. 14 N., R. 37 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 3,106.39 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 3,105.90 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	4.54	Apr. 29, 1940	3.63	Dec. 4, 1941	4.19
Nov. 2	4.11	May 23	4.30	Mar. 2, 1942	4.10
Dec. 1	4.31	June 26	4.39	30	2.86
31	4.42	July 24	5.10	Aug. 10	4.77
Feb. 2, 1939	4.05	Aug. 28	5.24	Sept. 8	4.62
Mar. 1	3.90	Sept. 30	4.97	Oct. 6	4.68
Apr. 7	2.61	Nov. 1	4.70	Nov. 10	4.41
May 3	4.15	Dec. 31	4.41	Dec. 11	4.35
June 2	3.50	Jan. 31, 1941	3.69	Jan. 25, 1943	4.01
July 1	4.35	Feb. 26	4.11	Mar. 11	3.26
Aug. 2	4.93	Apr. 5	3.05	May 13	3.59
Sept. 1	5.04	May 5	3.44	June 4	4.03
30	4.80	June 6	3.52	July 6	4.39
Oct. 31	4.53	July 2	4.44	Aug. 3	4.70
Dec. 2	4.54	Aug. 2	4.71	Sept. 13	5.01
Jan. 12, 1940	4.51	Sept. 3	5.08	Oct. 5	4.98
Feb. 3	4.24	Oct. 6	4.73	Nov. 4	4.64
Mar. 1	4.04	Nov. 5	4.54	Dec. 7	4.60
27	3.86				

E8. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$  SW $\frac{1}{4}$  sec. 29, T. 15 N., R. 37 W. Bored observation well, diameter 2 inches, depth 15 feet. Measuring point, top of casing, 3,118.63 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 3,118.03 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	5.66	June 2, 1939	3.12	Feb. 3, 1940	5.80
Nov. 2	5.89	July 1	4.13	Mar. 1	5.36
Dec. 1	5.70	Aug. 2	6.26	27	4.94
31	5.66	Sept. 1	6.66	Apr. 29	3.92
Feb. 2, 1939	5.39	30	7.20	May 23	4.34
Mar. 1	5.44	Oct. 31	7.02	June 26	4.91
Apr. 5	3.88	Dec. 2	6.32	July 24	6.63
May 3	4.02	Jan. 2, 1940	5.99	Aug. 28	7.42

## B8. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1940	7.56	Oct. 6, 1941	5.71	Jan. 25, 1943	3.76
Nov. 1	7.17	Nov. 5	4.78	Mar. 11	3.81
Dec. 31	6.26	Dec. 4	5.16	May 13	4.21
Jan. 31, 1941	5.92	Mar. 2, 1942	4.60	June 4	4.40
Feb. 26	5.63	Aug. 10	5.35	July 6	3.97
Apr. 5	4.45	Sept. 8	4.06	Aug. 3	5.61
May 5	3.92	Oct. 6	3.04	Sept. 13	5.71
July 2	3.93	Nov. 10	4.52	Oct. 5	6.87
Aug. 2	4.55	Dec. 10	4.00	Dec. 7	6.26
Sept. 3	5.81				

B9. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 14 N., R. 37 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 3,102.80 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,102.37 feet above sea level. Measurements supplied through courtesy of Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	4.68	Apr. 29, 1940	4.53	Dec. 4, 1941	5.42
Nov. 2	4.49	May 23	4.72	Mar. 2, 1942	4.92
Dec. 1	4.48	June 26	4.89	30	4.35
31	4.55	July 24	5.43	Aug. 10	5.04
Feb. 2, 1939	4.44	Aug. 28	5.79	Sept. 8	5.31
Mar. 1	4.11	Sept. 30	5.66	Oct. 6	5.61
Apr. 5	3.57	Nov. 1	5.54	Nov. 10	5.49
May 3	4.00	Dec. 31	5.20	Dec. 11	5.36
June 2	3.93	Jan. 31, 1941	5.23	Jan. 25, 1943	4.98
July 1	4.51	Feb. 26	5.14	Mar. 11	4.80
Aug. 2	5.18	Apr. 5	4.91	May 13	4.44
Sept. 1	5.39	May 5	4.85	June 4	4.61
30	5.30	June 6	2.60	July 6	4.95
Oct. 31	4.93	July 2	4.95	Aug. 3	4.88
Dec. 2	4.89	Aug. 2	5.27	Sept. 13	5.30
Jan. 2, 1940	5.06	Sept. 3	5.67	Oct. 5	5.49
Feb. 3	4.20	Oct. 6	5.50	Nov. 4	5.50
Mar. 1	4.38	Nov. 5	5.50	Dec. 7	5.64
27	4.69				

El1. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 14 N., R. 37 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing, 3,095.57 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,094.22 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	5.04	Apr. 29, 1940	4.57	Dec. 4, 1941	5.70
Nov. 2	4.92	May 23	4.79	Mar. 2, 1942	5.18
Dec. 1	4.70	June 26	5.01	30	4.62
31	4.58	July 24	5.72	Aug. 10	5.53
Feb. 2, 1939	4.44	Aug. 28	6.09	Sept. 8	5.49
Mar. 1	4.15	Sept. 30	6.09	Oct. 6	5.67
Apr. 5	3.14	Nov. 1	5.86	Nov. 10	5.66
May 3	3.59	Dec. 31	5.52	Dec. 11	5.47
June 2	3.08	Jan. 31, 1941	5.53	Jan. 25, 1943	5.01
July 1	4.42	Feb. 26	5.37	Mar. 11	4.82
Aug. 2	5.37	Apr. 5	5.11	May 13	4.48
Sept. 1	5.70	May 5	4.81	June 4	4.70
30	5.83	June 6	4.70	July 7	4.95
Oct. 31	5.51	July 2	5.19	Aug. 3	5.65
Dec. 2	5.26	Aug. 2	5.61	Sept. 13	5.67
Jan. 2, 1940	5.28	Sept. 3	5.83	Oct. 5	5.82
Feb. 3	5.04	Oct. 6	5.77	Nov. 4	5.79
Mar. 1	4.79	Nov. 5	5.73	Dec. 7	5.88
27	4.69				

E12. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 14 N., R. 37 W. Used drilled irrigation well. Measuring point, top of concrete wall, 3,087.87 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 3,087.96 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 2, 1938	5.05	May 23, 1940	5.35	Dec. 4, 1941	6.14
Dec. 1	4.92	June 26	5.61	Mar. 2, 1942	5.60
31	4.88	July 24	6.34	30	4.83
Mar. 1, 1939	4.50	Aug. 28	6.73	Aug. 10	5.80
Apr. 5	3.37	Sept. 30	6.65	Sept. 8	5.95
May 3	3.67	Nov. 1	6.42	Oct. 6	6.19
June 2	3.98	Dec. 31	6.12	Nov. 10	6.12
July 1	4.82	Jan. 31, 1941	6.08	Dec. 11	5.97
Aug. 2	5.76	Feb. 26	5.95	Mar. 11, 1943	5.31
Sept. 1	6.22	Apr. 5	5.64	May 13	5.06
30	6.23	May 5	5.22	June 4	5.32
Oct. 31	5.78	June 6	5.40	July 7	5.53
Dec. 2	5.64	July 2	5.66	Aug. 3	5.98
Jan. 2, 1940	5.87	Aug. 2	6.12	Sept. 13	6.19
Feb. 3	5.28	Sept. 3	6.42	Oct. 5	6.31
Mar. 1	5.22	Oct. 6	6.29	Nov. 4	6.18
27	5.39	Nov. 5	6.23	Dec. 7	6.15
Apr. 29	5.13				

E13. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 14 N., R. 37 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 3,081.10 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 3,080.18 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1938	5.14	Apr. 29, 1940	3.75	Dec. 4, 1941	4.68
Nov. 2	5.07	May 23	4.52	Mar. 2, 1942	3.88
Dec. 1	4.79	June 26	5.11	30	3.25
31	4.69	July 24	6.01	Aug. 10	5.57
Feb. 2, 1939	4.20	Aug. 28	6.44	Sept. 8	4.90
Mar. 1	4.10	Sept. 30	5.99	Oct. 6	5.14
Apr. 5	2.52	Nov. 1, 1940	5.50	Nov. 10	4.93
May 3	3.57	Dec. 31	5.29	Dec. 11	4.61
June 2	2.81	Jan. 31, 1941	5.03	Jan. 25, 1943	4.30
July 1	2.19	Feb. 26	4.70	Mar. 11	3.82
Aug. 2	5.55	Apr. 5	3.80	May 13	4.11
Sept. 1	6.10	May 5	3.62	June 4	4.45
30	6.15	June 6	4.31	July 7	4.84
Oct. 31	5.67	July 2	5.22	Aug. 3	6.59
Dec. 2	5.33	Aug. 2	5.66	Sept. 13	5.93
Jan. 2, 1940	5.17	Sept. 3	6.03	Oct. 5	5.82
Feb. 3	5.02	Oct. 6	5.56	Nov. 4	5.32
Mar. 1	4.22	Nov. 5	4.97	Dec. 7	5.27
27	3.87				

E14. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 14 N., R. 36 W. Bored observation well, diameter 2 inches, depth 18 feet. Measuring point, top of casing, 3,071.48 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,070.78 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet above land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1938	7.53	Feb. 2, 1939	5.76	June 2, 1939	4.50
Nov. 2	7.25	Mar. 1	5.59	July 1	5.77
Dec. 1	6.63	Apr. 5	3.98	Aug. 2	7.74
31	6.38	May 3	4.85	Sept. 1	8.45

E14. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet above land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1939	8.38	Jan. 31, 1941	6.88	Sept. 8, 1942	5.92
Oct. 31	7.74	Feb. 26	6.55	Oct. 6	6.37
Dec. 2	7.32	Apr. 5	5.53	Nov. 10	5.91
Jan. 2, 1940	7.02	May 5	4.76	Dec. 11	5.42
Feb. 3	7.19	June 12	5.13	Jan. 25, 1943	5.24
Mar. 1	5.92	July 2	6.65	Mar. 11	4.75
27	5.37	Aug. 2	7.49	May 13	5.20
Apr. 29	4.96	Sept. 3	8.11	June 4	5.74
May 23	5.70	Oct. 6	7.13	July 7	6.54
June 26	6.69	Nov. 5	6.66	Aug. 3	7.31
July 24	8.49	Dec. 4	6.28	Sept. 13	7.93
Aug. 28	8.96	Mar. 2, 1942	5.80	Oct. 5	8.03
Sept. 30	8.56	30	4.66	Nov. 4	7.39
Nov. 1	7.89	Aug. 10	7.51	Dec. 7	6.93
Dec. 31	7.27				

E15. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 15, T. 14 N., R. 36 W. Bored observation well, diameter 2 inches, depth 10.5 feet. Measuring point, top of casing, 3,051.78 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,050.70 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	5.37	Apr. 29, 1940	4.56	Dec. 4, 1941	4.81
Nov. 2	5.08	May 23	5.16	Mar. 2, 1942	3.40
Dec. 1	4.83	June 26	5.24	30	2.55
31	4.64	July 24	6.59	Aug. 10	6.08
Feb. 2, 1939	3.90	Aug. 28	7.17	Sept. 8	4.23
Mar. 1	2.47	Sept. 30	6.86	Oct. 6	5.83
Apr. 5	1.55	Nov. 1	6.33	Nov. 10	5.87
May 3	4.15	Dec. 31	5.48	Dec. 11	5.80
June 2	3.49	Jan. 31, 1941	5.26	Jan. 25, 1943	4.33
July 1	5.16	Feb. 26	5.29	Mar. 11	4.69
Aug. 2	6.57	Apr. 5	4.84	May 13	5.22
Sept. 1	6.87	May 5	3.03	June 4	5.66
30	6.54	June 12	3.30	July 7	6.32
Oct. 31	5.63	July 2	6.17	Aug. 3	5.87
Dec. 2	5.27	Aug. 2	6.49	Sept. 13	6.28
Jan. 2, 1940	3.83	Sept. 3	6.56	Oct. 5	6.49
Feb. 3	1.99	Oct. 6	5.60	Nov. 4	6.12
Mar. 1	1.74	Nov. 5	5.10	Dec. 7	6.05
27	4.20				

E16. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  SE $\frac{1}{4}$  sec. 16, T. 14 N., R. 35 W. Bored observation well, diameter 2 inches, depth 15 feet. Measuring point, top of casing, 3,016.44 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,015.98 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	7.54	Sept. 1, 1939	9.00	Aug. 30, 1940	9.24
Oct. 1	7.72	30	8.80	Sept. 27	9.00
Nov. 2	7.55	Oct. 31	8.21	Oct. 30	8.36
Dec. 1	7.16	Dec. 2	7.80	Dec. 30	7.72
31	6.85	Jan. 2, 1940	7.52	Feb. 3, 1941	7.33
Feb. 2, 1939	6.33	Feb. 3	7.10	28	6.99
Mar. 1	6.20	Mar. 1	6.57	Apr. 15	6.19
Apr. 5	5.20	Apr. 2	5.91	May 6	5.55
May 3	5.60	May 1	6.04	June 11	6.65
June 2	5.98	23	6.90	July 8	8.09
July 1	6.78	June 28	7.67	Aug. 5	8.37
Aug. 2	8.67	July 26	8.95	Sept. 3	7.48

## E16. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 6, 1941	7.80	Oct. 5, 1942	6.84	July 10, 1943	6.89
Nov. 5	7.39	Nov. 13	6.79	Aug. 4	7.06
Dec. 4	7.10	Dec. 16	6.41	Sept. 15	8.44
Mar. 2, 1942	6.25	Jan. 28, 1943	6.42	Oct. 4	8.39
Apr. 9	5.66	Mar. 23	5.71	Nov. 4	7.75
Aug. 5	8.23	May 21	6.02	Dec. 7	7.38
Sept. 7	6.60	June 12	6.76		

E17. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 14 N., R. 35 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing, 2,996.37 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 2,996.04 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	4.53	Apr. 2, 1940	3.13	Dec. 4, 1941	4.36
Oct. 1	5.09	May 1	3.55	Mar. 2, 1942	2.78
Nov. 2	5.04	23	4.57	Apr. 9	3.24
Dec. 1	4.34	June 28	5.24	Aug. 5	5.43
31	3.92	July 26	6.02	Sept. 7	3.76
Feb. 2, 1939	3.28	Aug. 30	6.43	Oct. 5	4.66
Mar. 1	3.17	Sept. 27	6.32	Nov. 13	4.32
Apr. 5	2.82	Oct. 30	5.58	Dec. 15	3.35
May 3	3.43	Dec. 30	4.87	Jan. 28, 1942	3.69
June 2	3.65	Feb. 3, 1941	4.01	Mar. 23	3.28
July 1	3.90	28	3.35	May 21	3.53
Aug. 2	5.53	Apr. 15	3.29	June 12	4.32
Sept. 1	6.00	May 6	3.11	July 10	4.93
30	6.10	June 11	3.81	Aug. 4	5.10
Oct. 31	5.38	July 8	5.27	Sept. 15	5.91
Dec. 2	4.98	Aug. 5	5.72	Oct. 4	4.73
Jan. 2, 1940	4.70	Sept. 3	5.73	Nov. 4	5.09
Feb. 3	4.42	Oct. 6	5.08	Dec. 7	4.81
Mar. 1	3.40	Nov. 5	4.82		

E18. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 14 N., R. 35 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing, 3,007.53 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,007.07 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	3.94	Apr. 2, 1940	5.90	Dec. 4, 1941	5.85
Oct. 1	5.00	May 1	5.79	Mar. 2, 1942	6.08
Nov. 2	4.75	27	4.93	Apr. 9	6.00
Dec. 1	4.89	June 28	5.69	Aug. 5	4.44
31	5.36	July 26	6.05	Sept. 7	4.05
Feb. 2, 1939	5.43	Aug. 30	6.42	Oct. 5	5.60
Mar. 1	5.04	Sept. 27	5.75	Nov. 13	5.84
Apr. 5	4.95	Oct. 30	5.57	Dec. 15	5.75
May 3	5.12	Dec. 30	5.57	Jan. 28, 1943	5.86
June 2	5.11	Feb. 3, 1941	5.90	Mar. 23	6.09
July 1	4.50	28	6.12	May 21	5.49
Aug. 2	5.45	Apr. 15	6.18	June 12	4.51
Sept. 1	5.12	May 6	6.19	July 10	3.96
30	4.19	June 11	4.87	Aug. 4	4.09
Oct. 31	4.89	July 8	5.70	Sept. 15	4.85
Dec. 2	5.24	Aug. 5	5.03	Oct. 4	5.12
Jan. 2, 1940	5.56	Sept. 3	5.40	Nov. 4	5.29
Feb. 3	4.82	Oct. 6	4.42	Dec. 7	5.68
Mar. 1	5.18	Nov. 5	5.68		

E19. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 14 N., R. 38 W. Bored observation well, diameter 8 inches, depth 9 feet. Measuring point, top of casing, 3,126.89 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 3,126.81 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 30, 1938	3.38	Mar. 27, 1940	3.40	Dec. 2, 1941	5.32
Oct. 1	4.55	Apr. 29	3.44	Mar. 2, 1942	5.17
31	3.00	May 23	3.41	30	4.72
Nov. 29	3.04	June 26	3.49	Aug. 5	2.84
Dec. 29	2.85	July 24	3.95	Sept. 10	3.67
Jan. 30, 1939	2.75	Sept. 30	4.59	Oct. 8	4.22
Feb. 27	2.47	Nov. 1	4.10	Nov. 14	4.42
Apr. 3	2.79	Dec. 31	3.29	Dec. 11	3.65
May 1	3.13	Jan. 31, 1941	3.29	Jan. 25, 1943	3.59
31	3.76	Feb. 26	3.95	Mar. 23	4.34
June 29	3.60	Apr. 12	4.53	May 13	3.34
Aug. 2	4.10	May 5	4.87	June 15	4.01
30	4.68	June 6	4.02	July 7	4.06
Sept. 29	4.77	July 2	3.23	Aug. 4	2.89
Oct. 28	3.14	Aug. 1	3.66	Sept. 17	3.77
Nov. 29	3.10	Sept. 4	4.09	Oct. 6	3.74
Jan. 2, 1940	3.21	Oct. 3	3.74	Nov. 5	3.73
Feb. 1	2.76	Nov. 5	5.79	Dec. 8	3.93
28	2.87				

E20. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 14 N., R. 35 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 3,020.19 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,019.58 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 10, 1938	4.12	Apr. 2, 1940	4.20	Dec. 4, 1941	3.80
Oct. 1	4.32	May 1	4.94	Mar. 2, 1942	3.94
Nov. 2	4.35	27	3.59	Apr. 9	3.90
Dec. 1	4.35	June 28	3.89	Aug. 5	4.12
31	4.53	July 28	4.45	Sept. 7	3.11
Feb. 2, 1939	4.51	Aug. 30	4.93	Oct. 5	3.60
Mar. 1	4.46	Sept. 27	4.44	Nov. 13	3.60
Apr. 5	4.18	Oct. 30	4.33	Dec. 15	3.54
May 3	4.35	Dec. 30	4.10	Jan. 28, 1943	3.62
June 2	3.83	Feb. 3, 1941	4.29	Mar. 23	3.52
July 1	2.98	28	4.30	May 21	3.43
Aug. 2	4.16	Apr. 15	4.27	June 12	3.07
Sept. 1	4.30	May 6	4.03	July 10	2.96
30	3.97	June 11	3.72	Aug. 4	3.24
Oct. 31	3.97	July 8	3.69	Sept. 15	3.44
Dec. 2	3.97	Aug. 5	4.10	Oct. 4	3.29
Jan. 2, 1940	4.09	Sept. 3	3.71	Nov. 4	3.23
Feb. 3	4.16	Oct. 6	3.70	Dec. 7	3.04
Mar. 1	4.13	Nov. 5	3.70		

E21. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 14 N., R. 35 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,995.88 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 2,995.74 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 10, 1938	3.94	Dec. 1, 1938	4.69	Mar. 1, 1939	5.12
Oct. 1	4.13	31	4.97	Apr. 5	4.78
Nov. 2	4.46	Feb. 2, 1939	5.10	May 3	5.12



E21. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
June 2, 1939	4.18	Sept. 27, 1940	5.83	Apr. 9, 1942	5.29
July 1	3.87	Oct. 30	4.97	Aug. 5	3.52
Aug. 2	4.84	Dec. 30	5.32	Sept. 7	2.83
Sept. 1	4.76	Feb. 3, 1941	5.58	Oct. 5	4.02
30	3.78	28	5.70	Nov. 13	4.68
Oct. 31	4.43	Apr. 15	5.76	Dec. 15	4.95
Dec. 2	4.57	May 6	5.72	Jan. 28, 1943	5.21
Jan. 2, 1940	4.86	June 11	5.08	Mar. 23	5.45
Feb. 3	4.97	July 8	4.94	May 21	5.30
Mar. 1	5.08	Aug. 5	4.78	July 10	4.49
Apr. 2	5.24	Sept. 3	4.80	Aug. 4	4.31
May 1	5.27	Oct. 6	4.35	Sept. 15	4.51
27	4.75	Nov. 5	4.82	Oct. 4	4.50
June 28	5.15	Dec. 4	5.10	Nov. 4	4.61
July 26	5.67	Mar. 2, 1942	5.49	Dec. 7	5.04
Aug. 30	6.34				

E37. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 13 N., R. 36 W. Bored observation well, diameter 2 inches, depth 16 feet. Measuring point, top of casing, 3,102.12 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 3,100.46 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	8.30	May 1, 1940	9.22	Feb. 2, 1942	8.45
Nov. 4	9.02	27	9.22	Mar. 2	8.27
Dec. 3	8.92	June 28	9.24	Apr. 7	7.76
31	8.12	July 26	9.79	May 8	4.61
Feb. 5, 1939	7.13	Aug. 30	10.16	Aug. 12	8.36
Mar. 1	7.02	Sept. 27	10.25	Sept. 10	8.51
Apr. 7	7.06	Oct. 30	10.06	Oct. 8	8.31
May 3	7.50	Dec. 30	9.24	Nov. 13	8.02
June 3	8.70	Feb. 3, 1941	9.15	Dec. 15	7.93
July 6	9.17	28	8.94	Jan. 28, 1943	7.38
Aug. 2	9.70	Apr. 12	9.21	Mar. 19	7.69
Sept. 1	9.98	May 7	8.70	May 18	8.61
Oct. 4	10.12	June 6	9.30	June 12	7.79
Nov. 6	10.02	July 1	9.17	July 9	8.53
Dec. 4	9.97	Aug. 5	9.64	Aug. 2	8.98
Jan. 2, 1940	9.79	Sept. 2	9.94	Sept. 15	9.68
31	9.10	Oct. 1	9.82	Oct. 6	9.82
Mar. 5	8.77	Nov. 4	9.23	Nov. 6	9.19
Apr. 2	8.77	Dec. 4	8.78	Dec. 9	9.03

N1 (\*938, p. 170; 946, p. 212). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 15 N., R. 38 W. No measurements made in 1943.

N4 (\*908, p. 209; 938, p. 170; 946, p. 212). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 15 N., R. 38 W. Measuring point is 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,302.40 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	17.88	June 4	17.83	Sept. 13	17.74	Nov. 5	17.66
Mar. 11	17.88	July 6	17.79	Oct. 5	17.82	Dec. 8	17.64
May 22	17.85	Aug. 4	17.78				

N5 (\*908, p. 209; 938, p. 170; 946, p. 212). Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  sec. 16, T. 15 N., R. 38 W. Measuring point is 0.2 foot below land-surface datum. Reference point, top of iron pin, 3,345.64 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1943: Jan. 25, 9.64; Mar. 11, 9.60; Nov. 5, 9.78; Dec. 8, 9.80.

N6 (\*908, p. 210; 938, p. 170; 946, p. 212). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$  sec. 4, T. 15 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum. Reference point, top of iron pin, 3,361.18 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	4.06	June 4	4.02	Sept. 13	4.47	Nov. 5	4.34
Mar. 11	4.06	July 6	4.06	Oct. 5	4.40	Dec. 8	4.37
May 12	3.98	Aug. 3	4.27				

N7 (\*908, p. 210; 938, p. 170; 946, p. 212). Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  sec. 34, T. 16 N., R. 38 W. Measuring point is 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,396.70 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	9.15	June 4	9.39	Sept. 13	9.78	Nov. 5	9.91
Mar. 11	9.17	July 6	9.49	Oct. 5	9.82	Dec. 8	9.96
May 12	9.24	Aug. 3	9.61				

N8. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 16 N., R. 38 W. Bored observation well, diameter 4 inches, depth 8 feet. Measuring point, top of casing 3,386.22 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,385.44 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
June 24, 1936	2.15	June 30, 1936	0.31	Feb. 26, 1941	0.60
26	2.20	Aug. 30	.89	Apr. 8	.60
30	1.40	Sept. 29	.83	May 1	1.01
July 3	1.15	Oct. 31	.44	June 5	1.44
7	2.30	Nov. 29	.26	July 2	.39
16	2.50	Apr. 3, 1939	+2.22	Aug. 1	1.72
30	.30	May 1	.55	Sept. 4	1.74
Aug. 13	2.10	31	1.22	Oct. 3	.93
28	1.12	June 29	.90	Nov. 6	.70
Sept. 14	1.09	July 31	1.53	Dec. 2	.55
Oct. 1	.37	Aug. 30	1.44	Mar. 30, 1942	.45
16	.40	Sept. 29	1.10	Apr. 4	.02
Nov. 4	.05	Nov. 29	.85	Nov. 10	.55
30	.12	Feb. 28, 1940	.65	Dec. 11	.65
May 4, 1937	.74	Mar. 27	1.05	Jan. 25, 1943	.75
June 2	.57	Apr. 29	.88	Mar. 11	.73
July 8	2.23	May 23	1.41	May 12	1.28
Aug. 4	2.02	June 26	1.84	June 4	1.56
Sept. 8	.61	July 24	1.98	July 6	1.86
Nov. 3	.22	Aug. 28	1.46	Aug. 3	1.94
Dec. 1	.02	Sept. 30	1.13	Sept. 13	1.61
Feb. 28, 1938	.38	Nov. 1	.96	Oct. 5	1.58
Mar. 31	.40	Dec. 31	.77	Nov. 5	1.24
May 4	.40	Jan. 31, 1941	.55	Dec. 8	1.22
31	+.26				

N9 (#908, p. 211; 938, p. 171; 946, p. 212). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 16 N., R. 38 W. Measuring point is 0.7 foot above land-surface datum. Reference point, top of iron pin, 3,437.38 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	12.20	June 4	12.43	Sept. 13	13.18	Nov. 5	13.11
Mar. 11	12.18	July 6	12.62	Oct. 5	13.22	Dec. 8	13.03
May 12	12.32	Aug. 3	12.94				

N10. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 16 N., R. 38 W. Bored observation well, diameter 5 inches, depth 11.5 feet. Measuring point, top of casing, 3,457.90 feet above sea level, 0.1 foot below land-surface datum. Reference point, top of iron pin, 3,458.00 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
June 24, 1936	9.50	May 31, 1938	8.37	Dec. 31, 1940	9.62
26	9.60	June 30	8.81	Jan. 31, 1941	9.54
30	9.55	Aug. 30	9.44	Feb. 26	9.64
July 3	9.65	Sept. 29	9.41	Apr. 12	9.48
7	9.80	Oct. 31	9.32	May 1	9.39
16	9.90	Nov. 29	9.19	June 5	9.77
30	9.85	Dec. 29	9.17	July 2	9.79
Aug. 13	9.90	Jan. 30, 1939	9.07	Aug. 1	10.16
28	9.53	Feb. 27	8.99	Sept. 4	11.00
Sept. 14	9.43	Apr. 3	8.74	Oct. 3	9.76
Oct. 1	9.32	May 1	9.23	Nov. 6	9.69
16	9.27	31	9.39	Dec. 2	9.75
Nov. 4	9.13	June 29	9.71	Mar. 30, 1942	9.57
30	9.08	July 31	10.17	May 4	7.99
Jan. 4, 1937	8.93	Aug. 30	10.10	Aug. 6	9.26
Mar. 2	8.67	Sept. 29	10.18	Sept. 8	8.94
Apr. 1	8.73	Oct. 28	9.58	Oct. 6	8.99
May 4	8.96	Nov. 29	9.50	Nov. 10	8.90
June 2	9.12	Jan. 3, 1940	9.43	Dec. 11	8.78
July 8	10.03	Feb. 1	9.30	Jan. 25, 1943	8.71
Aug. 4	9.83	28	9.64	Mar. 11	8.58
Sept. 8	9.14	Mar. 27	9.40	May 12	8.99
Nov. 2	9.30	Apr. 29	9.29	June 4	9.18
Dec. 1	9.19	May 23	9.67	July 6	9.37
30	9.06	June 26	10.15	Aug. 3	9.59
Jan. 31, 1938	9.01	July 24	10.54	Sept. 13	9.55
Feb. 28	8.97	Aug. 28	10.06	Oct. 5	9.51
Mar. 31	9.14	Sept. 30	9.91	Nov. 5	9.27
May 4	9.13	Nov. 1	9.83	Dec. 8	9.19

N11 (#886, p. 322; 908, p. 211; 938, p. 171; 946, p. 212). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 16 N., R. 38 W. Measuring point is 1.2 feet above land-surface datum. Reference point, top of iron pin, 3,484.50 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	13.83	May 12	14.13	July 6	14.17	Dec. 8	14.35
Mar. 11	13.99	June 2	14.10	Nov. 5	14.29		

N12. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{2}$  sec. 7, T. 16 N., R. 38 W. Bored observation well, diameter 4 inches, depth 12 feet. Measuring point, top of casing, 3,500.73 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,499.91 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
June 24, 1936	7.80	Aug. 30, 1938	8.48	May 1, 1940	9.34
26	7.80	Sept. 29	8.53	June 5	9.20
30	7.95	Oct. 31	8.63	July 2	9.35
July 3	8.00	Nov. 29	8.66	Aug. 1	9.54
7	8.20	Dec. 29	8.70	Sept. 4	9.77
16	8.40	Jan. 30, 1939	8.68	Oct. 3	9.81
30	8.70	Feb. 27	8.70	Nov. 6	9.68
Aug. 13	8.60	Apr. 3	8.60	Dec. 2	9.67
28	8.77	May 1	8.42	Mar. 3, 1942	9.69
Sept. 14	8.87	31	8.86	30	9.52
Oct. 1	8.90	June 29	8.90	May 4	7.63
16	8.80	July 31	9.08	Aug. 6	8.37
Nov. 4	8.68	Aug. 30	9.20	Sept. 1	8.63
30	8.54	Sept. 29	9.28	8	8.63
Jan. 4, 1937	8.47	Oct. 28	9.22	Oct. 1	8.71
Feb. 2	8.40	Nov. 29	9.16	6	8.71
Mar. 2	7.45	Jan. 3, 1940	9.16	Nov. 2	8.66
Apr. 1	8.40	Feb. 1	9.18	10	8.72
May 4	8.40	28	9.22	Dec. 1	9.84
June 2	8.49	Mar. 27	9.07	11	8.71
July 8	8.87	Apr. 29	9.05	Jan. 2, 1943	8.69
Aug. 4	8.98	May 23	9.17	25	8.69
Sept. 8	8.45	June 26	9.44	Mar. 11	8.69
Nov. 2	8.72	July 24	9.75	May 12	8.73
Dec. 1	8.69	Aug. 28	9.80	June 2	8.73
30	8.64	Sept. 30	9.88	July 6	8.93
Jan. 31, 1938	8.66	Nov. 1	9.77	Aug. 3	9.14
Mar. 31	8.61	Dec. 31	9.65	Sept. 13	9.28
May 4	8.40	Jan. 31, 1941	9.65	Oct. 5	9.30
31	8.22	Feb. 26	9.65	Nov. 5	10.24
June 30	7.87	Apr. 12	9.55	Dec. 8	9.17

N13. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 16 N., R. 38 W. Bored observation well, diameter 5 inches, depth 11.5 feet. Measuring point, top of casing, 3,496.37 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,495.53 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

June 24, 1936	6.20	May 4, 1937	7.46	Dec. 29, 1938	7.54
26	6.20	June 2	7.45	Jan. 30, 1939	7.51
30	6.15	July 7	7.42	Feb. 27	7.65
July 3	6.20	Aug. 4	7.46	Mar. 3	7.68
7	6.30	Sept. 8	7.05	May 1	7.25
16	6.45	Nov. 2	6.60	31	7.15
30	6.70	Dec. 1	7.52	June 29	7.25
Aug. 13	6.65	30	7.43	July 31	7.45
28	6.84	Jan. 31, 1938	7.61	Aug. 30	7.75
Sept. 14	6.87	Feb. 28	7.70	Sept. 29	7.70
Oct. 1	7.04	Mar. 31	7.67	Oct. 28	7.88
16	7.08	May 4	7.31	Nov. 29	7.87
Nov. 4	7.14	31	6.95	Jan. 3, 1940	8.03
30	7.25	June 30	6.53	Feb. 1	8.19
Jan. 4, 1937	7.20	Aug. 30	6.78	28	8.14
Feb. 2	7.24	Sept. 29	6.87	Mar. 27	8.04
Mar. 2	7.37	Oct. 31	6.99	Apr. 29	8.11
Apr. 1	7.33	Nov. 29	7.29	May 23	8.10

N13: Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
June 26, 1940	7.98	Aug. 1, 1941	7.57	Dec. 11, 1942	7.29
July 24	8.17	Sept. 4	7.97	Jan. 25, 1943	7.57
Aug. 28	8.27	Oct. 3	8.11	Mar. 11	7.59
Sept. 30	8.42	Nov. 6	7.93	May 12	7.62
Nov. 1	8.40	Dec. 3	8.20	June 2	7.35
Dec. 31	8.51	Mar. 3, 1942	8.38	July 6	7.30
Jan. 31, 1941	8.56	30	8.44	Aug. 3	7.32
Feb. 26	8.60	May 4	5.11	Sept. 13	7.59
Apr. 12	8.63	Aug. 6	6.09	Oct. 5	7.74
May 1	8.14	Sept. 8	6.38	Nov. 5	7.70
June 5	7.47	Oct. 6	6.78	Dec. 8	7.83
July 2	7.56	Nov. 10	7.14		

N14. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 16 N., R. 38 W. Drilled observation well, diameter 2 inches, depth 45.25 feet. Measuring point, top of casing, 3,468.40 feet above sea level, 4.5 feet above land-surface datum. Reference point, top of iron pin, 3,463.88 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

June 30, 1936	9.20	Aug. 30, 1938	8.92	Feb. 26, 1941	10.32
July 3	9.10	Sept. 29	8.58	Apr. 12	10.30
7	9.25	Oct. 31	9.47	May 1	10.28
16	9.30	Nov. 29	9.20	June 5	10.35
30	9.40	Dec. 29	8.59	July 1	10.43
Aug. 13	9.35	Jan. 30, 1939	9.24	Aug. 1	10.55
28	9.41	Feb. 27	9.08	Sept. 4	10.65
Sept. 14	9.45	Apr. 3	9.37	Oct. 3	10.57
Oct. 1	9.45	May 1	9.50	Nov. 6	10.52
16	9.37	31	9.57	Dec. 2	10.54
Nov. 4	9.05	June 29	9.72	Mar. 3, 1942	10.48
30	8.81	July 31	9.94	30	10.46
June 4, 1937	8.78	Aug. 30	10.06	May 4	9.56
Mar. 2	9.27	Sept. 29	9.79	Aug. 6	9.42
Apr. 1	9.00	Oct. 28	9.25	Sept. 8	9.43
May 4	9.32	Nov. 29	9.10	Oct. 6	9.44
June 2	9.37	Jan. 3, 1940	9.06	Nov. 10	9.40
July 4	8.56	Feb. 1	9.04	Dec. 11	9.39
Aug. 4	9.64	28	9.39	Jan. 25, 1943	9.34
Sept. 8	9.57	Mar. 27	9.92	Mar. 11	9.36
Nov. 3	9.40	Apr. 29	9.92	May 12	9.48
Dec. 1	9.49	May 23	10.04	June 2	9.47
30	9.25	June 26	10.17	July 6	9.63
Jan. 31, 1938	9.45	July 24	10.37	Aug. 3	9.72
Feb. 28	9.46	Aug. 28	11.48	Sept. 13	9.90
Mar. 31	9.27	Sept. 30	10.46	Oct. 5	9.94
May 4	9.35	Nov. 1	10.41	Nov. 5	9.87
31	9.22	Dec. 31	10.33	Dec. 8	9.82
June 30	9.34	Jan. 31, 1941	10.36		

N15. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 16 N., R. 39 W. Bored observation well, diameter 5 inches, depth 15 feet. Measuring point, top of casing, 3,450.29 feet above sea level, 1.7 feet above land-surface datum. Reference point, top of iron pin, 3,448.64 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

June 24, 1936	5.60	July 16, 1936	6.30	Oct. 1, 1936	5.94
26	5.70	30	6.10	16	5.76
30	5.80	Aug. 13	6.20	Nov. 4	5.54
July 3	5.75	28	6.05	30	5.40
7	6.15	Sept. 14	6.10	Jan. 4, 1937	5.26

## N15. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Feb. 2, 1937	5.23	May 1, 1939	4.70	June 5, 1941	5.11
Mar. 2	5.10	31	4.97	July 1	5.48
Apr. 1	4.94	June 29	5.42	Aug. 1	5.94
May 4	5.02	July 31	6.20	Sept. 4	6.20
June 2	5.24	Aug. 30	6.36	Oct. 3	5.64
July 8	6.05	Sept. 29	6.11	Nov. 6	5.26
Aug. 4	5.52	Oct. 28	5.83	Dec. 2	5.28
Sept. 8	5.48	Nov. 29	5.49	Mar. 3, 1942	5.14
Nov. 2	5.46	Jan. 3, 1940	5.36	30	4.90
Dec. 1	5.30	Feb. 1	5.29	May 4	3.02
30	5.20	28	5.16	Aug. 6	4.85
Jan. 31, 1938	5.15	Mar. 27	5.08	Sept. 8	5.00
Feb. 28	5.06	Apr. 29	5.02	Oct. 6	5.09
Mar. 31	5.02	May 23	5.17	Nov. 10	4.93
May 4	4.86	June 26	5.71	Dec. 11	4.80
31	4.20	July 24	6.39	Jan. 25, 1943	4.80
June 30	4.90	Aug. 28	6.46	May 12	4.77
Aug. 30	5.41	Sept. 30	6.08	June 2	4.81
Sept. 29	5.11	Nov. 1	5.72	July 6	5.29
Oct. 31	5.20	Dec. 31	5.41	Aug. 3	5.62
Nov. 29	5.05	Jan. 31, 1941	5.36	Sept. 13	5.95
Dec. 29	4.98	Feb. 26	5.32	Oct. 5	5.79
Jan. 30, 1939	4.90	Apr. 12	5.10	Nov. 5	5.43
Feb. 27	4.93	May 1	4.89	Dec. 8	5.24
Apr. 3	4.46				

N16. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 15 N., R. 39 W. Bored observation well, diameter 5 inches, depth 14.5 feet. Measuring point, top of casing, 3,440.38 feet above sea level, 1.4 feet above land-surface datum. Reference point, top of iron pin, 3,438.97 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet above land-surface datum, 1936-43

June 24, 1936	10.70	May 31, 1938	8.32	Dec. 31, 1940	11.94
26	10.70	June 30	9.40	Feb. 26, 1941	11.85
30	10.80	Aug. 30	9.76	Apr. 12	11.72
July 3	10.90	Sept. 29	9.80	May 1	11.50
7	10.90	Oct. 31	10.94	June 5	11.48
16	11.10	Nov. 29	10.98	July 1	11.50
30	11.30	Dec. 29	10.50	Aug. 1	11.80
Aug. 13	11.50	Jan. 30, 1939	10.87	Sept. 4	12.23
28	11.50	Feb. 27	10.93	Oct. 3	10.46
Sept. 14	11.69	Apr. 3	10.43	Nov. 6	11.85
Oct. 1	11.68	May 1	10.40	Dec. 2	11.80
16	11.63	31	10.52	Mar. 3, 1942	11.74
Nov. 4	11.53	June 29	10.93	30	11.46
30	11.44	July 31	11.41	May 4	9.90
Jan. 4, 1937	11.30	Aug. 30	11.80	Aug. 6	10.49
Feb. 2	11.31	Sept. 29	11.96	Sept. 8	10.94
Mar. 2	11.20	Oct. 28	11.77	Oct. 6	11.05
Apr. 1	11.04	Nov. 29	11.73	Nov. 10	11.00
May 4	11.03	Jan. 3, 1940	11.66	Dec. 11	10.96
June 2	11.17	Feb. 1	11.64	Jan. 25, 1943	11.00
July 8	11.47	28	11.54	Mar. 11	10.91
Aug. 4	10.91	Mar. 27	11.43	May 12	10.57
Sept. 8	11.10	Apr. 29	11.38	June 2	10.53
Nov. 2	11.50	May 23	11.40	July 6	10.25
Dec. 1	11.44	June 26	11.50	Aug. 3	9.30
30	11.39	July 24	11.97	Sept. 13	9.95
Jan. 31, 1938	11.31	Aug. 28	12.25	Oct. 5	10.78
Feb. 28	11.23	Sept. 30	12.38	Nov. 5	11.07
Mar. 31	11.12	Nov. 1	12.19	Dec. 8	11.25
May 4	10.95				

N17. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 15 N., R. 38 W. Bored observation well, diameter 5 inches, depth 10 feet. Measuring point, top of casing, 3,374.61 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,374.16 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet above land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
June 24, 1936	6.50	Mar. 31, 1938	7.67	Nov. 1, 1940	8.57
26	6.50	May 4	7.70	Dec. 31	8.68
30	6.50	31	6.84	Apr. 12, 1941	8.99
July 3	6.50	June 30	6.76	May 1	8.83
7	6.50	Aug. 30	6.62	June 5	8.80
16	6.60	Sept. 29	6.69	July 1	8.80
30	6.60	Oct. 31	6.77	Aug. 1	8.94
Aug. 13	6.70	Nov. 29	6.93	Sept. 4	8.85
28	6.69	Dec. 29	7.09	Oct. 3	8.86
Sept. 14	6.70	Jan. 30, 1939	7.17	Nov. 6	8.99
Oct. 1	6.72	Feb. 27	7.30	Dec. 2	9.20
16	6.74	Apr. 3	7.37	Mar. 30, 1942	9.32
Nov. 4	6.76	May 1	7.34	May 4	8.01
30	6.84	31	7.38	Aug. 6	8.13
Jan. 4, 1937	6.82	June 29	7.30	Sept. 8	8.19
Feb. 2	6.98	July 31	7.56	Oct. 6	8.29
Mar. 2	7.00	Aug. 30	7.74	Nov. 10	8.47
Apr. 1	7.03	Sept. 29	7.72	Dec. 11	8.51
May 4	7.13	Jan. 3, 1940	7.93	Jan. 25, 1943	8.62
June 2	7.19	Feb. 1	8.00	Mar. 11	8.65
July 8	7.27	28	8.09	May 12	8.90
Aug. 4	7.29	Mar. 27	8.10	June 2	8.90
Sept. 8	7.13	Apr. 29	8.19	July 6	5.21
Nov. 2	7.43	May 23	8.23	Aug. 3	3.39
Dec. 1	7.46	June 26	8.10	Sept. 13	7.52
30	7.46	July 24	8.36	Oct. 5	7.82
Jan. 31, 1938	7.56	Aug. 28	8.45	Nov. 5	8.12
Feb. 28	7.54	Sept. 30	8.52	Dec. 8	8.35

N18 (\*908, p. 211; 938, p. 171; 946, p. 212). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 15 N., R. 38 W. Measuring point is 0.9 foot above land-surface datum. Reference point, top of iron pin, 3,227.42 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	29.25	June 4	26.50	Sept. 13	23.59	Nov. 5	22.52
Mar. 11	28.60	July 6	25.47	Oct. 5	23.14	Dec. 8	22.03
May 13	27.15	Aug. 3	24.63				

N19. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 15 N., R. 38 W. Bored observation well, diameter 4 inches, depth 16 feet. Measuring point, top of casing, 3,167.46 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 3,166.47 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1936	10.90	Nov. 30, 1936	10.80	July 8, 1937	11.35
Aug. 13	10.80	Jan. 4, 1937	10.91	Aug. 3	11.44
28	10.81	Feb. 3	10.99	Sept. 7	11.34
Sept. 14	10.81	Mar. 2	11.06	Nov. 2	11.28
Oct. 1	10.80	Apr. 1	11.09	Dec. 1	11.95
19	10.80	May 4	11.16	30	11.03
Nov. 3	10.92	June 2	11.22	Jan. 31, 1938	10.95

N19. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Feb. 28, 1938	10.90	Sept. 29, 1939	10.22	May 1, 1941	10.16
Mar. 31	10.85	Oct. 28	10.10	June 6	10.10
May 4	10.78	Nov. 29	10.05	July 2	10.08
31	10.66	Jan. 3, 1940	10.06	Aug. 2	10.13
June 30	10.62	Feb. 1	10.06	Sept. 4	10.39
Aug. 30	10.58	28	10.04	Oct. 3	10.23
Sept. 29	10.23	Mar. 27	10.06	Nov. 6	10.19
Oct. 31	10.15	Apr. 29	10.13	Dec. 2	10.00
Nov. 29	10.06	May 23	10.19	Mar. 30, 1942	10.41
Dec. 29	10.02	June 26	10.25	May 4	10.15
Jan. 30, 1939	9.92	July 24	10.33	Jan. 25, 1943	10.50
Feb. 27	9.97	Aug. 28	10.34	Mar. 11	10.50
Apr. 3	9.79	Sept. 30	10.29	May 13	10.61
May 1	9.90	Nov. 1	10.22	June 4	10.58
31	9.80	Dec. 31	10.16	July 6	10.70
June 29	9.83	Jan. 31, 1941	10.17	Aug. 3	10.78
July 31	10.03	Feb. 26	10.18	Sept. 13	10.88
Aug. 30	10.23	Apr. 12	10.17	Dec. 7	10.59

N20. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 15 N., R. 38 W. Bored observation well, diameter 4 inches, depth 14.3 feet. Measuring point, top of casing, 3,130.31 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,129.75 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Aug. 18, 1936	9.90	Oct. 31, 1938	8.63	Feb. 26, 1941	9.32
28	9.92	Nov. 29	8.76	Apr. 4	9.25
Sept. 14	10.06	Dec. 29	8.86	May 1	9.02
Oct. 1	10.17	Jan. 30, 1939	8.95	June 6	8.88
19	10.15	Feb. 27	9.03	July 2	9.24
Nov. 3	9.98	Apr. 3	9.01	Aug. 2	9.57
30	9.83	May 1	8.69	Sept. 4	9.85
Jan. 4, 1937	9.61	31	8.78	Oct. 3	10.02
Feb. 3	9.54	June 29	9.02	Nov. 6	10.10
Mar. 2	9.50	July 31	9.04	Dec. 2	10.24
Apr. 1	9.06	Aug. 30	8.48	Mar. 30, 1942	9.80
May 4	8.52	Sept. 29	8.98	May 4	9.38
June 2	8.26	Oct. 28	9.16	Aug. 10	8.22
July 7	8.43	Nov. 29	9.23	Sept. 8	9.29
Aug. 3	8.95	Jan. 2, 1940	9.34	Oct. 6	9.34
Sept. 7	9.52	Feb. 1	9.27	Nov. 10	9.44
Nov. 2	8.22	28	9.35	Dec. 11	9.49
Dec. 1	8.20	Mar. 27	9.36	Jan. 25, 1943	9.45
30	8.14	Apr. 29	9.40	Mar. 11	9.54
Jan. 31, 1938	8.12	May 23	9.47	May 13	9.44
Feb. 28	8.13	June 26	8.87	June 4	9.55
Mar. 31	8.11	July 24	9.59	July 6	9.68
May 4	7.68	Aug. 28	10.20	Aug. 3	9.90
31	8.07	Sept. 30	8.15	Sept. 13	10.31
June 16	7.74	Nov. 1	9.17	Oct. 5	10.47
30	8.00	Dec. 31	9.34	Nov. 4	10.43
Aug. 30	8.29	Jan. 31, 1941	9.36	Dec. 7	10.43
Sept. 29	8.42				

N23. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 15 N., R. 38 W. Bored observation well, diameter 4 inches. Measuring point, top of casing, 3,147.39 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,146.91 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.



## N23. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1936	16.30	May 31, 1938	16.77	Apr. 29, 1940	18.35
Aug. 13	16.70	June 16	16.58	May 23	18.43
28	16.92	30	16.54	June 26	18.28
Sept. 14	17.00	Aug. 30	16.68	July 24	17.49
Oct. 1	16.97	Sept. 29	16.37	Aug. 28	17.27
19	16.81	Oct. 31	16.33	Sept. 30	17.79
Nov. 3	16.76	Nov. 29	16.18	Nov. 1	17.56
30	15.92	Dec. 29	16.56	Dec. 31	17.98
Jan. 4, 1937	16.30	Jan. 30, 1939	16.66	Jan. 31, 1941	18.70
Feb. 3	16.20	Feb. 27	16.95	Feb. 26	18.13
Mar. 2	15.99	Apr. 3	17.55	Apr. 12	15.80
Apr. 1	15.80	May 1	16.66	May 1	14.78
May 4	15.85	31	17.73	July 2	13.15
June 2	15.50	June 29	17.38	Aug. 2	12.65
July 7	16.32	July 31	17.93	Sept. 4	14.81
Aug. 3	16.82	Aug. 30	18.21	Oct. 3	15.39
Sept. 7	16.94	Sept. 29	18.20	Nov. 6	14.57
Dec. 1	17.21	Oct. 28	18.14	Dec. 2	12.75
30	16.79	Nov. 29	18.20	Mar. 3, 1942	8.45
Jan. 31, 1938	16.81	Jan. 2, 1940	18.35	30	8.10
Feb. 28	16.69	Feb. 1	18.58	May 4	a 7.17
Mar. 31	16.94	28	18.60	Nov. 4, 1943	1.78
May 4	16.74	Mar. 27	18.78	Dec. 7	2.40

N24. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 15 N., R. 38 W. Bored observation well, diameter 4 inches, depth 12.4 feet. Measuring point, top of casing 3,308.84 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,308.01 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

July 30, 1936	7.20	Nov. 30, 1938	7.45	Apr. 7, 1941	8.50
Aug. 13	7.25	Dec. 30	7.53	May 1	8.28
28	7.09	Jan. 30, 1939	7.56	June 10	8.48
Sept. 14	7.27	Feb. 28	7.60	July 5	8.72
Oct. 1	7.32	Apr. 4	7.23	Aug. 4	8.90
16	7.23	May 2	7.35	Sept. 2	8.95
Nov. 4	7.30	June 1	7.02	Oct. 1	8.81
30	7.31	30	7.39	Nov. 4	8.58
Dec. 31	7.30	Aug. 1	8.00	Dec. 1	8.69
Feb. 2, 1937	7.36	31	8.33	Feb. 2, 1942	8.75
Mar. 2	7.30	Sept. 30	8.30	26	8.70
Apr. 2	7.15	Oct. 30	8.22	Apr. 2	8.39
May 4	7.35	Dec. 1	8.16	May 7	6.66
June 1	7.40	Jan. 4, 1940	8.16	Aug. 7	7.12
July 8	7.53	Feb. 2	8.19	Sept. 9	7.19
Aug. 3	7.33	29	8.14	Nov. 11	7.16
Sept. 7	7.36	Apr. 1	8.13	Dec. 16	7.07
Nov. 3	7.60	30	8.14	Jan. 26, 1943	7.05
Dec. 2	7.60	May 24	8.10	Mar. 17	6.91
31	7.62	June 27	8.44	May 14	6.78
Feb. 1, 1938	7.64	July 25	8.71	June 10	6.78
Mar. 1	7.65	Aug. 28	8.85	July 8	6.76
Apr. 1	7.67	Oct. 1	8.92	Aug. 8	6.91
May 5	7.23	31	8.74	Sept. 14	7.33
June 1	6.02	Jan. 2, 1941	8.66	Nov. 6	7.25
Aug. 31	7.25	Feb. 4	8.57	Dec. 8	7.20
Nov. 1	7.30	Mar. 3	8.57		

a Well flooded from January through October 1943.

N25 (\*908, p. 212; 938, p. 171; 946, p. 213). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 15 N., R. 39 W. Measuring point is 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,407.54 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	35.47	June 10	35.41	Sept. 14	35.44	Nov. 6	35.41
Mar. 17	35.41	July 8	35.41	Oct. 6	35.41	Dec. 8	35.39
May 14	35.39	Aug. 5	35.42				

N26. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 16 N., R. 39 W. Bored observation well, diameter 4 inches, depth 11 feet. Measuring point, top of casing, 3,460.81 feet above sea level, 0.1 foot below land-surface datum. Reference point, top of iron pin, 3,460.90 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1936	7.90	Nov. 1, 1938	8.39	Apr. 7, 1941	10.46
Aug. 13	8.05	30	8.94	May 2	10.43
28	7.99	Dec. 29	9.00	June 10	10.61
Sept. 14	8.00	Jan. 30, 1939	8.39	July 5	10.62
Oct. 1	8.02	Feb. 28	9.08	Aug. 4	10.74
16	8.03	Apr. 4	9.08	Sept. 2	10.88
Nov. 4	7.99	May 2	9.04	Oct. 1	10.82
30	8.04	June 1	9.13	Nov. 4	10.88
Dec. 31	8.00	30	9.23	Dec. 1	10.80
Feb. 2, 1937	8.08	Aug. 1	9.43	Feb. 2, 1942	10.90
Mar. 1	8.15	31	9.56	26	10.90
Apr. 2	8.16	Sept. 30	9.59	Apr. 2	10.79
May 4	8.27	Oct. 30	9.57	May 7	9.38
June 1	8.36	Dec. 1	9.56	Aug. 7	9.74
July 8	8.55	Jan. 4, 1940	9.63	Sept. 9	9.81
Aug. 4	8.53	Feb. 2	9.68	Oct. 7	9.76
Sept. 7	8.49	29	9.68	Nov. 11	9.72
Nov. 3	8.65	Apr. 1	9.73	Dec. 16	9.70
Dec. 2	8.63	30	9.73	Jan. 26, 1943	9.70
31	8.69	May 24	9.80	Mar. 17	9.67
Feb. 1, 1938	8.71	June 27	9.99	May 14	9.70
Mar. 1	8.78	July 25	10.17	June 10	9.75
Apr. 1	8.79	Aug. 29	10.29	July 8	9.86
May 5	8.82	Oct. 1	10.29	Aug. 5	9.98
June 1	8.37	31	10.31	Sept. 14	10.13
July 1	8.44	Jan. 2, 1941	10.36	Oct. 6	10.20
Aug. 31	8.97	Feb. 4	10.40	Nov. 6	10.09
Sept. 30	8.92	Mar. 3	10.41	Dec. 8	10.08

N27. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 16 N., R. 39 W. Bored observation well, diameter 4 inches, depth 15.5 feet. Measuring point, top of casing, 3,492.30 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,491.66 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1936	9.40	Feb. 2, 1937	10.03	Dec. 2, 1937	10.37
Aug. 13	9.40	Mar. 1	10.15	31	10.47
28	9.42	Apr. 2	10.07	Feb. 1, 1938	10.40
Sept. 14	9.48	May 4	10.09	Mar. 1	10.34
Oct. 1	9.57	June 1	10.17	Apr. 1	10.33
16	9.64	July 8	10.25	May 5	10.19
Nov. 4	9.65	Aug. 4	9.87	June 1	8.49
30	9.83	Sept. 7	9.50	July 1	9.21
Dec. 31	9.95	Nov. 3	10.26	Aug. 30	9.61

## N27. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1938	9.82	Apr. 30, 1940	11.36	Feb. 2, 1942	12.40
Nov. 1	9.94	May 24	11.32	26	12.30
30	10.16	June 27	9.49	Apr. 2	12.15
Dec. 30	10.32	July 25	11.53	May 7	11.24
Jan. 31, 1939	10.35	Aug. 29	11.64	Aug. 7	9.46
Feb. 28	10.14	Oct. 1	11.72	Sept. 9	9.42
Apr. 4	10.26	31	11.82	Oct. 7	9.48
May 2	10.16	Jan. 2, 1941	12.00	Nov. 11	9.68
June 1	10.09	Feb. 4	12.04	Dec. 16	9.81
30	10.22	Mar. 3	12.01	Jan. 26, 1943	9.91
Aug. 1	10.45	Apr. 7	12.14	Mar. 17	9.87
31	10.55	May 2	12.04	May 14	9.76
Sept. 30	10.65	June 10	11.96	June 10	9.86
Oct. 30	10.78	July 5	12.01	July 8	9.95
Dec. 1	10.91	Aug. 4	12.15	Aug. 5	10.08
Jan. 4, 1940	11.04	Sept. 2	12.14	Sept. 14	10.19
Feb. 2	11.14	Oct. 1	12.20	Oct. 6	10.34
28	11.22	Nov. 4	12.01	Nov. 6	10.47
Apr. 1	11.29	Dec. 2	12.25	Dec. 8	10.59

N28. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 16 N., R. 39 W. Bored observation well, diameter 4 inches, depth 12.9 feet. Measuring point, top of casing, 3,509.45 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,508.83 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

July 30, 1936	8.90	Nov. 30, 1938	9.10	May 2, 1941	9.71
Aug. 13	8.50	Dec. 30	9.12	June 10	9.65
28	9.05	Jan. 31, 1939	8.95	July 5	9.87
Sept. 14	9.11	Feb. 28	9.04	Aug. 4	10.16
Oct. 1	9.17	Mar. 4	8.90	Sept. 2	10.38
16	9.19	May 2	8.87	Oct. 1	10.34
Nov. 4	9.06	June 1	8.90	Nov. 4	10.10
Dec. 31	9.02	30	9.15	Dec. 2	10.05
Feb. 2, 1937	8.44	Aug. 1	9.44	Feb. 2, 1942	10.02
Mar. 1	8.90	31	9.60	26	10.14
Apr. 2	8.73	Sept. 30	9.75	Apr. 2	9.83
May 4	8.83	Oct. 30	9.75	May 7	8.75
June 1	8.98	Dec. 1	9.68	Aug. 7	8.84
July 8	9.15	Jan. 4, 1940	9.69	Sept. 9	8.90
Aug. 4	9.21	Feb. 2	9.70	Oct. 7	8.87
Sept. 7	9.10	29	9.56	Nov. 11	8.88
Nov. 3	9.10	Apr. 1	9.50	Dec. 16	8.78
Dec. 2	9.01	30	10.52	Jan. 26, 1943	8.79
31	9.04	May 24	9.56	Mar. 17	8.70
Feb. 1, 1938	8.92	June 27	9.81	May 14	8.71
Mar. 1	8.89	July 25	10.00	June 10	8.80
Apr. 1	8.97	Aug. 29	10.18	July 8	8.98
May 5	8.90	Oct. 1	10.21	Aug. 5	9.19
June 1	8.63	31	10.22	Sept. 14	9.36
July 1	8.69	Jan. 2, 1941	10.13	Oct. 6	9.50
Aug. 31	9.12	Feb. 4	10.01	Nov. 6	9.41
Sept. 30	9.10	Mar. 3	9.95	Dec. 8	9.34
Nov. 1	9.05	Apr. 7	9.87		

N30. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 16 N., R. 39 W. Bored observation well, diameter 4 inches, depth 12.3 feet. Measuring point, top of casing, 3,537.87 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 3,537.23 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## N30. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Ju y 30, 1936	7.90	Sept. 30, 1938	8.04	June 10, 1941	8.95
Aug. 13	8.20	Nov. 1	8.08	July 5	8.80
28	8.20	30	8.26	Aug. 4	9.01
Sept. 14	8.34	Dec. 30	8.45	Sept. 2	9.49
Oct. 1	8.45	Jan. 31, 1939	8.37	Oct. 1	8.51
16	8.47	Aug. 1	8.43	Nov. 4	9.24
Nov. 4	8.39	31	8.92	Dec. 1	9.24
30	8.48	Sept. 30	9.15	Feb. 2, 1942	9.43
Dec. 31	8.50	Oct. 30	9.19	26	6.78
Feb. 2, 1937	8.42	Dec. 1	9.15	Apr. 2	9.23
Mar. 1	8.50	Jan. 4, 1940	9.25	May 7	6.98
Apr. 2	8.34	Feb. 2	9.32	Aug. 7	5.87
May 4	8.44	29	9.27	Sept. 9	6.78
June 1	8.47	Apr. 1	8.79	Oct. 7	6.91
July 8	8.57	30	9.32	Nov. 11	7.15
Aug. 4	8.43	May 24	9.28	Dec. 16	7.55
Sept. 7	8.56	June 27	9.36	Jan. 26, 1943	7.53
Nov. 2	8.38	July 30	9.47	Mar. 17	7.69
Dec. 2	8.38	Aug. 29	9.65	May 14	7.80
31	8.35	Oct. 1	9.76	June 10	7.85
Feb. 1, 1938	8.43	31	9.72	July 8	8.00
Mar. 1	8.46	Jan. 2, 1941	9.75	Aug. 5	8.24
Apr. 1	8.60	Feb. 4	9.80	Sept. 14	8.31
May 5	8.38	Mar. 3	9.73	Oct. 6	8.43
June 1	8.16	Apr. 7	9.69	Nov. 6	8.53
July 1	7.60	May 2	9.46	Dec. 8	8.62
Aug. 31	7.92				

N32. Central Nebraska Public Power and Irrigation District. NE  $\frac{1}{2}$  SE  $\frac{1}{4}$  sec. 2, T. 16 N., R. 40 W. Bored observation well, diameter 4 inches, depth 16 feet. Measuring point, up and including June 30, 1939, top of casing, 3,547.28 feet above sea level, 1.6 feet above land-surface datum. New measuring point since Feb. 13, 1940, top of casing, 3,545.73 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 3,545.71 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Oct. 1, 1936	11.14	Dec. 30, 1938	11.68	Aug. 4, 1941	12.97
16	11.13	Jan. 31, 1939	11.65	Sept. 2	13.08
Nov. 4	11.09	Feb. 28	11.73	Oct. 1	13.12
30	11.13	Apr. 4	11.79	Nov. 4	13.16
Dec. 31	11.17	May 2	11.82	Dec. 2	13.23
Feb. 2, 1937	11.07	June 1	11.76	Feb. 2, 1942	13.28
Mar. 1	11.23	30	11.67	26	13.25
Apr. 2	11.15	Feb. 13, 1940	12.69	Apr. 2	13.28
May 4	11.29	29	12.32	May 7	12.54
July 8	10.96	Apr. 1	12.37	Aug. 7	11.85
Aug. 4	11.49	30	12.42	Sept. 9	12.18
Sept. 7	11.57	May 24	12.46	Oct. 7	12.18
Nov. 3	11.55	June 27	12.54	Nov. 11	12.24
Dec. 2	11.50	July 25	12.68	Dec. 16	12.18
31	11.54	Aug. 29	12.77	Jan. 26, 1943	12.16
Feb. 1, 1938	11.53	Oct. 1	12.77	Mar. 17	12.11
Mar. 1	11.57	31	12.77	May 14	12.11
Apr. 1	11.67	Jan. 2, 1941	12.85	June 10	12.16
May 5	11.62	Feb. 4	12.89	July 8	12.21
June 1	11.43	Mar. 3	12.83	Aug. 5	12.20
July 1	11.30	Apr. 7	12.85	Sept. 14	12.29
Aug. 31	11.58	May 2	12.94	Oct. 6	12.32
Sept. 30	11.96	June 10	12.85	Nov. 6	12.25
Nov. 1	11.52	July 5	12.35	Dec. 8	12.27
30	11.61				

N33. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 16 N., R. 40 W. Bored observation well, diameter 4 inches, depth 17 feet. Measuring point, top of casing, 3,527.65 feet above sea level, level with land-surface datum. Reference point, top of iron pin, 3,527.66 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1936	11.36	Jan. 31, 1939	11.29	June 10, 1941	11.79
16	11.40	Feb. 28	11.37	July 5	11.98
Nov. 5	11.12	Apr. 4	11.32	Aug. 4	12.45
30	11.05	May 2	11.00	Sept. 2	12.74
Dec. 31	11.00	June 1	11.06	Oct. 1	12.78
Feb. 2, 1937	10.98	30	11.05	Nov. 4	12.50
Mar. 1	11.01	Aug. 1	11.82	Dec. 1	12.50
Apr. 2	10.96	31	12.24	Feb. 2, 1942	12.52
May 4	10.95	Sept. 30	12.34	26	12.55
June 1	11.08	Oct. 30	12.02	Apr. 2	12.58
July 8	11.45	Dec. 1	11.87	May 7	10.22
Aug. 4	11.07	Jan. 4, 1940	11.81	Aug. 6	11.21
Sept. 7	11.66	Feb. 29	11.83	Sept. 9	11.74
Nov. 3	11.44	Apr. 1	11.90	Oct. 7	11.79
Dec. 2	11.33	30	11.82	Nov. 11	11.60
31	11.32	May 24	11.99	Dec. 11	11.55
Feb. 1, 1938	11.29	June 27	12.28	Jan. 26, 1943	11.58
Mar. 1	11.33	July 25	12.48	Mar. 17	11.52
Apr. 1	11.34	Aug. 29	12.70	May 14	11.52
May 5	11.23	Oct. 1	12.67	June 10	11.57
June 1	10.54	31	12.42	July 8	11.85
July 1	10.26	Jan. 2, 1941	12.29	Aug. 5	12.92
Aug. 31	11.53	Feb. 4	12.34	Sept. 14	12.20
Sept. 30	11.54	Mar. 3	12.32	Oct. 6	12.26
Nov. 1	11.28	Apr. 7	12.28	Nov. 6	11.91
30	11.25	May 2	12.06	Dec. 8	11.82
Dec. 30	11.53				

N37 (\*886, p. 323; 938, p. 171; 908, p. 212; 946, p. 213). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 16 N., R. 41 W. Measuring point is 0.1 foot above land-surface datum. Reference point, top of iron pin, 3,297.40 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	12.32	June 10	12.72	Aug. 5	14.46	Oct. 6	15.29
Mar. 17	12.34	July 8	13.66	Sept. 14	15.57	Nov. 6	14.10
May 14	12.60						

N40. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 16 N., R. 42 W. Bored observation well, diameter 4 inches, depth 20 feet. Measuring point, top of casing, 3,300.99 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 3,300.06 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1936	12.22	Apr. 2, 1937	11.29	Dec. 2, 1937	10.59
Oct. 16	11.78	May 3	11.45	31	10.55
Nov. 5	11.29	June 1	11.45	Feb. 1, 1938	10.79
30	11.22	July 7	11.53	Mar. 1	10.86
Dec. 31	11.28	Aug. 3	11.44	Apr. 1	11.18
Feb. 2, 1937	11.10	Sept. 8	11.31	May 5	11.12
Mar. 1	11.18	Nov. 3	10.73	June 1	10.90

N40. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
July 1, 1938	11.47	Apr. 1, 1940	11.40	Dec. 1, 1941	11.10
Aug. 31	11.81	30	11.58	Feb. 2, 1942	11.14
Sept. 30	11.26	May 24	11.68	26	11.10
Nov. 1	11.38	June 27	11.77	Apr. 2	11.26
30	11.26	July 25	12.36	May 7	10.09
Dec. 30	11.23	Aug. 29	12.95	Aug. 7	11.79
Jan. 31, 1939	11.18	Oct. 1	12.57	Sept. 9	11.30
Feb. 28	11.15	31	11.86	Oct. 7	10.88
Apr. 4	11.28	Jan. 2, 1941	11.44	Nov. 11	11.03
May 2	11.50	Feb. 4	11.60	Dec. 16	10.85
June 1	11.95	Mar. 3	11.68	Jan. 26, 1943	10.79
30	11.96	Apr. 9	11.80	Mar. 17	11.29
Aug. 1	12.43	May 2	11.85	May 14	11.74
31	12.57	June 10	11.54	June 10	11.78
Sept. 30	11.64	July 3	11.68	July 8	12.15
Oct. 30	10.84	Aug. 4	12.01	Aug. 5	12.03
Dec. 1	11.07	Sept. 2	11.82	Sept. 14	11.74
Jan. 4, 1940	11.08	Oct. 1	11.39	Oct. 6	11.32
Feb. 2	10.45	Nov. 4	11.01	Nov. 6	11.42
29	11.08				

N41 (\*908, p. 213; 938, p. 171; 946, p. 213). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 15 N., R. 39 W. Measuring point is 0.1 foot above land-surface datum. Reference point, top of iron pin, 3,282.49 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	64.75	June 2	58.33	Sept. 13	56.32	Nov. 5	55.64
Mar. 11	61.97	July 6	57.03	Oct. 5	55.63	Dec. 8	55.78
May 12	59.19	Aug. 8	56.24				

N42 (\*908, p. 213; 938, p. 172; 946, p. 213). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 15 N., R. 38 W. Measuring point is 0.1 foot above land-surface datum. Reference point, top of iron pin, 3,262.32 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	77.36	June 4	57.63	Sept. 13	56.22	Nov. 5	57.63
Mar. 11	77.20	July 6	55.71	Oct. 5	56.63	Dec. 7	58.61
May 13	60.09	Aug. 3	55.20				

S10 (\*908, p. 213; 938, p. 172; 946, p. 213). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 14 N., R. 38 W. Measuring point is 2.5 feet above land-surface datum. Reference point, top of iron pin, 3,153.50 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	16.52	June 15	15.55	Sept. 17	15.22	Nov. 5	15.07
Mar. 23	16.47	July 7	15.38	Oct. 6	15.26	Dec. 8	15.04
May 13	15.72	Aug. 4	15.11				

S16 (\*908, p. 214; 938, p. 172; 946, p. 213). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 14 N., R. 38 W. Measuring point is 1.3 feet above land-surface datum. Reference point, top of iron pin, 3,362.37 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	187.22	June 15	187.40	Sept. 17	187.12	Nov. 6	186.56
Mar. 23	187.37	July 7	187.56	Oct. 6	187.12	Dec. 8	186.62
May 13	185.72	Aug. 5	187.15				

S18 (\*886, p. 323; 908, p. 214; 930, p. 172; 946, p. 213). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 14 N., R. 38 W. Measuring point is 0.4 foot above land-surface datum. Reference point, top of iron pin, 3,358.16 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	162.08	June 11	161.01	Sept. 17	160.61	Nov. 5	159.60
Mar. 23	160.39	July 7	161.20	Oct. 6	160.55	Dec. 8	159.36
May 13	158.65	Aug. 5	160.87				

S19 (\*908, p. 214; 938, p. 172; 946, p. 213). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 14 N., R. 38 W. Measuring point is 1.8 feet above land-surface datum. Reference point, top of iron pin, 3,358.64 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	163.20	June 11	157.81	Sept. 17	154.23	Nov. 5	153.31
Mar. 17	162.35	July 7	156.45	Oct. 6	153.88	Dec. 8	153.39
May 13	161.33	Aug. 5	155.15				

S20 (\*908, p. 215; 938, p. 172; 946, p. 214). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 14 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum. Reference point, top of iron pin, 3,379.60 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 27	181.80	June 11	179.67	Aug. 5	179.70
Mar. 17	177.70	July 7	179.79	Sept. 17	179.23

S21 (\*886, p. 323; 908, p. 215; 938, p. 172; 946, p. 214). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 14 N., R. 34 W. Measuring point is 0.2 foot above land-surface datum. Reference point, top of iron pin, 3,335.33 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	105.47	May 13	105.77	July 7	105.57	Sept. 17	105.50
Mar. 17	101.59	June 11	104.44	Aug. 5	105.59		

S22 (\*908, p. 215; 938, p. 172; 946, p. 214). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 15 N., R. 39 W. Measuring point is 0.3 foot below land-surface datum. Reference point, top of iron pin, 3,320.90 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	99.59	May 14	94.62	July 8	92.70	Sept. 14	91.58
Mar. 17	96.65	June 10	93.33	Aug. 5	92.10		

S23 (\*886, p. 323; 908, p. 216; 938, p. 173; 946, p. 214). C. Samuelson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 15 N., R. 40 W. Measuring point is 4.3 feet above land-surface datum. Reference point, top of iron pin, 3,338.72 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	108.20	May 14	107.23	July 8	107.23	Sept. 14	106.87
Mar. 17	106.94	June 10	107.34	Aug. 5	107.19		

S24 (\*908, p. 216; 938, p. 173; 946, p. 214). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 15 N., R. 40 W. Measuring point is 12.5 feet below land-surface datum. Reference point, top of iron pin, 3,304.16 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	72.98	May 14	72.00	July 8	71.71	Sept. 14	71.65
Mar. 17	72.18	June 10	71.80	Aug. 5	71.59		

S25. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 13 N., R. 39 W. Bored observation well, diameter 5 inches, depth 11 feet. Measuring point, top of casing, 3,242.04 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 3,241.56 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1937	6.93	May 2, 1939	4.60	July 1, 1941	6.59
Feb. 1	6.58	June 1	5.56	Aug. 4	6.88
Mar. 1	6.44	30	6.05	Sept. 2	7.17
Apr. 6	6.45	Aug. 1	6.58	Oct. 1	7.28
May 5	6.11	31	6.94	Nov. 4	6.91
June 3	5.99	Sept. 30	7.22	Dec. 1	6.65
July 6	7.05	Oct. 30	7.37	Feb. 2, 1942	6.26
Aug. 2	6.97	Dec. 1	7.40	26	6.20
Nov. 2	7.36	Jan. 7, 1940	7.26	Apr. 7	5.72
Dec. 1	7.26	Feb. 2	6.85	May 8	1.71
30	7.00	29	6.62	Aug. 12	1.48
Feb. 1, 1938	6.78	Apr. 1	6.44	Sept. 9	4.69
28	6.65	30	6.77	Oct. 8	5.29
Mar. 31	6.85	May 24	5.25	Nov. 13	5.09
May 5	6.71	June 27	5.25	Dec. 15	5.03
June 1	4.52	July 25	6.28	Jan. 27, 1943	4.51
July 1	6.16	Aug. 29	6.77	Mar. 19	4.51
Aug. 31	6.70	Oct. 1	7.24	May 18	5.14
Sept. 30	5.61	31	7.41	June 11	4.71
Nov. 1	6.20	Jan. 2, 1941	7.10	July 9	5.13
30	6.32	Feb. 4	6.33	Aug. 2	5.72
Dec. 30	6.15	Mar. 3	6.74	Sept. 15	6.08
Jan. 31, 1939	5.36	Apr. 10	6.88	Oct. 6	6.23
Feb. 28	5.30	May 5	6.64	Nov. 5	6.16
Apr. 4	4.29	June 6	6.92	Dec. 9	6.00

S26 (\*908, p. 216; 938, p. 173; 946, p. 214). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 13 N., R. 38 W. Measuring point is 2.1 feet above land-surface datum. Reference point, top of iron pin, 3,197.60 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	12.55	June 12	13.49	Sept. 15	15.38	Nov. 6	15.10
Mar. 19	13.11	July 9	14.23	Oct. 6	15.40	Dec. 9	14.81
May 18	13.79	Aug. 2	15.79				

S27 (\*908, p. 217; 938, p. 173; 946, p. 214). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 13 N., R. 37 W. Measuring point is 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,157.45 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.



S27. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	11.13	June 12	11.22	Sept. 15	12.85	Nov. 6	12.53
Mar. 19	11.30	July 9	11.81	Oct. 6	12.86	Dec. 9	12.36
May 18	11.92	Aug. 2	12.40				

S28. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 13 N., R. 36 W. Bored observation well, diameter 5 inches, depth 10 feet. Measuring point, top of casing, 3,117.77 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 3,117.38 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Dec. 2, 1936	5.58	Apr. 5, 1939	3.28	July 1, 1941	5.39
Jan. 4, 1937	5.36	May 4	4.00	Aug. 4	5.58
Feb. 2	4.64	June 3	4.37	Sept. 2	5.95
Mar. 3	4.42	July 6	5.39	Oct. 1	5.85
Apr. 1	4.68	Aug. 2	5.75	Nov. 4	5.54
May 5	5.34	Sept. 1	5.97	Dec. 1	4.94
June 3	5.46	Oct. 4	5.92	Feb. 2, 1942	4.45
July 6	5.68	Dec. 4	5.68	Mar. 2	4.20
Aug. 2	5.93	Jan. 2, 1940	5.56	Apr. 7	4.18
Nov. 2	5.89	31	5.15	May 8	2.03
Dec. 3	5.54	Mar. 5	4.89	Aug. 12	5.61
31	6.15	Apr. 2	4.94	Sept. 10	5.73
Feb. 2, 1938	3.90	May 1	5.38	Oct. 8	5.70
Mar. 2	4.58	27	5.53	Nov. 13	5.27
Apr. 2	5.30	June 28	5.54	Dec. 15	5.08
May 6	4.92	July 26	5.85	Jan. 28, 1943	4.10
June 2	4.44	Aug. 30	6.09	Mar. 19	4.39
July 2	4.95	Sept. 27	6.16	May 18	5.38
Sept. 1	5.78	Oct. 30	5.99	June 12	4.44
Oct. 3	4.72	Dec. 30	5.43	July 9	5.40
Nov. 4	4.91	Feb. 3, 1941	5.33	Aug. 2	5.86
Dec. 3	4.72	28	5.12	Sept. 15	6.26
31	4.40	Apr. 12	5.38	Oct. 6	6.32
Feb. 5, 1939	3.92	May 7	5.25	Nov. 6	6.06
Mar. 1	3.60	June 6	5.45	Dec. 9	5.86

S29. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 13 N., R. 36 W. Bored observation well, diameter 5 inches, depth 16 feet. Measuring point, top of casing, 3,220.14 feet above sea level, 2.3 feet above land-surface datum. Reference point, top of iron pin, 3,217.81 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Dec. 3, 1936	13.29	June 1, 1938	12.55	Nov. 6, 1939	11.70
Jan. 4, 1937	13.02	July 1	12.59	Dec. 1	13.72
Feb. 1	11.72	Sept. 2	13.31	Jan. 8, 1940	13.53
Mar. 2	12.51	Oct. 3	12.58	Feb. 2	13.16
Apr. 1	12.44	Nov. 4	12.72	29	12.98
May 5	12.80	30	12.06	Apr. 9	12.91
June 4	13.17	Dec. 31	12.25	30	13.17
July 7	13.45	Feb. 6, 1939	11.61	May 24	13.55
Aug. 2	13.91	Mar. 6	11.30	June 28	13.91
Nov. 2	14.38	Apr. 4	10.73	July 25	14.46
Dec. 3	13.58	May 9	11.11	Aug. 29	14.57
31	13.16	June 16	12.31	Oct. 1	14.45
Feb. 2, 1938	12.93	30	12.74	31	14.12
Mar. 2	13.12	Aug. 1	13.88	Jan. 3, 1941	13.49
Apr. 1	12.99	31	14.08	Feb. 5	13.26
May 5	12.80	Sept. 30	14.21	Mar. 3	13.10

S29. Central Nebraska Public Power and Irrigation District--Continued.  
 Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Apr. 12, 1941	13.14	Feb. 26, 1942	12.71	Mar. 19, 1943	12.51
May 5	13.13	Apr. 7	11.96	May 18	12.58
June 6	13.38	May 8	9.94	June 11	12.46
July 1	13.55	Aug. 12	13.37	July 9	12.98
Aug. 4	14.11	Sept. 10	13.64	Aug. 2	13.93
Sept. 2	14.57	Oct. 8	13.64	Sept. 15	14.47
Oct. 1	14.37	Nov. 13	12.84	Oct. 6	14.59
Nov. 4	13.73	Dec. 15	12.79	Nov. 5	14.20
Dec. 1	13.25	Jan. 27, 1943	12.60	Dec. 9	13.84
Feb. 2, 1942	12.90				

S32 (\*908, p. 217; 938, p. 173; 946, p. 214). Ellen Kelley. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 14 N., R. 39 W. Measuring point is 1.1 feet above land-surface datum. Reference point, top of iron pin, 3,242.20 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	29.00	May 13	20.54	July 7	19.81	Sept. 17	22.45
Mar. 17	26.01	June 11	20.16	Aug. 5	20.75		

S34. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 15 N., R. 40 E. Unused drilled stock well, diameter 3 $\frac{1}{2}$  inches, depth 86 feet. Measuring point, top of casing, 3,260.35 feet above sea level, 1.4 feet above land-surface datum. Reference point, top of iron pin, 3,258.98 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
May 3, 1937	59.32	May 2, 1939	59.26	Mar. 3, 1941	59.49
June 1	59.45	June 1	59.38	Apr. 10	59.54
July 7	59.51	30	59.46	May 5	59.55
Aug. 3	59.54	Aug. 1	59.56	June 12	59.68
Sept. 8	59.62	31	59.62	July 3	59.68
Nov. 3	59.55	Sept. 30	59.68	Aug. 4	59.75
Dec. 2	59.48	Oct. 30	59.63	Sept. 2	59.31
31	59.37	Dec. 1	59.58	Oct. 1	59.35
Feb. 1, 1938	59.27	Jan. 4, 1940	59.50	Nov. 4	59.74
Mar. 1	59.24	Feb. 2	59.35	Dec. 1	59.66
Apr. 1	59.32	29	59.26	Apr. 2, 1942	59.33
May 5	59.38	Apr. 1	59.35	May 7	58.30
June 1	59.38	30	59.42	Nov. 14	43.75
July 1	59.49	May 24	59.52	Dec. 16	42.25
Aug. 31	59.58	June 27	59.56	Jan. 26, 1943	40.33
Sept. 30	58.49	July 25	59.72	Mar. 17	38.01
Nov. 1	59.46	Aug. 29	59.79	May 14	34.90
30	59.40	Oct. 1	59.94	June 10	34.40
Dec. 30	59.30	31	60.07	July 8	34.01
Jan. 31, 1939	59.15	Jan. 2, 1941	59.61	Aug. 5	34.66
Feb. 28	59.12	Feb. 4	59.48	Sept. 14	36.99
Apr. 4	59.16				

Keya Paha County

375 (\*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 214). University of Nebraska. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 32 N., R. 20 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.53. Water level, in feet below land-surface datum, 1943: June 27, 2.65.

Kimball County

88 (\*817, p. 143; 840, p. 208; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). W. Settlemyre. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 15 N., R. 57 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 134.45.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 12	34.44	June 9	34.21	Aug. 16	34.87	Nov. 17	34.72
Apr. 19	34.34	July 7	34.42	Sept. 11	34.99	Dec. 22	34.66
May 26	34.20						

89 (\*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). H. McGowan. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 16 N., R. 54 W. No measurements made in 1943.

327 (\*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). Kimball Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 15 N., R. 55 W. No measurements made in 1943.

Knox County

67 (\*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). H. Krohn. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 30 N., R. 3 W. No measurements made in 1943.

71 (\*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). F. Stingley. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 29 N., R. 5 W. No measurements made in 1943.

335 (\*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 33 N., R. 7 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.94. Water level, in feet below land-surface datum, 1943: June 26, 10.41.

336 (\*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). W. MacGraw. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 32 N., R. 6 W. No measurements made in 1943.

370 (\*817, p. 145; 840, p. 211; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174). Lunberg Bros. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 29 N., R. 2 W. No measurements made in 1943.

429 (\*886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). University of Nebraska. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 33 N., R. 7 W. No measurements made in 1943.

Lancaster County

1 (\*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). Mrs. Burling. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 7 N., R. 7 E. No measurements made in 1943.

13 (\*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). Miss Brady. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 9 N., R. 5 E. No measurements made in 1943.

14 (\*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). W. Brightenburg. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 11 N., R. 6 E. No measurements made in 1943.

366 (\*817, p. 146; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). H. Hollan. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 9 N., R. 7 E. No measurements made in 1943.

367 (\*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 946, p. 216). F. Jappert. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 10 N., R. 6 E. No measurements made in 1943.

#### Lincoln County

131 (\*817, p. 146; 908, p. 219; 938, p. 174; 946, p. 216). Great Western Sugar Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 14 N., R. 32 W. No measurements made in 1943.

133 (\*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216). R. Larson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 10 N., R. 29 W. No measurements made in 1943.

134 (\*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216). G. Roethemeyer. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 9 N., R. 29 W. No measurements made in 1943.

143 (\*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216). G. Connealy. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 10 N., R. 34 W. No measurements made in 1943.

144 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216). J. Fristo. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 10 N., R. 32 W. No measurements made in 1943.

241 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 12 N., R. 27 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.21.

#### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	6.22	Apr. 6	6.41	July 7	6.69	Oct. 11	6.97
Feb. 2	5.43	May 6	5.46	Aug. 4	6.54	Nov. 10	6.76
Mar. 1	6.41	June 5	6.38	Sept. 17	6.99		

242 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). Nebraska Agricultural College. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 13 N., R. 30 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.86.

#### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	11.97	Apr. 7	11.70	July 7	11.95	Oct. 7	12.97
Feb. 2	11.66	May 13	11.61	Aug. 5	12.44	Nov. 8	12.51
Mar. 1	11.77	June 7	11.74	Sept. 13	12.87	Dec. 13	12.18

252 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 15 N., R. 31 W. No measurements made in 1943.

253 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). University of Nebraska. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 16 N., R. 31 W. No measurements made in 1943.

383 (\*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 946, p. 216). Lech Bros. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 16 N., R. 31 W. No measurements made in 1943.

384 (\*817, p. 148; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). A. Howard. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 11 N., R. 30 W. No measurements made in 1943.

385 (\*817, p. 148; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). E. Kugler. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 10 N., R. 30 W. No measurements made in 1943.

405 (\*886, p. 325; 908, p. 220; 938, p. 175; 946, p. 216). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 14 N., R. 33 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.15.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.49	May 21	2.48	Sept. 15	2.33	Nov. 4	2.68
Mar. 23	3.41	Aug. 4	2.17	Oct. 4	2.37	Dec. 7	3.13

406 (\*886, p. 327; 908, p. 220; 938, p. 175; 946, p. 217). University of Nebraska. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 14 N., R. 33 W. No measurements made in 1943.

600. Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 14 N., R. 33 W. Drilled observation well, diameter 15 inches, depth 10.2 feet. Measuring point, top of corrugated sheet-metal culvert casing, west side at mark painted white, 0.8 foot above land-surface datum. Reference point, top of 2-by 2-inch hub, set in fence line 9.6 feet east and 13 feet south of well, 0.69 foot below measuring point. Well was drilled June 19, 1943, and was equipped with a Stevens Type "F" 8-day automatic water-stage recorder. Instrument is serviced weekly by Warren A. Doolittle, Platte Valley Public Power and Irrigation District, North Platte.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	3.91	4.81	5.30	5.42	5.37	5.39
2	....	3.95	4.83	5.31	5.42	5.37	5.39
3	....	3.98	4.85	5.31	5.41	5.36	5.39
4	....	4.02	4.88	5.31	5.41	5.35	5.39
5	....	4.05	4.89	5.30	5.41	5.35	5.39
6	....	4.09	4.91	5.28	5.41	5.35	5.40
7	....	4.12	4.93	5.29	5.41	5.35	5.40
8	....	4.15	4.95	5.30	5.41	5.35	5.40
9	....	4.19	4.97	5.31	5.41	5.35	5.40
10	....	4.23	5.00	5.32	5.41	5.35	5.40
11	....	4.26	5.01	5.33	5.41	5.35	5.41
12	....	4.30	5.04	5.33	5.41	5.35	5.41
13	....	4.35	5.06	5.34	5.41	5.35	5.41
14	....	4.38	5.07	5.35	5.41	5.35	5.41
15	....	4.42	5.08	5.36	5.41	5.35	5.42
16	....	4.45	5.10	5.36	5.41	5.35	5.42
17	....	4.48	5.12	5.37	5.41	5.34	5.43
18	....	4.50	5.14	5.37	5.40	5.35	5.43
19	....	4.52	5.16	5.38	5.40	5.35	5.42
20	3.30	4.54	5.17	5.39	5.40	5.35	5.43
21	3.39	4.56	5.18	5.39	5.40	5.36	5.41
22	3.47	4.59	5.19	5.39	5.40	5.38	5.40
23	3.53	4.60	5.21	5.40	5.40	5.36	5.40
24	3.60	4.61	5.22	5.40	5.40	5.36	5.39
25	3.65	4.63	5.24	5.41	5.40	5.36	5.38
26	3.69	4.65	5.25	5.41	5.40	5.37	5.38
27	3.76	4.67	5.26	5.41	5.40	5.37	5.38
28	3.80	4.70	5.27	5.42	5.39	5.38	5.37
29	3.84	4.72	5.28	5.42	5.39	5.38	5.36
30	3.88	4.76	5.29	5.42	5.39	5.38	5.35
31	....	4.79	5.29	....	5.38	....	5.36

E22. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 14 N., R. 34 W. Bored observation well, diameter 2 inches, depth 10.6 feet. Measuring point, top of casing, 2,982.17 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,981.73 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## E22. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 10, 1938	3.20	Apr. 2, 1940	3.23	Nov. 5, 1941	3.01
Oct. 1	3.50	May 1	3.50	Dec. 4	3.15
Nov. 2	3.44	27	3.77	Mar. 2, 1942	3.40
Dec. 1	3.32	June 28	4.09	Apr. 9	3.32
31	3.49	July 26	4.48	Aug. 5	3.78
Feb. 2, 1939	3.35	Aug. 30	4.68	Sept. 7	2.60
Mar. 1	3.40	Sept. 27	4.40	Oct. 5	3.04
Apr. 5	2.80	Oct. 30	3.64	Nov. 13	3.14
May 3	3.47	Dec. 30	3.31	Dec. 15	3.10
June 2	3.22	Feb. 3, 1941	3.33	Jan. 28, 1943	3.37
July 1	3.14	28	3.42	Mar. 23	3.10
Aug. 2	4.06	Apr. 15	3.45	May 21	3.51
Sept. 1	4.05	May 6	3.32	July 10	3.35
30	3.93	June 11	3.40	Aug. 4	3.85
Oct. 31	3.59	July 2	3.82	Sept. 15	3.75
Dec. 2	3.40	Aug. 5	4.04	Oct. 4	3.60
Jan. 2, 1940	3.38	Sept. 3	5.74	Nov. 4	3.24
Feb. 3	3.29	Oct. 6	2.57	Dec. 7	3.25
Mar. 1	3.26				

E23. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 17, T. 14 N., R. 33 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing 2,947.93 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 2,947.36 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	3.27	Apr. 2, 1940	4.69	Dec. 4, 1941	4.68
Oct. 1	3.73	May 1	4.73	Mar. 2, 1942	4.92
Nov. 2	4.26	27	3.60	Apr. 9	4.72
Dec. 1	4.45	June 28	4.11	Aug. 5	3.60
31	4.64	July 26	4.86	Sept. 7	2.15
Feb. 2, 1939	4.73	Aug. 30	5.48	Oct. 5	3.12
Mar. 1	4.73	Sept. 27	5.26	Nov. 13	3.88
Apr. 5	4.79	Oct. 30	4.82	Dec. 15	4.27
May 3	4.66	Dec. 30	4.61	Jan. 28, 1943	4.47
June 2	4.42	Feb. 3, 1941	4.88	Mar. 23	4.76
July 1	4.08	28	5.02	May 21	4.27
Aug. 2	4.10	Apr. 15	5.15	June 12	4.13
Sept. 1	3.67	May 6	4.98	July 10	3.60
30	4.22	June 11	4.41	Aug. 4	3.70
Oct. 31	4.37	July 8	3.74	Sept. 15	3.71
Dec. 3	4.54	Aug. 5	3.82	Oct. 4	3.85
Jan. 2, 1940	4.63	Sept. 3, 1941	3.76	Nov. 4	3.74
Feb. 3	4.38	Oct. 6	3.86	Dec. 7	4.12
Mar. 1	4.45	Nov. 5	4.36		

E24. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 8, T. 14 N., R. 33 W. Bored observation well, diameter 2 inches, depth 9.5 feet. Measuring point, top of casing, 2,939.37 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 2,938.69 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 1, 1938	2.29	June 2, 1939	2.82	Feb. 3, 1940	1.62
Nov. 2	1.97	July 1	2.82	Mar. 1	1.45
Dec. 1	1.45	Aug. 2	3.33	Apr. 2	1.92
Jan. 3, 1939	1.65	Sept. 1	3.49	May 1	3.23
Feb. 2	1.71	30	3.03	27	2.85
Mar. 1	1.54	Oct. 31	2.38	June 28	3.26
Apr. 5	1.45	Dec. 2	2.07	July 26	3.82
May 3	3.19	Jan. 2, 1940	1.99	Aug. 30	3.28

## E24. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 27, 1940	3.09	Oct. 6, 1941	2.07	Jan. 28, 1943	2.01
Oct. 30	2.62	Nov. 5	1.82	Mar. 23	1.40
Dec. 30	1.68	Dec. 4	1.88	May 21	2.31
Feb. 3, 1941	1.04	Mar. 2, 1942	1.86	June 12	1.58
28	1.76	Apr. 9	2.05	July 9	2.70
Apr. 15	1.95	May 8	1.60	Aug. 4	2.97
May 6	2.13	Aug. 5	2.85	Sept. 15	3.14
June 11	2.34	Sept. 7	2.32	Oct. 4	2.94
July 8	2.97	Oct. 5	2.47	Nov. 4	2.41
Aug. 5	3.38	Nov. 13	2.07	Dec. 7	2.15
Sept. 3	3.10	Dec. 15	1.69		

E25. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 14 N., R. 33 W. Bored observation well, diameter 2 inches, depth 10.5 feet. Measuring point, top of casing, 2,931.71 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 2,931.17 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	1.28	Apr. 2, 1940	3.13	Mar. 2, 1942	3.20
Oct. 3	2.26	May 1	2.73	Apr. 9	2.76
Nov. 2	3.94	27	2.23	May 8	.77
Dec. 1	3.20	June 28	3.09	Aug. 5	2.06
31	3.45	July 26	4.08	Sept. 7	.37
Feb. 2, 1939	3.60	Aug. 30	4.70	Oct. 5	1.16
Mar. 1	3.79	Sept. 27	3.98	Nov. 13	2.26
Apr. 5	3.00	Oct. 30	3.57	Dec. 15	2.61
May 3	3.43	Dec. 30	3.56	Jan. 28, 1943	3.12
June 2	2.38	Feb. 3, 1941	3.64	Mar. 23	3.18
July 1	2.14	28	3.80	May 21	2.37
Aug. 2	3.48	Apr. 15	3.61	June 12	1.76
Sept. 1	3.35	May 6	3.17	July 9	1.63
30	2.07	June 11	2.64	Aug. 4	1.98
Oct. 31	2.42	July 1	2.76	Sept. 15	2.31
Dec. 2	3.04	Aug. 5	3.15	Oct. 4	2.34
Jan. 2, 1940	3.24	Oct. 6	2.66	Nov. 4	2.54
Feb. 3	3.24	Nov. 5	2.48	Dec. 7	2.91
Mar. 1	3.12	Dec. 4	3.07		

E26 (#908, p. 220; 938, p. 175; 946, p. 217). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 14 N., R. 33 W. Measuring point is 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,939.61 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.00	June 12	9.21	Sept. 15	9.79	Nov. 6	10.25
Mar. 19	10.09	July 9	8.96	Oct. 4	9.95	Dec. 9	10.55
May 18	8.75	Aug. 2	9.43				

E27 (#908, p. 200; 938, p. 175; 946, p. 217). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 13 N., R. 34 W. Measuring point is 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,961.17 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Jan. 28	9.09	June 12	9.23	Sept. 15	9.91	Nov. 6	9.48
Mar. 19	8.91	July 9	8.63	Oct. 4	9.70	Dec. 9	9.58
May 18	9.22	Aug. 2	10.39				

E28. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 14 N., R. 32 W. Bored observation well, diameter 2 inches, depth 11.5 feet. Measuring point, top of casing, 2,901.34 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,901.09 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 1, 1938	5.40	Apr. 2, 1940	6.95	Dec. 4, 1941	6.11
Oct. 3	5.89	May 4	7.06	Mar. 2, 1942	6.83
Nov. 4	5.73	27	6.44	Apr. 7	6.58
Dec. 3	6.30	June 28	5.70	May 8	5.75
Jan. 5, 1939	6.62	July 26	5.56	Aug. 8	1.94
Feb. 4	6.77	Aug. 30	6.19	Oct. 8	2.30
Mar. 1	6.87	Sept. 27	5.85	Nov. 13	6.14
Apr. 7	6.92	Oct. 30	6.16	Dec. 15	6.57
May 3	6.94	Dec. 30	6.61	Jan. 28, 1943	6.93
June 2	6.33	Feb. 3, 1941	6.87	Mar. 19	7.16
July 6	5.70	28	6.95	May 18	6.91
Aug. 2	5.42	Apr. 15	7.06	June 12	6.26
Sept. 1	5.10	May 7	6.96	July 9	5.63
Oct. 4	5.48	June 11	6.47	Aug. 2	5.40
Nov. 6	6.11	July 1	6.13	Sept. 15	5.41
Dec. 4	6.44	Aug. 5	5.45	Oct. 4	5.51
Jan. 2, 1940	5.75	Sept. 3	5.20	Nov. 6	6.02
31	6.80	Oct. 6	5.15	Dec. 9	6.39
Mar. 5	6.90	Nov. 5	5.77		

E29. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 14 N., R. 32 W. Bored observation well, diameter 2 inches, depth 10.6 feet. Measuring point, top of casing, 2,907.76 feet above sea level, 0.2 foot above land-surface datum. Reference point, top of iron pin, 2,907.54 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 1, 1938	3.71	Apr. 3, 1940	6.38	Dec. 4, 1941	5.05
Oct. 3	4.08	May 4	5.64	Mar. 2, 1942	5.37
Nov. 4	4.67	27	3.72	Apr. 7	6.33
Dec. 3	5.20	June 28	4.04	May 8	5.14
Jan. 5, 1939	5.79	July 26	5.02	Aug. 8	5.56
Feb. 4	6.17	Aug. 30	6.55	Sept. 10	4.94
Mar. 1	6.37	Sept. 27	6.05	Oct. 8	6.07
Apr. 7	6.53	Oct. 30	5.09	Nov. 13	4.17
May 3	6.64	Dec. 30	5.69	Dec. 15	5.00
June 3	4.72	Feb. 3, 1941	6.23	Jan. 28, 1943	5.84
July 6	3.80	28	6.49	Mar. 19	6.47
Aug. 2	4.54	Apr. 11	6.81	May 18	6.04
Sept. 1	4.48	May 7	6.84	June 12	3.82
Oct. 4	3.40	June 11	4.68	July 9	3.33
Nov. 6	4.27	July 1	3.84	Aug. 2	2.60
Dec. 4	5.09	Aug. 5	3.34	Sept. 15	2.30
Jan. 2, 1940	5.48	Sept. 3	3.07	Oct. 4	2.59
31	5.18	Oct. 6	2.33	Nov. 6	3.20
Mar. 5	6.07	Nov. 5	4.22	Dec. 9	4.51

E30. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 14 N., R. 32 W. Bored observation well, diameter 2 inches, depth 16 feet. Measuring point, top of casing, 2,903.28 feet above sea level, 0.8 foot below land-surface datum. Reference point, top of iron pin, 2,902.76 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Sept. 10, 1938	4.25	Dec. 1, 1938	4.32	Mar. 1, 1939	4.22
Oct. 3	4.68	Jan. 3, 1939	4.37	Apr. 5	3.39
Nov. 2	4.60	Feb. 2	4.20	May 3	3.88



E30. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
June 2, 1939	3.99	Sept. 27, 1940	5.53	May 8, 1942	2.62
July 1	5.10	Oct. 30	5.27	Aug. 5	4.84
Aug. 2	6.00	Dec. 30	4.97	Sept. 7	3.21
Sept. 1	5.59	Feb. 3, 1941	4.73	Oct. 5	3.74
30	5.28	28	4.56	Nov. 15	4.00
Oct. 31	5.00	Apr. 4	4.06	Dec. 15	3.91
Dec. 2	4.96	May 6	3.80	Jan. 28, 1943	4.24
Jan. 2, 1940	4.92	June 11	4.46	Mar. 19	3.82
Feb. 3	4.68	July 8	4.71	May 19	3.85
Mar. 1	4.35	Aug. 5	5.12	June 12	3.74
Apr. 2	4.07	Sept. 3	5.10	July 9	4.08
May 1	4.32	Oct. 6	4.07	Aug. 2	5.05
27	4.68	Nov. 5	4.05	Sept. 15	5.44
June 28	5.29	Dec. 4	4.10	Oct. 4	5.19
July 26	5.91	Mar. 2, 1942	3.93	Nov. 4	4.77
Aug. 30	5.88	Apr. 9	3.55	Dec. 7	4.57

E31. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 14 N., R. 31 W. Bored observation well, diameter 2 inches, depth 15 feet. Measuring point, top of casing, 2,870.26 feet above sea level, 0.6 foot above land-surface datum. Reference point, top of iron pin, 2,870.14 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	3.95	Apr. 2, 1940	2.90	Mar. 2, 1942	3.25
Oct. 3	4.49	May 1	3.39	Apr. 9	2.90
Nov. 2	4.50	27	4.19	May 8	2.53
Dec. 1	3.66	June 28	5.06	Aug. 5	4.59
Jan. 3, 1939	3.48	July 26	5.52	Sept. 7	2.81
Feb. 2	3.29	Aug. 30	5.49	Oct. 5	3.44
Mar. 1	3.22	Sept. 27	4.94	Nov. 13	3.32
Apr. 5	2.60	Oct. 30	4.74	Dec. 15	2.92
May 3	3.32	Dec. 30	3.52	Jan. 28, 1943	3.24
June 2	3.57	Feb. 3, 1941	3.07	Mar. 19	2.75
July 1	4.90	28	2.96	May 19	3.43
Aug. 2	5.69	Apr. 11	3.10	June 12	3.45
Sept. 1	5.55	May 6	2.99	July 9	5.29
30	5.13	June 11	3.25	Aug. 2	5.05
Oct. 31	4.72	July 8	3.98	Sept. 15	5.04
Dec. 2	4.25	Aug. 5	4.65	Oct. 4	5.09
Jan. 2, 1940	3.77	Oct. 6	3.60	Nov. 4	4.29
Feb. 3	3.22	Nov. 5	3.52	Dec. 7	3.67
Mar. 1	2.95	Dec. 4	3.04		

E32. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 14 N., R. 30 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,826.53 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 2,826.28 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	3.42	Aug. 6, 1939	4.27	June 28, 1940	3.71
Oct. 3	3.13	Sept. 1	4.20	July 26	4.11
Nov. 2	3.27	30	3.88	Aug. 30	3.88
Dec. 1	3.08	Oct. 31	3.59	Sept. 27	3.86
Jan. 3, 1939	3.02	Dec. 2	3.40	Oct. 30	3.56
Feb. 2	2.87	Jan. 2, 1940	3.22	Dec. 30	3.03
Mar. 1	2.90	Feb. 3	2.80	Feb. 3, 1941	2.83
Apr. 5	2.04	Mar. 1	2.68	28	2.71
May 3	2.75	Apr. 2	2.57	Apr. 11	2.63
June 2	3.10	May 1	2.82	May 6	2.95
July 1	3.66	27	3.35	June 11	3.10

## E32. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
July 8, 1941	3.55	May 8, 1942	2.02	May 19, 1943	2.94
Aug. 5	3.63	Aug. 5	3.78	June 12	2.80
Sept. 3	3.74	Sept. 7	2.82	July 9	3.45
Oct. 6	3.04	Oct. 5	3.08	Aug. 2	3.88
Nov. 5	2.92	Nov. 13	3.03	Sept. 15	3.96
Dec. 4	2.86	Dec. 15	3.01	Oct. 4	3.73
Mar. 2, 1942	2.60	Jan. 28, 1943	3.12	Nov. 4	3.42
Apr. 9	2.47	Mar. 19	2.63	Dec. 7	3.26

E33. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 14 N., R. 30 W. Bored observation well, diameter 2 inches, depth 9 feet. Measuring point, top of casing, 2,795.72 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,795.84 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Sept. 10, 1938	1.90	May 27, 1940	1.97	Mar. 2, 1942	1.05
Oct. 3	2.31	June 28	2.50	Apr. 9	.84
Nov. 2	2.02	July 26	3.12	May 8	+ .28
Dec. 1	1.70	Aug. 30	3.34	Aug. 5	2.33
Jan. 3, 1939	1.71	Sept. 27	2.94	Sept. 7	.40
Feb. 2	1.60	Oct. 30	2.24	Oct. 5	1.41
Mar. 1	1.68	Dec. 30	1.57	Nov. 13	1.37
Apr. 5	.88	Feb. 3, 1941	1.23	Dec. 15	1.20
May 3	1.07	28	1.05	Jan. 28, 1943	1.49
June 2	1.70	Apr. 11	1.09	Mar. 19	.96
July 1	2.20	May 6	1.04	May 19	1.22
Sept. 1	3.02	June 11	1.72	June 12	.55
30	2.66	July 8	2.36	July 9	2.23
Oct. 31	2.09	Aug. 5	1.87	Aug. 2	2.73
Dec. 2	1.80	Sept. 3	2.44	Sept. 15	2.99
Feb. 3, 1940	1.28	Oct. 6	1.62	Oct. 4	2.73
Mar. 1	.93	Nov. 5	1.23	Nov. 4	2.15
Apr. 2	.94	Dec. 4	1.13	Dec. 7	1.93
May 1	1.12				

E34. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 14 N., R. 30 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,822.75 feet above sea level, 1 foot above land-surface datum. Reference point, top of iron pin, 2,821.73 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	3.48	May 4, 1940	3.66	Mar. 2, 1942	3.60
Nov. 4	3.65	27	2.99	Apr. 9	2.82
Dec. 3	3.62	June 28	3.70	May 8	1.57
Jan. 5, 1939	3.88	July 26	3.85	Aug. 12	2.82
Feb. 4	3.94	Aug. 30	1.98	Sept. 10	1.84
Mar. 1	4.10	Sept. 27	3.53	Oct. 8	3.21
Apr. 12	3.25	Oct. 30	2.43	Nov. 13	3.73
May 2	3.67	Dec. 30	3.18	Dec. 15	3.85
June 2	3.05	Feb. 3, 1941	3.32	Jan. 28, 1943	4.13
July 6	3.64	28	3.31	Mar. 9	3.95
Aug. 2	4.25	Apr. 15	3.15	May 18	3.76
Sept. 1	2.68	May 6	3.29	June 12	3.20
Oct. 4	3.59	June 11	1.66	July 9	3.41
Nov. 6	3.46	July 8	2.97	Aug. 2	2.58
Dec. 4	3.68	Aug. 5	3.10	Sept. 15	3.86
Jan. 2, 1940	3.53	Sept. 3	3.40	Oct. 4	4.19
31	3.60	Oct. 6	2.27	Nov. 6	3.26
Mar. 5	2.68	Nov. 5	3.10	Dec. 9	3.74
Apr. 2	2.85	Dec. 4	3.48		

E35. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 14 N., R. 31 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing, 2,810.90 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,810.39 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1938	4.61	July 26, 1940	5.37	Oct. 8, 1942	4.69
Nov. 4	4.97	Aug. 30	4.92	Nov. 13	5.37
Dec. 3	5.44	Sept. 27	5.18	Dec. 2	5.53
Jan. 5, 1939	5.70	Oct. 30	5.15	Jan. 6, 1943	5.77
Feb. 4	5.78	Dec. 30	5.88	Feb. 28	5.90
Mar. 1	5.81	Feb. 3, 1941	5.97	Feb. 2	5.87
Apr. 5	5.44	28	6.01	Mar. 2	5.83
May 3	5.36	Apr. 11	5.81	19	5.91
June 2	4.69	May 6	5.17	Apr. 6	5.57
July 6	4.88	June 11	4.99	May 18	5.00
Aug. 2	5.70	July 8	5.11	June 7	4.58
Sept. 6	5.02	Aug. 5	5.00	12	3.87
Oct. 4	5.17	Sept. 3	4.79	July 7	4.92
Nov. 6	6.27	Oct. 6	4.20	9	4.83
Dec. 4	5.87	Nov. 5	5.52	Aug. 2	4.90
Jan. 2, 1940	5.75	Dec. 4	5.62	5	4.57
31	5.95	Mar. 2, 1942	5.77	Sept. 13	4.78
Mar. 1	5.79	Apr. 9	5.25	15	4.97
Apr. 2	5.73	May 8	3.77	Oct. 4	5.07
May 4	5.12	Aug. 12	4.22	Nov. 6	5.04
27	4.62	Sept. 10	3.77	Dec. 9	5.39
June 28	5.24				

E36. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 14 N., R. 30 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,809.29 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pin, 3,808.94 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	3.89	May 28, 1940	4.94	Apr. 9, 1942	3.45
Nov. 4	3.90	June 28	5.41	May 8	1.94
Dec. 1	3.88	July 26	6.11	Aug. 12	3.99
Jan. 5, 1939	3.91	Aug. 30	5.35	Sept. 10	2.38
Feb. 2	3.85	Sept. 27	5.25	Oct. 9	3.66
Mar. 1	3.90	Oct. 30	4.36	Dec. 2	4.11
Apr. 5	3.59	Dec. 30	4.22	Jan. 6, 1943	4.09
May 3	3.71	Feb. 3, 1941	4.20	Feb. 2	4.02
July 6	4.67	28	4.09	Mar. 2	4.03
Aug. 2	6.05	Apr. 11	3.92	Apr. 6	3.91
Sept. 1	5.81	May 6	3.73	May 10	3.72
Oct. 4	5.56	June 11	3.95	June 7	3.44
31	4.53	July 8	4.89	July 7	4.51
Dec. 6	4.47	Aug. 5	4.65	Aug. 5	4.82
Jan. 2, 1940	4.33	Sept. 3	5.20	Sept. 13	5.13
30	4.25	Oct. 6	3.66	Oct. 7	5.15
Mar. 1	4.10	Nov. 5	3.95	Nov. 8	4.44
Apr. 2	3.66	Dec. 4	3.97	Dec. 13	4.41
May 1	4.82	Mar. 2, 1942	3.70		

E38 (\*908, p. 220; 938, p. 175; 946, p. 217). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 13 N., R. 34 W. Measuring point is 0.8 foot above land-surface datum. Reference point, top of iron pin, 3,017.86 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

E38. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	11.96	June 12	12.11	Sept. 15	12.60	Nov. 6	12.62
Mar. 19	11.72	July 9	12.07	Oct. 4	12.71	Dec. 9	12.51
May 18	12.02	Aug. 2	12.25				

E39. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 14 N., R. 30 W. Unused jetted irrigation well, diameter 4 inches, depth 30 feet. Measuring point, top of casing, 2,797.15 feet above sea level, 1.4 feet above land-surface datum. Reference point, top of iron pin, 2,796.22 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Dec. 1, 1938	5.76	July 26, 1940	6.91	May 8, 1942	3.49
Jan. 3, 1939	5.80	Aug. 30	7.16	Aug. 12	6.54
Feb. 4	5.74	Sept. 27	7.40	Sept. 10	4.51
Mar. 3	5.67	Oct. 30	6.96	Oct. 9	5.74
Apr. 7	5.50	Dec. 30	6.55	Dec. 2	6.09
June 3	5.55	Feb. 3, 1941	6.23	Jan. 6, 1943	6.15
July 1	6.08	28	6.20	Feb. 2	6.03
Aug. 2	6.84	Apr. 11	5.63	Mar. 2	6.06
Sept. 6	7.05	May 6	5.20	Apr. 6	6.03
Oct. 4	7.10	June 11	5.35	May 10	5.75
Dec. 6	6.57	July 8	5.85	June 7	5.69
Jan. 2, 1940	6.36	Aug. 5	5.48	July 7	6.16
31	5.93	Sept. 3	5.50	Aug. 5	6.98
Mar. 2	5.65	Oct. 6	5.76	Sept. 13	7.37
Apr. 5	5.53	Nov. 5	5.64	Oct. 7	7.27
May 4	5.47	Dec. 4	5.55	Nov. 8	7.02
27	5.67	Mar. 2, 1942	5.19	Dec. 13	6.81
June 28	5.67	Apr. 9	4.82		

JS1 (\*908, p. 221; 938, p. 175; 946, p. 217). Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Measuring point is 0.4 foot above land-surface datum. Reference point, top of iron pin, 2,669.58 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	27.38	Apr. 6	26.97	July 9	26.52	Oct. 11	26.48
Feb. 3	27.20	May 6	26.60	Aug. 9	26.42	Nov. 10	26.55
Mar. 4	27.15	June 14	26.29	Sept. 18	26.45		

JS2 (\*908, p. 221; 938, p. 175; 946, p. 217). Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Measuring point is 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,657.55 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.64	Apr. 6	17.44	July 8	17.53	Oct. 11	17.94
Feb. 3	17.81	May 6	17.11	Aug. 9	17.92	Nov. 10	17.68
Mar. 4	17.54	June 14	17.03	Sept. 18	18.09		

JS3 (\*908, p. 221; 938, p. 176; 946, p. 217). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Measuring point is 0.4 foot above land-surface datum. Reference point, top of iron pin, 2,660.45 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

JS3. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	24.33	Apr. 6	23.94	July 8	23.14	Oct. 11	22.98
Feb. 3	24.19	May 6	23.52	Aug. 9	23.57	Nov. 10	23.14
Mar. 4	24.13	June 14	23.10	Sept. 18	23.00		

JS4 (\*908, p. 221; 938, p. 176; 946, p. 217). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Measuring point is 0.2 foot above land-surface datum. Reference point, top of iron pin, 2,650.31 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	15.65	Apr. 6	15.40	July 8	15.24	Oct. 11	15.43
Feb. 3	15.54	May 6	14.97	Aug. 9	15.60	Nov. 10	15.33
Mar. 4	15.54	June 14	14.87	Sept. 18	15.52		

U3. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 11 feet. Measuring point, top of casing, 2,775.47 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,774.55 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	4.90	Dec. 1, 1938	3.15	May 6, 1941	3.55
28	4.81	Jan. 3, 1939	3.09	June 11	4.24
Sept. 15	4.78	Feb. 2	2.92	July 5	4.75
Oct. 2	4.48	Mar. 3	2.82	Aug. 5	4.22
21	4.07	Apr. 5	2.29	Sept. 3	4.55
Nov. 3	3.84	May 6	3.28	Oct. 6	3.98
4	3.77	June 3	3.65	Nov. 5	3.77
Dec. 2	3.57	July 6	3.87	Dec. 4	3.68
Jan. 2, 1937	3.46	Aug. 5	5.08	Mar. 2, 1942	3.49
Feb. 2	3.34	Sept. 1	5.42	Apr. 9	3.34
Mar. 3	3.13	Oct. 2	5.48	May 8	2.35
Apr. 3	2.80	31	4.96	July 30	4.24
May 5	2.70	Dec. 6	4.20	Sept. 10	3.06
June 3	3.52	Jan. 6, 1940	3.90	Oct. 5	3.55
July 6	4.13	31	3.68	Dec. 2	3.58
Aug. 2	4.80	Mar. 2	3.34	Jan. 6, 1943	3.52
Nov. 1	3.65	Apr. 3	3.40	Feb. 2	3.54
Dec. 3	3.38	May 4	3.63	Mar. 2	3.35
Jan. 1, 1938	3.20	27	4.14	Apr. 6	3.58
Feb. 2	2.24	July 1	4.89	May 10	3.75
Mar. 2	2.80	July 26	5.67	June 7	4.02
Apr. 2	2.91	Aug. 30	5.58	July 7	4.28
May 6	2.10	Sept. 27	5.57	Aug. 6	4.62
June 2	2.22	Oct. 30	4.67	Sept. 13	4.77
July 2	3.80	Dec. 30	3.92	Oct. 7	4.52
Sept. 1	4.21	Feb. 3, 1941	3.83	Nov. 8	4.01
Oct. 3	3.60	28	3.75	Dec. 13	3.82
Nov. 2	2.40	Apr. 15	3.52		

U4. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 10.5 feet. Measuring point, top of casing, 2,766.74 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,766.28 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## U4. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	6.20	Dec. 1, 1938	4.38	Apr. 11, 1941	3.76
28	6.11	Jan. 3, 1939	4.05	May 6	3.74
Sept. 15	6.20	Feb. 2	4.29	June 11	4.19
Oct. 2	5.62	Mar. 3	3.90	July 5	4.46
21	4.95	Apr. 5	3.95	Aug. 5	4.28
Nov. 3	4.84	May 6	4.65	Sept. 3	4.85
4	4.77	June 3	5.39	Oct. 6	3.89
Dec. 2	4.73	July 6	5.85	Nov. 5	3.76
Jan. 2, 1937	4.81	Aug. 5	6.15	Dec. 4	3.79
Feb. 2	4.26	Sept. 1	6.92	Mar. 2, 1942	2.69
Mar. 3	4.00	Oct. 2	5.28	Apr. 9	4.15
Apr. 3	4.27	31	4.62	July 30	5.03
May 5	4.50	Dec. 6	4.42	Sept. 10	4.19
June 3	5.16	Jan. 6, 1940	4.12	Oct. 5	4.78
July 6	5.92	31	3.93	Dec. 2	4.60
AUG. 2	5.70	Mar. 5	4.12	Jan. 6, 1943	4.26
Nov. 1	3.66	Apr. 3	3.48	Feb. 2	3.85
Dec. 3	2.41	May 4	3.61	Mar. 2	4.54
Jan. 1, 1938	4.05	27	5.30	Apr. 6	4.72
Feb. 1	4.09	July 1	5.61	May 10	4.90
Mar. 2	4.12	26	5.22	June 7	5.08
Apr. 2	4.43	Aug. 30	6.03	July 7	5.64
May 6	4.29	Sept. 27	5.78	Aug. 6	5.16
June 2	4.30	Oct. 30	4.96	Sept. 13	5.62
July 2	5.30	Dec. 30	3.36	Oct. 7	5.51
Sept. 1	5.41	Feb. 3, 1941	3.70	Nov. 8	5.35
Oct. 3	4.79	28	3.59	Dec. 13	5.28
Nov. 2	4.46				

U5. Central Nebraska Public Power and Irrigation District. NW 1/4 sec. 5, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 8 feet. Measuring point, top of casing, 2,766.68 feet above sea level, 1.3 feet above land-surface datum. Reference point, top of iron pin, 2,765.36 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	4.35	Dec. 1, 1938	2.33	May 6, 1941	1.97
28	4.34	Jan. 3, 1939	2.22	June 11	2.92
Sept. 15	4.39	Feb. 2	2.12	July 5	3.79
Oct. 2	3.78	Mar. 3	1.98	Aug. 5	3.25
21	3.24	Apr. 5	1.67	Sept. 3	3.56
Nov. 3	3.00	May 6	2.31	Oct. 6	2.52
4	2.97	June 3	3.00	Nov. 5	2.40
Dec. 2	2.71	July 6	3.89	Dec. 5	2.49
Jan. 2, 1937	2.60	Aug. 5	4.39	Mar. 2, 1942	2.40
Feb. 2	2.41	Sept. 1	4.57	Apr. 9	1.97
Mar. 3	2.08	Oct. 2	4.31	May 8	1.20
Apr. 3	1.95	31	3.37	July 30	3.58
May 5	1.03	Dec. 6	2.81	Sept. 10	1.76
June 3	2.97	Jan. 31, 1940	2.43	Oct. 5	2.49
July 6	3.95	Mar. 2	2.11	Dec. 2	2.62
Aug. 2	3.85	Apr. 3	2.09	Jan. 6, 1943	1.83
Nov. 1	2.82	May 4	2.39	Feb. 2	2.42
Dec. 3	2.54	27	3.32	Mar. 2	2.32
Jan. 1, 1938	2.30	July 1	4.22	Apr. 6	2.52
Feb. 2	2.25	26	4.72	May 10	2.77
Mar. 2	1.97	Aug. 30	4.51	June 7	3.19
Apr. 2	2.18	Sept. 27	4.03	July 7	3.31
May 6	1.69	Oct. 30	3.43	Aug. 6	4.19
June 2	1.97	Dec. 30	2.41	Sept. 13	3.85
July 2	3.48	Feb. 3, 1941	2.19	Oct. 7	3.53
Sept. 1	3.56	28	2.12	Nov. 8	3.09
Oct. 3	2.85	Apr. 11	1.97	Dec. 13	2.85
Nov. 2	2.59				

U6. Central Nebraska Public Power and Irrigation District. S. 34 N. 4 sec. 5, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 8.5 feet. Measuring point, top of casing, 2,766.38 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,766.35 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	3.60	Jan. 3, 1939	2.59	June 11, 1941	2.80
28	3.52	Feb. 2	2.47	July 5	3.13
Sept. 15	3.52	Mar. 3	2.47	Aug. 5	2.90
Oct. 2	3.17	Apr. 5	2.44	Sept. 3	3.00
21	2.95	May 6	2.69	Oct. 6	2.68
Nov. 3	2.94	June 3	2.92	Nov. 5	2.42
4	2.85	July 6	3.26	Dec. 4	2.50
Dec. 2	2.76	Aug. 5	3.63	Mar. 2, 1942	2.38
Jan. 2, 1937	2.65	Sept. 1	3.82	Apr. 9	2.42
Feb. 2	1.42	Oct. 2	3.37	May 8	2.21
Mar. 3	1.54	31	2.95	July 30	2.98
Apr. 3	2.51	Dec. 6	2.75	Sept. 10	2.47
May 5	2.48	Jan. 31, 1940	2.07	Oct. 5	2.63
June 3	2.92	Mar. 2	2.47	Dec. 2	2.62
Nov. 1	2.82	Apr. 3	2.60	Jan. 6, 1943	2.63
Dec. 3	2.64	May 4	2.73	Feb. 2	2.65
Jan. 1, 1938	3.59	27	2.97	Mar. 2	2.55
Feb. 2	2.52	July 1	3.48	Apr. 6	2.67
Mar. 2	2.48	26	4.11	May 10	2.74
Apr. 2	2.55	Aug. 30	3.74	June 7	2.84
May 6	2.50	Sept. 27	3.41	July 7	5.07
June 2	2.56	Oct. 30	2.92	Aug. 6	3.17
July 2	3.12	Dec. 30	2.55	Sept. 13	3.05
Sept. 1	3.24	Feb. 3, 1941	2.53	Oct. 7	2.85
Oct. 3	2.88	23	2.48	Nov. 8	2.61
Nov. 2	2.71	Apr. 11	2.44	Dec. 13	2.55
Dec. 1	2.61	May 6	2.44		

U7. Central Nebraska Public Power and Irrigation District. S. 34 N. 4 sec. 9, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 10.5 feet. Measuring point, top of casing, 2,759.55 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,758.80 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	4.30	June 2, 1938	3.54	July 1, 1940	4.51
28	4.20	July 2	3.81	26	4.49
Sept. 15	4.25	Sept. 1	3.95	Aug. 30	4.88
Oct. 2	4.08	Oct. 3	3.84	Sept. 27	4.76
21	3.12	Nov. 2	3.72	Oct. 30	4.03
Nov. 3	3.90	Dec. 1	3.70	Dec. 30	4.04
4	3.89	Jan. 3, 1939	3.62	Feb. 3, 1941	4.00
Dec. 2	3.71	Feb. 2	3.56	28	3.97
Jan. 2, 1937	3.88	Mar. 3	3.57	Apr. 11	3.95
Feb. 2	3.48	Apr. 5	2.72	May 6	3.95
Mar. 3	3.58	May 6	3.64	June 11	4.25
Apr. 3	3.69	June 3	3.85	July 5	4.78
May 5	3.79	July 6	4.20	Aug. 5	4.77
June 3	3.92	Aug. 5	4.33	Sept. 3	4.84
July 6	3.65	Sept. 6	4.58	Oct. 6	4.23
Aug. 2	4.16	Oct. 2	4.09	Nov. 5	4.10
Nov. 1	3.87	31	3.80	Dec. 4	4.18
Dec. 3	3.72	Dec. 6	3.85	Mar. 2, 1942	3.90
Jan. 1, 1938	3.74	Jan. 31, 1940	3.63	Apr. 9	3.94
Feb. 2	3.70	Mar. 2	3.63	May 8	2.40
Mar. 2	3.70	Apr. 3	3.77	July 30	4.67
Apr. 2	3.74	May 4	3.79	Sept. 10	4.43
May 6	3.59	27	4.00	Oct. 5	4.76

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U7. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Dec. 2, 1942	4.67	May 10, 1943	4.52	Sept. 13, 1943	5.53
Jan. 6, 1943	4.60	June 7	4.96	Oct. 7	5.43
Feb. 2	4.03	July 7	5.19	Nov. 8	5.21
Mar. 2	4.64	Aug. 6	4.85	Dec. 13	5.09
Apr. 6	4.60				

U8. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 4, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 10.5 feet. Measuring point, top of casing, 2,764.27 feet above sea level, 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,763.96 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	5.00	Dec. 1, 1938	3.97	May 6, 1941	3.91
28	4.86	Jan. 3, 1939	3.85	June 11	4.58
Sept. 15	4.95	Feb. 2	3.75	July 5	5.18
Oct. 2	4.60	Mar. 3	3.68	Aug. 5	5.12
21	4.40	Apr. 5	3.95	Sept. 3	5.32
Nov. 3	4.32	May 6	3.63	Oct. 6	4.83
4	4.30	June 3	4.07	Nov. 5	4.66
Dec. 2	4.70	July 6	4.52	Dec. 4	4.75
Jan. 2, 1937	4.64	Aug. 5	5.22	Mar. 2, 1942	4.32
Feb. 2	4.01	Sept. 6	5.40	Apr. 9	3.88
Mar. 3	4.66	Oct. 2	4.97	May 8	1.56
Apr. 3	3.53	31	4.55	July 30	4.81
May 5	3.58	Dec. 6	4.27	Sept. 10	3.99
June 3	4.03	Jan. 6, 1940	4.26	Oct. 5	4.58
July 6	4.66	31	4.14	Dec. 2	4.88
Aug. 2	4.92	Mar. 2	3.92	Jan. 6, 1943	4.87
Nov. 1	4.35	Apr. 3	3.94	Feb. 2	4.79
Dec. 3	4.16	May 4	4.05	Mar. 2	4.84
Jan. 1, 1938	4.00	27	4.45	Apr. 6	4.82
Feb. 2	3.94	July 1	5.04	May 10	4.76
Mar. 2	3.75	26	5.48	June 7	5.14
Apr. 2	3.80	Aug. 30	5.57	July 7	5.40
May 6	3.22	Sept. 27	5.47	Aug. 6	5.66
June 2	3.34	Oct. 30	4.86	Sept. 13	6.08
July 2	4.22	Dec. 30	4.50	Oct. 7	5.94
Sept. 1	4.75	Feb. 3, 1941	4.44	Nov. 8	5.70
Oct. 3	4.21	28	4.39	Dec. 13	5.56
Nov. 2	4.10	Apr. 11	4.15		

U9. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 13, T. 13 N., R. 30 W. Bored observation well, diameter 4 inches, depth 10.5 feet. Measuring point, top of casing, 2,782.40 feet above sea level, 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,782.31 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

## Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	6.85	June 3, 1937	4.02	Oct. 3, 1938	4.50
28	7.00	July 6	6.09	Nov. 3	4.61
Sept. 15	7.28	Aug. 2	6.38	Dec. 1	4.00
Oct. 2	7.24	Nov. 1	6.80	Jan. 3, 1939	3.60
21	7.17	Dec. 3	6.45	Feb. 2	3.07
Nov. 3	6.88	Jan. 1, 1938	6.10	Mar. 2	2.79
4	6.88	Feb. 2	5.76	Apr. 6	2.70
Dec. 2	6.54	Mar. 2	4.66	May 4	3.14
Jan. 2, 1937	6.24	Apr. 2	3.97	June 3	3.48
Feb. 2	5.94	May 6	3.50	July 5	4.32
Mar. 3	5.47	June 2	3.05	Aug. 3	6.08
Apr. 3	4.20	July 2	4.20	Sept. 5	6.54
May 5	3.98	Sept. 1	6.12	Oct. 2	6.63



U9. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Nov. 1, 1939	6.49	Apr. 30, 1941	2.23	Aug. 3, 1942	3.19
Dec. 4	5.13	May 31	3.14	Sept. 11	2.26
Jan. 5, 1940	4.37	June 30	3.37	Oct. 1	2.17
30	4.48	July 28	1.78	Dec. 2	2.12
Mar. 2	3.38	Aug. 29	3.75	Jan. 6, 1943	2.17
Apr. 2	3.14	Oct. 3	3.16	Feb. 2	1.95
May 1	3.19	Nov. 1	2.82	Mar. 1	1.80
28	3.71	Dec. 1	2.71	Apr. 7	2.17
July 1	4.27	31	2.51	May 13	2.12
29	5.10	Feb. 4, 1942	1.70	June 7	2.04
Aug. 29	6.23	Mar. 5	1.73	July 7	3.00
Oct. 1	6.14	Apr. 8	2.15	Aug. 5	3.61
Nov. 4	5.18	May 1	.65	Sept. 13	4.13
Jan. 3, 1941	3.49	11	1.31	Oct. 7	3.81
Feb. 3	2.94	June 2	1.75	Nov. 8	3.29
Mar. 3	2.79	July 8	2.25	Dec. 13	3.15
30	2.79				

U10. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 13 N., R. 30 W. Bored observation well, diameter 4 inches, depth 13 feet. Measuring point, top of casing, 2,790.20 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,789.31 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	10.55	Jan. 3, 1939	7.42	June 30, 1941	5.17
28	10.57	Feb. 2	7.15	July 28	4.02
Sept. 15	10.46	Mar. 2	6.92	Aug. 29	6.13
Oct. 2	10.24	Apr. 6	6.62	Oct. 3	5.66
21	10.12	May 4	6.54	Nov. 1	5.22
Nov. 3	9.95	June 3	6.83	Dec. 1	4.96
4	9.92	July 5	7.17	31	4.72
Dec. 2	9.62	Aug. 3	8.92	Feb. 4, 1942	4.36
Jan. 2, 1937	9.38	Sept. 1	9.04	Mar. 5	4.11
Feb. 2	9.14	Oct. 2	8.98	Apr. 8	3.85
Mar. 3	8.84	Nov. 1	8.45	May 11	2.42
Apr. 3	8.37	Dec. 4	7.87	June 2	2.78
May 5	8.17	Jan. 5, 1940	7.46	July 8	2.87
June 3	8.79	30	7.25	Aug. 3	4.00
July 6	9.21	Mar. 2	6.85	Sept. 11	2.89
Aug. 2	10.28	Apr. 2	6.71	Oct. 1	3.19
Nov. 1	9.73	May 1	6.53	Dec. 2	3.21
Dec. 3	9.44	28	6.57	Jan. 6, 1943	3.18
Jan. 1, 1938	9.13	July 1	6.55	Feb. 2	3.08
Feb. 2	8.77	29	7.59	Mar. 1	2.87
Mar. 2	8.40	Aug. 29	8.46	Apr. 7	2.96
Apr. 2	7.98	Oct. 1	7.99	May 13	2.81
May 6	7.64	Nov. 4	7.39	June 7	2.54
June 2	7.38	Jan. 3, 1941	6.50	July 7	3.07
July 2	7.76	Feb. 3	6.13	Aug. 5	4.15
Sept. 1	9.17	Mar. 3	5.84	Sept. 13	5.76
Oct. 3	7.68	30	5.54	Oct. 7	5.84
Nov. 3	8.08	Apr. 30	5.15	Nov. 8	5.62
Dec. 1	7.72	May 31	5.26	Dec. 13	5.48

U11. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 10 feet. Measuring point, top of casing, 2,771.74 feet above sea level, 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,771.40 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

U11. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	4.90	Jan. 3, 1939	2.58	June 30, 1941	2.97
28	5.04	Feb. 2	2.11	Aug. 3	2.44
Sept. 15	5.12	Mar. 2	1.83	29	2.89
Oct. 2	5.06	Apr. 6	1.37	Oct. 3	2.29
21	4.85	May 4	1.81	Nov. 1	2.20
Nov. 3	4.75	June 3	2.82	Dec. 1	2.18
4	4.74	July 5	3.86	31	1.93
Dec. 2	4.49	Aug. 3	4.15	Feb. 4, 1942	1.61
Jan. 2, 1937	4.19	Sept. 1	4.89	Mar. 5	1.53
Feb. 2	3.74	Oct. 2	5.17	Apr. 8	1.78
Mar. 3	3.47	Nov. 1	5.35	June 2	1.99
Apr. 3	3.16	Dec. 4	4.55	July 8	2.19
May 5	3.01	Jan. 5, 1940	4.05	Aug. 3	2.67
June 3	3.56	30	3.80	Sept. 16	1.89
July 6	4.21	Mar. 2	3.30	Oct. 1	2.02
Aug. 2	4.67	Apr. 2	2.56	Dec. 4	5.35
Nov. 1	4.35	May 1	2.44	Jan. 6, 1943	5.28
Dec. 3	4.30	28	3.30	Feb. 2	5.30
Jan. 1, 1938	3.99	July 1	3.92	Mar. 1	5.26
Feb. 2	3.78	29	4.09	Apr. 7	5.21
Mar. 2	3.54	Aug. 29	4.71	May 13	5.17
Apr. 2	3.19	Oct. 1	4.77	June 11	5.07
May 6	2.56	Nov. 4	3.93	July 7	4.89
June 2	2.24	Jan. 3, 1941	2.68	Aug. 6	4.90
July 2	3.40	Feb. 3	2.37	Sept. 13	4.85
Sept. 1	4.32	Mar. 3	2.02	Oct. 7	4.81
Oct. 3	3.22	30	2.10	Nov. 8	4.70
Nov. 3	3.48	Apr. 30	1.70	Dec. 13	4.65
Dec. 1	3.03	May 30	2.90		

U12 (#908, p. 222; 938, p. 176; 946, p. 218). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 13 N., R. 30 W. Measuring point is 1.9 feet above land-surface datum. Reference point, top of iron pin, 2,783.67 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.29	May 13	10.13	July 7	9.84	Oct. 7	11.41
Feb. 2	10.29	June 7	10.18	Aug. 6	10.85	Nov. 8	11.07
Mar. 1	10.28	June 11	10.13	Sept. 13	11.41	Dec. 13	10.83
Apr. 7	10.24						

U13. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 10.5 feet. Measuring point, top of casing, 2,765.01 feet above sea level, 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,764.68 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	6.70	Feb. 2, 1937	5.27	Jan. 1, 1938	5.37
28	6.75	Mar. 3	4.95	Feb. 2	5.09
Sept. 15	6.90	Apr. 3	4.13	Mar. 2	4.87
Oct. 2	6.72	May 5	4.20	Apr. 2	4.22
21	6.47	June 3	5.14	May 6	3.62
Nov. 3	6.25	July 6	6.03	June 2	3.34
4	6.23	Aug. 2	6.37	July 2	4.82
Dec. 2	5.90	Nov. 1	6.09	Sept. 1	5.94
Jan. 2, 1937	5.59	Dec. 3	5.70	Oct. 3	4.84

U13. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	4.89	Oct. 1, 1940	6.78	June 2, 1942	3.30
Dec. 2	4.51	Nov. 4	6.78	July 8	4.64
Jan. 3, 1939	4.08	Jan. 3, 1941	3.66	Aug. 3	3.79
Feb. 2	3.47	Feb. 3	3.03	Sept. 11	3.53
Mar. 2	3.38	Mar. 3	3.08	Oct. 1	3.60
Apr. 6	2.92	30	3.39	Dec. 4	3.66
May 4	5.35	Apr. 30	1.86	Jan. 6, 1943	3.55
June 3	4.85	May 30	3.45	Feb. 2	3.60
July 5	5.53	June 30	2.53	Mar. 1	3.62
Aug. 3	8.74	July 28	2.80	Apr. 7	3.59
Sept. 5	7.10	Aug. 29	4.09	May 13	3.45
Oct. 2	6.65	Oct. 3	3.52	June 11	3.12
Mar. 2, 1940	6.00	Nov. 1	3.52	July 7	3.42
Apr. 2	5.61	Dec. 1	3.37	Aug. 6	3.58
May 1	6.03	31	3.61	Sept. 13	3.94
28	6.58	Feb. 4, 1942	3.53	Oct. 7	3.78
July 1	6.71	Mar. 5	3.27	Nov. 8	3.69
29	6.92	Apr. 8	3.66	Dec. 13	3.49
Aug. 29	6.90	May 11	3.40		

U14 (#908, p. 222; 938, p. 176; 946, p. 218). Central Nebraska Public Power and Irrigation District. NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 20, T. 13 N., R. 29 W. Measuring point is 0.2 foot above land-surface datum. Reference point, 2,771.12 feet above sea level. Measurements discontinued after Aug. 6, 1943, when well was plugged. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	6.87	Mar. 1	6.91	May 13	6.58	July 7	6.25
Feb. 2	6.86	Apr. 7	6.88	June 11	6.52	Aug. 6	6.67

U15. Central Nebraska Public Power and Irrigation District. NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 20, T. 13 N., R. 29 W. Bored observation well, diameter 4 inches, depth 11 feet. Measuring point, top of casing, 2,758.03 feet above sea level, 1.4 feet above land-surface datum. Reference point, 2,756.53 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 15, 1936	5.20	Mar. 2, 1938	3.62	Dec. 4, 1939	3.85
28	5.30	Apr. 2	3.50	Jan. 5, 1940	3.68
Sept. 15	5.45	May 6	3.00	30	3.56
Oct. 2	5.31	June 2	2.79	Mar. 2	3.34
31	4.55	July 2	3.60	Apr. 2	3.06
Nov. 3	4.80	Sept. 1	4.51	May 1	3.15
4	4.77	Oct. 3	3.77	28	3.49
Dec. 2	4.28	Nov. 3	3.75	July 1	3.66
Jan. 2, 1937	4.10	Dec. 1	3.58	29	3.88
Feb. 2	3.83	Jan. 3, 1939	3.45	Aug. 29	4.04
Mar. 3	3.67	Feb. 2	3.20	Oct. 1	4.40
Apr. 3	3.50	Mar. 2	3.25	Nov. 4	3.92
May 5	3.53	Apr. 6	2.78	Jan. 3, 1941	2.95
June 3	3.90	May 4	3.32	Feb. 3	2.70
July 6	4.48	June 3	3.58	Mar. 3	2.48
Aug. 2	4.92	July 5	3.98	30	2.42
Nov. 1	4.65	Aug. 3	4.65	Apr. 30	1.74
Dec. 3	4.26	Sept. 5	4.53	May 31	2.51
Jan. 1, 1938	3.96	Oct. 2	4.71	June 30	2.62
Feb. 2	3.77	Nov. 1	4.37	July 28	2.14

## U15. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1936-43

Date	Water level	Date	Water level	Date	Water level
Aug. 29, 1941	3.09	June 2, 1942	2.39	Apr. 7, 1943	2.45
Oct. 3	2.61	July 8	2.64	May 13	2.42
Nov. 1	2.57	Aug. 3	3.15	June 11	2.24
Dec. 1	2.55	Sept. 11	2.09	July 7	2.83
31	2.50	Oct. 1	2.05	Aug. 6	3.09
Feb. 3, 1942	2.28	Dec. 4	2.49	Sept. 13	3.08
Mar. 5	2.27	Jan. 6, 1943	2.45	Oct. 7	2.94
Apr. 8	2.34	Feb. 2	2.37	Nov. 8	2.66
May 11	1.57	Mar. 1	2.30		

U16. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 1, T. 13 N., R. 30 W. Bored observation well, diameter 4 inches, depth 14 feet. Measuring point, top of casing, 2,783.17 feet above sea level, 2.0 feet above land-surface datum. Reference point, top of iron pin, 2,781.19 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1936-43

Aug. 15, 1936	6.30	Dec. 1, 1938	5.32	May 6, 1941	6.34
28	6.22	Jan. 3, 1939	5.56	June 11	6.43
Sept. 15	6.15	Feb. 2	5.80	July 5	6.32
Oct. 2	5.93	Mar. 3	5.30	Aug. 5	6.57
21	5.25	Apr. 5	5.28	Sept. 3	6.55
Nov. 3	5.00	May 6	6.00	Oct. 6	6.26
4	5.00	June 3	6.22	Nov. 5	6.25
Dec. 2	5.59	July 6	6.14	Dec. 4	6.30
Jan. 2, 1937	5.36	Aug. 5	6.64	Mar. 2, 1942	6.00
Feb. 2	5.42	Sept. 5	6.70	Apr. 9	6.28
Mar. 3	4.98	Oct. 2	6.15	May 8	5.90
Apr. 3	5.25	31	5.47	July 30	6.26
May 5	5.69	Dec. 6	5.76	Sept. 10	5.99
June 3	5.98	Jan. 6, 1940	5.52	Oct. 5	6.18
July 6	6.24	31	5.07	Dec. 2	5.97
Aug. 2	6.02	Mar. 2	5.23	Jan. 6, 1943	5.73
Nov. 1	4.90	Apr. 3	6.38	Feb. 2	5.76
Dec. 3	4.84	May 4	6.41	Mar. 2	5.94
Jan. 1, 1938	4.62	27	6.60	Apr. 6	6.16
Feb. 2	4.60	July 1	6.87	May 10	5.92
Mar. 2	4.92	26	7.05	June 7	6.21
Apr. 2	5.47	Aug. 30	7.02	July 7	6.17
May 6	5.20	Sept. 27	6.91	Aug. 6	5.19
June 2	4.87	Oct. 30	6.51	Sept. 13	5.95
July 2	5.35	Dec. 30	6.04	Oct. 7	6.15
Sept. 1	5.70	Feb. 3, 1941	6.05	Nov. 8	5.88
Oct. 3	5.46	Mar. 3	6.23	Dec. 13	6.45
Nov. 2	5.06	Apr. 11	6.43		

U17. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 13 N., R. 29 W. Bored observation well, diameter 2 inches, depth 11.5 feet. Measuring point, top of casing, 2,773.25 feet above sea level, 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,772.17 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	3.40	Aug. 5, 1939	4.77	May 27, 1940	3.80
Nov. 2	3.15	Sept. 1	4.95	July 1	4.54
Dec. 1	2.89	Oct. 2	4.88	26	5.31
Jan. 3, 1939	2.86	31	4.35	Aug. 30	5.08
Feb. 2	2.70	Dec. 7	3.81	Sept. 27	5.02
Mar. 3	2.72	Jan. 6, 1940	3.53	Oct. 30	4.19
Apr. 5	2.48	31	3.32	Dec. 30	3.43
May 6	3.08	Mar. 2	2.94	Feb. 3, 1941	3.31
June 3	3.42	Apr. 3	3.06	28	3.17
July 6	4.12	May 4	3.28	Apr. 11	3.13

## U17. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
May 6, 1941	3.02	Apr. 9, 1942	2.85	Apr. 6, 1943	3.10
June 11	3.76	May 8	2.14	May 10	3.21
July 5	4.21	July 30	3.86	June 7	3.56
Aug. 5	3.75	Sept. 10	2.61	July 7	3.94
Sept. 3	4.12	Oct. 5	3.04	Aug. 6	4.29
Oct. 6	3.41	Dec. 2	3.09	Sept. 13	4.38
Nov. 5	3.24	Jan. 6, 1943	3.06	Oct. 7	4.07
Dec. 4	3.17	Feb. 2	3.06	Nov. 8	3.57
Mar. 2, 1942	2.93	Mar. 2	2.93	Dec. 13	3.36

U18. Central Nebraska Public Power and Irrigation District. NE1NW1 sec. 6, T. 13 N., R. 29 W. Bored observation well, diameter 2 inches, depth 10.8 feet. Measuring point, top of casing, 2,773.11 feet above sea level, 0.4 foot below land-surface datum. Reference point, top of iron pin, 2,772.05 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	5.40	May 4, 1940	5.08	Mar. 2, 1942	5.16
Nov. 2	4.65	27	5.84	Apr. 9	5.06
Dec. 1	4.76	July 1	6.63	May 8	3.78
Jan. 3, 1939	4.74	26	7.22	July 30	6.05
Feb. 2	4.60	Aug. 30	7.16	Sept. 10	4.45
Mar. 3	4.54	Sept. 27	7.10	Oct. 5	5.16
Apr. 5	4.12	Oct. 30	6.35	Dec. 2	5.23
May 6	4.92	Dec. 30	5.59	Jan. 6, 1943	5.18
June 3	5.51	Feb. 3, 1941	5.59	Feb. 2	5.14
July 6	6.22	28	5.51	Mar. 2	4.99
Aug. 5	6.75	Apr. 11	5.41	Apr. 6	5.15
Sept. 1	7.03	May 6	5.30	May 10	5.30
Oct. 2	7.25	June 11	5.92	June 7	5.65
31	6.85	July 5	6.38	July 7	6.02
Dec. 6	5.97	Aug. 5	6.03	Aug. 6	6.30
Jan. 6, 1940	5.60	Sept. 3	6.36	Sept. 13	6.36
31	5.36	Oct. 6	5.66	Oct. 7	6.08
Mar. 5	5.03	Nov. 5	5.48	Nov. 8	5.52
Apr. 3	5.08	Dec. 4	5.41	Dec. 13	5.31

U19. Central Nebraska Public Power and Irrigation District. NE1SW1 sec. 6, T. 13 N., R. 29 W. Bored observation well, diameter 2 inches, depth 11.5 feet. Measuring point, top of casing, 2,772.73 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,771.97 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Oct. 3, 1938	4.39	May 4, 1940	4.47	Mar. 2, 1942	4.93
Nov. 2	4.06	27	5.14	Apr. 9	4.82
Dec. 1	3.90	July 1	5.94	May 8	3.28
Jan. 3, 1939	3.85	26	6.25	July 30	5.19
Feb. 2	3.86	Aug. 30	6.33	Sept. 10	4.03
Mar. 3	3.66	Sept. 27	6.24	Oct. 5	4.73
Apr. 5	3.31	Oct. 30	5.75	Dec. 2	4.80
May 6	4.29	Dec. 30	5.27	Jan. 6, 1943	4.66
June 3	4.91	Feb. 3, 1941	5.32	Feb. 2	4.68
July 6	5.42	28	5.28	Mar. 2	4.67
Aug. 5	5.83	Apr. 11	5.26	Apr. 6	4.72
Sept. 1	6.24	May 6	4.88	May 10	4.69
Oct. 2	7.08	June 11	5.42	June 7	4.96
Nov. 30	6.65	July 5	5.62	July 7	5.08
Dec. 6	5.33	Aug. 5	5.38	Aug. 6	5.18
Jan. 6, 1940	5.05	Sept. 3	5.65	Sept. 13	5.22
31	4.77	Oct. 6	5.22	Oct. 7	5.14
Mar. 5	4.51	Nov. 5	5.16	Nov. 8	4.87
Apr. 3	4.52	Dec. 4	5.13	Dec. 13	4.78

U20. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 13 N., R. 29 W. Bored observation well, diameter 2 inches, depth 10.7 feet. Measuring point, top of casing, 2,747.60 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,747.16 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1938	3.82	July 1, 1940	3.70	Apr. 8, 1942	2.22
Nov. 3	3.53	Aug. 29	4.36	May 1	1.49
Dec. 2	3.20	Aug. 29	4.40	May 11	1.49
Jan. 3, 1939	3.03	Oct. 1	4.20	June 2	2.31
Feb. 3	2.82	Nov. 4	3.50	July 8	2.77
Mar. 2	2.15	Jan. 3, 1941	2.26	Aug. 3	3.18
Apr. 6	2.15	Feb. 3	1.39	Sept. 11	2.24
May 4	2.45	Mar. 3	.95	Oct. 1	2.37
June 3	3.04	Apr. 30	.95	Dec. 4	2.44
July 5	3.62	Apr. 30	.85	Jan. 6, 1943	2.40
Aug. 3	4.52	May 31	1.24	Feb. 2	2.20
Sept. 5	4.60	June 30	2.54	Mar. 1	1.96
Oct. 2	4.42	July 30	1.05	Apr. 7	1.96
Nov. 1	3.74	Aug. 29	2.55	May 13	2.19
Dec. 4	3.31	Oct. 3	1.13	June 11	2.28
Jan. 5, 1940	2.56	Nov. 1	1.10	July 7	3.17
30	2.88	Dec. 1	2.35	Aug. 5	3.13
Mar. 2	2.25	31	2.55	Sept. 13	3.15
Apr. 2	2.03	Feb. 3, 1942	2.28	Oct. 7	2.80
May 1	2.05	Mar. 5	1.95	Nov. 8	2.24
28	3.12				

U21 (\*908, p. 222; 938, p. 176; 946, p. 218). A. E. Wheeler. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 13 N., R. 29 W. Measuring point is 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,745.37 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.65	Apr. 7	10.84	July 7	10.44	Oct. 7	11.04
Feb. 2	10.64	May 12	10.69	Aug. 5	10.71	Nov. 8	10.95
Mar. 1	10.77	June 11	10.73	Sept. 13	10.97		

U22 (\*908, p. 223; 938, p. 176; 946, p. 218). Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 13 N., R. 28 W. Measuring point is 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,729.49 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	6.19	Apr. 7	6.28	July 7	6.32	Oct. 7	6.38
Feb. 2	6.18	May 12	6.24	Aug. 5	6.45	Nov. 8	6.24
Mar. 1	6.17	June 11	6.31	Sept. 13	6.38		

U23. Central Nebraska Public Power and Irrigation District. S $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 12 N., R. 28 W. Bored observation well, diameter 2 inches, depth 14.4 feet. Measuring point, top of casing, 2,703.08 feet above sea level, 0.4 foot above land-surface datum. Reference point, top of iron pin, 2,702.72 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	8.79	Feb. 3, 1939	8.30	May 4, 1939	8.27
Dec. 2	8.42	Mar. 2	7.95	June 3	8.63
Jan. 3, 1939	8.35	Apr. 6	8.00	July 5	8.55

## U23. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Aug. 3, 1939	9.82	Feb. 3, 1941	7.63	July 8, 1942	5.58
Sept. 5	9.66	Mar. 3	7.30	Aug. 3	5.86
Oct. 2	9.80	Mar. 30	6.96	Sept. 11	5.47
Nov. 1	10.48	Apr. 30	6.55	Oct. 1	5.53
Dec. 4	9.06	May 31	6.59	Dec. 4	5.53
Jan. 5, 1940	8.89	June 30	6.72	Jan. 6, 1943	5.49
30	8.77	July 30	6.50	Feb. 2	5.36
Mar. 2	8.55	Aug. 30	6.46	Mar. 2	5.32
Apr. 3	8.65	Oct. 3	5.92	Apr. 7	5.41
May 1	8.68	Nov. 1	5.93	May 12	5.46
28	9.02	Dec. 1	5.86	June 11	5.46
July 1	9.12	31	5.78	July 7	5.91
29	10.02	Feb. 4, 1942	5.62	Aug. 5	6.10
Aug. 29	9.69	Mar. 5	5.44	Sept. 13	6.07
Oct. 1	9.49	Apr. 8	5.51	Oct. 11	5.84
Nov. 4	8.88	May 1	5.24	Nov. 8	5.64
Jan. 3, 1941	8.09	June 2	5.59		

U24. Central Nebraska Public Power and Irrigation District. N.  $\frac{1}{2}$  NW  $\frac{1}{4}$  sec. 25, T. 13 N., R. 29 W. Bored observation well, diameter 2 inches, depth 10.7 feet. Measuring point, top of casing, 2,733.45 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,732.33 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	4.20	July 2, 1940	4.96	Apr. 8, 1942	4.35
Dec. 2	3.98	29	5.24	May 1	3.43
Jan. 4, 1939	3.87	Aug. 29	5.47	June 2	3.87
Feb. 2	3.60	Sept. 30	5.48	July 8	4.02
Mar. 2	3.12	Nov. 2	4.90	30	4.84
Apr. 7	3.05	Dec. 31	4.49	Sept. 14	4.40
May 6	3.65	Feb. 2, 1941	4.51	Oct. 1	4.73
June 6	4.32	Mar. 1	4.57	Dec. 2	5.13
July 6	4.74	29	4.53	Jan. 6, 1943	4.98
Aug. 5	5.01	Apr. 30	4.23	Feb. 2	4.89
Sept. 6	4.22	May 30	4.74	Mar. 1	4.85
Oct. 4	5.47	June 30	5.09	Apr. 1	4.86
Nov. 6	5.06	July 28	5.19	May 7	4.72
Dec. 6	4.64	Aug. 30	5.52	June 11	5.04
Jan. 6, 1940	4.55	Oct. 7	5.16	July 7	4.96
31	4.41	Nov. 4	4.94	Aug. 4	5.43
Mar. 5	4.06	Dec. 1	4.84	Sept. 17	5.57
Apr. 5	4.34	Jan. 7, 1942	4.74	Oct. 11	5.53
May 4	4.40	Feb. 3	4.61	Nov. 10	5.30
29	4.70	Mar. 6	4.47		

U25. Central Nebraska Public Power and Irrigation District. SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 16, T. 13 N., R. 29 W. Measuring point, top of casing, 2,752.51 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,751.53 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	4.73	Sept. 6, 1939	6.30	July 2, 1940	5.60
Dec. 2	4.62	Oct. 4	6.37	29	5.71
Jan. 4, 1939	4.15	Nov. 6	5.77	Aug. 20	6.04
Feb. 4	4.12	Dec. 6	5.23	Sept. 30	6.46
Mar. 3	3.85	Jan. 6, 1940	5.23	Nov. 2	5.46
Apr. 7	3.93	31	4.42	Dec. 31	5.35
May 6	4.56	Mar. 5	4.57	Feb. 2, 1941	5.47
June 6	5.27	Apr. 5	5.10	Mar. 1	5.54
July 6	5.47	May 4	5.14	29	5.55
Aug. 5	5.77	29	5.60	Apr. 30	5.21

## U25. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
May 30, 1941	5.79	Apr. 8, 1942	5.32	Mar. 1, 1943	5.33
June 30	6.18	May 1	4.08	Apr. 1	5.86
July 28	6.09	June 2	5.05	May 7	5.63
Aug. 30	6.40	July 8	5.12	June 11	5.95
Oct. 7	5.96	30	5.95	July 7	6.03
Nov. 4	5.82	Sept. 14	5.34	Aug. 4	6.06
Dec. 1	5.77	Oct. 1	5.75	Sept. 17	6.27
Jan. 7, 1942	5.70	Dec. 2	6.07	Oct. 11	6.43
Feb. 3	5.62	Jan. 6, 1943	5.91	Nov. 10	6.18
Mar. 6	5.55	Feb. 2	5.77		

U26. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 13 N., R. 28 W. Used drilled irrigation well. Measuring point, top of concrete well, southwest side, 2,716.31 feet above sea level, 2.0 feet below land-surface datum. Reference point, top of iron pin, 2,718.27 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	4.35	July 2, 1940	5.42	Mar. 6, 1942	4.79
Dec. 2	4.21	29	5.65	Apr. 8	4.69
Jan. 4, 1939	3.98	Aug. 29	5.77	May 1	3.30
Feb. 4	3.80	Sept. 30	5.62	June 2	4.26
Mar. 3	3.45	Nov. 2	5.18	July 8	4.05
Apr. 7	3.28	Dec. 31	4.80	30	5.32
May 6	4.12	Feb. 2, 1941	4.85	Sept. 14	4.61
June 6	4.95	Mar. 1	4.87	Oct. 1	5.26
July 6	5.09	29	4.90	Dec. 2	5.61
Sept. 6	5.93	Apr. 30	4.61	Jan. 6, 1943	5.36
Oct. 4	5.90	May 30	5.50	Feb. 2	4.71
Nov. 6	4.87	June 30	5.91	Mar. 1	5.22
Dec. 6	4.63	July 28	5.77	Apr. 1	5.24
Jan. 6, 1940	4.42	Aug. 30	6.31	May 7	4.99
31	4.19	Oct. 7	5.48	June 11	5.44
Mar. 5	3.97	Nov. 4	5.34	July 7	5.73
Apr. 5	4.48	Dec. 1	5.26	Sept. 17	6.08
May 4	4.59	Jan. 7, 1942	5.14	Oct. 11	6.08
29	6.25	Feb. 3	5.00	Nov. 10	5.68

U27. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 13 N., R. 28 W. Bored observation well, diameter 2 inches, depth 11.5 feet. Measuring point, top of casing, 2,712.16 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,711.39 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Dec. 2, 1938	4.48	Apr. 3, 1940	3.39	Aug. 30, 1941	6.10
Jan. 3, 1939	4.24	May 4	3.26	Oct. 7	4.98
Feb. 3	3.85	29	4.32	Nov. 8	4.68
Mar. 3	3.70	July 2	5.01	Dec. 1	4.47
Apr. 7	1.57	27	6.12	Jan. 7, 1942	4.10
May 5	2.25	Aug. 29	6.48	Feb. 2	2.64
June 5	3.53	Sept. 30	5.93	Mar. 5	1.31
July 6	4.59	Nov. 2	5.31	Apr. 8	1.68
Aug. 4	6.03	Dec. 31	4.75	May 1	1.05
Sept. 6	6.43	Feb. 2, 1941	4.43	June 2	2.33
Oct. 4	6.15	Mar. 1	3.54	July 8	2.24
Nov. 6	5.25	29	1.97	30	3.96
Dec. 6	4.96	Apr. 30	1.50	Sept. 14	1.49
Jan. 6, 1940	4.78	May 30	3.56	Oct. 1	1.67
31	4.63	June 30	4.70	Dec. 2	2.46
Mar. 2	4.00	July 28	5.23	Jan. 6, 1943	1.98



## U27. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Feb. 2, 1943	2.25	June 5, 1943	3.73	Sept. 17, 1943	5.83
Mar. 1	1.46	July 7	4.02	Oct. 11	5.59
Apr. 1	1.53	Aug. 4	5.65	Nov. 10	5.06
May 1	2.67				

U28. Central Nebraska Public Power and Irrigation District. ~~SE-NE~~  
 sec. 4, T. 12 N., R. 28 W. Bored observation well, diameter 2 inches,  
 depth 10.8 feet. Measuring point, top of casing, 2,696.64 feet above sea  
 level, 1.0 foot above land-surface datum. Reference point, top of iron  
 pin, 2,695.28 feet above sea level. Measurements supplied through courtesy  
 of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	4.68	July 2, 1940	5.42	Apr. 8, 1942	3.87
Dec. 2	4.38	27	6.08	May 1	2.78
Jan. 4, 1939	4.27	Aug. 29	6.22	June 2	4.01
Feb. 4	4.04	Sept. 30	6.15	July 8	3.74
Mar. 3	3.80	Nov. 2	5.45	30	4.39
Apr. 7	3.57	Dec. 31	4.65	Sept. 14	3.07
May 6	4.10	Feb. 2, 1941	4.35	Oct. 1	3.78
June 6	4.61	Mar. 1	4.27	Dec. 2	4.61
July 6	4.72	29	4.22	Jan. 6, 1943	4.54
Aug. 5	5.80	Apr. 30	3.67	Feb. 2	4.46
Sept. 6	6.62	May 30	4.75	Mar. 1	4.25
Oct. 4	6.03	June 30	5.17	Apr. 1	4.34
Nov. 6	5.49	July 28	5.16	May 7	4.35
Dec. 6	5.09	Aug. 30	5.73	June 11	4.67
Jan. 5, 1940	4.82	Oct. 7	4.37	July 7	4.99
31	4.62	Nov. 4	4.54	Aug. 4	5.88
Mar. 5	4.23	Dec. 1	4.56	Sept. 17	5.95
Apr. 5	4.36	Jan. 7, 1942	4.61	Oct. 11	5.74
May 4	4.42	Feb. 3	4.20	Nov. 10	5.31
29	5.11	Mar. 6	3.63		

U29. Central Nebraska Public Power and Irrigation District. ~~NE-NE~~  
 sec. 11, T. 12 N., R. 28 W. Bored observation well, diameter 2 inches,  
 depth 10.7 feet. Measuring point, top of casing, 2,679.58 feet above sea  
 level, 1 foot above land-surface datum. Reference point, top of iron pin,  
 2,679.16 feet above sea level. Measurements supplied through courtesy of  
 Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	3.67	July 2, 1940	3.50	Apr. 8, 1942	1.98
Dec. 2	2.37	27	4.06	May 1	.75
Jan. 4, 1939	2.22	Aug. 29	4.33	June 2	2.17
Feb. 4	2.12	Sept. 30	4.10	July 8	2.08
Mar. 3	1.36	Nov. 2	3.46	30	3.02
Apr. 7	1.60	Dec. 31	2.60	Sept. 14	1.62
May 6	2.34	Feb. 2, 1941	2.23	Oct. 1	2.22
June 6	2.81	Mar. 1	2.13	Dec. 2	2.73
July 6	2.77	29	2.24	Jan. 6, 1943	2.53
Aug. 5	3.82	Apr. 30	1.66	Feb. 2	2.45
Sept. 6	4.27	May 30	2.94	Mar. 1	2.31
Oct. 4	3.93	June 30	3.30	Apr. 1	2.44
Nov. 6	3.30	July 28	3.54	May 7	2.49
Dec. 6	2.94	Aug. 30	3.20	June 11	2.79
Jan. 5, 1940	2.70	Oct. 7	2.49	July 7	3.28
31	2.48	Nov. 4	2.55	Aug. 4	3.98
Mar. 5	2.00	Dec. 1	2.59	Sept. 17	3.87
Apr. 5	2.37	Jan. 7, 1942	2.71	Oct. 11	3.72
May 4	2.29	Feb. 3	2.22	Nov. 10	3.34
29	3.00	Mar. 6	1.13		

U30. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ -NE $\frac{1}{4}$  sec. 16, T. 12 N., R. 27 W. Bored observation well, diameter 2 inches, depth 11.5 feet. Measuring point, top of casing, 2,653.66 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,652.88 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	3.46	July 2, 1940	4.44	Apr. 8, 1942	4.00
Dec. 2	2.55	27	4.49	May 1	2.45
Jan. 4, 1939	2.58	Aug. 29	4.68	June 2	3.18
Feb. 4	2.75	Sept. 30	4.41	July 8	3.05
Mar. 3	2.60	Nov. 2	3.93	30	4.22
Apr. 7	2.73	Dec. 30	3.67	Sept. 14	4.19
May 6	3.32	Feb. 2, 1941	4.01	Oct. 1	4.64
June 6	4.06	Mar. 1	3.98	Dec. 2	4.53
July 6	4.02	29	4.12	Jan. 6, 1943	4.33
Aug. 5	4.73	Apr. 30	3.64	Feb. 2	3.67
Sept. 6	5.07	May 30	4.41	Mar. 1	4.55
Oct. 4	4.43	June 30	5.00	Apr. 1	4.58
Nov. 1	3.86	July 28	4.71	May 7	4.12
Dec. 6	3.80	Oct. 7	4.51	June 11	4.61
Jan. 5, 1940	3.46	Nov. 4	4.34	July 7	4.95
31	3.29	Dec. 1	4.33	Aug. 4	4.63
Mar. 5	2.85	Jan. 7, 1942	4.22	Sept. 17	4.92
Apr. 5	3.56	Feb. 3	4.14	Oct. 11	4.91
May 3	4.36	Mar. 6	3.80	Nov. 10	4.69
29	4.12				

U31. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ -NE $\frac{1}{4}$  sec. 27, T. 12 N., R. 27 W. Bored observation well, diameter 2 inches, depth 12.8 feet. Measuring point, top of casing, 2,642.65 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,642.28 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Nov. 3, 1938	4.85	July 1, 1940	6.88	Apr. 8, 1942	3.40
Dec. 12	4.84	29	5.71	May 1	2.64
Jan. 3, 1939	4.72	Aug. 30	6.82	June 3	3.35
Feb. 3	4.72	Oct. 1	7.10	July 6	1.96
Mar. 2	4.50	Nov. 4	5.73	Aug. 3	3.94
Apr. 6	4.61	Jan. 3, 1941	5.32	Sept. 11	1.74
May 5	4.94	Feb. 3	5.07	Oct. 1	2.94
June 5	5.63	Mar. 3	4.92	Dec. 1	3.52
July 5	5.85	30	4.68	Jan. 7, 1943	3.49
Aug. 3	6.20	May 1	4.24	Feb. 3	3.44
Sept. 5	6.93	31	4.44	Mar. 4	3.24
Oct. 2	7.30	July 1	4.67	Apr. 6	3.23
Nov. 1	7.36	28	4.72	May 6	3.17
Dec. 4	6.32	Aug. 30	5.05	June 14	3.21
Jan. 5, 1940	6.21	Oct. 7	4.23	July 8	4.00
30	6.19	Nov. 4	4.12	Aug. 9	4.48
Mar. 2	5.96	29	4.08	Sept. 18	4.56
Apr. 3	5.98	Dec. 31	3.93	Oct. 11	4.17
May 1	5.79	Feb. 3, 1942	3.75	Nov. 10	3.82
28	6.07	Mar. 2	3.67		

U32 (#908, p. 223; 938, p. 176; 946, p. 218). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ -NW $\frac{1}{4}$  sec. 15, T. 12 N., R. 28 W. Measuring point is 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,700.11 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

U32. Central Nebraska Public Power and Irrigation District--Continued.  
Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.13	Apr. 7	12.07	July 7	13.41	Oct. 11	13.42
Feb. 2	13.04	May 12	13.06	Aug. 5	13.50	Nov. 8	13.15
Mar. 4	12.06	June 11	13.09	Sept. 13	13.46		

U33 (\*908, p. 223; 938, p. 177; 946, p. 218). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 12 N., R. 28 W. Measuring point is 1 foot above land-surface datum. Reference point, top of iron pin, 2,709.11 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Jan. 6	30.57	Apr. 7	30.16	July 7	30.09	Oct. 11	29.86
Feb. 2	30.24	May 12	30.13	Aug. 5	30.25	Nov. 8	29.74
Mar. 4	30.24	June 11	30.01	Sept. 13	29.97		

U34 (\*908, p. 223; 938, p. 177; 946, p. 218). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 12 N., R. 27 W. Measuring point is 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,669.96 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Jan. 6	15.85	Apr. 7	15.64	July 7	15.58	Oct. 11	15.52
Feb. 2	15.77	May 12	15.55	Aug. 6	15.59	Nov. 8	15.37
Mar. 4	15.70	June 11	15.50	Sept. 13	15.53		

U35 (\*908, p. 224; 938, p. 177; 946, p. 218). Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 12 N., R. 27 W. Measuring point is 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,751.86 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Jan. 7	3.25	Apr. 7	2.81	July 8	3.33	Oct. 11	3.43
Feb. 2	3.05	May 12	2.58	Aug. 9	3.50	Nov. 8	3.13
Mar. 4	2.83	June 11	2.72	Sept. 13	3.73		

U36. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ N $\frac{1}{4}$  sec. 32, T. 15 N., R. 27 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,675.70 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,674.95 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum; 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	2.83	July 27, 1940	4.09	Apr. 8, 1942	2.52
Dec. 2	2.70	Aug. 29	4.47	May 1	1.40
Jan. 3, 1939	2.75	Sept. 30	4.46	June 2	2.60
Feb. 3	2.45	Nov. 2	3.55	July 2	1.80
Mar. 3	1.94	Dec. 31	3.03	30	3.59
Apr. 7	1.96	Feb. 2, 1941	2.84	Sept. 14	2.54
May 5	2.60	Mar. 1	2.83	Oct. 1	3.09
June 5	3.18	29	2.84	Dec. 1	3.29
July 6	3.45	Apr. 30	2.53	Jan. 5, 1943	3.20
Aug. 4	5.13	May 30	3.43	Feb. 2	2.63
Sept. 6	4.40	June 30	3.75	Mar. 1	2.93
Nov. 6	3.38	July 28	3.96	Apr. 6	3.07
Dec. 6	3.20	Aug. 30	4.42	May 6	3.01
Jan. 5, 1940	2.90	Oct. 7	3.36	June 15	3.61
31	4.26	Nov. 4	3.22	July 7	3.93
Mar. 2	1.56	Dec. 1	3.08	Aug. 4	4.19
Apr. 3	2.51	Jan. 7, 1942	3.13	Sept. 17	4.22
May 3	2.55	Feb. 2	2.76	Oct. 11	4.03
29	3.38	Mar. 5	2.50	Nov. 10	3.76
July 2	3.97				

U37. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 11, T. 12 N., R. 27 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,653.30 feet above sea level, 0.9 foot above land-surface datum. Reference point, top of iron pin, 2,652.90 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	5.59	July 2, 1940	7.09	Apr. 8, 1942	6.32
Dec. 2	5.04	27	7.49	May 1	4.73
Jan. 3, 1939	5.51	Aug. 29	7.87	June 2	5.34
Feb. 3	5.30	Sept. 30	7.50	July 2	3.53
Mar. 3	4.79	Nov. 2	6.94	30	6.22
Apr. 7	4.71	Dec. 31	6.58	Sept. 14	5.66
May 5	5.04	Feb. 2, 1941	6.65	Oct. 1	6.24
June 5	5.83	Mar. 1	6.65	Dec. 1	6.55
July 6	5.88	29	6.67	Jan. 5, 1943	6.38
Aug. 4	7.10	Apr. 30	6.24	Feb. 2	2.53
Sept. 6	7.61	May 30	6.76	Mar. 1	6.39
Oct. 4	7.19	June 30	7.07	Apr. 6	6.41
Nov. 6	6.31	July 28	7.27	May 6	5.85
Dec. 6	6.34	Aug. 30	7.69	June 5	6.52
Jan. 6, 1940	5.88	Oct. 7	7.10	July 7	6.78
31	5.70	Nov. 4	6.91	Aug. 4	7.16
Mar 2	5.16	29	6.81	Sept. 17	7.34
Apr. 3	5.85	Jan. 7, 1942	6.76	Oct. 11	7.30
May 3	6.02	Feb. 3	6.66	Nov. 10	6.98
28	6.73	Mar. 2	6.75		

U38 (#908, p. 224; 938, p. 177; 946, p. 219). Dr. Schneider. SW $\frac{1}{4}$  SE $\frac{1}{4}$  sec. 26, T. 12 N., R. 27 W. Measuring point is 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,642.10 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.29	Apr. 6	7.02	July 8	7.27	Oct. 11	7.70
Feb. 3	7.21	May 6	6.66	Sept. 18	7.97	Nov. 10	7.36
Mar. 4	7.10	June 14	6.77				

U39. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$  NE $\frac{1}{4}$  sec. 36, T. 12 N., R. 27 W. Bored observation well, diameter 2 inches, depth 16.5 feet. Measuring point, top of casing, 2,631.53 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,631.13 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1938	7.12	Jan. 5, 1940	7.17	Mar. 31, 1941	4.84
Dec. 2	6.88	30	6.66	May 1	4.65
Jan. 4, 1939	7.08	Mar. 2	7.32	31	3.64
Feb. 3	7.28	Apr. 5	7.68	July 1	3.02
Mar. 2	6.89	May 3	7.24	29	3.98
Apr. 6	6.66	28	6.62	Aug. 30	3.45
May 5	6.86	July 1	7.52	Oct. 7	3.93
June 5	7.00	29	7.21	Nov. 4	3.90
July 5	6.95	Aug. 30	8.23	29	4.50
Aug. 3	7.05	Oct. 1	7.97	Dec. 31	4.57
Sept. 5	9.00	Nov. 4	7.40	Feb. 3, 1942	5.05
Oct. 2	9.02	Jan. 3, 1941	6.57	Mar. 2	5.38
Nov. 1	7.83	Feb. 3	5.07	Apr. 8	5.21
Dec. 6	7.10	Mar. 3	4.92	May 1	3.90

## U39. Central Nebraska Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
June 3, 1942	5.51	Jan. 7, 1943	5.14	July 8, 1943	3.77
July 6	4.68	Feb. 3	5.13	Aug. 9	3.65
Aug. 3	4.62	Mar. 4	5.29	Sept. 18	4.40
Sept. 11	4.73	Apr. 6	5.30	Oct. 11	4.29
Oct. 2	4.79	May 6	4.81	Nov. 10	4.99
Dec. 1	5.35	June 14	4.07		

U40 (\*908, p. 224; 938, p. 177; 946, p. 219). Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 11 N., R. 26 W. Measuring point is 0.5 foot above land-surface datum. Reference point, top of iron pin, 2,628.58 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.84	Apr. 6	14.21	July 8	12.66	Oct. 11	11.89
Feb. 3	13.95	May 8	13.47	Aug. 9	12.39	Nov. 10	11.70
Mar. 4	14.14	June 14	12.81	Sept. 18	12.20		

U41. Central Nebraska Public Power and Irrigation District. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 11 N., R. 26 W. Used dug irrigation well, diameter 10 feet. Measuring point, top of casing, 2,614.90 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,614.18 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Dec. 2, 1938	11.18	Aug. 30, 1940	12.39	June 3, 1942	9.02
Jan. 4, 1939	12.16	Oct. 1	13.26	July 6	7.13
Feb. 3	12.58	Feb. 3, 1941	11.53	Aug. 3	6.32
Mar. 2	12.80	Mar. 3	11.61	Sept. 11	6.36
Apr. 6	12.92	May 1	11.22	Oct. 2	6.95
May 5	12.00	July 1	9.83	Dec. 4	7.84
June 5	11.04	29	9.59	Jan. 7, 1943	8.08
July 5	10.49	Sept. 1	10.32	Feb. 3	8.19
Sept. 5	12.82	Oct. 7	10.25	Mar. 4	7.40
Dec. 6	11.32	Nov. 4	10.40	Apr. 6	8.30
Jan. 6, 1940	11.91	29	10.54	May 8	6.94
30	12.36	Jan. 5, 1942	10.68	June 15	6.66
Mar. 4	12.72	Feb. 3	10.48	July 8	6.98
May 3	11.04	Mar. 2	10.28	Sept. 18	8.14
28	11.52	Apr. 8	9.68	Oct. 11	7.63
July 29	16.19	May 1	9.10	Nov. 10	7.31

U42 (\*908, p. 224; 938, p. 177; 946, p. 219). Sheldon. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 11 N., R. 26 W. Measuring point is 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,621.50 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.67	Apr. 6	14.00	July 8	11.24	Oct. 11	11.26
Feb. 3	13.73	May 8	11.73	Sept. 18	12.35	Nov. 10	11.58
Mar. 4	13.76	June 15	11.49				

U43 (\*908, p. 225; 938, p. 177; 946, p. 219). Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 22, T. 11 N., R. 26 W. Measuring point is 0.2 foot above land-surface datum. Reference point, top of iron pin, 2,637.20 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	33.30	Apr. 7	33.59	July 8	31.82	Oct. 11	29.77
Feb. 3	33.25	May 8	32.83	Aug. 9	31.01	Nov. 10	29.88
Mar. 4	33.50	June 15	32.33	Sept. 18	29.99		

U46. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 12 N., R. 26 W. Bored observation well, diameter 2 inches, depth 11 feet. Measuring point, top of casing, 2,626.34 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,626.01 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1939	3.99	July 1, 1940	4.40	Mar. 2, 1942	3.50
Feb. 3	3.97	29	3.85	Apr. 8	3.13
Mar. 2	3.87	Aug. 30	4.82	May 1	2.61
Apr. 6	3.53	Oct. 1	4.57	June 3	3.27
May 5	2.92	Nov. 4	3.39	July 6	2.82
June 5	3.35	Jan. 3, 1941	3.62	Aug. 3	2.79
July 5	3.37	Feb. 3	3.41	Sept. 11	2.50
Aug. 3	4.28	Mar. 3	3.45	Oct. 2	2.95
Sept. 5	5.47	31	3.47	Dec. 1	3.30
Oct. 2	5.05	May 1	3.12	Jan. 7, 1943	3.39
Nov. 1	3.65	July 1	2.58	Feb. 3	3.29
Dec. 6	3.17	29	2.91	Mar. 4	3.30
Jan. 6, 1940	4.09	Aug. 30	2.81	Apr. 6	3.38
30	4.08	Oct. 7	2.28	May 6	2.61
Mar. 2	3.78	Nov. 4	2.39	June 14	1.90
Apr. 5	4.16	29	3.09	July 8	2.94
May 3	3.12	Dec. 31	3.40	Oct. 11	2.79
28	3.97	Feb. 3, 1942	3.24	Nov. 10	2.95

U50 (\*908, p. 225; 938, p. 177; 946, p. 219). Dr. Schneider. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 12 N., R. 26 W. Measuring point is 0.1 foot above land-surface datum. Reference point, top of iron pin, 2,642.10 feet above sea level. Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water level, in feet below land-surface datum, 1943: July 6, 7.71.

U77. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 12 N., R. 27 W. Drilled observation well, diameter 2 inches, depth 37 feet. Measuring point, top of casing, 2,664.63 feet above sea level, 0.1 foot below land-surface datum. Reference point, 2,664.53 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Oct. 1, 1940	31.52	Nov. 4, 1941	25.15	Dec. 1, 1942	24.73
Nov. 4	31.65	29	25.37	Jan. 7, 1943	23.80
Jan. 3, 1941	28.38	Dec. 31	25.29	Feb. 3	23.71
Feb. 3	28.15	Feb. 3, 1942	24.95	Mar. 4	24.33
Mar. 3	27.50	Mar. 2	25.10	Apr. 6	24.13
30	26.94	Apr. 8	24.59	May 6	23.17
May 1	26.19	May 1	24.12	June 14	22.90
31	25.78	June 3	24.02	July 8	23.57
July 1	25.67	July 6	27.31	Aug. 9	23.36
29	25.95	Aug. 3	25.78	Sept. 18	23.55
Aug. 30	26.05	Sept. 11	23.92	Oct. 11	23.68
Oct. 7	25.34	Oct. 1	24.82	Nov. 10	24.10

U78. Central Nebraska Public Power and Irrigation District. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Drilled observation well, diameter 2 inches, depth 36 feet. Measuring point, top of casing, 2,660.73 feet above sea level, 0.1 foot below land-surface datum. Reference point, top of iron pin, 2,660.61 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1940	27.70	Nov. 4, 1941	21.72	Dec. 1, 1942	21.81
Jan. 4	27.86	29	21.97	Jan. 7, 1943	20.68
3, 1941	25.14	Dec. 31	21.91	Feb. 3	20.57
Feb. 3	24.48	Feb. 3, 1942	21.62	Mar. 4	21.22
Mar. 3	23.88	Mar. 2	21.75	Apr. 6	21.03
30	23.30	Apr. 8	21.36	May 6	20.11
May 1	22.58	May 1	20.90	June 14	19.82
31	22.21	June 3	20.76	July 8	20.51
July 1	22.15	July 6	24.31	Aug. 9	21.09
29	22.52	Aug. 3	22.58	Sept. 18	20.60
Aug. 30	23.43	Sept. 11	20.74	Oct. 11	20.77
Oct. 7	21.84	Oct. 1	21.60	Nov. 10	21.20

U79. Central Nebraska Public Power and Irrigation District. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Drilled observation well, diameter 2 inches, depth 34 feet. Measuring point, 2,654.23 feet above sea level, 0.2 foot below land-surface datum. Reference point, top of iron pin, 2,654.01 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Oct. 1, 1940	25.02	Nov. 4, 1941	20.37	Dec. 1, 1942	19.36
Nov. 4	24.85	29	20.48	Jan. 7, 1943	18.59
Jan. 3, 1941	22.60	Dec. 31	20.55	Feb. 3	18.47
Feb. 3	21.72	Feb. 3, 1942	20.24	Mar. 4	18.71
Mar. 3	21.34	Mar. 2	20.17	Apr. 6	18.43
31	21.05	Apr. 8	19.70	May 6	17.86
May 1	20.52	May 1	19.39	June 14	17.51
June 2	20.09	June 3	19.04	July 8	17.72
July 1	19.95	July 6	20.73	Aug. 9	17.65
29	20.52	Aug. 3	20.35	Sept. 18	17.63
Aug. 30	20.88	Sept. 11	18.87	Oct. 11	17.72
Oct. 7	20.55	Oct. 2	19.06	Nov. 10	18.10

U80. Central Nebraska Public Power and Irrigation District. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 12 N., R. 27 W. Drilled observation well, diameter 2 inches, depth 44 feet. Measuring point, top of casing, 2,660.75 feet above sea level, 0.3 foot above land-surface datum. Reference point, top of iron pin, 2,660.50 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1940-43

Oct. 1, 1940	31.05	Nov. 29, 1941	26.28	Jan. 7, 1943	25.47
Nov. 4	30.92	Dec. 31	26.31	Feb. 3	25.45
Jan. 3, 1941	28.31	Feb. 3, 1942	26.23	Mar. 4	25.47
Feb. 3	27.52	Mar. 2	26.14	Apr. 6	25.43
Mar. 31	27.13	Apr. 8	26.02	May 6	25.44
May 1	26.25	May 1	25.87	June 14	25.49
June 2	25.80	June 3	25.60	July 8	25.38
July 1	25.58	July 6	25.47	Aug. 9	25.35
29	25.87	Aug. 3	25.57	Sept. 18	25.32
Aug. 30	26.71	Sept. 11	25.54	Oct. 11	25.31
Oct. 7	26.43	Oct. 2	25.53	Nov. 10	25.29
Nov. 4	26.33	Dec. 1	25.50		

Logan County

404 (\*886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 17 N., R. 27 W. No measurements made in 1943.

Loup County

234 (\*817, p. 148; 840, p. 211; 845, p. 178; 886, p. 326; 908, p. 225; 946, p. 219). University of Nebraska. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 24 N., R. 19 W. No measurements made in 1943.

345 (\*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 21 N., R. 18 W. No measurements made in 1943.

422 (\*886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 21 N., R. 18 W. No measurements made in 1943.

McPherson County

254 (\*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 18 N., R. 31 W. No measurements made in 1943.

Madison County

108 (\*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 220). F. Prauner. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 24 N., R. 2 W. No measurements made in 1943.

109 (\*817, p. 149; 840, p. 213; 908, p. 226; 938, p. 178; 946, p. 220). J. Bredehoft. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 23 N., R. 2 W. No measurements made in 1943.

110 (\*817, p. 149; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220). A. Christian. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 22 N., R. 1 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 101.59. Water level, in feet below land-surface datum, 1943: Nov. 18, 1.54.

334 (\*817, p. 149; 840, p. 212; 845, p. 178; 908, p. 226; 938, p. 178; 946, p. 220). O. Engelsgard. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 21 N., R. 4 W. No measurements made in 1943.

Merrick County

42 (\*817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220). P. Pearson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 16 N., R. 3 W. No measurements made in 1943.

48 (\*817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220). H. Abel. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 14 N., R. 5 W. No measurements made in 1943.

49 (\*817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220). H. Tsudy. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 14 N., R. 7 W. No measurements made in 1943.

50 (\*817, p. 150; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220). C. Reeves. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 13 N., R. 7 W. No measurements made in 1943.

GI200 (\*836-E, pp. 252, 270; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220). City of Grand Island. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 11 N., R. 8 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.50. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.16; Aug. 23, 5.46; Oct. 11, 5.87.



GI201 (\*836-E, pp. 252, 271; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220). City of Grand Island. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 11 N., R. 9 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.42. Water levels, in feet below land-surface datum, 1943: Mar. 24, 7.92; Aug. 23, 9.28; Oct. 11, 9.60.

### Morrill County

84 (\*817, p. 150; 840, p. 212; 845, p. 179; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220). J. Jenseh. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 22 N., R. 50 W. No measurements made in 1943.

85 (\*817, p. 150; 840, p. 213; 845, p. 179; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220). State of Nebraska, Department of Roads and Irrigation. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 20 N., R. 50 W. Measuring point is 3,666.35 feet above sea level. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.15.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.51	Apr. 29	4.67	June 21	4.63	Aug. 29	4.77
14	4.54	May 1	4.69	24	4.71	Sept. 5	4.67
19	4.57	5	4.77	26	4.75	10	4.66
27	4.59	7	4.79	30	4.78	15	4.62
Feb. 11	4.63	8	4.81	July 5	4.78	20	4.59
16	4.59	9	4.81	9	4.66	25	4.54
19	4.59	12	4.83	10	4.61	30	4.49
21	4.57	15	4.83	13	4.21	Oct. 10	4.43
25	4.59	17	4.75	14	4.11	16	4.38
Mar. 3	4.61	18	4.71	15	4.17	20	4.38
9	4.66	19	4.70	17	4.23	25	4.38
15	4.57	20	4.70	18	4.17	30	4.34
20	4.68	21	4.70	20	4.26	Nov. 3	4.30
23	4.67	22	4.70	21	4.33	11	4.34
28	4.66	25	4.78	22	4.16	15	4.36
Apr. 1	4.68	30	4.82	23	4.20	20	4.36
4	4.68	31	4.82	24	4.27	25	4.38
5	4.69	June 2	4.55	28	4.47	30	4.39
7	4.70	3	4.47	29	4.49	Dec. 5	4.41
10	4.66	5	4.40	31	4.56	6	4.42
11	4.49	7	4.45	Aug. 5	4.67	13	4.42
12	4.39	10	4.46	10	4.78	15	4.44
13	4.34	12	4.43	15	4.85	20	4.47
14	4.35	14	4.45	20	4.90	23	4.47
21	4.51	17	4.48	25	4.84	31 a	4.51
25	4.59	20	4.52				

97 (\*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 179; 946, p. 221). F. Smith. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 20 N., R. 50 W. No measurements made in 1943.

### Nance County

43 (\*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 179; 946, p. 221). Greek Estate. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 17 N., R. 4 W. No measurements made in 1943.

371 (\*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 228; 938, p. 179; 946, p. 221). W. Christiansen. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 17 N., R. 6 W. No measurements made in 1943.

a Interpolated.

Nemaha County

11 (\*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 228; 938, p. 179; 946, p. 221). Mrs. Horm. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 5 N., R. 14 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.81. Water level, in feet below land-surface datum, 1943: Sept. 22, 13.30.

Nuckolls County

164 (\*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179; 946, p. 222). F. Hornbussel. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 1 N., R. 7 W. No measurements made in 1943.

165 (\*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179; 946, p. 222). E. Dillon. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8, T. 2 N., R. 5 W. No measurements made in 1943.

393 (\*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179; 946, p. 222). W. Statz. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 4 N., R. 7 W. No measurements made in 1943.

407 (\*886, p. 329; 908, p. 228; 946, p. 222). University of Nebraska. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 1 N., R. 7 W. No measurements made in 1943.

Otoe County

8a (\*946, p. 222). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 8 N., R. 10 E. No measurements made in 1943.

9 (\*817, p. 152; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). W. Gellerman. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 8 N., R. 11 E. No measurements made in 1943.

10 (\*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). L. Damme. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 7 N., R. 12 E. No measurements made in 1943.

Pawnee County

4 (\*777, p. 92; 817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). E. Munzeker. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 2 N., R. 11 E. No measurements made in 1943.

Perkins County

151 (\*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). A. Lagler. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 11 N., R. 39 W. No measurements made in 1943.

Phelps County

157 (\*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). Western Public Service Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 5 N., R. 18 W. No measurements made in 1943.

275 (\*817, p. 154; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 222). F. Skiles. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 8 N., R. 17 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.73. Water level, in feet below land-surface datum, 1943: Nov. 8, 10.05.

276 (\*817, p. 154; 840, p. 216; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 222). W. Bamford. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 8 N., R. 17 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.43. Water level, in feet below land-surface datum, 1943: Nov. 8, 12.64.

277 (\*817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). University of Nebraska. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 8 N., R. 18 W. To convert water levels from feet above assumed datum, as published in previous reports, subtract from 104.72. Water level, in feet below land-surface datum, 1943: Nov. 8, 4.14.

5. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 8 N., R. 20 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 18 feet. Measuring point, top of casing, 2,340.50 feet above sea level, 0.8 foot above land-surface datum. Reference point, top of iron pin, 2,339.75 feet above sea level.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Nov. 1, 1937	12.22	Sept. 6, 1939	10.88	Nov. 6, 1941	10.99
Dec. 1	11.79	Oct. 3	11.37	28	10.88
Jan. 1, 1938	11.40	Nov. 2	11.25	Jan. 6, 1942	10.83
Feb. 1	10.97	Dec. 5	10.90	Feb. 2	10.20
Mar. 1	10.85	Jan. 7, 1940	10.53	Mar. 6	8.77
Apr. 1	9.85	29	10.23	Apr. 7	8.19
15	9.29	Mar. 5	9.86	29	7.72
May 2	8.43	Apr. 4	9.72	June 4	7.08
16	7.97	May 2	9.61	July 21	7.87
June 1	7.76	29	10.30	Aug. 4	7.71
15	7.60	July 2	11.11	Sept. 15	7.62
July 1	7.94	27	11.65	Oct. 2	7.93
Aug. 16	9.57	Aug. 29	11.98	Nov. 20	8.45
Sept. 1	9.86	Sept. 30	12.15	Dec. 8	8.58
Oct. 1	9.76	Nov. 2	12.04	Jan. 7, 1943	8.77
Nov. 1	9.66	Dec. 30	11.08	Feb. 1	8.86
Dec. 1	9.53	Feb. 5, 1941	10.73	Mar. 3	8.94
31	9.69	Mar. 4	10.74	Apr. 5	9.08
Feb. 1, 1939	9.51	Apr. 8	10.48	May 6	7.87
Mar. 3	9.42	May 2	9.46	June 4	8.55
Apr. 6	9.24	June 3	9.77	July 9	8.39
May 5	9.55	July 2	10.31	Aug. 7	8.34
June 6	9.04	30	10.40	Sept. 15	8.18
July 5	9.07	Sept. 2	10.86	Oct. 13	8.68
Aug. 4	9.88	Oct. 6	11.18	Nov. 9	8.91

6. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 8 N., R. 20 W. Driven observation well, diameter 1 $\frac{1}{2}$  inches, depth 23 feet. Measuring point, top of casing, 2,338.08 feet above sea level, 1.3 feet above land-surface datum. Reference point, top of iron pipe, 2,336.82 feet above sea level.

Water level, in feet below land-surface datum, 1937-43

Nov. 1, 1937	16.25	Sept. 6, 1939	14.52	Nov. 6, 1941	14.77
Dec. 1	15.93	Oct. 3	14.96	28	14.69
Jan. 1, 1938	15.50	Nov. 6	14.94	Jan. 7, 1942	14.70
Feb. 1	15.31	Dec. 5	14.56	Feb. 2	14.26
Mar. 1	15.13	Jan. 7, 1940	14.31	Mar. 6	13.03
Apr. 1	13.91	29	14.08	Apr. 7	12.40
15	13.14	Mar. 5	13.79	29	11.87
May 2	11.75	Apr. 4	13.70	June 4	11.40
16	11.23	May 2	13.45	July 21	11.55
June 1	10.87	29	13.95	Aug. 4	11.49
15	10.70	July 2	14.55	Sept. 15	11.18
July 1	10.97	27	15.05	Oct. 2	11.41
Aug. 16	12.66	Aug. 29	15.36	Nov. 20	11.79
Sept. 1	13.10	Sept. 30	15.58	Dec. 8	11.92
Oct. 1	13.24	Nov. 2	15.68	Jan. 7, 1943	12.11
Nov. 1	13.28	Dec. 30	14.92	Feb. 1	12.13
Dec. 1	13.23	Feb. 5, 1941	14.67	Mar. 3	12.28
31	13.44	Mar. 4	14.66	Apr. 5	12.52
Feb. 1, 1939	13.38	Apr. 8	14.51	May 6	11.41
May 3	13.59	May 2	13.64	June 4	12.92
Apr. 6	13.25	June 3	13.81	July 9	11.59
May 5	13.32	July 2	14.13	Aug. 7	11.87
June 6	13.51	30	14.37	Sept. 15	11.68
July 5	13.05	Sept. 2	14.77	Oct. 13	11.86
Aug. 4	13.89	Oct. 6	14.85	Nov. 9	12.18

7. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 8 N., R. 20 W. Driven observation well, diameter  $1\frac{1}{2}$  inches, depth 20 feet. Measuring point, top of casing, 2,337.39 feet above sea level, 1.3 feet above land-surface datum. Reference point, top of iron pin, 2,336.07 feet above sea level.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Nov. 1, 1937	12.40	Sept. 6, 1939	10.77	Nov. 6, 1941	10.96
Dec. 1	12.00	Oct. 3	11.20	28	10.88
Jan. 1, 1938	11.62	Nov. 2	11.20	Jan. 7, 1942	10.88
Feb. 1	11.56	Dec. 5	10.78	Feb. 2	10.34
Mar. 1	11.19	Jan. 7, 1940	10.53	Mar. 6	8.87
Apr. 1	9.64	29	10.22	Apr. 7	8.18
15	8.76	Mar. 5	9.93	29	7.63
May 2	7.35	Apr. 4	9.77	June 4	7.27
16	6.93	May 2	9.56	July 21	7.70
June 1	6.54	29	10.22	Aug. 4	7.53
15	6.53	July 2	12.67	Sept. 15	7.39
July 1	6.93	27	12.16	Oct. 2	7.73
Aug. 16	11.49	Aug. 29	11.81	Nov. 20	8.21
Sept. 1	9.37	Sept. 30	11.93	Dec. 8	8.36
Oct. 1	9.44	Nov. 2	11.95	Jan. 7, 1943	8.57
Nov. 1	9.45	Dec. 30	11.12	Feb. 1	8.67
Dec. 1	9.41	Feb. 5, 1941	10.83	Mar. 3	8.73
31	9.60	Mar. 4	10.80	Apr. 5	8.92
Feb. 1, 1939	9.59	Apr. 8	10.62	May 6	7.69
Mar. 3	9.58	May 2	9.53	June 4	8.28
Apr. 6	9.42	June 3	9.84	July 9	7.97
May 5	9.59	July 2	10.25	Aug. 7	7.93
June 6	9.30	30	12.38	Sept. 15	8.03
July 5	9.12	Sept. 2	10.96	Oct. 13	8.34
Aug. 4	10.14	Oct. 6	11.06	Nov. 9	8.68

8. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 8 N., R. 20 W. Driven observation well, diameter  $1\frac{1}{2}$  inches, depth 13 feet. Measuring point, top of casing, 2,326.00 feet above sea level, 1.0 foot above land-surface datum. Reference point, top of iron pin, 2,325.04 feet above sea level.

Water level, in feet below land-surface datum, 1938-43

Apr. 1, 1938	5.57	Jan. 7, 1940	5.20	Jan. 7, 1942	5.60
15	5.42	29	5.06	Feb. 2	5.28
May 2	5.36	Mar. 5	4.66	Mar. 6	4.93
16	4.97	Apr. 4	5.14	Apr. 7	4.67
June 1	4.79	May 2	5.31	29	4.22
15	4.84	29	5.86	June 4	2.10
July 1	5.19	July 2	6.46	July 21	4.10
Aug. 16	5.82	27	7.13	Aug. 4	4.20
Sept. 1	5.64	Aug. 29	7.40	Sept. 15	3.64
Oct. 1	5.31	Sept. 30	7.42	Oct. 2	4.09
Nov. 1	5.09	Nov. 2	7.36	Nov. 20	3.95
Dec. 1	4.84	Dec. 30	5.83	Dec. 8	3.75
31	4.79	Feb. 5, 1941	5.46	Jan. 7, 1943	3.73
Feb. 1, 1939	4.51	Mar. 4	5.57	Feb. 1	3.14
Mar. 3	3.76	Apr. 8	5.45	Mar. 3	3.67
Apr. 6	4.34	May 2	5.39	Apr. 5	3.97
May 5	4.93	June 3	5.57	May 6	3.65
June 6	5.02	July 2	5.89	June 4	4.21
July 5	4.80	30	6.56	July 9	4.02
Aug. 4	5.95	Sept. 2	6.75	Aug. 7	4.85
Sept. 6	6.70	Oct. 6	6.23	Sept. 15	3.98
Oct. 3	7.05	Nov. 6	5.94	Oct. 13	4.16
Nov. 2	6.34	28	5.75	Nov. 9	4.00
Dec. 5	5.65				

9. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 8 N., R. 20 W. Driven observation well, diameter  $1\frac{1}{4}$  inches, depth 16 feet. Measuring point, top of casing, 2,325.60 feet above sea level, 0.7 foot above land-surface datum. Reference point, top of iron pipe, 2,324.92 feet above sea level.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Apr. 1, 1938	9.24	Dec. 5, 1939	9.25	Nov. 28, 1941	9.22
15	9.26	Jan. 7, 1940	8.81	Jan. 7, 1942	9.00
May 2	9.38	29	8.57	Feb. 2	8.76
16	9.11	Mar. 5	8.09	Mar. 6	8.55
June 1	8.97	Apr. 4	8.62	Apr. 7	8.36
15	9.04	May 2	8.85	29	7.90
July 1	9.44	29	9.41	July 21	7.56
Aug. 16	10.02	July 2	9.94	Aug. 4	8.20
Sept. 1	9.80	27	10.60	Sept. 15	7.12
Oct. 1	9.34	Aug. 29	10.94	Oct. 2	7.42
Nov. 1	8.95	Sept. 30	11.01	Nov. 20	7.38
Dec. 1	8.57	Nov. 2	10.98	Dec. 8	7.18
31	8.41	Dec. 30	9.40	Jan. 7, 1943	7.08
Feb. 1, 1939	8.02	Feb. 5, 1941	9.03	Feb. 1	6.46
Mar. 3	7.84	Mar. 4	9.05	Mar. 3	6.94
Apr. 6	7.82	Apr. 8	8.94	Apr. 5	7.24
May 5	8.53	May 2	9.01	May 6	7.06
June 6	8.65	June 3	9.11	June 4	7.58
July 5	8.06	July 2	9.32	July 9	7.37
Aug. 4	9.45	30	9.97	Aug. 7	8.22
Sept. 6	10.17	Sept. 2	10.23	Sept. 15	7.37
Oct. 3	10.65	Oct. 6	9.76	Oct. 13	7.68
Nov. 2	9.88	Nov. 6	9.59	Nov. 9	7.44

10. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 8 N., R. 20 W. Driven observation well, diameter  $1\frac{1}{4}$  inches, depth 22 feet. Measuring point, top of casing, 2,326.70 feet above sea level, 3.0 feet above land-surface datum. Reference point, top of iron pin, 2,323.72 feet above sea level.

Water level, in feet below land-surface datum, 1938-43

Apr. 1, 1938	12.93	Jan. 29, 1940	12.30	Jan. 7, 1942	12.35
15	12.90	Mar. 5	11.94	Feb. 2	12.19
May 2	12.92	Apr. 4	12.04	Mar. 6	11.83
16	12.77	May 2	12.00	Apr. 7	11.58
June 1	12.64	29	12.34	29	11.19
15	12.48	July 2	12.88	July 21	9.43
July 1	12.52	27	13.37	Aug. 4	9.91
Aug. 16	12.89	Aug. 29	13.73	Sept. 15	9.02
Sept. 1	12.82	Sept. 30	13.90	Oct. 2	9.19
Oct. 1	12.46	Nov. 2	13.76	Nov. 20	9.19
Dec. 31	11.98	Dec. 30	13.13	Dec. 8	9.15
Feb. 1, 1939	11.80	Feb. 5, 1941	12.83	Jan. 7, 1943	9.20
Mar. 3	11.74	Mar. 4	12.77	Feb. 1	9.18
Apr. 6	11.66	Apr. 8	12.60	Mar. 3	9.23
May 5	11.76	May 2	12.49	Apr. 5	9.48
June 6	11.47	June 3	12.36	May 6	9.08
July 5	10.65	July 2	12.28	June 4	9.37
Aug. 4	12.06	30	12.86	July 9	9.02
Sept. 6	12.66	Sept. 2	13.21	Aug. 7	9.84
Oct. 3	13.08	Oct. 6	12.80	Sept. 15	9.38
Nov. 2	12.98	Nov. 6	12.61	Oct. 13	9.41
Dec. 5	12.65	28	12.46	Nov. 9	9.46
Jan. 7, 1940	12.44				

11. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 8 N., R. 20 W. Driven observation well, diameter  $1\frac{1}{4}$  inches, depth 16 feet. Measuring point, top of casing, 2,313.90 feet above sea level, 1.2 feet above land-surface datum. Reference point, top of iron pin, 2,312.66 feet above sea level.

11.--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Apr. 1, 1938	8.71	Jan. 7, 1940	8.02	Jan. 7, 1942	7.82
15	8.75	29	7.89	Feb. 2	7.66
May 2	8.78	Mar. 5	7.60	Mar. 6	7.48
16	8.71	Apr. 4	7.65	Apr. 7	7.24
June 1	8.63	May 2	7.64	29	6.86
15	8.53	29	7.91	June 4	5.01
July 1	8.62	July 2	8.22	July 21	5.68
Aug. 16	8.69	27	8.61	Aug. 4	6.11
Sept. 1	8.78	Aug. 29	8.97	Sept. 15	5.31
Oct. 1	8.44	Sept. 30	9.15	Oct. 2	5.47
Nov. 1	8.24	Nov. 2	9.19	Nov. 20	5.48
Dec. 1	7.92	Dec. 30	8.69	Dec. 8	5.39
31	7.63	Feb. 5, 1941	8.33	Jan. 7, 1943	5.30
Feb. 1, 1939	7.53	Mar. 4	8.22	Feb. 1	5.27
Mar. 3	7.36	Apr. 8	8.02	Mar. 3	5.15
Apr. 6	7.30	May 2	7.88	Apr. 5	5.38
May 5	7.40	June 3	7.77	May 6	5.21
June 6	7.33	July 2	7.70	June 4	5.51
July 5	6.82	30	8.17	July 9	5.31
Aug. 4	7.69	Sept. 2	8.50	Aug. 7	6.05
Sept. 6	8.25	Oct. 6	8.36	Sept. 15	5.79
Oct. 3	8.62	Nov. 6	8.11	Oct. 13	5.75
Nov. 2	8.57	28	7.96	Nov. 9	5.65
Dec. 5	8.25				

Pierce County

70 (\*817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). Village of Foster. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 27 N., R. 3 W. No measurements made in 1943.

Platte County

39 (\*817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). A. Grossnicklaus. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 18 N., R. 1 W. No measurements made in 1943.

40 (\*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). E. Schacher. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 17 N., R. 2 W. No measurements made in 1943.

41 (\*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). H. Ernst. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 16 N., R. 2 W. No measurements made in 1943.

342 (\*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180). University of Nebraska. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 20 N., R. 1 E. No measurements made in 1943.

368 (\*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). L. Hither. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 20 N., R. 2 W. No measurements made in 1943.

US150. Loup River Public Power and Irrigation District. SE. corner SW $\frac{1}{4}$  sec. 28, T. 18 N., R. 1 E. 2 miles east of northeast corner of Lake Babcock. Drilled observation well, diameter 2 inches, depth 98.6 feet. Measuring point, top of pipe, 0.5 foot above land-surface datum, and 1,512.3 feet above sea level.

Water level, in feet below land-surface datum, 1935-43

Nov. 1, 1935	70.50	Jan. 15, 1936	70.10	Oct. 9, 1936	70.34
13	69.90	31	70.00	Feb. 5, 1937	70.75
Dec. 2	70.00	Mar. 16	70.00	25	70.89
16	70.70	Apr. 2	70.20	Apr. 10	71.01
28	70.00	June 16	70.30	June 11	71.10

## US150. Loup River Public Power and Irrigation District--Continued.

Water level, in feet below land-surface datum, 1935-43

Date	Water level	Date	Water level	Date	Water level
July 30, 1937	71.23	May 17, 1939	61.41	June 11, 1942	62.90
Oct. 5	70.87	June 7	61.51	July 21	63.20
Nov. 30	69.50	July 14	61.23	Aug. 19	63.60
Jan. 3, 1938	68.85	Aug. 22	61.12	Sept. 29	63.30
Feb. 9	67.85	Sept. 12	61.08	Oct. 23	63.70
Mar. 23	66.85	Oct. 17	60.97	Nov. 20	63.80
Apr. 26	66.08	Nov. 14	60.96	Dec. 16	64.00
May 25	65.45	Dec. 19	61.00	Jan. 6, 1943	63.90
June 15	65.00	Feb. 21, 1940	61.00	Feb. 8	63.80
July 19	64.30	Mar. 27	60.80	Mar. 16	64.20
Aug. 11	63.87	Apr. 24	60.80	Apr. 22	64.50
Sept. 7	63.45	May 24	61.00	May 28	64.60
Oct. 11	63.00	June 26	60.90	June 24	64.70
Nov. 25	62.56	July 20	62.20	Aug. 28	64.90
Dec. 14	62.45	Aug. 14	62.70	Sept. 28	65.20
Jan. 19, 1939	62.14	Mar. 18, 1942	62.70	Oct. 28	65.20
Feb. 14	61.97	Apr. 13	62.70	Nov. 27	65.50
Mar. 9	61.86	May 20	62.90	Dec. 28	65.60
Apr. 10	61.70				

Redwillow County

137 (\*817, p. 156; 840, p. 217; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). F. Duckworth. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 3 N., R. 27 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.20. Water level, in feet below land-surface datum, 1943: Sept. 13, 13.27.

139 (\*817, p. 157; 840, p. 217; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). F. Cain. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 3 N., R. 30 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.71. Water level, in feet below land-surface datum, 1943: Jan. 7, 19.14.

179 (\*817, p. 157; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 229; 938, p. 180; 946, p. 223). J. Clapp. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 2 N., R. 29 W. No measurements made in 1943.

494. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 3 N., R. 29 W. Driven observation well, diameter 1 inch, depth 20 feet above land-surface datum. Measuring point, top of casing, 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1940-43

July 30, 1940	7.64	Oct. 28, 1941	5.38	Aug. 13, 1943	8.29
Nov. 12	6.96	Nov. 19, 1942	5.71	Sept. 17	8.91

Richardson County

1 (\*908, p. 229; 938, p. 180; 946, p. 223). Fred Metzner. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 1 N., R. 17 E. No measurements made in 1943.

2 (\*908, p. 230; 938, p. 180; 946, p. 223). Approximately center of sec. 16, T. 1 N., R. 16 E. No measurements made in 1943.

3 (\*908, p. 230; 938, p. 180; 946, p. 223). Clarence Schatz. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 3 N., R. 16 E. No measurements made in 1943.

4 (\*908, p. 230; 938, p. 180; 946, p. 223). Mrs. Della Goolsley. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 3 N., R. 16 E. No measurements made in 1943.

5 (\*817, p. 157; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 230; 938, p. 181; 946, p. 223). W. Hogue. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 2 N., R. 14 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.50. Water level, in feet below land-surface datum, 1943: Sept. 22, 27.72.

6 (\*908, p. 230; 938, p. 180; 946, p. 223). Will Yoesel. NE $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 3, T. 1 N., R. 17 E. No measurements made in 1943.

7 (\*817, p. 157; 840, p. 217; 845, p. 181; 908, p. 230; 938, p. 181). University of Nebraska. NE $\frac{1}{2}$ NE $\frac{1}{4}$  sec. 16, T. 1 N., R. 17 E. No measurements made in 1943.

8 (\*908, p. 231; 938, p. 180; 946, p. 224). F. W. Burgett. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19 (may be S $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 20) T. 1 N., R. 14 E. No measurements made in 1943.

9 (\*908, p. 231; 938, p. 180; 946, p. 224). Fowle Realty Co. S $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 19, T. 1 N., R. 16 E. No measurements made in 1943.

10 (\*908, p. 231; 938, p. 180; 946, p. 224). Ben Stalder. N $\frac{1}{2}$ N $\frac{1}{2}$  sec. 27, T. 1 N., R. 15 E. No measurements made in 1943.

11 (\*908, p. 231; 938, p. 180; 946, p. 224). George Riden. NE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 32, T. 1 N., R. 15 E. No measurements made in 1943.

12 (\*908, p. 231; 938, p. 180; 946, p. 224). E. J. Ahearn. NE $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 24, T. 3 N., R. 15 E. No measurements made in 1943.

13 (\*908, p. 232; 938, p. 180; 946, p. 224). Warren Gergens. SE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 23, T. 3 N., R. 13 E. No measurements made in 1943.

14 (\*908, p. 232; 938, p. 180; 946, p. 224). L. Heineman. N $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 16, T. 2 N., R. 15 E. No measurements made in 1943.

15 (\*908, p. 232; 938, p. 180; 946, p. 224). Mrs. Martha Remmers. NW $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 29, T. 3 N., R. 17 E. No measurements made in 1943.

408 (\*886, p. 331; 908, p. 232; 938, p. 181; 946, p. 224). S. A. Miles. N $\frac{1}{2}$ S $\frac{1}{2}$  sec. 11, T. 1 N., R. 14 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.86. Water level, in feet below land-surface datum, 1943: Sept. 22, 14.31.

410 (\*908, p. 232; 938, p. 181; 946, p. 224). University of Nebraska. SE $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 4, T. 2 N., R. 13 E. No measurements made in 1943.

416 (\*886, p. 331; 908, p. 233; 938, p. 180; 946, p. 224). Mrs. Wittler. N $\frac{1}{2}$ NE $\frac{1}{4}$  sec. 22, T. 2 N., R. 14 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.54. Water level, in feet below land-surface datum, 1943: Sept. 22, 5.86.

417 (\*908, p. 233; 938, p. 180; 946, p. 224). University of Nebraska. NW $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 19, T. 1 N., R. 16 E. No measurements made in 1943.

419 (\*886, p. 331; 908, p. 233; 938, p. 181; 946, p. 224). University of Nebraska. SE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 12, T. 1 N., R. 15 E. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.04. Water level, in feet below land-surface datum, 1943: Sept. 22, 3.67.

#### Rock County

117 (\*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 233; 938, p. 181; 946, p. 224). University of Nebraska. NW $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 8, T. 30 N., R. 17 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.50. Water level, in feet below land-surface datum, 1943: Mar. 11, 1.77.

198 (\*817, p. 158; 840, p. 217; 908, p. 233; 938, p. 181; 946, p. 224). H. Gallagher. SE $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 3, T. 30 N., R. 19 W. No measurements made in 1943.

#### Saline County

194 (\*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 332; 908, p. 233; 938, p. 181; 946, p. 224). Pryor Estate. NE $\frac{1}{2}$ NE $\frac{1}{4}$  sec. 24, T. 6 N., R. 1 E. No measurements made in 1943.



341 (\*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 332; 908, p. 233; 938, p. 181; 946, p. 224). A. Kohout. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 7 N., R. 3 E. No measurements made in 1943.

### Sarpy County

26a (\*938, p. 181; 946, p. 224). Replaces old well 26. University of Nebraska. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 13 N., R. 13 E. No measurements made in 1943.

27 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). Chicago, Burlington & Quincy Railroad. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 13 N., R. 13 E. No measurements made in 1943.

323 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). S. Arbuthnot. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 14 N., R. 12 E. No measurements made in 1943.

### Saunders County

19 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). Chicago, Burlington & Quincy Railroad. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 14 N., R. 8 E. No measurements made in 1943.

21 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). City of Lincoln. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 13 N., R. 9 E. No measurements made in 1943.

22 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). City of Lincoln. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 13 N., R. 9 E. No measurements made in 1943.

331 (\*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). Union Pacific Railroad. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 14 N., R. 5 E. No measurements made in 1943.

2-6600W. U. S. key well 62. City of Lincoln. SW. corner sec. 24, T. 13 N., R. 9 E. Driven well, diameter 1 $\frac{1}{2}$  inches. Measuring point, top of pipe, level with land-surface datum, 1,065.22 feet above sea level.

Water level, in feet below land-surface datum, 1933-43.

Date	Water level	Date	Water level	Date	Water level
Oct. 9, 1933	7.74	Oct. 5, 1934	7.12	Aug. 1, 1935	5.30
14	6.38	11	7.12	15	5.75
24	5.80	19	7.03	29	6.22
Nov. 15	5.60	25	6.92	Sept. 12	5.79
24	5.55	Nov. 1	6.80	26	6.33
Dec. 7	4.20	9	6.65	Oct. 24	6.27
Jan. 10, 1934	5.15	15	6.61	Nov. 7	5.94
Feb. 1	4.96	22	6.54	Dec. 5	5.70
Mar. 12	4.88	30	6.45	Jan. 2, 1936	5.65
May 4	5.20	Dec. 6	6.38	Mar. 26	3.78
22	5.45	13	6.33	Apr. 7	5.13
June 7	5.82	20	6.29	June 18	5.75
14	7.15	27	6.23	July 2	6.07
22	6.05	Jan. 3, 1935	6.18	16	6.62
28	6.22	17	6.12	Aug. 6	7.48
July 5	6.38	31	5.78	20	7.81
12	6.54	Feb. 14	5.90	Sept. 4	7.82
19	6.78	28	5.80	17	6.76
26	7.05	Mar. 14	5.37	Oct. 1	6.82
Aug. 2	7.30	28	5.46	Nov. 5	6.90
9	7.50	Apr. 15	5.54	20	6.75
15	7.67	25	5.57	Dec. 3	6.66
23	7.80	May 9	5.66	17	6.58
30	7.92	24	5.16	31	6.46
Sept. 6	7.77	June 10	4.75	Jan. 14, 1937	6.37
13	7.72	20	4.42	Feb. 25	5.69
20	7.72	July 5	3.90	Mar. 12	5.83
27	7.22	18	5.00	24	4.32

## 2-6600W. City of Lincoln--Continued.

Water level, in feet below land-surface datum, 1933-43

Date	Water level	Date	Water level	Date	Water level
Apr. 29, 1937	5.58	Mar. 9, 1939	5.69	Aug. 7, 1941	6.64
May 13	5.64	June 1	5.67	Sept. 11	6.75
July 21	5.56	16	5.69	Oct. 24	6.40
Aug. 5	6.65	July 13	5.64	Nov. 26	5.92
26	6.55	Nov. 9	7.21	Aug. 30, 1942	4.55
Sept. 9	7.17	24	7.12	Sept. 26	4.17
23	7.45	Mar. 29, 1940	5.63	Oct. 31	4.90
Oct. 10	6.85	June 14	6.08	Nov. 28	4.38
Dec. 2	6.69	27	5.46	Jan. 2, 1943	5.21
29	6.44	July 11	6.25	Feb. 27	3.92
Feb. 10, 1938	6.18	30	7.00	Mar. 29	3.68
Mar. 23	5.44	Sept. 19	6.92	Apr. 29	4.00
Apr. 21	5.44	Oct. 25	7.25	May 29	3.73
June 17	5.28	Dec. 10	6.52	June 25	3.56
July 20	5.50	Jan. 10, 1941	6.00	July 27	4.38
Aug. 4	6.02	Feb. 7	4.32	Aug. 28	5.79
Oct. 20	5.22	Mar. 13	5.50	Oct. 1	6.68
Dec. 7	5.56	Apr. 17	4.50	29	6.79
22	5.50	May 15	4.08	Nov. 30	6.35
Jan. 13, 1939	5.54	July 17	5.64	Dec. 28	5.95
Feb. 2	5.54				

Scotts Bluff County

438 (\*840, p. 228; 845, p. 190; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 23 N., R. 56 W. No measurements made in 1943.

439 (\*840, p. 228; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). University of Nebraska. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 23 N., R. 56 W. No measurements made in 1943.

440 (\*840, p. 228; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 23 N., R. 56 W. No measurements made in 1943.

442 (\*840, p. 229; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 22 N., R. 56 W. No measurements made in 1943.

502 (\*946, p. 225). Harry Long. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 23 N., R. 57 W. No measurements made in 1943.

Seward County

171 (\*817, p. 160; 840, p. 229; 845, p. 192; 886, p. 332; 908, p. 234; 938, p. 182). Kilpatrick Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 11 N., R. 3 E. No measurements made in 1943.

172 (\*817, p. 160; 840, p. 229; 845, p. 192; 886, p. 332; 908, p. 234; 938, p. 182; 946, p. 225). W. Langworthy. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 11 N., R. 2 E. No measurements made in 1943.

Sheridan County

120 (\*817, p. 161; 840, p. 229; 845, p. 192; 908, p. 235; 938, p. 182; 946, p. 226). C. Johnson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 31 N., R. 46 W. No measurements made in 1943.

217 (\*817, p. 161; 840, p. 229; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 24 N., R. 41 W. No measurements made in 1943.

376 (\*817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 31 N., R. 44 W. No measurements made in 1943.

379 (\*817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska.  $SE\frac{1}{4}SE\frac{1}{4}$  sec. 8, T. 24 N., R. 45 W. No measurements made in 1943.

432 (\*886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska.  $SE\frac{1}{4}NE\frac{1}{4}$  sec. 8, T. 31 N., R. 46 W. No measurements made in 1943.

#### Sherman County

58 (\*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). J. Kociemba.  $NE\frac{1}{4}SE\frac{1}{4}$  sec. 24, T. 15 N., R. 15 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.50. Water level, in feet below land-surface datum, 1943: Nov. 3, 5.73.

#### Sioux County

81 (\*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). J. Cook.  $SW\frac{1}{4}SW\frac{1}{4}$  sec. 33, T. 29 N., R. 55 W. No measurements made in 1943.

125 (\*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 946, p. 226). Village of Harrison.  $NE\frac{1}{4}SE\frac{1}{4}$  sec. 10, T. 31 N., R. 56 W. No measurements made in 1943.

377 (\*817, p. 163; 840, p. 231; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska.  $NW\frac{1}{4}SW\frac{1}{4}$  sec. 6, T. 28 N., R. 55 W. No measurements made in 1943.

#### Stanton County

421 (\*886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska.  $NW\frac{1}{4}NW\frac{1}{4}$  sec. 11, T. 23 N., R. 3 E. No measurements made in 1943.

#### Thayer County

166 (\*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 235; 938, p. 182). H. Eggert.  $SE\frac{1}{4}NE\frac{1}{4}$  sec. 31, T. 3 N., R. 2 W. No measurements made in 1943.

187 (\*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 235; 938, p. 182). L. Williams.  $SW\frac{1}{4}SW\frac{1}{4}$  sec. 4, T. 4 N., R. 4 W. No measurements made in 1943.

452 (\*886, p. 334; 908, p. 235; 938, p. 182). University of Nebraska.  $NW\frac{1}{4}NE\frac{1}{4}$  sec. 22, T. 4 N., R. 4 W. No measurements made in 1943.

#### Thomas County

212 (\*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 946, p. 226). University of Nebraska.  $NE\frac{1}{4}SE\frac{1}{4}$  sec. 9, T. 23 N., R. 28 W. No measurements made in 1943.

213 (\*817, p. 164; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227). University of Nebraska.  $NW\frac{1}{4}NE\frac{1}{4}$  sec. 20, T. 24 N., R. 30 W. No measurements made in 1943.

#### Thurston County

60 (\*817, p. 164; 840, p. 231; 908, p. 236; 938, p. 182; 946, p. 227). S. French.  $SW\frac{1}{4}SE\frac{1}{4}$  sec. 26, T. 25 N., R. 6 E. No measurements made in 1943.

102 (\*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 946, p. 227). University of Nebraska.  $NW\frac{1}{4}NW\frac{1}{4}$  sec. 12, T. 26 N., R. 5 E. No measurements made in 1943.

103 (\*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227). D. Leap.  $SW\frac{1}{4}NW\frac{1}{4}$  sec. 13, T. 26 N., R. 8 E. No measurements made in 1943.

Valley County

54 (\*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183). E. Esterbrook. N $\frac{1}{2}$ NE $\frac{1}{4}$  sec. 26, T. 17 N., R. 16 W. No measurements made in 1943.

56 (\*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). G. Verzal. S $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 6, T. 19 N., R. 14 W. No measurements made in 1943.

57 (\*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). W. T. Hutchins. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 18 N., R. 13 W. No measurements made in 1943.

Washington County

32 (\*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). A. Matzen. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 17 N., R. 11 E. No measurements made in 1943.

33 (\*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). E. Jensen. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 18 N., R. 11 E. No measurements made in 1943.

Wayne County

100 (\*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). N. Andrews. N $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 13, T. 26 N., R. 3 E. No measurements made in 1943.

Webster County

161 (\*817, p. 166; 840, p. 232; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 227). R. Adams. N $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 34, T. 3 N., R. 10 W. No measurements made in 1943.

162 (\*817, p. 166; 840, p. 233; 845, p. 193; 946, p. 227). H. Somerhalder. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 2 N., R. 10 W. No measurements made in 1943.

163 (\*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 228). H. Pedersen. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 2 N., R. 9 W. No measurements made in 1943.

Wheeler County

204 (\*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 237; 938, p. 183; 946, p. 228). University of Nebraska. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 23 N., R. 11 W. No measurements made in 1943.

205 (\*817, p. 167; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 237; 938, p. 183; 946, p. 228). University of Nebraska. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 21 N., R. 12 W. No measurements made in 1943.

York County

167 (\*817, p. 167; 840, p. 233; 845, p. 193; 908, p. 237; 938, p. 183; 946, p. 228). H. Moore. NW $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 32, T. 11 N., R. 3 W. No measurements made in 1943.

225 (\*817, p. 167; 840, p. 233; 845, p. 193; 908, p. 237; 938, p. 183; 946, p. 228). C. Miller. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 19 N., R. 2 W. No measurements made in 1943.

## NORTH DAKOTA

By A. L. Greenlee

### PROGRAM OF WORK

The cooperative ground-water investigation of the Geological Survey, United States Department of the Interior, and the North Dakota Geological Survey, which was begun in 1937 and includes a program of water-level measurements in selected wells, was continued in 1943. In the Fargo area, the city of Fargo also cooperated. At the end of the year water levels were under observation in 140 wells, 8 of which were equipped with automatic water-stage recorders. Of the remaining wells, 39 were measured weekly, 9 were measured semimonthly or monthly, and 84 were measured once, twice, or three times during the year. Seven of the wells were measured monthly or semimonthly by local observers, through the courtesy of city, State, and Federal agencies. In all, about 4,510 individual measurements were made during the year. The distribution of the observation wells in the State is shown in figure 7.

Special studies were made during 1943 of ground-water conditions in the vicinity of Camp Grafton, Ramsey County, where a reconnaissance was made in 1942, in other parts of Ramsey County, and at the State Hospital at Jamestown, Stutsman County. An investigation of the ground-water resources of the Devils Lake Basin was begun during the summer. The field work necessary to the detailed investigation of the area south of Oakes, Dickey County, was completed, and that in Pembina County was continued. Observations on water levels in artesian wells in the Fargo area, which is in Cass County, N. Dak., and Clay County, Minn., were continued. (See under Cass County, pp.

### FLUCTUATIONS OF WATER LEVEL

The average monthly water levels for the State for 1943 from the records of 18 representative wells are included in the following table. They show that new high monthly averages were established in seven of the months in 1943. (See also fig. 8.)

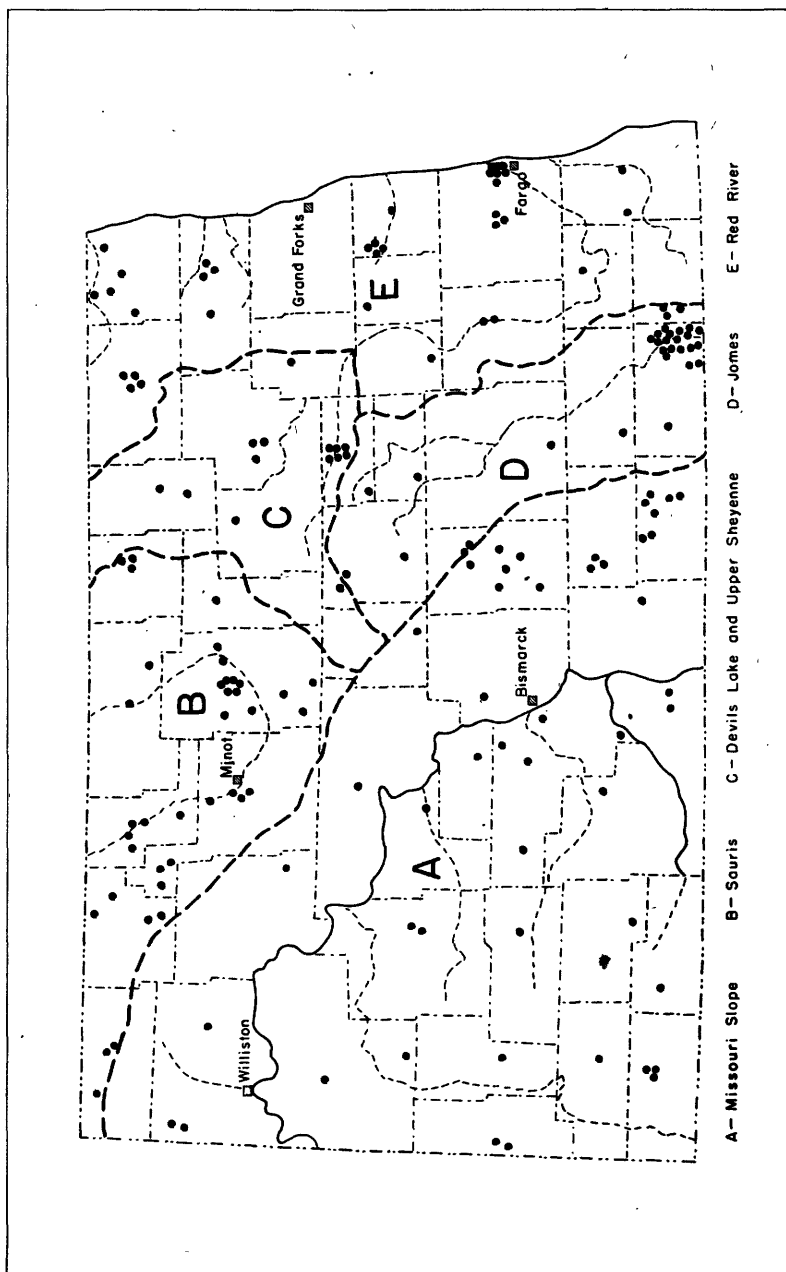


Figure 7.--Map of North Dakota showing distribution of observation wells at end of 1943.

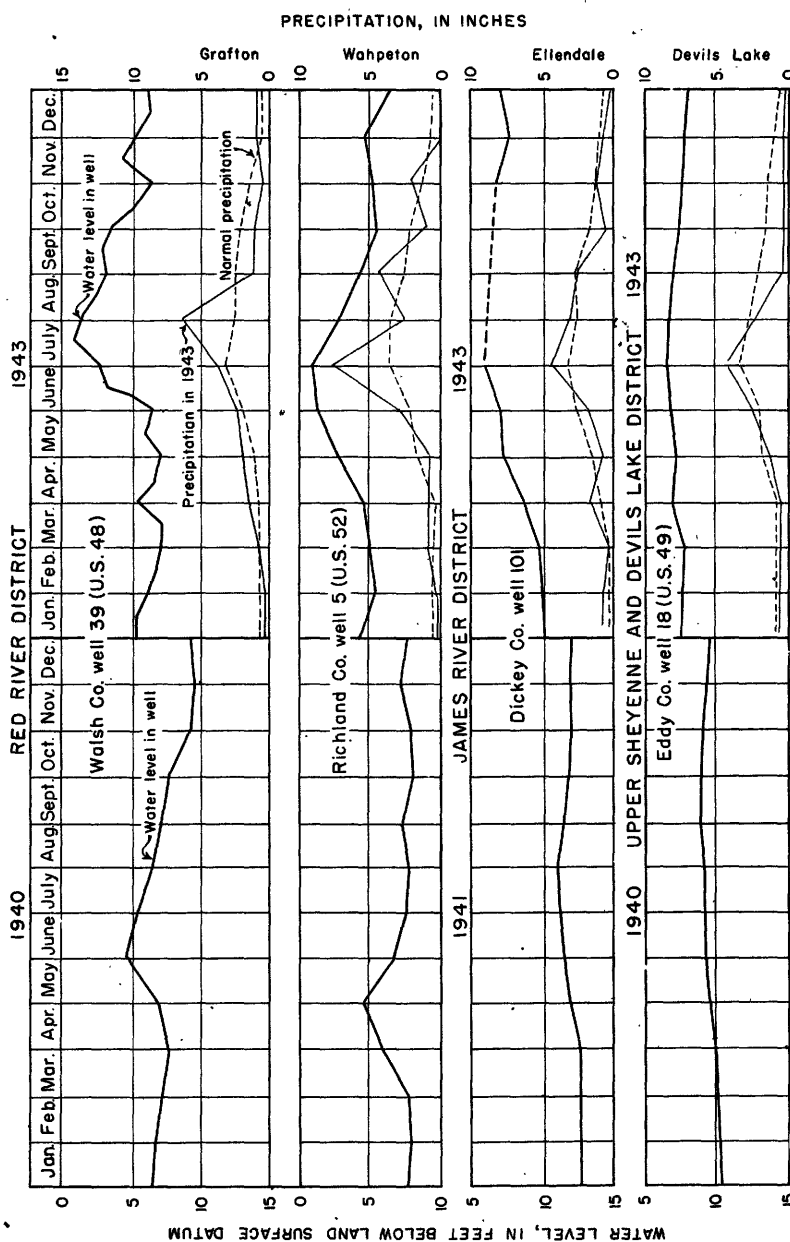


Figure 8.--Graphs showing fluctuations of water level in four key wells in North Dakota in 1943 and in 1940 or 1941, based on month-end measurements, also normal precipitation and precipitation in 1943.

Average monthly water levels, in feet above assumed datum planes, in observation wells in North Dakota, 1937-43.

Year	Jan.	Feb.	Mar.	Apr.	May	June
1937	.....	.....	.....	.....	.....	.....
1938	99.97	99.93	100.12	100.41	100.68	100.35
1939	99.49	99.38	99.38	99.95	99.98	100.07
1940	99.24	99.14	99.13	99.16	99.43	99.52
1941	98.84	98.74	98.83	99.76	99.97	100.43
1942	100.68	100.41	100.43	101.40	101.45	101.67
1943	100.51	100.44	100.40	101.30	102.09	102.73

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.
1937	.....	.....	100.31	100.19	100.13	100.05
1938	99.99	99.61	99.59	99.44	99.51	99.54
1939	99.89	99.62	99.41	99.37	99.34	99.31
1940	99.34	99.24	99.07	98.96	98.95	98.92
1941	100.39	99.89	100.16	100.73	100.64	100.26
1942	101.42	101.48	101.48	101.35	100.98	100.73
1943	102.68	102.19	101.91	101.50	101.37	101.26

The State has been divided into five districts, by drainage basins, to permit a closer study of the correlation between fluctuations in ground-water levels and fluctuations in stream flow and rainfall. (See fig. 8.)

The average depth to water in wells in each district during 1943 and the average fluctuation and net change in water levels in each district are given in the following table. The fluctuations of water levels in selected wells are shown by graphs in figures 8 and 9.

Average high and low water levels, in feet below land-surface datum, and average fluctuations and average net change in water level, in feet, in wells in North Dakota, 1943

District	Number of wells	High	Low	Fluctuation	Net change
Red River	10	7.24	10.95	4.12	-0.47
Upper Sheyenne and Devils Lake Basin	9	13.70	17.22	3.96	-.88
James River	8	19.34	20.62	1.71	+.59
Souris River	13	23.26	24.01	1.99	+1.43
Missouri Slope	9	33.02	37.62	6.90	+1.92

In the Red River Valley district, ground-water levels reached their maximum stages in the spring of 1943 coincident with floods and the general inundation of low-lying lands. Subnormal precipitation in the last part of the year, however, resulted in substantial declines from these high stages. Seven wells in which the depth to water is less than 10 feet below the land surface showed year-end stages of water level in 1943 that were 0.44 foot to 2.15 feet below those of 1942. On the other hand, three wells in which the depth to water is about 20 feet below the land surface showed



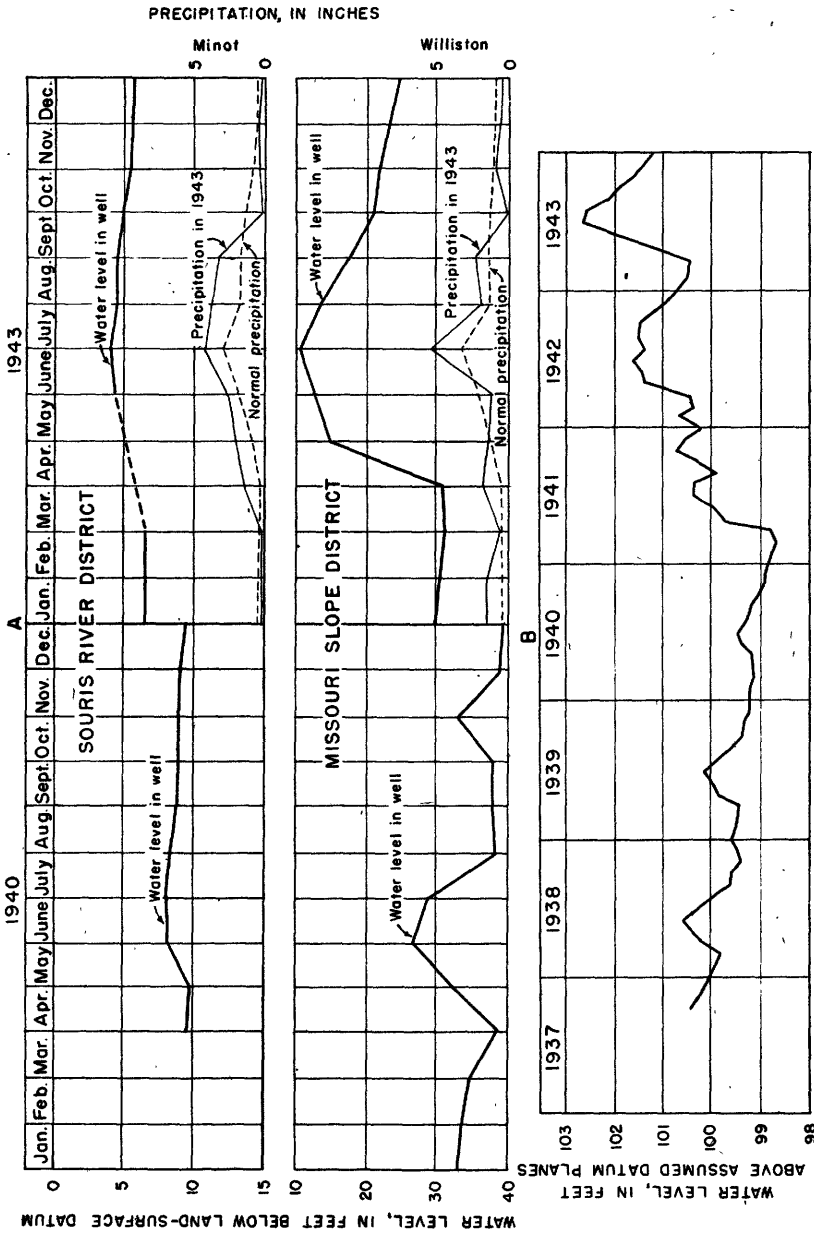


Figure 9.--A, Graphs showing fluctuations of water level in two key wells in North Dakota in 1943 and in 1940, based on north-end measurements, also normal precipitation and precipitation in 1943; B, Graph showing fluctuations of average water level in representative wells in North Dakota, 1937-43.

risers in water level of 0.39 foot to 1.50 feet above their stages at the end of 1942. Water levels at the end of 1943 ranged from about 1.5 to 3 feet above their low stages recorded in 1940.

Ground-water levels in the James River district declined only slightly toward the end of 1943, owing to the fact that the precipitation during the period September to December was nearly normal. Five wells showed an average net rise in water level of 1.28 feet in 1943, and two wells showed an average net decline of 1.25 feet. The two wells in which declines occurred are in the upper part of the valley, in the central part of the State. The graph for key well 101 in Dickey County (see fig. 8) shows that its water level was about 5 feet higher at the end of 1943 than at the end of 1941.

The precipitation on the Upper Sheyenne and Devils Lake Basin district was above normal in 1943 only in the month of June. Lake levels in the area declined approximately 1 to 2 feet during the year, and the graph for Eddy County well 18 (see fig. 8) shows that its water level declined 0.50 foot. Six wells show an average decline in water level of 1.70 feet from their year-end stages of 1942.

The graph for McHenry County well 102 (see fig. 9A), at the Denbigh Forestry Station in the Souris River district, shows that the water level in this well was maintained at about 4.5 feet below land surface from June to September and that during this period new high stages for the period of record were established. Although the precipitation was below normal during the last three months of the year, the decline of the water level in the well was slow, and at the end of 1943 it was about 1 foot higher than at the end of 1942. Wells in this district situated farther from the river showed appreciable declines of water level; in three, the average net decline was 1.62 feet. Water levels in wells in the valley part of the district may have been affected by the impounding of water in the Upper Des Lacs and Souris Rivers. Ten such wells showed an average rise in water level of 2.35 feet in 1943.

In most of the Missouri Slope district ground-water levels are at greater depths below the land surface than they are in the other districts. In 1943 rises of water level were general throughout the district and 9 wells showed an average net rise of 1.92 feet. None of the selected wells showed a net decline in water level during the year.

The fluctuations of water levels in 1943 in the Fargo area, part of which is in North Dakota, are discussed under Cass County on page 309.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

1 (\*908, p. 240; 938, p. 137; 946, p. 232). Mrs. Halverson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 130 N., R. 97 W. Measuring point is 2.00 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 49.76.

Barnes County

97 (\*886, p. 531; 908, p. 240; 938, p. 137; 946, p. 232). H. H. Wilkins. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 138 N., R. 57 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 141.62.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	43.02	Apr. 3	43.04	July 3	42.04	Oct. 2	42.21
9	43.03	10	43.04	10	42.07	9	42.21
16	43.04	17	43.05	17	42.09	16	42.29
23	43.04	24	43.06	24	42.09	23	42.33
30	43.05	May 1	43.06	31	42.10	30	42.39
Feb. 6	42.99	8	43.04	Aug. 7	42.10	Nov. 6	42.39
13	43.00	15	43.04	14	42.19	13	42.41
20	43.00	22	43.07	21	42.15	20	42.41
27	43.01	29	43.06	28	42.14	27	42.39
Mar. 6	43.03	June 5	43.04	Sept. 4	42.14	Dec. 4	42.42
13	43.03	12	43.06	11	42.15	11	42.42
20	43.04	19	41.89	18	42.15	18	42.43
27	43.05	26	41.99	25	42.19	25	42.54

98 (\*886, p. 531; 908, p. 240; 938, p. 133; 946, p. 233). H. H. Wilkins. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 133 N., R. 57 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 145.61.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	43.23	Apr. 3	42.36	July 3	40.99	Oct. 2	41.48
9	43.18	10	42.33	10	40.98	9	41.64
16	43.03	17	42.38	17	40.94	16	41.78
23	43.02	24	42.39	24	40.97	23	41.95
30	42.96	May 1	42.36	31	41.02	30	42.07
Feb. 6	42.95	8	42.32	Aug. 7	41.08	Nov. 6	42.10
13	42.93	15	42.33	14	41.08	13	42.18
20	42.88	22	42.38	21	41.12	20	42.17
27	42.74	29	42.47	28	41.06	27	42.14
Mar. 6	42.68	June 5	42.43	Sept. 4	41.04	Dec. 4	42.14
13	42.64	12	42.48	11	41.12	11	42.18
20	42.63	19	41.48	18	41.18	18	42.18
27	42.48	26	41.13	25	41.34	25	42.34

Benson County

111 (\*908, p. 240; 938, p. 189; 946, p. 233). H. Biltingsrud. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 156 N., R. 69 W. Measuring point is 0.25 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 22, 16.53; Oct. 13, 16.55.

Billings County

88 (\*945, p. 347; 836, p. 531; \*908, p. 240; 938, p. 138; 946, p. 231). Roosevelt National Park. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 140 N., R. 100 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 127.45. No measurements made in 1943.

Bottineau County

60 (\*840, p. 320; 845, p. 347; 886, p. 531; 908, p. 241; 938, p. 188; 946, p. 233). Federal Land Bank. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 160 N., R. 76 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.54. Water levels, in feet below land-surface datum, 1943: June 5, 13.14; Oct. 26, 13.06.

112 (\*908, p. 241; 938, p. 188; 946, p. 233). Frank Churchill. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 161 N., R. 78 W. Measuring point is level with land-surface datum. Water levels, in feet below land-surface datum, 1943: June 5, 18.08; Oct. 27, 17.32.

Bowman County

83 (\*908, p. 241; 938, p. 189; 946, p. 233). City of Bowman. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 131 N., R. 102 W. Measurements discontinued.

84 (\*908, p. 242; 938, p. 189; 946, p. 233). City of Bowman. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 131 N., R. 102 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 122.92. No measurements made in 1943.

85 (\*908, p. 242; 938, p. 189; 946, p. 233). City of Bowman. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 131 N., R. 102 W. Measurements discontinued.

Burke County

52 (\*938, p. 189; 946, p. 234). Fish and Wildlife Service, U. S. Dept. of Interior. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 163 N., R. 89 W. Measuring point is 1.40 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 29, 6.62.

66 (\*840, p. 320; 845, p. 348; 886, p. 532; 908, p. 243; 938, p. 189; 946, p. 234). Mrs. P. M. Peterson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 162 N., R. 89 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 170.64.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	70.30	Mar. 13	70.19	June 1	69.97	Aug. 2	70.00
9	70.29	27	70.07	5	69.99	7	70.06
18	70.28	Apr. 5	70.06	12	69.72	14	70.11
23	70.28	12	70.18	19	69.70	21	70.26
30	70.24	17	70.10	26	69.74	28	70.23
Feb. 6	70.23	26	70.10	July 5	69.79	Sept. 4	70.26
13	70.23	May 3	70.04	10	69.80	11	70.26
20	70.21	10	70.05	19	69.87	18	70.34
27	70.20	15	70.03	24	69.94	30	70.43
Mar. 6	70.20	22	70.02				

115 (\*908, p. 243; 938, p. 190; 946, p. 234). Fish and Wildlife Service, U. S. Dept. of Interior. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 160 N., R. 91 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 156.63. Water levels, in feet below land-surface datum, 1943: May 29, 57.29; Dec. 30, 57.09.

116 (\*908, p. 243; 938, p. 190; 946, p. 234). Fish and Wildlife Service, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 159 N., R. 91 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 177.10. Water levels, in feet below land-surface datum, 1943: May 29, 76.99; Dec. 30, 76.55.

Burleigh County

1 (\*908, p. 244; 938, p. 190; 946, p. 234). Celia DeLong. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 141 N., R. 80 W. Measuring point is 0.20 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 23, 14.47.

Cass County

## Fargo area

Periodic observations of the water levels in wells in the Fargo area were continued on a smaller scale in 1943 through cooperation with the North Dakota Geological Survey and the city of Fargo. At the beginning of the year measurements were being made in 13 wells in North Dakota and 5 wells in Minnesota. (See under Clay County in the Minnesota section of this volume.) All the wells in the Fargo area in Minnesota and 6 of those in North Dakota were dropped from the program during the first half of the year and at the end of the year only 7, all in North Dakota (Cass County wells 3, 4, 5, 12, 28, 58, and 67) were still under observation. Automatic water-stage recorders are operated on all of these except well 28. About 2,265 individual records of water levels in wells in the North Dakota part of the Fargo area are included in this report. The tape measurements were made by William Tarbell and H. G. Palmer.

Well 14, which is used by the city of Fargo to supplement its surface-water supply, was pumped from 1 p.m. to 5 p.m. daily during the period April 5-10. The total pumpage for this period was 2,090,000 gallons.

At the end of 1943 the water levels in wells 3, 4, 5, 12, 28, and 67, all of which are influenced to some extent by the pumping of well 14, averaged 0.43 foot higher than at the end of 1942 and 3.44 feet higher than at the end of 1941. The average year-end level for 1943, however, is 1.52 feet below the average year-end level of 1940. The average rises in 1942 and 1943 may be attributed chiefly to a progressive decrease in pumpage in these years and to recovery from the heavy pumpage of 1941.

Year-end water levels in six wells in the Fargo area, N. Dak., in feet below land-surface datum, and pumpage affecting them, in millions of gallons

Year	Well No.							Pumpage from well 14 (annual)
	3	4	5	12	28	67	Average	
1940	29.58	37.37	30.23	33.65	31.30	32.76	32.48	13.93
1941	33.65	38.35	34.34	43.24	41.39	33.69	37.44	52.08
1942	31.09	38.48	31.54	37.39	35.19	32.89	34.43	8.84
1943	30.45	38.86	30.79	36.27	34.70	32.90	34.00	2.08

A severe flood of the Red River occurred during the last part of March and the first part of April 1943, and land adjacent to the river was inundated. Wells 4 and 67, which are situated near the river, showed rises in water level of about 4.5 and 2.6 feet, respectively, as a result of the compression of the water-bearing beds resulting from the weight of the floodwaters. The water levels in the wells returned to preflood stages as the floodwaters subsided. It is likely that the water levels in some of the other observation wells also were affected by the flooding, but well 14 was operated during this period and the effect, if any, was obscured by the decline of the water levels caused by the pumping.

The water level in well 58, which is affected by the pumping of well 57 for the supply of the Union Stockyards in West Fargo, continued the decline that has been in progress since observations were begun in 1937. At the end of 1943, the water level was 2.14 feet below its year-end level of 1942 and 28.08 feet below its year-end level of 1937.

1. See well 11.

3 (#908, p. 246; 938, p. 191; 946, p. 236). The Pierce Co., 1019. First Avenue North, Fargo. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.79.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.05	.....	30.63	30.49	31.32	30.77	30.55	.....	30.41	30.52	30.44	30.42
2	31.05	30.82	30.65	30.51	31.28	30.76	30.53	.....	30.42	30.52	30.46	30.44
3	31.06	30.82	30.65	30.51	31.24	30.73	30.50	.....	30.43	30.53	30.46	30.44
4	31.07	30.78	30.61	30.46	31.24	30.66	30.50	.....	30.43	30.53	30.45	30.43
5	31.07	30.72	30.61a	30.46	31.22	30.70	30.50	.....	30.42	30.53	30.44	30.43
6	31.05	30.68	30.62	30.46	31.16	30.71	30.50	.....	30.41	30.53	30.46	30.44
7	31.04	30.69	30.63	30.40	31.17	30.72	30.51	30.57	30.40	30.53	30.46	30.44
8	31.01	30.69	30.63	30.42	31.18	30.72	30.51	.....	30.42	30.53	30.46	30.41
9	31.00	30.68	30.61	30.51	31.18	30.71	30.51	.....	30.44	30.52	30.46	30.43
10	30.94	30.67	30.61b	30.63	31.17	30.70	30.51	.....	30.47	30.52	30.46	30.46
11	30.92	30.67	30.60	30.75	31.16	30.69	30.51	.....	30.48	30.51	30.46	30.46
12	30.93	30.68	30.57	30.88	31.15	30.64	30.51	30.39	30.48	30.48	30.47	30.44
13	30.94	30.70	30.58	31.03	31.14	30.63	30.51	30.38	30.48	30.46	30.48	30.46
14	30.91	30.71	30.58	31.15	31.13	30.63	30.51	30.39	30.44	30.47	30.48	30.48
15	30.86	30.71	30.57	31.19	31.13	30.60	30.50	30.40	30.44	30.51	30.48	30.49
16	30.96	30.71	30.53	31.26	31.08	30.60	30.50	30.42	30.46	30.52	30.48	30.49
17	30.90	30.67	30.44	31.32	31.05	30.60	30.52	30.44	30.46	30.51	30.46	30.49
18	30.91	30.67	30.43	31.58	31.06	30.59	30.52	30.44	30.46	30.49	30.43	30.49
19	30.91	30.65	30.44	31.40	31.05	30.58	30.52	30.43	30.45	30.48	30.45	30.47
20	30.91	30.61	30.44	31.40	31.04	30.58	30.52	30.43	30.45	30.44	30.45	30.47
21	30.91	30.62	30.47	31.38	31.03	30.59	30.52	30.42	30.45	30.46	30.47	30.47
22	30.36	30.60	30.47	31.36	31.03	30.61	30.53	30.42	30.47	30.49	30.51	30.50
23	30.83	30.59	30.46	31.36	31.00	30.61	30.53	30.42	30.49	30.49	30.52	30.51
24	30.35	30.64	30.44	31.56	30.95	30.60	30.54	30.42	30.49	30.51	30.52	30.50
25	30.84	30.65	30.45	31.35	30.89	30.59	30.55	30.43	30.49	30.52	30.51	30.47
26	30.85	30.64	30.49	31.36	30.84	30.58	30.55	30.44	30.49	30.52	30.49	30.45
27	30.85	30.64	30.50	31.34	30.84	30.58	30.56	30.45	30.47	30.51	30.48	30.47
28	30.83	30.60	30.51	31.34	30.84	30.56	30.56	30.45	30.48	30.47	30.47	30.48
29	30.82	.....	30.50	31.35	30.83	30.55	30.57	30.44	30.48	30.46	30.46	30.48
30	30.80	.....	30.49	31.32	30.83	30.56	30.57	30.44	30.51	30.46	30.44	.....
31	.....	.....	30.46	.....	30.82	.....	30.57	30.43	.....	30.46	.....	30.45

a Pumping of well 14 begun.

b Pumping of well 14 stopped.

c Tape measurement.

4 (#908, p. 247; 938, p. 192; 946, p. 236). City of Fargo. In Island Park. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 132.80.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	38.44	38.46	38.03	38.40	38.18	37.97	38.71	38.95	38.97	38.84	38.84
2	38.50	38.42	38.46	38.76	38.33	38.18	37.85	38.73	38.95	38.97	38.84	38.88
3	38.53	38.36	38.43	38.66	38.25	38.34	37.93	37.86	38.72	38.97	38.96	38.84
4	38.54	38.29	38.43	38.52	38.34	37.99	37.99	38.74	38.97	38.96	38.81	38.85
5	38.54	38.34	38.43	38.44	38.29	37.98	38.13	38.77	38.91	38.97	38.83	38.85
6	38.52	38.35	38.43	38.37	38.53	37.92	38.21	38.77	38.90	38.98	38.86	38.86
7	38.52	38.36	38.44	38.33	38.35	37.98	38.27	38.82	38.90	38.98	38.86	38.83
8	38.52	38.36	38.43	38.42	38.36	38.04	38.30	38.83	38.93	38.95	38.83	38.81
9	38.42	38.33	38.42	38.54	38.36	38.10	38.30	38.66	38.95	38.94	38.87	38.88
10	38.42	38.33	38.42	38.55	38.34	38.13	38.30	38.75	38.97	38.94	38.89	38.89
11	38.45	38.36	38.38	38.55	38.35	38.13	38.30	38.80	38.95	38.90	38.86	38.88
12	38.47	38.40	38.39	38.56	38.37	38.12	38.32	38.81	38.94	38.97	38.89	38.89
13	38.46	38.42	38.43	38.37	38.37	38.14	38.34	38.86	38.92	38.86	38.89	38.89
14	38.37	38.43	38.43	38.37	38.40	38.37	38.13	38.35	38.90	38.87	38.92	38.89
15	38.37	38.43	38.38	38.37	38.33	38.36	38.10	38.35	38.94	38.91	38.92	38.89
16	38.45	38.43	38.29	38.37	38.31	38.11	38.35	38.98	38.94	38.91	38.89	.....
17	38.48	38.40	38.27	38.58	38.34	38.11	38.38	38.98	38.94	38.87	38.82	38.88
18	38.48	38.40	38.31	38.64	38.35	38.10	38.38	38.97	38.88	38.86	38.85	38.88
19	38.48	38.36	38.31	38.64	38.35	38.11	38.38	38.96	38.89	38.84	38.87	38.89
20	38.48	38.36	38.32	38.58	38.35	38.14	38.38	38.91	38.90	38.84	38.86	38.89
21	38.43	38.36	38.33	38.52	38.36	38.22	38.40	38.93	38.87	38.85	38.89	38.88
22	38.41	38.34	38.32	38.46	38.34	38.22	38.40	38.95	38.92	38.88	38.91	38.92
23	38.43	38.38	38.29	38.45	38.31	38.19	38.46	38.97	38.94	38.89	38.92	38.93
24	38.42	38.45	38.28	38.41	38.21	38.22	38.52	39.05	38.93	38.92	38.92	38.88
25	38.44	38.42	38.32	38.43	38.18	38.18	38.61	39.09	38.94	38.93	38.89	38.84
26	38.45	38.41	38.36	38.43	38.20	38.19	38.67	39.09	38.91	38.92	38.88	38.87
27	38.42	38.36	38.38	38.39	38.22	38.19	38.73	39.10	38.89	38.88	38.89	38.90
28	38.42	38.40	38.38	38.39	38.22	38.16	38.73	39.07	38.92	38.84	38.87	38.89
29	38.41	.....	38.36	38.39	38.21	38.15	38.73	39.03	38.92	38.86	38.87	38.87
30	38.42	.....	38.30	38.40	38.21	38.09	38.73	39.02	38.95	38.86	38.83	38.84
31	38.43	.....	38.22	.....	38.18	.....	38.70	38.97	.....	38.80	.....	38.86

5 (#908, p. 248; 938, p. 193; 946, p. 237). Gardner Hotel, First Street North and Roberts Street, Fargo. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 124.11.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.53	31.21	31.00	30.86	31.33	31.22	30.95	30.87	30.72	30.78	30.80	30.80
2	31.52	31.21	31.00	30.86	31.34	31.20	30.95	30.87	30.72	30.78	30.80	30.80
3	.....	31.20	31.00	30.85	31.34	31.18	30.93	30.87	30.72	30.78	30.80	30.80
4	.....	31.19	31.00	30.85	31.34	31.17	30.93	30.87	30.73	30.79	30.80	30.80
5	.....	31.18	30.99	30.84	31.34	31.15	30.92	30.87	30.73	30.79	30.80	30.80
6	.....	31.16	30.98	30.83	31.35	31.14	30.92	30.87	30.73	30.89	30.80	30.80
7	.....	31.15	30.98	30.83	31.35	31.13	30.92	30.87	30.73	30.80	30.80	30.79
8	.....	31.15	30.98	30.82	31.35	31.12	30.92	30.87	30.73	30.81	30.80	30.79
9	31.44	31.14	30.98	30.81	31.35	31.11	30.91	30.65	30.73	30.81	30.80	30.79
10	31.43	31.13	30.97	30.81	31.35	31.11	30.90	30.65	30.74	30.81	30.80	30.79
11	31.42	31.12	30.97	30.82	31.35	31.10	30.90	30.65	30.74	30.81	30.80	30.79
12	31.41	31.12	30.96	30.84	31.35	31.09	30.90	30.65	30.74	30.81	30.80	30.79
13	31.40	31.11	30.96	30.87	31.35	31.08	30.89	30.65	30.74	30.82	30.80	30.78
14	31.39	31.11	30.97	30.91	31.36	31.07	30.89	30.65	30.74	30.82	30.80	30.78
15	31.37	31.11	30.97	30.94	31.36	31.06	30.89	30.65	30.74	30.82	30.80	30.79
16	31.35	31.11	30.96	30.98	31.36	31.05	30.89	30.65	30.75	30.82	30.80	30.79
17	31.34	31.10	30.94	31.02	31.35	31.04	30.88	30.65	30.75	30.82	30.80	30.79
18	31.34	31.10	30.92	31.06	31.35	31.03	30.88	30.66	30.75	30.82	30.80	30.80
19	31.33	31.10	30.91	31.10	31.35	31.02	30.88	30.67	30.75	30.82	30.80	30.80
20	31.33	31.05	30.90	31.12	31.34	31.01	30.88	30.68	30.75	30.81	30.80	30.80

a Tape measurement.

b Affected by compression of aquifer caused by Red River flood.

c Rain water probably entered well.

## 5. Gardner Hotel--Continued.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	31.32	31.05	30.90	31.15	31.34	31.00	30.87	30.69	30.75	30.81	30.80	30.79
22	31.31	31.04	30.89	31.18	31.34	31.00	30.87	30.69	30.75	30.81	30.81	30.80
23	31.30	31.03	30.89	31.20	31.33	30.99	30.87	30.69	30.76	30.81	30.81	30.80
24	31.28	31.02	30.88	31.22	31.32	30.99	30.87	30.69	30.76	30.81	30.81	30.80
25	31.27	31.02	30.88	31.24	31.30	30.98	30.87	30.69	30.76	30.81	30.81	30.80
26	31.26	31.02	30.87	31.26	31.29	30.98	30.87	30.69	30.76	30.81	30.81	30.80
27	31.25	31.01	30.87	31.27	31.27	30.98	30.87	30.70	30.76	30.81	30.81	30.79
28	31.25	31.01	30.87	31.29	31.24	30.97	30.87	30.71	30.77	30.81	30.81	30.79
29	31.24	.....	30.87	31.30	31.25	30.96	30.87	30.71	30.77	30.81	30.80	30.79
30	31.23	.....	30.86	31.32	31.24	30.95	30.87	30.71	30.78	30.81	30.80	30.79
31	31.22	.....	30.86	.....	31.24	.....	30.87	30.71	.....	30.81	.....	30.79

6 (#908, p. 248; 938, p. 194; 946, p. 238). Merchants National Bank & Trust Co., Eighth Avenue South and Seventeenth Street, Fargo. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 133.14. Measurements discontinued Apr. 17.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	31.96	Feb. 6	31.78	Mar. 13	31.65	Apr. 2	31.37
9	31.95	13	31.76	20	31.63	10	29.73
23	31.90	20	31.74	27	31.61	17	31.46
30	31.86	27	31.77				

8 (#840, p. 320; 845, p. 348; 886, p. 532; 908, p. 249; 938, p. 194; 946, p. 238). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 140 N., R. 52 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.21. Water level, in feet below land-surface datum, 1943: Oct. 19, 20.27.

10 (#840, p. 321; 845, p. 349; 886, p. 532; 908, p. 249; 938, p. 194; 946, p. 238). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 140 N., R. 52 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.89. Water level, in feet below land-surface datum, 1943: Oct. 19, 18.46.

11 (designated as well 1 in reports prior to 1943; #908, p. 246; 938, p. 191; 946, pp. 235-36). H. Benson. 201 Sixteenth Street South, Fargo. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.80. Measurements discontinued June 26.

Water level, in feet below land-surface datum, 1943

Jan.	2	31.96	Feb. 27	31.75	Apr. 10	30.13	May 22	31.72
	9	31.72	Mar. 6	31.94	17	30.93	29	32.06
	23	31.85	13	31.78	24	31.40	June 5	24.41
	30	31.85	20	31.83	May 1	31.64	12	26.56
Feb. 6	31.79		27	31.88	8	31.58	21	27.62
13	31.98		Apr. 2	31.69	15	31.44	26	27.88
20	31.86							

12 (#840, p. 321; 845, p. 349; 886, p. 532; 908, p. 249; 938, p. 195; 946, p. 238). City of Fargo. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 159 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 123.62.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	36.43	36.02	40.73	37.43	36.38	36.12	35.83	35.99	35.96	36.18	
2a	37.33	36.44	36.03	40.38	37.44	36.36	36.16	35.83	36.00	35.98	36.23	
3	.....	36.41	35.95	40.27	37.38	36.34	36.15	35.87	35.98	35.97	36.20	
4	.....	36.37	36.05	40.12	37.31	36.32	36.16	35.86	36.00	35.95	36.19	

a Tape measurement.



## 12. City of Fargo--Continued.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	36.38	(c)	39.93	37.24	36.32	36.18	35.82	36.01	35.99	36.18
6	.....	36.68	36.35	.....	39.75	37.16	36.32	36.17	35.82	36.02	36.02	36.20
7	.....	36.68	36.36	.....	39.67	37.15	36.30	36.17	35.83	36.00	36.03	36.15
8	.....	36.67	36.35	.....	39.58	37.12	36.30	36.16	35.88	35.98	36.00	36.14
9a	37.10	36.62	36.33	.....	39.42	37.08	36.30	(f)	35.90	35.96	36.02	36.23
10	.....	36.60	36.33	(d)	39.26	37.05	36.26	35.83	35.92	35.96	36.05	36.23
11	.....	36.60	36.27	.....	39.19	37.00	36.23	35.83	35.91	35.91	36.02	36.20
12	.....	36.62	36.27	.....	39.12	36.87	36.21	35.83	35.91	35.89	36.05	36.22
13	.....	36.62	36.31e	52.90	39.02	36.87	36.23	35.84	35.88	35.89	36.07	36.23
14	.....	36.64	36.30e	50.95	38.92	36.82	36.18	35.85	35.84	35.94	36.08	36.27
15	.....	36.61	36.24e	49.35	38.82	36.75	36.17	35.86	35.90	35.98	36.08	36.26
16	.....	36.60	36.15e	48.00	38.59	36.73	36.17	35.89	35.95	35.95	36.06	36.25
17	.....	36.54	36.07e	47.10	38.59	36.71	36.19	35.91	35.94	35.92	35.99	36.24
18	.....	36.54	36.11e	45.90	38.59	36.68	36.19	35.89	35.87	35.91	36.04	36.25
19	.....	36.50	36.11e	45.25	38.50	36.64	36.16	35.85	35.91	35.90	36.08	36.26
20	.....	36.48	36.14e	44.60	38.41	36.62	36.15	35.85	35.92	35.90	36.07	36.26
21	.....	36.48	36.14e	44.10	38.37	36.66	36.17	35.85	35.86	35.93	36.15	36.24
22	.....	36.44	36.13e	43.58	38.30	36.67	36.18	35.85	35.94	35.95	36.16	36.30
23a	36.92	36.45	36.09e	43.15	38.16	36.60	36.16	35.84	35.97	35.97	36.18	36.32
24	36.90	36.52b	35.99e	42.77	37.95	36.59	36.22	35.84	35.95	36.01	36.18	36.24
25	36.91	36.50b	35.78	42.20	37.85	36.53	36.24	35.87	35.95	36.03	36.13	36.22
26	36.92	36.47	35.87	41.96	37.77	36.50	36.23	35.86	35.92	36.01	36.14	36.27
27	36.89	36.40	35.94	41.60	37.76	36.47	36.22	35.87	35.90	35.96	36.14	36.30
28	36.89	36.38	35.94	41.40	37.73	36.41	36.17	35.85	35.94	35.93	36.11	36.31
29	36.84	.....	35.92	41.27	37.64	36.44	36.14	35.85	35.93	35.99	36.12	36.27
30	36.83	.....	35.87	40.83	37.59	36.41	36.16	35.85	35.96	35.97	36.09	36.24
31	.....	.....	35.67	.....	37.49	.....	36.15	35.82	.....	35.91	.....	36.27

14 (\*845, p. 349; 886, p. 533; 908, p. 250). City of Fargo. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 139 N., R. 49 W. Pumped occasionally for municipal supply. No measurements made 1941-43.

28 (\*840, p. 321; 845, p. 350; 886, p. 553; 908, p. 250; 938, p. 195; 946, p. 239). City of Fargo. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 139 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.31.

Water level, in feet below land-surface datum, 1943.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	35.06	Apr. 3	33.70	July 10	34.70	Oct. 15	34.48
9	34.82	6	39.90	17	34.65	22	34.45
16	34.77	7	44.70	24	34.64	29	34.46
23	34.64	8	48.24	Aug. 7	34.60	Nov. 5	34.44
30	34.55	9	51.25	21	34.38	12	34.50
Feb. 6	34.39	10	54.34	28	34.39	19	34.54
13	34.36	17	44.11	Sept. 4	34.38	28	34.56
20	34.19	24	40.13	11	34.42	Dec. 3	34.60
27	34.02	May 1	38.33	18	34.32	10	34.67
Mar. 6	34.09	8	37.28	24	34.44	17	34.67
13	34.05	15	36.50	Oct. 1	34.49	24	34.65
20	33.85	22	36.01	8	34.44	31	34.70
27	33.72	29	35.40				

a Tape measurement.

b Water from melting snow entered well.

c Pumping of well 14 begun.

d Pumping of well 14 stopped.

e Approximate.

f Rain water entered well.

g Pumping of well 14 begun Apr. 5.

29 (\*840, p. 321; 845, p. 350; 886, p. 533; 908, p. 251; 938, p. 196; 946, p. 239). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 140 N., R. 52 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.46. Water level, in feet below land-surface datum, 1943: Oct. 19, 20.05.

43 (\*908, p. 251; 938, p. 196; 946, p. 239). North Dakota State College. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 140 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.87. Measurements discontinued June 26.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 24	5.60	May 15	4.80	June 5	2.48	June 21	2.55
May 1	6.25	22	4.71	12	2.50	26	3.66
8	6.02	29	4.52				

57 (\*845, p. 351; 886, p. 533; \*908, p. 251; 938, p. 197; 946, p. 239). Union Stockyards. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 139 N., R. 49 W. Measurements discontinued.

58 (\*845, p. 351; 886, p. 533; 908, p. 251; 938, p. 197; 946, p. 240). Union Stockyards. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 139 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 125.77.

Lowest daily water level, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	51.12	50.43	50.64	49.05	48.04	47.18	49.30	51.47	51.84	52.97	52.80	53.42
2	50.70	50.48	50.75	49.80	47.59	47.12	49.20	52.23	51.90	52.64	53.25	53.86
3	50.65	50.25	50.68	49.54	48.07	47.05	48.75	52.20	52.00	51.90	53.65	54.22
4	51.00	50.34	50.65	49.05	47.93	46.76	48.14	51.84	51.60	52.40	53.78	54.78
5	51.20	50.30	50.59	49.40	47.63	46.48	48.04	51.96	51.05	52.92	54.12	54.35
6	51.55	50.05	50.35	48.95	47.50	46.17	48.51	51.62	51.75	53.56	54.10	53.85
7	51.65	49.75	50.20	48.98	47.69	46.72	49.15	51.22	51.78	53.74	53.65	53.95
8	51.80	50.05	50.40	48.72	47.57	46.85	49.72	50.65	51.70	53.63	53.58	54.02
9	51.90	50.00	50.50	48.95	47.15	46.93	50.53	51.15	51.85	53.47	54.00	54.18
10	51.10	49.85	50.40	.....	47.62	46.98	49.77	51.19	51.90	52.75	54.27	54.22
11	51.30	49.60	50.36	48.37	47.49	47.21	49.30	51.35	51.25	53.01	54.45	54.35
12	51.50	49.75	50.75	48.75	47.58	46.98	49.95	51.15	50.68	53.52	54.80	53.78
13	51.50	49.60	50.72	48.72	47.59	46.95	49.38	51.53	51.05	53.55	54.65	53.48
14	51.38	49.45	50.50	49.10	47.63	47.40	50.15	51.28	51.32	54.08	54.15	53.45
15	51.22	49.53	50.68	49.05	47.14	47.44	50.51	50.60	51.60	54.44	54.39	53.40
16	51.30	49.48	50.35	49.23	46.94	47.68	50.80	51.32	51.64	54.00	55.00	53.45
17	51.20	49.96	50.32	48.93	47.43	47.38	50.26	51.28	51.50	53.30	55.25	53.83
18	51.85	49.85	50.57	49.68	47.29	48.37	49.93	51.31	51.02	53.96	55.00	54.33
19	51.60	50.03	50.52	49.12	47.52	47.84	50.80	51.34	50.50	54.11	54.78	53.85
20	51.57	50.00	50.45	48.95	47.40	48.02	51.00	51.34	51.16	54.48	54.60	53.60
21	51.27	49.60	50.45	48.60	47.71	49.28	51.03	51.14	51.25	54.43	53.95	53.75
22	51.35	50.25	51.10	48.68	47.65	48.95	52.20	50.60	51.34	54.55	54.55	53.83
23	51.15	50.25	51.40	49.60	47.30	.....	51.38	51.72	51.53	54.15	54.80	53.67
24	50.55	50.53	51.65	48.25	47.42	.....	51.18	51.63	51.86	53.60	54.41	53.80
25	50.81	50.35	51.58	48.03	47.17	.....	50.78	51.68	52.36	53.95	54.00	53.82
26	50.90	50.45	51.65	48.43	47.04	48.85	51.92	51.65	51.30	54.06	53.70	53.99
27	51.00	50.20	50.95	.....	47.18	48.35	52.16	51.98	51.92	54.00	53.87	53.41
28	51.22	50.12	51.05	.....	47.50	49.12	51.96	51.84	52.31	53.98	53.35	53.85
29	51.23	.....	51.35	.....	47.33	49.25	51.97	51.36	52.68	53.92	53.22	54.22
30	51.05	.....	50.85	.....	46.90	49.48	52.44	51.95	52.81	53.62	53.50	53.92
31	50.30	.....	49.88	.....	46.72	.....	51.88	51.90	.....	52.85	.....	53.85

67 (\*845, p. 352; 886, p. 533; 908, p. 252; 938, p. 197; 946, p. 240). City of Fargo. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 139 N., R. 48 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.21.

Lowest daily water level, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.92	32.83	32.76a	32.11	32.73	32.54	32.31	32.96	32.93	33.08	32.90	32.89
2	32.95	32.78	32.76a	31.79	32.68	32.55	32.22	32.99	32.93	33.08	32.93	32.92
3	32.96	32.72	32.70a	31.46	32.70	32.27	32.26	32.98	32.96	33.08	32.93	32.88
4	32.97	32.66	32.72a	30.76	32.69	32.32	32.36	32.99	32.95	33.09	32.90	32.90
5	32.94	32.64	32.73a	30.45	32.63	32.30	32.50	33.03	32.89	33.12	32.90	32.90
6	32.93	32.72	32.72a	30.13	32.71	32.29	32.54	33.03	32.89	33.13	32.95	32.90
7	32.93	32.71	32.72a	29.95	32.73	32.35	32.59	33.06	32.93	33.12	32.95	32.85
8	32.93	32.71	32.70a	30.12	32.75	32.39	32.62	33.06	32.92	33.08	32.92	32.89
9	32.86	32.67	32.68a	30.38	32.74	32.45	32.62	32.76	33.02	33.06	32.92	32.92
10	32.86	32.70	32.69a	30.64	32.74	32.74	32.63	32.79	33.05	33.05	32.96	32.92
11	32.88	32.71	32.64a	30.90	32.76	32.45	32.64	32.77	33.04	33.00	32.95	32.90
12	32.89	32.75	32.65a	31.25	32.77	32.47	32.68	32.74	33.04	33.00	32.94	32.92
13	32.88	32.75	32.70a	31.63	32.77	32.48	32.72	32.73	33.01	33.00	32.94	32.92
14	32.78	32.77	32.68a	31.92	32.76	32.44	32.70	32.76	32.96	33.04	32.94	32.99
15	32.79	.....	32.64a	32.15	32.75	32.43	32.71	.....	32.99	33.05	32.94	32.99
16	32.84	.....	32.53a	32.47	32.70	32.44	32.71	.....	33.02	33.03	32.93	32.96
17	.....	.....	32.52a	32.67	32.72	32.45	32.75	.....	33.01	32.98	32.85	32.94
18	.....	.....	32.55a	32.76	.....	32.44	32.76	32.89	32.96	32.97	32.91	32.94
19	.....	.....	32.55	32.76	32.70	32.48	32.75	32.89	32.99	32.94	32.91	32.95
20	.....	32.68	32.57	32.73	32.71	32.54	32.77	32.88	33.00	32.95	32.90	32.95
21	.....	32.68	32.59	32.70	32.72	32.63	32.80	32.90	32.97	32.97	32.95	32.92
22	.....	32.64	32.57	32.71	32.71	32.62	32.82	32.88	33.02	32.98	32.96	32.97
23	32.80	32.68	32.52	32.73	32.69	32.57	32.84	32.84	33.02	32.99	32.97	32.98
24	32.81	32.76	32.52	32.72	32.60	32.62	32.89	32.87	33.01	33.02	32.97	32.90
25	32.82	32.73	32.54	32.76	32.54	32.55	32.92	32.89	33.01	33.03	32.92	32.89
26	32.83	32.71	32.57	32.75	32.56	32.55	32.94	32.88	32.98	33.01	32.92	32.93
27	.....	32.65	32.58	32.72	.....	32.54	32.94	32.91	32.99	32.99	32.92	32.95
28	.....	32.69	32.57	32.73	.....	32.50	32.93	32.91	33.02	32.93	32.89	32.95
29	.....	.....	a32.52	32.71	32.57	32.48	32.96	32.93	33.03	32.96	32.90	32.91
30	32.81	.....	a32.47	32.74	32.56	32.43	32.97	32.93	33.08	32.96	32.86	32.88
31	32.83	.....	a32.36	.....	32.52	.....	32.97	32.92	.....	32.94	.....	32.90

109 (\*908, p. 253; 938, pp. 198-99; 946, p. 241). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 139 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 129.45. Measurements discontinued Mar. 20.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	45.77	Jan. 23	46.08	Feb. 13	45.64	Mar. 6	45.19
9	46.03	30	46.04	20	45.60	13	45.15
16	46.10	Feb. 6	45.87	27	45.23	20	45.10

122 (\*908, p. 253; 938, p. 199; 946, p. 241). Leonard Hobbs. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 139 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.20.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.43	Feb. 20	10.68	Apr. 10	10.70	May 22	9.67
9	10.32	27	10.65	17	10.53	29	8.67
16	10.36	Mar. 6	10.84	24	10.20	June 5	7.52
23	10.18	13	10.84	May 1	10.20	12	6.93
30	10.58	20	10.76	8	10.05	21	4.61
Feb. 6	10.53	27	10.84	15	9.89	26	6.35
13	10.80	Apr. 2	10.95				

a Affected by compression of aquifer, caused by Red River flood.

127 (\*908, p. 253; 938, p. 199; 946, p. 242). City of Fargo. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 139 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.96. Measurements discontinued after June 26.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	31.65	Feb. 20	31.10	Apr. 10	a 37.50	May 22	32.27
9	31.53	27	30.96	17	36.19	29	31.87
16	31.55	Mar. 6	31.03	24	34.51	June 5	31.53
23	31.46	13	31.03	May 1	33.60	12	31.33
30	31.40	20	30.88	8	33.03	21	31.23
Feb. 6	31.16	27	30.82	15	32.57	26	31.07
13	30.97	Apr. 2	30.83				

Cavalier County

43 (\*340, p. 322; \*845, p. 352; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 242). City of Langdon. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 161 N., R. 60 W. Affected by impounded water. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 140.73.

Water level, in feet below land-surface datum, 1943

Jan. 2	18.90	Apr. 3	19.50	July 3	17.67	Oct. 2	18.29
9	18.86	10	19.50	10	17.63	9	18.33
16	18.96	17	19.25	17	17.56	16	18.38
23	19.04	24	19.25	24	17.56	23	18.50
30	19.11	May 1	19.29	31	17.48	Nov. 8	18.56
Feb. 6	19.14	8	19.25	Aug. 7	17.63	13	18.71
13	19.36	15	19.02	14	17.71	20	18.63
20	19.31	22	18.92	21	17.77	27	18.63
27	19.25	29	18.84	28	17.79	Dec. 4	18.73
Mar. 6	19.46	June 5	18.75	Sept. 4	17.94	11	18.63
13	19.59	12	18.25	11	18.04	18	18.71
20	19.59	19	18.00	18	17.98	27	18.92
27	19.54	26	17.88	25	18.19		

44 (\*840, p. 322; \*845, p. 353; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243). City of Langdon. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 161 N., R. 60 W. Affected by impounded water. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 147.43.

Water level, in feet below land-surface datum, 1943

Jan. 2	15.93	Apr. 3	20.35	July 3	19.43	Oct. 2	18.68
9	15.27	10	20.48	10	18.02	9	16.02
16	15.52	17	20.68	17	17.06	16	17.10
23	16.18	24	21.18	24	18.52	23	16.93
30	14.43	May 1	20.35	31	17.92	Nov. 8	14.52
Feb. 6	16.18	8	19.35	Aug. 7	b 20.70	13	15.35
13	16.52	15	18.93	14	19.43	20	15.60
20	15.43	22	19.89	21	19.10	27	16.10
27	16.48	29	20.18	28	20.18	Dec. 4	b 19.18
Mar. 6	14.52	June 5	19.18	Sept. 4	21.72	11	b 19.27
13	17.18	12	18.85	11	20.02	18	17.18
20	14.68	19	18.68	18	18.06	27	17.35
27	22.02	26	16.93	25	16.02		

45 (\*840, p. 322; \*845, p. 353; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243). City of Langdon. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 161 N., R. 60 W. Affected by impounded water. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 146.47.

- a Pumping of well 14 begun Apr. 5 and stopped Apr. 10.  
b Pumped.

## 45. City of Langdon--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	18.40	Apr. 3	18.68	July 3	12.30	Oct. 2	16.13
9	19.07	10	21.55	10	11.55	9	16.32
16	19.07	17	22.13	17	11.24	16	16.47
23	19.43	24	22.53	24	11.88	23	18.88
30	21.22	May 1	25.59	31	12.11	Nov. 6	19.57
Feb. 6	22.15	8	24.90	Aug. 7	12.30	13	20.36
13	20.72	15	26.09	14	12.95	20	21.13
20	22.93	22	15.30	21	12.73	27	22.17
27	24.90	29	12.95	28	12.72	Dec. 4	22.09
Mar. 6	25.22	June 5	13.63	Sept. 4	12.88	11 a	26.43
13	26.20	12	14.05	11	14.72	18	24.47
20	24.61	19	15.13	18	15.97	27	23.55
27	20.30	26 a	26.84	25	15.84		

46 (\*840, p. 322; \*845, p. 354; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243). City of Langdon. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 161 N., R. 60 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.23.

Water level, in feet below land-surface datum, 1943

Jan. 2	7.40	Apr. 3	10.27	July 3	3.52	Oct. 2	6.23
9	7.73	10	9.38	10	3.73	9	6.58
16	8.00	17	9.52	17	2.96	16	6.05
23	8.23	24	9.08	24	3.33	23	7.06
30	8.52	May 1	8.48	31	3.98	Nov. 6	7.27
Feb. 6	8.81	8	7.73	Aug. 7 a	4.73	13	7.40
13	9.17	15	7.04	14	4.29	20	7.46
20	9.33	22	6.73	21	5.06	27	7.56
27	9.10	29	6.29	28	4.65	Dec. 4	7.71
Mar. 6	9.79	June 5	4.31	Sept. 4	4.83	11	7.79
13	9.81	12	3.53	11	5.20	18	7.98
23	10.10	19	3.23	18	5.48	27	8.29
27	10.12	26	2.90	25	5.11		

## Dickey County

72A (\*886, p. 535; 908, p. 255; 938, p. 201; 946, p. 244). State of North Dakota. NE $\frac{1}{4}$  sec. 36, T. 131 N., R. 64 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.40.

Water level, in feet below land-surface datum, 1943

Jan. 2	8.46	Mar. 6	8.25	May 15	8.25	July 17	8.23
9	8.46	13	8.25	27	8.25	24	8.25
16	8.46	20	8.25	29	8.25	31	8.21
23	8.46	27	8.21	June 5	8.17	Aug. 7	8.27
30	8.42	Apr. 3	8.21	12	8.13	14	8.29
Feb. 6	8.42	10	8.25	19	8.13	21	8.31
13	7.42	17	8.25	26	8.13	28	8.31
20	9.25	24	8.25	July 3	8.17	Sept. 4	8.29
27	8.25	May 1	8.25	10	8.21		

92 (\*845, p. 354; 886, p. 535; 908, p. 255; 938, p. 201; 946, p. 244). S. A. Reko. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 131 N., R. 60 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.49. Water level, in feet below land-surface datum, 1943; May 15, .81; Oct. 20, 26.96.

98 (\*908, p. 255; \*938, p. 201; 946, p. 244). Albert M. Schmit. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 131 N., R. 59 W. Water level influenced by pumping of nearby well. Measurements discontinued.

a Pumped.

101 (\*908, p. 256; \*938, p. 202; 946, p. 244). D. C. Botts. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 129 N., R. 59 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.72.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.38	Mar. 6	9.55	May 15	6.70	Nov. 7	7.58
9	9.29	20	9.67	24	6.75	14	7.67
16	9.43	27	8.43	29	6.80	21	7.58
23	9.48	Apr. 10	7.46	June 5	6.87	28	7.42
30	9.57	17	7.08	14	6.00	Dec. 5	7.25
Feb. 6	9.58	24	7.00	19	6.17	12	7.17
13	9.68	May 1	6.48	26	5.83	19	7.17
20	9.63	8	6.92	Oct. 31	7.67	26	7.08
27	9.66						

102 (\*908, p. 256; 938, p. 202; 946, p. 245). State of North Dakota. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 131 N., R. 59 W. Measuring point is level with land-surface datum. Water levels, in feet below land-surface datum, 1943: May 15, 22.69; Oct. 20, 20.91.

103 (\*908, p. 256; 938, p. 202; 946, p. 245). Floyd Ferguson. W $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 27, T. 131 N., R. 59 W. Measurements discontinued.

104 (\*938, p. 202; 946, p. 245). Lynus Sitts, Jr. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 131 N., R. 59 W. Measuring point is 2.30 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 15, 6.46; Oct. 20, 6.28.

105 (\*908, p. 256; 938, p. 202; 946, p. 245). H. G. Martin, administrator. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 130 N., R. 59 W. Measuring point is 2.90 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 15, 8.02; Oct. 19, 7.56.

106 (\*908, p. 256; 938, p. 202; 946, p. 245). Frank Elliott. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 131 N., R. 59 W. Used daily. Measurements discontinued.

113 (\*908, p. 256; 938, p. 203; 946, p. 245). Union Central Life Insurance Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 130 N., R. 59 W. Measurements discontinued.

115 (\*908, p. 256; 938, p. 203; 946, p. 245). Heine Holling. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 130 N., R. 59 W. Measurements discontinued.

117 (\*908, p. 256; 938, p. 203; 946, p. 245). E. P. Wilson. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 130 N., R. 59 W. Measurements discontinued.

120 (\*938, p. 203; 946, p. 245). Esterby Estate. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 129 N., R. 59 W. Measurements discontinued.

121 (\*938, p. 203; 946, p. 245). M. J. Reinhart. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 130 N., R. 59 W. Measuring point is 3.30 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 7.10.

123 (\*946, p. 245). Mike Antone. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 131 N., R. 59 W. Measurements discontinued.

124 (\*946, p. 245). Mrs. W. Koski. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 129 N., R. 59 W. Measurements discontinued.

127 (\*908, p. 256; 938, p. 203; 946, p. 245). City of Oakes. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 131 N., R. 59 W. Measurements discontinued.

128 (\*908, p. 257; 938, p. 203; 946, p. 246). City of Oakes. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 131 N., R. 59 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.16. Water level, in feet below land-surface datum, 1943: Oct. 20, 7.67.

129 (\*908, p. 257; 938, p. 204; 946, p. 246). A. M. Dahlbeck. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 131 N., R. 59 W. Measurements discontinued.

134 (\*908, p. 257; \*938, p. 204; 946, p. 246). A. F. Hankel. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 129 N., R. 59 W. Measurements discontinued.

135 (\*908, p. 258; 938, p. 204; 946, p. 246). V. S. Doyen. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 129 N., R. 60 W. Measurements discontinued.

136. Fred Sletvold. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 131 N., R. 59 W. Bored well with 4-inch steel casing constructed for observation and equipped with automatic recorder. Measuring point is 1.00 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 10.44.

#### Divide County

70 (\*845, p. 355; 886, p. 536; 908, p. 259; 938, p. 204; 946, p. 246). J. M. Johnson. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 163 N., R. 67 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.31. Water level, in feet below land-surface datum, 1943: May 28, 15.26.

117 (\*908, p. 259; 938, p. 204; 946, p. 246). A. U. Anderson. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 163 N., R. 100 W. Measuring point is 1.40 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 28, 12.32.

#### Dunn County

90 (\*946, p. 246). S. F. Lesmeister. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25, T. 145 N., R. 92 W. Measuring point is 2.00 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	8.75	Apr. 2	7.79	July 2	5.77	Oct. 8	7.08
8	8.67	9	7.96	9	4.79	15	7.91
15	8.67	16	7.96	16	5.33	22	7.85
22	8.35	26	7.92	23	5.42	29	7.42
29	8.63	30	7.67	30	6.08	Nov. 5	7.67
Feb. 5	8.69	May 7	7.66	Aug. 6	6.83	12	7.46
12	8.67	14	6.83	13	6.91	19	7.68
19	8.67	21	6.87	20	6.42	Dec. 2	7.55
26	8.65	28	7.50	27	6.82	10	7.33
Mar. 5	8.74	June 5	4.92	Sept. 10	6.48	18	7.66
12	8.67	11	4.50	17	6.67	24	7.83
19	8.74	18	5.17	24	7.24	31	7.69
26	7.96	25	5.35	Oct. 1	6.59		

#### Eddy County

17 (\*817, p. 230; \*845, p. 355; 886, p. 537; 908, p. 259; 938, p. 205; 946, p. 247). L. S. Rude. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. Measuring point is 0.30 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 17, 8.83; Oct. 20, 9.06.

18 (\*817, p. 230; \*840, p. 323; 845, p. 356; 886, p. 537; 908, p. 259; 938, p. 205; 946, p. 247). U. S. well 49. Stockyards. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.44.

Water level, in feet below land-surface datum, 1943

Jan. 9	7.41	Mar. 20	7.80	May 31	6.93	Aug. 7	6.63
16	7.42	27	6.73	June 5	6.70	14	6.66
23	7.48	Apr. 3	7.07	12	6.61	21	6.75
30	7.49	10	7.59	19	6.50	26	6.86
Feb. 6	7.52	17	6.99	26	6.42	Sept. 4	6.92
13	7.56	24	7.04	July 3	6.43	11	6.97
20	7.75	May 1	6.91	10	6.48	18	7.05
27	7.78	8	6.94	17	6.45	25	7.11
Mar. 6	7.74	15	6.88	24	6.52	Oct. 2	7.16
13	7.78	22	6.91	31	6.54	9	7.23

## 18. Stockyards--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 18	7.36	Nov. 6	7.44	Nov. 27	7.48	Dec. 20	7.53
23	7.44	13	7.57	Dec. 6	7.48	27	7.55
Nov. 1	7.48	20	7.57	11	7.49		

19 (\*817, p. 230; \*845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247). Gilbert Olson. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. Measuring point is 0.20 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 17, 14.32; Oct. 20, 14.50.

20 (\*817, p. 230; \*845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247). Knute Egger. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. Measuring point is 0.60 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 17, 17.39; Oct. 20, 17.41.

21 (\*817, p. 230; \*845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247). Elmer Moe. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. Measuring point is 0.40 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 17, 19.11; Oct. 20, 19.01.

22 (\*817, p. 230; \*845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247). John R. Wamsing. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 150 N., R. 66 W. Measurements discontinued.

154 (\*908, p. 260; 938, p. 205; 946, p. 247). Pfau Estate. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 148 N., R. 67 W. No measurements made in 1943.

Emmons County

123 (\*938, p. 206; 946, p. 247). State of North Dakota. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 132 N., R. 74 W. Measuring point is 1.30 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 16, 16.27.

Foster County

125 (\*908, p. 260; \*938, p. 206; 946, p. 247). J. W. Wampler. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 145 N., R. 66 W. Measuring point is 2.00 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 17, 11.82; Oct. 20, 9.87.

Golden Valley County

2 (\*946, p. 248). City of Beach. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, T. 140 N., R. 106 W. Measuring point is 0.34 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 25, 25.07.

Grant County

121 (\*908, p. 260; 938, p. 206; 946, p. 248). R. O. Ozburn. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 134 N., R. 85 W. Measuring point is 2.00 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 20.56.

Griggs County

1 (\*908, p. 260; 938, p. 206; 946, p. 248). Griffith Loan & Investment Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 144 N., R. 59 W. Measuring point is 0.90 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 14, 21.89; Oct. 16, 19.78.

Hettinger County

82 (\*845, p. 357; 886, p. 538; 908, p. 260; 938, p. 206; 946, p. 248). L. F. Everhart. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 133 N., R. 93 W. Dry hole. Measurements discontinued.



Kidder County

50 (\*840, p. 323; 845, p. 357; 886, p. 538; 908, p. 260; 938, p. 206; 946, p. 248). Herman Peterson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 138 N., R. 73 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.15.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.36	Jan. 30	7.31	Feb. 27	7.57	Mar. 27	7.48
9	7.36	Feb. 6	7.35	Mar. 6	7.59	Apr. 3	7.23
16	7.20	13	7.29	13	7.60	10	7.04
23	7.28	20	7.47	20	7.59	17	7.03

147 (\*908, p. 261; 938, p. 207; 946, p. 248). Phillip Mitteleider. Center of S $\frac{1}{2}$  sec. 27, T. 139 N., R. 71 W. Measuring point is 2.90 feet above land-surface datum. May 17, 1943, flooded with surface water.

148 (\*908, p. 261; 938, p. 207; 946, p. 249). Chas. Woessner. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 139 N., R. 72 W. Measuring point is 0.50 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 17, 13.85.

149 (\*908, p. 261; 938, p. 207; 946, p. 249). Village of Tappen. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 139 N., R. 71 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.57. Water level, in feet below land-surface datum, 1943: May 17, 9.38.

150 (\*908, p. 261; 938, p. 207; 946, p. 249). Ramon Grimm. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 142 N., R. 70 W. No measurements made in 1943.

151 (\*908, p. 261; 938, p. 207; 946, p. 249). Mrs. Fagereng. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 142 N., R. 70 W. Measuring point is 0.50 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 17, 18.97.

152 (\*908, p. 261; 938, p. 207; 946, p. 249). Northern Pacific Railway. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 142 N., R. 70 W. Measuring point is 0.20 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 17, 36.09.

166 (\*908, p. 261; 938, p. 207; 946, p. 249). Jake Schaurer. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 139 N., R. 71 W. Measuring point is 2.83 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 17, 11.97.

La Moure County

1 (\*908, p. 261; 938, p. 207; 946, p. 249). Town of Edgeley. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 133 N., R. 64 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 125.67. No measurements made in 1943.

2A (\*936, p. 538; 908, p. 262; 938, p. 207; 946, p. 249). Mrs. Fidela Davis. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 134 N., R. 64 W. Measuring point beginning May 15 is top of casing insert added in 1942. Measuring point is 1.82 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: May 15, 0.69; Oct. 20, 0.70.

Logan County

143 (\*908, p. 262; 938, p. 208; 946, p. 249). Oscar France. W $\frac{1}{2}$ SW $\frac{1}{4}$  sec. 17, T. 135 N., R. 72 W. Measuring point is 5.00 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: May 16, 17.44.

144 (\*908, p. 262; 938, p. 208; 946, p. 249). Pete Draeger. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 135 N., R. 72 W. Well caved in beyond repair. Measurements discontinued May 13.

146 (\*908, p. 262; 938, p. 208; 946, p. 249). George Dummland. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 155 N., R. 72 W. Measuring point is 0.50 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 16, 30.00.

#### McHenry County

101 (\*886, p. 539; 908, p. 262; 938, p. 208; 946, p. 250). Denbigh Forest Experiment Station well 1. Forest Service, U. S. Dept. of Agriculture. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.45. Water level, in feet below land-surface datum, 1943: June 5, 3.73.

102 (\*886, p. 540; 908, p. 263; 938, p. 208; 946, p. 250). U. S. well 50. Denbigh Forest Experiment Station well 2. Forest Service, U. S. Dept. of Agriculture. NW corner SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 156 N., R. 78 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.36.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 5	4.33	Oct. 15	5.57	Nov. 5	5.79	Dec. 3	5.85
23	4.48	23	5.78	11	5.86	10	5.93
Aug. 4	4.30	29	5.79	19	5.87	17	5.97
Oct. 13	5.75						

103 (\*886, p. 541; 908, p. 263; 938, p. 208; 946, p. 250). Denbigh Forest Experiment Station well 3. Forest Service, U. S. Dept. of Agriculture. Measurements discontinued.

104 (\*886, p. 542; 908, p. 263; 938, p. 209; 946, p. 250). Denbigh Forest Experiment Station well 4. Forest Service, U. S. Dept. of Agriculture. Measurements discontinued.

105 (\*886, p. 543; 908, p. 263; 938, p. 209; 946, p. 250). Denbigh Forest Experiment Station well 5. Forest Service, U. S. Dept. of Agriculture. Measurements discontinued.

106 (\*886, p. 544; 908, p. 263; 938, p. 209; 946, p. 250). Denbigh Forest Experiment Station well point 1. Forest Service, U. S. Dept. of Agriculture. Measurements discontinued.

113 (\*908, p. 263; 938, p. 209; 946, p. 250). Mrs. H. Notbohm. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 151 N., R. 77 W. Measuring point is 1.07 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 30, 9.33.

156 (\*908, p. 263; 938, p. 209; 946, p. 250). Minneapolis, St. Paul & Sault Ste. Marie Railway. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 152 N., R. 79 W. Measuring point is 2.00 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 30, 16.47.

157 (\*908, p. 263; 938, p. 210; 946, p. 250). Federal Land Bank. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 153 N., R. 78 W. Measuring point is 1.50 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 30, 23.86.

158 (\*908, p. 263; 938, p. 210; 946, p. 250). Cities Service Oil Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 155 N., R. 79 W. Well used daily. Measurements discontinued.

159 (\*908, p. 263; 938, p. 210; 946, p. 250). Harold H. Sullvold. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 156 N., R. 79 W. Measuring point is 1.60 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: May 30, 8.80.

160 (\*908, p. 263; 938, p. 210; 946, p. 250). Forest Service, U. S. Dept. of Agriculture. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 157 N., R. 75 W. Measuring point is 3.00 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: June 23, 2.11.

161 (\*908, p. 264; 938, p. 210; 946, p. 250). Village of Townier. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 156 N., R. 76 W. Measuring point is 1.00 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: June 5, 10.66.

162 (\*908, p. 264; 938, p. 210; 946, p. 250). Walter Arneson. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 158 N., R. 78 W. Measuring point is 1.50 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: June 5, 12.96; Oct. 27, 17.21.

### McIntosh County

93 (\*845, p. 357; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251). Freida Forrest. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 130 N., R. 69 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.68.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.14	May 1	1.37	June 19	3.97	Nov. 13	b 8.78
9	7.36	8	2.44	July 3	4.66	20	b 7.99
23	7.25	15	2.98	10	4.55	27	5.54
30	7.16	22	2.66	17	4.77	Dec. 4	5.66
Apr. 3	(a)	29	4.58	24	5.55	11	7.56
10	(a)	June 5	4.57	31	4.88	18	7.67
17	.54	12	4.13	Aug. 7	5.26	25	7.78
24	.63						

94 (\*845, p. 358; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251). Freida Forrest. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 130 N., R. 69 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.26.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.92	May 1	2.84	June 19	3.36	Nov. 13	7.47
9	8.92	8	2.20	July 3	3.55	20	7.75
23	8.94	15	3.16	10	3.46	27	b 13.95
30	8.92	22	4.04	17	3.34	Dec. 4	b 9.96
Apr. 3	6.25	29	3.95	24	4.84	11	7.36
10	3.25	June 5	4.05	31	6.25	18	7.32
17	3.25	12	3.04	Aug. 7	6.44	25	7.64
24	3.34						

136 (\*908, p. 264; 938, p. 211; 946, p. 246). State of North Dakota. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 132 N., R. 71 W. Measurements discontinued.

137 (\*908, p. 264; 938, p. 211; 946, p. 251). Federal Land Bank. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 132 N., R. 71 W. Measuring point is 0.90 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 15, 7.95.

138 (\*908, p. 265; 938, p. 211; 946, p. 251). C. Hiller. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 132 N., R. 70 W. Measuring point is 1.70 feet above land-surface datum. No measurements made in 1943.

139 (\*908, p. 265; 938, p. 211; 946, p. 251). Dan Nigisch. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 132 N., R. 70 W. Measuring point is 0.80 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 15, 13.75.

141 (\*908, p. 265; \*938, p. 211; 946, p. 251). Town of Wishek. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 132 N., R. 71 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.04.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	19.75	Jan. 25	19.67	Feb. 19	19.63	Mar. 26	19.65
9	19.75	Feb. 6	19.58	27	19.58	Apr. 3	19.54
16	19.75	13	19.62	Mar. 6	19.64	10	20.27

a Flooded with surface water. b Pumped.

## 141. Town of Wishek--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	19.17	June 26	19.31	Aug. 30	19.29	Oct. 30	19.54
24	19.35	July 3	19.23	Sept. 4	19.29	Nov. 7	19.48
May 1	19.50	10	19.27	11	19.29	13	19.48
12	19.42	17	19.27	19	19.29	20	19.60
17	19.37	26	19.29	25	19.29	27	19.63
23	19.48	30	19.25	Oct. 2	19.46	Dec. 4	19.67
29	19.33	Aug. 7	19.23	9	19.50	11	19.65
June 6	19.40	14	19.27	17	19.50	19	19.71
14	19.17	21	19.29	23	19.54	25	19.71
19	19.35						

McKenzie County

81 (\*845, p. 358; 886, p. 545; 908, p. 265; 938, p. 211; 946, p. 252). Chas. E. Fleck. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 150 N., R. 100 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 213.95.

Water level, in feet below land-surface datum, 1943

Jan. 2	114.25	Apr. 17	114.25	July 17	114.25	Oct. 9	114.09
9	114.12	24	114.20	24	114.14	16	114.05
30	114.20	May 1	113.71	31	114.09	23	114.25
Feb. 6	114.17	8	114.29	Aug. 7	114.15	30	114.14
13	114.12	15	114.08	14	114.10	Nov. 6	114.55
20	114.22	22	114.02	21	114.15	13	114.19
27	114.09	29	114.21	28	114.17	20	114.21
Mar. 6	114.18	June 5	114.26	Sept. 4	113.93	27	113.89
13	114.25	12	114.27	11	114.20	Dec. 4	114.24
20	114.22	19	114.15	18	114.25	11	114.01
27	113.97	26	114.16	25	114.00	18	114.09
Apr. 3	114.07	July 3	114.13	Oct. 2	114.09	25	114.01
10	114.24	10	114.20				

119 (\*908, p. 265; 938, p. 211; 946, p. 252). Federal Land Bank. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 145 N., R. 98 W. Measuring point is level with land-surface datum. Water level, in feet below land-surface datum, 1943: May 25, 97.81.

McLean County

27 (\*840, p. 323; 845, p. 358; 886, p. 546; 908, p. 266; 938, p. 212; 946, p. 252). State of North Dakota. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 149 N., R. 84 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 147.16.

Water level, in feet below land-surface datum, 1943

Feb. 20	46.68	May 8	46.23	July 31	45.31	Oct. 16	45.23
27	46.68	12	48.95	Aug. 7	45.31	27	45.27
Mar. 6	46.72	22	45.93	14	45.27	30	45.23
13	46.70	29	45.89	21	45.54	Nov. 6	45.31
20	46.72	June 5	45.93	28	45.27	13	45.52
27	46.72	12	45.73	Sept. 4	45.20	20	45.23
Apr. 2	46.68	19	45.35	11	45.18	29	45.18
10	46.68	25	45.60	18	45.23	Dec. 4	45.21
18	46.64	July 3	45.50	25	45.23	11	45.21
24	46.73	10	45.43	Oct. 2	45.20	18	45.23
May 1	46.14	17	45.43	9	45.27	24	45.27

Mercer County

118 (\*908, p. 266; 938, p. 212; 946, p. 252). Maichel Bros. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 144 N., R. 85 W. Measuring point is 0.75 foot above land-surface datum. No measurements made in 1943.

Morton County

1 (\*938, p. 212; 946, p. 252). Fred Lehde. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 139 N., R. 85 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 136.56.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	31.48	Apr. 3	31.52	July 3	29.75	Oct. 2	30.69
9	31.77	10	32.60	10	29.76	9	30.76
16	31.77	17	32.70	17	29.91	23	30.85
23	31.83	24	32.58	24	30.00	30	30.91
30	31.96	May* 2	32.55	31	30.05	Nov. 6	30.95
Feb. 6	31.94	8	32.56	Aug. 7	30.16	13	31.08
13	32.05	15	32.64	14	30.24	20	31.14
20	32.09	22	32.77	21	30.31	27	31.17
27	32.15	30	32.87	29	30.39	Dec. 4	31.23
Mar. 7	32.20	June 5	31.41	Sept. 4	30.46	11	31.29
13	32.25	13	31.30	11	30.54	18	31.37
21	32.35	19	29.77	18	30.56	25	31.39
27	31.37	26	29.68	25	30.85		

2 (\*938, p. 212; 946, p. 253). Henry Polenber. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 139 N., R. 88 W. Measuring point is 6.20 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: May 23, 8.16; Oct. 16, 7.50.

3 (\*938, p. 212; 946, p. 253). Joe Lanz, Jr. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 161 N., R. 81 W. Measuring point is 0.50 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 22.65.

4 (\*938, p. 212; 946, p. 253). Albrecht and Johnson. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 134 N., R. 82 W. Measuring point is 0.70 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 14.57.

49 (\*840, p. 324; \*845, p. 359; 886, p. 546; 908, p. 266; 933, p. 213; 946, p. 253). Soil Conservation Service, U. S. Dept. of Agriculture. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 138 N., R. 81 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 119.86.

## Water level, in feet below land-surface datum, 1943

Jan. 9	20.92	Apr. 2	19.09	June 24	13.36	Oct. 12	12.32
Feb. 2	21.19	4	15.61	Aug. 3	11.48	30	12.98
16	20.50	22	15.42	31	11.15	Nov. 30	13.98
Mar. 6	21.40	June 7	13.54				

Mountrail County

90 (\*845, p. 359; 886, p. 546; 908, p. 266; 938, p. 213; 946, p. 253). Emil Molter. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 152 N., R. 89 W. Measuring point is 0.17 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, subtract figures in reports earlier than 1942 from 147.68 and figures in report of 1942 from 147.51. Water level, in feet below land-surface datum, 1943: May 30, 46.86.

Nelson County

47 (\*836, p. 546; 908, p. 267; \*938, p. 213; 946, p. 253). Tom Miller. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 152 N., R. 59 W. Measuring point is 0.97 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 13, 9.82; Nov. 9, 10.76.

Oliver County

1 (\*908, p. 267; 938, p. 213; 946, p. 253). Otis Tye. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 141 N., R. 82 W. Measuring point is 0.40 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 23, 17.62.

Pembina County

1 (\*938, p. 213; 946, p. 253). E. J. Landers & Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 161 N., R. 56 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.81.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.09	Apr. 3	8.07	July 3	4.83	Oct. 2	7.88
9	8.13	10	7.90	10	5.21	9	7.94
16	8.17	17	7.70	17	5.08	16	8.03
23	8.21	24	7.45	24	5.56	23	8.11
30	8.23	May 1	6.85	31	5.84	30	8.10
Feb. 6	8.27	8	6.63	Aug. 7	6.11	Nov. 6	8.31
13	8.34	15	6.40	14	6.53	13	8.31
20	8.42	22	6.36	21	6.88	20	8.36
27	8.26	29	5.67	28	7.05	27	8.33
Mar. 6	8.43	June 5	5.50	Sept. 4	7.25	Dec. 4	8.41
13	8.52	12	4.25	11	7.37	11	8.29
20	8.58	19	4.50	18	7.54	18	8.40
27	8.33	26	4.67	25	7.70	25	8.49

5 (\*938, p. 214; 946, p. 254). Garnett A. Snell. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 162 N., R. 53 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 114.47.

## Water level, in feet below land-surface datum, 1943

Jan. 2	9.99	Apr. 3	10.54	July 3	9.25	Oct. 2	12.07
9	9.91	10	10.46	10	9.37	9	11.86
16	10.00	17	10.88	17	9.90	16	11.35
23	10.00	24	10.93	24	10.16	23	11.35
30	a 11.17	May 1	10.54	31	10.50	30	11.27
Feb. 6	10.11	8	10.38	Aug. 7	10.94	Nov. 6	11.24
13	10.19	15	10.42	14	11.13	13	11.17
20	a 10.50	22	10.35	21	11.57	20	11.18
27	10.37	29	10.11	28	11.60	27	10.77
Mar. 6	10.46	June 5	9.60	Sept. 4	11.54	Dec. 4	10.73
13	10.61	12	9.55	11	11.42	11	10.88
20	10.33	19	9.27	18	11.76	18	10.74
27	10.33	26	8.80	25	11.54	25	10.73

41 (\*840, p. 324; 845, p. 360; 886, p. 547; 908, p. 267; 938, p. 214; 946, p. 254). George Harris. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 163 N., R. 51 W. Measuring point beginning Nov. 8, 1943, is 0.26 foot above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.63. Water level, in feet below land-surface datum, 1943: Nov. 8, 9.23.

50 (\*938, p. 214; 946, p. 254). Albert C. McCurdy. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 162 N., R. 55 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.24.

## Water level, in feet below land-surface datum, 1943

Jan. 2	8.62	Feb. 6	9.58	Mar. 27	10.41	May 8	8.30
9	8.74	13	9.76	Apr. 3	10.20	22	7.51
16	8.91	20	9.91	10	9.78	29	7.01
23	8.95	28	10.04	17	9.13	June 5	6.34
27	9.15	Mar. 6	9.94	24	8.93	12	5.97
30	9.37	13	10.06	May 1	8.68	19	5.82

a Pumped.

## 50. Albert C. McCurdy--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 23	5.89	Aug. 14	7.40	Oct. 2	8.30	Nov. 19	8.78
July 3	6.05	21	7.64	9	8.39	27	8.86
10	6.44	28	7.85	16	8.49	Dec. 4	8.90
17	6.30	Sept. 4	7.90	23	8.58	11	8.93
24	6.64	11	7.99	30	8.64	18	8.98
31	6.91	18	8.03	Nov. 6	8.70	25	9.08
Aug. 7	7.20	25	8.17	13	8.74		

72 (\*938, p. 215; 946, p. 254). Herman Tesmer. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 163 N., R. 56 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.43.

Water level, in feet below land-surface datum, 1943

Jan. 3	9.10	Apr. 3	10.14	July 10	7.35	Oct. 2	7.27
9	9.27	10	10.18	17	6.10	9	8.31
16	9.43	17	9.85	24	6.68	16	8.35
23	9.56	23	9.35	31	6.35	23	8.43
30	9.64	May 1	9.10	Aug. 7	7.48	Nov. 6	8.48
Feb. 6	9.73	8	8.81	14	7.56	13	8.52
13	9.81	16	8.64	22	7.81	20	8.56
20	9.77	22	8.35	28	7.77	27	8.58
28	9.89	29	8.18	Sept. 4	7.81	Dec. 4	8.60
Mar. 6	9.93	June 5	7.02	11	7.81	11	8.68
13	9.94	12	6.81	18	7.85	18	8.68
21	10.06	19	6.64	25	7.89	31	8.93
27	10.10	26	6.73				

Pierce County

1 (\*908, p. 267; 938, p. 215; 946, p. 255). Eric Hammel. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 156 N., R. 72 W. Measuring point is 1.10 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 22, 24.41; Oct. 13, 24.08.

Ramsey County

48 (\*840, p. 324; 845, p. 360; 886, p. 547; 908, p. 267; 938, p. 215; 946, p. 255). Mrs. Bonnie Boland. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 153 N., R. 65 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 157.85. Water levels, in feet below land-surface datum, 1943: July 9, 57.40; Oct. 13, 57.53.

110 (\*946, p. 255). Roy Young. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 153 N., R. 64 W. Measuring point is 1.50 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: July 9, pumped dry; Sept. 13, 29.93.

111 (\*946, p. 255). W. H. Summers. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 153 N., R. 64 W. Measuring point is 1.00 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: July 9, 50.70; Sept. 13, 50.85.

112. Camp Grafton Military Reserve. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 153 N., R. 64 W. Infrequently used drilled well, diameter 4 inches, depth 148 feet. Measuring point is drilled hole in casing 0.50 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: July 1, 53.97.

Ransom County

1 (\*905, p. 268; 938, p. 215; 946, p. 255). Melfird Skramstad. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 136 N., R. 56 W. Measuring point is 0.70 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 14, 15.79.

Renville County

26 (\*840, p. 324; 845, p. 361; 886, p. 548; 908, p. 268; 938, p. 215; 946, p. 255). Minnesota Trust Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 161 N., R. 85 W. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 173.42.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	83.29	Apr. 3	83.04	June 19	82.76	Sept. 4	82.92
9	83.30	10	83.03	29	82.78	11	83.07
20	83.31	17	82.98	July 3	82.79	18	82.93
23	83.31	24	82.98	10	82.70	Oct. 2	83.05
Feb. 6	83.29	May 1	82.90	17	82.71	16	83.00
13	83.24	8	82.89	24	82.72	23	83.01
20	83.22	22	82.87	30	82.79	Nov. 6	83.02
27	83.22	29	82.87	Aug. 7	82.80	Dec. 4	82.96
Mar. 6	83.21	June 5	82.74	14	82.81	14	82.97
20	83.11	12	82.75	28	82.91	24	82.97
27	83.10						

75 (\*840, p. 325; 845, p. 361; 886, p. 548; 908, p. 268; 938, p. 216; 946, p. 255). Fish and Wildlife Service, U. S. Dept. of Interior. Well flooded with impounded water; measurements discontinued.

167 (\*908, p. 268; 938, p. 216; 946, p. 255). Town of Mohall. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 161 N., R. 84 W. Measuring point is 1.00 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 29, 22.31.

168 (\*908, p. 268; 938, p. 216; 946, p. 255). J. Dighton Taylor. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 161 N., R. 84 W. Measuring point is 0.20 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 29, 8.62.

169 (\*908, p. 269; 938, p. 216; 946, p. 256). Fred Paris. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 161 N., R. 84 W. Measuring point is level with land-surface datum. Water level, in feet below land-surface datum, 1943: May 29, 6.55.

Richland County

2 (\*845, p. 361; 886, p. 548; 908, p. 269; 938, p. 216; 946, p. 256). Ira Madden. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 132 N., R. 49 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.32. Water levels, in feet below land-surface datum, 1943: May 14, 2.20; Oct. 19, 1.19.

5 (\*840, p. 325; 845, p. 362; 886, p. 548; 908, p. 269; 938, p. 216; 946, p. 256). U. S. well 52. John Liljemark. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 33, T. 133 N., R. 52 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.60.

Water level, in feet below land-surface datum, 1943

Jan. 9	4.35	Apr. 10	2.37	July 11	1.56	Oct. 10	5.98
16	4.56	17	2.60	25	2.29	16	5.95
23	5.06	24	2.52	31	2.93	23	5.12
Feb. 1	5.36	May 1	2.43	Aug. 7	3.59	30	5.27
7	5.31	8	2.60	15	3.89	Nov. 6	4.37
14	5.36	15	1.16	23	4.58	13	4.35
21	5.39	22	1.29	28	4.10	20	5.10
27	4.98	29	1.06	Sept. 4	4.78	27	4.46
Mar. 6	5.31	June 5	1.63	12	3.50	Dec. 4	4.76
13	5.68	12	.91	18	4.59	12	4.89
20	5.54	19	1.02	25	5.37	19	5.83
27	4.35	27	.75	Oct. 2	5.73	25	6.25
Apr. 3	2.89	July 3	1.06				



Rolette County

164 (\*908, p. 269; 938, p. 216; 946, p. 256). Owner's No. 3. Town of Rolla. NE $\frac{1}{4}$  sec. 17, T. 162 N., R. 69 W. Measurements discontinued.

165 (\*908, p. 269; \*938, p. 217; 946, p. 256). Owner's No. 4. Town of Rolla. NE $\frac{1}{4}$  sec. 17, T. 162 N., R. 69 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 119.19. Water levels, in feet below land-surface datum, 1943: June 2, 17.76; Oct. 8, 13.80.

Sargent County

116 (\*908, p. 270; \*938, p. 217; 946, p. 256). Reko Realty. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 130 N., R. 58 W. Measuring point is 2.20 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 29, 4.73.

Sheridan County

95 (\*845, p. 362; 886, p. 549; 908, p. 270; 938, p. 217; 946, p. 256). Bank of North Dakota. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 145 N., R. 75 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 155.69.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	55.49	Apr. 10	55.47	July 17	54.96	Oct. 9	54.95
16	55.57	17	55.46	24	54.96	16	54.95
23	55.48	24	55.47	31	54.96	23	54.94
30	55.49	May 1	55.46	Aug. 7	54.96	30	54.93
Feb. 6	55.48	8	55.47	14	54.99	Nov. 6	54.95
13	55.47	15	55.46	21	54.98	13	54.93
20	55.49	22	55.46	28	54.95	20	54.95
27	55.47	June 5	55.43	Sept. 4	54.96	27	54.95
Mar. 6	55.48	12	55.35	11	54.97	Dec. 4	54.94
13	55.48	19	55.00	18	54.96	11	54.97
20	55.49	26	54.94	25	54.95	18	54.97
27	55.48	July 3	54.94	Oct. 2	54.96	25	54.96
Apr. 3	55.49	10	54.97				

Sioux County

1 (\*908, p. 270; 936, p. 217; 946, p. 257). Mrs. Lookingout. SW $\frac{1}{4}$  sec. 7, T. 130 N., R. 79 W. Measuring point is 0.30 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 10.82.

2 (\*938, p. 217; 946, p. 257). Mrs. Mulache. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 130 N., R. 90 W. Measuring point is 0.30 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 24, 24.34.

Slope County

1 (\*908, p. 270; 938, p. 218; 946, p. 257). Arthur Nesseth. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 134 N., R. 100 W. Measuring point is 0.60 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 25, 15.56.

Stark County

120 (\*908, p. 270; 938, p. 218; 946, p. 257). Roland and George Funk. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 139 N., R. 91 W. Measuring point is 1.85 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 23, 2.88; Oct. 16, 2.55.

Steele County

1 (\*908, p. 270; 938, p. 218; 946, p. 257). Mrs. Snortland. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 148 N., R. 57 W. Measuring point is 1.80 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 14, 12.98; Oct. 16, 12.12.

126. Federal Land Bank. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 146 N., R. 57 W. Dug domestic well, diameter 36 inches, depth 12 feet. Measuring point is 0.80 foot above land-surface datum. Water levels, in feet below land-surface datum: May 28, 1942, 6.55; May 14, 1943, 5.43; Oct. 16, 1943, 6.27.

Stutsman County

124 (\*908, p. 270; 938, p. 218; 946, p. 257). Union Central Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 137 N., R. 64 W. Measuring point is 3.50 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 47.14.

Towner County

59 (\*840, p. 325; 845, p. 363; 886, p. 549; 908, p. 271; 938, p. 218; 946, p. 257). Bank of North Dakota. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 160 N., R. 66 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.14.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	17.14	Apr. 3	16.84	July 3	16.45	Oct. 2	16.58
9	17.13	10	16.80	10	16.44	9	16.58
16	17.11	17	16.77	17	16.43	16	16.59
23	17.09	24	16.76	24	16.42	23	16.60
30	17.07	May 1	16.75	31	16.43	30	16.59
Feb. 6	17.05	8	16.74	Aug. 7	16.35	Nov. 6	16.59
13	17.02	15	16.72	14	16.45	13	16.60
20	17.01	22	16.68	21	16.46	20	16.60
27	16.99	29	16.66	28	16.49	27	16.59
Mar. 6	16.97	June 5	16.60	Sept. 4	16.51	Dec. 4	17.10
13	16.94	12	16.55	11	16.54	11	17.10
20	16.92	19	16.49	18	16.55	18	17.10
27	16.88	26	16.47	25	16.58	25	16.57

170 (\*946, p. 258). S. L. Isaacson. Town of Cando. In lot 12, block 16. Measuring point is level with land-surface datum. Water levels, in feet below land-surface datum, 1943: June 5, 22.14; Oct. 14, 24.09.

Traill County

15 (\*840, p. 326; 845, p. 363; 886, p. 549; 908, p. 271; 938, p. 218; 946, p. 258). A. C. Skyberg. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 146 N., R. 51 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 122.27.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	19.82	Apr. 3	19.92	July 3	19.55	Oct. 2	19.27
9	19.82	10	19.88	10	19.53	9	19.25
16	19.82	17	19.86	17	19.48	16	19.25
23	19.84	24	19.84	24	19.44	23	19.25
30	19.84	May 1	19.82	31	19.42	30	19.26
Feb. 6	19.86	8	19.77	Aug. 7	19.40	Nov. 6	19.26
13	19.88	15	19.75	14	19.38	13	19.26
20	19.88	22	19.73	21	19.37	20	19.26
27	19.88	29	19.71	28	19.36	27	19.26
Mar. 6	19.90	June 5	19.71	Sept. 4	19.32	Dec. 4	19.26
13	20.86	12	19.65	11	19.30	11	19.26
20	20.77	19	19.63	18	19.30	18	19.28
27	19.94	26	19.59	25	19.28	25	19.28

31 (\*845, p. 364; 886, p. 550; 908, p. 271; 938, p. 219; 946, p. 258). City of Hatton. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 148 N., R. 53 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.27.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 2	6.59	July 10	6.70	Aug. 9	7.73	Sept. 4	8.63
June 12	6.56	17	6.98	15	8.18	12	8.45
26	6.56	24	7.01	21	8.28	18	8.97
July 3	6.11	31	7.44	28	8.44	25	8.53

32 (\*845, p. 364; 886, p. 550; 908, p. 271; 938, p. 219; 946, p. 258). City of Hatton. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 148 N., R. 53 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 125.86.

Water level, in feet below land-surface datum, 1943

May 2	12.64	July 3	12.06	Aug. 15	14.95	Sept. 25	16.80
16	12.62	10	12.51	21	15.35	Oct. 2	16.93
23	12.19	17	12.57	28	15.18	9	16.45
June 5	12.13	24	13.51	Sept. 4	15.73	17	15.92
12	12.15	31	13.76	12	15.94	24	15.43
26	10.84	Aug. 9	14.17	18	16.41	30	15.31

33 (\*840, p. 326; 845, p. 364; 886, p. 550; 908, p. 272; 938, p. 219; 946, p. 258). City of Hatton. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 148 N., R. 53 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 124.79.

Water level, in feet below land-surface datum, 1943

May 2	9.79	July 3	7.67	Aug. 15	11.63	Sept. 25	14.35
16	9.40	10	8.21	21	12.13	Oct. 2	15.12
23	8.53	17	9.13	28	12.40	9	15.40
June 5	8.14	24	9.41	Sept. 4	13.15	17	14.85
12	7.89	31	9.98	12	13.43	24	14.91
26	7.47	Aug. 9	10.60	18	13.76	30	14.43

34 (\*845, p. 365; 886, p. 550; 908, p. 272; 938, p. 219; 946, p. 259). City of Hatton. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 148 N., R. 53 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.10.

Water level, in feet below land-surface datum, 1943

May 2	8.87	July 3	8.20	Aug. 15	10.60	Sept. 25	12.30
16	8.61	10	8.57	21	10.87	Oct. 2	12.66
23	8.49	17	8.85	28	11.05	9	12.82
June 5	8.51	24	9.23	Sept. 4	11.54	17	12.60
12	8.38	31	9.55	12	11.77	24	12.45
26	8.10	Aug. 9	9.97	18	11.97	30	12.40

Walsh County

38 (\*840, p. 326; 845, p. 366; 886, p. 551; 908, p. 272; 938, p. 219; 946, p. 259). Henry Dipple. To convert water levels from feet above assumed datum, as published in previous reports, to feet above land-surface datum, subtract 88.37.

Water level, in feet above land-surface datum, 1943

Jan. 2	10.55	Mar. 6	9.90	May 8	12.71	July 10	10.00
9	10.56	13	9.90	15	12.56	17	11.65
16	10.49	20	10.29	22	9.65	24	8.88
23	10.52	27	10.48	29	11.11	31	10.21
29	10.26	Apr. 3	10.58	June 5	12.30	Aug. 7	10.72
Feb. 6	10.07	10	10.54	12	11.30	14	10.70
13	9.94	17	9.54	19	10.30	21	10.41
20	9.85	24	10.17	26	10.56	28	10.45
27	9.89	May 1	9.37	July 3	10.02	Sept. 4	10.31

## 38. Henry Dipple--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11	10.42	Oct. 16	10.66	Nov. 13	10.04	Dec. 11	9.96
18	10.21	23	10.08	20	10.08	18	10.68
25	10.75	30	9.66	27	10.70	27	10.79
Oct. 2	10.70	Nov. 6	10.49	Dec. 3	9.91	31	10.87
9	10.38						

39 (\*840, p. 327; 845, p. 366; 886, p. 551; 908, p. 272; 938, p. 220; 946, p. 259). U. S. well 48. Henry Dipple. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 157 N., R. 51 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.52.

Water level, in feet below land-surface datum, 1943

Jan. 2	5.27	Apr. 10	5.18	July 10	3.29	Oct. 9	4.33
9	5.00	17	6.99	17	1.33	16	a 5.82
16	5.25	24	a 8.66	24	1.18	23	a 6.09
23	5.26	May 1	7.16	31	1.58	30	a 6.27
29	6.13	8	5.65	Aug. 7	1.23	Nov. 6	3.85
Feb. 6	6.64	15	6.15	14	3.08	13	4.80
13	6.96	22	a 7.51	21	2.76	20	5.05
20	a 7.38	29	a 6.53	28	3.07	27	5.18
29	7.21	June 5	5.86	Sept. 4	2.76	Dec. 3	5.05
Mar. 6	7.23	12	2.21	11	2.81	11	a 5.84
13	7.18	19	3.30	18	3.09	18	a 6.28
20	7.25	26	2.98	25	3.18	27	a 6.13
27	5.34	July 3	3.35	Oct. 2	3.70	31	a 6.17
Apr. 3	5.64						

40 (\*840, p. 327; 845, p. 366; 886, p. 551; 908, p. 273; 938, p. 220; 946, p. 259). Henry Dipple. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 157 N., R. 51 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.55.

Water level, in feet below land-surface datum, 1943

Jan. 2	4.62	Jan. 29	4.70	Feb. 27	4.86	Apr. 3	5.21
9	4.70	Feb. 6	4.70	Mar. 6	4.86	10	5.11
16	4.70	13	4.70	13	4.86	17	4.01
23	4.70	20	4.70	20	4.88		

96 (\*886, p. 551; 908, p. 273; 938, p. 220; 946, p. 260). C. D. Lewis. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T. 157 N., R. 55 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.29.

Water level, in feet below land-surface datum, 1943

Jan. 2	5.38	Apr. 10	4.58	July 10	2.67	Oct. 9	6.24
10	5.42	18	4.13	17	2.46	17	6.30
16	5.45	25	3.65	25	3.08	24	6.33
30	5.54	May 2	3.19	31	3.51	30	6.34
Feb. 2	5.66	8	2.85	Aug. 7	4.01	Nov. 6	6.35
14	5.70	15	2.75	15	4.56	13	6.36
20	5.84	23	2.72	22	4.96	21	6.38
28	5.69	29	2.60	28	5.20	27	6.39
Mar. 6	5.71	June 5	1.72	Sept. 4	5.49	Dec. 4	6.39
13	5.82	12	1.38	12	5.67	11	6.38
20	5.91	19	1.40	19	5.94	18	6.40
27	5.31	27	1.87	22	6.08	26	6.42
Apr. 3	4.92	July 4	2.38	Oct. 2	6.17		

a Pumped.

Ward County

25 (\*886, p. 552; 908, p. 273; 938, p. 221; 946, p. 260). Rural Rehabilitation Corporation. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 155 N., R. 84 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.25.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.36	Mar. 28	15.94	June 13	14.27	Sept. 12	16.50
10	17.50	Apr. 4	13.92	20	14.61	19	16.74
17	17.40	11	12.94	July 4	15.09	26	16.79
24	17.42	18	11.17	11	15.15	Oct. 3	16.92
31	16.84	25	9.15	19	15.25	10	16.92
Feb. 7	16.61	May 2	9.23	26	15.36	17	16.94
14	16.56	9	9.52	Aug. 8	15.73	24	17.06
21	16.19	16	11.94	15	15.06	31	17.08
28	16.04	23	13.45	22	16.07	Nov. 7	17.10
Mar. 7	15.96	30	14.36	29	16.17	14	16.80
14	16.11	June 6	14.31	Sept. 5	16.21	21	16.86
21	16.15						

50 (\*946, p. 261). Fish and Wildlife Service, U. S. Dept. of Interior. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 160 N., R. 89 W. Measuring point is 1.00 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 29, 8.08.

53 (\*886, p. 552; 908, p. 273; 938, p. 221; 946, p. 261). Chas. O'Neill. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 160 N., R. 88 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 106.58.

## Water level, in feet below land-surface datum, 1943

Jan. 2	7.67	Mar. 27	8.96	June 19	2.07	Sept. 11	4.84
9	7.80	Apr. 3	3.09	26	1.67	18	4.75
16	7.75	10	4.05	July 3	3.25	25	7.75
23	8.00	17	3.99	10	2.88	Oct. 2	6.80
30	7.96	24	3.94	17	3.34	9	6.90
Feb. 6	7.92	May 1	3.25	24	3.13	16	6.84
13	7.96	8	3.17	31	3.17	23	6.75
20	8.71	15	3.09	Aug. 7	4.59	30	6.98
27	9.00	22	4.04	14	4.67	Nov. 6	7.96
Mar. 6	9.00	29	4.00	21	4.75	20	7.17
13	8.92	June 5	2.34	28	4.96	Dec. 4	7.21
20	9.05	12	2.92	Sept. 4	4.92	18	7.17

71 (\*840, p. 327; 845, p. 367; 886, p. 553; 908, p. 274; 938, p. 221; 946, p. 261). Fish and Wildlife Service, U. S. Dept. of Interior. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 157 N., R. 84 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.54.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 26	a 7.20	Mar. 27	7.17	May 4	6.19
Feb. 23	a 7.20	Apr. 9	6.81	July 2	4.66

73 (\*840, p. 327; 845, p. 367; 836, p. 553; 903, p. 274; 938, p. 221; 946, p. 261). Fish and Wildlife Service, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 157 N., R. 84 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.75. Water level, in feet below land-surface datum, 1943: Apr. 7, 5.92.

a Measurement to ice.

74 (\*840, p. 328; 845, p. 367; 836, p. 553; 908, p. 274; 938, p. 222; 946, p. 261). Fish and Wildlife Service, U. S. Dept. of Interior. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 157 N., R. 84 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.06. Water level, in feet below land-surface datum, 1943: Apr. 7, 8.67.

#### Wells County

23 (\*817, p. 229; \*840, p. 328; 845, p. 368; 836, p. 554; 908, p. 274; 938, p. 222; 946, p. 261). City of Harvey. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 150 N., R. 72 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 105.45. Water levels, in feet below land-surface datum, 1943: Jan. 3, 0.46; Jan. 10, 0.60.

24 (\*840, p. 328; 845, p. 368; 836, p. 554; 908, p. 274; 938, p. 222; 946, p. 262). City of Harvey. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 150 N., R. 72 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.44. Water levels, in feet below land-surface datum, 1943: Jan. 3, 6.11; Jan. 10, 6.30.

153 (\*908, p. 275; 938, p. 222; 946, p. 262). Hayden Jones. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 147 N., R. 70 W. Measurements discontinued.

#### Williams County

77 (\*386, p. 554; 908, p. 275; 933, p. 223; 946, p. 262). Hans O. Lottestad. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 159 N., R. 103 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.89.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	30.23	Apr. 4	15.91	July 4	10.91	Oct. 3	20.54
9	30.20	10	12.34	11	11.40	9	21.22
16	30.25	18	12.99	18	12.37	17	21.55
23	30.28	24	14.45	25	13.34	24	22.07
30	30.32	May 1	13.34	Aug. 1	14.13	31	21.61
Feb. 6	30.40	8	13.38	3	15.12	Nov. 6	22.85
13	30.45	16	13.06	15	16.12	14	23.17
20	30.47	22	12.45	21	16.92	20	23.40
27	30.52	29	12.82	29	17.83	Dec. 4	23.87
Mar. 6	30.56	June 5	12.65	Sept. 5	18.38	13	24.18
14	30.60	12	12.21	12	19.36	19	24.49
20	30.65	20	10.85	19	19.75	25	24.62
27	30.73	27	10.72	26	20.26		

78 (\*845, p. 368; 836, p. 555; 908, p. 275; 938, p. 223; 946, p. 262). Hans O. Lottestad. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 159 N., R. 103 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 111.21.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	24.82	Apr. 4	10.29	July 4	6.48	Oct. 3	14.97
9	25.09	10	6.60	11	7.04	9	15.43
16	25.15	18	7.55	18	7.61	17	15.83
23	25.19	24	7.96	25	8.27	24	15.31
30	25.24	May 1	6.72	Aug. 1	8.98	31	15.80
Feb. 6	25.43	8	7.04	8	9.68	Nov. 6	15.89
13	25.65	16	6.89	15	10.48	14	16.58
20	25.71	22	6.86	21	11.02	20	16.32
27	25.74	29	7.39	29	11.78	28	16.64
Mar. 6	25.77	June 5	6.58	Sept. 5	12.16	Dec. 4	16.80
14	25.81	12	6.77	12	13.81	13	17.06
20	25.94	20	5.65	19	14.30	19	17.33
27	26.06	27	5.92	26	14.66	25	17.48

79 (\*845, p. 369; 886, p. 555; 908, p. 276; 938, p. 223; 946, p. 262).  
 Mrs. Gus B. Swanson Estate. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 157 N., R. 96 W. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 132.78.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	50.00	Apr. 3	46.75	July 10	11.73	Oct. 9	14.71
9	53.64	10	46.14	17	11.44	16	14.87
16	53.08	17	43.37	24	11.48	23	14.96
23	56.31	May 1	29.25	31	10.83	30	15.21
30	54.41	8	17.87	Aug. 7	12.73	Nov. 6	16.46
Feb. 6	52.04	15	17.25	14	12.04	14	15.21
13	52.27	22	15.33	21	12.71	20	16.04
20	53.23	29	14.98	28	13.00	27	16.37
27	52.46	June 5	14.19	Sept. 4	13.17	Dec. 4	16.37
Mar. 6	50.25	12	13.56	11	13.27	11	16.46
13	48.21	19	13.17	18	13.39	18	17.21
20	46.06	26	12.23	25	13.87	25	18.04
27	45.25	July 3	12.00	Oct. 2	14.27		

## SOUTH DAKOTA

By W. E. Hale

### PROGRAM OF WORK

The observation-well program in South Dakota, begun in 1939, was continued in 1943 by the Geological Survey, United States Department of the Interior, in cooperation with the South Dakota Geological Survey. Observations of water level have been made in 13 counties, all of which are in the southeast quarter of the State. At the beginning of 1943 the program included 50 wells; 5 wells were dropped during the year and 3 were added; at the end of the year, therefore, 48 wells were under observation. Weekly measurements were made in 5 wells and monthly measurements in 34; in 8 wells no measurements were made. An automatic water-stage recorder was maintained on one well during part of the year, and on one well in which weekly measurements were made (Union County well 5) a float-tape gage was maintained.

### FLUCTUATIONS OF WATER LEVEL

As most of the observation wells in South Dakota are shallow, the principal factor affecting their water level is precipitation. The municipal wells under observation are affected also by pumping. The following table shows the fluctuation of the average water level in 1943, by months, in a group of 18 shallow wells. The wells making up this group are Bon Homme County wells 7 and 34, Clay County well 38, Hutchinson County wells 35 and 37, Lincoln County wells 28 and 29, Minnehaha County wells 21, 30, and 31, Turner County wells 4, 41, and 42, Union County wells 5 and 24, and Yankton County wells 1, 3, and 33.



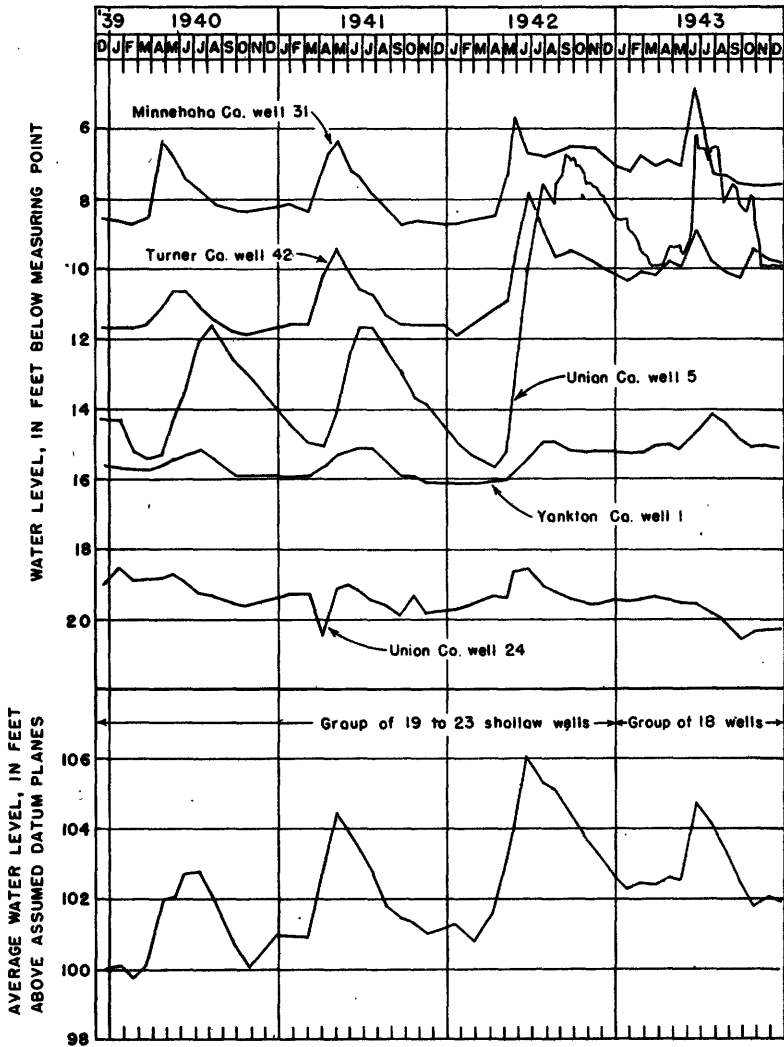


Figure 10.--Graphs showing fluctuations of water level in each of five shallow wells in southeastern South Dakota and fluctuations of the average water level in groups of shallow wells.

Average water level, in feet above assumed datum planes, in 18 shallow wells in South Dakota, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 23, 25, 27	102.24	May 13, 15, 17	102.51	Sept. 24, 25, 27	102.46
Feb. 21, 24, 27	102.49	June 25, 26, 27	104.70	Oct. 27, 28, 30	101.75
Mar. 24, 25, 27	102.38	July 27, 28, 29	104.17	Nov. 26, 27, 29	102.03
Apr. 24, 29	102.53	Aug. 24, 25, 26	103.27	Dec. 18, 21, 22	101.90

The graph at the bottom of figure 10 shows the fluctuation of the average water level in a group of 19 to 23 shallow wells during the 37-month period December 1939 to December 1942 and in a group of 18 shallow wells during the 12-month period January to December 1943. (The wells making up the group of 18 are those whose water levels were used in computing the monthly averages in the above table; the group of 23 includes the group of 18 with the exception of one well--Lincoln County well 28--and, in addition, Bon Homme County well 8, Hutchinson County well 36, Lincoln County well 27, Turner County wells 22 and 40, and Union County well 25.) The water levels in both groups of wells were referred to the same assumed datum planes, and the averages obtained, although not precisely comparable, serve to show the general trend of the water level for the period of record of the wells. It will be noted that the five municipal wells under observation were not considered in computing the averages used for either the table or the graph.

From the graph and table it will be seen that in 1943 the average water level remained at practically the same stage from the beginning of the year until about the middle of May. During this period the rainfall was somewhat below normal. In June the rainfall was considerably above normal and, as a result, the water level rose rapidly and reached its highest stage of the year in that month. It declined steadily--2.95 feet in all--until late in October, when it reached its lowest stage of the year. In November it rose slightly and in December declined slightly. At the end of the year it was 0.77 foot below its stage at the end of the preceding year.<sup>1/</sup>

<sup>1/</sup> The average water level in December 1942, as published in the table on page 264 of Water-Supply Paper 946, is in error. It is based on 19 wells and should therefore be 103.18 feet. If based on 18 wells, the average in December 1942 is 102.67 feet.

Shown also in figure 10 are the fluctuations of water level during the period 1940-43 in each of the five water-table wells included in the groups mentioned above. These wells, although in different topographic situations, are considered typical of wells in southeastern South Dakota.

Five wells in the State in or near municipal well fields are included in the observation-well program. One of these is near Brookings (Brookings County), one is near Huron (Beadle County), and three are near Sioux Falls (Minnehaha County). As has already been stated, these wells are affected by pumping as well as by precipitation.

Measurements in the well near Brookings, known as City of Brookings well 1 and listed in this report as Brookings County well 110-50-13M1, were begun in July 1942. In 1943 the water level reached both its lowest and its highest stage for the year while the well was not pumping. The lowest stage, 11.17 feet below land-surface datum, was reached on February 12, and the highest stage, 7.25 feet below land-surface datum, was reached on December 16. The pumpage during the year, by months, from the wells in the Brookings municipal field is shown in the following table.

Monthly pumpage, in millions of gallons, from Brookings, S. Dak.,  
municipal wells, 1943  
(Records furnished by Brookings Water Works, T. Newell, superintendent)

Month	Pumpage	Month	Pumpage	Month	Pumpage
Jan.	13.76	May	14.95	Sept.	15.84
Feb.	11.58	June	17.70	Oct.	16.28
Mar.	13.38	July	19.95	Nov.	12.08
Apr.	13.18	Aug.	20.87	Dec.	13.35

No measurements were made in 1943 in the municipal well near Huron, known as City of Huron gage hole 1 and listed in this report as Beadle County well 110-62-9E1.

The Sioux Falls municipal well field is in the valley of the Big Sioux River, in the S $\frac{1}{2}$  secs. 5 and 6, T. 101 N., R. 49 W. Thirteen wells had been constructed in this field by the end of 1942, but four of these have been abandoned. During the period beginning with the latter part of 1942 and extending through 1943, in order to augment the city's water supply, six additional wells were constructed in the field and the construction of a seventh was begun. Some details about the wells completed by the end of 1942 are given in a table in Water-Supply Paper 946 (on p. 268), and similar details about the six additional wells here mentioned are given in the first of the two following tables. The second table shows the pumpage in 1943, by months, from the entire field.

Wells constructed in Sioux Falls, S. Dak., municipal well field in 1943 or late in 1942

Well	Date completed	Diameter (feet)	Depth (feet)	Drawdown (feet)	Estimated pumping rate, in gallons a minute
14	Summer 1943	40	37.75	7.8	800
15	Fall 1943	40	43	8.9	...
16	Fall 1943	40	39.75	6.3	920
17	Fall 1943	40	37.75	5.6	650
18	Fall 1943	40	38.5	5.3	...
19	Fall 1943	2	37.1	13	650
20	Under construction				

Monthly pumpage, in millions of gallons, from Sioux Falls, S. Dak., municipal wells, 1943

Month	Pumpage	Month	Pumpage	Month	Pumpage	Month	Pumpage
Jan.	191.0	Apr.	189.8	July	253.3	Oct.	218.0
Feb.	188.9	May	197.6	Aug.	250.2	Nov.	185.5
Mar.	179.5	June	211.6	Sept.	226.3	Dec.	196.5

At the beginning of 1943 three wells in the vicinity of the Sioux Falls municipal well field were under observation. During the year measurements were discontinued in one well and begun in a newly established well. The well thus added to the program is one of a large number of test holes drilled by the city in the valley of the Big Sioux River to the north of the municipal field. Many of these test holes will be cased and used as observation wells. The one already in use for this purpose, listed in this report as Minnehaha County well 102-47-29J1, is about 1.5 miles north of the well field. An automatic water-stage recorder was installed in this well June 27, 1943.

#### WELL-NUMBERING SYSTEM

The numbers assigned by the Geological Survey to its observation wells in South Dakota show the location of wells according to the rectangular system for subdivision of public land. Each number is made up of three segments, separated by hyphens. The first and second segments indicate the township and range, and the third indicates the section, one of the 40-acre subdivisions of the section as shown in the accompanying diagram,

D	G	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

and, by its serial number, a particular well. For example, the number 109-62-3R1 indicates a well in T. 109 N., R. 62 W., in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3 whose serial number is 1. If the section or 40-acre subdivision in which a well is located is unknown, a zero is substituted for the letter indicating the section or 40-acre subdivision.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Beadle County

109-62-3R1 (\*886, p. 642; 908, p. 278; 938, p. 226; 946, p. 269). Formerly well 12. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 109 N., R. 62 W. Measuring point is 1.3 feet above land-surface datum. No measurements made in 1943.

109-62-7A1 (\*886, p. 642; 908, p. 279; 938, p. 226; 946, p. 269). Formerly well 14. Mrs. Ella Johnson. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 109 N., R. 62 W. Measuring point is at land-surface datum. No measurements made in 1943.

109-62-9H1 (\*886, p. 642; 908, p. 278; 938, p. 226; 946, p. 269). Formerly well 13. Mrs. Hildur Erickson. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 109 N., R. 62 W. Measuring point is 1.3 feet above land-surface datum. No measurements made in 1943.

109-63-1B1 (\*886, p. 642; 908, p. 279; 938, p. 226; 946, p. 269). Formerly well 15. Nels Christensen. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 109 N., R. 63 W. Measuring point is 1.0 foot above land-surface datum. No measurements made in 1943.

110-62-9E1 (817, p. 314; 840, p. 373; 845, p. 436; 886, p. 640; 908, p. 277; 938, p. 31; 946, p. 267) City of Huron. Owner's gage hole 1. In Huron, in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 110 N., R. 62 W. Measuring point is at land-surface datum. No measurements made in 1943.

110-62-36P1 (\*886, p. 642; 908, p. 278; 938, p. 226; 946, p. 269). Formerly well 11. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 110 N., R. 62 W. Measuring point is 1.4 feet above land-surface datum. No measurements made in 1943.

111-59-31R1 (\*938, p. 226; 946, p. 269). Formerly well 16. P. J. Murphy. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 111 N., R. 59 W. No measurements made in 1943.

Bon Homme County

94-58-14P1 (\*886, p. 642; 908, p. 279; 938, p. 226; 946, p. 269). Formerly well 7. T. C. Dugovic. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 94 N., R. 58 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	16.82	Apr. 29	17.59	July 28	13.55	Oct. 27	18.98
Feb. 21	17.04	May 13	17.74	Aug. 25	15.11	Nov. 26	19.04
Mar. 24	17.41	June 26	14.02	Sept. 24	16.69	Dec. 21	19.49

94-59-6B1 (\*886, p. 643; 908, p. 279; 938, p. 227; 946, p. 270). Formerly well 34. Joseph Krejci. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 94 N., R. 59 W. Measuring point is 1 foot above land-surface datum. (The statement made in Water-Supply Paper 946, on page 270, that measurements were discontinued in this well after July 28, 1942, is erroneous.)

Water level, in feet below land-surface datum, 1943

Jan. 25	11.71	Apr. 29	9.57	July 29	7.01	Oct. 27	13.44
Feb. 21	11.76	May 13	8.16	Aug. 25	9.22	Nov. 26	13.45
Mar. 24	11.84	June 26	8.02	Sept. 24	11.58	Dec. 21	13.34

95-60-8E1 (\*886, p. 643; 908, p. 279; 938, p. 226; 946, p. 270). Formerly well 8. Jake Berndt. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 95 N., R. 60 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	a21.44	Apr. 29	10.83	July 28	9.00	Oct. 27	10.39
Feb. 21	17.11	May 13	10.38	Aug. 25	10.21	Nov. 26	10.29
Mar. 24	a20.29	June 26	8.40	Sept. 24	10.76	Dec. 21	10.26

96-60-31R1 (\*886, p. 643; \*908, p. 279; 938, p. 227; 946, p. 270). Formerly well 9. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 96 N., R. 60 W. Measuring point is 0.9 foot above land-surface datum. Well abandoned July 29, 1942; measurements discontinued.

96-60-32M1 (\*946, p. 270). Formerly well 52. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 96 N., R. 60 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.79	Apr. 29	11.11	July 28	9.45	Oct. 27	11.02
Feb. 21	10.79	May 13	11.13	Aug. 25	10.80	Nov. 26	10.79
Mar. 24	10.96	June 26	10.39	Sept. 24	10.58		

### Brookings County

110-50-13M1 (\*946, p. 267). City of Brookings well 1. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 110 N., R. 50 W., about 1.5 miles north of Brookings. Measuring point is 5.0 feet above land-surface datum. Measurements were made by Brookings Water Works, T. Newell, superintendent, when all wells in the Brookings municipal field were idle.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	9.33	Mar. 12	9.75	May 28	7.92	Sept. 10	7.67
8	10.50	19	10.00	June 4	7.50	24	8.50
15	10.50	26	9.00	11	7.50	Oct. 9	9.83
22	10.66	Apr. 16	8.50	19	7.67	25	9.08
29	10.66	23	8.17	26	7.33	Nov. 5	8.50
Feb. 5	10.75	30	7.92	July 9	8.17	26	8.33
12	11.17	May 7	8.00	23	8.42	Dec. 4	7.67
19	10.42	14	7.83	Aug. 14	8.25	16	7.25
26	9.83	21	8.33	28	8.08	31	7.50
Mar. 5	9.33						

### Clay County

92-52-00 (\*908, p. 280; 938, p. 227; 946, p. 271). Formerly well 48. Geological Survey, U. S. Dept. of Interior. T. 92 N., R. 52 W., 1.3 miles south of Chicago, Milwaukee, St. Paul & Pacific R. R. depot at Vermillion. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	16.35	Apr. 29	13.65	July 29	13.64	Oct. 27	15.12
Feb. 24	16.40	May 22	13.72	Aug. 26	14.13	Nov. 26	15.60
Mar. 24	16.38	June 25	13.70	Sept. 24	14.74	Dec. 21	15.57

92-52-13J1 (\*908, p. 280; 938, p. 227; 946, p. 270). Formerly well 43. University of South Dakota. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 92 N., R. 52 W. Measuring point is 0.1 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	13.16	Apr. 29	11.96	July 29	9.74	Oct. 27	12.85
Feb. 21	9.88	May 22	11.73	Aug. 26	11.43	Nov. 26	12.71
Mar. 24	10.88	June 26	9.91	Sept. 24	12.20	Dec. 21	13.18

94-52-35F1 (\*886, p. 643; 908, p. 279; 938, p. 227; 946, p. 270). Formerly well 38. Ed Yusten. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 35, T. 94 N., R. 52 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	6.53	Apr. 29	5.80	July 27	3.18	Oct. 27	6.98
Feb. 21	6.05	May 13	5.45	Aug. 26	5.89	Nov. 26	6.72
Mar. 24	6.01	June 26	3.84	Sept. 24	5.60	Dec. 22	6.99

a Pumped shortly before measurement..

95-52-23M1 (\*908, p. 280; 938, p. 227; 946, p. 271). Formerly well 47. Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 95 N., R. 52 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	6.86	Apr. 29	6.85	July 27	5.79	Oct. 27	6.97
Feb. 21	6.89	May 13	6.93	Aug. 26	6.12	Nov. 26	6.64
Mar. 24	6.87	June 26	5.46	Sept. 24	6.59	Dec. 22	7.59

#### Hutchinson County

97-56-11C1 (\*908, p. 280; 938, p. 228; 946, p. 271). Christ. Harnisch Formerly well 45. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 97 N., R. 56 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	11.10	Apr. 29	11.17	July 28	10.26	Oct. 27	10.37
Feb. 21	11.10	May 13	11.28	Aug. 25	10.33	Nov. 26	9.99
Mar. 24	11.15	June 26	10.03	Sept. 24	12.00	Dec. 21	10.28

97-57-10D1 (\*886, p. 643; 908, p. 280; 938, p. 228; 946, p. 271). Formerly well 37. Ed. C. Mettler. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 97 N., R. 57 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	12.60	Apr. 29	12.34	July 29	6.79	Oct. 27	9.45
Feb. 21	12.62	May 13	12.45	Aug. 25	6.22	Nov. 26	9.19
Mar. 24	12.81	June 26	4.92	Sept. 24	7.60	Dec. 21	9.27

97-58-10B1 (\*886, p. 643; 908, p. 280; 938, p. 228; 946, p. 271). Formerly well 36. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 97 N., R. 58 W. Measuring point beginning Jan. 25, 1943, aluminum-colored arrow on plank, 1.0 foot above land-surface datum. Measurements discontinued after July 28, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	6.25	Mar. 24	5.19	May 13	5.43	July 28	(a)
Feb. 24	5.44	Apr. 29	5.11	June 26	4.12		

97-58-10B2. Formerly well 57. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 97 N., R. 58 W. Unused dug well, diameter 24 inches, depth 16.1 feet, cased with vertical wood cribbing. Measuring point, top of wood platform, at drilled hole, 1.65 feet above land-surface datum. Equipped with hand lift pump.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
July 27	6.07	Sept. 24	7.55	Nov. 26	6.62
Aug. 25	7.10	Oct. 27	7.27	Dec. 21	6.48

97-59-7B1 (\*946, p. 271). Formerly well 51. Art A. Bietz. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 97 N., R. 59 W. Measuring point is 0.6 foot above land-surface datum. Well filled in Nov. 1943; measurements discontinued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	19.18	Apr. 29	20.93	July 28	b22.06	Sept. 24	22.70
Feb. 21	19.93	May 13	b22.62	Aug. 25	22.42	Oct. 27	b23.70
Mar. 24	20.28	June 26	21.58				

a Dry.

b Pumped shortly before measurement.

97-60-8L1 (\*886, p. 643; 908, p. 280; 938, 227; 946, p. 271). Formerly well 35. Herman Krause. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 97 N., R. 60 W. Measuring point is 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	11.78	Apr. 29	12.23	July 28	11.12	Oct. 27	16.15
Feb. 21	11.89	May 13	12.19	Aug. 25	12.52	Nov. 26	14.37
Mar. 24	11.99	June 26	8.91	Sept. 24	14.30	Dec. 21	12.97

#### Kingsbury County

10F-53-12A1 (\*886, p. 643; 908, p. 279; 938, p. 227; 946, p. 272). Formerly well 18a. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 109 N., R. 53 W. Measuring point is 0.15 foot above land-surface datum. No measurements made in 1943.

#### Lincoln County

96-50-20J1 (\*908, p. 281; 938, p. 228; 946, p. 272). Formerly well 44. Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 96 N., R. 50 W. Measuring point is 0.36 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	5.59	July 29	2.83	Sept. 27	6.72	Nov. 29	5.53
Apr. 24	5.05	Aug. 26	4.73	Oct. 28	6.11	Dec. 22	5.69
June 25	4.81						

97-50-5B1 (\*886, p. 644; 908, p. 281; 938, p. 228; 946, p. 272). Formerly well 27. Andrew Lenna. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 97 N., R. 50 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	12.12	Apr. 24	12.44	July 29	6.97	Oct. 28	12.35
Feb. 24	8.33	May 17	9.50	Aug. 26	6.03	Nov. 29	11.75
Mar. 25	9.28	June 25	5.74	Sept. 27	8.61	Dec. 22	13.70

98-50-15F1 (\*886, p. 664; 908, p. 281; 938, p. 228; 946, p. 272). Formerly well 28. H. J. Rolfe. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 98 N., R. 50 W. Measuring point is 0.2 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	19.57	Apr. 24	18.65	July 29	17.55	Oct. 28	17.59
Feb. 24	18.60	May 17	17.52	Aug. 26	17.77	Nov. 29	18.01
Mar. 25	18.55	June 25	18.34	Sept. 27	17.64	Dec. 22	18.16

100-50-26N1 (\*886, p. 644; 908, p. 281; 938, p. 228; 946, p. 272). Formerly well 29. Ed Devitt. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 100 N., R. 50 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet with reference to land-surface datum, 1943

Jan. 27	-4.48	May 17	-1.90	Aug. 26	-1.01	Nov. 29	-3.05
Mar. 25	+1.19	June 25	-1.20	Sept. 27	-4.47	Dec. 22	-3.97
Apr. 24	-1.18	July 29	-1.52	Oct. 28	-4.85		

#### Minnehaha County

101-49-4C1 (\*946, p. 269). State of South Dakota. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 101 N., R. 49 W., northeast of Sioux Falls city well field. Measuring point is 2.8 feet below land-surface datum. (Measurements made by Carl Dahlund of Sioux Falls Water Works).



## 101-49-4C1. State of South Dakota--Continued.

## Water levels, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	11.9	Apr. 5	14.5	June 28	13.2	Sept. 13	13.9
11	11.9	12	14.5	July 6	13.1	20	14.0
18	12.0	19	14.5	12	13.1	27	14.1
25	12.0	26	14.5	19	13.2	Oct. 4	14.3
Feb. 8	14.9	May 3	14.6	25	13.3	11	14.3
15	15.0	10	14.6	29	13.3	18	14.7
23	14.7	17	14.4	Aug. 2	13.6	25	14.7
Mar. 1	14.6	24	14.1	9	13.6	Nov. 1	14.7
8	14.6	June 1	14.2	16	13.6	15	14.8
15	14.6	7	14.1	23	13.9	22	15.1
22	14.6	13	14.1	30	13.8	29	15.2
29	14.5	21	13.4	Sept. 7	13.9	Dec. 6	15.3

101-49-5F1 (\*946, p. 269). City of Sioux Falls. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 101 N., R. 49 W., in vicinity of Sioux Falls city well field. Measuring point is at land-surface datum. Measurements discontinued after Aug. 23. (Measurements made by Carl Dahlund, of Sioux Falls Water Works.)

## Water levels, in feet below land-surface datum, 1943

Jan. 4	8.85	Mar. 8	9.0	June 13	6.7	July 19	9.5
11	8.85	15	8.8	17	6.15	26	9.2
18	8.59	22	8.8	21	6.7	29	9.24
25	9.6	29	8.8	26	5.27	Aug. 2	9.50
Feb. 8	(a)	Apr. 5	8.9	28	10.0	9	9.7
15	(a)	12	9.8	July 6	9.0	16	9.8
23	9.0	19	9.9	12	9.1	23	9.7
Mar. 1	9.0	26	10.2				

101-49-9C1 (\*946, p. 269). John Morrell & Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 101 N., R. 49 W., southeast of Sioux Falls city well field. Measuring point is 3.3 feet above land-surface datum. (Measurements made by Carl Dahlund, of Sioux Falls Water Works.)

## Water level, in feet below land-surface datum, 1943

Jan. 4	9.50	Apr. 12	7.40	July 6	6.6	Sept. 27	10.5
11	9.55	19	7.50	12	7.5	Oct. 4	11.0
18	9.70	26	8.7	19	7.9	11	11.0
25	9.7	May 3	8.8	29	8.81	18	11.0
Feb. 8	9.80	10	8.9	25	8.60	25	11.2
15	9.80	17	8.8	Aug. 2	9.0	Nov. 1	11.2
23	8.40	24	8.9	9	9.4	15	11.6
Mar. 1	8.10	June 1	8.8	16	8.5	22	11.8
8	7.80	7	6.2	23	8.8	29	11.9
15	7.80	13	6.1	30	9.6	Dec. 6	12.0
22	7.90	21	6.9	Sept. 7	9.7	13	12.0
29	7.20	26	7.11	13	10.2	20	12.0
Apr. 5	7.10	28	5.6	20	10.5	27	12.0

101-51-21A1 (\*886, p. 644; 908, p. 281; 938, p. 229; 946, p. 272). Formerly well 21. Mr. Killaney. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 101 N., R. 51 W. Measuring point is 0.5 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 27	8.82	Apr. 24	8.22	July 28	7.80	Oct. 28	9.90
Feb. 24	8.86	May 17	8.44	Aug. 25	8.52	Nov. 29	9.96
Mar. 25	8.63	June 26	5.95	Sept. 27	9.09	Dec. 22	10.00

102-47-29J1. City of Sioux Falls. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 102 N., R. 49 W., about 1.5 miles north of city well field. Drilled test well, diameter 6 inches, depth 33.6 feet; cased with 6-inch casing to depth of 34 feet. Taps water in alluvial sand. Measuring point, top of recorder shelter platform, 2.39 feet above top of 6-inch casing and 3.1 feet above land-surface datum. Automatic water-stage recorder installed June 27, 1943, by Geological Survey in cooperation with State of South Dakota; serviced by R. E. Bragstad, city engineer of Sioux Falls.

a Dry.

## 102-47-29J1. City of Sioux Falls--Continued.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	5.54	....	8.02	8.35	8.53	8.38
2	....	5.42	7.49	8.04	8.36	8.53	8.38
3	....	5.50	7.54	8.06	8.37	8.52	8.37
4	....	5.60	7.56	8.08	8.38	8.52	8.37
5	....	5.69	7.64	8.11	8.38	....	8.37
6	....	5.78	7.68	8.11	8.39	....	8.37
7	....	5.85	7.74	8.13	8.41	....	8.37
8	....	5.93	7.79	8.14	8.42	....	8.37
9	....	6.01	7.82	8.16	8.43	....	8.37
10	....	6.09	7.86	8.16	8.44	....	8.37
11	....	6.17	7.91	8.17	8.54	....	8.37
12	....	6.25	7.94	8.19	8.54	....	8.37
13	....	6.33	7.97	8.19	8.55	8.40	8.37
14	....	6.42	7.98	8.20	8.55	8.41	8.37
15	....	6.50	7.99	8.20	8.55	8.41	8.36
16	....	6.58	7.99	8.21	8.55	8.41	8.36
17	....	6.66	7.99	8.21	8.55	8.41	8.36
18	....	6.73	7.99	8.22	8.55	8.40	8.36
19	....	6.79	7.98	8.23	8.54	8.40	8.36
20	....	6.86	7.98	8.24	8.54	8.39	8.35
21	....	6.95	7.98	8.24	8.54	8.41	8.35
22	....	6.97	7.98	8.25	8.54	8.41	8.35
23	....	7.00	7.98	8.26	8.53	8.41	8.35
24	....	7.04	7.99	8.27	8.53	8.40	8.36
25	....	7.09	8.00	8.28	8.53	8.40	8.36
26	....	....	8.00	8.29	8.53	8.40	8.37
27	5.14	....	8.00	8.31	8.53	8.39	8.37
28	5.20	....	8.00	8.32	8.53	8.39	8.37
29	5.22	....	8.00	8.33	8.53	8.39	8.39
30	5.27	....	8.01	8.34	8.53	8.39	8.40
31	....	....	8.02	....	8.53	....	8.41

102-49-16D1 (\*886, p. 644; 908, p. 281; 938, p. 229; 946, p. 272).

Formerly well 30. Renner Baseball Park. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 102 N., R. 49 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	5.56	May 17	5.35	July 29	5.25	Oct. 28	6.14
Feb. 24	5.03	June 16	1.35	Aug. 25	5.59	Nov. 29	6.16
Mar. 25	4.86	27	2.96	Sept. 27	6.06	Dec. 22	6.19
Apr. 24	5.08						

103-49-6B1 (\*886, p. 644; 908, p. 281; 938, p. 229; 946, p. 273).

Formerly well 31. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 103 N., R. 49 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.09	May 17	6.88	July 29	7.09	Oct. 28	7.43
Feb. 24	6.60	June 16	4.69	Aug. 25	7.14	Nov. 29	7.35
Mar. 25	6.90	27	5.12	Sept. 27	7.38	Dec. 22	7.41
Apr. 24	6.70						

Moody County

106-49-33E1 (\*886, p. 644; 908, p. 282; 938, p. 229; 946, p. 273).

Formerly well 20. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 33, T. 106 N., R. 49 W. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet, below land-surface datum, 1943: Feb. 24, 2.53; Mar. 25, 2.64; July 29, 2.33.

106-50-16N1 (\*886, p. 644; 908, p. 282; 938, p. 229; 946, p. 273).

Formerly well 19. Carl B. Jensen. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 106 N., R. 50 W. Measuring point is 1.0 foot above land-surface datum. No measurements made in 1943.

Turner County

96-52-230 (\*886, p. 645; 903, p. 282; 938, p. 229; 946, p. 273).  
Formerly well 39. C. E. Johnson. In Centerville in sec. 23, T. 96 N.,  
R. 52 W., 0.35 mile east of Ford Garage. Measuring point is 2.5 feet  
above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	3.04	Apr. 24	3.08	July 27	3.08	Nov. 29	3.11
Feb. 21	3.10	May 13	3.08	Aug. 26	3.08	Dec. 21	2.12
Mar. 24	3.10	June 26	3.09	Oct. 27	3.18		

96-53-27R1 (\*886, p. 645; 908, p. 282; 938, p. 230; 946, p. 273).  
Formerly well 40. W. C. Olson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 96 N., R. 53 W.  
Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	26.06	Apr. 29	26.10	June 27	25.03	Sept. 24	26.05
Feb. 21	23.85	May 13	25.33	July 28	24.74	Oct. 27	24.79
Mar. 24	25.05	17	a28.50	Aug. 25	27.80	Nov. 26	25.39

96-53-32N1 (\*886, p. 645; \*908, p. 282; 938, p. 229; 946, p. 273).  
Formerly well 4. J. H. Shaw. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 96 N., R. 53 W. Measur-  
ing point is 0.44 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	9.14	Apr. 29	9.98	July 28	7.42	Oct. 27	10.09
Feb. 21	9.56	May 13	10.21	Aug. 25	8.34	Nov. 26	9.09
Mar. 24	9.85	June 27	7.52	Sept. 24	9.37	Dec. 21	9.95

97-53-35N1 (\*886, p. 645; 908, p. 282; 938, p. 230; 946, p. 274).  
Formerly well 41. Jorgenson Studio. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 97 N., R. 53 W.  
Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	15.89	Apr. 24	16.86	July 28	14.27	Oct. 28	16.62
Feb. 24	16.39	May 17	16.94	Aug. 25	14.95	Nov. 29	15.27
Mar. 25	16.91	June 26	14.92	Sept. 27	15.40	Dec. 22	15.92

98-53-26R1 (\*886, p. 645; 908, p. 282; 938, p. 230; 946, p. 274).  
Formerly well 42. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 98 N., R. 53 W. Measuring point is  
0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	10.17	Apr. 24	9.58	July 28	9.61	Oct. 28	9.28
Feb. 24	9.93	May 17	9.72	Aug. 25	9.96	Nov. 29	9.56
Mar. 25	10.02	June 26	8.74	Sept. 27	10.06	Dec. 22	9.68

99-53-8P1 (\*946, p. 274). A. M. Fisher. Formerly well 50. SE $\frac{1}{4}$ SW $\frac{1}{4}$   
sec. 8, T. 99 N., R. 53 W. Measuring point is 0.2 foot above land-surface  
datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	19.33	Apr. 24	21.77	Aug. 25	a34.75	Nov. 29	25.83
Feb. 24	19.73	June 25	20.40	Sept. 27	27.35	Dec. 22	27.24
Mar. 25	20.22	July 28	a34.70	Oct. 28	26.76		

99-53-29A1 (\*886, p. 645; 908, p. 282; 938, p. 229; 946, p. 273).  
Formerly well 22. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 99 N., R. 53 W. Measuring point is  
1.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.61	Apr. 24	7.35	July 28	b7.40	Oct. 28	8.21
Feb. 24	7.07	May 17	7.74	Aug. 25	7.27	Nov. 29	7.74
Mar. 25	7.12	June 26	6.24	Sept. 27	b9.55	Dec. 22	7.97

a Pumped shortly before measurement.

b Pumping slowly.

100-53-PN1 (\*886, p. 645; 908, p. 282; 938, p. 229; 946, p. 273).  
Formerly well 32. Otto Kraemer. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 100 N., R. 53 W.  
Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	40.11	Apr. 24	39.61	July 28	39.37	Oct. 28	39.92
Feb. 24	39.55	May 13	38.85	Aug. 25	39.65	Nov. 29	39.85
Mar. 25	39.58	June 26	39.34	Sept. 27	39.84	Dec. 22	40.04

Union County

94-50-6J1 (\*886, p. 646; 908, p. 283; 938, p. 230; 946, p. 274).  
Formerly well 25. A. G. McGuire. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 94 N., R. 50 W.  
Measuring point until May 27, 1943, 2.3 feet above land-surface datum;  
measuring point on and after May 27, 1943, top of curbing, at north side,  
0.6 foot above land-surface datum. Well in use and abandoned as an obser-  
vation well after Aug. 25; measurements discontinued.

Water level, in feet below land-surface datum, 1943

Feb. 24	5.37	Apr. 24	9.55	June 25	9.65	Aug. 25	a20.23
Mar. 25	5.93	May 17	a22.24	July 29	6.27		

95-50-8E1 (\*886, p. 645; 908, p. 283; 938, p. 230; \*946, p. 274).  
Formerly well 5. J. J. Dolan. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 95 N., R. 50 W., near  
Beresford. Measuring point is 2.5 feet above land-surface datum. Equipped  
with a direct-reading float-tape gage. (Measurements made by J. J. Dolan.)

Water level, in feet below land-surface datum, 1943

Jan. 1	6.11	Apr. 10	7.42	July 3	4.15	Oct. 2	5.80
9	6.12	17	7.12	10	4.10	9	5.87
16	6.13	24	6.94	17	4.41	16	5.45
23	6.13	May 1	6.93	24	4.06	23	5.51
30	6.40	8	6.92	29	b4.03	30	6.24
Feb. 6	6.61	15	6.90	Aug. 7	4.01	Nov. 6	6.80
13	6.75	22	7.09	25	b5.70	13	7.42
20	6.99	29	7.06	26	b5.73	20	7.42
27	7.11	June 5	6.71	28	5.02	27	7.44
Mar. 6	7.20	12	6.39	Sept. 4	5.18	Dec. 4	7.44
13	7.32	17	b3.74	11	5.20	11	7.44
20	7.40	19	3.75	18	5.25	18	7.45
27	7.40	26	4.11	25	5.75	25	7.46
Apr. 3	7.41						

93-50-8N1 (\*886, p. 646; 908, p. 283; 938, p. 230; 946, p. 274).  
Formerly well 24. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 93 N., R. 50 W. Measuring point is  
0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 27	18.90	Apr. 24	18.89	July 29	19.26	Oct. 28	19.83
Feb. 24	18.86	May 17	18.91	Aug. 25	19.49	Nov. 29	19.75
Mar. 25	18.82	June 25	18.93	Sept. 27	19.99	Dec. 22	19.72

Yankton County

93-54-11D1 (\*886, p. 646; 908, p. 283; 938, p. 230; 946, p. 275).  
Formerly well 1. Gayville Cemetery. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 93 N., R. 54 W.  
Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 25	15.06	Apr. 29	14.85	July 28	14.00	Oct. 27	14.87
Feb. 24	15.00	May 13	14.92	Aug. 25	14.25	Nov. 26	14.84
Mar. 24	14.81	June 27	14.43	Sept. 24	14.67	Dec. 21	14.90

- a Pumped shortly before measurement.  
b Measured by Geological Survey.

93-56-13G1. Formerly well 56. Thomas Bosteder. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 93 N., R. 56 W. Unused bored well, diameter 6 to 3 inches, depth 24.7 feet. Taps water in sand and gravel bed. Measuring point, top of concrete block, 1.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
July 28	12.26	Sept. 24	11.35	Nov. 26	12.85
Aug. 25	12.78	Oct. 27	12.75	Dec. 21	12.84

93-57-1A1 (\*886, p. 646; 908, p. 283; 938, p. 231; 946, p. 275). Formerly well 33. Adolph Schoenfeldt. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 93 N., R. 57 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	17.46	Apr. 29	18.98	July 28	15.32	Oct. 27	17.30
Feb. 21	18.11	May 13	19.85	Aug. 25	16.39	Dec. 21	17.25
Mar. 24	18.68	June 26	15.34	Sept. 24	16.26		

94-56-24Q1 (\*886, p. 646; 908, p. 283; 938, p. 230; 946, p. 275). Formerly well 2B. Yankton Golf Club. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 94 N., R. 56 W. Measuring point is 1.5 feet above land-surface datum. Well abandoned; measurements discontinued.

95-54-5B1 (\*886, p. 646; 908, p. 283; 938, p. 231; 946, p. 275). Formerly well 3. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 95 N., R. 54 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 21	5.93	May 13	5.37	Aug. 25	5.99	Nov. 26	7.03
Mar. 24	5.87	June 27	5.07	Sept. 24	6.82	Dec. 21	7.10
Apr. 29	5.06	July 28	4.22	Oct. 27	7.42		

96-55-7E1 (\*908, p. 284; 938, p. 231; 946, p. 275). Formerly well 46. Oswald Estate. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 96 N., R. 55 W. Measuring point is 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	15.86	Apr. 29	14.83	July 28	14.20	Oct. 27	18.02
Feb. 21	15.80	May 13	14.69	Aug. 25	15.15	Nov. 26	16.50
Mar. 24	15.86	June 26	12.20	Sept. 24	18.60	Dec. 21	(a)

a Pumping.

## WISCONSIN

By F. C. Christopherson and A. L. Greenlee

### PROGRAM OF WORK

Observations of water level in wells in Wisconsin were continued in 1943 by the Geological Survey, United States Department of the Interior. At the beginning of the year there were nine wells on the program, all in the so-called Coon Creek area, which lies in the basins of Coon Creek and Little La Crosse Rivers, in La Crosse, Monroe, and Vernon Counties. One well, US 137 in Ashland County, was added to the program in July, so that at the end of the year 10 wells were under observation. During the year 93 individual measurements of water level were made in the State.

### FLUCTUATIONS OF WATER LEVEL

The following table shows the average of the water levels in 1943, at about monthly intervals, for the nine wells in the Coon Creek area.

Average water level, in feet below land-surface datum in 9 wells in the Coon Creek area, Wis.

Date	Water level	Date	Water level	Date	Water level
Feb. 28-Mar. 1	19.29	May 30-June 1	19.26	Oct. 25-29	19.86
Mar. 23-Apr. 1	19.00	Aug. 26, 27	19.66	Nov. 24-29	19.68
Apr. 29, 30	19.31	Sept. 29, 30	19.81	Dec. 24-29	19.70

Near the beginning of 1943 the average water level, as shown by the measurements made on December 30 and 31, 1942, was 19.80 feet below land-surface datum, which was 0.92 foot higher than its stage a year earlier, when it was 20.72 feet below land-surface datum. It rose to its highest recorded stage in 1943--19.00 feet below land-surface datum, which it reached during the period March 23 to April 1. Although it gradually declined for the remainder of the year, during the period December 24-29 it was only 19.70 feet below land-surface datum, which is the highest year-end stage recorded since water-level observations were begun in these wells, in 1934.

In the Lake Superior District Power Co. well located in the valley of the White River near the city of Ashland, in Ashland County, the water level rose during the first week of August and then declined until about the middle of October, after which it rose again until the end of November and then declined somewhat. During the period it was measured, beginning July 26, there was a net rise of 0.71 foot in this well.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Ashland County

137. Lake Superior District Power Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 47 N., R. 4 W., 6 miles south of Ashland, near power dam. Drilled well, diameter 4 inches, depth 90 feet; cased to 15 feet. Measuring point top of casing, 0.75 foot above land-surface datum. Measurements made by Willard F. Hansen, of the Lake Superior District Power Co., under the direction of R. S. Wilhelm, chief engineer.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 26	3.40	Aug. 30	3.36	Oct. 4	3.35	Nov. 15	2.71
Aug. 2	2.70	Sept. 6	3.36	11	3.35	29	2.40
9	2.90	13	3.40	25	2.90	Dec. 20	2.55
16	3.18	20	3.48	Nov. 1	2.90	27	2.69
23	3.32	27	3.40				

Monroe County

Measurements through June 1 made by the Madison office of the Geological Survey; measurements thereafter made by local observers.

2 (777, p. 267; 817, p. 506; \*840, p. 651; 845, p. 720; 886, p. 930; 908, p. 287; 938, p. 232; 946, p. 276). Joe Anderson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 15 N., R. 4 W., lat. 43°43'46", long. 90°50'05". Measuring point, top of casing, 0.5 foot above land-surface, and 28.30 feet above datum plane previously used.

## Water level, in feet below land-surface datum, 1943

Feb. 28	11.98	June 1	7.92	Sept. 29	9.20	Nov. 27	9.10
Apr. 1	7.68	Aug. 27	8.61	Oct. 25	8.80	Dec. 28	10.10
30	7.46						

10 (777, p. 267; 817, p. 507; \*840, p. 655; 845, p. 723; 886, p. 932; 908, p. 287; 938, p. 232; 946, p. 276). Dennis Shea. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 15 N., R. 3 W., lat. 43°48'34", long. 90°46'13". Measuring point, top of casing, 0.9 foot above land-surface, and 21.45 feet above datum plane previously used.

## Water level, in feet below land-surface datum, 1943

Feb. 28	5.23	Apr. 30	9.46	Aug. 27	10.15	Oct. 28	10.08
Apr. 1	9.06	June 1	9.65	Sept. 29	10.22	Nov. 29	9.30

11 (777, p. 267; 817, p. 507; \*840, p. 655; 845, p. 723; 886, p. 932; 908, p. 287; 938, p. 232; 946, p. 277). John Sullivan. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 16 N., R. 3 W., lat. 43°50'17", long. 90°40'50". Measuring point, top of casing, 2.5 feet above land-surface, and 18.77 feet above datum plane previously used.

## Water level, in feet above land-surface datum, 1943

Feb. 28	4.99	June 1	5.87	Sept. 29	6.30	Nov. 26	6.24
Apr. 1	5.25	Aug. 27	6.23	Oct. 27	6.30	Dec. 29	6.40
30	5.85						

12 (777, p. 267; 817, p. 507; \*840, p. 656; 845, p. 724; 886, p. 933; 908, p. 287; 938, p. 232; 946, p. 277). Melvin Olson. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 16 N., R. 4 W., lat. 43°48'49", long. 90°52'22". Measuring point, top of casing, 0.6 foot above land-surface, and 38.79 feet above datum plane previously used.

## Water level, in feet above land-surface datum, 1943

Feb. 28	26.96	Apr. 30	27.33	Sept. 30	27.20	Nov. 29	27.20
Apr. 1	26.59	June 1	27.16	Oct. 25	27.24	Dec. 27	27.22

13 (777, p. 267; 817, p. 507; \*840, p. 656; 845, p. 724; 886, p. 933; 908, p. 288; 938, p. 232; 946, p. 277). Walter Parks. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 16 N., R. 4 W., lat. 43°53'44", long. 90°50'28". Measuring point, top of casing, 1.0 foot above land-surface, and 19.97 feet above datum plane previously used.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	9.24	June 1	9.05	Sept. 29	9.55	Nov. 25	9.50
Apr. 1	8.71	Aug. 27	9.47	Oct. 29	9.50	Dec. 29	7.99
30	9.07						

Vernon County

Measurements through June 1 made by the Madison office of the Geological Survey; measurements thereafter made by local observers.

4 (777, p. 267; 817, p. 506; \*840, p. 651; 845, p. 720; 886, p. 930; 908, p. 288; 938, p. 232; 946, p. 277). Albert Storbakken. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 14 N., R. 5 W., lat. 43°41'38", long. 90°56'01". Measuring point, top of casing, 0.8 foot above land-surface, and 24.00 feet above datum plane previously used.

Water level, in feet below land-surface datum, 1943

Feb. 28	10.03	June 1	9.38	Sept. 29	10.23	Nov. 24	10.15
Apr. 1	8.71	Aug. 27	10.05	Oct. 25	11.07	Dec. 24	10.30
30	9.61						

8 (777, p. 267; 817, p. 506; \*840, p. 654; 845, p. 722; 886, p. 931; 908, p. 288; 938, p. 232; 946, p. 277). Chris Stylen. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 14 N., R. 7 W., lat. 43°39'33", long. 90°10'26". Measuring point is 0.5 foot above land surface, and 62.11 feet above datum plane previously used.

Water level, in feet below land-surface datum, 1943

Mar. 1	49.66	May 30	48.80	Sept. 30	49.48	Nov. 26	49.50
28	49.46	Aug. 27	49.40	Oct. 26	49.47	Dec. 26	49.43
Apr. 29	49.49						

9 (777, p. 267; 817, p. 506; \*840, p. 654; 845, p. 722; 886, p. 932; 908, p. 288; 938, p. 232; 946, p. 277). F. Lenser. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 14 N., R. 7 W., lat. 43°41'35", long. 91°10'28". Measuring point, top of platform, 1.6 feet above land surface, and 61.00 feet above datum plane previously used.

Water level, in feet below land-surface datum, 1943

Mar. 1	43.74	May 30	48.23	Sept. 30	48.56	Nov. 26	48.61
28	48.57	Aug. 26	43.55	Oct. 25	48.58	Dec. 27	48.67
Apr. 29	43.46						

14 (777, p. 267; 817, p. 507; \*840, p. 656; 845, p. 724; 886, p. 932; 908, p. 288; 938, p. 232; 946, p. 278). Chris Benrud. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 14 N., R. 4 W., lat. 43°43'27", long. 90°54'14". Measuring point, top of casing, 0.3 foot above land surface, and 16.86 feet above datum plane previously used.

Water level, in feet below land-surface datum, 1943

Feb. 28	6.80	June 1	7.39	Sept. 29	7.57	Nov. 25	7.50
Apr. 1	6.95	Aug. 27	7.41	Oct. 29	7.70	Dec. 28	7.50
30	7.14						