

Water Levels and Artesian Pressures in Observation Wells in the United States 1953

Part 1. Northeastern States

Prepared under the direction of A. N. SAYRE, Chief, Ground Water Branch

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*Prepared in cooperation with the States
of Connecticut, Delaware, Indiana,
Massachusetts, Michigan, New Jersey,
New York, Ohio, Pennsylvania, and
Rhode Island, and with other agencies*



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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Connecticut, Delaware, Indiana, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Rhode Island, and with other agencies, by personnel of the Water Resources Division under the direction of:

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WATER LEVELS AND ARTESIAN PRESSURES
IN OBSERVATION WELLS IN THE UNITED STATES
IN 1953

Part 1. NORTHEASTERN STATES

INTRODUCTION

By A. N. Sayre

The publication of records of water levels and artesian pressures annually in the United States was begun by the Geological Survey in 1935. Prior to 1940 the records for each year were published in a single volume--1935, 777; 1936, 817; 1937, 840; 1938, 845; 1939, 886. Since 1940 records have been published in six annual volumes, covering the northeastern, southeastern, north-central, south-central, northwestern, and southwestern sections of the country. Hawaii is included in the southwestern section. The following table gives the numbers of Water-Supply Papers from 1940 through 1953.

Year	North-eastern (1)	South-eastern (2)	North-central (3)	South-central (4)	North-western (5)	South-western (6)
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
1944	1016	1017	1018	1019	1020	1021
1945	1023	1024	1025	1026	1027	1028
1946	1071	1072	1073	1074	1075	1076
1947	1096	1097	1098	1099	1100	1101
1948	1126	1127	1128	1129	1130	1131
1949	1156	1157	1158	1159	1160	1161
1950	1165	1166	1167	1168	1169	1170
1951	1191	1192	1193	1194	1195	1196
1952	1221	1222	1223	1224	1225	1226
1953	1265	1266	1267	1268	1269	1270

The objectives of the observation-well program are to provide a day-to-day evaluation of available ground-water supplies, to facilitate the prediction of trends in ground-water levels that will indicate the probable status of important ground-water supplies in the future, to delineate present or potential areas of detrimentally high or low ground-water levels, to aid in the prediction of the base flow of streams, to determine the several forces that act on a ground-water body, and to demonstrate the interplay of those forces in the ground-water regimen, to furnish information for use in basic research, and to provide long-term continuous records of fluctuations of water levels in representative wells. These selected records serve as a framework to which many short-term records collected during an intensive investigation may be related.

Water levels in wells are seldom stationary but move up or down a fraction of an inch or many feet within a short time. Water-table wells may be influenced by direct recharge from precipitation, withdrawals from wells or springs, evapotranspiration by vegetation, evaporation from the soil, and changes in atmospheric pressure. Artesian wells are influenced over large areas by changes in the rate of pumping from other wells, changes in atmospheric pressure, earthquakes, ocean tides, earth tides, and recharge from precipitation, although the recharge may not be noticeable immediately. When accurate comparisons of water levels are made it is desirable to apply corrections for these influences, several of which may be compensating or additive according to the conditions at those particular times.

Water-level measurements are given in feet with reference to land-surface datum or sea-level datum. Land-surface datum is a precise datum plane that is approximately at land surface at each well. Mean sea level (msl) is the datum plane on which the national network of precise levels is based. When some measurements in a table are above and others are below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column. Readings between minus signs are below the plane of reference and those between plus signs are above the plane of reference.

For the most part, discussions of precipitation in this report are based on data furnished by the United States Weather Bureau.

Measurements of water levels and artesian pressures in wells were made under the direction of the district supervisors of the Ground Water Branch in the several States.

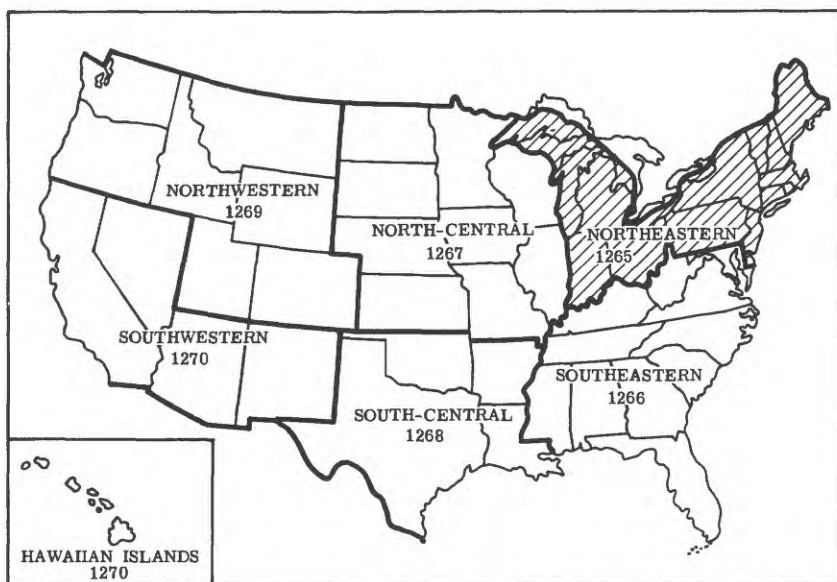


Figure 1. --Outline map of the United States showing areas included in each of the six water-supply papers on water levels and artesian pressures in observation wells in 1953. The shaded area indicates the States included in this volume.

Penn Livingston had general charge of the nationwide observation-well program; Verda M. Dougherty assembled and edited the reports.

CONNECTICUT

By R. V. Cushman

Scope of Water-Level Program

The observation-well program in Connecticut was continued in 1953 in cooperation with the State Water Commission. The program includes areal surveys of ground-water conditions and the maintenance of a statewide network of observation wells to provide data on changes in storage of principal ground-water reservoirs. The plan of study for the areal surveys consists of a reconnaissance of the entire State to be followed by more intensive work in areas of particular need or interest. As the reconnaissance investigations are extended to new areas, the observation-well program is expanded to include the areas of interest. Measurements were made in 33 wells in 1953. The location of observation wells in Connecticut is shown on figures 2 and 3. An investigation of ground-water conditions in the Farmington River lowland in Connecticut was begun in the summer of 1953. A report discussing ground-water conditions in Haddam Township was prepared for open-file release during the year at the request of the State Water Commission.

Precipitation

The statewide average of annual precipitation in 1953 was 54.04 inches or about 3.67 inches more than in 1952 and 8.44 inches above normal. The total for the year ranged from 68.39 inches at Wolcott Reservoir in west-central Connecticut to 44.35 inches at Bridgeport in southwestern Connecticut. Above-normal precipitation was recorded during January, March, April, May, July, October, and December. Months with precipitation excess of 1 inch or more were January, March, April, October, and December. March was the wettest month in 1953 and the wettest March on record at many stations, the average monthly precipitation of 10.14 inches for the State being 6.02 inches above normal. A prolonged drought period occurred during August and September, with an accumulated rainfall deficiency of 4 inches over the State. Conditions were most favorable for replenishment to ground water in the State as a whole during January through May and November through December. The above-normal precipitation in July did not result in appreciable net recharge to the water table because evapotranspiration losses at this season are at or near the peak for the year.

Interpretation of Water-Level Fluctuations

Water levels in Connecticut, when not affected by pumping, follow cyclical seasonal trends in response to natural recharge and discharge. The usual yearly trend of water levels consists of a rise during the nongrowing season when usage by vegetation and losses by evaporation are at a minimum. The rising trend usually extends for a short time into the growing season. Peak levels are generally reached in April or May but occasionally are reached as late as June or early July. After the growing season starts, evaporation and transpiration rates are higher and less water is available for recharge to ground water. Natural discharge to surface-water bodies from springs and seeps continues, and as a result ground-water levels decline steadily until recharge from precipitation is again greater than discharge. Minimum levels are usually reached in November. Over half the observation wells in Connecticut are in stratified sand and gravel of glacial origin. The remaining wells penetrate glacial till with the exception of well W11, in Willimantic, which penetrates bedrock. The water levels in wells penetrating till in Connecticut normally show greater ranges in fluctuation from season to season than do water levels in wells in stratified drift or bedrock. This condition is in part a function of the specific yield of the water-bearing formations and of the topographic location of the observation wells, as wells on the upper slopes of drainage basins are commonly in till. The difference in the fluctuation range is seen by comparing the hydrograph of water levels at wells shown on figure 4. Well P11 at Plainfield and the wells in the residential area of New Haven penetrate stratified sand and gravel, whereas well Wb 176 at Waterbury penetrates till.

Owing to excessive annual precipitation, the storage of water in underground reservoirs in Connecticut was increased in 1953. The year was marked by the establishment of record maximum and minimum ground-water levels within the 6-month period from April to October. Following a rather unusual pattern of precipitation from abnormally wet to drought conditions, water levels rose to record high stages by the end of the spring season and then declined rapidly to record low levels at the end of the summer. Never before have such marked changes in level

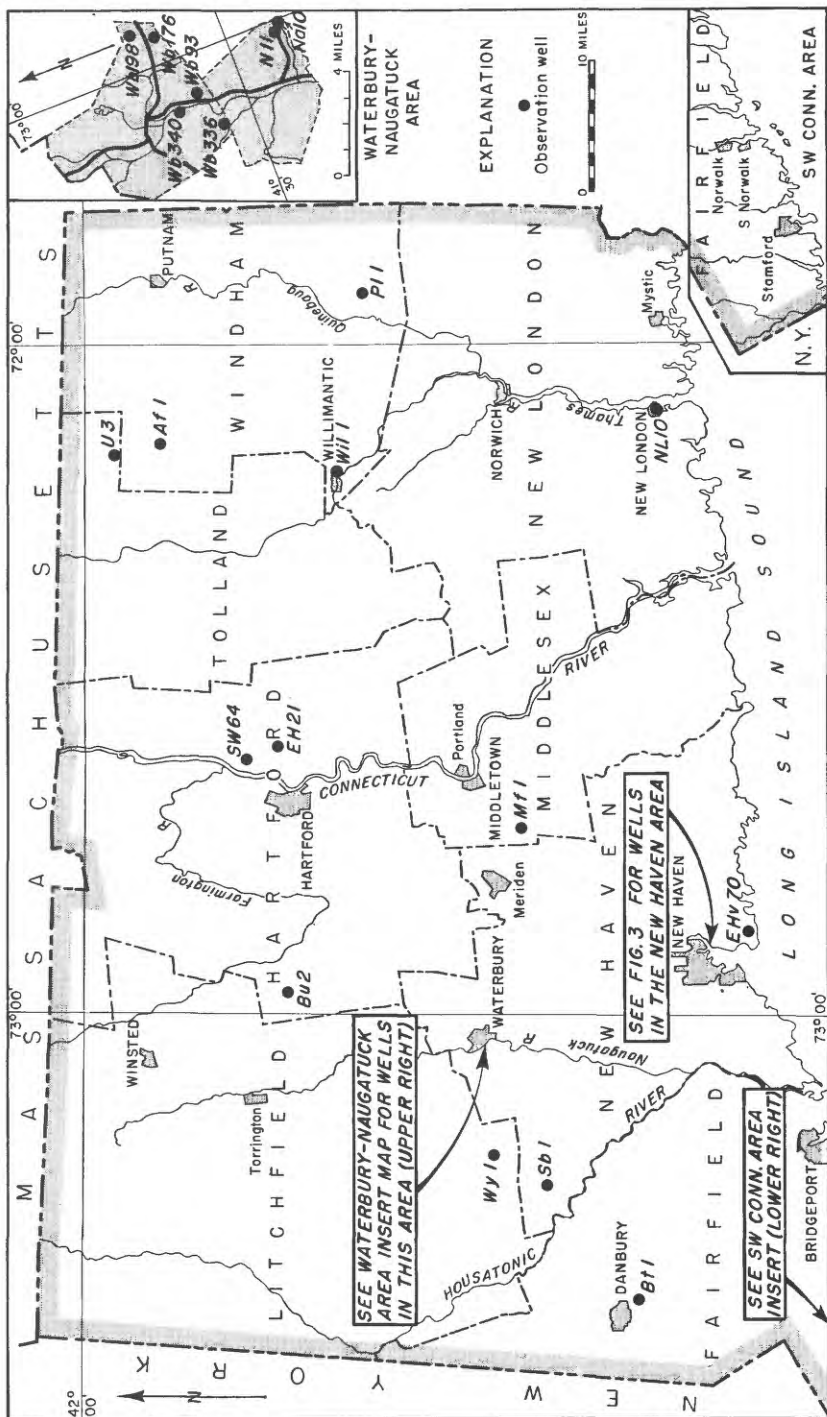


Figure 2. ---Location of observation wells in Connecticut, 1953.

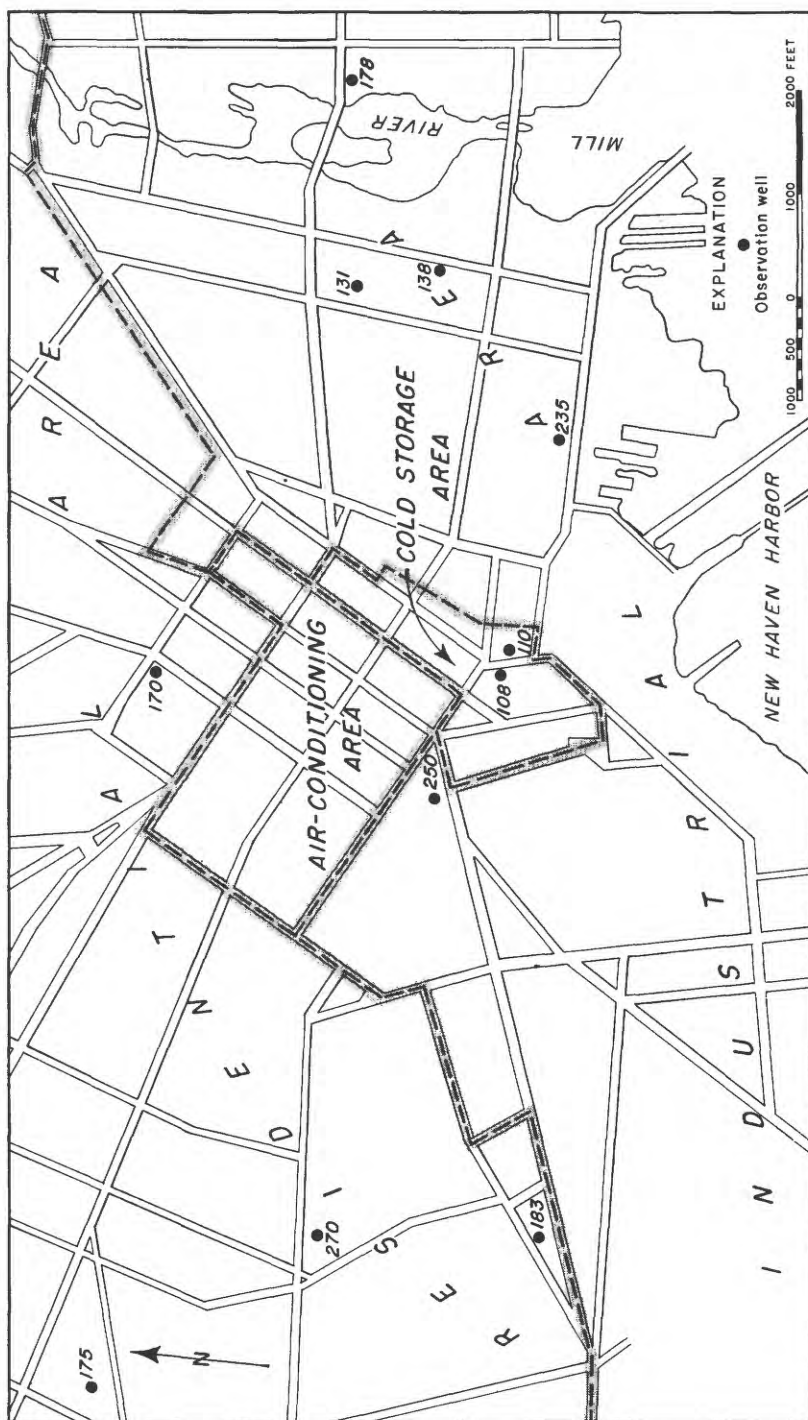


Figure 3. --Location of observation wells in New Haven area, Connecticut, 1953.

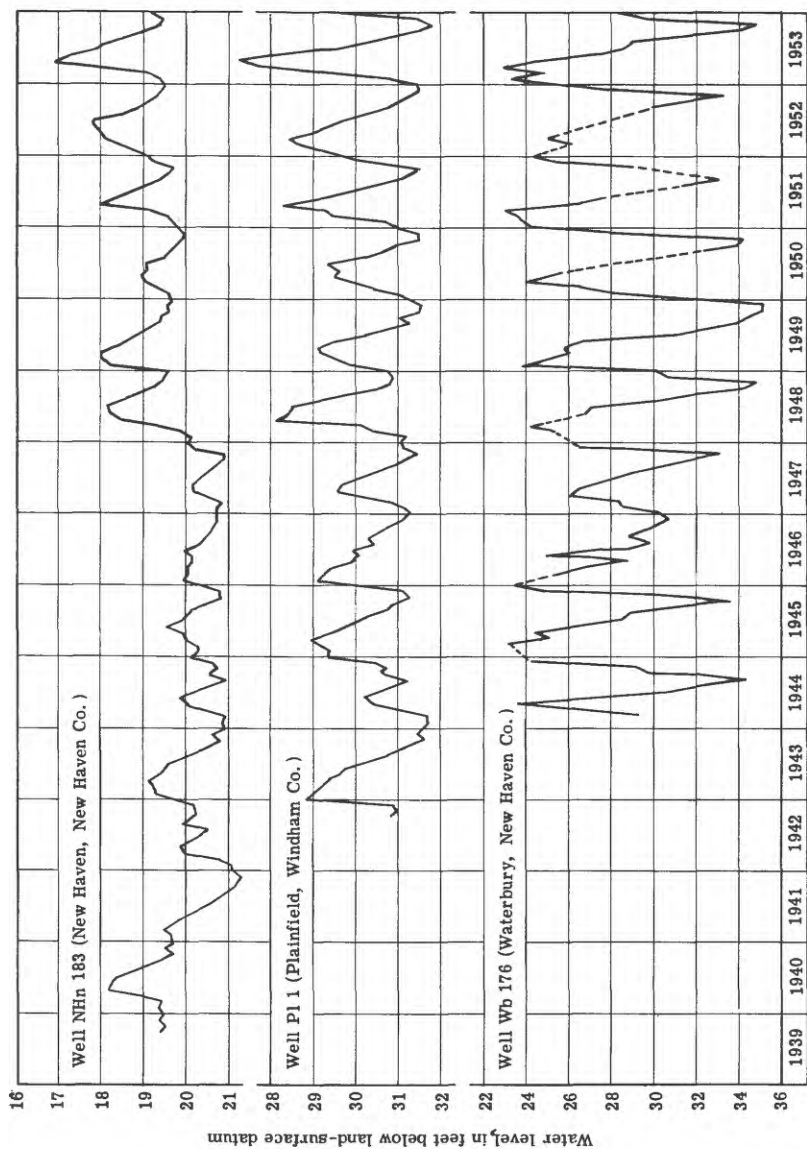


Figure 4. --Water levels in wells NHn 183, Pl 1, and Wb 176, Connecticut

been recorded in so short a period. The year commenced with ground-water levels below normal in Connecticut. Unusually heavy precipitation during the first 5 months, together with abnormally high temperature, caused ground-water levels to rise at greater-than-normal rates. By the end of March the levels in most observation wells were record high for the season and in 20 wells were at the highest levels ever recorded. This favorable condition persisted to the end of May. June saw an abrupt change in the precipitation pattern to hot and dry conditions which gradually increased in intensity through the summer, finally reaching drought proportions by late September. Thus, as ground-water recharge was reduced to a minimum, water levels declined sharply. By the end of August water levels were both below normal and below the levels of a year ago; and by the end of October they were at record or near-record lows for the season at many wells. They reached record low levels at 3 wells. Then the dry spell was broken by heavy rains during the last week of October but before that time many rural well and spring supplies had failed. Subsequently, ground-water levels rose in most wells at greater-than-normal rates during November owing to heavy storms which produced near-normal monthly rainfall, but at the beginning of December the stages were still below normal and below the levels of a year ago. Above-normal precipitation in December brought about a continuation of the rise in water level in nearly all observation wells in Connecticut. The average rise was several times the normal expected and resulted in December-end water levels that were above normal and considerably above the stages at the end of 1952. Thus, the precipitation of the last 2 months more than offset the effects of the prolonged summer drought, and the year ended with an overall increase in the storage of water in ground-water reservoirs. The hydrograph of water-level fluctuations at well Pl 1 at Plainfield, shown on figure 4, is representative of the general trend in Connecticut in 1953. The fluctuations of water levels in wells Bu 2 near Burlington and Wy 1 at Woodbury were exceptions to the average conditions. Although the trend in stage at both these wells closely paralleled the statewide average for most of the year, the December rise in water level was less than average. Therefore, year-end water levels at both wells were below normal and substantially below the levels of a year ago.

In New Haven, water levels in observation wells in the downtown area are affected by pumping of nearby wells. The pumping is from a glacial sand formation and averages close to 4 million gallons a day. The major fluctuations of the water table are therefore the result of changes in the rate and distribution of pumping as well as the variations in the amount of precipitation. The changes in withdrawal brought about significant differences in the pattern of water-level fluctuations from the general statewide trend. The levels in observation wells in areas affected by pumping for air-conditioning and cold storage purposes (wells NHn 108, NHn 110, and NHn 250) reached minimum stages earlier than most wells responding only to natural conditions. The cessation of pumping for the above purposes with the advent of cooler weather caused water levels to rise throughout the latter part of the year. A decrease in the amount of pumpage by cold storage plants has occasioned a significant overall rise in the levels at wells NHn 108 and NHn 110 and year-end levels at these wells were considerably above normal and above the levels of a year ago. It is of interest that most water levels in the manufacturing section of New Haven (wells NHn 131, NHn 138, NHn 178, and NHn 235) reached a peak high stage in May, to be followed in July by a second peak which resulted from a decrease in withdrawal of ground water during the normal July vacation period at several large industrial plants.

Well-Numbering System

A letter or combination of letters precedes the well number to designate the township. For example, well Bt 1 is in the town of Bethel and was the first well inventoried in that township.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference. Water levels in the city of New Haven are referred to mean sea level.

City of New Haven

NHn 108. Leonard Maremma. 14 Whiting St., New Haven. Lat. 41°18'10", long. 72°55'30". Driven unused water-table well in glacial sand, diameter 2 inches, depth 38 feet, screen setting 36-38. Land-surface datum is 15.86 feet above msl. Highest water level 1.37 above msl, Apr. 27, 1953; lowest 3.40 below msl, Aug. 26, 1946. Records available: 1939-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	+0.43	May 28	+1.10	Aug. 28	+0.11	Nov. 27	+0.57
Mar. 30	+1.02	June 29	+ .53	Sept. 30	- .35	Dec. 29	+1.25
Apr. 27	+1.37	July 27	+ .46	Oct. 28	- .07		

NHn 110. Federal Packing Co. 149 State St. Lat. 41°18'10", long. 72°55'30". Driven unused water-table well in glacial sand, diameter 2 inches, depth 20 feet, screen setting 18-20. Land-surface datum is 11.44 feet above msl. Highest water level 1.20 above msl, Apr. 27, 1953; lowest 2.20 below msl, Oct. 27, 1944. Records available: 1939-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	+0.28	Apr. 27	+1.20	July 27	+0.24	Oct. 28	-0.10
Feb. 27	+.49	May 28	+.90	Aug. 28	-.23	Nov. 27	+.45
Mar. 30	+.81	June 29	+.44	Sept. 30	-.36	Dec. 29	+1.16

NHn 131. New Haven Clock Co. 133 Hamilton St. Lat. 41°18'30", long. 72°54'45". Driven unused water-table well in glacial sand, diameter 2½ inches, depth 40 feet. Land-surface datum is 17.23 feet above msl. Highest water level 0.38 below msl, May 26, 1949; lowest 5.65 below msl, May 26, 1944. Records available: 1939-53. Nearby well being pumped.

Jan. 27	-1.76	Apr. 27	-0.97	July 27	-0.86	Oct. 28	-1.92
Feb. 27	-1.86	May 28	-.97	Aug. 28	-1.36	Nov. 27	-1.98
Mar. 30	-1.38	June 29	-1.11	Sept. 30	-1.64	Dec. 29	-1.93

NHn 138. Associated Realty Co. Green and East Sts. Lat. 41°18'20", long. 72°54'40". Driven unused water-table well in glacial sand, diameter 2 inches, depth 31 feet. Land-surface datum is 17.75 feet above msl. Highest water level 0.13 above msl, May 26, 1949; lowest 5.70 below msl, June 23, 1944. Records available: 1940-53. Nearby well being pumped.

Jan. 27	-1.05	Apr. 27	-0.19	July 27	-0.15	Oct. 28	-1.10
Feb. 27	-1.03	May 28	-.21	Aug. 28	-.56	Nov. 27	-1.15
Mar. 30	-.53	June 29	-.44	Sept. 30	-.88	Dec. 29	-1.15

NHn 170. Yale University. Grove and College Sts. Lat. 41°18'40", long. 72°55'37". Driven unused water-table well in glacial sand, diameter 2 inches, depth 14 feet. Land-surface datum is 41.09 feet above msl. Highest water level 18.89 above msl, May 28, 1953; lowest 15.64 above msl, Jan. 14, 1942. Records available: 1939-53.

Jan. 27	+16.62	Apr. 27	+18.86	July 27	+18.09	Oct. 28	+16.90
Feb. 27	+16.95	May 28	+18.89	Aug. 28	+17.66	Nov. 27	+16.66
Mar. 30	+18.14	June 29	+18.48	Sept. 30	+17.20	Dec. 29	+16.72

NHn 175. Monarch Laundry. Derby Ave. and Ellsworth St. Lat. 41°18'40", long. 72°57'10". Drilled unused water-table well in glacial sand, diameter 6 inches, depth 54 feet. Land-surface datum is 32.84 feet above msl. Highest water level 5.42 above msl, May 28, 1953; lowest 2.27 above msl, Dec. 17, 1941. Records available: 1939-53.

Jan. 27	+3.77	Apr. 27	+5.41	July 27	+4.82	Oct. 28	+4.03
Feb. 27	+3.80	May 28	+5.42	Aug. 28	+4.54	Nov. 27	+3.97
Mar. 30	+4.85	June 29	+5.23	Sept. 30	+4.24	Dec. 29	+3.84

NHn 178. Atlantic Tire and Steel Co. Grand Ave. and Haven St. Lat. 41°18'30", long. 72°54'20". Driven unused water-table well in glacial sand, diameter 3 inches, depth 74 feet. Land-surface datum is 13.76 feet above msl. Highest water level 0.04 above msl, June 12, 1940; lowest 7.14 below msl, Nov. 27, 1953. Records available: 1939-53. Nearby well being pumped.

Jan. 27	-6.66	Apr. 27	-5.64	July 27	-5.62	Oct. 28	-5.54
Feb. 27	-6.83	May 28	-5.92	Aug. 28	-6.54	Nov. 27	-7.14
Mar. 30	-6.44	June 29	-5.81	Sept. 30	-6.87	Dec. 29	-6.61

NHn 183. Frank X. Hald Storage Co. 370-376 Davenport Ave. Lat. 41°18'00", long. 72°56'45". Driven unused water-table well in glacial sand, diameter 2 inches, depth 24 feet. Land-surface datum is 23.94 feet above msl. Highest water level 7.06 above msl, Apr. 27, 1953; lowest 2.67 above msl, Dec. 3, 1941. Records available: 1939-53.

Jan. 27	+4.57	Apr. 27	+7.06	July 27	+5.80	Oct. 28	+4.66
Feb. 27	+4.88	May 28	+6.68	Aug. 28	+5.32	Nov. 30	+4.50
Mar. 30	+6.28	June 29	+6.09	Sept. 30	+4.91	Dec. 29	+4.73

NHn 235. C. Cowles & Co. Chestnut and Water Sts. Lat. 41°18'05", long. 72°54'55". Drilled unused water-table well in glacial sand, diameter 8 inches, depth 39 feet, screen setting 28-38. Land-surface datum is 14.80 feet above msl. Highest water level 1.25 above msl, Apr. 27, 1953; lowest 3.59 below msl, Feb. 1, 1945. Records available: 1940-53. Nearby well being pumped.

Jan. 27	-0.23	Apr. 27	+1.25	July 27	+0.67	Oct. 28	-0.38
Feb. 27	-.27	May 28	+.84	Aug. 28	+.20	Nov. 27	-.29
Mar. 30	+.69	June 29	+.59	Sept. 30	-.12	Dec. 29	-.20

NHn 250. I. Newman & Sons. 43 Oak St. Lat. 41°18'10", long. 72°55'50". Dug unused water-table well in glacial sand, diameter 10 feet, depth 13 feet, lined with brick. Land-surface datum is 14.93 feet above msl. Highest water level 5.56 above msl, June 2, 1952; lowest 0.67 above msl, Sept. 25, 1947. Records available: 1940-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	+3.98	Apr. 27	+5.39	July 27	+4.71	Oct. 28	+3.50
Feb. 27	+3.98	May 28	+4.95	Aug. 28	+3.58	Nov. 27	+3.85
Mar. 30	+4.99	June 29	+4.41	Sept. 30	+3.04	Dec. 29	+3.76

NHn 270. Carl E. Altmann. 53 Auburn St. Lat. 41°18'20", long. 72°56'45". Dug unused water-table well in glacial sand, diameter 33 inches, depth 37 feet, lined with stone. Land-surface datum is 38.18 feet above msl. Highest water level 8.20 above msl, May 28, 1953; lowest 3.78 above msl, Dec. 17, 1941. Records available: 1941-53.

Jan. 27	+5.71	Apr. 27	+8.11	July 27	+7.46	Oct. 28	+6.26
Feb. 27	+6.05	May 28	+8.20	Aug. 28	+7.11	Nov. 27	+5.99
Mar. 30	+7.13	June 29	+7.81	Sept. 30	+6.64	Dec. 29	+6.01

Fairfield County

Bt 1. Formerly Be 1. Frederick J. Andrews. 248 Greenwood Ave., Bethel. Lat. 41°22'20", long. 73°25'10". Dug unused water-table well in glacial sand and gravel, diameter 36 inches, depth 26 feet, lined with stone. Land-surface datum is about 380 feet above msl. Highest water level 17.20 below lsd, Mar. 30, 1948; lowest 24.40 below lsd, Dec. 15, 1949. Records available: 1946-53.

Jan. 28	17.90	Apr. 29	18.20	Aug. 31	22.59	Nov. 30	24.36
Feb. 28	19.06	May 29	20.07	Oct. 1	23.25	Dec. 30	20.92
Apr. 1	16.69	July 1	21.44	30	23.96		

Hartford County

Bu 2. E. E. Edman. Burlington. Lat. 41°46'15", long. 72°58'20". Dug unused water-table well in glacial till, diameter 36 inches, depth 38 feet, lined with stone. Land-surface datum is about 880 feet above msl. Highest water level 13.71 below lsd, Mar. 30, 1953; lowest 37.41 below lsd, Dec. 22, 1948. Records available: 1946-53.

Jan. 2	19.08	Apr. 5	14.38	Aug. 18	25.89	Oct. 31	34.60
31	16.49	11	14.48	Sept. 10	28.67	Nov. 8	34.96
Feb. 8	15.88	May 3	15.52	20	30.87	14	35.15
22	15.69	12	15.42	Oct. 3	32.89	21	35.39
Mar. 1	15.67	31	16.29	11	33.52	Dec. 6	35.64
20	14.57	June 27	19.05	17	33.88	26	32.19
30	13.71	Aug. 3	23.97				

EH 21. Burnside Ice Co. 790 Tolland St., East Hartford. Lat. 41°47', long. 72°36'. Dug unused water-table well in glacial sand, diameter 30 inches, depth 20 feet, lined with brick. Land-surface datum is about 90 feet above msl. Highest water level 11.14 below lsd, Dec. 12, 1938; lowest 19.60 below lsd, Sept. 22, 1949. Records available: 1934-39, 1946-53.

Jan. 26	16.54	Apr. 28	14.08	July 28	16.21	Oct. 27	18.80
Feb. 26	16.22	May 30	14.53	Sept. 2	17.73	Nov. 28	18.03
Mar. 31	14.91	June 30	15.60	28	18.51	Dec. 28	16.86

SW 64. H. F. Church. Station 37, South Windsor. Lat. 41°49', long. 72°37'30". Dug unused water-table well in glacial sand, diameter 24 inches, depth 18 feet, lined with brick. Land-surface datum is about 40 feet above msl. Highest water level 7.15 below lsd, Mar. 30, 1936; lowest 13.84 below lsd, Dec. 31, 1949. Records available: 1934-39, 1948-53.

Jan. 26	11.87	Apr. 28	8.38	July 28	11.15	Oct. 27	12.74
Feb. 26	10.90	May 30	9.27	Sept. 2	12.07	Nov. 28	12.58
Mar. 31	9.06	June 30	10.69	28	12.43	Dec. 28	11.45

Litchfield County

Wy 1. George H. Wadsworth. Main St., Woodbury. Lat. 41°32', long. 73°12'30". Dug unused water-table well in glacial sand and gravel, diameter 30 inches, depth 34 feet, lined with stone. Land-surface datum is about 270 feet above msl. Highest water level 19.44 below lsd, Apr. 1, 1953; lowest 31.00 below lsd, Oct. 10, 1914. Records available: 1913-16, 1944-53.

Jan. 28	20.94	Apr. 29	20.31	July 29	26.00	Oct. 30	30.08
Feb. 28	21.10	May 29	21.45	Aug. 31	29.10	Nov. 30	29.14
Apr. 1	19.44	July 1	23.08	Oct. 1	29.56	Dec. 30	26.12

Middlesex County

Mf 1. Lyman Gun Sight Corp. Near Baileyville. Lat. 41°30'30", long. 72°43'20". Dug unused water-table well in glacial till, diameter 24 inches, depth 22 feet, lined with stone. Land-surface datum is about 260 feet above msl. Highest water level 3.12 below lsd, Apr. 3, 1951; lowest 14.83 below lsd, Oct. 28, 1953. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.96	Apr. 30	5.93	July 27	10.83	Oct. 28	14.83
Feb. 28	5.27	May 29	6.75	Aug. 31	12.14	Nov. 27	14.27
Apr. 1	3.35	June 29	9.31	Sept. 30	13.60	Dec. 29	6.66

New Haven County

EHv 70. H. A. Doolittle. Silver Sands Rd., East Haven. Lat. 41°15'00", long. 72°52'45". Dug unused water-table well in glacial sand and gravel, diameter 36 inches, depth 16 feet, lined with stone. Land-surface datum is about 30 feet above msl. Highest water level 7.27 below lsd, Mar. 30, 1953; lowest 16.03 below lsd, Nov. 22, 1935. Records available: 1935-39, 1951-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.22	Apr. 27	8.54	July 27	11.09	Oct. 28	15.09
Feb. 27	9.24	May 28	10.13	Aug. 26	12.65	Nov. 27	13.27
Mar. 30	7.27	June 29	11.93	Sept. 30	14.22	Dec. 29	10.06

Na 10. Naugatuck Water Co. Beacon Valley Rd., Naugatuck. Lat. 41°28', long. 73°00'40". Driven unused water-table well in glacial sand and gravel, diameter 2 inches, depth 94 feet. Land-surface datum is about 340 feet above msl. Highest water level 3.90 below lsd, Mar. 30, 1948; lowest 16.45 below lsd, Oct. 24, 1947. Records available: 1946-50, 1952-53. July 29, 14.77; Oct. 1, 16.28; Oct. 30, 16.03; Dec. 30, 14.70.

Na 11. Naugatuck Water Co. Beacon Valley Rd., Naugatuck. Lat. 41°28', long. 73°00'40". Driven unused water-table well in glacial sand and gravel, diameter 2 inches, depth 36 feet. Land-surface datum is about 340 feet above msl. Highest water level 3.00 below lsd, Apr. 1, 1953; lowest 16.64 below lsd, Oct. 24, 1947. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	4.11	Apr. 29	3.66	July 29	14.98	Oct. 30	16.23
Feb. 28	4.80	May 29	4.67	Aug. 31	15.92	Nov. 30	16.08
Apr. 1	3.00	July 1	5.66	Oct. 1	16.46	Dec. 30	15.33

Sb 1. Francis Bower. Near South Britain. Lat. 41°28'50", long. 73°15'30". Dug unused water-table well in glacial sand and gravel, diameter 24 inches, depth 23 feet, lined with stone. Land-surface datum is about 190 feet above msl. Highest water level 11.12 below lsd, Apr. 29, 1953; lowest 18.40 below lsd, Oct. 14, 1916. Records available: 1913-16, 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	11.92	Apr. 29	11.12	July 29	12.65	Oct. 30	14.44
Feb. 28	12.31	May 29	11.28	Aug. 31	13.60	Nov. 30	14.22
Apr. 1	11.14	July 1	12.13	Oct. 1	14.32	Dec. 30	13.94

Wb 1. Waterbury Ash Removal Co., Thomaston Ave., Waterbury. Lat. 41°34', long. 73°03'30". Drilled unused water-table well in glacial sand and gravel, diameter 6 inches, depth 82 feet. Land-surface datum is about 270 feet above msl. Highest water level 6.77 below lsd, Mar. 27, 1953; lowest 10.99 below lsd, Sept. 11, 1944. Records available: 1943-53. Measurement discontinued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	9.73	Feb. 24	8.80	Mar. 27	6.77	May 4	8.64
17	9.66	Mar. 2	9.20	Apr. 3	7.52	11	8.65
Feb. 2	7.98	7	9.05	17	7.51	June 1	9.48
14	8.96	17	6.90	27	8.40		

Wb 93. Mrs. William Nichols, Sr. 118 Pearl Lake Rd., Waterbury. Lat. 41°31'30", long. 73°02'30". Dug unused water-table well in glacial gravel, diameter 4 feet, depth 33 feet, lined with stone. Land-surface datum is about 320 feet above msl. Highest water level 23.99 below lsd, Apr. 1, 1953; lowest 28.39 below lsd, Aug. 29, 1944. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	25.53	Apr. 29	25.57	July 29	27.71	Oct. 30	28.22
Feb. 28	26.45	May 29	26.90	Aug. 31	27.97	Nov. 30	27.45
Apr. 1	23.99	July 1	27.63	Oct. 1	28.20	Dec. 30	26.54

Wb 176. Mrs. Frank Bergin. 535 Scott Rd., Waterbury. Lat. 41°32', long. 72°59'. Dug unused water-table well in glacial till, diameter 30 inches, depth 16 feet, lined with stone. Land-surface datum is about 650 feet above msl. Highest water level 2.80 below lsd, Apr. 4, 1951; lowest 15.20 below lsd, Nov. 26, 1949. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.28	Apr. 29	4.75	July 29	8.87	Oct. 30	14.82
Feb. 28	4.98	May 29	7.45	Aug. 31	12.06	Nov. 30	9.83
Apr. 1	2.88	July 1	8.49	Oct. 1	14.02	Dec. 30	8.56

Wb 198. A. Baker. Formerly E. L. Bronson. Pierpont Rd., Waterbury. Lat. $41^{\circ}32'45''$, long. $72^{\circ}58'45''$. Dug domestic water-table well in glacial till, diameter 30 inches, depth 31 feet, lined with stone. Land-surface datum is about 540 feet above msl. Highest water level 5.49 below lsd, Jan. 10, 1946; lowest 21.00 below lsd, Nov. 26, 1949. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	6.09	July 29	13.75	Oct. 1	17.69	Nov. 30	18.22
May 29	11.45	Aug. 31	15.30	30	19.20	Dec. 30	14.57
July 1	13.18						

Wb 336. The Bristol Co. Platts Mills Rd., Waterbury. Lat. $41^{\circ}31'$, long. $73^{\circ}03'30''$. Drilled unused water-table well in glacial sand and gravel, diameter 8 inches, depth 57 feet, screen setting 37-57. Land-surface datum is about 215 feet above msl. Highest water level 9.08 below lsd, Apr. 1, 1953; lowest 20.40 below lsd, Aug. 29, 1944. Records available: 1944-53. Nearby well being pumped.

Jan. 28	10.99	Apr. 29	10.62	July 29	16.27	Oct. 30	17.67
Feb. 28	11.67	May 29	11.82	Aug. 31	18.20	Nov. 30	16.59
Apr. 1	9.08	July 1	15.46	Oct. 1	18.52	Dec. 30	14.33

Wb 340. Connecticut Light and Power Co. Eagle St., Waterbury. Lat. $41^{\circ}32'10''$, long. $73^{\circ}03'30''$. Driven unused water-table well in glacial sand and gravel, diameter 2 inches, depth 40 feet. Land-surface datum is about 250 feet above msl. Highest water level 15.83 below lsd, May 19, 1945; lowest 24.87 below lsd, Sept. 27, 1945. Records available: 1944-53. Nearby well being pumped.

Jan. 28	18.14	Apr. 29	19.00	July 29	20.42	Oct. 30	20.43
Feb. 28	19.18	May 29	19.36	Aug. 31	20.80	Nov. 30	20.03
Apr. 1	17.70	July 1	19.90	Oct. 1	20.69	Dec. 30	19.69

New London County

NL 10. New London Historical Society. 11 Blinman St., New London. Lat. $41^{\circ}21'$, long. $72^{\circ}06'$. Dug unused water-table well in glacial sand and gravel, diameter 36 inches, depth 22 feet, lined with stone. Land-surface datum is about 10 feet above msl. Highest water level 11.76 below msl; Mar. 31, 1953, lowest 17.99 below msl, Aug. 16, 1937. Records available: 1937-39, 1946-53.

Jan. 26	12.72	Apr. 30	14.53	July 28	16.28	Oct. 27	16.75
Feb. 26	13.91	May 30	15.72	Aug. 28	16.98	Nov. 28	11.77
Mar. 31	11.76	June 30	16.73	Sept. 24	16.67	Dec. 28	14.64

Tolland County

U 3. Yale University Forest. Union. Lat. $41^{\circ}57'40''$, long. $72^{\circ}09'45''$. Dug unused water-table well in glacial till, diameter 36 inches, depth 25 feet, lined with stone. Land-surface datum is about 780 feet above msl. Highest water level 9.34 below lsd, Mar. 31, 1953; lowest dry, Dec. 1, 1949. Records available: 1946-53.

Jan. 25	18.57	Apr. 28	12.50	July 28	19.69	Oct. 27	23.73
Feb. 26	14.30	May 30	15.43	Sept. 1	21.46	Nov. 28	24.07
Mar. 31	9.34	June 30	18.10	29	22.70	Dec. 28	19.00

Windham County

Af 1. Yale University Forest. Near Westford, in Ashford township. Lat. $41^{\circ}55'00''$, long. $72^{\circ}09'00''$. Dug unused water-table well in glacial till, diameter 30 inches, depth 15 feet, lined with stone. Land-surface datum is about 650 feet above msl. Highest water level 2.63 below lsd, Jan. 25, 1953; lowest dry, Oct. 27, 1949. Records available: 1946-53.

Jan. 25	2.63	Apr. 28	4.07	July 28	12.20	Oct. 27	15.10
Feb. 26	4.57	May 30	5.79	Sept. 1	13.87	Nov. 28	11.20
Mar. 31	3.06	June 30	9.63	29	14.65	Dec. 28	5.50

Pl 1. W. P. Lewis. Pleasant St., Plainfield. Lat. 41°40'50", long. 71°55'20". Dug unused water-table well in glacial sand and gravel, diameter 36 inches, depth 34 feet, lined with stone. Land-surface datum is about 180 feet above msl. Highest water level 27.24 below lsd, Apr. 28, 1953; lowest 31.82 below lsd, Oct. 27, 1953. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	30.70	Apr. 28	27.24	July 28	30.20	Oct. 27	31.82
Feb. 26	29.33	May 30	28.20	Aug. 28	30.84	Nov. 28	31.42
Mar. 31	27.78	June 30	29.44	Sept. 29	31.44	Dec. 28	29.40

Wil 1. American Thread Co. 322 Main St., Willimantic. Lat. 41°42'30", long. 72°12'15". Drilled unused water-table well in gneiss, diameter 6 inches, depth 83 feet. Land-surface datum is about 190 feet above msl. Highest water level 4.52 below lsd, Mar. 31, 1953; lowest 8.90 below lsd, Oct. 27, 1947. Records available: 1946-53.

Jan. 26	5.28	Apr. 28	5.17	July 28	7.55	Oct. 27	8.57
Feb. 26	5.85	May 30	6.48	Aug. 28	7.90	Nov. 28	7.32
Mar. 31	4.52	June 30	7.33	Sept. 29	8.39	Dec. 28	6.79

DELAWARE

By D. H. Boggess and O. J. Coskery

Scope of Water-Level Program

Investigation of the ground-water resources of the State in cooperation with the Delaware Geological Survey was continued through 1953. From 1943 to 1950, the U. S. Geological Survey cooperated with the towns of Lewes and Rehoboth. The initial purpose of this investigation was to study the encroachment of salt water into the fresh-water aquifers of that area, but after development of the new well field inland, the program was confined to determining fluctuations in the water surface. In December 1949, the State of Delaware, through the Agricultural Extension Service of the University of Delaware and the Highway Department, cooperated for the purpose of making a preliminary study of the ground-water resources within the State. In July 1951, the Delaware Geological Survey became the cooperating State agency and has continued in that capacity through 1953.

During 1953, water-level measurements were made in 22 wells. Recording gages were maintained on 4 wells in municipal well fields at New Castle, Newark, and Lewes. A recording gage was maintained at the Governor Bacon Health Center in Delaware City. Figure 5 shows the location of observation wells in Delaware.

A report entitled, "Ground-water problems in highway construction and maintenance," by William C. Rasmussen and Leon B. Haigler, was published by the Delaware Geological Survey as Bulletin No. 1. This report describes the high water table which must be drained in many areas of central and southern Delaware in order to bring boggy lands into use, and discusses the problems of quicksand, subdrainage, and soil creep in relation to the water table and highways. A memorandum on aquifer-rating tests at Newark, Delaware, by William C. Rasmussen was released to the open file in January 1953.

Precipitation

The year of 1953 was one of above-normal precipitation in Delaware, with a total of 48.13 inches, which was 4.03 inches above average for 11 stations in the State. However, the distribution of precipitation through the year was so poor as to cause a serious drought for many areas during most of the growing season. June marked the beginning of the period of dry weather, when precipitation was more than an inch below normal in that month. The dry spell continued with rainfall more than an inch below normal in July. In August precipitation was almost 2 inches above normal, but this was due to heavy rains associated with a hurricane on August 14. The intensity of rainfall was dissipated in high runoff, with consequent inadequate infiltration, and complete relief from the drought was not achieved. The precipitation in September was more than an inch below normal, continuing the drought distress. Above-normal precipitation in October ended the drought, but the rains came too late to affect the crops, although they did tend to restore water levels.

Pumpage

The average daily pumpage from the municipal well field at New Castle was 517,700 gallons per day during 1953. The average daily pumpage from the Newark well field was 747,550 gallons per day, which was augmented by an average of 39,290 gallons a day from a private water company using a surface-water source. An additional 9,880,000 gallons was withdrawn from the Newark aquifer from June through September, when the canning company was in operation. Pumpage from the new well field at Lewes averaged 339,300 gallons per day during 1953. The average daily pumpage at the Governor Bacon Health Center was 88,800 gallons per day.

Interpretation of Water-Level Fluctuations

During 1953 the average water level of 13 water-table wells throughout the State fluctuated in response to recharge by ground-soaking precipitation, and to drought, through the withdrawal of water by plants. As indicated in figure 6, the ground-water reservoirs received an excess of recharge over discharge from January 1 to the end of March, at which time the highest water level of the year was recorded at an average of 5.46 feet below land surface. A long depletion

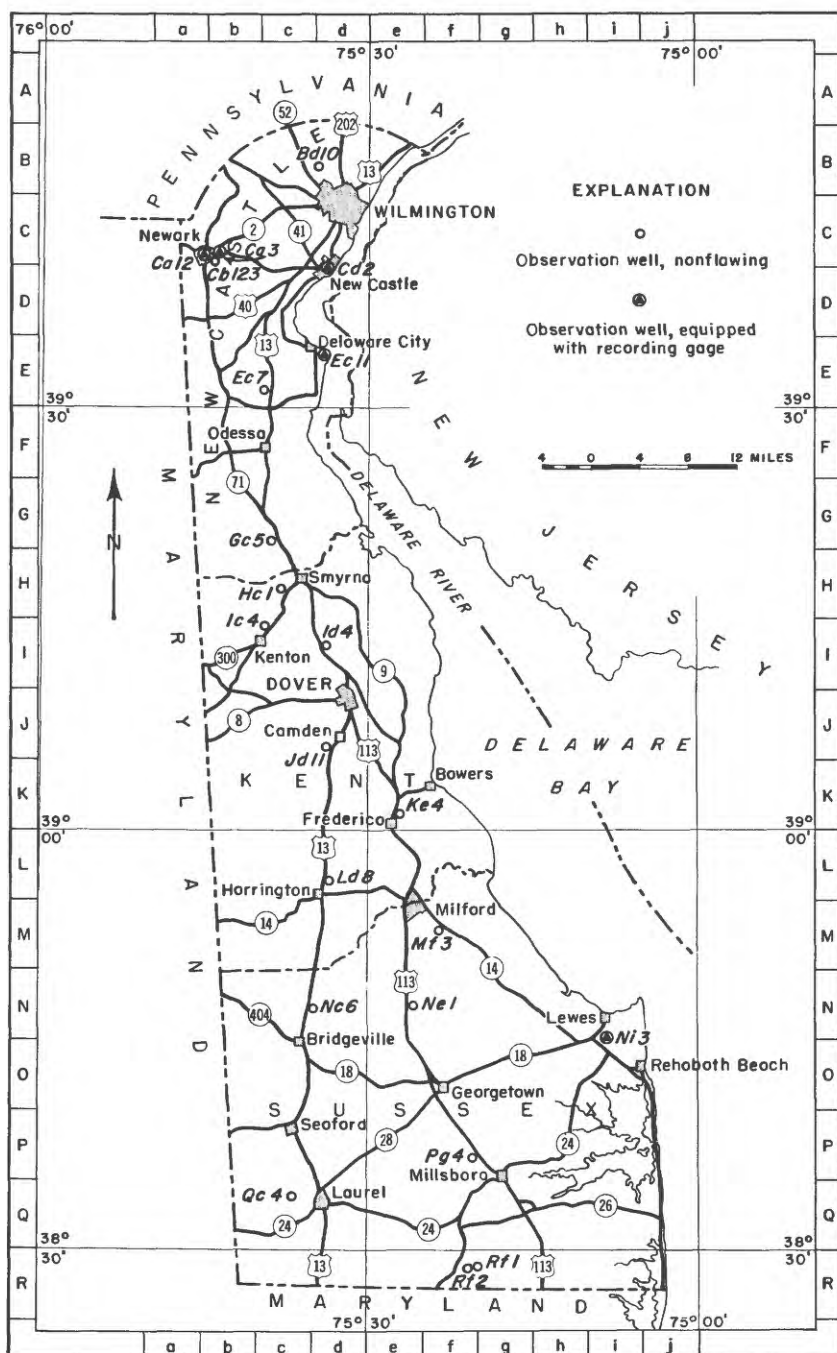


Figure 5. --Location of observation wells in Delaware, 1953.

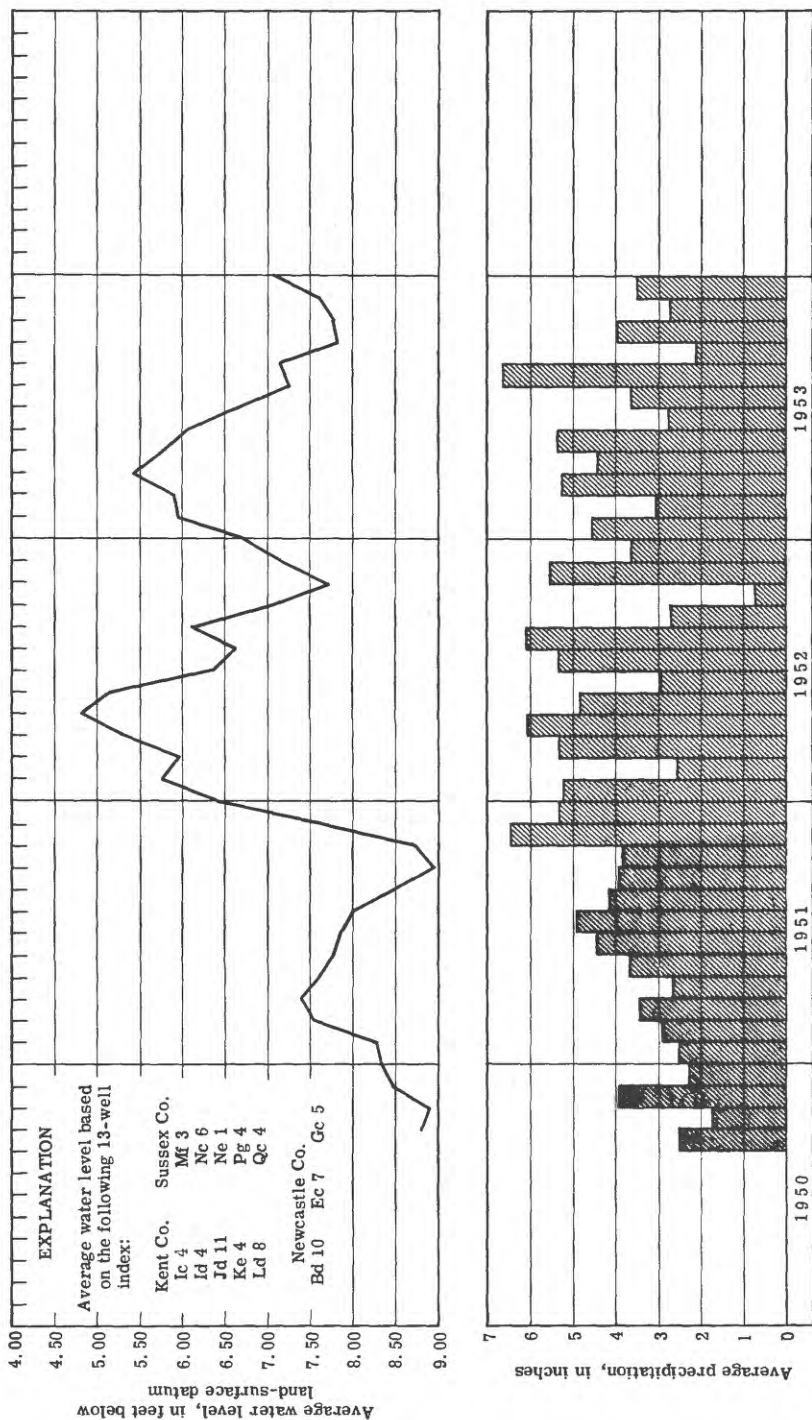


Figure 6. --Average monthly water levels in 13 water-table wells in Delaware and average monthly statewide precipitation, September 1950 to December 1953.

cycle began in early April and reached a low point at the end of September when the average water level was 7.84 feet below land surface. This decline of water level was interrupted to a small degree by intense rains accompanying the hurricane in mid-August, reflected in an average residual rise of 0.12 foot in the water table at month-end. The decline in the water level was caused principally by transpiration of plants, the roots of which reach the water table in many parts of the State. It was augmented by evaporation from streams and boggy meadows. Evaporation gradually increased from April to a maximum in July, and then diminished to a low rate in October. Return to normal precipitation in October, November, and December, with cessation of evapotranspiration permitted water levels to recover at that time. The average water level for the year was 6.73 feet below land surface, which was 0.44 foot lower than the average for 1952. No annual trend of the average water levels has yet been observed.

Water levels in the vicinity of well fields pumped at moderate to large rates at Delaware City, Newark, New Castle, and Lewes showed drawdown in response to pumping and recovery as pumping lessened. At Delaware City, observation well Ec 11 at the Governor Bacon Health Center showed a declining trend of about 4 feet below the end of 1952, in response to increased use. At Newark, the increasing population made increased demands for water, and observation well Ca 3 in the city well field recorded water levels almost as low as any observed in the period of record. Cb 123 at the University Farm, on the outer rim of this cone of depression, was similarly affected. At New Castle, on the contrary, production from a new well to a deeper sand permitted a marked decrease in draft from the shallow wells and collection galleries, so that at the end of April water levels in Cd 2 recovered about 9 feet to a record high, and seepage occurred in the foundation of the filtration plant. Pumpage from the shallow aquifer is now sustained at a rate required to keep the basement and grounds of the plant dry. Water levels in well Ni 3 at Lewes showed slight rises over corresponding months of preceding years, in response to a slightly diminished rate of pumping from the city well field. Well Qc 4 was installed to determine if drains for a roadway near Laurel were effective in reducing the moisture. In late March 1953, the water level rose to within 0.5 foot of the land surface, close to the edge of the road.

Acknowledgments

Recording gage charts were voluntarily changed weekly by Oliver Henderson at New Castle; Mrs. Thalia Fisher at Lewes; and Carl Jorgenson at the Governor Bacon Health Center.

Well - Numbering System

The State of Delaware is divided into 5-minute quadrangles of latitude and longitude as shown in figure 5. To designate the wells, the quadrangles are lettered north to south with uppercase letters and west to east with lowercase letters. A quadrangle is indicated by two letters with the uppercase letter being given first. Within the quadrangles the wells are numbered in the order they were scheduled.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum unless otherwise indicated.)

Kent County

Hc 1. Town of Clayton. Lat. $39^{\circ}17'$, long. $75^{\circ}38'$. Jetted unused artesian well in sand of Eocene age, diameter 4 inches, depth 204 feet. Land-surface datum is about 45 feet above msl. Highest water level 18.33 below lsd, Apr. 30, 1953; lowest 39.30 below lsd, Dec. 1, 1953. Records available: 1950, 1952-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27, 1950	21.06	Nov. 26, 1952	22.20	Apr. 30, 1953	18.33	Sept. 28, 1953	19.05
July 24, 1952	32.10	Dec. 29	20.11	May 29	19.26	Oct. 29	23.72
29	28.15	Jan 30, 1953	19.29	June 30	20.29	Dec. 1	c39.30
Sept. 3	19.39	Feb. 27	20.48	Aug. 4	19.57	30	d27.03
Oct. 1	20.13	Mar. 31	18.67	Sept. 1	18.73	31	d23.75
30	21.71						

c Nearby well being pumped.

d Nearby well pumped recently.

Ic 4. State Highway Department. Lat. $39^{\circ}14'$, long. $75^{\circ}39'$. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 12 feet. Land-surface datum is about 60 feet above msl. Highest water level 2.44 below lsd, May 1, 1952; lowest 5.54 below lsd, Oct. 1, 1951. Records available: 1950-53.

Ic 4--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	3.65	Apr. 30	3.66	Aug. 4	4.92	Oct. 29	5.34
Feb. 27	3.76	May 29	3.94	Sept. 1	5.14	Dec. 1	4.91
Mar. 31	3.24	June 30	4.40	28	5.38	30	4.61

Ic 4. State Highway Department. Lat. $39^{\circ}13'$, long. $75^{\circ}34'$. Near Cheswold. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 14 feet. Land-surface datum is about 40 feet above msl. Highest water level 2.48 below lsd, May 1, 1952; lowest 8.96 below lsd, Oct. 29, 1953. Records available: 1950-53.

Jan. 30	3.43	Apr. 30	3.76	Aug. 4	6.81	Oct. 29	8.96
Feb. 27	3.39	May 29	3.71	Sept. 1	7.44	Nov. 30	8.01
Mar. 31	3.10	June 30	5.08	28	8.32	Dec. 30	6.14

Jd 11. State Highway Department. Lat. $39^{\circ}06'$, long. $75^{\circ}33'$. Near Camden. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 15 feet. Land-surface datum is about 50 feet above msl. Highest water level 3.08 below lsd, June 2, 1952; lowest 9.16 below lsd, Oct. 30, 1951. Records available: 1950-53.

Feb. 2	4.39	May 1	4.09	July 29	4.91	Oct. 29	6.17
27	4.17	29	4.86	Aug. 28	5.35	Dec. 1	6.03
Apr. 1	3.82	June 30	4.32	Sept. 28	5.91	31	5.57

Ke 4. State Highway Department. Lat. $39^{\circ}01'$, long. $75^{\circ}27'$. Near Frederica. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 17 feet. Land-surface datum is about 22 feet above msl. Highest water level 4.13 below lsd, June 2, 1952; lowest 12.89 below lsd, Dec. 1, 1950. Records available: 1950-53.

Feb. 2	6.55	May 1	5.52	July 30	7.92	Oct. 30	10.60
27	6.34	29	5.45	Aug. 28	8.41	Nov. 30	11.05
Apr. 1	5.15	June 30	6.56	Sept. 29	9.76	Dec. 30	10.10

Ld 8. State Highway Department. Lat. $38^{\circ}56'$, long. $75^{\circ}34'$. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 13 feet. Land-surface datum is about 52 feet above msl. Highest water level 1.28 below lsd, June 2, 1952; lowest 7.26 below lsd, Oct. 1, 1951. Records available: 1950-53.

Feb. 2	3.03	May 1	3.22	July 29	5.46	Oct. 29	6.40
27	2.80	29	3.16	Aug. 28	4.34	Dec. 1	5.20
Apr. 1	2.37	June 30	4.39	Sept. 28	6.04	31	4.39

New Castle County

Bd 10. F. B. Crowninshield. Lat. $39^{\circ}47'$, long. $75^{\circ}34'$. Dug unused water-table well in weathered gabbro, diameter 42 inches, depth 23 feet, curbed with stone. Land-surface datum is about 250 feet above msl. Highest water level 10.30 below lsd, May 2, 1952; lowest 15.44 below lsd, Oct. 29, 1951. Records available: 1950-53.

Jan. 30	12.03	Apr. 30	11.38	July 31	13.33	Oct. 30	14.07
Feb. 27	12.39	June 1	11.37	Sept. 2	14.27	Dec. 1	14.56
Mar. 31	11.35	30	12.58	29	14.62	31	14.54

Ca 3. City of Newark. Lat. $39^{\circ}40'$, long. $75^{\circ}45'$. Academy St. and Waterworks Lane. Drilled unused artesian well in Patuxent formation, diameter 8 inches, depth 87 feet. Land-surface datum is about 100 feet above msl. Highest water level 20.60 below lsd, Apr. 28, 1952; lowest 33.78 below lsd, Nov. 19, 1953. Records available: 1950-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	30.78	30.39	29.53	.....	27.84	28.81	30.08	.....	32.30	32.88	33.00
2	.....	30.71	30.19	29.45	28.27	28.13	29.30	29.91	.....	32.45	32.94	33.07
3	30.61	30.67	30.19	.....	28.24	28.24	29.52	29.29	.....	32.54	33.02	33.13
4	30.61	30.62	30.15	.....	28.01	28.38	29.41	29.30	.....	32.22	32.97	33.39
5	30.76	30.49	30.16	29.24	28.26	28.33	29.02	29.37	32.10	32.14	32.94	33.46
6	31.09	30.47	30.30	28.77	28.30	28.29	28.70	.....	31.44	32.28	32.94	33.45
7	31.20	30.47	30.39	28.77	28.40	28.32	28.70	.....	30.63	32.16	.....	33.62
8	31.34	29.94	30.28	28.62	28.29	28.11	28.86	29.45	30.66	32.11	33.00	33.66
9	31.43	30.20	.....	.....	28.36	28.19	29.02	29.29	30.63	32.21	33.04	33.21
10	31.40	30.36	.....	.....	28.26	28.34	29.01	28.93	30.76	32.28	32.99	33.10

18 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

Ca 3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	31.17	30.48	.....	28.55	28.10	28.38	28.77	29.18	31.18	32.24	33.24	32.95
12	31.19	30.55	.....	28.48	28.27	28.28	28.41	29.38	31.31	32.19	.....	32.99
13	31.20	30.68	.....	28.26	28.47	28.09	28.30	29.49	30.59	32.46	.....	33.05
14	31.20	30.63	30.31	28.63	.....	27.50	28.60	29.37	30.78	32.66	33.34	33.23
15	.....	30.64	30.25	28.71	.....	27.43	28.80	29.30	30.85	32.71	33.28	33.34
16	31.54	30.59	30.16	28.73	28.65	27.72	29.48	29.15	30.87	.....	33.33	33.44
17	31.54	30.58	30.20	28.68	28.60	27.80	29.88	28.92	30.79	32.71	33.54	33.49
18	31.28	.....	30.10	28.65	28.28	27.77	30.05	29.12	30.98	32.60	33.70	33.53
19	31.32	.....	30.00	28.52	28.33	27.80	30.13	29.22	31.03	32.80	33.78	33.44
20	31.29	.....	30.01	28.28	28.50	27.97	29.97	29.32	30.98	33.00	33.69	33.32
21	31.31	30.94	30.07	28.46	28.58	28.10	.....	29.34	30.98	33.21	33.64	33.17
22	31.49	30.65	29.93	28.52	28.54	28.13	.....	29.41	31.14	33.23	33.57	33.18
23	31.51	30.40	29.90	28.43	28.52	28.25	.....	29.40	31.64	32.98	33.43	33.13
24	31.34	30.55	29.83	.....	28.49	28.40	29.47	29.32	31.97	32.83	33.51	33.10
25	31.05	30.63	29.80	28.54	28.35	28.54	29.33	e29.51	32.03	32.76	33.40	32.95
26	31.11	30.64	29.68	28.49	28.29	28.57	29.10	29.71	31.76	32.90	33.37	32.70
27	31.15	30.62	29.66	28.40	28.36	28.58	e28.46	29.87	31.56	33.02	33.22	32.61
28	31.05	30.51	29.68	28.38	28.52	28.65	.....	e30.10	31.64	33.01	33.07	32.62
29	31.07	.....	29.67	28.43	28.58	28.62	.....	.....	31.95	33.12	32.91	32.65
30	31.07	.....	29.52	28.33	28.45	28.66	.....	.....	32.12	33.02	32.90	32.66
31	30.89	.....	29.46	.....	28.13	.....	.....	.....	.....	32.95	.....	32.61

e Estimated.

Ca 12. Phillips Packing Co. Lat. 39°40', long. 75°46'. Drilled unused artesian well in Patuxent formation, diameter 8 inches, depth 42 feet. Land-surface datum is about 110 feet above msl. Highest water level 22.58 below lsd, July 12, 1953; lowest 27.09 below lsd, Jan. 12, 1951. Records available: 1951, 1953. Jan. 12, 1951, 27.09.

Daily lowest water level from recorder graph*

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	23.01	.....	25.06	25.58	25.83
2	.....	23.01	c29.66	25.07	25.60	25.84
3	.....	.....	c29.75	25.05	25.61	25.85
4	.....	.....	c29.80	25.04	25.65	25.86
5	.....	.....	c29.82	25.06	25.67	25.87
6	.....	.....	c28.61	.....	25.68	25.87
7	.....	.....	c29.80	25.15	25.72	25.86
8	.....	.....	c29.91	25.15	25.73	25.84
9	.....	.....	c29.96	25.20	25.74	25.81
10	.....	.....	c30.01	25.20	25.76	25.81
11	22.59	.....	c30.10	25.22	25.74	25.81
12	22.58	.....	c30.10	25.27	25.74	25.81
13	22.59	.....	25.06	25.30	25.73	25.77
14	22.65	c28.70	c29.04	25.30	25.70	25.72
15	22.63	23.80	c28.69	25.30	25.68	25.68
16	22.66	23.62	c29.01	25.32	25.69	25.66
17	22.66	.....	c29.58	25.35	25.71	25.68
18	22.72	.....	c29.47	25.37	25.75	25.68
19	22.74	.....	25.05	25.39	25.75	25.68
20	22.77	.....	24.82	25.41	25.78	25.67
21	22.79	c29.15	.....	25.45	25.79	25.66
22	22.79	.....	.....	25.45	25.81	25.68
23	22.79	.....	.....	25.46	25.79	25.71
24	.....	.....	.....	25.52	25.78	25.74
25	22.80	.....	.....	25.53	25.79	25.73
26	22.80	.....	24.95	25.56	25.79	25.74
27	.....	.....	24.96	25.56	25.79	25.77
28	22.83	.....	24.97	25.58	25.79	25.76
29	.....	.....	.....	25.57	25.80	25.77
30	22.89	.....	.....	25.58	25.79	25.79
31	c24.89	.....	.....	25.56	.....	25.82

c Nearby well being pumped.

* No record for January, February, March, April, May, and June.

Cb 123. University of Delaware. Agricultural Experiment Station. Lat. 39°40', long. 75°44'. Driven observation water-table well in sand of Patuxent formation, diameter 1½ inches, depth 26 feet. Land-surface datum is about 90 feet above msl. Highest water level 6.50 below lsd, May 1, 1952; lowest 11.25 below lsd, Oct. 29, 1951. Records available: 1951-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.43	Apr. 30	7.69	Aug. 4	9.02	Oct. 29	10.55
Feb. 27	8.23	June 2	7.54	Sept. 2	9.70	Dec. 2	10.53
Mar. 31	7.61	30	8.34	28	10.05	30	9.99

Cd 2. City of New Castle. Lat. 39°40', long. 75°34'. Dug unused water-table well in sand of Pleistocene age, size 12 by 13 feet, depth 23 feet. Land-surface datum is 9.21 feet above msl. Highest water level 3.37 above msl, Apr. 19, 1953; lowest 13.09 below msl, Aug. 1, 1950. Records available: 1950-53.

Daily lowest water level above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-7.25	-6.79	-7.72	+1.93	-2.92	-4.37	-5.65	-6.46	-7.55	-7.72	-7.99	-8.68
2	6.89	6.94	7.33	2.06	3.01	4.70	5.80	6.49	7.66	8.21	8.08	8.79
3	7.02	7.12	7.60	2.07	3.05	4.91	5.97	6.04	7.77	8.23	8.38	8.80
4	7.08	7.21	7.62	2.23	2.90	4.98	6.05	6.12	7.86	8.10	8.64	8.84
5	7.07	7.27	4.96	2.28	3.28	5.12	6.07	6.23	7.89	7.62	8.79	8.91
6	7.40	7.49	3.99	2.34	3.32	5.14	5.61	6.30	....	8.01	8.82	8.24
7	7.61	7.50	3.04	1.42	3.36	5.02	5.69	6.40	....	8.09	8.77	8.34
8	7.65	6.96	2.49	....	3.52	4.60	5.97	6.45	....	8.05	8.71	8.59
9	7.65	7.04	2.11	....	3.55	4.80	5.98	5.77	....	8.21	8.43	8.92
10	7.66	7.34	1.77	....	3.41	5.07	5.92	5.97	....	8.21	8.74	8.94
11	7.52	7.45	1.56	2.78	3.19	5.10	6.14	6.39	....	7.47	8.92	8.10
12	7.14	7.41	1.33	3.63	5.25	5.48	6.52	7.23	7.79	9.04	8.19	8.19
13	7.35	7.64	1.11	2.97	3.89	5.26	5.56	6.62	6.54	7.92	9.12	7.91
14	7.50	7.65	.84	3.04	4.04	4.39	5.91	6.80	6.55	8.24	9.16	7.55
15	7.52	7.59	.66	3.04	4.19	4.51	6.16	6.81	6.68	8.22	9.04	7.91
16	7.63	7.19	.42	3.19	4.35	4.82	6.42	6.14	6.94	8.39	8.50	8.09
17	7.66	7.36	.24	3.24	4.34	4.83	6.51	6.30	7.18	8.41	8.82	8.24
18	7.04	7.43	-.06	3.28	3.91	4.79	6.61	6.64	7.50	8.33	8.83	....
19	7.09	7.63	+1.18	3.37	4.27	4.89	6.69	6.87	7.59	7.91	8.94	....
20	7.34	7.67	.34	+0.5	4.34	5.00	6.63	7.00	6.85	8.32	8.90	....
21	7.37	7.64	.47	-.82	4.39	5.04	6.65	7.04	6.93	8.56	9.29	7.61
22	7.56	7.14	.64	1.37	4.49	4.68	6.75	7.11	7.24	8.70	9.09	7.70
23	7.66	7.12	.82	1.55	4.53	4.99	6.80	7.12	7.45	8.68	8.64	7.87
24	7.67	7.41	1.03	1.85	4.49	5.22	6.91	6.60	7.52	8.76	8.86	7.97
25	6.86	7.62	1.16	2.15	4.07	5.29	6.93	6.93	7.55	8.79	8.88	7.91
26	7.02	7.63	1.39	1.73	4.39	5.52	6.20	7.13	7.64	8.18	8.94	7.58
27	7.25	7.73	1.49	2.14	4.51	5.55	6.01	7.17	7.56	8.44	8.26	7.52
28	7.26	7.76	1.63	2.44	4.69	5.47	6.25	7.22	7.19	8.63	8.30	7.38
29	7.40		1.76	2.69	4.86	5.07	6.37	7.39	7.56	8.64	7.87	7.49
30	7.43		1.83	2.79	4.87	5.42	6.42	7.50	7.66	8.67	8.15	7.46
31	7.37		1.87		4.29		6.50	7.42		8.67		7.43

Ec 7. State Highway Department. Lat. 39°31', long 75°39'. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 11 feet. Land-surface datum is about 35 feet above msl. Highest water level 0.60 below lsd, May 1, 1952; lowest 2.79 below lsd, July 30, 1951. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	1.08	Apr. 30	0.90	Aug. 4	1.34	Oct. 29	1.17
Feb. 27	1.03	May 29	1.01	Sept. 1	1.70	Nov. 30	1.83
Mar. 31	.91	June 30	1.19	28	1.71	Dec. 30	1.61

Ec 11. Governor Bacon Health Center. Lat. 39°34', long. 75°35'. In well field compound of Governor Bacon Health Center, 125 feet south of pump-house. Drilled unused artesian well in sand of Magothy formation, diameter 6 inches, depth 157 feet, cased to 157. Land-surface datum is about 15 feet above msl. Highest water level 25.2 below lsd, May 27, 1952; lowest 64.2 below lsd, July 2, 1952. Records available: 1952-53.

Ec 11--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	48.4	49.2	52.1	50.8	....	50.8	57.4	61.2	61.7	55.6	55.1	37.9
2	49.9	51.2	50.1	....	....	48.0	61.2	60.2	58.0	55.9	53.8	54.2
3	47.2	43.7	51.6	48.0	46.4	48.0	62.0	60.7	62.5	41.3	55.4	42.7
4	48.5	48.9	35.6	49.9	48.9	54.9	61.8	48.5	64.4	52.1	36.7	55.7
5	49.2	....	50.0	46.7	50.3	57.3	58.8	60.0	....	44.9	53.5	42.2
6	50.5	51.7	51.0	50.3	47.3	58.4	60.6	44.2	56.9	54.9	38.4	51.7
7	50.3	....	44.7	48.0	49.5	51.6	61.3	59.6	59.6	54.9	52.3	44.5
8	52.2	48.4	45.6	e49.8	36.8	53.6	59.7	44.2	58.0	54.7	50.7	53.0
9	50.5	51.7	49.9	49.1	49.7	50.4	61.4	58.1	58.2	56.4	53.5	46.7
10	50.6	51.3	43.8	50.4	....	53.7	59.8	59.2	60.0	51.4	53.4	54.7
11	48.1	36.8	46.5	....	49.6	55.5	60.0	60.1	58.6	54.0	54.1	55.6
12	53.4	51.7	49.4	48.9	....	53.9	52.2	58.5	48.2	55.7	51.4	....
13	52.0	39.0	47.3	48.3	43.7	54.3	59.3	....	....	53.3	54.2	....
14	48.3	49.8	46.8	50.4	50.5	53.9	58.2	60.0	....	....	50.1	....
15	49.1	....	46.9	54.0	....	58.5	59.0	59.2	....	58.4	56.3	55.1
16	44.9	....	48.7	48.8	41.9	59.9	58.9	58.5	....	58.4	57.3	54.0
17	50.4	e47.1	51.0	53.0	49.2	58.5	54.2	60.6	....	e57.3	55.5	41.6
18	48.3	e50.8	48.3	45.2	48.8	60.8	46.4	59.0	....	55.9	51.8	55.2
19	52.7	52.0	e50.8	47.8	51.4	57.4	59.7	58.6	....	56.5	56.7	55.4
20	51.4	....	48.6	50.0	52.4	58.6	60.9	59.6	....	57.3	....	54.9
21	49.7	35.2	47.2	....	53.4	56.5	60.0	60.6	....	54.9	....	56.2
22	49.2	47.6	44.6	51.2	55.0	56.2	58.3	59.6	54.1	53.9	....	56.1
23	50.1	49.3	....	51.6	51.8	57.9	57.4	56.3	49.8	56.0	58.3	53.5
24	50.4	52.2	46.6	50.6	48.3	57.5	55.9	60.6	56.4	54.6	56.5	54.7
25	51.7	50.1	49.2	49.6	49.0	58.4	47.2	61.1	56.7	55.7	47.1	53.1
26	....	50.5	50.4	48.3	45.2	58.9	50.2	58.1	....	54.5	54.7	50.4
27	44.5	52.4	48.6	50.9	52.1	59.0	63.4	60.1	48.4	56.3	46.5	51.8
28	48.7	49.8	48.9	....	52.0	55.6	62.4	60.7	55.0	55.3	56.0	52.6
29	45.8	....	34.2	....	51.3	57.7	60.9	60.9	55.9	49.7	51.1	48.5
30	51.2	....	50.1	....	49.4	60.4	61.6	62.4	54.7	54.7	54.5	50.3
31	48.6	....	....	....	....	....	61.1	63.3	....	51.8	....	e51.6

e Estimated.

Gc 5. State Highway Department. Lat. 39°21', long. 75°38'. Near Blackbird. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 10 feet. Land-surface datum is about 40 feet above msl. Highest water level 0.12 below lsd, May 1, 1952; lowest 3.88 below lsd, Sept. 28, 1953. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	1.02	Apr. 30	1.60	Aug. 4	3.33	Oct. 29	3.07
Feb. 27	1.34	May 29	1.57	Sept. 1	3.60	Nov. 30	2.07
Mar. 31	.95	June 30	2.62	28	3.88	Dec. 30	1.75

Sussex County

Mf 3. State Highway Department. Lat. 38°53', long. 75°23'. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 27 feet. Land-surface datum is about 43 feet above msl. Highest water level 13.45 below lsd, June 2, 1952; lowest 20.87 below lsd, Dec. 1, 1950. Records available: 1950-53.

Feb. 2	17.09	May 1	16.19	Sept. 29	16.17	Nov. 30	17.30
27	16.86	29	16.53	Oct. 30	17.13	Dec. 30	16.78
Apr. 1	15.92						

Nc 6. P. H. Cannon. Lat. 38°46', long. 75°35'. Near Greenwood. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 15 feet. Land-surface datum is about 43 feet above msl. Highest water level 6.67 below lsd, Jan. 30, 1952; lowest 9.71 below lsd, Oct. 2, 1951. Records available: 1950-53.

Feb. 2	7.59	May 1	8.10	July 29	9.70	Oct. 29	9.57
27	8.11	29	8.81	Aug. 28	8.54	Dec. 1	8.90
Apr. 1	7.69	June 30	9.26	Sept. 28	9.51	31	8.61

Ne 1. State Highway Department. Lat. 38°47', long. 75°26'. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 14 feet. Land-surface datum is about 50 feet above msl. Highest water level 1.13 below lsd, Apr. 29, 1952; lowest 6.23 below lsd, Oct. 31, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	1.96	May 1	2.06	July 30	3.98	Oct. 30	2.69
27	1.80	29	2.78	Aug. 28	2.66	Nov. 30	3.06
Apr. 1	1.91	June 30	3.86	Sept. 29	4.86	Dec. 30	2.04

Ni 3. City of Lewes. Lat. 38°45', long. 75°09'. Drilled observation artesian well in sand of Pleistocene age, diameter 6 inches, depth 84 feet. Land-surface datum is about 20 feet above msl. Highest water level 13.94 below lsd, May 1, 1953; lowest 21.74 below lsd, Sept. 25, 1947. Records available: 1947-48, 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 19, 1947	20.36	Oct. 23, 1947	19.32	Mar. 20, 1948	16.35	June 26, 1948	16.16
July 23	20.07	Nov. 1	19.12	27	16.42	July 3	16.03
30	19.92	6	19.47	Apr. 3	19.81	10	18.00
Aug. 6	18.82	13	19.47	10	17.61	18	18.07
13	18.84	21	21.31	17	17.68	25	16.53
21	21.32	28	21.41	24	18.12	31	17.03
28	21.27	Dec. 12	21.12	May 1	18.33	Aug. 7	16.28
Sept. 4	21.55	19	21.22	8	18.84	15	17.63
11	21.65	26	21.19	15	16.82	21	16.70
18	21.70	Jan. 31, 1948	19.64	22	18.12	28	16.97
25	21.74	Feb. 15	19.49	29	17.47	Sept. 4	16.28
Oct. 2	19.28	28	17.77	June 5	15.23	11	16.52
9	19.34	Mar. 7	17.72	12	15.09	17	18.12
16	21.73	13	19.01	19	15.97	Oct. 9	16.93

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	16.53	16.26	15.47	13.94	15.16	.....	18.05	16.70	.....	16.96	16.93
2	17.26	16.62	16.24	15.33	e14.35	16.00	17.35	17.55	16.84	.....	16.84	17.13
3	17.37	16.45	16.26	15.24	15.41	16.16	17.53	17.17	16.74	.....	16.53	17.21
4	17.56	.....	16.20	15.39	15.48	17.24	17.55	17.10	16.69	.....	16.66	17.18
5	17.51	.....	16.26	15.21	15.16	16.22	17.47	17.06	17.47	.....	17.11	17.11
6	17.49	16.50	16.34	14.91	14.87	16.28	17.12	16.32	16.87	.....	16.95	17.07
7	17.35	16.60	16.40	15.37	13.96	16.27	16.83	17.31	17.41	.....	16.92	17.09
8	17.27	16.26	16.13	15.56	15.07	16.28	16.97	17.15	16.82	.....	16.94	17.13
9	17.08	16.68	16.37	15.56	13.98	16.81	16.94	17.71	16.79	.....	17.02	17.13
10	16.81	16.65	16.29	15.55	15.56	16.38	17.24	17.36	16.84	17.52	17.04	17.08
11	17.22	16.62	16.36	15.62	14.03	16.15	17.03	16.82	16.77	17.15	17.15	17.21
12	.....	16.46	16.21	15.50	15.77	.....	17.24	16.98	16.79	17.14	17.02	16.92
13	.....	.....	15.98	15.33	15.72	.....	17.16	17.23	16.60	17.32	16.70	16.52
14	.....	16.58	16.01	15.50	e14.15	.....	17.23	17.44	16.98	17.98	17.10	16.42
15	.....	16.39	15.75	15.50	15.92	.....	16.67	14.93	17.06	17.43	16.90	16.88
16	16.86	16.52	15.85	15.43	15.78	.....	17.34	14.33	16.91	16.00	17.05	16.80
17	16.86	16.47	15.78	15.50	15.77	.....	17.50	14.56	17.08	17.65	16.97	16.90
18	16.66	16.46	15.70	15.17	16.02	16.69	17.78	16.81	17.13	17.52	17.17	17.06
19	16.72	16.42	15.70	15.17	14.28	17.05	17.08	16.46	17.18	17.27	16.95	16.75
20	16.70	16.32	15.73	15.39	15.64	16.71	17.12	16.56	16.27	17.94	17.18	16.60
21	16.28	16.23	15.72	14.32	15.88	16.42	17.30	16.69	16.88	17.90	16.97	15.96
22	.....	16.18	15.61	14.43	15.91	17.38	17.60	16.50	16.89	16.87	17.08	16.77
23	16.67	16.42	15.64	15.38	15.77	17.40	17.43	16.05	16.50	16.84	16.67	16.82
24	16.60	16.52	15.42	15.37	15.97	17.01	17.22	16.36	16.63	16.75	16.86	16.73
25	16.56	16.51	15.47	15.43	16.37	16.85	17.14	16.63	.....	16.95	16.87	16.52
26	16.67	16.38	15.44	15.43	15.68	16.68	17.01	16.68	.....	16.83	17.01	16.82
27	16.52	16.36	15.58	15.67	15.92	16.92	17.08	16.53	.....	17.47	16.91	15.25
28	16.72	16.25	15.45	15.06	15.95	.....	17.42	16.65	.....	17.38	17.15	16.82
29	16.51	.....	15.42	15.27	15.85	.....	17.62	16.53	.....	17.62	17.25	16.41
30	16.75	.....	15.47	15.42	16.12	.....	17.48	16.31	.....	16.20	17.21	14.90
31	16.60	.....	15.52	.....	15.23	.....	17.47	16.63	.....	16.75	.....	16.98

e Estimated.

Pg 4. State Highway Department. Lat. $38^{\circ}36'$, long. $75^{\circ}19'$. Near Millsboro. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 22 feet. Land-surface datum is about 30 feet above msl. Highest water level 13.44 below lsd, May 1, 1953; lowest 16.65 below lsd, Nov. 30, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	14.56	May 1	13.44	July 30	14.37	Oct. 30	14.27
27	14.23	29	13.60	Aug. 28	14.24	Nov. 30	14.45
Apr. 1	13.95	June 30	14.00	Sept. 29	14.04	Dec. 30	14.61

Qc 4. State Highway Department. Lat. $38^{\circ}33'$, long. $75^{\circ}36'$. Driven observation water-table well in sand of Pleistocene age, diameter 1 inch, depth 8 feet. Land-surface datum is about 15 feet above msl. Highest water level 0.19 below lsd, Apr. 1, 1952; lowest 3.04 below lsd, Oct. 2, 1951. Records available: 1950-53.

Feb. 2	1.49	May 1	0.63	July 29	1.97	Oct. 29	1.97
27	.90	29	1.11	Aug. 28	1.14	Dec. 1	2.30
Apr. 1	.59	June 30	1.48	Sept. 28	1.74	31	2.10

Rf 1. Harvey Collins. Lat. $38^{\circ}28'$, long. $75^{\circ}20'$. Driven observation water-table well in sand of Pleistocene age, diameter 12 inches, depth 6 feet. Land-surface datum is 39.0 feet above msl. Highest water level 38.9 above msl, Aug. 4, 1948; lowest dry, summers 1949-52. Records available: 1947-53. Feb. 2, +34.88, Feb. 27, +35.26; Apr. 1, +34.95; May 1, +34.46; May 29, +34.03. Measurement discontinued.

Rf 2. Harvey Collins. Lat. $38^{\circ}28'$, long. $75^{\circ}20'$. Driven observation water-table well in sand of Pleistocene age, diameter 12 inches, depth 9 feet. Land-surface datum is 36.7 feet above msl. Highest water level 36.7 above msl, Mar. 8, 1948; lowest 30.76 above msl, Oct. 30, 1952. Records available: 1947-53. Feb. 2, +34.39; Feb. 27, +34.51; Apr. 1, +34.49; May 1, +34.19; May 29, +33.16. Measurement discontinued.

INDIANA

By Porter E. Ward

Scope of Water-Level Program

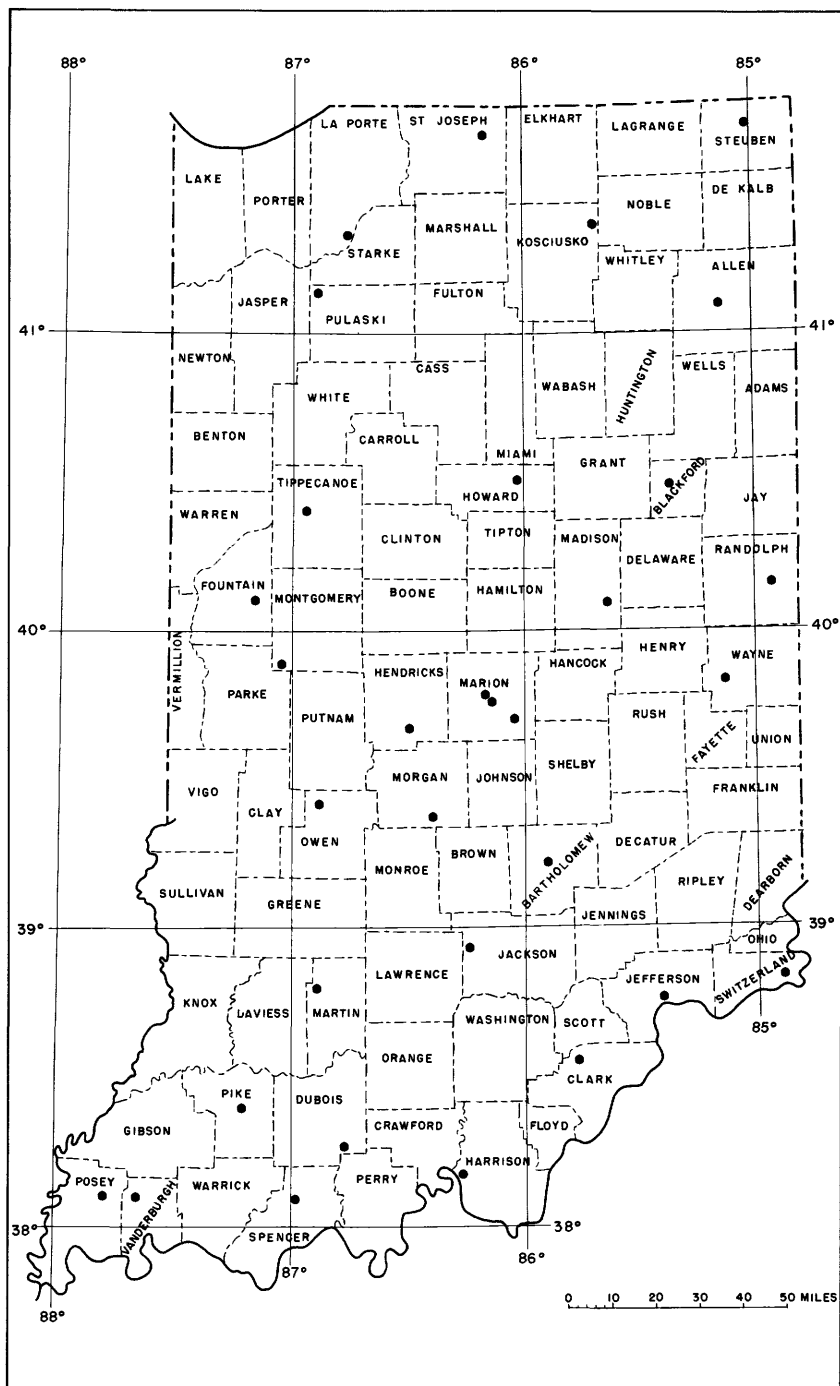
The observation-well program in Indiana was begun in 1935 and has continued since that time. This program is carried on in cooperation with the Indiana Department of Conservation, Division of Water Resources as part of a study of the water resources of the State. At the end of 1953, measurements were being received from a statewide network of 147 observation wells. Continuous records of water levels were obtained at 33 wells equipped with recording gages. All other measurements were made manually; one on a daily basis; two bimonthly; one monthly; and the remainder weekly. The data are used to study frequency and magnitude of water-level changes in response to variations in recharge, storage, and discharge in ground-water reservoirs. A special study of the water resources of the Indianapolis area, and separate investigations of the ground-water resources of nine county areas in southeast and west-central Indiana, and in Adams and Tippecanoe Counties, were conducted in 1953. As in 1952, only the data of the 32 key wells, representative of ground-water level trends in the State, are included in this report. Conclusions are based upon data collected from the entire network of observation wells. Figure 7 shows the location of the observation wells in Indiana included in this report.

Precipitation and Temperature

The year 1953 was characterized by mild and very dry weather. The accumulated departure of precipitation in inches from normal in the northern division of the State was -6.47; in the central division -5.72; and in the southern division -12.32. The accumulated departure from normal for the State was -8.06 inches for 1953. During the last half of 1952 a deficiency of precipitation at the beginning of the recharge period left water levels relatively low at the end of the year 1952. Below-normal water levels persisted throughout 1953. Recharge at the beginning of the year was less than that for the same period in 1952 and precipitation was below normal for 9 out of the 12 months of the year.

Interpretation of Water-Level Fluctuations

In general, water levels over the entire State continued on a downward trend. This trend has been in progress since about 1950. The low levels observed during 1941 and 1944 were approached and even exceeded at some localities. Seasonal recoveries that occur during the last third of the year lagged during 1952 and water-level declines did not reverse until the early part of 1953. At the close of 1953 the observed lag in recharge was even more pronounced than in 1952 and again declining water levels in many wells had not been reversed. As a consequence of the widespread deficiency of precipitation, recharge was lagging in time and magnitude over practically the entire State. In the northern division of the State, water levels in about one half of the wells having depths of 50 feet or less showed no reversal of the downward trend by the end of the year; gravel wells 50 to 100 feet recorded little or no recovery, while the water levels in wells greater than 100 feet reversed and were recovering at the close of 1953. In the central division, water levels in many wells at the end of the year were showing recoveries, with the exception of shallow dug wells. Water levels in the downtown Indianapolis area are still on a downward trend, but are above average as compared with lower levels recorded since 1935. In Indianapolis water levels remained about average throughout the year, a condition that reflects a reduction in total pumpage that has taken place in the downtown area. Figure 8 is a graph of water levels of two wells that show these conditions. Water levels in some dug wells and a few rock wells in the southern division were showing recoveries at the end of the year. Water levels in key wells were more than 4 feet below average as computed for the period of record. Collectively, some recharge was recorded in more than half of the observation wells by the end of the year; the shallower wells, especially the dug ones, showing the least amount of recharge. With few exceptions, water levels in observation wells throughout the State were below average. In 1953, water levels in 58 of the 147 active wells reached new lows for the period of record. Figure 9 graphically shows the fluctuations of water level in three representative shallow wells in the State. These wells are completed in unconsolidated materials and are unaffected by pumping. Well Steuben 1 is in the northern division; Montgomery 1 in the central division; and Clark 1 in the southern division.



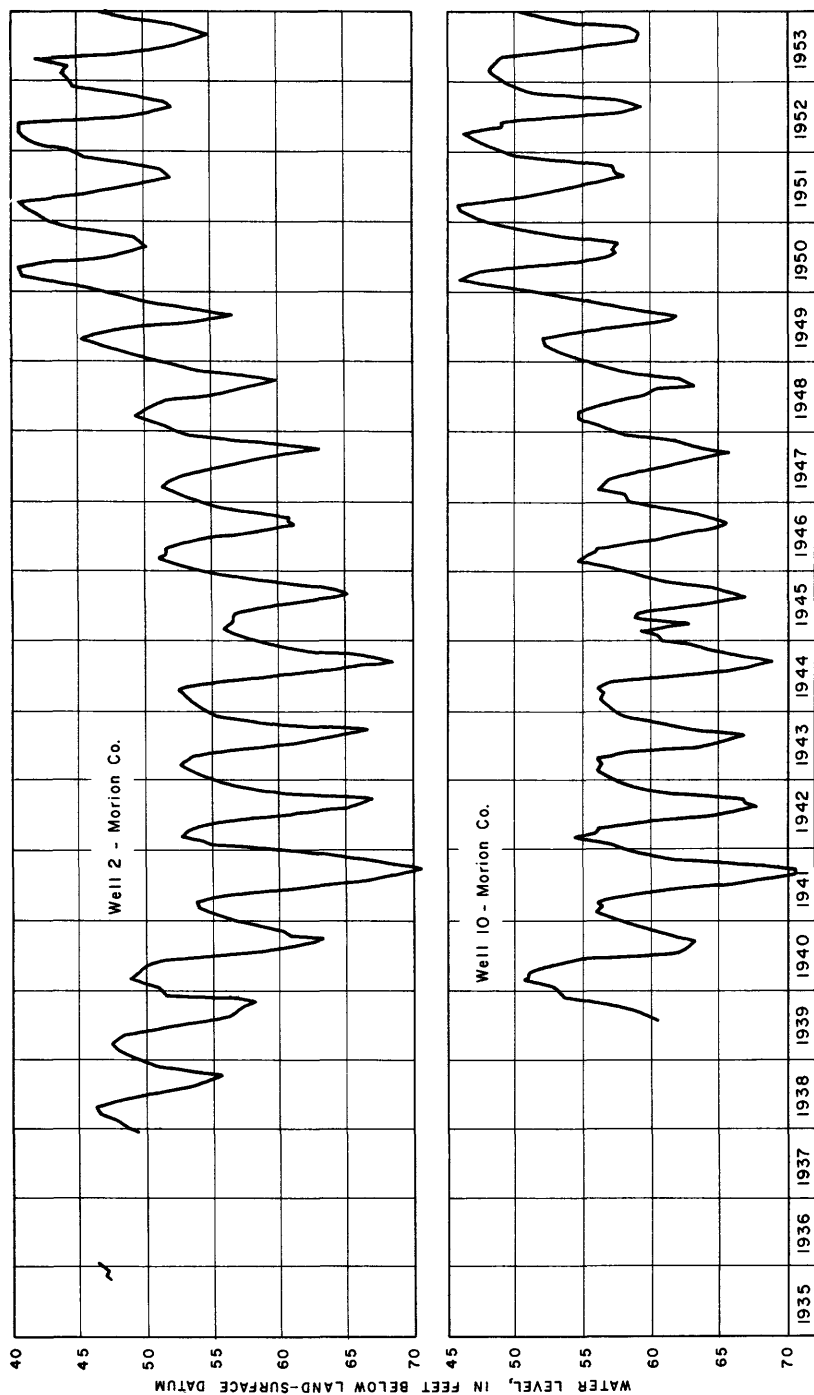


Figure 8. -- Water levels in wells Marion 2 and 10 in downtown area, Indianapolis, Ind.

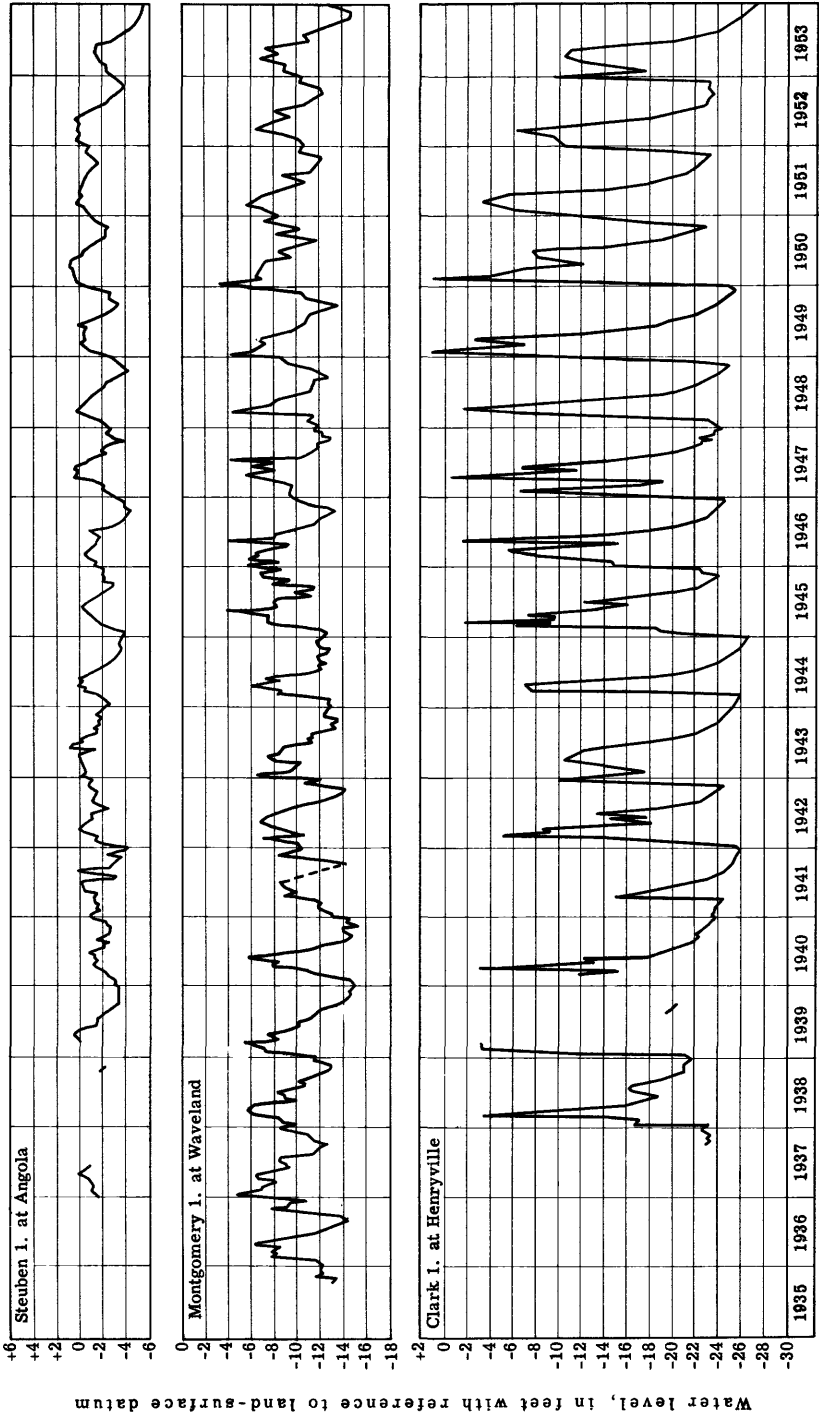


Figure 9. --Water levels in wells Steuben 1, Montgomery 1, and Clark 1, Indiana.

Well-Numbering System

Observation wells are designated by a letter symbol corresponding to the county name in which the well is situated, followed by a number for successive wells. For example, Ma 10 is observation well 10 in Marion County.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference.

Allen County

A1 3. City of Fort Wayne. Lawton Park, Clinton and East Fourth Sts. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 13 N., R. 12 E. Drilled unused artesian well in limestone, diameter 8 inches, reported depth 400 feet. Highest water level 4.62 below lsd, Apr. 8, 1950; lowest 12.72 below lsd, Sept. 6, 1946. Records available: 1944-53.

Daily 2. a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.18	10.77	10.72	9.77	9.84	10.04	10.80	11.35	11.75	12.37	12.36	11.60
2	11.16	10.80	10.70	9.72	9.88	10.11	10.78	11.34	11.80	12.38	12.35	11.68
3	11.14	10.77	10.70	9.72	9.94	10.14	10.82	11.34	11.84	12.39	12.33	11.66
4	11.17	10.79	10.24	9.69	9.95	10.16	10.85	11.33	11.88	12.40	12.33	11.62
5	11.17	10.80	10.15	9.71	9.95	10.19	10.84	11.32	11.93	12.42	12.32	11.83
6	11.22	10.75	10.09	9.70	9.97	10.21	10.86	11.35	11.97	12.42	12.30	11.78
7	11.24	10.81	10.05	9.70	9.98	10.20	10.87	11.34	12.00	12.45	12.25	11.80
8	11.22	10.82	9.97	9.76	9.99	10.20	10.88	11.33	12.04	12.47	12.22	11.78
9	11.22	10.86	9.93	9.75	10.01	10.19	10.90	11.33	12.08	12.48	12.20	11.75
10	11.21	10.89	9.89	9.73	10.01	10.24	10.93	11.34	12.12	12.49	12.19	11.73
11	11.19	10.85	9.86	9.79	9.98	10.26	10.95	11.35	12.15	12.49	12.17	11.75
12	11.24	10.81	9.85	9.81	10.03	10.26	10.96	11.37	12.18	12.51	12.17	11.73
13	11.20	10.83	9.82	9.81	10.06	10.27	10.97	11.38	12.22	12.54	12.16	11.71
14	11.20	10.84	9.84	9.86	10.09	10.30	11.00	11.40	12.25	12.55	12.15	11.70
15	11.14	10.81	9.76	9.87	10.10	10.32	11.03	11.41	12.27	12.55	12.12	11.70
16	11.12	10.82	9.76	9.73	10.12	10.34	11.06	11.42	12.28	12.56	12.01	11.70
17	11.09	10.87	9.73	9.79	10.10	10.41	11.09	11.43	12.31	12.56	12.01	11.73
18	11.04	10.89	9.68	9.78	10.07	10.40	11.10	11.45	12.32	12.57	12.00	.....
19	11.01	10.89	9.65	9.79	10.11	10.42	11.11	11.45	12.33	12.58	12.00	.....
20	10.98	10.87	9.66	9.78	10.12	10.46	11.12	11.47	12.33	12.59	12.09	.....
21	10.96	10.79	9.65	9.80	10.11	10.46	11.14	11.48	12.32	12.59	12.07	11.67
22	10.96	10.80	9.62	9.80	10.14	10.54	11.16	11.50	12.33	.....	12.06	11.67
23	10.93	10.75	9.59	9.82	10.00	10.57	11.16	11.52	12.33	.....	12.01	11.70
24	10.86	10.72	9.63	9.87	9.96	10.61	11.20	11.53	12.33	12.52	11.98	11.71
25	10.84	10.71	9.65	9.82	9.94	10.63	11.22	11.56	12.32	12.52	11.98	11.68
26	10.84	10.67	9.69	9.84	9.93	10.67	11.24	11.59	12.32	12.51	11.97	11.65
27	10.80	10.66	9.69	9.87	9.99	10.70	11.25	11.62	12.31	12.49	11.97	11.66
28	10.78	10.71	9.70	9.90	10.02	10.72	11.27	11.64	12.32	12.46	11.97	11.63
29	10.77		9.73	9.90	10.02	10.74	11.29	11.67	12.32	12.44	11.94	11.63
30	10.77		9.78	9.87	9.99	10.77	11.32	11.69	12.34	12.43	11.92	11.63
31	10.76		9.80		9.99		11.34	11.71		12.41		11.64

Bartholomew County

Ba 2. V. E. Sprouse Co., Inc. 1804 East 22d St., Columbus. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 9 N., R. 6 E. Drilled unused well in gravel, diameter 6 inches, depth 52 feet. Highest water level 9.49 below lsd, Feb. 18, 1950; lowest 19.7% below lsd, Dec. 31, 1953. Records available: 1948-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.39	17.22	17.36	16.77	16.67	16.23	16.82	17.19	17.98	18.62	19.22	19.52
2	17.40	17.22	17.36	16.76	16.69	16.21	16.83	17.23	18.00	18.64	19.23	19.53
3	17.41	17.21	17.35	16.75	16.71	16.21	16.84	17.27	18.03	18.67	19.25	.....
4	17.42	17.21	17.32	16.74	16.71	16.24	16.85	17.29	18.06	18.69	19.26	19.55
5	17.43	17.21	17.27	16.73	16.70	16.25	16.85	17.32	18.09	18.72	19.26	19.57
6	17.43	17.23	17.23	16.72	16.71	16.29	16.84	.....	18.11	18.73	19.28	19.58
7	17.45	17.24	17.21	16.71	16.72	16.32	16.76	.....	18.14	18.75	19.29	19.59
8	17.46	17.25	17.18	16.70	16.75	16.33	16.74	17.41	18.15	18.76	19.31	19.59
9	17.36	17.25	17.14	16.69	16.77	16.34	.....	17.44	18.16	18.78	19.32	19.60
10	17.37	17.24	17.10	16.69	16.78	16.37	16.73	17.46	18.18	18.80	19.33	19.61

Ba 2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	17.37	17.25	17.07	16.71	16.78	16.39	16.73	17.48	18.20	18.82	19.34	19.62
12	17.35	17.25	17.04	16.71	16.77	16.41	16.73	17.50	18.22	18.84	19.35	19.63
13	17.31	17.26	17.02	16.70	16.79	16.43	16.72	17.52	18.24	18.86	19.36	19.64
14	17.29	17.27	17.01	16.69	16.81	16.46	16.72	17.55	18.26	18.88	19.37	19.65
15	17.29	17.28	16.99	16.68	16.81	16.47	16.75	17.58	18.28	18.90	19.38	19.66
16	17.29	17.28	16.98	16.67	16.80	16.48	16.79	17.60	18.29	18.91	19.39	19.67
17	17.30	17.28	16.95	16.68	16.75	16.50	16.82	17.63	18.31	18.94	19.40	.....
18	17.30	17.29	16.93	16.69	16.65	16.52	16.85	17.65	18.33	18.96	19.41	19.70
19	17.28	17.30	16.92	16.70	16.60	16.54	16.86	17.67	18.35	18.98	19.42	19.70
20	17.25	17.32	16.90	16.68	16.54	16.57	16.87	.....	18.38	19.00	19.44	19.71
21	17.24	17.34	16.88	16.66	16.48	16.60	16.87	17.71	18.40	19.02	19.45	19.71
22	17.23	17.34	16.86	16.65	16.44	16.62	16.89	17.73	18.42	19.04	19.46	19.71
23	17.23	17.32	16.84	16.64	16.40	16.64	16.91	17.76	18.44	19.07	19.47	19.72
24	17.25	17.30	16.83	16.64	16.37	16.67	16.94	17.78	18.46	19.09	19.48	19.78
25	17.26	17.30	16.81	16.65	16.33	16.70	16.97	17.80	18.48	19.11	19.49	19.78
26	17.25	17.31	16.81	16.67	16.29	16.73	17.00	17.82	18.51	19.13	19.50	19.78
27	17.23	17.33	16.80	16.67	16.27	16.76	17.02	17.84	18.53	19.14	19.51	19.78
28	17.22	17.35	16.80	16.65	16.26	16.79	17.05	17.86	18.55	19.16	19.52	19.78
29	17.22		16.80	16.65	16.25	16.81	17.08	17.89	18.57	19.17	19.52	19.78
30	17.22		16.80	16.66	16.24	16.82	17.10	17.92	18.59	19.19	19.51	19.78
31	17.22		16.78		16.23		17.15	17.95		19.21		19.79

e Estimated.

Blackford County

Bf 1. John L. and Katherine Wise. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 24 N., R. 10 E. Dug unused well, diameter 42 inches, depth 18 feet, cribbed with brick. Land-surface datum is 921 feet above msl. Highest water level 0.69 below lsd, Feb. 9, 1952; lowest 9.14 below lsd, Dec. 18, 1953. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.23	Apr. 11	1.67	July 11	4.16	Oct. 3	6.89
10	5.07	18	1.34	18	4.33	10	7.09
17	2.87	25	1.89	25	4.78	17	7.27
24	1.70	May 2	2.07	Aug. 1	4.89	24	7.42
31	1.93	9	2.31	8	4.98	31	7.60
Feb. 7	2.12	16	2.37	15	5.35	Nov. 7	7.88
14	1.66	23	1.73	22	5.67	14	8.12
21	1.21	30	2.06	29	5.98	21	8.17
28	1.43	June 6	2.69	Sept. 5	6.17	28	8.24
Mar. 7	1.26	13	2.73	12	6.33	Dec. 5	8.40
14	.97	20	3.18	15	6.45	12	8.54
21	1.01	27	3.68	19	6.49	18	9.14
28	1.82	July 4	3.93	25	6.44	26	8.76
Apr. 4	1.24						

Clark County

Cf 1. State of Indiana. Clark County State Forest. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 2 N., R. 6 E. Dug unused well, diameter 4 feet, depth 35 feet, cribbed with stone. Measurements made by George B. Heilman. Highest water level 0.65 below lsd, Jan. 24, 1949, Jan. 14, 1951; lowest 27.25 below lsd, Dec. 25, 31, 1953. Records available: 1936-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.40	12.57	16.59	14.30	12.40	14.20	20.50	23.35	24.65	25.40	26.10	26.70
2	25.40	13.08	16.77	14.00	12.70	14.45	20.65	23.40	24.65	25.45	26.10	26.70
3	25.40	13.60	15.45	13.95	13.05	14.70	20.75	23.45	24.70	25.45	26.15	26.75
4	25.40	13.90	5.62	13.95	13.40	14.95	20.90	23.50	24.75	25.50	26.15	26.75
5	25.40	14.20	7.79	14.05	13.75	15.15	21.05	23.55	.....	25.55	26.20	26.75
6	25.40	14.45	8.73	14.15	13.90	15.45	21.15	23.60	24.75	25.55	26.20	26.80
7	25.40	14.73	9.73	12.95	13.95	15.70	21.25	23.65	24.80	25.60	26.25	26.80
8	25.45	15.02	10.59	12.20	14.05	15.90	21.40	23.70	24.85	25.60	26.30	26.80
9	25.40	15.30	11.28	11.95	14.15	16.15	21.50	23.75	24.90	25.65	26.30	26.85
10	25.30	15.62	11.88	11.75	14.30	16.40	21.60	23.80	24.90	25.65	26.35	26.85
11	24.20	15.92	12.43	11.85	14.50	16.65	21.75	23.85	24.95	25.65	26.35	26.85
12	23.80	16.11	12.92	12.10	14.75	16.90	21.85	23.90	24.95	25.70	26.40	26.90
13	23.70	16.35	12.97	12.15	15.00	17.10	21.95	23.95	25.00	25.70	26.40	26.90
14	23.70	16.55	11.70	12.25	15.25	17.30	22.05	24.00	25.00	25.75	26.45	26.90
15	23.70	16.80	11.50	12.50	14.80	17.50	22.15	24.00	25.05	25.80	26.45	26.90

Cl 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	23.70	16.97	11.05	12.70	14.50	17.70	22.25	24.05	25.05	25.80	26.50	26.95
17	23.45	17.19	11.20	12.75	8.55	17.95	22.35	24.10	25.10	25.80	26.50	27.00
18	18.25	17.43	11.55	12.90	1.80	18.15	22.40	24.15	25.10	25.85	26.50	27.10
19	17.55	17.67	9.30	7.65	4.90	18.35	22.45	24.20	25.10	25.85	26.55	27.15
20	17.50	17.92	9.30	6.90	6.60	18.50	22.55	24.20	25.15	25.90	26.55	27.15
21	17.50	15.97	9.75	7.70	7.60	18.70	22.65	24.25	25.15	25.95	26.60	27.20
22	17.65	15.60	10.35	8.45	8.45	18.90	22.70	24.30	25.20	25.95	26.60	27.20
23	17.85	15.59	10.95	9.15	9.25	19.05	22.75	24.35	25.25	25.95	26.60	27.20
24	18.05	15.70	11.45	9.90	10.10	19.25	22.80	24.40	25.25	25.95	26.60	27.20
25	17.95	15.82	11.90	10.40	10.90	19.40	22.85	24.40	25.30	26.00	26.60	27.25
26	17.95	15.95	12.35	10.70	11.55	19.60	22.95	24.45	25.30	26.00	26.60	27.25
27	18.05	16.12	12.80	11.05	12.15	19.85	23.00	24.50	25.30	26.05	26.60	27.25
28	11.66	16.34	13.30	11.40	12.80	20.00	23.10	24.55	25.35	26.05	26.60	27.25
29	10.91		13.65	11.75	13.30	20.15	23.15	24.55	25.35	26.05	26.65	27.25
30	11.47		13.95	12.05	13.65	20.35	23.25	24.60	25.35	26.05	26.65	27.25
31	12.00		14.20		13.95		23.30	24.60		26.05		27.25

Dubois County

Du 2. State of Indiana. Ferdinand State Forest. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 3 S., R. 3 W. Drilled unused well in limestone, diameter 6 inches, depth 33 feet. Measurements made by Henry Huff. Highest water level 4.51 below lsd, Feb. 22, 1950; lowest 18.45 below lsd, Nov. 13, 1944. Records available: 1936-37, 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	16.53	Apr. 13	13.74	July 6	15.78	Oct. 6	17.70
12	16.34	22	12.81	12	16.14	12	17.65
19	15.89	27	12.16	20	15.85	19	17.77
27	16.04	May 4	13.03	27	15.78	26	17.89
Feb. 2	15.90	10	13.23	Aug. 3	16.09	Nov. 2	17.84
9	16.35	21	12.12	10	16.30	9	17.87
16	15.99	26	12.81	17	16.60	23	16.89
Mar. 2	15.87	June 1	14.30	24	16.81	30	17.48
16	14.10	8	15.02	Sept. 1	17.05	Dec. 7	17.41
23	13.99	15	15.36	7	17.20	14	17.37
30	14.94	22	15.84	14	17.32	21	17.39
Apr. 6	15.02	29	16.03	21	17.54	28	17.46

Fountain County

Fo 1. Merchants and Farmers Telephone Co. Hillsboro. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 19 N., R. 7 W. Drilled unused well in rock, diameter 4 inches, depth 59 feet. Land-surface datum is 708 feet above msl. Highest water level 33.28 below lsd, Mar. 7, 1950; lowest 42.45 below lsd, Feb. 14, 1945. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	40.90	Mar. 31	39.20	July 13	40.65	Oct. 23	41.68
13	40.96	Apr. 8	40.08	21	40.64	30	41.61
20	40.58	14	40.14	28	41.25	Nov. 4	41.64
27	40.96	21	40.12	Aug. 28	41.25	6	41.70
Feb. 3	41.06	May 5	40.12	Sept. 4	42.25	13	41.50
10	41.17	13	40.08	11	41.25	20	41.40
17	41.26	26	40.27	18	41.70	27	41.30
24	41.10	June 2	40.35	25	41.68	Dec. 4	41.40
Mar. 4	41.12	9	40.49	Oct. 2	41.68	11	41.30
10	41.02	17	40.45	9	41.69	18	41.70
17	40.92	23	40.72	16	41.70	25	41.70
24	40.55						

Harrison County

Hr 3. State of Indiana. Harrison County State Forest. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 4 S., R. 2 E. Dug unused well, diameter 5 feet, depth 25 feet, cribbed with stone. Measurements made by Max Parker. Highest water level 2.00 below lsd, Mar. 21, 1939; lowest 8.37 below lsd, Dec. 19, 1953. Records available: 1938-53.

Hr 3--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.64	Apr. 4	3.08	July 4	6.54	Oct. 3	7.99
10	2.40	11	3.31	11	6.76	10	8.04
17	2.48	18	2.51	18	6.85	17	8.10
24	2.46	25	3.17	25	6.88	24	8.15
31	2.87	May 2	3.38	Aug. 1	7.06	31	8.20
Feb. 7	3.04	9	3.36	8	7.29	Nov. 7	8.23
14	3.09	16	2.69	15	7.68	14	8.27
22	2.72	23	3.90	22	7.60	21	8.30
28	3.03	30	4.64	29	7.61	28	8.32
Mar. 7	2.85	June 6	5.01	Sept. 5	7.70	Dec. 5	8.35
14	2.89	13	5.49	12	7.83	12	8.32
21	2.86	20	5.93	19	7.85	19	8.37
28	3.06	27	6.30	26	7.90	26	8.31

Hendricks County

Hd 1. Brocia A. and Anna M. Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 14 N., R. 1 W. Drilled unused well, diameter 4 inches, depth 46 feet. Land-surface datum is 842 feet below msl. Highest water level flowing 0.30, Apr. 17, 24, 1944; lowest 8.46 below lsd, Jan. 29, 1945. Records available: 1944-53.

Jan. 5	6.87	Apr. 13	0.89	July 13	3.19	Oct. 12	6.85
12	6.32	20	1.05	20	3.30	19	7.15
26	5.15	27	1.64	27	3.22	26	7.24
Feb. 1	4.90	May 4	2.00	Aug. 3	3.58	Nov. 2	7.50
9	4.90	10	2.23	10	4.05	9	7.58
16	3.98	18	1.97	17	4.52	16	7.80
23	3.50	25	1.37	24	4.95	24	7.74
Mar. 2	3.35	June 1	1.82	31	5.37	Dec. 1	8.00
7	2.05	3	2.60	Sept. 7	5.65	7	7.96
16	1.55	15	3.25	14	5.97	14	7.99
23	1.10	22	3.72	21	6.35	21	8.07
30	1.64	29	3.75	28	6.55	28	8.11
Apr. 6	1.19	July 6	3.29	Oct. 3	6.73		

Howard County

Ho 4. Howard L. and Earl M. Shenk. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 24 N., R. 4 E. Dug unused well, diameter 42 inches, depth 18 feet. Land-surface datum is 835 feet above msl. Highest water level 0.96 below lsd, Apr. 10, 1948; lowest 16.67 below lsd, Dec. 26, 1953. Records available: 1945-53.

Jan. 3	14.42	Apr. 4	2.34	July 4	6.45	Oct. 3	11.49
10	14.46	11	2.68	11	7.01	10	13.01
17	14.41	18	3.03	18	7.44	17	13.53
24	13.82	25	3.43	25	7.77	24	13.97
31	12.85	May 2	3.37	Aug. 1	8.28	31	14.36
Feb. 7	11.87	10	3.83	8	8.57	Nov. 7	14.74
14	11.01	16	4.49	15	8.98	14	15.09
21	10.15	23	4.74	22	9.36	21	15.38
28	9.04	30	3.38	29	9.78	28	15.66
Mar. 7	6.17	June 6	3.90	Sept. 5	10.24	Dec. 5	15.93
13	4.65	13	4.56	12	10.95	12	16.13
21	2.62	20	5.19	19	11.39	19	16.44
29	2.88	27	5.85	26	11.91	26	16.67

Jackson County

Jk 2. Ralph Fish. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 6 N., R. 2 E. Drilled unused well in rock, diameter 6 inches, depth 92 feet. Land-surface datum is 884 feet above msl. Highest water level 10.18 below lsd, Apr. 23, 1951; lowest 21.30 below lsd, Dec. 21, 1953. Records available: 1944-53.

Jk 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	20.44	Apr. 20	13.06	July 21	14.36	Oct. 12	18.67
19	19.60	27	12.70	27	14.82	19	19.20
Feb. 2	18.30	May 4	12.66	Aug. 3	15.16	26	19.30
9	17.80	11	12.74	10	15.52	Nov. 2	19.74
16	17.30	17	12.20	17	16.02	9	19.96
23	17.90	24	12.12	24	16.35	16	20.03
Mar. 2	16.80	June 1	12.14	Sept. 1	17.90	23	20.02
9	15.78	9	12.37	7	17.11	30	20.78
16	15.90	15	12.18	14	17.32	Dec. 6	21.00
23	14.11	22	13.22	21	17.69	14	21.23
31	14.15	29	13.67	28	17.98	21	21.30
Apr. 6	13.66	July 6	13.76	Oct. 5	18.69	28	21.17
13	13.18	13	14.20				

Jefferson County

Jf 2. State of Indiana. Clifty Falls State Park. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 4 N., R. 10 E. Drilled unused well in limestone, diameter 6 inches, depth 69 feet. Land-surface datum is 810 feet above msl. Measurements made by Louis French. Highest water level 15.33 below lsd, Apr. 1, 1946; lowest 32.5 below lsd, Aug. 16, 1943. Records available: 1937-53.

May 8	27.42	Sept. 1	28.36	Sept. 29	28.69	Nov. 10	29.14
16	27.35	15	28.50	Oct. 13	28.87	18	29.17
June 5	27.79	22	26.75	20	28.92	23	29.27

Kosciusko County

Ko 2. State of Indiana. Wawasee State Fish Hatchery. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 34 N., R. 7 E. Driven unused artesian well in glacial drift, diameter 1 $\frac{1}{2}$ inches, reported depth 87 feet. Land-surface datum is 865 feet above msl. Measurements made by C. R. Silvens. Highest water level 3.25 above lsd, May 1, 1944; lowest 1.08 above lsd, Nov. 28, 1953. Records available: 1938-39, 1941-53.

Jan. 3	+1.98	Apr. 4	+2.23	July 4	+1.91	Oct. 10	+1.40
10	1.94	11	2.13	11	1.79	17	1.32
17	1.94	18	2.17	18	1.83	24	1.30
24	2.04	25	2.21	25	1.73	31	1.27
31	1.97	May 2	2.27	Aug. 1	1.74	Nov. 7	1.29
Feb. 7	1.91	10	2.19	8	1.68	14	1.25
14	1.98	23	2.10	15	1.75	21	1.23
21	1.98	30	2.13	22	1.59	28	1.08
28	1.92	June 6	2.13	29	1.56	Dec. 5	1.36
Mar. 7	1.85	13	2.07	Sept. 19	1.46	12	1.17
14	2.04	20	1.98	26	1.41	19	1.09
21	2.09	27	1.89	Oct. 3	1.33	26	1.15
28	2.19						

La Porte County

Lp 2. State of Indiana. Kankakee State Game Preserve. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 33 N., R. 3 W. Drilled unused well in sand and gravel, diameter 6 inches, reported depth 115 feet. Land-surface datum is 671 feet above msl. Measurements made by Herman Busse. Highest water level 0.34 below lsd, Apr. 8, 1950; lowest 7.25 below lsd, Oct. 21, 22, 1953. Records available: 1942-53. Recording gage installed, July 24, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	h6.10	.....	.....	.....	.....	.....	.....	6.30	6.70	7.15	6.95	6.79
2	h5.46	6.35	6.70	7.10	6.95	6.78
3	6.30	6.70	7.10	6.95	6.74
4	6.20	6.70	7.10	7.00	6.68
5	6.15	6.70	7.10	7.00	6.74
6	6.20	6.75	7.05	7.01	6.65
7	h5.60	h4.94	.....	.....	.....	.....	6.20	6.80	7.10	6.95	6.70
8	6.15	6.90	7.10	6.95	6.69
9	h6.50	6.15	6.90	.....	6.95	6.67
10	h6.06	.....	.....	.....	.....	.....	.....	6.15	6.95	.....	6.96	6.63

Lp 2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	h5. 27	.....	6. 20	6. 95	7. 10	6. 93	6. 65
12	6. 20	6. 85	7. 15	.....	6. 65
13	6. 20	7. 00	7. 15	.....	6. 63
14	h5. 64	.....	.....	.....	.....	.....	6. 25	7. 00	7. 15	6. 94	6. 60
15	6. 30	7. 00	7. 15	6. 91	6. 62
16	h4. 80	.....	.....	.....	.....	6. 30	7. 00	7. 15	6. 90	6. 63
17	h5. 90	.....	.....	.....	.....	.....	h5. 95	6. 35	7. 05	7. 15	6. 90	.....
18	6. 40	7. 05	7. 20	6. 90	.....
19	6. 40	7. 05	7. 20	6. 90	.....
20	6. 45	7. 00	7. 20	6. 88	.....
21	h5. 56	h4. 40	.....	.....	.....	.....	6. 50	7. 00	7. 25	6. 88	.....
22	6. 50	7. 05	7. 25	6. 88	.....
23	6. 50	7. 10	7. 20	6. 81	.....
24	h5. 72	.....	.....	.....	.....	.....	6. 10	6. 55	7. 05	7. 20	6. 78	.....
25	6. 10	6. 55	7. 05	7. 20	6. 77	.....
26	6. 15	6. 60	7. 05	7. 20	6. 78	.....
27	6. 20	6. 65	7. 05	7. 15	6. 78	.....
28	h5. 30	h4. 60	.....	.....	.....	6. 20	.....	7. 05	7. 05	6. 81	.....
29	6. 25	.....	7. 05	7. 05	6. 82	.....
30	6. 25	.....	7. 10	6. 95	6. 78	.....
31	h5. 56	.....	.....	.....	.....	.....	6. 30	.....	.....	6. 95	.....	.....

h Tape measurement

Madison County

Md 7. State of Indiana. Mounds State Park. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 19 N., R. 8 E. Driven unused well, diameter 1 $\frac{1}{2}$ inches, depth 19 feet. Measurements made by Jesse E. Little. Highest water level flowing 0.50, Jan. 30-Mar. 12, 1950, Apr. 14, 21, 1952; lowest 13.9 below lsd, Aug. 7, 1946. Records available: 1935-36, 1938-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	6. 96	Apr. 4	4. 57	July 13	2. 50	Oct. 12	4. 92
12	6. 94	13	4. 66	20	2. 70	19	5. 84
19	6. 73	20	2. 44	27	3. 10	26	5. 94
26	6. 65	27	3. 44	Aug. 3	3. 20	Nov. 2	6. 15
Feb. 2	6. 71	May 10	3. 70	10	3. 00	9	6. 23
9	6. 36	18	4. 00	17	2. 90	16	6. 47
16	5. 83	25	2. 70	24	4. 00	23	7. 41
23	6. 41	June 1	2. 20	31	2. 30	30	6. 64
Mar. 2	6. 27	8	3. 10	Sept. 11	4. 67	Dec. 7	6. 82
9	5. 68	15	2. 90	14	4. 75	14	6. 97
16	5. 41	22	1. 90	21	4. 97	21	7. 15
23	4. 92	29	3. 60	28	5. 19	28	7. 11
30	4. 70	July 6	2. 30	Oct. 5	5. 25		

Marion County

Ma 2. Indiana National Bank. 130 East Washington St., Indianapolis. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 15 N., R. 3 E. Drilled unused well in gravel, diameter 8 inches, depth 90 feet. Land-surface datum is 712.27 feet above msl. Nearby well being pumped. Highest water level 40.43 below lsd, Apr. 18, 1950; lowest 70.55 below lsd, Sept. 21, 1941. Records available: 1935-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44. 51	43. 96	43. 94	43. 97	44. 98	48. 44	52. 24	54. 39	55. 30	53. 30	50. 97	48. 48
2	44. 39	43. 97	43. 85	44. 08	45. 31	48. 24	52. 40	54. 58	55. 35	53. 20	50. 84	48. 39
3	44. 25	43. 83	43. 74	44. 14	45. 65	48. 15	52. 60	54. 57	55. 42	53. 43	50. 71	48. 29
4	44. 30	43. 85	43. 61	44. 19	45. 70	48. 38	52. 80	54. 51	55. 53	53. 59	50. 63	48. 26
5	44. 22	43. 87	43. 75	44. 20	45. 60	48. 66	52. 81	54. 51	55. 74	53. 48	50. 56	48. 39
6	44. 21	43. 76	43. 84	44. 08	45. 65	49. 01	52. 56	54. 65	55. 81	53. 23	50. 43	48. 36
7	44. 20	43. 90	43. 93	43. 94	45. 95	49. 14	52. 55	54. 80	55. 73	e53. 10	50. 27	48. 33
8	44. 17	43. 93	43. 90	43. 96	46. 27	49. 05	52. 73	54. 98	55. 53	e52. 76	50. 08	48. 26
9	44. 14	43. 94	43. 84	44. 96	46. 57	.....	52. 94	55. 07	55. 35	52. 56	49. 90	48. 21
10	44. 17	43. 95	43. 75	44. 08	46. 85	49. 07	53. 10	55. 04	55. 04	.....	49. 75	48. 13

Ma 2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	44.12	43.85	43.74	44.48	46.91	.....	53.12	54.95	55.25	52.31	49.59	.....
12	44.14	43.75	43.75	44.72	46.85	.....	.....	54.90	55.25	52.15	49.55	48.07
13	44.02	43.81	43.82	44.84	47.03	.....	.....	54.98	55.25	51.99	49.50	47.97
14	44.04	43.84	44.08	44.96	46.86	.....	.....	55.09	55.09	51.86	49.43	47.64
15	44.06	43.80	44.30	44.89	46.43	.....	.....	55.24	54.82	51.61	49.36	47.80
16	44.13	43.76	44.44	44.67	46.19	50.43	.....	55.38	54.57	51.79	49.28	47.75
17	44.30	43.79	44.35	44.70	46.12	50.50	.....	55.36	54.43	51.90	49.21	47.75
18	44.13	43.87	44.25	44.66	46.04	50.69	.....	55.26	54.34	51.94	49.20	47.69
19	44.03	43.82	44.30	44.56	46.03	50.90	.....	55.11	54.38	51.85	49.21	47.60
20	.....	43.79	44.43	44.41	46.22	51.19	.....	55.06	54.55	51.73	49.25	47.49
21	.....	43.73	44.39	44.23	46.56	51.43	53.33	.....	54.60	51.67	49.36	47.36
22	.....	44.01	44.42	44.19	46.91	51.48	53.36	.....	54.38	51.75	49.41	47.28
23	44.03	43.95	44.38	44.22	47.32	51.43	53.52	.....	54.01	.....	49.36	47.35
24	43.91	43.86	44.35	.....	47.35	51.46	53.72	.....	53.73	52.06	49.18	47.32
25	44.01	43.79	44.37	44.75	47.22	51.60	53.90	55.01	53.52	52.02	49.09	47.18
26	44.05	43.74	44.40	.....	47.47	51.81	54.03	54.93	53.44	51.83	49.01	47.06
27	43.90	43.72	44.31	.....	47.98	52.05	.....	54.95	53.48	51.62	48.90	47.01
28	43.87	43.86	44.25	44.85	48.13	52.27	53.91	55.09	53.40	51.46	48.83	46.89
29	43.93	.....	44.22	44.74	48.18	52.31	53.89	55.25	53.18	51.34	48.73	46.79
30	43.98	.....	44.17	44.82	48.41	52.23	.....	54.02	53.13	51.19	49.59	46.76
31	43.95	.....	44.05	.....	48.56	.....	54.20	55.38	.....	51.05	.....	46.80

e Estimated.

Ma 10. Federal Building. Meridian and Ohio Sts., Indianapolis. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 15N., R. 3 E. Drilled unused artesian well in limestone, diameter 8 inches, reported depth 304 feet. Land-surface datum is 717.51 feet above msl. Nearby well being pumped. Highest water level 45.46 below lsd, Apr. 16, 1951; lowest 70.78 below lsd, Aug. 29, 1941. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	48.09	Apr. 13	48.98	July 20	58.28	Oct. 12	56.95
12	48.00	20	48.94	27	58.76	13	55.44
16	48.48	27	48.88	Aug. 3	59.17	26	54.08
23	48.02	May 4	48.83	10	59.58	Nov. 2	53.21
Feb. 2	47.96	11	52.78	17	59.76	9	52.35
9	47.92	18	52.73	24	58.78	16	51.75
16	47.81	25	53.42	28	59.98	23	51.61
23	47.90	June 1	53.91	Sept. 8	59.83	30	51.15
Mar. 2	47.95	8	54.85	14	59.29	Dec. 7	50.90
9	47.96	15	55.85	21	59.25	14	51.47
16	48.41	22	57.05	28	58.39	21	50.00
23	48.29	29	56.73	Oct. 5	58.34	28	49.45
Apr. 6	48.02	July 13	57.98				

Ma 28. Manuel W. Rabourn. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 14 N., R. 5 E. Dug unused well in glacial drift, diameter 42 inches, depth 24 feet, cribbed with brick. Land-surface datum is 819 feet above msl. Highest water level 1.29 below lsd, Jan. 27, 1950; lowest 16.26 below lsd, Dec. 30, 1953. Records available: 1947-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.05	10.86	9.51	7.27	7.16	6.98	10.49	12.00	13.76	14.81	15.39	15.95
2	13.02	10.84	9.50	7.25	7.20	7.11	10.55	12.07	13.85	.....	15.41	15.97
3	12.97	10.81	9.48	7.24	7.27	7.25	10.62	12.10	13.96	.....	15.43	15.99
4	12.93	10.78	7.28	7.23	7.35	7.39	10.71	12.14	13.94	.....	15.45	16.00
5	12.91	10.77	6.91	7.23	7.39	7.52	10.80	12.18	13.95	.....	15.48	.....
6	12.89	10.74	6.83	7.25	7.40	7.66	10.81	12.21	13.97	.....	15.50	15.98
7	12.86	10.72	6.85	7.26	.....	7.77	10.73	12.27	13.99	.....	15.52	16.00
8	12.81	10.71	6.91	7.28	.....	7.90	10.74	12.32	14.02	14.98	15.54	16.02
9	12.78	10.70	6.99	7.17	7.42	8.03	10.75	12.34	14.06	14.99	.....	16.03
10	12.71	10.70	7.08	7.06	7.46	8.17	10.76	12.37	14.09	15.00	.....	16.03
11	12.62	10.70	7.14	7.02	7.50	8.29	10.78	12.40	14.12	15.01	.....	16.05
12	12.51	10.44	7.21	6.99	7.56	8.42	10.81	12.45	14.16	15.02	.....	16.06
13	12.41	10.30	7.28	6.94	7.61	8.53	10.84	12.52	14.19	15.03	.....	16.07
14	12.31	10.20	7.35	6.92	7.70	8.62	10.88	12.58	14.23	15.05	15.66	16.07
15	12.26	10.11	7.34	6.89	7.74	8.73	10.94	12.64	14.26	15.06	15.67	16.08

Ma 28--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	12.17	10.04	7.20	6.89	7.76	8.84	11.01	12.70	14.29	15.08	15.69	.....
17	12.11	9.98	7.18	6.88	7.41	8.94	11.07	12.76	14.33	15.10	15.71	16.11
18	11.98	9.96	7.17	6.88	6.76	9.08	11.08	12.83	14.37	15.12	15.73	.....
19	11.87	9.93	6.59	6.87	6.54	9.19	11.12	12.91	14.41	15.14	15.76	.....
20	11.75	9.91	6.52	6.79	6.47	9.30	11.17	12.98	14.44	15.16	15.78	16.16
21	11.63	9.85	6.52	6.75	6.46	9.42	11.24	13.05	14.47	15.18	15.80	16.17
22	11.54	9.82	6.55	6.74	6.50	9.55	11.28	13.12	14.51	15.20	15.82	16.17
23	11.46	9.76	6.58	6.76	6.37	9.68	11.34	13.19	14.55	15.22	15.82	16.19
24	11.35	9.71	6.61	6.81	6.34	9.80	11.39	13.26	14.59	15.24	15.83	.....
25	11.26	9.65	6.66	6.86	6.34	9.93	11.46	13.34	14.62	15.26	15.84	.....
26	11.20	9.60	6.75	6.92	6.37	10.02	11.54	13.41	14.65	15.28	15.84	16.23
27	11.13	9.55	6.85	6.98	6.44	10.09	11.61	13.48	14.68	15.30	15.86	16.24
28	11.05	9.52	6.94	7.04	.....	10.20	11.69	13.55	14.71	15.31	15.88	16.25
29	10.99	.....	7.04	7.10	6.64	10.28	11.77	13.61	14.75	15.33	15.91	16.25
30	10.95	.....	7.14	7.14	6.74	10.39	11.84	13.67	14.78	15.35	15.93	16.26
31	10.90	.....	7.25	.....	6.85	.....	11.93	13.73	.....	15.37	.....	.....

Martin County

Mt 3. John Ketcham. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 4 N., R. 5 W. Dug unused well in rock, diameter 42 inches, depth 32 feet, cribbed with stone. Land-surface datum is 621 feet above msl. Highest water level 18.02 below lsd, June 2, 1947; lowest 23.09 below lsd, Dec. 27, 1953. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	22.43	Apr. 5	20.77	July 5	21.32	Sept. 27	22.41
12	22.33	13	20.82	12	21.43	Oct. 4	22.41
19	22.32	20	20.83	19	21.66	11	22.46
26	22.33	27	20.77	26	21.73	18	22.51
Feb. 2	22.07	May 4	20.91	Aug. 2	21.82	25	22.59
9	22.09	10	20.91	9	21.88	Nov. 15	22.63
16	22.12	18	19.39	16	21.96	22	22.88
23	22.28	24	19.71	23	21.98	29	22.96
Mar. 2	22.31	31	20.09	30	22.01	Dec. 6	22.88
9	21.32	June 7	20.47	Sept. 6	22.28	13	22.72
16	21.06	14	20.75	13	22.29	20	22.86
23	20.49	21	20.99	20	22.30	27	23.09
30	20.66	28	21.26				

Montgomery County

My 1. Byron Banta. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 17 N., R. 6 W. Dug unused well in glacial drift, diameter 36 inches, depth 18 feet, cribbed with brick. Land-surface datum is 770 feet above msl. Highest water level 3.37 below lsd, Jan. 4, 1950; lowest 15.45 below lsd, Nov. 16, 1940. Records available: 1935-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.97	9.39	9.45	7.23	8.77	8.76	10.30	11.24	12.95	14.07	14.78	.....
2	11.00	9.57	9.46	6.70	8.77	9.09	10.34	11.27	13.00	14.10	14.80	.....
3	10.87	9.56	9.50	6.75	8.97	9.25	10.46	11.37	13.00	14.11	14.78	.....
4	10.92	9.73	8.11	6.87	9.09	9.37	.....	11.44	13.00	14.14	14.82	14.51
5	10.86	9.81	7.13	7.10	9.06	9.54	.....	11.48	13.06	14.17	14.86	14.56
6	.....	9.68	6.98	.....	8.96	9.74	9.47	11.61	13.15	14.09	14.89	15.40
7	.....	9.94	7.16	7.32	8.92	9.90	8.72	11.66	13.17	14.21	14.87	15.39
8	.....	10.04	7.19	.....	8.93	9.99	8.67	11.70	13.26	14.25	14.82	14.25
9	h10.63	10.22	7.46	.....	8.94	10.11	8.90	11.76	13.31	14.22	14.80	14.07
10	.....	10.37	7.55	.....	9.02	10.31	9.20	11.84	13.32	14.22	14.86	13.84
11	.....	10.25	7.72	7.93	9.03	10.40	9.51	11.92	13.32	14.22	14.84	.....
12	.....	10.00	7.92	7.94	9.17	10.44	9.77	11.96	13.28	14.28	14.89	.....
13	.....	9.99	8.01	7.97	9.25	10.50	9.92	12.02	13.42	14.39	.....	.....
14	.....	9.94	8.07	8.14	9.40	10.54	10.02	12.05	13.46	14.43	.....	.....
15	.....	9.85	7.70	8.14	9.47	10.67	.....	12.08	13.45	14.44	.....	.....

My 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	.....	9.90	7.17	7.99	9.48	10.72	.....	12.16	13.49	14.46	.....	.....
17	10.06	10.06	7.03	8.28	9.02	10.80	.....	12.20	13.55	14.50	.....	.....
18	9.55	10.16	6.98	8.35	8.72	10.93	.....	12.25	13.60	14.53	.....	13.37
19	9.38	10.10	6.22	8.39	8.71	10.99	.....	12.28	13.61	14.56	15.02	.....
20	9.34	10.03	6.34	8.41	8.81	11.10	.....	12.33	13.59	14.60	15.00	.....
21	9.42	9.78	6.49	8.43	8.87	11.17	10.85	12.40	13.62	14.63	14.96	.....
22	9.57	9.70	6.78	8.44	8.98	11.29	.....	12.46	13.75	14.66	.....	.....
23	9.61	9.36	6.74	8.45	8.09	11.30	.....	12.45	13.80	14.66	14.98	.....
24	9.26	9.19	6.54	8.64	7.19	11.33	.....	12.51	13.77	14.66	14.93	.....
25	8.81	9.06	6.69	8.54	7.07	11.33	10.61	12.57	13.77	14.71	.....	12.83
26	8.82	8.96	7.04	8.58	7.26	11.18	10.70	12.64	13.78	14.74	.....	12.80
27	8.69	8.99	7.22	8.73	7.68	.....	10.78	12.69	13.78	14.74	.....	12.96
28	8.80	9.29	7.34	8.83	8.00	10.08	10.86	12.73	13.86	14.65	.....	12.96
29	8.95	.....	7.59	8.82	8.14	10.17	10.92	12.75	13.89	14.72	.....	13.06
30	9.13	.....	7.87	8.82	8.21	10.21	11.03	12.80	13.95	14.77	.....	13.18
31	9.22	.....	7.90	.....	8.42	.....	11.15	12.88	.....	14.78	.....	13.38

h Tape measurement.

Morgan County

Mg 3. State of Indiana. Morgan-Monroe State Forest. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 11 N., R. 1 E. Drilled unused artesian well in rock, diameter 8 inches, depth 45 feet. Land-surface datum is 670 feet above msl. Measurements made by C. E. Whetstone. Highest water level 1.75 below lsd, Dec. 18, 1950; lowest 10.68 below lsd, Dec. 2, 1953. Records available: 1945-53.

	Water level		Water level		Water level		Water level
Jan. 6	6.26	Mar. 31	5.58	July 1	7.70	Sept. 15	8.87
13	5.95	Apr. 14	5.80	8	7.40	21	9.17
20	5.90	21	5.87	15	7.90	29	9.40
27	5.90	22	5.66	21	6.65	Oct. 6	9.51
Feb. 4	6.12	May 5	5.62	29	6.62	Nov. 3	10.28
10	6.36	12	6.34	Aug. 4	7.08	10	10.44
17	6.27	19	6.08	11	7.47	18	10.48
24	5.79	26	6.02	18	7.15	25	10.55
Mar. 3	6.19	June 2	6.50	25	8.08	Dec. 2	10.68
10	5.90	5	6.90	Sept. 1	8.36	8	10.14
17	5.33	15	7.20	8	8.60	24	8.30
24	5.60	24	7.60				

Owen County

Ow 5. David R. Bronson. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 12 N., R. 4 W. Dug unused well, diameter 26 inches, depth 19 feet, cribbed with stone. Measurements made by Stanley Heiliger. Highest water level 1.06 below lsd, Jan. 14, 1950; lowest 13.39 below lsd, Aug. 3, 1946. Records available: 1946-53.

Jan. 11	9.45	Mar. 29	2.05	May 31	5.81	Aug. 9	9.03
24	8.39	Apr. 5	3.01	June 15	6.83	24	10.84
31	6.88	13	4.07	21	7.91	30	11.27
Feb. 8	10.97	19	3.96	30	6.99	Sept. 6	11.79
15	11.06	26	2.09	July 8	8.49	14	9.98
22	10.93	May 3	3.89	15	9.01	15	10.34
Mar. 8	3.99	10	4.02	19	8.98	20	10.05
15	5.07	17	3.97	26	10.05	Nov. 3	11.49
22	2.94	24	5.09	Aug. 3	7.97		

Pike County

Pi 1. A. J. Heuring. Lafayette and Main Sts., Winslow. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 1 S., R. 7 W. Dug and drilled unused well, diameter 36 to 6 inches, depth 25 feet. Land-surface datum is 468 feet above msl. Highest water level 3.25 below lsd, Mar. 20, 1951; lowest 12.94 below lsd, Dec. 30, 1944. Records available: 1936-53.

Pi 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	9.57	Apr. 13	7.02	July 15	8.88	Oct. 14	11.10
12	9.18	20	7.03	22	9.00	21	11.25
19	8.62	27	6.79	29	9.03	28	11.30
26	8.26	May 4	6.78	Aug. 5	9.28	Nov. 4	11.42
Feb. 2	8.01	11	6.72	12	9.50	11	11.60
9	8.09	18	6.66	19	9.78	18	11.70
23	8.12	25	6.74	26	9.08	25	11.60
Mar. 2	8.01	June 1	7.09	Sept. 2	10.30	Dec. 2	11.89
9	7.48	8	7.43	9	10.56	9	11.99
16	7.23	17	7.98	16	10.70	16	11.98
23	7.06	23	6.57	23	10.99	23	12.00
30	7.01	July 1	8.20	30	10.98	30	12.05
Apr. 6	7.05	7	8.55	Oct. 7	11.07		

Posey County

Py 2. Mary M. Wade. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 5 S., R. 12 W. Drilled unused well, diameter 6 inches, depth 236 feet. Highest water level 3.03 below lsd, June 4, 1952; lowest 13.47 below lsd, Dec. 30, 1953. Records available: 1947-53.

Jan. 7	11.81	Apr. 15	6.64	July 8	5.98	Oct. 14	10.92
14	11.23	22	6.36	15	6.17	21	11.24
21	10.63	29	5.93	29	6.74	28	11.71
28	11.34	May 6	5.53	Aug. 5	6.91	Nov. 4	11.83
Feb. 11	11.21	13	5.76	12	7.04	11	11.94
18	10.93	20	5.43	19	7.21	18	12.34
25	9.83	27	5.33	26	7.89	25	12.61
Mar. 4	9.23	June 3	5.42	Sept. 2	8.07	Dec. 2	12.73
11	8.81	10	5.33	9	8.37	9	12.97
18	8.08	17	5.29	16	9.18	16	12.99
25	7.86	24	5.61	23	9.53	23	13.21
Apr. 1	7.37	July 1	5.23	30	9.83	30	13.47
8	6.93						

Pulaski County

Pu 1. State of Indiana. Jasper-Pulaski State Game Preserve. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 31 N., R. 4 W. Drilled unused artesian well in rock, diameter 4 inches, reported depth 149 feet, cased to 60. Land-surface datum is 706 feet above msl. Measurements made by Herman Ames. Highest water level 5.31 below lsd, Apr. 10, 1950; lowest 12.14 below lsd, Dec. 1, 1935. Records available: 1935-42, 1944-53.

Jan. 5	9.07	Mar. 16	8.36	May 18	6.99	July 18	7.97
12	9.12	23	8.50	25	6.80	26	8.92
19	8.88	30	7.41	June 1	6.98	Aug. 2	8.94
26	8.85	Apr. 6	7.11	8	7.92	9	8.97
Feb. 2	8.62	13	7.01	14	7.91	16	8.97
9	8.58	20	7.12	21	7.95	23	9.91
16	8.60	27	7.06	29	7.95	31	9.94
23	8.52	May 4	7.02	July 6	7.93	Sept. 7	9.94
Mar. 2	8.49	11	6.98	13	7.95	Nov. 4	10.38
9	8.51						

Randolph County

Ra 1. Artie V. Keys. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 20 N., R. 14 E. Drilled domestic artesian well in limestone, diameter 4 inches, depth 157 feet, cased to 148 feet. Measurements made by Artie V. Keys. Highest water level 12.08 below lsd, Jan. 31, 1949; lowest 18.43 below lsd, Jan. 31, 1945. Records available: 1942-53.

Jan. 15	14.62	Apr. 15	13.99	July 15	15.22	Oct. 15	17.41
31	13.65	30	14.04	31	15.36	31	17.57
Feb. 15	13.56	May 15	14.27	Aug. 15	15.61	Nov. 15	17.67
28	13.73	31	12.75	31	16.29	30	17.69
Mar. 15	13.12	June 15	14.06	Sept. 15	16.62	Dec. 15	17.82
31	13.50	30	14.94	30	17.15	31	17.90

St. Joseph County

Sj 1. City of Mishawaka. Mishawaka Water and Light Dept. Virgil and Lindon Sts. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 37 N., R. 3 E. Driven unused well in sand, diameter 1 $\frac{1}{2}$ inches, depth 40 feet. Measurements made by personnel of Mishawaka Water and Light Dept. Nearby well being pumped. Highest water level 4.46 below lsd, May 25, 1943; lowest 15.34 below lsd, Sept. 1, 1953. Records available: 1935-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	13.84	Apr. 1	13.32	July 16	14.25	Oct. 15	13.75
16	14.83	15	13.08	Aug. 1	14.74	Nov. 2	12.50
31	15.08	May 2	13.50	15	13.50	16	11.25
Feb. 16	14.33	18	12.00	Sept. 1	15.34	Dec. 1	11.50
Mar. 1	15.33	June 1	14.50	15	14.00	15	10.50
16	13.32	July 1	14.60	Oct. 2	13.58		

Spencer County

Sp 6. State of Indiana. Lincoln State Park. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 5 S., R. 5 W. Drilled unused artesian well in rock, diameter 4 inches, reported depth 83 feet. Measurements made by personnel of Lincoln State Park. Highest water level 21.52 below lsd, Mar. 21, 1951; lowest 30.75 below lsd, Dec. 30, 1953. Records available: 1944-53.

Jan. 7	27.93	Apr. 8	22.92	July 8	27.15	Sept. 30	29.95
14	26.80	15	22.74	15	27.65	Oct. 7	30.00
21	26.78	22	22.51	22	27.85	14	30.15
28	26.30	29	22.04	29	28.25	21	30.25
Feb. 4	25.82	May 6	22.20	Aug. 5	28.50	28	30.25
11	26.74	13	22.31	12	29.75	Nov. 4	30.40
18	25.65	20	22.15	19	29.00	18	30.50
25	25.29	27	22.35	26	29.20	Dec. 2	30.65
Mar. 4	24.98	June 3	23.10	Sept. 1	29.40	9	30.55
11	23.93	10	24.05	9	29.50	16	30.60
18	23.47	17	24.95	16	29.65	23	30.70
25	22.97	24	27.70	23	29.75	30	30.75
Apr. 1	22.86	July 1	26.65				

Steuben County

Sb 1. State of Indiana. Pokagon State Park. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 38 N., R. 13 E. Driven unused artesian well in gravel, diameter 1 $\frac{1}{2}$ inches, depth 14 feet. Land-surface datum is 1,004 feet above msl. Measurements made by personnel of Pokagon State Park. Highest water level 1.01 above lsd, Apr. 1, 1950; lowest 5.72 below lsd, Dec. 26, 1953. Records available: 1935-53.

Jan. 3	3.19	Apr. 4	1.41	July 11	3.39	Oct. 3	5.37
10	3.28	11	1.47	18	3.68	10	5.42
17	2.80	18	1.24	25	3.94	17	5.52
24	2.39	25	1.24	30	4.19	24	5.57
31	2.37	May 2	1.17	Aug. 8	3.99	Nov. 7	5.60
Feb. 7	2.42	16	1.54	15	4.13	14	5.62
14	2.45	23	1.43	22	4.43	21	5.64
21	2.45	30	1.78	29	4.64	28	5.66
28	2.18	June 6	1.98	Sept. 5	4.82	Dec. 6	5.68
Mar. 7	1.72	13	2.22	12	5.01	12	5.68
14	1.60	20	2.48	19	5.13	20	5.70
21	1.46	27	2.86	26	5.24	26	5.72
28	1.50						

Switzerland County

Sw 1. Walker Estate. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 2 N., R. 1 W. Dug domestic well, diameter 4 feet, depth 24 feet. Highest water level 2.45 below lsd, Mar. 2, 1945; lowest 21.90 below lsd, Dec. 2, 15, 1944. Records available: 1944-53.

Sw 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	12.50	Apr. 11	11.20	July 10	15.40	Oct. 3	18.50
17	9.30	24	8.20	20	15.40	10	18.60
23	9.00	May 1	11.60	24	14.10	16	18.80
30	6.20	8	13.80	31	15.40	25	18.90
Feb. 7	10.25	17	15.05	Aug. 7	16.30	30	19.00
13	12.60	23	9.50	15	16.80	Nov. 6	19.20
20	13.90	29	12.90	21	17.20	14	19.30
28	14.10	June 5	13.60	28	17.50	20	19.45
Mar. 7	9.10	13	16.20	Sept. 4	17.80	27	19.60
14	10.80	19	15.40	11	17.90	Dec. 5	19.55
21	8.70	26	16.00	18	18.10	18	19.40
26	10.50	July 3	16.40	25	18.30	26	19.30
Apr. 5	13.00						

Tippecanoe County

Tc 7. State of Indiana. Purdue University. Purdue Research Housing Project.
 SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 23 N., R. 5 W. Drilled unused well, diameter 8 inches, depth 207 feet.
 Land-surface datum is 679 feet above msl. Highest water level 159.61 below lsd, May 15, 1950;
 lowest 166.25 below lsd, Jan. 17, 22, 1947. Records available: 1945-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	162.20	162.58	162.79	162.38	162.36	162.71	162.92	163.11	163.22	163.73	164.12	164.29
2	161.98	162.45	162.59	162.60	162.47	162.82	162.91	163.08	163.22	163.70	164.09	164.23
3	162.02	162.48	162.60	162.57	162.60	162.78	162.95	163.09	163.19	163.68	164.05	164.18
4	162.07	162.56	162.66	162.55	162.60	162.71	162.97	163.07	163.15	163.67	164.16	164.02
5	162.02	162.49	162.74	162.56	162.47	162.73	162.85	163.12	163.35	163.66	164.25	164.38
6	162.32	162.39	162.81	162.42	162.56	162.79	162.87	163.21	163.30	163.59	164.26	163.95
7	162.36	162.56	162.95	162.43	162.53	162.77	.....	163.20	163.28	163.84	164.20	164.30
8	162.12	162.49	162.85	162.47	162.56	162.64	.....	163.18	163.35	163.81	164.04	164.28
9	162.30	162.66	162.82	161.33	162.61	162.73	163.02	163.18	163.38	163.74	164.09	164.21
10	162.21	162.64	162.74	161.34	162.54	162.80	163.07	163.19	163.35	163.75	164.16	164.32
11	162.19	162.42	162.72	162.52	162.47	162.87	.....	163.23	163.22	163.67	164.05	164.38
12	162.42	162.44	162.75	162.36	162.55	162.78	.....	163.18	163.20	164.81	164.26	164.37
13	162.23	162.55	162.76	162.40	162.69	162.78	.....	163.25	163.36	163.95	164.25	164.23
14	162.34	162.55	162.74	162.54	162.66	162.76	.....	163.22	163.27	163.91	164.20	164.09
15	162.36	162.47	162.49	162.34	162.64	162.74	162.99	.....	163.29	163.89	164.05	164.38
16	162.58	162.50	162.72	162.35	162.65	162.70	163.04	.....	163.33	163.94	164.05	164.49
17	162.43	162.74	162.62	162.51	162.52	162.76	163.02	.....	163.41	163.96	164.11	164.57
18	162.27	162.67	162.46	162.47	162.57	162.83	.....	.....	163.37	163.95	164.16	164.53
19	162.26	162.69	162.62	162.48	162.61	162.79	.....	163.20	163.33	163.90	164.20	164.40
20	162.33	162.55	162.76	162.44	162.67	162.81	.....	163.22	163.32	163.99	164.08	164.26
21	162.39	162.61	162.62	162.48	162.59	162.81	.....	163.25	163.41	164.01	164.18	164.19
22	162.46	162.84	162.62	162.34	162.72	162.85	.....	163.26	163.59	164.03	164.06	164.21
23	162.38	162.69	162.51	162.47	162.84	162.86	.....	163.17	163.59	163.92	164.07	164.50
24	162.25	162.68	162.57	162.51	162.74	162.87	163.97	163.15	163.49	163.93	163.96	164.37
25	162.46	162.65	162.63	162.27	162.66	162.86	.....	163.19	163.47	164.00	164.05	164.24
26	162.56	162.49	162.72	162.29	162.69	162.93	.....	.....	163.50	163.95	.....	164.17
27	162.40	162.50	162.61	162.38	162.92	162.98	.....	.....	163.36	163.92	164.08	164.29
28	162.50	162.77	162.55	162.41	162.93	162.85	.....	.....	163.46	164.01	164.39	164.22
29	162.46	.....	162.59	162.36	162.84	162.89	.....	163.19	163.50	164.12	164.25	164.20
30	162.43	.....	162.60	162.06	162.70	162.92	.....	163.16	163.60	164.19	164.19	164.30
31	162.48	.....	162.46	.....	162.65	.....	163.19	163.17	.....	164.17	.....	164.35

h Tape measurement.

Vanderburgh County

Va 1. Flora Buente. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 5 S., R. 11 W. Dug unused well, diameter 42 inches, depth 20 feet, cribbed with brick. Highest water level 0.19 below lsd, Mar. 18, 1951; lowest 12.11 below lsd, Dec. 27, 1953. Records available: 1947-53.

Va 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	11.36	Apr. 5	11.27	July 5	12.09	Oct. 4	11.07
11	11.39	12	11.12	12	11.39	11	11.10
18	11.44	19	10.98	19	11.05	18	11.16
25	11.52	26	10.80	26	10.78	25	11.29
31	11.54	May 3	10.73	Aug. 2	10.65	Nov. 1	11.39
Feb. 8	11.62	10	10.52	9	10.70	8	11.53
15	11.70	17	10.35	16	10.52	15	11.65
22	11.70	24	10.00	23	10.57	22	11.73
Mar. 1	11.71	31	10.22	30	10.67	29	11.88
8	11.62	June 7	10.38	Sept. 6	10.74	Dec. 6	11.79
15	11.56	14	10.55	13	10.81	13	11.88
22	11.49	21	10.86	20	10.89	20	12.00
29	11.43	28	11.42	27	10.99	27	12.11

Wayne County

We 1. C. E. Rodenberg. Pershing. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 16 N., R. 12 E. Dug unused well in gravel, diameter 42 inches, depth 33 feet, cribbed with brick. Land-surface datum is 957 feet above msl. Highest water level 24.60 below lsd, Feb. 27, 1950; lowest 31.84 below lsd, Dec. 17, 1946. Records available: 1945-53.

Jan. 12	31.67	Mar. 31	31.20	June 22	30.09	Oct. 19	31.17
19	31.66	Apr. 8	31.10	July 6	30.06	26	31.24
27	31.61	15	30.95	20	30.00	Nov. 2	31.32
Feb. 2	31.60	27	30.84	Aug. 10	30.25	10	31.39
10	31.65	May 5	30.84	24	30.42	16	31.45
16	31.63	12	30.84	Sept. 1	30.53	23	31.50
24	31.64	18	30.76	9	30.36	Dec. 7	31.60
Mar. 2	31.63	25	30.58	29	30.90	14	31.66
10	31.54	June 1	30.38	Oct. 5	31.00	21	31.70
16	31.45	10	30.19	12	31.08	28	31.50

MAINE

By Walter MacDonald, Jr.

Scope of Water-Level Program

The observation-well program was continued in 1953. Five wells were measured weekly throughout the year. Wells Ar 1 and Ar 2 are in the northern part, H 1 and Sm 1 in the central, and Y 1 in the southern part of the State. Figure 10 shows the location of the wells.

Precipitation

Precipitation for the State as a whole during 1953 was 48.32 inches, which was 7.97 inches above normal and 10.15 inches more than in 1952. Precipitation was heavy in the first 4 months of the year and very heavy in the last 3 months. Precipitation during the rest of the year with the exception of the very dry months of June and September was about normal.

Interpretation of Water-Level Fluctuations

Water-level fluctuations in Maine reflected the extremes of precipitation that were experienced during 1953. The water levels rose abruptly in most of the State in January as unseasonably warm weather caused premature melting of the snow cover. Lower temperatures caused a general slight decline in February, although precipitation was above normal. Extremely heavy precipitation in March caused new rises to near-record levels which declined in accordance with the normal seasonal pattern through May, although still above average. Levels declined during the summer months and then rose in October as the result of above-normal rainfall and the termination of the growing season. During November the levels rose gradually and then receded during December. At the end of the year, water levels were above normal and there was a net gain in ground-water storage for the year.

Well-Numbering System

Wells in Maine are numbered on a county basis in the numerical order in which they are inventoried.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum.)

Aroostook County

Ar 1. H. L. Stevens. Portage Lake. Lat. 46°46'19", long. 68°28'04". Dug unused water-table well in sand, diameter 26 inches, depth 11 feet. Land-surface datum is about 930 feet above msl. Highest water level 0.60 below lsd, Apr. 21, 1952; lowest dry several times in 1947, 1948, 1950, 1952, and 1953. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.49	Apr. 13	1.85	June 22	6.38	Sept. 28	(f)
22	6.30	23	1.22	29	7.03	Oct. 9	(f)
27	2.66	29	1.75	July 14	7.60	31	4.05
Feb. 3	3.38	May 5	2.56	23	8.04	Nov. 6	5.24
17	4.45	15	3.25	28	8.34	14	2.47
Mar. 4	4.90	22	2.45	Aug. 7	9.30	21	5.05
14	5.95	29	3.20	13	9.80	27	1.62
20	6.30	June 4	4.45	29	(f)	Dec. 5	2.55
25	1.60	11	5.30	Sept. 1	(f)	18	2.74
Apr. 2	.70						

f Dry.

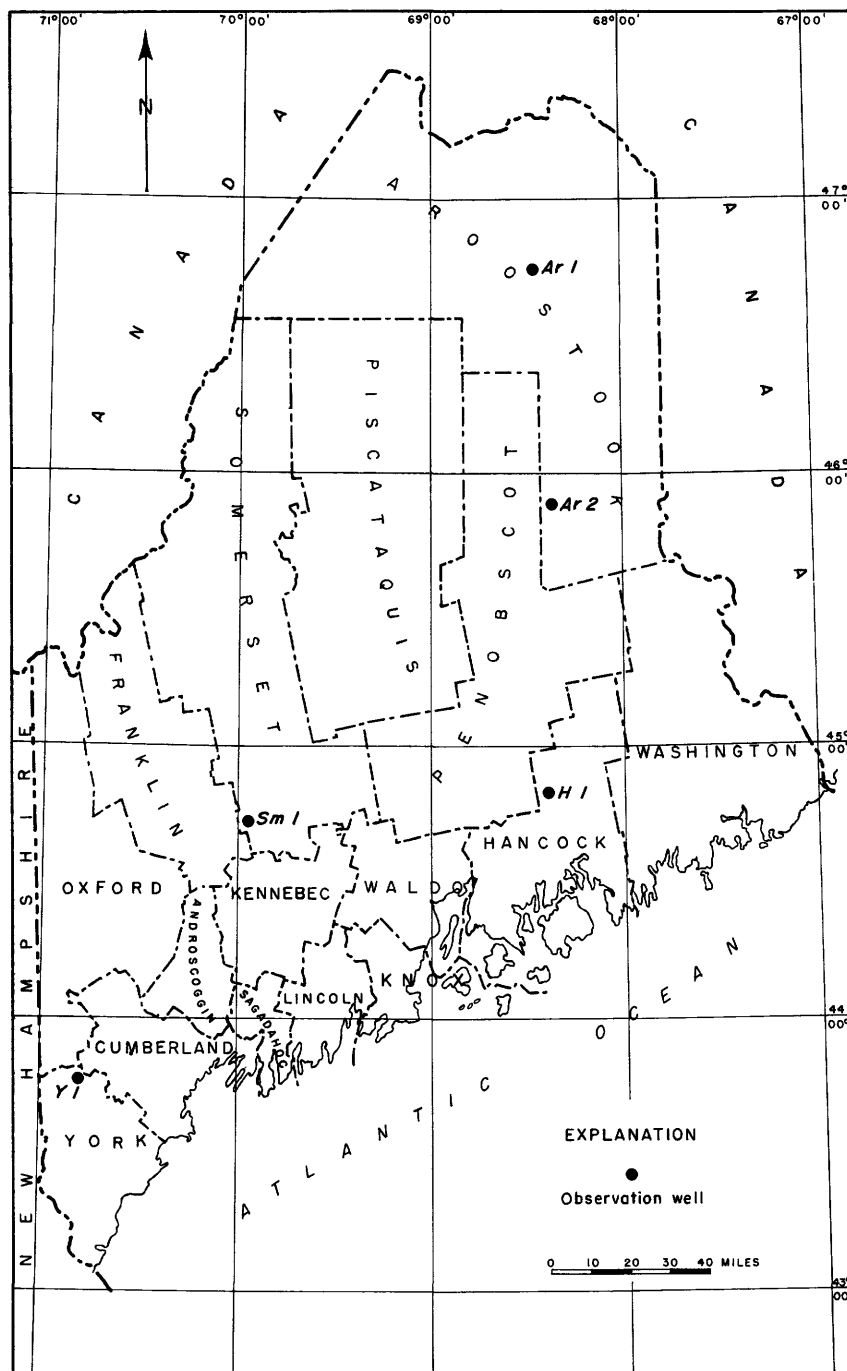


Figure 10. --Location of observation wells in Maine, 1953.

42 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

Ar 2. C. C. Young. Sherman. Lat. 45°55'01", long. 68°20'04". Dug and drilled unused water-table well 12 feet in sand, 19 feet in bedrock, diameter 28 to 8 inches, depth 31 feet. Land-surface datum is about 710 feet above msl. Highest water level 0.66 below lsd, Dec. 10, 1950, Mar. 29, 1953; lowest 17.48 below lsd, Oct. 25, 1953. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	14.81	Apr. 12	0.88	July 5	13.56	Oct. 11	16.36
11	15.32	19	.74	12	13.86	18	16.65
18	14.80	26	.98	19	14.19	25	17.48
25	2.75	May 3	1.79	26	14.48	Nov. 1	14.85
Feb. 1	4.02	10	3.41	Aug. 15	15.26	8	13.75
15	4.66	17	4.20	22	15.40	15	12.81
22	.88	24	5.15	29	15.74	22	11.85
Mar. 1	5.06	31	9.40	Sept. 6	15.85	29	.88
8	7.12	June 7	9.70	13	16.05	Dec. 6	.88
15	9.98	14	11.21	20	16.18	13	2.28
22	1.29	21	12.41	27	16.23	20	1.30
29	.66	29	13.22	Oct. 4	16.34	27	4.08
Apr. 5	.84						

Hancock County

H 1. George C. Orcutt. Amherst. Lat. 44°49'50", long. 68°22'06". Dug unused water-table well in glacial drift, diameter 18 inches, depth 14 feet. Land-surface datum is about 330 feet above msl. Highest water level 2.81 below lsd, Nov. 27, 1950; lowest dry several times in 1944, 1948, 1949, and 1952. Records available: 1943-53.

Jan. 4	7.31	Apr. 5	3.97	July 5	8.97	Oct. 4	7.97
11	6.45	12	4.39	12	8.69	11	7.62
18	6.20	19	3.75	20	8.40	18	8.00
25	5.11	26	4.50	26	8.20	25	8.30
Feb. 1	5.10	May 3	4.81	Aug. 2	8.59	Nov. 1	5.03
8	5.29	10	5.53	9	9.29	8	5.37
15	5.63	17	5.78	16	8.98	15	5.65
22	5.22	24	5.94	23	8.96	22	6.18
Mar. 1	5.59	31	6.44	30	9.53	29	3.82
8	5.98	June 7	6.76	Sept. 6	10.11	Dec. 6	4.23
15	6.04	14	6.77	13	9.85	13	3.70
22	6.10	21	7.50	20	8.41	20	4.58
29	3.68	28	8.10	27	7.68	27	5.29

Somerset County

Sm 1. J. Harrison Farrand. Mercer. Lat. 44°42'10", long. 69°55'12". Dug unused water-table well in sand, diameter 5 feet, depth 14 feet. Land-surface datum is about 270 feet above msl. Highest water level 4.30 below lsd, Mar. 24, 1946; lowest dry several times in 1952 and 1953. Records available: 1942-53.

Jan. 5	8.80	Apr. 5	4.70	July 5	7.46	Oct. 4	12.13
12	8.27	12	4.80	12	7.79	11	12.35
18	8.00	19	4.59	19	8.07	17	12.75
25	6.84	25	5.00	27	8.47	25	12.80
Feb. 1	6.76	May 2	4.75	Aug. 1	8.75	Nov. 1	13.10
8	6.20	10	5.39	9	9.20	8	13.20
14	6.20	17	5.00	18	9.67	15	(f)
22	6.10	24	5.44	23	9.95	22	(f)
Mar. 2	6.40	30	5.92	29	10.26	29	12.87
8	6.30	June 7	6.30	Sept. 8	10.79	Dec. 6	12.05
15	6.01	14	6.44	13	11.02	13	5.37
22	6.11	21	6.76	20	11.42	27	5.85
29	4.64	28	7.22	27	11.79		

f Dry.

York County

Y 1. J. P. Small. Cornish. Lat. 43°48'22", long. 70°48'25". Dug unused water-table well in sandy glacial drift, diameter 36 inches, depth 24 feet. Land-surface datum is about 370 feet above msl. Highest water level 7.90 below lsd, Apr. 6, 1952; lowest 18.40 below lsd, Nov. 14, 1948. Records available: 1943-53.

Y 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	10.50	Apr. 5	8.70	July 5	13.50	Oct. 4	17.10
11	11.60	12	9.20	13	13.40	11	17.30
18	12.10	19	8.45	19	14.20	18	17.60
25	11.80	26	9.10	26	14.80	25	18.10
Feb. 1	11.40	May 3	9.20	Aug. 2	15.20	Nov. 1	18.10
8	11.30	10	9.10	9	15.60	8	18.20
15	11.60	17	9.40	16	15.10	15	17.80
22	10.20	24	9.20	23	14.60	22	16.50
Mar. 1	10.30	31	10.40	29	15.10	29	12.80
8	10.80	June 7	11.40	Sept. 5	15.60	Dec. 6	10.90
15	9.80	14	11.80	13	15.50	13	9.10
22	9.10	21	12.30	20	16.30	20	9.50
29	8.05	28	12.90	27	16.60	27	10.22

MASSACHUSETTS

By H. N. Halberg

Scope of Water-Level Program

The observation-well program in Massachusetts, begun in 1938, was continued in 1953 in cooperation with the Massachusetts Department of Public Works. Measurements were made in 41 wells, including those equipped with recording gages at Leominster and Winchendon. Measurements were made in 30 wells in Middlesex County, in the vicinity of Lowell, in the Aberjona Valley and in the vicinity of Fresh Pond, Cambridge; 2 wells in Barnstable County, 3 wells in Berkshire and Worcester Counties, and 1 well each in Bristol, Franklin, and Hampden Counties. Figure 11 shows location of observation wells in Massachusetts.

Precipitation

According to records of the U. S. Weather Bureau, precipitation for the State as a whole was 53.48 inches, 10.42 inches above normal, and 11.90 inches more than in 1952. Precipitation was above normal from January through May and was heaviest in March with 8.27 inches during the month. It was far below normal from June through September except in July when it was only slightly below normal. The driest month of the year was June with 1.59 inches. Precipitation was above normal beginning in October for the rest of the year. Precipitation at Boston was 57.73 inches (18.97 inches above normal); at Fitchburg it was 52.77 inches (10.74 inches above normal); and at Stockbridge it was 47.85 inches (4.11 inches above normal). The greatest monthly amount reported for any station was 11.00 inches at Boston in March; the least was 0.08 inch at Hyannis in June.

Interpretation of Water-Level Fluctuations

At the beginning of 1953, water levels were below average in northeastern, north-central, and western Massachusetts and above average elsewhere in the State. Water levels rose appreciably throughout the State from January through March in response to thaws and heavy precipitation in January and very heavy precipitation in March. During the winter and spring, water levels were high for this time of year and in March were at exceptionally high stages in places. In April water levels began to decline seasonally with the advent of the growing season and the increase in evaporation and transpiration, but remained well above average during May. The decline continued throughout the summer and into October, when the lowest stages of the year were reached. With above-normal precipitation during the rest of the year, water levels rose sharply. In some wells the heavy rain near the end of October was not reflected in the water levels until later in the year. Stages at the end of the year were above average and higher than at the beginning of the year so that there was a net gain in ground-water storage throughout the State during the year. During the year 9 wells reached new maximum stages and 9 reached new minimum stages.

The following table shows the net change in water levels in wells in which readings were made throughout the year. There were net rises during the year in all but 4 wells.

Net change in water levels in wells, 1953

Well	Net change (feet)	Well	Net change (feet)
Arlington 174	+0.87	Lowell 41	+1.48
Brimfield 12	+2.51	Lowell 43	+1.33
Cambridge 667	+9.87	Montague 5	+ .68
Chelmsford 68	+1.84	Reading 1	+5.17
Chelmsford 69	+1.47	Reading 3	+ .76
Cheshire 2	- .27	Sterling 1	- .04
Fall River 67	+1.70	Truro 1	+ .2
Falmouth 5	+1.64	Wilmington 10	+2.70
Great Barrington 1	- .02	Wilmington 29	+ .88
Great Barrington 2	+ .40	Wilmington 56	+ .44
Leominster 11	+ .44	Wilmington 58	+2.91
Lowell 14	+1.24	Wilmington 78	+1.94

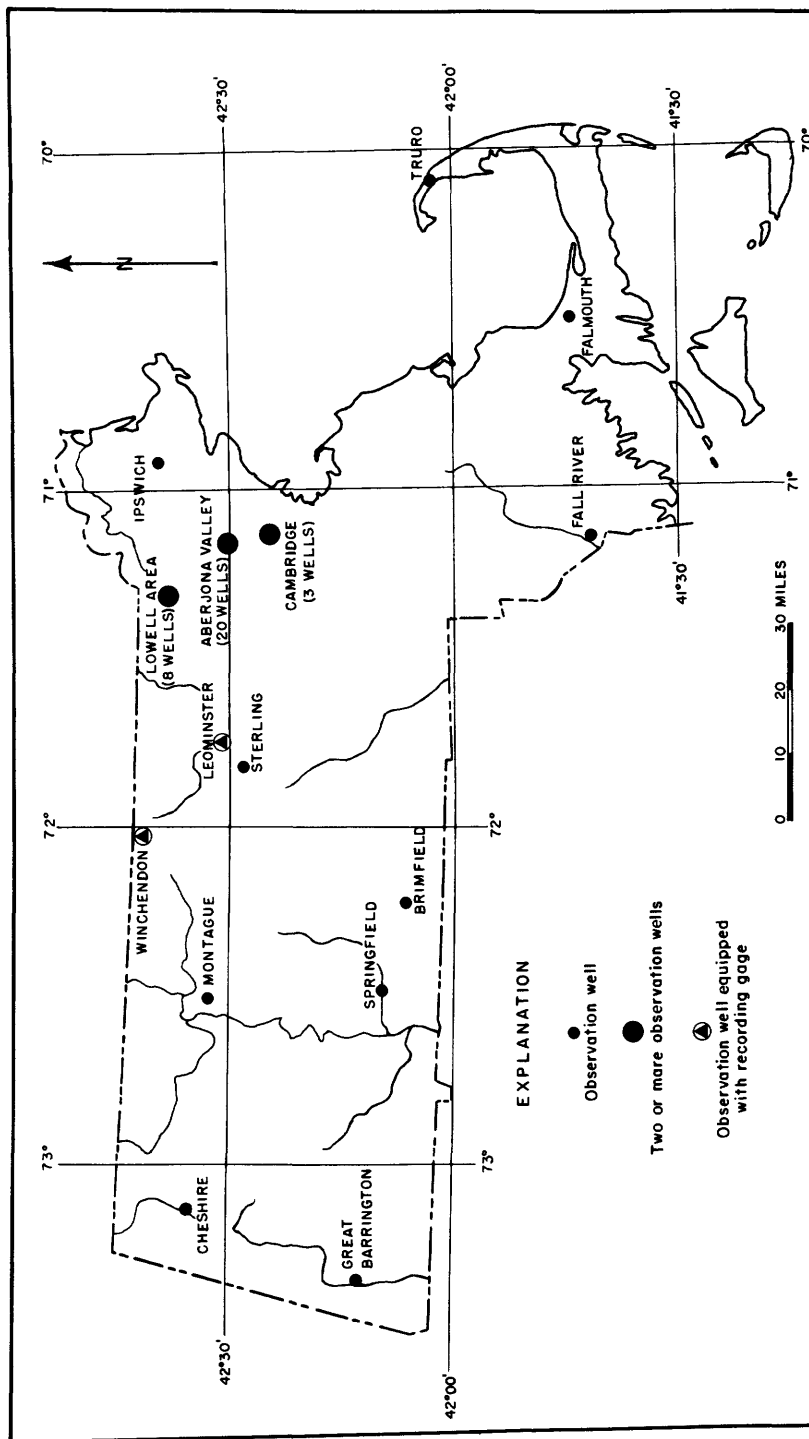


Figure 11. ---Location of observation wells in Massachusetts, 1953.

Net change in water levels in wells, 1953 -- Continued

Well	Net change (feet)	Well	Net change (feet)
Winchendon 13	+4.19	Woburn 17	+1.79
Winchester 14	+3.72	Woburn 19	-4.49
*Winchester 18	+4.8	Woburn 38	+5.73
Woburn 1	+5.54	Woburn 49	+2.83
Woburn 4	+2.24		

* Dry Dec. 30, 1952.

Well-Numbering System

Wells in Massachusetts are numbered by the city or town in which they are situated. The first well in a city or town for which data are collected is number one (Woburn 1). The only geographical significance to the well number is that the well is in the municipality named.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference.

Barnstable County

Falmouth 5. Town of Falmouth. Lat. $41^{\circ}34'49''$, long. $70^{\circ}32'24''$. Driven unused water-table well in glacial drift, diameter $2\frac{1}{2}$ inches, depth 50 feet. Land-surface datum is about 8 feet above msl. Highest water level 2.78 below lsd, Apr. 27, 1953; lowest 5.46 below lsd, Sept. 2, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	4.59	July 11	4.60	Aug. 22	4.86	Sept. 26	5.07
Feb. 27	3.64	18	4.60	29	5.00	Oct. 1	5.14
Mar. 30	3.41	25	4.59	Sept. 5	5.17	Nov. 2	5.05
Apr. 27	2.78	Aug. 1	4.71	12	5.21	30	4.49
May 27	3.16	8	4.81	19	5.15	Dec. 31	3.56
June 27	4.29	15	4.69				

Truro 1. Town of Provincetown. Lat. $42^{\circ}02'39''$, long. $70^{\circ}06'20''$. Driven unused water-table well in glacial drift, diameter $1\frac{1}{4}$ inches, depth 68 feet. Land-surface datum is about 25 feet above msl. Highest water level 10.3 below lsd, Apr. 15-May 20, 1953; lowest 11.6 below lsd several times in 1950-53. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.8	Apr. 8	10.4	July 9	11.0	Oct. 7	11.3
14	10.8	15	10.3	22	11.1	16	11.5
21	10.8	22	10.3	29	11.2	21	11.5
28	10.7	29	10.3	Aug. 5	11.2	28	11.1
Feb. 4	10.7	May 6	10.3	12	11.4	Nov. 4	11.1
11	10.8	13	10.3	19	11.4	11	11.1
18	10.4	20	10.3	26	11.3	18	11.1
25	10.7	June 3	10.4	Sept. 2	11.4	Dec. 2	11.0
Mar. 4	10.6	10	10.5	9	11.4	9	11.0
11	10.9	17	10.8	16	11.4	16	11.0
18	10.5	23	11.0	23	11.3	23	10.6
25	10.5	July 1	11.0	30	11.3	30	10.7
Apr. 1	10.4	8	11.1				

Berkshire County

Cheshire 2. John Jayko. Wells and Jenks Rds. Lat. $42^{\circ}35'03''$, long. $73^{\circ}07'54''$. Dug unused water-table well in glacial drift, depth 22 feet. Land-surface datum is about 1,210 feet above msl. Highest water level 0.09 below lsd, Jan. 19, 1952; lowest 13.46 below lsd, Oct. 26, 1953. Records available: 1951-53.

Cheshire 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.58	Mar. 28	1.04	June 20	6.57	Oct. 10	13.17
10	4.86	Apr. 4	.81	27	7.08	19	13.29
17	1.69	11	.53	Aug. 1	9.79	26	13.46
24	1.06	18	.38	8	10.15	Nov. 2	12.59
31	.92	21	.24	15	10.69	9	12.25
Feb. 7	1.51	May 2	.14	22	11.08	16	11.35
14	1.96	9	1.08	29	11.47	21	11.14
21	2.08	16	.43	Sept. 6	12.19	28	10.09
28	3.16	23	1.49	14	12.38	Dec. 7	5.55
Mar. 7	3.23	30	2.46	20	12.58	12	5.18
14	.36	June 6	4.15	26	12.94	19	4.67
21	.56	13	5.37	Oct. 3	13.21	26	5.25

Great Barrington 1. Mrs. Dora A. Campbell. North Plains Rd. and Division St. Lat. $42^{\circ}13'38''$, long. $73^{\circ}21'52''$. Dug unused well in glacial drift, diameter 34 inches, depth 22 feet. Land-surface datum is 732.11 feet above msl. Highest water level 15.51 below lsd, Aug. 1, 1945; lowest 22.89 below lsd, Sept. 29, 1947. Records available: 1936-53.

Jan. 6	21.85	Mar. 29	19.20	June 21	19.65	Oct. 7	22.45
12	22.00	Apr. 5	19.56	28	19.65	20	22.65
18	22.10	12	18.28	July 5	20.03	26	22.68
25	20.46	19	18.08	12	20.20	Nov. 1	22.71
Feb. 2	20.76	26	18.10	19	20.79	8	22.71
9	20.46	May 3	17.96	26	20.80	15	22.77
16	20.59	10	17.76	Aug. 10	21.40	22	22.59
23	20.50	17	17.90	17	21.76	29	22.65
Mar. 2	20.67	24	18.16	25	21.50	Dec. 7	22.25
9	20.70	30	18.36	Sept. 13	21.72	13	22.22
16	20.53	June 7	18.71	20	22.25	20	22.05
22	20.03	14	19.15	30	22.44	27	21.90

Great Barrington 2. Austin Holian. Lat. $42^{\circ}13'15''$, long. $73^{\circ}21'28''$. Dug unused water-table well in glacial drift, diameter 36 inches, depth 15 feet. Land-surface datum is about 725 feet above msl. Highest water level 6.03 below lsd, Mar. 27, 1953; lowest 13.66 below lsd, Nov. 20, 1953. Records available: 1951-53.

Jan. 2	12.48	Apr. 2	6.85	July 3	12.09	Oct. 2	13.36
9	12.64	10	7.05	10	12.44	9	13.33
16	12.79	17	7.44	17	12.84	16	13.56
23	11.99	24	7.92	24	12.99	23	13.59
30	9.44	May 1	6.98	31	13.05	30	13.55
Feb. 6	9.62	8	7.95	Aug. 7	13.08	Nov. 6	13.58
13	9.38	15	8.27	14	13.11	13	13.62
20	8.74	22	9.19	21	13.14	20	13.66
27	7.67	29	9.84	28	13.16	27	13.65
Mar. 6	9.59	June 5	10.68	Sept. 4	13.27	Dec. 4	13.59
13	10.33	12	11.26	11	13.26	11	10.66
20	8.05	19	11.51	18	13.28	18	10.22
27	6.03	26	12.28	25	13.34	29	11.66

Bristol County

Fall River 67. Bristol County Superior Courthouse. North Main and Walnut Sts. Lat. $41^{\circ}42'28''$, long. $71^{\circ}09'15''$. Dug unused well in glacial drift, diameter 30 inches, depth 12 feet. Land-surface datum is about 135 feet above msl. Highest water level 4.96 below lsd, Apr. 20, 1953; lowest dry, Oct. 30-Nov. 20, 1950. Records available: 1948-53.

Jan. 5	9.04	Apr. 6	6.89	July 6	8.74	Oct. 5	9.35
12	7.63	13	5.79	13	8.92	12	9.62
19	8.01	20	4.96	20	9.93	20	9.79
26	8.09	27	4.97	28	8.99	26	9.95
Feb. 2	8.22	May 4	7.37	Aug. 3	8.97	Nov. 2	8.96
9	7.35	11	7.33	10	9.01	9	8.59
16	7.47	18	7.54	18	8.59	16	8.71
23	8.87	25	7.81	24	8.79	23	8.98
Mar. 2	7.10	June 1	7.89	31	8.99	30	7.94
9	7.38	8	8.19	Sept. 7	9.02	Dec. 7	7.98
16	6.58	15	8.45	14	9.03	14	6.86
23	5.70	22	8.62	21	9.01	21	6.19
30	5.80	29	8.71	28	9.19	28	7.41

Franklin County

Montague 5. C. A. Kurtyka. Near Montague. Lat. 42°33'05", long. 72°32'03". Dug unused well in glacial drift, diameter 38 inches, depth 7 feet. Land-surface datum is about 240 feet above msl. Highest water level 0.78 below lsd, Apr. 27, 1944; lowest 6.04 below lsd, Oct. 9, 1950. Records available 1936-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	3.00	Apr. 6	1.53	July 6	3.11	Oct. 5	3.90
12	3.08	13	1.50	13	3.18	12	3.85
19	2.76	20	1.45	20	3.60	19	3.94
26	2.10	27	1.60	27	3.68	26	3.55
Feb. 2	2.24	May 4	1.49	Aug. 3	3.82	Nov. 2	2.68
9	2.19	11	1.90	10	2.80	9	2.90
16	2.12	18	1.76	17	3.50	16	3.28
23	2.10	25	1.99	24	3.86	23	2.80
Mar. 2	2.06	June 1	2.13	31	4.02	30	2.94
9	2.54	8	2.60	Sept. 8	4.08	Dec. 7	2.30
16	1.50	15	2.98	14	3.70	14	1.60
23	1.47	22	2.00	21	3.64	21	2.04
30	1.50	29	2.34	28	3.96	28	2.46

Hampden County

Brimfield 12. Norman Goodrich. Near Brimfield. Lat. 42°07'06", long. 72°14'24". Dug unused well in glacial drift, diameter 22 inches, depth 16 feet. Land-surface datum is about 740 feet above msl. Highest water level 1.12 below lsd, Apr. 19, 1953; lowest dry many times. Records available: 1936-53.

Jan. 4	13.79	Apr. 5	4.04	July 5	9.79	Oct. 4	14.08
11	13.80	12	2.58	12	11.03	11	14.29
19	13.78	19	1.12	19	11.14	18	14.44
25	4.72	26	2.06	26	11.29	25	14.55
Feb. 1	7.50	May 3	2.41	Aug. 2	11.79	Nov. 1	14.64
8	8.52	10	2.79	9	12.15	7	14.58
15	9.25	17	3.79	16	12.37	15	14.67
22	8.78	25	5.04	23	12.77	22	14.78
Mar. 1	9.29	31	6.25	30	13.02	29	14.77
8	10.04	June 7	7.25	Sept. 6	13.46	Dec. 6	14.02
15	10.06	14	8.35	13	13.46	13	12.79
20	5.53	21	9.19	19	13.69	20	11.21
29	4.19	28	9.77	27	14.02	27	11.51

Middlesex County

Arlington 174. Massachusetts Department of Public Health. Margaret and Dorothy Rds. Lat. 42°24'09", long. 71°08'50". Driven observation well in coarse gravel and sand, diameter 2½ inches, depth 176 feet. Land-surface datum is 9.44 feet above msl. Highest water level 5.55 below lsd, May 2, 1953; lowest 14.51 below lsd, Dec. 29, 1950. Records available: 1944-53.

Jan. 30	11.70	May 2	5.55	July 31	8.67	Oct. 31	9.47
Feb. 28	8.32	29	7.28	Aug. 31	8.99	Nov. 28	10.10
Mar. 28	7.10	July 4	7.93	Oct. 3	9.67	Dec. 30	8.38

Cambridge 667. Cambridge Water Department. Blanchard Rd. and Concord Ave. Lat. 42°23'16", long. 71°09'25". Drilled unused well in sand and gravel, diameter 8 inches, depth 129 feet. Land-surface datum is 11.63 feet above msl. Highest water level 5.71 below lsd, May 18, 1945; lowest 23.82 below lsd, Dec. 29, 1950. Records available: 1944-53.

Jan. 30	20.30	May 2	5.78	July 31	8.65	Oct. 31	13.68
Feb. 28	11.36	29	6.00	Aug. 31	10.21	Nov. 28	16.55
Mar. 28	6.21	July 4	7.67	Oct. 3	12.11	Dec. 30	9.88

Cambridge 798. Massachusetts Department of Public Health, Concord Ave. and Blanchard Rd. Lat. 42°23'20", long. 71°09'17". Driven observation water-table well, diameter 2½ inches, depth 31 feet. Land-surface datum is 6.61 feet above msl. Highest water level 0.35 below lsd, May 2, 1953; lowest 18.29 below lsd, Dec. 29, 1950. Records available: 1944-53. Jan. 30, 13.81; Feb. 28, 6.62; Mar. 28, 1.60; May 2, 0.35; May 29, 1.18; July 4, 2.94.

Chelmsford 68. Harold Blackie. Middlesex St., near Vinal Square. Lat. 42°38'45", long. 71°23'14". Drilled unused well in glacial drift, diameter 6 inches, depth 50 feet. Land-surface datum is 100.83 feet above msl. Highest water level 5.38 below lsd, May 2, 1953; lowest 11.07 below lsd, Sept. 2, 1950. Records available: 1939-53.

Chelmsford 68--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	7.21	May 2	5.38	July 31	9.50	Oct. 31	9.51
Feb. 28	8.00	29	6.51	Aug. 31	10.20	Nov. 28	7.67
Mar. 28	5.50	July 4	8.97	Oct. 3	10.55	Dec. 30	6.68

Chelmsford 69. City of Lowell, Washington test well 2. Chelmsford St. and Ecuador Rd. Lat. 42°36'34", long. 71°19'26". Driven unused water-table well in glacial drift, diameter 2½ inches, depth 45 feet. Land-surface datum is 103.62 feet above msl. Highest water level 0.04 above lsd, Feb. 2, 1952; lowest 6.05 below lsd, Aug. 23, 1941. Records available: 1939-53.

Jan. 30	0.73	May 2	0.05	July 31	2.59	Oct. 31	1.98
Feb. 28	.89	29	1.02	Aug. 31	3.09	Nov. 28	1.60
Mar. 28	.05	July 4	3.23	Oct. 3	3.47	Dec. 30	.63

Lowell 4. General Electric Co. Marginal and Pawtucket Sts. Lat. 42°38'21", long. 71°20'22". Dug unused well in glacial drift, diameter 12 feet, depth 22 feet. Land-surface datum is 102.26 feet above msl. Highest water level 7.56 below lsd, May 7, 1940; lowest 12.55 below lsd, Oct. 31, 1947. Records available 1939-52. Measurement discontinued.

Lowell 14. Rogers Hall School. Rogers St. and Fort Hill Ave. Lat. 42°38'12", long. 71°17'48". Dug unused well in glacial drift, diameter 24 inches, depth 30 feet. Land-surface datum is 157.78 feet above msl. Highest water level 8.43 below lsd, Mar. 29, 1952; lowest 22.46 below lsd, Nov. 7, 1939. Records available: 1939-53.

Jan. 30	13.72	May 2	8.49	July 31	13.41	Oct. 31	17.05
Feb. 28	11.46	29	9.30	Aug. 31	14.71	Nov. 28	16.23
Mar. 28	9.00	July 4	10.60	Oct. 3	16.04	Dec. 30	13.48

Lowell 26. Alfred Cimon (well 1). Pawtucket Blvd. Extension and East Ave. Lat. 42°38'39", long. 71°22'34". Driven unused water-table well in glacial drift, diameter 1½ inches, depth 15 feet. Land-surface datum is 102.26 feet above msl. Highest water level 1.97 below lsd, Apr. 2, May 7, 1940; lowest 13.01 below lsd, Sept. 30, 1950. Records available: 1939-53. Oct. 3, 12.35.

Lowell 33. Thomas Varnum. Varnum Ave. and West Meadow Rd. Lat. 42°38'35", long. 71°20'55". Dug unused well in glacial drift, diameter 27 inches, depth 13 feet. Land-surface datum is 101.83 feet above msl. Highest water level 6.29 below lsd, Mar. 1, 1945; lowest 11.33 below lsd, Oct. 4, 1941. Records available 1939-53. Oct. 3, 10.96.

Lowell 41. City of Lowell (Cook test well 3). Plain and Manufacturers Sts. Lat. 42°37'20", long. 71°19'12". Driven unused well in glacial drift, diameter 2 inches, depth 53 feet. Land-surface datum is 105.63 feet above msl. Highest water level 4.66 below lsd, Feb. 15, 1941; lowest 20.95 below lsd, Sept. 2, 1950. Records available: 1939-53.

Jan. 30	11.37	May 2	7.80	July 31	14.77	Oct. 31	15.10
Feb. 28	9.75	29	10.97	Aug. 31	16.33	Nov. 28	16.68
Mar. 28	8.85	July 4	14.09	Oct. 3	17.21	Dec. 30	13.10

Lowell 43. City of Lowell, test well 26. Pawtucket Blvd. and Boulevard Ave. Lat. 42°38'19", long. 71°22'02". Driven unused well in sand and gravel, diameter 2½ inches, depth 32 feet. Land-surface datum is 101.06 feet above msl. Highest water level 10.62 below lsd, June 4, 1940; lowest 25.76 below lsd, Dec. 30, 1948. Records available: 1940-53.

Jan. 30	20.10	May 2	15.22	July 31	18.95	Oct. 31	18.77
Feb. 28	20.45	29	15.72	Aug. 31	18.98	Nov. 28	18.50
Mar. 28	16.00	July 4	17.85	Oct. 3	20.10	Dec. 30	18.57

Reading 1. William Kelch. West and Willow Sts. Near Reading. Lat. 42°31'40", long. 71°07'43". Dug unused well in glacial drift, diameter 36 inches, depth 22 feet. Land-surface datum is 107.94 feet above msl. Highest water level 13.02 below lsd, Apr. 3, 1948; lowest dry, Dec. 26, 1941. Records available: 1939-53.

Jan. 30	17.21	May 2	13.75	July 31	19.96	Oct. 31	21.54
Feb. 28	16.12	29	15.86	Aug. 31	20.96	Nov. 28	20.32
Mar. 28	14.30	July 4	17.60	Oct. 3	21.65	Dec. 30	16.55

Reading 3. M. W. Farr. 1.2 miles southwest of Reading. Lat. 42°30'43", long. 71°07'16". Driven unused well in gravel, diameter 2½ inches, depth 10 feet. Land-surface datum is 159.28 feet above msl. Highest water level 1.14 below lsd, Nov. 30, 1944; lowest 5.63 below lsd, Nov. 1, 1941. Records available: 1940-53.

Jan. 30	1.82	May 2	3.05	July 31	4.28	Oct. 31	2.68
Feb. 28	1.78	29	3.30	Aug. 31	4.98	Nov. 28	1.71
Mar. 28	3.60	July 4	3.88	Oct. 3	5.49	Dec. 30	1.84

Wilmington 10. L. Chisholm. Hopkins St. and Shawsheen Ave. Lat. 42°33'29", long. 71°12'25". Dug unused water-table well in sand, diameter 36 inches, depth 9 feet. Land-surface datum is 113.63 feet above msl. Highest water level 0.73 below lsd, Nov. 30, 1944; lowest dry, Dec. 13, 1941. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	1.27	May 2	0.89	July 31	6.02	Oct. 31	7.12
Feb. 28	1.34	29	1.85	Aug. 31	7.13	Nov. 28	2.55
Mar. 28	1.00	July 4	4.75	Oct. 3	8.33	Dec. 30	1.73

Wilmington 29. O. R. Surette. Andover and Woburn Sts. Near Wilmington Center. Lat. 42°35'28", long. 71°08'50". Dug unused water-table well in coarse gravelly sand, diameter 36 inches, depth 13 feet. Land-surface datum is 99.99 feet above msl. Highest water level 8.40 below lsd, Mar. 28, 1942; lowest 11.77 below lsd, Oct. 3, 1953. Records available: 1940-53.

Jan. 30	9.83	May 2	9.37	July 31	11.12	Oct. 31	10.92
Feb. 28	9.84	29	9.96	Aug. 31	11.43	Nov. 28	9.20
Mar. 28	9.32	July 4	9.97	Oct. 3	11.77	Dec. 30	9.83

Wilmington 56. D. P. Falkner. Woburn and Lowell Sts. Near Wilmington Center. Lat. 42°32'30", long. 71°08'59". Dug unused water-table well in sand and gravel, diameter 36 inches, depth 11 feet. Land-surface datum is 89.75 feet above msl. Highest water level 2.06 below lsd, Mar. 1, 1945; lowest 8.11 below lsd, Aug. 30, 1949. Records available: 1940-53.

Jan. 30	2.88	May 2	2.30	July 31	6.88	Oct. 31	5.40
Feb. 28	3.57	29	4.15	Aug. 31	6.98	Nov. 28	3.32
Mar. 28	2.25	July 4	6.22	Oct. 3	7.88	Dec. 30	4.04

Wilmington 58. Mrs. R. Malatesta. Butters Row and Main St. Near Wilmington Center. Lat. 42°32'07", long. 71°10'12". Drilled unused well in bedrock, diameter 8 inches, depth 70 feet. Land-surface datum is 109.10 feet above msl. Highest water level 2.77 below lsd, Mar. 23, 1942; lowest 12.98 below lsd, Oct. 3, 1953. Records available: 1940-53.

Jan. 30	4.65	May 2	5.42	Aug. 31	11.98	Nov. 28	6.38
Feb. 28	5.74	29	7.17	Oct. 3	12.98	Dec. 30	5.95
Mar. 28	4.00	July 31	11.00	31	12.20		

Wilmington 78. Town of Wilmington. Whitefield School, Middlesex Ave. Lat. 42°34'01", long. 71°09'38". Dug observation well in sand, diameter 42 inches, depth 12 feet. Land-surface datum is about 80 feet above msl. Highest water level 4.90 below lsd, May 2, 1953; lowest 10.38 below lsd, Oct. 31, 1953. Records available: 1951-53.

Jan. 30	6.66	May 2	4.90	July 31	9.17	Oct. 31	10.38
Feb. 28	6.61	29	7.80	Aug. 31	9.74	Nov. 28	8.45
Mar. 28	6.20	July 4	9.40	Oct. 3	10.30	Dec. 30	6.91

Winchester 4. Town of Winchester test well AA. Royal and Pond Sts. Lat. 42°27'37", long. 71°09'05". Driven unused well in glacial drift, diameter 2½ inches, depth 22 feet. Land-surface datum is 43.97 feet above msl. Highest water level 6.67 below lsd, Apr. 3, 1948; lowest dry, Dec. 27, 1941. Records available: 1939-53. Jan. 30, 10.50; Feb. 28, 10.61; Mar. 28, 9.80; May 2, 7.80; May 29, 9.08; Dec. 30, 9.00.

Winchester 14. K. W. B. Cox. 224 Forest St. Lat. 42°28'18", long. 71°07'00". Dug unused water-table well in glacial drift, diameter 36 inches, depth 17 feet. Land-surface datum is 116.29 feet above msl. Highest water level 5.62 below lsd, Mar. 23, 1942; lowest 14.99 below lsd, Dec. 14, 1941. Records available: 1940-53.

Jan. 30	6.81	May 2	8.05	July 31	12.61	Oct. 31	14.32
Feb. 28	8.00	29	9.90	Aug. 31	13.27	Nov. 28	7.49
Mar. 28	6.45	July 4	12.00	Oct. 3	14.00	Dec. 30	8.69

Winchester 18. T. N. Vinson. Ridge and High Sts. Near Winchester. Lat. 42°26'36", long. 71°10'26". Dug unused well in gravel, diameter 24 inches, depth 14 feet. Land-surface datum is 253.30 feet above msl. Highest water level 1.15 below lsd, Mar. 23, 1942; lowest dry several times 1941-53. Records available: 1940-53.

Jan. 30	2.99	May 2	5.95	July 31	13.30	Oct. 31	(f)
Feb. 28	4.72	29	9.15	Aug. 31	(f)	Nov. 28	9.37
Mar. 28	2.90	July 4	11.24	Oct. 3	(f)	Dec. 30	9.21

f Dry.

Woburn 1. E. P. Fox. Green and Highland Sts., near Woburn. Lat. 42°28'27", long. 71°08'54". Driven unused well in glacial drift, diameter 2½ inches, depth 26 feet. Land-surface datum is 91.45 feet above msl. Highest water level 4.47 below lsd, Nov. 30, 1944; lowest 9.73 below lsd, Sept. 29, 1943. Records available: 1939-53.

Jan. 30	6.00	May 2	5.66	July 31	7.91	Oct. 31	5.82
Feb. 28	6.54	29	6.83	Aug. 31	7.83	Nov. 28	5.17
Mar. 28	5.22	July 4	8.07	Oct. 3	8.67	Dec. 30	6.69

Woburn 3. New England Dressed Poultry Co. Ashburton Ave. and Boston & Maine Railroad tracks. Near Woburn. Lat. 42°31'01", long. 71°09'18". Driven unused well in glacial drift, diameter 2½ inches, depth 20 feet. Land-surface datum is 72.58 feet above msl. Highest water level 0.71 above lsd, Mar. 23, 1942; lowest 2.41 below lsd, Aug. 16, 1941. Records available: 1939-53. Oct. 3, 0.92.

Woburn 4. Consolidated Chemical Industries, Inc., well 10. Merrimac and New Boston Sts. Near Woburn. Lat. 42°31'11", long. 71°08'54". Driven unused well in glacial drift, diameter 2 inches, depth 25 feet. Land-surface datum is 68.15 feet above msl. Highest water level 0.80 above lsd, May 2, 1953; lowest 2.57 below lsd, Sept. 26, 1939. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	+0.14	May 2	+0.80	July 31	-1.78	Oct. 31	-0.02
Feb. 28	-.39	29	+.77	Aug. 31	-1.77	Nov. 28	-.45
Mar. 28	-.40	July 4	+.44	Oct. 3	-1.86	Dec. 30	-1.08

Woburn 5. Consolidated Chemical Industries, Inc. Merrimac and New Boston Sts. Near Woburn. Lat. 42°30'52", long. 71°08'42". Driven unused well in glacial drift, diameter 2½ inches, depth 32 feet. Land-surface datum is 59.55 feet above msl. Highest water level 0.22 above lsd, Dec. 24, 1942; lowest 1.00 below lsd, Sept. 19, 1939. Records available: 1939-53. Oct. 3, 0.35.

Woburn 17. J. D. Coakley. Montvale Ave. and Ingalls St., near Woburn. Lat. 42°29'01", long. 71°08'12". Dug unused well in gravelly sand, diameter 6 feet, depth 11 feet. Land-surface datum is 180.75 feet above msl. Highest water level 4.13 below lsd, Nov. 30, 1944; lowest dry, Dec. 26, 1941. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	4.78	May 2	4.81	July 31	8.07	Oct. 31	8.62
Feb. 28	4.80	29	6.05	Aug. 31	8.58	Nov. 28	4.78
Mar. 28	4.70	July 4	7.35	Oct. 3	8.65	Dec. 30	4.95

Woburn 19. Tanner's Degreasing Co., Inc. Montvale Ave. and Albany St., East Woburn. Lat. 42°28'43", long. 71°07'09". Driven unused well in glacial drift, diameter 2½ inches, depth 70 feet. Land-surface datum is 38.65 feet above msl. Highest water level 4.69 below lsd, Dec. 31, 1951; lowest 15.10 below lsd, Oct. 3, 1953. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	5.09	May 2	7.58	July 31	12.37	Oct. 31	14.65
Feb. 28	5.11	29	8.85	Aug. 31	14.13	Nov. 28	10.45
Mar. 28	8.14	July 4	11.40	Oct. 3	15.10	Dec. 30	10.40

Woburn 23. F. H. Bowser. Main and Elm Sts. North Woburn. Lat. 42°30'03", long. 71°09'35". Driven unused well in sand and gravel, diameter 2½ inches, depth 25 feet. Land-surface datum is 95.77 feet above msl. Highest water level 0.53 below lsd, Mar. 1, 1945; lowest 3.10 below lsd, Sept. 27, 1941. Records available: 1940-53. Oct. 3, 2.07.

Woburn 38. City of Woburn. Woburn Parkway, near Woburn. Lat. 42°27'57", long. 71°09'38". Driven unused well in glacial drift, diameter 2½ inches, depth 21 feet. Land-surface datum is 51.66 feet above msl. Highest water level 7.62 below lsd, Mar. 2, 1945; lowest 18.15 below lsd, Dec. 14, 1941. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	9.47	May 2	8.43	July 31	13.10	Oct. 31	16.68
Feb. 28	9.24	29	9.10	Aug. 31	14.44	Nov. 28	14.48
Mar. 28	9.30	July 4	11.95	Oct. 3	16.14	Dec. 30	8.75

Woburn 49. Leo Pias. Locust St. and Cambridge Rd. Near Woburn. Lat. 42°28'28", long. 71°10'45". Driven unused well in gravel, diameter 6 inches, depth 12 feet. Land-surface datum is 63.25 feet above msl. Highest water level 2.00 above lsd, June 29, 1952, Mar. 28, May 2, 1953; lowest 4.25 below lsd, Dec. 5, 1941. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	+1.20	May 2	+2.00	July 31	-0.56	Oct. 31	-2.32
Feb. 28	+1.57	29	+1.58	Aug. 31	-1.71	Nov. 28	+.94
Mar. 28	+2.00	July 4	+1.05	Oct. 3	-3.20	Dec. 30	+1.45

Woburn 53. P. Flowers. Kilby and Hart Sts. Near Woburn. Lat. 42°29'11", long. 71°09'30". Dug unused well in glacial drift, diameter 4 feet, depth 12 feet. Land-surface datum is 105.96 feet above msl. Highest water level 7.93 below lsd, Mar. 23, 1942; lowest dry, Sept. 27, 1952. Records available: 1940-53. Oct. 3, 11.22.

Worcester County

Leominster 11. C. S. Pierce. Nashua St. and Boston & Maine Railroad tracks. Near North Leominster. Lat. 42°31'55", long. 71°44'06". Dug unused water-table well in glacial drift, diameter 4 feet, depth 11 feet. Land-surface datum is 363.18 feet above msl. Highest water level 0.65 below lsd, Apr. 3, 1951; lowest 9.74 below lsd, Oct. 27, 1953. Records available: 1939-53.

Leominster 11--Continued.

Daily noon water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.00	....	2.54	1.55	1.75	3.63	5.96	7.78	8.84	9.57	9.54	5.03
2	4.09	....	2.72	1.49	1.59	3.80	6.05	7.82	8.88	9.59	9.38	4.92
3	3.30	....	2.86	1.80	1.51	3.98	6.14	7.87	8.91	9.60	9.22	4.88
4	2.77	....	2.31	2.12	1.97	4.12	6.26	7.92	8.95	9.62	9.07	4.87
5	2.93	....	1.57	2.18	1.85	4.18	6.36	7.94	8.99	9.64	8.93	4.72
6	3.06	....	2.09	2.39	1.99	4.28	6.44	7.98	9.03	9.64	8.81	4.32
7	3.24	....	2.26	2.37	2.35	4.40	6.50	8.04	9.05	9.64	8.66	3.73
8	3.38	....	2.40	1.44	2.17	4.42	6.60	8.08	9.08	9.65	8.56	3.46
9	3.47	....	....	1.93	1.31	4.51	6.66	8.12	9.12	9.66	8.46	3.42
10	3.51	....	....	2.22	1.91	4.40	6.74	8.13	9.15	9.66	8.33	3.02
11	3.23	2.43	....	1.53	2.34	4.61	6.83	8.16	9.18	9.67	8.19	3.00
12	3.19	2.54	....	2.07	2.64	4.69	6.90	8.19	9.21	9.67	8.04	3.04
13	3.32	2.67	2.52	....	2.87	4.78	6.95	8.22	9.22	9.68	7.91	2.97
14	3.42	2.81	....	....	3.05	4.87	6.99	8.24	9.25	9.70	7.79	2.40
15	3.44	2.84	1.59	....	3.15	4.97	7.01	8.25	9.29	9.69	7.68	1.84
16	3.38	1.52	....	1.45	3.03	5.07	7.04	8.29	9.30	9.70	7.60	2.09
17	2.83	1.95	1.44	e1.19	2.14	5.17	7.08	8.31	9.33	9.70	7.53	2.36
18	2.79	2.24	1.69	1.76	1.28	5.27	7.14	8.34	9.35	9.71	7.48	2.65
19	2.17	2.44	1.84	1.49	2.00	5.38	7.18	8.36	9.37	9.71	7.46	2.90
20	2.28	2.45	1.51	1.42	2.40	5.50	7.24	8.40	9.39	9.71	7.43	3.05
21	2.42	2.03	1.86	1.96	2.69	5.61	7.29	8.43	9.40	9.72	7.41	3.14
22	2.52	1.61	2.06	2.25	2.90	5.52	7.34	8.46	9.41	9.72	7.40	3.03
23	2.63	1.93	2.23	2.42	2.31	5.43	7.37	8.49	9.43	9.73	7.36	2.94
24	2.64	2.10	2.34	2.69	2.71	5.55	7.40	8.53	9.45	9.73	7.34	3.10
25	1.11	2.14	1.35	2.85	3.07	5.72	7.46	8.55	9.45	9.72	7.25	3.20
26	1.87	2.22	1.35	2.71	3.32	5.83	7.50	8.58	9.48	9.72	6.90	3.26
27	....	2.24	1.35	2.34	2.67	5.74	7.54	8.62	9.49	9.74	6.09	3.37
28	....	2.36	1.52	2.55	2.82	5.66	7.58	8.65	9.51	9.71	5.53	3.45
29	....	....	1.76	2.81	3.11	5.73	7.63	8.70	9.53	9.71	5.26	3.42
30	....	....	....	3.06	3.34	5.85	7.67	8.74	9.55	9.70	5.12	3.44
31	....	....	....	....	3.46	....	7.72	8.79	....	9.65	....	3.47

e Estimated.

Sterling 1. Nunzio Lanciani. Justice Hill and South Nelson Rds. Near Sterling. Lat. 42°28'05", long. 71°48'08". Dug unused well in glacial drift, diameter 24 inches, depth 15 feet. Land-surface datum is about 710 feet above msl. Highest water level 2.08 below lsd, Dec. 21, 1951; lowest 13.51 below lsd, Oct. 23, 1953. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.53	Apr. 3	3.07	July 3	6.98	Oct. 2	12.98
9	3.22	10	3.09	10	8.04	9	13.12
16	3.17	17	2.61	17	8.79	16	13.33
23	3.15	24	3.17	24	9.44	23	13.51
30	3.14	May 1	2.37	31	9.96	30	13.22
Feb. 6	3.17	8	3.09	Aug. 7	10.47	Nov. 6	10.59
13	3.18	15	3.29	14	10.85	13	7.29
20	3.13	22	3.25	21	11.12	20	7.05
27	3.13	29	3.36	28	11.45	27	3.38
Mar. 6	3.09	June 5	4.16	Sept. 4	11.79	Dec. 4	3.64
13	2.58	12	4.42	11	12.13	11	3.18
20	3.03	19	5.51	18	12.44	18	3.25
27	2.44	26	6.56	25	12.66	25	3.25

Winchendon 13. W. B. Hart. Forristall and Crosby Rds. Near Winchendon. Lat. 42°42'04", long. 72°01'52". Dug unused water-table well in glacial drift, diameter 24 inches, depth 12 feet. Land-surface datum is 1,209.36 feet above msl. Highest water level 1.86 below lsd, Mar. 20, 1948; lowest 12.95 below lsd, Nov. 22-24, 1953. Records available: 1939-53.

Daily noon water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.49	....	....	2.69	2.80	4.37	5.98	9.31	11.00	12.01	12.69	12.90
2	8.42	....	....	2.78	2.67	4.53	6.11	9.39	11.05	12.03	12.79	12.84
3	8.34	....	....	2.82	2.57	4.70	6.23	9.47	11.09	12.07	12.72	12.76
4	8.29	....	....	2.93	2.82	4.82	6.43	9.53	11.12	12.09	12.74	12.69
5	8.28	....	....	2.97	2.84	4.92	6.58	9.59	11.17	12.12	12.76	12.57

Winchendon 13--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	8.26	....	....	3.06	2.87	5.05	6.75	9.66	11.21	12.14	12.78	12.44
7	8.24	....	....	2.98	3.05	5.13	6.90	9.73	11.25	12.16	12.79	12.05
8	8.23	....	....	2.56	3.12	5.16	7.09	9.79	11.29	12.18	12.80	10.33
9	8.21	....	4.31	2.80	2.49	5.23	7.23	9.86	11.33	12.21	12.81	7.82
10	8.16	3.69	....	2.93	2.79	5.35	7.38	9.92	11.37	12.23	12.83	5.97
11	8.12	....	....	2.58	3.00	5.50	7.51	9.97	11.40	12.26	12.85	4.41
12	8.09	....	....	2.85	3.20	5.65	7.64	10.02	11.44	12.28	12.85	4.21
13	8.12	....	e4.07	2.45	2.82	5.78	7.75	10.07	11.47	12.30	12.88	4.21
14	8.15	....	3.25	2.46	3.04	5.91	7.86	10.12	11.51	12.32	12.90	4.21
15	8.15	....	3.39	2.64	3.21	6.04	7.94	10.16	11.53	12.35	12.91	3.65
16	8.12	....	2.37	2.61	2.97	6.18	8.02	10.21	11.55	12.38	12.92	3.63
17	8.11	....	2.77	2.49	2.49	6.31	8.10	10.26	11.59	12.40	12.93	3.79
18	8.00	....	3.02	2.81	2.61	6.43	8.19	10.31	11.62	12.42	12.94	3.95
19	7.82	....	3.16	2.89	2.97	6.54	8.29	10.36	11.66	12.44	12.94	4.15
20	7.41	....	3.31	2.81	3.26	6.69	8.39	10.40	11.69	12.44	12.94	4.25
21	7.21	....	3.28	2.85	3.49	6.85	8.48	10.46	11.73	12.46	12.94	4.32
22	6.98	....	3.31	2.97	3.59	6.37	8.59	10.51	11.76	12.48	12.95	4.29
23	6.85	....	3.29	3.01	3.64	4.76	8.66	10.55	11.79	12.50	12.95	4.13
24	6.62	....	3.12	3.18	3.81	4.75	8.73	10.61	11.82	12.53	12.95	4.09
25	3.77	....	2.44	3.25	3.98	4.47	8.83	10.66	11.85	12.55	12.94	4.07
26	....	....	2.37	3.18	4.12	5.19	8.90	10.70	11.88	12.57	12.94	4.14
27	....	h3.87	2.26	2.86	3.46	5.36	8.96	10.75	11.91	12.60	12.94	4.31
28	....	....	2.56	3.03	3.67	5.55	9.03	10.84	11.94	12.61	12.94	4.36
29	....	....	2.76	3.24	3.89	5.70	9.10	10.87	11.96	12.63	12.94	4.39
30	....	....	1.97	3.39	4.07	5.83	9.16	10.92	11.99	12.65	12.93	4.40
31	h3.66	....	2.46	4.22	4.22	9.25	10.96	12.67				4.41

e Estimated.

h Tape measurement.

MICHIGAN

By P. R. Giroux, W. T. Stuart, and J. G. Rulison

Scope of Water-Level Program

The observation-well program in Michigan was continued in 1953 in cooperation with the State Water Resources Commission and the Geological Survey Division of the State Department of Conservation. A network of observation wells was maintained to provide basic data on changes in storage of principal ground-water reservoirs. At the beginning of the year, measurements of ground-water level were being made in about 287 observation wells, of which 41 were equipped with recording gages, including 2 gages installed in the Northern Peninsula in mid-1952. By the end of the year, 25 recording gages had been removed from operation in the Southern Peninsula, and the frequency of measurements had been reduced on many observation wells. Records of 155 of the 287 wells measured are published herein. The data included in this report were selected for publication on the basis of best representation in terms of areal coverage, usefulness, and length of record. Water-level records omitted will be published in project or special reports from time to time. Figure 12 shows the location of the wells for which records are published in this report.

Observations of ground-water temperature were continued during 1953. In addition, many samples of ground and surface water were collected for chemical analysis by the U. S. Geological Survey and by the State Department of Health to determine the distribution and trends in water quality and to study correlation between ground and surface waters.

Precipitation

Average precipitation over the State totaled 29.83 inches in 1953, or 0.86 inch below normal. Precipitation in the western part of the Northern Peninsula of Michigan was 4 inches above normal. Deficiencies of precipitation were recorded in the central and western parts of the Southern Peninsula. Locally, in the southwestern part of the Southern Peninsula, precipitation was as much as 14 inches below normal. For the second consecutive year precipitation was below normal during the fall months in most areas of the State.

Pumpage

Records of ground-water withdrawal by municipalities are discussed under the appropriate county headings. Generally, ground-water withdrawals by municipal and privately owned wells increased in response to greater water demand by industry, uptrend in population, increased cooling water demand because of above-average temperatures in the summer months, and wider use of water-consuming appliances and air-conditioning equipment. The mean air temperature of 47.3°F. for the year was the third highest since 1888. Increased use of water during several prolonged heat waves made it necessary for some communities to curtail the use of water in order to maintain adequate pressures with existing water-supply installations. Shortages reported were largely the result of inadequate pumping facilities, wells, or storage capacity, rather than ground-water scarcity.

Interpretation of Water-Level Fluctuations

Ground-water levels throughout the State ranged from record and near-record highs in the west half of the Northern Peninsula during the July through October period to record and near-record lows during the same period in the south-central and southwest sections of the Southern Peninsula. In this connection, however, note that records for many of the wells reported herein are of less than 10 years' duration. The interval 1950-52 marked 3 years of above-average precipitation and represents an appreciable part of the 10-year sampling period. Thus, averages for this decade are probably appreciably above long-term normals. In comparison with the extremes of water level noted elsewhere in the State, water levels in wells in the northern half of the Southern Peninsula and in the Thumb area fluctuated only slightly above or below average stages during the year.

Southern Peninsula

Northern Half

Well CrGr 6, near Grayling is used as an index of the trends in ground-water level in the water-table aquifers of that area. Figure 13 shows the fluctuation of water level in this well, along with precipitation and extremes of temperature. Precipitation for the year was about 6.5 inches above normal at Grayling, but 6.4 inches of the excess occurred during 2 days of heavy rainfall in July (see fig. 13). Melting snow contributed recharge in mid-January and late February, and again in the latter half of March when ground-water levels reached the peak for the year. The water level declined in late March and through most of April because of deficient precipitation. Heavy rains in late May and again in July resulted in some recharge, but because of the intensity of the rains, much of the water was discharged as surface runoff. The water level declined almost without interruption from mid-July to late November, probably because of high evapotranspiration demands and a deficiency of precipitation of more than 2 inches for this period. A slight recovery of ground-water stage was recorded in late November and during December, but levels at the end of the year were 1.7 feet lower than at the start of the year.

Southern Half

Branch County, City of Coldwater. --The observation well in Coldwater is finished in the glacial drift and is affected by withdrawals of ground water by the municipal wells, also finished in the drift. Total precipitation for the year was more than 11 inches below normal. The rise of water levels in the winter and spring months was less than half that of the same period in 1952. From May through December ground-water levels declined steadily. The year-end levels were the lowest of the 5 years of record and almost 2 feet lower than at the end of 1952. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply ranged from 0.8 million gallons daily (mgd) in February to 2.2 mgd in July and averaged 1.3 mgd for the year.

Calhoun County, City of Battle Creek. --Most observation wells in Battle Creek and vicinity are finished in the Marshall formation, and a few tap the overlying glacial drift. Municipal and industrial supplies are drawn largely from the Marshall formation. Total precipitation for the year at Battle Creek was more than 6 inches below normal. Year-end observations of water level indicate an average decline of about 1.3 feet in the Marshall formation. A prolonged heat wave in late August and early September was followed by a deficiency of about 6 inches of precipitation in the August through December period. As a consequence of limited recharge to the ground-water aquifers, water levels continued to decline to the end of the year. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply ranged from about 5 million gallons daily (mgd) in March to 10 mgd in August and averaged almost 7 mgd for the year.

Cass County, City of Dowagiac. --The observation well in Dowagiac is finished in the glacial drift and is affected by nearby municipal pumping. This report also includes water-level data for 1952. Precipitation in 1952 was about 3 inches below normal. The deficiency of precipitation from August through December was about 4 inches. Water levels at the start of 1952 were the highest since the beginning of record in 1949, because of abundant precipitation in 1951. Increased pumping in May and below-average precipitation resulted in a decline of water levels which continued through most of the remainder of the year. Year-end levels were nearly 5 feet below those at the end of 1951. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply ranged from 0.57 million gallons daily (mgd) in January to 1.24 mgd in October and averaged 1 mgd for the year. In comparison, average daily withdrawals in 1951 were 0.67 mgd. Based on records maintained at Eau Claire, precipitation at Dowagiac was probably more than 11 inches below normal in 1953, an extremely dry year in the area. With the exception of January, precipitation in every month of the year was below normal. As a result of deficient precipitation and increased municipal withdrawals during the hot summer months, water levels declined from the beginning of the year, reaching a low of record in August. However, decreased pumping during the latter part of the year resulted in rising water levels and at the end of the year levels had recovered to about 1 foot below those at the end of 1952. Average daily municipal withdrawals of ground water was 1.3 mgd for the year, or double that of 1951.

Clinton County, Village of Elsie. --In Elsie, observation well CtES 1 is finished in the Saginaw formation and CtES 3 is finished in the glacial drift. Precipitation in the Elsie area was about 7 inches below normal. Well CtES 1 reflects changes of water level caused by municipal pumping from the sandstone. High stages for the year were in January and a near low of record was observed in August, coinciding with peak municipal withdrawals from the rock aquifer. The water level in CtES 1 in November 1953 was about 17 feet below that of the same period in 1952 as the result of increased pumping from the rock and subnormal precipitation. Well CtES 3 reflects changes in water level caused by pumping from 2 municipal wells in the drift aquifer. Pumping was fairly steady throughout the year. Water levels were highest during the spring period and lowest in August. Deficient precipitation and hot weather during the summer and fall months resulted in a net decline for the year of about 2 feet. Municipal withdrawals of ground water averaged 490,000 gallons daily for the year.

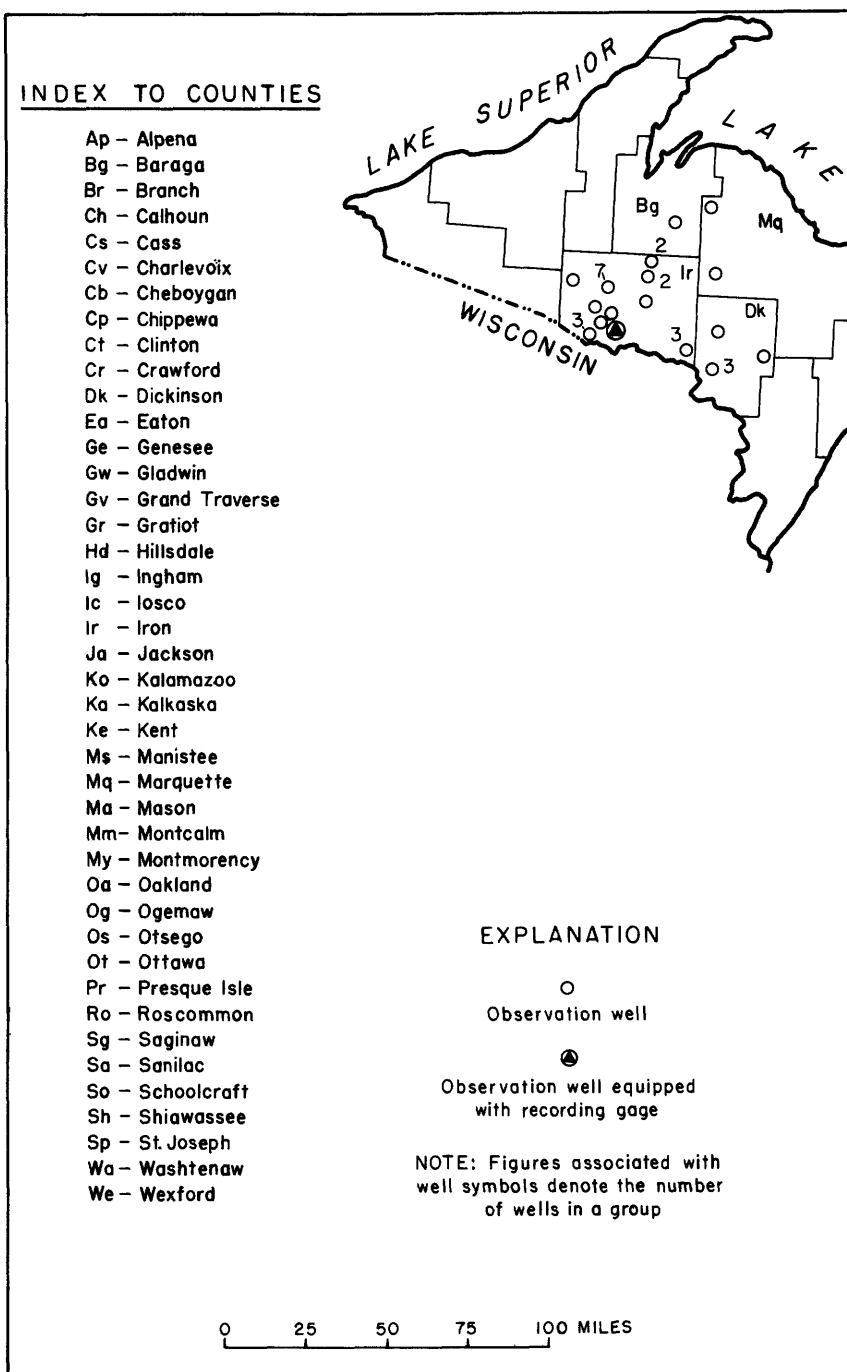
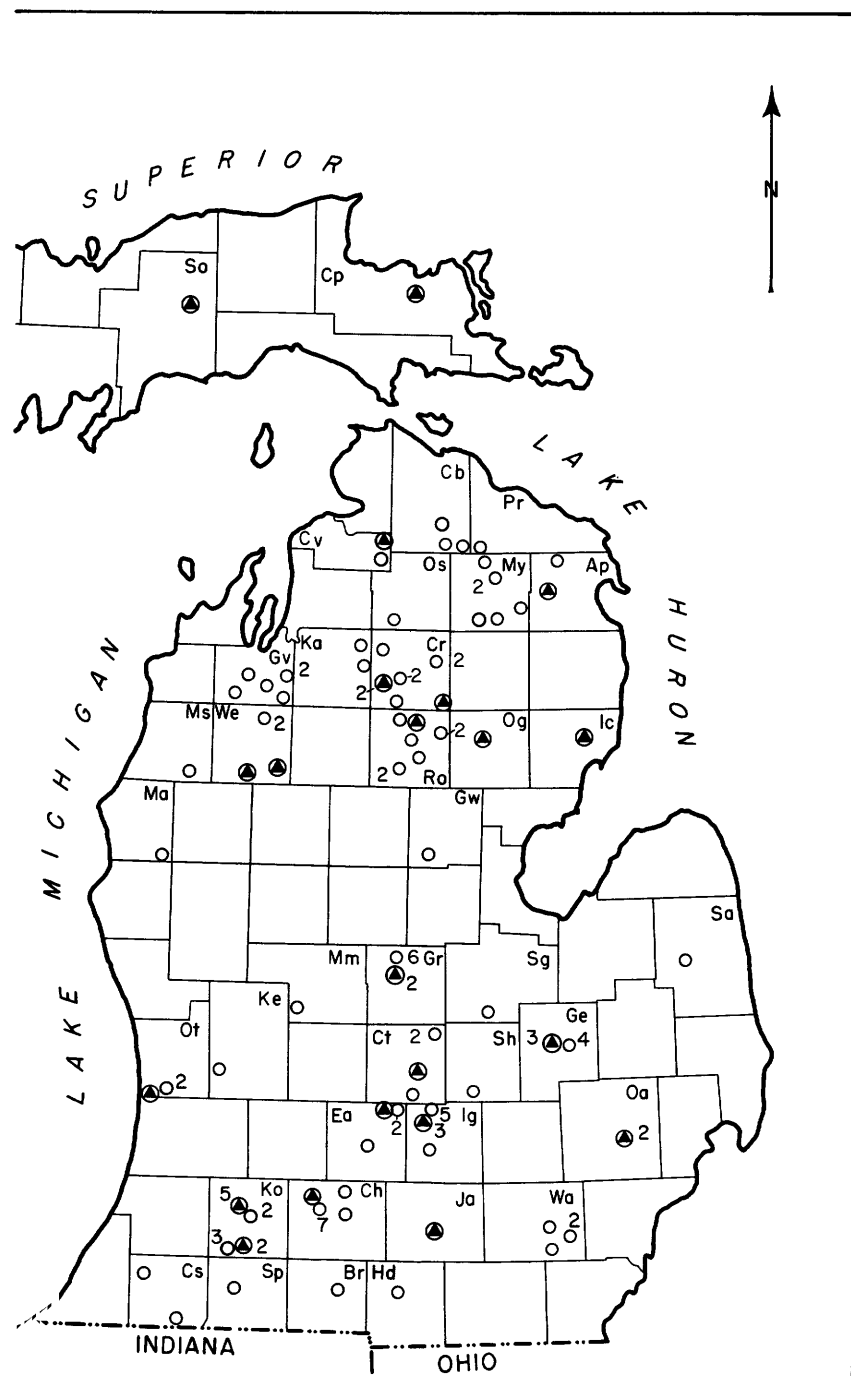


Figure 12. --Location of observation wells in Michigan, 1953.



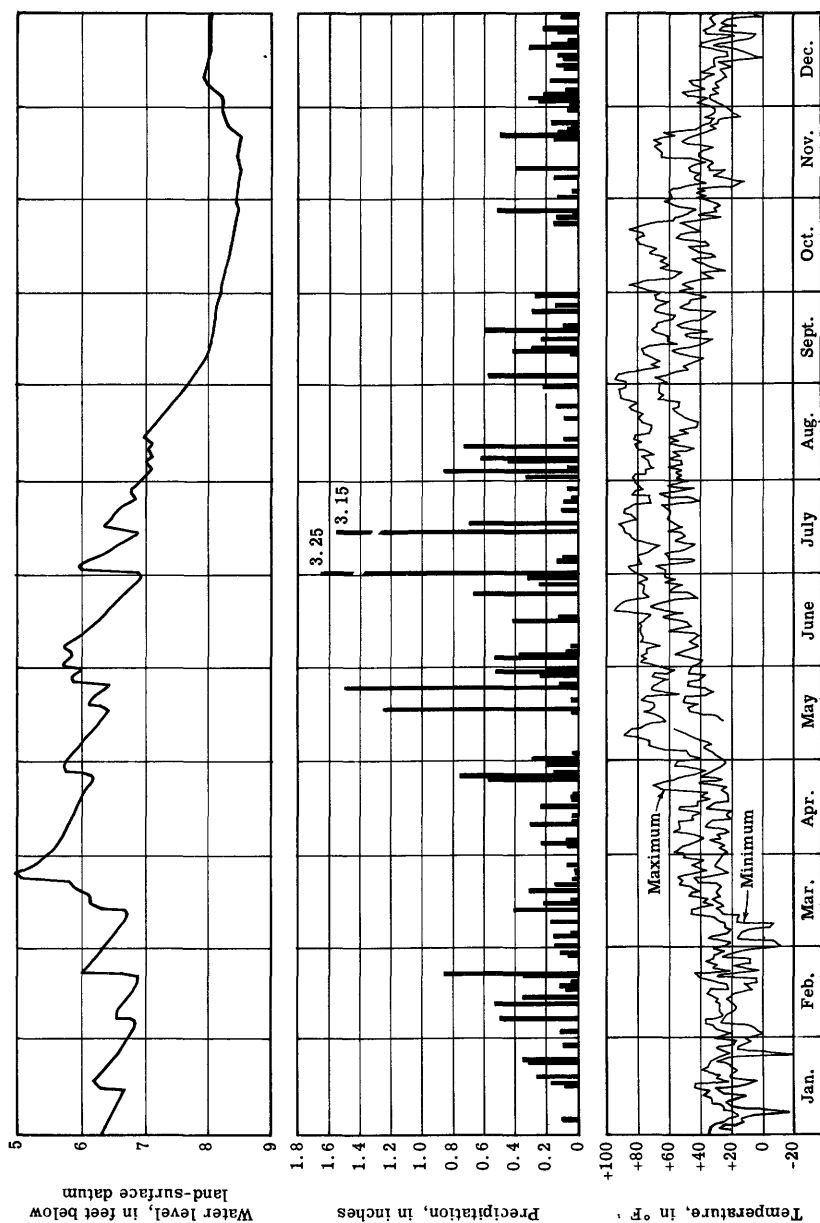


Figure 13. --Water level in well CrGr 6, daily precipitation, and maximum and minimum temperatures at Grayling, Crawford County, Mich., 1953.

Eaton County, City of Charlotte. --The observation well in Charlotte is finished in glacial drift, which is the aquifer tapped for the municipal water supply. The highest stage was observed in April. Little recharge occurred in the fall and water levels in November were about half a foot below last year's stage. Average municipal withdrawal of ground water was about 700,000 gpd for the year.

City of Grand Ledge. --The observation well in Grand Ledge is finished in the Saginaw formation, from which the municipal water supply is obtained. Precipitation was more than 8 inches below normal for the year according to records maintained at the U. S. Weather Bureau station at the Lansing Municipal Airport. Water levels declined about 2 feet during the year. Municipal pumpage figures for 1953 are not reported herein as it has been found that the meters used on the supply system are in error. Pumpage figures published in previous reports were in error and reportedly were too high. The magnitude of error in the published figures, however, could not be determined.

Genesee County, City of Flint. --Burton Township at the south city limits and many industries in the Flint area obtain water from the Saginaw formation. The city of Flint, however, obtains its municipal water supply from the Flint River. The observation wells in the Flint area are finished either in the glacial drift or in the Saginaw formation. Total precipitation for the year was more than 5 inches below normal. Water levels in wells tapping both the drift and the Saginaw formation rose about a foot during the period January through April due to above-average precipitation and frequent thaws which resulted in favorable conditions for ground-water recharge. Following this period of recharge, increased pumping, deficient precipitation, and many prolonged periods of hot weather caused water levels to decline steadily through August and early September. Water levels in many wells dropped to record and near-record lows by late summer and early fall. Some recovery was observed during the fall months, but year-end levels were about 1.2 feet below those of 1952. Averages based on monthly totals indicate that withdrawals of ground water for municipal use by Burton Township ranged from 320,000 gpd in January to 480,000 gallons in June and averaged 360,000 gpd for the year.

Gratiot County, City of Alma. --Observation wells in this area are finished either in surficial or in buried outwash aquifers. Municipal and industrial water supplies are obtained from wells in the buried outwash aquifer. One infrequently used municipal well is finished in the Saginaw formation. Total precipitation for the year was about 6 inches below normal. Precipitation was above average during the months of April and August only. Observation wells finished in the shallow outwash deposits generally were at their highest levels for the year in the period March through May. Some new lows of record were observed in the late fall. An average net decline of 0.5 foot was recorded for the year. In most observation wells finished in the buried outwash, highs for the year occurred during March and April. Lows occurred in August, coinciding with peak municipal and industrial withdrawals. Water levels recovered slightly after the period of heavy pumping, but the net decline for the year averaged about 6.5 feet. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply ranged from 1.1 million gallons a day (mgd) in January to 1.7 mgd in June and averaged 1.4 mgd for the year.

Ingham County, Lansing area. --Observation wells in the Lansing area are finished in the Saginaw formation. With few exceptions, municipal and industrial wells in the area tap the same formation. Total precipitation for the year was more than 8 inches below normal. Nearly 5 inches of this deficiency was accumulated during the fall months. Ground-water levels in wells in the heavily pumped areas declined steadily from the beginning of the year and reached record or near-record lows in August. Observation wells beyond the heavily pumped areas generally reached highs in April and May and then declined to the end of the year. Water levels at the end of the year ranged from 0.7 to as much as 10 feet below those at the start of the year. The greatest declines were recorded in areas of large ground-water withdrawals. The average net decline for the year in 16 observation wells was about 4 feet. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply by Lansing, East Lansing, Landel Metropolitan District, and Michigan State College ranged from 19.8 mgd in December to 26 mgd in July and averaged 22 mgd for the year.

City of Mason. --The observation well in Mason is finished in the Saginaw formation underlying the glacial drift and reflects withdrawals of water from the Saginaw by industrial wells in the area. Ground-water levels for the year were high in the spring months. The lowest level of record was observed early in September. However, recovery of ground-water levels in the fall brought end-of-the-year water levels to approximately the same as last year. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply from the glacial drift deposits ranged from 290,000 gpd during January to 870,000 gallons during July and averaged 450,000 gpd for the year.

Kalamazoo County, City of Kalamazoo. --Observation wells in this area are finished in the glacial drift, as are municipal and industrial wells. Total precipitation of 21 inches for the year was about 14 inches below normal and was the lowest since the beginning of record in 1876. Generally, water levels were at highest stages for the year in the period January through April. Then water levels declined rapidly and without interruption for the balance of the year. The

declines were due to increased pumping brought about by prolonged heat waves during the summer and near-drought conditions in the fall. Compared to 1952, end-of-the-year levels were down from 1.5 to as much as 5.2 feet and the average decline was about 3 feet for the 11 observation wells used as indices for the area. Averages based on monthly totals indicate that withdrawals of ground water for municipal supply ranged from 7.6 million gallons daily (mgd) in December to 14.3 mgd in July and averaged 9.9 mgd for the year. Industrial pumping in the Kalamazoo area probably greatly exceeds municipal pumpage.

Oakland County, City of Pontiac. --The observation well in Pontiac is finished in the glacial drift as are the municipal and most industrial wells in the area. Total annual precipitation was more than 5 inches below normal for the second year in succession. The greatest part of this deficiency occurred during the months of August through December, a period normally favorable to ground-water recharge. Observation well OaPT 1 at the Walnut Street municipal pumping station reflects changes in water level caused by withdrawals of ground water from the drift. High stages for the year were during January, February, and March, and low stages were recorded during the period July through September. The lowest water level observed since the start of record in 1939 was in September. Maximum and minimum water levels coincided generally with changes in municipal withdrawals of ground water. Averages based on monthly totals indicate that withdrawals of ground water for municipal use ranged from 10.7 million gallons daily (mgd) in December to 15.9 mgd in July and averaged 12.9 mgd for the year.

Ottawa County, City of Holland. --Observation wells in this area are finished in the glacial drift which is tapped by the city of Holland and most industrial well users. Total precipitation for the year was about 3 inches below normal, owing to rainfall deficiencies during the period January through May and September through December. Recharge to the drift aquifer was small during months normally favorable for recharge. After the high stages of April, water levels in observation wells in the heavily pumped areas declined to new lows of record in August. However, by the end of the year, reduced pumping allowed water levels to recover to levels observed at the end of 1952. In wells at some distance from heavy pumping, high stages were observed in March, April, and in 1 well in August, but water levels dropped to record and near-record lows in October and November. Recovery in wells outside the areas of heavy pumping was small and end-of-the-year levels ranged from 0.65 to 4 feet below levels at the end of the previous year. Averages based on monthly totals indicate that withdrawals of ground water for municipal use ranged from 2.1 million gallons daily (mgd) in January to 4.2 mgd in June and averaged 2.75 mgd for the year.

Well-Numbering System

Wells in Michigan are numbered according to the county and city or township in which they are situated. The first segment of the well number consists of an uppercase and a lowercase letter indicating the county in which the well is situated. The second segment indicates the city or the civil township. Uppercase letters are used for cities, villages, or towns. An uppercase letter followed by a lowercase letter is used for the township designation.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference.

Alpena County

Green Township

ApGn 1. Robert E. James, NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 30 N., R. 6 E. Dug unused water-table well in deposits of Pleistocene age, diameter 18 inches, depth 19 feet, cribbed with rock to open bottom. Highest water level 0.90 below lsd, Apr. 13, 1952; lowest 9.52 below lsd, Dec. 11-15, 1949. Records available: 1948-53. Recording gage removed July 10, 1953.

Daily 2 a. m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	3.46	4.09	2.64	2.17	2.03	2.63	4.76
2	3.50	4.14	e2.76	2.33	1.40	2.74	4.73
3	3.53	e4.18	2.86	2.48	1.72	2.97	4.60
4	3.57	4.24	2.89	2.48	2.03	3.14	....
5	3.62	4.28	2.95	2.38	2.23	2.59	....
6	3.68	4.30	3.04	2.48	2.42	2.53	....
7	3.79	4.20	3.10	2.58	2.62	2.68	....
8	e3.84	4.03	e3.15	2.67	2.77	2.89	....
9	e3.92	3.88	e3.26	2.76	2.94	3.07	....
10	e4.03	3.80	3.38	2.70	3.10	3.29	h4.70

ApGn 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
11	4.09	3.73	3.46	2.45	3.24	3.47	....
12	4.19	3.65	3.05	2.55	3.39	3.59	....
13	4.23	3.65	1.51	2.67	3.52	3.71	....
14	4.31	3.65	1.48	2.72	3.65	3.82	....
15	4.35	3.65	1.65	2.81	3.73	3.90	....
16	4.27	3.66	1.34	2.84	3.81	4.00	....
17	4.08	3.70	1.45	2.48	3.88	4.07	....
18	e3.98	3.74	1.22	2.41	3.93	4.13	....
19	e3.91	3.76	1.10	2.51	3.91	4.18	....
20	e3.86	3.81	1.24	2.61	3.82	4.24	....
21	3.86	2.18	1.28	2.61	3.85	4.29	....
22	3.88	e2.20	1.22	2.70	3.91	4.37	....
23	3.90	2.30	1.18	2.77	4.00	4.45	....
24	3.90	2.31	1.47	2.93	4.09	4.51	....
25	3.92	2.41	1.67	3.01	4.14	4.56	....
26	3.98	2.54	1.82	2.61	4.13	4.58	....
27	4.00	2.48	1.60	1.75	3.86	4.64	....
28	4.00	2.55	1.67	1.63	3.76	4.68	....
29	4.02		1.66	1.92	3.78	4.71	....
30	4.05		1.92	2.16	3.78	4.75	....
31	4.07		2.07		3.05		....

* No record for August, September, October, November, and December.

e Estimated.

h Tape measurement.

Long Rapids Township

ApLr 1. Harlo Mellon. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 32 N., R. 6 E. Drilled stock artesian well in Thunder Bay limestone, diameter 6 inches, depth 53 feet. Highest water level 5.69 below lsd, Apr. 19, 1951; lowest 16.67 below lsd, Nov. 12, 1948. Records available: 1948-53. Jan. 16, 13.96; Feb. 18, 12.79; Mar. 18, 6.21; Apr. 21, 6.61; May 13, 7.51; June 19, 7.77; Oct. 5, 9.27.

Branch County

City of Coldwater

BrCW 3. City of Coldwater. Park Ave. and Bennett St., Coldwater. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 8 to 6 inches, depth 130 feet, screen 80-130. Measurements made by Board of Public Works. Highest water level 10.08 below lsd, Apr. 8, 1950; lowest 16.30 below lsd, Dec. 31, 1953. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.27	Mar. 13	14.03	May 22	13.60	Sept. 26	15.58
23	14.50	20	13.82	June 5	13.88	Oct. 10	15.76
30	14.32	27	13.63	30	14.64	25	15.93
Feb. 6	14.32	Apr. 3	13.60	July 31	14.97	Nov. 8	15.97
13	14.34	10	13.58	Aug. 7	14.60	27	16.03
20	14.35	17	13.60	28	15.70	Dec. 12	16.14
Mar. 6	14.20	May 18	13.57	Sept. 6	15.66	31	16.30

Calhoun County

City of Battle Creek

ChBC 160. Post Products Corp. Angell and Lafayette Sts. Drilled unused artesian well in Marshall formation, diameter 10 inches, depth 92 feet, cased to 45. Land-surface datum is 818.99 feet above msl. Highest water level 4.75 below lsd, Apr. 9, 1947; lowest 9.53 below lsd, Sept. 4, 1953. Records available: 1946-53.

Daily 2 a.m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.41	8.50	8.78	8.25	8.19	8.58	8.61	....	9.35	....	....	....
2	8.33	8.37	8.60	8.20	8.20	8.76	8.61	....	9.42	....	....	....
3	8.48	8.54	8.72	8.28	8.05	8.83	8.19	....	9.45	....	....	9.15
4	8.50	8.64	8.54	8.25	7.99	8.80	8.29	....	9.45	....	....	....
5	8.40	8.68	....	8.05	8.12	8.82	8.16	....	9.41	....	9.36	....

ChBC 160--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	8.61	8.67	....	8.00	8.21	....	8.10	....	....	....	9.32	....
7	8.69	8.74	....	8.23	8.23	....	....	e9.02	....	....	9.31	....
8	8.71	8.70	....	8.29	8.25	....	8.47	8.92	....	....	9.19	....
9	8.77	8.59	....	8.28	8.29	....	8.46	8.81	....	....	9.15	....
10	8.76	8.76	8.41	8.25	8.13	7.85	8.50	8.75	....	....	9.24	8.91
11	8.73	8.77	8.38	8.29	8.09	7.74	8.51	8.96	....	....	9.25	8.84
12	8.74	8.78	8.43	8.12	8.33	7.78	8.40	9.04	....	....	9.32	8.88
13	8.81	8.80	8.38	8.07	8.34	7.85	8.37	9.00	....	....	9.32	8.74
14	8.83	8.83	8.33	8.25	8.37	7.76	8.58	9.04	....	....	9.31	8.70
15	8.84	8.72	8.16	8.27	8.38	7.75	8.66	9.06	....	....	9.16	8.82
16	8.77	8.65	....	8.29	8.41	7.95	8.70	8.93	....	....	9.10	8.87
17	8.73	8.82	8.14	8.31	8.25	8.06	8.76	8.89	....	....	9.20	9.00
18	8.62	8.89	8.03	8.30	8.21	8.12	8.67	9.04	....	....	9.23	8.92
19	8.49	8.94	8.01	8.15	8.41	8.21	8.55	9.09	....	....	9.21	8.94
20	8.69	8.95	8.02	8.10	8.47	8.29	8.51	9.08	....	....	9.22	8.81
21	8.67	8.87	8.03	8.28	8.53	8.26	8.64	9.15	....	....	9.19	8.73
22	8.70	8.77	8.00	8.34	8.59	8.25	8.73	9.13	....	....	9.13	8.80
23	8.74	8.66	7.85	8.40	8.54	8.46	8.75	9.07	....	....	9.04	8.87
24	8.53	8.69	8.02	....	8.39	8.48	8.78	9.05	....	....	9.11	8.90
25	....	8.75	8.09	8.40	8.36	8.55	8.80	9.17	....	....	9.17	8.74
26	....	8.75	8.13	8.12	8.51	8.55	8.69	9.24	....	....	9.07	8.66
27	8.43	8.76	8.17	8.03	8.62	8.57	8.68	9.28	....	....	9.01	8.65
28	8.34	8.80	8.18	8.24	8.67	8.43	8.85	....	....	....	....	8.61
29	8.40	....	8.05	....	8.68	8.45	8.89	9.28	....	....	....	8.70
30	8.44	....	8.00	8.19	8.64	8.62	8.88	9.26	....	....	....	8.74
31	8.48	....	8.20	....	8.59	....	....	9.23	....	....	....	....

e Estimated.

ChBC 173. Kellogg Co. Porter and Stiles Sts. Drilled unused artesian well in Marshall formation, diameter 8 inches, depth 104 feet, cased to about 40. Land-surface datum is 847.33 feet above msl. Highest water level 33.04 below lsd, Apr. 16, 1950; lowest 47.01 below lsd, Aug. 21, 1953. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	34.44	Apr. 6	41.64	May 30	43.34	Aug. 21	47.01
30	34.01	May 2	42.59	June 27	42.13	Nov. 5	44.40
Feb. 28	45.05						

City of Marshall

ChMA 2. City of Marshall. East Michigan Ave. and East Drive.. Drilled unused artesian well in Marshall formation, diameter 6 inches, depth 59 feet. Land-surface datum is about 904.85 feet above msl. Measurements made by City Waterworks. Highest water level 5.46 below lsd, May 9, 1950; lowest 8.74 below lsd, May 26, 1953. Records available: 1950-53. Apr. 14, 8.04; May 26, 8.74; Aug. 25, 8.55.

Battle Creek Township

ChBc 50. E. H. Arnett. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 2 S., R. 8 W. Driven unused water-table well in sand and gravel of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 25 feet. Land-surface datum is 882.14 feet above msl. Highest water level 2.52 below lsd, May 22, 1948; lowest 6.84 below lsd, Oct. 11, 1946. Records available: 1946-53. Jan. 2, 5.20; Jan. 30, 4.61; Feb. 28, 4.82; Apr. 6, 4.52; May 2, 4.53; May 30, 4.32; June 27, 4.38. Measurement discontinued.

ChBc 137. City of Battle Creek. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 2 S., R. 8 W. Drilled unused artesian well in sand of Pleistocene age, diameter 26 inches, depth 89 feet, screen 49-89. Land-surface datum is 914.97 feet above msl. Highest water level 6.22 below lsd, May 29, 1950; lowest 12.86 below lsd, Oct. 18, 1946. Records available: 1945-53.

Jan. 2	8.65	Apr. 6	8.77	May 30	8.54	Aug. 21	9.06
30	8.80	May 2	8.71	June 27	8.51	Nov. 6	9.83
Feb. 28	8.91						

Emmett Township

ChEm 10. C. W. Cronkrite. 1302 East Michigan Ave. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 2 S., R. 7 W. Drilled unused artesian well in Marshall formation, diameter 6 inches, depth 84 feet. Land-surface datum is 884.94 feet above msl. Highest water level 11.42 below lsd, May 29, 1950; lowest 15.54 below lsd, Mar. 7, 1947. Records available: 1946-53. Jan. 30, 14.00; Feb. 27, 14.16; Apr. 14, 14.08; Aug. 21, 14.51; Nov. 6, 15.04.

ChEm 60. City of Battle Creek. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 2 S., R. 7 W. Drilled unused artesian well in Marshall formation, diameter 2 inches, depth 87 feet, cased to 56. Land-surface datum is 832.49 feet above msl. Highest water level 0.22 above lsd, May 22, 1947; lowest 3.24 below lsd, Sept. 21, 1949. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.06	Apr. 6	1.27	May 30	1.68	Aug. 21	3.20
30	1.33	May 2	1.11	June 27	1.57	Nov. 6	2.52
Feb. 28	1.40						

Pennfield Township

ChPf 1. City of Battle Creek. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 1 S., R. 7 W. Drilled unused artesian well in Marshall formation, diameter 8 inches, depth 127 feet, cased to 103. Land-surface datum is 830.79 feet above msl. Highest water level 0.7 below lsd, Apr. 26-27, 1950; lowest 11.39 below lsd, Aug. 21, 1953. Records available: 1939-53.

Jan. 21	7.18	Nov. 19	9.05	Dec. 8	6.81	Dec. 20	6.65
Feb. 2	7.12	20	7.29	9	7.05	21	6.85
28	6.29	21	7.41	10	7.22	22	7.81
Apr. 6	5.54	29	6.94	11	8.26	23	7.02
14	5.48	30	7.21	12	6.76	24	7.36
May 4	3.90	Dec. 1	7.91	13	6.72	25	6.65
June 1	3.82	2	7.35	14	7.21	26	6.51
30	5.28	3	7.50	15	7.32	27	6.57
Aug. 21	11.39	4	6.79	16	7.20	28	7.00
Nov. 15	7.29	5	8.20	17	7.06	29	6.90
16	7.65	6	7.03	18	7.24	30	7.59
17	8.91	7	7.00	19	7.17	31	7.30
18	7.60						

ChPf 58. City of Battle Creek. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 1 S., R. 7 W. Drilled unused artesian well in Marshall formation, diameter 2 inches, depth 140 feet, cased to 83. Land-surface datum is 838.92 feet above msl. Highest water level 0.08 above lsd, May 23, 1950; lowest 4.06 below lsd, Nov. 15, 1946. Records available: 1945-53.

Jan. 2	1.87	Apr. 6	1.95	May 30	1.43	Aug. 21	3.54
30	1.83	May 2	2.13	June 27	1.96	Nov. 5	3.75
Feb. 28	2.13						

ChPf 102. Kenneth N. Sabin. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 1 S., R. 7 W. Dug stock water-table well in deposits of Pleistocene age, diameter 15 inches, depth 8 feet. Land-surface datum is 907.99 feet above msl. Highest water level 0.89 below lsd, Mar. 28, 1950; lowest 5.79 below lsd, Dec. 30, 1953. Records available: 1946-53.

Jan. 7	4.60	Apr. 15	4.30	July 15	4.85	Oct. 14	5.48
14	4.66	22	4.45	29	5.01	21	5.50
21	4.65	29	4.39	Aug. 5	4.90	28	5.53
Feb. 4	4.42	May 6	4.44	12	4.99	Nov. 4	5.57
11	4.53	13	4.49	19	5.09	11	5.58
18	4.53	20	4.50	26	5.11	18	5.62
25	4.51	27	4.58	Sept. 2	5.29	25	5.67
Mar. 4	4.55	June 3	4.65	9	5.26	Dec. 2	5.67
11	4.30	10	4.57	16	5.31	9	5.72
18	4.22	17	4.70	23	5.36	16	5.70
25	4.24	24	4.78	30	5.36	23	5.74
Apr. 1	4.35	July 1	4.81	Oct. 7	5.45	30	5.79
8	4.33	8	4.81				

Cass County

City of Dowagiac

CsDW 1. City of Dowagiac. Chestnut St. and Pennsylvania Ave., Dowagiac. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 10 inches, depth 159 feet, screen at 147. Land-surface datum is 750.19 feet above msl. Measurements made by Board of Public Works. Highest water level flowing, Nov. 30, 1951; lowest 5.97 below lsd, July 24, 1953. Records available: 1949-53.

1952

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	+3.79	Apr. 25	+4.35	July 18	+0.72	Oct. 10	-1.07
11	3.71	May 2	4.13	25	+ .06	17	-1.05
18	4.04	9	3.77	Aug. 1	+ .15	24	-1.35
25	4.20	16	3.73	8	- .66	31	+ .60
Feb. 1	4.02	23	2.59	15	+ .50	Nov. 7	+ .75
22	4.08	29	2.25	22	+ .51	14	-1.00
Mar. 7	3.91	June 6	1.55	29	-1.59	21	+ .25
14	3.71	13	.90	Sept. 5	+1.00	28	+1.20
21	3.95	20	1.88	12	-1.93	Dec. 5	+ .05
28	3.95	27	.55	19	+ .10	12	-1.27
Apr. 4	3.50	July 4	+2.00	26	-1.16	19	- .26
11	3.33	11	- .10	Oct. 3	1.11	26	+ .10

1953

Jan. 2	+0.55	Apr. 3	-2.60	June 26	-3.47	Oct. 2	-1.47
9	+1.60	10	1.91	July 3	2.55	9	1.39
16	- .97	15	1.67	10	3.90	16	1.14
23	+ .50	17	1.85	17	4.18	23	1.16
30	-1.48	24	2.14	24	5.97	30	1.30
Feb. 6	1.22	29	.23	31	4.74	Nov. 6	1.22
13	.40	May 8	2.25	Aug. 14	3.38	13	1.47
20	1.40	15	2.23	21	4.05	20	1.47
27	1.14	22	1.64	28	5.72	27	1.30
Mar. 6	.50	29	3.09	Sept. 4	3.15	Dec. 4	1.18
13	1.30	June 5	4.09	11	2.80	11	1.05
20	.80	12	5.01	18	-1.03	18	- .97
27	1.60	19	5.14	25	+ .70	24	+ .70

Mason Township

CsMa 1. Ted Little. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 8 S., R. 14 W. Dug unused water-table well in deposits of Pleistocene age, diameter 28 inches, depth 55 feet, cribbed with brick to open bottom. Highest water level 46.20 below lsd, July 16, 1950; lowest 55.03 below lsd, Mar. 10, 1947. Records available: 1945-53.

Jan. 4	49.09	Apr. 5	49.94	July 5	50.04	Oct. 4	50.59
11	49.26	12	49.89	12	50.06	11	50.62
18	49.26	19	49.90	19	50.06	18	50.68
25	49.17	26	49.88	26	50.12	25	50.75
Feb. 2	49.76	May 3	50.00	Aug. 2	50.20	Nov. 1	50.80
8	49.56	10	49.92	9	50.20	8	50.83
15	49.53	17	49.87	16	50.25	13	50.94
22	49.63	24	49.97	23	50.27	22	50.93
Mar. 1	49.75	31	49.91	30	50.32	29	51.06
8	49.76	June 7	50.00	Sept. 6	50.38	Dec. 6	51.05
15	49.76	14	49.99	13	50.44	13	51.18
22	49.90	21	50.04	20	50.47	20	51.27
29	49.93	28	50.01	27	50.55	27	51.29

Charlevoix County

Chandler Township

CvCh 1. State Dept. of Conservation. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 33 N., R. 4 W. Drilled unused artesian well in deposits of Pleistocene(?) age, diameter 6 inches, depth 94 feet. Highest water level 70.85 below lsd, July 19, 1952; lowest 74.97 below lsd, Apr. 10, 1949. Records available: 1948-53. Recording gage removed July 10, 1953.

CvCh 1--Continued.

2 a. m. water level from recorder graph

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	74.21	Apr. 19	73.51	May 14	72.57	June 8	72.05
25	74.25	20	73.47	15	72.54	9	72.03
26	74.26	21	73.43	16	72.51	10	72.04
27	74.25	22	73.37	17	72.48	11	72.02
28	74.24	23	73.34	18	72.45	12	71.98
29	74.27	24	73.30	19	72.44	13	71.98
30	74.27	25	73.24	20	72.41	14	71.96
31	74.25	26	73.19	21	72.37	15	71.95
Apr. 1	74.23	27	73.17	22	72.38	16	71.93
2	74.22	28	73.13	23	72.36	17	71.91
3	74.18	29	73.09	24	72.33	18	71.90
4	74.12	30	73.04	25	72.30	19	71.87
5	74.10	May 1	72.99	26	72.28	20	71.87
6	74.06	2	72.95	27	72.28	21	71.86
7	74.01	3	72.94	28	72.26	22	71.85
8	73.98	4	72.90	29	72.23	23	71.85
9	73.93	5	72.86	30	72.19	24	71.83
10	73.85	6	72.82	31	72.18	25	71.80
11	73.85	7	72.78	June 1	72.18	26	71.81
12	73.81	8	72.75	2	72.16	27	71.81
13	73.76	9	72.72	3	72.13	28	71.78
14	73.73	10	72.68	4	72.09	29	71.79
15	73.69	11	72.64	5	72.09	30	71.77
16	73.62	12	72.62	6	72.08	July 1	71.77
17	73.59	13	72.60	7	72.07	Oct. 8	74.11
18	73.56						

Hudson Township

CvHu 33. State Dept. of Conservation. $NE\frac{1}{4}SE\frac{1}{4}$ sec. 10, T. 32 N., R. 4 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 19 feet, open bottom. Highest water level 1.19 below lsd, Mar. 30, 1938; lowest 5.20 below lsd, Oct. 17, 1949. Records available: 1934-41, 1948-53. Oct. 8, 4.15.

Cheboygan County

Forest Township

CbFr 5. State Dept. of Conservation. $SE\frac{1}{4}NE\frac{1}{4}$ sec. 27, T. 33 N., R. 1 E. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 15 feet, open bottom. Highest water level 1.90 below lsd, Mar. 30, 1939; lowest 5.21 below lsd, Oct. 18, 1949. Records available: 1939-44, 1948-53. Oct. 8, 3.10.

Nunda Township

CbNd 2. State Dept. of Conservation. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 3, T. 33 N., R. 1 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 16 feet, open bottom. Highest water level 3.99 below lsd, Aug. 12, 1942; lowest 7.44 below lsd, Oct. 18, 1949. Records available: 1935-44, 1948-53. Oct. 8, 5.48.

Walker Township

CbWk 33. State Dept. of Conservation. $SE\frac{1}{4}NW\frac{1}{4}$ sec. 26, T. 34 N., R. 1 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 17 feet, open bottom. Highest water level 3.90 below lsd, Mar. 28, 1938; lowest 7.37 below lsd, Oct. 18, 1949. Records available: 1935-44, 1948-53. Oct. 8, 6.47.

Clinton County

Village of Elsie

CtES 1. Village of Elsie. $SW\frac{1}{4}NW\frac{1}{4}$ sec. 13, T. 8 N., R. 1 W. Drilled unused artesian well in Saginaw formation, diameter 12 inches, depth 298 feet. Highest water level 3.78 above lsd, June 3, 1950; lowest 35.97 below lsd, Sept. 16, 1947. Records available: 1947-53. Jan. 28, 20.63; Feb. 26, 22.47; Mar. 26, 23.49; Apr. 30, 21.90; Aug. 19, 34.29; Nov. 12, 29.25.

CtES 3. Village of Elsie. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 8 N., R. 1 W. Drilled unused artesian well in gravel of Pleistocene age, diameter 12 inches, depth 45 feet. Highest water level 8.3 below lsd, Apr. 5, 1950; lowest 26.4 below lsd, Oct. 11, 1949. Records available: 1947-53. Jan. 28, 17.65; Feb. 26, 16.44; Mar. 26, 15.82; Apr. 30, 15.65; Aug. 19, 19.96; Nov. 12, 18.78.

De Witt Township

CtDw 159. State Dept. of Health. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 5 N., R. 2 W. Drilled unused artesian well in Saginaw formation, diameter 6 to 4 inches, depth 135 feet. Highest water level 42.02 below lsd, Sept. 14, 1944; lowest 66.43 below lsd, Nov. 24, 1953. Records available: 1944-53. Jan. 31, 64.21; Feb. 28, 64.11; Mar. 28, 64.55; Apr. 27, 64.67; Aug. 7, 65.63; Nov. 24, 66.43.

Olive Township

CtOe 1. State Highway Dept. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 6 N., R. 2 W. Drilled unused water-table well in gravel of Pleistocene age, diameter 14 inches, depth 23 feet, open bottom. Highest water level 14.59 below lsd, Apr. 19, 1952; lowest 18.53 below lsd, Dec. 29, 1953. Records available: 1948-53. Recording gage removed May 4, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.80	17.79	17.80	17.26	16.91	h16.83	.....	.....	.....	.....	.....	.....
2	17.78	17.82	17.81	17.28	16.84	.....	.....	.....	.....	.....	.....	.....
3	17.73	17.79	17.77	17.30	16.87	.....	.....	.....	.....	.....	.....	.....
4	17.76	17.80	17.62	17.24	16.88	.....	.....	.....	.....	.....	.....	.....
5	17.75	17.80	17.68	17.27	.....	.....	.....	.....	.....	.....	.....	.....
6	17.81	17.68	17.75	17.27	.....	.....	.....	.....	.....	.....	.....	.....
7	17.85	17.76	17.81	17.25	.....	.....	.....	h17.49	.....	.....	.....	.....
8	17.84	17.77	17.77	17.28	.....	.....	.....	.....	.....	.....	.....	.....
9	17.81	17.84	17.80	17.26	.....	.....	.....	.....	.....	.....	.....	.....
10	17.83	17.90	17.77	17.12	.....	.....	.....	.....	.....	.....	.....	.....
11	17.75	17.83	17.76	17.20	.....	.....	.....	.....	.....	.....	.....	.....
12	17.87	17.73	17.74	17.22	.....	.....	.....	.....	.....	.....	.....	.....
13	17.80	17.74	17.69	17.20	.....	.....	.....	.....	.....	.....	.....	.....
14	17.86	17.74	17.70	17.24	.....	.....	.....	.....	.....	.....	.....	.....
15	17.84	17.74	17.59	17.23	.....	.....	.....	.....	.....	.....	.....	.....
16	17.83	17.77	17.58	17.08	.....	.....	.....	.....	.....	.....	.....	.....
17	17.89	17.81	17.58	17.16	.....	.....	.....	.....	.....	.....	.....	.....
18	17.77	17.85	17.51	17.19	.....	.....	.....	.....	.....	.....	.....	.....
19	17.79	17.86	17.44	17.19	.....	.....	.....	.....	.....	.....	.....	.....
20	17.80	17.83	17.47	17.18	.....	.....	.....	.....	.....	.....	.....	.....
21	17.81	17.68	17.47	17.18	.....	.....	.....	.....	.....	.....	.....	.....
22	17.84	17.85	17.41	17.16	.....	.....	.....	.....	.....	.....	.....	.....
23	17.82	17.84	17.33	17.15	.....	.....	.....	.....	.....	.....	.....	.....
24	17.68	17.83	17.35	17.22	.....	.....	.....	.....	.....	.....	h18.26	.....
25	17.70	17.81	17.33	17.14	.....	.....	.....	.....	.....	.....	.....	.....
26	17.82	17.71	17.36	17.07	.....	.....	.....	.....	.....	.....	.....	.....
27	17.76	17.66	17.32	17.06	.....	.....	.....	.....	.....	.....	.....	.....
28	17.74	17.75	17.28	17.08	.....	.....	.....	.....	.....	h18.15	.....	.....
29	17.74	.....	17.28	17.09	.....	.....	.....	.....	h17.99	.....	.....	h18.53
30	17.80	.....	17.34	17.04	.....	.....	.....	.....	.....	.....	.....	.....
31	17.76	.....	17.31	.....	.....	.....	.....	h17.73	.....	.....	.....	.....

h Tape measurement.

Crawford County

City of Grayling

CrGR 3. State Fish Hatchery. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 26 N., R. 3 W. Grayling. Driven observation water-table well in sand of Pleistocene age, diameter 1 $\frac{1}{4}$ inches, depth 8 feet, screen 5-8. Highest water level 2.62 below lsd, Apr. 18, 1952; lowest 3.44 below lsd, Oct. 13, 1949. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	3.08	Mar. 17	3.05	May 15	2.76	July 17	2.79
Feb. 17	3.04	Apr. 16	2.86	June 18	2.67	Oct. 22	2.99

Beaver Creek Township

CrBc 1. State Dept. of Conservation. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 25 N., R. 3 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{4}$ inches, depth 13 feet, screen 11-13. Land-surface datum is 1,175.14 feet above msl. Highest water level 8.70 below lsd, June 15, 1943; lowest 10.85 below lsd, Nov. 11, 1949, Feb. 15, 1951. Records available: 1934-37, 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	10.32	Apr. 15	9.55	July 17	9.78	Nov. 10	10.35
Feb. 16	10.37	May 14	9.58	Oct. 5	10.24	Dec. 4	10.37
Mar. 16	10.09	June 17	9.55		10.22		

Frederic Township

CrFr 1. State Dept. of Conservation. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 27 N., R. 4 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 13 feet, screen 10-13. Land-surface datum is 1,194.18 feet above msl. Highest water level 3.84 below lsd, Apr. 17, 1947; lowest 7.08 below lsd, Mar. 14, 1951. Records available: 1934-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	5.22	Apr. 16	4.40	July 16	4.77	Oct. 31	5.45
Feb. 17	5.27	May 15	4.69	Sept. 30	5.37	Dec. 8	5.40
Mar. 17	4.90	June 16	4.58	Oct. 5	5.39		

Grayling Township

CrGr 3. State Dept. of Conservation. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 26 N., R. 3 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{4}$ inches, depth 16 feet, screen 14-16. Highest water level 4.04 below lsd, Mar. 21, 1938; lowest 9.39 below lsd, Feb. 15, 1951. Records available: 1935-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	8.36	Apr. 16	7.15	July 16	7.20	Oct. 31	8.22
Feb. 17	8.45	May 15	7.30	Sept. 30	8.01	Dec. 8	8.42
Mar. 17	8.13	June 16	7.06	Oct. 5	8.05		

CrGr 6. State Dept. of Conservation. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 26 N., R. 4 W. Dug unused water-table well in deposits of Pleistocene age, diameter 15 inches, depth 10 feet, open bottom. Land-surface datum is 1,144.09 feet above msl. Highest water level 4.03 below lsd, June 1, 1943; lowest 8.53 below lsd, Nov. 8-11, 1953. Records available: 1942-53.

Daily 2 a.m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.36	6.75	6.38	5.58	5.81	5.69	6.74	7.01	7.73	8.21	8.48	8.27
2	6.39	6.78	6.43	5.62	5.81	5.71	5.97	7.05	7.76	8.22	8.48	8.27
3	6.41	6.80	6.47	5.67	5.84	5.79	5.98	7.09	7.81	8.23	8.49	8.27
4	6.43	6.82	6.49	5.70	5.90	5.88	6.10	7.13	7.84	8.24	8.50	8.26
5	6.46	6.85	6.52	5.71	5.96	5.85	6.22	7.07	7.88	8.25	8.51	8.21
6	6.49	6.78	6.57	5.74	6.00	5.72	6.32	7.05	7.89	8.27	8.51	8.14
7	6.53	6.54	6.60	5.76	6.05	5.77	6.40	7.08	7.92	8.28	8.52	8.09
8	6.56	6.54	6.64	5.79	6.09	5.85	6.48	7.12	7.94	8.29	8.53	8.04
9	6.58	6.58	6.66	5.83	6.13	5.91	6.55	7.09	7.97	8.31	8.53	8.01
10	6.60	6.64	6.69	5.85	6.18	6.00	6.62	7.06	7.99	8.32	8.53	7.99
11	6.61	6.69	6.72	5.85	6.21	6.07	6.70	7.08	8.02	8.33	8.53	7.98
12	6.64	6.71	6.70	5.86	6.25	6.13	6.77	7.14	8.04	8.34	8.51	e7.97
13	6.65	6.75	6.36	5.88	6.29	6.18	6.84	7.05	8.06	8.35	8.49	e7.98
14	6.68	6.79	6.17	5.91	6.33	6.24	6.91	7.01	8.05	8.37	8.47	e7.99
15	6.71	6.82	6.16	5.94	6.36	6.30	6.56	7.03	8.06	8.38	8.47	e8.00
16	6.30	6.85	6.15	5.96	6.40	6.35	6.37	7.08	8.07	8.39	8.47	e8.00
17	6.19	6.87	6.15	5.98	6.43	6.38	6.40	7.14	8.09	8.40	8.47	e8.01
18	6.18	6.89	6.07	6.00	6.32	6.41	6.47	7.19	8.11	8.41	8.48	e8.02
19	6.23	6.91	5.91	6.02	6.13	6.45	6.48	7.23	8.13	8.42	8.49	8.03
20	6.30	6.93	5.86	6.05	6.14	6.49	6.52	7.26	8.11	8.43	8.50	8.05
21	6.36	6.31	5.83	6.07	6.18	6.53	6.60	7.30	8.10	8.44	8.52	8.06
22	6.42	6.03	5.57	6.09	6.24	6.59	6.69	7.35	8.10	8.45	8.52	8.06
23	6.47	6.07	5.16	6.11	6.32	6.65	6.75	7.38	8.10	8.46	8.49	e8.03
24	6.50	6.12	4.97	6.15	6.39	6.71	6.82	7.41	8.12	8.47	8.41	e8.01
25	6.53	6.18	5.07	6.17	6.45	6.76	6.88	7.45	8.14	8.48	8.35	e8.00

CrGr 6--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	6.57	6.22	5.22	6.06	5.87	6.80	6.80	7.48	8.16	8.49	8.31	8.00
27	6.61	6.27	5.30	5.75	5.84	6.84	6.79	7.52	8.17	8.50	8.29	8.00
28	6.63	6.32	5.35	5.70	5.88	6.89	6.79	7.56	8.18	8.51	8.27	8.00
29	6.66		5.41	5.71	5.95	6.93	6.85	7.60	8.18	8.49	8.27	8.00
30	6.69		5.48	5.77	6.01	6.98	6.91	7.64	8.20	8.47	8.27	8.01
31	6.72		5.53		5.80		6.96	7.69		8.48		8.02

e Estimated.

CrGr 11. State of Michigan, National Guard Camp. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 26 N., R. 4 W. Drilled unused water-table well in deposits of Pleistocene age, diameter 3 inches, depth 31 feet. Highest water level 19.65 below lsd, Apr. 16, 1953; lowest 22.39 below lsd, July 23, 1949. Records available: 1949-53. Recording gage removed Apr. 16, 1953.

2 a. m. water level from recorder graph*

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	20.78	Feb. 1	20.88	Mar. 5	20.64	Mar. 30	20.01
2	20.78	2	20.89	6	20.65	31	19.98
9	20.85	3	20.89	7	20.65	Apr. 1	19.95
10	20.85	4	20.90	8	20.66	2	19.92
11	20.85	5	20.90	9	20.66	3	19.90
12	20.86	6	20.89	10	20.67	4	19.87
13	20.85	8	20.90	11	20.68	5	19.86
14	20.86	9	20.90	12	20.68	6	19.84
15	20.86	10	20.91	13	20.68	7	19.80
16	20.86	11	20.91	14	20.69	8	19.80
17	20.88	12	20.89	15	20.61	9	19.76
18	20.83	13	20.89	16	20.58	10	19.73
19	20.83	14	20.90	17	20.58	11	19.70
20	20.83	15	20.90	18	20.56	12	19.70
21	20.84	16	20.90	19	20.54	13	19.69
22	20.84	17	20.91	20	20.53	14	19.69
23	20.84	18	20.92	21	20.52	15	19.68
24	20.84	19	20.92	22	20.49	16	19.65
25	20.84	20	20.92	23	20.45	June 18	h19.97
26	20.86	27	20.62	24	20.41	July 16	h19.72
27	20.86	28	20.62	25	20.32	Sept. 30	h20.25
28	20.86	Mar. 1	20.63	26	20.23	Oct. 22	h20.47
29	20.86	2	20.64	27	20.15	31	h20.54
30	20.88	3	20.64	28	20.07	Dec. 8	h20.84
31	20.88	4	20.63	29	20.04		

h Tape measurement.

Lovells Township

CrLv 2. State Dept. of Conservation. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 27 N., R. 1 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 13 feet, screen 10-13. Highest water level 3.51 below lsd, Apr. 18, 1952; lowest 6.19 below lsd, Mar. 12, 1947. Records available: 1934-53.

Jan. 14	5.63	Apr. 16	4.30	July 16	4.23	Oct. 31	5.25
Feb. 17	5.71	May 15	4.36	Sept. 30	5.01	Dec. 8	5.45
Mar. 17	4.95	June 16	3.89	Oct. 5	5.06		

South Branch Township

CrSb 1. State Dept. of Conservation, Huron National Forest. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 25 N., R. 1 W. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 56 feet. Highest water level 29.44 below lsd, Aug. 4, 1953; lowest 35.97 below lsd, Apr. 4-6, 1951. Records available: 1948-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.27	32.59	32.84	32.60	31.58	31.04	30.10	29.52	29.69	.....	30.38	30.70
2	32.27	32.61	32.84	32.58	31.56	31.03	30.03	29.51	29.69	.....	30.35	30.71
3	32.26	32.58	32.80	32.55	31.57	31.00	30.05	29.53	29.70	.....	30.33	30.70
4	32.29	32.61	32.70	32.47	31.56	30.95	30.01	29.47	29.68	30.06	30.42	30.65
5	32.28	32.61	32.78	32.45	31.53	30.92	29.95	29.51	29.73	.....	30.45	30.73

CrSb 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	32.32	32.56	32.85	32.42	31.50	30.93	29.91	29.53	29.76	30.12	30.46	30.68
7	32.36	32.63	32.88	32.38	31.47	30.92	29.89	.....	29.78	.....	30.44	30.75
8	32.35	32.64	32.84	32.35	31.45	30.90	29.88	.....	29.82	.....	30.34	30.78
9	32.35	32.68	32.86	32.30	31.44	30.86	29.86	.....	29.84	30.11	30.44	30.79
10	32.35	32.70	32.86	32.20	31.41	30.88	29.85	.....	29.83	30.12	30.47	30.71
11	32.30	32.65	32.86	32.24	31.38	30.85	29.81	.....	29.78	30.10	30.44	30.80
12	32.40	32.59	32.86	32.21	31.38	30.79	29.79	.....	29.71	30.17	30.51	30.82
13	32.35	32.64	32.83	32.16	31.37	30.77	29.76	.....	29.83	30.20	30.51	30.81
14	32.42	32.67	32.88	32.14	31.36	30.75	29.73	29.50	29.86	30.18	30.49	30.81
15	32.42	32.69	32.82	32.10	31.33	30.72	29.73	29.53	29.82	30.15	30.48	30.83
16	32.44	32.72	32.83	32.01	31.31	30.67	29.70	29.54	.....	30.20	30.50	30.87
17	32.45	32.59	32.86	32.01	31.29	30.63	29.68	29.57	.....	30.21	30.54	30.90
18	32.35	32.75	32.85	31.99	31.23	30.62	29.63	29.57	.....	30.22	30.54	30.87
19	32.44	32.76	32.80	31.96	31.25	30.57	29.63	29.57	.....	30.21	30.56	30.87
20	32.46	32.74	32.86	31.92	31.23	30.53	29.62	29.58	.....	30.25	30.56	30.85
21	32.47	32.63	32.87	31.89	31.20	30.49	29.61	29.59	.....	30.26	30.54	30.88
22	32.49	32.79	32.82	31.85	31.22	30.47	29.58	29.61	.....	30.28	30.59	30.92
23	32.48	32.78	32.77	31.83	31.22	30.44	29.56	29.59	.....	30.22	30.53	30.97
24	32.43	32.77	32.79	31.82	31.19	30.40	29.60	29.59	.....	30.22	30.53	30.94
25	32.50	32.77	32.77	31.75	31.15	30.32	29.58	29.62	.....	30.30	30.58	30.90
26	32.56	32.70	32.79	31.71	31.13	30.30	29.54	29.62	.....	30.29	30.59	30.90
27	32.50	32.72	32.75	31.70	.....	30.29	29.56	29.64	.....	30.31	30.65	31.00
28	32.51	32.81	32.69	31.69	31.11	30.22	29.55	29.63	.....	30.26	30.69	30.94
29	32.54		32.69	31.67	31.10	30.20	29.51	29.64	.....	30.33	30.69	30.97
30	32.57		32.71	31.64	31.05	30.14	29.54	29.64	.....	30.33	30.67	31.03
31	32.55		32.65		31.03		29.53	29.67		30.35		30.98

Eaton County

City of Charlotte

EaCH 1. City of Charlotte. U. S. Highway 27 and Territorial Road. Dug unused water-table well in deposits of Pleistocene age, diameter 20 feet, depth 25 feet, cribbed with brick to open bottom. Highest water level 8.04 below lsd, Apr. 7, 1947; lowest 15.77 below lsd, Jan. 2, 1948. Records available: 1947-53. Jan. 30, 13.52; Feb. 27, 13.79; Apr. 14, 11.98; Aug. 21, 13.76; Nov. 5, 14.86.

City of Grand Ledge

EaGL 1. Layne-Northern Co., Inc. Perry and Jefferson Sts. Drilled unused artesian well in Saginaw formation, diameter 12 inches, depth 376 feet, cased to 22. Measurements made by Water Dept. Highest water level 21.34 below lsd, May 5, 14, 1950; lowest 28.79 below lsd, Dec. 3, 1949. Records available: 1948-53. Recording gage removed June 29, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.17	26.36	26.71	26.81	26.71	27.21	.....	.....	.....	.....	.....	.....
2	26.08	26.41	26.71	26.86	26.72	27.32	.....	.....	.....	.....	h27.89	.....
3	25.98	26.32	26.66	26.88	26.87	27.24	.....	.....	.....	.....	.....	.....
4	26.06	26.36	26.43	26.78	26.92	27.15	.....	.....	.....	.....	.....	.....
5	26.07	26.33	26.52	26.84	26.83	27.11	.....	h27.65	.....	.....	.....	.....
6	26.19	26.05	26.69	26.88	26.82	27.12	.....	.....	.....	.....	.....	.....
7	26.27	26.30	26.82	26.86	26.79	27.20	.....	.....	.....	h27.72	.....	h28.15
8	26.18	26.33	26.72	26.92	26.79	27.18	.....	.....	h27.76	.....	.....	.....
9	26.11	26.51	26.85	26.84	26.83	27.13	.....	.....	.....	.....	h27.97	.....
10	26.14	26.59	26.82	26.62	26.85	27.30	.....	.....	.....	.....	.....	.....
11	25.97	26.41	26.80	26.84	26.79	27.32	.....	.....	.....	.....	.....	.....
12	26.28	26.23	26.77	26.87	26.90	27.23	.....	.....	.....	.....	.....	.....
13	26.19	26.32	26.68	26.81	26.93	27.21	.....	.....	.....	.....	.....	.....
14	26.36	26.33	26.79	26.94	26.99	27.25	.....	.....	.....	h27.81	.....	h28.00
15	26.33	26.33	26.59	26.92	26.90	27.28	.....	.....	h27.64	.....	.....	.....
16	26.30	26.44	26.68	26.65	26.90	27.21	.....	.....	.....	.....	h27.90	.....
17	26.42	26.48	26.72	26.86	26.83	27.19	.....	.....	.....	.....	.....	.....
18	26.12	26.53	26.64	26.90	26.72	27.26	.....	.....	.....	.....	.....	.....
19	26.24	26.53	26.56	26.90	26.85	27.24	.....	.....	.....	.....	.....	.....
20	26.30	26.42	26.71	26.88	26.85	27.23	.....	.....	.....	.....	.....	.....

EaGL 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	26.29	26.22	26.73	26.88	26.79	.....	.....	.....	.....	h27.79	.....	h28.08
22	26.35	26.63	26.67	26.84	26.86	27.44	.....	.....	h27.79	.....	.....	.....
23	26.30	26.59	26.55	26.83	26.97	27.44	.....	.....	.....	.....	h27.84	.....
24	26.05	26.56	26.83	26.98	27.04	27.47	.....	.....	.....	.....	.....	.....
25	26.21	.....	26.83	26.78	26.97	27.40	.....	.....	.....	.....	.....	.....
26	26.43	26.31	26.91	26.75	26.90	27.39	.....	.....	.....	.....	.....	.....
27	26.25	26.31	26.83	26.78	27.17	27.48	.....	h27.69	.....	.....	.....	.....
28	26.23	26.64	26.79	26.88	27.39	27.37	.....	h27.69	h27.82	.....	h28.20	.....
29	26.26	.....	26.82	26.89	27.35	27.45	.....	.....	.....	.....	.....	.....
30	26.37	.....	26.94	26.84	27.15	.....	.....	.....	.....	h28.13	.....	.....
31	26.28	.....	26.86	.....	27.15	.....	.....	h27.72	.....	.....	.....	.....

h Tape measurement.

Delta Township

EaDt 214. John Schneeberger. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 4 N., R. 3 W. Drilled unused artesian well in Saginaw formation, diameter 3 inches, depth 121 feet. Land-surface datum is about 860 feet above msl. Highest water level 31.28 below lsd, May 27, 1948; lowest 36.12 below lsd, Dec. 29, 1953. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	34.49	May 1	34.48	July 27	35.34	Oct. 28	35.71
Feb. 28	34.88	June 1	34.84	Aug. 31	35.56	Nov. 24	35.69
Mar. 28	34.61	29	35.17	Sept. 29	35.61	Dec. 29	36.12

EaDt 215. Bernard B. Bosworth. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 4 N., R. 3 W. Dug unused water-table well in deposits of Pleistocene age, diameter 4 feet, depth 18 feet, cribbed with brick to open bottom. Land-surface datum is about 855 feet above msl. Highest water level 5.55 below lsd, Apr. 26, 1952; lowest 16.15 below lsd, Jan. 18, 1947. Records available: 1944-53. Jan. 31, 15.09; Feb. 28, 14.77; Mar. 28, 13.79; May 1, 11.67; Aug. 7, 13.12; Nov. 24, 15.79.

Genesee County

City of Flint

GeFL 353. City of Flint. Brandon St. and Barney Ave. Drilled unused artesian well in deposits of Pleistocene age, diameter 3 inches, depth 74 feet. Highest water level 52.95 below lsd, June 9, 1947; lowest 57.43 below lsd, Aug. 18, 1953. Records available: 1946-53. Jan. 29, 56.11; Feb. 20, 56.15; Mar. 25, 55.37; Apr. 30, 55.40; Aug. 18, 57.43; Oct. 30, 56.92.

GeFL 354. City of Flint. Atherton Road and Day St. Drilled unused artesian well in deposits of Pleistocene age, diameter 2 inches, depth 169 feet. Land-surface datum is 751.43 feet above msl. Highest water level 1.09 below lsd, Apr. 26, 1950; lowest 6.88 below lsd, July 30, 1952. Records available: 1947-53. Jan. 29, 4.49; Feb. 20, 4.54; Mar. 25, 3.89; Apr. 30, 3.76; Aug. 18, 6.61; Oct. 30, 6.01.

GeFL 491. Consumers Power Co. Franklin and Sunnyside Aves. Drilled unused artesian well in Saginaw formation, diameter 12 inches, depth 222 feet. Highest water level 24.23 below lsd, Feb. 12, 1950; lowest 35.70 below lsd, Sept. 5, 1953. Records available: 1946-53.

Daily 2 a.m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.26	27.41	27.30	26.39	26.07	27.73	.....	.....	34.75	32.39	30.72	.....
2	27.23	27.51	27.31	26.41	.....	27.68	.....	h33.20	34.85	32.48	30.64	29.90
3	27.06	27.36	27.14	26.49	.....	27.64	.....	.....	35.14	32.31	30.46	29.93
4	27.14	27.43	26.73	26.33	.....	27.71	.....	.....	35.36	32.23	30.55	29.84
5	27.12	27.44	26.86	26.39	.....	27.81	h32.61	.....	35.64	32.14	30.63	29.98
6	27.18	27.32	27.03	26.42	.....	28.07	.....	.....	35.64	31.87	30.64	29.97
7	27.27	27.49	27.14	26.33	26.32	.....	.....	.....	35.47	31.89	30.45	29.98
8	27.30	27.52	27.07	26.38	26.31	.....	.....	.....	35.37	31.81	30.38	29.99
9	27.22	27.59	27.07	26.30	26.40	.....	.....	.....	35.25	31.66	30.37	29.97
10	27.26	27.63	26.97	26.08	26.59	29.79	.....	.....	35.18	31.62	30.36	29.98
11	27.14	27.48	26.98	26.28	26.66	29.89	.....	.....	35.10	31.47	30.23	30.01
12	27.34	27.24	26.98	26.37	26.76	30.02	h32.57	.....	34.87	31.43	30.38	30.05
13	27.15	27.35	26.89	26.33	26.77	30.22	.....	.....	34.94	31.43	30.37	30.05
14	27.31	27.38	26.99	26.37	26.93	30.40	.....	.....	34.76	31.35	.....	29.94
15	.....	27.36	26.81	26.37	26.86	30.28	.....	.....	34.28	31.21	30.24	.....

GeFL 491--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	27.26	27.39	26.73	26.26	26.89	29.90	.....	.....	34.14	31.26	30.19	.....
17	27.48	27.37	26.71	26.30	26.86	30.01	.....	.....	34.12	31.30	30.15	.....
18	27.25	27.43	26.57	26.40	26.69	.....	.....	32.91	34.04	31.28	30.17	.....
19	27.34	27.40	26.43	26.43	26.75	.....	h33.13	32.85	33.74	31.17	30.21	30.14
20	27.27	27.37	26.57	26.37	26.78	.....	.....	32.91	33.61	31.19	30.13	e30.06
21	27.27	27.09	26.61	26.33	26.96	.....	.....	33.04	33.38	31.22	30.17	30.07
22	27.36	27.44	26.51	26.30	27.13	.....	.....	33.16	33.31	31.25	30.22	30.08
23	27.33	27.41	26.33	26.27	27.36	h31.24	.....	33.26	33.29	.....	30.05	30.27
24	27.09	27.32	26.35	26.45	27.60	.....	.....	33.19	33.18	.....	29.92	30.26
25	27.18	27.21	26.38	e26.35	27.80	.....	.....	33.23	33.00	.....	29.90	.....
26	27.32	27.02	26.49	.....	27.73	.....	h33.41	33.41	32.81	.....	29.95	.....
27	27.05	26.96	26.49	.....	28.07	.....	.....	33.67	32.66	.....	30.07	.....
28	27.02	27.20	26.46	.....	28.33	.....	.....	33.82	32.64	.....	30.12	29.90
29	27.15	.....	26.51	.....	28.13	.....	.....	33.97	32.47	.....	30.15	29.87
30	27.36	.....	26.62	26.13	27.80	.....	.....	.....	32.35	30.73	.....	29.96
31	27.34	.....	26.50	.....	27.78	.....	.....	.....	.....	30.74	.....	29.83

e Estimated.

h Tape measurement.

GeFL 500. Consumers Power Co. East Court St. and Dort Highway. Drilled unused artesian well in Saginaw formation, diameter 12 inches, depth 288 feet. Highest water level 17.50 below lsd, Apr. 11, 1948; lowest 30.50 below lsd, Oct. 30, 1953. Records available: 1946-53. Jan. 29, 23.12; Feb. 20, 22.97; Mar. 25, 21.94; Apr. 30, 21.39; Aug. 18, 28.99; Oct. 30, 30.50.

Burton Township

GeBu 301. City of Flint. Hemphill Rd. and Saginaw St. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 2 inches, depth 153 feet. Land-surface datum is 781.45 feet above msl. Highest water level 20.63 below lsd, June 2, 1947; lowest 28.73 below lsd, Aug. 27, 1952. Records available: 1947-53. Jan. 29, 26.01; Feb. 20, 26.24; Mar. 25, 25.62; Apr. 30, 25.74; Aug. 18, 28.66; Oct. 30, 27.76.

GeBu 303. Fred Kreft. 2287 East Bristol Road. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 7 N., R. 7 E. Dug unused water-table well in deposits of Pleistocene age, diameter 18 inches, depth 8 feet, open bottom. Land-surface datum is about 785 feet above msl. Highest water level 0.20 above lsd, June 29, 1948; lowest 5.37 below lsd, Oct. 17, 1946. Records available: 1946-53. Recording gage removed July 5, 1953.

Daily 2 a.m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.
1	1.91	1.46	1.35	1.26	0.45	2.45	e1.43	.....	.....
2	1.95	e1.76	1.50	.69	.22	2.54	1.44	.....	.....
3	1.89	e1.90	1.60	.97	.45	2.64	1.87	.....	.....
4	1.95	e2.00	.41	.66	.....	2.81	2.21	.....	.....
5	2.04	2.08	.80	.98	.....	1.89	2.48	.....	.....
6	2.15	1.51	.....	1.02	.....	1.19	.....	.....	.....
7	2.26	1.27	.....	1.17	1.33	1.52	.....	.....	.....
8	2.34	1.50	.....	1.33	1.35	1.86	.....	.....	.....
9	2.35	1.66	.....	1.43	1.49	1.98	.....	.....	.....
10	2.36	1.79	.....	.67	1.64	2.23	.....	.....	.....
11	2.19	1.84	.....	1.05	1.79	2.38	.....	.....	.....
12	2.23	1.74	h1.48	1.27	e1.93	2.55	.....	.....	.....
13	2.17	1.85	.60	1.41	1.31	2.56	.....	.....	.....
14	1.49	1.89	.72	1.53	1.60	2.62	.....	.....	.....
15	.68	1.91	.46	1.62	1.72	2.69	.....	.....	.....
16	.41	1.96	.41	1.13	1.82	2.78	.....	.....	.....
17	1.21	2.08	.77	1.00	1.87	2.80	.....	.....	.....
18	.85	2.24	.78	1.30	1.15	2.84	.....	h2.83	.....
19	.....	2.32	.35	1.45	1.36	2.90	.....	.....	.....
20	.....	2.34	.68	1.41	1.66	2.96	.....	.....	.....
21	1.53	.80	.87	1.43	1.90	3.05	.....	.....	.....
22	1.53	.....	e1.00	1.56	1.59	3.11	.....	.....	.....
23	1.62	.....	e.38	1.63	1.74	3.20	.....	.....	.....
24	.41	.....	e.83	1.81	1.94	3.26	.....	.....	.....
25	.73	.....	e1.04	1.53	2.08	3.17	.....	.....	.....

GeBu 303--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.
26	1.09	1.47	1.21	0.42	1.84	....	....	....	....
27	1.31	1.37	1.13	.51	2.11	....	....	....	....
28	1.35	1.08	1.25	.79	2.27	2.40	....	....	....
29	1.56		1.20	1.03	2.36	2.44	....	....	....
30	1.79		1.37	1.12	2.39	2.67	....	....	h3.52
31	1.84		1.39		2.43		....	....	....

* No record for September, November, and December.

e Estimated.

h Tape measurement.

Grand Blanc Township

GeGb 25. Grand Blanc Tank Plant, Fisher Body Division, General Motors Corp. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 6 N., R. 7 E. Drilled unused artesian well in Saginaw formation, diameter 6 inches, depth 375 feet, cased to about 150. Land-surface datum is 841.71 above msl. Measurements made by Tank Plant Water Department. Highest water level 37.79 below lsd, Nov. 24, 1952; lowest 48.1 below lsd, Sept. 4, 1953. Records available: 1952-53.

2 a.m. water level from recorder graph, 1952

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 28	44.11	Nov. 12	41.32	Nov. 29	40.3	Dec. 14	40.7
29	43.87	13	40.86	30	40.3	15	40.0
30	42.91	14	40.92	Dec. 1	39.9	19	40.34
31	43.19	15	40.77	2	40.6	20	40.2
Nov. 1	42.60	16	40.50	3	40.7	21	39.8
2	42.08	18	38.16	4	40.6	22	39.2
3	41.47	19	38.42	5	40.6	23	39.5
4	41.36	20	38.33	6	40.5	24	39.6
5	41.15	21	38.54	7	40.0	25	39.6
6	41.08	22	38.33	8	39.6	26	38.9
7	42.10	24	37.79	9	42.0	27	39.3
8	41.63	25	40.18	10	41.7	28	39.5
9	41.68	26	40.2	11	41.6	29	39.12
10	41.30	27	40.3	12	41.5	30	39.3
11	41.26	28	39.9	13	41.1	31	39.9

Daily 2 a.m. water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.7	41.5	41.2	41.5	41.8	40.7	45.1	45.7	....	46.1	45.8	43.3
2	39.2	40.6	44.4	41.4	41.2	41.0	44.8	44.9	....	45.4	43.7	44.0
3	39.5	41.1	40.6	41.7	41.7	41.9	44.9	43.8	....	46.0	44.6	44.3
4	39.4	....	40.6	41.1	40.7	41.7	43.5	44.7	....	45.8	44.7	43.8
5	39.2	42.0	41.1	41.5	40.9	42.7	42.7	44.2	47.9	44.3	44.6	44.4
6	39.6	41.1	41.8	40.5	41.8	42.1	42.7	44.8	45.5	44.9	45.2	43.9
7	39.6	41.5	42.0	40.7	41.6	41.1	43.3	44.5	45.4	45.0	44.8	44.0
8	40.0	41.5	41.9	41.7	42.6	40.5	44.1	45.0	44.2	46.6	43.7	44.6
9	40.1	40.8	41.0	41.0	41.7	41.8	43.7	43.2	45.8	45.7	42.9	44.7
10	40.0	41.2	41.4	41.4	42.3	41.6	44.8	42.9	45.4	45.8	44.1	43.6
11	39.8	41.4	41.1	41.0	41.3	42.8	44.1	43.5	46.4	44.6	43.9	44.2
12	39.6	41.5	41.2	41.3	42.9	42.6	43.0	44.3	45.9	43.8	44.7	44.6
13	39.9	41.1	41.3	40.0	43.2	43.4	42.9	43.9	45.2	44.4	44.7	43.1
14	40.1	41.9	41.2	40.4	43.8	42.0	44.8	45.1	44.2	45.1	44.4	42.6
15	40.4	46.0	41.2	42.0	44.7	41.9	44.7	44.2	45.3	44.5	43.9	43.8
16	40.2	43.0	40.5	41.1	43.4	42.1	45.3	43.4	46.1	45.4	42.8	43.6
17	41.2	42.6	41.2	41.5	43.5	43.1	45.3	42.6	46.5	44.5	43.5	44.1
18	40.9	43.0	41.2	41.2	41.5	42.8	46.4	43.9	45.6	44.0	44.4	44.4
19	39.8	42.3	41.7	41.8	41.7	43.6	45.5	43.3	45.5	43.2	44.4	43.8
20	40.8	41.4	41.1	40.2	42.5	43.9	44.9	44.4	43.5	44.8	44.1	42.9
21	41.5	....	41.9	40.6	42.1	43.5	45.1	43.9	42.8	44.6	45.0	42.2
22	41.2	....	41.1	41.4	42.7	43.5	46.4	45.0	43.4	45.5	44.1	42.8
23	41.1	41.08	40.0	41.4	42.3	45.0	45.6	43.8	44.4	44.9	43.0	43.3
24	40.8	40.8	41.4	41.7	42.5	44.4	46.3	43.8	43.9	45.0	44.2	43.9
25	41.1	40.9	44.8	41.1	41.1	44.8	45.9	44.3	44.5	43.6	43.9	42.6

GeGb 25--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	40.3	40.7	43.4	41.4	41.4	44.5	45.0	45.0	44.4	43.3	43.8	42.2
27	e40.8	41.1	42.9	40.5	41.9	46.3	44.7	44.7	44.5	43.6	43.2	42.3
28	41.3	40.9	41.8	40.7	41.9	45.4	45.2	46.0	43.4	44.5	42.6	41.7
29	41.2		41.9	41.8	41.8	45.5	46.2	45.6	45.2	44.1	42.7	42.7
30	40.8		40.8	41.3		46.5	45.4	45.6	45.0	45.0	42.1	43.1
31	40.8		41.2		41.3		46.2	45.6		44.4		43.1

e Estimated.

Gladwin County

City of Beaverton

GwBV 1. City of Beaverton. Third and Main Sts. Drilled unused artesian well in deposits of Pleistocene age, diameter 12 inches, depth 93 feet. Measurements made by City Engineer. Highest water level 29.13 below lsd, Dec. 18, 1952; lowest 49.35 below lsd, June 26, 1950. Records available: 1950-53.

Tape measurements

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.80	.....	.....	34.57	34.29	34.99	34.24	32.20	32.78	30.74	.....	32.95
2	37.67	37.27	35.75	34.78	31.61	35.15	34.03	.....	.....	32.37	44.65	32.96
3	31.93	37.23	35.84	31.60	.....	35.30	34.13	32.22	32.59	32.36	32.20	45.33
4	.....	37.23	35.99	31.49	33.52	35.16	34.10	32.01	32.64	.....	32.30	32.57
5	37.90	37.09	36.04	.....	30.22	34.99	.....	31.86	45.34	32.80	44.10	45.18
6	35.43	33.42	36.03	31.45	30.39	34.74	33.98	46.87	.....	32.41	32.60	.....
7	32.18	36.83	35.91	31.47	30.48	.....	33.43	32.46	32.62	42.26	44.30	45.13
8	32.83	.....	.....	31.50	.....	34.54	33.43	44.87	.....	32.28	.....	33.55
9	32.32	36.84	35.88	31.48	30.85	34.73	33.60	.....	32.40	32.30	32.33	45.10
10	32.14	32.03	36.00	31.36	31.23	34.70	33.60	45.45	32.92	32.24	45.06	32.58
11	.....	33.00	36.94	31.53	.....	34.67	33.64	32.05	32.74	.....	32.83	32.65
12	37.60	32.13	35.80	.....	31.00	34.80	.....	45.55	45.49	44.90	32.37	32.56
13	37.78	32.12	35.39	31.70	31.27	34.83	33.65	32.03	.....	32.28	32.40	.....
14	37.63	32.15	34.93	31.74	32.27	.....	33.69	32.20	32.54	35.20	32.39	32.47
15	37.63	.....	.....	31.76	32.37	34.97	33.75	31.21	32.61	45.30	.....	45.08
16	37.51	36.88	.....	31.72	32.43	35.00	33.71	.....	45.89	32.48	32.27	32.38
17	37.30	36.90	34.71	31.80	.....	31.90	.....	31.50	32.51	32.36	32.33	32.57
18	.....	32.32	34.54	31.71	32.33	34.88	46.91	32.57	32.74	.....	32.80	33.32
19	37.40	36.39	34.36	.....	32.30	34.78	.....	32.37	.....	32.35	32.45	45.18
20	37.44	36.80	34.30	48.77	32.43	34.75	47.14	32.36	.....	32.37	32.46	.....
21	37.37	31.40	34.37	31.83	32.27	.....	32.07	32.32	45.43	32.58	32.51	44.98
22	37.42	.....	.....	31.74	31.45	34.74	47.22	32.26	44.96	32.60	.....	45.94
23	32.14	35.51	34.77	.....	31.53	34.75	32.12	.....	32.57	33.12	44.77	32.85
24	37.29	35.39	34.09	31.82	.....	34.82	32.25	32.36	32.51	32.42	45.97	32.60
25	.....	35.44	34.02	32.00	.....	32.18	46.89	32.48	45.73	.....	34.87	32.54
26	37.38	35.41	34.10	.....	31.26	34.44	.....	32.43	32.52	32.40	32.93	32.87
27	.....	35.62	34.12	30.93	.....	34.39	32.33	.....	.....	32.42	32.92	.....
28	37.35	31.32	34.39	30.82	34.96	.....	32.13	32.79	45.55	32.40	32.56	32.50
29	32.37	.....	46.14	31.62	34.37	47.48	32.53	32.51	32.26	.....	.....	32.66
30	37.28		34.54	34.33	35.00	34.43	47.37	.....	45.44	32.28	32.62	45.10
31	47.83		35.62		.....		32.44	32.61		32.36		32.56

Grand Traverse County

Blair Township

GvBr 2. State Dept. of Conservation. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 26 N., R. 11 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 15 feet, open bottom. Land-surface datum is 914.25 feet above msl. Highest water level 1.32 below lsd, Oct. 30, 1951; lowest 4.02 below lsd, Aug. 18, 1936. Records available: 1935-37, 1941-44, 1948-53. Oct. 7, 2.60.

Fife Lake Township

GvFf 27. State Dept. of Conservation. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 25 N., R. 9 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 18 feet, open bottom. Land-surface datum is 1,025.34 feet above msl. Highest water level 10.86 below lsd, Aug. 6, 1943; lowest 14.38 below lsd, Feb. 22, 1949. Records available: 1934-37, 1941-44, 1948-53. Jan. 9, 12.62; Feb. 10, 12.89; Mar. 11, 13.07; Apr. 27, 12.21; June 1, 12.04; Oct. 7, 12.36.

Mayfield Township

GvMy 19. State Department of Conservation. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 25 N., R. 11 W. Jetted observation water-table well in sand and gravel of Pleistocene age, diameter 2 inches, depth 14 feet, cased to open bottom. Land-surface datum is 1,058.81 feet above msl. Highest water level 2.21 below lsd, Oct. 30, 1951; lowest 6.40 below lsd, Nov. 14, 1935. Records available: 1935-37, 1943-44, 1948-53. Oct. 7, 5.02.

Paradise Township

GvPr 25. State Dept. of Conservation. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 25 N., R. 10 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 20 feet, cased to open bottom. Land-surface datum is 945.27 feet above msl. Highest water level 0.29 below lsd, Sept. 3, 1942; lowest 1.68 below lsd, July 1, 1937. Records available: 1936-37, 1941-44, 1948-53. Oct. 7, 1.31.

Union Township

GvUn 2. State Dept. of Conservation. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 26 N., R. 9 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 14 feet, cased to open bottom. Land-surface datum is 961.78 feet above msl. Highest water level 5.11 below lsd, Dec. 10, 1934; lowest 7.87 below lsd, Oct. 11, 1949. Records available: 1934-37, 1941-44, 1948-53. Oct. 7, 6.56.

Whitewater Township

GvWw 1. State Dept. of Conservation. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 27 N., R. 9 W. Jetted observation water-table well in sand and gravel of Pleistocene age, diameter 2 inches, depth 17 feet, cased to open bottom. Land-surface datum is 906.11 feet above msl. Highest water level 11.76 below lsd, Oct. 7, 1953; lowest 15.62 below lsd, Sept. 10, 1937. Records available: 1934-37, 1941-44, 1948-53. Oct. 7, 11.76.

Gratiot County

City of Alma

GrAL 45. Layne-Northern Co., Inc. On Leonard Refineries property. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 11 N., R. 3 W. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 84 feet. Land-surface datum is 742.62 feet above msl. Highest water level 25.62 below lsd, Apr. 26, 1948; lowest 69.34 below lsd, Jan. 26, 1950. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1951	67.14	Sept. 25, 1951	65.80	May 26, 1952	65.98	Dec. 29, 1952	54.30
Feb. 26	65.14	Oct. 30	65.92	June 24	66.47	Jan. 28, 1953	57.90
Mar. 30	63.39	Nov. 28	65.76	July 31	65.86	Feb. 26	59.46
Apr. 27	61.57	Dec. 29	65.63	Aug. 29	64.79	Mar. 26	60.59
May 29	59.25	Jan. 29, 1952	65.85	Sept. 26	60.78	Apr. 27	58.83
June 26	52.42	Feb. 27	65.89	Oct. 29	53.55	Aug. 14	66.54
July 26	60.44	Mar. 28	66.58	Nov. 26	47.41	Nov. 12	66.44
Aug. 29	63.99	Apr. 21	66.54				

GrAL 135. Thomas Thompson. 118 Wheeler Ave. Drilled unused artesian well in gravel of Pleistocene age, diameter 2 inches, depth 59 feet. Land-surface datum is 743.27 feet above msl. Highest water level 24.35 below lsd, Apr. 26, 1948; lowest 47.13 below lsd, July 26, 1951. Records available: 1947-53. Jan. 28, 40.43; Feb. 26, 39.77; Mar. 26, 40.98; Apr. 27, 37.49; Aug. 14, 45.50; Nov. 12, 42.41.

GrAL 240. C. V. Peet. 335 Pleasant Ave. Driven unused water-table well in lake sand of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 15 feet. Land-surface datum is 750.24 feet above msl. Highest water level 7.69 below lsd, June 10, 1947; lowest 11.37 below lsd, Nov. 28, 1949. Records available: 1947-53. Jan. 28, 10.02; Feb. 26, 9.94; Mar. 26, 9.54; Apr. 27, 9.47; Aug. 14, 10.46; Nov. 12, 11.24.

GrAL 258. E. H. Waber. 219 Prospect Ave. Drilled unused artesian well in deposits of Pleistocene age, diameter 2 inches, depth 49 feet. Land-surface datum is about 733.20 feet above msl. Highest water level 7.64 below lsd, Feb. 27, 1951; lowest 32.72 below lsd, July 26, 1951. Records available: 1946-53. Jan. 28, 23.07; Feb. 26, 21.63; Mar. 26, 24.57; Apr. 27, 20.12; Aug. 14, 28.56; Nov. 12, 25.67.

GrAL 360. Reed Excavating Co. Bridge Ave. and Washington St. Dug unused water-table well in deposits of Pleistocene age, diameter 36 inches, depth 20 feet, open bottom. Land-surface datum is 738.78 feet above msl. Measurements made by Alma Water Dept. Highest water level 13.74 below lsd, Apr. 7, 1950; lowest 17.91 below lsd, Nov. 12, 1953. Records available: 1950-53. Recording gage removed June 26, 1953.

Daily 2 a. m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
1	16.92	17.28	16.46	16.09	16.10	.....	.....	.....
2	16.95	.....	16.49	16.16	16.04	.....	.....	.....
3	16.98	.....	16.54	16.20	15.96	.....	.....	.....
4	17.01	.....	16.50	16.22	15.86	.....	.....	.....
5	17.05	.....	16.50	16.26	15.78	.....	.....	.....
6	17.11	.....	16.52	16.30	15.74	16.62	.....	.....
7	17.18	17.09	16.59	16.32	15.72	16.62	.....	.....
8	17.24	17.02	16.64	16.36	15.72	16.60	.....	.....
9	17.28	16.97	16.71	16.37	15.76	16.57	.....	.....
10	17.31	16.93	16.76	16.37	.....	16.62	.....	.....
11	17.29	16.92	16.79	16.46	.....	16.65	.....	.....
12	17.30	16.94	16.77	16.48	.....	16.67	.....	h17.91
13	17.29	16.99	16.64	16.50	.....	16.70	.....	.....
14	17.31	17.02	16.34	16.53	.....	16.73	h17.49	.....
15	17.31	17.05	16.21	16.62	.....	16.75	.....	.....
16	17.29	17.07	16.06	16.63	.....	16.77	.....	.....
17	17.18	17.12	15.97	16.65	.....	16.79	.....	.....
18	17.09	17.19	15.90	16.64	.....	16.81	.....	.....
19	17.03	17.24	15.87	16.62	.....	.....	.....	.....
20	16.98	17.25	15.84	16.63	.....	16.86	.....	.....
21	16.96	17.14	15.83	16.64	.....	16.89	.....	.....
22	16.98	16.81	15.80	16.54	.....	16.93	.....	.....
23	17.02	16.71	15.78	16.61	16.23	16.96	.....	.....
24	17.04	16.59	15.79	16.68	16.24	16.97	.....	.....
25	17.07	16.47	15.80	16.69	16.25	17.00	.....	.....
26	17.10	16.38	15.83	16.62	16.28	17.03	.....	.....
27	17.15	16.36	15.83	16.47	16.33	.....	.....	.....
28	17.20	16.46	15.86	16.35	16.33	.....	.....	.....
29	17.20	.....	15.92	16.24	16.37	.....	.....	.....
30	17.21	.....	16.00	16.16	16.30	.....	.....	.....
31	17.24	.....	16.05	.....	16.34	.....	.....	.....

* No record for July, September, October, and December.

h Tape measurement.

Village of Ithaca

GrIH 1. Village of Ithaca. Center and Maple Sts. Drilled unused artesian well in Saginaw formation, Parma sandstone, and Bayport limestone, diameter 10 to 8 inches, reported depth 785 feet, cased to 379. Land-surface datum is about 803 feet above msl. Highest water level 78.25 below lsd, Jan. 22, 1952; lowest 83.96 below lsd, Sept. 4, 1949. Records available: 1947-53. Jan. 28, 80.25; Feb. 26, 79.88; Mar. 26, 80.06; Apr. 27, 79.92; Aug. 14, 80.77; Nov. 12, 81.68.

Village of Perrinton

GrPE 1. Glenn Corson. South and Robinson Sts. Dug unused water-table well in deposits of Pleistocene age, diameter 30 inches, depth 31 feet, open bottom. Highest water level 1.82 below lsd, Jan. 17, 1952; lowest 21.23 below lsd, Dec. 16-17, 1949. Records available: 1947-53. Recording gage removed June 28, 1953.

Daily 2 a. m. water level, above lsd, from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
1	15.25	.....	14.31	11.42	.....	12.30	.....	.....
2	15.33	.....	14.33	11.59	.....	12.46	.....	.....
3	15.35	.....	14.32	11.75	h6.55	12.62	.....	.....
4	15.38	.....	13.75	11.87	6.66	12.75	.....	.....
5	15.43	.....	13.30	e11.99	7.00	12.88	.....	.....
6	15.49	.....	.....	h12.15	.....	13.01	.....	.....
7	.....	.....	.....	12.19	.....	13.17	.....	.....
8	.....	h14.17	.....	12.31	.....	13.36	.....	.....
9	.....	.....	.....	12.43	.....	13.48	.....	.....
10	.....	.....	.....	12.49	h9.37	13.68	.....	.....

GrPE 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
11	12.56	9.66	13.89	.....	.....
12	12.67	10.09	14.06	.....	h20.21
13	12.78	10.33	14.20	.....	.....
14	h16.13	.....	.....	12.89	10.67	14.35	h17.22	.....
15	h14.76	.....	13.02	10.93	14.51	.....	.....
16	h9.39	13.06	11.17	14.63	.....	.....
17	9.33	13.15	11.38	14.72	.....	.....
18	h14.60	.....	9.39	13.27	11.54	14.85	.....	.....
19	9.47	h13.42	11.72	14.98	.....	.....
20	7.20	13.48	11.89	15.08	.....	.....
21	13.58	12.05	15.17	.....	.....
22	h14.67	h8.16	13.67	12.19	15.31	.....	.....
23	8.41	13.71	12.36	15.44	.....	.....
24	8.74	13.82	12.54	15.58	.....	.....
25	9.15	13.93	12.69	15.70	.....	.....
26	h14.01	h14.58	9.61	h12.64	11.55	15.63	.....	.....
27	14.54	9.99	12.01	11.66	15.75	.....	.....
28	h14.04	14.42	10.31	11.68	11.82	15.86	.....	.....
29	10.62	11.60	11.98	.....	.....	.....
30	10.93	.....	12.07	.....	.....	.....
31	11.21	.....	12.17	.....	.....	.....

* No record for July, September, October, and December.

e Estimated.

h Tape measurement.

City of St. Louis

GrST 1. City of St. Louis. North and Mill Sts. Drilled unused artesian well in deposits of Pleistocene age, diameter 8 inches, depth 196 feet. Highest water level 21.2 below lsd, Dec. 20, 1948, Jan. 24, 1949; lowest 58.81 below lsd, Aug. 14, 1953. Records available: 1947-53. Jan. 28, 46.91; Feb. 26, 49.62; Mar. 26, 56.77; Apr. 27, 55.06; Aug. 14, 58.81; Nov. 12, 39.86.

Hillsdale County

City of Hillsdale

HdHD 1. City of Hillsdale. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 6 S., R. 3 W. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 5 inches, depth 70 feet. Measurements made by Hillsdale Board of Public Works. Highest water level 3.25 below lsd, Apr. 21, 1952; lowest 22.85 below lsd, Sept. 21, 1953. Records available: 1952-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 2	15.61	May 4	17.89	July 6	20.02	Sept. 14	22.50
8	15.50	11	18.10	13	20.49	21	22.85
16	16.24	18	18.14	20	20.76	28	22.82
23	17.02	25	18.29	27	20.45	Oct. 5	21.62
30	16.82	June 1	18.59	Aug. 10	20.80	12	18.06
Apr. 6	17.03	8	18.92	17	21.05	19	17.55
13	17.32	15	19.47	22	21.80	26	17.71
20	17.66	22	19.80	31	22.02	31	17.71
27	17.80	29	19.84	Sept. 8	22.26		

Ingham County

City of Lansing

IgLS 6. City of Lansing. Lapeer and Logan Sts. Drilled unused artesian well in Saginaw formation, diameter 20 inches, depth 424 feet. Highest water level 34.34 below lsd, Dec. 1929; lowest 143.67 below lsd, Aug. 7, 1953. Records available: 1929, 1931, 1933-53.

Jan. 31	138.82	May 1	139.23	Aug. 7	143.67	Nov. 24	141.40
Feb. 28	139.19	June 1	138.80	Sept. 30	143.0	Dec. 29	141.56
Mar. 28	139.10	29	142.72	Oct. 30	142.50		

IgLS 7. City of Lansing. North Grand River and Josephine Sts. Drilled unused artesian well in Saginaw formation, diameter 14 inches, depth 395 feet, cased to 49. Highest water level 15.63 below lsd, Mar. 26, 1931; lowest 149.1 below lsd, Sept. 30, 1953. Records available: 1919, 1929-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	142.96	May 1	144.30	Aug. 28	148.4	Nov. 24	146.98
Feb. 28	143.69	July 1	147.1	Sept. 30	149.1	Dec. 29	148.1
Mar. 28	141.03	Aug. 7	147.22	Oct. 30	148.2		

IgLS 8. City of Lansing. Townsend St. and Olds Ave. Drilled unused artesian well in Saginaw formation, diameter 14 inches, depth 423 feet, cased to 37. Highest water level 12.12 below lsd, Jan. 1919; lowest 51.39 below lsd, Aug. 10, 1953. Records available: 1919, 1929-53.

Jan. 31	47.19	May 1	49.29	Sept. 30	50.8	Nov. 24	49.20
Feb. 28	48.75	Aug. 10	51.39	Oct. 30	50.3	Dec. 29	50.0
Mar. 28	48.50						

IgLS 9. City of Lansing. South Cedar and Jay Sts. Drilled unused artesian well in Saginaw formation, diameter 12 inches, depth 417 feet. Highest water level 42.01 below lsd, Mar. 11, 1946; lowest 67.0 below lsd, Aug. 22, 1949. Records available: 1945-53. Recording gage removed May 4, 1953.

Daily 2 a.m. water level, below lsd, from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
1	53.52	53.84	54.40	54.27	53.92	.....	.....	.....
2	52.80	53.67	54.13	54.42	54.04	.....	.....	.....
3	52.88	53.77	54.17	54.40	53.99	.....	.....	.....
4	53.02	53.97	54.09	54.31	53.84	.....	.....	.....
5	52.97	54.01	54.32	54.15	.....	.....	.....	.....
6	53.34	53.76	54.52	53.70	.....	.....	.....	.....
7	53.54	54.16	54.54	53.92	.....	.....	h53.79	.....
8	53.53	53.89	54.20	54.14	.....	.....	.....	.....
9	53.56	53.91	54.12	54.09	.....	.....	.....	.....
10	53.66	54.14	54.15	53.91	.....	.....	.....	.....
11	53.26	53.99	54.25	54.28	.....	.....	.....	.....
12	53.49	53.92	54.30	54.02	.....	.....	.....	.....
13	53.42	54.09	54.27	53.84	.....	.....	.....	.....
14	53.74	54.15	54.45	54.09	.....	.....	.....	.....
15	53.77	53.88	54.00	54.10	.....	.....	.....	.....
16	53.85	53.87	54.02	53.89	.....	.....	.....	.....
17	54.01	54.13	54.26	54.18	.....	.....	.....	.....
18	53.52	54.26	54.22	54.22	.....	.....	.....	.....
19	53.49	54.31	54.28	53.98	.....	.....	.....	.....
20	53.68	54.22	54.52	53.80	.....	.....	.....	.....
21	53.79	54.04	54.56	53.95	.....	.....	.....	.....
22	53.93	54.28	54.24	53.97	.....	.....	.....	.....
23	53.91	54.05	53.92	54.08	.....	.....	.....	.....
24	53.70	54.18	54.28	54.23	.....	.....	.....	h52.67
25	53.70	54.26	54.38	53.97	.....	.....	.....	.....
26	53.32	54.09	54.52	53.80	.....	.....	.....	.....
27	53.47	54.20	54.45	53.74	.....	.....	.....	.....
28	53.64	54.55	54.43	54.00	.....	.....	.....	.....
29	53.77	.....	54.25	54.08	.....	h55.00	.....	.....
30	53.97	.....	54.20	54.04	.....	.....	.....	.....
31	53.92	.....	54.26	.....	.....	.....	.....	.....

* No record for July, September, October, and December.

h Tape measurement.

IgLS 33. Chesapeake and Ohio Railroad. Filley and Taylor Sts. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 12 inches, depth 38 feet, screen about 33. Highest water level 25.98 below lsd, Mar. 3, 1953; lowest 28.89 below lsd, Dec. 16, 29, 1953. Records available: 1953.

Daily 2 a.m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.75	26.67	26.92	27.32	27.63	27.89	.....	28.36	.....	28.39
2	26.42	26.92	27.12	27.38	27.57	27.95	.....	28.27	28.30	28.40
3	26.38	26.92	27.22	27.32	27.92	27.99	.....	28.25	28.23	28.40
4	26.31	26.83	27.02	27.27	27.72	27.85	.....	28.22	28.54	28.27
5	26.69	26.85	26.88	27.35	27.47	28.01	.....	28.10	.....	.....

IgLS 33--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	26.85	26.69	27.01	27.51	27.39	e28.12	.....	28.01	.....	28.28
7	26.92	26.77	27.07	27.44	27.60	28.04	.....	28.35	28.49	e28.58
8	26.49	26.95	27.12	27.19	27.63	27.99	28.07	28.27	28.22	28.53
9	26.54	26.83	27.23	27.25	27.72	27.97	28.05	28.23	28.43	28.52
10	26.52	26.64	27.06	27.50	27.81	27.95	28.03	28.28	28.47	28.44
11	26.60	27.20	26.84	27.47	27.75	27.92	27.95	28.13	28.33	.....
12	26.66	26.92	27.05	27.34	27.63	27.90	27.94	28.32	e28.55	.....
13	26.65	26.77	27.18	27.42	27.59	28.00	28.17	28.33	28.49	28.51
14	26.82	26.98	27.20	27.38	27.66	27.96	28.00	28.23	28.48	28.42
15	26.40	26.89	27.13	27.37	27.79	28.06	27.97	28.21	28.39	28.77
16	26.62	26.67	27.21	27.35	27.83	27.94	28.05	28.40	28.38	28.79
17	26.68	27.14	27.01	27.43	27.78	27.91	28.22	28.40	28.47	28.88
18	26.55	27.12	26.86	27.58	27.71	27.91	28.16	28.32	28.49	28.71
19	26.53	26.69	26.95	27.15	27.53	27.71	27.90	28.14	28.23	28.52	28.70
20	26.37	26.95	26.82	27.18	27.57	27.65	28.00	28.10	28.35	28.53	28.57
21	26.22	26.88	26.91	27.10	27.62	27.72	28.04	28.13	28.39	28.49	28.55
22	26.66	26.63	26.89	27.35	27.72	27.72	28.08	28.27	28.42	28.54	28.69
23	26.41	26.33	27.09	27.40	27.70	27.78	27.92	28.22	28.28	28.44	.....
24	26.44	26.66	27.28	27.39	27.66	e27.91	27.85	28.09	28.35	28.35	28.76
25	26.53	26.77	26.88	27.24	27.60	e27.92	27.92	28.13	28.44	28.49	28.60
26	26.31	26.90	26.89	27.26	27.77	e27.92	.....	28.26	28.26	.....	28.51
27	26.50	26.78	26.92	27.62	27.87	27.95	.....	28.00	28.28	.....	.....
28	26.89	26.78	27.06	27.57	27.65	27.91	.....	28.12	28.21	.....	28.44
29	26.78	27.07	27.41	27.70	27.85	.....	28.15	.....	28.41	28.62
30	26.76	26.97	27.22	27.57	e27.91	.....	28.18	.....	28.20	28.79
31	26.67	.....	27.31	.....	.....	28.83	.....	.....	.....	28.67

e Estimated.

City of Mason

IgMS 30. City of Mason. Jefferson Ave. and Okemos St. Drilled unused artesian well in Saginaw formation, diameter 6 inches, depth 150 feet. Measurements made by Water Dept. Highest water level 0.08 below lsd, June 29, 1949; lowest 5.72 below lsd, Sept. 12, 1953. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.18	Apr. 4	2.56	July 4	3.19	Oct. 3	3.68
10	3.02	11	2.35	11	.89	10	3.86
17	3.38	18	2.31	18	.19	17	3.05
24	3.40	25	2.29	25	1.08	24	3.09
31	3.34	May 2	2.50	Aug. 1	1.56	31	2.72
Feb. 7	3.97	9	2.99	8	1.69	Nov. 7	2.99
14	3.82	16	2.91	15	4.14	14	2.79
21	3.64	23	3.09	22	4.27	21	2.89
28	3.89	30	2.87	29	4.68	28	2.95
Mar. 7	3.73	June 6	3.16	Sept. 5	5.65	Dec. 5	2.88
14	3.38	13	3.29	12	5.72	12	3.27
21	3.51	20	4.49	19	5.46	19	3.58
28	3.04	27	4.38	26	4.88	26	3.60

Lansing Township

IgLS 35. Tank Bros. Dairy. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 4 N., R. 2 W. Drilled unused artesian well in Saginaw formation, diameter 3 inches, depth 107 feet. Highest water level 53.94 below lsd, Nov. 2, 1944; lowest 70.72 below lsd, Dec. 29, 1953. Records available: 1944-53.

Jan. 31	69.23	May 1	69.46	Sept. 26	70.27	Nov. 24	70.17
Feb. 28	69.69	July 27	70.17	Oct. 28	70.32	Dec. 29	70.72
Mar. 28	69.44	Aug. 31	70.35				

IgLS 265. Frank Clever. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 4 N., R. 2 W. Drilled unused artesian well in Saginaw formation, diameter 10 inches, depth 453 feet. Land-surface datum is 853.45 feet above msl. Highest water level 25.47 below lsd, Mar. 25, 1946; lowest 61.00 below lsd, Sept. 4, 1948. Records available: 1945-53.

IgLs 265--Continued.

Daily 2 a.m. water level, below lsd, from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	Aug.	Oct.	Nov.	Dec.
1	45.62	49.17	51.26	49.30	51.59	.....	.....	56.93	50.89
2	45.45	49.24	51.02	49.50	51.62	.....	.....	56.29	50.75
3	45.28	49.02	50.77	49.68	51.74	.....	.....	55.64	50.91
4	45.38	49.11	50.24	49.63	51.65	.....	.....	55.78	51.13
5	45.10	49.08	50.22	49.74	.....	.....	.....	55.73	51.90
6	45.50	48.74	50.42	49.68	.....	.....	.....	56.47	51.96
7	46.04	49.17	50.57	49.54	.....	56.93	.....	55.75	51.57
8	46.65	49.90	50.38	49.91	.....	.....	.....	55.03	51.20
9	47.09	50.19	50.26	50.40	.....	.....	.....	55.25	51.05
10	47.68	50.37	49.98	50.88	.....	.....	.....	55.36	51.01
11	47.86	50.32	49.96	51.34	.....	.....	.....	55.66	51.56
12	48.18	50.27	49.89	51.56	.....	.....	.....	55.20	51.92
13	48.27	50.22	49.92	51.30	.....	.....	.....	54.92	51.68
14	48.40	50.16	50.49	51.23	.....	.....	.....	54.72	51.28
15	48.52	50.13	50.26	51.45	.....	.....	.....	54.28	51.02
16	48.81	50.11	50.23	51.11	.....	.....	.....	53.73	50.91
17	49.01	50.04	50.11	51.76	.....	.....	.....	53.39	50.88
18	48.94	50.14	50.07	52.34	.....	.....	.....	53.51	50.88
19	49.07	50.30	50.51	52.35	.....	.....	.....	53.74	50.83
20	49.05	50.87	50.72	52.11	.....	.....	.....	54.05	50.44
21	49.23	50.47	50.75	e51.84	.....	.....	58.92	54.21	50.08
22	49.24	50.71	50.59	e51.74	.....	.....	59.10	53.84	49.72
23	49.21	50.54	50.14	e51.87	.....	.....	59.25	52.87	49.67
24	49.04	50.47	50.19	e52.08	.....	.....	59.40	52.93	49.37
25	49.00	50.48	50.15	e52.49	.....	.....	59.04	53.10	48.92
26	49.29	50.66	50.50	e52.20	.....	.....	57.64	52.82	48.60
27	49.07	50.78	50.39	51.75	.....	.....	56.68	52.29	48.47
28	48.90	51.27	50.16	51.65	.....	.....	56.74	52.37	48.07
29	49.06	.....	49.84	51.62	.....	.....	57.17	52.09	47.84
30	49.14	.....	49.60	51.60	.....	.....	57.49	51.34	47.78
31	49.03	.....	49.37	.....	.....	.....	57.56	.....	47.70

* No record for June, July, and September.

e Estimated.

IgLs 271. Harry DeLaere. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 4 N., R. 2 W. Drilled unused artesian well in Saginaw formation, diameter 3 inches, depth 204 feet. Highest water level 18.92 below lsd, Apr. 26, 1952; lowest 24.67 below lsd, Dec. 29, 1953. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	23.22	May 1	22.19	July 27	23.40	Oct. 28	24.12
Feb. 28	23.40	June 1	22.39	Aug. 31	23.84	Nov. 24	24.25
Mar. 28	22.76	29	22.87	Sept. 29	23.99	Dec. 29	24.67

Iosco County

Wilbur Township

IcWr 1. U. S. Forest Service. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 23 N., R. 7 E. Drilled unused artesian well, diameter 6 inches, depth 341 feet. Highest water level 25.13 below lsd, Aug. 3, 1952; lowest 27.94 below lsd, Jan. 3, 10, 1950. Records available: 1948-53. Recording gage removed July 3, 1953.

Daily 2 a.m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Oct.
1	25.58	.....	25.71	25.71	25.56	25.51	25.55	.....
2	25.57	.....	25.77	25.71	25.56	25.57	25.41	.....
3	25.51	.....	25.73	25.75	25.63	25.57	25.43	.....
4	25.52	.....	25.48	.....	25.70	25.53	.....	.....
5	25.52	.....	25.53	25.67	25.68	25.45	.....	.....
6	25.57	.....	25.66	25.73	25.66	25.43	.....	h25.66
7	25.64	25.61	25.77	25.72	25.64	25.48	.....	.....
8	25.68	25.63	25.78	25.76	25.63	.....	.....	.....
9	25.63	26.71	25.77	25.75	25.63	.....	.....	.....
10	25.64	25.83	25.76	25.62	25.65	.....	.....	.....

IcWr 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Oct.
11	25.51	25.78	25.78	25.64	25.63	.....	.....	.....
12	25.64	25.55	25.76	25.72	25.65	.....	.....	.....
13	25.56	25.58	25.70	25.71	25.67	.....	.....	.....
14	25.67	25.59	25.75	25.75	25.75	25.56	.....	.....
15	25.65	25.58	25.70	25.78	25.72	25.55	.....	.....
16	25.58	25.61	25.62	25.57	25.71	25.52	.....	.....
17	25.76	25.67	25.70	25.62	25.68	25.47	.....	.....
18	25.50	25.73	25.70	25.68	25.52	25.52	.....	.....
19	25.58	25.72	25.55	25.68	25.55	25.51	.....	.....
20	25.60	25.74	25.65	25.68	25.57	25.50	.....	.....
21	25.64	25.48	25.73	25.68	25.56	25.49	.....	.....
22	25.66	25.70	25.69	25.68	25.55	25.55	.....	.....
23	25.66	25.73	25.64	25.61	25.59	25.59	.....	.....
24	25.52	25.73	25.66	25.74	25.65	25.63	.....	.....
25	25.52	25.70	25.66	25.71	25.64	25.57	.....	.....
26	25.68	25.59	25.73	25.57	25.49	25.54	.....	.....
27	25.65	25.52	25.70	25.56	25.58	25.61	.....	.....
28	25.57	25.65	.....	25.61	25.64	25.60	.....	.....
29	25.60	.....	25.65	25.67	25.66	25.62	.....	.....
30	25.67	.....	25.76	25.68	25.54	25.62	.....	.....
31	25.64	.....	25.75	.....	25.50	.....	.....	.....

* No record for August, September, November, and December.

h Tape measurement.

Jackson County

City of Jackson

JaJA 2. City of Jackson. Elm Ave. extended and New York Central Railroad tracks. Drilled unused artesian well in sandstone, diameter 12 inches, reported depth 165 feet, cased to about 80. Measurements made by City Dept. of Water Supply. Highest water level 12.9 below lsd, June 1, 1952; lowest 37.0 below lsd, June 20, 1953. Records available: 1952-53. Measurement discontinued.

Daily 2 a.m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	24.2	26.1	27.5	28.8	32.3	....	34.8
2	23.5	24.7	25.8	31.5	34.0	....	32.2
3	24.2	27.9	26.5	31.5	27.5	....	.....
4	....	29.3	29.8	31.5	26.7	....	.....
5	29.7	29.7	29.8	28.2	33.8	....	.....
6	26.9	29.8	29.5	25.7	31.1	....	.....
7	27.5	28.7	29.3	29.3	32.2	....	.....
8	27.3	26.3	27.1	29.4	31.0	....	.....
9	28.1	25.7	23.5	31.6	32.4	....	.....
10	27.3	28.5	....	31.6	27.7	....	.....
11	24.5	28.9	....	31.2	24.6	....	.....
12	23.1	30.5	....	28.5	....	....	.....
13	....	29.1	....	26.9	....	....	.....
14	....	29.3	....	28.7	....	....	.....
15	....	27.5	....	29.5	....	h33.8	.....
16	....	h32.8	h32.0	31.5	....	30.6	.....
17	....	28.4	27.7	30.9	....	33.3	.....
18	....	28.7	27.6	31.6	h33.4	31.3	.....
19	30.5	29.7	30.2	26.4	29.1	32.4	.....
20	28.2	29.5	28.9	26.6	32.5	e37.0	.....
21	29.6	28.9	29.5	30.0	30.6	28.2	.....
22	28.2	26.9	25.0	31.6	29.4	h34.7	.....
23	29.3	27.7	25.9	31.7	....	32.1	.....
24	29.4	28.8	29.1	33.8	....	32.7	.....
25	25.7	29.4	29.7	33.5	32.8	33.5	.....
26	25.7	29.0	30.2	27.0	....	32.6	.....
27	27.5	30.0	31.5	25.0	....	33.7	.....
28	28.8	31.0	30.4	30.0	....	27.3	.....
29	29.5	.....	26.0	30.0	....	30.7	.....
30	30.5	.....	25.2	33.0	....	33.1	.....
31	29.6	.....	28.6	.....	....	.....	.....

* No record for August, September, October, November, and December.

e Estimated.

h Tape measurement.

Kalamazoo County

City of Kalamazoo

KoKO 114. City of Kalamazoo. Burdick and Wall Sts. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 115 feet. Land-surface datum is 777.45 feet above msl. Measurements made by City Light and Water Utilities. Highest water level 11.22 below lsd, Mar. 11, 1952; lowest 29.36 below lsd, Aug. 9, 1946. Records available: 1946-53.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.78	15.78	16.09	15.92	15.89	15.95	.....	20.02	22.66	21.68	20.68	20.41
2	15.69	15.71	16.06	15.80	15.89	16.00	.....	19.81	22.98	21.47	20.58	20.39
3	15.63	15.73	15.95	15.81	15.92	16.05	.....	19.66	23.21	21.47	20.54	19.97
4	15.68	15.79	15.87	15.81	15.88	16.10	.....	19.55	23.39	21.25	20.59	19.65
5	15.60	15.86	15.86	15.84	15.86	16.14	.....	.....	22.77	21.08	20.59	19.53
6	15.55	15.84	15.85	15.77	15.90	16.23	17.73	.....	.....	.....	20.63	19.43
7	15.61	15.96	15.96	15.76	15.89	16.18	17.68	.....	.....	.....	20.61	19.33
8	.....	15.97	16.05	15.83	15.94	16.06	.....	19.71	.....	.....	20.57	19.27
9	.....	16.00	16.02	16.15	15.98	16.04	17.57	19.60	.....	.....	20.54	19.23
10	e15.62	16.06	15.97	16.02	15.98	16.06	17.56	19.46	.....	20.69	20.56	.....
11	15.61	16.01	15.96	16.03	15.99	16.09	17.55	19.38	.....	20.68	20.53	.....
12	15.66	16.01	15.97	15.94	16.03	16.13	17.56	19.37	.....	20.62	20.60	19.09
13	15.60	16.10	15.94	15.84	16.05	16.20	17.54	19.67	.....	20.60	20.59	19.18
14	15.67	16.10	15.99	15.81	16.08	.....	18.59	19.56	21.18	20.60	20.62	19.10
15	15.68	16.13	15.87	15.81	16.09	.....	19.17	19.69	21.12	20.59	20.57	19.10
16	15.73	16.10	15.79	15.77	16.15	.....	19.57	19.85	21.05	20.65	20.57	19.09
17	15.69	.....	15.77	15.79	16.12	.....	19.89	19.69	20.97	20.68	20.56	19.12
18	15.62	.....	15.71	15.81	16.05	.....	19.81	19.75	20.95	20.70	20.56	19.12
19	15.59	.....	15.71	15.83	16.04	.....	19.12	19.66	20.91	20.67	20.59	19.10
20	15.58	.....	15.74	15.76	16.07	17.61	18.80	19.65	20.85	20.71	20.57	19.01
21	15.60	16.11	15.69	15.79	16.03	17.53	.....	20.50	20.79	20.77	20.57	18.95
22	15.66	16.10	15.67	15.76	16.02	17.29	.....	20.41	20.77	20.83	20.61	18.97
23	15.67	16.00	15.60	15.83	15.96	17.49	.....	20.18	20.73	21.11	20.55	19.01
24	15.64	16.00	15.60	15.87	15.89	18.28	.....	20.25	20.71	21.01	20.54	19.00
25	15.61	16.03	15.62	15.88	15.75	18.31	19.88	21.07	20.67	20.98	20.51	18.96
26	15.63	15.96	15.53	15.88	15.72	17.68	20.20	21.53	20.64	20.92	20.51	18.93
27	15.57	15.97	15.47	15.85	15.78	17.51	20.20	21.89	20.57	20.84	20.50	.....
28	15.64	16.05	15.48	15.88	15.82	17.39	20.63	22.18	20.48	20.79	20.46	.....
29	15.65	.....	15.59	15.87	15.87	17.27	20.97	22.42	20.43	.....	20.49	.....
30	15.71	.....	15.61	15.90	15.89	.....	21.15	22.63	20.76	.....	20.43	18.45
31	15.77	.....	15.62	.....	15.90	.....	20.35	22.02	.....	20.70	.....	18.44

e Estimated.

KoKO 227. Hanselman Bldg. Corp. North Burdick St. and West Michigan Ave. Drilled unused artesian well in deposits of Pleistocene age, diameter 4 inches, depth 80 feet. Land-surface datum is 781.27 feet above msl. Highest water level 20.15 below lsd, June 4, 1948; lowest 27.04 below lsd, Oct. 17, 1946. Records available: 1946-53. Jan. 30, 23.86; Feb. 27, 23.18; Apr. 15, 22.87; Aug. 26, 25.87; Nov. 6, 26.94.

KoKO 240. Reed Land Co. Factory St. and Lane Blvd. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 41 feet. Land-surface datum is 773.71 feet above msl. Measurements made by City Light and Water Utilities. Highest water level 3.63 below lsd, Apr. 26, 1950; lowest 11.14 below lsd, Nov. 6, 1953. Records available: 1947-53. Recording gage removed June 22, 1953.

Daily 2 a. m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
1	7.13	7.04	7.03	7.00	7.02	7.31	.....	.....
2	7.14	7.05	7.03	6.93	6.73	7.39	.....	.....
3	7.14	7.07	7.05	6.93	6.60	7.44	.....	.....
4	7.15	7.10	6.83	6.88	6.60	7.47	.....	.....
5	7.17	7.13	6.64	6.88	6.58	7.49	.....	.....
6	7.23	7.10	6.67	6.88	6.60	7.50	.....	h11.14
7	.....	7.12	6.74	6.88	6.65	7.48	.....	.....
8	.....	7.12	6.72	6.96	6.68	7.50	.....	.....
9	.....	.....	6.77	6.96	6.71	7.54	.....	.....
10	7.32	.....	6.83	6.95	6.74	7.59	.....	.....
11	.....	.....	6.89	6.92	6.77	7.64	.....	.....
12	.....	.....	6.94	6.91	6.85	7.68	.....	.....
13	.....	.....	6.87	6.91	6.63	.....	.....	.....
14	.....	e7.20	6.77	7.01	6.62	.....	.....	.....
15	.....	7.21	6.67	7.07	6.71	.....	.....	.....

KoKO 240--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
16	....	7.22	6.47	7.00	6.76	....	....	....
17	7.00	7.25	6.45	6.95	6.76	....	....	....
18	....	7.30	6.48	6.90	6.77	....	....	....
19	....	7.34	6.52	6.92	6.83	....	....	....
20	....	7.37	6.63	6.92	6.92	....	....	....
21	....	7.14	6.67	6.96	....	....	....	....
22	....	7.00	6.66	6.97	....	h7.94	....	....
23	....	6.97	6.64	7.00	7.00	....	....	....
24	6.79	7.01	6.72	7.06	7.01	....	....	....
25	6.74	7.04	6.73	7.03	7.04	....	....	....
26	6.75	7.02	6.83	7.03	....	....	h8.82	....
27	....	7.05	6.88	7.02	....	....	....	....
28	....	7.05	6.92	7.05	....	....	....	....
29	....	....	6.91	7.07	....	....	....	....
30	7.02	....	6.93	7.06	7.25	....	....	....
31	7.02	....	6.96	....	7.27	....	....	....

* No record for July, September, October, and December.

e Estimated.

h Tape measurement

KoKO 242. Kalamazoo Creamery. Portage and Lake Sts. Drilled unused artesian well in deposits of Pleistocene age, diameter 12 inches, depth 61 feet. Land-surface datum is 773.19 feet above msl. Measurements made by City Light and Water Utilities. Highest water level 13.98 below lsd, May 3-4, 1950; lowest 27.42 below lsd, Dec. 5-6, 1946. Records available: 1946-53. Recording gage removed June 22, 1953.

Daily 2 a.m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Nov.
1	19.95	19.94	20.16	19.32	19.38	19.91	....	....
2	20.03	20.02	20.21	19.36	19.51	19.81	....	....
3	19.90	19.89	20.08	19.34	19.69	19.79	....	....
4	19.90	19.99	19.98	19.34	19.74	19.77	....	....
5	19.99	19.97	19.97	19.45	e19.59	19.80	....	....
6	19.95	19.79	20.04	19.37	e19.51	19.79	....	h23.94
7	19.97	19.91	20.05	19.27	e19.50	20.04	....	....
8	19.92	19.91	20.06	19.32	e19.55	20.08	....	....
9	19.91	20.11	20.09	19.38	e19.54	19.96	....	....
10	19.93	20.04	19.92	19.34	19.68	19.98	....	....
11	19.90	19.94	19.90	19.46	19.64	19.97	....	....
12	20.15	19.91	19.88	19.62	19.66	19.91	....	....
13	19.97	19.96	19.65	19.63	19.65	19.90	....	....
14	20.02	19.96	19.86	19.53	19.63	....	....	....
15	20.00	20.15	19.91	19.40	19.64	....	....	....
16	20.01	20.22	19.96	19.35	19.64	....	....	....
17	20.01	20.14	19.81	19.50	19.64	....	....	....
18	19.99	20.09	19.73	19.52	19.63	....	....	....
19	19.98	20.14	19.70	19.54	19.67	....	....	....
20	19.94	20.20	19.49	19.54	19.65	....	....	....
21	19.92	19.99	19.53	19.52	19.58	....	....	....
22	19.95	20.29	19.54	19.39	....	h20.16	....	....
23	19.93	20.23	19.53	19.50	19.70	....	....	....
24	19.86	20.11	19.45	19.57	19.67	....	....	....
25	19.90	20.08	19.45	19.41	19.60	....	h21.96	....
26	20.01	20.01	19.50	19.47	19.44	....	....	....
27	19.84	20.02	19.43	19.69	19.71	....	....	....
28	19.87	20.09	19.37	19.56	19.72	....	....	....
29	19.86	....	19.42	19.46	19.67	....	....	....
30	19.87	....	19.42	19.44	19.59	....	....	....
31	19.85	....	19.34	....	19.82	....	....	....

* No record for July, September, October, and December.

e Estimated.

h Tape measurement.

KoKO 284. Bryant Paper Co. Alcott and Portage Sts. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 12 inches, depth 113 feet, screen 83-113. Land-surface datum is 802.59 feet above msl. Measurements made by City Light and Water Utilities. Highest water level 34.46 below lsd, May 5, 1950; lowest 64.37 below lsd, Sept. 1, 1946. Records available: 1946-53.

KoKo 284--Continued.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	38.42	38.57	38.79	38.68	.....	38.67	39.61	e40.63	41.18	41.73	41.87	41.80
2	38.27	38.58	38.68	38.69	38.97	38.88	39.57	40.52	41.20	41.75	41.82	41.78
3	38.31	38.60	38.85	38.71	38.66	38.95	39.69	40.25	41.28	41.81	41.83	41.76
4	38.31	38.75	38.55	38.57	38.56	38.95	39.72	40.47	41.36	41.66	41.83	41.71
5	38.18	38.73	38.95	38.55	38.68	39.11	.....	40.49	41.43	41.62	41.95	41.83
6	38.48	38.62	38.94	38.42	38.65	39.17	39.42	40.54	41.26	41.71	41.86	41.54
7	38.56	38.81	39.00	38.70	38.70	39.09	.....	40.62	41.21	41.74	41.76	41.59
8	38.51	38.69	38.74	38.78	38.74	38.86	.....	40.61	41.23	41.79	41.61	41.71
9	38.46	38.72	38.71	38.74	38.73	39.05	.....	40.54	41.44	41.77	.....	41.67
10	38.43	38.75	38.81	38.76	38.56	38.97	.....	40.42	41.42	41.62	.....	41.69
11	38.36	.....	38.85	38.86	38.43	39.14	39.76	40.63	41.46	41.70	.....	41.68
12	38.34	.....	38.85	38.62	38.67	39.15	39.68	40.67	41.50	41.71	41.83	41.65
13	38.40	.....	38.76	38.50	38.76	39.16	39.56	40.67	.....	41.82	41.77	41.65
14	38.55	e38.77	38.73	38.73	38.77	.....	40.86	40.69	41.41	41.85	41.79	41.46
15	38.61	38.70	38.62	38.70	38.69	.....	40.06	40.80	41.57	41.89	41.68	41.80
16	38.67	38.70	38.65	38.64	38.74	.....	40.07	40.72	41.58	41.93	41.58	41.80
17	38.62	38.82	38.79	.....	38.52	.....	.....	40.64	41.61	41.86	41.74	41.82
18	38.44	38.82	38.77	38.85	38.43	.....	40.61	40.71	41.64	41.78	41.74	41.77
19	38.33	38.83	38.78	38.52	38.68	.....	39.96	40.81	41.68	41.78	41.80	41.70
20	38.57	38.81	38.87	38.39	38.72	.....	40.04	40.92	41.52	42.04	41.77	41.55
21	38.58	38.80	38.81	38.53	38.70	.....	40.16	40.94	41.50	42.10	41.84	41.47
22	38.63	38.51	38.56	38.59	38.78	39.19	40.06	41.06	41.71	42.10	41.73	41.61
23	38.67	38.85	38.42	38.60	38.87	39.44	40.07	40.78	41.68	42.01	41.66	41.70
24	38.46	38.89	38.60	38.67	38.65	39.48	40.15	40.70	41.66	42.11	41.74	41.65
25	38.50	38.89	38.70	38.60	38.48	39.54	40.15	40.98	41.71	41.93	41.78	41.49
26	38.60	38.81	38.70	38.49	38.70	39.62	40.15	41.03	41.68	41.82	41.77	41.41
27	38.55	38.82	38.67	38.43	38.73	39.59	40.09	41.49	41.49	41.91	41.60	.....
28	38.59	38.58	38.58	.....	38.77	39.47	40.18	41.12	41.45	42.05	41.79	.....
29	38.65	.....	38.45	.....	38.82	39.47	40.21	41.14	41.65	42.03	41.61	.....
30	38.62	.....	38.42	.....	38.79	39.57	40.29	40.99	41.63	42.04	41.53	.....
31	38.54	.....	38.60	.....	38.69	.....	.....	40.97	.....	42.01	.....	.....

e Estimated.

City of Parchment

KoPT 50. Kalamazoo Vegetable Parchment Co. Riverview Ave. and Robert Lane. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 12 inches, depth 36 feet. Land-surface datum is 774.05 feet above msl. Measurements made by Maintenance Dept. Highest water level 19.60 below lsd, Apr. 20, 1952; lowest 24.60 below lsd, July 27, 1953. Records available: 1951-53. Recording gage removed June 26, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.54	21.98	21.94	22.47	22.92	22.41	.....	.....	.....	.....	.....	.....
2	21.87	21.90	21.79	22.55	22.85	23.22	.....	.....	.....	.....	h20.15	.....
3	22.07	22.18	22.23	22.58	22.44	23.43	.....	h23.54	.....	.....	.....	.....
4	21.90	22.15	22.23	22.59	22.27	23.58	.....	.....	.....	.....	.....	.....
5	21.84	22.28	22.24	22.04	22.77	23.76	.....	.....	.....	h21.15	.....	.....
6	22.15	22.26	22.10	21.70	22.91	23.81	.....	.....	.....	.....	h20.95	.....
7	22.25	22.30	22.13	22.39	22.97	23.72	.....	.....	.....	.....	.....	h20.75
8	22.31	21.96	21.84	22.52	23.07	22.85	.....	.....	.....	.....	.....	.....
9	22.36	21.67	21.73	22.59	23.17	23.33	.....	.....	.....	.....	h20.96	.....
10	22.35	22.22	21.96	22.62	22.75	23.34	.....	h22.35	.....	.....	.....	.....
11	21.94	22.32	22.08	22.65	22.59	23.22	.....	.....	.....	.....	.....	.....
12	21.98	22.39	22.20	22.11	23.05	23.30	.....	.....	.....	h21.16	.....	.....
13	22.25	22.47	22.20	21.86	23.02	23.41	h23.97	.....	.....	.....	.....	.....
14	22.35	22.53	22.24	22.59	.....	23.50	.....	.....	h21.23	.....	.....	h20.67
15	22.36	22.08	21.74	22.76	.....	23.11	.....	.....	.....	.....	.....	.....
16	22.38	21.79	21.45	22.82	.....	23.66	.....	.....	.....	.....	h20.88	.....
17	22.33	22.86	21.75	22.91	.....	.....	.....	h21.73	.....	.....	.....	.....
18	22.00	22.48	21.82	22.87	.....	23.98	.....	.....	.....	.....	.....	.....
19	21.83	22.58	21.86	22.16	22.85	23.87	.....	.....	.....	h21.17	.....	.....
20	22.06	22.62	21.87	21.84	22.91	24.04	h23.82	.....	.....	.....	.....	.....
21	22.17	22.59	21.88	22.60	23.03	24.11	.....	.....	h21.22	.....	.....	h20.78
22	22.26	22.23	21.48	22.74	23.14	23.74	.....	.....	.....	.....	.....	.....
23	22.30	21.81	21.26	22.86	23.21	24.03	.....	.....	.....	.....	.....	.....
24	22.22	22.24	22.07	22.96	22.73	24.16	.....	h21.45	.....	.....	.....	.....
25	21.90	22.30	22.26	23.03	22.31	24.24	.....	.....	.....	.....	h20.85	.....

KoVB 7--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	2.36	4.67	4.63	4.52	4.85	....	....	h4.87	....	....	....	....
12	1.85	4.75	4.67	4.55	4.73	....	....	....	....	....	....	....
13	4.34	4.72	4.90	4.70	4.63	....	....	....	....	....	....	....
14	4.43	4.76	4.65	4.67	4.56	....	....	....	....	....	....	....
15	4.86	4.71	4.56	....	....	h4.44	....	....	h5.71	....	....	....
16	4.59	4.71	4.54	....	....	....	....	....	....	....	....	h5.46
17	4.60	4.77	....	....	....	....	....	....	....	....	....	....
18	4.65	4.85	....	....	3.97	....	....	....	....	....	h5.16	....
19	4.71	4.83	....	....	4.12	....	....	h4.74	....	....	....	....
20	5.03	4.85	....	....	4.34	....	....	....	....	....	....	....
21	5.10	4.74	....	4.18	4.41	....	....	....	....	h5.13	....	....
22	5.10	2.29	....	4.20	4.58	h4.74	h4.13	....	....	....	....	....
23	4.91	1.74	....	4.33	4.62	....	....	....	h5.86	....	....	h5.34
24	4.85	4.79	....	4.72	4.75	....	....	....	....	....	....	....
25	2.24	5.27	....	4.47	4.80	....	....	....	....	....	h5.90	....
26	1.69	5.44	....	4.52	4.80	h5.24	....	....	....	....	....	....
27	4.02	5.68	....	4.47	5.03	....	....	....	....	....	....	....
28	4.30	5.62	....	4.52	4.94	....	....	h4.84	....	....	....	....
29	4.73	....	....	4.58	4.97	....	....	....	....	h5.86	....	....
30	4.54	....	4.46	4.59	4.96	....	....	....	h5.80	....	....	h5.06
31	4.60	....	4.47	....	2.30	....	....	....	....	....	....	....

h Tape measurement.

Kalamazoo Township

KoKo 42. Western Michigan College of Education. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 2 S., R. 11 W. Drilled unused artesian well in deposits of Pleistocene age, diameter 8 inches, depth 78 feet. Land-surface datum is 868.68 feet above msl. Highest water level 33.44 below lsd, June 19, 1950; lowest 36.43 below lsd, Dec. 5, 1946. Records available: 1946-53. Jan. 30, 34.68; Feb. 27, 34.77; Apr. 14, 34.88; Aug. 23, 35.61; Nov. 6, 35.94.

Schoolcraft Township

KoSc 3. H. H. Chamberlain. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 4 S., R. 11 W. Driven unused water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{4}$ inches, depth 19 feet. Highest water level 10.65 below lsd, June 5, 1950; lowest 12.39 below lsd, Mar. 3, 1953. Records available: 1950-53. Measurement discontinued.

1951

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	11.82	Apr. 9	11.71	July 10	11.92	Oct. 2	11.83
7	11.92	16	11.65	16	11.92	16	11.79
10	11.39	24	11.66	23	11.71	23	11.76
16	11.46	May 1	11.68	31	11.55	31	11.38
23	11.56	7	11.70	Aug. 6	11.67	Nov. 7	11.47
30	11.73	14	11.65	14	11.73	14	11.40
Feb. 13	11.60	22	11.75	21	11.39	20	11.14
19	11.49	29	11.75	28	11.52	27	11.23
26	11.38	June 6	11.80	Sept. 4	11.63	Dec. 4	11.28
Mar. 6	11.47	11	11.82	12	11.70	11	11.25
12	11.65	18	11.89	16	11.75	19	11.29
19	11.60	26	11.85	25	11.83	27	11.40
Apr. 2	11.72	July 2	11.95				

1952

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	11.15	Apr. 8	11.20	July 10	11.40	Oct. 7	12.06
8	11.07	15	11.06	16	11.46	15	12.09
15	11.10	22	10.92	23	11.37	22	12.13
23	10.68	29	11.05	30	11.50	29	12.14
29	10.68	May 6	11.34	Aug. 6	11.54	Nov. 6	12.24
Feb. 5	10.73	13	11.24	13	11.59	12	12.26
12	10.86	21	11.30	20	11.60	18	12.28
20	10.92	26	11.02	27	11.69	25	12.25
26	11.07	June 2	10.92	Sept. 2	11.77	Dec. 2	12.29
Mar. 4	11.18	10	11.06	10	11.84	9	12.29
11	11.22	13	11.16	16	11.91	16	12.31
18	11.23	24	11.20	25	11.90	23	12.26
25	11.10	July 1	11.28	30	12.02	30	12.31
Apr. 1	11.16						

KoSc 3--Continued.

1953

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	12.38	Feb. 17	12.37	Mar. 10	12.21	Apr. 8	12.06
21	12.36	24	12.34	18	12.10	15	12.12
27	12.20	Mar. 3	12.39	23	11.98	22	12.12
Feb. 10	12.33						

KoSc 4. H. H. Chamberlain. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 11 W. Driven unused water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 19 feet. Highest water level 9.23 below lsd, May 9, 1950; lowest 15.79 below lsd, Mar. 10, 1947. Records available: 1945-53. Jan. 7, 10.66; Jan. 14, 13.34; Jan. 21, 12.45; Jan. 27, 13.45. Measurement discontinued.

KoSc 5. H. H. Chamberlain. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 4 S., R. 11 W. Driven unused water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 19 feet. Highest water level 14.00 below lsd, May 26, 1953; lowest 15.16 below lsd, Dec. 30, 1953. Records available: 1953.

Apr. 28	14.06	July 1	14.39	Sept. 2	14.85	Nov. 5	15.05
May 6	14.10	9	14.43	8	14.88	11	15.05
13	14.11	15	14.52	15	14.89	18	15.08
20	14.06	23	14.58	23	14.89	25	15.08
26	14.00	28	14.63	29	14.92	Dec. 3	15.15
June 3	14.20	Aug. 4	14.63	Oct. 6	14.98	9	15.06
9	14.22	13	14.67	14	15.00	16	15.11
17	14.26	19	14.71	23	15.02	23	15.13
23	14.42	25	14.76	27	15.05	30	15.16

Kalkaska County

Blue Lake Township

KaBk 22. Michigan Dept. of Conservation. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 28 N., R. 5 W. Driven observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 14 feet, open bottom. Highest water level 8.62 below lsd, Apr. 16, 1953; lowest 11.77 below lsd, Dec. 14, 1949. Records available: 1949-53.

Jan. 14	10.27	Apr. 16	8.62	July 16	9.15	Oct. 31	10.25
Feb. 17	10.29	May 15	8.98	Sept. 30	9.93	Dec. 8	10.60
Mar. 17	9.90	June 16	9.01	Oct. 5	10.03		

Clearwater Township

KaCw 100. Michigan Dept. of Conservation. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 27 N., R. 5 W. Jetted observation water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 16 feet, screen 14-16. Highest water level 11.12 below lsd, July 11, 1943; lowest 14.69 below lsd, Mar. 12, 1940. Records available: 1939-53.

Jan. 14	13.20	Apr. 16	11.93	July 16	12.08	Oct. 31	13.05
Feb. 17	13.34	May 15	12.13	Sept. 30	12.79	Dec. 8	13.40
Mar. 17	13.10	June 16	12.18	Oct. 5	12.84		

Kent County

City of Grandville

KeGV 13. Jervis Corp. Wallace and 30th Sts. Drilled observation water-table well in gravel of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 20 feet, screen 17-20. Land-surface datum is 608.26 feet above msl. Measurements made by Jervis Corp. Highest water level 9.09 below lsd, May 5, 1950; lowest 16.20 below lsd, Dec. 11, 1953. Records available: 1950-53.

Jan. 2	14.35	Mar. 20	14.00	May 29	13.30	Oct. 9	15.48
9	14.45	27	13.75	June 5	13.30	16	15.40
16	14.45	Apr. 3	13.65	12	13.40	23	15.50
23	14.50	10	13.60	19	13.60	30	e15.65
30	14.45	17	13.55	26	13.65	Nov. 6	15.78
Feb. 6	14.40	24	13.55	Aug. 28	14.10	13	15.89
13	14.40	May 1	13.55	Sept. 11	14.65	27	15.84
20	14.35	8	13.50	18	e14.90	Dec. 4	16.15
27	14.25	15	13.40	25	15.05	11	16.20
Mar. 6	14.20	22	13.35	Oct. 2	e15.37	18	15.46
13	14.05						

e Estimated.

Manistee County

Norman Township

Msnr 1. State of Michigan. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 21 N., R. 14 W. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 62 feet. Highest water level 12.54 below lsd, May 8, 1951; lowest 16.12 below lsd, Dec. 19, 1949. Records available: 1949-53. Jan. 9, 15.76; Feb. 10, 15.64; Mar. 12, 14.99; Apr. 27, 13.83; June 1, 13.37; Oct. 12, 14.95.

Mason County

Logan Township

MaLo 1. State Dept. of Conservation. U. S. Forest Service, Manistee National Forest. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 17 N., R. 15 W. Drilled unused water-table well in deposits of Pleistocene age, diameter 6 inches, depth 32 feet. Land-surface datum is 737.37 feet above msl. Highest water level 14.44 below lsd, May 15, 1952; lowest 18.50 below lsd, Mar. 1, 1951. Records available: 1948-53. Jan. 9, 17.71; Feb. 10, 17.75; Mar. 12, 17.29; Apr. 27, 16.37; June 1, 15.11; Oct. 14, 17.18.

Montcalm County

City of Greenville

MmGV 9. City of Greenville. Fairplain St. and Pere Marquette Railroad. Drilled unused artesian well in gravel of Pleistocene age, diameter 12 inches, depth 65 feet, screen 45-65. Measurements made by City Waterworks. Highest water level 11.40 below lsd, Apr. 1, 1950; lowest 16.33 below lsd, July 29, 1953. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	13.91	Mar. 11	14.35	May 20	14.25	July 29	16.33
7	14.05	18	12.98	27	14.23	Aug. 5	14.84
14	14.17	25	13.11	June 3	14.73	12	14.83
21	13.99	Apr. 1	13.96	10	14.84	Nov. 25	15.12
28	14.47	8	14.03	17	14.76	Dec. 2	15.32
Feb. 4	14.59	15	14.11	24	15.21	9	15.17
11	14.07	22	14.13	July 1	14.71	16	15.22
18	14.54	29	13.81	8	14.81	23	15.26
25	13.21	May 6	13.19	15	15.47	30	15.15
Mar. 4	12.97	13	13.99	22	15.11		

Montmorency County

Albert Township

MyAb 1. State Dept. of Conservation. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 29 N., R. 2 E. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 64 feet. Highest water level 10.29 above lsd, May 13, 1953; lowest 4.95 below lsd, Jan. 29, 1949. Records available: 1948-53. Apr. 21, +8.41; May 13, +10.29; June 19, +8.64.

Briley Township

MyBr 6. State Dept. of Conservation. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 31 N., R. 2 E. Jetted observation water-table well in sand and gravel of Pleistocene age, diameter 2 inches, depth 13 feet, open bottom. Highest water level 7.40 below lsd, Mar. 25, 1938, Apr. 21, 1952; lowest dry, Oct. 27, 1939. Records available: 1934-53. Jan. 16, 10.57; Feb. 18, 10.52; Mar. 18, 9.94; Apr. 21, 9.05; May 13, 8.96; June 19, 9.47; Oct. 8, 11.22.

Hillman Township

MyHm 22. State Dept. of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 31 N., R. 3 E. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 14 feet, open bottom. Highest water level 2.85 below lsd, Apr. 21, 1952; lowest 7.76 below lsd, Dec. 15, 1949. Records available: 1936-44, 1948-53. Jan. 16, 6.82; Feb. 18, 6.91; Mar. 18, 6.20; Apr. 21, 4.90; May 13, 4.61; June 19, 5.08; Oct. 8, 5.76.

Loud Township

MyLd 6. State Dept. of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 29 N., R. 3 E. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 14 feet, open bottom. Highest water level 2.63 below lsd, May 15, 1952; lowest 5.86 below lsd, Dec. 15, 1949. Records available: 1945-53. Jan. 16, 4.84; Feb. 18, 4.99; Mar. 18, 4.54; Apr. 21, 3.64; May 13, 3.51; June 19, 3.33; Oct. 5, 5.30.

Montmorency Township

MyMy 1. State Dept. of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 32 N., R. 2 E. Drilled unused water-table well in deposits of Pleistocene age, diameter 2 inches, depth 24 feet. Highest water level 17.41 below lsd, May 15, 1952; lowest 20.97 below lsd, Aug. 17, 1949. Records available: 1948-53. Jan. 16, 18.62; Feb. 18, 17.63; Mar. 18, 18.49; Apr. 21, 18.00; May 13, 17.99; June 19, 17.97; Oct. 8, 18.98.

Rust Township

MyRs 18. State Dept. of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 30 N., R. 4 E. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 10 feet, open bottom. Highest water level 0.78 above lsd, July 2, 1945; lowest 2.33 below lsd, Sept. 23, 1948. Records available: 1935-37, 1945-53. Jan. 16, +0.14; Feb. 18, +0.10; Mar. 18, +0.25; Apr. 21, +0.08; May 13, -0.21; June 19, -0.45; Oct. 5, -0.56.

Oakland County

City of Bloomfield Hills

OaBH 2. Cranbrook School. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 2 N., R. 10 E. Drilled unused artesian well in sand and gravel, diameter 6 inches, depth 65 feet, screen 58-65. Measurements made by Water Dept. Highest water level 11.67 below lsd, Apr. 17, 1952; lowest 16.95 below lsd, Oct. 19, 1953. Records available: 1950-53. Recording gage removed July 6, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.00	14.63	14.74	13.71	13.17	14.15	14.16	.....	.....	.....	.....	h16.63
2	14.93	14.58	14.65	13.70	13.15	14.23	14.10	.....	.....	.....	.....	.....
3	14.98	14.64	14.68	13.61	13.02	14.26	14.08	h15.49	.....	.....	.....	.....
4	15.00	14.66	14.63	13.53	12.95	14.20	14.03	.....	.....	.....	.....	.....
5	14.94	14.67	14.42	13.50	12.89	14.17	14.04	.....	.....	h16.80	.....	.....
6	15.03	14.68	14.27	13.41	12.82	14.08	14.03	.....	.....	.....	.....	.....
7	15.06	14.66	14.17	13.46	12.83	13.98	.....	.....	.....	.....	.....	h16.56
8	15.10	14.63	14.08	13.57	12.82	13.86	.....	.....	.....	.....	.....	.....
9	15.12	14.55	14.01	13.57	12.83	14.01	.....	.....	.....	.....	h16.68	.....
10	15.14	14.63	14.09	13.57	12.80	14.05	.....	h15.53	.....	.....	.....	.....
11	15.12	14.65	14.16	13.55	12.75	14.17	.....	.....	.....	.....	.....	.....
12	15.09	14.61	14.19	13.40	12.86	14.22	.....	.....	.....	.....	.....	.....
13	15.17	14.64	14.21	13.25	12.90	14.17	h14.63	.....	.....	.....	.....	.....
14	15.21	14.66	14.21	13.25	12.90	14.14	.....	.....	h16.53	.....	.....	h16.53
15	15.23	14.64	14.16	13.24	12.96	14.09	.....	.....	.....	.....	.....	.....
16	15.21	14.60	14.00	13.19	13.05	14.08	.....	.....	.....	.....	.....	.....
17	15.15	14.70	13.95	13.19	13.15	14.12	.....	h15.73	.....	.....	.....	.....
18	15.04	14.73	13.90	13.14	13.16	14.17	.....	.....	.....	.....	.....	.....
19	15.16	14.72	13.81	13.07	13.37	14.29	.....	.....	.....	h16.95	.....	.....
20	14.90	14.73	13.73	12.95	13.57	14.37	h15.10	.....	.....	.....	.....	.....
21	14.90	14.75	13.66	13.00	13.71	14.43	.....	.....	h16.68	.....	.....	h16.53
22	14.91	14.74	13.64	13.04	13.76	14.45	.....	.....	.....	.....	.....	.....
23	14.90	14.64	13.58	13.01	13.83	14.62	.....	.....	.....	.....	.....	.....
24	14.90	14.70	13.67	13.14	13.85	14.73	.....	h16.11	.....	.....	.....	.....
25	14.84	14.72	13.70	13.23	13.84	14.76	.....	.....	.....	.....	.....	.....
26	14.76	14.72	13.75	13.20	13.93	14.67	.....	.....	.....	h16.90	.....	.....
27	14.80	14.72	13.75	13.12	13.99	14.45	h15.23	.....	.....	.....	.....	.....
28	14.80	14.75	13.72	13.23	14.05	14.27	.....	.....	.....	.....	.....	.....
29	14.75	.....	13.70	13.25	14.10	14.14	.....	.....	.....	.....	.....	.....
30	14.74	.....	13.63	13.20	14.12	14.14	.....	.....	.....	.....	.....	.....
31	14.70	.....	13.69	.....	14.15	.....	.....	h16.59	.....	.....	.....	.....

h Tape measurement.

City of Pontiac

OaPT 1. City of Pontiac. Walnut and Wessen Sts. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 8 inches, depth 160 feet. Land-surface datum is 919.15 feet above msl. Measurements made by Dept. of Water Supply. Highest water level 59.55 below lsd, Apr. 22, 1940; lowest 124.25 below lsd, Sept. 3, 1953. Records available: 1939-53.

OaPT 1--Continued.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	111.6	112.5	113.5	113.9	114.9	113.0	120.1	123.7	123.4	120.7	118.6	117.9
2	110.8	111.2	112.9	113.8	115.3	116.0	120.0	121.5	.....	120.5	118.3	118.3
3	111.7	113.1	113.6	114.5	114.0	116.0	120.2	120.4	124.25	120.4	118.3	118.2
4	109.8	113.0	112.5	114.6	112.5	117.4	119.7	120.5	124.1	119.8	118.4	118.0
5	110.0	113.5	113.9	113.7	115.1	117.2	118.3	121.4	123.7	119.8	118.3	117.8
6	112.0	113.2	114.4	111.0	114.6	117.4	118.9	121.6	122.4	119.1	118.5	115.9
7	112.9	113.7	114.5	113.2	115.7	116.4	119.2	122.5	121.8	118.5	118.9	115.8
8	113.1	112.9	112.5	114.0	116.3	114.2	119.4	123.2	122.3	118.6	118.2	118.0
9	112.8	111.5	112.2	114.2	116.3	116.6	120.4	121.7	121.5	118.8	117.0	118.3
10	113.3	114.4	112.5	114.6	115.2	117.7	120.7	120.3	121.5	119.3	118.3	118.1
11	111.4	114.0	112.6	115.4	113.4	117.4	121.0	121.7	121.5	117.4	117.7	119.0
12	111.1	113.3	112.9	115.3	115.3	118.1	120.7	123.0	121.8	118.1	118.5	.....
13	112.5	114.0	113.0	112.2	115.9	118.5	120.7	122.9	.....	118.5	119.6	.....
14	113.5	113.4	113.0	114.8	115.5	116.7	121.6	123.4	.....	118.7	118.8	.....
15	113.7	113.2	111.4	115.4	116.5	115.2	122.2	122.6	.....	118.7	118.1	.....
16	114.0	110.4	110.3	114.7	116.7	117.2	122.6	122.8	121.08	118.8	118.3	117.41
17	113.8	113.8	111.5	115.1	114.5	118.07	123.0	122.0	120.5	118.1	118.5	116.9
18	112.5	113.94	112.0	115.8	113.3	.....	123.1	121.1	120.9	117.7	118.3	117.5
19	111.3	114.0	113.1	114.8	114.8	.....	121.3	122.0	120.2	117.1	119.3	117.0
20	113.2	114.2	113.9	112.7	116.3	.....	119.5	122.33	119.6	117.6	118.9	116.5
21	113.8	113.2	114.3	114.5	116.2	.....	122.1	122.9	118.3	118.0	119.0	115.9
22	114.1	113.8	112.3	115.2	116.5	.....	122.5	123.3	120.0	118.9	118.1	116.5
23	113.7	112.5	110.7	115.1	117.1	.....	122.6	121.6	119.6	118.7	116.5	117.05
24	112.3	113.8	112.5	116.6	116.8	119.61	122.4	122.9	120.0	118.5	116.0	117.2
25	112.2	114.0	113.0	115.2	114.5	119.3	122.1	123.2	120.2	118.5	117.5	115.4
26	111.4	113.8	114.2	114.0	116.1	119.2	120.9	123.5	119.8	118.5	117.5	114.6
27	112.7	114.1	113.6	111.2	117.7	120.0	121.5	123.7	117.9	118.0	116.0	115.5
28	112.9	114.9	113.8	114.7	118.1	119.2	122.6	124.2	118.5	118.7	116.4	114.6
29	112.9		113.5	116.0	118.3	118.1	122.9	124.1	119.5	119.1	116.4	115.2
30	113.5		111.5	115.7	117.4	119.9	123.1	121.5	119.3	119.7	116.2	116.20
31	113.0		113.2		114.3		123.5	122.0		120.0		116.1

e Estimated.

Ogemaw County

Klacking Township

OgKa 1. Charles Hudson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 23 N., R. 2 E. Dug unused water-table well in deposits of Pleistocene age, size 36 by 48 inches, depth 6 feet, plank to open bottom. Highest water level 0.37 below lsd, May 5, 1952; lowest 3.29 below lsd, Nov. 13, 1952. Records available: 1951-53. Recording gage removed July 3, 1953.

Daily 2 a. m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	2.76	2.67	2.30	1.39	1.13	1.02	0.93
2	2.76	2.71	2.32	1.41	1.16	1.10	.97
3	....	2.72	2.33	1.43	1.17	1.11	1.03
4	....	2.73	2.32	1.35	1.18	1.09	....
5	....	2.74	2.35	1.39	1.18	.99	....
6	....	2.73	2.38	1.42	1.19	1.02	....
7	2.80	2.62	2.40	1.42	1.19	1.08	....
8	....	2.65	2.41	1.43	1.19	1.08	....
9	....	2.68	2.42	1.41	1.20	.99	....
10	....	2.71	2.43	1.25	1.20	1.07	....
11	....	2.72	2.44	1.35	1.20	1.06	....
12	....	2.72	2.41	1.38	1.21	1.04	....
13	....	2.73	2.19	1.36	1.16	1.06	....
14	2.81	2.74	2.11	1.36	1.21	1.05	....
15	....	2.75	2.12	1.35	1.19	1.05	....
16	....	2.76	1.99	1.09	1.19	1.04	....
17	....	2.78	2.02	1.27	1.18	1.02	....
18	....	2.81	1.82	1.29	.75	1.04	....
19	2.58	2.83	1.51	1.29	1.15	1.03	....
20	2.58	2.84	1.56	1.27	1.17	1.05	....

OgKa 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
21	2.58	2.31	1.43	1.27	1.20	1.06	....
22	2.58	2.22	1.29	1.26	1.21	1.10	....
23	2.60	2.21	1.10	1.28	1.20	1.11	....
24	2.58	2.21	1.12	1.29	1.21	1.11	....
25	2.58	2.21	1.22	1.26	1.20	1.10	....
26	2.61	2.21	1.27	1.08	1.06	1.10	....
27	2.62	2.23	1.27	1.16	1.17	1.15	....
28	2.63	2.27	1.29	1.19	1.19	1.14	....
29	2.64		1.33	1.21	1.18	1.16	....
30	2.65		1.36	1.21	1.12	1.17	....
31	2.67		1.37		1.01		....

* No record for August, September, October, November, and December.

Otsego CountyOtsego Lake Township

OsOk 106. State Dept. of Conservation. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 29 N., R. 3 W. Jetted observation water-table well in gravel of Pleistocene age, diameter 2 inches, depth 14 feet, screen 12-14. Highest water level 5.56 below lsd, May 14, 1947; lowest 9.68 below lsd, Sept. 16, 1941. Records available: 1933-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	7.91	Apr. 16	6.21	July 16	7.06	Oct. 31	8.13
Feb. 17	7.74	May 15	6.90	Sept. 30	7.96	Dec. 8	8.22
Mar. 17	7.36	June 16	6.78	Oct. 5	7.99		

Ottawa CountyCity of Holland

OTHO 12. City of Holland. Cleveland Ave. and 26th St. Drilled unused artesian well in gravel of Pleistocene age, diameter 18 inches, depth 29 feet. Measurements made by Board of Public Works. Highest water level 2.20 below lsd, Apr. 25, 1950; lowest 5.35 below lsd, Nov. 17-18, 1949. Records available: 1949-53. Recording gage removed June 16, 1953.

Daily 2 a. m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.93	4.16	4.01	4.10	4.10	4.29	....	....	h4.64	....	....	h4.91
2	3.94	4.18	4.01	4.10	3.73	4.31	....	....	....	....	....	....
3	3.96	4.20	4.02	4.09	3.60	4.31	....	....	....	....	h4.89	....
4	4.00	4.24	4.03	4.05	3.61	4.32	....	h4.13	....	....	....	....
5	4.01	4.25	4.05	4.06	3.62	4.33	....	....	....	....	....	....
6	4.06	4.19	4.09	4.06	3.65	4.34	....	....	....	h4.84	....	....
7	4.10	4.24	4.13	4.07	3.69	4.36	h4.38	....	....	....	....	....
8	4.10	4.23	4.12	4.10	3.73	4.35	....	....	h4.72	....	....	....
9	4.11	4.25	4.16	4.10	3.77	4.38	....	....	....	....	....	h4.72
10	4.12	4.25	4.16	4.06	3.80	4.40	....	....	....	....	h4.94	....
11	4.12	4.23	4.17	4.10	3.83	4.42	....	h4.22	....	....	....	....
12	4.17	4.22	4.17	4.10	3.88	4.43	....	....	....	....	....	....
13	4.15	4.24	4.04	4.12	3.93	4.45	....	....	....	h4.86	....	....
14	4.17	4.24	4.11	4.15	3.95	4.46	h4.54	....	....	....	....	....
15	4.16	4.26	4.01	4.15	3.97	4.48	....	....	h4.76	....	....	h4.65
16	4.12	4.28	3.91	4.10	4.00	4.49	....	....	....	....	....	....
17	4.07	4.30	3.86	4.10	4.02	....	....	....	....	....	h4.96	....
18	4.03	4.32	3.82	4.09	4.04	....	....	h4.38	....	....	....	....
19	4.04	4.34	3.82	4.10	4.07	....	....	....	....	....	....	....
20	4.06	4.32	3.86	4.12	4.08	....	....	....	....	....	....	....
21	4.05	4.16	3.87	4.13	4.09	....	h4.58	....	....	h4.91	....	....
22	4.07	4.01	3.88	4.13	4.10	....	....	....	h4.77	....	....	h4.59
23	4.07	3.93	3.87	4.16	4.14	h4.58	....	....	....	....	....	....
24	4.03	3.93	3.93	4.18	4.15	....	....	....	....	....	h4.91	....
25	4.01	3.94	3.95	4.15	4.15	....	....	h4.56	....	....	....	....

OtHO 12--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	4.03	3.92	3.99	4.17	4.18	....	....	....	....	....	....	....
27	3.99	3.94	4.00	4.19	4.21	....	....	....	....	h4.94	....	....
28	4.01	3.98	4.01	4.20	4.23	....	h4.63	....	....	....	....	....
29	4.03		4.05	4.20	4.23	....	....	....	h4.81	....	....	h4.55
30	4.06		4.08	4.19	4.24	h4.20	....	....	....	....	....	....
31	4.10		4.09		4.27		....	....	....	....	....	....

h Tape measurement.

Holland Township

OtHo 9. City of Holland. $SE\frac{1}{4}SE\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W. Drilled unused artesian well in deposits of Pleistocene age, diameter $1\frac{1}{2}$ inches, depth 108 feet. Measurements made by Board of Public Works. Highest water level 56.44 below lsd, Aug. 8, 1946; lowest 99.77 below lsd, Sept. 22, 1953. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	92.73	Apr. 7	84.57	July 7	94.60	Oct. 6	95.77
13	92.19	14	84.50	14	96.08	13	94.87
20	93.75	21	84.10	21	95.77	21	95.22
27	92.35	28	84.07	28	95.62	27	94.84
Feb. 3	92.05	May 5	88.68	Aug. 4	94.77	Nov. 3	93.55
10	92.75	12	89.54	11	96.62	10	94.08
17	91.91	19	90.59	18	96.97	17	94.11
24	91.04	26	90.57	25	97.58	24	92.39
Mar. 3	87.83	June 2	92.33	Sept. 1	99.34	Dec. 1	92.59
10	87.07	9	92.39	8	99.27	9	92.03
17	85.83	16	94.23	15	98.95	15	93.79
24	85.06	23	95.46	22	99.77	22	92.02
31	84.89	30	94.42	29	96.95	29	92.74

OtHo 22. City of Holland. $NE\frac{1}{4}SE\frac{1}{4}$ sec. 34, T. 5 N., R. 15 W. Drilled unused artesian well in sand and gravel of Pleistocene age, diameter 1 inch, depth 70 feet. Land-surface datum is 640.58 feet above msl. Measurements made by Board of Public Works. Highest water level 5.72 above lsd, May 11, 1948; lowest 1.25 below lsd, Oct. 4, 1949. Records available: 1946-53.

Jan. 13	+0.32	May 12	+1.32	July 28	+1.61	Oct. 13	+0.75
Feb. 24	+.03	19	1.42	Aug. 4	1.95	21	.59
Mar. 10	-.04	26	1.53	11	1.81	27	.46
17	+.21	June 2	1.51	18	1.76	Nov. 3	.42
24	.35	9	1.55	25	1.59	10	.23
31	.40	16	1.49	Sept. 1	1.45	17	.07
Apr. 7	.56	23	1.44	8	1.33	24	+.02
14	.63	30	1.81	15	1.26	Dec. 1	-.04
21	.64	July 7	1.79	22	1.11	9	.14
28	.83	14	1.66	29	1.10	29	.34
May 5	1.15	21	1.68	Oct. 6	.97		

Presque Isle County

Allis Township

PrAs 18. State Dept. of Conservation. $NE\frac{1}{4}SE\frac{1}{4}$ sec. 30, T. 33 N., R. 2 E. Jetted observation water-table well in deposits of Pleistocene age, diameter 2 inches, depth 14 feet, open bottom. Highest water level 1.80 below lsd, May 23, 1938; lowest 5.62 below lsd, Oct. 18, 1949. Records available: 1934-44, 1948-53. Oct. 8, 4.28.

Roscommon County

Au Sable Township

RoAs 30. State Dept. of Conservation. $NE\frac{1}{4}NE\frac{1}{4}$ sec. 34, T. 24 N., R. 1 W. Jetted observation water-table well in sand and gravel of Pleistocene age, diameter 2 inches, depth 19 feet, screen 16-19. Highest water level 14.40 below lsd, June 15, 1943; lowest dry, Nov. 6, 1939-May 2, 1940. Records available: 1934-53.

Jan. 15	16.85	Apr. 15	15.87	July 17	15.46	Oct. 6	16.32
Feb. 16	16.91	May 14	15.41	Oct. 5	16.31	Nov. 10	16.61
Mar. 16	16.66	June 17	15.17				

Backus Township

RoBk 15. State Dept. of Conservation. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 22 N., R. 2 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 12 feet, screen 9-12. Land-surface datum is 1,165.46 feet above msl. Highest water level 1.34 below lsd, Apr. 1, 1938; lowest 5.38 below lsd, Nov. 9, 1949. Records available: 1934-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	3.13	Apr. 15	2.02	July 17	2.82	Nov. 10	4.11
Feb. 16	3.11	May 14	1.91	Oct. 5	4.12	Dec. 4	3.88
Mar. 16	2.35	June 17	2.09	6	4.14		

Denton Township

RoDt 7. State Dept. of Conservation. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 22 N., R. 3 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 13 feet, screen 11-13. Land-surface datum is 1,170.58 feet above msl. Highest water level 3.25 below lsd, Apr. 17, 1952; lowest 8.25 below lsd, Dec. 13, 1949. Records available: 1934-53.

Jan. 15	5.80	Apr. 15	4.14	July 16	4.05	Nov. 10	6.06
Feb. 16	5.89	May 14	3.93	Oct. 5	5.76	Dec. 4	6.12
Mar. 16	5.01	June 17	3.41	6	5.78		

Gerrish Township

RoGr 1. State Dept. of Conservation. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 24 N., R. 3 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 15 feet, screen 12-15. Land-surface datum is 1,162.42 feet above msl. Highest water level 5.95 below lsd, July 9, 1943; lowest 11.62 below lsd, Dec. 13, 1949. Records available: 1934-53.

Jan. 15	9.40	Apr. 15	7.75	July 17	7.76	Nov. 10	9.52
Feb. 16	9.46	May 14	7.21	Oct. 5	9.11	Dec. 4	9.68
Mar. 16	8.76	June 17	7.24	6	9.13		

Higgins Township

RoHg 1. State Dept. of Conservation. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 24 N., R. 2 W. Jetted observation water-table well in sand of Pleistocene age, diameter 8 inches, depth 14 feet, open bottom. Land-surface datum is 1,145.30 feet above msl. Highest water level 2.78 below lsd, May 3, 1951; lowest 6.23 below lsd, Dec. 6-11, 1949. Records available: 1934-53.

Daily 2 a.m. water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.15	5.15	4.67	3.75	3.64	3.40	3.97	4.69	5.01	5.21	5.33	5.36
2	5.16	5.16	4.68	3.76	3.62	3.44	3.82	4.72	5.03	5.22	5.33	5.36
3	5.15	5.15	4.68	3.77	3.60	3.45	3.90	4.74	5.05	5.24	5.33	5.36
4	5.16	5.16	4.66	3.77	3.58	3.45	3.97	4.75	5.07	5.25	5.31	5.35
5	5.16	5.16	4.69	3.78	3.57	3.46	4.02	4.62	5.08	5.26	5.33	5.34
6	5.17	5.16	4.71	3.76	3.55	3.49	4.06	4.67	5.09	5.26	5.34	5.34
7	5.17	5.15	4.73	3.76	3.55	3.52	4.10	4.71	5.10	5.27	5.35	5.35
8	5.18	5.15	4.73	3.77	3.54	3.55	4.12	4.73	5.12	5.27	5.35	5.35
9	5.18	5.16	4.74	3.77	3.55	3.55	4.14	4.64	5.13	5.27	5.35	5.35
10	5.19	5.17	4.74	3.75	3.56	3.60	4.17	4.65	5.15	5.27	5.36	5.35
11	5.19	5.17	4.75	3.78	3.56	3.63	4.20	....	5.16	5.27	5.36	5.35
12	5.20	5.16	4.75	3.79	3.59	3.64	4.22	....	5.17	5.28	5.36	5.36
13	5.20	5.17	4.41	3.78	3.61	3.66	4.25	....	5.18	5.29	5.36	5.35
14	5.21	5.17	4.47	3.80	3.63	3.69	4.28	....	5.19	5.29	5.35	5.35
15	5.21	5.17	4.52	3.80	3.63	3.72	4.31	....	5.20	5.29	5.35	5.36
16	5.15	5.18	4.43	3.76	3.65	3.74	4.34	4.76	5.21	5.30	5.35	5.37
17	5.11	5.19	4.51	3.79	3.66	3.75	4.37	4.77	5.22	5.31	5.36	es.37
18	5.10	5.20	4.31	3.80	3.54	3.78	4.39	4.79	5.23	5.31	5.36	5.37
19	5.11	5.20	4.18	3.79	3.48	3.80	4.41	4.81	5.24	5.32	5.36	5.37
20	5.11	5.20	4.24	3.79	3.47	3.82	4.43	4.83	5.12	5.32	5.37	5.37
21	5.12	4.76	4.19	3.80	3.46	3.85	4.46	4.85	5.14	5.33	5.37	5.37
22	5.13	4.56	4.14	3.79	3.48	3.89	4.49	4.80	5.16	5.33	5.37	5.37
23	5.13	4.59	4.06	3.80	3.50	3.92	4.52	4.84	5.18	5.33	5.37	5.36
24	5.12	4.60	3.82	3.84	3.52	3.95	4.55	4.87	5.18	5.34	5.35	5.34
25	5.13	4.61	3.74	3.83	3.54	3.97	4.57	4.89	5.19	5.34	5.35	5.33

RoHg 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	5.13	4.60	3.74	3.80	3.36	3.99	4.54	4.89	5.17	5.34	5.35	5.32
27	5.13	4.61	3.74	3.75	3.37	4.02	4.59	4.91	5.17	5.34	5.36	5.33
28	5.13	4.65	3.74	3.72	3.38	4.04	4.61	4.93	5.18	5.34	5.36	5.33
29	5.13		3.74	3.70	3.38	4.07	4.62	4.95	5.20	5.32	5.36	5.32
30	5.14		3.76	3.67	3.36	4.09	4.64	4.97	5.20	5.32	5.36	5.33
31	5.14		3.76		3.38		4.67	5.00		5.32		5.33

e Estimated.

Markey Township

RoMk 5. State Dept. of Conservation. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 23 N., R. 3 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 14 feet, open bottom. Land-surface datum is 1,154.29 feet above msl. Highest water level 3.44 below lsd, Apr. 17, 1952; lowest 6.76 below lsd, Aug. 14, 1936. Records available: 1934-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	5.08	Apr. 15	4.17	July 17	4.95	Nov. 10	5.68
Feb. 16	4.97	May 14	4.01	Oct. 5	5.81	Dec. 4	5.50
Mar. 16	4.32	June 17	4.42	6	5.81		

Richfield Township

RoRf 50. State Dept. of Conservation. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 23 N., R. 1 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 12 feet, screen 10-12. Highest water level 0.93 below lsd, Jan. 12, 1942; lowest 7.31 below lsd, Dec. 14, 1949. Records available: 1939-53.

Jan. 15	4.83	Apr. 15	3.29	July 17	3.83	Nov. 10	5.56
Feb. 16	4.95	May 14	2.90	Oct. 5	5.13	Dec. 4	5.54
Mar. 16	4.19	June 17	3.20	6	5.14		

Roscommon Township

RoRo 15. State Dept. of Conservation. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 21 N., R. 3 W. Jetted observation water-table well in sand and gravel of Pleistocene age, diameter 2 inches, depth 15 feet, open bottom. Land-surface datum is 1,147.86 feet above msl. Highest water level 9.61 below lsd, June 15, 1943; lowest 11.81 below lsd, Nov. 11, 1949. Records available: 1934-53.

Jan. 15	10.88	Apr. 15	10.42	July 17	10.65	Nov. 10	10.93
Feb. 16	10.89	May 14	10.21	Oct. 5	10.91	Dec. 4	10.88
Mar. 16	10.69	June 17	10.34				

Saginaw County

City of Chesaning

SgCH 9. August Bauer. Clark and W. Broad Sts. Drilled unused artesian well in Saginaw formation, diameter 2 inches, depth 72 feet. Highest water level 39.66 below lsd, Nov. 23, 1951; lowest dry, June 21, Dec. 13, 30, 1953. Records available: 1950-53.

Jan. 4	52.76	Apr. 8	45.69	July 6	68.77	Oct. 4	61.96
13	48.31	13	46.86	12	67.29	11	60.49
17	50.68	22	54.90	19	69.24	19	62.87
25	50.05	29	54.62	26	68.34	27	64.16
Feb. 2	60.62	May 6	57.96	Aug. 4	69.37	Nov. 1	67.33
9	60.04	11	57.56	9	67.63	9	71.37
17	62.36	19	61.68	17	67.36	18	70.04
23	55.48	25	60.86	23	68.78	27	70.43
Mar. 2	56.04	June 1	60.84	30	65.67	Dec. 4	70.33
8	50.41	7	68.33			13	(f)
15	44.16	14	67.66	Sept. 8	67.46	20	71.43
24	51.31	21	(f)	13	63.41	30	(f)
29	55.06	July 1	70.19	22	62.20		
				28	66.08		

f Dry.

St. Joseph County

City of Three Rivers

SpTR 1. City of Three Rivers. Spring and West Michigan Sts. Driven unused artesian well in sand and gravel of Pleistocene age, diameter 6 inches, depth 59 feet, screen 39-59. Land-surface datum is 790.92 feet above msl. Measurements made by city of Three Rivers. Highest water level 2.90 above lsd, May 22, 29, June 12, 1953; lowest 5.50 below lsd, Sept. 27, 1947. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	-0.75	Apr. 24	-0.25	June 26	-1.40	Sept. 25	-2.25
16	.74	May 1	.50	July 3	.00	Oct. 9	.65
30	.20	8	.35	10	.82	16	2.19
Feb. 6	.98	15	-.35	17	1.85	23	.46
13	-.70	22	+2.90	31	2.25	30	1.86
20	+ .80	29	+2.90	Aug. 7	2.93	Nov. 6	2.32
27	-.70	June 5	-2.75	Sept. 4	1.30	13	1.08
Apr. 3	-.66	12	+2.90	11	1.25	20	-1.63
10	-.35	19	+ .20	18	1.50	Dec. 11	+ .32
17	+1.40						

Sanilac County

Moore Township

SaMr 1. State Highway Dept. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 12 N., R. 13 E. Driven unused artesian well in lower Marshall formation, diameter 3 inches, depth 150 feet, cased to 53. Highest water level 15.45 below lsd, Apr. 25, 1951; lowest 23.00 below lsd, Jan. 10, 1949. Records available: 1948-53.

Jan. 7	20.74	Apr. 8	17.65	July 8	17.07	Oct. 14	19.08
14	20.72	15	17.50	15	17.05	22	19.38
21	20.58	22	17.27	22	17.00	28	19.40
28	19.87	29	17.30	29	16.97	Nov. 4	19.77
Feb. 4	19.88	May 6	16.60	Aug. 6	17.03	11	19.80
11	19.50	13	16.61	12	16.70	18	19.78
18	19.43	20	16.70	19	17.04	25	19.80
25	19.07	27	16.47	25	17.60	Dec. 2	19.97
Mar. 4	19.02	June 3	16.70	Sept. 2	17.98	9	19.89
11	18.96	10	16.75	9	18.25	16	19.87
18	18.40	17	16.85	16	18.40	23	19.70
25	17.95	24	17.55	Oct. 2	18.10	30	19.43
Apr. 1	17.70	July 1	17.35	7	19.02		

Shiawassee County

Village of Perry

ShPR 8. Arthur B. Cobb. 115 West 2d St. Driven unused water-table well in deposits of Pleistocene age, diameter 1 $\frac{1}{2}$ inches, depth 26 feet. Highest water level 17.28 below lsd, May 3, 1950; lowest 21.10 below lsd, Oct. 30, 1953. Records available: 1948-53. Jan. 29, 20.62; Feb. 20, 20.69; Mar. 25, 20.14; Apr. 30, 19.72; Oct. 30, 21.10.

Washtenaw County

City of Ypsilanti

WayP 44. City of Ypsilanti. Park St. and Michigan Ave. Drilled unused water-table well in gravel of Pleistocene age, diameter 6 inches, depth 97 feet, screen 90-95. Measurements made by Dept. of Public Utilities. Highest water level 29.12 below lsd, Nov. 5, 1945; lowest 42.17 below lsd, Sept. 13, 1952. Records available: 1944-46, 1948-53. Jan. 3, 41.30; Jan. 10, 39.26; Jan. 17, 39.58; Jan. 31, 40.06; Feb. 4, 40.02; Feb. 7, 40.07; Feb. 21, 40.04.

Pittsfield Township

WaPf 2. City of Ann Arbor. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 3 S., R. 6 E. Dug unused artesian well in gravel of Pleistocene age, diameter 16 feet, depth 23 feet, open bottom. Measurements made by Board of Water. Highest water level 2.00 above lsd, June 30, 1951; lowest 15.31 below lsd, Aug. 30, 1953. Records available: 1948-53.

WaPf 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	-3.20	Mar. 9	-2.19	June 28	-11.94	Oct. 16	-13.30
16	3.14	20	1.71	July 1	11.00	30	12.80
26	3.01	31	1.65	16	12.89	Nov. 1	11.80
30	2.99	Apr. 1	1.63	30	13.64	15	12.32
Feb. 1	3.06	15	1.68	Aug. 1	8.20	30	6.28
9	2.65	23	-1.21	30	15.31	Dec. 8	6.28
19	2.46	30	+1.94	Sept. 10	12.60	16	6.30
28	2.60	June 2	-4.82	30	12.66	31	5.98
Mar. 1	2.44	16	-4.91	Oct. 3	12.90		

York Township

WaYk 22. Ypsilanti State Hospital. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 4 S., R. 6 E. Drilled unused artesian well in gravel of Pleistocene age, diameter 6 inches, depth 173 feet. Measurements made by Ypsilanti State Hospital. Highest water level 61.48 below lsd, June 12, 1953; lowest 85.65 below lsd, Dec. 24, 1953. Records available: 1946-53.

Jan. 2	72.20	Apr. 2	64.27	July 10	81.65	Oct. 16	66.34
9	72.20	10	82.32	17	74.08	23	66.12
16	72.15	17	65.09	24	65.55	30	77.99
23	72.17	May 1	71.13	31	69.39	Nov. 6	80.10
30	72.38	8	72.97	Aug. 7	69.62	13	82.81
Feb. 6	72.34	15	73.06	21	66.12	20	77.28
13	72.46	22	69.58	28	81.73	27	66.12
20	72.59	29	73.38	Sept. 4	66.15	Dec. 4	73.47
27	71.57	June 5	62.84	11	76.68	11	82.85
Mar. 6	65.27	12	61.48	25	65.60	18	67.65
13	64.74	19	80.27	Oct. 2	86.57	24	85.65
20	82.26	26	65.33	9	76.87	31	77.76
27	64.79	July 3	71.33				

Ypsilanti Township

WaYp 8. Ford Motor Co. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 3 S., R. 7 E. Drilled unused water-table well in sand of Pleistocene age, diameter 4 inches, depth 87 feet, screen 77-80. Land-surface datum is 665.56 feet above msl. Measurements made by Water Filtration Plant. Highest water level 5.79 below lsd, Jan. 5, 1950; lowest 14.80 below lsd, Nov. 13, 1952. Records available: 1949-53.

Jan. 21	12.80	Apr. 15	12.84	June 18	12.76	Sept. 23	12.00
Feb. 7	13.10	28	12.93	July 21	12.08	Oct. 5	11.99
18	12.87	May 5	12.75	Aug. 25	12.02	Nov. 6	12.62
Mar. 18	13.06	13	12.94	Sept. 2	12.35	10	12.60
Apr. 7	12.86	19	12.68	10	12.21	Dec. 15	12.65

Wexford County

City of Cadillac

WeCD 1. City of Cadillac. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 21 N., R. 9 W. Drilled unused artesian well in deposits of Pleistocene age, diameter 8 to 6 inches, reported depth 277 feet. Measurements made by Water Dept. Highest water level 19.99 below lsd, July 6, 1953; lowest 23.24 below lsd, Feb. 14, 1951. Records available: 1949-53. Recording gage removed July 8, 1953.

Daily 2 a.m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	20.94	20.92	20.89	20.44	20.25	20.08	20.24
2	20.96	20.95	20.90	20.47	20.34	20.26	20.21
3	21.05	20.86	20.77	20.46	20.28	20.26	20.26
4	20.88	20.88	20.64	20.37	20.28	20.19	20.22
5	20.83	20.86	20.71	20.45	20.35	20.12	20.08
6	21.11	20.73	20.81	20.46	20.47	20.22	19.99
7	21.21	20.84	20.87	20.40	20.61	20.14	20.21
8	21.21	20.91	20.80	20.42	20.53	20.08	20.23
9	21.14	20.98	20.79	20.38	20.62	20.25	.....
10	21.23	20.99	20.78	20.22	20.26	20.43	.....

WeCD 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
11	20.90	20.87	20.77	20.36	20.18	20.33	.....
12	21.01	20.76	20.76	20.39	20.47	20.41	.....
13	21.18	20.82	20.71	20.35	20.38	20.30	.....
14	21.30	20.82	20.77	20.37	20.40	20.09	.....
15	21.26	20.88	20.64	20.32	20.43	20.06	.....
16	21.26	20.91	20.66	20.18	20.44	20.21	.....
17	21.26	20.92	20.72	20.27	20.18	20.23	.....
18	20.86	20.94	20.64	20.31	20.06	20.29	.....
19	20.91	20.92	20.57	20.30	20.32	20.21	.....
20	21.20	20.89	20.68	20.27	20.34	20.15	.....
21	20.95	20.70	20.68	20.28	20.30	20.06	.....
22	20.93	20.95	20.60	20.22	20.33	20.09	.....
23	20.88	20.95	20.50	20.23	20.44	20.33	.....
24	20.78	20.84	20.59	20.31	20.24	20.34	.....
25	20.89	20.81	20.57	20.21	20.34	20.26	.....
26	21.01	20.69	20.62	20.14	20.37	20.27	.....
27	20.87	20.68	20.55	20.17	20.46	20.36	.....
28	20.84	20.81	20.49	20.24	20.46	20.07	.....
29	20.86		20.54	20.26	20.55	20.27	.....
30	20.90		20.60	20.22	20.22	20.40	.....
31	20.85		20.50		20.06		.....

* No record for August, September, October, November, and December.

Greenwood Township

WeGw 3. State Dept. of Conservation. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 24 N., R. 10 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 18 feet, open bottom. Land-surface datum is 1,005.49 feet above msl. Highest water level 5.20 below lsd, Aug. 6, 1943; lowest 8.89 below lsd, Jan. 15, 1936. Records available: 1935-37, 1941-44, 1948-53. Oct. 7, 7.79.

Henderson Township

WeHn 1. State Dept. of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 21 N., R. 11 W. Drilled unused water-table well in deposits of Pleistocene age, diameter 6 inches, depth 62 feet. Measurements made by U. S. Forest Service. Highest water level 46.28 below lsd, June 5, 1952; lowest 49.65 below lsd, Mar. 25, 1951. Records available: 1948-53. Recording gage removed July 8, 1953.

Daily 2 a. m. water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Oct.
1	47.51	47.80	48.07	47.93	47.25	46.98	46.74	.....
2	47.51	47.82	48.06	47.92	47.25	46.99	46.73	.....
3	47.51	47.81	48.04	47.88	47.26	46.97	46.74	.....
4	47.51	e47.83	47.99	47.82	47.26	46.94	46.74	.....
5	47.52	e47.83	48.04	47.83	47.23	46.93	46.72	.....
6	47.55	e47.79	48.08	47.79	47.21	46.93	46.70	.....
7	47.57	47.87	48.10	47.76	47.21	46.94	46.70	.....
8	47.59	e47.89	48.07	47.74	47.20	46.93	46.71	.....
9	47.59	e47.90	48.09	47.69	47.19	46.91	.....	.....
10	47.59	47.91	48.09	47.59	47.18	46.93	.....	.....
11	e47.58	47.90	48.09	47.66	47.15	46.93	.....	.....
12	e47.65	47.86	48.09	47.64	47.16	46.89	.....	h48.38
13	47.59	47.90	48.08	47.60	47.15	46.90	.....	.....
14	47.63	e47.91	48.11	47.59	47.15	46.90	.....	.....
15	47.65	e47.93	48.07	47.55	47.12	46.89	.....	.....
16	47.66	47.94	48.09	.....	47.12	46.87	.....	.....
17	47.71	47.95	48.12	47.51	47.11	46.86	.....	.....
18	47.60	47.95	48.10	47.51	47.08	46.85	.....	.....
19	47.69	47.96	48.07	47.48	47.09	46.83	.....	.....
20	47.69	47.97	48.12	47.46	47.08	46.83	.....	.....
21	47.71	47.93	48.12	47.44	47.06	46.82	.....	.....
22	47.72	48.05	48.09	47.40	47.07	46.83	.....	.....
23	47.72	48.02	48.05	47.39	47.07	46.82	.....	.....
24	47.72	48.02	48.09	47.40	47.07	46.81	.....	.....
25	e47.74	48.02	48.09	47.33	47.03	46.79	.....	.....

WeHn 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Oct.
26	47.76	47.98	48.10	47.33	47.02	46.79	.....	.....
27	47.75	48.00	48.07	47.33	47.04	46.80	.....	.....
28	47.76	48.06	48.04	47.33	47.03	46.77	.....	.....
29	47.77		48.03	47.32	47.00	46.78	.....	.....
30	47.78		48.03	47.28	46.96	46.72	.....	.....
31	47.78		47.98		46.97		.....	.....

* No record for August, September, November, and December.

e Estimated.

h Tape measurement.

Liberty Township

WeLb 38. State Dept. of Conservation. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 24 N., R. 9 W. Jetted observation water-table well in sand of Pleistocene age, diameter 2 inches, depth 11 feet, open bottom. Land-surface datum is 994.16 feet above msl. Highest water level 0.94 below lsd, Apr. 10, 1951; lowest 3.74 below lsd, Aug. 19, 1936. Records available: 1935-37, 1941-44, 1949-53. Jan. 9, 1.41; Feb. 10, 1.26; Mar. 11, 1.31; Apr. 27, 1.21; May 27, 1.20; Oct. 7, 2.91.

Northern Peninsula

Menominee River Basin. --Periodic depth-to-water measurements were continued during 1953 in observation wells in the Menominee River basin in the western part of the Northern Peninsula of Michigan by the Wisconsin-Michigan Power Company.

Precipitation for the stations in the Menominee River basin averaged 33.14 inches, about 2.96 inches above the 45-year average. The monthly distribution of precipitation was above normal except for the months of September, October, and November, which averaged about 53 percent of normal.

Frozen ground combined with below-freezing air temperatures reduced ground-water recharge causing water levels in wells in the Menominee River basin to decline gradually from November 1952 to February 1953. Ground-water levels rose an average of 2.5 feet during March and April as a result of melting of 44 inches of snow cover. The seasonal decline of water levels began in May and continued through June. Water levels in many of the wells in the southern half of Iron County reached record highs following an unusually intense storm of 4 $\frac{1}{2}$ inches occurring on June 30 and July 1. Because of absence of normal recharge owing to below-normal precipitation, the levels declined at a greater than normal rate from July until the end of the year. The December 1953 level for the basin averaged about 0.16 foot lower than the December 1952 level.

Chippewa County. --Well CpSp 59 near Raco is finished in glacial drift. The decline of water level from the beginning of record in mid-1952 continued to late March 1953. Spring rains and melting of practically all of the snow cover in April caused water levels to rise until the latter part of May. Water levels then declined almost steadily to the end of the year and were about 0.5 foot below those at the end of 1952. Precipitation at the nearest U. S. Weather Bureau station at Sault Ste. Marie was about 1.5 inches above normal for the year, but may differ somewhat from precipitation at Raco.

Schoolcraft County. --Well SoGe 112 near Germfask is finished in the Richmond group, which is composed of shales and limestones of Ordovician age. Water levels in the well reflect changes in artesian pressure in the upper portion of the Richmond group. Water levels declined from the start of record in June through October 1952. Water levels then recovered until mid-1953, when the high stage for the year was attained. From April to September the water level declined about 0.7 foot, but by the end of the year the stage in the well was at about the same level as at the end of 1952.

Well-Numbering System

The first pair of letters consists of an uppercase and a lowercase letter indicating the county in which the well is situated. The second pair of letters indicates the city or the civil township. Uppercase letters are used for cities, villages, or towns. An uppercase letter followed by a lowercase letter is used for the township designation. The abbreviation W. M. P. refers to Wisconsin-Michigan Power Company and is followed by its well number. Example: W. M. P. No. 6.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference.

Baraga County

Covington Township

BgCv 1. W. M. P. No. 14. State Highway Dept. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 48 N., R. 32 W. U. S. Highway 41. Near Nestoria. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 10 feet, screen 7-10. Highest water level 4.19 below lsd, May 3, 1951; lowest 6.72 below lsd, Mar. 15, 1949. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	6.11	May 28	4.92	July 30	4.75	Oct. 30	5.67
Feb. 25	6.15	June 29	5.72	Sept. 1	4.50	Nov. 30	5.66
Mar. 31	5.44	July 6	4.78	Oct. 2	4.65	Dec. 30	5.48
Apr. 29	4.90						

Chippewa County

Superior Township

CpSp 59. U. S. Forest Service. SE $\frac{1}{4}$ sec. 24, T. 46 N., R. 4 W. Drilled unused artesian well in deposits of Pleistocene age, diameter 6 inches, depth 54 feet. Highest water level 22.67 below lsd, May 21, 1953; lowest 25.88 below lsd, Mar. 20, 1953. Records available: 1952-53.

Daily 2 a. m. water level from recorder graph, 1952*

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	23.32	.....	23.83	.....	24.69	25.18
2	.....	23.32	23.56	23.85	.....	24.70	25.18
3	.....	e23.30	23.55	23.87	24.27	24.72	25.20
4	.....	23.33	23.58	23.89	24.24	24.73	25.20
5	.....	23.37	23.59	23.91	24.30	24.74	25.16
6	.....	23.38	23.55	23.93	24.31	24.75	25.20
7	.....	23.38	23.62	23.95	24.33	24.78	25.20
8	.....	23.35	23.62	23.95	.....	24.80	25.21
9	.....	23.39	.....	23.95	24.37	24.81	.....
10	.....	23.41	23.62	23.96	24.38	24.83	.....
11	.....	23.41	23.63	23.98	24.39	24.84	.....
12	23.06	23.44	23.66	23.98	24.39	24.85	25.23
13	23.08	23.42	23.67	23.99	24.41	24.87	25.23
14	23.06	23.42	23.67	24.00	24.43	24.89	25.22
15	23.10	23.40	23.67	24.01	24.44	24.90	25.23
16	23.09	23.45	23.68	24.02	24.45	24.92	25.23
17	23.08	23.43	23.71	24.03	24.47	24.93	25.24
18	23.13	23.43	23.72	24.03	24.47	24.94	25.25
19	23.13	23.42	23.73	24.06	24.48	24.95	25.26
20	23.17	23.42	23.74	24.08	24.52	24.96	25.26

CpSp 59--Continued.

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	23.18	23.39	23.74	24.09	.....	24.98	25.25
22	23.19	23.45	23.79	24.11	.....	25.00	25.26
23	23.20	23.41	23.79	24.12	24.56	25.00	25.25
24	23.18	23.49	23.78	24.14	24.57	25.02	25.24
25	23.21	23.48	23.79	24.14	24.60	25.03	25.26
26	23.23	23.47	23.81	.....	24.60	.....	25.26
27	e23.29	23.50	23.81	.....	24.61	.....	25.28
28	23.30	23.48	23.81	.....	24.63	.....	25.28
29	23.26	23.53	23.83	.....	24.65	.....	25.26
30	23.31	23.48	23.85	.....	24.66	.....	25.27
31		23.56	23.83		24.67		25.28

* No record for January, February, March, April, and May.

e Estimated.

Daily 2 a. m. water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.28	25.43	.....	25.53	23.16	22.75	23.15	23.65	24.06	24.47	24.94	25.39
2	25.28	25.44	.....	25.48	23.11	22.76	23.10	23.67	24.07	24.48	24.95	25.41
3	25.28	25.45	.....	25.42	23.09	22.76	23.17	23.69	24.08	24.49	24.96	25.42
4	25.28	25.45	.....	25.34	23.06	22.73	23.20	23.68	24.08	24.52	24.99	25.42
5	25.28	25.46	.....	25.29	23.02	22.74	23.19	23.71	24.09	24.53	25.02	25.45
6	25.30	25.44	25.76	25.21	22.98	22.78	23.21	23.73	24.11	24.54	25.03	25.45
7	25.31	25.49	.....	25.13	22.95	22.80	23.22	23.74	24.13	24.56	25.04	25.48
8	25.32	25.49	.....	25.06	22.91	22.80	23.25	23.75	24.14	24.57	25.02	25.50
9	25.32	25.50	.....	24.97	22.90	22.77	23.29	23.77	24.16	24.59	25.04	25.51
10	25.31	25.51	.....	24.87	22.87	22.86	23.31	23.79	24.17	24.60	25.06	25.52
11	25.29	25.51	.....	24.79	22.85	22.87	23.33	23.80	24.17	24.60	25.07	25.53
12	25.33	25.51	.....	24.71	22.82	22.84	23.34	23.81	24.16	24.63	25.09	.....
13	25.30	25.53	25.83	24.61	22.82	22.86	23.36	23.83	24.20	24.64	25.11	.....
14	25.33	25.55	.....	24.51	22.81	22.88	23.37	23.83	24.21	24.66	25.12	25.58
15	25.33	25.56	.....	24.39	22.78	22.89	23.40	23.85	24.22	24.67	25.13	25.58
16	25.33	25.60	.....	24.26	22.77	22.88	23.42	23.87	24.24	24.68	25.15	25.60
17	25.34	.....	e24.13	22.75	22.90	23.43	23.88	24.27	24.69	25.17	25.62	
18	25.31	.....	.....	24.03	22.73	22.93	23.43	23.90	24.27	24.70	25.18	25.62
19	25.32	.....	25.87	23.96	22.73	22.93	23.46	23.91	24.29	24.72	25.20	25.63
20	25.33	25.59	25.88	23.87	22.71	22.95	23.47	23.92	24.30	24.74	25.21	e25.64
21	25.34	.....	.....	23.79	22.69	22.95	23.50	23.93	24.32	24.75	25.23	e25.65
22	25.35	.....	.....	23.71	22.75	23.00	23.49	23.94	24.35	24.76	25.25	25.67
23	25.36	.....	.....	23.64	22.75	23.04	23.51	23.95	24.37	24.77	25.26	25.68
24	25.40	.....	.....	23.58	22.73	23.05	23.55	23.96	24.37	24.79	25.26	25.67
25	25.40	.....	.....	23.49	22.71	23.02	23.55	23.97	24.38	24.81	25.28	25.68
26	25.41	.....	.....	23.43	22.69	23.06	23.55	23.99	24.39	24.82	25.30	25.69
27	25.41	25.68	25.81	23.37	22.76	23.10	23.58	24.00	24.39	24.84	25.32	25.71
28	25.41	.....	.....	23.33	22.77	23.05	23.60	24.01	24.42	24.85	25.35	25.72
29	25.41	.....	.....	23.28	22.74	23.13	23.58	24.02	24.44	24.87	25.36	25.72
30	25.42	.....	.....	23.22	22.69	23.10	23.62	24.03	24.45	24.90	25.38	25.74
31	25.43	.....	25.59		22.72		23.64	24.05		24.93		25.73

e Estimated.

Dickinson County

Breen Township

DkBe 1. W. M. P. No. 10. E. W. LaFreniere. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 42 N., R. 27 W. Near Foster City. Dug domestic water-table well in sand and gravel, diameter 36 inches, depth 12 feet. Highest water level 3.63 below lsd, Apr. 29, 1953; lowest 10.00 below lsd, Mar. 15, 1948. Records available: 1945-46, 1948-53.

DkBe 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	9.04	May 28	4.55	July 30	5.93	Oct. 30	8.85
Feb. 25	9.11	June 29	3.70	Sept. 1	7.55	Nov. 30	8.78
Mar. 31	3.92	July 6	4.39	Oct. 2	8.80	Dec. 30	8.00
Apr. 29	3.63						

Breitung Township

DkBg 1. W. M. P. No. 1. Dickinson County Road Commission. $NE\frac{1}{4}SW\frac{1}{4}$ sec. 25, T. 41 N., R. 30 W. Merriman. Driven observation water-table well in glacial till, diameter $1\frac{1}{4}$ inches, depth 20 feet, screen 17-20. Highest water level 3.51 below lsd, Oct. 30, 1951; lowest 16.05 below lsd, Mar. 15, 1949. Records available: 1948-53.

Jan. 28	13.35	May 28	7.75	July 30	8.73	Oct. 30	12.41
Feb. 25	13.67	June 29	5.77	Sept. 1	10.28	Nov. 30	12.66
Mar. 31	8.70	July 6	4.01	Oct. 2	11.64	Dec. 30	12.67
Apr. 29	5.39						

DkBg 2. W. M. P. No. 2. William Carrolo. $NW\frac{1}{4}SE\frac{1}{4}$ sec. 25, T. 41 N., R. 30 W. Merriman. Dug domestic and stock water-table well in glacial till, diameter 36 inches, depth 16 feet, cribbed with wood. Highest water level 2.61 below lsd, Oct. 30, 1951; lowest 13.95 below lsd, Feb. 15, 1949. Records available: 1945-46, 1948-53.

Jan. 28	10.60	May 28	4.59	July 30	6.70	Oct. 30	9.78
Feb. 25	10.93	June 29	3.31	Sept. 1	7.49	Nov. 30	9.89
Mar. 31	9.77	July 6	2.87	Oct. 2	9.04	Dec. 30	10.86
Apr. 29	4.18						

DkBg 3. W. M. P. No. 3. Oscar Martinson. $SE\frac{1}{4}NE\frac{1}{4}$ sec. 25, T. 41 N., R. 30 W. Merriman. Dug domestic and stock water-table well in glacial till, size 4 by 4 feet, depth 13 feet, lined with concrete. Highest water level 1.73 below lsd, July 6, 1953; lowest dry, Nov. 15, 1948-Apr. 18, 1949. Records available: 1945-46, 1948-53.

Jan. 28	9.32	May 28	3.69	July 30	5.11	Oct. 30	8.29
Feb. 25	9.77	June 29	1.91	Sept. 1	5.98	Nov. 30	8.18
Mar. 31	6.37	July 6	1.73	Oct. 2	7.92	Dec. 30	9.34
Apr. 29	2.71						

Felch Township

DkFe 1. W. M. P. No. 11. Dickinson County Road Commission. $NW\frac{1}{4}NE\frac{1}{4}$ sec. 32, T. 43 N., R. 29 E. Near Sagola. Driven observation water-table well in glacial till, diameter $1\frac{1}{4}$ inches, depth 13 feet, screen 10-13. Highest water level 5.12 below lsd, Apr. 18, 1951; lowest dry, Oct. 12, 1948. Records available: 1948-53.

Jan. 28	9.83	May 28	8.17	July 30	8.94	Oct. 30	11.16
Feb. 25	10.06	June 29	8.14	Sept. 1	9.82	Nov. 30	11.21
Mar. 31	6.59	July 6	6.66	Oct. 2	10.77	Dec. 30	9.18
Apr. 29	7.30						

Iron County

Hematite Township

IrHm 1. W. M. P. No. 20. Basilio Prandi. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 8, T. 45 N., R. 33 W. Near Amasa. Dug domestic and stock water-table well in glacial till, diameter 36 inches, depth 33 feet, cribbed with wood. Highest water level 23.39 below lsd, Oct. 30, 1951; lowest 32.16 below lsd, Mar. 15, 1949. Records available: 1945-53.

Jan. 28	27.50	May 28	26.79	July 30	24.28	Oct. 30	25.80
Feb. 25	27.91	June 29	26.28	Sept. 1	24.67	Nov. 30	26.04
Mar. 31	27.93	July 6	23.85	Oct. 2	25.27	Dec. 30	28.05
Apr. 29	26.87						

IrHm 2. W. M. P. No. 19. William Bonifas Lumber Co. $SE\frac{1}{4}NW\frac{1}{4}$ sec. 10, T. 45 N., R. 33 W. Driven observation water-table well in sand and gravel, diameter $1\frac{1}{4}$ inches, depth 7 feet, screen 4-7. Highest water level 2.01 below lsd, Sept. 28, 1951; lowest 4.23 below lsd, Mar. 12, 1949. Records available: 1948-53.

IrHm 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 28	2.91	July 6	2.31	Oct. 2	3.20	Nov. 30	3.26
May 28	2.97	30	2.73	30	3.38	Dec. 30	3.49
June 29	3.50	Sept. 1	2.94				

IrHm 3. W. M. P. No. 21. Iron County Road Commission. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 44 N., R. 33 W. Near Amasa. Driven observation water-table well in glacial till, diameter 1 $\frac{1}{2}$ inches, depth 8 feet, screen 3-8. Highest water level 2.28 below lsd, May 15, 1950; lowest 7.94 below lsd, Jan. 12, 1951, Dec. 29, 1952. Records available: 1948-53.

Jan. 28	7.87	May 28	3.27	July 30	4.40	Oct. 30	6.59
Feb. 25	7.97	June 29	3.91	Sept. 1	4.91	Nov. 30	6.73
Mar. 31	5.68	July 6	2.42	Oct. 2	5.99	Dec. 30	6.76
Apr. 29	2.74						

IrHm 4. W. M. P. No. 17. Michigan State Highway Dept. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 46 N., R. 33 W. Park Siding Road and U. S. Highway 141. Driven observation water-table well in glacial till, diameter 1 $\frac{1}{2}$ inches, depth 12 feet, screen 9-12. Highest water level 2.80 below lsd, Apr. 18, 1949; lowest 8.90 below lsd, Feb. 15, 1949. Records available: 1948-53.

Jan. 28	7.52	May 28	5.64	July 30	6.28	Oct. 30	7.46
Feb. 25	7.58	June 29	6.17	Sept. 1	6.66	Nov. 30	7.42
Mar. 31	6.48	July 6	5.07	Oct. 2	7.24	Dec. 30	7.54
Apr. 29	5.25						

IrHm 5. W. M. P. No. 18. Luke and Carlson Logging Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 46 N., R. 34 W. Dug unused water-table well in glacial till, size 4 by 4 feet, depth 10 feet, cribbed with wood. Highest water level 4.04 below lsd, July 3, 1951; lowest 8.60 below lsd, Mar. 15, 1949. Records available: 1945-53.

Jan. 28	8.00	Mar. 31	6.43	May 28	5.55	Nov. 30	6.96
Feb. 25	8.09	Apr. 29	5.89	Nov. 3	7.07	Dec. 30	6.60

Iron River Township

IrIr 1. W. M. P. No. 23. Joseph J. Javoroski. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 43 N., R. 35 W. Near Mineral Hills. Dug domestic and stock water-table well in glacial till, diameter 36 inches, depth 47 feet. Highest water level 39.33 below lsd, Jan. 14, 1952; lowest 47.08 below lsd, Aug. 15, 1949. Records available: 1945-53.

Jan. 16	41.09	Apr. 9	41.72	July 6	42.62	Oct. 2	40.90
28	41.08	29	42.10	15	42.19	17	40.79
Feb. 17	41.42	May 11	42.24	30	41.94	30	40.91
25	41.31	28	42.26	Aug. 15	41.67	Nov. 30	40.99
Mar. 18	41.64	June 13	42.36	Sept. 1	41.40	Dec. 17	40.91
31	41.81	29	43.37	16	41.14	30	40.87

IrIr 2. W. M. P. No. 25. Mrs. Bernard Henriksen. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 43 N., R. 35 W. Dug unused water-table well in glacial till, diameter 36 inches, depth 48 feet. Highest water level 41.66 below lsd, June 20, 1953; lowest 48.29 below lsd, Aug. 15, 1949. Records available: 1945-53.

Daily noon water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44.27	44.66	44.84	44.02	44.00	.....	.....	43.51	43.36	43.45	43.58	43.86
2	44.28	44.66	44.82	44.18	44.08	.....	.....	43.53	43.36	43.42	43.57	43.85
3	44.36	44.67	44.80	44.10	44.15	.....	.....	43.50	43.35	43.41	43.64	43.86
4	44.35	44.67	44.76	44.25	44.20	.....	.....	43.46	43.36	43.46	43.66	43.80
5	44.38	44.68	44.73	44.18	44.19	.....	.....	43.53	43.37	43.39	43.65	43.81
6	44.40	44.68	44.70	44.13	44.15	.....	43.47	43.45	43.38	43.49	43.66	43.84
7	44.36	44.69	44.68	44.34	44.22	.....	43.61	43.45	43.40	43.45	43.65	43.88
8	44.37	44.69	44.70	44.47	44.30	.....	43.75	43.49	43.40	43.43	43.64	43.92
9	44.45	44.70	44.72	44.30	44.36	.....	43.81	43.46	43.39	43.45	43.67	43.91
10	44.47	44.71	44.74	.....	44.32	.....	43.75	43.44	43.36	43.43	43.66	43.89
11	44.45	44.72	44.76	43.77	44.34	.....	43.69	43.42	43.32	43.49	43.71	43.92
12	44.42	44.73	44.78	43.93	44.53	.....	43.67	43.42	43.35	43.50	43.69	43.92
13	44.50	44.74	44.79	44.10	44.56	44.38	43.68	43.43	43.39	43.47	43.72	43.92
14	44.52	44.75	44.80	44.16	44.55	44.44	43.72	43.41	43.36	43.46	43.70	43.94
15	44.50	44.76	44.82	43.95	44.53	44.44	43.73	43.44	43.36	43.49	43.72	43.96

Irr 2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	44.57	44.77	44.81	43.80	44.56	44.38	43.72	43.42	43.39	43.49	43.70	43.97
17	44.56	44.77	44.80	43.90	44.56	44.52	43.66	43.43	43.38	43.51	43.73	43.99
18	44.50	44.78	44.79	44.00	44.56	44.39	43.64	43.40	43.35	43.50	43.73	43.98
19	44.48	44.79	44.79	44.10	44.56	43.66	43.66	43.42	43.36	43.53	43.75	43.96
20	44.50	44.78	44.79	44.14	44.56	41.66	43.66	43.40	43.36	43.53	43.74	43.96
21	44.58	44.78	44.79	44.13	44.57	.....	43.64	43.41	43.45	43.54	43.75	43.99
22	44.59	44.78	44.79	44.03	44.53	.....	43.63	43.41	43.44	43.51	43.76	44.02
23	44.59	44.77	43.80	44.43	44.57	.....	43.65	43.40	43.40	43.53	43.74	44.03
24	44.60	44.78	43.60	44.52	44.57	.....	43.65	43.40	43.39	43.55	43.74	44.00
25	44.60	44.79	44.20	44.30	44.20	.....	43.57	43.39	43.36	43.54	43.77	44.01
26	44.61	44.80	44.47	44.45	.....	.....	43.63	43.40	43.39	43.56	43.85	44.03
27	44.60	44.82	44.10	44.30	.....	.....	43.62	43.37	43.41	43.56	43.83	44.04
28	44.61	44.83	43.80	43.68	44.10	.....	43.52	43.37	43.40	43.57	43.84	44.03
29	44.63		44.10	43.75	43.90	43.01	43.56	43.36	43.39	43.56	43.33	44.06
30	44.64		43.90	43.75	43.80	43.00	43.57	43.38	43.46	43.60	43.85	44.06
31	44.65		43.98				43.54	43.37		43.62		44.08

Irr 3. W. M. P. No. 27. Iron County Road Commission. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 43 N., R. 36 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{4}$ inches, depth 9 feet, screen 6-9. Highest water level 6.69 below lsd, July 6, 1953; lowest 9.02 below lsd, June 30, 1952. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	8.12	May 28	7.90	July 30	7.78	Oct. 30	7.93
Feb. 25	8.07	June 29	8.65	Sept. 1	7.74	Nov. 30	8.14
Mar. 31	7.52	July 6	6.69	Oct. 2	7.84	Dec. 30	8.18
Apr. 29	7.79						

Irr 4. W. M. P. No. 29. U. S. Forest Service, Ottawa National Forest. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 45 N., R. 36 W. Near Gibbs City. Dug unsted water-table well in glacial till, size 4 by 4 feet, depth 22 feet, cribbed with wood. Highest water level 14.01 below lsd, Nov. 29, 1951; lowest 23.21 below lsd, May 16, 1949. Records available: 1945-46, 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	18.16	May 28	17.74	July 30	16.41	Oct. 30	17.27
Feb. 25	18.24	June 29	17.95	Sept. 1	16.33	Nov. 30	17.86
Mar. 31	15.98	July 6	16.06	Oct. 2	16.80	Dec. 30	18.15
Apr. 29	16.93						

Irr 5. W. M. P. Paint River Profile well 1. U. S. Forest Service, Ottawa National Forest. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 44 N., R. 35 W. Near Gibbs City. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 6 feet, screen 3-6. Land-surface datum is 1,468.15 feet above msl. Highest water level 0.10 above lsd, May 2, 1951; lowest 2.26 below lsd, Nov. 15, 1948. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	-1.82	May 28	-1.29	July 30	-1.08	Oct. 30	-2.09
Feb. 25	1.68	June 29	-1.34	Sept. 1	1.45	Nov. 30	2.04
Mar. 31	1.53	July 6	+0.03	Oct. 2	1.70	Dec. 30	2.08
Apr. 29	.95						

Irr 6. W. M. P. Paint River Profile well 2. U. S. Forest Service, Ottawa National Forest. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 44 N., R. 35 W. Near Gibbs City. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 13 feet, screen 10-13. Land-surface datum is 1,475.14 feet above msl. Highest water level 5.08 below lsd, July 6, 1953; lowest 8.92 below lsd, Nov. 15, 1948. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.45	May 28	7.42	July 30	7.00	Oct. 30	8.57
Feb. 25	8.30	June 29	7.87	Sept. 1	7.78	Nov. 30	8.62
Mar. 31	7.89	July 6	5.08	Oct. 2	8.38	Dec. 30	8.57
Apr. 29	7.12						

Irr 7. W. M. P. Paint River Profile well 3. U. S. Forest Service, Ottawa National Forest. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 44 N., R. 35 W. Near Gibbs City. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 12 feet, screen 9-12. Land-surface datum is 1,468.15 feet above msl. Highest water level 4.03 below lsd, July 6, 1953; lowest 9.20 below lsd, Nov. 15, 1948. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.70	May 28	7.22	July 30	6.42	Oct. 30	8.61
Feb. 25	8.60	June 29	7.32	Sept. 1	7.56	Nov. 30	8.76
Mar. 31	7.98	July 6	4.03	Oct. 2	8.21	Dec. 30	8.71
Apr. 29	6.84						

IrIr 8. W. M. P. Paint River Profile well 4. U. S. Forest Service, Ottawa National Forest. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 44 N., R. 35 W. Near Gibbs City. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 4 feet, screen 1-4. Land-surface datum is 1,468.28 feet above msl. Highest water level 1.12 below lsd, May 2, 1951; lowest 3.51 below lsd, Sept. 14, 1949. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	3.13	May 28	2.37	July 30	2.45	Oct. 30	3.37
Feb. 25	2.98	June 29	2.78	Sept. 1	2.63	Nov. 30	3.18
Mar. 31	2.61	July 6	1.25	Oct. 2	2.96	Dec. 30	3.33
Apr. 29	2.18						

IrIr 9. W. M. P. Paint River Profile well 5. U. S. Forest Service, Ottawa National Forest. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 44 N., R. 35 W. Near Gibbs City. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 13 feet, screen 10-13. Land-surface datum is 1,471.25 feet above msl. Highest water level 2.50 below lsd, July 6, 1953; lowest 9.44 below lsd, Oct. 26, 1948. Records available: 1948-53.

Jan. 30	5.04	May 28	4.27	July 30	3.95	Oct. 30	5.12
Feb. 25	4.94	June 29	4.38	Sept. 1	4.61	Nov. 30	5.15
Mar. 31	4.68	July 6	2.50	Oct. 2	5.16	Dec. 30	5.12
Apr. 29	3.90						

IrIr 10. W. M. P. Paint River Profile well 6. U. S. Forest Service, Ottawa National Forest. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 44 N., R. 35 W. Driven observation water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 17 feet, screen 14-17. Land-surface datum is 1,479.30 feet above msl. Highest water level 8.48 below lsd, May 2, 1951; lowest 13.40 below lsd, Oct. 26, 1948. Records available: 1948-53.

Jan. 30	12.59	May 28	11.51	July 30	10.12	Oct. 30	12.41
Feb. 25	12.45	June 29	11.57	Sept. 1	11.21	Nov. 30	12.71
Mar. 31	12.18	July 6	9.24	Oct. 2	12.18	Dec. 30	12.51
Apr. 29	11.23						

Mastodon Township

IrMt 1. W. M. P. No. 7. Iron County Road Commission. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 42 N., R. 31 W. Driven observation water-table well in glacial till, diameter 1 $\frac{1}{4}$ inches, depth 8 feet, screen 5-8. Highest water level 0.59 below lsd, Apr. 13, 1950; lowest 6.28 below lsd, Oct. 13, 1948. Records available: 1948-53. Measurement discontinued.

Jan. 28	4.95	Apr. 29	0.99	June 29	1.51	July 30	2.40
Feb. 25	5.39	May 28	1.23	July 6	1.44	Sept. 1	2.72
Mar. 31	.68						

IrMt 2. W. M. P. No. 8. Joseph Giachino. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 42 N., R. 31 W. Dug domestic water-table well in glacial till, diameter 15 inches, depth 12 feet, cased with tile. Highest water level 1.89 below lsd, Oct. 30, 1951; lowest 12.22 below lsd, Feb. 25, 1953. Records available: 1945-53.

Jan. 28	12.15	May 28	6.27	July 30	5.84	Oct. 30	9.35
Feb. 25	12.22	June 29	1.95	Sept. 1	7.19	Nov. 30	10.04
Mar. 31	8.50	July 6	3.69	Oct. 2	8.78	Dec. 30	10.48
Apr. 29	6.66						

IrMt 3. W. M. P. No. 5. Iron County Road Commission. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 41 N., R. 31 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{4}$ inches, depth 17 feet, screen 14-17. Highest water level 8.47 below lsd, Jan. 3, 1952; lowest dry several times. Records available: 1948-53.

Jan. 28	14.52	May 28	11.55	July 30	10.03	Oct. 30	12.64
Feb. 25	14.87	June 29	11.03	Sept. 1	10.90	Nov. 30	13.35
Mar. 31	15.13	July 6	9.82	Oct. 2	11.84	Dec. 30	13.68
Apr. 29	13.93						

Stambaugh Township

IrSt 1. W. M. P. No. 28. U. S. Forest Service, Ottawa National Forest. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 45 N., R. 37 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{4}$ inches, depth 8 feet, screen 5-8. Highest water level 0.75 below lsd, Aug. 31, 1951; lowest 4.72 below lsd, Sept. 11, 1948. Records available: 1948-53.

IrSt 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	2.74	May 28	1.44	July 30	2.10	Oct. 30	2.47
Feb. 25	2.70	June 29	2.77	Sept. 1	2.20	Nov. 30	2.25
Mar. 31	1.15	July 6	1.11	Oct. 2	2.54	Dec. 30	2.28
Apr. 29	1.06						

IrSt 2. W. M. P. Brule River Profile well 1. State Highway Dept. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 42 N., R. 36 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 6 feet, screen 3-6. Land-surface datum is 1,543.92 feet above msl. Highest water level 1.25 below lsd, Apr. 13, 1950; lowest 3.17 below lsd, Oct. 26, 1948. Records available: 1948-53.

Jan. 28	2.30	May 28	1.89	July 30	1.76	Oct. 30	2.53
Feb. 25	1.96	June 29	1.72	Sept. 1	2.32	Nov. 30	2.34
Mar. 31	1.62	July 6	1.34	Oct. 2	2.27	Dec. 31	2.21
Apr. 29	1.68						

IrSt 3. W. M. P. Brule River Profile well 2. State Highway Dept. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 42 N., R. 36 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 7 feet, screen 4-7. Land-surface datum is 1,545.60 feet above msl. Highest water level 0.46 below lsd, July 6, 1953; lowest 3.10 below lsd, Oct. 26, 1948. Records available: 1948-53.

Jan. 28	2.33	May 28	1.20	July 30	1.22	Oct. 30	1.97
Feb. 25	2.16	June 29	1.04	Sept. 1	1.76	Nov. 30	1.91
Mar. 31	.95	July 6	.46	Oct. 2	1.67	Dec. 31	2.00
Apr. 29	1.05						

IrSt 4. W. M. P. Brule River Profile well 3. William Young Estate. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 42 N., R. 36 W. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 14 feet, screen 11-14. Land-surface datum is 1,554.36 feet above msl. Highest water level 3.96 below lsd, July 6, 1953; lowest 8.29 below lsd, Oct. 26, 1948. Records available: 1948-53.

Jan. 28	7.32	May 28	5.19	July 30	5.24	Oct. 30	6.37
Feb. 25	7.37	June 29	5.31	Sept. 1	5.97	Nov. 30	6.40
Mar. 31	5.55	July 6	3.96	Oct. 2	5.98	Dec. 31	6.49
Apr. 29	4.93						

IrSt 5. W. M. P. No. 34. State Highway Dept. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 45 N., R. 35 W. Near Iron River. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 12 feet, screen 9-12. Highest water level 1.93 below lsd, July 6, 1953; lowest 8.44 below lsd, Mar. 15, 1949. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 10, 1948	8.26	Feb. 13, 1950	7.97	July 3, 1951	2.41	Oct. 31, 1952	4.20
Oct. 12	7.23	Mar. 14	8.08	Aug. 1	2.17	Dec. 1	4.59
Nov. 15	7.96	Apr. 13	7.86	Aug. 31	2.69	Dec. 29	4.91
Dec. 15	7.91	May 15	4.68	Sept. 28	2.79	Jan. 28, 1953	5.25
Jan. 16, 1949	8.20	June 15	3.79	Oct. 30	2.62	Feb. 25	5.45
Feb. 15	8.20	July 13	4.06	Nov. 29	2.83	Mar. 31	5.23
Mar. 15	8.44	Aug. 15	4.50	Jan. 3, 1952	3.43	Apr. 29	4.55
Apr. 18	7.77	Sept. 8	4.94	Feb. 28	3.75	May 28	4.24
May 16	7.09	Oct. 13	5.47	Feb. 28	4.12	June 29	3.90
June 13	7.12	Nov. 15	5.73	Mar. 28	4.48	July 6	1.93
July 14	6.88	Dec. 13	5.99	Apr. 30	3.10	Oct. 30	2.33
Aug. 15	7.37	Jan. 12, 1951	6.33	May 27	3.29	Sept. 1	2.85
Sept. 14	7.51	Feb. 15	6.71	June 30	3.61	Oct. 2	3.38
Oct. 18	7.60	Mar. 13	6.69	July 30	2.76	Nov. 30	3.85
Nov. 14	7.51	Apr. 18	5.06	Aug. 28	3.15	Dec. 30	4.26
Dec. 15	7.57	May 3	4.00	Sept. 29	3.77		4.56
Jan. 17, 1950	7.84	June 1	3.37				

Marquette County

Michigamme Township

MqMc 1. W.M.P. No. 13. Marquette County Road Commission. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 49 N., R. 30 W. Near Champion. Driven observation water-table well in sand and gravel, diameter 1 $\frac{1}{2}$ inches, depth 17 feet, screen 14-17. Highest water level 0.64 below lsd, May 3, 1951; lowest 13.32 below lsd, Sept. 2, 1948. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.46	May 28	8.90	July 30	10.20	Oct. 30	10.65
Feb. 25	10.41	June 29	10.57	Sept. 1	10.60	Nov. 30	10.65
Mar. 31	7.72	July 6	8.17	Oct. 2	10.55	Dec. 30	10.08
Apr. 29	7.13						

Republic Township

MqRe 1. W.M.P. No. 4. Arnold Janofski. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 45 N., R. 30 W. Near Republic. Dug unused water-table well in glacial till, diameter 36 inches, depth 30 feet, cased with corrugated metal pipe. Highest water level 24.38 below lsd, Dec. 13, 1951; lowest 29.28 below lsd, Mar. 15, 1949. Records available: 1945-53.

Jan. 16	27.04	Apr. 9	26.38	July 6	25.57	Oct. 2	25.33
28	26.59	29	26.17	15	25.53	17	25.45
Feb. 17	26.36	May 11	26.12	30	25.33	30	25.51
25	26.50	28	26.06	Aug. 15	25.23	Nov. 30	25.66
Mar. 18	26.12	June 13	25.99	Sept. 1	25.19	Dec. 17	25.89
31	26.23	29	26.85	16	25.23	30	25.97

Schoolcraft County

Germfask Township

SoGe 112. U. S. Fish and Wildlife Service. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 45 N., R. 13 W. Drilled unused artesian well in Richmond group, diameter 4 inches, depth 151 feet, cased to about 65. Measurements made by Fish and Wildlife Service. Highest water level 5.20 below lsd, Apr. 13, 1953; lowest 5.85 below lsd, Sept. 9-10, 1953. Records available: 1952-53.

Daily 2 a.m. water level from recorder graph, 1952*

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	5.67	5.61	5.66	....	5.62
2	....	....	5.66	5.62	5.69	....	5.60
3	....	....	5.68	5.65	5.73	5.76	5.64
4	....	....	5.66	5.67	5.68	....	5.65
5	....	....	5.57	5.69	5.70	....	5.60
6	....	....	5.60	5.70	5.73	5.72	5.57
7	....	....	5.57	5.74	5.75	....	5.58
8	....	....	5.58	5.73	5.73	....	5.58
9	....	....	5.58	5.72	5.75	....	5.57
10	....	5.61	5.57	5.73	5.76	....	5.57
11	5.58	5.60	5.59	5.74	5.75	....	5.56
12	5.56	5.61	5.63	5.75	5.73	....	5.56
13	5.58	5.62	5.65	5.75	5.72	....	5.56
14	5.57	5.61	5.67	5.72	5.74	....	5.54
15	5.58	5.58	5.66	5.69	5.75	....	5.54
16	5.58	5.61	5.61	5.69	5.73	....	5.54
17	5.53	5.61	5.64	5.68	....	....	5.56
18	5.58	5.60	5.65	5.66	....	....	5.58
19	5.58	5.60	5.66	5.67	....	....	5.60
20	5.61	5.60	5.66	5.69	....	....	5.60
21	5.61	5.51	5.56	5.70	....	....	5.56
22	5.62	5.54	5.62	5.69	....	....	5.55
23	....	5.52	5.63	5.68	....	....	5.55
24	....	5.59	5.62	5.69	....	....	5.51
25	5.54	5.59	5.62	5.68	....	5.67	5.51

SoGe 112--Continued.

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	5.64	5.69	....	5.58	5.50
27	5.65	5.69	....	5.54	5.50
28	5.64	5.67	....	5.58	5.54
29	5.66	5.69	....	5.58	5.52
30	5.68	5.71	....	5.59	5.52
31		5.68	5.66		....		5.52

* No record for January, February, March, April, and May.

e Estimated.

Daily 2 a. m. water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.52	....	e5.33	....	5.33	5.44	....	....	5.80	5.80	5.80	5.71
2	5.52	....	e5.33	....	5.33	5.45	....	....	5.76	5.81	5.78	5.70
3	5.52	....	e5.33	....	5.36	5.45	....	....	5.76	5.80	5.76	5.69
4	5.52	....	5.31	....	5.39	5.43	....	....	5.77	5.76	5.82	5.60
5	5.51	....	5.32	....	5.40	5.38	....	....	5.76	5.77	....	5.61
6	5.52	....	5.33	....	5.40	5.42	....	....	5.78	5.65	....	5.61
7	5.55	....	5.36	....	5.43	5.45	5.41	....	5.81	5.67	....	5.58
8	5.56	....	5.34	....	5.43	5.46	....	....	5.83	5.68	....	5.60
9	5.56	....	5.33	....	5.44	5.42	....	....	5.85	5.68	....	5.64
10	5.55	5.52	5.36	....	5.46	5.47	....	....	5.85	5.70	5.77	5.59
11	5.51	....	5.35	....	5.46	5.49	....	....	5.84	5.69	5.76	5.60
12	5.55	....	5.33	....	5.49	5.47	....	....	5.77	5.73	5.78	5.63
13	5.51	....	5.36	5.20	5.52	5.48	5.50	....	5.79	5.76	5.77	5.62
14	5.55	....	....	5.22	5.55	5.49	....	....	5.80	5.74	5.74	5.60
15	5.55	....	....	5.28	5.54	5.53	....	....	5.79	5.72	5.73	5.59
16	5.50	....	....	5.25	5.54	5.53	....	....	5.76	5.74	5.72	5.62
17	5.52	....	....	5.27	5.54	5.50	....	....	5.79	5.74	5.74	5.66
18	5.46	....	....	5.29	5.53	5.49	....	....	5.78	5.73	5.73	5.64
19	5.47	....	....	5.32	5.53	5.48	....	....	5.77	5.74	5.75	5.63
20	5.48	....	....	5.33	5.53	5.49	....	....	5.76	5.77	5.75	5.59
21	5.49	....	....	5.35	5.52	5.45	....	....	5.76	5.77	5.71	5.60
22	5.49	....	....	5.35	5.49	5.46	....	....	5.81	5.78	5.74	5.62
23	5.48	....	....	5.36	5.52	5.50	....	....	5.83	5.75	5.67	5.62
24	5.45	5.30	....	5.42	5.53	5.51	....	....	5.80	5.77	5.64	5.60
25	5.46	5.31	....	5.42	5.53	....	....	5.74	5.79	5.79	5.66	5.57
26	5.50	5.29	....	5.40	5.49	....	....	5.74	5.76	5.77	5.65	5.56
27	5.49	5.30	....	5.35	5.51	....	....	5.76	5.73	5.79	5.69	5.60
28	5.49	e5.33	....	5.34	5.53	....	....	5.76	5.74	5.77	5.72	5.55
29	5.50	....	....	5.34	5.54	....	....	5.76	5.77	5.78	5.72	5.54
30	5.51	....	....	5.34	5.47	....	....	5.76	5.76	5.77	5.70	5.58
31	5.50	....	....	....	5.43	....	....	5.79	....	5.78	....	5.54

e Estimated.

NEW HAMPSHIRE

By Walter MacDonald, Jr.

Scope of Water-Level Program

The observation-well program in New Hampshire was continued in 1953. Wells Hill 1 and New London 1 in Merrimack County were measured weekly. Well Auburn 8 in Rockingham County is equipped with a recording gage. Figure 14 shows the location of the three wells.

Precipitation

The first 5 months of the year, with the exception of February when precipitation was normal, were extremely wet. This period of heavy rainfall was followed by a dry summer which was alleviated by above-normal rainfall in October. Precipitation was slightly below normal in November, but above normal in December. The annual precipitation for the State as a whole was 45.13 inches which was 4.48 inches above normal and 3.16 inches more than in 1952.

Interpretation of Water-Level Fluctuations

Water levels, slightly above average at the beginning of 1953, rose to record heights during the first 3 months. The normal seasonal decline began in April and continued through September. The water levels, above average until the end of May, dropped below normal during the remaining period of decline. During October and November the fluctuations were minor, and levels remained below normal until an abrupt rise in December brought them up above normal and slightly higher than those at the end of 1952, resulting in a general slight gain in ground-water storage for the year 1953.

Acknowledgments

The Manchester Water Works continued periodic measurements of water levels at Auburn 8 and maintained the recording gage installed on this well.

Well-Numbering System

Wells in New Hampshire are numbered serially within each town in the order that they were inventoried.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum.)

Merrimack County

Hill 1. J. E. Norcross. Lat. 43°33'54", long. 71°44'50". Dug unused water-table well in sandy glacial till, diameter 18 inches, depth 11 feet. Land-surface datum is about 500 feet above msl. Highest water level 2.43 below lsd, Apr. 13, 1952; lowest dry several times in 1947, 1948, 1949, and 1950. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	8.40	Apr. 5	3.62	June 28	7.44	Sept. 20	9.41
11	6.36	12	4.40	July 5	8.42	27	9.41
18	8.44	19	6.42	12	8.44	Oct. 6	9.42
28	8.40	26	6.37	19	8.43	11	9.41
Feb. 1	6.40	May 3	5.40	26	8.44	18	9.44
8	6.43	10	6.41	Aug. 2	8.45	25	9.43
15	6.44	17	6.40	9	9.40	Nov. 1	9.44
Mar. 1	6.40	24	6.39	16	8.44	8	9.42
10	7.42	31	7.44	23	9.36	15	9.36
15	4.43	June 7	8.40	30	9.36	29	9.45
22	3.43	14	8.37	Sept. 6	9.37	Dec. 13	8.43
29	2.45	20	8.39	13	9.40	20	8.41

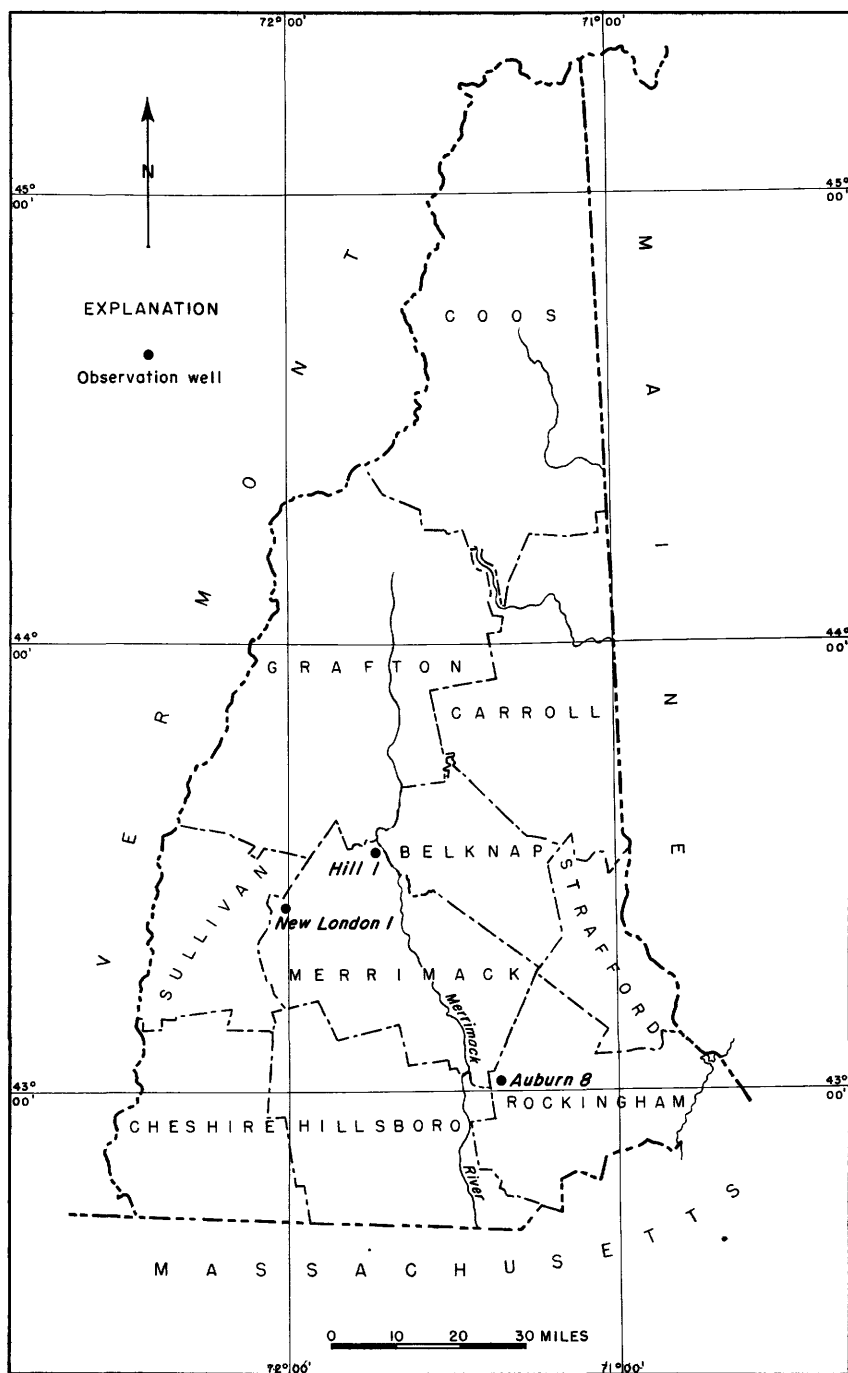


Figure 14. --Location of observation wells in New Hampshire, 1953.

New London 1. W. S. Mariner. Lat. 43°23'46", long. 71°57'09". Dug unused water-table well in sandy glacial till, diameter 36 inches, depth 21 feet. Land-surface datum is about 1,020 feet above msl. Highest water level 0.87 below lsd, Apr. 6, 1952; lowest 16.43 below lsd, Feb. 8, 1948. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	9.26	Apr. 5	3.22	July 5	9.91	Oct. 4	13.85
11	9.30	12	3.57	12	10.42	11	14.40
18	9.73	19	3.32	19	10.86	18	14.38
25	9.18	26	4.12	26	11.38	25	14.58
Feb. 1	5.64	May 3	3.52	Aug. 2	11.89	Nov. 1	14.72
8	5.60	10	4.13	9	11.62	8	14.99
15	5.69	17	4.32	16	11.82	15	15.06
22	4.41	24	4.85	23	12.16	22	15.23
Mar. 1	4.20	31	6.65	30	12.37	29	15.02
8	5.22	June 7	7.35	Sept. 6	12.79	Dec. 7	13.72
15	5.13	14	8.51	13	12.98	13	8.04
22	4.30	21	8.77	20	13.27	20	7.59
29	1.81	28	9.32	27	13.51	27	8.03

Rockingham County

Auburn 8. Manchester Water Works. Lat. 43°00'21", long. 71°18'46". Dug unused water-table well, diameter 32 inches, depth 8 feet. Land-surface datum is about 300 feet above msl. Highest water level 0.50 below lsd, Mar. 22, 1948; lowest 7.84 below lsd, Oct. 26, 1953. Records available: 1942-53.

Daily noon water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.13	1.21	1.53	1.26	1.27	2.05	4.20	5.40	6.32	....	....	4.10
2	2.14	1.38	1.57	1.29	1.40	2.07	4.23	5.48	6.34	....	6.55	4.00
3	1.55	1.40	1.58	1.38	1.49	2.15	4.22	5.57	6.38	....	6.53	3.94
4	1.80	1.41	1.17	1.42	1.58	2.12	4.37	5.62	6.44	....	6.52	3.90
5	1.87	1.42	1.43	1.41	1.41	2.04	4.49	5.55	6.49	....	6.53	3.43
6	1.90	1.44	1.48	1.46	1.56	2.1b	4.59	5.19	6.53	....	6.53	3.14
7	1.92	1.22	1.52	1.45	1.60	2.17	4.68	5.18	6.59	....	6.52	2.35
8	1.92	1.26	1.54	1.43	1.57	2.24	4.79	5.22	6.64	....	6.29	2.46
9	1.91	1.35	1.57	1.51	1.61	2.29	4.81	5.31	6.67	....	6.12	2.52
10	1.89	1.38	1.59	1.54	1.63	2.37	4.91	5.37	6.72	....	....	2.07
11	1.76	1.42	1.61	1.45	1.69	2.48	5.00	5.32	6.76	....	....	2.22
12	1.73	1.43	1.63	1.54	1.68	2.57	5.08	5.32	6.79	....	....	2.25
13	1.72	1.44	1.17	1.40	1.68	2.64	5.14	5.38	6.83	....	....	2.17
14	1.72	1.46	1.28	1.19	1.64	2.70	4.91	5.47	6.86	7.66	....	1.73
15	1.67	1.41	1.39	1.20	1.68	2.77	4.86	5.53	6.88	7.66	....	1.96
16	1.63	1.16	.87	1.31	1.60	2.85	4.88	5.59	6.90	7.66	5.96	2.02
17	1.59	1.28	1.23	1.22	1.49	2.94	5.00	5.64	6.93	7.67	5.95	2.02
18	1.41	1.36	1.31	1.37	1.54	3.02	5.12	5.69	6.96	7.68	5.96	2.02
19	1.47	1.41	1.35	1.39	1.66	3.08	5.22	5.74	6.98	7.69	5.96	2.02
20	1.50	1.42	1.33	1.35	1.70	3.19	5.30	5.82	7.00	7.71	5.94	1.99
21	1.51	1.20	1.36	1.45	1.75	3.31	4.89	5.87	7.03	7.73	5.94	1.91
22	1.50	1.37	1.39	1.49	1.73	3.33	4.79	5.93	7.06	7.75	5.94	1.81
23	1.48	1.43	1.39	1.52	1.77	3.26	4.78	5.98	7.08	7.77	5.91	1.80
24	1.38	1.44	1.24	1.56	1.82	3.47	4.65	6.03	7.10	7.79	5.69	1.81
25	1.08	1.46	1.24	1.56	1.87	3.60	4.67	6.05	7.12	7.83	5.51	1.79
26	1.29	1.47	1.17	1.46	1.89	3.72	4.76	6.07	7.15	7.84	4.89	1.74
27	1.32	1.47	.94	1.49	1.90	3.83	4.91	6.12	7.16	....	4.64	1.74
28	1.12	1.50	1.18	1.52	1.93	3.94	5.01	6.17	7.20	....	4.52	1.73
29	1.27		1.27	1.58	1.97	3.98	5.14	6.21	7.22	....	4.30	1.72
30	1.35		.76	1.62	1.98	4.06	5.23	6.25	....	....	4.19	1.71
31	1.37		1.06		2.01		5.31	6.27	....	....		1.71

NEW JERSEY

By Charles R. Austin

Scope of Water-Level Program

The observation-well program in New Jersey was continued in 1953 in cooperation with the State Department of Conservation and Economic Development, Division of Water Policy and Supply. Measurements were made in 200 wells. Measurements were made monthly or less frequently in some wells, weekly in others, and several times a day in those which were being observed during pumping tests. At the end of the year, continuous records from recording gages were being obtained from 92 wells. Figure 15 shows the location of the wells, the records of which are given in this report, except for those in Middlesex County and the western portion of Salem County. Figures 16 and 17 show the wells reported in these areas.

Precipitation

Precipitation for the year 1953 averaged 48.78 inches, which is 3.01 inches above normal. During the year, rainfall was above normal from January through May with the exception of February. The balance of the year through November was below normal. The result of this deficient rainfall during the summer months caused many wells to show record lows.

Interpretation of Water-Level Fluctuations

Atlantic County. --In the Atlantic City area the artesian pressure in the Atlantic City Waterworks well (36.13.2.9.1) at Pleasantville, which taps the Atlantic City 800-foot sand unit of the Kirkwood formation, showed a seasonal trend similar to previous years. Owing to increased pumping from these sands, the level throughout the year was approximately 1 foot below that of 1952. In the Longport well (36.23.1.9.6), which also taps the Atlantic City 800-foot sand unit of the Kirkwood formation, the water levels followed the same general pattern as in preceding years, which is a seasonal decline during the months of June, July, and August, and the recovery which starts immediately after Labor Day, at which time most of the hotels in this area close for the season. The levels in this well were below those of 1952 with the exception of the months of May, June, and July. Owing to the deficiency in rainfall, record lows were noted in both of these wells, and the levels in both wells were below those of 1952 at the end of the year. In general, water levels in the Atlantic City area have been declining during the past few years owing to increased pumping. The above-average rainfall of 1953 did not appear to check the decline.

Bergen County. --The level in the Baker well (26.3.1.4.3) at East Paterson has been rising since 1950. During 1951 the average was 10 feet higher than in 1950, and in 1952 the average was about 8 feet higher than in 1951. This trend continued during 1953 until July 31, at which time the levels began to drop; on December 31 the level was 5 feet lower than on the same date the preceding year. The Garfield well (26.3.1.7.3) showed generally lower water levels throughout the entire year. Increased industrial usage in this area and generally lower rainfall during the last half of 1953 might be the reason for this decline.

Burlington County. --Water level throughout the year in the Penn State Forest well (32.23.6.6.8) was about normal, and on December 31 was approximately the same as in 1952.

Camden County. --In this area water levels have been declining since 1951. A record low of 38.4 feet below msl was observed in the New Jersey Water Company well 10 (31.2.4.5.1) on September 11, 1953. The previous record low of 31.2 feet below msl was recorded on August 18, 1951. A record low of 10.93 feet below msl was observed in the Esterbrook Pen Company well (31.1.6.4.8) on September 4, 1953. These lows can be attributed mainly to increased pumping in this area.

Cape May County. --A record low of 73.5 feet below msl was observed in the American Ice Company well (36.22.6.8.2) on July 24, 1953. On December 31 the water levels in this well were 5 feet lower than on the same date in 1952. A record low of 66.2 feet below msl was also recorded in the Normandie Hotel well (36.22.6.9.1) on September 6, 1953. The water levels in this well were slightly lower throughout the year than during 1952.

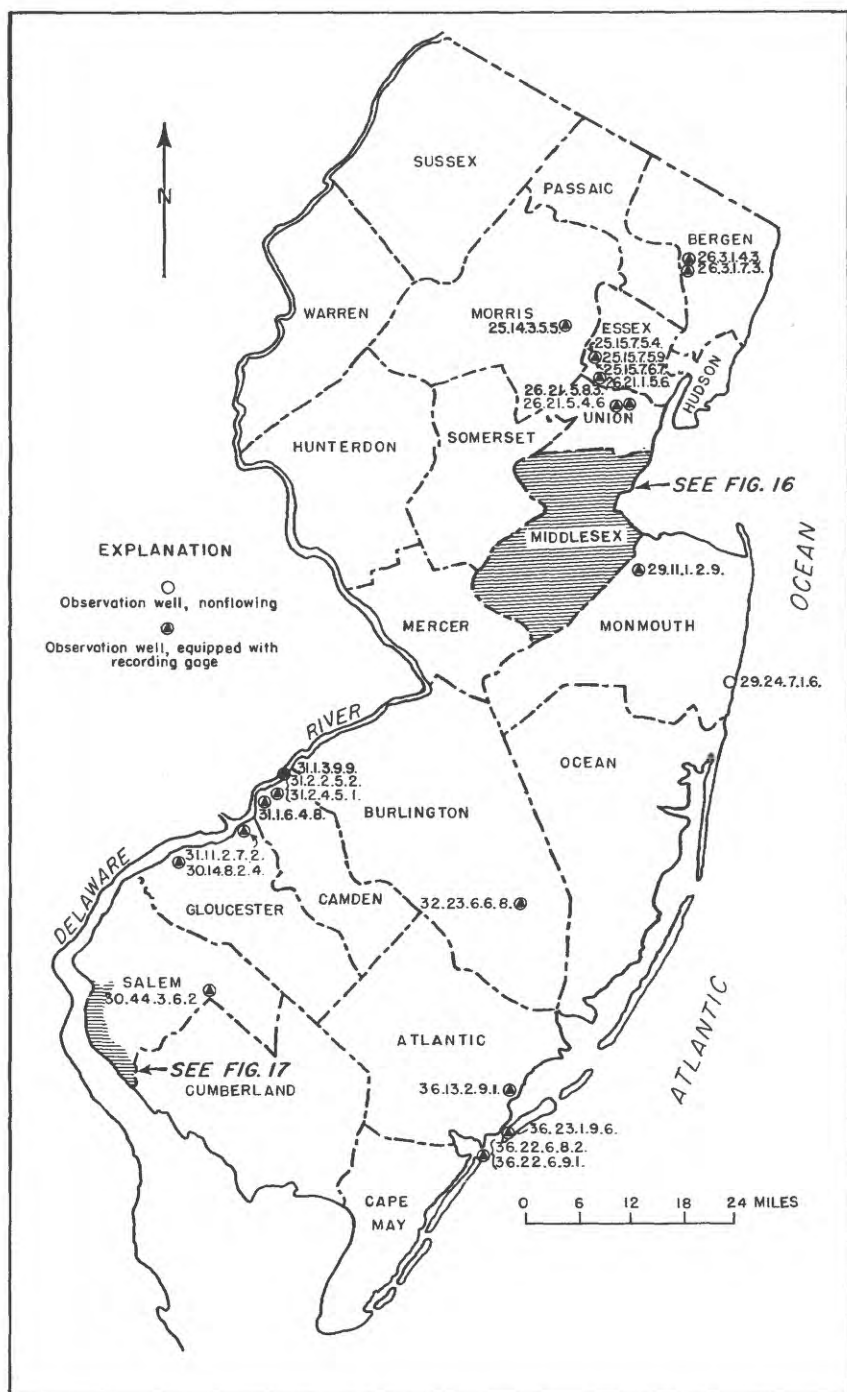


Figure 15. --Location of observation wells in New Jersey, 1953.

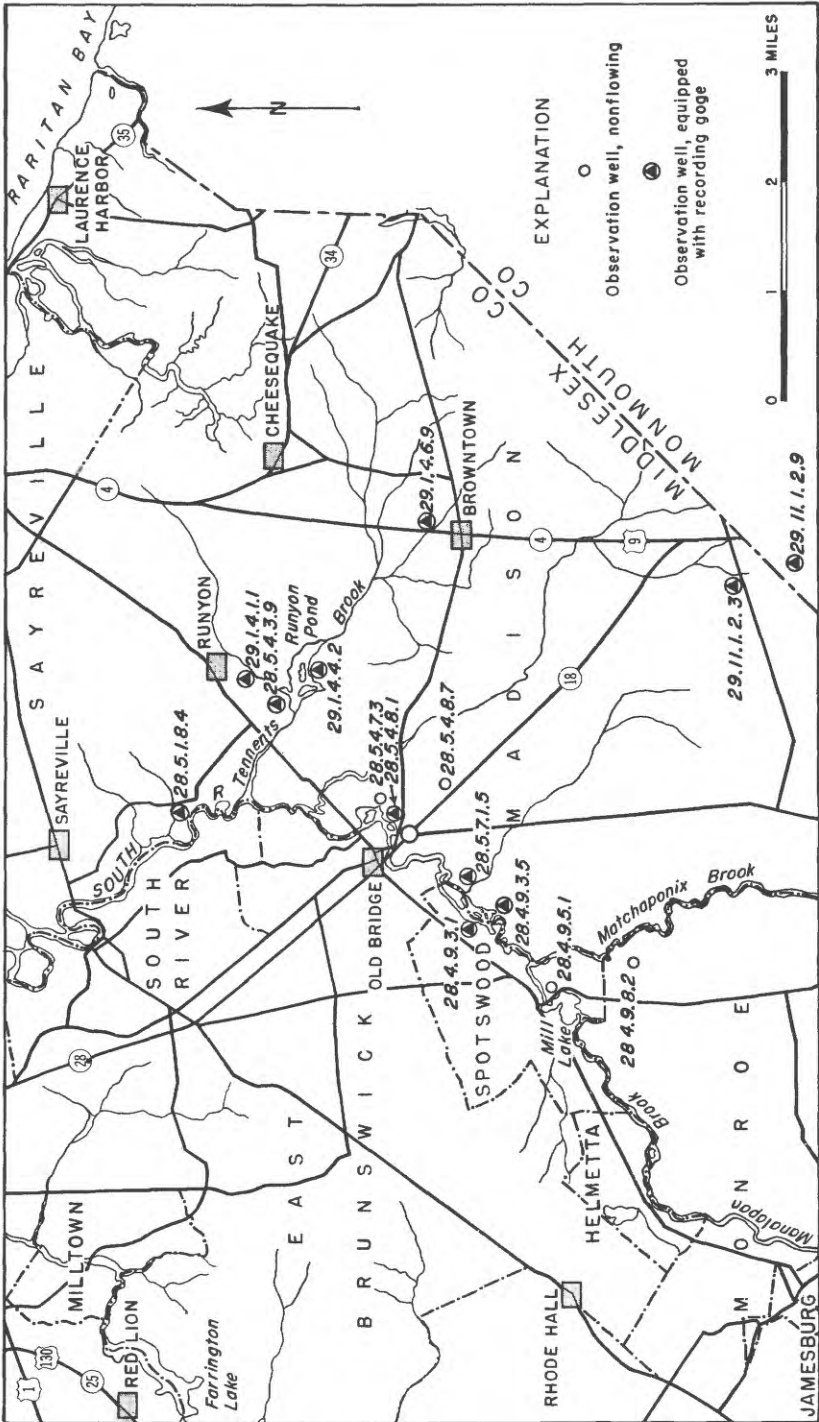
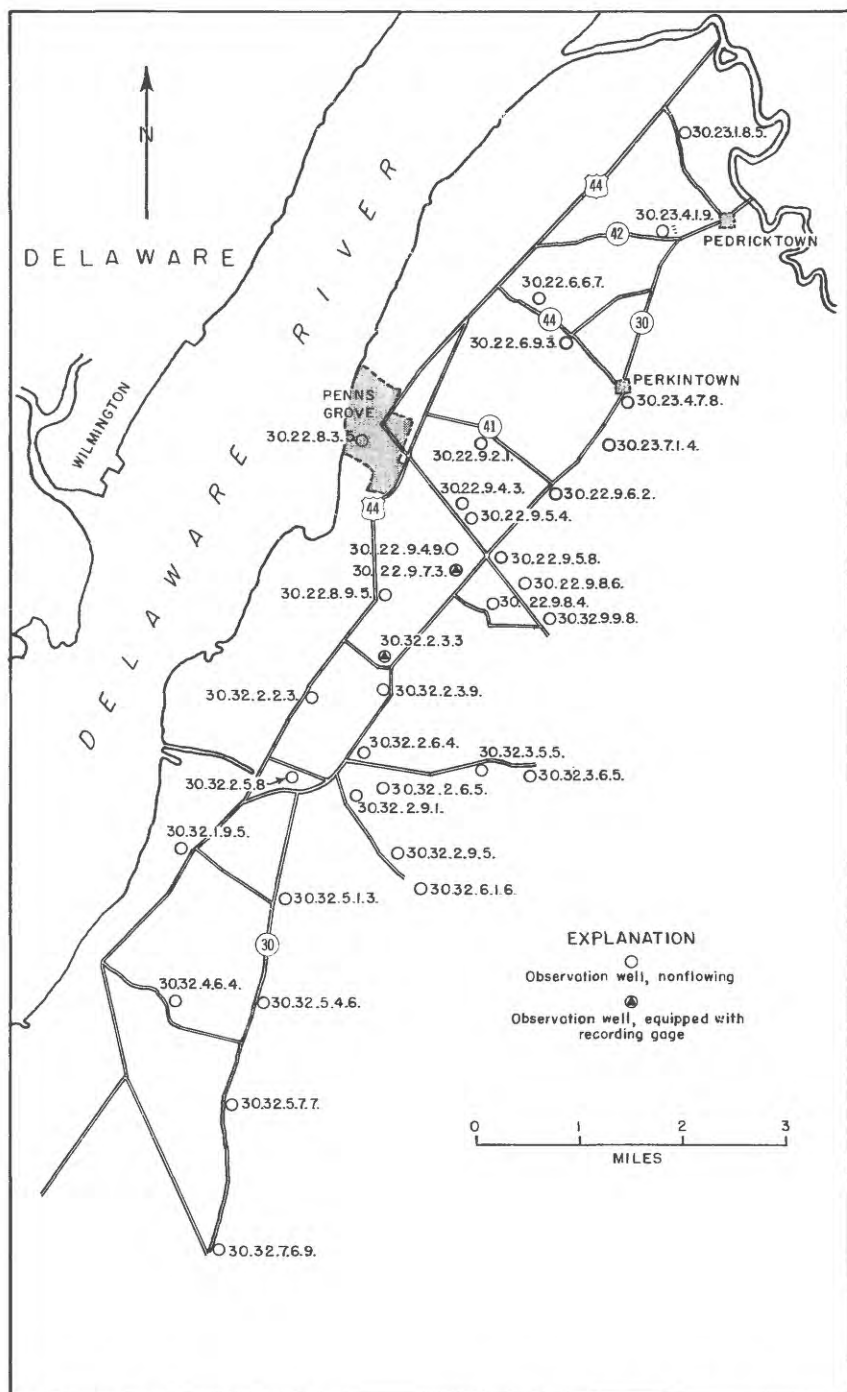


Figure 16. -- Location of observation wells in Middlesex County, N. J., 1953.



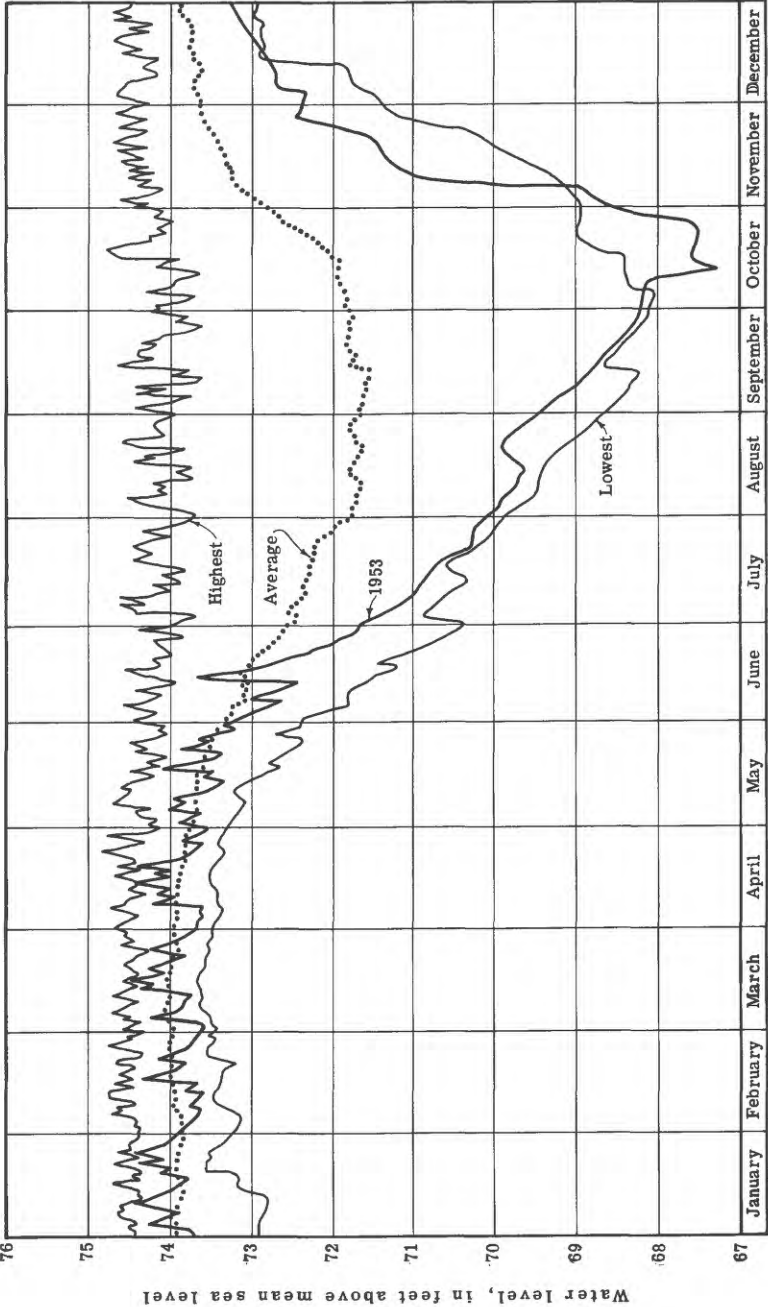


Figure 18. --Water level in 1953 and highest, lowest, and average from 1923 to 1953 in well 29.11.1.2.3, Middlesex County, N. J.

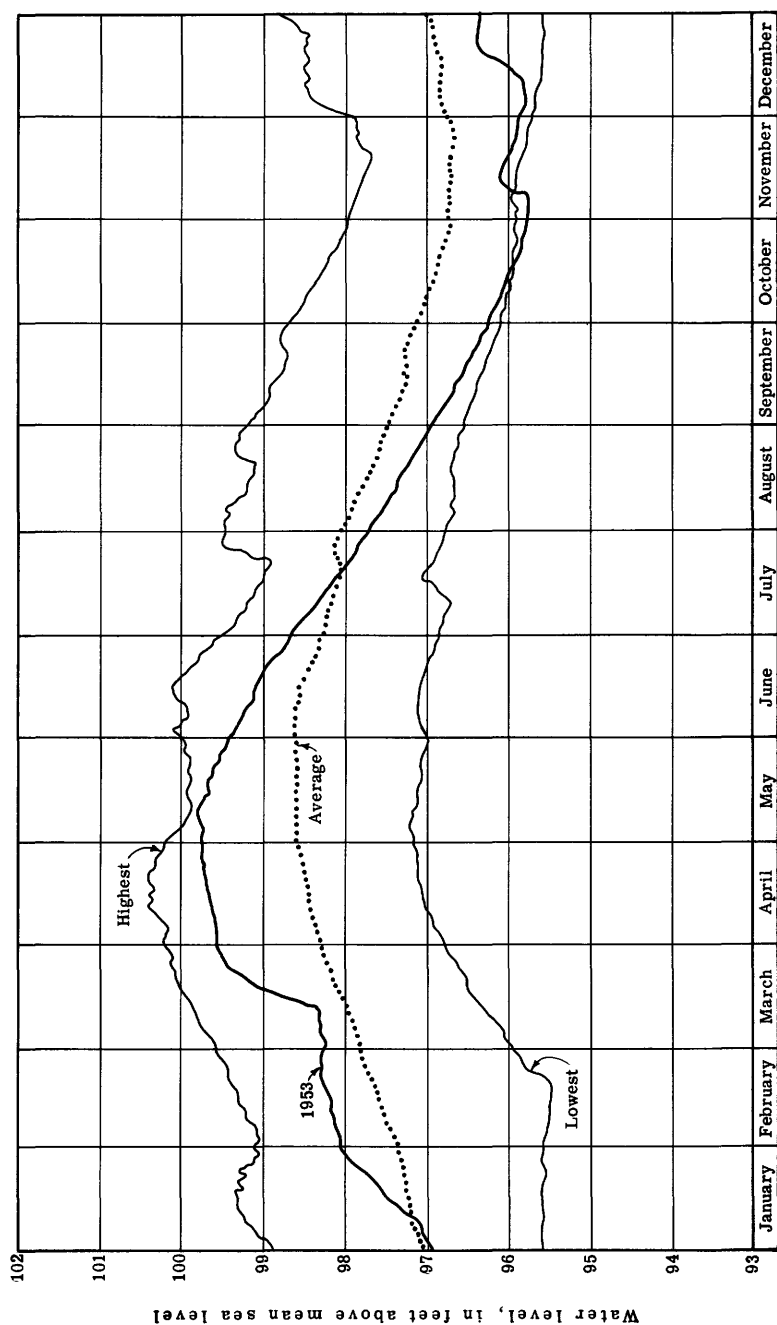


Figure 19. --Water level in 1953 and highest, lowest, and average from 1936 to 1953 in well 29, 11.1.2.9, Monmouth County, N. J.

Essex County. --A record low of 104.2 feet above msl was observed in the Commonwealth Water Company well 30 (25.15.7.5.4) on November 29, 1953, and a record low of 138.30 feet above msl on October 26, 1953, in the East Orange Water Department well (25.15.7.5.9). Water levels in both wells were generally lower throughout the year than in 1952. These lows can be attributed to increased pumping in the area and a deficiency in rainfall during the summer months.

Gloucester County. --A record low of 41.4 feet below msl was observed in the Texas Company well 3 (31.11.2.7.2) on August 27, 1953.

Middlesex County. --The Joseph Morrell well (29.11.1.2.3) near Old Bridge in Middlesex County is considered to be a reliable index of the amount of water stored in the ground, particularly during the growing season. This well responds quickly to precipitation and is so situated that it is not affected by pumping. On October 13, 1953, a record low of 67.25 feet above msl was noted in this well, and on December 31 the level was approximately 0.5 foot lower than on the same date in 1952. On July 1 the level started to decline rapidly and continued until October 28. Several heavy rainstorms from October 28 to November 7 and additional rainfall thereafter brought the level in this well up to 73.25 feet above msl at the end of the year. This record low and rapid decline can be attributed to the below-normal rainfall during the growing season. Record lows were observed in 4 of the Duhernal wells during 1953. Figure 18 is a composite hydrograph of the Joseph Morrell well showing highest, lowest, and average water levels at the end of each day from 1923 to 1953. The 1953 record has been plotted as a separate line to show its relation to the average and record highs and lows.

Monmouth County. --The Rulif Hulsart well (29.11.1.2.9) is a reliable index to ground-water levels in this area. Figure 19, a composite hydrograph showing the highest, lowest, and average end-of-day water levels for the years 1936 to 1953, indicates the seasonal trends. Throughout the year water levels were generally lower than in 1952. On May 8 the level was 99.84 feet above msl which was the highest during 1953. On this date the level started to decline and continued falling until November 6, when the lowest for the year was 95.80 feet above msl. The level started rising and on December 31 was approximately 0.5 foot lower than on the same date in 1952 and was slightly lower than the annual average.

Union County. --A record low of 61.03 feet above msl was observed in the Union County Park Commission well (26.21.5.4.6) on November 20, 1953. Water levels were about average until March 12. From that date until May 28 the levels were above average. Levels started to decline on May 28 and from July 12 were below average for the balance of the year. This can be attributed to a deficiency in rainfall during the summer months.

Well-Numbering System

The well-numbering system is based upon the State topographic atlas sheets. The first segment of the number is that of the atlas sheet on which the well location may be found. The second refers to the 6-minute rectangle in which the well is situated. The third refers to the 2-minute rectangle into which the 6-minute rectangle is subdivided. Each of the 2-minute rectangles is divided into nine equal rectangles which are numbered from 1 to 9, beginning in the upper left corner and numbering to the right. These divisions are again divided into nine equal rectangles and numbered in the same way.

Well Descriptions and Water-Level Measurements

Water levels are in feet below mean sea level unless otherwise indicated. When some measurements in a table are above and others are below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings that are between minus (-) signs are below the plane of reference and those between plus (+) signs are above the plane of reference.

Atlantic County

36.13.2.9.1. (A.C. 600-foot) Atlantic City Water Dept. Pumping station between Absecon and Pleasantville. Drilled unused artesian well in Atlantic City 800-foot sand unit of Kirkwood formation, diameter 10 inches, depth 692 feet. Land-surface datum is 12.58 feet above msl. Highest water level 3.05 below msl, Mar. 28, 1925; lowest 29.4 below msl, Oct. 21-22, 1953. Records available: 1925-53.

Water level at end of day from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.6	24.7	24.2	23.7	23.5	23.4	23.7	25.5	....	29.1	29.0	27.6
2	25.5	24.7	24.2	23.7	23.5	23.4	23.8	25.6	27.5	29.1	29.0	27.6
3	25.4	24.7	24.2	23.7	23.5	23.4	23.8	25.7	27.5	29.1	29.0	27.6
4	25.3	24.7	24.1	23.7	23.5	23.4	23.8	....	27.6	29.2	29.0	27.5
5	25.3	24.7	24.1	23.7	23.5	23.4	23.8	....	27.7	29.2	29.0	27.5

36. 13. 2. 9. 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	25.3	24.7	24.1	23.7	23.5	23.4	23.8	....	27.7	29.2	28.6	27.4
7	25.3	24.6	24.1	23.7	23.6	23.4	23.8	....	27.8	29.2	28.3	27.3
8	25.3	24.6	24.1	23.7	23.6	23.4	23.8	....	27.8	29.3	28.3	27.3
9	25.3	24.6	24.1	23.7	23.6	23.4	23.8	....	27.9	29.3	28.3	27.3
10	25.2	24.6	24.1	23.6	23.6	23.4	23.9	....	28.0	29.3	28.3	27.2
11	25.1	24.6	24.1	23.6	23.6	23.4	23.9	....	28.1	29.3	28.3	27.2
12	25.0	24.5	24.1	23.6	23.5	23.4	24.0	....	28.1	29.3	28.3	27.1
13	25.0	24.5	24.1	23.6	23.5	23.4	24.1	....	28.2	29.3	28.3	27.1
14	25.0	24.5	24.0	23.6	23.5	23.5	24.1	....	28.2	29.3	28.3	26.7
15	25.0	24.3	24.0	23.6	23.5	23.5	24.2	....	28.3	29.3	28.3	26.7
16	25.0	24.3	24.0	23.6	23.5	23.5	24.3	....	28.4	29.3	28.3	26.7
17	25.0	24.3	23.9	23.6	23.5	23.5	24.3	....	28.4	29.3	28.2	26.7
18	25.0	24.3	23.9	23.6	23.5	23.5	24.4	....	28.5	29.3	28.2	26.7
19	25.0	24.3	23.9	23.5	23.5	23.5	24.5	....	28.5	29.3	28.2	26.7
20	25.0	24.3	23.9	23.5	23.5	23.5	24.6	....	28.6	29.3	28.2	26.7
21	24.9	24.3	23.9	23.5	23.5	23.5	24.6	....	28.6	29.4	28.1	26.7
22	24.9	24.3	23.9	23.5	23.5	23.5	24.7	....	28.7	29.4	28.1	26.7
23	24.9	24.3	23.9	23.5	23.4	23.5	24.8	....	28.8	29.3	27.9	26.7
24	24.8	24.3	23.9	23.5	23.4	23.6	24.8	....	28.8	29.2	27.8	26.6
25	24.7	24.3	23.8	23.5	23.4	23.6	24.9	....	28.9	29.2	27.7	26.6
26	24.7	24.2	23.8	23.5	23.4	23.6	25.0	....	28.9	29.2	27.7	26.6
27	24.7	24.2	23.8	23.5	23.4	23.6	25.1	....	28.9	29.2	27.7	26.6
28	24.7	24.2	23.8	23.5	23.4	23.6	25.1	....	29.0	29.1	27.7	26.5
29	24.7		23.8	23.5	23.4	23.6	25.2	....	29.0	29.1	27.7	26.5
30	24.7		23.7	23.5	23.4	23.7	25.3	....	29.0	29.1	27.7	26.5
31	24.7		23.7		23.4		25.4	....		29.0		26.4

36. 23. 1. 9. 6. Borough of Longport. Northwest end of 14th Ave. Drilled unused artesian well in Atlantic City 800-foot sand unit of Kirkwood formation, diameter 6 inches, depth 803 feet, length of screen 50 feet. Land-surface datum is 5 feet above msl. This well is affected by tidal fluctuations. Highest water level 19.0 above msl when drilled in 1895; lowest 70.8 below msl, Sept. 5, 1953. Records available: 1924-53.

Daily average water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44.3	43.6	43.2	42.2	43.5	44.8	57.4	66.8	....	62.7	54.6	49.4
2	44.7	43.8	43.0	42.2	43.2	44.8	58.6	....	69.6	62.5	54.7	49.0
3	44.4	43.2	42.8	42.5	43.4	45.1	59.3	65.6	69.9	62.4	54.7	49.0
4	44.7	42.8	....	42.7	44.1	45.6	60.0	65.7	69.9	62.5	54.7	49.2
5	44.8	42.8	....	42.1	44.1	46.1	60.7	65.5	....	62.5	54.4	....
6	45.1	43.1	....	43.1	43.8	47.1	60.7	65.5	....	60.8	52.7	....
7	45.1	42.9	43.1	42.6	43.4	47.7	59.9	65.7	....	60.0	52.5	....
8	44.9	....	42.3	42.2	43.4	47.2	59.7	65.5	....	59.8	53.5	49.6
9	44.0	43.6	42.6	42.9	43.4	47.1	58.9	66.3	....	59.4	53.6	49.0
10	43.8	44.0	42.8	42.5	43.5	47.7	59.3	66.3	....	58.8	53.1	48.7
11	43.8	42.9	42.4	42.4	43.7	48.6	60.1	66.3	....	59.0	52.6	49.3
12	44.3	42.4	42.3	42.7	43.9	49.1	60.5	66.7	68.8	59.2	52.4	48.7
13	44.4	42.3	42.0	42.4	44.2	48.4	60.4	....	68.7	59.0	....	48.1
14	44.5	42.7	42.0	43.1	44.5	47.9	61.1	66.0	68.3	59.0	....	47.4
15	44.4	42.3	42.0	43.4	44.0	48.2	61.1	65.6	67.8	58.8	....	48.6
16	44.4	43.2	42.1	42.8	44.2	48.6	62.0	65.6	67.3	58.8	51.2	48.4
17	44.4	43.2	42.2	43.0	44.1	49.1	62.7	65.2	67.3	58.9	51.1	48.1
18	44.1	43.3	42.2	43.0	44.0	49.9	63.4	64.9	....	59.0	51.1	48.2
19	44.0	43.5	41.9	43.1	44.1	51.0	64.3	64.9	66.7	58.8	51.0	48.4
20	43.8	43.2	42.1	43.2	43.8	52.1	64.4	65.0	66.9	58.3	50.8	48.3
21	43.3	43.0	42.3	43.6	43.6	53.2	64.4	65.1	66.0	57.8	50.5	48.1
22	43.1	43.7	42.5	43.5	43.7	54.3	64.7	65.5	64.9	56.4	50.6	47.6
23	43.5	43.5	42.6	43.7	43.8	53.8	64.3	66.1	64.0	55.5	50.2	47.8
24	43.1	43.1	42.2	43.5	44.5	54.1	63.5	66.2	63.8	56.4	50.0	48.0
25	44.3	42.8	41.8	43.4	45.4	54.9	63.9	66.7	63.8	56.6	49.7	48.0
26	44.3	42.4	42.0	43.5	44.7	55.6	64.3	67.1	63.6	56.2	50.1	47.6
27	43.5	42.4	42.0	43.5	44.2	56.5	64.6	67.4	63.5	56.2	50.0	47.7
28	43.2	41.9	42.1	43.9	44.5	57.5	65.1	67.7	62.6	55.5	49.9	47.2
29	43.6		42.1	44.1	44.6	57.3	65.5	....	62.9	54.6	49.9	47.0
30	43.8		42.2	44.1	44.9	57.0	65.9	....	62.8	54.6	49.7	47.0
31	43.6		42.2		44.7		66.4	....		54.4		47.3

Bergen County

26.3.1.4.3. William Wanke. 77 Rosemont Ave., East Paterson. Drilled unused artesian well in Brunswick shale, diameter 6 inches, depth 110 feet, cased to rock. Land-surface datum is 70 feet above msl. Highest water level 58.81 above msl, Oct. 26, 1927; lowest 21.8 above msl, Jan. 5, 1950. Records available: 1926-53.

Daily lowest water level above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.2	42.9	43.0	48.8	51.1	49.4	45.7	42.4	38.7	38.4	....	33.9
2	41.6	42.9	43.1	48.9	51.1	48.9	45.7	42.4	38.5	38.3	35.6	33.6
3	41.9	44.1	44.2	48.9	51.1	48.9	45.6	43.0	38.4	38.3	33.6	32.9
4	41.9	44.4	....	49.1	50.3	....	45.6	43.0	38.5	38.4	33.6	32.5
5	41.9	44.4	....	49.3	50.1	....	45.7	42.8	38.4	37.5	34.1	32.0
6	42.1	44.5	....	48.7	50.1	....	45.7	42.8	39.0	36.8	34.0	31.9
7	42.4	....	....	48.5	50.6	....	46.1	43.0	39.0	36.1	33.8	31.9
8	42.5	....	....	48.9	50.7	48.3	46.5	43.0	39.9	35.7	33.4	33.5
9	42.6	44.1	44.5	48.9	50.6	48.4	46.7	43.0	40.2	35.6	33.3	....
10	42.6	43.8	43.8	48.9	50.6	48.0	45.6	42.9	40.1	35.1	35.3	....
11	42.9	43.6	43.5	....	50.0	48.0	45.5	42.8	40.0	34.8	36.0	35.2
12	42.1	43.5	43.7	....	50.0	48.3	45.4	42.8	39.6	34.8	36.3	35.7
13	41.7	43.3	43.9	49.4	50.0	48.5	45.4	42.3	39.5	37.1	36.4	36.1
14	41.7	43.1	44.0	50.2	50.1	48.9	44.8	42.0	39.0	38.1	36.6	35.1
15	41.5	43.1	44.1	50.3	50.2	48.2	44.5	42.6	39.0	38.2	36.7	34.3
16	41.6	43.3	44.8	50.5	50.0	48.2	44.0	42.7	38.8	38.2	35.3	....
17	41.5	44.4	46.0	50.9	50.2	....	43.8	42.6	38.8	37.6	34.2	....
18	41.6	44.4	46.6	51.0	50.0	....	43.4	42.6	39.3	37.6	33.8	....
19	....	44.5	47.0	51.2	49.9	....	43.4	42.3	38.9	36.0	33.6	....
20	....	44.6	47.2	50.5	49.7	....	43.7	42.3	39.0	34.3	33.0	....
21	....	44.7	47.3	50.3	49.7	....	43.7	42.0	38.1	34.2	32.8	....
22	....	44.8	47.6	50.4	49.8	47.1	43.3	42.0	37.9	33.9	32.5	33.9
23	....	44.0	47.5	50.4	49.7	47.3	43.3	41.9	37.7	33.4	32.4	....
24	....	43.7	47.1	50.2	49.7	47.1	43.7	41.4	37.6	33.0	34.1	....
25	....	43.6	....	50.0	49.8	46.5	43.9	41.3	37.2	32.9	....	....
26	42.8	43.4	47.4	50.2	49.8	46.4	43.7	40.5	36.6	32.9	....	....
27	42.6	43.3	47.5	50.2	49.6	46.4	43.6	40.4	36.5	....	....	....
28	42.8	43.1	47.5	51.0	49.6	46.1	42.9	....	36.3	....	....	36.9
29	42.7	....	47.4	51.0	49.4	46.1	42.8	....	38.5	....	....	36.8
30	42.6	....	47.7	51.0	49.3	46.6	42.8	....	39.1	....	35.0	36.8
31	42.8	....	48.6	....	49.8	....	42.5	39.1	....	....	....	36.8

26.3.1.7.3. City of Garfield. East Paterson. Drilled unused artesian well in Brunswick shale, casing 0-30 extends 3 feet into sandstone of Triassic system, 30-353 open rock hole, diameter 12 inches, depth 353 feet. Land-surface datum is 65 feet above msl. Highest water level 56.2 above msl, Mar. 8, 1926; lowest 8.9 below msl, Sept. 26, 1949. Records available: 1926-53.

Daily lowest water level above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+21.4	+13.0	+11.8	+24.6	+28.9	+21.9	+9.9	+5.9	+0.7	-1.6	-0.9	-4.5
2	12.9	14.1	12.8	22.6	35.2	22.6	9.9	5.9	+1	2.2	2.8	4.5
3	11.3	13.0	11.9	23.6	36.5	22.6	10.3	8.3	-4	2.6	3.9	5.8
4	11.3	11.6	12.3	29.9	37.3	20.2	12.0	7.7	-5	-2.7	4.2	6.5
5	10.3	11.4	10.1	27.7	36.7	17.9	13.4	6.5	+3.1	+1.9	5.5	-6.6
6	9.1	11.1	9.2	24.1	36.0	17.1	14.4	5.4	11.3	2.1	6.0	+4.0
7	10.6	11.1	8.7	24.9	27.0	23.0	14.1	4.8	18.5	2.7	6.1	-5
8	10.1	12.4	10.8	21.6	23.8	19.3	12.0	4.6	7.8	2.9	-2	3.3
9	8.6	13.5	13.1	21.4	23.6	19.8	11.0	5.6	4.9	2.9	+1.6	4.8
10	8.6	12.1	11.3	30.0	26.2	17.2	10.8	9.0	3.2	3.0	-2.2	6.0
11	13.2	11.2	9.8	32.3	23.7	15.4	10.3	6.5	1.9	3.2	4.2	6.6
12	10.6	11.2	9.7	26.8	22.3	14.6	13.7	5.1	1.5	3.5	5.4	6.0
13	9.9	10.9	11.8	37.6	22.3	14.6	13.3	4.2	9.1	+1.1	6.2	.0
14	8.2	10.2	10.7	20.4	22.4	20.7	11.0	3.6	7.8	-9	6.6	2.4
15	7.6	10.2	10.7	24.5	22.6	18.2	10.4	3.4	3.8	2.1	3.3	4.3
16	7.3	13.8	....	34.1	24.8	15.8	9.5	5.8	2.6	3.0	1.5	5.3
17	7.1	13.2	....	25.7	25.7	15.0	8.1	6.6	1.8	3.7	4.1	5.8
18	7.3	11.6	....	24.5	22.1	14.7	7.4	4.9	.5	1.8	4.9	6.3
19	10.8	10.3	....	26.4	21.4	13.5	10.0	3.9	.5	2.3	5.0	-6.3
20	9.6	9.8	....	25.2	20.5	12.7	8.7	3.2	7.8	3.7	6.2	+3.2

26. 3. 1. 7. 3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	+9.5	+9.7	....	+24.8	+19.9	+15.9	+7.9	+2.7	+4.3	-4.6	-6.5	-0.3
22	9.0	16.0	....	26.8	19.9	13.5	7.7	2.3	+2.7	5.1	5.6	2.4
23	7.9	13.2	....	26.7	21.9	12.5	7.1	2.3	+9	5.5	4.7	3.5
24	7.8	11.7	....	27.8	22.6	12.1	7.4	5.2	-3	6.0	5.7	3.9
25	18.2	10.6	....	33.3	21.8	11.3	8.5	3.7	-1.0	6.1	6.5	-3.8
26	12.7	10.4	....	39.1	22.9	10.6	11.1	2.6	-1.5	4.7	6.7	+6.6
27	11.3	9.8	....	27.6	23.1	10.4	11.5	1.9	+2.9	5.3	5.1	12.7
28	11.7	9.5	....	36.9	19.5	16.4	9.3	1.2	+3.7	5.7	5.1	8.5
29	10.4		....	35.5	18.7	11.9	8.0	.7	+1.4	6.1	...	4.6
30	10.1		+25.2	35.3	24.0	10.7	6.9	.7	-5	6.3	...	2.7
31	10.0		+24.7		31.6		6.1	1.8		6.3		2.1

Burlington County

32. 23. 6. 6. 8. U. S. Geol. Survey. Penn State Forest. Drilled observation water-table well in Cohansey sand, diameter 6 inches, depth 10 feet. Land-surface datum is 79 feet above msl. Highest water level 78.67 above msl, Feb. 3, 1939; lowest 73.18 above msl, Oct. 7, 1951. Records available: 1936-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	77.65	77.87	77.98	77.98	76.96	76.37	75.70	74.35	75.22	77.11
2	77.61	77.86	77.84	77.73	76.90	76.37	75.63	74.32	75.20	77.08
3	77.60	77.81	77.74	77.58	76.81	76.29	75.57	74.29	75.17	77.04
4	77.56	78.21	77.80	77.69	77.50	76.74	76.23	75.52	74.28	77.03
5	77.53	78.07	77.79	77.69	77.42	76.68	76.15	75.47	74.25	77.26
6	77.51	77.86	77.76	78.21	77.34	76.73	76.08	75.43	74.24	77.51
7	77.85	77.78	78.33	e78.14	77.54	76.79	76.02	75.38	74.22	77.53
8	77.77	77.75	78.08	e78.07	77.39	76.71	75.97	75.31	74.22	77.49
9	77.64	77.85	77.93	e77.95	77.30	76.60	75.93	75.25	74.22	77.37
10	77.57	77.89	78.38	e77.87	77.21	76.54	75.87	75.20	74.20	77.26
11	77.54	77.80	78.14	77.80	77.14	76.47	75.79	75.15	74.18	77.16
12	77.84	78.39	78.18	77.69	77.10	76.41	75.74	75.12	74.15	77.09
13	77.71	78.46	78.46	77.63	78.48	76.35	75.68	75.07	74.13	77.07
14	77.60	78.24	78.16	77.59	78.10	76.30	76.96	75.02	74.12	77.03
15	78.54	78.55	78.02	77.78	77.87	76.22	76.88	75.01	74.10	77.00
16	78.18	78.36	78.40	77.65	77.73	76.15	76.71	74.94	74.08	76.97
17	78.01	78.19	78.12	77.73	77.64	76.09	77.16	74.94	74.05	76.92
18	77.91	78.27	78.24	77.68	77.56	76.01	77.02	74.89	74.02	76.87
19	77.86	78.36	78.22	77.58	77.48	75.95	76.85	74.87	74.01	76.84
20	77.83	78.15	78.07	77.93	77.40	75.91	76.69	74.79	73.99	76.81
21	78.39	78.06	77.96	77.76	77.30	75.85	76.58	74.76	73.97	76.80
22	78.07	78.01	77.93	77.99	78.04	75.81	76.49	74.72	73.97	76.80
23	77.94	78.00	77.90	77.84	77.69	77.58	76.41	74.65	73.95	77.49
24	77.89	78.38	77.83	77.67	77.49	77.28	76.32	74.62	73.93	77.38
25	77.85	78.33	77.80	77.58	77.36	77.12	76.23	74.59	73.91	77.60
26	77.83	78.16	77.91	78.09	77.25	76.98	76.15	74.57	73.89	77.42
27	77.78	78.06	77.79	77.84	77.19	76.87	76.07	74.57	73.88	77.31
28	77.71	78.00	77.71	77.66	77.15	76.75	75.98	74.46	74.20	77.22
29	77.97	77.68	77.57	77.09	76.65	75.90	74.42	74.95	77.18	77.25
30	77.93	77.65	77.73	77.03	76.57	75.80	74.38	75.21	77.16	77.23
31	77.88		77.88		76.47	75.73		75.24		77.19

e Estimated.

Camden County

31. 1. 3. 9. 9. Cities Service Oil Co. Pettys Island. Drilled unused artesian well in sand of Raritan formation, diameter 8 inches, depth 143 feet. Land-surface datum is 12 feet above msl. This well reflects tidal fluctuations. Highest water level 5.6 above msl, Dec. 8, 1950, Mar. 11, 1952; lowest 4.8 below msl, Feb. 12, 1951. Records available: 1949-53. Recording gage installed Dec. 21, 1949. Dec. 29, 1949, +0.7; Dec. 30, +0.3; Dec. 31, +0.4.

Daily lowest water level above and below msl from recorder graph, 1950

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.3	+1.4	+1.0	+1.6	+1.3	+1.7	...	...	+1.3	...	+1.7	...
2	1.4	1.6	-1	2.0	1.4	1.7	...	+1.2	1.0	+1.6	1.8	...
3	1.6	1.0	-1.1	1.9	1.4	1.8	...	1.5	1.4	1.7	1.8	...
4	1.5	.9	...	2.0	1.4	1.6	...	1.5	1.3	1.3	2.0	...
5	1.0	.8	...	1.7	1.3	1.6	...	1.3	...	1.4	1.6	...

31. 1. 3. 9. 9--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	+1.0	+1.5	+0.5	+1.5	+1.3	+1.7	...	+1.3	...	+1.7	+1.1	+2.4
7	.4	1.1	+6	1.4	1.3	1.4	...	1.6	...	1.6	...	2.2
8	.0	1.3	+1.3	1.9	.6	1.3	...	1.6	...	1.9	...	2.5
9	1.2	1.7	-.2	1.2	.7	1.3	...	1.5	...	2.1	...	2.6
10	1.3	1.5	-.3	1.6	1.2	1.5	...	1.2	...	2.0	...	2.5
11	.7	1.5	-.1	1.6	.8	1.1	...	1.2	...	1.8	...	2.8
12	.4	1.7	+1.0	1.3	.9	1.1	...	1.2	...	1.9	...	2.7
13	1.1	1.7	1.2	1.2	1.2	1.5	...	1.2	...	.7	...	...
14	1.5	1.9	1.1	.4	1.2	1.7	...	1.2	...	.7	...	...
15	.8	2.8	1.0	.8	1.6	1.2	...	+1.4	...	1.0	...	...
16	1.1	2.4	+8	1.0	1.6	1.5	...	-3.8	+1.3	1.2	...	...
17	.7	2.0	-.8	1.3	1.8	1.1	...	1.3	1.3	1.3	...	...
18	1.1	1.6	-.1	1.3	1.8	1.3	...	1.4	1.3	1.3	...	...
19	.7	1.6	-.4	1.3	1.8	1.4	...	1.7	1.5	1.4	...	...
20	.8	.0	+5	1.3	1.8	1.5	...	1.6	1.3	1.6	...	...
21	1.0	.5	1.1	1.3	1.8	1.7	...	1.5	1.7	1.4	...	...
22	1.6	1.6	1.8	1.2	1.6	1.3	...	1.4	2.1	1.7	...	...
23	1.5	1.1	2.1	1.5	1.8	1.5	...	1.4	1.8	2.0	...	...
24	1.6	1.5	1.3	1.6	1.7	1.5	...	1.3	1.3	2.1	...	...
25	1.7	.4	1.3	1.6	1.6	1.4	...	1.3	1.2	...	...	...
26	1.7	+6	1.3	1.6	1.6	1.5	...	1.4	1.3	...	...	...
27	.9	-.2	1.7	+1.5	1.5	1.6	...	1.5	1.2	...	...	...
28	.8	+3	2.2	-3.1	1.8	1.2	...	1.6	1.4	...	...	...
29	2.0		1.8	+1.3	1.8	1.4	...	1.3	1.5	...	...	...
30	1.0		1.2	1.3	1.8	1.5	...	1.2	...	1.6	...	...
31	1.3		1.2		2.0		...	1.4		1.5		...

Daily lowest water level above and below msl from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.5	+2.5	+1.3	+1.7	+1.9	+1.6	+1.3	+1.5	+1.6	+1.5
2	1.2	2.7	1.5	+1.6	1.7	1.5	1.5	1.5	-.8	1.7
3	1.4	2.5	1.5	+1.6	1.7	1.8	1.7	1.5	+2.1	1.6
4	2.5	2.3	1.8	-1.1	2.0	1.4	1.6	1.7	1.9	1.8
5	2.2	1.7	2.1	-.2	1.4	1.5	1.5	1.9	1.8	2.1
6	...	+1.3	+1.9	.2	+1.8	+1.1	1.1	+1.7	1.8	1.6	1.6	2.0
7	...	+1.8	-.9	2.1	-.3	+1.7	1.5	-.6	1.6	1.6	2.4	2.0
8	...	+1	+1.1	2.3	+1.5	+1.8	1.8	+1.9	1.1	2.2	2.5	1.7
9	+0.8	-1.4	.0	.9	-2.2	-2.1	2.0	1.9	1.5	+1.5	1.7	1.8
10	+7	+4	+6	.2	+1.4	+2.3	+1.7	1.7	1.1	-.6	1.8	.5
11	-.1	+1.1	+1.1	1.9	2.2	2.6	-1.6	1.4	1.1	+2.0	1.7	1.1
12	-2.1	-4.8	-.7	.2	1.4	2.4	-.4	1.6	.9	1.2	1.6	1.8
13	-1.8	+1.2	+7	2.6	1.3	2.6	-.5	1.5	1.1	1.0	1.9	1.0
14	...	1.2	1.8	2.5	1.2	2.2	+1.5	+1.5	1.2	1.5	2.3	.8
15	...	1.0	.6	2.3	1.2	2.1	1.5	-2.6	1.0	1.6	1.9	.4
16	...	1.4	1.2	1.9	1.1	1.9	1.6	+1.5	1.1	1.5	.0	.0
17	...	1.3	.4	1.6	.5	2.2	+2	1.4	1.5	1.7	1.5	.1
18	...	1.3	1.4	1.5	1.4	2.0	-3.3	1.5	1.5	2.0	+1.4	1.0
197	.6	1.0	1.8	1.9	+1.9	1.6	1.5	2.2	-1.1	.4
20	...	1.6	.4	.4	1.7	2.0	.2	1.7	1.3	1.9	+9	.2
21	...	2.0	1.7	1.2	1.5	.9	1.6	+1.7	1.3	2.0	.8	1.9
227	1.0	+1.6	...	1.2	1.6	-1.2	1.5	2.1	1.4	...
232	1.6	-.4	...	2.0	1.5	-1.8	+1.4	2.0	1.4	...
24	...	-1.5	1.6	.6	...	+1.8	1.4	+1	...	1.9	1.1	...
25	...	+1.2	1.3	.7	...	.0	1.6	1.2	...	1.4	.7	...
26	...	-1.0	1.0	-.3	...	+1.7	1.7	1.5	...	1.2	1.8	+1.0
276	1.5	+1.2	...	+2.0	.9	1.7	...	1.3	.3	-.7
285	1.5	1.6	...	-1.5	1.5	.0	...	1.5	+6	+7
29	...		1.5	1.8	2.2	-1.5	1.8	1.3	...	1.3	-.6	1.1
30	...		+5	1.2	2.0	+2.0	1.9	1.3	...	1.3	+1.4	1.4
31	...		-3.1		1.8		+1.8	1.4		1.6		1.5

Daily lowest water level above and below msl from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.7	+1.3	...	+2.0	+2.2	...	+1.8	+1.0	+2.2	+1.6	+0.8	+1.5
2	1.8	1.2	...	1.2	2.2	...	1.3	1.3	2.2	1.9	.9	1.7
3	1.8	1.1	...	2.0	1.9	...	1.2	1.3	1.7	1.0	1.3	1.9
4	1.6	2.1	...	1.9	2.0	...	1.0	1.5	1.7	1.1	...	2.3
5	1.8	2.1	...	2.4	1.9	...	.8	1.3	1.6	1.2	...	2.7

31.1.3.9.9--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	+1.6	+1.6	+0.8	+2.6	+2.4	...	+1.0	+1.3	+1.8	+1.4	...	+2.3
7	1.7	.7	1.0	2.0	1.9	...	1.0	1.2	1.6	1.7	...	1.9
8	2.1	1.3	1.2	1.7	...	...	1.2	1.3	1.9	1.1	...	2.1
9	2.2	1.0	1.2	1.7	...	...	...	1.3	2.2	1.5	...	2.3
10	1.5	1.2	+1.5	1.8	...	+1.9	1.9	1.7	2.8	1.6	1.4	2.3
11	.3	+1.5	-.9	1.3	...	1.3	1.9	1.7	2.6	1.9	1.3	3.0
12	1.3	-.8	+1.8	1.4	...	1.4	2.1	1.7	2.6	2.0	1.2	2.4
13	1.0	+.1	2.0	1.7	...	1.4	1.7	1.6	2.7	2.0	1.1	2.8
14	1.5	.3	1.5	2.3	...	1.6	1.7	1.5	2.8	1.5	1.3	2.4
15	1.7	.5	1.5	2.2	...	1.7	1.7	1.7	3.4	1.5	1.2	2.2
16	1.3	.7	.1	2.2	...	1.5	1.4	...	3.1	...	1.3	1.8
17	1.3	+1.4	+.1	2.3	...	1.7	1.2	...	...	1.4	.5	2.1
18	1.3	-1.9	-1.1	2.0	...	1.3	1.4	...	...	1.3	1.5	1.8
19	1.1	+.7	+1.6	1.8	...	1.4	1.3	...	...	1.3	1.7	1.7
20	1.7	+.8	1.9	1.7	2.0	1.2	1.3	...	...	.3	2.3	1.9
21	.6	-1.0	1.9	1.4	2.0	1.2	1.5	...	...	.7	2.4	2.3
22	...	+1.1	1.8	1.5	1.3	1.4	1.4	...	...	.7	3.4	3.0
23	1.6	1.0	2.0	1.1	1.4	1.7	1.5	...	...	1.0	3.3	3.1
24	.7	1.4	2.2	.8	1.6	1.8	1.2	...	...	1.1	2.5	2.3
25	.3	1.6	2.1	1.5	2.4	1.8	1.3	1.2	...	...	2.3	1.8
26	1.1	1.4	2.0	...	2.5	1.9	1.6	1.3	...	...	1.6	1.3
27	1.4	1.6	1.9	...	2.7	1.8	1.1	1.2	...	1.6	1.9	...
28	1.8	...	1.8	...	2.7	1.7	1.5	1.3	...	1.4	1.5	...
29	1.9	...	1.8	...	2.5	1.8	1.4	1.2	...	.7	...	...
30	1.5	...	1.6	...	2.1	1.7	1.4	1.2	...	.5	...	...
31	1.4	...	.2	...	2.5	...	1.3	1.4	...	.5	...	1.2

Daily lowest water level above and below msl from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+2.0	+0.8	+0.5	...	...	+2.2	+1.4	+1.1	+0.7	+0.8	+1.2	+1.0
2	2.0	1.0	.9	...	...	2.0	+1.4	1.3	.9	.7	1.2	.8
3	2.3	1.5	1.3	...	...	1.9	-1.0	1.3	.9	.7	1.1	1.3
4	1.9	1.7	2.0	...	...	1.9	-.7	1.6	1.0	.8	.5	1.5
5	1.8	1.8	1.0	...	...	1.7	-.2	1.3	1.3	.7	.6	.9
6	1.7	1.8	.8	...	...	1.5	+1.7	1.3	1.0	1.0	.5	.7
7	1.2	1.8	.5	...	...	1.5	1.2	1.4	1.0	.4	.3	.7
8	...	1.7	.6	...	...	1.6	1.4	1.7	...	.3	.9	.7
9	...	1.3	1.0	...	...	1.7	1.1	1.7	.5	.6	.8	.8
10	...	.2	.9	...	...	1.2	1.1	1.4	.8	.9	.8	.7
11	...	.2	.7	...	+2.0	1.0	1.1	...	.9	1.1	1.0	.5
12	.9	1.6	1.2	...	1.9	1.2	1.2	...	1.3	1.2	1.3	.5
13	1.5	1.5	1.7	...	1.8	1.8	1.6	...	.9	.9	1.1	1.0
14	1.3	1.3	1.6	...	1.7	1.9	...	...	.7	.7	1.0	1.3
15	1.3	1.7	1.6	...	1.7	2.0	...	...	.9	.8	.9	1.1
16	1.2	1.3	1.9	...	1.7	1.8	...	...	.8	.6	.9	.7
17	.8	.6	2.0	+1.7	2.0	1.9	...	1.4	.9	.8	1.0	.4
18	1.6	.5	2.0	1.6	2.4	1.8	...	1.0	.8	.8	.9	.3
19	1.6	.6	...	1.7	2.0	1.7	...	1.2	1.2	.9	.8	0
20	1.7	.6	...	1.9	2.1	1.6	1.3	1.0	1.3	.9	.8	.4
21	1.7	1.3	...	1.1	2.1	1.5	1.3	1.1	1.0	+.7	.9	.3
22	1.8	.8	...	1.1	2.4	1.5	1.6	1.1	.4	-.9	.9	.9
23	2.0	.6	...	1.5	1.7	1.3	1.7	1.0	.4	+1.9	1.4	.4
24	2.3	1.0	...	1.3	1.9	1.1	1.0	.9	.5	1.9	1.3	.2
25	2.4	1.2	...	1.6	1.4	1.3	1.0	.9	.7	1.6	1.6	.3
26	1.0	1.6	...	...	1.9	1.2	1.2	+.9	.9	1.7	1.0	.4
27	2.4	1.7	...	1.8	1.7	.8	1.2	-.3	1.0	1.5	1.0	.1
28	2.3	1.0	...	1.6	.7	1.1	1.1	+1.0	1.0	1.5	.9	.6
29	1.6	...	...	1.6	1.2	1.2	1.2	.8	.8	1.7	.7	.7
30	1.1	...	...	...	1.7	1.4	1.1	.8	1.0	.3	.9	.7
31	1.5	...	...	...	2.2	...	1.0	1.0	...	.8	...	.4

31.1.6.4.8. Esterbrook Pen Co. Cooper St. and Delaware Ave., Camden. Drilled unused artesian well in sand of Raritan formation, diameter 6 inches, depth 300 feet. Land-surface datum is 8 feet above msl. Highest water level 3.48 above msl, Nov. 25, 1950; lowest 10.93 below msl, Sept. 4, 1953. Records available: 1950-53. Recording gage installed May 23, 1950.

31. 1. 6. 4. 8--Continued.

Daily lowest water level from recorder graph, 1950

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	5.73	6.60	8.32	9.33	8.31	8.25	8.62
2	....	6.17	....	9.07	9.31	7.65	8.26	8.73
3	....	6.30	....	9.09	8.77	8.00	8.48	7.52
4	....	6.07	....	9.06	7.92	8.42	8.53	6.75
5	....	6.02	....	9.19	8.03	8.65	7.33	7.84
6	....	6.23	6.47	8.76	8.52	8.83	7.35	8.29
7	....	6.60	6.81	7.99	8.77	8.91	8.02	8.20
8	....	6.88	6.94	8.30	9.05	8.07	8.18	8.12
9	....	7.28	6.48	8.73	9.06	6.97	8.31	8.12
10	....	7.36	6.17	8.99	8.50	7.24	8.63	7.22
11	....	7.04	6.34	9.16	8.37	7.71	8.63	6.48
12	....	6.91	6.69	9.15	8.72	8.03	8.19	7.77
13	....	6.91	7.05	8.54	8.75	8.47	7.84	8.20
14	....	6.93	7.31	8.12	8.87	8.51	8.44	8.32
15	....	7.43	7.31	8.60	9.09	8.12	8.79	8.36
16	....	7.48	6.60	8.89	9.12	7.69	8.89	8.47
17	....	7.45	6.12	9.07	8.68	8.28	9.12	7.77
18	....	7.02	6.72	9.17	8.30	8.55	9.24	7.07
19	....	6.69	7.27	9.23	8.71	8.66	8.63	7.82
20	....	6.79	7.57	8.42	9.05	8.57	7.76	8.32
21	....	6.84	7.78	8.09	9.17	8.69	8.79	8.62
22	....	6.99	7.89	8.60	9.13	7.97	9.25	8.64
23	5.99	7.11	7.40	8.94	9.03	7.02	9.20	8.63
24	6.40	7.16	6.97	9.12	8.32	7.38	8.62	7.97
25	6.47	6.75	7.48	9.27	8.04	7.78	7.48	7.11
26	6.63	6.54	7.94	9.26	....	8.27	6.00	7.56
27	6.69	6.39	8.26	8.59	8.86	8.48	6.14	8.22
28	6.20	6.57	8.44	8.29	9.00	8.47	7.12	8.37
29	5.46	6.71	8.44	8.71	9.14	7.64	7.89	8.53
30	5.23	6.68	7.98	9.17	9.14	7.42	8.28	8.17
31	5.20	....	7.71	9.33	....	8.14	....	7.67

Daily lowest water level from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.36	8.39	8.25	6.80	....	7.11	7.08	8.70	....	....	....	6.16
2	7.32	9.08	8.47	5.89	7.47	6.72	6.67	....	....	....	....	7.24
3	7.92	9.12	8.52	6.52	7.80	6.62	6.47	....	....	....	....	7.61
4	8.44	8.59	7.79	7.12	7.79	7.19	6.33	....	....	....	....	....
5	9.04	7.81	6.82	7.37	7.12	8.06	6.03	....	....	....	....	....
6	9.04	8.28	7.32	7.33	6.45	8.46	6.17	....	....	....	....	....
7	8.29	8.32	7.62	6.61	6.26	8.76	6.19	8.48	....	....	....	....
8	7.57	9.07	7.97	6.03	6.66	8.76	6.07	8.74	....	....	....	....
9	8.40	9.53	8.38	5.80	6.86	8.07	6.59	8.97	....	....	....	....
10	8.72	9.54	8.38	6.47	7.09	7.45	7.34	9.22	....	....	....	....
11	8.87	8.68	7.97	7.07	7.08	7.02	7.72	9.31	....	....	....	....
12	9.12	7.93	7.12	7.22	6.41	7.51	7.93	....	....	....	....	....
13	9.23	8.55	7.02	7.25	6.22	7.65	8.04	....	....	....	....	....
14	8.61	9.07	7.13	6.63	6.44	7.82	7.40	....	....	....	....	....
15	7.47	9.27	7.48	6.10	6.77	7.92	6.89	....	....	....	....	....
16	8.38	9.27	7.88	6.02	7.06	7.25	7.11	....	....	....	8.47	....
17	8.74	9.22	7.96	6.76	7.31	6.83	7.93	....	....	....	8.61	....
18	8.79	8.39	7.42	7.29	7.25	6.90	....	....	....	....	9.24	....
19	8.92	7.70	6.67	7.52	6.82	7.58	....	....	....	....	9.47	....
20	8.92	7.97	7.32	7.56	6.33	8.00	....	....	....	....	8.83	....
21	8.15	8.06	7.62	7.12	6.37	8.26	....	....	....	....	8.19	....
22	8.22	7.98	8.07	6.57	7.02	8.27	....	....	....	....	8.19	....
23	8.44	8.18	8.39	6.28	7.37	7.64	....	....	....	7.99	7.68	....
24	8.44	8.37	8.39	7.05	7.73	7.15	....	....	....	8.38	7.95	....
25	8.47	7.83	7.55	....	7.73	7.34	8.47	....	....	8.72	8.32	....
26	8.50	7.10	6.81	....	7.03	7.97	8.74	....	....	8.45	8.74	....
27	8.55	7.36	6.79	....	6.37	8.30	8.93	....	....	8.46	8.12	....
28	8.13	8.06	7.42	....	6.41	8.57	9.03	....	....	....	6.62	....
29	7.57	....	7.62	....	7.07	8.66	8.31	....	....	....	6.42	....
30	8.26	....	7.65	....	7.20	7.86	7.72	....	....	....	6.02	....
31	8.33	....	7.61	....	6.92	....	8.27	....	....	....	....	....

31.1.6.4.8--Continued.

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	6.18	....	....	....	....	....	9.02	8.02	8.29	8.72	7.21
2	....	6.46	....	....	7.08	....	6.92	9.11	6.75	8.40	8.00	7.60
3	....	7.25	....	....	6.91	....	6.89	8.18	8.43	8.72	7.43	....
4	7.55	7.74	....	....	6.47	....	6.97	7.77	8.80	8.75	8.11	8.00
5	7.89	7.38	....	....	6.30	....	6.99	8.18	9.02	8.15	8.16	8.00
6	8.49	7.75	....	....	6.63	....	6.91	8.54	9.03	7.57	8.31	7.90
7	8.68	7.44	....	....	7.07	....	6.72	8.72	8.40	7.96	8.85	7.27
8	8.08	7.26	....	....	7.29	....	6.63	8.96	7.99	8.20	9.03	7.02
9	7.80	7.52	....	....	7.41	....	6.53	8.94	8.19	8.25	8.41	7.45
10	7.49	8.20	....	....	7.38	....	6.36	7.99	8.34	8.30	7.61	7.57
11	6.90	8.66	....	....	6.63	....	6.37	7.44	8.58	8.33	8.14	7.79
12	....	8.08	....	....	6.15	....	....	8.01	8.85	7.46	8.55	8.04
13	....	7.33	....	....	6.68	....	....	8.55	8.94	6.83	8.79	8.04
14	....	6.92	....	....	7.09	....	6.53	8.83	8.31	7.37	8.94	7.29
15	....	6.64	....	....	....	....	7.70	8.93	7.83	7.67	8.91	7.01
16	....	7.28	....	....	....	....	7.83	8.92	8.13	7.92	7.97	7.91
17	....	8.28	....	....	....	7.68	8.06	8.01	8.57	8.15	7.63	8.49
18	....	8.53	7.67	....	....	8.36	8.13	7.87	8.78	8.12	8.12	9.00
19	....	7.76	7.67	....	....	8.67	8.18	....	8.85	7.42	8.26	9.14
20	....	7.24	7.63	....	....	8.92	7.72	....	8.85	7.41	8.27	9.14
21	....	....	7.62	....	....	8.90	7.45	....	8.34	7.95	8.21	8.13
22	....	....	7.02	....	....	8.20	8.12	....	8.02	8.22	8.04	7.17
23	....	....	6.47	....	....	7.47	8.52	....	8.31	8.29	6.95	7.41
24	....	....	6.26	....	....	....	8.92	....	8.47	8.38	6.57	7.62
25	....	....	6.77	....	....	....	9.00	8.27	8.55	8.52	7.36	7.49
26	....	....	6.87	....	....	8.33	9.01	8.73	8.60	7.87	7.63	6.80
27	....	....	6.82	....	....	8.63	8.13	9.01	8.64	6.98	7.77	6.43
28	....	....	6.77	....	....	8.63	7.67	9.04	7.97	7.55	7.53	6.37
29	7.22	....	6.53	....	....	....	8.26	9.23	7.57	8.17	7.62	6.79
30	6.73	....	6.23	....	....	....	8.65	9.37	8.05	8.56	7.22	7.58
31	6.36	....	6.24	....	....	....	8.89	8.72	....	8.73	....	7.59

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.54	7.72	8.26	8.81	8.47	6.89	7.62	9.88	10.44	....	9.09	8.18
2	7.06	7.63	8.07	8.38	8.45	7.47	7.42	9.21	10.70	....	8.58	8.61
3	6.95	7.95	8.55	8.39	7.62	7.82	7.30	8.57	10.89	....	8.97	8.67
4	6.42	8.27	8.55	7.80	6.81	8.07	7.40	8.74	10.93	....	9.34	8.88
5	6.63	8.59	8.63	7.19	7.27	8.41	7.28	8.90	10.90	....	9.68	8.85
6	7.44	8.63	8.99	7.02	7.65	8.59	7.05	9.19	10.22	....	9.68	8.51
7	8.01	8.65	9.09	7.55	7.99	7.93	6.84	9.34	9.67	....	9.67	8.35
8	8.12	8.02	8.52	7.86	8.12	7.77	6.89	9.33	9.86	....	9.12	8.94
9	8.16	7.82	7.95	7.92	8.16	8.17	6.94	8.72	10.37	10.70	8.59	9.15
10	8.10	8.67	8.50	7.89	7.35	8.68	7.10	8.49	10.71	10.70	9.05	9.14
11	7.24	8.86	8.75	7.77	6.86	8.97	7.17	9.03	10.77	10.10	9.22	9.67
12	7.22	8.82	8.76	7.06	7.50	8.97	7.09	9.55	10.79	9.18	9.27	9.76
13	7.78	8.86	8.74	6.47	8.04	8.95	7.58	9.78	9.99	9.61	9.40	8.93
14	8.15	8.87	8.70	7.40	8.44	8.12	8.34	10.02	9.87	9.78	9.50	8.02
15	8.31	8.27	7.93	7.94	8.53	....	8.83	10.15	10.17	9.89	8.79	8.67
16	8.49	7.40	7.18	8.06	....	....	9.27	9.58	10.38	10.25	8.10	....
17	8.50	8.42	7.63	8.29	7.99	8.56	9.51	9.05	10.54	10.31	....	....
18	7.80	9.01	7.90	8.31	7.41	....	9.58	9.61	....	9.56	9.26	....
19	7.07	9.31	8.17	7.51	8.07	....	8.92	9.81	....	8.97	9.34	....
20	7.50	9.35	8.66	6.84	8.42	9.07	8.73	10.08	....	9.40	9.37	....
21	7.69	9.13	8.78	7.63	8.56	8.32	9.22	10.34	....	9.87	9.36	....
22	7.96	8.24	8.17	7.94	8.59	8.25	9.39	10.44	....	9.84	8.74	....
23	8.03	8.15	7.47	8.21	8.55	....	9.38	9.86	....	9.80	7.98	....
24	8.02	8.50	7.87	8.58	7.96	....	9.70	9.52	....	....	8.25	....
25	6.91	8.71	8.07	8.59	7.78	9.50	9.74	9.97	....	....	8.40	....
26	7.26	8.66	8.93	7.73	8.12	9.73	9.17	10.28	....	8.32	8.43	....
27	7.78	8.71	9.11	7.40	e8.43	9.73	8.72	10.51	....	8.70	8.12	....
28	8.06	8.71	9.11	8.08	8.89	9.05	9.16	10.69	....	8.90	8.18	8.70
29	8.05	....	8.25	8.44	8.98	8.24	9.38	10.69	....	9.09	7.81	9.21
30	8.42	....	7.93	8.47	8.98	7.82	9.59	10.08	....	9.58	7.62	9.55
31	8.42	....	8.67	....	7.92	....	9.77	10.00	....	9.70	....	10.00

e Estimated.

31.2.2.5.2. City of Camden. Morris Station. Drilled unused artesian well in sand of Raritan formation, diameter 6 inches, depth 103 feet. Land-surface datum is 6 feet above msl. Highest water level 0.3 below msl, Mar. 19, 1936; lowest 35.84 below msl, June 14, 1926. Records available: 1924-42, 1945-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	3.1	3.2	3.3	3.9	3.2	3.6	4.7	5.4	5.5	7.7	9.3
2	...	4.2	4.0	3.5	3.8	3.7	3.4	3.8	5.3	...	7.6	9.3
3	...	4.2	4.0	3.4	2.9	3.8	3.4	4.1	5.5	...	8.0	9.2
4	...	4.3	3.8	3.0	3.9	3.8	2.8	4.4	5.5	...	9.0	9.2
5	...	4.4	4.3	3.0	4.1	4.0	2.7	4.6	5.3	...	9.1	9.2
6	...	4.4	4.4	3.3	4.1	3.8	3.3	4.7	4.8	...	9.2	8.6
7	...	4.2	3.5	3.4	4.1	2.9	3.4	4.7	4.3	...	9.0	9.2
8	...	3.3	3.1	3.4	4.3	3.7	3.5	4.2	5.1	...	8.2	9.3
9	...	4.1	4.0	3.5	3.8	4.1	3.5	3.2	5.4	...	8.8	9.1
10	...	4.6	4.3	3.4	3.1	4.4	3.7	4.2	5.5	...	8.9	8.9
11	...	4.3	4.3	3.4	3.9	4.4	3.2	4.6	5.5	...	8.8	9.3
12	...	3.9	4.2	3.0	4.3	4.0	2.8	4.8	5.5	...	8.9	9.4
13	...	4.0	3.8	3.3	4.4	3.7	3.8	4.8	5.2	...	8.8	...
14	...	3.6	2.9	3.7	4.5	2.4	4.0	4.7	5.2	5.0	8.7	...
15	...	3.5	2.4	3.8	4.5	3.2	4.1	4.6	5.4	5.2	8.6	8.7
16	...	4.3	3.0	3.6	4.3	3.5	4.3	3.7	5.6	5.6	8.9	8.7
17	...	4.7	2.8	4.2	3.2	3.4	4.4	4.3	5.6	5.3	9.0	9.5
18	...	4.8	2.8	4.2	3.9	3.6	4.4	4.6	5.7	4.9	9.1	9.4
19	...	4.9	2.9	3.2	4.0	3.8	3.9	4.8	5.3	6.5	9.3	9.0
20	...	4.9	3.2	3.8	4.1	3.2	4.1	5.0	4.8	6.6	9.2	8.5
21	...	4.3	3.2	4.3	4.2	3.0	4.8	5.0	5.2	8.3	9.1	8.3
22	4.4	3.7	2.9	4.3	3.9	3.7	4.9	4.9	5.6	9.0	8.6	8.8
23	4.4	4.3	3.2	3.9	3.7	4.1	5.2	4.4	5.7	8.9	8.8	9.0
24	4.3	4.5	3.2	4.1	2.9	4.2	6.4	4.8	5.7	8.8	9.0	9.0
25	2.8	4.4	3.2	3.9	3.8	4.0	3.9	5.1	5.5	8.3	9.0	8.6
26	4.1	4.1	3.3	2.6	3.6	4.1	3.2	5.0	5.5	8.7	8.6	8.4
27	3.9	3.9	3.3	3.6	3.8	3.4	...	5.1	5.0	8.9	8.6	8.2
28	3.9	3.3	3.0	3.9	4.1	3.1	7.0	5.1	5.4	8.9	8.5	8.7
29	4.3	...	2.8	3.9	4.0	3.2	6.2	5.0	5.4	8.6	8.4	9.2
30	4.5	...	3.3	3.9	3.3	3.3	4.6	4.6	5.6	9.0	8.7	8.7
31	4.0	...	3.4	...	2.8	...	4.7	5.2	...	8.1	...	6.5

31.2.4.5.1. New Jersey Water Co. (Well 10). Near pumping station on Cleveland Ave., Camden. Drilled unused artesian well in sand of Raritan formation, diameter 12 inches, depth about 185 feet. Land-surface datum is 11 feet above msl, measuring point is top of casing 11.90 feet above msl. Highest water level 1.26 above msl, Mar. 19, 1933; lowest 38.4 below msl, Sept. 11, 1953. Records available: 1932-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.3	26.5	26.4	26.4	26.4	...	29.8	29.7	35.7	29.7	27.2	28.5
2	26.4	27.1	27.0	26.8	25.9	...	30.8	25.5	36.4	29.8	29.7	28.8
3	26.2	26.8	27.0	26.8	26.2	...	29.6	26.8	36.1	29.6	27.5	28.8
4	26.3	26.8	27.2	26.7	26.6	...	26.7	26.4	35.2	28.9	27.6	28.9
5	26.8	26.6	26.9	26.2	26.2	...	28.8	29.5	34.3	29.1	27.5	28.9
6	26.9	26.8	27.0	26.6	26.3	...	28.7	27.7	27.6	27.9	27.6	28.3
7	26.9	26.6	27.1	26.3	26.4	...	29.7	30.3	27.8	28.0	27.4	29.1
8	26.8	26.3	26.8	26.7	26.8	...	29.2	27.4	34.9	28.1	26.8	29.1
9	27.0	26.8	27.3	26.6	27.1	...	29.0	25.9	31.3	28.3	27.7	29.1
10	26.7	26.4	27.2	26.3	25.8	...	29.3	27.4	34.6	27.9	27.7	28.9
11	25.4	27.0	27.2	26.4	28.2	27.2	29.3	30.4	38.4	27.3	27.7	29.1
12	27.1	26.4	26.9	25.7	28.4	24.9	26.8	28.7	27.9	28.2	27.7	28.6
13	27.0	26.9	26.8	26.0	28.8	23.6	29.7	30.8	27.9	28.3	27.8	28.5
14	27.0	26.8	27.8	26.4	26.8	23.1	30.0	27.3	29.6	28.3	27.7	28.7
15	26.9	25.5	26.1	26.4	...	24.8	30.0	28.3	28.2	28.3	27.4	29.2
16	26.9	26.8	27.7	26.1	...	27.3	31.7	27.3	32.0	28.2	27.9	29.2
17	26.7	26.8	26.7	26.6	...	27.4	32.2	26.9	32.8	28.8	27.9	29.3
18	26.4	26.9	26.4	24.9	...	29.0	31.8	31.2	33.8	28.4	27.9	29.2
19	26.8	27.0	26.4	24.4	...	27.8	31.1	29.9	30.3	28.8	28.1	28.9
20	26.9	27.1	26.9	25.7	...	29.1	29.9	28.4	27.9	27.9	27.9	28.8
21	26.9	26.7	26.4	26.1	...	29.0	31.4	30.8	31.9	27.8	27.6	29.2
22	27.0	26.4	26.6	26.2	...	29.3	30.0	31.4	28.4	27.4	27.2	29.0
23	27.1	27.1	27.0	26.5	...	29.7	26.3	32.2	28.3	27.6	27.3	29.6
24	26.3	26.9	26.8	26.5	...	29.9	27.9	34.3	28.2	28.3	27.7	29.9
25	26.2	27.0	26.7	27.5	...	29.9	26.3	35.0	28.2	26.5	27.3	28.8

31. 2. 4. 5. 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	27.0	26.9	26.9	25.9	....	30.5	26.0	31.3	28.9	28.3	26.8	29.3
27	26.8	26.9	26.8	26.4	....	29.9	30.0	35.0	27.5	27.7	27.4	29.1
28	26.8	26.9	26.4	26.3	....	26.6	30.3	34.4	30.4	27.8	27.3	29.7
29	26.9		26.2	26.8	....	29.3	30.4	32.4	29.5	28.7	27.2	30.0
30	26.9		26.8	26.5	....	29.8	30.7	30.9	29.7	29.0	27.6	30.1
31	26.7		26.8		....		30.3	34.5		28.2		30.2

Cape May County

36. 22. 6. 8. 2. American Ice Co. Ocean City. Drilled unused artesian well in Atlantic City 800-foot sand unit of Kirkwood formation, diameter 6 inches, depth about 860 feet. Land-surface datum is 4.74 above msl. Highest water level 1.3 below msl, Dec. 29, 1945; lowest 73.5 below msl, July 24, 1953. Records available: 1936-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July		Nov.	Dec.
1	....	....	32.3	31.5	....	39.2	....	....	....	....
2	....	....	31.5	31.5	....	....	....	....	....	....
3	....	....	31.8	31.7	....	38.8	....	....	....	....
4	34.0	32.4	31.6	31.8	....	39.2	....	....	42.2	....
5	34.1	32.6	32.5	32.3	....	41.7	....	....	42.3	....
6	34.4	32.8	32.4	32.2	....	45.1	....	....	41.6	....
7	34.2	32.6	32.5	31.7	32.4	45.0	55.9	....	....	40.9
8	33.8	....	32.4	31.7	32.4	42.9	54.4	....	....	....
9	33.5	32.5	32.2	32.1	31.6	42.3	54.2	....	....	40.4
10	32.8	33.7	32.3	32.0	32.0	44.2	....	....	....	39.6
11	32.6	32.5	32.4	32.1	32.1	44.1	60.9	....	....	40.5
12	33.2	32.0	31.9	32.3	....	44.9	59.1	....	....	39.8
13	....	32.3	32.6	31.6	....	41.5	57.8	....	....	39.7
14	....	....	31.9	32.6	....	40.3	58.9	....	....	39.4
15	....	....	....	32.7	....	41.9	60.8	....	....	40.2
16	....	33.2	31.9	32.5	....	45.6	67.8	....	....	39.7
17	....	33.0	31.9	32.1	....	45.8	70.9	....	....	39.3
18	....	33.2	31.9	....	....	45.6	70.6	....	....	39.4
19	....	33.2	31.7	32.1	....	....	67.3	....	....	39.7
20	....	32.8	31.6	32.3	....	....	68.4	....	....	39.8
21	....	32.8	31.7	32.4	34.2	....	71.9	....	....	39.6
22	....	33.0	32.0	32.2	....	....	69.3	....	....	38.5
23	....	32.5	31.9	32.2	....	....	72.3	....	....	39.5
24	....	32.3	31.2	32.2	....	....	73.5	....	....	39.9
25	....	32.1	30.9	32.2	....	....	71.0	....	....	39.3
26	....	31.1	31.1	33.7	....	....	71.3	....	....	38.8
27	....	31.8	31.2	32.8	....	....	69.9	....	....	39.0
28	....	32.3	31.1	33.0	....	....	71.0	....	....	38.6
29	....		31.2	....	....	....	....	....	....	....
30	....		31.5	....	....	....	....	....	....	38.4
31	....		31.3		39.2	....	....	....	....	38.8

36. 22. 6. 9. 1. Mr. Schwartz. Ocean City. Drilled unused artesian well in Atlantic City 800-foot sand unit of Kirkwood formation, diameter $4\frac{1}{2}$ inches, depth 800+ feet. Land-surface datum is 9 feet above msl. This well is affected by tides and nearby pumping up to $7\frac{1}{2}$ feet with seasonal fluctuations owing to pumping up to 30 feet. Highest water level 19.0 below msl, Mar. 5, 1941; lowest 66.2 below msl, Sept. 6, 1953. Records available: 1928-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.1	34.7	33.6	32.7	33.6	37.4	55.3	65.8	63.6	50.6	43.6	39.4
2	35.3	34.6	32.9	32.8	33.5	37.0	57.6	62.7	63.6	48.9	43.7	39.1
3	35.2	33.8	33.0	33.0	33.9	37.3	58.2	60.5	64.0	50.6	43.7	39.1
4	35.3	33.6	32.9	....	34.2	37.9	59.6	59.2	63.0	50.5	43.8	39.0
5	35.3	33.8	33.8	33.6	34.0	39.9	50.1	59.5	64.5	50.8	43.9	39.4
6	35.7	34.0	33.7	33.5	33.9	43.2	....	59.7	66.2	48.2	43.2	39.0
7	35.5	33.8	33.7	33.0	33.8	42.9	54.7	59.6	63.2	47.8	42.9	39.6
8	35.1	33.8	33.1	33.0	....	41.1	53.8	63.0	63.0	47.8	42.8	39.6
9	34.3	35.0	33.4	33.4	....	40.7	54.0	64.4	62.7	47.7	42.6	39.1
10	34.2	34.8	33.6	33.1	....	42.3	57.1	61.3	62.3	47.1	42.2	38.2

36. 22. 6. 9. 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	33.9	33.8	33.2	33.6	33.2	42.3	59.5	61.1	61.7	46.7	41.7	39.2
12	34.5	33.3	32.9	33.6	33.8	43.2	58.0	61.4	60.7	46.7	41.0	38.5
13	34.6	33.6	33.6	32.8	....	41.0	58.0	61.7	61.0	46.8	41.9	38.4
14	35.1	34.2	33.2	34.0	....	40.3	57.2	59.2	57.3	46.9	41.9	38.2
15	35.1	33.2	33.5	34.0	....	41.6	59.2	61.0	58.1	46.6	41.1	39.0
16	35.3	34.5	33.2	33.7	....	42.4	61.2	61.1	57.7	46.5	41.4	38.6
17	35.3	34.3	33.2	32.7	33.9	42.4	61.8	58.6	57.5	46.3	41.5	....
18	35.0	34.4	33.2	33.4	....	45.5	62.6	59.6	57.1	46.3	41.6	....
19	34.8	34.4	32.9	33.3	34.0	46.8	63.6	59.4	57.8	46.5	41.3	....
20	34.7	34.0	33.0	33.6	....	49.0	62.1	59.5	57.8	46.5	40.9	38.6
21	33.8	34.1	33.0	33.7	33.5	50.1	63.0	59.9	55.5	46.5	40.8	38.6
22	34.3	34.3	33.2	33.5	....	49.7	63.0	63.6	52.0	45.6	....	37.2
23	34.3	33.8	33.2	33.4	....	49.7	58.6	61.2	52.9	44.4	....	38.2
24	33.9	33.6	32.4	33.5	36.4	49.7	58.0	61.7	54.9	45.0	....	38.6
25	35.3	33.3	32.2	33.6	36.5	50.5	61.7	62.0	54.9	45.1	39.5	38.1
26	34.7	32.5	32.5	33.8	37.0	49.9	62.2	62.0	54.8	44.5	40.2	37.6
27	35.4	33.1	32.4	33.9	37.5	51.9	63.4	62.5	53.6	44.8	39.9	37.7
28	35.4	33.6	32.7	34.4	37.9	53.0	63.7	63.3	51.9	44.1	40.0	37.3
29	35.5	....	32.4	34.3	37.5	51.7	64.5	64.2	49.7	43.6	39.9	37.2
30	35.4	....	32.7	34.1	38.5	51.1	64.5	64.4	50.3	43.7	39.9	37.2
31	35.0	....	32.5	....	37.6	....	65.2	64.4	....	43.5	....	37.6

Essex County

25. 15. 7. 5. 4. Commonwealth Water Co. Well 30 on Canoe Brook. About 0.3 mile north of Canoe Brook pumping station, 0.8 mile west of White Oak Ridge pumping station of the East Orange Water Dept. Drilled unused artesian well in Wisconsin terminal moraine, diameter 10 inches, depth 130 feet. Land-surface datum is 170 feet above msl. Daily water-level fluctuations from less than 1 foot to as much as 17 feet are caused by pumping of nearby wells. Highest water level 162.8 above msl, Aug. 25, 1931; lowest 104.2 above msl, Nov. 29, 1953. Records available: 1925-53.

Daily lowest water level above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	113.5	114.5	115.0	115.2	....	119.8	....	....	110.1	107.8	104.3
2	....	113.7	114.4	114.9	115.4	115.2	116.1	....	....	110.0	108.3	....
3	....	113.6	114.5	114.9	115.8	114.4	114.5	....	....	110.2	108.3	....
4	....	113.1	114.6	114.9	118.1	114.2	114.5	....	....	110.4	107.7	....
5	....	113.1	116.7	115.0	117.6	114.8	114.9	....	....	110.7	107.7	....
6	....	113.2	115.8	115.1	....	113.8	115.2	....	....	110.8	107.5	....
7	....	113.4	115.8	115.8	117.0	113.8	114.4	....	....	111.1	107.8	110.4
8	....	113.4	116.1	115.8	117.0	115.9	114.5	....	....	110.8	107.1	109.2
9	....	113.4	116.3	115.5	116.8	115.3	114.8	....	....	111.5	107.0	108.6
10	....	113.6	116.7	115.5	116.8	114.1	114.6	....	....	111.2	108.3	107.8
11	....	113.6	116.0	115.8	118.4	113.6	114.4	....	....	110.9	108.4	107.6
12	....	113.9	115.9	115.7	117.6	113.6	114.7	....	....	112.0	107.5	107.6
13	....	113.9	116.8	115.9	117.6	113.7	115.2	....	....	111.2	107.1	107.8
14	....	113.9	116.9	115.7	118.1	116.8	114.7	....	....	110.8	107.7	107.8
15	....	....	116.9	115.2	119.4	115.6	113.3	....	....	110.8	107.1	108.2
16	....	115.1	118.4	115.2	118.4	114.0	112.3	....	....	110.9	....	108.2
17	....	114.0	117.9	115.4	118.6	113.3	110.7	118.9	111.3	110.5	106.5	108.2
18	....	114.0	117.6	115.3	119.2	113.4	110.6	119.3	111.1	110.8	106.3	108.2
19	....	113.8	117.3	115.6	118.4	113.8	....	119.0	111.1	110.9	106.1	....
20	....	....	117.0	....	119.3	113.7	....	118.5	111.5	....	105.9	....
21	....	113.9	116.9	....	118.3	118.6	....	118.2	111.7	107.7	105.9	108.9
22	112.2	113.7	116.9	116.0	118.4	117.7	....	....	110.9	107.7	105.9	109.1
23	112.2	113.9	117.3	115.4	118.5	114.6	....	....	110.8	107.7	106.5	108.8
24	112.6	114.7	118.1	115.3	118.6	114.1	....	....	110.8	107.6	106.1	108.7
25	115.0	114.7	118.0	115.3	119.4	113.8	....	....	111.8	107.5	105.3	109.0
26	115.2	114.5	116.9	115.2	118.7	113.6	....	....	111.6	108.5	104.9	109.3
27	114.1	114.5	115.6	116.2	119.4	113.3	....	....	111.5	108.4	104.9	109.4
28	113.5	114.5	115.4	116.0	119.9	113.4	....	....	113.1	109.1	104.2	109.5
29	113.1	....	115.7	115.8	117.1	115.0	....	110.9	111.3	108.2	104.2	109.7
30	113.1	....	115.9	115.4	116.4	119.8	....	109.5	110.5	107.5	104.5	109.5
31	113.4	....	115.2	....	117.8	....	....	112.0	....	107.4	....	109.0

e Estimated.

25. 15. 7. 5. 9. East Orange Water Dept. Canoe Brook and Parsonage Hill Rd. Drilled unused artesian well in Wisconsin terminal moraine, diameter 6 inches, depth about 64 feet. Land-surface datum is 182 feet above msl. Highest water level 174.80 above msl, Oct. 25, 1927; lowest 138.30 above msl, Oct. 26, 1953. Records available: 1925-53.

Daily lowest water level above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	150.85	150.15	.....	151.05	152.60	150.95	.....	144.65	.....	.....	139.85
2	.....	150.35	150.60	.....	151.35	151.45	150.95	.....	144.15	.....	.....	139.50
3	.....	150.35	150.60	.....	153.00	150.95	150.15	.....	143.75	.....	.....	139.50
4	.....	150.45	151.55	.....	154.05	150.60	150.40	.....	142.45	.....	.....	141.10
5	.....	151.00	150.25	.....	154.00	150.65	152.05	.....	143.60	.....	.....	141.40
6	.....	151.05	152.10	.....	154.05	150.75	150.05	.....	143.75	.....	.....	141.75
7	149.65	151.20	152.60	.....	153.70	150.75	149.05	.....	148.35	.....	.....	142.50
8	149.65	151.25	152.80	150.90	154.20	151.25	149.10	.....	147.00	.....	.....	142.90
9	150.90	149.85	152.50	150.50	153.25	150.50	149.00	.....	147.00	.....	.....	142.55
10	150.15	149.45	152.00	150.95	153.70	149.65	148.80	.....	147.25	.....	.....	142.85
11	150.05	149.50	151.85	150.85	154.05	148.55	148.80	.....	146.50	.....	.....	142.20
12	149.60	150.65	152.15	150.80	153.05	148.55	148.95	.....	146.95	146.40	.....	142.15
13	149.60	150.25	153.30	152.00	153.15	149.30	150.25	.....	147.40	145.00	.....	142.40
14	150.25	149.90	152.60	151.30	154.30	153.35	148.25	.....	148.45	144.70	.....	142.40
15	150.30	149.90	152.55	150.90	155.35	151.50	147.40	.....	147.65	144.70	.....	142.40
16	150.35	151.70	153.85	151.00	153.90	149.95	146.75	.....	146.05	144.65	.....	142.40
17	149.60	151.60	153.60	151.40	154.85	148.80	146.10	.....	.....	144.60	.....	142.25
18	149.50	151.60	154.05	151.30	155.30	149.15	.....	.....	.....	144.55	.....	142.20
19	150.45	150.55	153.50	151.55	154.50	150.45	.....	.....	146.05	144.55	141.60	142.40
20	150.35	150.00	153.10	151.70	155.15	150.05	.....	.....	146.25	.....	141.70	142.75
21	150.90	150.00	153.05	151.25	154.15	150.25	.....	147.50	146.10	.....	141.60	142.65
22	150.75	150.75	153.05	150.80	154.30	150.85	.....	147.60	.....	142.25	141.60	142.85
23	150.40	150.60	153.65	150.40	154.90	150.05	.....	148.05	145.35	142.20	141.55	142.60
24	150.30	150.60	153.60	150.20	155.90	149.35	.....	148.45	145.80	142.15	140.80	142.60
25	152.60	150.35	.....	149.55	154.80	149.05	.....	147.90	146.60	140.30	140.45	142.65
26	153.40	150.35	.....	150.05	154.30	149.05	.....	147.50	146.30	138.30	140.00	143.60
27	151.80	150.70	.....	151.40	155.15	148.90	.....	147.45	146.30	.....	140.00	143.65
28	151.50	150.15	.....	151.40	157.20	148.90	.....	146.65	148.15	.....	139.80	143.35
29	149.65	.....	.....	151.45	153.20	151.30	.....	145.40	.....	.....	139.80	142.90
30	149.45	.....	.....	150.85	153.15	151.15	.....	.....	.....	.....	140.35	142.75
31	149.65	.....	.....	.....	154.60	.....	.....	144.95	.....	.....	.....	142.45

25. 15. 7. 6. 7. (Downstream test well) East Orange Water Dept. Canoe Brook below Parsonage Hill Rd. Drilled unused water-table well in Wisconsin terminal moraine, diameter 8 inches, depth 62 feet. Land-surface datum is 180 feet above msl. Highest water level 179.59 above msl, May 12, 1947; lowest 169.45 above msl, Apr. 26, 1944. Records available: 1931-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	+178.06	Apr. 22	+178.57	July 18	+176.22	Oct. 24	+174.16
Feb. 19	+178.21	May 28	+178.35	Aug. 21	+175.75	Nov. 21	+174.87
Mar. 23	+178.41	June 16	+177.54	Sept. 29	+174.53	Dec. 21	+176.78

Gloucester County

30. 14. 8. 2. 4. (Repauno 2) E. I. du Pont de Nemours Co. Gibbstown. Drilled unused artesian well in Magothy and Raritan formations, diameter 6 inches, depth 98 feet. Land-surface datum is 4.0 feet above msl. Highest water level 2.23 above msl, Apr. 10, 13, 1953; lowest 3.48 below msl, Sept. 13, 1951. Records available: 1949-53.

Daily lowest water level from recorder graph, 1949

Dec. 7	2.09	Dec. 13	1.80	Dec. 18	1.61	Dec. 23	1.86
8	2.10	14	1.81	19	1.59	28	1.43
9	2.14	15	1.81	20	1.83	29	1.47
10	1.96	16	1.85	21	1.74	30	1.53
11	1.72	17	1.91	22	1.76	31	1.54
12	1.80						

Daily lowest water level above and below msl from recorder graph, 1950

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	-1.50	-0.64	+0.13	-0.51	-0.32	....	-1.80	-1.71	-1.37	-2.15	-0.72
2	....	1.28	.65	.27	.51	.43	....	1.62	1.61	1.50	2.07	.40
3	-1.89	1.33	.74	.13	.56	.42	....	1.30	....	1.46	2.06	.16
4	1.60	1.18	.71	+.03	.73	.22	....	.99	....	1.47	2.18	.32
5	1.60	1.06	.44	-.08	.66	....	....	....	1.66	1.49	1.92	.61

30. 14. 8. 2. 4--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	-1.59	-1.36	-0.73	-0.07	-0.43	-0.86	-1.59	....	-1.70	-1.49	-2.00	-0.41
7	1.41	1.28	.83	.02	.07	.98	1.82	1.03	1.84	1.45	2.05	.59
8	1.32	1.35	.73	.00	.50	.90	1.90	1.26	1.85	1.44	2.04	.37
9	1.51	1.13	.73	+.18	.86	.88	1.57	1.28	1.47	1.78	2.05	.45
10	1.55	1.18	.80	-.16	.65	....	1.44	1.48	1.26	1.78	2.15	.47
11	1.53	.86	.58	.01	.79	....	1.56	1.60	1.59	1.83	1.92	.10
12	1.54	.68	.39	.03	.98	.88	1.46	1.23	1.37	1.72	1.59	.32
13	1.54	.91	.67	.14	....	1.05	1.28	1.03	1.96	1.89	2.01	.29
14	1.33	.89	.52	.21	....	.92	1.45	1.47	1.42	1.75	2.02	.22
15	1.20	.72	.66	.19	.69	.90	1.17	1.72	1.44	1.66	2.09	.39
16	1.42	.98	.50	.00	.61	.94	1.13	1.76	1.25	1.91	2.04	.22
17	1.48	.79	.53	.25	.68	.93	1.05	1.79	1.14	2.08	2.01	.05
18	1.46	.64	.39	.35	.69	.68	1.24	1.88	1.42	2.27	1.84	.66
19	1.44	.46	.31	.42	....	.80	1.37	1.70	1.43	2.35	1.59	.44
20	1.50	.67	.43	.34	....	.99	1.66	1.27	1.53	2.33	2.00	.41
21	1.32	.67	....	.45	....	1.05	1.16	1.41	1.50	2.05	2.04	.47
22	1.09	.69	....	.20	.04	1.16	.99	1.43	1.50	2.00	2.06	.36
23	1.41	.60	....	.00	.15	1.58	.98	1.48	1.31	2.13	1.60	-.18
24	1.51	.71	....	.44	.33	1.00	1.27	1.62	1.13	2.14	1.86	+.03
25	1.65	.50	....	.46	.47	.86	1.33	1.62	1.46	2.17	1.45	....
26	1.57	.21	....	.53	.34	1.10	1.34	1.63	1.43	2.17	.69	-.80
27	1.63	.56	.10	.80	.34	....	1.40	1.43	1.42	2.19	.77	.92
28	1.31	.54	.03	.64	.25	....	1.49	1.77	1.41	2.00	.81	1.05
29	1.06	....	.05	.43	.10	....	1.30	1.88	1.39	1.79	.83	1.07
30	1.49	....	.00	.24	....	....	1.19	1.75	1.38	1.98	.76	.85
31	1.54	....	.04	....	.36	....	1.72	1.68	....	2.03	....	.70

Daily lowest water level above and below msl from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-0.72	-0.36	+0.87	+1.38	+0.27	-0.10	-0.16	-2.11	-3.02	-3.23	-2.54	....
2	.85	.42	.88	1.06	.38	+.17	.54	2.17	2.72	3.36	2.58	....
3	.44	.18	1.00	1.15	.49	+.24	.54	1.82	....	3.22	2.24	1.48
4	.50	+.35	1.30	1.13	.39	-.12	.34	2.04	2.68	3.28	....	1.43
5	.54	+.03	.96	1.13	.54	.14	.62	1.95	2.82	3.45	2.24	1.45
6	.33	-.01	.94	.95	.79	.03	.73	2.32	2.75	3.41	2.21	1.35
7	.28	+.22	.88	1.24	+.31	.54	.54	2.02	2.96	2.95	2.16	1.39
8	.48	.31	.86	1.42	-.02	.54	.39	2.27	2.55	3.02	2.20	1.38
9	.70	.16	.74	1.09	.22	.10	....	2.57	2.60	....	2.20	.96
10	.67	.32	.89	.99	.17	.04	.91	2.65	3.02	2.99	2.16	1.35
11	.69	.52	.99	.93	-.02	.20	1.34	2.30	3.18	3.02	2.17	1.27
12	.65	.26	.75	1.01	+.38	.32	1.50	2.06	3.36	2.90	2.17	1.29
13	.51	.30	.81	1.02	+.65	.34	1.53	2.60	3.48	3.01	....	1.31
14	.48	.25	.93	1.19	+.30	.32	1.13	2.70	3.63	2.85	....	1.25
15	.27	.25	.73	1.12	-.10	.31	1.18	2.78	....	2.61	....	.94
16	.47	.23	.71	.99	-.22	.14	1.68	2.88	....	3.04	....	....
17	.58	.46	.88	.91	-.10	.00	1.42	2.87	2.88	....	....	....
18	.63	.73	.99	.91	+.11	.39	1.40	2.73	3.08	....	....	....
19	.72	.45	.68	.99	+.28	.74	1.43	2.53	3.20	....	2.04	....
20	.46	.40	.79	.74	+.53	.67	1.53	2.56	3.26	....	1.56	....
21	.34	.50	.85	.84	-.01	.87	1.05	2.65	3.35	....	1.81	....
22	.65	.56	.82	1.12	-.38	1.04	1.22	2.41	3.04	....	....	....
23	.57	.69	.87	.78	-.38	.55	1.77	2.35	2.76	2.94	1.55	....
24	.60	.86	1.10	.67	+.22	.24	1.71	2.52	3.11	2.91	1.33	....
25	.48	1.08	1.19	.61	.16	.82	2.01	2.65	2.91	2.82	1.28	....
26	.58	.88	.82	.70	.40	1.00	2.00	2.45	3.16	2.78	1.85	+.02
27	.35	.87	.74	.54	.60	.82	2.10	3.10	3.13	2.22	1.57	-.10
28	.26	.82	.67	.81	.09	.70	1.82	2.89	3.23	2.32	....	.04
29	.56	....	.81	.94	+.09	.70	1.31	2.89	2.82	2.76	....	.01
30	.69	....	.91	.27	-.10	.32	1.70	2.99	2.72	2.75	....	.03
31	.62	....	1.13	....	-.13	....	2.01	3.18	....	2.73	....	.28

Daily lowest water level above and below msl from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	+0.94	+1.04	+1.12	+1.20	-0.99	-2.06	-0.52	-1.31	-1.56	-0.91
2	+0.27	...	.96	.89	1.27	.37	1.12	1.78	1.18	1.39	1.39	.76
3	.23	...	.84	.84	1.28	.44	1.24	1.31	.90	1.35	1.75	.84
4	.31	+1.17	.75	.80	1.58	.21	.71	1.89	1.24	1.30	1.76	.84
5	.46	1.22	.75	.58	1.12	.42	.74	2.06	1.33	1.11	1.83	.77

30. 14. 8. 2. 4--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	+0.48	+1.29	+0.66	+0.53	+1.17	+0.17	-0.78	-2.12	-0.70	-1.37	-1.85	-0.43
7	...	1.30	.87	.78	1.06	.34	1.31	1.55	.43	1.86	1.82	.44
8	.72	1.41	1.00	1.20	.95	.28	1.07	1.30	.68	1.89	...	.56
9	.46	1.45	1.25	.82	.74	.12	.56	1.14	.76	1.53	...	...
10	.52	1.82	.85	.83	.88	.01	.55	.79	.95	1.58	...	.67
11	.34	1.56	1.02	.84	1.14	+ .07	.64	.94	1.37	1.88	1.66	.53
12	.69	1.58	.81	1.14	1.15	-.06	.63	1.34	1.56	1.45	1.56	.56
13	.84	1.38	.96	1.16	1.06	-.28	.45	1.09	1.36	1.51	1.68	.33
14	.36	...	1.11	.97	.97	+ .07	1.06	1.20	.77	1.60	1.81	.26
15	.62	...	1.08	.99	.91	+ .13	1.21	1.11	1.40	1.66	1.60	...
16	.21	...	1.14	.78	.76	-.26	1.30	.89	1.26	2.01	1.57	.37
17	.18	...	.84	.67	.90	.56	1.31	.64	1.75	1.75	1.68	.40
18	.38	...	.68	.74	1.12	.62	1.39	1.16	1.69	1.68	1.73	.34
19	.45	.94	1.06	1.16	.59	.75	1.16	1.22	1.25	1.50	1.72	.35
20	.68	.96	1.08	1.21	.89	.75	.81	1.30	...	1.65	1.63	.19
21	.53	.90	1.12	.73	.63	-.24	1.31	.92	...	1.81	1.49	.04
22	.30	.74	1.50	.71	.66	+ .03	1.46	1.03	1.04	1.79	1.23	.05
23	.21	1.06	1.42	.76	.37	-.02	1.55	.88	1.15	1.75	.80	.15
24	.05	1.10	1.60	.77	.53	...	1.45	.98	1.18	1.72	1.09	-.11
25	.20	.96	1.53	.81	.87	...	1.31	1.47	1.36	1.49	...	+ .13
26	...	.97	1.23	.84	.64	...	1.35	1.60	1.21	1.59	...	+ .10
27	.37	.78	1.13	.97	.61	...	1.20	1.60	1.09	2.11	...	+ .11
28	.37	.75	1.08	1.19	.53	...	1.65	1.27	1.03	2.07	1.43	...
29	...	.78	.96	1.08	.47	...	1.77	1.29	1.59	2.02	1.26	-.10
30	...	...	1.24	1.18	.83	-.88	1.86	1.20	1.30	1.71	1.03	-.22
31	...	...	1.04	...	.65	...	2.00	.75	...	1.68	...	-.19

Daily lowest water level above and below msl from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+0.17	...	...	+1.55	+1.26	+0.98	-0.90	...	-2.49	-2.34	-1.72	...
2	.08	...	+1.17	...	1.31	1.06	.86	...	2.58	2.24	2.23	...
3	.05	...	.90	...	1.31	.87	...	-1.54	2.62	1.94	1.91	-2.00
4	+ .11	...	1.20	...	1.13	.66	...	1.65	2.23	1.71	1.90	2.08
5	-.02	...	1.14	...	1.21	.67	...	...	2.03	2.31	1.88	1.97
6	.02	...	.95	1.33	1.04	.23	.82	1.39	1.49	2.18	1.79	1.84
7	.17	...	.91	1.42	1.08	.65	.72	1.43	1.40	2.00	...	2.02
8	-.29	...	1.04	1.41	.99	.34	1.02	...	1.66	2.16	...	2.12
9	+ .02	+0.84	.96	1.41	1.13	.21	.50	...	1.76	2.32	...	1.95
10	.17	.73	.84	1.46	1.15	.56	.41	1.59	2.27	2.11	...	1.82
11	.45	...	.76	1.52	.74	.47	...	1.70	2.12	2.04	...	1.92
12	.29	...	.81	1.66	.54	.50	...	1.73	1.83	2.14	...	1.66
13	.29	.73	.97	1.78	.48	.56	1.21	1.82	1.49	2.25	...	1.55
14	.32	.77	1.20	1.54	.59	.65	1.32	1.80	1.64	2.32	...	1.50
15	+ .32	.88	1.39	1.58	.47	.28	1.35	1.59	1.86	2.35	...	1.40
16	-.05	.98	1.47	1.69	.63	.15	1.60	1.28	1.86	2.35	1.74	1.22
17	+ .27	.89	1.48	1.69	.93	.03	1.57	1.49	1.84	2.19	1.50	1.20
18	.55	.86	1.47	1.74	.99	.41	1.22	1.43	1.84	2.14	1.51	1.20
19	.53	.84	1.59	1.94	...	+ .35	1.22	1.57	1.83	2.27	1.47	1.07
20	.53	.75	1.53	1.96	.54	-.14	1.84	1.51	1.46	2.27	1.61	1.01
21	.35	.90	1.59	1.60	.53	+ .50	1.57	1.68	2.04	2.38	1.60	1.15
22	.43	...	1.83	1.51	.61	+ .14	1.79	1.40	2.00	2.30	1.60	1.01
23	.40	.92	1.68	1.46	.67	+ .07	1.49	1.19	1.80	2.70	1.76	1.05
24	.41	.89	1.32	1.37	.55	-.27	1.26	1.53	1.90	2.23	1.99	1.13
25	.83	.88	1.56	1.47	.18	.47	.86	1.80	2.16	1.89	2.07	.74
26	.63	.89	1.50	1.55	.34	.68	.25	1.87	1.78	2.73	1.73	.66
27	.61	.83	1.59	1.23	.61	-.37	1.08	1.97	1.59	2.67	...	.93
28	.57	1.00	1.73	1.16	.65	+ .13	1.37	2.08	1.85	2.66	...	1.27
29	.76	...	1.78	1.02	.73	-.44	1.72	1.91	2.24	2.42	...	1.47
30	.82	...	1.53	1.03	1.05	-.69	...	1.45	2.26	2.37	...	1.55
31	.82	...	1.54	...	1.32	...	...	2.19	...	1.95	...	1.63

31. 11. 2. 7. 2. The Texas Co. Well 3. Eagle Point, Westville. Drilled observation artesian well in Magothy and Raritan formations, diameter 8 inches 0-86, 6 inches 86-245, depth 298 feet, 6-inch screen 225-245, well cased to rock. Land-surface datum is 22 feet above msl. Highest water level 15.7 below msl, Nov. 25, 1950; lowest 41.4 below msl, Aug. 27, 1953. Records available: 1949-53.

31. 11. 2. 7. 2--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.2	31.0	29.8	28.1	32.7	29.2	34.1	37.2	38.4	31.6	29.5	30.9
2	30.7	....	30.7	28.9	31.7	30.5	34.3	37.2	39.0	31.4	28.8	32.5
3	29.9	....	31.2	28.4	28.5	31.6	35.1	36.0	39.5	29.6	29.4	32.5
4	29.9	....	32.3	27.2	29.2	31.8	35.4	36.0	39.5	26.4	28.5	32.9
5	32.5	....	32.8	25.6	30.4	32.7	....	35.2	39.6	25.7	28.7	33.2
6	33.6	....	....	25.3	30.8	32.5	31.9	36.1	39.0	26.9	27.7	33.1
7	34.0	....	....	26.2	30.8	30.5	34.5	36.5	37.8	28.0	28.2	34.4
8	33.5	....	....	26.8	31.7	30.2	34.4	36.2	39.1	29.4	27.6	35.8
9	33.3	....	30.2	28.2	31.6	30.4	34.6	....	39.5	29.0	27.2	36.6
10	32.7	....	31.6	27.6	29.4	30.9	35.1	36.1	39.2	28.1	28.4	36.3
11	31.8	....	32.6	26.9	30.3	31.9	33.9	37.0	38.5	26.6	29.0	36.3
12	31.8	....	32.5	25.0	31.3	31.1	32.5	37.0	37.8	29.0	31.1	36.3
13	32.1	31.0	32.2	26.9	32.4	30.5	33.6	37.7	37.4	30.9	32.1	35.1
14	33.1	30.7	31.7	27.8	32.9	28.4	35.1	37.5	37.3	32.0	31.9	33.0
15	33.3	29.1	29.2	29.4	32.5	29.3	35.4	37.2	39.3	32.3	30.5	35.2
16	33.5	30.2	28.7	30.9	32.0	30.8	37.4	36.8	40.0	33.6	28.9	35.8
17	33.1	30.8	30.6	32.7	29.7	31.3	38.5	36.4	40.3	33.9	28.6	36.3
18	31.0	31.5	31.0	32.4	30.7	31.9	37.9	36.5	40.1	33.0	27.3	36.9
19	29.9	31.5	32.2	29.8	31.6	32.1	35.3	36.8	38.6	32.6	27.0	36.7
20	31.2	31.7	35.2	29.1	31.6	32.4	35.2	38.6	37.0	34.1	27.2	35.5
21	31.4	31.7	34.4	30.0	31.9	30.5	37.2	38.8	37.2	33.7	25.5	35.0
22	31.4	29.7	28.9	31.1	31.7	30.0	37.9	39.3	38.6	33.4	23.8	35.6
23	31.1	28.1	28.1	31.5	31.3	32.3	38.4	38.8	38.1	32.1	26.4	36.5
24	....	28.9	30.2	31.8	30.4	34.1	39.3	40.2	39.1	31.5	28.8	36.5
25	....	31.3	30.7	30.8	30.6	33.7	38.5	40.1	39.4	29.8	29.5	36.2
26	29.7	31.8	31.0	28.7	30.2	34.3	37.3	40.4	36.7	29.0	29.5	34.3
27	30.6	32.2	30.8	30.3	30.9	34.4	35.7	41.4	34.7	29.3	28.6	....
28	32.1	31.4	29.6	31.3	32.0	33.0	37.0	41.0	34.0	29.8	29.7	....
29	32.8	....	27.5	31.6	31.6	32.9	36.6	40.8	31.3	30.3	29.8	34.3
30	33.5	....	28.4	31.5	30.3	....	36.4	39.7	30.4	32.4	28.5	35.4
31	33.0	....	28.1	....	27.7	....	37.0	38.9	....	30.5	....	37.5

Middlesex County

28. 4. 4. 2. 1. Robert D. Fischer. Dug observation water-table well in Farrington sand member of Raritan formation, diameter 5 feet, depth 17 feet, cased with concrete well blocks. Land-surface datum is 73 feet above msl. Highest water level 64.12 above msl, Apr. 26-27, 1939; lowest 56.55 above msl, Jan. 28, 1950. Records available: 1936-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	58.68	59.00	60.43	61.19	60.90	60.25	59.39	58.58	57.80	57.21	56.80
2	....	58.71	59.00	60.44	61.19	60.88	60.23	59.37	58.56	57.78	57.19	56.78
3	....	58.75	59.03	60.47	61.16	60.85	60.19	59.34	58.53	57.76	57.18	56.77
4	....	58.77	58.97	60.49	61.19	60.84	60.15	59.33	58.51	57.74	57.16	56.76
5	....	58.79	59.01	60.51	61.22	60.82	60.13	59.30	58.48	57.72	57.14	56.75
6	57.83	58.83	59.01	60.53	61.22	60.79	60.12	59.27	58.45	57.70	57.13	56.74
7	57.82	58.85	59.03	60.57	61.23	60.77	60.09	59.24	58.42	57.67	57.14	56.74
8	57.82	58.87	59.00	60.57	61.23	60.74	60.07	59.22	58.39	57.65	57.13	56.73
9	57.88	58.88	59.01	60.58	61.22	60.73	60.04	59.21	58.36	57.63	57.11	56.72
10	57.93	58.90	59.02	60.61	61.21	60.70	60.01	59.18	58.34	57.61	57.09	56.72
11	57.94	58.92	59.03	60.62	61.21	60.68	59.98	59.15	58.31	57.59	57.08	56.71
12	57.93	58.95	59.06	60.65	61.20	60.66	59.96	59.12	58.28	57.56	57.06	56.70
13	57.96	58.95	59.21	60.70	61.18	60.72	59.94	59.09	58.26	57.53	57.04	56.70
14	58.01	58.95	59.24	60.71	61.17	60.65	59.91	59.10	58.24	57.52	57.01	56.78
15	58.06	59.00	59.36	60.74	61.17	60.62	59.89	59.04	58.22	57.50	57.00	56.77
16	58.09	59.01	59.47	60.82	61.15	60.60	59.86	59.00	58.20	57.48	56.99	56.77
17	58.12	59.04	59.52	60.85	61.18	60.57	59.84	58.96	58.17	57.46	56.97	56.81
18	58.17	59.03	59.63	60.89	61.17	60.55	59.82	58.93	58.15	57.44	56.96	56.84
19	58.19	59.02	59.71	60.92	61.13	60.53	59.79	58.92	58.13	57.42	56.94	56.87
20	58.21	59.00	59.76	60.95	61.08	60.50	59.76	58.93	58.11	57.40	56.93	56.89
21	58.24	58.98	59.81	60.96	61.08	60.48	59.73	58.92	58.04	57.38	56.92	56.91
22	58.20	59.00	59.87	61.02	61.11	60.46	59.70	58.88	58.01	57.36	56.91	56.93
23	58.28	59.00	59.93	61.05	61.06	60.43	59.73	58.86	57.98	57.34	56.90	56.94
24	58.39	58.97	60.00	61.06	61.04	60.40	59.65	58.82	57.96	57.33	56.89	56.96
25	....	58.97	60.06	61.10	60.98	60.38	59.61	58.79	57.94	57.30	56.88	56.97

28. 4. 4. 2. 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	58.39	58.97	60.10	61.14	60.98	60.36	59.59	58.76	57.92	57.28	56.86	56.99
27	58.44	58.97	60.13	61.15	60.98	60.32	59.56	58.73	57.90	57.27	56.85	56.99
28	58.51	58.98	60.17	61.16	60.94	60.31	59.52	58.70	57.87	57.29	56.84	56.99
29	58.55		60.22	61.16	60.93	60.29	59.48	58.67	57.84	57.30	56.82	57.00
30	58.60		60.24	61.19	60.93	60.27	59.45	58.66	57.82	57.25	56.81	57.01
31	58.65		60.26		60.92		59.42	58.61		57.23		57.01

28. 4. 9. 3. 1. Duhernal Water System. Well 11. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 72 feet. Land-surface datum is 36.5 feet above msl. Highest water level 14.23 above msl, June 1, 1940; lowest 1.94 below msl, Aug. 10, Oct. 7, 1951. Records available: 1939-53.

Water level at end of day above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+5.1	+4.7	+5.0	+5.9	+7.2	+7.3	+3.8	+0.2	-0.5	-1.1	-1.2	+1.4
2	4.9	4.6	5.0	5.9	7.2	7.2	3.7	.4	.7	1.1	1.1	1.5
3	4.8	4.6	5.0	5.9	7.2	7.3	3.4	.4	.8	1.0	.5	1.2
4	4.7	4.7	5.1	6.1	7.1	7.3	3.3	.4	.8	.8	.1	1.1
5	4.7	4.7	5.1	6.2	7.2	7.2	3.2	.0	.9	1.0	-.1	1.2
6	4.6	4.6	5.1	6.2	7.1	7.2	3.0	.2	-.9	1.1	.0	1.3
7	4.5	4.7	5.1	6.2	7.3	7.2	2.8	.2	...	1.0	+1	1.3
8	4.5	4.8	5.2	6.2	7.2	7.2	2.6	.1	...	1.0	.4	1.3
9	4.6	4.7	5.0	6.3	7.2	7.1	2.6	.2	+2	1.1	.3	1.4
10	4.7	4.7	4.9	6.3	7.3	7.0	2.4	.2	.0	1.1	.3	1.4
11	4.7	4.7	4.9	6.3	7.3	7.0	1.1	.3	-.4	1.1	.4	1.5
12	4.6	4.7	5.0	6.4	7.3	6.9	.8	.3	.0	1.1	.3	1.5
13	4.4	4.7	5.3	6.5	7.2	7.0	2.1	.2	-.3	1.2	.2	1.7
14	4.4	4.7	5.5	6.6	7.0	7.2	2.2	.1	-.4	1.3	.3	.4
15	4.4	4.8	5.5	6.6	7.0	7.1	2.2	.2	+2.8	1.4	.5	.3
16	4.4	4.9	5.5	6.6	7.1	7.0	2.1	.4	-.3	1.5	.3	1.5
17	4.6	4.8	5.4	6.8	7.1	6.9	1.5	.3	.2	1.5	.4	1.6
18	4.7	4.8	5.4	6.8	7.2	6.9	1.5	.2	.4	1.3	.4	1.7
19	4.7	4.8	5.6	6.9	7.2	6.9	1.4	.2	.5	1.5	.3	1.7
20	4.6	4.8	2.5	6.9	7.1	6.9	1.4	.0	.5	1.2	3.1	1.8
21	4.5	4.8	5.2	6.8	7.1	6.9	.9	+1	.6	1.4	4.3	1.7
22	4.5	5.0	5.4	7.0	7.2	6.8	1.0	-.2	.4	1.4	2.1	1.8
23	4.5	4.8	5.4	7.0	7.2	6.8	.9	-.1	.6	1.5	2.3	1.2
24	4.7	4.8	3.8	7.0	7.2	6.9	.8	+2	.8	1.6	1.4	5.0
25	4.7	5.0	4.1	7.0	7.3	6.8	.8	.0	.8	1.5	1.1	6.7
26	4.6	...	5.5	7.1	7.3	6.8	.8	-.2	.7	1.4	1.1	1.9
27	4.6	4.9	5.5	7.0	7.3	6.7	.5	.1	.7	1.5	1.5	1.8
28	4.6	4.9	5.6	7.1	7.2	6.7	.3	.2	.8	1.5	1.7	4.2
29	4.6		5.7	7.1	7.2	6.6	.3	.3	.8	1.3	1.8	4.3
30	4.5		5.7	7.2	7.4	...	.2	.3	1.1	1.3	1.6	4.4
31	4.7		5.7		7.5		.2	.5		1.2		5.4

28. 4. 9. 3. 5. Duhernal Water System. Well 4. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 75 feet. Land-surface datum is 23.0 feet above msl. Highest water level 11.75 above msl, Apr. 10, 1949; lowest 5.56 below msl, Nov. 10, 1953. Records available: 1938-53.

Water level at end of day above and below msl from recorder graph*

Day	Jan.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
1	-0.60	...	+0.50	+0.45	....	....	-3.25	-4.40	-4.70
2	2.00	...	.55	.15	....	....	3.25	4.40	4.95
3	2.50	...	.05	.05	-1.00	....	3.10	4.50	4.85
4	2.50	...	.10	.20	1.15	....	3.00	4.55	5.00
5	2.95	....	....	.25	.65	....	3.30	....	4.90
6	3.05	....	....	.25	1.15	....	3.35	....	4.55
7	3.35	+0.30	....	.65	1.35	....	3.30	....	4.75
8	3.35	.20	....	+.05	1.40	....	3.35	....	4.70
9	3.20	.25	....	-.25	1.45	-2.60	3.45	....	4.65
10	2.80	.25	....	.20	1.50	2.50	3.50	....	4.35
11	2.40	.25	....	.45	1.65	....	3.10	....	4.40
12	2.60	.35	....	.55	1.65	....	3.45	....	4.45
13	2.90	.40	.30	.35	1.20	....	3.55	....	4.45
14	3.05	....	....	.05	1.45	....	3.65	....	4.40
15	3.10	....	....	.35	....	1.75	3.70	....	4.35

28. 4. 9. 3. 5--Continued.

Day	Jan.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
16	-0.55	....	-1.40	-3.75	....	-4.30
1750	....	1.15	....	....	4.25
1860	....	....	....	....	....
1970	....	....	....	....	....
2035	....	....	3.95	....	....
21	+0.70	....	.05	-1.65	....	4.05	....	....
2285	....	....	....	....	4.15	....	....
2365	....	.75	....	2.85	3.50	....	....
2490	....	.70	....	2.95	3.10	-4.70	4.20
2545	....	.45	....	3.00	2.75	4.95	3.90
2665	....	....	....	2.75	3.30	4.90	3.75
2740	+0.30	....	....	2.40	....	5.00	3.55
2830	.05	....	....	2.80	4.05	5.00	3.80
2910	.00	....	....	3.00	4.25	4.70	3.85
3040	.75	....	....	3.15	4.35	4.80	3.85
31	1.10	....	....	....	4.35	....	3.60

* No record for February, March, and August.

28. 4. 9. 5. 1. Duhernal Water System. Well 9. Spotswood. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 80 feet. Land-surface datum is 15 feet above msl. Highest water level 14.85 above msl, June 1, 1940; lowest 8.45 above msl, Sept. 29, Oct. 13-14, 1943. Records available: 1939-44, 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	+11.92	Apr. 7	+12.46	July 7	+11.10	Oct. 6	+10.47
13	12.17	14	12.57	14	10.85	13	10.16
20	11.96	21	12.83	21	10.60	20	10.10
27	12.50	28	12.71	28	10.88	27	9.97
Feb. 3	12.21	May 5	12.71	Aug. 4	10.70	Nov. 3	10.41
10	11.90	12	12.06	11	10.74	10	10.62
17	12.23	19	12.19	18	11.00	17	10.18
24	12.23	26	11.93	25	10.73	24	10.27
Mar. 3	12.00	June 2	11.58	Sept. 1	11.14	30	10.21
10	12.37	9	11.66	8	10.51	Dec. 8	10.33
17	12.37	16	11.96	15	10.66	15	11.25
24	13.30	23	11.20	22	10.41	22	10.92
31	12.73	30	11.51	29	10.18	29	10.72

28. 5. 1. 8. 4. Borough of Sayreville. Drilled unused artesian well in Farrington sand member of Raritan formation, diameter 6 inches, depth 160 feet, screen 148-160. Land-surface datum is 11.0 feet above msl. Fluctuations caused mainly by regional pumping. Highest water level 11.55 above msl, Mar. 27, 1944; lowest 32.9 below msl, Oct. 25, 1935. Records available: 1931-53.

Daily lowest water level above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.51	+4.69	-5.50	+3.46	+7.60	+5.66	-11.73	....	-17.18	-16.60	-12.33	-8.17
2	-2.47	....	5.91	3.70	7.32	3.29	12.12	....	17.39	16.70	11.37	8.69
3	....	4.85	5.79	3.43	7.55	1.10	12.13	....	17.81	16.88	12.03	9.25
4	....	2.90	5.82	3.22	7.25	1.53	12.00	....	18.26	16.25	....	9.17
5	....	+8.00	6.29	4.48	7.69	1.52	11.32	....	17.82	16.31	....	9.69
6	+1.47	-2.25	6.10	3.74	7.84	1.10	11.71	....	17.20	16.19	....	9.37
7	-.07	1.19	6.27	4.17	7.63	1.02	12.70	....	16.00	16.29	....	6.30
8	1.61	1.85	5.82	5.00	5.95	+.90	....	....	15.69	16.24	....	7.75
9	2.59	2.98	6.05	5.35	5.04	-.07	....	....	15.76	15.64	....	8.28
10	3.18	4.36	5.95	5.63	6.10	-.58	....	....	16.18	15.80	11.90	9.00
11	3.23	5.49	5.88	5.46	....	-.48	....	-15.78	16.86	20.65	11.76	9.69
12	2.15	6.35	5.86	5.91	4.67	+.05	....	15.49	16.71	17.57	11.51	10.02
13	-.50	7.10	5.58	6.33	4.08	-3.39	....	15.68	19.56	16.69	11.36	10.08
14	+.47	7.75	5.67	6.22	3.20	3.48	....	15.41	17.63	16.36	11.08	9.68
15	1.13	6.91	5.26	6.45	3.11	2.15	....	15.91	16.84	16.16	10.93	9.68
16	1.75	6.53	5.39	6.94	2.39	4.03	....	....	16.98	16.22	11.12	9.95
17	1.69	6.07	....	6.70	2.80	4.97	....	....	17.16	15.90	11.11	....
18	2.42	5.90	....	6.80	2.04	5.85	....	15.36	17.24	18.37	11.00	....
19	2.57	5.77	....	....	2.39	6.75	....	15.31	17.11	16.85	11.31	....
20	2.79	5.61	....	5.40	1.21	7.74	....	....	17.10	16.17	11.16	....
21	3.19	5.14	....	6.18	.65	7.80	14.87	....	16.48	15.47	11.26	....
22	3.60	9.40	....	6.52	1.74	8.56	15.06	....	16.48	15.24	10.98	10.88
23	3.96	8.00	....	6.85	+1.55	8.57	15.90	....	16.48	14.75	11.04	11.09
24	....	....	4.61	6.88	-3.97	9.60	15.81	....	16.62	14.30	....	....
25	....	6.05	4.42	6.84	1.95	9.68	14.26	16.53	16.54	13.78	....	....

28.5.1.8.4--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	....	-5.58	-3.10	+6.93	-0.60	-10.75	-14.20	-16.98	-16.49	-13.42	....	....
27	....	5.51	-.55	7.00	-.27	11.07	14.30	17.55	....	13.49	....	....
28	+5.02	6.06	+8.4	7.37	+2.15	10.95	14.65	17.56	....	13.37	....	....
29	5.01		1.62	7.21	3.50	10.99	15.45	....	16.41	13.15	....	....
30	....		2.70	7.50	4.43	11.09	15.31	....	16.49	13.23	....	-5.07
31	4.41		2.80		5.43		15.34	17.25		12.96		4.76

28.5.4.3.9. (Old Deep 1) Perth Amboy Water Dept. Runyon. Drilled unused artesian well in Farrington sand member of Raritan formation, diameter 8 inches, depth 290 feet. Land-surface datum is 19 feet above msl. Highest water level 12.8 above msl, Mar. 1, 1943, Mar. 26, 1944; lowest 54.9 below msl, Sept. 26-27, 1947. Records available: 1930-53. Nearby wells being pumped.

Daily lowest water level above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-17.2	+3.1	+7.8	+6.0	-36.2	-40.0	-40.8	-40.7	....	-31.9
2	+5.0	....	4.0	7.5	-6.9	36.5	41.2	41.0	40.8	-35.0	32.6
3	+5.0	....	4.1	7.6	14.3	36.8	41.0	41.6	40.8	35.8	....
4	-8.2	17.4	4.1	7.9	14.0	36.8	40.5	41.7	40.7	36.3	....
5	10.6	17.6	4.6	7.9	13.9	36.4	40.8	41.6	40.8	36.6	....
6	11.8	17.6	4.5	+8.3	14.4	36.1	40.3	41.4	40.8	36.4	....
7	12.6	17.6	4.5	-7.3	14.4	36.7	40.2	40.4	40.8	36.2	....
8	13.4	17.6	5.3	-9.3	14.7	37.3	40.4	40.4	40.4	....	....
9	14.2	17.5	5.6	-9.9	14.9	37.7	40.4	40.3	40.3	....	....
10	29.3	17.5	5.8	+5.7	15.7	38.0	40.7	40.4	40.4	....	....
11	30.6	17.5	6.2	-10.1	15.7	38.2	40.3	40.7	40.4	....	....
12	31.5	17.4	6.3	11.4	25.7	38.2	40.2	40.6	39.4	....	....
13	32.2	17.2	6.7	12.1	28.4	37.4	40.2	41.8	39.8	....	....
14	+1.4	32.3	16.9	6.8	12.8	28.6	38.0	40.1	41.5	39.7	....	....
15	+1.0	18.8	16.9	6.9	13.0	27.0	38.5	40.4	40.9	40.2	....	....
16	17.7	16.7	7.1	13.7	29.1	39.0	40.6	41.1	40.4	....	....
17	17.3	16.7	7.4	13.7	30.0	39.5	40.9	41.3	40.5	....	....
18	17.2	16.6	7.4	14.0	30.6	39.8	40.9	41.4	40.5	....	....
19	16.5	5.7	14.0	31.3	39.8	40.6	41.3	40.2	....	....
20	16.5	6.1	14.5	31.9	39.2	40.6	41.2	40.0	....	....
21	16.7	16.6	6.7	14.8	32.0	39.0	41.0	40.5	39.7	....	....
22	18.9	16.5	7.1	14.5	32.6	39.4	41.1	40.7	39.4	....	....
23	18.7	16.5	7.3	14.8	32.8	39.4	40.0	40.9	38.9	....	....
24	17.9	16.5	7.7	17.4	33.7	39.5	40.4	41.0	38.5	....	....
25	17.4	16.3	7.7	17.2	34.0	39.5	40.9	40.9	38.3	....	....
26	17.2	5.2	7.7	16.1	34.5	39.3	41.4	40.8	37.4	....	....
27	17.0	-10.1	8.0	-2.4	35.0	38.6	41.8	40.7	37.3	....	....
28	17.2	0.0	8.1	+2.2	35.1	39.2	41.8	40.5	37.2	....	....
29	+1.0	8.2	3.5	35.0	39.9	41.7	40.7	37.1	....	....
30	-8.3	8.1	4.5	35.5	39.9	41.6	40.6	37.2	....	19.3
31	+2.6	....	5.3	....	40.0	40.8	....	....	....	28.0

28.5.4.7.3. (Runyon 123) Perth Amboy Water Dept. Drilled unused artesian well in Old Bridge sand member of Raritan formation, diameter 8 inches, depth about 60 feet. Land-surface datum is 3.5 feet above msl. Daily tidal fluctuation is about 3 feet. Highest water level 6.14 (flooded) above msl, Sept. 22, 1938; lowest 0.53 above msl, Jan. 23, 1940. Records available: 1938-47, 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	+3.42	Apr. 1	+3.45	July 1	+2.68	Oct. 1	+1.41
Feb. 2	+2.91	May 1	+3.23	Aug. 3	+1.71	Nov. 2	+1.73
Mar. 2	+2.89	June 1	+3.13	Sept. 1	+1.42	Dec. 1	+1.51

28.5.4.8.1. Duhernal Water System. Well 1. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 67 feet. Land-surface datum is 16.7 feet above msl. Highest water level 7.67 above msl, July 31, 1945; lowest 3.58 above msl, Dec. 12, 1953. Records available: 1938-53.

28. 5. 4. 8. 1--Continued.

Water level at end of day above msl from recorder graph												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.72	5.48	5.24	6.55	6.48	6.04	5.32	4.68	4.25	3.88	....	3.66
2	4.74	5.50	5.24	6.53	6.51	5.99	5.30	4.67	4.24	3.86	....	3.66
3	4.76	5.53	5.30	6.49	6.48	5.96	5.27	4.66	4.22	3.84	3.72	3.68
4	4.76	5.55	5.35	6.46	6.44	5.94	5.25	4.64	4.21	3.82	3.68	3.66
5	4.76	5.56	5.28	6.42	6.42	5.92	5.22	4.63	4.19	3.81	....	3.65
6	4.72	5.58	5.25	6.40	6.39	5.90	5.20	4.61	4.19	3.84	....	3.65
7	4.69	5.59	5.22	6.44	6.38	5.87	5.16	4.62	4.18	3.82	....	3.64
8	4.71	5.57	5.24	6.46	6.37	5.85	5.15	4.61	4.13	....	....	3.61
9	4.79	5.51	5.23	6.45	6.36	5.83	5.12	4.61	4.11	....	....	3.61
10	....	5.45	5.17	6.48	6.36	5.81	5.09	4.59	4.09	....	....	3.59
11	....	5.47	5.19	6.48	6.36	5.79	5.07	4.55	4.07	....	3.96	3.59
12	....	5.53	5.23	6.52	....	5.78	5.05	4.53	4.07	....	3.95	3.59
13	4.88	5.55	5.44	6.53	....	5.82	5.02	4.51	4.04	3.74	3.92	3.60
14	4.91	5.56	5.56	6.45	....	5.82	5.01	4.53	4.02	....	3.88	3.79
15	4.95	5.60	5.65	6.43	....	5.78	4.98	4.50	4.00	....	3.84	3.81
16	4.98	5.59	5.75	6.47	....	5.74	4.94	4.48	3.99	....	3.82	3.82
17	5.04	5.54	5.86	6.41	....	5.71	4.91	4.46	3.99	....	3.82	3.85
18	5.09	5.48	5.98	6.42	....	5.68	4.88	4.43	3.98	....	3.82	3.88
19	5.14	5.43	6.10	6.40	6.19	5.65	4.86	4.40	3.98	....	3.82	3.92
20	5.18	5.42	6.18	6.38	6.15	5.62	4.84	4.39	3.99	....	3.83	3.96
21	5.23	5.37	6.25	6.32	6.14	5.58	4.82	4.38	4.00	....	3.84	4.02
22	5.26	5.32	6.30	6.53	6.14	5.56	4.81	4.37	3.99	....	3.84	4.03
23	5.30	5.29	6.35	6.32	6.10	5.53	4.82	4.36	3.98	....	3.85	4.06
24	5.35	5.30	6.39	6.32	6.08	5.51	4.80	4.36	3.98	....	3.85	4.08
25	5.35	5.29	6.44	6.38	6.07	5.49	4.80	4.37	3.98	....	3.86	4.08
26	5.34	5.32	6.46	6.43	6.08	5.46	4.78	4.37	3.96	....	3.81	4.08
27	5.39	5.31	6.48	6.43	6.08	5.44	4.78	4.37	3.95	3.82	3.77	4.06
28	5.42	5.27	6.50	6.41	6.05	5.42	4.77	4.35	3.94	3.82	3.74	4.08
29	5.42	....	6.52	6.41	6.05	5.40	4.75	4.33	3.92	3.85	3.70	4.08
30	5.43	....	6.52	6.46	6.07	5.35	4.73	4.31	3.90	3.82	3.68	4.09
31	5.47	....	6.54	....	6.07	....	4.70	4.28	....	3.80	....	4.07

28. 5. 4. 8. 7. Duhernal Water System. Well 2. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 95 feet. Land-surface datum is 29 feet above msl. Highest water level 15.65 above msl, Apr. 11, 1939; lowest 6.48 above msl, Dec. 29, 1953. Records available: 1938-42, 1944, 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	+9.59	Apr. 7	+12.69	July 7	+10.98	Oct. 6	+8.06
13	9.95	14	12.72	14	10.66	13	7.66
20	10.35	21	13.01	21	10.39	20	7.71
27	10.68	28	13.02	28	10.14	27	6.50
Feb. 3	11.04	May 5	12.95	Aug. 4	9.83	Nov. 3	7.54
10	10.99	12	12.69	11	10.24	10	7.50
17	10.99	19	12.57	18	9.44	17	7.45
24	11.16	26	12.54	25	9.90	24	7.36
Mar. 3	11.19	June 2	12.28	Sept. 1	8.94	30	7.35
10	11.11	9	11.97	8	8.79	8	7.35
17	11.89	16	11.81	15	8.62	15	7.20
24	12.55	23	11.56	22	8.34	22	7.19
31	12.66	30	11.78	29	8.09	29	6.48

28. 5. 7. 1. 5. Duhernal Water System. Well 5. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 72 feet. Land-surface datum is 21 feet above msl. Highest water level 14.94 above msl, Apr. 7-8, 1939; lowest 0.04 above msl, Nov. 16, 1953. Records available: 1939-53.

Water level at end of day above msl from recorder graph												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.35	5.77	5.66	....	7.95	7.29	5.75	3.72	2.42	1.42	0.29	0.14
2	3.34	5.86	5.65	8.14	7.93	7.15	5.68	3.75	2.39	1.38	.29	.09
3	3.51	....	5.72	8.18	7.82	7.06	5.53	3.66	2.31	1.35	.27	.06
4	3.60	....	5.80	....	7.84	6.99	5.46	3.61	2.34	1.32	.23	.09
5	3.64	....	....	....	7.80	6.89	5.46	3.49	2.29	1.30	.23	.11

28. 5. 7. 1. 5--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	3.70	....	....	....	7.85	6.78	5.41	3.43	2.27	1.24	0.20	0.13
7	3.69	....	5.76	8.29	7.85	6.86	5.33	3.41	2.21	1.19	.16	.12
8	3.75	....	5.89	....	7.84	6.99	5.31	3.33	2.18	1.13	.19	.12
9	3.92	....	5.87	8.28	7.83	6.73	5.20	3.27	2.13	1.06	.19	.14
10	4.11	5.72	5.70	8.55	7.86	6.63	5.15	3.16	2.10	1.00	.17	.13
11	4.26	5.83	....	8.57	7.74	6.52	5.09	3.07	2.14	.99	.16	.23
12	4.26	5.67	....	8.81	7.72	6.46	5.03	3.05	2.13	.98	.12	.33
13	4.50	5.52	7.15	8.44	7.70	6.47	4.90	3.02	2.09	.96	.10	.43
14	4.67	5.54	....	8.79	7.66	6.61	4.84	3.03	2.05	.92	.07	.48
15	4.65	5.70	....	8.56	7.65	6.50	4.81	3.02	2.11	.87	.05	.61
16	4.55	5.83	....	8.47	7.69	6.45	4.75	2.99	2.08	.80	.06	.68
17	4.76	5.72	7.55	8.37	7.77	6.40	4.68	2.95	2.04	....	.05	.73
18	4.89	5.76	7.76	8.48	7.70	6.32	4.60	2.89	2.00	....	.07	.77
19	4.90	5.72	7.79	8.76	7.71	6.23	4.50	2.84	1.99	....	.09	.84
20	4.90	5.78	....	8.69	7.56	6.24	4.41	2.79	1.96	.67	.12	.89
21	4.93	5.71	....	8.92	7.58	6.29	4.34	2.73	1.89	.62	.14	.94
22	4.96	5.81	....	8.80	7.62	6.17	4.29	2.71	1.81	.59	.16	.94
23	5.08	5.92	....	8.52	7.55	6.02	4.24	2.67	1.74	.54	.18	.95
24	....	6.01	8.13	8.37	7.73	5.93	4.19	2.63	1.70	.51	.18	1.03
25	....	5.95	8.30	8.36	7.67	5.99	4.15	2.61	1.66	....	.20	1.08
26	....	5.86	8.29	8.38	7.54	5.95	4.09	2.57	1.60	....	.19	1.12
27	5.64	5.74	8.28	8.24	7.39	5.86	4.06	2.52	1.57	.40	.12	1.16
28	5.59	5.63	8.29	8.14	7.29	5.95	4.03	2.49	1.52	.36	.05	1.25
29	5.57	....	e8.43	8.05	7.28	5.83	3.96	2.46	1.50	.31	.14	1.30
30	5.65	....	8.29	8.21	7.43	5.75	3.91	2.44	1.48	.29	.14	1.32
31	5.79	....	....	....	7.51	....	3.81	2.42	....	.29	....	1.33

e Estimated.

29. 1. 4. 1. 1. (Old Deep 8) Perth Amboy Water Dept. Runyon. Drilled unused artesian well in Farrington sand member of Raritan formation, diameter 8 to 6 inches, depth 290 feet, screen 260-290. Land-surface datum is 18.5 feet above msl. This well is affected by pumping in nearby wells and by regional pumping from the Farrington sand member. Highest water level 12.2 above msl, Apr. 8, 1943; lowest 48.3 below msl, Sept. 15, 1947. Records available: 1929-53.

Daily lowest water level above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-13.1	+4.6	-16.1	+2.9	+7.5	+5.6	-25.1	-29.2	-30.3	-30.3	-26.8	-21.3
2	13.1	+4.5	16.5	3.4	7.3	-5.8	25.4	32.2	30.5	30.3	24.9	22.1
3	13.0	+4.5	16.5	3.6	7.3	7.5	25.7	31.4	31.0	30.3	25.8	22.7
4	3.2	-7.0	17.0	3.7	7.3	2.2	25.7	29.9	31.1	30.2	26.1	22.7
5	.8	9.5	17.0	3.7	7.4	....	25.6	29.3	31.1	30.3	26.4	23.2
6	.1	e10.7	....	3.7	7.8	2.5	25.3	29.4	31.0	30.3	26.4	23.2
7	10.2	11.5	16.9	4.5	4.1	2.7	25.7	29.7	....	30.2	26.4	18.8
8	12.2	12.3	16.6	4.8	2.3	3.0	26.2	29.7	....	30.2	26.4	21.0
9	13.2	13.1	16.5	5.1	1.7	3.1	26.6	29.7	....	30.0	26.1	21.4
10	13.8	17.7	16.5	5.4	5.2	3.7	27.0	29.1	....	29.9	25.9	22.3
11	14.0	19.0	16.5	5.5	2.3	3.8	....	29.4	....	32.9	25.7	22.9
12	4.7	20.0	16.4	5.5	1.0	15.1	....	29.4	30.2	31.9	25.5	22.9
13	1.8	20.7	16.2	6.0	+2	16.2	....	29.5	32.5	30.9	25.4	23.0
14	-.5	20.8	15.9	6.2	-.5	16.6	....	29.5	31.8	30.9	25.2	23.0
15	+2	17.2	15.9	6.2	.8	14.5	....	29.6	31.0	30.3	25.0	23.0
16	.8	16.4	15.7	6.4	1.3	17.0	....	29.6	30.9	30.0	24.8	23.2
17	1.1	15.9	15.7	6.7	1.4	18.0	....	29.1	31.0	29.8	24.8	23.5
18	1.3	15.8	15.7	6.9	1.6	18.7	28.7	29.0	31.1	31.6	24.8	23.7
19	1.8	15.6	15.5	4.1	1.6	19.2	28.7	29.2	31.0	31.0	24.9	23.7
20	2.0	15.5	15.5	4.8	2.1	19.9	28.4	29.6	31.0	30.0	25.0	23.7
21	2.2	15.2	-15.5	5.8	2.4	20.1	28.1	30.0	30.5	29.6	25.0	23.6
22	2.6	18.4	....	6.2	2.4	20.6	28.3	30.1	30.4	29.2	25.0	23.6
23	3.0	17.7	....	6.5	2.6	20.9	28.3	30.1	30.6	....	24.6	23.8
24	....	16.8	....	6.8	6.6	22.4	28.4	29.6	30.6	28.8	24.6	23.8
25	....	16.3	....	7.0	6.0	22.4	28.4	30.0	30.6	28.3	24.6	....
26	....	16.1	....	7.1	4.3	22.9	28.3	30.4	30.4	27.6	24.5	....
27	....	16.0	....	7.5	-1.9	23.5	27.8	30.8	30.4	27.3	24.5	....
28	....	16.1	+6	7.5	+1.3	23.6	28.1	30.9	30.1	27.2	....	....
29	....	....	.9	7.7	2.8	23.7	29.0	....	30.2	27.0	8.5	....
30	....	....	1.6	7.7	4.1	24.3	29.0	....	30.2	26.9	19.1	....
31	4.5	....	2.4	....	4.9	....	28.9	30.3	....	26.9	....	....

e Estimated.

29.1.4.4.2. (Runyon 50) Perth Amboy Water Dept. Drilled observation water-table well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 55 feet. Land-surface datum is 15 feet above msl. Highest water level 12.4 above msl, July 26, 1938; lowest 1.3 below msl, Sept. 26-27, 1929. Records available: 1923-53.

Daily lowest water level above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	9.5	9.2	8.8	8.1	6.8	3.7	1.5	1.0	0.9	1.3
2	7.5	8.5	9.3	9.1	8.9	8.0	6.3	3.7	1.5	.9	.8	1.5
3	7.4	8.5	9.3	9.0	8.8	8.1	6.0	3.6	1.4	.9	1.1	1.5
4	7.5	8.4	9.4	8.7	8.9	7.9	5.8	3.6	1.3	.9	1.2	1.6
5	7.9	9.0	9.9	8.5	8.9	7.6	6.1	3.5	1.2	.9	1.2	1.6
6	7.9	9.0	9.9	8.5	9.0	7.4	6.1	3.4	1.1	1.0	1.2	1.0
7	7.9	9.0	9.8	8.5	9.1	7.3	6.0	3.4	1.0	1.0	1.2	1.0
8	8.4	9.1	9.9	8.5	9.5	7.2	5.8	3.4	1.0	1.0	1.4	1.6
9	8.6	9.0	9.7	8.9	9.5	7.0	5.7	3.3	.9	.9	1.5	1.7
10	9.1	9.0	9.6	9.0	9.5	6.8	5.6	3.2	...	1.0	1.5	1.8
11	9.1	9.4	9.6	9.1	9.2	6.7	5.5	2.9	...	1.0	1.6	2.0
12	8.8	9.5	9.6	9.1	9.4	6.6	5.5	2.9	...	.9	1.6	2.0
13	8.8	9.5	9.7	9.1	9.3	7.1	5.4	2.6	...	.9	1.7	2.1
14	8.7	9.3	10.3	9.2	9.2	7.3	4.8	3.0	...	.9	1.8	2.2
15	8.7	9.3	10.4	9.3	9.2	7.3	4.6	3.0	...	.9	1.8	2.5
16	8.5	9.6	10.4	9.3	9.2	7.9	4.4	3.0	...	.9	1.8	3.7
17	8.5	9.8	10.4	9.3	9.2	8.0	4.2	3.1	...	.8	1.8	4.4
18	8.5	9.7	10.4	9.2	...	8.0	4.1	3.1	...	.9	1.8	4.9
19	8.6	9.7	10.4	9.2	...	7.9	4.0	3.0	...	.9	1.8	5.2
20	8.5	9.7	10.4	9.4	...	7.8	3.8	3.0	...	.9	1.8	5.4
21	8.5	9.7	10.3	9.3	...	7.7	3.8	2.9	...	1.0	1.8	5.5
22	8.6	9.8	10.3	9.2	...	7.6	3.6	2.9	...	1.0	1.8	5.6
23	8.7	9.8	10.2	9.1	...	7.4	3.5	2.8	...	1.0	1.9	5.7
24	8.7	9.8	10.2	9.1	...	7.3	3.5	2.8	...	1.1	1.9	5.7
25	8.9	9.7	9.9	9.0	...	7.2	3.8	2.4	...	1.3	1.9	5.8
26	8.9	9.7	9.8	9.0	...	7.1	3.9	2.2	...	1.2	2.0	5.2
27	...	9.7	9.6	9.1	...	7.0	3.9	2.2	...	1.1	1.2	4.9
28	...	9.6	9.5	9.1	...	7.0	3.9	2.0	...	1.1	.9	4.6
29	...	...	9.4	9.0	...	6.9	3.8	1.8	...	1.2	.7	4.6
30	...	...	9.3	8.9	...	6.9	3.8	1.7	...	1.2	.8	4.5
31	...	...	9.3	...	...	...	3.8	1.6	...	1.2	...	4.5

29.1.4.6.9. Clyde Bowne. Browntown. Drilled observation artesian well in Old Bridge sand member of Raritan formation, diameter 6 inches, depth 71 feet, gauze covered perforated pipe 66-71. Land-surface datum is 31 feet above msl. Affected by pumping at the Perth Amboy Water Works. Highest water level 28.14 above msl, Apr. 9-10, 1939; lowest 21.83 above msl, Nov. 18, 1932. Records available: 1932-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.51	25.42	25.52	26.47	26.72	26.56	26.10	25.26	24.45	23.73	23.10	22.77
2	24.51	25.42	25.53	26.46	26.72	26.55	26.08	25.22	24.42	23.71	23.07	22.77
3	24.52	25.41	25.53	26.44	26.71	26.54	26.06	25.18	24.40	23.68	23.06	22.76
4	24.54	25.41	25.56	26.41	26.70	26.53	26.04	25.14	24.38	23.66	23.05	22.74
5	24.55	25.40	25.59	26.40	26.70	26.52	26.01	25.12	24.35	23.64	23.03	22.74
6	24.55	25.40	25.59	26.39	26.70	26.52	25.99	25.08	24.33	23.62	23.01	22.73
7	24.55	25.40	25.59	26.39	26.70	26.51	25.96	25.05	...	23.60	23.00	22.72
8	24.55	25.40	25.59	26.39	26.70	26.49	25.94	25.05	...	23.58	22.99	22.72
9	24.61	25.40	...	26.41	26.69	26.48	25.91	25.02	...	23.54	22.98	22.71
10	24.77	25.38	...	26.43	26.69	26.46	25.89	25.00	...	23.54	22.96	22.70
11	24.95	25.38	...	26.42	26.69	26.44	25.86	24.97	...	23.52	22.95	22.69
12	24.97	25.38	...	26.44	26.68	26.42	25.84	24.94	24.13	23.51	22.94	22.68
13	24.97	25.38	26.01	26.50	26.68	26.41	25.81	24.91	24.12	23.48	22.93	22.68
14	24.97	25.37	26.05	26.55	26.67	26.40	25.78	24.89	24.09	23.46	22.91	22.68
15	24.97	25.39	26.19	26.55	26.66	26.39	25.75	24.87	24.07	23.44	22.91	22.68
16	24.97	25.40	26.29	26.62	26.66	26.38	25.72	24.84	24.05	23.42	22.90	22.67
17	24.98	25.42	26.31	26.64	26.65	26.37	25.69	24.82	24.02	23.41	22.89	22.67
18	25.00	25.42	26.33	26.64	26.65	26.36	25.68	24.78	24.00	23.38	22.88	22.66
19	25.02	25.42	26.39	26.68	26.65	26.34	25.65	24.75	23.97	23.36	22.87	...
20	25.03	25.42	26.40	26.74	26.65	26.34	25.63	24.73	23.95	23.34	22.85	...
21	25.04	25.45	26.40	26.74	26.64	26.32	25.60	24.71	23.93	23.32	22.84	...
22	25.05	25.46	26.39	26.74	26.64	26.31	25.57	24.69	23.91	23.30	22.83	...
23	25.07	...	26.39	26.74	26.63	26.30	25.54	24.67	23.88	23.29	22.83	...
24	25.22	...	26.39	26.74	26.63	26.28	25.51	24.65	23.86	23.27	22.82	...
25	25.33	...	26.46	26.74	26.63	26.25	25.49	24.63	23.83	23.26	22.81	...

29. 1. 4. 6. 9--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	.....	.....	26.51	26.74	26.62	26.23	25.46	24.61	23.82	23.24	22.80	.....
27	.....	25.50	26.52	26.74	26.62	26.20	25.43	24.58	23.80	23.22	22.80	.....
28	.....	25.51	26.52	26.74	26.62	26.17	25.40	24.56	23.78	23.21	22.80	.....
29	.....		26.51	26.74	26.59	26.14	25.37	e24.54	23.76	23.19	22.79	.....
30	25.42		26.50	26.73	26.58	26.11	25.33	e24.50	23.74	23.18	22.78	.....
31	25.42		26.48		26.57		25.30	24.47		23.14		.....

e Estimated.

29. 11. 1. 2. 3. Joseph Morrell. Near Moerlis Corner. Dug observation water-table well in Englishtown sand, diameter 17 inches, depth 9 feet, cased with precast concrete rings. Land-surface datum is 76 feet above msl. Highest water level 75.08 above msl, Mar. 28, 1932; lowest 67.25 above msl, Oct. 13, 1953. Records available: 1923-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	73.72	73.78	73.60	73.69	73.93	73.22	71.48	70.07	69.43	68.23	68.76	72.37
2	73.79	73.75	73.60	73.67	73.82	73.09	71.44	70.03	69.37	68.22	68.78	72.36
3	74.32	73.73	73.73	73.63	73.72	73.01	71.34	70.01	69.31	68.22	68.84	72.34
4	74.13	73.69	74.29	73.66	73.65	72.92	71.27	70.00	69.25	68.21	68.88	72.36
5	74.03	73.65	74.09	73.68	74.09	72.81	71.21	69.95	69.20	68.20	68.93	72.63
6	73.94	73.64	73.99	73.62	73.95	72.68	71.14	69.91	69.15	68.19	68.98	72.66
7	73.88	72.78	73.90	74.27	73.84	73.05	71.07	69.86	69.10	68.19	70.23	72.68
8	74.20	73.74	73.85	74.06	74.02	72.86	71.03	69.81	69.04	68.19	70.63	72.68
9	74.44	73.68	73.85	73.95	73.88	72.73	71.00	69.78	68.99	e68.00	70.88	72.69
10	74.39	73.63	73.79	74.18	73.71	72.58	70.97	69.78	68.95	e67.80	71.02	72.69
11	74.26	73.62	73.74	74.02	73.55	72.48	70.94	69.77	68.90	e67.60	71.07	72.70
12	74.11	73.81	74.18	74.10	73.46	72.46	70.91	69.74	68.86	e67.40	71.13	e72.74
13	74.03	73.73	74.39	74.45	73.37	73.70	70.88	69.71	68.82	67.36	71.20	e72.77
14	73.95	73.67	74.21	74.15	73.38	73.73	70.85	69.69	68.78	67.51	71.27	e72.80
15	73.90	74.40	74.61	74.02	73.61	73.45	70.81	69.73	68.76	67.56	71.34	e72.83
16	73.84	74.19	74.26	74.20	73.49	73.18	70.76	69.78	68.71	67.56	71.35	e72.86
17	73.81	74.06	74.10	74.02	74.12	73.00	70.69	69.81	68.68	67.55	71.38	e72.88
18	74.15	73.96	74.13	74.44	73.88	72.86	70.62	69.90	68.64	67.55	71.40	e72.92
19	74.05	73.88	74.28	74.19	73.71	72.69	70.55	69.93	68.61	67.53	71.44	e72.94
20	73.96	73.84	74.09	74.04	73.53	72.49	70.48	69.94	68.56	67.53	71.47	e72.97
21	74.41	74.17	73.98	73.92	73.45	72.35	70.42	69.94	68.54	67.51	71.49	e72.99
22	74.18	74.02	73.92	73.84	73.41	72.32	70.34	69.94	68.50	67.51	71.54	e73.02
23	74.08	73.93	73.86	73.77	73.93	72.15	70.32	69.91	68.46	67.52	71.89	e73.04
24	74.45	73.87	74.21	73.69	73.67	72.04	70.33	69.86	68.42	67.54	72.15	e73.07
25	74.26	73.81	74.27	73.65	73.52	71.91	70.33	69.81	68.39	67.56	72.34	e73.09
26	74.09	73.75	74.08	73.89	73.69	71.80	70.33	69.75	68.35	67.56	72.45	e73.12
27	74.03	73.70	73.97	73.78	73.51	71.71	70.30	69.72	68.32	67.58	72.46	e73.14
28	74.02	73.65	73.88	73.67	73.34	71.70	70.26	69.64	68.28	67.90	72.42	e73.17
29	73.94		73.82	73.60	73.25	71.70	70.22	69.58	68.25	68.40	72.39	e73.19
30	73.87		73.76	73.58	73.37	71.59	70.18	69.53	68.23	68.56	72.39	e73.22
31	73.85		73.70		73.33		70.13	69.47		68.67		73.24

e Estimated.

Monmouth County

29. 11. 1. 2. 9. Rulif Hulsart. Dug observation water-table well in Englishtown sand, diameter 5 feet, depth 21 feet, cased with concrete well blocks. Land-surface datum is 113 feet above msl. Highest water level 100.40 above msl, Apr. 19, 1939; lowest 95.47 above msl, Feb. 18, 1940. Records available: 1936-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	96.95	98.05	98.25	99.60	99.80	99.40	98.69	97.72	e96.96	96.29	95.82	95.89
2	96.99	98.08	98.24	99.59	99.79	99.39	98.67	97.70	e96.94	96.27	95.82	95.87
3	97.01	98.09	98.30	99.59	99.76	99.37	98.61	97.67	e96.92	96.23	95.82	95.86
4	97.03	98.09	98.31	99.59	99.77	99.35	98.58	97.65	e96.90	96.22	95.81	95.83
5	97.06	98.10	98.30	99.59	99.80	99.33	98.54	97.60	96.88	96.20	95.80	95.84
6	97.08	98.11	98.32	99.60	99.81	99.30	98.51	97.58	96.84	96.19	95.80	95.87
7	97.09	98.13	98.32	99.61	99.82	99.28	98.48	97.56	96.81	96.17	95.82	95.86
8	97.10	98.14	98.33	99.61	99.84	99.26	98.44	97.52	96.78	96.14	95.97	95.86
9	97.13	98.15	98.35	99.62	99.83	99.23	98.39	97.51	96.76	96.12	96.03	95.88
10	97.20	98.17	98.33	99.65	99.82	99.20	98.36	97.48	96.73	96.11	96.09	95.90

29. 11. 1. 2. 9--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	97.25	98.20	98.34	99.65	99.80	99.18	98.32	97.46	96.70	96.09	96.11	95.91
12	97.29	98.20	98.38	99.68	99.80	99.16	98.30	97.42	96.71	96.08	96.11	95.97
13	97.33	98.19	98.48	99.68	99.78	99.15	98.26	97.40	96.67	96.06	96.12	95.97
14	97.40	98.19	98.57	99.68	99.73	99.16	98.23	97.40	96.63	96.03	96.12	96.00
15	97.48	98.21	98.72	99.70	99.71	99.14	98.20	97.38	96.62	96.01	96.11	96.08
16	97.50	98.26	98.84	99.71	99.70	99.12	98.17	97.37	96.60	96.00	96.10	96.13
17	97.58	98.26	98.96	99.71	99.71	99.10	98.13	97.34	96.58	95.99	96.08	96.20
18	97.60	98.27	99.07	99.72	99.73	99.07	98.10	97.32	96.55	95.98	96.05	96.28
19	97.65	98.28	99.11	99.73	99.70	99.04	98.08	97.30	96.53	95.96	96.01	96.31
20	97.67	98.30	99.18	99.76	99.66	99.01	98.05	97.27	96.51	95.95	96.00	96.35
21	97.70	98.30	99.22	99.76	99.63	98.99	98.01	97.24	96.49	95.91	95.98	96.38
22	97.72	98.30	99.30	99.78	99.65	98.95	98.00	97.22	96.47	95.90	95.97	96.40
23	97.78	98.30	99.35	99.77	99.61	98.90	97.98	97.19	96.44	95.89	95.96	96.41
24	97.82	98.31	99.41	99.75	99.60	98.88	97.93	97.16	96.42	95.88	e95.94	96.41
25	97.85	98.31	99.46	99.79	99.60	98.83	97.91	97.14	96.40	95.87	e95.94	96.41
26	97.89	98.31	99.50	99.79	99.59	98.81	97.89	97.12	96.39	95.86	e95.94	96.41
27	97.97	98.30	99.51	99.79	99.53	98.77	97.88	97.09	96.37	95.84	e95.93	96.40
28	97.99	98.29	99.53	99.78	99.49	98.74	97.84	97.07	96.34	e95.83	e95.93	96.40
29	98.00		99.57	99.78	99.49	98.72	97.81	97.04	96.31	e95.82	e95.92	96.40
30	98.01		99.58	99.80	99.48	98.70	97.79	97.00	96.30	95.81	e95.91	96.39
31	98.06		99.58		99.47		97.75	96.98		95.82		96.37

e Estimated.

29. 24. 7. 1. 6. (Well 1) Borough of Avon-by-the-Sea. Drilled public-supply artesian well in Mount Laurel and Wenonah sands, diameter 18 inches, depth 506 feet. Land-surface datum is 28.0 feet above msl. Highest water level 4.46 below msl, Apr. 12, 1937; lowest 132.0 below msl (pumping) Aug 4, 1925. Records available: 1924-53. Apr. 9, 26.49; June 19, 35.73; Oct. 26, 105.03.

Morris County

25. 14. 3. 5. 5. (Whippany well) Jersey Central Power & Light Co. About 3 miles east of Whippany at power plant. Drilled observation artesian well in Wisconsin glacial outwash, diameter 6 inches, depth 170 feet. Highest water level 177.94 above msl, June 3, 1952; lowest 175.25 above msl, July 14, 1951. Records available: 1951-53. Recording gage installed Apr. 23, 1951.

Daily lowest water level above msl from recorder graph, 1951

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	176.33	.....	175.80	175.45	175.69	175.55	175.62	175.96
2	.....	176.21	.....	175.47	175.63	175.82	175.55	175.67	175.97
3	.....	176.34	.....	175.37	175.68	175.80	175.42	175.66	175.93
4	.....	176.33	175.58	175.32	175.67	175.72	175.33	.....	176.00
5	.....	176.37	175.59	175.29	175.68	175.70	175.29	175.65	176.01
6	.....	176.38	175.51	175.29	175.68	175.71	175.45	175.69	175.93
7	.....	176.24	.....	175.72	175.69	175.68	175.49	175.90	175.98
8	.....	176.14	.....	175.82	175.67	175.67	175.52	175.80	176.06
9	.....	176.21	.....	175.75	175.66	175.71	175.54	175.82	176.07
10	.....	176.17	.....	175.49	175.40	175.81	175.54	175.92	175.95
11	.....	176.23	175.79	175.53	175.57	175.80	175.55	175.87	176.04
12	.....	176.27	175.99	175.32	175.69	175.71	175.59	175.88	175.96
13	.....	.....	175.71	175.41	.....	175.53	175.60	175.88	175.87
14	.....	.....	.....	175.25	175.63	175.47	175.63	175.89	175.93
15	.....	176.14	176.06	.....	175.69	175.52	175.63	175.84	176.07
16	.....	176.26	176.08	.....	175.62	175.74	175.62	175.89	.....
17	.....	176.08	175.89	175.35	175.58	.....	175.60	175.92	.....
18	.....	176.18	175.68	.....	175.75	.....	175.59	175.99	.....
19	.....	176.25	175.64	.....	175.89	.....	175.59	175.91	.....
20	.....	176.27	175.83	.....	175.83	175.64	175.60	175.86	.....
21	.....	176.22	175.58	.....	175.54	175.65	175.65	175.90	.....
22	.....	176.15	175.54	.....	175.47	175.67	175.57	175.98	.....
23	176.29	175.94	175.72	175.48	175.68	175.61	175.55	175.99	.....
24	176.27	176.09	175.88	175.50	175.74	175.33	175.53	175.90	176.23
25	176.31	176.06	175.56	175.48	175.78	175.26	175.53	175.86	176.23
26	176.29	176.19	175.52	175.45	175.83	175.49	175.56	175.98	176.23
27	176.30	176.12	175.47	175.27	175.76	175.55	175.65	175.92	176.23
28	176.34	175.91	175.42	175.46	175.48	175.56	175.70	175.96	176.21
29	176.40	175.80	175.42	175.70	175.52	175.57	175.62	175.95	176.27
30	176.31	175.80	175.68	175.76	175.66	175.55	175.63	175.97	176.31
31	.....	175.78	.....	175.53	175.58	.....	175.61	.....	176.22

25. 14. 3. 5. 5--Continued.

Daily lowest water level above msl from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	176.29	176.56	176.49	177.02	177.32	177.53	177.31	176.98	.....	176.82	176.59	176.70
2	176.25	176.67	176.48	176.88	177.30	177.65	177.31	176.86	.....	176.55	176.68	176.71
3	176.21	.....	176.56	176.86	177.33	177.70	177.33	177.00	.....	176.75	176.47	176.75
4	176.22	176.66	176.63	176.89	177.38	177.67	177.38	176.90	.....	.....	176.64	176.72
5	176.31	176.53	176.56	176.97	177.32	177.69	177.36	176.85	.....	.....	176.75	176.74
6	176.29	176.52	176.59	177.01	177.31	177.49	177.35	176.89	.....	.....	176.72	176.96
7	176.28	176.55	176.59	176.96	177.26	177.44	177.31	176.72	.....	177.08	176.68	176.89
8	176.16	176.59	176.64	176.90	177.31	177.47	177.28	176.94	177.03	177.06	176.73	176.68
9	176.23	176.55	176.72	176.87	177.29	177.36	177.33	176.98	177.07	177.07	176.79	176.68
10	176.19	176.57	176.68	177.03	177.33	177.43	177.35	176.98	.....	177.16	176.73	.....
11	176.16	176.59	176.81	176.97	177.28	177.37	177.34	176.79	.....	.....	.....	.....
12	176.27	176.55	176.92	177.00	177.16	177.31	177.34	176.98	.....	.....	.....	.....
13	176.37	176.54	177.07	177.08	177.19	177.30	177.36	177.02	.....	.....	.....	.....
14	176.25	.....	176.94	177.13	177.19	177.30	177.21	176.99	.....	176.81	.....	.....
15	176.32	.....	177.00	176.85	177.22	177.34	177.26	177.01	.....	176.84	.....	176.89
16	176.24	.....	177.11	.....	177.20	177.31	177.03	176.90	.....	176.78	.....	176.80
17	176.34	.....	176.70	.....	177.28	177.35	177.17	176.94	.....	176.75	176.69	176.79
18	176.26	176.55	176.69	.....	177.36	177.45	176.96	176.96	.....	176.81	176.61	176.69
19	176.33	176.56	176.80	.....	177.17	177.30	177.08	176.97	.....	176.79	176.47	176.70
20	176.37	176.63	176.81	.....	177.23	177.38	177.17	176.97	.....	176.63	176.47	176.80
21	176.05	176.62	.....	176.95	177.23	.....	176.85	177.00	.....	176.65	.....	176.80
22	176.33	176.63	.....	177.00	177.16	.....	176.82	176.94	176.93	176.66	176.42	176.80
23	176.29	176.66	.....	176.96	177.14	177.44	176.76	176.97	176.87	176.60	176.69	176.87
24	176.26	176.71	176.78	176.95	177.25	177.50	176.98	177.02	176.90	176.59	176.69	176.85
25	176.27	176.65	.....	177.02	177.33	177.28	177.01	176.94	.....	176.54	176.69	176.93
26	176.50	176.65	.....	177.10	177.27	177.39	176.75	176.94	.....	176.65	176.76	176.89
27	176.47	176.70	.....	177.17	177.32	177.23	.....	176.89	.....	176.68	176.80	176.80
28	176.40	176.63	.....	177.21	177.36	177.34	176.97	176.91	176.90	176.53	176.78	176.88
29	176.39	176.68	.....	177.33	177.32	177.42	176.83	.....	176.84	176.50	176.70	176.88
30	176.49	.....	.....	177.29	177.37	177.33	176.80	.....	176.81	176.48	176.79	176.80
31	176.46	.....	176.95	.....	177.40	.....	176.93	.....	.....	176.49	.....	176.80

Daily lowest water level above msl from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	176.87	176.70	176.84	177.28	177.20	176.69	176.10	176.58	176.23	176.66	176.41	176.28
2	.....	176.70	177.00	177.20	177.10	176.67	176.08	176.58	176.12	176.67	176.41	176.30
3	.....	176.79	176.99	177.20	177.08	176.74	176.08	176.58	176.11	176.60	176.44	176.29
4	.....	176.69	177.20	177.17	177.18	176.70	176.18	176.46	176.17	.....	176.40	176.29
5	176.71	176.67	177.01	177.30	177.18	176.69	176.19	.....	176.44	176.49	176.39	176.28
6	176.63	176.95	177.09	177.28	177.17	176.73	176.05	.....	176.54	176.49	176.40	176.29
7	176.67	176.65	177.10	177.34	177.10	176.70	176.12	.....	176.57	176.46	176.23	176.35
8	176.70	176.71	177.18	177.32	177.19	176.68	176.33	.....	176.55	176.47	176.31	176.32
9	176.73	176.59	176.85	177.39	177.17	176.62	176.58	.....	176.53	176.49	176.19	176.32
10	.....	176.52	176.74	177.48	177.24	176.69	176.67	176.74	176.58	176.39	176.18	176.24
11	.....	176.61	176.78	177.40	177.06	176.68	176.77	176.74	176.59	176.45	176.22	176.33
12	.....	176.62	176.83	177.50	176.90	176.69	176.81	176.78	176.60	176.39	176.20	176.45
13	176.62	176.52	176.97	177.48	176.90	176.74	176.59	176.58	176.59	.....	176.20	176.48
14	176.63	176.53	177.02	177.41	176.88	176.76	176.58	176.68	176.59	176.35	176.29	176.55
15	176.69	176.63	177.09	177.40	176.83	176.74	176.76	176.78	176.60	176.42	176.38	176.46
16	176.62	176.80	177.10	177.50	176.82	176.53	176.72	176.79	176.59	176.39	176.37	176.48
17	176.66	176.85	177.11	177.46	176.97	176.52	176.54	176.49	176.58	176.40	176.35	176.40
18	176.83	176.85	177.12	177.49	177.20	176.49	176.70	.....	176.58	176.41	176.38	176.42
19	176.79	176.84	177.10	177.53	177.20	176.48	176.69	176.59	176.58	176.42	176.40	176.41
20	176.90	176.87	177.02	177.49	177.19	176.39	176.46	176.63	176.60	176.45	176.40	176.48
21	176.97	176.93	177.10	177.40	177.00	176.49	176.26	176.63	176.39	176.35	176.41	176.45
22	176.89	176.89	177.12	177.44	176.93	176.35	176.24	176.67	.....	176.43	176.42	176.43
23	176.95	176.92	177.20	177.21	176.85	176.29	176.34	176.69	.....	176.44	176.33	176.38
24	177.10	177.00	177.37	177.19	176.85	176.30	176.43	176.69	.....	176.45	176.23	176.37
25	177.08	176.95	177.39	177.20	176.98	176.28	176.59	176.68	.....	176.46	176.22	176.43
26	176.60	176.98	177.36	177.39	176.84	176.23	176.69	176.61	.....	176.47	176.22	176.40
27	176.71	176.93	177.34	177.12	176.75	176.32	176.50	176.68	.....	176.47	176.21	176.30
28	176.78	176.88	177.40	177.00	176.70	176.36	176.60	176.59	176.68	176.49	176.23	176.31
29	176.70	.....	177.44	177.10	176.70	176.19	176.40	176.30	176.68	176.50	176.30	176.28
30	176.69	.....	177.29	177.27	176.70	176.15	176.35	176.50	176.69	176.48	176.30	176.26
31	176.78	.....	177.24	.....	176.70	.....	176.53	176.26	.....	176.49	.....	176.30

Salem County

Penns Grove area

(The following wells are owned by the State of New Jersey.)

30.22.6.6.7. Penns Grove well 9. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 11 feet. Land-surface datum is 26.5 feet above msl. Highest water level 24.18 above msl, Feb. 5, 1952; lowest 19.80 above msl, Sept. 25, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+23.48	Apr. 28	+23.17	July 23	+22.24	Oct. 31	+21.88
Feb. 24	+23.29	May 28	+23.18	Aug. 27	+21.39	Nov. 28	+22.47
Mar. 26	+24.10	June 27	+22.19	Sept. 24	+21.55	Dec. 22	+23.03

30.22.6.9.3. Penns Grove well 10. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 25.5 feet above msl. Highest water level 24.30 above msl, Dec. 22, 1951; lowest 18.84 above msl, Oct. 24, 1943. Records available: 1940-53.

Jan. 29	+23.64	Mar. 26	+24.24	May 28	+23.40	Nov. 28	+21.93
Feb. 24	+23.46	Apr. 28	+23.19	Oct. 31	+21.93	Dec. 22	+23.24

e Estimated.

30.22.8.3.5. Penns Grove well 12. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 20 feet. Land-surface datum is 3.5 feet above msl. Highest water level 4.59 above msl, Feb. 5, 1952; lowest 1.22 above msl, Oct. 11, 1941. Records available: 1940-53.

Jan. 29	+4.18	Apr. 28	+3.91	July 23	+2.69	Oct. 31	+2.51
Feb. 24	+3.75	May 28	+3.51	Aug. 27	+2.37	Nov. 28	+2.97
Mar. 26	+4.34	June 27	+2.85	Sept. 24	+2.40	Dec. 22	+3.56

30.22.8.9.5. Penns Grove well 32. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 4 feet above msl. Highest water level 2.84 above msl, Feb. 5, 1952; lowest 1.06 below msl, Nov. 22, 1941. Records available: 1940-53.

Jan. 29	+1.82	Apr. 28	+1.62	July 23	+1.05	Oct. 31	+0.14
Feb. 24	+1.42	May 28	+1.38	Aug. 27	-.03	Nov. 28	+.14
Mar. 26	+2.59	June 27	+.75	Sept. 24	-.06	Dec. 22	+.77

30.22.9.2.1. Penns Grove well 13. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 16 feet. Land-surface datum is 22 feet above msl. Highest water level 21.47 above msl, Mar. 26, 1953; lowest 15.01 above msl, Oct. 24, 1943. Records available: 1940-53.

Jan. 29	+20.83	Apr. 28	+20.22	July 23	+18.31	Oct. 31	+16.94
Feb. 24	+20.72	May 28	+20.45	Aug. 27	+17.00	Nov. 28	+17.96
Mar. 26	+21.47	June 27	+18.56	Sept. 24	+16.97	Dec. 22	+20.06

30.22.9.4.3. Penns Grove well E-14. Logwood Inn. Driven unused water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 20 feet. Land-surface datum is 21 feet above msl. Highest water level 16.69 above msl, May 24, 1940; lowest 9.05 above msl, Dec. 22, 1949. Records available: 1940-53. Nearby well being pumped.

Jan. 29	+14.51	Apr. 28	+15.76	July 23	+12.56	Oct. 31	+10.06
Feb. 24	+14.71	May 28	+15.39	Aug. 27	+11.45	Nov. 28	+10.71
Mar. 26	+16.06	June 27	+13.86	Sept. 24	+11.79	Dec. 22	+12.81

30.22.9.4.9. Penns Grove Water Co. well 22. Drilled observation water-table well in Cape May formation, diameter 4 inches, depth 20 feet. Land-surface datum is 20 feet above msl. Highest water level 14.42 above msl, Aug. 18, 1939; lowest dry various dates 1942-45, 1949, 1951-53. Records available: 1939-49, 1951-53. Nearby well being pumped.

Jan. 29	(f)	Apr. 28	+2.87	July 23	+1.60	Oct. 31	(f)
Feb. 24	(f)	May 28	+3.06	Aug. 27	(f)	Nov. 28	(f)
Mar. 26	+0.93	June 27	+1.89	Sept. 24	(f)	Dec. 22	(f)

f Dry.

30. 22. 9. 5. 4. Penns Grove well E-15. George Schmid. Driven unused water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 18 feet. Land-surface datum is 20 feet above msl. Highest water level 15.12 above msl, Apr. 23, 1940; lowest 4.82 above msl, Dec. 22, 1949. Records available: 1940-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+9.03	Apr. 28	+12.03	July 23	+9.26	Oct. 31	+6.40
Feb. 24	+9.65	May 28	+11.39	Aug. 27	+7.86	Nov. 28	+6.59
Mar. 26	+10.90	June 27	+10.56	Sept. 24	+7.03	Dec. 22	+7.62

30. 22. 9. 5. 8. Penns Grove well 15. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 27 feet. Land-surface datum is 23.5 feet above msl. Highest water level 12.00 above msl, June 10, 1947; lowest 1.33 above msl, Feb. 7, 1950. Records available: 1941-53. Nearby wells being pumped.

Jan. 29	+5.39	Apr. 28	+10.27	July 23	+7.11	Oct. 31	+3.91
Feb. 24	+6.51	May 28	+9.17	Aug. 27	+5.37	Nov. 28	+4.78
Mar. 26	+8.39	June 27	+8.53	Sept. 24	+4.53	Dec. 22	+4.20

30. 22. 9. 6. 2. Penns Grove well 14. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 17 feet. Land-surface datum is 25.5 feet above msl. Highest water level 23.24 above msl, Feb. 5, 1952; lowest 16.55 above msl, Oct. 24, 1943. Records available: 1940-53. Nearby wells being pumped.

Jan. 29	+22.31	Apr. 28	+21.54	July 23	+19.24	Oct. 31	+18.21
Feb. 24	+21.92	May 28	+21.70	Aug. 27	+18.25	Nov. 28	+19.38
Mar. 26	+23.13	June 27	+19.98	Sept. 24	+18.22	Dec. 22	+21.15

30. 22. 9. 7. 3. Penns Grove well 24. Drilled observation water-table well in sands of Magothy and Raritan formations, diameter 6 inches, depth 51 feet, screen 46-51, $5\frac{1}{2}$ inches-25/10,000 slot. Land-surface datum is 18 feet above msl. Highest water level 7.83 above msl, June 14, 1947; lowest 6.48 below msl, Feb. 18, 1950. Records available: 1941-53.

Water level at end of day above and below msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.88	....	-0.25	+2.17	+3.49	+2.68	+1.97	+0.59	....	-1.91	-2.55	-3.15
2	2.77	....	.21	2.19	3.44	2.68	1.94	.52	....	1.97	2.56	3.17
3	2.77	-0.78	.10	2.24	3.34	2.65	1.86	.46	....	2.00	2.55	3.19
4	2.85	.75	.07	2.29	3.36	2.67	....	.47	....	2.02	2.58	3.21
5	2.87	....	.12	2.33	3.39	2.63	1.78	.39	-1.12	2.03	2.60	3.24
6	2.89	....	.07	2.42	3.38	2.62	....	.33	1.14	2.07	2.56	3.22
7	2.92	....	-.05	2.42	3.39	2.56	....	.29	1.19	2.14	2.62	3.30
8	2.86	.74	+.09	2.43	3.33	2.52	....	.25	1.23	2.16	2.64	3.31
9	2.86	.74	.10	2.50	3.26	2.50	....	.22	1.26	2.18	2.68	3.25
10	2.81	.72	.10	2.55	3.23	2.46	....	.16	1.27	2.20	2.71	3.33
11	2.74	.62	.10	2.55	3.20	2.42	....	.10	1.28	2.22	2.73	3.34
12	2.79	.57	.16	2.66	3.17	2.41	1.42	.05	1.29	2.28	2.77	3.29
13	2.74	.59	.18	2.65	3.13	2.42	1.39	+.03	1.33	2.30	2.80	3.30
14	2.68	.57	.20	2.64	3.12	2.40	1.35	.00	1.35	2.29	2.80	3.23
15	2.61	.58	.27	2.73	3.09	....	1.29	-.06	1.34	2.27	2.81	3.24
16	2.54	.52	.28	2.80	3.05	....	....	.10	1.40	2.31	2.83	3.17
17	2.46	.59	.36	2.85	3.09	....	....	.14	1.43	2.33	2.86	3.11
18	2.36	.54	.51	2.98	3.02	....	....	.18	1.46	2.34	2.87	3.03
19	2.29	.51	.61	3.05	2.97	....	1.12	.23	1.45	2.35	2.88	2.95
20	2.24	.43	.71	3.14	2.92	....	1.09	.28	1.47	2.36	2.89	2.89
21	2.17	.43	.83	e3.20	2.90	2.28	1.05	.34	1.53	2.39	2.90	2.82
22	2.15	.44	1.01	3.30	2.95	2.25	1.02	.37	1.57	2.38	2.86	2.78
23	2.07	.38	1.20	3.36	2.84	2.21	.98	.40	1.61	2.37	2.91	2.77
24	1.97	.29	1.31	3.38	2.80	....	.90	.46	1.63	2.41	2.92	2.73
25	1.98	.25	1.47	3.47	2.80	....	.86	.52	1.65	2.44	2.96	2.67
26	1.93	.20	1.52	3.47	2.82	....	.84	.56	1.67	2.46	3.00	2.66
27	1.87	.19	1.61	3.47	2.72	....	.83	.60	1.69	2.44	3.03	2.66
28	1.68	.21	1.71	3.46	2.69	2.06	.77	.65	1.75	2.43	3.07	2.60
29	1.60	....	1.89	3.46	2.73	2.03	.72	.67	1.81	2.48	3.09	2.58
30	1.49	....	1.99	3.54	....	2.00	.68	.71	1.86	2.53	3.11	2.55
31	1.30	....	2.05	....	2.72	....	.63	....	....	2.54	....	2.55

e Estimated.

30.22.9.8.4. Penns Grove well 36. Driven observation water-table well in Magothy and Raritan formations, diameter $1\frac{1}{4}$ inches, depth 43 feet. Land-surface datum is 26.5 feet above msl. Highest water level 5.58 above msl, June 10, 1947; lowest 9.39 below msl, Dec. 4, 1942. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	4.14	Apr. 28	0.13	July 23	1.14	Oct. 31	4.40
Feb. 24	2.48	May 28	.33	Aug. 27	2.40	Nov. 28	5.03
Mar. 26	1.91	June 27	.57	Sept. 24	3.18	Dec. 22	5.06

30.22.9.8.6. Penns Grove well 35. Driven observation water-table well in Magothy and Raritan formations, diameter $1\frac{1}{4}$ inches, depth 31 feet. Land-surface datum is 20.5 feet above msl. Highest water level 18.66 above msl, Nov. 29, 1940; lowest 0.35 above msl, Oct. 9, 1942. Records available: 1940-53.

Jan. 29	+5.62	Apr. 28	+7.52	July 23	+5.59	Oct. 31	+2.78
Feb. 24	+5.76	May 28	+6.95	Aug. 27	+4.36	Nov. 28	+2.95
Mar. 26	+6.92	June 27	+6.45	Sept. 24	+3.60	Dec. 22	+4.01

30.23.1.8.5. Penns Grove well 6. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 32 feet. Land-surface datum is 6 feet above msl. Highest water level 2.93 above msl, Dec. 22, 1951; lowest 0.19 above msl, Sept. 27, 1941. Records available: 1940-53.

Jan. 29	+2.73	Apr. 28	+2.38	July 23	+2.60	Oct. 31	+2.05
Feb. 24	+2.38	May 28	+2.26	Aug. 27	+1.79	Nov. 28	+2.04
Mar. 26	+2.69	June 27	+1.80	Sept. 24	+1.57	Dec. 22	+2.25

30.23.4.1.9. Penns Grove well 7. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 14 feet above msl. Highest water level 11.09 above msl, Aug. 14, 1942; lowest 6.84 above msl, Nov. 22, 1941. Records available: 1940-53.

Jan. 29	+10.30	Apr. 28	+10.09	July 23	+9.56	Oct. 31	+8.88
Feb. 24	+10.19	May 28	+10.03	Aug. 27	+8.82	Nov. 28	+9.63
Mar. 26	+10.40	June 27	+9.72	Sept. 24	+8.77	Dec. 22	+10.00

30.23.4.7.8. Penns Grove well 11. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 20 feet. Land-surface datum is 29.5 feet above msl. Highest water level 25.10 above msl, Feb. 13, 1951; lowest 18.44 above msl, Feb. 7, 1950. Records available: 1940-53.

Jan. 29	+21.76	Apr. 28	+23.21	July 23	+23.39	Oct. 31	+21.87
Feb. 24	+22.06	May 28	+23.48	Aug. 27	+22.93	Nov. 28	+21.49
Mar. 26	+22.48	June 27	+23.57	Sept. 24	+22.50	Dec. 22	+21.30

30.23.7.1.4. Penns Grove Water Supply Co. R-7. Drilled unused water-table well in Magothy and Raritan formations, diameter 2 inches, depth 50 feet. Highest water level 24.08 above msl, Feb. 5, 1952; lowest 18.82 above msl, Oct. 20, 1943. Records available: 1940-53.

Jan. 29	+23.67	Apr. 28	+23.36	July 23	+21.42	Oct. 31	+20.30
Feb. 24	+23.40	May 28	+23.30	Aug. 27	+20.91	Nov. 28	+21.38
Mar. 26	+23.85	June 27	+22.45	Sept. 24	+20.68	Dec. 22	+23.04

30.32.1.9.5. Penns Grove well 71. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 16 feet. Land-surface datum is 12 feet above msl. Highest water level 8.94 above msl, Feb. 5, 1952; lowest 1.33 above msl, Dec. 6, 1941. Records available: 1940-53.

Jan. 29	+7.21	Apr. 28	+8.14	July 23	+5.64	Oct. 31	+3.66
Feb. 24	+7.41	May 28	+7.36	Aug. 27	+4.43	Nov. 28	+4.34
Mar. 26	+8.62	June 27	+6.92	Sept. 24	+3.89	Dec. 22	+6.05

30.32.2.2.3. Penns Grove well 31. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 22 feet. Land-surface datum is 5.0 feet above msl. Highest water level 3.09 above msl, Feb. 8, 1949; lowest 4.23 below msl, Nov. 22, 1941, Oct. 24, 1943. Records available: 1940-53.

Jan. 29	+1.47	Apr. 28	+1.41	July 23	-1.39	Oct. 31	-1.85
Feb. 24	+1.24	May 28	+1.06	Aug. 27	-2.05	Nov. 28	-1.35
Mar. 26	+2.07	June 27	-.79	Sept. 24	-2.02	Dec. 22	+.02

30.32.2.3.3. Penns Grove well 41. Drilled observation water-table well in Cape May formation, diameter 6 inches, depth 25 feet, 5.5-inch screen, 25/10,000 slot at 20-25. Land-surface datum is 10 feet above msl. Highest water level 11.89 above msl, Feb. 4, 1952; lowest 4.66 above msl, Oct. 15, 1943. Records available: 1941-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.82	10.86	10.55	11.09	10.76	11.03	9.04	7.88	6.96	6.90	7.52	8.61
2	9.99	10.81	10.48	11.03	10.68	10.95	8.99	7.88	6.90	6.84	7.53	8.59
3	10.11	10.82	10.64	10.97	10.59	10.80	8.90	7.83	6.89	6.80	7.55	8.59
4	10.06	10.71	11.14	10.92	10.55	10.70	8.81	7.80	6.83	6.79	7.52	8.60
5	10.01	10.67	11.06	10.91	10.73	10.58	8.74	7.72	7.00	6.76	7.50	8.88
6	9.98	10.65	11.00	10.88	10.85	10.44	8.70	7.67	7.09	6.75	7.53	9.09
7	.....	10.82	10.90	11.39	10.90	10.59	8.60	7.62	7.00	6.72	7.59	9.29
8	.....	10.78	10.92	11.30	10.90	10.62	8.54	7.60	6.92	6.70	7.72	9.34
9	.....	10.70	10.95	11.22	10.79	10.53	8.46	7.83	6.90	6.68	7.90	9.41
10	.....	10.66	10.98	11.40	10.70	10.39	8.39	7.83	6.87	6.63	8.04	9.57
11	.....	10.68	10.92	11.30	10.59	10.27	8.31	7.76	6.80	6.60	8.18	9.54
12	10.98	10.85	11.09	11.39	10.49	10.20	8.26	7.70	6.91	6.53	8.22	9.74
13	10.90	10.77	11.45	11.63	10.43	10.54	8.18	7.62	7.65	6.50	8.25	9.86
14	10.82	10.71	11.34	11.45	10.39	10.60	8.09	7.72	7.69	6.49	8.30	10.66
15	10.79	11.24	11.70	11.32	10.40	10.51	8.06	7.71	7.70	6.48	8.33	10.62
16	10.70	11.19	11.64	11.66	10.40	10.40	8.00	7.65	7.63	6.42	8.32	10.56
17	10.67	11.04	11.47	11.45	10.73	10.29	7.94	7.74	7.58	6.40	8.30	10.43
18	10.82	10.94	11.59	11.49	10.71	10.20	7.85	7.73	7.50	6.39	8.30	10.36
19	10.81	10.87	11.69	11.49	10.62	10.09	7.95	7.66	7.45	6.36	8.29	10.30
20	10.75	10.86	11.43	11.32	10.69	9.99	8.13	7.59	7.40	6.33	8.27	10.30
21	10.79	11.18	11.30	11.18	10.60	9.88	8.04	7.52	7.40	6.30	8.25	10.28
22	10.77	11.06	11.21	11.10	10.75	9.80	7.94	7.49	7.38	6.30	8.25	10.28
23	10.75	10.97	11.18	11.01	10.60	9.68	8.57	7.42	7.30	6.29	8.49	10.19
24	11.50	10.95	11.30	10.91	10.49	9.59	8.61	7.35	7.28	6.27	8.51	10.12
25	11.40	10.89	11.62	10.89	10.41	9.48	8.51	7.30	7.22	6.23	8.64	10.12
26	11.21	10.85	11.70	11.02	10.84	9.39	8.43	7.27	7.19	6.21	8.64	10.05
27	11.19	10.77	11.50	10.91	10.74	9.29	8.35	7.20	7.14	6.20	8.64	9.99
28	11.16	10.64	11.39	10.81	10.58	9.27	8.23	7.16	7.06	6.34	8.64	10.00
29	11.02		11.32	10.75	10.49	9.20	8.14	7.10	7.00	7.16	8.62	9.98
30	10.96		11.20	10.73	10.67	9.16	8.05	7.05	6.97	7.41	8.62	9.97
31	10.97		11.10		10.87		7.94	7.00		7.50		9.89

30.32.2.3.9. Penns Grove well 51. Driven observation water-table well in Cape May formation, diameter 1½ inches, depth 26 feet. Land-surface datum is 13.7 feet above msl. Highest water level 11.24 above msl, Feb. 5, 1952; lowest 3.94 above msl, Oct. 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+10.37	Apr. 28	+9.91	July 23	+6.80	Oct. 31	+5.49
Feb. 24	+10.30	May 28	+9.91	Aug. 27	+5.86	Nov. 28	+7.54
Mar. 26	+10.82	June 27	+8.16	Sept. 24	+5.52	Dec. 22	+9.61

30.32.2.5.8. Penns Grove well 62. Driven observation water-table well in Cape May formation, diameter 1½ inches, depth 30 feet. Land-surface datum is 10 feet above msl. Highest water level 3.56 above msl, Feb. 8, 1949; lowest 10.55 below msl, Feb. 13, 1942. Records available: 1940-53. Nearby well being pumped. Jan. 29, +2.89; Feb. 24, +2.53; Mar. 26, +3.27; Apr. 28, +2.68; May 28, +0.41.

30.32.2.6.4. Penns Grove well E-16. Seven Bros. Dug unused water-table well in Cape May formation, diameter 2 feet, depth 6 feet, curbed with brick. Land-surface datum is 15 feet above msl. Highest water level 14.85 above msl, Mar. 14, 1943; lowest 10.21 above msl, Oct. 24, 1943. Records available: 1940-53.

Jan. 29	+14.66	Apr. 28	+14.24	July 23	+12.23	Oct. 31	+10.69
Feb. 24	+14.66	May 28	+14.14	Aug. 27	+11.05	Nov. 28	+11.12
Mar. 26	+14.68	June 27	+12.94	Sept. 24	+10.65	Dec. 22	+13.60

30.32.2.6.5. Penns Grove well 54. Driven observation water-table well in Cape May formation, diameter 1½ inches, depth 12 feet. Land-surface datum is 12.5 feet above msl. Highest water level 13.69 (flowing) Mar. 13, 1941; lowest 5.63 above msl, Oct. 24, 1943. Records available: 1940-53.

Jan. 29	+11.49	Apr. 28	+11.22	July 23	+8.42	Oct. 31	+6.62
Feb. 24	+11.36	May 28	+10.83	Aug. 27	+7.49	Nov. 28	+8.01
Mar. 26	+11.94	June 27	+9.76	Sept. 24	+6.95	Dec. 22	+9.86

30.32.2.9.1. Penns Grove well 63. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 17 feet. Land-surface datum is 18 feet above msl. Highest water level 15.76 above msl, Feb. 5, 1952; lowest 8.09 above msl, Oct. 24, 1943. Records available: 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+14.67	Apr. 28	+14.26	July 23	+10.79	Oct. 31	+8.88
Feb. 24	+14.54	May 28	+13.88	Aug. 27	+9.78	Nov. 28	+9.93
Mar. 26	+15.68	June 27	+12.39	Sept. 24	+9.21	Dec. 22	+12.33

30.32.2.9.5. Penns Grove well 64. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 17 feet. Land-surface datum is 5 feet above msl. Highest water level 2.89 above msl, Dec. 22, 1951; lowest 1.42 below msl, Sept. 25, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+1.90	Apr. 28	+1.64	July 23	+0.72	Oct. 31	+0.76
Feb. 24	+1.62	May 28	+1.48	Aug. 27	+ .76	Nov. 28	+1.35
Mar. 26	+1.83	June 27	+1.24	Sept. 24	+1.05	Dec. 22	+1.78

30.32.3.5.5. Penns Grove well 55. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 8.0 feet above msl. Highest water level 7.28 above msl, Feb. 8, 1949, Feb. 5, 1952; lowest 1.93 above msl, Oct. 20, 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+6.64	Apr. 28	+6.09	July 23	+3.63	Oct. 31	+2.92
Feb. 24	+6.48	May 28	+6.07	Aug. 27	+2.80	Nov. 28	+4.56
Mar. 26	+7.22	June 27	+4.77	Sept. 24	+2.58	Dec. 22	+6.08

30.32.3.6.5. Penns Grove Water Supply Co. R-8. Drilled unused water-table well in Merchantville clay(?), diameter 5 inches, depth 55 feet. Land-surface datum is 8.5 feet above msl. Highest water level 8.97 above msl, Mar. 26, 1953; lowest 2.09 above msl, Oct. 10, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+8.71	Apr. 28	+8.64	July 23	+8.70	Oct. 31	+7.78
Feb. 24	+8.63	May 28	+8.69	Aug. 27	+7.22	Nov. 28	+7.06
Mar. 26	+8.97	June 27	+8.17	Sept. 24	+7.21	Dec. 22	+8.39

30.32.4.6.4. Penns Grove well 73. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 3.5 feet above msl. Highest water level 2.82 above msl, Dec. 22, 1951, Feb. 5, 1952; lowest 2.01 below msl, Sept. 25, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+2.34	Apr. 28	+2.12	July 23	+0.67	Oct. 31	+0.86
Feb. 24	+2.23	May 28	+2.03	Aug. 27	- .41	Nov. 28	+1.45
Mar. 26	+2.72	June 27	+ .91	Sept. 24	- .59	Dec. 22	+1.91

30.32.5.1.3. Penns Grove well 72. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 17 feet. Land-surface datum is 8 feet above msl. Highest water level 6.53 above msl, Feb. 5, 1952; lowest 0.70 below msl, Oct. 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+5.76	Apr. 28	+5.00	July 23	+2.60	Oct. 31	+1.19
Feb. 24	+5.49	May 28	+4.90	Aug. 27	+1.51	Nov. 28	+2.38
Mar. 26	+6.41	June 27	+3.74	Sept. 24	+1.02	Dec. 22	+2.46

30.32.5.4.6. Penns Grove well 74. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 16 feet. Land-surface datum is 8 feet above msl. Highest water level 7.07 above msl, Dec. 3, 1940; lowest 0.37 above msl, Oct. 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+4.01	Apr. 28	+3.81	July 23	+1.26	Oct. 31	+0.82
Feb. 24	+3.49	May 28	+3.18	Aug. 27	+ .85	Nov. 28	+1.60
Mar. 26	+4.29	June 27	+2.63	Sept. 24	+ .43	Dec. 22	+3.12

30.32.5.7.7. Penns Grove well 84. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 11.5 feet above msl. Highest water level 11.62 above msl, Mar. 26, 1953; lowest 4.74 above msl, Oct. 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+11.27	Apr. 28	+10.54	July 23	+7.82	Oct. 31	+5.48
Feb. 24	+11.29	May 28	+10.96	Aug. 27	+6.37	Nov. 28	+7.19
Mar. 26	+11.62	June 27	+8.68	Sept. 24	+5.55	Dec. 22	+10.77

30.32.6.1.6. Penns Grove well 65. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 12 feet. Land-surface datum is 11 feet above msl. Highest water level 9.23 above msl, Feb. 8, 1949; lowest 1.88 above msl, Oct. 24, 1943. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+8.41	Apr. 28	+8.91	July 23	+6.66	Oct. 31	+2.99
Feb. 24	+8.43	May 28	+8.30	Aug. 27	+5.50	Nov. 28	+3.53
Mar. 26	+8.87	June 27	+7.77	Sept. 24	+2.94	Dec. 22	+5.86

30.32.7.6.9. Penns Grove well 92. Driven observation water-table well in Cape May formation, diameter $1\frac{1}{4}$ inches, depth 16 feet. Land-surface datum is 17.2 feet above msl. Highest water level 15.66 above msl, Feb. 5, 1952; lowest 5.33 above msl, Dec. 6, 1941. Records available: 1940-53.

Jan. 29	+13.77	Apr. 28	+12.91	July 23	+8.26	Oct. 31	+5.68
Feb. 24	+13.61	May 28	+12.43	Aug. 27	+7.13	Nov. 28	+5.95
Mar. 26	+15.23	June 27	+9.93	Sept. 24	+6.36	Dec. 22	+7.43

30.32.9.9.8. Penns Grove well R-5. Swaverly Cabins. Drilled unused water-table well in Merchantville clay(?), diameter 3 inches, depth 50 feet. Land-surface datum is 10 feet above msl. Highest water level 10.30 above msl, Apr. 24, 1940; lowest 4.10 above msl, Oct. 24, 1943. Records available: 1940-53. Nearby well being pumped.

Jan. 29	+8.85	Apr. 28	+9.07	July 23	+7.25	Oct. 31	+6.08
Feb. 24	+8.69	May 28	+8.90	Aug. 27	+6.24	Nov. 28	+6.93
Mar. 26	+9.50	June 27	+8.03	Sept. 24	+6.09		

30.44.3.6.2. (Thornthwaite well) Seabrook Farms. Shirley. Dug unused water-table well in Cohansey sand, diameter 48 to 36 inches, depth about 24 feet. Land-surface datum is 144 feet above msl. Highest water level 135.62 above msl, May 26, 1953; lowest 127.35 above msl, Sept. 12, 1950. Records available: 1949-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	129.15	.....	131.53	133.37	133.94	134.39	132.94	131.67	130.69	129.84	128.93	128.51
2	129.22	.....	131.51	133.20	133.82	134.44	132.93	131.63	130.67	129.80	128.91	128.49
3	129.20	.....	131.66	133.17	133.71	134.44	132.80	131.58	130.62	129.80	128.91	128.49
4	129.17	131.31	131.67	133.13	133.71	134.47	132.76	131.62	130.61	129.79	128.87	128.50
5	129.15	131.27	131.53	133.08	133.69	134.41	132.72	131.54	130.56	129.78	128.83	128.47
6	129.14	131.34	131.55	133.16	133.67	134.32	132.72	131.48	130.55	129.75	128.90	128.52
7	129.11	131.34	131.56	133.28	133.68	134.24	132.64	131.46	130.50	129.70	128.79	128.44
8	129.17	131.26	131.55	133.34	133.63	134.20	132.62	131.45	130.46	129.67	128.76	128.44
9	129.34	131.19	131.54	133.50	133.58	134.15	132.52	131.41	130.43	129.65	128.73	128.52
10	129.35	131.16	131.46	133.59	133.56	134.06	132.47	131.35	130.42	129.64	128.71	128.47
11	e129.59	131.28	131.47	133.62	133.53	133.98	132.43	131.30	130.41	.....	128.69	128.48
12	129.71	131.26	131.65	133.84	133.49	133.97	132.41	131.28	130.41	129.61	128.66	128.54
13	129.89	131.13	131.83	133.90	133.43	133.92	132.36	131.26	130.36	129.56	128.65	128.57
14	130.03	131.13	.....	133.97	133.42	133.83	132.32	131.24	130.33	129.51	128.68	128.64
15	130.17	131.25	.....	134.15	133.35	133.78	132.27	131.19	130.33	129.49	128.70	128.68
16	130.25	131.35	132.51	134.27	133.37	133.74	132.23	131.17	130.28	129.47	128.68	128.74
17	130.35	131.31	132.74	134.32	133.54	133.70	132.21	131.14	130.24	129.42	128.66	128.80
18	130.43	131.36	133.01	134.50	133.48	133.62	132.17	131.11	130.20	129.36	128.65	128.86
19	130.49	131.39	133.09	134.51	133.48	133.55	132.12	131.08	130.19	129.33	128.63	128.91
20	130.52	131.46	133.12	134.54	133.43	133.49	132.07	131.05	130.18	129.27	128.63	128.96
21	130.57	131.45	133.18	134.45	133.53	133.43	132.02	131.01	130.13	129.25	128.62	129.00
22	130.56	131.48	133.26	.....	133.75	133.36	132.00	130.99	130.08	129.23	128.64	129.02
23	130.63	131.53	133.35	134.39	133.64	133.29	131.97	130.97	130.04	129.21	128.62	129.01
24	130.79	131.62	133.38	134.24	133.68	133.24	131.89	130.93	130.03	129.17	128.62	129.00
25	130.82	131.67	133.54	134.30	133.75	133.20	131.86	130.90	130.01	129.12	128.59	129.04
26	130.89	131.69	133.48	134.36	134.19	133.14	131.86	130.87	130.01	129.08	128.57	129.03
27	131.06	131.69	133.46	134.18	134.23	133.08	131.86	130.85	129.99	129.05	128.56	128.97
28	131.15	131.62	.....	134.08	134.22	133.06	131.80	130.82	129.94	129.04	128.53	128.99
29	131.19	.....	133.43	134.00	134.30	133.00	131.77	130.79	129.90	129.01	128.52	128.97
30	.....	.....	133.40	134.17	134.36	132.98	131.74	130.75	129.87	128.96	128.52	128.95
31	.....	.....	133.32	.....	134.37	.....	131.70	130.72	.....	128.94	.....	128.90

e Estimated.

Union County

26. 21. 5. 4. 6. Union County Park Comm. Drilled unused artesian well in Brunswick shale, diameter 6 inches, depth 290 feet. Land-surface datum is 69.0 feet above msl. Highest water level 65.94 above msl, June 2, 1952; lowest 61.03 above msl, Nov. 20, 1953. Records available: 1943-53.

Water level at end of day above msl from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	e63.47	64.08	e63.60	64.71	64.84	e63.92	63.34	62.72	e62.10	61.22	e61.40	61.56
2	e63.40	63.91	e63.80	e64.80	64.99	e63.90	62.96	63.01	e62.00	61.19	e61.35	61.40
3	e63.35	e63.79	e64.00	e64.85	64.88	e63.88	63.00	62.82	e61.80	61.47	e61.25	61.30
4	e63.25	63.67	63.95	e64.90	64.74	63.87	63.36	62.59	e61.50	61.73	61.21	61.35
5	63.23	63.60	63.83	e64.95	64.63	63.76	63.64	62.38	e61.75	e61.60	61.16	61.63
6	63.00	63.59	63.76	e65.00	e64.60	63.97	63.79	62.29	e62.00	e61.50	61.20	62.01
7	62.87	63.79	64.00	e65.05	64.59	64.13	63.77	e62.10	e62.30	e61.40	61.50	62.20
8	62.88	63.99	64.24	e65.00	64.53	63.92	63.71	e62.30	62.18	e61.30	61.75	e62.10
9	63.05	63.78	64.07	64.90	64.68	63.66	e63.50	e62.50	61.96	e61.35	61.56	e62.00
10	63.48	63.52	63.79	64.98	64.79	e63.58	63.39	e62.40	61.86	61.43	61.44	e61.90
11	63.99	63.50	63.71	65.10	64.64	e63.54	63.46	e62.30	61.75	61.63	e61.30	e61.80
12	63.52	63.42	63.77	65.44	64.45	63.39	63.60	e62.20	62.03	61.52	e61.25	e61.70
13	63.37	63.40	64.27	65.45	64.31	63.74	63.48	e62.10	62.18	61.23	e61.20	e61.90
14	63.26	63.38	64.68	65.27	e64.28	64.00	63.34	e62.20	61.98	61.15	61.46	62.23
15	63.22	64.18	65.13	65.07	e64.25	63.81	62.98	62.37	61.87	61.18	61.68	61.84
16	63.16	64.12	65.04	65.18	e64.23	e63.51	e62.64	62.64	61.75	61.01	61.46	61.65
17	63.51	63.87	64.88	65.13	e64.18	e63.35	62.45	62.52	61.63	e61.07	61.24	61.57
18	e63.90	63.74	64.87	65.34	e64.15	63.22	62.74	62.32	61.60	e61.17	61.13	61.52
19	63.70	63.68	64.90	65.58	e64.12	63.27	63.03	62.20	61.85	61.32	61.05	61.67
20	63.50	63.70	64.77	65.41	e64.09	63.42	62.71	62.09	62.06	61.17	61.03	61.80
21	63.45	64.06	64.88	65.14	64.05	63.11	62.39	62.11	61.87	61.14	61.37	e61.77
22	63.41	64.23	65.05	65.04	64.10	63.06	62.07	62.40	61.64	61.18	61.72	61.69
23	63.42	64.10	64.94	e64.94	64.40	63.03	62.50	62.69	61.53	61.14	e61.75	61.60
24	64.05	64.01	65.03	64.90	64.61	62.83	62.56	62.41	61.47	61.26	e61.80	61.84
25	64.29	63.70	65.07	64.95	64.39	e62.82	62.81	62.19	61.44	61.50	e61.40	62.20
26	63.99	e63.80	65.01	65.10	64.27	62.90	63.15	61.75	61.67	e61.55	e61.30	62.33
27	63.92	e63.75	64.90	64.90	64.14	63.06	63.09	61.44	61.88	e61.60	e61.25	62.36
28	63.75	e63.70	65.04	64.95	64.00	63.45	62.87	e61.70	61.63	e61.65	e61.30	e61.97
29	63.65		65.28	64.67	e64.00	63.51	62.71	e61.80	61.38	e61.70	e61.35	e61.80
30	63.68		65.07	64.68	e63.97	63.44	62.54	e61.90	61.31	e61.55	61.77	e61.70
31	63.98		64.78		e63.95		62.49	e62.00		e61.50		61.70

e Estimated.

26. 21. 5. 8. 3. White Laboratories, Inc. Well 3. Kenilworth. Drilled observation artesian well in Brunswick shale, diameter 6 inches, depth 400 feet, cased approximately 40 feet into rock. Highest water level 72.5 above msl, Apr. 20, 1953; lowest 39.1 above msl, Mar. 7, 1952. Records available: 1952-53. Recording gage installed Feb. 29, 1952.

Daily lowest water level above msl from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.9	39.7	....	....	52.9	54.8	62.9	61.5	61.0	61.4
2	39.8	39.7	....	....	53.9	57.4	60.4	60.0	61.5	61.4
3	39.7	39.6	53.0	....	51.5	....	59.7	61.1	61.5	61.4
4	39.7	39.5	53.1	....	52.5	....	61.5	62.1	61.6	61.4
5	39.4	39.6	52.4	44.4	52.0	56.9	61.4	62.5	61.7	60.6
6	39.2	40.2	52.3	44.4	55.5	56.8	62.4	61.1	61.2	61.2
7	39.1	40.7	52.6	44.4	52.5	57.0	63.2	61.9	60.4	61.6
8	39.9	53.1	44.4	52.1	56.9	63.2	60.7	61.0	60.2
9	39.7	52.2	43.5	51.8	57.8	63.0	61.4	61.4	59.2
10	39.7	52.6	43.2	52.1	60.8	61.5	60.5	60.7	58.7
11	50.5	53.8	43.1	53.7	58.3	60.9	61.3	60.0	58.3
12	50.9	53.1	43.9	56.5	57.3	60.2	62.2	60.8	58.0
13	51.5	53.7	45.2	58.7	57.1	61.6	61.2	60.0	57.8
14	40.1	....	52.7	46.3	54.5	56.9	62.5	60.7	59.7	57.7
15	40.1	....	59.1	51.9	53.3	57.7	62.7	61.5	60.7	57.7
16	40.2	....	52.2	48.0	53.1	58.5	61.4	60.3	61.2	57.6
17	39.9	40.3	53.2	47.1	53.5	61.2	61.2	61.2	59.9	57.6
18	39.8	40.1	54.1	46.0	53.7	62.1	60.8	61.6	59.4	57.7
19	40.0	53.2	47.6	56.7	61.0	60.1	62.0	60.4	57.8
20	39.9	39.9	52.8	50.4	59.3	59.5	61.6	62.0	59.8	57.8
21	39.8	39.8	52.4	53.0	60.7	59.6	62.6	62.0	59.3	57.9
22	39.8	39.8	52.4	55.1	....	....	61.3	59.8	60.3	57.9
23	39.8	....	52.5	54.8	58.0	....	60.8	60.6	60.9	59.9
24	39.9	....	52.8	49.7	59.7	....	61.3	59.0	61.2	60.8
25	39.9	49.9	53.5	47.8	56.5	....	62.1	59.2	60.0	61.1

26. 21. 5. 8. 3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	39.9	49.9	49.9	46.9	56.0	59.7	61.0	61.3	60.9	61.7
27	39.9	50.5	49.8	46.6	56.0	59.2	61.9	60.2	61.3	62.0
28	39.7	....	....	47.1	56.0	59.3	62.5	60.9	61.4	62.2
29	40.2	39.6	....	43.8	52.3	55.9	59.0	61.1	61.6	61.4	62.0
30	39.6	....	43.3	50.8	55.1	60.5	60.6	61.6	61.5	61.8
31	39.3	....	43.2	....	54.8	61.8	....	60.3	....	61.8

Daily lowest water level above msl from recorder graph, 1953

Day	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	61.7	65.5	68.6	68.8	68.7	68.2	63.0	....	....	59.6	61.8	61.7
2	61.7	67.5	67.5	68.8	69.4	67.8	....	....	59.3	59.7	61.2	61.8
3	62.1	67.4	68.1	68.5	69.7	67.5	....	....	58.8	60.3	61.0	61.9
4	62.3	67.3	66.0	69.0	69.0	66.2	64.5	....	58.7	61.4	61.2	61.6
5	62.2	67.0	66.0	69.5	68.0	64.7	64.9	....	58.9	61.3	61.0	61.6
6	62.3	65.7	68.8	68.9	68.5	65.6	62.9	61.2	59.7	61.1	61.1	62.1
7	64.5	65.4	70.0	69.1	67.5	66.3	62.8	....	60.8	60.8	61.5	61.6
8	65.3	65.4	70.3	....	67.7	65.9	62.3	....	61.6	60.7	61.8	61.6
9	65.9	67.7	69.5	69.2	68.0	64.2	62.8	....	63.5	60.9	60.8	61.9
10	66.0	68.1	69.9	69.3	68.9	66.3	64.7	....	64.4	61.1	60.8	61.3
11	66.9	67.4	68.6	....	67.0	67.7	65.4	....	64.7	61.9	60.6	61.6
12	66.4	68.1	67.8	70.1	66.7	69.0	66.1	....	64.7	60.7	60.6	61.8
13	67.2	67.3	67.8	70.2	66.3	66.4	63.1	59.9	65.2	61.1	60.8	62.2
14	....	67.6	....	69.8	65.7	67.2	62.3	60.1	65.3	60.1	61.1	62.4
15	....	68.5	....	68.4	65.8	66.8	....	....	63.2	60.1	61.5	62.3
16	....	67.7	....	69.0	66.8	65.3	....	....	61.7	59.5	61.0	62.3
17	....	68.3	....	69.7	68.4	64.9	....	61.4	61.7	60.1	60.9	62.2
18	67.9	68.0	71.3	70.4	66.2	64.7	....	....	60.9	60.7	61.4	62.3
19	....	66.9	70.8	70.9	66.9	63.6	....	61.1	61.2	59.7	61.1	62.4
20	....	66.2	69.7	70.6	67.1	64.6	....	61.2	61.1	58.6	61.3	62.8
21	....	66.1	69.8	69.9	66.5	65.1	....	....	59.6	58.6	61.4	62.6
22	66.4	66.8	70.3	69.5	66.5	62.9	....	63.9	60.0	59.0	61.4	62.1
23	66.9	68.3	69.7	69.4	66.8	63.6	....	62.9	60.8	58.5	60.6	62.5
24	66.2	67.3	69.2	68.9	68.2	65.2	....	....	60.7	59.2	61.3	62.4
25	66.2	68.1	69.4	69.1	66.6	64.4	....	....	61.0	60.0	61.2	62.7
26	66.2	66.7	69.4	69.3	67.6	63.7	....	....	61.0	59.8	61.5	63.1
27	67.8	65.3	70.7	69.3	66.8	63.9	....	....	60.9	60.4	61.8	63.2
28	66.1	65.8	70.0	68.9	67.8	64.8	....	....	59.8	60.4	61.8	62.6
29	65.6	....	70.4	68.6	68.4	63.0	....	....	59.3	60.8	62.3	62.5
30	65.2	....	70.6	68.3	68.9	62.8	....	....	58.9	60.7	61.8	62.5
31	65.4	....	69.1	....	69.4	....	....	....	....	61.1	....	62.3

NEW YORK

Long Island

By S. J. Spiegel

Scope of Water-Level Program

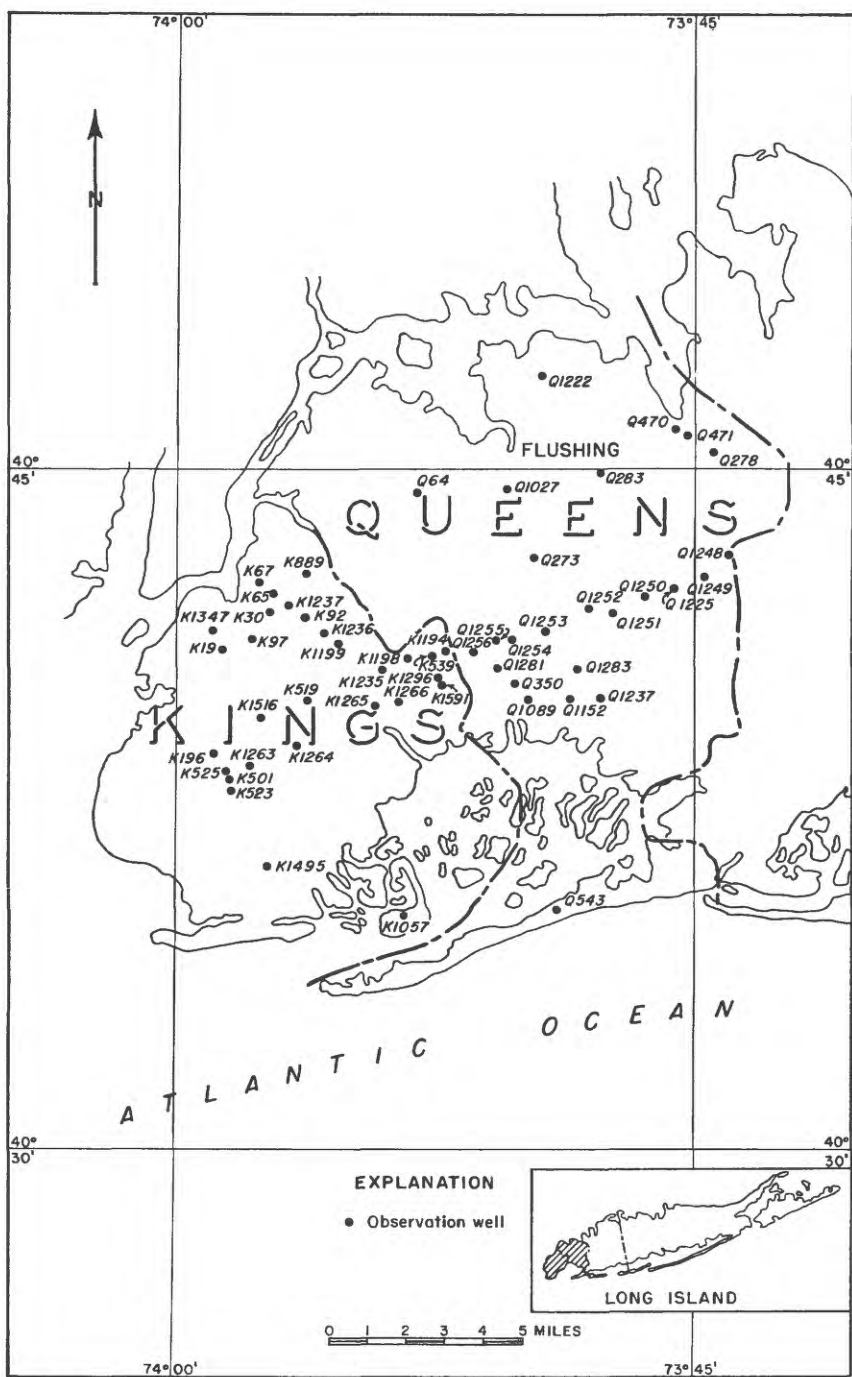
The observation-well program in Long Island was continued during 1953 in cooperation with the New York State Water Power and Control Commission, the Nassau County Department of Public Works, the Suffolk County Board of Supervisors, and the Suffolk County Water Authority. Measurements were made during the year at approximately 600 observation wells, of which 43 were equipped with recording gages. Monthly measurements were made in about half these wells and less frequent measurements in the remainder. Water-level data for 184 wells, including daily readings at 26 recording gages, are tabulated in this report. Figures 20-24 show the location of observation wells on Long Island.

Precipitation

Precipitation on Long Island in 1953 averaged about 52 inches at 16 stations operated by the U. S. Weather Bureau and other agencies; it averaged about 11 inches above normal in Suffolk County, and about 6 inches above normal elsewhere on Long Island. In general, precipitation was slightly below normal during the summer and early fall, but was above normal by various amounts during the rest of the year. The heaviest precipitation in 1953 was recorded in March and April, when excesses of 3 to 9 inches were noted. Precipitation, totaling 7.91 inches in March, much of it in the form of very heavy rainstorms, established the wettest March in 83 years of record at the Battery in New York City; record-high precipitation for March was measured also at other stations on Long Island with much shorter periods of record. At the Battery (longest continuous record near the western end of Long Island) 46.26 inches (4.23 inches above normal) of precipitation was measured in 1953; at Setauket (longest continuous record in eastern Long Island) 48.89 inches (3.95 inches above normal) was recorded. At Mineola in central Nassau County, 48.68 inches (6.23 inches above normal) was measured, and at the Riverhead Research Farm in eastern Suffolk County, 50.83 inches (8.91 inches above normal) was recorded. The highest precipitation (63.71 inches) on Long Island in 1953 was reported for Bridgehampton in southeastern Suffolk County; the lowest (47.17 inches) at Port Jefferson in north-central Suffolk County.

Pumpage

According to pumpage data furnished by the New York State Water Power and Control Commission, the Nassau County Department of Public Works, and other sources, the gross withdrawals of ground water on Long Island for public supply, industrial, agricultural, and other uses averaged about 261 mgd in 1953, and thus about 31 mgd more than in 1952. Of the total amount, about 173 mgd was for public supply, about 71.4 mgd for industrial uses, and about 16.3 mgd for agricultural purposes. About 13 mgd of the increase in average daily withdrawals in 1953 is additional at the city of New York installations in Queens and Nassau Counties, chiefly during November and December when storage in the surface-water reservoirs in Upstate New York was reduced appreciably. During the 2-month period the rate of withdrawal by the city of New York was as high as 80 mgd. An additional 14 mgd of the increase since 1952 reflects the continued growth in population and the expanding industrial development in Nassau and Suffolk Counties, and also the somewhat greater per capita use of ground water for all purposes; the remaining 4 mgd represents additional withdrawal in 1953 for supplemental irrigation. Withdrawals in Nassau County in 1953, including about 11 mgd by the city of New York, averaged about 118 mgd, or about 45 percent of the total for Long Island. In Suffolk County 62 mgd, or 24 percent of the total, was pumped; in Queens County about 56 mgd, or about 21 percent; and in Kings County, about 25 mgd, or about 10 percent. About 10 percent of the gross withdrawals on Long Island was taken from the Lloyd sand member of the Raritan formation, about 35 percent from the sands of the Magothy formation(?), about 5 percent from the Jameco gravel, and about 50 percent from deposits of late Pleistocene age. Recharge of used water to underground formation is estimated roughly at 130 mgd. Of this amount, approximately 90 mgd of the water used for public and domestic supply



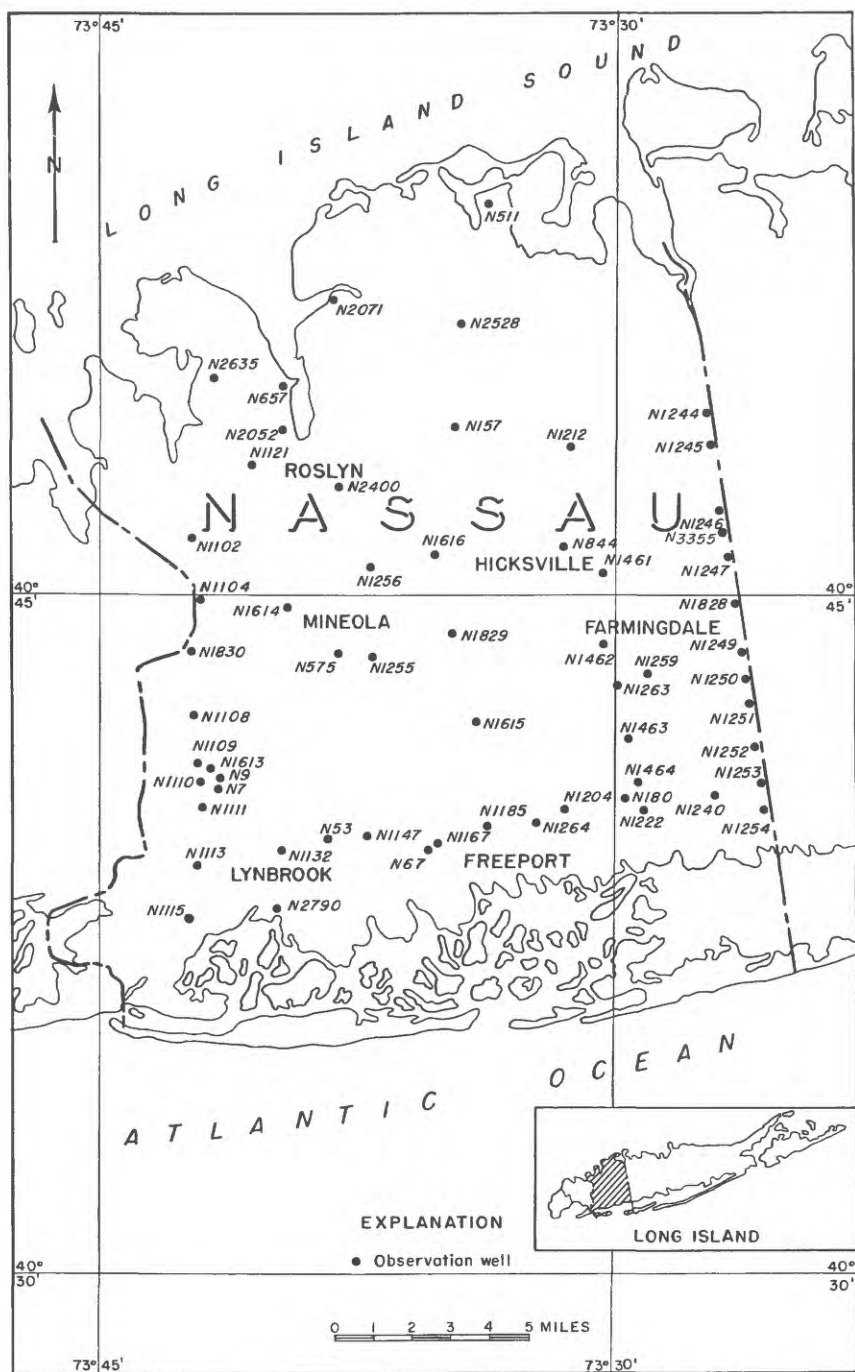


Figure 21. --Location of observation wells in Nassau County, Long Island, N. Y., 1953.

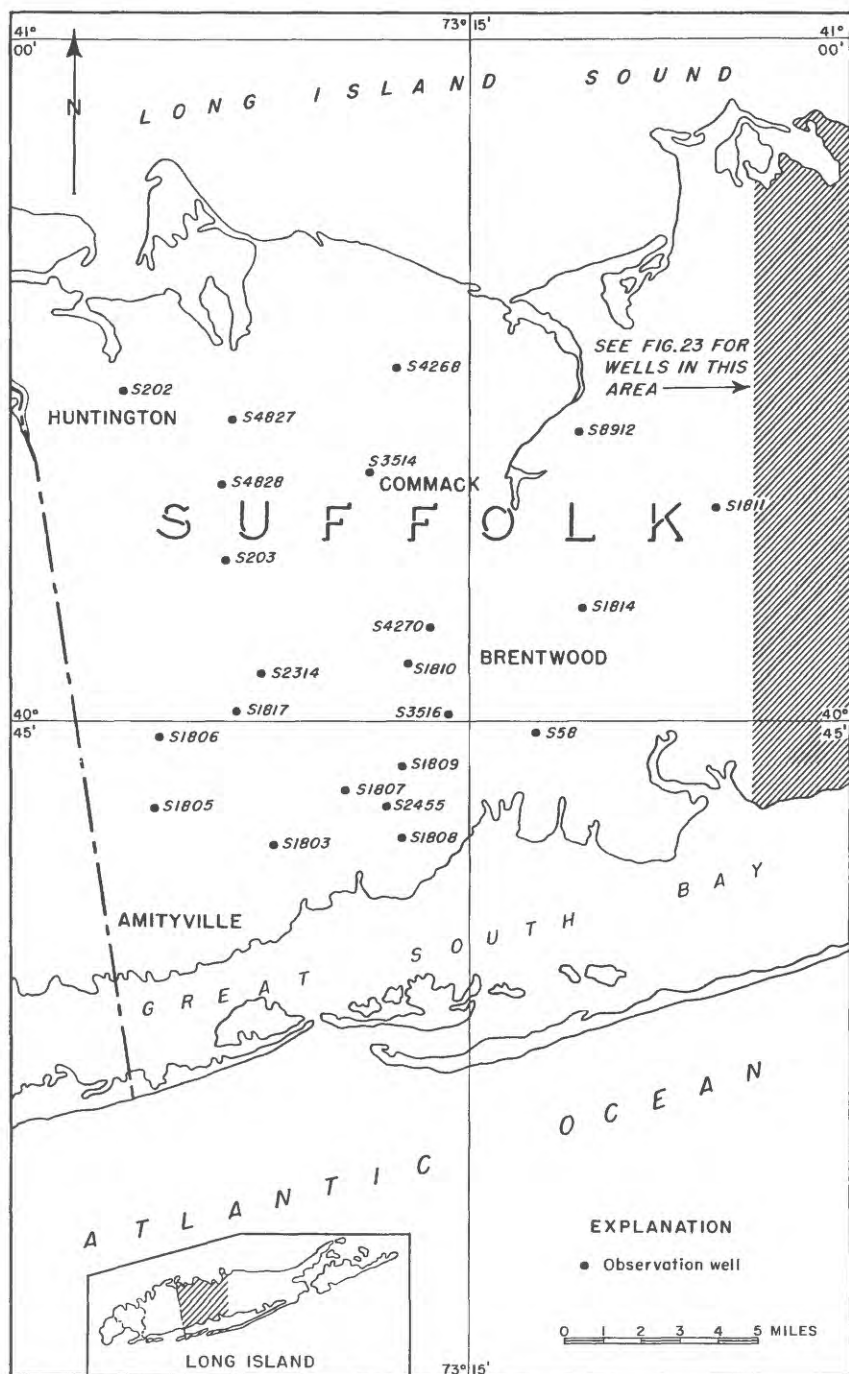


Figure 22. --Location of observation wells in western Suffolk County, Long Island, N. Y., 1953.

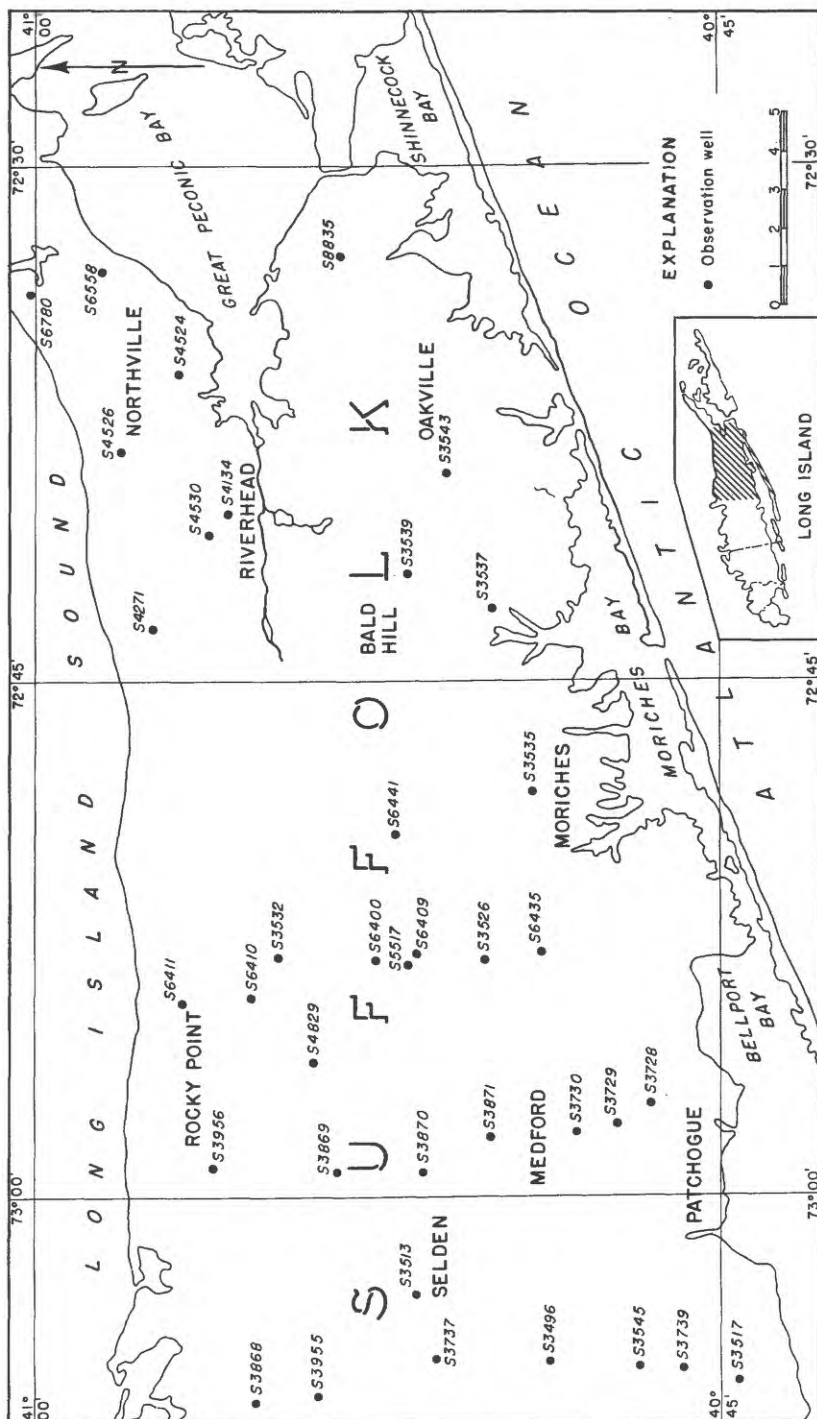


Figure 23. --Location of observation wells in central Suffolk County, Long Island, N. Y., 1953.

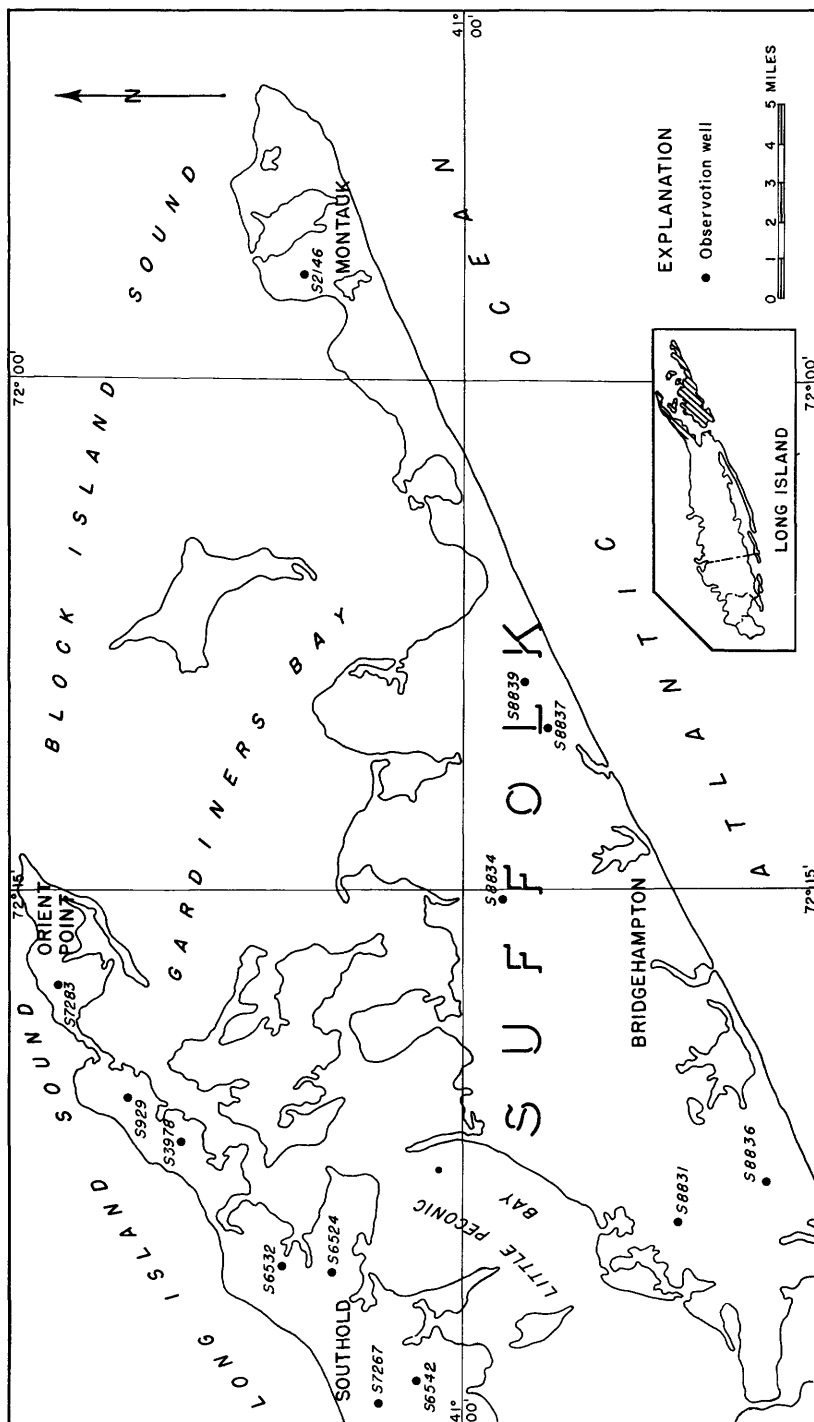


Figure 24. -- Location of observation wells in eastern Suffolk County, Long Island, N. Y., 1953.

was returned by cesspools, septic tanks, and leaching basins; about 40 mgd of the water pumped for industrial uses was returned by wells. Therefore, net withdrawals in 1953 averaged about 130 mgd, or about half the gross withdrawals on Long Island.

Interpretation of Water-Level Fluctuations

Long Island is composed of alternating beds of sand, gravel, and clay, which have been differentiated into four principal water-bearing formations or aquifers. The lowermost of these, which is of Late Cretaceous age, is called the Lloyd sand member of the Raritan formation and consists generally of sand, gravel, and some interbedded clay lenses. It overlies the bedrock floor of the island and is covered in most places by the clay member of the Raritan formation. The second aquifer, the Magothy formation(?) of Late Cretaceous age, overlies the clay member and is the thickest formation in the central and eastern parts of the island. Except for a wide-spread coarse zone at the bottom, it is variable in texture, being composed generally of heterogeneous interbedded lenses of solid clay, sandy clay, sand, and gravel. In western Long Island, the Magothy formation(?) is overlain by the third important aquifer, the Jameco gravel of Pleistocene age. This water-bearing formation is in turn overlain by the Gardiners clay, an interglacial deposit which has been identified also in parts of Suffolk County. The fourth and uppermost aquifer consists of outwash of late Pleistocene age and is the surficial deposit in most places. Locally, till of late Pleistocene age and shoreline deposits of Recent age provide a relatively impermeable cover for these sediments.

About half the average annual precipitation of 43 inches on Long Island percolates slowly from land surface to the water table; however, replenishment to the water-bearing formations in 1953 was appreciably greater because of above-normal precipitation during the year. After reaching the water table, most of the ground water moves slowly downgradient in the shallower formations in a generally lateral direction either to the north or to the south; some ground water moves in a downward direction from the shallower to the deeper formations, encountering in its movement much more resistance by the relatively continuous clay beds than by the sand and gravel layers. Except for the ground water that is pumped for various uses on Long Island, principally by wells, and is not returned to the water-bearing formations after use, ground water under present hydraulic and geologic conditions continues to find its way to open bodies of salt water surrounding the island, for the most part either after outflow to streams or directly as underflow at and near the shoreline. The trend of ground-water levels in any formation is an expression of changes in storage in the aquifer resulting from differences between recharge and discharge. Recharge is derived principally from precipitation and from return of used water; discharge is principally by means of wells, sewer runoff, stream runoff, and underflow to the sea. When recharge exceeds discharge during a given period, storage increases and water levels rise. Conversely, when discharge exceeds recharge, storage decreases and water levels fall. Thus, water-level records are important indications in maintaining an inventory of ground-water supply. In areas where withdrawals are equivalent to a substantial portion of the natural and artificial recharge, changes in the seasonal and/or long-term withdrawal rates cause the major fluctuations in both water-table and artesian formations. On the other hand, in areas where pumpage is relatively small or negligible, variations in precipitation are reflected as major fluctuations of water levels in the water-table, and to a lesser degree in the artesian, formations. The water table responds, more or less directly and immediately, to individual storms or to successive series of storms. The artesian levels in a particular water-bearing formation respond not only to the variations in water levels in the underlying and overlying formations but also to variations in the inflow and outflow to and from the aquifer. There are also other fluctuations caused by tidal loading and by changes in barometric pressure but these are compensating for the most part and usually result in no overall trend.

The configuration of the water table in Long Island may be divided into two more or less distinct hydrologic provinces: (1) western Long Island, and (2) central and eastern Long Island. In western Long Island, excessive withdrawals prior to 1947 had lowered the water table below sea level in a large area of Kings County and adjacent parts of Queens County. In that year, a private water-supply company, which had been pumping about 27 mgd, ceased operating all its wells in central Kings County. The resulting recovery of water levels has continued almost uninterrupted since that time, and has amounted to between 16 and 22 feet up through 1953 in the northern section, and more in the central section. For example, at well K30 (fig. 25) in the industrialized northwestern section, the water table recovered 4.1 feet in 1953, or an overall total of 22.0 feet since June 1947. By December 1953, the water table was as high as 6 feet above sea level in the entire southern half of Kings County and in adjacent sections of western Queens County. Previously it had been below sea level in all but the extreme southern areas of the county by as much as 10 feet and more in some localities. The major fluctuations of the water table in Brooklyn and Queens, therefore, strongly reflect seasonal changes in the amounts and distribution of pumpage, and the year-to-year pumpage trend, as well as the overall effects of the regional recovery. In central and eastern Long Island, perennial recharge exceeds withdrawals substantially and the water table is above sea level practically everywhere; it was as high as 85 feet above sea level in east-central Nassau County during 1953. On the whole, the year 1953 was one of above-normal levels in the shallower formations on Long Island. The general trend of the water table in central Long Island is expressed satisfactorily by the average water level of

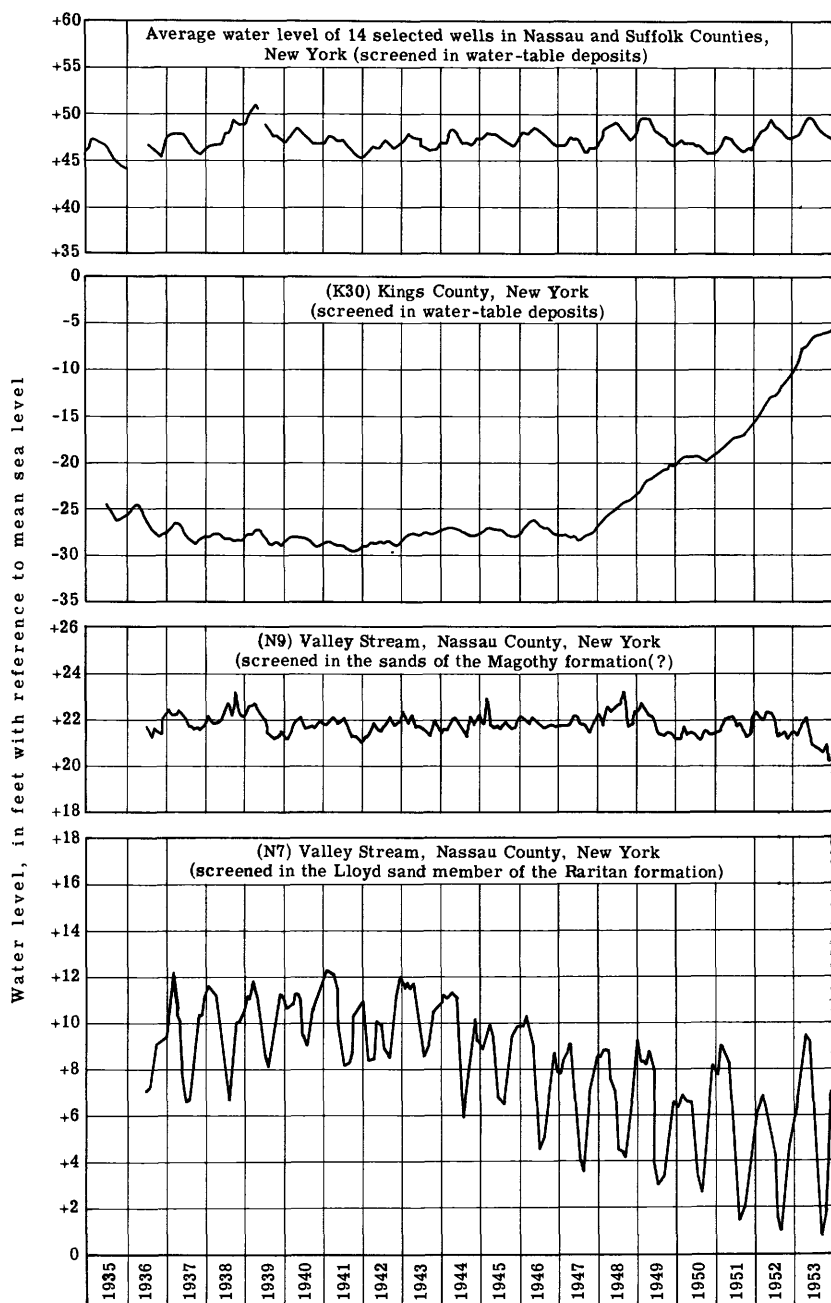


Figure 25. --Composite average water level of 14 selected wells in Nassau and Suffolk Counties and hydrographs of selected water-table and artesian wells in Kings and Nassau Counties, N. Y.

14 selected wells in Nassau and Suffolk Counties (fig. 25). These wells are N1255, N1256, N1259, N1263, N1614, N1615, and N1616 in Nassau County, and S1803, S1805, S1806, S1807, S1808, S1809, and S1810 in Suffolk County. At the end of 1953, the average water level in these wells was 48.06 feet above sea level, indicating a net rise of 0.80 foot during the year. Since the end of 1950, when the composite average water level was 45.73 feet, a net rise of 2.33 feet has taken place. The average level in December 1953 was the highest end-of-year level since 1938, when 48.77 feet above sea level was recorded. Because of abnormally high precipitation in March and April and favorable antecedent conditions, new highest-on-record water levels were established at many observation wells in Nassau and Suffolk Counties, particularly those with short periods of record. (See summary table.)

Of approximately 100 artesian observation wells on Long Island, only 45 are presently used for periodic observations; the remainder are public water-supply and industrial wells at which readings are taken only intermittently. Water-level readings at the following artesian wells are included in this report:

Jameco gravel	Sands of the Magothy formation(?)			Lloyd sand member of the Raritan formation	
*K19	N9	N1245	Q471	*K1057	Q278
*K519	N157	N1461	*S58	*N7	*Q283
K523	*N180	N1613	S203	N67	*Q470
K525	N575	N2052	S2314	N511	*Q543
K1591	N844	*N2528	*S4134	*N657	Q1027
Q350	*N1212	*N2635	S4828	N2071	Q1222
Q1152	N1244	*N2790		*N3355	S202
*Q1237				*Q64	*S6409
				*Q273	

* Equipped with recording gage.

Despite the fact that most artesian water levels showed net rises during 1953, small overall progressive declines in recent years can be noted at a few wells in western Long Island. For example, water levels in well N7 (fig. 25), which is screened in the Lloyd sand member of the Raritan formation in southwestern Nassau County, show in general, a more or less continuous overall decline since about 1944; water levels in well N1613 screened in the lower portion of the Magothy formation(?) show a smaller downward trend since about 1946. Well N9, located near wells N7 and N1613 and screened in the upper part of the Magothy formation(?), shows a somewhat abnormal decline in 1953 (fig. 25).

Acknowledgments

Acknowledgment is hereby made to the Superintendent of the Riverhead Water Supply for maintaining a recording gage at well S4134 at Riverhead and for taking periodic water-level readings at well S4271 at Baiting Hollow; and to the Superintendent of the Village of Greenport Water Supply for water-level readings at several wells in the vicinity of Greenport.

Well-Numbering System

Observation wells on Long Island are numbered by the New York State Water Power and Control Commission. The first letter from the name of the county is prefixed to the well number; the number has no geographical significance. Wells are numbered with respect to the order of drilling.

The following tables include a summary of data pertaining to ground-water levels for Long Island and the net change in water levels during 1953:

Summary of data on ground-water levels on Long Island, 1953
(in feet, with reference to mean sea level)

Well no.	Date of first measurement	Highest water level	Date	Lowest water level	Date	Water level on last date of record in 1953
K19	Sept. 10, 1940	a-2.71	Dec. 26, 1953	a-26.80	Sept. 26, 1941	a-2.84
K30	June 14, 1935	a-5.94	Dec. 15, 1953	a-29.75	Nov. 8, 1941	a-5.98
K65	Nov. 8, 1937	-6.25	Dec. 2, 1953	-28.34	Aug. 25, 1939	-6.26
K67	Nov. 8, 1937	-4.80	Dec. 2, 1953	-20.91	Sept. 15, 1947	-4.80
K92	Dec. 11, 1937	-3.30	Dec. 23, 1953	-29.69	Dec. 11, 1937	-3.30
K97	Apr. 5, 1944	-4.01	Dec. 2, 1953	-26.58	Oct. 27, 1944	-4.09

Summary of data on ground-water levels on Long Island, 1953--Cont'd.

Well no.	Date of first measurement	Highest water level	Date	Lowest water level	Date	Water level on last date of record in 1953
K196	Sept. 12, 1942	+6.47	Nov. 3, 1952	-4.76	Mar. 5, 1944	.....
K501	June 30, 1947	+5.66	May 26, 1953	-4.80	June 30, 1947	+5.13
K519	June 24, 1947	a+3.07	Dec. 26, 1953	-18.78	June 30, 1947	a+2.98
K523	Mar. 6, 1944	+4.90	Aug. 26, 1952	-1.91	Feb. 6, 1945	c+4.62
K525	Dec. 13, 1945	+6.50	May 26, 1953	a+.46	Mar. 10-13, 1947	+5.73
K539	May 3, 1932	+1.88	Aug. 27, 1953	-8.28	Feb. 21, 1942	+1.80
K889	June 4, 1945	-7.15	Dec. 23, 1953	-39.01	Jan. 25, 1947	-7.15
K1057	Mar. 29, 1939	(b)	(b)	(b)		a+8.76
K1194	Nov. 2, 1940	+1.10	Dec. 1, 1953	-8.36	Feb. 28, 1942	+7.71
K1198	Nov. 2, 1940	+2.26	Aug. 27, 1953	-8.45	Mar. 7, 1942	
K1199	Nov. 16, 1940	+7.6	May 25, 1953	-17.17	May 14, 1942	+2.16
K1235	Jan. 25, 1941	+1.48	Oct. 26, 1953	-10.65	Jan. 1, 1944	+6.69
K1236	Jan. 25, 1941	-5.4	Dec. 26, 1953	-19.42	June 27, 1942	+1.45
K1237	Jan. 18, 1941	-10.35	Aug. 3, 1953	-36.53	Oct. 4, 1941	-5.54
K1263	Apr. 21, 1933	+5.41	July 31, 1953	-11.97	Jan. 24, 1947	c-10.35
K1264	Apr. 21, 1933	+4.89	Aug. 27, 1953	-15.56	July 21, 1936	+4.96
K1265	Apr. 21, 1933	+3.52	May 26, 1953	-11.55	Apr. 3, 1947	+4.28
K1266	Apr. 21, 1933	+3.07	Dec. 1, 1953		May 7, 1947	
K1296	Sept. 6, 1941	+2.98	Apr. 29, 1953	-7.49	Aug. 22, 1942	+3.05
K1347	Oct. 15, 1942	-4.73	Mar. 24, 1953	-8.27	June 27, 1942	+1.84
K1495	Nov. 5, 1936	+4.39	Apr. 27, 1953	-24.16	Mar. 27, 1942	c+2.98
K1516	June 30, 1947	+3.93	May 26, 1953	+1.80	Sept. 10, 1945	-4.83
K1591	June 27, 1947	+2.43	Dec. 21, 1953	-21.56	Aug. 13, 1947	+3.57
N7	July 24, 1936	a+12.75	June 23, 1952	a-2.10	Dec. 17, 1947	
N9	July 3, 1936	+23.57	Mar. 9, 1941	a-.04	June 30, 1947	+3.93
N53	Jan. 21, 1934	+16.49	Sept. 23, 1938	+20.18	Oct. 27-28, 1947	c+2.22
N67	Mar. 16, 1932	+15.51	Apr. 15, 1939	+12.05	Sept. 11, 1953	a+7.44
N157	Sept. 22, 1932	a+88.84	Dec. 5, 1946	+8.71	Nov. 27, 1953	+20.25
N180	Oct. 30, 1945	a+21.08	Oct. 31, 1939	+75.71	Feb. 17, 1940	+13.72
N511	Jan. 9, 1947	+21.52	June 6, 1952	a+17.28	Aug. 26, 1953	+13.46
N575	Nov. 30, 1946	+60.52	Dec. 31, 1948	+18.23	May 5, 1933	+85.91
N657	Feb. 12, 1945	a+15.67	June 1, 1953	+52.44	Dec. 25, 1949	a+18.68
N844	Oct. 3, 1939	+85.94	May 2, 1953	a+12.95	Jan. 20, 1950	+20.98
N1102	Apr. 21, 1939	+59.12	June 29, 1953	a+78.87	Aug. 1, 1950	+57.26
N1104	Apr. 21, 1939	+62.17	May 25, 1953	+53.81	Jan. 29, 1946	a+14.35
N1108	Apr. 21, 1939	+43.62	May 25, 1953	+55.27	Apr. 16, 1942	+84.88
N1109	Apr. 21, 1939	+30.04	Apr. 28, 1939	+36.94	July 31, 1942	+57.53
N1110	Apr. 21, 1939	+21.05	Apr. 21, 1939	+24.42	May 1, 1942	+60.67
N1111	Apr. 21, 1939	+14.79	Apr. 21, 1939	+18.68	Jan. 30, 1942	+38.88
N1113	Apr. 21, 1939	+7.99	June 6, 1946		Sept. 26, 1951	+26.50
N1115	Apr. 21, 1939	+13.05	June 6, 1946	+11.62	Dec. 1, 1941	+19.54
N1121	May 28, 1943	+64.68	Jan. 6, 1949	+12	Oct. 25, 1947	+14.28
N1132	Apr. 2, 1938	+9.77	July 14, 1948	+8.57	June 24, 1952	+5.13
N1147	Jan. 6, 1939	+19.72	Oct. 31, 1949	+59.13	Dec. 1, 1941	+11.11
N1167	Mar. 12, 1938	+12.12	Sept. 23, 1938	+6.06	Dec. 20, 1951	+61.76
N1185	Apr. 2, 1938	+15.39	Apr. 8, 1939	+16.48	Feb. 24, 1940	+7.81
N1204	Jan. 6, 1939	+12.56	Mar. 25, 1948	+9.34	Nov. 1, 1950	+17.19
N1212	Jan. 1, 1943	a+89.74	Apr. 8, 1939	+10.01	Dec. 27, 1949	+10.02
N1222	Jan. 6, 1939	+9.80	Feb. 8, 1952	+5.07	Dec. 28, 1949	+13.00
N1240	Jan. 6, 1939	+11.45	Oct. 6, 1953	a+83.72	Jan. 26, 1950	+7.78
N1244	May 31, 1940	+76.50	Dec. 7, 1953	+1.27	Jan. 20, 1943	a+89.46
N1245	Feb. 2, 1940	+82.88	Mar. 30, 1953	-1.08	Jan. 31, 1942	+7.17
N1246	May 31, 1940	+82.71	Mar. 30, 1953	+1.08	Jan. 24, 1942	+6.76
N1247	Apr. 21, 1939	+76.98	May 31, 1940	+71.07	June 4, 1951	+76.24
N1249	Apr. 21, 1939	+58.18	Feb. 2, 1940	+75.63	June 4, 1951	+81.61
N1250	Apr. 21, 1939	+49.79	Oct. 29, 1953	+76.85	Apr. 24, 1951	+82.46
N1251	Apr. 21, 1939	+40.95	July 28, 1939	+70.52	July 31, 1942	+75.03
			Apr. 21, 1939	+50.34	Jan. 30, 1942	+54.55
				+43.20	Jan. 30, 1942	+46.96
				+35.57	Jan. 30, 1942	+38.67

Summary of data on ground-water levels on Long Island, 1953--Cont'd.

Well no.	Date of first measurement	Highest water level	Date	Lowest water level	Date	Water level on last date of record in 1953
N1252	Apr. 21, 1939	+26.51	Mar. 30, 1953	+22.48	Jan. 30, 1942	+25.22
N1253	Jan. 6, 1939	+16.93	Mar. 30, 1953	+11.31	Jan. 31, 1942	+14.78
N1254	Apr. 21, 1939	+4.70	Mar. 30, 1953	+2.35	Dec. 29, 1949	+3.84
N1255	May 12, 1913	+65.59	Apr. 15, 1939	+58.39	Oct. 30, 1951	+60.36
N1256	May 12, 1913	+80.97	May 20, 1939	+70.30	Feb. 27, 1933	+78.82
N1259	Feb. 5, 1909	+56.99	June 23, 1952	+47.83	Jan. 24, 1933	+53.72
N1263	Nov. 3, 1911	+55.24	June 23, 1952	+46.22	Oct. 31, 1932	+52.03
N1264	Mar. 7, 1932	+9.41	Apr. 8, 1939	+2.70	Feb. 17, 1940	+5.86
N1461	Apr. 27, 1943	+81.06	May 2, 1953	a+74.34	Oct. 10, 1943	+79.96
N1462	May 6, 1943	a+67.78	May 18, 1953	+61.26	Nov. 1, 1947	a+65.56
N1463	May 6, 1943	a+42.91	June 7, 1952	a+36.61	Oct. 28, 1947	a+38.52
					Nov. 3, 1947	
N1464	May 13, 1943	a+17.59	Apr. 29, 1944	+12.22	Jan. 26, 1950	+16.04
N1613	June 8, 1940	+24.56	July 28, 1948	+19.12	July 3, 1953	+20.82
N1614	Apr. 2, 1913	+72.48	May 31, 1949	+61.90	Feb. 27, 1933	+68.98
N1615	Mar. 17, 1913	+47.17	Mar. 28, 1939	+41.49	Oct. 27, 1932	+44.85
N1616	Mar. 17, 1913	+85.42	June 1, 1939	+74.05	Feb. 27, 1933	+83.15
N1828	Jan. 7, 1939	+64.52	Apr. 28, 1953	+57.80	Dec. 19, 1950	+61.26
N1829	Mar. 5, 1938	+69.43	Apr. 28, 1953	+66.00	Jan. 29, 1951	+68.31
N1830	Jan. 6, 1939	+54.23	May 31, 1949	a+49.05	June 7, 1942	+51.81
N2052	Mar. 14, 1946	+34.95	Nov. 5, 1952	+29.71	Mar. 14, 1946	+32.77
N2071	Feb. 12, 1946	+14.62	Mar. 15, 1946	+5.37	June 28, 1949	c+6.60
N2400	July 7, 1947	+74.10	Sept. 30, 1949	+70.04	Feb. 28, 1951	(d)
N2528	Dec. 4, 1947	+72.32	June 26, 1953	a+68.03	Jan. 22, 30, 1951	+71.33
N2635	July 16, 1948	a+27.67	May 23, 27, 31, 1953	a+23.77	Jan. 22, 23, 1951	a+26.14
N2790	Feb. 11, 1950	a+5.98	June 1, 1953	a+3.00	July 4, 1950	a+4.64
			Mar. 26, 1953			
			Apr. 13, 1953			
N3355	Aug. 14, 1951	a+34.86	Mar. 11, 1953	a+31.12	Sept. 30, 1951	a+34.57
Q64	Mar. 26, 1947	a+3.39	Apr. 13, 1953	a-68.90	Nov. 2, 1947	a-.96
Q273	Mar. 15, 1935	a+8.47	Apr. 20, 1939	a+1.12	Mar. 21, 1942	a+4.68
Q278	June 4, 1946	+5.11	Nov. 29, 1946	-6.86	July 25, 1951	- .39
Q283	June 10, 1946	-2.73	Feb. 28, 1951	-10.26	Sept. 3, 1947	a-5.63
					Sept. 27, 1951	
Q350	Mar. 17, 1937	+3.51	Apr. 29, 1939	a-.74	Feb. 7, 10, 11, 1948	+1.40
Q470	Sept. 21, 1933	a+6.78	Jan. 8, 1938	a-12.75	July 15, 1937	a+1.03
Q471	Mar. 31, 1939	+17.45	Sept. 30, 1946	+13.69	Mar. 31, 1939	+15.68
Q543	May 17, 1932	(b)		(b)		a+9.12
Q1027	Jan. 1, 1942	+8.53	Apr. 28, 1953	a+4.08	Mar. 20, 1942	+7.68
Q1089	Oct. 10, 1911	+4.04	Sept. 23, 1938	- .42	Oct. 17, 1932	+2.27
Q1152	June 27, 1947	+2.30	Mar. 27, 1953	-6.12	Mar. 28, 1950	+1.90
Q1222	Apr. 1, 1940	+4.35	Dec. 1, 1945	-9.12	Feb. 28, 1942	+1.80
Q1225	Apr. 20, 1933	+32.19	Apr. 4, 1939	+23.91	Feb. 26, 1951	+24.14
Q1237	Feb. 10, 1939	a+5.03	Apr. 30, 1939	a-6.92	Mar. 26, 1950	a-1.84
			May 4, 1939			
Q1248	Oct. 12, 1940	+38.16	May 31, 1949	+33.10	Oct. 30, 1951	+34.22
Q1249	Oct. 19, 1940	+33.41	Sept. 26, 1946	+26.07	Oct. 30, 1951	+26.61
Q1250	Oct. 19, 1940	+22.52	Aug. 31, 1948	+17.33	Dec. 19, 1950	+17.98
Q1251	Oct. 19, 1940	+14.25	Feb. 24, 1949	+7.53	Dec. 19, 1953	+7.53
Q1252	Oct. 26, 1940	+13.92	Nov. 2, 1948	+8.82	Dec. 19, 1953	+8.82
Q1253	Nov. 2, 1940	+4.58	Apr. 26, 1941	- .34	Nov. 24, 1953	+ .63
Q1254	Oct. 26, 1940	+ .29	Apr. 12, 1941	-5.34	Jan. 31, 1951	-3.55
Q1255	Oct. 12, 1911	+12.03	May 12, 1914	-6.30	Nov. 3, 1947	c-2.91
Q1256	Oct. 26, 1940	- .60	Dec. 19, 1953	-6.98	Mar. 14, 1942	- .60
Q1281	Oct. 11, 1911	+8.59	June 4, 1913	-3.62	Mar. 7, 1942	- .39
Q1283	Oct. 12, 1911	+13.33	Nov. 10, 1911	+1.75	Dec. 30, 1948	+1.85
S58	Aug. 14, 1944	a+25.50	Apr. 20, 1953	a+22.32	Oct. 6, 1951	a+23.98
S202	Nov. 25, 1936	a+47.17	Apr. 10, 1937	a+36.93	Feb. 1, 1939	+43.30
S203	Nov. 13, 1936	a+77.13	Oct. 31, 1939	+69.14	Apr. 22, 1952	c+75.67
S929	Sept. 29, 1949	+4.05	May 4, 1953	+ .98	June 27, 1950	+2.27
S1803	Oct. 18, 1912	+18.19	Apr. 22, 1913	+14.93	Oct. 25, 1941	+17.26
S1805	Oct. 16, 1912	+47.17	Apr. 28, 1953	+37.90	Oct. 27, 1932	+42.89
S1806	Oct. 18, 1912	+61.69	Apr. 22, 1939	+50.61	Jan. 5, 1933	+56.57

Summary of data on ground-water levels on Long Island, 1953--Cont'd.

Well no.	Date of first measurement	Highest water level	Date	Lowest water level	Date	Water level on last date of record in 1953
S1807	Oct. 19, 1912	+23.48	Oct. 14, 1938	+20.45	Oct. 5, 1953	+21.12
S1808	Oct. 21, 1912	+12.94	Sept. 23, 1938	+9.45	Sept. 12, 1932	+12.04
S1809	Oct. 21, 1912	+32.56	Apr. 15, 1939	+25.00	Nov. 2, 1932	+28.58
S1810	Oct. 21, 1912	+56.19	Apr. 29, 1939	+45.24	Feb. 23, 1933	+52.41
S1811	Feb. 28, 1937	+55.66	May 5, 1953	+51.41	Aug. 28, 1941	+54.59
S1814	Nov. 4, 1939	+39.85	May 25, 1953	+34.50	Jan. 25, 1951	+37.10
S1817	Dec. 2, 1939	+54.34	Apr. 28, 1953	+49.66	Oct. 30, 1951	+52.85
S2146	Aug. 31, 1950	+3.97	May 26, 1953	+2.50	Jan. 11, 1951	+3.40
S2314	Mar. 27, 1943	+62.48	May 26, 1953	+57.63	Dec. 17, 1951	+61.29
S2455	June 23, 1933	a+24.85	Sept. 23, 1938	a+19.98	Nov. 6, 1937	+22.63
S3496	Nov. 2, 1942	+51.77	Aug. 4, 1953	+45.79	Feb. 21, 1951	+49.93
S3513	Apr. 24, 1942	+65.82	June 23, 1953	a+59.86	Mar. 27, 1951	
					Feb. 15, 21, 23, 1948	+63.78
S3514	May 15, 1942	a+70.73	Sept. 6, 1953	a+64.23	Mar. 18, 26, 1951	a+69.93
S3516	Mar. 5, 1907	+41.38	Apr. 30, 1953	+35.29	Dec. 21, 1950	+37.57
S3517	Apr. 2, 1907	+14.57	Apr. 29, 1953	+11.60	Dec. 4, 1909	+12.99
S3526	Jan. 30, 1943	+30.52	Dec. 30, 1948	+25.73	Jan. 25, 1951	c+29.73
S3532	Apr. 21, 1907	+51.95	June 8, 1908	+45.23	Feb. 23, 1951	+48.61
S3535	Aug. 13, 1907	+22.81	May 26, 1953	+17.51	Feb. 23, 1951	+19.84
S3537	Jan. 11, 1908	+17.46	Apr. 30, 1953	+14.09	Jan. 23, 1951	+16.04
S3539	Apr. 12, 1907	+27.14	Aug. 5, 1953	+21.33	Mar. 28, 1951	+25.61
S3543	Mar. 18, 1907	+20.87	June 24, 1953	+15.18	Feb. 27, 1951	+18.72
S3545	Mar. 12, 1907	+39.23	May 25, 1953	+33.51	Jan. 25, 1951	+36.20
S3728	May 28, 1943	+23.67	Mar. 30, 1949	+19.41	Dec. 21, 1951	c+21.62
S3729	Sept. 10, 1943	+31.58	May 25, 1953	+27.34	Apr. 4, 1947	+28.72
S3730	Sept. 21, 1943	+38.01	June 23, 1953	+33.04	Feb. 26, 1951	+35.48
S3737	Aug. 17, 1943	+59.97	Oct. 6, 1953	+54.33	Feb. 20, 1951	+58.88
S3739	July 20, 1943	+30.61	June 23, 1952	+26.33	Dec. 29, 1950	c+28.31
S3868	June 26, 1944	+41.30	Oct. 4, 1953	+36.21	Jan. 22, 1951	+40.64
S3869	June 22, 1944	+58.57	Aug. 4, 1953	+52.97	Jan. 22, 1951	+56.70
S3870	June 16, 1944	+57.71	June 23, 1953	+52.84	Feb. 20, 1951	+56.52
S3871	June 15, 1944	+50.79	Aug. 27, 1953	+45.84	Feb. 26, 1951	+49.47
S3955	May 31, 1944	+57.73	Aug. 24, 1953	+51.40	Mar. 28, 1951	+56.79
S3956	May 31, 1944	+34.57	Aug. 27, 1953	+30.29	Mar. 28, 1951	+34.00
S3978	Sept. 29, 1949	+2.08	Apr. 2, 1953	- 3.30	Dec. 29, 1949	+1.47
S4134	Mar. 10, 1945	a+14.23	Apr. 27, 1953	a+11.33	Nov. 23, 1950	a+13.33
			May 8, 1953			
S4268	Aug. 2, 1945	+53.12	Oct. 6, 1953	+46.65	Mar. 27, 1951	+52.96
S4270	Aug. 1, 1945	+56.30	May 26, 1953	+49.86	Feb. 19, 1951	+54.46
S4271	Aug. 2, 1945	+11.55	June 25, 1953	a+9.12	Sept. 10-12, 1950	+11.03
S4524	Aug. 2, 1945	+9.44	May 1, 1953	+5.52	Nov. 2, 1950	+8.33
S4526	Aug. 2, 1945	+11.42	Aug. 26, 1953	+7.47	Dec. 28, 1950	+10.75
S4530	Aug. 2, 1945	+19.90	May 1, 1953	+13.91	Dec. 28, 1950	+17.20
S4827	Dec. 4, 1946	+60.32	Nov. 23, 1953	+54.23	May 28, 1951	+60.18
S4828	Dec. 4, 1946	+71.07	Oct. 23, 1953	+65.17	Jan. 24, 1952	+70.92
S4829	Sept. 30, 1946	+41.31	Aug. 27, 1953	+36.74	Apr. 4, 1951	+40.74
S5517	Apr. 28, 1948	a+45.49	June 9, 13-19, 1953	a+39.60	Feb. 4-6, 8, 9, 1951	+42.47
S6400	July 28, 1948	+47.36	May 28, 1953	+40.97	Jan. 26, 1951	+43.75
S6409	Feb. 2, 1949	a+35.02	July 2, 1953	a+31.46	Feb. 15, 1951	+33.96
S6410	Nov. 4, 1948	+48.36	Aug. 5, 1953	a+42.59	Feb. 25, 26, 28, 1951	+46.55
S6411	Nov. 5, 1948	+32.14	Oct. 28, 1953	+28.39	Mar. 1-7, 1951	
S6435	Jan. 24, 1949	+22.66	June 10, 1953	+19.05	Apr. 4, 1951	+31.79
S6441	Jan. 26, 1949	+38.88	Apr. 25, 1953	+34.42	Feb. 26, 1951	+20.63
S6524	July 13, 1949	+3.04	May 4, 1953	+ 66	Nov. 24, 1950	+37.53
S6532	Aug. 15, 1949	+5.52	May 27, 1953	+1.95	Feb. 1, 1950	+2.94
S6542	July 14, 1949	+7.89	May 27, 1953	+3.22	Feb. 27, 1950	+3.50
S6558	July 14, 1949	+6.23	May 1, 1953	+2.78	Nov. 2, 1950	+6.37
S6780	Sept. 6, 1949	+5.69	May 27, 1953	+2.77	June 26, 1950	+4.39
S7267	July 14, 1949	+7.78	May 27, 1953	+3.58	Aug. 30, 1950	+5.91
S7283	Jan. 11, 1949	a+5.09	Apr. 26, 27, 1953	a+1.28	Jan. 28-31, 1950	a+3.70
					Feb. 1-2, 1950	

Summary of data on ground-water levels on Long Island, 1953--Cont'd.

Well no.	Date of first measurement	Highest water level	Date	Lowest water level	Date	Water level on last date of record in 1953
S8831	Aug. 15, 1950	+8.41	Apr. 1, 1953	+6.23	Oct. 31, 1950	+8.27
S8834	Aug. 16, 1950	+14.36	Dec. 23, 1953	+9.58	Dec. 26, 1950	+14.36
S8835	Aug. 31, 1950	+11.09	May 26, 1953	+6.95	Jan. 23, 1951	+9.52
S8836	July 31, 1950	+8.88	Apr. 29, 1953	+5.61	Jan. 23, 1951	+7.89
S8837	Aug. 1, 1950	+9.71	May 26, 1953	+6.92	Dec. 26, 1950	+9.49
S8839	Aug. 16, 1950	+9.51	May 26, 1953	+6.29	Jan. 23, 1951	+9.05
S8912	Oct. 30, 1947	+36.95	Apr. 28, 1953	+32.90	Jan. 27, 1948	+34.34

a Based on recording-gage records.

b Water levels affected by tidal fluctuations; extremes not determined as water levels were computed on different bases for period of record.

c No readings obtained during latter part of year.

d Measurement discontinued.

Net change in water level in wells on Long Island, 1953

Well no.		Net change (feet)	Well no.		Net change (feet)	Well no.		Net change (feet)	Well no.		Net change (feet)
K19	J	+2.72	N1121		+0.61	Q470	L	+1.69	S3539		+1.17
K30		+4.07	N1132		-.36	Q471	M	-.55	S3543		+.72
K65		+4.15	N1147		-.08	Q543	L	-.40	S3545		+.78
K67		+3.97	N1167		-.29	Q1027	L	+.12	S3728		.....
K92		+3.68	N1185		+.75	Q1089		+.02	S3729		+.42
K97		+3.34	N1204		-4.10	Q1152	J	-.34	S3730		+.54
K196		.....	N1212	M	+2.09	Q1222	L	+.53	S3737		+1.34
K501		+.15	N1222		-2.08	Q1225		-.76	S3739		.....
K519	J	+1.55	N1240		-3.80	Q1237	J	-3.96	S3868		+1.10
K523	J	+.12	N1244	M	+1.72	Q1248		-.58	S3869		+1.23
K525	J	-.15	N1245	M	+2.08	Q1249		-.94	S3870		+1.35
K539		+.41	N1246		+1.72	Q1250		-.10	S3871		+1.01
K889		+2.99	N1247		+1.00	Q1251		-1.04	S3955		+1.50
K1057	L	-.32	N1249		+1.09	Q1252		-1.49	S3956		+.66
K1194		+.36	N1250		+1.02	Q1253		-.08	S3978		+.75
K1198		+.64	N1251		+.80	Q1254		-1.17	S4134	M	+.77
K1199		+1.65	N1252		+.43	Q1255		.....	S4268		+2.29
K1235		+.86	N1253		-.30	Q1256		+.60	S4270		+1.46
K1236		+3.00	N1254		-.30	Q1281		-.27	S4271		+.09
K1237		+2.64	N1255		.....	Q1283		-1.82	S4524		+1.41
K1263		+.40	N1256		+1.21	S58	M	+.82	S4526		+1.19
K1264		+.92	N1259		+.67	S202	L	+1.03	S4530		+1.12
K1265		+.55	N1263		+.81	S203	M	+2.79	S4827		+2.52
K1266		-.13	N1264		-3.05	S929		+.81	S4828	M	+2.74
K1296		+.88	N1461	M	+1.76	S1803		+1.35	S4829		+1.09
K1347		+2.34	N1462		+1.25	S1805		+1.09	S5517		+.26
K1495		-.32	N1463		+.73	S1806		+.74	S6400		+.67
K1516		+1.94	N1464		-.06	S1807		+.11	S6409	L	+.07
K1591	J	+.35	N1613	M	-.68	S1808		+.88	S6410		+.86
N7	L	+1.21	N1614		+1.36	S1809		+.93	S6411		+.69
N9	M	-1.17	N1615		-1.65	S1810		+1.33	S6435		+.19
N53		+.32	N1616		+.82	S1811		+1.15	S6441		+1.19
N67	L	+1.53	N1828		+1.07	S1814		+.59	S6524		+1.02
N157	M	+1.26	N1829		+.72	S1817		+1.16	S6532		+.64
N180	M	-.70	N1830		-.17	S2146		+.19	S6542		+1.35
N511	L	+.10	N2052	M	-1.85	S2314	M	+1.52	S6558		+1.38
N575	M	+1.44	N2071	L	.....	S2455		+1.08	S6780		+.41
N657	L	-.21	N2400	M	.....	S3496		+.98	S7267		+.45
N844	M	+1.67	N2528	M	+1.14	S3513		+1.29	S7283		+1.89
N1102		-.47	N2635	M	-.15	S3514		+1.55	S8831		+1.16
N1104		-.06	N2790	M	-.19	S3516		+.79	S8834		+2.74
N1108		-.41	N3355	L	+.92	S3517		+.83	S8835		+1.27
N1109		-1.00	Q64	L	+.41	S3526		+1.34	S8836		+1.39
N1110		+.19	Q273	L	-.02	S3532		+.74	S8837		+1.66
N1111		+.84	Q278	L	+1.93	S3535		+.28	S8839		+1.95
N1113		+3.06	Q283	J	+1.71	S3537		+.79	S8912		+.37
N1115		+1.19	Q350	L	-.17						

J, Jameco gravel. L, Lloyd sand member of Raritan formation. M, Sands of Magothy formation(?). All other wells screened in deposits of late Pleistocene age.

Well Descriptions and Water-Level Measurements

All measurements in the following tables are referred to mean sea level (Sandy Hook datum). Water levels below this datum are preceded by a minus (-) sign; those above the datum by a plus (+) sign. In tables where measurements are either all above or all below mean sea level, the appropriate sign is placed at the head of each column.

Kings County

K19. Comtone Co. 604 Pacific St. Lat. 40°41'00", long. 73°58'35". Drilled unused artesian well in Jameco gravel, diameter 8 to 6 inches, depth 186 feet, screen assumed at bottom. Land-surface datum is 45.3 feet above msl. Highest water level 2.71 below msl, Dec. 26, 1953; lowest 26.80 below msl, Sept. 26, 1941. Records available: 1940-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-5.53	-5.05	-4.77	-4.31	-3.83	-3.47	-3.54	-3.59	....	-3.49	-3.24	-2.98
2	5.47	5.12	4.77	4.29	3.87	3.51	3.50	3.51	-3.54	3.55	3.18	3.01
3	5.41	5.02	4.76	4.32	3.88	3.55	3.43	3.51	3.58	3.54	3.19	3.02
4	5.46	5.05	4.60	4.28	3.88	3.55	3.43	3.52	3.60	3.37	3.21	2.99
5	5.47	5.11	4.69	4.21	3.82	3.57	3.37	3.47	3.54	3.33	3.29	3.02
6	5.52	5.08	4.76	4.17	3.85	3.57	3.33	3.59	3.48	3.33	3.26	2.96
7	5.55	5.02	4.77	4.14	3.81	3.51	3.46	3.62	3.44	3.44	3.16	3.01
8	5.48	4.96	4.65	....	3.80	3.52	3.55	3.56	3.55	3.51	3.22	3.12
9	5.40	5.01	4.61	....	3.81	3.53	3.59	3.44	3.63	3.47	3.18	3.06
10	5.34	5.05	4.64	....	3.74	3.57	3.63	3.43	3.61	3.39	3.23	2.98
11	5.22	....	4.70	....	3.72	3.56	3.65	3.58	3.57	3.30	3.22	3.14
12	5.31	4.90	4.63	....	3.80	3.60	3.59	3.63	3.49	3.33	....	3.04
13	5.37	4.96	4.53	....	3.83	3.56	3.56	3.64	3.42	3.47	....	2.93
14	5.40	4.98	4.60	....	3.84	3.47	3.62	3.60	3.46	3.43	3.17	2.78
15	5.38	4.82	4.50	4.13	3.81	3.44	3.62	3.58	3.44	3.35	3.02	2.94
16	5.31	4.95	4.46	4.01	3.81	3.50	3.61	3.58	3.44	3.36	....	3.02
17	5.32	4.98	4.53	4.06	3.68	3.54	3.56	3.48	3.52	3.41	....	3.06
18	5.15	5.06	4.52	4.07	3.63	3.53	3.56	3.53	3.57	3.35	....	3.03
19	5.15	5.04	4.46	3.66	3.77	3.56	3.53	....	3.49	3.30	....	3.02
20	5.20	5.02	4.52	3.91	3.81	3.56	3.53	....	3.35	3.34	....	2.87
21	5.20	4.89	4.58	3.99	3.83	3.49	3.58	....	3.34	3.41	3.12	2.85
22	5.27	4.93	....	4.01	3.73	3.49	3.60	....	3.50	3.36	3.03	2.89
23	5.25	4.92	....	3.96	3.69	3.57	3.53	....	3.54	....	2.95	2.98
24	5.11	4.77	....	4.05	3.70	3.66	3.61	....	3.54	....	3.04	3.01
25	5.13	4.76	4.39	4.00	3.65	3.68	3.68	....	3.46	....	2.99	2.80
26	5.29	4.70	4.37	3.88	3.62	3.68	3.59	....	3.35	....	3.06	2.71
27	5.28	4.70	4.39	3.84	3.67	3.71	3.53	....	3.28	3.27	3.04	2.81
28	5.13	4.75	4.38	3.91	3.73	3.64	3.54	....	3.30	3.26	3.07	2.78
29	5.21	....	4.31	3.94	3.69	3.58	3.58	....	3.41	3.21	3.07	2.83
30	5.27	....	4.27	3.93	3.54	3.61	3.58	....	3.46	3.34	2.99	2.83
31	5.12	....	4.32	....	3.46	....	3.58	....	....	3.36	....	2.84

K30. Detecto Scales, Inc. Park and Nostrand Aves. Lat. 40°41'50", long. 73°57'15". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 56 feet, screen assumed at bottom. Land-surface datum is 17.8 feet above msl. Highest water level 5.94 below msl, Dec. 15, 1953; lowest 29.75 below msl, Nov. 8, 1941. Records available: 1935-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	-8.64	-8.07	-7.50	-7.15	-6.92	-6.70	-6.47	-6.36	-6.28	-6.11
2	....	....	8.65	8.05	7.52	7.14	6.90	6.68	6.46	6.40	6.27	6.11
3	....	-9.17	8.67	....	7.55	7.14	6.88	6.67	6.46	6.42	6.27	6.13
4	....	9.11	8.54	....	7.57	7.16	6.91	6.66	6.47	6.42	6.26	6.14
5	....	9.14	8.51	....	7.51	7.14	6.91	6.62	6.47	6.37	6.28	6.12
6	....	9.15	8.58	....	7.47	7.13	6.89	6.63	6.46	6.31	6.32	6.09
7	-9.75	9.12	8.62	....	7.45	7.11	6.86	6.67	6.43	6.30	6.23	6.01
8	9.75	9.09	8.61	7.95	7.42	7.10	6.85	6.67	6.43	6.35	6.23	6.10
9	9.65	9.06	....	7.96	7.42	7.09	6.85	6.65	6.45	6.37	6.23	6.11
10	9.61	9.05	8.53	7.93	7.42	7.09	6.86	6.61	6.47	6.37	6.23	6.01
11	9.51	9.02	8.56	7.89	7.41	7.10	6.88	6.61	6.46	6.35	6.23	6.10
12	9.54	8.93	8.58	7.88	7.40	7.10	6.88	6.63	6.43	6.33	6.21	6.12
13	9.60	8.91	8.52	7.78	7.40	7.09	6.85	6.63	6.39	6.36	6.25	6.08
14	9.61	8.95	8.48	7.77	7.41	7.07	6.83	6.62	6.38	6.39	6.25	5.98
15	9.61	8.87	8.45	7.80	7.40	7.05	6.82	6.59	6.38	6.38	6.12	5.94

K30--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	....	-8.85	-8.37	-7.79	-7.39	-7.02	-6.82	-6.58	-6.36	-6.35	-6.08	-6.05
17	....	8.90	8.37	7.76	7.36	7.01	6.82	6.57	6.37	6.35	6.11	6.11
18	....	8.94	8.34	7.77	7.31	7.00	6.81	6.56	6.41	6.35	6.14	6.15
19	....	8.96	8.32	7.72	7.29	7.00	6.79	6.55	6.44	6.35	6.17	6.16
20	-9.37	8.98	8.32	7.66	7.31	6.99	6.77	6.55	6.43	6.33	6.18	6.11
21	9.38	8.91	8.34	7.65	7.34	6.97	6.75	6.58	6.38	6.32	6.18	6.05
22	9.37	8.87	8.35	7.68	7.35	6.95	6.76	6.60	6.38	6.33	6.14	6.02
23	9.39	8.87	8.25	7.65	7.31	6.94	6.75	6.58	6.42	6.30	6.01	6.00
24	9.27	8.77	8.15	7.65	7.31	7.00	6.75	6.54	6.46	6.25	6.02	6.05
25	9.20	8.69	8.15	7.67	7.28	7.02	6.80	6.53	6.47	6.24	5.98	6.08
26	9.29	8.65	8.11	7.60	7.23	7.02	6.82	6.53	6.45	6.25	6.08	6.02
27	9.38	8.61	8.11	7.53	7.21	7.02	6.78	6.52	6.40	6.27	6.14	6.01
28	....	8.61	8.12	7.55	7.25	7.01	6.74	6.52	6.35	6.25	6.16	6.03
29	....		8.12	7.58	7.29	6.97	6.73	6.51	6.34	6.20	6.19	6.01
30	....		8.09	7.60	7.27	6.95	6.71	6.49	6.35	6.20	6.16	5.99
31	....		8.07		7.20		6.70	6.47		6.26		5.98

K65. A. Ludwig Co. 123 Middleton St. Lat. 40°42'15", long. 73°57'15". Drilled unused water-table well in deposits of late Pleistocene age, diameter 6 to 8 inches, depth 63 feet, screen assumed at bottom. Land-surface datum is 17.3 feet above msl. Highest water level 6.25 below msl, Dec. 2, 1953; lowest 28.34 below msl, Aug. 25, 1939. Records available: 1937-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	-9.57	May 25	-7.91	Aug. 28	-6.51	Dec. 2	-6.25
27	-9.00	June 24	-7.58	Oct. 2	-6.93	23	-6.26
Apr. 27	-7.81	Aug. 3	-7.14	28	-6.58		

K67. Young Mens Christian Association. 179 Marcy Ave. Lat. 40°42'30", long. 73°57'30". Drilled unused water-table well in deposits of late Pleistocene age, diameter 4 to 3 inches (1½-inch access pipe at top), depth 70 feet, screen assumed at bottom. Land-surface datum is 47 feet above msl. Highest water level 4.80 below msl, Dec. 2, 23, 1953; lowest 20.91 below msl, Sept. 15, 1947. Records available: 1937-53.

Feb. 5	-8.10	Apr. 27	-6.88	Aug. 3	-6.07	Oct. 28	-5.00
27	-7.71	May 25	-6.51	28	-5.82	Dec. 2	-4.80
Mar. 24	-7.38	June 24	-6.31	Oct. 2	-5.39	23	-4.80

K92. St. Johns University. 75 Lewis Ave. Lat. 40°41'45", long. 73°56'15". Drilled unused water-table well in deposits of late Pleistocene age, diameter about 60 to 6 inches, depth estimated at 110 feet, screen assumed at bottom. Land-surface datum is 69.1 feet above msl. Highest water level 3.30 below msl, Dec. 23, 1953; lowest 29.69 below msl, Dec. 11, 1937. Records available: 1937-53.

Feb. 5	-6.12	Apr. 27	-4.64	Aug. 3	-4.40	Oct. 28	-3.86
27	-5.68	May 22	-4.41	28	-4.06	Dec. 2	-3.43
Mar. 24	-5.29	June 24	-4.45	Oct. 1	-4.17	23	-3.30

K97. Formerly The Borden Co. 32 Lexington Ave. Lat. 40°41'15", long. 73°57'50". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 124 feet, screen assumed at bottom. Land-surface datum is 64.2 feet above msl. Highest water level 4.01 below msl, Dec. 2, 1953; lowest 26.58 below msl, Oct. 27, 1944. Records available: 1944-53.

Feb. 27	-6.36	May 25	-5.14	Oct. 2	-4.39	Dec. 2	-4.01
Mar. 25	-6.01	June 24	-4.82	28	-4.22	23	-4.09
Apr. 27	-5.45	Aug. 28	-4.42				

K196. Formerly Knickerbocker Ice Co. 12th Ave. and 37th St. Lat. 40°38'40", long. 73°59'20". Drilled unused water-table well in deposits of late Pleistocene age, diameter 10 inches (1½-inch access pipe at top), depth 128 feet, screen assumed at bottom. Land-surface datum is 79.7 feet above msl. Highest water level 6.47 above msl, Nov. 3, 1952; lowest 4.76 below msl, Mar. 5, 1944. Records available: 1942-52. No measurement made in 1953.

K501. Formerly New York Water Service Corp. 363 Dahill Rd. Lat. 40°38'20", long. 73°58'45". Drilled unused water-table well in deposits of late Pleistocene age, diameter 24 inches (1½-inch access pipe at top), depth 103 feet, screen 63-103. Land-surface datum is 46 feet above msl. Highest water level 5.66 above msl, May 26, 1953; lowest 4.80 below msl, June 30, 1947. Records available: 1947-53.

K501--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+4.94	Apr. 29	+5.46	July 31	+5.42	Oct. 26	+5.23
25	+4.98	May 26	+5.66	Aug. 27	+5.42	Dec. 1	+5.10
Mar. 23	+5.11	June 23	+5.60	Sept. 24	+5.33	21	+5.13

K519. Formerly New York Water Service Corp. 543-45 Troy Ave. Lat. 40°39'40", long. 73°56'10". Drilled unused artesian well in Jameco gravel, diameter 28 to 18 inches, depth 239 feet, screen 196-239. Land-surface datum is 30.7 feet above msl. Highest water level 3.07 above msl, Dec. 26, 1953; lowest 18.78 below msl, June 30, 1947. Records available: 1947-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.43	+1.58	+1.63	+2.02	+2.41	+2.73	+2.68	+2.76	+2.68	+2.77	+2.81	+2.90
2	1.46	1.47	1.60	2.03	2.36	2.70	2.70	2.85	2.73	2.71	2.82	2.87
3	1.56	....	1.61	1.99	2.32	2.67	2.72	2.82	2.70	2.72	2.83	2.85
4	1.46	....	1.83	2.04	2.32	2.68	2.65	2.79	2.66	2.74	2.81	2.88
5	1.41	....	1.71	2.09	2.41	2.60	2.65	2.81	2.71	2.89	2.73	2.87
6	1.35	....	1.63	2.10	2.40	2.59	2.73	2.67	2.73	2.92	2.77	2.92
7	1.33	....	1.61	2.14	2.43	2.60	2.68	2.66	2.77	2.83	2.90	2.90
8	1.38	....	1.70	2.05	2.44	2.61	2.65	2.72	2.64	2.74	2.81	2.79
9	1.45	....	1.71	2.08	2.43	2.61	2.62	2.80	2.61	2.77	2.83	2.85
10	1.51	....	1.68	2.15	2.48	2.63	2.61	2.80	2.63	2.85	2.79	2.95
11	1.62	....	1.60	2.12	2.50	2.64	2.55	2.70	2.67	2.90	2.81	2.77
12	1.48	....	1.69	2.18	2.46	2.66	2.59	2.64	2.77	2.87	2.77	2.87
13	1.41	....	1.82	2.27	2.46	2.71	2.63	2.65	2.85	2.74	2.75	2.93
14	1.37	....	1.75	2.17	2.45	2.75	2.58	2.74	2.84	2.76	2.81	3.05
15	1.39	....	1.82	2.12	2.48	2.76	2.60	2.71	2.87	2.86	2.94	2.92
16	1.46	....	1.85	2.25	2.45	2.65	2.58	2.68	2.88	2.85	2.92	2.84
17	1.40	....	1.80	2.20	2.57	2.70	2.61	2.73	2.79	2.79	2.86	....
18	1.59	1.47	1.83	2.22	2.60	2.65	2.63	2.72	2.75	2.80	2.81	....
19	1.58	1.48	1.88	2.30	2.51	2.65	2.65	2.72	2.79	2.84	2.81	....
20	1.54	1.50	1.80	2.33	2.47	2.64	2.66	2.70	2.81	2.83	2.81	....
21	1.53	1.63	1.73	2.27	2.44	2.66	2.64	2.66	2.89	2.76	2.83	....
22	1.48	1.55	1.79	2.25	2.56	2.63	2.62	2.68	2.77	2.80	2.89	....
23	1.46	1.57	1.88	2.32	2.54	2.59	2.76	2.77	2.72	2.91	2.99	....
24	1.65	1.66	1.95	2.23	2.50	2.51	2.66	2.78	2.72	2.91	2.92	2.84
25	1.58	1.69	1.96	2.29	2.56	2.54	2.67	2.70	2.80	2.86	2.99	3.01
26	1.41	1.75	1.97	2.38	2.64	2.56	2.69	2.70	2.86	2.83	2.87	3.07
27	1.43	1.75	1.96	2.39	2.59	2.53	2.74	2.71	2.87	2.79	2.87	2.96
28	1.58	1.68	1.96	2.32	2.53	2.56	2.73	2.72	2.91	2.89	2.83	3.00
29	1.47	....	2.02	2.29	2.57	2.60	2.73	2.73	2.81	2.95	2.82	....
30	1.40	....	2.05	2.32	2.69	2.59	2.75	2.72	2.78	2.79	2.87	....
31	1.50	....	2.00	....	2.73	....	2.74	2.75	....	2.75	....	2.98

K523. Formerly New York Water Service Corp. 267 Newkirk Ave. Lat. 40°38'00", long. 73°58'15". Drilled unused artesian well in Jameco gravel, diameter 28 to 18 inches, depth 268 feet, screen 202-268. Land-surface datum is 42.7 feet above msl. Highest water level 4.90 above msl, Aug. 26, 1952; lowest 1.91 below msl, Feb. 6, 1945. Records available: 1944-53. Feb. 25, +4.62.

K525. Formerly New York Water Service Corp. 363 Dahill Rd. Lat. 40°38'20", long. 73°38'45". Drilled unused artesian well in Jameco gravel, diameter 28 to 18 inches, depth 300 feet, screen 260-300. Land-surface datum is 46 feet above msl. Highest water level 6.50 above msl, May 26, 1953; lowest 0.46 above msl, Mar. 10-13, 1947. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+5.87	Apr. 29	+6.33	July 31	+6.08	Dec. 1	+5.78
25	+5.90	May 26	+6.50	Aug. 27	+6.00	21	+5.73
Mar. 23	+5.97	June 23	+6.43	Sept. 24	+6.04		

K539. City of New York, Department of Water Supply, Gas and Electricity. Atlantic Ave. and Logan St. Lat. 40°40'55", long. 73°52'30". Drilled unused water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 43 feet, screen assumed at bottom. Land-surface datum is 32.9 feet above msl. Highest water level 1.88 above msl, Aug. 27, 1953; lowest 8.28 below msl, Feb. 21, 1942. Records available: 1932-53.

K539--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+1.51	Apr. 27	+1.60	July 30	+1.62	Oct. 26	+1.73
26	+1.57	May 25	+1.46	Aug. 27	+1.88	Dec. 1	+1.70
Mar. 24	+1.44	June 23	+1.29	Sept. 30	+1.83	21	+1.80

K889. Finest Steam Laundry. 199 Bogart St. Lat. 40°42'45", long. 73°56'15". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 to 6 inches, depth 72 feet, screen 62-72. Land-surface datum is 20.8 feet above msl. Highest water level 7.15 below msl, Dec. 23, 1953; lowest 39.01 below msl, Jan. 25, 1947. Records available: 1945-53.

Feb. 5	-9.37	Apr. 27	-8.26	Aug. 3	-7.45	Dec. 2	-7.25
27	-9.10	May 25	-7.91	Oct. 2	-7.61	23	-7.15
Mar. 24	-8.82	June 23	-7.47				

K1057. U. S. Naval Air Station. Floyd Bennett Field. Lat. 40°35'05", long. 73°53'10". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 6 inches, depth 720 feet, screen assumed at bottom. Land-surface datum is 8.1 feet above msl. Records available: 1939-42, 1944-53. Water levels affected by tidal fluctuation; extremes not determined as water levels were computed on different bases for period of record.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+9.38	+9.17	+9.36	+10.46	+10.56	+10.27	+8.97	+7.38	+6.76	+6.60	+7.65	+8.26
2	9.16	8.95	9.35	10.47	10.60	10.12	9.05	7.42	6.79	6.49	7.64	8.47
3	9.46	9.38	9.62	10.26	10.31	9.99	8.93	7.38	6.79	6.50	7.66	8.59
4	9.19	9.57	10.15	10.15	10.01	9.96	8.65	7.31	6.79	6.67	7.47	8.47
5	9.06	9.53	9.34	10.16	10.22	9.95	8.61	7.46	6.80	6.78	7.35	8.41
6	8.93	9.32	9.13	10.12	10.27	9.90	8.71	7.32	6.81	7.35	8.01	8.45
7	8.79	9.55	9.09	10.60	10.43	9.88	8.74	7.32	6.91	7.04	...	8.32
8	8.87	9.56	9.58	10.64	10.50	9.84	8.64	7.48	6.45	6.63	7.81	8.01
9	9.43	8.89	9.56	10.38	10.50	9.89	8.56	7.48	6.39	6.75	7.67	8.40
10	9.55	8.53	9.35	10.56	10.47	9.79	8.33	7.43	6.38	7.01	7.71	8.41
11	....	9.12	9.43	10.63	10.44	9.71	8.23	7.13	6.43	7.20	7.95	7.95
12	....	9.84	9.62	10.45	10.40	9.77	8.22	7.00	6.68	7.01	7.99	8.33
13	....	9.86	9.98	10.54	10.35	9.96	8*22	7.10	6.52	6.86	7.80	8.70
14	....	9.57	9.97	....	10.30	10.06	8.05	7.37	6.30	6.76	7.78	9.31
15	8.96	....	9.92	9.88	10.37	9.87	8.10	7.42	6.32	6.92	7.89	8.48
16	8.95	....	....	10.38	10.26	9.71	7.87	7.12	6.50	7.00	8.04	8.28
17	8.78	....	....	10.18	10.36	9.67	7.86	7.07	6.41	7.03	8.11	8.43
18	9.23	9.09	10.01	10.18	10.45	9.64	7.90	7.02	6.33	7.03	8.03	8.42
19	9.30	9.04	10.27	10.22	10.27	9.54	7.94	7.03	6.42	7.12	8.00	8.38
20	9.30	9.19	10.13	10.30	10.18	9.51	7.90	7.05	6.57	7.15	7.86	8.53
21	9.53	9.57	9.85	9.95	10.22	9.43	7.86	7.08	6.73	7.31	8.16	8.72
22	9.64	8.92	9.73	10.00	10.29	9.51	7.84	7.07	6.54	7.77	8.30	9.01
23	9.42	8.94	9.78	10.18	10.24	9.44	8.04	7.11	6.40	8.12	8.51	8.70
24	9.87	9.38	10.09	10.14	10.04	9.31	7.75	7.13	6.42	7.84	8.53	8.51
25	9.57	9.53	10.35	10.28	9.94	9.22	7.48	7.08	6.52	....	8.84	8.60
26	8.76	9.93	10.58	10.51	10.32	9.23	7.48	7.07	6.68	....	8.36	8.78
27	9.25	9.95	10.48	10.53	10.36	9.05	7.50	7.04	6.86	....	8.28	8.48
28	9.69	9.61	10.43	10.20	10.07	9.06	7.52	7.04	6.92	....	8.20	8.81
29	9.34	....	10.45	10.05	10.07	9.01	7.52	6.98	6.71	....	7.99	8.91
30	9.08	....	10.43	10.15	10.23	8.99	7.39	6.98	6.78	....	8.13	8.92
31	9.37	....	10.48	....	10.33	....	7.43	6.92	....	....	....	8.76

K1194. City of New York, Department of Water Supply, Gas and Electricity. Atlantic Ave. and Nichols St. Lat. 40°41'00", long. 73°52'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 48 feet, screen 46-48. Land-surface datum is 31.8 feet above msl. Highest water level 1.10 above msl, Dec. 1, 1953; lowest 8.36 below msl, Feb. 28, Mar. 7, 1942. Records available: 1940-43, 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+0.40	Apr. 27	+0.01	July 31	+0.45	Oct. 26	+0.93
26	+0.30	May 25	+0.16	Aug. 27	+0.53	Dec. 1	+1.10
Mar. 24	-0.24	June 24	+0.21	Sept. 30	+0.62	22	+0.71

K1198. City of New York, Department of Water Supply, Gas and Electricity. Cleveland and Fulton Sts. Lat. 40°40'50", long. 73°53'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 53 feet, screen 51-53. Land-surface datum is 36.8 feet above msl. Highest water level 2.26 above msl, Aug. 27, 1953; lowest 8.45 below msl, May 14, 1942. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+1.59	Apr. 27	+2.01	July 31	+2.10	Oct. 10	+2.20
26	+1.55	May 25	+1.96	Aug. 27	+2.26	Dec. 1	+2.06
Mar. 24	+1.72	June 24	+1.78	Sept. 30	+2.22	21	+2.16

K1199. City of New York, Department of Water Supply, Gas and Electricity. Jefferson and Howard Aves. Lat. 40°41'10", long. 73°55'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 76 feet, screen 74-76. Land-surface datum is 48.5 feet above msl. Highest water level 0.76 above msl, May 25, 1953; lowest 17.17 below msl, Jan. 1, 1944. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	-1.19	May 25	+0.76	Aug. 28	+0.29	Dec. 2	+0.63
26	-1.48	June 24	-.02	Oct. 1	+ .33	22	+ .67
Mar. 25	-1.22	Aug. 3	+ .20	28	+ .40	26	+ .69
Apr. 27	-.64						

K1235. City of New York, Department of Water Supply, Gas and Electricity. Fulton and Pennsylvania Aves. Lat. 40°40'40", long. 73°54'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 80 feet, screen 78-80. Land-surface datum is 60.5 feet above msl. Highest water level 1.48 above msl, Oct. 26, 1953; lowest 10.65 below msl, June 27, 1942. Records available: 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+0.71	Apr. 27	+1.13	July 31	+1.13	Dec. 1	+1.44
26	+.83	May 25	+1.18	Sept. 30	+1.32	21	+1.45
Mar. 24	+.92	June 24	+1.13	Oct. 26	+1.48		

K1236. City of New York, Department of Water Supply, Gas and Electricity. Patchen and Lexington Aves. Lat. 40°41'25", long. 73°55'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 82 feet, screen 80-82. Land-surface datum is 50.9 feet above msl. Highest water level 0.54 below msl, Dec. 26, 1953; lowest 19.42 below msl, Oct. 4, 1941. Records available: 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	-3.07	May 25	-1.57	Aug. 28	-1.52	Dec. 2	-0.58
26	-3.22	June 24	-1.50	Oct. 1	-1.25	22	-.62
Mar. 25	-2.82	Aug. 3	-1.52	28	-1.22	26	-.54
Apr. 27	-2.06						

K1237. City of New York, Department of Water Supply, Gas and Electricity. Delmonico Place and Hopkins St. Lat. 40°42'00", long. 73°56'45". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 63 feet, screen 61-63. Land-surface datum is 18 feet above msl. Highest water level 10.35 below msl, Aug. 3, 1953; lowest 36.53 below msl, Jan. 24, 1947. Records available: 1941-53. Feb. 5, -12.29; Feb. 27, -12.15; Mar. 24, -11.87; Apr. 27, -11.52; May 25, -11.47; June 24, -10.82; Aug. 3, -10.35.

K1263. City of New York, Department of Water Supply, Gas and Electricity. E. 16th St. and Cortelyou Rd. Lat. 40°38'30", long. 73°57'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 50 feet, screen 48-50. Land-surface datum is 35.9 feet above msl. Highest water level 5.41 above msl, July 31, 1953; lowest 11.97 below msl, July 21, 1936. Records available: 1933-36, 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+4.59	May 26	+5.34	Aug. 27	+5.30	Dec. 1	+4.93
26	+4.64	June 23	+5.33	Sept. 24	+5.15	21	+4.96
Mar. 23	+4.82	July 31	+5.41	Oct. 26	+5.04	26	+4.96
Apr. 25	+5.12						

K1264. City of New York, Department of Water Supply, Gas and Electricity. E. 37th St. and Snyder Ave. Lat. 40°39'00", long. 73°56'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 67 feet, screen 65-67. Land-surface datum is 43.9 feet above msl. Highest water level 4.89 above msl, Aug. 27, 1953; lowest 15.56 below msl, Apr. 3, May 7, 1947. Records available: 1933-35, 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+3.41	May 26	+4.40	Aug. 27	+4.89	Dec. 1	+4.17
26	+3.54	June 23	+4.53	Sept. 30	+4.45	21	+4.39
Mar. 23	+3.63	July 31	+4.80	Oct. 26	+4.76	26	+4.28
Apr. 28	+4.18						

K1265. City of New York, Department of Water Supply, Gas and Electricity. Riverdale Ave. and Thattford St. Lat. 40°35'40", long. 73°54'30". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 44 feet, screen 42-44. Land-surface datum is 23.2 feet above msl. Highest water level 3.52 above msl, May 26, Dec. 1, 1953; lowest 11.55 below msl, Aug. 22, 1942. Records available: 1933-35, 1941-49, 1951-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+2.61	Apr. 29	+3.35	July 31	+3.39	Dec. 1	+3.52
26	+2.65	May 26	+3.52	Aug. 27	+3.37	21	+3.05
Mar. 24	+2.70	June 23	+3.48	Oct. 26	+3.20		

K1266. City of New York, Department of Water Supply, Gas and Electricity. Vermont and Livonia Sts. Lat. 40°39'55", long. 73°53'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 41 feet, screen 39-41. Land-surface datum is 27.7 feet above msl. Highest water level 3.07 above msl, Apr. 29, 1953; lowest 7.49 below msl, June 27, 1942. Records available: 1933-37, 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+2.47	May 26	+2.98	Aug. 27	+2.75	Dec. 1	+2.44
26	+2.12	June 23	+2.74	Sept. 30	+2.53	21	+2.08
Mar. 24	+2.42	July 31	+2.63	Oct. 26	+2.50	26	+1.84
Apr. 29	+3.07						

K1296. City of New York, Department of Water Supply, Gas and Electricity. Blake Ave. and Crystal St. Lat. 40°40'20", long. 73°52'20". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 33 feet, screen 31-33. Land-surface datum is 7.3 feet above msl. Highest water level 2.98 above msl, Mar. 24, 1953; lowest 8.27 below msl, Mar. 7, 1942. Records available: 1941-53. Feb. 5, +2.53; Feb. 26, +2.60; Mar. 24, +2.98. Measurement discontinued.

K1347. Albee Theatre. DeKalb Ave. and Fulton St. Lat. 40°41'30", long. 73°58'55". Drilled unused water-table well in deposits of late Pleistocene age, diameter 36 inches (6-inch access pipe at top), depth 72 feet, screen assumed at bottom. Land-surface datum is 40.3 feet above msl. Highest water level 4.73 below msl, Apr. 27, 1953; lowest 24.16 below msl, Sept. 10, 1945. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	-6.17	Apr. 27	-4.73	Aug. 3	-5.21	Oct. 28	-5.71
27	-5.78	May 25	-6.04	28	-4.81	Dec. 2	-4.99
Mar. 25	-5.25	June 24	-6.16	Oct. 2	-7.22	23	-4.83

K1495. City of New York, Department of Water Supply, Gas and Electricity. Avenue S and E. 16th St. Lat. 40°36'20", long. 73°57'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 28 feet, screen 26-28. Land-surface datum is 18.3 feet above msl. Highest water level 4.39 above msl, May 26, 1953; lowest 1.80 above msl, Aug. 13, Dec. 17, 1947. Records available: 1936-43 (as K535), 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+4.03	May 26	+4.39	Aug. 27	+3.96	Dec. 1	+3.57
25	+3.91	June 23	+4.13	Sept. 24	+3.77	21	+3.62
Mar. 23	+4.17	July 31	+4.10	Oct. 26	+3.62	26	+3.57
Apr. 29	+4.33						

K1516. Formerly New York Water Service Corp. 311 Empire Blvd. Lat. 40°39'55", long. 73°57'15". Drilled unused water-table well in deposits of late Pleistocene age, diameter 12 inches (1½-inch access pipe at top), depth about 180 feet, screen assumed at bottom. Land-surface datum is 76.5 feet above msl. Highest water level 3.93 above msl, Dec. 21, 1953; lowest 21.56 below msl, June 30, 1947. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+2.16	Apr. 28	+2.67	Aug. 3	+3.45	Oct. 30	+3.84
25	+2.24	May 26	+2.92	27	+3.80	Dec. 1	+3.89
Mar. 23	+2.37	June 24	+3.17	Sept. 24	+3.73	21	+3.93

K1591. City of New York, Department of Water Supply, Gas and Electricity. Blake Ave. and Crystal St. Lat. 40°40'20", long. 73°52'20". Drilled unused artesian well in Jameco gravel, diameter 6 inches, depth about 150 feet, screen assumed at bottom. Land-surface datum is 9.2 feet above msl. Highest water level 2.43 above msl, June 23, 1952; lowest 2.10 below msl, Oct. 27-28, 1947. Records available: 1947-53. Feb. 5, +2.23; Feb. 26, +2.22. Measurement discontinued.

Nassau County

N7. Long Island State Park Commission. Remsen St. and Corona Ave., Valley Stream. Lat. 40°40'45", long. 73°41'25". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 10 to 6 inches, depth 911 feet, screen 851-911. Land-surface datum is 20.8 feet above msl. Highest water level 12.75 above msl, Mar. 9, 1941; lowest 0.04 below msl, Sept. 11, 1953. Records available: 1936-53.

N7--Continued.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+6.27	+7.27	+7.99	+9.38	+9.06	+7.38	+3.69	+0.87	+0.87	+1.88	+3.85	+6.42
2	6.27	7.20	7.86	9.41	8.99	7.47	3.62	.84	.76	1.85	3.85	6.49
3	6.53	7.22	7.80	9.37	8.81	7.50	3.53	.81	.65	1.82	3.90	6.55
4	6.69	7.32	8.06	9.31	8.58	7.47	3.34	.83	.47	1.85	4.01	6.61
5	6.63	7.30	8.24	9.30	8.47	7.38	3.15	1.00	.34	1.95	4.03	6.71
6	6.61	7.30	8.14	9.27	8.40	7.24	3.01	1.07	.24	2.05	4.03	6.72
7	6.61	7.40	8.05	9.32	8.33	7.06	2.96	1.08	.20	2.15	4.45	6.83
8	6.63	7.52	8.01	9.38	8.29	6.81	2.85	1.14	.14	2.14	4.62	....
9	6.78	7.54	8.04	9.35	8.21	6.63	2.73	1.24	+.05	2.19	4.75	....
10	6.98	7.51	8.10	9.37	8.12	6.50	2.53	1.33	-.01	2.34	4.83	....
11	7.23	7.48	8.07	9.41	8.01	6.35	2.32	1.35	-.04	2.50	4.96	....
12	7.36	7.65	8.12	9.36	7.92	....	2.13	1.36	+.01	2.60	5.07	6.90
13	7.25	7.77	8.43	9.42	7.81	....	1.97	1.37	.10	2.58	5.18	7.01
14	7.16	7.73	8.59	9.45	7.71	....	1.83	1.39	.12	2.58	5.34	7.21
15	7.10	7.82	8.62	9.31	7.64	....	1.71	1.48	.13	2.68	5.60	7.35
16	7.12	7.98	8.75	9.25	7.58	....	1.61	1.48	.24	2.80	5.78	7.26
17	7.04	7.88	8.77	9.27	7.54	....	1.50	1.47	.33	2.83	5.87	....
18	7.07	7.74	8.78	9.20	7.55	....	1.39	1.48	.38	2.82	5.91	....
19	7.14	7.63	8.88	9.22	7.53	....	1.26	1.55	.47	2.84	5.92	....
20	7.16	7.57	8.91	9.26	7.45	5.82	1.12	1.61	.66	2.91	5.92	....
21	7.14	7.68	8.80	9.26	7.35	5.65	.98	1.61	.88	2.93	5.94	....
22	7.14	7.75	8.73	9.18	7.34	5.45	.85	1.57	1.01	2.94	5.97	....
23	7.10	7.67	8.73	9.21	7.42	5.21	.82	1.56	1.05	3.12	6.09	7.04
24	7.24	7.67	8.84	9.21	7.36	4.97	.82	1.54	1.10	3.32	6.19	6.96
25	7.43	7.79	8.90	9.17	7.30	4.74	.73	1.49	1.24	3.41	6.31	6.98
26	7.31	7.89	9.17	9.25	7.30	4.54	.69	1.41	1.44	3.42	6.36	7.12
27	7.11	8.03	9.26	9.33	7.32	4.37	.75	1.35	1.63	3.44	6.31	7.16
28	7.17	8.06	9.29	9.31	7.28	4.15	.86	1.28	1.79	3.57	6.30	7.17
29	7.23		9.31	9.21	7.21	3.96	.90	1.21	1.86	3.79	6.28	7.29
30	7.18		9.38	9.09	7.24	3.79	.92	1.11	1.87	3.90	6.30	7.39
31	7.16		9.40		7.32		.90	1.00		3.86		7.44

N9. Long Island State Park Commission. Corona Ave. and Remsen St., Valley Stream. Lat. 40°40'50", long. 73°41'35". Drilled unused artesian well in sands of Magothy formation(?), diameter 6 to 4 inches, depth 137 feet, screen assumed at bottom. Land-surface datum is 23.2 feet above msl. Highest water level 23.57 above msl, Sept. 23, 1938; lowest 20.18 above msl, Nov. 27, 1953. Records available: 1936-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+21.48	Apr. 29	+22.03	Aug. 3	+20.91	Oct. 30	+20.97
26	+21.38	May 25	+21.55	27	+20.76	Nov. 27	+20.18
Mar. 31	+21.94	June 24	+20.95	Oct. 1	+20.70	Dec. 22	+20.25

N53. Village of Rockville Center. Morris and Maple Aves., Rockville Center. Lat. 40°39'35", long. 73°38'30". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 50 feet, screen assumed at bottom. Land-surface datum is 26.1 feet above msl. Highest water level 16.49 above msl, Apr. 15, 1939; lowest 12.05 above msl, Feb. 17, 1940. Records available: 1934-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+13.95	Apr. 29	+15.87	Aug. 3	+14.30	Oct. 30	+13.31
26	+14.24	June 1	+15.44	26	+13.99	Nov. 27	+13.06
Mar. 31	+15.44	29	+14.95	Oct. 1	+13.37	Dec. 22	+13.72

N67. Village of Freeport. Sunrise Highway and Long Beach Rd. Lat. 40°39'25", long. 73°35'20". Drilled industrial artesian well in Lloyd sand member of Raritan formation, diameter 12 inches, depth 1,051 feet, screen assumed at bottom. Land-surface datum is 20.3 feet above msl. Highest water level 15.51 above msl, Dec. 5, 1946; lowest 8.71 above msl, Aug. 26, 1953. Records available: 1932-44, 1946-50, 1952-53. Measurements taken several hours after well was shut down. Feb. 5, +13.86; Apr. 1, +15.22; June 3, +13.85; Aug. 26, +8.71; Dec. 2, +13.46.

N157. Big Tree Farm. Post Rd., Wheatley. Lat. 40°48'45", long. 73°34'45". Drilled unused artesian well in sands of Magothy formation(?), diameter 6 inches, depth 222 feet, screen assumed at bottom. Land-surface datum is 218.5 feet above msl. Highest water level 88.84 above msl, Oct. 31, 1939; lowest 75.71 above msl, May 5, 1933. Records available: 1932-53.

N157--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+84.24	Apr. 30	+84.11	Aug. 5	+85.18	Oct. 29	+85.92
25	+84.41	May 27	+84.57	25	+85.26	Nov. 23	+85.91
Apr. 1	+84.28	June 26	+84.47	Sept. 30	+85.20	Dec. 21	+85.91

N180. City of New York, Department of Water Supply, Gas and Electricity. Sunrise Highway and Seamans Neck Rd., Seaford. Lat. 40°40'20", long. 73°29'45". Drilled unused artesian well in sands of Magothy formation(?), diameter 4 to 6 inches, depth 762 feet, screen assumed at bottom. Land-surface datum is 15.3 feet above msl. Highest water level 21.08 above msl, June 6, 1952; lowest 17.28 above msl, Dec. 25, 1949, Jan. 20, 1950. Records available: 1945-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+19.40	+19.86	+19.72	+20.72	+20.78	+20.35	+19.64	+19.35	+19.06	+18.94	+19.08	+18.54
2	19.46	19.75	19.67	20.72	20.75	20.29	19.58	19.33	19.06	18.84	19.09	18.56
3	19.67	19.81	19.72	20.63	20.66	20.10	19.59	19.42	19.03	18.86	19.12	18.58
4	19.56	19.79	20.02	20.61	20.61	20.00	19.40	19.44	19.05	18.83	19.08	18.57
5	19.49	19.75	19.92	20.59	20.66	19.96	19.35	19.55	19.10	18.88	19.01	18.49
6	19.44	19.77	19.77	20.55	20.60	19.88	19.36	19.41	19.13	19.09	19.12	18.39
7	19.40	19.86	19.71	20.68	20.60	19.81	19.49	19.30	19.19	19.10	19.63	18.40
8	19.41	19.86	19.76	20.71	20.60	19.90	19.37	19.36	19.10	18.99	19.56	18.32
9	19.56	19.75	19.77	20.72	20.53	19.92	19.33	19.31	19.04	19.00	19.49	18.40
10	19.70	19.65	19.73	20.82	20.50	19.82	19.25	19.51	19.13	19.02	19.29	18.51
11	19.82	19.64	19.65	20.82	20.49	19.68	19.23	19.53	19.10	19.02	19.22	18.34
12	19.70	19.84	19.74	20.82	20.47	19.64	19.22	19.52	19.12	18.99	19.15	18.41
13	19.65	19.79	20.05	20.94	20.47	.....	19.28	19.54	19.20	18.90	19.12	18.45
14	19.64	19.73	20.11	20.84	20.49	.....	19.34	19.59	19.20	18.92	19.14	18.75
15	19.68	19.97	20.29	20.76	.....	.....	19.34	19.76	19.25	18.99	19.19	18.75
16	19.72	19.87	20.44	20.89	.....	.....	19.18	19.71	19.30	18.95	19.07	18.73
17	19.63	19.83	20.45	20.92	20.51	.....	19.14	19.69	19.23	18.85	18.90	18.75
18	19.81	19.74	20.50	20.92	20.56	.....	19.11	19.71	19.20	18.75	18.71	18.82
19	19.79	19.72	20.63	20.98	20.47	19.96	19.09	19.71	19.23	18.76	18.59	18.86
20	19.75	19.74	20.60	20.98	20.37	19.86	19.12	19.67	19.29	18.77	18.57	18.88
21	19.80	19.91	.....	20.88	20.44	19.74	19.13	19.63	19.32	18.77	18.51	18.87
22	19.83	19.79	20.51	20.80	.....	19.70	19.10	19.61	19.23	18.98	18.57	18.89
23	19.85	19.73	20.53	20.87	.....	19.82	19.35	19.55	19.18	19.18	18.68	18.83
24	20.07	19.80	20.61	20.77	20.35	19.68	19.57	19.51	19.19	19.15	18.67	18.77
25	20.06	19.83	20.71	20.78	20.31	19.63	19.52	.....	.....	18.98	18.72	18.81
26	20.04	19.61	20.79	20.82	20.36	19.62	19.44	.....	.....	19.04	18.64	18.80
27	19.98	19.92	20.80	20.80	20.36	19.56	19.47	.....	19.24	19.06	18.61	18.63
28	19.92	19.83	20.76	20.71	20.30	19.52	19.41	19.30	19.19	19.20	18.54	18.68
29	19.84	.....	20.76	20.64	20.28	19.64	19.33	19.25	18.92	19.28	18.48	18.71
30	19.80	.....	20.79	20.63	20.34	19.69	19.38	19.17	18.94	19.18	18.47	18.70
31	.....	.....	20.72	.....	20.35	.....	19.48	19.13	.....	19.08	.....	18.68

N511. Irving Cox Estate. Clefs and Horseshoe Rds., Mill Neck. Lat. 40°53'35", long. 73°33'55". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 3 inches, depth 330 feet, screen 300-330. Land-surface datum is 7 feet above msl. Highest water level 21.52 above msl, Dec. 31, 1948; lowest 18.23 above msl, Aug. 1, 1950. Records available: 1947-53. Readings taken at or near high tide during day.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+20.58	May 1	+20.78	Aug. 6	+20.28	Dec. 4	+20.78
27	+21.08	27	+20.88	25	+20.08	18	+20.98
Apr. 1	+20.98						

N575. Abraham & Strauss Store. 833 Franklin Ave., Garden City. Lat. 40°43'45", long. 73°37'55". Drilled unused artesian well in sands of Magothy formation(?), diameter 14 to 8 inches, depth 539 feet, screen 458-514, 534-539. Land-surface datum is 91.2 feet above msl. Highest water level 60.52 above msl, June 1, 1953; lowest 52.44 above msl, Aug. 1, 1950. Records available: 1946-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+55.74	Apr. 30	+57.22	Aug. 3	+58.42	Oct. 30	+55.90
27	+57.27	June 1	+60.52	27	+56.43	Nov. 24	+55.67
Apr. 2	+58.38	29	+57.51	Sept. 29	+53.09	Dec. 22	+57.26

N657. Town of North Hempstead. West Shore Rd., Bar Beach. Lat. 40°49'35", long. 73°39'30". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 8 inches, depth 327 feet, screen assumed at bottom. Land-surface datum is 9 feet above msl. Highest water level 15.67 above msl, May 2, 1953; lowest 12.95 above msl, Jan. 29, 1946. Records available: 1945-53. Water level affected by tidal fluctuations.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	+14.67	+14.48	+15.45	+15.62	+15.33	+14.57	+14.22	+13.93	+14.06	+14.16	+14.52
2	.....	14.43	14.51	15.46	15.67	15.31	14.55	14.30	13.83	13.99	14.17	14.51
3	.....	14.78	14.77	15.35	15.45	15.24	14.45	14.31	13.86	14.01	14.16	14.49
4	+14.84	14.94	15.06	15.25	15.22	15.24	14.34	14.32	13.86	14.04	13.97	14.41
5	14.77	14.76	14.50	15.28	15.40	15.25	14.38	14.40	13.82	14.15	14.00	14.39
6	14.59	14.68	14.42	15.25	15.40	15.14	14.48	14.39	13.93	14.50	14.46	14.38
7	14.52	14.79	14.53	15.51	15.46	15.13	14.43	14.48	14.07	14.43	.....	14.35
8	14.74	14.79	14.79	15.51	15.55	15.10	14.43	14.43	13.75	13.85	.....	14.09
9	15.13	14.35	14.65	15.23	15.48	15.13	14.33	14.50	13.80	14.05	.....	14.31
10	15.21	14.20	14.45	15.32	15.49	14.98	14.18	14.50	13.84	14.20	.....	14.43
11	15.06	14.65	14.39	15.40	15.47	14.99	14.12	14.30	13.86	14.38	.....	13.94
12	14.73	15.09	14.20	15.38	15.47	15.03	14.17	14.25	14.05	14.28	.....	14.33
13	14.76	14.87	14.55	15.52	15.45	15.15	14.16	14.31	14.07	14.13	.....	14.50
14	14.62	14.72	14.56	14.92	15.42	15.18	14.13	14.43	13.79	14.05	14.20	14.96
15	14.67	15.08	14.67	14.96	15.50	15.12	14.12	14.38	13.98	14.06	14.31	14.15
16	14.55	14.39	14.63	15.42	15.40	14.92	13.96	14.32	14.14	14.09	14.44	14.22
17	14.50	14.59	14.43	15.27	15.57	15.03	13.94	14.30	14.10	14.08	14.42	.....
18	14.74	14.34	14.49	15.35	15.61	15.03	13.93	14.33	14.13	14.10	14.38	.....
19	14.73	14.40	14.84	15.46	15.45	15.00	13.89	14.31	14.19	14.09	14.33	.....
20	14.70	14.52	14.72	15.29	15.43	14.95	13.81	14.28	14.29	14.09	14.37	.....
21	14.90	14.58	14.69	15.11	15.40	14.93	13.85	14.25	14.39	14.30	14.38	.....
22	14.84	14.17	14.63	15.18	15.37	14.88	13.94	14.23	14.24	14.46	14.44	.....
23	14.67	14.26	14.69	15.35	15.29	14.75	14.13	14.23	14.13	14.57	14.54	.....
24	14.88	14.53	14.94	15.31	15.18	14.70	13.99	14.26	14.18	14.35	14.50	.....
25	14.54	14.63	15.09	15.44	15.20	14.73	14.00	14.27	14.17	14.39	14.68	14.30
26	14.50	14.82	15.18	15.53	15.53	14.68	14.08	14.29	14.32	14.17	14.25	14.53
27	14.88	14.79	15.14	15.47	15.37	14.57	14.12	14.30	14.43	14.00	14.37	14.27
28	15.00	14.46	15.04	15.21	15.23	14.60	14.22	14.25	14.40	14.22	14.35	14.49
29	14.67	.....	15.41	15.17	15.22	14.63	14.29	14.16	14.25	14.37	14.26	14.53
30	14.60	.....	15.48	15.28	15.29	14.57	14.21	14.08	14.27	14.08	14.35	14.53
31	14.73	.....	15.50	.....	15.38	.....	14.27	14.01	.....	14.07	.....	14.35

N844. Long Island Railroad. Hicksville Station. Lat. 40°46'05", long. 73°31'30". Drilled unused artesian well in sands of Magothy formation(?), diameter 10 inches, depth 258 feet, screen assumed at bottom. Land-surface datum is 149.2 feet above msl. Highest water level 85.94 above msl, June 29, 1953; lowest 78.87 above msl, Apr. 16, 1942. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+82.88	Apr. 28	+84.56	Aug. 5	+85.81	Oct. 29	+85.13
25	+82.76	May 29	+85.59	26	+85.81	Nov. 24	+84.92
Apr. 1	+83.41	June 29	+85.94	Oct. 1	+85.40	Dec. 21	+84.88

N1102. Nassau County Department of Public Works. Willets Rd. near Valley Rd., Lake Success. Lat. 40°46'15", long. 73°42'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 2½ inches, depth 140 feet, screen 138-140. Land-surface datum is 185.8 feet above msl. Highest water level 59.12 above msl, May 25, 1953; lowest 53.81 above msl, July 31, 1942. Records available: 1939-53.

Feb. 4	+57.97	Apr. 30	+58.77	Aug. 5	+58.32	Oct. 27	+57.78
27	+58.09	May 25	+59.12	25	+58.26	Nov. 23	+57.82
Apr. 2	+58.30	June 25	+58.74	Sept. 26	+57.96	Dec. 21	+57.53

N1104. Nassau County Department of Public Works. 80th Ave. near Rhodes St., New Hyde Park. Lat. 40°45'00", long. 73°42'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 77 feet, screen 75-77. Land-surface datum is 125.4 feet above msl. Highest water level 62.17 above msl, May 25, 1953; lowest 55.27 below msl, May 1, 1942. Records available: 1939-53.

Feb. 4	+60.51	Apr. 30	+61.22	Sept. 26	+61.68	Nov. 23	+60.70
26	+61.09	May 25	+62.17	Oct. 27	+61.02	Dec. 22	+60.67
Mar. 31	+60.48	Aug. 5	+62.15				

N1108. Nassau County Department of Public Works. Jacob St. and Rosalind Ave., Elmont. Lat. 40°42'15", long. 73°42'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 47 feet, screen 45-47. Land-surface datum is 70.1 feet above msl. Highest water level 43.62 above msl, Apr. 28, 1939; lowest 36.94 above msl, Jan. 30, 1942. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+39.72	Apr. 29	+41.54	Aug. 3	+40.43	Oct. 30	+38.72
26	+39.05	May 25	+41.95	27	+40.17	Nov. 24	+38.70
Mar. 31	+40.32	June 29	+41.25	Oct. 1	+39.30	Dec. 22	+38.88

N1109. Nassau County Department of Public Works. Dutch Broadway and Henry St., Elmont. Lat. 40°41'15", long. 73°42'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 38 feet, screen 36-38. Land-surface datum is 42.3 feet above msl. Highest water level 30.04 above msl, Apr. 21, 1939; lowest 24.42 above msl, Sept. 26, 1951. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 29	+28.49	Aug. 3	+25.51	Oct. 1	+24.90	Nov. 24	+25.79
May 25	+27.59	27	+25.47	30	+25.08	Dec. 22	+26.50
June 24	+26.45						

N1110. Nassau County Department of Public Works. Henry St. near Southern State Parkway, North Valley Stream. Lat. 40°40'45", long. 73°42'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 27 feet, screen 25-27. Land-surface datum is 30.9 feet above msl. Highest water level 21.05 above msl, Apr. 21, 1939, June 6, 1946; lowest 18.68 above msl, Dec. 1, 1941. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+19.50	Apr. 29	+20.55	Aug. 3	+19.00	Oct. 30	+19.18
26	+19.50	May 25	+19.99	26	+18.76	Nov. 27	+19.28
Mar. 31	+20.35	June 24	+19.22	Oct. 1	+18.71	Dec. 22	+19.54

N1111. Nassau County Department of Public Works. Fletcher and Teneyck Aves., Valley Stream. Lat. 40°40'20", long. 73°42'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 28 feet, screen 25-27. Land-surface datum is 20.4 feet above msl. Highest water level 14.79 above msl, June 6, 1946; lowest 11.62 above msl, Oct. 25, 1947. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+13.76	May 25	+14.34	Aug. 26	+13.91	Nov. 6	+14.11
26	+13.36	June 29	+14.09	Oct. 1	+13.69	24	+14.18
Mar. 31	+13.95	Aug. 3	+14.17	30	+14.16	Dec. 22	+14.28
Apr. 29	+14.14						

N1113. Nassau County Department of Public Works. DuBois Ave. and Drew St., Gibson. Lat. 40°39'00", long. 73°42'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 22 feet, screen 20-22. Land-surface datum is 10.5 feet above msl. Highest water level 7.99 above msl, Jan. 6, 1949; lowest 0.12 above msl, June 24, 1952. Records available: 1939-53. Measurements taken after Apr. 30, 1952 affected by installation of storm sewers nearby.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+3.01	May 25	+2.93	Aug. 26	+2.90	Nov. 6	+2.39
26	+3.26	June 29	+3.41	Oct. 1	+1.82	27	+3.46
Mar. 31	+2.51	Aug. 3	+2.66	30	+2.18	Dec. 22	+5.13
Apr. 29	+1.58						

N1115. Nassau County Department of Public Works. Wood St. and Brower Ave., Woodmere. Lat. 40°37'50", long. 73°42'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 20 feet, screen 18-20. Land-surface datum is 22.8 feet above msl. Highest water level 13.05 above msl, July 14, 1948; lowest 8.57 above msl, Dec. 1, 1941. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 10, 1943	+10.82	June 15, 1949	+12.00	Apr. 30, 1952	+12.95	Mar. 31, 1953	+12.38
Jan. 19, 1944	10.95	Nov. 1	9.83	May 26	12.81	Apr. 29	13.00
May 16	12.42	Apr. 7, 1950	10.81	June 24	12.90	May 25	13.03
Mar. 2, 1945	11.35	13	10.88	July 29	12.28	June 29	12.24
July 5	11.13	Aug. 30	10.91	Aug. 28	12.05	Aug. 3	11.59
Feb. 5, 1946	11.50	Dec. 28	9.90	Sept. 25	11.56	26	11.27
Sept. 24	10.35	May 14, 1951	11.86	Nov. 5	10.18	Oct. 1	10.55
Apr. 8, 1947	10.90	Nov. 23	11.16	Dec. 4	9.60	30	10.27
Oct. 27	9.82	Feb. 8, 1952	12.62	23	9.92	Nov. 6	10.18
Apr. 2, 1948	12.88	29	12.28	Feb. 4, 1953	10.68	27	10.20
July 14	13.05	Apr. 1	12.90	26	10.93	Dec. 22	11.11
Jan. 6, 1949	12.13						

N1121. Nassau County Department of Public Works. Northern Blvd. and Searingtown Rd., Strathmore Village. Lat. 40°47'50", long. 73°40'30". Drilled water-table well in deposits of late Pleistocene age, diameter 2½ inches, depth 178 feet, screen 176-178. Land-surface datum is 220.1 feet above msl. Highest water level 64.68 above msl, Oct. 31, 1949; lowest 59.13 above msl, Dec. 20, 1951. Records available: 1943-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+61.15	Apr. 30	+61.22	Aug. 5	+63.31	Oct. 27	+61.41
27	+61.30	May 27	+62.00	25	+63.08	Nov. 23	+61.42
Mar. 31	+60.91	June 25	+63.74	Sept. 30	+63.25	Dec. 17	+61.76

N1132. Nassau County Department of Public Works. Sunrise Highway and Lakewood Blvd., Lynbrook. Lat. 40°39'25", long. 73°39'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1¼ inches, depth 29 feet, screen 26-28. Land-surface datum is 20.9 feet above msl. Highest water level 9.77 above msl, Sept. 23, 1938; lowest 6.06 above msl, Feb. 24, 1940. Records available: 1938-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+8.37	Apr. 29	+8.82	Aug. 3	+7.58	Oct. 30	+7.39
26	+8.45	June 1	+7.64	26	+7.77	Nov. 27	+7.27
Mar. 31	+9.17	29	+8.06	Oct. 1	+7.79	Dec. 22	+7.81

N1147. Nassau County Department of Public Works. Seaman Ave. near Knollwood Rd., Baldwin. Lat. 40°39'50", long. 73°37'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1¼ inches, depth 23 feet, screen 21-23. Land-surface datum is 27.3 feet above msl. Highest water level 19.72 above msl, Apr. 8, 1939; lowest 16.48 above msl, Nov. 1, 1950. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+17.67	Apr. 29	+17.84	Aug. 3	+17.06	Oct. 30	+16.56
26	+17.32	June 1	+17.81	26	+16.82	Nov. 27	+16.59
Mar. 31	+18.02	29	+17.16	Sept. 29	+16.50	Dec. 22	+17.19

N1167. Nassau County Department of Public Works. North Ocean and Brooklyn Aves., Freeport. Lat. 40°39'30", long. 73°35'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1¼ inches, depth 28 feet, screen 26-28. Land-surface datum is 23.8 feet above msl. Highest water level 12.12 above msl, Mar. 25, 1948; lowest 9.34 above msl, Dec. 27, 1949. Records available: 1938-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+10.74	Apr. 29	+11.78	Aug. 4	+10.64	Oct. 30	+9.69
26	+10.90	June 1	+11.47	26	+10.53	Nov. 27	+9.56
Mar. 31	+11.84	30	+11.08	Sept. 29	+10.03	Dec. 22	+10.02

N1185. Nassau County Department of Public Works. West Grand Ave. and Lindgren St., Merrick. Lat. 40°39'55", long. 73°33'45". Driven observation water-table well in deposits of late Pleistocene age, diameter 1¼ inches, depth 17 feet, screen 15-17. Land-surface datum is 21.1 feet above msl. Highest water level 15.39 above msl, Apr. 8, 1939; lowest 10.01 above msl, Dec. 28, 1949. Records available: 1938-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+12.54	Apr. 29	+13.97	Aug. 4	+11.95	Oct. 30	+11.76
26	+12.89	June 1	+13.55	26	+12.07	Nov. 27	+12.39
Mar. 31	+14.05	30	+12.59	Sept. 29	+11.49	Dec. 21	+13.00

N1204. Nassau County Department of Public Works. Harris Ct. and John St., Bellmore. Lat. 40°40'20", long. 73°31'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 1¼ inches, depth 29 feet, screen 27-29. Land-surface datum is 21.5 feet above msl. Highest water level 12.56 above msl, Feb. 8, 1952; lowest 5.07 above msl, Jan. 26, 1950. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+11.97	Apr. 29	+12.47	Aug. 4	+11.29	Oct. 30	+11.52
26	+12.00	June 1	+12.12	26	+11.35	Nov. 25	+8.27
Mar. 31	+12.42	30	+11.53	Oct. 1	+10.97	Dec. 21	+7.78

N1212. Nassau County Department of Public Works. Jericho Turnpike, Locust Grove. Lat. 40°48'25", long. 73°31'20". Drilled observation artesian well in sands of Magothy formation(?), diameter 4 inches, depth 185 feet, screen 181-185. Land-surface datum is 228.2 feet above msl. Highest water level 89.74 above msl, Oct. 6, Dec. 7, 1953; lowest 83.72 above msl, Jan. 20, 1943. Records available: 1943-53.

N1212--Continued.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+87.27	+87.18	+86.85	+86.94	+87.33	+87.80	+88.45	+88.97	+89.27	+89.48	.....	+89.57
2	87.37	87.01	.....	86.97	87.20	87.78	88.45	89.00	89.38	89.41	.....	89.50
3	87.64	87.26	.....	86.84	87.07	87.73	88.30	88.94	89.32	89.45	.....	89.41
4	87.33	87.15	.....	.....	87.14	87.84	88.22	89.05	89.31	89.62	.....	89.52
5	87.22	87.01	.....	.....	87.37	87.85	88.32	89.16	89.37	89.66	.....	89.45
6	87.17	87.08	.....	.....	87.32	87.88	88.45	88.93	89.40	89.74	.....	89.52
7	87.12	87.24	.....	.....	87.37	87.87	88.42	89.00	89.41	89.49	.....	89.74
8	87.20	87.21	87.00	.....	87.39	87.84	88.43	89.14	89.24	89.40	.....	89.72
9	87.34	87.02	86.95	.....	87.30	88.00	88.37	89.17	89.22	89.54	.....	89.68
10	87.37	87.01	86.88	.....	87.33	87.93	88.31	89.11	89.32	89.67	.....	89.60
11	87.52	87.10	86.74	.....	87.37	87.94	88.37	89.01	89.43	89.66	.....	89.20
12	87.16	87.39	86.91	87.06	87.36	87.98	88.41	89.02	89.51	89.55	.....	89.42
13	87.13	87.12	87.17	87.22	87.38	88.07	88.45	89.13	89.45	89.39	.....	89.40
14	87.09	87.00	86.91	86.97	87.39	88.07	88.47	89.25	89.34	89.50	+89.53	89.66
15	87.18	87.42	87.04	86.91	87.47	88.07	88.48	89.17	89.44	89.70	89.69	89.34
16	87.23	87.00	86.98	87.13	87.44	88.09	88.45	89.10	89.45	89.62	89.68	89.27
17	87.09	86.99	86.91	87.02	87.56	88.13	88.50	89.16	89.33	89.53	89.70	89.24
18	87.42	86.88	86.95	87.04	87.60	88.16	88.51	89.16	89.30	89.49	.....	89.31
19	87.30	86.93	87.00	87.13	87.46	88.15	88.50	89.22	89.43	89.57	.....	89.35
20	87.21	86.99	86.82	87.16	87.43	88.20	88.50	89.15	89.55	89.57	.....	89.46
21	87.23	87.21	.....	87.00	87.43	88.20	88.50	89.13	89.56	89.43	.....	89.45
22	87.10	86.93	.....	87.07	87.65	88.23	88.50	89.22	89.33	89.53	.....	89.45
23	87.14	86.92	.....	87.21	87.58	88.24	88.90	89.31	89.26	89.69	89.68	89.29
24	.....	87.11	.....	86.97	87.55	88.16	88.75	89.26	89.35	89.56	89.58	89.27
25	.....	87.12	.....	87.19	87.62	88.25	88.69	89.19	.....	89.40	89.68	89.55
26	.....	87.24	.....	87.28	87.78	88.28	88.86	89.26	89.60	89.33	.....	89.55
27	.....	87.17	.....	87.21	87.60	88.24	88.97	89.28	89.60	89.45	.....	89.22
28	.....	87.15	.....	87.09	87.55	88.31	88.93	89.33	89.57	89.64	.....	89.44
29	.....	.....	86.96	87.07	87.60	88.35	88.93	89.33	89.47	89.64	.....	89.44
30	.....	.....	87.08	87.16	87.81	88.38	88.98	89.32	89.40	89.34	.....	89.49
31	.....	.....	86.93	.....	87.77	.....	88.98	89.33	.....	.....	.....	89.46

N1222. Nassau County Department of Public Works. Cecelia Place and John St., Seaford. Lat. 40°40'25", long. 73°29'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 29 feet, screen 27-29. Land-surface datum is 21.2 feet above msl. Highest water level 9.80 above msl, Mar. 30, 1953; lowest 1.27 above msl, Jan. 31, 1942. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+9.39	Apr. 29	+9.63	Aug. 4	+8.95	Oct. 30	+9.02
26	+9.58	June 1	+9.18	24	+9.08	Nov. 25	+7.10
Mar. 30	+9.80	30	+9.10	Oct. 1	+8.87	Dec. 18	+7.17

N1240. Nassau County Department of Public Works. Manhattan Ave., Massapequa Park. Lat. 40°40'40", long. 73°27'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 28 feet, screen 26-28. Land-surface datum is 23 feet above msl. Highest water level 11.45 above msl, Mar. 30, 1953; lowest 1.08 below msl, Jan. 24, 1942. Records available: 1939-53.

Feb. 5	+10.77	Apr. 28	+11.33	Aug. 4	+9.96	Oct. 30	+10.05
26	+11.00	June 1	+10.58	24	+10.21	Nov. 25	+6.64
Mar. 30	+11.45	30	+10.12	Oct. 1	+9.90	Dec. 18	+6.76

N1244. Nassau County Department of Public Works. Jericho Turnpike and Avery Rd., Syosset. Lat. 40°49'15", long. 73°27'15". Drilled observation water-table well in sands of Magothy formation(?), diameter 4 inches, depth 259 feet, screen 255-259. Land-surface datum is 248.9 feet above msl. Highest water level 76.50 above msl, May 31, 1940; lowest 71.07 above msl, June 4, 1951. Records available: 1940-53.

Feb. 2	+74.43	Apr. 28	+74.42	Aug. 6	+75.24	Oct. 29	+76.09
25	+74.49	May 27	+74.54	26	+75.46	Nov. 24	+76.26
Apr. 1	+74.44	June 29	+74.82	Sept. 30	+75.79	Dec. 18	+76.24

N1245. Nassau County Department of Public Works. Plainview Rd. and Northern State Parkway, Plainview. Lat. 40°48'25", long. 73°27'00". Drilled observation artesian well in sands of Magothy formation(?), diameter 2½ inches, depth 202 feet, screen 198-202. Land-surface datum is 259.9 feet above msl. Highest water level 82.88 above msl, Feb. 2, 1940; lowest 75.63 above msl, June 4, 1951. Records available: 1940-53.

N1245--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+79.57	Apr. 28	+79.60	Aug. 6	+80.28	Oct. 29	+81.48
25	+79.76	May 27	+79.71	26	+80.56	Nov. 24	+81.61
Apr. 1	+79.61	June 29	+79.95	Sept. 30	+80.95		

N1246. Nassau County Department of Public Works. Plainview and Melville Rds., Plainview. Lat. 40°47'00", long. 73°26'50". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 125 feet, screen 121-125. Land-surface datum is 185.1 feet above msl. Highest water level 82.71 above msl, Oct. 29, 1953; lowest 76.85 above msl, Apr. 24, 1951. Records available: 1940-53.

Feb. 2	+80.38	Apr. 28	+80.34	Aug. 6	+81.82	Oct. 29	+82.71
25	+80.67	May 27	+80.82	26	+82.19	Nov. 24	+82.57
Apr. 1	+80.20	June 29	+81.41	Sept. 30	+82.43	Dec. 18	+82.46

N1247. Nassau County Department of Public Works. Near Motor Parkway, Bethpage. Lat. 40°45'55", long. 73°26'30". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 110 feet, screen 108-110. Land-surface datum is 157.1 feet above msl. Highest water level 76.98 above msl, July 28, 1939; lowest 70.52 above msl, July 31, 1942. Records available: 1939-53.

Feb. 2	+73.33	Apr. 28	+74.15	Aug. 6	+76.06	Oct. 29	+75.90
25	+73.45	May 29	+75.13	26	+76.10	Nov. 24	+75.51
Apr. 1	+73.47	June 29	+76.05	Sept. 30	+75.81	Dec. 18	+75.03

N1249. Nassau County Department of Public Works. Secatogue Ave. and Wall St., Farmingdale. Lat. 40°43'50", long. 73°26'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 34 feet, screen 32-34. Land-surface datum is 67.8 feet above msl. Highest water level 58.18 above msl, Apr. 21, 1939; lowest 50.34 above msl, Jan. 30, 1942. Records available: 1939-53.

Feb. 5	+54.04	Apr. 28	+57.77	Aug. 4	+55.80	Oct. 30	+53.86
25	+54.44	May 29	+57.31	24	+55.70	Nov. 25	+53.66
Mar. 30	+56.76	June 30	+56.69	Sept. 30	+54.49	Dec. 18	+54.55

N1250. Nassau County Department of Public Works. Old Carmans Rd., Farmingdale. Lat. 40°43'15", long. 73°26'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 34 feet, screen 32-34. Land-surface datum is 62.2 feet above msl. Highest water level 49.79 above msl, Apr. 28, 1953; lowest 43.20 above msl, Jan. 30, 1942. Records available: 1939-53.

Feb. 5	+47.00	Apr. 28	+49.79	Aug. 4	+47.52	Oct. 30	+45.96
25	+47.29	May 29	+48.85	24	+47.42	Nov. 25	+45.88
Mar. 30	+49.39	June 30	+48.33	Sept. 30	+46.45	Dec. 18	+46.96

N1251. Nassau County Department of Public Works. County Line Rd. and Southern State Parkway, Farmingdale. Lat. 40°42'40", long. 73°25'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 29 feet, screen 27-29. Land-surface datum is 48.9 feet above msl. Highest water level 40.95 above msl, Apr. 28, 1953; lowest 35.57 above msl, Jan. 30, 1942. Records available: 1939-53.

Feb. 5	+39.02	Apr. 28	+40.95	Aug. 24	+38.74	Nov. 25	+37.52
25	+39.34	May 29	+40.15	Sept. 30	+37.86	Dec. 18	+38.67
Apr. 1	+40.75	Aug. 4	+38.73	Oct. 30	+37.52		

N1252. Nassau County Department of Public Works. County Line Rd. and Smith St., Amityville. Lat. 40°41'40", long. 73°25'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 26 feet, screen 24-26. Land-surface datum is 29.3 feet above msl. Highest water level 26.51 above msl, Mar. 30, 1953; lowest 22.48 above msl, Jan. 30, 1942. Records available: 1939-53.

Feb. 5	+25.54	Apr. 28	+26.48	Aug. 4	+24.95	Oct. 30	+24.27
26	+25.76	May 29	+26.07	24	+24.91	Nov. 25	+24.42
Mar. 30	+26.51	June 30	+25.57	Oct. 1	+24.25	Dec. 18	+25.22

N1253. Nassau County Department of Public Works. Clocks Blvd. and Pine St., Amityville. Lat. 40°40'55", long. 73°25'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 29 feet, screen 27-29. Land-surface datum is 28.5 feet above msl. Highest water level 16.93 above msl, Mar. 30, 1953; lowest 11.31 above msl, Jan. 31, 1942. Records available: 1939-53.

N1253--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+15.68	Apr. 28	+16.80	Aug. 4	+14.65	Oct. 30	+14.30
26	+15.88	May 29	+15.93	24	+14.81	Nov. 25	+14.20
Mar. 30	+16.93	June 30	+15.20	Oct. 1	+14.18	Dec. 18	+14.78

N1254. Nassau County Department of Public Works. County Line and Merrick Rds., Amityville. Lat. 40°40'20", long. 73°25'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 29 feet, screen 27-29. Land-surface datum is 14 feet above msl. Highest water level 4.70 above msl, Mar. 30, 1953; lowest 2.35 above msl, Dec. 29, 1949. Records available: 1939-53.

Feb. 5	+4.05	Apr. 28	+4.25	Aug. 4	+3.52	Oct. 30	+3.83
26	+3.88	May 29	+4.10	24	+3.68	Nov. 25	+4.12
Mar. 30	+4.70	June 30	+3.76	Oct. 1	+3.43	Dec. 18	+3.84

N1255. Nassau County Department of Public Works. Clinton Rd. near St. James St., Garden City. Lat. 40°43'45", long. 73°37'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 35 feet, screen 33-35. Land-surface datum is 79.4 feet above msl. Highest water level 65.59 above msl, Apr. 15, 1939; lowest 58.39 above msl, Oct. 30, 1951. Records available: 1913-18, 1934-53.

Feb. 2	+60.16	Apr. 28	+63.58	Aug. 6	+61.36	Oct. 29	+59.86
25	+60.20	May 26	+63.51	24	+61.14	Nov. 23	+59.59
Mar. 30	+62.60	June 29	+62.65	Sept. 29	+60.11	Dec. 22	+60.36

N1256. Nassau County Department of Public Works. Hillside Ave. and Bacon Rd., Westbury. Lat. 40°45'40", long. 73°37'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 51 feet, screen 49-51. Land-surface datum is 112.3 feet above msl. Highest water level 80.97 above msl, May 20, 1939; lowest 70.30 above msl, Feb. 27, 1933. Records available: 1913-18, 1932-53.

Feb. 2	+77.97	Apr. 30	+79.31	Aug. 5	+79.66	Oct. 27	+78.96
25	+77.52	May 27	+79.61	25	+79.83	Nov. 23	+78.74
Apr. 1	+78.22	June 26	+80.12	Oct. 1	+79.29	Dec. 21	+78.82

N1259. U. S. Geol. Survey. Hicksville-Massapequa Rd., Plainedge. Lat. 40°43'15", long. 73°29'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 48 feet, screen 46-48. Land-surface datum is 78.4 feet above msl. Highest water level 56.99 above msl, June 23, 1952; lowest 47.83 above msl, Jan. 24, 1933. Records available: 1909-10, 1912-16, 1930-35, 1937-53.

Feb. 2	+53.14	Apr. 28	+56.42	Aug. 4	+54.88	Oct. 30	+53.39
25	+53.30	May 26	+56.29	24	+54.91	Nov. 25	+53.23
Mar. 30	+55.21	June 30	+55.69	Sept. 30	+54.01	Dec. 21	+53.72

N1263. Nassau County Department of Public Works. Wantagh Ave. and Miller Place, Central Park. Lat. 40°43'00", long. 73°29'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 29 feet, screen 27-29. Land-surface datum is 66 feet above msl. Highest water level 55.24 above msl, June 23, 1952; lowest 46.22 above msl, Oct. 31, 1932. Records available: 1911-15, 1931-53.

Feb. 2	+51.39	Apr. 28	+54.54	Aug. 4	+52.79	Oct. 30	+51.53
25	+51.67	May 26	+54.29	24	+52.81	Nov. 25	+51.16
Mar. 30	+53.63	June 30	+53.59	Sept. 30	+51.81	Dec. 21	+52.03

N1264. City of New York, Department of Water Supply, Gas and Electricity. Newbridge Rd. near Sunrise Highway, Bellmore. Lat. 40°39'55", long. 73°32'20". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 26 feet, screen 24-26. Land-surface datum is 13.7 feet above msl. Highest water level 9.41 above msl, Apr. 8, 1939; lowest 2.70 above msl, Feb. 17, 1940. Records available: 1932-36, 1937-53.

Feb. 4	+8.96	Apr. 29	+8.79	Aug. 4	+8.06	Oct. 30	+7.65
26	+8.77	June 1	+8.68	26	+8.06	Nov. 25	+5.86
Mar. 31	+8.79	30	+8.46	Oct. 1	+7.44	Dec. 21	+5.86

N1461. Nassau County Department of Public Works. New South Rd. and Long Island Railroad, Hicksville. Lat. 40°45'25", long. 73°30'20". Drilled observation artesian well in sands of Magothy formation(?), diameter 6 inches, depth 73 feet, screen 63-73. Land-surface datum is 129.5 feet above msl. Highest water level 81.06 above msl, May 2, 1953; lowest 74.34 above msl, Oct. 10, 1943. Records available: 1943-53.

N1461--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	+78.20	Mar. 28	+78.70	July 16	+80.29	Oct. 10	+79.69
10	77.99	Apr. 4	79.17	23	80.11	17	79.73
17	77.85	11	79.55	30	80.23	24	79.67
24	77.91	May 2	81.06	Aug. 6	80.10	31	79.65
31	77.82	19	80.77	13	80.01	Nov. 7	79.74
Feb. 7	77.81	23	80.82	20	80.07	14	79.76
14	77.79	26	80.86	27	79.99	21	79.71
21	77.80	June 13	80.77	Sept. 3	79.88	28	79.69
28	77.86	18	80.80	10	79.76	Dec. 5	79.60
Mar. 7	77.75	25	80.60	17	79.75	12	79.90
14	77.91	July 2	80.51	26	79.88	19	79.84
21	78.29	9	80.43	Oct. 2	79.59	26	79.96

N1462. Nassau County Department of Public Works. Mallard Rd. and Neptune Lane, Levittown. Lat. 40°43'55", long. 73°30'20". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 52 feet, screen 42-52. Land-surface datum is 95 feet above msl. Highest water level 67.78 above msl, May 18, 1953; lowest 61.26 above msl, Nov. 1, 1947. Records available: 1943-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+64.29	+64.31	+64.41	+66.32	+67.51	+67.67	+67.16	+66.90	+66.59	+65.97	+65.47	+65.08
2	64.27	64.29	64.40	66.34	67.54	67.64	67.15	66.88	66.57	65.93	65.43	65.03
3	64.30	64.30	64.39	66.37	67.54	67.61	67.13	66.85	66.55	65.91	65.43	65.00
4	64.29	64.29	64.46	66.39	67.54	67.60	67.09	66.84	66.53	65.89	65.41	64.99
5	64.26	64.26	64.53	66.40	67.57	67.58	67.08	66.84	66.51	65.88	65.38	64.97
6	64.24	64.24	64.52	66.42	67.63	67.56	67.06	66.80	66.50	65.87	65.36	64.96
7	64.20	64.25	64.51	66.45	67.68	67.56	67.05	66.77	66.47	65.85	65.36	65.00
8	64.19	64.26	64.51	66.56	67.70	67.54	67.01	66.75	66.44	65.83	65.34	65.00
9	64.19	64.25	64.51	66.61	67.72	67.52	66.98	66.73	66.40	65.82	65.33	65.00
10	64.24	64.24	64.50	66.64	67.72	67.51	66.94	66.78	66.38	65.81	65.33	65.02
11	64.29	64.24	64.48	66.70	67.72	67.49	66.91	66.77	66.37	65.80	65.33	65.00
12	64.27	64.28	64.49	66.72	67.72	67.45	66.88	66.74	66.36	65.77	65.31	65.00
13	64.23	64.28	64.83	66.78	67.70	67.42	66.86	66.72	66.35	65.73	65.28	65.02
14	64.22	64.27	65.16	66.85	67.68	67.51	66.83	66.74	66.35	65.72	65.27	65.17
15	64.22	64.30	65.16	66.87	67.69	67.56	66.81	66.88	66.34	65.69	65.27	65.34
16	64.23	64.37	65.27	66.93	67.72	67.53	66.77	66.89	66.33	65.67	65.25	65.34
17	64.22	64.39	65.34	66.99	67.74	67.50	66.74	66.88	66.31	65.66	65.24	65.34
18	64.25	65.38	65.39	67.04	67.78	67.49	66.71	66.89	66.28	65.64	65.22	65.34
19	64.28	64.36	65.46	67.11	67.77	67.45	66.69	66.90	66.28	65.61	65.19	.....
20	64.29	64.35	65.51	67.15	67.76	67.42	66.66	66.89	66.27	65.58	65.17	.....
21	64.29	64.38	65.55	67.18	67.73	67.38	66.63	66.86	66.25	65.55	65.15	65.48
22	64.28	64.40	65.59	67.22	67.77	67.37	66.60	66.84	66.21	65.53	65.12	65.49
23	64.28	64.40	65.64	67.26	67.76	67.34	66.84	66.85	66.18	65.52	65.11	65.50
24	64.31	64.41	65.71	67.29	67.74	67.31	67.18	66.81	66.16	65.49	65.10	65.50
25	64.33	64.42	65.80	67.32	67.74	67.28	67.08	66.77	.....	65.46	65.10	65.51
26	64.30	64.43	66.09	67.37	67.77	67.27	67.04	66.74	66.12	65.43	65.09	65.53
27	64.29	64.44	66.18	67.41	67.75	67.24	67.03	66.72	66.09	65.41	65.09	65.53
28	64.32	64.43	66.20	67.43	67.70	67.21	67.01	66.70	66.07	65.41	65.09	65.53
29	64.31	.....	66.22	67.45	67.66	67.19	66.96	66.68	66.03	65.48	65.08	65.56
30	64.29	.....	66.25	67.47	67.68	67.18	66.94	66.65	66.00	65.52	65.08	65.56
31	64.29	.....	66.28	.....	67.68	.....	66.93	66.63	.....	65.48	.....	65.56

N1463. Nassau County Department of Public Works. Seamen's Neck Rd. near Southern State Parkway, Jerusalem. Lat. 40°41'50", long. 73°29'35". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 31 feet, screen 21-31. Land-surface datum is 50.7 feet above msl. Highest water level 42.91 above msl, June 7, 1952; lowest 36.61 above msl, Oct. 28, Nov. 3, 1947. Records available: 1943-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+37.77	+38.42	+38.66	+40.75	+41.18	.....	+39.18	+38.36	+38.20	+37.45	+37.33	+37.46
2	37.75	38.43	38.65	40.73	41.07	.....	39.15	38.34	38.17	37.44	37.34	37.44
3	37.84	38.45	38.65	40.67	41.00	.....	39.13	38.35	38.14	37.41	37.35	37.44
4	37.80	38.45	38.77	40.63	40.96	.....	39.04	38.33	38.13	37.39	37.35	37.43
5	37.79	38.45	38.74	40.62	40.96	.....	38.97	38.31	38.11	37.39	37.35	37.52

N1463--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	+37.77	+38.45	+38.73	+40.56	+40.94	.....	+38.96	+38.24	+38.09	+37.40	+37.36	+37.49
7	37.76	38.47	38.73	40.69	40.93	.....	38.92	38.17	38.07	37.41	37.46	37.58
8	37.75	38.47	38.75	40.82	40.89	.....	38.86	38.18	38.03	37.38	37.45	37.58
9	37.85	38.44	38.75	40.82	40.85	.....	38.81	38.19	38.00	.....	37.47	37.60
10	37.92	38.42	38.74	40.88	40.81	.....	38.75	38.55	37.96	37.35	37.48	37.67
11	37.96	38.41	38.71	40.88	40.77	.....	38.70	38.44	37.92	37.31	37.49	37.68
12	38.00	38.44	38.72	40.91	40.74	.....	38.67	38.43	37.88	37.31	37.50	37.70
13	38.04	.....	39.00	41.03	40.69	.....	38.63	38.43	37.94	37.28	37.51	37.75
14	38.07	.....	39.39	41.12	40.66	.....	38.57	38.50	37.90	37.27	37.51	38.17
15	38.10	.....	39.51	41.16	40.67	.....	38.54	38.65	37.85	37.24	37.52	38.37
16	38.14	.....	40.00	41.28	40.60	.....	38.51	38.63	37.90	37.21	37.52	38.48
17	38.17	.....	40.20	41.33	40.61	.....	38.47	38.65	37.86	37.19	37.52	38.55
18	38.23	.....	.....	41.35	40.60	+39.72	38.44	38.66	37.85	37.19	37.50	38.61
19	38.27	.....	.....	41.42	40.53	39.66	38.39	38.66	37.83	37.18	37.49	38.65
20	38.29	.....	.....	41.42	40.50	39.56	38.37	38.66	37.82	37.16	37.48	38.68
21	38.31	38.62	40.22	41.41	40.45	39.50	38.32	38.62	37.81	37.15	37.45	38.69
22	38.36	38.59	40.24	41.40	40.44	39.49	38.28	38.54	37.76	37.14	37.43	38.72
23	38.37	38.60	40.27	41.40	40.47	39.45	38.47	38.49	37.70	37.13	37.52	38.71
24	38.40	38.61	40.31	41.33	40.38	39.40	38.53	38.49	.....	37.08	37.48	38.69
25	38.44	38.64	40.37	41.29	40.35	39.33	38.50	38.44	.....	37.07	37.51	38.69
26	38.44	38.66	.....	41.27	40.35	39.31	38.49	38.41	37.62	37.07	37.48	38.68
27	38.46	38.67	.....	41.21	40.31	39.26	38.49	38.39	37.61	37.07	37.47	38.62
28	38.48	38.67	.....	41.15	40.27	39.24	38.46	38.36	37.56	37.28	37.47	38.61
29	.....	.....	.....	41.10	40.24	39.29	38.39	38.33	37.50	37.37	37.46	38.58
30	.....	.....	40.76	41.07	.....	39.22	38.43	38.29	37.46	37.32	37.46	38.55
31	38.41	.....	40.76	.....	.....	.....	38.43	38.25	.....	37.32	.....	38.52

N1464. Nassau County Department of Public Works. Seaford Woods, Seaford.

Lat. 40°40'50", long. 73°29'25". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches (1½-inch access pipe at top), depth 41 feet, perforations 31-41. Land-surface datum is 28.8 feet above msl. Highest water level 17.59 above msl, Apr. 29, 1944; lowest 12.22 above msl, Jan. 26, 1950. Records available: 1943-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	+16.45	Apr. 29	+17.29	Aug. 4	+15.67	Oct. 30	+15.76
26	+16.68	June 1	+16.73	24	+15.93	Nov. 25	+15.49
Mar. 30	+17.46	30	+16.10	Oct. 1	+15.33	Dec. 18	+16.04

N1613. Long Island State Park Commission. North Valley Stream State Park, Valley Stream. Lat. 40°41'00", long. 73°41'20". Drilled unused artesian well in sands of Magothy formation(?), diameter 6 inches (1½-inch access pipe at top), depth 496 feet, screen assumed at bottom. Land-surface datum is 24.4 feet above msl. Highest water level 24.56 above msl, July 28, 1948; lowest 19.12 above msl, July 3, 1953. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+21.54	Apr. 29	+22.63	Aug. 3	+20.70	Oct. 30	+21.55
26	+21.41	May 25	+20.82	27	+19.17	Nov. 27	+20.78
Mar. 31	+22.30	July 3	+19.12	Oct. 1	+20.13	Dec. 22	+20.82

N1614. Nassau County Department of Public Works. Herricks Rd. and Sally Place, Mineola. Lat. 40°44'45", long. 73°39'30". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 35 feet, screen 33-35. Land-surface datum is 100.7 feet above msl. Highest water level 72.48 above msl, May 31, 1949; lowest 61.90 above msl, Feb. 27, 1933. Records available: 1913-17, 1932-35, 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+67.99	Apr. 30	+72.14	Aug. 6	+70.44	Oct. 27	+68.54
26	+68.88	May 25	+72.26	27	+70.16	Nov. 23	+68.47
Mar. 31	+68.55	July 2	+71.29	Oct. 1	+69.13	Dec. 21	+68.98

N1615. Nassau County Department of Public Works. Merrick Ave. near Wilson Rd., East Meadow. Lat. 40°42'10", long. 73°34'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 26 feet, screen 24-26. Land-surface datum is 62.8 feet above msl. Highest water level 47.17 above msl, Mar. 28, 1939; lowest 41.49 above msl, Oct. 27, 1932. Records available: 1913-15, 1932-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+44.78	Apr. 28	+45.97	Aug. 4	+45.29	Oct. 30	+44.48
26	+44.70	May 28	+46.70	26	+45.10	Nov. 25	+44.38
Mar. 30	+45.25	June 30	+45.93	Sept. 28	+44.63	Dec. 21	+44.85

N1616. Nassau County Department of Public Works. Post Ave. and Argyle Rd., Westbury. Lat. 40°45'55", long. 73°35'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 51 feet, screen 49-51. Land-surface datum is 122.8 feet above msl. Highest water level 85.42 above msl, June 1, 1939; lowest 74.05 above msl, Feb. 27, 1933. Records available: 1913-15, 1932-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+81.92	Apr. 30	+83.97	Aug. 5	+84.58	Oct. 29	+83.78
25	+81.77	May 27	+84.84	25	+84.42	Nov. 23	+83.40
Apr. 1	+82.72	June 29	+84.94	Oct. 1	+83.98	Dec. 21	+83.15

N1828. Nassau County Department of Public Works. Melville Rd. and Suffolk County Line, Farmingdale. Lat. 40°44'45", long. 73°26'20". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 35 feet, screen 25-35. Land-surface datum is 81.9 feet above msl. Highest water level 64.52 above msl, Apr. 28, 1953; lowest 57.80 above msl, Dec. 19, 1950. Records available: 1939-42 (as N1248), 1942-53.

Feb. 2	+60.69	Apr. 28	+64.52	Aug. 4	+62.87	Oct. 30	+61.00
25	+60.92	May 29	+64.17	24	+62.69	Nov. 25	+60.79
Mar. 30	+63.27	June 30	+63.69	Sept. 30	+61.65	Dec. 18	+61.26

N1829. Nassau County Department of Public Works. Stewart Ave. near Post Ave., Westbury. Lat. 40°44'10", long. 73°34'40". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 27 feet, screen 17-27. Land-surface datum is 76.7 feet above msl. Highest water level 69.43 above msl, Apr. 28, 1953; lowest 66.00 above msl, Jan. 29, 1951. Records available: 1938-42 (as N1180), 1942-53.

Feb. 2	+67.73	Apr. 28	+69.43	Aug. 6	+68.78	Oct. 29	+68.10
25	+67.74	June 1	+69.35	24	+68.67	Nov. 24	+67.90
Mar. 31	+69.07	29	+69.10	Sept. 29	+68.53	Dec. 21	+68.31

N1830. Nassau County Department of Public Works. South Tyson Ave. near Long Island Railroad, Floral Park. Lat. 40°43'40", long. 73°42'20". Drilled observation water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 65 feet, screen 55-65. Land-surface datum is 95 feet above msl. Highest water level 54.23 above msl, May 31, 1949; lowest 49.05 above msl, June 7, 1942. Records available: 1939-42 (as N1106), 1942-53.

Feb. 4	+51.52	Apr. 30	+53.17	Aug. 5	+53.66	Oct. 27	+52.42
26	+51.44	May 25	+53.77	27	+53.47	Nov. 23	+52.14
Mar. 31	+52.15	June 25	+53.87	Oct. 1	+52.88	Dec. 22	+51.81

N2052. Port Washington Water District. Hewlett Lane, Port Washington. Lat. 40°48'45", long. 73°39'40". Drilled municipal artesian well in sands of Magothy formation(?), diameter 12 to 8 to 6 inches, depth 303 feet, screen 283-303. Land-surface datum is 157.9 feet above msl. Highest water level 34.95 above msl, Nov. 5, 1952; lowest 29.71 above msl, Mar. 14, 1946. Records available: 1946-53.

Feb. 3	+34.18	Apr. 30	+34.48	Aug. 6	+33.08	Nov. 24	+32.95
27	+34.15	May 27	+34.80	Oct. 29	+32.68	Dec. 17	+32.77
Apr. 2	+34.47						

N2071. Appleby Estate. Herb Hill Rd. near site of Columbia Ribbon & Carbon Mfg. Co., Glen Cove. Lat. 40°51'30", long. 73°38'35". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 8 inches (2½-inch access pipe at top), depth 266 feet, screen assumed at bottom. Land-surface datum is 5.1 feet above msl. Highest water level 14.62 above msl, Mar. 15, 1946; lowest 5.37 above msl, June 28, 1949. Records available: 1946-51, 1953. Measurements taken at or near high tide. Apr. 16, +10.03; May 1, +11.63; Aug. 6, +6.60. Measurement discontinued.

N2400. Roslyn Water District. Old Westbury Rd. and Locust Valley Lane, Roslyn. Lat. 40°47'10", long. 73°38'00". Drilled municipal artesian well in sands of Magothy formation(?), diameter 18 inches, depth 439 feet, screen 399-439. Land-surface datum is 165.6 feet above msl. Highest water level 74.10 above msl, Sept. 30, 1949; lowest 70.04 below msl, Feb. 28, 1951. Records available: 1947-52. Measurement discontinued.

N2528. Nassau County Department of Public Works. Chicken Valley and Wolver Hollow Rds., Upper Brookville. Lat. 40°51'00", long. 73°34'40". Drilled observation artesian well in sands of Magothy formation(?), diameter 6 to 4 inches, depth 282 feet, slotted 278-282. Land-surface datum is 92.5 feet above msl. Highest water level 72.32 above msl, June 26, 1953; lowest 68.03 above msl, Jan. 22, 30, 1951. Records available: 1947-53. Recording gage discontinued Feb. 14, 1953.

N2528--Continued.

Mean water level from recorder graph

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	+70.17	Jan. 15	+70.20	Jan. 29	+70.25	Feb. 12	+70.22
2	70.17	16	70.23	30	70.22	13	70.18
3	70.24	17	70.20	31	70.25	27	70.19
4	70.18	18	70.26	Feb. 1	70.26	Apr. 1	71.37
5	70.14	19	70.26	2	70.22	30	71.89
6	70.12	20	70.25	3	70.26	May 27	72.27
7	70.11	21	70.24	4	70.25	June 26	72.32
8	70.11	22	70.21	5	70.21	Aug. 5	72.23
9	70.12	23	70.20	6	70.20	25	72.04
10	70.16	24	70.27	7	70.23	Sept. 30	71.68
11	70.22	25	70.26	8	70.22	Oct. 29	71.48
12	70.19	26	70.18	9	70.18	Nov. 23	71.35
13	70.18	27	70.19	10	70.16	Dec. 17	71.33
14	70.18	28	70.28	11	70.16		

N2635. Nassau County Department of Public Works. Washington St. and Webster Ave., Port Washington. Lat. 40°49'40", long. 73°41'55". Drilled observation artesian well in sands of Magothy formation(?), diameter 6 to 4 inches, depth 154 feet, slotted 150-154. Land-surface datum is 40.3 feet above msl. Highest water level 27.67 above msl, May 23, 27, 31, June 1, 1953; lowest 23.77 above msl, Jan. 22-23, 1951. Records available: 1948-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+26.30	+26.30	+26.16	+26.87	.....	+27.67	+27.34	+27.24	+26.92	+26.64	+26.64	+26.29
2	26.29	26.25	26.12	26.87	.....	27.64	27.34	27.24	26.92	26.61	26.62	26.27
3	26.36	26.27	26.12	26.85	.....	27.61	27.34	27.22	26.92	26.59	26.60	26.25
4	26.30	26.26	26.26	26.85	.....	27.59	27.31	27.20	26.91	26.61	26.57	26.24
5	26.26	26.23	26.23	26.87	.....	27.59	27.30	27.22	26.91	26.62	26.52	26.28
6	26.23	26.21	26.19	.....	.....	27.57	27.30	27.17	26.90	26.66	26.51	26.29
7	26.20	26.25	26.16	.....	.....	27.55	27.30	27.15	26.94	26.67	26.63	26.34
8	26.21	26.27	26.18	.....	.....	27.55	27.26	27.15	26.91	26.62	26.59	26.30
9	26.27	26.22	26.18	.....	.....	27.56	27.27	27.15	26.87	26.61	26.59	26.32
10	26.30	26.19	26.18	.....	.....	27.53	27.24	27.18	26.86	26.62	26.57	26.38
11	.....	26.17	26.13	27.06	.....	27.50	27.22	27.14	26.86	26.61	26.55	26.31
12	26.29	26.24	26.15	27.08	.....	27.48	27.20	27.12	26.86	26.59	26.52	26.31
13	26.29	26.20	26.34	27.17	.....	27.52	27.22	27.11	26.90	26.53	26.49	26.34
14	26.27	26.16	26.33	27.18	.....	27.58	27.22	27.14	26.88	26.52	26.48	26.42
15	26.27	26.25	26.40	27.16	.....	27.57	27.22	27.22	26.89	26.54	26.49	26.38
16	26.26	26.24	26.48	27.22	.....	27.54	27.19	.....	26.91	26.54	26.47	26.35
17	26.24	26.21	26.49	27.24	.....	27.52	27.17	.....	26.87	26.51	26.45	26.32
18	26.31	26.17	26.53	27.25	.....	27.51	27.17	.....	26.83	26.48	26.41	26.32
19	26.31	26.16	26.60	27.31	+27.62	27.49	27.16	27.16	26.81	26.49	26.39	26.30
20	26.30	26.15	26.60	27.33	27.62	27.46	27.17	27.13	26.81	26.49	26.37	26.31
21	26.29	26.23	26.58	27.33	27.60	27.45	27.18	27.09	26.83	26.46	26.35	26.31
22	26.29	26.21	26.59	27.31	27.63	27.43	27.17	27.07	26.78	26.46	26.34	26.31
23	26.26	26.18	26.62	27.34	27.67	27.44	27.30	27.07	26.73	26.49	26.42	26.27
24	.....	26.20	26.70	27.31	27.63	27.41	27.34	27.06	26.71	26.50	26.41	26.23
25	.....	26.21	26.76	27.32	27.63	27.39	27.32	27.04	26.72	26.49	26.43	26.24
26	.....	26.23	26.82	27.36	27.65	27.38	27.32	27.03	.....	26.48	26.38	26.24
27	.....	26.24	26.83	27.38	27.67	27.35	27.32	27.02	26.74	26.47	26.34	26.19
28	.....	26.20	26.83	27.36	27.65	27.32	27.30	27.00	26.73	26.57	26.32	26.18
29	.....	.....	26.85	27.33	27.63	27.33	27.26	26.99	26.68	26.65	26.29	26.17
30	.....	.....	26.88	27.32	27.65	27.35	27.28	26.97	26.65	26.65	26.28	26.17
31	.....	.....	26.87	.....	27.67	.....	27.27	26.96	.....	26.64	.....	26.14

N2790. U. S. Geol. Survey and Nassau County Department of Public Works. Second Ave. near Williamson Ave., Bay Park. Lat. 40°38'05", long. 73°39'50". Drilled observation artesian well in sands of Magothy formation(?), diameter 6 to 4 inches, depth 560 feet, screen 538-560. Land-surface datum is 4.1 feet above msl. Highest water level 5.98 above msl, Mar. 26, Apr. 13, 1953; lowest 3.00 above msl, July 4, 1950. Records available: 1950-53.

N2790--Continued.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+4.95	+5.26	+4.80	+5.79	+5.48	+5.39	+4.46	+4.19	+3.82	+3.93	+4.64	+4.70
2	4.98	4.92	4.79	5.78	5.54	5.29	4.39	4.22	3.82	3.83	4.60	4.78
3	5.18	5.08	4.93	5.69	5.42	5.15	4.32	4.38	3.77	3.84	4.57	4.80
4	5.08	5.14	5.30	5.63	5.34	5.05	4.15	4.45	3.77	3.88	4.46	4.73
5	4.99	5.11	4.97	5.55	5.39	4.96	4.15	4.51	3.85	3.86	4.35	4.72
6	4.90	5.04	4.78	5.51	5.45	4.91	4.20	4.35	3.97	4.17	4.65	4.72
7	4.79	5.15	4.74	5.75	5.52	4.87	4.20	4.27	4.18	4.21	5.40	4.69
8	4.80	5.14	....	5.90	5.57	4.95	4.10	4.36	3.96	4.08	5.00	....
9	5.10	4.85	....	5.77	5.51	5.05	4.04	4.36	....	4.14	4.88	4.69
10	5.32	4.60	4.79	5.87	5.48	4.95	3.91	4.49	....	4.24	4.85	4.69
11	....	4.83	....	5.88	5.47	4.82	3.88	4.42	....	4.27	4.95	4.45
12	....	5.11	....	5.81	5.44	4.74	3.91	4.32	....	4.19	4.92	4.55
13	5.17	5.14	5.25	5.98	5.43	4.92	3.99	4.28	....	4.07	4.80	4.72
14	5.06	5.02	5.43	5.71	5.39	5.30	3.97	4.45	....	4.04	4.73	5.12
15	5.06	5.33	5.54	....	5.50	....	3.97	4.69	....	4.07	4.76	4.99
16	5.05	5.08	5.68	....	5.50	5.38	3.81	4.72	....	4.02	4.73	4.84
17	4.94	5.00	5.65	5.74	5.53	5.31	3.74	4.76	....	3.97	4.72	4.84
18	5.17	....	5.65	5.70	5.65	5.19	3.67	4.78	4.15	3.92	4.66	4.89
19	5.17	....	5.77	5.75	5.57	5.03	3.68	4.75	4.18	3.95	4.64	4.80
20	5.17	4.81	5.71	5.77	5.52	4.89	3.76	4.65	4.29	3.96	4.69	4.83
21	5.26	5.05	5.58	5.54	5.49	4.70	3.83	4.58	4.34	4.02	4.69	4.86
22	5.38	4.76	5.53	5.53	5.54	4.67	3.86	4.56	4.25	4.34	4.77	5.00
23	5.40	4.72	5.52	5.60	5.49	4.74	....	4.60	4.16	4.69	4.92	4.88
24	....	4.84	5.72	5.50	5.40	4.68	....	4.56	4.16	4.58	4.94	4.75
25	5.53	4.93	5.88	5.49	5.33	4.59	4.40	4.43	....	4.48	5.08	4.76
26	5.16	5.11	5.98	5.55	5.49	4.58	4.45	4.39	....	4.50	4.88	4.79
27	5.42	5.12	5.92	5.58	5.51	4.44	4.47	4.33	4.27	4.45	4.76	4.56
28	5.57	4.96	5.88	5.32	5.43	4.36	4.37	4.26	4.23	4.65	4.71	4.70
29	5.37	....	5.85	5.19	5.40	4.46	4.27	4.10	4.06	4.86	4.61	4.74
30	5.16	....	5.85	5.21	5.35	4.54	4.23	4.02	4.02	4.69	4.63	4.74
31	5.24	....	5.81	....	5.44	....	4.25	3.96	....	4.63	....	4.64

N3355. Nassau County Department of Public Works. Round Swamp Rd., Plainview. Lat. 40°46'25", long. 73°26'55". Drilled observation artesian well in Lloyd sand member of Raritan formation, diameter 8 to 4 inches, depth 1,090 feet, screen 1,070-1,090. Land-surface datum is 183.3 feet above msl. Highest water level 34.86 above msl, Mar. 11, 1953; lowest 31.12 above msl, Sept. 30, 1951. Records available: 1951-53.

Mean water level from recorder graph, 1951

Day	Aug.	Sept.	Oct.	Nov.	Dec.	Day	Aug.	Sept.	Oct.	Nov.	Dec.
1	+31.39	+31.23	+31.79	+32.20	17	+31.50	+31.35	+31.35	+32.30	+32.16
2	31.36	31.30	31.76	32.17	18	31.47	31.36	31.37	32.24	32.52
3	31.37	31.26	32.08	32.08	19	31.41	31.32	31.47	32.19	32.39
4	31.32	31.31	31.92	32.18	20	....	31.24	31.47	32.10	32.34
5	31.29	31.37	31.76	32.31	21	....	31.22	31.41	31.98	32.73
6	31.35	31.31	31.67	32.31	22	31.49	31.27	31.40	32.01	32.56
7	31.44	31.26	32.12	32.26	23	31.37	31.31	31.45	32.13	32.34
8	31.31	31.33	32.16	32.29	24	31.34	31.22	31.57	32.17	32.34
9	31.30	31.25	31.99	32.39	25	31.35	31.31	31.60	32.02	32.30
10	31.29	31.26	32.00	32.34	26	31.37	31.21	31.57	32.39	32.47
11	31.29	31.43	32.04	32.43	27	31.39	31.28	31.72	32.22	32.33
12	31.25	31.39	31.96	32.56	28	31.38	31.27	31.84	32.10	32.27
13	31.28	31.21	....	32.37	29	31.36	31.13	31.71	32.12	32.38
14	+31.40	31.31	31.21	....	32.25	30	31.38	31.12	31.63	32.15	32.51
15	31.42	31.32	31.33	....	32.58	31	31.41	....	31.71	....	32.41
16	31.49	31.33	31.35	....	32.26						

Daily mean water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+32.44	+32.54	+32.82	+32.97	+32.99	+32.95	+32.33	+31.82	+32.09	+32.32	+32.69	+33.00
2	32.43	32.64	32.64	33.02	32.99	33.00	32.34	31.89	32.15	32.41	32.63	33.06
3	32.47	32.59	32.61	32.90	32.93	32.96	32.37	31.92	32.11	32.41	32.74	33.09
4	32.40	32.90	32.78	32.81	32.97	32.97	32.39	31.87	31.96	32.34	32.73	33.03
5	32.66	32.90	32.84	33.06	32.92	33.02	32.35	31.87	31.92	32.36	32.79	33.05

N3355--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	32.60	32.69	32.72	33.06	32.98	33.03	32.25	31.85	31.99	32.38	32.96	33.47
7	32.58	32.72	32.67	32.93	32.94	33.07	32.21	31.89	31.94	32.42	32.87	33.34
8	32.62	32.68	32.67	32.79	32.94	32.96	32.26	31.86	31.82	32.40	32.68	33.27
9	32.66	32.74	32.66	32.69	32.94	32.99	32.33	31.89	31.85	32.43	32.72	33.29
10	32.72	32.67	32.62	32.76	32.94	33.03	32.41	32.03	31.93	32.40	32.80	33.39
11	32.49	32.84	33.05	32.80	32.96	33.01	32.28	31.99	31.96	32.44	32.80	33.66
12	32.50	32.72	32.91	32.77	33.06	32.92	32.20	31.99	31.99	32.50	32.82	.....
13	.....	32.62	33.01	32.79	32.97	32.78	32.19	31.99	32.03	32.56	32.69	.....
14	.....	32.62	33.00	33.06	32.89	32.72	32.18	31.95	32.02	32.57	32.68	33.54
15	.....	32.53	32.95	33.07	32.91	32.77	32.18	31.94	32.08	32.63	32.74	33.60
16	.....	32.50	33.08	32.93	32.83	32.72	32.14	32.04	32.21	32.67	32.83	33.61
17	.....	32.76	32.93	32.86	32.71	32.80	32.06	32.11	32.20	32.63	32.73	33.56
18	.....	32.77	32.72	32.89	32.73	32.81	32.09	32.02	32.15	32.67	32.72	33.50
19	.....	32.58	32.82	32.85	32.67	32.76	32.21	31.96	32.20	32.78	32.83	.....
20	32.78	32.55	32.86	32.88	32.79	32.62	32.18	31.93	32.16	32.69	32.93	.....
21	32.54	32.65	32.89	32.77	32.90	32.53	32.16	31.99	32.13	32.57	32.93	33.51
22	32.59	32.57	32.85	32.78	32.78	32.55	32.12	32.09	32.11	32.59	.....	33.51
23	32.72	32.52	32.94	32.83	32.65	32.53	32.11	32.01	32.14	32.70	33.04	33.55
24	32.48	32.54	32.97	32.68	32.64	32.64	32.06	31.99	32.07	32.76	32.99	33.59
25	32.33	32.59	32.90	32.74	32.80	32.69	31.91	31.94	32.10	32.65	32.95	33.60
26	32.66	32.58	32.87	32.81	32.91	32.66	31.91	31.92	32.22	32.56	33.06	33.64
27	32.71	32.78	32.90	32.89	32.82	32.55	31.97	31.91	32.23	32.70	33.15	33.65
28	32.83	32.85	32.85	33.04	32.79	32.46	32.02	31.91	32.19	32.88	33.13	.....
29	32.71	32.82	32.80	33.02	32.81	33.52	32.03	31.95	32.24	32.79	33.07	.....
30	32.50	.....	32.71	33.04	32.73	32.46	31.93	31.95	32.32	32.65	33.13	.....
31	32.45	.....	32.79	.....	32.74	.....	31.88	31.90	.....	32.71	.....	.....

Daily mean water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	+33.88	+34.10	+34.58	+34.52	+34.39	+33.92	+32.96	+32.98	+32.80	+33.46	.....
2	.....	33.75	33.97	34.56	34.43	34.37	33.95	32.95	33.04	32.73	33.43	.....
3	.....	33.88	34.00	34.44	34.30	34.30	33.93	32.86	33.02	32.74	33.47	.....
4	.....	33.87	34.35	34.42	34.24	34.31	33.76	32.88	32.98	32.85	33.47	.....
5	+33.67	33.75	34.32	34.44	34.40	34.32	33.72	33.02	32.98	32.96	33.32	.....
6	33.57	33.76	34.16	34.42	34.44	34.31	33.77	32.85	32.98	33.10	33.34	+34.30
7	33.50	33.94	34.08	34.53	34.50	34.28	33.78	32.81	33.01	33.02	.....	34.36
8	33.49	33.98	34.14	34.52	34.55	34.19	33.72	32.87	32.84	32.88	.....	34.23
9	33.64	33.86	34.10	34.48	34.48	34.27	33.67	32.92	32.73	32.90	.....	34.33
10	33.77	33.81	34.04	34.54	34.46	34.21	33.55	32.98	32.74	33.03	.....	34.57
11	33.96	33.82	33.86	34.57	34.46	34.16	33.48	32.88	32.81	33.07	.....	34.30
12	33.84	34.05	33.94	34.57	34.44	34.13	33.45	32.82	32.90	33.02	.....	34.40
13	33.69	34.05	34.31	34.76	34.41	34.14	33.44	32.86	32.99	32.86	.....	34.45
14	33.61	33.92	34.27	34.69	34.39	34.26	33.38	33.04	32.88	32.87	.....	34.76
15	33.62	34.25	34.35	34.54	34.46	34.24	33.37	33.13	32.90	33.05	33.72	34.65
16	33.69	34.14	34.44	34.61	34.44	34.22	33.30	33.03	32.96	33.12	.....	34.50
17	33.60	34.07	34.40	34.60	34.53	34.22	33.33	33.04	32.83	33.05	.....	34.40
18	33.82	33.90	34.42	34.56	34.64	34.22	33.34	33.03	32.73	33.00	.....	34.39
19	33.87	33.85	34.53	34.62	34.56	34.20	33.31	33.04	32.73	33.05	.....	34.37
20	33.84	33.85	34.40	34.64	34.47	34.19	33.28	32.99	32.81	32.11	.....	34.45
21	33.87	34.08	34.24	34.51	34.38	34.16	33.25	32.91	32.90	33.04	.....	34.49
22	33.82	33.96	34.20	34.43	34.50	34.13	33.20	32.92	32.75	33.10	33.77	34.54
23	33.79	33.88	34.27	34.54	34.51	34.10	33.35	33.01	32.60	33.31	34.04	34.47
24	34.13	34.00	.....	34.38	34.41	34.00	33.20	33.02	32.58	33.38	34.09	34.35
25	34.15	34.10	.....	34.39	34.41	33.94	33.00	32.95	.....	33.31	34.28	34.49
26	33.85	.....	.....	34.50	34.53	33.95	32.99	32.96	32.80	33.26	34.14	34.60
27	33.81	.....	.....	34.50	34.45	33.88	33.05	32.97	32.93	33.27	34.07	34.43
28	34.04	34.27	.....	34.40	34.31	33.86	33.04	33.01	32.97	33.48	34.05	34.48
29	33.91	.....	34.62	34.31	34.25	33.88	32.99	33.03	32.85	33.69	33.98	34.53
30	33.79	.....	34.69	34.30	34.31	33.87	33.03	33.03	32.79	33.56	.....	34.57
31	33.84	.....	34.60	.....	34.38	.....	33.01	33.04	.....	33.44	.....	34.57

Queens County

Q64. American Ice Co. 83d St. and 45th Ave., Elmhurst. Lat. 40°44'30", long. 73°52'50". Drilled unused artesian well in Lloyd sand member of Raritan formation and in bedrock, diameter 10 to 8 inches, depth 560 feet. Land-surface datum is 34.3 feet above msl. Highest water level 0.39 above msl, Apr. 13, 1953; lowest 68.90 below msl, Nov. 2, 1947. Records available: 1947-53.

Q64--Continued.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-1.38	-0.82	-0.38	+0.24	+0.13	-0.11	....	-0.50	-0.60	-0.88	....	-2.58
2	1.35	.95	.48	.25	+.07	.13	....	.53	.56	....	....	2.52
3	1.09	.80	.44	.15	-.07	.19	....	.59	.57	....	....	2.46
4	1.18	.77	....	.16	-.12	.17	....	.58	.60	....	....	....
5	1.28	.84	....	.16	+.02	.16	....	.46	.59	....	....	....
6	1.39	.80	....	.15	.04	.17	....	.60	.59	....	....	....
7	1.48	.68	....	.28	.10	.19	....	.65	.59	....	....	....
8	1.47	.62	....	.21	.13	.26	....	.61	.71	....	....	....
9	1.36	.70	....	.19	.09	.19	....	.56	.78	....	....	....
10	1.27	.73	....	.30	.05	.23	....	.54	.80	1.00	....	....
11	1.11	.69	.42	.28	.05	.26	-0.49	.63	.75	1.00	....	....
12	1.21	.44	.33	.26	+.01	.27	.50	.67	.68	1.07	....	1.75
13	....	.47	.06	.39	-.01	.22	.47	.65	.61	1.23	....	1.66
14	1.40	.57	.10	.29	.04	.21	.52	.58	.68	1.23	-4.40	1.41
15	1.40	....	-.02	....	.01	.21	.52	.48	.67	1.11	4.18	1.43
16	1.33	....	+.02	....	-.04	.22	.53	.52	.63	1.10	4.09	1.51
17	1.46	....	-.02	....	+.04	.19	.51	.56	.74	1.19	4.00	1.55
18	1.22	.67	-.01	.20	.11	.17	.46	.57	.83	1.24	3.88	1.54
19	1.18	.69	+.09	.25	.05	.17	.46	.56	.83	1.21	....	1.47
20	1.18	.67	+.02	.29	+.01	.17	.45	.59	.74	1.17	3.69	1.35
21	1.17	.47	-.11	.21	-.09	.18	.46	.65	.68	1.24	3.60	1.29
22	1.20	.56	-.13	.16	.00	.19	.47	.65	.81	1.21	3.45	1.22
23	1.20	.61	-.04	.27	+.03	.20	.30	.57	.91	1.05	3.20	1.26
24	.89	.49	+.13	.16	-.08	....	.37	.58	....	1.00	3.09	1.31
25	.83	.39	.24	.20	.09	....	.53	.61	....	1.08	2.87	1.17
26	1.09	.27	.33	.35	.02	.26	.52	.59	.78	1.14	2.92	1.06
27	1.11	.21	.31	.35	.07	.30	.45	.57	.69	1.14	2.89	1.17
28	.86	.29	.27	.20	.18	.31	.44	.55	.69	.96	2.85	1.11
29	.92	....	.26	.06	.23	.28	.45	.54	.80	.83	2.84	1.05
30	1.02	....	.33	.00	.15	.26	.45	.55	.86	1.03	2.72	.99
31	.91	....	.26	....	.12	....	.46	.55	....	....	....	.96

Q273. City of New York, Department of Water Supply, Gas and Electricity. Grand Central Parkway and Van Wyck Expressway, Forest Hills. Lat. 40°42'55", long. 73°49'45". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 24 to 12 inches, depth 438 feet, screen 308-374, 376-438. Land-surface datum is 25.6 feet above msl. Highest water level 8.47 above msl, Apr. 20, 1939; lowest 1.12 above msl, Mar. 21, 1942. Records available: 1935-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+4.67	+5.24	+5.14	+5.07	+5.36	+5.48	+5.23	+4.98	+4.61	+4.39	+4.48	+4.66
2	4.65	5.10	5.00	5.06	5.35	5.50	5.25	4.94	4.60	4.33	4.48	4.67
3	4.91	5.17	5.01	4.98	5.23	5.45	5.20	4.94	4.57	4.32	4.52	4.65
4	4.88	5.23	5.32	4.94	5.15	5.42	5.05	5.01	4.50	4.38	4.53	4.67
5	4.70	5.14	5.36	4.95	5.23	5.42	5.01	5.18	4.47	4.45	4.43	4.73
6	4.59	5.14	5.20	4.93	5.26	5.39	5.06	5.14	4.49	4.54	4.39	4.74
7	4.53	5.26	5.11	5.06	5.29	5.33	5.12	5.02	4.57	4.53	4.63	4.80
8	4.53	5.31	5.14	5.06	5.32	5.31	5.07	5.01	4.53	4.39	4.58	4.66
9	4.69	5.22	5.16	4.99	5.28	5.40	5.01	5.04	4.46	4.41	4.53	4.70
10	4.86	5.13	5.13	5.10	5.22	5.43	4.89	5.08	4.46	4.51	4.50	4.86
11	4.99	5.12	5.02	5.13	5.18	5.38	4.83	5.02	4.52	4.56	4.51	4.69
12	4.90	5.34	5.08	5.08	5.16	5.34	4.82	4.97	4.61	4.51	4.51	4.67
13	4.77	5.35	5.37	5.19	5.12	5.39	4.87	4.97	4.69	4.38	4.45	4.75
14	4.78	5.20	5.39	5.15	5.12	5.50	4.91	5.07	4.61	4.37	4.50	4.91
15	4.85	5.32	5.39	5.02	5.17	5.53	4.95	5.18	4.60	4.50	4.63	4.90
16	4.99	5.31	5.44	5.06	5.20	5.59	4.97	5.11	4.64	4.57	4.66	4.74
17	4.96	5.17	5.38	5.12	5.25	5.57	4.95	5.11	4.55	4.51	4.62	4.64
18	5.14	5.04	5.36	5.09	5.30	5.55	4.93	5.14	4.46	4.42	4.56	4.62
19	5.22	5.00	5.46	5.14	5.23	5.53	4.88	5.17	4.47	4.42	4.54	4.66
20	5.21	5.01	5.41	5.20	5.14	5.51	4.83	5.13	4.57	4.49	4.60	4.75
21	5.19	5.22	5.28	5.17	5.04	5.44	4.81	5.02	4.67	4.44	4.65	4.81
22	5.16	5.19	5.23	5.12	5.11	5.33	4.80	4.97	4.62	4.43	4.67	4.84
23	5.11	5.09	5.31	5.21	5.20	5.28	4.91	5.00	4.50	4.56	4.82	4.77
24	5.34	5.15	5.48	5.18	5.09	5.20	4.77	5.02	4.47	4.65	4.84	4.63
25	5.46	5.26	5.60	5.19	5.06	5.16	4.71	4.95	4.57	4.57	4.90	4.69

Q273--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	+5.20	+5.36	+5.67	+5.30	+5.17	+5.18	+4.79	+4.88	+4.67	+4.48	+4.78	+4.78
27	5.05	5.40	5.64	5.32	5.24	5.17	4.95	4.85	4.73	4.46	4.64	4.67
28	5.25	5.31	5.55	5.24	5.18	5.12	5.04	4.82	4.71	4.63	4.59	4.63
29	5.25		5.41	5.18	5.15	5.13	5.03	4.81	4.58	4.77	4.54	4.68
30	5.12		5.28	5.18	5.28	5.16	5.03	4.75	4.44	4.69	4.57	4.69
31	5.13		5.17		5.40		5.01	4.70		4.53		4.68

Q278. City of New York, Department of Water Supply, Gas and Electricity. Alley Pond Parkway and Horace Harding Blvd., Douglaston. Lat. 40°45'15", long. 73°44'30". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 26 to 18 inches, depth 512 feet, screen 380-411, 427-447, 461-512. Land-surface datum is 16 feet above msl. Highest water level 5.11 above msl, Nov. 29, 1946; lowest 6.86 below msl, July 25, 1951. Records available: 1946-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	-0.38	Apr. 28	+2.81	July 30	-5.29	Nov. 2	-4.05
Mar. 2	+1.10	May 27	-.68	Aug. 26	+4.36	23	-.63
27	+2.65	June 24	-3.20	Sept. 28	-3.87	Dec. 19	-.39

Q283. City of New York, Department of Water Supply, Gas and Electricity. Underhill Ave. and 171st St., Flushing. Lat. 40°44'55", long. 73°47'45". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 26 to 12 inches, depth 409 feet, screen 309-352, 367-409. Land-surface datum is 27 feet above msl. Highest water level 2.73 below msl, Feb. 28, 1951; lowest 10.26 below msl, Sept. 3, 1947, Sept. 27, 1951. Records available: 1946-53. Recording gage installed Oct. 21, 1953.

Mean water level from recorder graph

Mar. 2	-5.12	Nov. 2	-8.26	Nov. 21	-6.53	Dec. 14	-5.80
27	3.43	3	8.20	22	6.50	15	5.79
Apr. 28	3.60	4	8.20	27	6.51	16	5.88
May 27	5.23	5	8.27	28	6.54	17	5.94
June 24	5.83	6	8.22	29	6.56	18	5.94
July 30	7.92	7	7.87	30	6.49	19	5.96
Aug. 26	7.43	8	7.84	Dec. 1	6.39	20	5.90
Sept. 28	8.47	9	7.75	2	6.36	21	5.88
Oct. 22	8.60	10	7.70	3	6.34	22	5.86
23	8.44	11	7.60	4	6.31	23	5.92
24	8.40	12	7.51	5	6.28	24	5.99
25	8.44	13	7.43	6	6.27	25	5.92
26	8.43	14	7.31	7	6.25	26	5.87
27	8.40	15	7.12	8	6.34	27	5.94
28	8.22	16	7.03	9	6.26	28	5.81
29	8.08	17	6.94	10	6.07	29	5.68
30	8.15	18	6.90	11	6.23	30	5.60
31	8.24	19	6.86	12	6.16	31	5.63
Nov. 1	8.25	20	6.62	13	6.07		

Q350. Formerly New York Water Service Corp. Rockaway Blvd. and Centerville St., Aqueduct. Lat. 40°40'15", long. 73°50'00". Drilled unused artesian well in Jameco gravel, diameter 8 to 4 inches, depth 222 feet, screen assumed at bottom. Land-surface datum is 31.7 feet above msl. Highest water level 3.51 above msl, Apr. 29, 1939; lowest 0.74 below msl, Feb. 7, 10-11, 1948. Records available: 1937-53.

Feb. 13	+1.70	Apr. 30	+2.61	July 30	+1.59	Oct. 1	+1.06
27	+1.76	May 27	+2.54	Aug. 18	+1.55	Nov. 24	+1.38
Mar. 26	+2.32	June 24	+1.92	26	+1.48	Dec. 19	+1.40

Q470. City of New York, Department of Water Supply, Gas and Electricity. Northern Blvd. and Cross Island Parkway, Bayside. Lat. 40°45'40", long. 73°45'20". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 6 inches, depth 375 feet, screen 349-375. Land-surface datum is 12.8 feet above msl. Highest water level 6.78 above msl, Jan. 8, 1938; lowest 12.75 below msl, July 15, 1937. Records available: 1933-53.

Q470--Continued.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-0.57	+0.01	+1.00	+2.95	+2.86	+1.08	-1.58	-2.86	-2.99	-2.39	-2.16	+0.26
2	.52	.01	.95	2.98	2.76	1.23	1.66	2.83	3.23	2.45	2.16	.32
3	.38	.06	.95	2.97	2.62	1.31	1.78	2.76	3.47	2.49	2.15	.33
4	.25	.14	1.03	2.94	2.45	1.32	1.91	2.64	3.70	2.56	2.12	.32
5	.20	.18	1.09	2.92	2.32	1.27	2.01	2.45	3.88	2.63	2.09	.32
6	.10	.19	1.08	2.91	2.22	1.14	2.07	2.28	4.00	2.68	2.05	.31
7	.06	.23	1.04	2.92	2.11	.92	2.11	2.15	4.03	2.69	1.83	.34
8	-.03	.28	1.03	2.96	2.00	.71	2.15	2.05	4.04	2.74	1.70	.36
9	+.08	.30	1.11	2.93	1.88	.55	2.21	1.98	4.04	2.74	1.56	.42
10	+.20	.31	1.24	2.90	1.75	.41	2.32	1.91	4.02	2.69	1.40	.55
11	....	.32	1.31	2.87	1.65	.22	2.46	1.88	3.99	2.60	1.22	.59
12	....	.40	1.37	2.82	1.54	+.03	2.61	1.86	3.93	2.53	1.02	.60
13	.49	.48	1.46	2.81	1.40	-.14	2.73	1.85	3.87	2.51	.81	.64
14	.50	.48	1.55	2.82	1.26	.21	2.79	1.82	3.84	2.52	.61	.71
15	.48	.52	1.64	2.75	1.16	.17	2.85	1.75	3.81	2.52	.42	.78
16	.45	.55	1.80	2.73	1.09	-.01	2.95	1.71	3.72	....	.23	.76
17	.35	.47	1.93	2.73	1.04	+.16	3.08	1.66	3.61	2.51	-.10	.70
18	.27	.45	2.02	2.70	1.02	.26	3.24	1.61	3.50	2.50	+.01	.62
19	+.22	.45	2.12	2.72	1.01	.27	3.44	1.55	3.39	2.50	.02	.55
20	....	.48	2.20	2.77	.97	.22	3.63	1.49	3.15	2.50	.03	.51
21	....	.56	2.22	2.82	.89	+.08	3.75	1.47	3.10	2.51	.04	.50
22	....	.61	2.23	2.83	.83	-.13	3.79	1.51	2.99	2.51	.04	.50
23	....	.64	2.25	2.85	.80	.32	....	1.57	2.91	2.46	.05	.49
24	-.01	.75	2.30	2.87	.77	.48	....	1.65	2.84	2.40	.07	.46
25	.00	.87	2.43	2.88	.76	.63	....	1.73	2.76	2.35	.10	.46
26	.03	.95	2.55	2.90	.80	.77	....	1.83	2.65	2.32	.10	.54
27	.09	1.01	2.64	2.97	.87	.93	....	1.94	2.53	2.31	.08	.66
28	.06	1.03	2.70	3.03	.87	1.16	....	2.07	2.43	2.27	.10	.81
29	.03	....	2.76	3.00	.85	1.37	2.96	2.28	2.37	2.19	.12	.97
30	.03	....	2.84	2.93	.86	1.51	2.90	2.51	2.36	2.14	.16	1.04
31	.03	....	2.90	....	.95	....	2.87	2.75	....	2.14	....	1.03

Q471. City of New York, Department of Water Supply, Gas and Electricity. Northern Blvd. and Cross Island Parkway, Bayside. Lat. 40°45'40", long. 73°45'20". Drilled unused artesian well in sands of Magothy formation(?), diameter 6 inches, depth 117 feet, screen assumed at bottom. Land-surface datum is 12.8 feet above msl. Highest water level 17.45 above msl, Sept. 30, 1946; lowest 13.69 above msl, Mar. 31, 1939. Records available: 1939-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 10	+16.20	May 27	+16.96	Aug. 20	+15.86	Nov. 2	+15.64
Mar. 2	+16.22	June 24	+16.22	26	+15.86	23	+15.53
27	+16.61	Aug. 3	+15.86	Sept. 28	+15.78	Dec. 19	+15.68
Apr. 28	+16.70						

Q543. City of New York, Department of Water Supply, Gas and Electricity. Rockaway Beach Blvd. and Beach 110th St., Rockaway Park. Lat. 40°34'55", long. 73°50'05". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 8 inches, depth 840 feet, screen assumed at bottom. Land-surface datum is 7.4 feet above msl. Records available: 1932, 1936-53. Water levels affected by tidal fluctuation; extremes were not determined as water levels were computed on different bases for period of record.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+9.75	+9.66	+9.80	+10.95	+11.20	+10.61	+8.69	+6.75	+6.19	+6.31	+7.78	+8.78
2	9.51	9.43	9.80	10.98	11.30	10.41	8.78	6.80	6.20	6.29	7.79	9.00
3	9.83	9.99	10.16	10.72	10.84	10.38	8.60	6.77	6.18	6.30	7.83	8.93
4	9.68	10.23	10.70	10.69	10.58	10.38	8.31	6.66	6.15	6.49	7.61	8.82
5	9.52	10.13	9.69	10.68	10.80	10.34	8.22	6.77	6.13	6.59	7.53	8.80
6	9.28	9.90	9.62	10.69	10.82	10.27	8.39	6.70	6.15	7.30	8.38	8.89
7	....	10.19	9.65	11.17	10.98	10.24	8.30	6.71	6.25	6.88	9.17	8.72
8	....	10.17	10.23	11.19	11.00	10.15	8.26	6.85	5.69	6.41	9.77	8.39
9	....	9.35	10.13	10.72	10.95	10.25	8.14	6.84	5.70	6.69	7.85	8.84
10	....	9.08	9.88	11.02	10.91	10.02	7.86	6.80	5.70	7.03	8.00	8.95
11	....	9.93	9.95	10.86	10.88	9.99	7.76	6.55	5.75	7.27	8.26	8.45
12	....	10.59	10.09	....	10.91	10.02	7.72	6.46	6.08	7.12	8.20	8.81
13	....	10.55	10.45	....	10.89	10.25	7.74	6.57	5.82	6.91	8.03	9.22
14	....	10.14	10.46	....	10.81	10.30	7.57	6.88	5.60	6.81	7.98	9.93
15	9.26	10.67	10.56	10.54	10.93	10.05	7.57	6.69	5.73	7.04	8.10	8.82

Q543--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	+9.30	+9.66	+10.60	+11.16	+10.75	+9.82	+7.30	+6.53	+5.97	+7.14	+8.31	+8.69
17	9.15	9.77	10.48	10.80	10.86	9.84	7.37	6.50	5.89	....	8.31	8.87
18	9.66	9.50	10.45	10.88	....	9.83	7.38	6.53	5.82	7.01	8.21	8.90
19	9.74	9.51	10.71	10.88	....	9.73	7.41	6.54	5.94	7.09	8.22	8.79
20	9.84	9.77	10.50	10.87	10.65	9.66	7.31	6.50	6.15	7.13	8.40	8.96
21	10.10	10.08	10.41	10.40	10.70	9.55	7.25	6.49	6.41	7.33	8.50	9.20
22	10.12	9.36	10.29	10.52	....	9.54	7.19	6.47	6.19	7.84	8.64	9.53
23	9.84	9.50	....	10.70	....	9.28	7.41	6.55	5.99	8.24	8.90	9.16
24	10.35	9.92	....	10.62	....	9.19	7.00	6.59	6.03	7.88	8.90	8.93
25	9.56	10.13	11.02	10.76	....	9.10	6.71	6.59	6.19	7.84	9.20	9.06
26	9.18	10.54	11.12	10.97	....	9.04	6.70	6.59	6.38	7.63	8.69	9.29
27	9.78	10.47	....	11.00	10.78	8.80	6.78	6.58	6.62	7.48	8.68	8.97
28	10.21	10.03	10.94	10.77	10.40	8.80	6.84	6.53	6.71	7.80	8.60	9.34
29	9.79	....	10.95	10.54	10.38	8.75	6.85	6.41	6.55	8.12	8.39	9.41
30	9.51	....	10.88	10.72	10.52	8.71	6.70	6.45	6.59	7.70	8.54	9.41
31	9.84	....	10.99	....	10.71	....	6.75	6.39	....	7.72	....	9.12

Q1027. City of New York, Department of Parks. Rodman Ave. and 58th Ave., Extended, Flushing Meadow Park. Lat. 40°44'40", long. 73°50'15". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 8 inches, depth 274 feet, screen 247-274. Land-surface datum is 8.6 feet above msl. Highest water level 8.53 above msl, Apr. 28, 1953; lowest 4.08 above msl, Mar. 20, 1942. Records available: 1942-43, 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	+8.16	May 27	+8.45	Aug. 14	+7.96	Nov. 2	+7.74
Mar. 2	+7.82	June 24	+8.25	26	+8.01	23	+7.84
27	+8.47	July 30	+8.11	Sept. 28	+7.78	Dec. 19	+7.68
Apr. 28	+8.53						

Q1089. City of New York, Department of Water Supply, Gas and Electricity. North Conduit Ave. near L.I.R.R., Aqueduct. Lat. 40°40'00", long. 73°49'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 32 feet, screen 30-32. Land-surface datum is 20.5 feet above msl. Highest water level 4.04 above msl, Sept. 23, 1938; lowest 0.42 below msl, Oct. 17, 1932. Records available: 1911-17, 1932-39, 1941-53.

Feb. 13	+2.25	May 27	+3.07	Aug. 20	+2.36	Nov. 2	+2.13
27	+2.22	June 24	+2.87	26	+2.27	24	+2.05
Mar. 26	+2.65	July 30	+2.50	Oct. 1	+1.89	Dec. 19	+2.27
Apr. 30	+3.14						

Q1152. City of New York, Department of Water Supply, Gas and Electricity. Sunrise Highway and 131st St., South Ozone Park. Lat. 40°40'00", long. 73°48'30". Drilled observation artesian well in Jameco gravel, diameter 6 inches, depth 184 feet, screen assumed at bottom. Land-surface datum is 9 feet above msl. Highest water level 2.30 above msl, Mar. 27, 1953; lowest 6.12 below msl, Mar. 28, 1950. Records available: 1947-53.

Feb. 13	+1.74	May 26	+1.36	Aug. 18	+1.06	Nov. 2	+0.94
Mar. 2	+1.54	June 25	+0.69	26	-.07	23	+1.79
27	+2.30	July 30	+0.59	Oct. 1	-.21	Dec. 19	+1.90
Apr. 30	+0.72						

Q1222. City of New York, Department of Water Supply, Gas and Electricity. 142d St. and 20th Ave., Whitestone. Lat. 40°47'05", long. 73°49'25". Drilled unused artesian well in Lloyd sand member of Raritan formation, diameter 12 to 6 inches, depth 200 feet, screen 170-200. Land-surface datum is 7.6 feet above msl. Highest water level 4.35 above msl, Dec. 1, 1945; lowest 9.19 below msl, Feb. 28, 1942. Records available: 1940-53.

Feb. 12	+1.73	May 27	+2.70	Aug. 14	+1.38	Nov. 2	+1.44
Mar. 2	+1.95	June 24	+2.39	26	+1.90	23	+1.64
27	+1.92	July 30	+1.26	Sept. 28	+1.06	Dec. 19	+1.80
Apr. 28	+2.86						

Q1225. City of New York, Department of Water Supply, Gas and Electricity. 109th Ave. and 200th St., Hollis. Lat. 40°42'35", long. 73°45'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 32 feet, screen 30-32. Land-surface datum is 49.4 feet above msl. Highest water level 32.19 above msl, Apr. 4, 1939; lowest 23.91 above msl, Feb. 26, 1951. Records available: 1933-53.

Q1225--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	+24.74	May 27	+26.75	Aug. 17	+25.31	Nov. 2	+24.23
Mar. 2	+24.91	June 24	+26.56	26	+25.33	23	+24.11
27	+25.18	July 30	+25.66	Sept. 28	+24.59	Dec. 19	+24.14
Apr. 28	+26.31						

Q1237. City of New York, Department of Water Supply, Gas and Electricity. Belt Parkway and 150th St., Baisley Park. Lat. 40°40'00", long. 73°47'35". Drilled unused artesian well in Jameco gravel, diameter 8 inches, depth 220 feet, screen assumed at bottom. Land-surface datum is 17.5 feet above msl. Highest water level 5.03 above msl, Apr. 30, May 4, 1939; lowest 6.92 below msl, Mar. 26, 1950. Records available: 1939-40 (as Q337), 1940-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+2.23	+2.10	+1.83	+2.56	+1.21	+1.77	+0.71	+0.57	-0.29	-0.02	+0.90	+2.07
2	2.30	1.98	1.68	2.57	1.75	1.87	.50	.72	.33	.18	1.03	2.11
3	2.45	1.87	1.68	2.53	1.92	1.55	.37	1.16	.40	.33	.86	2.19
4	2.52	1.94	2.05	2.47	....	1.31	.19	1.20	.43	.35	.67	2.23
5	2.39	1.98	2.05	2.43	....	1.18	.23	1.13	-.23	-.19	.44	2.20
6	2.30	2.03	1.82	....	1.06	1.04	.31	1.03	+0.02	+0.26	.47	2.18
7	2.20	2.11	1.65	....	1.04	.90	.54	.78	.52	.52	1.24	2.19
8	2.18	2.13	1.67	2.46	....	1.27	.38	.79	.57	.38	1.00	1.98
9	2.36	2.04	1.75	2.25	....	1.37	.22	.61	+1.7	.58	.90	1.95
10	2.57	1.80	1.75	2.03	....	1.20	+0.08	.96	-.12	.36	.83	2.04
11	2.73	1.65	1.67	1.84	....	.92	-.03	.64	-.23	.29	1.10	1.83
12	....	1.84	1.75	1.74	....	.75	-.08	.53	-.19	.45	1.15	1.84
13	....	1.99	2.05	1.75	1.00	1.06	+1.7	.51	+1.2	.33	1.20	1.94
14	2.30	1.99	2.10	1.68	1.02	1.58	.21	.64	.16	.54	1.14	2.22
15	2.12	2.13	2.17	1.43	1.08	1.94	.19	1.40	.16	.77	.94	2.27
16	2.05	2.16	2.29	1.31	1.36	2.02	+0.05	1.45	.54	.45	.80	2.02
17	1.92	1.95	2.22	1.32	1.40	1.72	-.14	1.45	.58	.27	1.09	1.92
18	2.00	1.80	2.20	1.17	1.60	1.69	.27	1.21	.33	.17	1.15	1.81
19	1.98	1.70	2.31	1.15	1.41	1.35	.38	.84	.60	.17	1.40	1.53
20	2.05	1.75	2.38	1.29	1.19	1.10	.39	.55	.58	.14	1.37	1.92
21	2.08	1.94	2.35	1.33	1.00	.83	.20	.18	.63	.09	1.31	1.45
22	2.20	1.83	2.34	1.22	1.00	.65	-.15	.20	.48	.26	1.23	.20
23	2.25	1.63	2.33	1.30	1.01	.58	+0.43	.15	.59	.53	1.76	.75
24	2.42	1.64	2.40	1.15	.87	.71	.59	.18	.72	.64	1.87	1.30
25	2.52	1.72	2.58	1.14	.79	.86	.37	.13	.58	.67	2.02	1.51
26	2.25	1.83	2.67	1.33	.95	.84	.45	.08	.47	1.08	2.09	1.63
27	2.02	1.96	2.67	1.39	1.37	.66	.82	+0.2	.34	1.25	2.06	1.83
28	2.26	1.96	2.66	1.37	1.53	.43	.83	.00	.22	1.54	2.06	1.87
29	2.25		2.65	1.28	1.38	.76	.78	-.07	+0.05	1.84	2.02	1.82
30	2.10		2.64	1.12	1.33	.80	.77	-.13	-.04	1.52	2.03	1.76
31	2.03		2.60		1.45		.59	-.17		1.05		1.84

Q1248. City of New York, Department of Water Supply, Gas and Electricity. 100th Rd. and Belt Parkway, Queens Village. Lat. 40°43'00", long. 73°43'45". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 49 feet, screen 47-49. Land-surface datum is 76.5 feet above msl. Highest water level 38.16 above msl, May 31, 1949; lowest 33.10 above msl, Oct. 30, 1951. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	+34.36	May 27	+36.91	Aug. 17	+35.90	Nov. 2	+34.54
Mar. 2	+34.57	June 24	+36.85	26	+35.80	23	+34.13
27	+35.15	July 30	+36.22	Sept. 28	+35.12	Dec. 19	+34.22
Apr. 28	+36.28						

Q1249. City of New York, Department of Water Supply, Gas and Electricity. 106th Ave. and 216th St., Queens Village. Lat. 40°42'45", long. 73°44'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 49 feet, screen 47-49. Land-surface datum is 72.4 feet above msl. Highest water level 33.41 above msl, Sept. 26, 1946; lowest 26.07 above msl, Oct. 30, 1951. Records available: 1940-46, 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	+27.33	May 27	+29.56	Aug. 17	+28.03	Nov. 2	+26.79
Mar. 2	+27.39	June 24	+29.36	26	+27.92	23	+26.61
27	+27.92	July 30	+28.39	Sept. 28	+27.25	Dec. 19	+26.61
Apr. 28	+28.95						

Q1250. City of New York, Department of Water Supply, Gas and Electricity. Liberty and Camden Aves., Hollis. Lat. 40°42'15", long. 73°46'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 26 feet, screen 24-26. Land-surface datum is 37.6 feet above msl. Highest water level 22.52 above msl, Aug. 31, 1948; lowest 17.33 above msl, Dec. 19, 1950. Records available: 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	+18.18	May 27	+20.33	Aug. 17	+19.46	Nov. 2	+18.07
Mar. 2	+18.27	June 24	+20.25	26	+19.84	23	+17.94
27	+19.12	July 30	+19.74	Sept. 28	+18.61	Dec. 19	+17.98
Apr. 28	+20.00						

Q1251. City of New York, Department of Water Supply, Gas and Electricity. 107th Ave. and 172d St., Jamaica. Lat. 40°42'00", long. 73°47'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 38 feet, screen 36-38. Land-surface datum is 42.7 feet above msl. Highest water level 14.25 above msl, Feb. 24, 1949; lowest 7.53 above msl, Dec. 19, 1953. Records available: 1940-53.

Feb. 12	+8.48	Apr. 28	+10.21	July 30	+9.27	Nov. 2	+7.76
Mar. 2	+8.60	May 27	+10.52	Aug. 17	+8.92	23	+7.63
27	+8.97	June 24	+10.27	Sept. 28	+8.43	Dec. 19	+7.53

Q1252. City of New York, Department of Water Supply, Gas and Electricity. Liberty Ave. and 157th St., Jamaica. Lat. 40°42'00", long. 73°47'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 28 feet, screen 26-28. Land-surface datum is 31.2 feet above msl. Highest water level 13.92 above msl, Nov. 2, 1948; lowest 8.82 above msl, Dec. 19, 1953. Records available: 1940-53.

Feb. 12	+10.25	May 27	+10.23	Aug. 17	+9.56	Nov. 2	+9.16
Mar. 2	+10.00	June 24	+10.12	26	+9.47	24	+9.25
27	+9.78	July 30	+9.79	Sept. 28	+9.59	Dec. 19	+8.82
Apr. 28	+10.18						

Q1253. City of New York, Department of Water Supply, Gas and Electricity. 101st Ave. and 121st St., Richmond Hill. Lat. 40°41'30", long. 73°49'20". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 54 feet, screen 52-54. Land-surface datum is 49.2 feet above msl. Highest water level 4.58 above msl, Apr. 26, 1941; lowest 0.34 below msl, Nov. 24, 1953. Records available: 1940-53.

Feb. 11	+0.32	May 27	+1.02	Aug. 18	+0.35	Nov. 2	-0.27
Mar. 2	+0.53	June 24	+0.92	26	+0.26	24	-0.34
26	-0.13	July 30	+0.43	Sept. 28	-0.06	Dec. 19	+0.63
Apr. 28	+0.67						

Q1254. City of New York, Department of Water Supply, Gas and Electricity. 101st Ave. and 108th St., Richmond Hill. Lat. 40°41'20", long. 73°50'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 54 feet, screen 52-54. Land-surface datum is 45.5 feet above msl. Highest water level 0.29 above msl, Apr. 12, 1941; lowest 5.34 below msl, Jan. 31, 1951. Records available: 1940-53.

Feb. 11	-2.72	May 27	-3.75	Aug. 19	-2.73	Nov. 2	-4.52
Mar. 2	-3.35	June 24	-3.33	26	-2.72	24	-3.89
26	-2.29	30	-2.44	Oct. 1	-2.83	Dec. 19	-3.55
Apr. 28	-3.81						

Q1255. City of New York, Department of Water Supply, Gas and Electricity. Atlantic Ave. and Woodhaven Blvd., Woodhaven. Lat. 40°41'20", long. 73°50'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 53 feet, screen 51-53. Land-surface datum is 40.4 feet above msl. Highest water level 12.03 above msl, May 12, 1914; lowest 6.30 below msl, Nov. 3, 1947. Records available: 1911-17, 1932-53. Feb. 11, -3.28; Feb. 27, -3.30; Mar. 26, -3.34; Apr. 28, -3.01; May 27, -2.91.

Q1256. City of New York, Department of Water Supply, Gas and Electricity. 95th Ave. and 82d St., Woodhaven. Lat. 40°41'05", long. 73°51'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 38 feet, screen 36-38. Land-surface datum is 24 feet above msl. Highest water level 0.60 below msl, Dec. 19, 1953; lowest 6.98 below msl, Mar. 14, 1942. Records available: 1940-43, 1945-53.

Feb. 13	-0.95	May 27	-1.08	Aug. 19	-1.24	Nov. 2	-0.97
27	-1.16	June 24	-0.88	26	-1.20	24	-1.52
Mar. 26	-1.46	July 30	-1.11	Oct. 1	-1.45	Dec. 19	-0.60
Apr. 28	-1.09						

Q1281. City of New York, Department of Water Supply, Gas and Electricity. Liberty Ave. and Woodhaven Blvd., Ozone Park. Lat. 40°40'50", long. 73°50'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 39 feet, screen 37-39. Land-surface datum is 28.8 feet above msl. Highest water level 8.59 above msl, June 4, 1913; lowest 3.62 below msl, Mar. 7, 1942. Records available: 1911-17, 1933, 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	+0.03	May 27	+0.45	Aug. 18	-0.28	Nov. 2	-0.64
27	+0.09	June 24	+0.15	26	-.22	24	-.52
Mar. 26	+0.16	July 30	-.24	Oct. 1	-.52	Dec. 19	-.39
Apr. 28	+0.61						

Q1283. City of New York, Department of Water Supply, Gas and Electricity. Rockaway Blvd. and 121st St., South Ozone Park. Lat. 40°40'40", long. 73°49'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 32 feet, screen 30-32. Land-surface datum is 26.7 feet above msl. Highest water level 13.33 above msl, Nov. 10, 1911; lowest 1.75 above msl, Dec. 30, 1948. Records available: 1911-16, 1933-35, 1941-53.

Feb. 13	+4.10	Apr. 30	+3.45	July 30	+2.72	Nov. 2	+2.11
Mar. 2	+3.00	May 28	+3.69	Aug. 18	+2.53	24	+2.21
27	+2.71	June 24	+3.42	Oct. 1	+2.07	Dec. 19	+1.85

Suffolk County

S58. City of New York, Board of Water Supply. Grand Blvd. and 44th St., Islip. Lat. 40°44'45", long. 73°13'00". Drilled observation artesian well in sands of Magothy formation(?), diameter 12 inches, depth 468 feet, screen assumed at bottom. Land-surface datum is 37 feet above msl. Highest water level 25.50 above msl, Apr. 20, 1953; lowest 22.32 above msl, Oct. 6, 1951. Records available: 1944-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+23.15	+23.95	+24.06	+24.90	+24.85	+24.09	+23.55	+23.20	+22.96	+22.65	+22.86	+23.15
2	23.14	23.92	24.02	24.93	.....	24.06	23.53	.....	22.96	22.63	22.86	23.17
3	23.18	23.92	24.00	24.93	.....	24.03	23.51	23.19	22.94	22.62	22.84	.....
4	23.21	23.89	24.05	24.92	.....	24.01	23.48	23.18	22.93	.....	.....	23.17
5	23.22	23.85	24.06	24.89	.....	23.98	23.46	23.17	22.93	22.61	22.83	23.17
6	23.23	23.82	24.05	24.84	.....	23.96	23.45	23.14	22.92	.....	22.83	23.18
7	23.23	23.83	24.03	24.82	.....	23.93	23.43	23.12	22.89	.....	22.88	23.20
8	23.24	23.87	24.03	24.84	24.61	23.91	23.40	23.11	22.88	.....	22.93	23.21
9	23.25	23.88	24.01	24.87	24.59	23.90	23.38	23.11	22.86	.....	22.96	23.24
10	23.29	23.89	23.99	24.92	24.57	23.88	23.36	23.10	22.85	.....	22.98	23.26
11	23.34	23.89	23.97	24.95	24.54	23.85	23.33	23.08	22.83	.....	22.99	.....
12	23.41	23.91	.....	24.97	24.52	23.82	23.31	23.07	22.81	22.65	22.99	23.29
13	23.51	23.91	24.11	25.02	24.50	23.83	23.29	23.06	22.80	22.65	22.99	23.32
14	23.62	23.90	24.27	25.06	24.49	23.82	23.27	23.06	22.79	22.64	22.98	23.39
15	23.72	23.93	24.54	25.13	24.48	.....	23.24	23.14	22.79	22.65	22.97	23.78
16	23.79	23.96	24.80	25.24	24.46	.....	23.22	23.17	22.80	22.65	22.95	24.28
17	23.83	23.98	24.97	25.35	24.44	.....	23.19	23.17	22.79	22.65	22.94	24.50
18	23.86	24.02	25.14	25.42	24.43	.....	23.17	23.16	22.78	22.64	22.91	24.58
19	23.88	24.07	25.25	25.48	24.40	23.78	23.15	23.14	22.77	22.65	22.89	24.57
20	23.88	24.12	25.26	25.50	24.38	23.76	23.13	23.11	22.77	22.66	22.88	24.52
21	23.87	24.17	25.14	25.45	24.35	23.74	23.11	23.08	22.76	22.66	22.87	24.43
22	23.87	24.19	25.05	25.36	24.33	23.72	23.08	23.06	22.74	22.66	22.85	24.37
23	23.88	24.20	24.98	25.30	24.31	23.69	23.14	23.06	.....	22.67	22.89	24.30
24	23.90	24.20	24.94	25.22	24.27	23.67	23.26	23.06	.....	22.68	22.96	24.24
25	23.90	24.19	24.90	25.17	24.24	23.64	23.28	23.05	.....	22.68	23.00	24.21
26	23.90	24.18	24.88	25.13	24.23	23.64	23.27	23.04	.....	22.69	23.03	24.17
27	23.91	24.16	24.85	25.07	24.21	23.61	23.25	23.03	.....	22.71	23.06	24.11
28	23.92	24.11	24.83	25.00	24.18	23.59	23.22	23.02	22.68	22.73	23.09	24.08
29	23.94		24.82	24.94	24.15	23.58	23.22	23.01	22.67	22.79	23.12	24.04
30	23.94		24.84	24.88	24.14	23.56	23.23	23.00	22.66	22.84	23.14	24.01
31	23.95		24.87		24.12		23.21	22.98		22.86		23.98

S202. New York Water Service Corp. State Highway 25A and Spring St., Huntington. Lat. 40°52'15", long. 73°25'10". Driven unused artesian well in Lloyd sand member of Raritan formation, diameter 12 inches, depth 600 feet, screen assumed at bottom. Land-surface datum is 69 feet above msl. Highest water level 47.17 above msl, Apr. 10, 1937; lowest 36.93 above msl, Feb. 1, 1939. Records available: 1936-53.

S202--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+42.29	Apr. 28	+42.93	Aug. 3	+43.02	Oct. 23	+43.13
25	+42.28	May 25	+42.96	24	+43.10	Nov. 23	+43.33
Mar. 30	+42.73	June 23	+42.84	Oct. 6	+43.09	Dec. 16	+43.30

S203. C. A. Gould, Wolf Hill and Caledonia Rds., Dix Hills. Lat. 40°48'40", long. 73°22'05". Drilled unused artesian well in sands of Magothy formation(?), diameter 10 inches, depth 259 feet, screen assumed at bottom. Land-surface datum is 203.5 feet above msl. Highest water level 77.13 above msl, Oct. 31, 1939; lowest 69.14 above msl, Apr. 22, 1952. Records available: 1936-53. Measurement discontinued.

Feb. 4	+72.92	Mar. 30	+73.01	May 25	+73.54	Aug. 3	+74.71
25	+72.89	Apr. 28	+73.13	June 23	+74.10	Oct. 23	+75.67

S929. Village of Greenport Department of Public Works. State Highway 25 and North Country Rd., East Marion. Lat. 41°07'20", long. 72°21'05". Drilled unused water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 84 feet, screen assumed at bottom. Land-surface datum is 35.1 feet above msl. Highest water level 4.05 above msl, May 4, 1953; lowest 0.98 above msl, June 27, 1950. Records available: 1949-53.

Feb. 3	+1.67	May 4	+4.05	Aug. 4	+1.40	Nov. 3	+1.15
26	+1.90	27	+3.51	26	+1.13	Dec. 2	+1.60
Apr. 2	+2.76	June 26	+1.15	Oct. 8	+1.02	23	+2.27

S1803. City of New York, Department of Water Supply, Gas and Electricity. Belmont Ave. and Farmingdale Rd., Babylon. Lat. 40°42'15", long. 73°20'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 16 feet, screen 14-16. Land-surface datum is 21.7 feet above msl. Highest water level 18.19 above msl, Apr. 22, 1913; lowest 14.93 above msl, Oct. 25, 1941. Records available: 1912-14, 1932, 1936-53.

Feb. 26	+17.12	May 25	+16.97	Aug. 25	+16.19	Nov. 27	+16.10
Mar. 31	+17.87	June 24	+16.33	Oct. 6	+15.88	Dec. 18	+17.26
Apr. 29	+17.70	Aug. 3	+16.42	Nov. 2	+15.63		

S1805. City of New York, Department of Water Supply, Gas and Electricity. Farmingdale Rd. and Albany Ave., Amityville. Lat. 40°43'05", long. 73°24'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 29 feet, screen 27-29. Land-surface datum is 57.2 feet above msl. Highest water level 47.17 above msl, Apr. 28, 1953; lowest 37.90 above msl, Oct. 27, 1932. Records available: 1912-14, 1932-53. Measurements at replacement well (same description) 15 feet away, after Aug. 25, 1953.

Feb. 3	+43.01	Apr. 28	+47.17	Aug. 3	+44.33	Nov. 27	+41.53
27	+43.51	May 26	+46.42	25	+43.87	Dec. 18	+42.89
Mar. 31	+46.15	June 24	+45.57	Oct. 30	+41.95		

S1806. City of New York, Department of Water Supply, Gas and Electricity. Wellwood and Long Island Aves., Pinelawn. Lat. 40°44'40", long. 73°23'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 40 feet, screen 38-40. Land-surface datum is 86.4 feet above msl. Highest water level 61.69 above msl, Apr. 22, 1939; lowest 50.61 above msl, Jan. 5, 1933. Records available: 1912-14, 1932-53.

Feb. 3	+56.13	Apr. 28	+58.99	Aug. 3	+58.68	Oct. 30	+57.14
27	+55.99	May 26	+59.49	25	+58.33	Nov. 27	+56.88
Mar. 31	+57.60	June 24	+59.64	Oct. 5	+57.61	Dec. 18	+56.57

S1807. City of New York, Department of Water Supply, Gas and Electricity. Higbie Lane near Hunter Ave., Babylon. Lat. 40°43'30", long. 73°18'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 21 feet, screen 19-21. Land-surface datum is 24.8 feet above msl. Highest water level 23.48 above msl, Oct. 14, 1938; lowest 20.45 above msl, Oct. 5, 1953. Records available: 1912-14, 1932-33, 1936-53.

Feb. 2	+21.65	Apr. 29	+22.09	Aug. 3	+21.08	Nov. 2	+20.56
27	+21.48	May 26	+21.91	25	+20.90	27	+20.67
Mar. 31	+22.13	June 24	+21.86	Oct. 5	+20.45	Dec. 18	+21.12

S1808. City of New York, Department of Water Supply, Gas and Electricity. Sagtikos Manor Lane near South Country Rd., Brightwaters. Lat. 40°42'25", long. 73°16'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 15 feet, screen 13-15. Land-surface datum is 15.9 feet above msl. Highest water level 12.94 above msl, Sept. 23, 1938; lowest 9.45 above msl, Sept. 12, 1932. Records available: 1912-14, 1932-53.

S1808--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+11.23	Apr. 29	+11.45	Aug. 3	+10.33	Nov. 2	+10.34
26	+11.41	May 25	+11.06	25	+10.18	27	+11.22
Mar. 31	+12.02	June 24	+10.67	Oct. 5	+9.68	Dec. 18	+12.04

S1809. City of New York, Department of Water Supply, Gas and Electricity. Manor Lane and Muncey Rd., Brightwaters. Lat. 40°44'05", long. 73°16'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 27 feet, screen 25-27. Land-surface datum is 41.5 feet above msl. Highest water level 32.56 above msl, Apr. 15, 1939; lowest 25.00 above msl, Nov. 2, 1932. Records available: 1912-14, 1932-53.

Feb. 2	+28.68	Apr. 29	+31.92	Aug. 3	+29.48	Nov. 2	+27.50
27	+29.33	May 25	+31.57	25	+29.20	27	+27.59
Mar. 31	+31.13	June 24	+30.64	Oct. 5	+27.95	Dec. 18	+28.58

S1810. City of New York, Department of Water Supply, Gas and Electricity. Sagtikos Parkway, Pineaire. Lat. 40°46'20", long. 73°16'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 47 feet, screen 45-47. Land-surface datum is 90.1 feet above msl. Highest water level 56.19 above msl, Apr. 29, 1939; lowest 45.24 above msl, Feb. 23, 1933. Records available: 1912-14, 1932-53.

Feb. 1	+50.83	Apr. 30	+53.91	Aug. 3	+54.50	Oct. 30	+53.39
27	+50.74	May 26	+54.50	25	+54.25	Nov. 27	+52.73
Mar. 31	+51.08	June 24	+55.01	Oct. 5	+53.69	Dec. 18	+52.41

S1811. City of New York, Board of Water Supply. Near Smithtown Blvd., Ronkonkoma. Lat. 40°49'50", long. 73°07'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 22 feet, screen 20-22. Land-surface datum is 53.7 feet above msl. Highest water level 55.66 above msl, May 5, 1953; lowest 51.41 above msl, Aug. 28, 1941. Records available: 1937-53.

Feb. 4	+53.69	May 25	+55.58	Aug. 27	+54.94	Nov. 23	+54.20
27	+54.11	June 23	+55.44	Oct. 6	+53.88	Dec. 16	+54.59
May 5	+55.66	Aug. 4	+54.98	26	+53.83		

S1814. U. S. Geol. Survey. Suffolk and Lowell Aves., Central Islip. Lat. 40°47'40", long. 73°11'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 49 feet, screen 47-49. Land-surface datum is 79.6 feet above msl. Highest water level 39.85 above msl, May 25, 1953; lowest 34.50 above msl, Jan. 25, 1951. Records available: 1939-53.

Feb. 2	+36.45	Apr. 30	+39.45	Aug. 3	+38.98	Oct. 30	+37.40
27	+36.59	May 25	+39.85	24	+38.66	Nov. 27	+37.03
Mar. 31	+38.03	June 24	+39.56	Oct. 5	+38.03	Dec. 18	+37.10

S1817. U. S. Geol. Survey. Long Island Ave. and 18th St., Wyandanch. Lat. 40°45'20", long. 73°21'45". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 26 feet, screen 24-26. Land-surface datum is 58.9 feet above msl. Highest water level 54.34 above msl, Apr. 28, 1953; lowest 49.66 above msl, Oct. 30, 1951. Records available: 1939-53.

Feb. 3	+52.24	Apr. 28	+54.34	Aug. 3	+52.85	Oct. 30	+51.96
27	+52.60	May 26	+54.04	25	+52.75	Nov. 27	+52.17
Mar. 31	+54.27	June 24	+53.52	Oct. 5	+52.03	Dec. 18	+52.85

S2146. Montauk Beach Co. Golf Course, Montauk. Lat. 41°03'30", long. 71°57'00". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 92 feet, screen assumed at bottom. Land-surface datum is 49 feet above msl. Highest water level 3.97 above msl, May 26, 1953; lowest 2.50 above msl, Jan. 11, 1951. Records available: 1950-53.

Apr. 1	+3.02	June 25	+3.34	Oct. 7	+3.09	Dec. 3	+3.42
29	+3.86	Aug. 3	+3.08	Nov. 6	+3.21	23	+3.40
May 26	+3.97	25	+3.21				

S2314. U. S. Geol. Survey. Burr's Lane, Wyandanch. Lat. 40°46'15", long. 73°21'15". Drilled unused artesian well in sands of Magothy formation(?), diameter 8 inches, depth 480 feet, screen 450-480. Land-surface datum is 92.8 feet above msl. Highest water level 62.48 above msl, May 26, 1953; lowest 57.63 above msl, Dec. 17, 1951. Records available: 1943-53.

Feb. 3	+60.13	Apr. 28	+62.19	Aug. 3	+62.15	Oct. 30	+61.45
27	+60.41	May 26	+62.48	25	+62.07	Nov. 27	+61.14
Mar. 31	+61.37	June 24	+62.34	Oct. 5	+61.68	Dec. 18	+61.29

S2455. City of New York, Board of Water Supply. Sandra Ave., Bayshore. Lat. 40°43'05", long. 73°17'20". Drilled observation water-table well in deposits of late Pleistocene age, diameter 10 inches, depth 18 feet, screen assumed at bottom. Land-surface datum is 33.1 feet above msl. Highest water level 24.85 above msl, Sept. 23, 1938; lowest 19.98 above msl, Nov. 6, 1937. Records available: 1933-40 (as S38), 1940-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	+22.63	Apr. 29	+23.91	Aug. 3	+22.14	Nov. 2	+20.91
26	+23.21	May 26	+23.41	25	+21.84	27	+21.21
Mar. 31	+23.91	June 24	+22.76	Oct. 5	+20.97	Dec. 18	+22.63

S3496. U. S. Geol. Survey. Coates Ave. near Long Island Railroad, Holbrook. Lat. 40°48'45", long. 73°04'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 76 feet, screen 74-76. Land-surface datum is 115.9 feet above msl. Highest water level 51.77 above msl, Aug. 4, 1953; lowest 45.79 above msl, Feb. 21, Mar. 27, 1951. Records available: 1942-53.

Feb. 2	+48.70	Apr. 28	+49.03	Aug. 4	+51.77	Oct. 26	+50.85
25	+48.12	May 25	+50.55	24	+51.62	Nov. 30	+50.25
Mar. 30	+47.89	June 24	+51.58	Oct. 5	+51.66	Dec. 21	+49.93

S3513. New York State Division of Highways. State Highway 25, Selden. Lat. 40°51'45", long. 73°02'55". Drilled unused water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 65 feet, screen 63-65. Land-surface datum is 102.1 feet above msl. Highest water level 65.82 above msl, June 23, 1953; lowest 59.86 above msl, Feb. 15, 21, 23, 1948. Records available: 1942-53.

Feb. 2	+62.10	Apr. 28	+64.29	Aug. 4	+65.54	Oct. 26	+64.44
25	+62.11	May 25	+65.37	24	+65.30	Nov. 20	+64.09
Mar. 30	+62.88	June 23	+65.82	Oct. 6	+64.68	Dec. 16	+63.78

S3514. Herman Jurgens. Jericho Turnpike, Commack. Lat. 40°50'35", long. 73°18'00". Dug unused water-table well in deposits of late Pleistocene age, diameter 30 inches, depth 95 feet. Land-surface datum is 154.2 feet above msl. Highest water level 70.73 above msl, Sept. 6, 1953; lowest 64.23 above msl, Mar. 18, 26, 1951. Records available: 1942-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+68.29	+68.15	+67.92	+67.97	+68.55	+69.59	+69.91	+69.95	+70.63	.....	+70.38	+70.15
2	68.40	68.09	67.92	67.95	68.48	69.60	69.95	70.00	70.66	.....	70.37	70.12
3	68.51	68.23	67.97	67.90	68.45	69.63	69.89	70.02	70.65	.....	70.42	70.09
4	68.30	68.14	68.19	67.92	68.55	69.73	69.71	70.15	70.67	.....	70.14	70.14
5	68.30	68.09	.....	67.96	68.66	69.75	69.66	70.17	70.71	.....	70.07	70.07
6	68.26	68.14	.....	67.95	68.63	69.80	69.65	70.12	70.73	70.71	70.38	70.18
7	68.24	68.20	.....	68.02	68.67	69.83	69.44	70.20	70.69	70.58	70.43	70.04
8	68.29	68.17	68.05	67.93	68.71	69.84	69.44	70.26	70.67	70.56	70.33	70.04
9	68.33	68.07	67.94	67.97	68.69	69.97	69.51	70.31	70.60	70.62	70.31	70.14
10	68.37	68.08	67.89	68.08	68.73	69.92	69.54	70.31	70.57	70.66	70.31	.....
11	68.43	68.14	67.86	67.99	68.78	69.96	69.50	70.29	70.57	70.63	70.31	.....
12	68.20	68.26	67.96	68.06	68.81	70.00	69.49	70.35	70.62	70.54	70.26	.....
13	68.26	68.09	68.10	68.13	68.84	70.07	69.36	70.41	70.62	70.49	70.28	.....
14	68.20	68.05	68.04	68.00	68.86	70.10	69.27	70.51	70.58	70.57	70.32	.....
15	68.25	68.31	68.04	68.02	68.92	70.14	69.20	70.41	70.64	70.66	70.37	.....
16	68.24	67.99	67.95	68.17	68.93	70.18	69.27	70.43	70.67	70.57	70.27	70.02
17	68.20	68.04	67.92	68.08	69.03	70.23	69.18	70.49	70.69	70.51	70.25	69.93
18	68.37	67.98	67.94	68.15	69.06	70.28	69.11	70.51	.....	70.46	70.23	69.98
19	68.28	68.00	67.96	68.17	69.03	70.31	69.08	70.55	.....	70.47	70.21	69.97
20	68.24	68.03	67.87	68.21	69.05	70.36	69.05	70.51	.....	70.43	70.22	70.01
21	68.27	68.13	67.84	68.15	69.10	70.38	69.07	70.53	.....	70.37	70.21	69.99
22	68.17	67.96	67.90	68.22	69.22	70.42	69.26	70.60	.....	70.45	70.24	.....
23	68.22	67.99	67.95	68.29	69.17	70.42	69.43	70.64	.....	70.56	70.33	.....
24	68.45	68.09	68.04	68.22	69.22	70.40	69.40	70.61	.....	70.47	70.24	69.91
25	68.22	68.05	68.05	68.35	69.28	70.30	69.46	70.59	.....	70.39	70.34	70.04
26	68.06	68.11	68.01	68.41	69.41	70.18	69.60	70.65	.....	70.38	70.12	70.00
27	68.18	68.07	67.98	.....	69.32	70.04	69.71	70.66	.....	70.43	70.16	69.82
28	68.32	67.96	67.95	68.36	69.35	69.98	69.74	70.67	.....	70.53	70.12	.....
29	68.16	.....	67.98	68.38	69.42	69.97	69.79	70.64	.....	70.54	70.10	.....
30	68.10	.....	68.01	68.45	69.53	69.91	69.87	70.66	.....	70.36	70.16	.....
31	68.23	.....	67.93	.....	69.54	.....	69.93	70.64	.....	70.37	.....	69.93

S3516. City of New York, Board of Water Supply. East 3d Ave. near Walbridge Ave., Bayshore. Lat. 40°45'15", long. 73°15'35". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 38 feet, screen 36-38. Land-surface datum is 60.5 feet above msl. Highest water level 41.38 above msl, Apr. 30, 1953; lowest 35.29 above msl, Dec. 21, 1950. Records available: 1907-9, 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+37.48	Apr. 30	+41.38	Aug. 3	+39.57	Oct. 30	+37.82
27	+38.02	May 26	+41.01	25	+39.14	Nov. 27	+37.47
Mar. 31	+39.90	June 24	+40.47	Oct. 5	+38.31	Dec. 18	+37.57

S3517. City of New York, Board of Water Supply. Lakeland Ave. and Tariff St., Sayville. Lat. 40°44'40", long. 73°05'20". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 37 feet, screen 35-37. Land-surface datum is 31.6 feet above msl. Highest water level 14.57 above msl, Apr. 29, 1953; lowest 11.60 above msl, Dec. 4, 1909. Records available: 1907-9, 1942-53.

Feb. 2	+12.69	May 25	+14.26	Aug. 25	+12.79	Nov. 2	+12.22
25	+12.92	June 23	+13.65	Sept. 11	+12.56	30	+12.32
Mar. 30	+14.29	Aug. 4	+13.00	Oct. 4	+12.32	Dec. 21	+12.99
Apr. 29	+14.57						

S3526. City of New York, Board of Water Supply. Near Yaphank, Long Island Ave. and South Haven Rd. Lat. 40°50'10", long. 72°53'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 66 feet, screen 64-66. Land-surface datum is 89.8 feet above msl. Highest water level 30.52 above msl, Dec. 30, 1948; lowest 25.73 above msl, Jan. 25, 1951. Records available: 1943-53.

Feb. 4	+27.30	Apr. 3	+28.20	May 28	+29.19	Aug. 5	+29.83
27	+27.40	28	+27.85	June 24	+29.95	24	+29.73

S3532. City of New York, Board of Water Supply. Whiskey and Randall Rds., Ridge. Lat. 40°54'45", long. 72°53'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 70 feet, screen 68-70. Land-surface datum is 85 feet above msl. Highest water level 51.95 above msl, June 8, 1908; lowest 45.23 above msl, Feb. 23, 1951. Records available: 1907-9, 1942-53.

Feb. 4	+47.40	Apr. 30	+50.02	Aug. 5	+51.14	Nov. 3	+49.48
27	+47.53	May 28	+51.20	27	+50.78	24	+49.06
Apr. 3	+48.59	June 25	+51.53	Oct. 9	+49.97	Dec. 22	+48.61

S3535. City of New York, Board of Water Supply. Chichester and Brookfield Aves., Center Moriches. Lat. 40°49'10", long. 72°48'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 52 feet, screen 50-52. Land-surface datum is 50.9 feet above msl. Highest water level 22.81 above msl, May 26, 1953; lowest 17.51 above msl, Feb. 23, 1951. Records available: 1907-9, 1942-53.

Feb. 4	+19.42	Apr. 29	+22.01	Aug. 5	+22.15	Nov. 9	+20.36
27	+19.75	May 26	+22.81	25	+21.77	Dec. 1	+20.01
Apr. 3	+20.77	June 24	+22.71	Oct. 7	+20.96	17	+19.84

S3537. City of New York, Board of Water Supply. Old Country Rd., Speonk. Lat. 40°50'00", long. 72°42'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 43 feet, screen 41-43. Land-surface datum is 43.3 feet above msl. Highest water level 17.46 above msl, Apr. 30, 1953; lowest 14.09 above msl, Jan. 23, 1951. Records available: 1908-9, 1942-43, 1948-53.

Feb. 4	+15.47	Apr. 30	+17.46	Aug. 3	+16.52	Nov. 9	+15.76
27	+15.94	May 26	+17.36	25	+16.34	20	+15.66
Mar. 31	+16.76	June 24	+16.94	Sept. 10	+16.15	Dec. 17	+16.04

S3539. City of New York, Board of Water Supply. Riverhead Rd., Speonk. Lat. 40°51'45", long. 72°41'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 88 feet, screen 86-88. Land-surface datum is 79.3 feet above msl. Highest water level 27.14 above msl, Aug. 5, 1953; lowest 21.33 above msl, Mar. 28, 1951. Records available: 1907-9, 1942-43, 1947-53.

Feb. 4	+24.12	Apr. 30	+25.36	Aug. 5	+27.14	Nov. 9	+26.15
27	+24.00	May 28	+26.49	25	+27.00	20	+25.98
Mar. 31	+24.31	June 24	+27.09	Oct. 7	+26.84	Dec. 17	+25.61

S3543. City of New York, Board of Water Supply. Suffolk Airport, Westhampton. Lat. 40°51'00", long. 72°39'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 58 feet, screen 56-58. Land-surface datum is 64.4 feet above msl. Highest water level 20.87 above msl, June 24, 1953; lowest 15.18 above msl, Feb. 27, 1951. Records available: 1907-9, 1942-43, 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+17.65	May 28	+20.78	Aug. 25	+20.24	Nov. 9	+19.03
27	+17.80	June 24	+20.87	Sept. 10	+19.99	20	+18.87
Mar. 31	+18.53	Aug. 5	+20.45	Oct. 7	+19.55	Dec. 21	+18.72
Apr. 30	+19.96						

S3545. City of New York, Board of Water Supply. Lincoln Ave., West Sayville. Lat. 40°46'45", long. 73°05'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 46 feet, screen 44-46. Land-surface datum is 56.6 feet above msl. Highest water level 39.23 above msl, May 25, 1953; lowest 33.51 above msl, Jan. 25, 1951. Records available: 1907-9, 1942-53.

Feb. 2	+35.26	May 25	+39.23	Aug. 25	+38.11	Nov. 2	+36.79
25	+35.59	June 24	+39.09	Sept. 11	+37.78	30	+36.30
Mar. 30	+37.02	Aug. 4	+38.50	Oct. 5	+37.31	Dec. 18	+36.20
Apr. 29	+38.55						

S3728. City of New York, Board of Water Supply. State Highway 27, Hagerman. Lat. 40°46'30", long. 72°57'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 47 feet, screen 45-47. Land-surface datum is 48.1 feet above msl. Highest water level 23.67 above msl, Mar. 30, 1949; lowest 19.41 above msl, Dec. 21, 1951. Records available: 1943-53. Feb. 3, +21.62. Measurement discontinued.

S3729. City of New York, Board of Water Supply. Barton and Dunton Aves., Hagerman. Lat. 40°47'15", long. 72°57'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 39 feet, screen 37-39. Land-surface datum is 58.6 feet above msl. Highest water level 31.58 above msl, May 25, 1953; lowest 27.34 above msl, Apr. 4, 1947. Records available: 1943-53.

Feb. 2	+28.03	Apr. 28	+30.69	Aug. 3	+30.93	Nov. 9	+29.20
25	+28.41	May 25	+31.58	24	+30.60	30	+29.31
Mar. 31	+29.51	June 23	+31.40	Oct. 6	+30.17	Dec. 21	+28.72

S3730. City of New York, Board of Water Supply. Barton and South Haven Rds., Plainfield. Lat. 40°48'10", long. 72°58'10". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 57 feet, screen 55-57. Land-surface datum is 80.5 feet above msl. Highest water level 38.01 above msl, June 23, 1953; lowest 33.04 above msl, Feb. 26, 1951. Records available: 1943-53.

Feb. 2	+34.45	Apr. 28	+36.54	Aug. 3	+37.68	Nov. 9	+36.15
25	+34.35	May 25	+37.68	24	+37.45	30	+35.79
Mar. 31	+34.93	June 23	+38.01	Oct. 6	+36.75	Dec. 21	+35.48

S3737. U. S. Geol. Survey. Holbrook Rd., Centereach. Lat. 40°51'05", long. 73°04'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 64 feet, screen 62-64. Land-surface datum is 110.9 feet above msl. Highest water level 59.97 above msl, Oct. 6, 1953; lowest 54.33 above msl, Feb. 20, 1951. Records available: 1943-53.

Feb. 2	+57.13	Apr. 28	+58.10	Aug. 27	+59.96	Nov. 23	+59.14
25	+56.95	May 25	+59.16	Oct. 6	+59.97	Dec. 16	+58.88
Mar. 30	+57.20	June 23	+59.78	23	+59.50		

S3739. U. S. Geol. Survey. Lincoln Ave., Sayville. Lat. 40°45'50", long. 73°05'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 30 feet, screen 28-30. Land-surface datum is 50.3 feet above msl. Highest water level 30.61 above msl, June 23, 1952; lowest 26.33 above msl, Dec. 29, 1950. Records available: 1943-53. Feb. 2, +28.31. Measurement discontinued.

S3868. U. S. Geol. Survey. Sheep Pasture Rd., Setauket. Lat. 40°55'10", long. 73°06'00". Driven observation water-table well in deposits of late Pleistocene age, diameter 4 to 2 inches, depth 114 feet, screen 108-114. Land-surface datum is 99.6 feet above msl. Highest water level 41.30 above msl, Oct. 4, 1953; lowest 36.21 above msl, Jan. 22, 1951. Records available: 1944-53.

Feb. 2	+39.32	Apr. 28	+39.42	Aug. 4	+40.80	Oct. 23	+41.29
25	+39.35	May 25	+39.92	24	+41.03	Nov. 23	+41.23
Mar. 30	+39.43	June 23	+40.27	Oct. 4	+41.30	Dec. 23	+40.64

S3869. U. S. Geol. Survey. Mount Sinai Rd., Coram. Lat. 40°53'25", long. 72°59'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 4 to 2 inches, depth 44 feet, screen 40-44. Land-surface datum is 84.4 feet above msl. Highest water level 58.57 above msl, Aug. 4, 1953; lowest 52.97 above msl, Jan. 22, 1951. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+55.15	Apr. 28	+57.45	Aug. 4	+58.57	Oct. 26	+57.48
25	+55.19	May 25	+58.40	27	+58.31	Nov. 24	+57.07
Mar. 30	+56.14	June 23	+58.49	Oct. 6	+57.79	Dec. 23	+56.70

S3870. U. S. Geol. Survey. Mill Pond Rd., Coram. Lat. 40°51'40", long. 72°59'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 4 to 2 inches, depth 44 feet, screen 40-44. Land-surface datum is 88.1 feet above msl. Highest water level 57.71 above msl, June 23, 1953; lowest 52.84 above msl, Feb. 20, 1951. Records available: 1944-53.

Feb. 2	+54.95	Apr. 28	+56.81	Aug. 4	+57.70	Oct. 26	+57.13
25	+55.04	May 25	+57.48	27	+57.61	Nov. 24	+56.85
Mar. 30	+55.81	June 23	+57.71	Oct. 6	+57.37	Dec. 23	+56.52

S3871. U. S. Geol. Survey. Locust Ave. and Fire Rd., Plainfield. Lat. 40°50'05", long. 72°58'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 4 to 2 inches, depth 92 feet, screen 88-92. Land-surface datum is 128.6 feet above msl. Highest water level 50.79 above msl, Aug. 27, 1953; lowest 45.84 above msl, Feb. 26, 1951. Records available: 1944-53.

Feb. 2	+48.05	Apr. 28	+48.30	Aug. 4	+50.62	Oct. 26	+50.16
25	+47.80	May 25	+49.28	27	+50.79	Nov. 30	+49.72
Mar. 30	+47.69	June 23	+50.16	Oct. 6	+50.36	Dec. 21	+49.47

S3955. U. S. Geol. Survey. Pond Path and Horseblock Rd., Setauket. Lat. 40°53'55", long. 73°05'15". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 76 feet, screen 74-76. Land-surface datum is 122.4 feet above msl. Highest water level 57.73 above msl, Aug. 24, 1953; lowest 51.40 above msl, Mar. 28, 1951. Records available: 1944-53.

Feb. 2	+54.92	Apr. 28	+54.91	Aug. 4	+57.63	Nov. 23	+57.15
25	+54.68	May 25	+55.87	24	+57.73	Dec. 23	+56.79
Mar. 30	+54.43	June 23	+56.97	Oct. 6	+57.54		

S3956. U. S. Geol. Survey. Yaphank and Miller Place Rds., Miller Place. Lat. 40°56'10", long. 72°59'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 124 feet, screen 122-124. Land-surface datum is 145.5 feet above msl. Highest water level 34.57 above msl, Aug. 27, 1953; lowest 30.29 above msl, Mar. 28, 1951. Records available: 1944-53.

Feb. 2	+33.05	Apr. 28	+32.66	Aug. 4	+34.39	Oct. 26	+34.41
25	+32.83	May 25	+33.06	27	+34.57	Nov. 24	+34.23
Mar. 30	+32.64	June 23	+33.69	Oct. 6	+34.55	Dec. 23	+34.00

S3978. Village of Greenport Department of Public Works. Moore's Lane, Greenport. Lat. 41°06'15", long. 72°22'25". Drilled unused water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 55 feet, screen assumed at bottom. Land-surface datum is 15.6 feet above msl. Highest water level 2.08 above msl, Apr. 2, 1953; lowest 0.30 below msl, Dec. 29, 1949. Records available: 1949-53.

Feb. 3	+1.16	May 4	+1.46	Aug. 4	+0.26	Dec. 2	+1.32
26	+1.03	27	+1.10	26	+27	23	+1.47
Apr. 2	+2.08	June 26	+1.14	Oct. 8	+1.16		

S4134. Town of Riverhead. Roanoke Ave., Riverhead. Lat. 40°55'35", long. 72°40'10". Drilled observation artesian well in sands of Magothy formation(?), diameter 4 inches, depth 225 feet, screen assumed at bottom. Land-surface datum is 23.3 feet above msl. Highest water level 14.23 above msl, Apr. 27, May 8, 1953; lowest 11.33 above msl, Nov. 23, 1950. Records available: 1945-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+12.56	+13.00	+13.28	+13.90	+14.17	+14.04	+13.25	+12.86	+12.49	+12.31	+12.38	+12.63
2	12.56	13.00	13.25	13.91	14.21	14.03	13.26	12.81	12.47	12.29	12.38	12.64
3	12.59	12.99	13.23	13.94	14.20	14.00	13.21	12.81	12.44	12.25	12.38	12.63
4	12.61	13.00	13.27	13.96	14.19	13.97	13.13	12.81	12.41	12.24	12.38	12.63
5	12.61	13.00	13.36	13.98	14.19	13.95	13.06	12.81	12.41	12.26	12.36	12.64

S4134--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	+12.60	+13.00	+13.36	+14.00	+14.21	+13.92	+13.05	+12.79	+12.42	+12.29	+12.34	+12.67
7	12.58	13.01	13.34	13.99	14.22	13.89	13.05	12.72	12.47	12.32	12.43	12.85
8	12.57	13.06	13.33	14.00	14.23	13.87	13.02	12.70	12.47	12.32	12.49	12.81
9	12.60	13.08	13.34	13.99	14.22	13.84	12.99	12.70	12.44	12.31	12.53	12.78
10	12.66	13.08	13.33	14.01	14.21	13.82	12.98	12.74	12.41	12.31	12.52	12.80
11	12.74	13.06	13.29	14.05	14.19	13.76	12.97	12.73	12.41	12.32	12.49	12.79
12	12.79	13.08	13.27	14.06	14.17	13.68	12.95	12.68	12.41	12.33	12.47	12.77
13	12.79	13.11	13.37	14.12	14.16	13.64	12.96	12.61	12.44	12.31	12.44	12.85
14	12.78	13.10	13.48	14.13	14.15	13.65	12.96	12.60	12.47	12.27	12.43	12.98
15	12.78	13.10	13.50	14.08	14.15	13.69	12.96	12.72	12.46	12.27	12.50	13.06
16	12.80	13.18	13.56	14.06	14.15	13.70	12.93	12.75	12.47	12.28	12.54	13.02
17	12.81	13.18	13.60	14.09	14.15	13.68	12.87	12.77	12.47	12.27	12.54	13.05
18	12.84	13.14	13.61	14.09	14.18	13.67	12.80	12.78	12.45	12.24	12.51	13.13
19	12.89	13.11	13.64	14.13	14.18	13.62	12.75	12.78	12.42	12.21	12.44	13.20
20	12.90	13.10	13.68	14.20	14.16	13.55	12.74	12.78	12.42	12.20	12.40	13.26
21	12.90	13.15	13.68	14.21	14.13	13.46	12.72	12.76	12.45	12.20	12.38	13.32
22	12.92	13.21	13.68	14.17	14.11	13.42	12.68	12.74	12.45	12.20	12.36	13.34
23	12.93	13.22	13.70	14.16	14.13	13.38	12.70	12.74	12.41	12.24	12.46	13.35
24	12.94	13.23	13.75	14.16	14.11	13.31	12.86	12.74	12.37	12.28	12.56	13.34
25	12.98	13.25	13.82	14.15	14.09	13.24	12.88	12.71	12.37	12.29	12.59	13.33
26	12.99	13.27	13.85	14.18	14.08	13.20	12.89	12.67	12.38	12.30	12.63	13.37
27	12.96	13.30	13.88	14.23	14.09	13.17	12.93	12.65	12.39	12.30	12.64	13.36
28	12.98	13.30	13.85	14.22	14.08	13.15	12.93	12.63	12.40	12.31	12.64	13.32
29	13.01		13.82	14.17	14.04	13.16	12.91	12.59	12.37	12.38	12.63	13.32
30	13.00		13.90	14.14	14.03	13.22	12.88	12.55	12.32	12.42	12.63	13.33
31	12.98		13.92		14.04		12.88	12.53		12.39		.....

S4268. U. S. Geol. Survey. Town Line Rd., Northport. Lat. 40°52'55", long. 73°17'05". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 74 feet, screen 69-74. Land-surface datum is 111 feet above msl. Highest water level 53.12 above msl, Oct. 6, 1953; lowest 46.65 above msl, Mar. 27, 1951. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+50.51	Apr. 28	+51.05	Aug. 3	+52.73	Oct. 23	+53.08
25	+50.40	May 25	+51.53	27	+52.98	Nov. 23	+52.89
Mar. 30	+50.75	June 23	+52.09	Oct. 6	+53.12	Dec. 16	+52.96

S4270. U. S. Geol. Survey. Wicks Ave. and Crooked Hill Rd., Pineaire. Lat. 40°47'10", long. 73°16'10". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 83 feet, screen 78-83. Land-surface datum is 120.2 feet above msl. Highest water level 56.30 above msl, May 26, 1953; lowest 49.86 above msl, Feb. 19, 1951. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	+52.55	Apr. 30	+54.80	Aug. 3	+55.99	Oct. 30	+54.94
27	+52.28	May 26	+56.30	25	+55.99	Nov. 27	+54.63
Mar. 31	+52.67	June 24	+56.26	Oct. 5	+55.28	Dec. 18	+54.46

S4271. U. S. Geol. Survey. Long Island Research Farm, Riverhead. Lat. 40°57'30", long. 72°43'30". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 105 feet, screen 100-105. Land-surface datum is 100.3 feet above msl. Highest water level 11.55 above msl, June 25, 1953; lowest 9.12 above msl, Sept. 10-12, 1950. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+10.78	May 1	+11.05	Aug. 4	+11.20	Oct. 28	+11.14
26	+10.79	28	+11.50	26	+11.26	Nov. 25	+11.08
Apr. 1	+10.65	June 25	+11.55	Oct. 8	+11.10	Dec. 22	+11.03

S4524. U. S. Geol. Survey. Tuthill Rd., Laurel. Lat. 40°56'50", long. 72°36'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 23 feet, screen 21-23. Land-surface datum is 23.5 feet above msl. Highest water level 9.44 above msl, May 1, 1953; lowest 5.52 above msl, Nov. 2, 1950. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+7.43	May 1	+9.44	Aug. 4	+7.56	Nov. 4	+6.83
26	+7.76	27	+9.39	26	+7.41	Dec. 1	+7.35
Apr. 1	+8.79	June 26	+8.48	Oct. 8	+6.82	22	+8.33

S4526. J. T. Downe. Sound Ave., Riverhead. Lat. 40°58'10", long. 72°38'15". Dug unused water-table well in deposits of late Pleistocene age, diameter 36 inches, depth 65 feet. Land-surface datum is 87.9 feet above msl. Highest water level 11.42 above msl, Aug. 26, 1953; lowest 7.47 above msl, Dec. 28, 1950. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+9.42	May 5	+11.24	Oct. 8	+10.74	Nov. 25	+10.50
26	+9.45	Aug. 26	+11.42	28	+10.66	Dec. 22	+10.75
Apr. 1	+9.83						

S4530. U. S. Geol. Survey. Middle Country Rd. and Roanoke Ave., Riverhead. Lat. 40°56'15", long. 72°40'40". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 12 feet, screen 10-12. Land-surface datum is 21.2 feet above msl. Highest water level 19.90 above msl, May 1, 1953; lowest 13.91 above msl, Dec. 28, 1950. Records available: 1945-53.

Feb. 3	+16.49	May 1	+19.90	Aug. 4	+17.53	Oct. 28	+16.10
26	+17.13	27	+19.53	26	+17.05	Nov. 20	+15.97
Apr. 1	+18.25	June 25	+18.73	Oct. 8	+16.17	Dec. 22	+17.20

S4827. U. S. Geol. Survey. Broadway, Greenlawn. Lat. 40°51'45", long. 73°21'55". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 199 feet, screen 194-199. Land-surface datum is 215 feet above msl. Highest water level 60.32 above msl, Nov. 23, 1953; lowest 54.23 above msl, May 28, 1951. Records available: 1946-53.

Feb. 4	+57.85	Apr. 28	+57.85	Aug. 24	+59.34	Nov. 23	+60.32
25	+57.89	May 25	+58.17	Oct. 6	+59.97	Dec. 16	+60.18
Mar. 30	+57.94	June 23	+58.44	23	+60.15		

S4828. U. S. Geol. Survey. Park Ave. and Broadway, Greenlawn. Lat. 40°50'20", long. 73°22'10". Drilled observation artesian well in sands of Magothy formation(?), diameter 4 inches, depth 141 feet, screen 136-141. Land-surface datum is 185 feet above msl. Highest water level 71.07 above msl, Oct. 23, 1953; lowest 65.17 above msl, Jan. 24, 1952. Records available: 1946-53.

Feb. 4	+68.32	Apr. 28	+68.45	Aug. 3	+70.10	Oct. 23	+71.07
25	+68.33	May 25	+68.97	24	+70.49	Nov. 20	+71.03
Mar. 30	+68.34	June 23	+69.57	Oct. 6	+70.93	Dec. 16	+70.92

S4829. U. S. Geol. Survey. Randall Rd., Shoreham. Lat. 40°56'15", long. 72°53'55". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 97 feet, screen 92-97. Land-surface datum is 114 feet above msl. Highest water level 41.31 above msl, Aug. 27, 1953; lowest 36.74 above msl, Apr. 4, 1951. Records available: 1946-53.

Feb. 4	+39.39	Apr. 30	+39.79	Aug. 5	+41.18	Oct. 28	+41.07
27	+39.24	May 28	+40.52	27	+41.31	Nov. 24	+40.82
Apr. 3	+39.21	June 25	+41.10	Oct. 9	+41.14	Dec. 22	+40.74

S5517. Brookhaven National Laboratory. Upton Rd. and Princeton Ave., Brookhaven National Laboratory. Lat. 40°51'50", long. 72°53'15". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 91 feet, screen 85-91. Land-surface datum is 115 feet above msl. Highest water level 45.49 above msl, June 9, 13-19, 1953; lowest 39.60 above msl, Feb. 4-6, 8-9, 1951. Records available: 1948-53. Recording gage discontinued Oct. 27, 1953.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	+41.79	+42.11	+43.24	+44.73	+45.44	+45.36	+44.95	.....	+43.88	.....	.....
2	.....	41.82	42.12	43.30	44.77	45.45	45.37	44.93	.....	43.86	.....	.....
3	.....	.....	42.15	43.30	44.80	45.45	45.34	44.91	.....	43.84	.....	.....
4	.....	41.79	42.18	.....	44.83	45.46	45.30	44.90	.....	43.83	.....	.....
5	e+41.98	.....	42.20	.....	44.89	45.47	45.29	44.89	.....	43.81	.....	.....
6	41.96	.....	42.21	.....	44.93	45.47	45.30	44.86	.....	43.80	.....	.....
7	41.94	.....	42.22	.....	44.97	45.48	45.29	44.84	.....	43.78	.....	.....
8	41.93	.....	42.24	.....	45.01	45.47	45.27	44.83	.....	43.74	.....	.....
9	41.92	.....	42.26	.....	45.04	45.49	45.25	44.82	.....	43.72	.....	.....
10	41.91	41.89	42.27	.....	45.07	45.48	45.23	44.80	.....	43.71	.....	.....
11	41.90	41.90	42.28	.....	45.10	45.48	45.22	44.78	.....	43.69	.....	.....
12	41.89	41.93	42.30	.....	45.13	45.48	45.21	44.76	.....	43.67	.....	.....
13	41.87	41.94	42.33	.....	45.16	45.49	45.20	44.75	.....	43.64	.....	.....
14	41.86	41.93	42.34	.....	45.18	45.49	45.19	44.74	.....	43.62	.....	.....
15	41.85	41.96	42.36	.....	45.21	45.49	45.18	44.72	.....	43.61	.....	.....

S5517--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	+41.84	+41.95	+42.38	.....	+45.23	+45.49	+45.16	+44.70	.....	+43.58	.....	.....
17	41.83	41.95	42.40	.....	45.26	45.49	45.15	44.68	.....	43.56	.....	+42.47
18	41.84	41.95	42.44	.....	45.28	45.49	45.15	44.67	+44.14	43.53	.....	.....
19	41.82	41.96	42.48	.....	45.30	45.49	45.13	44.66	44.13	43.51	.....	.....
20	41.81	41.97	42.51	.....	45.30	45.48	45.12	44.64	44.12	43.50	.....	.....
21	41.81	41.99	42.55	.....	45.32	45.47	45.10	44.62	44.10	.....	.....	.....
22	41.80	42.00	42.61	.....	45.34	45.46	45.09	44.61	44.07	.....	.....	.....
23	41.79	42.00	42.68	.....	45.35	45.45	45.09	44.60	44.04	.....	.....	.....
24	41.82	42.03	42.75	.....	45.36	45.42	45.07	44.58	44.02	.....	+42.84	.....
25	41.82	42.05	42.82	.....	45.38	45.40	45.04	44.56	44.00	.....	.....	.....
26	41.79	42.07	42.89	.....	45.40	45.39	45.02	44.55	43.99	.....	.....	.....
27	41.78	42.09	42.96	.....	45.40	45.37	45.01	44.54	43.98	43.37	.....	.....
28	41.81	42.10	43.01	.....	45.40	45.36	45.00	44.52	43.95	.....	.....	.....
29	41.79	.....	43.08	+44.64	45.41	45.36	44.99	44.51	43.92	.....	.....	.....
30	41.78	.....	43.14	44.67	45.42	45.35	44.97	44.50	43.90	.....	.....	.....
31	41.79	.....	43.19	.....	45.43	.....	44.96	44.48	.....	.....	.....	.....

e Estimated.

S6400. Brookhaven National Laboratory. 4th Ave. and Railroad St., Brookhaven National Laboratory. Lat. 40°52'35", long. 72°53'05". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 61 feet, screen 59-61. Land-surface datum is 90.8 feet above msl. Highest water level 47.36 above msl, May 28, 1953; lowest 40.97 above msl, Jan. 26, 1951. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+43.27	Apr. 30	+46.93	Aug. 5	+46.13	Oct. 27	+44.31
27	+43.73	May 28	+47.36	26	+45.60	Nov. 24	+43.75
Apr. 3	+45.52	June 25	+46.87	Oct. 9	+44.65	Dec. 17	+43.75

S6409. Brookhaven National Laboratory. Yale and Upton Rds. Lat. 40°51'40", long. 72°53'50". Drilled observation artesian well in Lloyd sand member of Raritan formation, diameter 8 inches, depth 1,434 feet, screen 1,408-1,433. Land-surface datum is 113.2 feet above msl. Highest water level 35.02 above msl, July 2, 1953; lowest 31.46 above msl, Feb. 15, 1951. Records available: 1949-53. Aug. 29, 1952, +34.08; Sept. 26, +34.02; Nov. 7, +33.69; Dec. 4, +33.31; Dec. 23, +33.39.

Daily mean water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+33.35	+33.11	.....	.....	+34.81	+34.95	+34.87	.....	+34.33	.....	.....
2	33.15	32.97	.....	.....	34.81	35.02	34.85	.....	34.24	.....	.....
3	33.31	32.96	+33.75	.....	34.73	35.01	34.78	.....	34.22	.....	.....
4	33.31	33.36	.....	.....	34.76	34.86	34.80	.....	34.33	.....	.....
5	33.16	33.32	.....	.....	34.79	34.84	34.96	+34.64	34.42	.....	.....
6	33.15	.....	.....	.....	34.80	34.92	34.79	34.65	34.55	.....	.....
7	33.30	.....	.....	.....	34.78	34.96	34.72	34.71	34.47	+34.28	.....
8	33.36	.....	.....	.....	34.72	34.93	34.79	34.57	34.29	34.15	.....
9	33.24	.....	.....	+34.44	34.82	34.90	34.84	34.47	34.32	34.16	.....
10	33.19	.....	.....	34.42	34.80	34.80	34.84	34.48	34.41	34.12	.....
11	33.20	.....	.....	34.44	34.77	34.77	34.74	34.54	34.43	34.14	.....
12	33.49	.....	.....	34.43	34.75	34.77	34.66	34.64	34.36	34.10	.....
13	33.40	.....	.....	34.43	34.80	34.82	34.69	34.72	34.16	34.02	.....
14	33.24	.....	.....	34.42	34.85	34.77	34.81	34.65	34.14	34.06	.....
15	33.52	.....	.....	34.47	34.86	34.81	34.92	34.64	34.30	34.23	.....
16	33.36	.....	.....	34.47	34.86	34.79	34.81	34.68	34.33	34.21	.....
17	33.32	.....	.....	34.57	34.89	34.83	34.81	34.57	34.24	34.17	+33.96
18	33.16	.....	.....	34.72	34.92	34.87	34.80	34.44	34.15	34.08	.....
19	33.10	.....	.....	34.66	34.92	34.86	34.82	34.42	34.17	34.04	.....
20	33.09	.....	.....	34.60	.....	34.86	34.77	34.52	34.22	34.03	.....
21	33.27	.....	.....	34.53	.....	34.86	34.67	34.62	34.12	34.02	.....
22	33.11	.....	.....	34.68	.....	34.84	34.68	34.48	34.18	34.03	.....
23	33.02	.....	.....	34.72	.....	35.01	34.76	34.32	34.37	34.26	.....
24	33.14	.....	.....	34.61	.....	34.95	34.77	34.27	34.44	34.27	.....
25	33.23	.....	.....	34.65	34.89	34.78	34.69	34.35	34.32	34.41	.....
26	33.37	.....	.....	34.79	.....	34.79	34.69	34.47	34.24	34.22	.....
27	33.40	.....	.....	34.75	34.78	34.88	34.70	34.56	34.21	.....	.....
28	33.30	.....	.....	34.65	34.78	34.91	34.71	34.58	34.40	.....	.....
29	34.60	34.84	34.88	34.73	34.44	34.56	.....	.....
30	34.20	34.71	34.87	34.90	34.72	34.34	.....	.....	.....
31	+33.24	.....	.....	.....	34.77	.....	34.91	.....	.....	.....	.....	.....

S6410. Brookhaven National Laboratory. Ridge Rd. and State Highway 25A, Ridge.

Lat. 40°55'20", long. 72°54'05". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 88 feet, screen 83-88. Land-surface datum is 108.7 feet above msl. Highest water level 48.36 above msl, Aug. 5, 1953; lowest 42.59 above msl, Feb. 25-26, 28, Mar. 1-7, 1951. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+45.27	Apr. 30	+46.60	Aug. 5	+48.36	Oct. 28	+47.37
27	+45.15	May 28	+47.70	27	+48.10	Nov. 24	+46.97
Apr. 3	+45.50	June 25	+48.32	Oct. 9	+47.62	Dec. 22	+46.55

S6411. Brookhaven National Laboratory. Ridge Rd. and State Highway 25A, Shoreham.

Lat. 40°56'50", long. 72°54'15". Drilled observation water-table well in deposits of late Pleistocene age, diameter 4 inches, depth 149 feet, screen 143-149. Land-surface datum is 138.4 feet above msl. Highest water level 32.14 above msl, Oct. 28, 1953; lowest 28.39 above msl, Apr. 4, 1951. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+30.89	Apr. 30	+30.59	Aug. 5	+31.66	Oct. 28	+32.14
27	+30.80	May 28	+30.85	27	+31.89	Nov. 24	+31.99
Apr. 3	+30.55	June 25	+31.17	Oct. 9	+32.09	Dec. 22	+31.79

S6435. Brookhaven National Laboratory. Long Island Ave., South Haven. Lat. 40°49'00",

long. 72°52'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 82 feet, screen 80-82. Land-surface datum is 76.4 feet above msl. Highest water level 22.66 above msl, June 10, 1953; lowest 19.05 above msl, Feb. 26, 1951. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+20.22	May 28	+22.40	Aug. 5	+22.32	Oct. 27	+21.24
27	+20.04	June 10	+22.66	24	+22.12	Dec. 1	+20.76
Apr. 3	+20.42	24	+22.64	Oct. 9	+21.47	17	+20.63
28	+21.42						

S6441. Brookhaven National Laboratory. Wading River Rd. near North St., Manorville.

Lat. 40°52'10", long. 72°49'25". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 21 feet, screen 19-21. Land-surface datum is 46.2 feet above msl. Highest water level 38.88 above msl, Apr. 25, 1953; lowest 34.42 above msl, Nov. 24, 1950. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	+37.29	Apr. 25	+38.88	Aug. 26	+36.48	Nov. 25	+36.25
Mar. 2	+37.42	June 10	+37.87	Oct. 7	+35.78	Dec. 21	+37.53
16	+38.28	Aug. 5	+36.66	27	+35.76		

S6524. Southold Fire Dept. Bayview Rd., Southold. Lat. 41°02'55", long. 72°26'10".

Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 40 feet, screen assumed at bottom. Land-surface datum is 5.7 feet above msl. Highest water level 3.04 above msl, May 4, 1953; lowest 0.66 above msl, Feb. 1, 1950. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+2.26	May 4	+3.04	Aug. 4	+1.70	Nov. 4	+1.73
26	+2.36	27	+2.87	26	+1.67	Dec. 2	+2.40
Apr. 2	+3.02	June 26	+2.15	Oct. 8	+1.47	22	+2.94

S6532. Conway Bros. Horton's Lane, Southold. Lat. 41°03'55", long. 72°26'10".

Dug domestic water-table well in deposits of late Pleistocene age, diameter 24 inches, depth 52 feet. Land-surface datum is 45.9 feet above msl. Highest water level 5.52 above msl, May 27, 1953; lowest 1.95 above msl, Feb. 27, 1950. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+2.89	May 4	+5.48	Aug. 4	+3.88	Dec. 2	+3.02
26	+3.06	27	+5.52	26	+3.51	22	+3.50
Apr. 2	+3.86	June 26	+4.88	Oct. 8	+2.97		

S6542. Cutchogue Fire Dept. Depot Lane, Cutchogue. Lat. 41°01'05", long. 72°29'25".

Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 36 feet, screen assumed at bottom. Land-surface datum is 24.4 feet above msl. Highest water level 7.89 above msl, May 27, 1953; lowest 3.22 above msl, Nov. 2, 1950. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+5.22	May 1	+7.80	Aug. 4	+6.19	Oct. 29	+5.05
25	+5.54	27	+7.89	26	+5.89	Nov. 25	+5.25
Apr. 2	+6.50	June 26	+7.13	Oct. 8	+5.21	Dec. 22	+6.37

S6558. Mattituck Fire Dept. State Highway 25, Mattituck. Lat. 40°58'30", long. 72°33'10". Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 37 feet, screen assumed at bottom. Land-surface datum is 13.9 feet above msl. Highest water level 6.23 above msl, May 1, 1953; lowest 2.78 above msl, June 27, 1950. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+4.33	May 1	+6.23	Aug. 4	+4.39	Nov. 4	+3.85
26	+4.67	27	+5.87	26	+4.17	Dec. 1	+4.28
Apr. 1	+5.50	June 26	+5.34	Oct. 8	+3.77	22	+5.26

S6780. J. Moisa. Breakwater Rd., Mattituck. Lat. 41°00'05", long. 72°33'45". Drilled irrigation water-table well in deposits of late Pleistocene age, diameter 10 inches, depth 100 feet, screen assumed at bottom. Land-surface datum is 48.3 feet above msl. Highest water level 5.69 above msl, May 27, 1953; lowest 2.77 above msl, June 26, 1950. Records available: 1949-53.

Feb. 3	+3.89	May 1	+5.13	Aug. 4	+4.68	Oct. 28	+4.02
26	+3.88	27	+5.69	26	+4.42	Nov. 25	+4.09
Apr. 1	+4.32	June 30	+5.05	Oct. 8	+4.03	Dec. 22	+4.39

S7267. Cutchogue Fire Dept. North Rd., Cutchogue. Lat. 41°01'50", long. 72°30'05". Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 43 feet, screen assumed at bottom. Land-surface datum in sand pit is 18.2 feet above msl. Highest water level 7.78 above msl, May 27, 1953; lowest 3.58 above msl, Aug. 30, 1950. Records available: 1949-53.

Feb. 3	+5.18	May 1	+7.06	Aug. 4	+6.81	Oct. 29	+5.72
26	+5.17	27	+7.78	26	+6.49	Nov. 25	+5.45
Apr. 2	+5.76	June 26	+7.45	Oct. 8	+5.78	Dec. 22	+5.91

S7283. W. Karcher. State Highway 25, Orient. Lat. 41°08'50", long. 72°17'40". Dug unused water-table well in deposits of late Pleistocene age, diameter 24 inches, depth 30 feet. Land-surface datum is 23.1 feet above msl. Highest water level 5.09 above msl, Apr. 26-27, 1953; lowest 1.28 above msl, Jan. 28-31, Feb. 1-2, 1950. Records available: 1949-53.

Daily mean water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	+2.53	+3.19	+4.23	+5.03	+4.48	....	+2.71	+2.25	+1.83	+1.92	+2.82
2	....	2.55	3.19	4.29	5.02	4.45	+3.32	....	2.25	1.83	1.94	2.83
3	....	2.59	3.19	4.35	4.99	4.43	3.30	2.68	2.24	1.85	1.95	2.84
4	....	2.60	3.21	4.40	4.97	4.40	3.26	2.66	2.23	1.85	1.96	2.84
5	+1.89	2.61	3.23	4.44	4.98	4.38	3.24	2.66	2.22	1.85	1.96	....
6	1.91	2.63	3.23	4.47	4.97	4.35	3.06	2.64	2.05	1.84	1.97	....
7	1.92	2.65	3.23	4.51	4.96	4.32	3.09	2.62	2.13	1.83	1.98	2.92
8	1.92	2.66	3.24	4.53	4.95	4.29	3.11	....	2.15	1.82	2.00	3.00
9	1.94	2.67	3.24	4.55	4.93	4.27	3.10	....	2.08	1.82	2.02	3.06
10	1.98	2.69	3.24	4.57	4.90	4.23	3.09	2.58	2.07	1.81	2.04	....
11	2.03	2.70	3.22	4.58	4.88	4.16	3.07	2.56	1.98	1.79	2.06	....
12	2.06	2.72	3.22	4.57	4.85	3.99	3.04	2.54	2.02	1.79	2.07	....
13	2.09	2.73	3.25	4.59	4.84	3.90	3.03	2.43	2.05	1.78	2.08	....
14	2.12	2.75	3.30	4.63	4.82	....	3.02	2.44	2.05	1.77	2.09	3.35
15	2.16	2.78	3.36	4.68	4.80	....	3.00	2.47	2.05	1.77	2.11	3.61
16	2.19	2.81	3.41	4.74	4.79	3.80	2.98	2.48	2.05	1.76	2.11	3.75
17	2.21	2.87	3.49	4.79	4.77	3.76	2.96	2.48	2.04	1.75	2.11	3.85
18	2.25	2.91	3.56	4.85	4.76	3.74	2.95	2.49	2.03	1.74	2.11	....
19	2.27	2.94	3.63	4.89	4.75	3.79	2.92	2.47	2.01	1.74	2.11	....
20	2.30	2.99	3.70	4.95	4.73	3.79	2.90	2.46	2.00	1.73	2.11	....
21	2.32	3.04	3.74	4.99	4.71	3.75	2.88	2.45	2.00	1.73	2.11	....
22	2.33	3.07	3.77	5.01	4.70	3.72	2.87	2.44	1.99	1.73	2.11	....
23	2.35	....	3.81	5.05	4.68	3.69	2.85	2.44	1.98	1.72	2.13	3.81
24	2.39	3.11	3.86	5.05	4.65	3.55	2.84	2.43	1.97	1.72	2.34	3.79
25	2.40	3.14	3.89	5.06	4.63	3.37	2.83	2.42	1.97	1.70	2.46	3.79
26	2.40	3.16	3.91	5.09	4.62	3.32	2.81	2.41	1.96	1.70	2.57	3.78
27	2.42	3.18	3.95	5.09	4.60	3.25	2.81	2.40	1.95	1.70	2.66	3.75
28	2.45	3.19	3.98	5.06	4.58	....	2.79	2.38	1.95	1.70	2.72	3.73
29	2.47	....	4.00	5.04	4.54	3.33	2.77	2.35	1.93	1.77	2.78	3.73
30	2.49	....	4.11	5.01	4.52	....	2.75	2.25	1.91	1.87	2.81	3.71
31	2.52	....	4.20	....	4.50	....	2.74	2.19	....	1.91	....	3.70

S8831. U. S. Geol. Survey. Lake Drive and North Sea Rd., Southampton. Lat. 40°55'15", long. 72°24'50". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 23 feet, screen 21-23. Land-surface datum is 18.5 feet above msl. Highest water level 8.41 above msl, Apr. 1, 1953; lowest 6.23 above msl, Oct. 31, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+7.41	Apr. 29	+8.27	Aug. 3	+7.30	Nov. 4	+7.39
26	+7.60	May 26	+8.10	25	+7.43	Dec. 2	+7.92
Apr. 1	+8.41	June 25	+7.64	Oct. 7	+6.97	23	+8.27

S8834. U. S. Geol. Survey. State Highway 114, Sag Harbor. Lat. 40°59'10", long. 72°15'30". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 23 feet, screen 21-23. Land-surface datum is 26.1 feet above msl. Highest water level 14.36 above msl, Dec. 23, 1953; lowest 9.58 above msl, Dec. 26, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+12.14	Apr. 29	+13.96	Aug. 3	+13.31	Nov. 5	+12.62
26	+12.53	May 26	+14.23	25	+13.31	Dec. 3	+13.57
Apr. 1	+13.23	June 25	+13.83	Oct. 7	+12.57	23	+14.36

S8835. U. S. Geol. Survey. State Highway 24, Hampton Bays. Lat. 40°53'10", long. 72°32'30". Driven observation water-table well in deposits of late Pleistocene age, diameter 2 inches, depth 33 feet, screen 31-33. Land-surface datum is 33.3 feet above msl. Highest water level 11.09 above msl, May 26, 1953; lowest 6.95 above msl, Jan. 23, 1951. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+8.80	Apr. 29	+10.87	Aug. 3	+10.18	Nov. 4	+8.45
26	+9.13	May 26	+11.09	25	+9.41	Dec. 2	+8.64
Apr. 1	+10.00	June 25	+10.56	Oct. 7	+8.72	23	+9.52

S8836. Southampton Fire Dept. Nugent St., Southampton. Lat. 40°53'15", long. 72°23'35". Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 8 inches, depth 37 feet, screen assumed at bottom. Land-surface datum is 17.4 feet above msl. Highest water level 8.88 above msl, Apr. 29, 1953; lowest 5.61 above msl, Jan. 23, 1951. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+6.88	Apr. 29	+8.88	Aug. 3	+7.58	Nov. 4	+6.73
26	+7.32	May 26	+8.87	25	+7.40	Dec. 2	+7.04
Apr. 1	+8.20	June 25	+8.34	Oct. 7	+6.87	23	+7.89

S8837. East Hampton Fire Dept. State Highway 27, East Hampton. Lat. 40°58'05", long. 72°10'15". Drilled fire protection water-table well in deposits of late Pleistocene age, diameter 6 inches, depth 34 feet, screen assumed at bottom. Land-surface datum is 14.8 feet above msl. Highest water level 9.71 above msl, May 26, 1953; lowest 6.92 above msl, Dec. 26, 1950. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+8.13	Apr. 29	+9.62	Aug. 3	+9.02	Nov. 6	+8.44
26	+8.48	May 26	+9.71	25	+9.03	Dec. 3	+9.01
Apr. 1	+9.16	June 25	+9.31	Oct. 7	+8.60	23	+9.49

S8839. A. Toler. Windmill Lane, Amagansett. Lat. 40°58'35", long. 72°08'55". Driven observation water-table well in deposits of late Pleistocene age, diameter 1½ inches, depth 37 feet, screen 35-37. Land-surface datum is 39.3 feet above msl. Highest water level 9.51 above msl, May 26, 1953; lowest 6.29 above msl, Jan. 23, 1951. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	+7.36	May 26	+9.51	Aug. 25	+8.67	Nov. 6	+7.76
26	+7.66	June 25	+9.13	Sept. 9	+8.33	Dec. 3	+8.49
Apr. 1	+8.26	Aug. 3	+8.56	Oct. 7	+8.06	23	+9.05
29	+9.17						

S8912. F. Lackman. State Highways 25 and 25A, The Branch. Lat. 40°51'20", long. 73°11'15". Dug unused water-table well in deposits of late Pleistocene age, diameter 36 inches, depth 28 feet. Land-surface datum is 59.3 feet above msl. Highest water level 36.95 above msl, Apr. 28, 1953; lowest 32.90 above msl, Jan. 27, 1948. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	+34.61	Apr. 28	+36.95	Aug. 4	+35.10	Oct. 23	+34.20
25	+34.90	May 25	+36.43	24	+34.90	Nov. 20	+34.06
Mar. 30	+36.39	June 23	+35.76	Oct. 6	+34.41	Dec. 16	+34.34

UPSTATE NEW YORK

By E. S. Asselstine, F. K. Mack, and J. A. Ziarno

Scope of Water Level-Program

The observation-well program in Upstate New York (fig. 26) was continued during 1953, primarily as part of the investigation of ground-water resources in cooperation with the State Water Power and Control Commission. The studies to appraise the extent, use, and condition of the ground-water resources included systematic county-by-county surveys, geophysical surveys, and pumping tests to define the various aquifers, as well as observation of water levels in wells to permit proper management and conservation of the available ground-water supplies. During 1953, 70 observation wells were measured, including 19 equipped with recording gages from which continuous records of water-level fluctuations were obtained. New wells were added in the Counties of Erie, Delaware, Otsego, Rockland, and St. Lawrence.

A report entitled "Water resources of the Rochester area, New York," was published as Circular 246 of the U. S. Geological Survey. Two ground-water reports covering four counties were prepared for publication as Bulletins GW-31 and GW-32 of the New York Water Power and Control Commission: "The ground-water resources of Bronx, New York, and Richmond Counties," and "The ground-water resources of Washington County, New York."

Precipitation

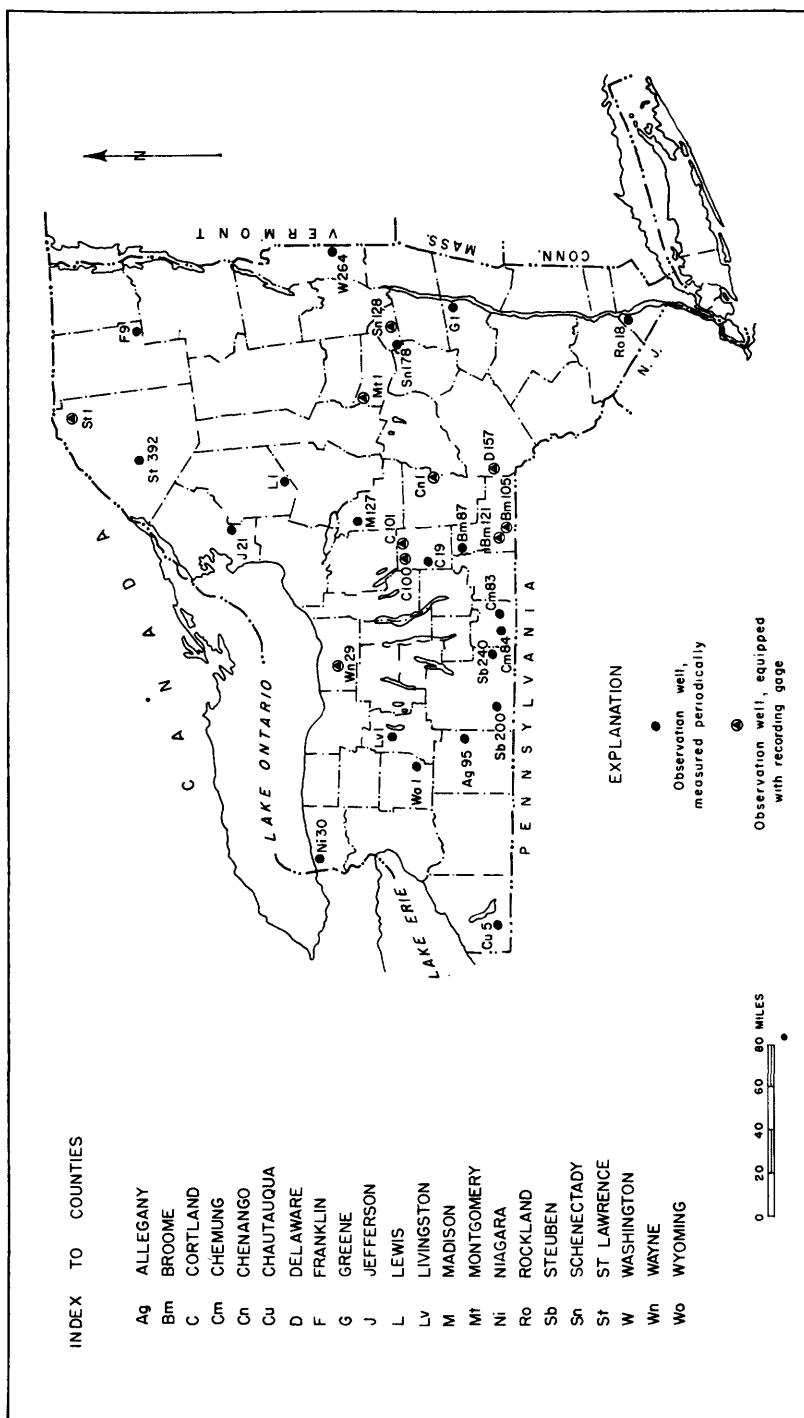
The average precipitation in 1953 for New York, including Long Island, was 37.77 inches. Although the total precipitation was only 1.27 inches below normal, distribution throughout the year was uneven. In general, the first part of 1953 was characterized by above-normal precipitation and the remainder of the year by less-than-normal precipitation. March, April, and May were exceptionally wet, except for the western areas and the St. Lawrence Valley. Precipitation in May, highest for the year, was 47 percent above normal whereas precipitation in June, lowest for the year, was 56 percent below normal. Precipitation from July to November remained generally below average and was spread quite uniformly throughout the State with the exception of the south-central counties which were very dry from August to the end of the year. The December total for the State was above normal, but the central part remained dry.

Pumpage

The collection of pumpage records was continued in 1953 for the Schenectady area and the triple-cities area of Binghamton, Johnson City, and Endicott, the largest concentrations of ground-water pumpage in the region. The compilation of pumpage data also was extended during the year to a few other industrial centers. Evidence of excessive pumping did not become apparent during the year in any Upstate New York area. The Ansco Corporation at Binghamton continued artificially recharging its aquifers to safeguard its supply.

Interpretation of Water-Level Fluctuations

The year began with a rising trend of ground-water levels and near-average conditions in the eastern part of the State but below average in most of the State. During January some minor declines occurred but recovery was sufficient by the end of the month to place most levels higher than those of the beginning of the year and near or above average. A decline took place in several areas during February, but at the month's end most wells were near average. March levels rose rapidly to positions that were above average for all areas and attained the annual high for most wells. At that time the water level in observation well Wo 1 in Letchworth State Park was above average for the first time since 1952, and the level in well Mt 1 in the Mohawk Valley was at the record monthly high for 10 years of record. In April water levels remained considerably above average in the northeastern part of the State but elsewhere declined to near normal. Observation well St 1 in St. Lawrence County was at a level equal to the record monthly high. Excessive precipitation during May accounted for a secondary peak on the annual hydrograph of most wells and for above-average levels throughout the State. Near-record highs occurred for some wells. Flooded cellars and septic tanks occurred in the lower Mohawk Valley. Below-normal precipitation in June brought water levels in all sections to near average, and the seasonal downward trend became well established, to continue unbroken through the middle of November. July and



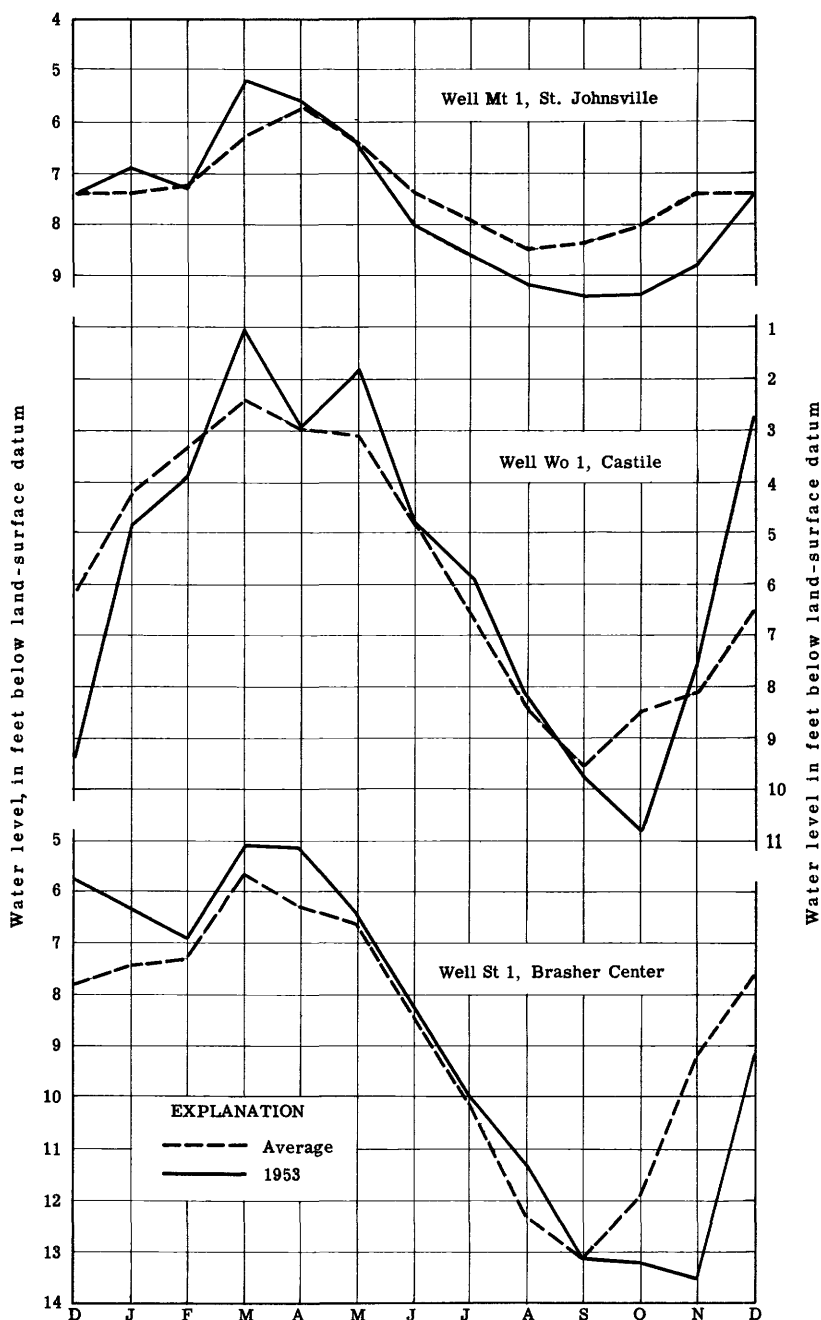


Figure 27. --Month-end water levels and average water levels for 9 years of record in wells Mt 1, Wo 1, and St 1, Upstate New York.

August levels were near average except in the southern areas where below-normal conditions were developing. The lowest August reading of 8 years of records was reported for well W 264, in the east-central part of the State. By September, levels were slightly below average in the western part and considerably below in the central, southern, and eastern areas. All levels were below average in October with southern and eastern areas lowest. During November the annual low was reached for most of the State, and although the seasonal upward trend began most wells continued to remain below normal. The upward trend continued throughout December, but the year closed with wells throughout the State generally below average. (See fig. 27.)

Well-Numbering System

Wells in Upstate New York are numbered consecutively in each county. A letter or combination of two letters from the name of the county is prefixed to the well numbers in that county. Thus, the letters "Ag" are prefixed to all well numbers in Allegany County.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum.)

Allegany County

Ag 95. Ronald Mullikin. Near Almond. Lat. $42^{\circ}20'04''$, long. $77^{\circ}44'24''$. Dug domestic water-table well in glacial till of Pleistocene age, diameter 30 inches, depth 13 feet. Land-surface datum is about 1,550 feet above msl. Highest water level 0.40 below lsd, Apr. 12, 1952; lowest 12.72 below lsd, Nov. 21, 1953. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.03	Mar. 28	1.85	June 20	5.71	Sept. 12	11.66
10	7.46	Apr. 4	2.03	27	6.30	19	11.59
17	7.14	11	2.14	July 4	6.60	26	11.58
24	6.72	18	2.37	11	7.07	Oct. 3	12.69
31	5.52	25	2.51	18	7.82	Nov. 21	12.72
Feb. 7	5.43	May 2	2.83	25	7.43	28	12.67
14	5.21	9	3.01	Aug. 1	8.13	Dec. 2	12.14
21	4.77	16	3.43	8	8.44	5	11.54
28	4.02	23	3.99	15	9.02	12	11.27
Mar. 7	2.75	30	4.36	22	9.71	19	11.01
14	2.37	June 6	4.08	29	10.33	26	11.17
21	2.13	13	4.78	Sept. 5	11.21		

Broome County

Bm 87. Helen Frawley. Near Center Lisle. Lat. $42^{\circ}19'40''$, long. $76^{\circ}05'58''$. Dug unused water-table well in glacial till of Pleistocene age, diameter 36 inches, depth 19 feet. Land-surface datum is about 1,520 feet above msl. Highest water level 0.84 below lsd, Feb. 26, 1949; lowest 8.88 below lsd, Nov. 1, 1947. Records available: 1947-53.

Apr. 15	2.66	June 29	7.26	Aug. 22	7.88	Oct. 10	8.24
May 13	4.67	July 4	7.39	30	7.92	17	8.35
16	5.39	11	7.48	Sept. 5	7.98	24	8.37
23	5.63	18	7.57	12	8.01	31	8.38
30	6.41	25	7.62	19	8.10	Nov. 7	8.51
June 1	6.37	Aug. 1	7.66	26	8.14	14	8.50
6	6.67	8	7.57	29	8.17	21	8.47
13	6.99	15	7.78	Oct. 3	8.21	28	8.35
20	7.12						

Bm 105. U. S. Geol. Survey. Prospect and Front Sts., Binghamton. Lat. $42^{\circ}06'43''$, long. $75^{\circ}54'39''$. Drilled observation artesian well in glacial gravel of Pleistocene age, diameter 6 inches, depth 143 feet, cased to 137, slotted 100-105. Land-surface datum is about 850 feet above msl. Water level affected by stage of Chenango River. Highest water level 8 below lsd, Mar. 29, 1950; lowest 20.17 below lsd, Sept. 4, 1953. Records available: 1947-53. Recording gage removed Apr. 16. Measurement discontinued.

204 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

Bm 105--Continued.

Daily lowest water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	Sept.	Dec.
1	18.49	16.89	17.48	16.16	.....	.....	.....
2	18.54	16.92	17.78	16.32	.....	.....	.....
3	18.55	17.21	17.83	16.78	.....	.....	.....
4	18.57	17.42	17.83	17.05	h15.48	h20.17	.....
5	18.70	17.71	16.57	17.05	.....	.....	.....
6	18.80	17.79	17.16	17.25	.....	.....	h19.31
7	18.90	17.72	17.42	17.25	.....	.....	.....
8	18.85	17.06	17.65	16.05	.....	.....	.....
9	18.90	17.34	17.78	16.67	.....	.....	.....
10	18.81	17.66	17.86	16.78	.....	.....	.....
11	18.68	17.87	18.11	16.19	.....	.....	.....
12	18.17	17.84	18.11	16.43	.....	.....	.....
13	18.25	17.95	17.99	16.50	.....	.....	.....
14	18.39	18.03	17.48	16.77	.....	.....	.....
15	18.45	18.03	16.83	17.14	.....	.....	.....
16	18.31	18.14	16.17	.....	.....	.....	.....
17	17.12	18.22	16.32	.....	.....	.....	.....
18	17.22	18.32	16.78	.....	.....	.....	.....
19	16.44	18.35	16.85	.....	.....	.....	.....
20	16.96	18.35	16.25	.....	.....	.....	.....
21	17.20	18.16	16.60	.....	.....	.....	.....
22	17.43	13.24	16.96	.....	.....	.....	.....
23	17.57	14.50	17.13	.....	.....	.....	.....
24	17.55	15.56	17.15	.....	.....	.....	.....
25	12.10	16.11	13.71	.....	.....	.....	.....
26	13.65	16.53	13.40	.....	.....	.....	.....
27	15.33	16.75	13.22	.....	.....	.....	.....
28	15.56	17.03	13.24	.....	.....	.....	.....
29	15.99	.....	14.33	.....	.....	.....	.....
30	16.68	.....	15.29	.....	.....	.....	.....
31	16.89	.....	15.65	.....	.....	.....	.....

* No records for June, July, August, October, and November.

h Tape measurement.

Bm 121. U. S. Geol. Survey. Camden and Main Sts., Johnson City. Lat. 42°06'57", long. 75°58'35". Drilled observation artesian well in glacial sand of Pleistocene age, diameter 6 inches, depth 51 feet, cased to 51, open end, no perforations. Land-surface datum is about 835 feet above msl. Highest water level 17.85 below lsd, Dec. 10, 1950; lowest 31.43 below lsd, Nov. 21-23, 1952. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.60	23.09	24.75	21.28	e24.00	24.84	28.18	e29.68	30.21	30.23	.....	29.13
2	26.68	23.19	24.79	21.37	.....	24.84	28.22	e29.71	30.27	30.30	.....	28.99
3	26.76	23.31	24.86	21.53	.....	24.89	28.22	29.71	30.35	30.38	.....	28.94
4	26.88	23.47	24.95	21.73	.....	25.00	28.20	29.68	30.45	30.41	.....	28.96
5	26.97	23.67	25.05	21.91	.....	25.15	28.11	29.63	30.56	30.41	.....	29.01
6	27.07	23.91	25.15	22.00	.....	25.33	27.96	29.63	30.64	30.38	.....	29.02
7	27.19	24.16	25.27	22.09	.....	25.52	27.79	29.68	30.65	30.31	.....	29.02
8	27.35	24.40	25.36	22.15	.....	25.65	27.72	29.73	30.64	30.25	.....	28.92
9	27.52	24.56	25.38	22.22	.....	25.76	27.79	29.75	30.58	30.23	.....	28.66
10	27.71	24.67	25.40	e22.4	.....	25.90	27.90	29.75	30.50	30.22	.....	28.34
11	27.89	24.80	25.46	e22.4	.....	26.05	28.03	29.72	30.44	30.22	.....	28.14
12	28.00	24.95	25.54	e22.5	e22.49	26.22	28.17	29.62	30.40	30.20	.....	27.99
13	28.06	25.13	25.65	e22.5	22.64	26.40	28.25	29.51	30.40	30.12	.....	27.87
14	28.12	25.34	25.77	22.47	22.86	26.53	28.32	29.39	30.38	30.01	.....	27.71
15	28.19	25.54	25.86	22.47	23.10	26.56	28.41	29.30	30.31	29.93	.....	27.34
16	28.26	25.67	25.86	22.59	23.35	26.59	28.53	29.25	30.22	29.90	.....	27.08
17	28.30	25.79	25.84	22.74	23.51	26.65	28.68	29.20	30.18	29.93	.....	26.93
18	28.30	25.94	25.76	22.92	23.56	26.75	28.84	29.13	30.20	29.94	.....	.....
19	28.29	26.10	25.69	23.08	23.57	26.87	29.00	29.08	30.24	29.94	.....	.....
20	28.18	26.27	25.68	23.16	23.60	27.02	29.13	29.14	30.26	.....	.....	.....
21	27.99	26.43	25.68	23.26	23.69	27.16	29.24	29.23	30.26	.....	.....	.....
22	27.82	26.47	25.68	23.39	23.82	27.26	29.36	29.35	30.20	.....	.....	.....
23	27.69	26.41	25.66	23.54	23.98	27.36	29.48	29.48	30.14	.....	.....	26.79
24	27.61	25.69	25.58	23.72	24.12	27.46	29.60	29.57	30.14	.....	.....	26.85
25	27.54	24.96	25.46	23.93	24.18	27.58	29.70	29.65	30.18	.....	.....	26.87

Bm 121--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	26.81	24.72	25.19	24.10	24.25	27.72	29.73	29.74	30.24	.....	.....	26.87
27	24.49	24.63	24.56	24.16	24.36	27.88	e29.73	29.84	30.28	.....	.....	26.86
28	23.21	24.67	23.62	24.16	24.49	28.03	e29.70	29.97	30.28	.....	.....	26.78
29	22.90		22.71	24.10	24.64	28.09	29.61	30.09	30.25	.....	.....	26.68
30	22.84		21.98	24.02	24.77	28.13	29.57	30.17	30.20	.....	.....	26.68
31	22.94		21.41		24.83		29.61	30.18		.....		26.77

e Estimated.

Chautauqua County

Cu 5. State Department of Conservation. Near Panama. Lat. $42^{\circ}03'28''$, long. $79^{\circ}29'59''$. Dug unused water-table well in glacial till of Pleistocene age, diameter 36 inches, depth 33 feet. Land-surface datum is about 1,770 feet above msl. Highest water level 1.61 below lsd, Jan. 26, 1952; lowest 9.41 below lsd, May 24, 1949. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.60	Apr. 4	2.31	July 4	4.37	Oct. 10	7.28
10	2.39	11	2.27	11	4.70	17	7.41
17	2.35	18	2.24	18	5.09	24	7.64
24	2.28	May 2	2.58	25	5.23	31	7.86
31	2.31	9	2.51	Aug. 1	5.53	Nov. 7	7.93
Feb. 7	2.35	16	2.42	8	5.84	14	7.69
14	2.48	23	2.49	15	6.18	21	7.47
21	2.45	30	2.53	22	6.42	28	7.54
28	2.44	June 6	2.89	Sept. 5	6.64	Dec. 5	7.31
Mar. 7	2.40	13	3.10	12	6.87	12	6.84
14	2.36	17	3.60	19	7.01	19	6.15
21	2.39	20	3.93	26	6.86	26	5.43
28	2.36	27	4.19	Oct. 3	7.04		

Chemung County

Cm 83. Wallace Dailey. Near Lowman. Lat. $42^{\circ}04'43''$, long. $76^{\circ}41'01''$. Dug domestic water-table well in glacial till of Pleistocene age, diameter 30 inches, depth 21 feet. Land-surface datum is about 1,480 feet above msl. Highest water level 2.46 below lsd, Mar. 25, 1950; lowest 12.90 below lsd, Oct. 4, 1952. Records available: 1946-53.

Jan. 3	5.58	Mar. 28	3.05	June 20	5.05	Oct. 3	12.42
10	6.68	Apr. 4	3.20	27	6.80	10	12.34
17	4.80	11	3.09	July 4	8.40	17	12.38
24	2.80	18	3.40	11	9.70	24	12.50
31	3.62	25	4.05	18	10.50	31	12.56
Feb. 7	4.79	May 9	3.17	Aug. 1	11.60	Nov. 14	12.61
14	5.90	16	3.20	6	11.80	21	12.63
21	6.60	23	3.50	15	11.80	28	12.62
28	4.85	30	3.27	31	12.40	Dec. 5	12.46
Mar. 7	4.25	June 1	3.45	Sept. 12	12.40	12	12.20
14	5.03	6	4.50	19	12.27	19	11.45
21	3.30	13	4.05	26	12.18		

Cm 84. Remington Rand Inc. South Main St., Elmira. Lat. $42^{\circ}04'17''$, long. $76^{\circ}47'47''$. Drilled unused artesian (?) well in glacial outwash of Pleistocene age, diameter 6 inches, depth 257 feet. Land-surface datum is about 850 feet above msl. Highest water level 15.35 below lsd, Apr. 3, 1950; lowest 20.72 below lsd, Nov. 16, 1953. Records available: 1947-53.

Jan. 5	16.36	Apr. 6	15.73	July 6	16.58	Oct. 5	19.92
12	16.41	13	15.78	13	16.80	12	20.09
19	16.30	20	15.80	20	17.05	19	20.16
26	16.24	27	16.05	27	17.35	26	20.40
Feb. 2	16.23	May 4	16.00	Aug. 3	17.45	Nov. 2	20.50
9	16.21	11	15.88	10	17.63	9	20.60
16	16.28	18	19.94	17	17.80	16	20.72
23	16.35	25	16.00	24	18.00	23	20.65
Mar. 2	16.32	June 1	16.02	31	18.51	30	20.40
9	16.29	8	16.04	Sept. 8	18.84	Dec. 7	19.30
16	16.28	15	16.10	14	19.10	14	18.65
23	16.36	22	16.30	21	19.40	21	18.17
30	15.74	29	16.45	28	19.66	28	17.85

Chenango County

Cn 1. U. S. Geol. Survey. Near South New Berlin. Lat. 42°31'55", long. 75°25'30". Dug observation water-table well in glacial till of Pleistocene age, diameter 21 inches, depth 8 feet. Land-surface datum is about 1,452 feet above msl. Records available: 1934-51. Measurement discontinued.

Cortland County

C 19. Cortland Water Works. Broadway, Cortland. Lat. 42°35'45", long. 76°11'45". Dug unused water-table well in glacial gravel of Pleistocene age, diameter 40 feet, depth 19 feet. Land-surface datum is about 1,150 feet above msl. Highest water level 2.98 below lsd, Apr. 5, 1947; lowest 7.74 below lsd, Sept. 29, 1953. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.50	Mar. 14	4.30	May 12	4.28	Aug. 10	5.91
10	4.50	21	4.36	16	4.27	17	6.19
17	4.35	28	4.00	23	4.33	24	6.50
24	4.26	Apr. 4	4.15	June 1	4.47	29	6.90
31	4.25	11	4.70	15	4.70	31	7.02
Feb. 7	4.21	15	4.15	23	4.88	Sept. 7	7.27
14	4.24	18	4.20	July 6	5.16	14	7.24
21	4.34	25	4.29	27	5.66	21	7.41
28	4.33	May 5	4.17	Aug. 3	5.66	29	7.77
Mar. 7	4.32	9	4.20				

C 100. U. S. Geol. Survey. Near East Homer. Lat. 42°42'00", long. 76°06'50". Dug observation water-table well in glacial till of Pleistocene age, diameter 18 inches, depth 9 feet. Land-surface datum is about 1,500 feet above msl. Records available: 1938-52. Measurement discontinued.

C 101. U. S. Geol. Survey. Near Truxton. Lat. 42°46'00", long. 76°01'10". Dug observation water-table well in glacial till of Pleistocene age, diameter 18 inches, depth 9 feet. Land-surface datum is about 1,600 feet above msl. Records available: 1933-51. Measurement discontinued.

Delaware County

D 157. U. S. Geol. Survey. Near China. Lat. 42°09'35", long. 75°23'35". Dug observation water-table well in glacial till of Pleistocene age, diameter 18 inches, depth 10 feet. Land-surface datum is about 1,540 feet above msl. Records available: 1934-52. Measurement discontinued.

Franklin County

F 9. Arthur Fletcher. Near Bloomingdale. Lat. 44°25'36", long. 74°03'30". Dug unused water-table well in glacial till of Pleistocene age, diameter 4 feet, depth 11 feet. Land-surface datum is about 1,680 feet above msl. Highest water level 2.68 below lsd, Mar. 30, 1951; lowest 8.72 below lsd, Oct. 3, 1952. Records available: 1949-53.

Jan. 2	7.50	Apr. 17	4.91	July 17	6.94	Oct. 9	7.02
23	6.10	24	4.08	24	6.93	16	6.95
30	5.73	May 1	4.80	31	7.04	23	7.34
Feb. 6	5.97	8	4.31	Aug. 7	6.03	30	7.61
13	6.34	15	4.62	14	6.87	Nov. 6	7.72
20	6.77	22	4.71	21	5.75	13	7.71
27	6.70	29	5.30	28	6.02	20	7.76
Mar. 6	5.80	June 5	5.76	Sept. 4	6.74	27	7.46
13	5.88	12	6.02	11	6.71	Dec. 4	7.49
20	5.83	19	6.08	17	6.83	11	6.92
27	4.56	26	6.86	18	6.87	18	6.79
Apr. 3	4.05	July 3	7.01	25	6.88	25	6.83
10	4.81	10	6.82	Oct. 2	7.24		

Greene County

G 1. Magnus Andersen. Near West Cocksackie. Lat. 42°23'20", long. 73°48'19". Dug domestic water-table well in glacial till (?) of Pleistocene age, diameter 36 inches, depth 19 feet. Land-surface datum is about 125 feet above msl. Highest water level 1.68 below lsd, Mar. 16, 1953; lowest 12.75 below lsd, Nov. 1, 1948. Records available: 1945-53.

G 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.69	Apr. 6	2.66	July 6	7.69	Oct. 5	10.97
12	4.90	13	2.13	13	8.98	12	11.12
19	3.34	20	1.98	20	8.32	19	11.35
26	2.27	27	1.69	27	8.32	26	11.51
Feb. 2	3.75	May 4	2.22	Aug. 3	8.76	Nov. 2	11.47
9	4.06	11	2.66	10	9.30	9	11.39
16	3.60	18	1.99	17	9.16	16	11.52
23	2.67	25	3.79	24	9.74	23	11.64
Mar. 2	3.23	June 1	3.58	31	10.14	30	11.15
10	3.71	8	4.92	Sept. 7	10.52	Dec. 7	10.38
16	1.68	15	5.85	14	10.57	14	8.50
17	1.97	22	6.65	21	10.57	21	6.55
23	2.25	29	7.32	28	10.69	28	6.52
31	2.05						

Jefferson County

J 21. State Department of Conservation. Near Rodman. Lat. 43°48'53", long. 75°52'16". Dug unused water-table well in glacial till (?) of Pleistocene age, diameter 36 inches, depth 16 feet. Land-surface datum is about 1,300 feet above msl. Highest water level 1.09 below lsd, Dec. 3, 1950; lowest 8.51 below lsd, Sept. 12, 1953. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 17, 1949	2.01	June 17, 1951	3.66	Apr. 16, 1952	2.25	Feb. 21, 1953	1.57
25	1.98	24	4.00	19	2.55	28	2.28
Jan. 2, 1950	2.01	30	3.53	26	2.68	Mar. 7	1.26
10	2.71	July 7	2.37	May 3	3.26	14	1.76
29	2.07	14	3.23	10	3.70	21	1.55
Mar. 26	1.73	21	3.92	17	2.70	28	1.73
Apr. 2	1.23	28	4.63	24	2.19	Apr. 4	1.90
8	2.97	Aug. 5	5.24	31	2.85	11	2.00
15	2.73	11	5.71	June 7	3.21	18	2.10
24	2.11	18	6.20	14	4.27	25	2.12
May 6	2.78	21	6.20	21	4.89	May 2	1.52
21	2.71	25	6.10	28	5.46	9	2.78
23	3.04	Sept. 1	5.98	July 5	5.93	16	1.18
25	3.39	8	4.21	12	5.35	23	2.89
June 4	1.92	15	3.98	19	5.74	30	2.56
11	3.44	22	4.30	26	5.30	June 6	3.50
17	4.28	29	3.13	Aug. 2	6.40	13	4.80
July 2	4.58	Oct. 6	3.69	9	6.75	20	4.78
9	5.03	13	2.85	16	7.11	27	5.42
16	5.46	20	3.52	23	6.65	July 4	5.55
23	5.70	27	2.56	30	7.80	11	5.75
30	6.16	Nov. 3	2.35	Sept. 6	7.21	18	6.19
Aug. 6	4.85	10	1.75	13	7.58	25	6.59
13	5.28	17	1.54	20	6.71	Aug. 1	7.70
20	5.86	24	1.46	27	4.67	8	7.28
28	6.87	Dec. 1	1.93	Oct. 4	2.36	15	7.67
Sept. 10	2.09	8	1.41	11	2.33	22	7.29
28	3.44	15	2.22	18	2.80	29	7.86
Oct. 8	1.92	22	2.30	25	2.72	Sept. 5	8.31
15	2.88	29	2.36	Nov. 1	2.92	12	8.51
22	2.88	Jan. 5, 1952	1.99	8	1.75	19	7.17
Nov. 6	1.54	12	2.81	15	1.91	26	5.36
15	1.42	19	1.76	22	2.10	Oct. 3	5.74
23	2.03	26	2.34	29	2.19	10	4.43
Dec. 3	1.09	Feb. 2	2.23	Dec. 6	1.59	17	4.35
16	2.37	9	2.19	13	1.96	24	4.46
31	2.64	16	2.79	26	1.67	31	3.48
Jan. 7, 1951	2.51	23	2.96	27	1.84	Nov. 7	4.34
21	1.32	Mar. 1	2.91	Jan. 3, 1953	1.75	14	4.13
May 9	3.03	8	2.69	10	1.50	28	4.13
12	3.21	15	2.04	17	1.68	Dec. 5	1.18
19	3.37	22	1.27	24	1.44	12	1.19
26	3.78	29	2.14	31	2.49	19	2.11
June 2	4.03	Apr. 5	1.39	Feb. 7	2.90	26	2.14
9	4.26	12	2.00	14	2.66		

Lewis County

L 1. State Department of Conservation. Near West Leyden. Lat. 43°29'32", long. 75°27'40". Dug domestic water-table well in glacial till (?) of Pleistocene age, diameter 36 inches, depth 19 feet. Land-surface datum is about 1,670 feet above msl. Highest water level 3.20 below lsd, Mar. 30, 1951; lowest 10.63 below lsd, Aug. 19, 1949. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.6	Apr. 3	4.2	July 3	8.6	Oct. 2	8.9
9	4.9	10	4.8	10	9.01	9	9.1
16	4.5	17	5.1	17	9.5	16	8.9
23	4.1	24	5.7	24	9.56	23	9.0
30	4.75	May 1	5.9	Aug. 7	9.78	Nov. 6	8.6
Feb. 6	5.0	8	5.8	14	9.8	13	8.4
13	4.8	15	5.91	21	9.74	20	7.9
20	4.5	22	6.4	28	9.5	27	5.5
27	4.3	29	6.85	Sept. 4	9.24	Dec. 4	5.89
Mar. 6	4.6	June 5	6.74	11	9.01	11	4.2
13	4.4	12	6.61	18	8.9	18	3.8
20	3.9	19	7.41	25	8.6	25	4.0
27	3.8	26	8.2				

Livingston County

Lv 1. William Redmond. 33 North St., Geneseo. Lat. 42°48'00", long. 77°48'46". Dug unused water-table well in glacial till (?) of Pleistocene age, diameter 36 inches, depth 28 feet. Land-surface datum is about 790 feet above msl. Highest water level 0.3 below lsd, Mar. 15, 1945; lowest 9.74 below lsd, Nov. 29, 1952. Records available: 1942-53.

Jan. 7	8.85	Apr. 29	4.55	July 27	6.00	Oct. 31	8.25
24	7.82	May 25	4.31	Aug. 31	7.30	Nov. 25	8.04
Feb. 25	5.80	June 2	4.38	Sept. 25	7.70	Dec. 24	6.55
Mar. 25	3.87	26	5.34				

Madison County

M 127. Nels Merrill. Near Chittenango. Lat. 43°00'25", long. 75°49'26". Dug unused water-table well in glacial till of Pleistocene age, diameter 24 inches, depth 16 feet. Land-surface datum is about 1,100 feet above msl. Highest water level 2.55 below lsd, Feb. 21, 1953; lowest 7.44 below lsd, Nov. 7, 1953. Records available: 1950-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11, 1950	6.51	Aug. 19, 1951	5.45	Apr. 19, 1952	4.19	Dec. 21, 1952	4.78
16	5.2	22	6.07	28	4.53	28	4.28
23	5.6	Sept. 1	5.78	May 3	4.99	Jan. 3, 1953	4.74
30	5.8	9	5.87	10	5.41	10	5.23
Oct. 7	6.15	16	5.96	18	5.59	17	4.08
14	5.2	23	6.12	24	5.25	24	3.97
21	5.4	30	6.24	30	4.87	31	4.24
28	5.75	Oct. 6	6.01	Aug. 17	6.00	Feb. 7	3.93
Nov. 4	4.4	13	5.28	22	6.19	14	4.39
11	4.3	21	5.42	23	6.15	21	2.55
18	4.1	27	5.52	30	6.45	28	4.51
25	4.4	Nov. 10	4.69	Sept. 6	6.65	Mar. 7	4.31
May 7, 1951	5.28	17	4.58	13	6.80	14	4.13
12	4.85	24	3.55	19	e7.0	21	4.28
20	5.57	Dec. 8	3.85	27	e7.0	28	3.46
26	5.95	Jan. 9, 1952	3.85	Oct. 4	e7.1	Apr. 4	4.26
June 2	5.79	16	3.97	11	e7.1	11	4.13
9	6.06	Feb. 9	4.58	18	e7.1	13	4.17
16	5.93	16	4.77	20	j7.15	14	4.23
23	5.99	23	5.00	25	k14.46	18	4.57
30	5.95	Mar. 1	4.55	2	k13.03	24	5.07
July 8	4.48	8	4.77	9	k12.18	29	4.17
17	3.77	15	4.03	16	k11.24	May 5	3.87
22	3.98	22	3.96	23	k10.45	9	4.12
30	3.35	29	3.83	30	k9.20	16	4.47
Aug. 5	5.05	Apr. 5	3.79	Dec. 7	k8.31	23	4.77
12	5.48	13	4.03	14	4.29	30	5.00

M 127--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 6, 1953	5.51	July 25, 1953	6.66	Sept. 19, 1953	6.90	Nov. 7, 1953	7.44
13	5.71	Aug. 1	6.82	26	6.01	14	7.15
19	5.88	8	6.86	Oct. 3	7.25	28	6.16
20	5.91	15	5.72	10	7.19	Dec. 5	6.16
27	6.20	22	6.00	17	7.21	12	6.00
July 4	6.67	29	6.31	24	7.30	19	5.10
7	6.05	Sept. 5	6.54	31	7.39	26	4.73
18	6.55	12	6.72				

e Estimated.

j Pumped dry for performance test following this measurement.

k Recovering from Oct. 20, 1952, pump test.

Montgomery County

Mt 1. Floyd Groff. Near St. Johnsville. Lat. 43°01'43", long. 74°42'38". Dug unused water-table well in glacial till of Pleistocene age, diameter 24 inches, depth 12 feet. Land-surface datum is about 720 feet above msl. Highest water level 4.08 below lsd, Apr. 15, 1948; lowest 9.99 below lsd, Aug. 28, 1949. Records available: 1942-53. Recording gage removed May 19, 1953.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.40	6.92	7.32	5.27	5.58	.....	.....	h8.65	.....	.....	.....	.....
2	7.43	6.96	7.36	5.39	4.70	.....	.....	.....	.....	.....	.....	.....
3	7.43	7.01	7.37	5.47	4.65	.....	.....	.....	.....	h9.60	.....	.....
4	7.47	7.08	7.37	5.56	4.81	.....	h8.15	.....	.....	.....	.....	.....
5	7.51	7.13	7.30	5.63	4.95	.....	.....	h9.42	.....	.....	.....	h8.61
6	7.56	7.20	7.27	5.69	5.09	h6.81	.....	.....	.....	.....	.....	.....
7	7.61	7.21	7.30	5.69	5.23	.....	.....	.....	.....	.....	h9.11	.....
8	7.63	7.18	7.31	5.61	5.36	.....	.....	h8.51	.....	.....	.....	.....
9	7.67	7.20	7.35	5.45	5.48	.....	.....	.....	.....	.....	.....	.....
10	7.68	7.24	7.40	5.39	5.60	.....	.....	.....	.....	h9.41	.....	.....
11	7.68	7.27	7.44	5.35	5.71	.....	h8.39	.....	.....	.....	.....	.....
12	7.66	7.30	7.48	5.24	5.83	.....	.....	.....	h9.25	.....	.....	h7.60
13	7.66	7.35	7.49	5.27	5.99	h7.23	.....	.....	.....	.....	.....	.....
14	7.68	7.38	7.50	5.38	6.10	.....	.....	.....	.....	.....	h9.00	.....
15	7.68	7.40	7.50	5.48	6.18	.....	.....	h8.58	.....	.....	.....	.....
16	7.68	7.43	7.48	5.56	6.23	.....	.....	.....	.....	.....	.....	.....
17	7.65	7.46	7.44	5.65	6.23	.....	.....	.....	.....	h9.33	.....	.....
18	7.62	7.49	7.39	5.74	.....	.....	h8.66	.....	.....	.....	.....	.....
19	7.51	7.53	7.34	5.81	.....	.....	.....	.....	h9.26	.....	.....	h7.35
20	7.42	7.54	7.27	5.86	.....	h7.62	.....	.....	.....	.....	.....	.....
21	7.35	7.54	7.13	5.92	.....	.....	.....	.....	.....	.....	h9.02	.....
22	7.30	7.40	7.01	5.94	.....	.....	.....	h8.87	.....	.....	.....	.....
23	7.28	7.29	6.90	5.96	h6.11	.....	.....	.....	.....	.....	.....	.....
24	7.25	7.25	6.81	6.02	.....	.....	.....	.....	.....	h9.43	.....	.....
25	7.08	7.23	6.67	6.06	.....	.....	h8.40	.....	.....	.....	.....	.....
26	6.70	7.24	6.39	6.08	.....	.....	.....	.....	h9.40	.....	.....	h7.40
27	6.60	7.25	5.98	6.06	.....	h8.02	.....	.....	.....	.....	.....	.....
28	6.65	7.27	5.00	5.67	.....	.....	.....	.....	.....	.....	h8.79	.....
29	6.75	.....	4.97	5.50	.....	.....	.....	h9.15	.....	.....	.....	.....
30	6.84	.....	5.08	5.58	h6.45	.....	.....	.....	.....	.....	.....	.....
31	6.88	.....	5.20	.....	.....	.....	.....	.....	.....	h9.34	.....	.....

h Tape measurement.

Niagara County

Ni 30. Richard Tower. Near Youngstown. Lat. 43°15'17", long. 78°59'19". Dug unused water-table well in lacustrine silt and clay of Pleistocene age, diameter 36 inches, depth 25 feet. Land-surface datum is about 300 feet above msl. Highest water level 2.69 below lsd, Mar. 28, 1953; lowest 8.69 below lsd, Nov. 3, 1951. Records available: 1950-53.

210 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

Ni 30--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11, 1950	7.65	July 14, 1951	6.01	May 17, 1952	3.87	Mar. 7, 1953	m5.04
16	7.59	21	5.84	24	3.26	14	m4.69
23	7.56	28	6.21	31	3.68	21	m3.98
30	7.68	Aug. 4	6.21	June 7	4.05	28	2.69
Oct. 7	7.73	11	6.47	14	4.58	Apr. 4	3.26
14	7.24	18	6.82	21	5.05	11	3.61
21	7.01	25	6.98	28	5.60	18	3.83
28	6.97	Sept. 1	7.41	July 5	5.81	25	3.99
Nov. 4	6.75	8	7.74	12	6.15	May 2	2.86
11	6.41	15	7.94	19	6.78	9	3.00
18	6.15	22	8.08	26	7.05	16	3.25
25	5.30	29	8.53	Aug. 2	7.19	23	3.62
Dec. 2	4.14	Oct. 6	8.55	9	7.01	30	3.61
9	4.01	13	8.59	16	6.98	June 2	3.40
16	3.95	20	8.64	22	7.45	6	3.74
23	4.05	27	8.66	23	7.45	13	4.15
30	4.19	Nov. 3	8.69	30	7.53	20	4.90
Jan. 6, 1951	3.83	10	7.78	Sept. 6	7.89	27	5.07
13	3.46	17	7.26	13	7.98	July 4	5.23
20	3.43	24	6.74	20	8.09	11	5.59
27	3.85	Dec. 1	6.29	27	8.14	18	5.96
Feb. 3	4.10	8	5.99	Oct. 4	8.11	25	6.46
10	3.19	15	5.58	10	j8.20	Aug. 1	6.79
17	3.43	22	4.85	18	k17.24	8	6.57
24	2.80	29	4.06	25	k15.89	15	6.25
Mar. 3	3.43	Jan. 5, 1952	3.98	31	k15.26	22	6.48
10	3.39	12	3.85	Nov. 1	k15.15	29	6.73
17	2.99	19	3.49	8	k14.33	Sept. 5	6.81
24	2.87	26	3.18	15	k14.17	12	7.07
31	2.80	Feb. 2	3.26	22	k13.95	19	7.32
Apr. 7	2.74	9	3.33	29	k13.61	26	7.47
14	2.70	16	3.60	Dec. 6	k13.14	Oct. 3	7.55
21	3.01	23	3.80	13	k12.71	10	7.62
28	3.45	Mar. 1	3.82	20	k12.38	17	7.87
May 5	3.77	8	3.18	27	k11.98	24	8.11
12	3.98	15	2.93	Jan. 3, 1953	k11.62	31	8.28
19	4.45	22	3.10	10	k11.28	Nov. 7	8.44
26	4.76	29	3.39	17	k10.65	14	8.40
June 2	4.96	Apr. 5	3.30	24	k9.49	21	8.36
9	5.07	12	3.06	31	k9.28	28	7.90
16	5.33	19	4.03	Feb. 7	k7.84	Dec. 5	7.25
23	5.58	26	4.45	14	k7.21	12	6.78
30	5.91	May 3	4.53	21	k6.58	19	6.14
July 7	5.97	10	3.54	28	k5.96	26	5.37

j Pumped dry for performance test following this measurement.

k Recovering from Oct. 10, 1952, pump test.

m Possibly affected by Oct. 10, 1952, pump test.

Rockland County

Ro 18. Palisades Interstate Park. In Bear Mountain section near Doodletown Rd. and Seven Lakes Dr. Lat. 41°18'02", long. 73°59'30". Drilled unused water-table well in glacial drift of Pleistocene age, diameter 6 inches, depth 61 feet. Land-surface datum is about 380 feet above msl. Highest water level 11.15 below lsd, Mar. 14, 1952; lowest 27.87 below lsd, Oct. 31, 1953. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	14.05	Oct. 2	25.92	Nov. 6	27.40	Dec. 4	27.18
May 21	15.25	9	26.50	13	26.80	11	26.12
June 21	17.94	16	27.02	22	26.73	18	23.61
July 30	20.61	23	27.46	27	26.95	25	22.74
Sept. 24	25.20	31	27.87				

St. Lawrence County

St 1. Benjamin Compeau. Near Brasher Center. Lat. 44°51'52", long. 74°46'53". Dug unused water-table well in glacial till of Pleistocene age, diameter 34 inches, depth 21 feet. Land-surface datum is 257.13 feet above msl. Highest water level 3.00 below lsd, Apr. 6, 1947; lowest 17.8 below lsd, Oct. 1-4, 1949. Records available: 1942-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.89	6.24	6.95	5.06	5.15	6.51	8.30	10.05	.....	13.19	13.18	13.49
2	5.96	6.05	6.97	5.08	5.06	6.63	8.36	10.13	.....	13.22	13.18	13.44
3	6.04	6.17	6.99	5.13	5.06	6.75	8.45	10.22	.....	13.26	13.18	13.38
4	6.12	6.28	....	5.24	5.07	6.86	8.52	10.30	.....	13.30	13.19	13.32
5	6.20	6.37	7.03	5.34	5.09	6.95	8.59	10.39	.....	13.34	13.21	13.25
6	6.28	6.46	7.06	5.42	5.22	7.00	8.64	10.47	.....	13.37	13.22	13.19
7	6.37	6.46	7.08	5.48	5.36	7.02	8.69	10.56	.....	13.41	13.24	13.12
8	6.44	6.35	7.09	5.55	5.50	6.99	8.73	10.64	.....	13.44	13.25	13.05
9	6.50	6.28	7.12	5.61	5.65	6.91	8.77	10.72	.....	13.46	13.27	12.97
10	6.56	6.37	7.15	5.63	5.79	6.87	8.80	10.75	.....	13.47	13.29	12.89
11	6.62	6.45	7.19	5.63	5.94	6.90	8.83	10.79	.....	13.47	13.30	12.78
12	6.69	6.54	7.22	5.13	6.07	6.97	8.86	10.83	.....	13.47	13.33	12.66
13	6.73	6.63	7.26	5.28	6.15	7.05	8.90	10.86	.....	13.47	13.35	12.51
14	6.77	6.71	7.29	5.44	6.19	7.12	8.93	10.88	.....	13.46	13.37	12.32
15	6.79	6.76	7.30	5.58	6.20	7.18	8.97	.....	.....	13.45	13.39	12.09
16	6.79	6.82	7.30	5.68	5.07	7.25	9.02	.....	12.55	13.42	13.42	11.88
17	5.76	6.86	7.30	5.76	5.14	7.31	9.06	.....	12.60	13.40	13.45	11.66
18	5.77	6.90	7.29	5.82	5.15	7.37	9.11	.....	12.65	13.38	13.47	11.44
19	5.77	6.94	7.26	5.88	5.06	7.42	9.17	.....	12.70	13.36	13.50	11.23
20	5.88	6.96	7.21	5.91	5.07	7.48	9.23	.....	12.75	13.33	13.52	11.04
21	5.99	6.96	7.15	5.87	5.17	7.53	9.30	.....	12.79	13.32	13.55	10.81
22	6.11	6.96	7.06	5.52	5.19	7.60	9.36	.....	12.83	13.30	13.57	10.62
23	6.20	6.96	6.94	5.42	5.33	7.67	9.42	.....	12.88	13.28	13.59	10.43
24	6.22	6.95	6.86	5.09	5.50	7.65	9.49	.....	12.91	13.26	13.60	10.24
25	5.94	6.92	6.42	5.17	5.66	7.82	9.56	.....	12.95	13.24	13.61	10.05
26	5.83	6.91	5.32	5.06	5.83	7.90	9.61	.....	12.99	13.23	13.61	9.86
27	e5.95	6.89	5.08	5.05	5.97	7.98	9.68	e11.3	13.04	13.22	13.61	9.68
28	6.08	6.92	5.08	5.06	6.07	8.06	9.74	.....	13.08	13.20	13.59	9.54
29	6.19		5.08	5.07	6.17	8.15	9.81	.....	13.11	13.19	13.57	9.38
30	6.27		5.07	5.12	6.27	8.22	9.89	.....	13.15	13.19	13.53	9.24
31	6.30		5.06		6.39		9.97	.....		13.18		9.12

e Estimated.

St 392. Murray Babcock. Hermon. Lat. 44°28'10", long. 75°13'31". Dug unused water-table well in glacial outwash of Pleistocene age, diameter 36 inches, depth 28 feet. Land-surface datum is about 565 feet above msl. Highest water level 2.85 below lsd, Mar. 28, 1953; lowest 16.19 below lsd, Sept. 17, 1949. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.48	Apr. 4	3.63	July 4	9.62	Oct. 3	13.18
10	6.24	11	4.20	11	10.21	10	13.21
17	6.10	18	4.83	18	11.02	17	12.72
24	5.35	25	4.58	25	11.50	24	12.70
31	4.66	May 2	2.95	Aug. 1	12.29	Nov. 7	13.18
Feb. 7	4.88	9	4.23	8	12.44	14	13.45
14	5.12	16	3.29	15	11.44	21	13.56
21	5.64	23	4.29	22	11.73	28	13.31
28	4.86	30	5.21	29	11.42	5	12.52
Mar. 7	4.62	June 6	5.90	Sept. 5	13.19	12	11.80
14	4.48	13	8.39	12	13.21	19	10.10
21	4.58	20	7.19	19	13.10	26	9.58
28	2.85	28	8.69	26	13.00		

Schenectady County

Sn 128. City of Schenectady. Lat. 42°49'26", long. 73°59'22". Dug unused water-table well in glacial outwash of Pleistocene age, diameter 47 feet, depth 40 feet. Land-surface datum is 241.36 feet above msl. Water level affected by stage of Mohawk River and pumpage from city of Schenectady well field. Highest water level 21.06 below lsd, Mar. 23, 1948; lowest 37.47 below lsd, Feb. 15, 1948. Records available: 1946-53.

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Sn 128--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.50	32.59	34.56	32.1	31.36	31.50	34.36	34.54	34.96	33.24	32.61	32.99
2	34.41	32.45	34.83	32.7	28.74	32.17	34.65	.....	34.98	33.40	32.61	33.21
3	34.45	31.71	35.07	32.6	26.99	33.16	34.69	33.66	.....	33.40	32.61	33.25
4	e34.5	e31.7	35.42	32.6	28.36	33.33	35.68	33.78	.....	33.41	32.78	33.23
5	e34.8	e32.0	35.40	32.4	29.00	33.33	34.07	33.54	.....	32.91	32.91	33.45
6	e34.9	e32.6	35.5	32.9	29.87	33.30	33.48	33.60	34.26	32.92	33.04	33.27
7	35.12	.....	35.5	32.9	30.36	33.15	33.48	.....	33.03	32.98	33.08	32.21
8	35.28	.....	35.6	32.4	30.61	32.72	33.28	34.05	32.52	33.12	32.68	32.11
9	e35.5	.....	36.2	32.6	30.59	33.18	33.17	34.02	32.80	33.12	32.63	32.53
10	35.56	.....	36.4	32.62	30.12	33.38	33.25	33.30	32.90	32.94	32.72	32.74
11	35.57	.....	36.7	32.50	30.79	33.70	33.53	33.29	33.32	32.67	32.98	33.00
12	35.60	.....	37.0	32.06	31.52	33.79	33.53	33.07	33.36	32.45	32.98	33.00
13	35.67	e30.9	37.1	32.20	31.81	33.80	33.10	33.55	33.28	32.63	32.86	32.80
14	35.76	e31.2	37.1	32.54	31.80	33.69	33.28	33.65	32.79	32.61	32.66	33.18
15	e35.93	e31.3	36.9	33.07	31.61	33.17	33.66	33.65	32.92	32.70	32.43	33.51
16	36.05	e31.8	36.4	33.07	31.57	33.72	34.06	33.43	33.02	32.78	32.65	33.66
17	36.05	32.11	36.0	33.21	31.25	33.76	34.44	33.13	33.17	32.77	32.84	.....
18	35.95	32.59	36.1	33.20	29.52	34.05	34.50	33.09	33.51	32.73	32.93	.....
19	35.63	32.90	36.3	33.12	30.05	34.22	34.49	32.93	33.55	32.67	32.94	.....
20	34.64	33.44	36.2	33.27	30.66	34.37	33.62	.....	33.48	32.94	33.03	.....
21	33.85	33.56	36.0	33.46	31.34	34.35	33.54	.....	33.24	33.30	33.03	.....
22	33.76	32.65	35.7	33.74	31.59	33.94	33.88	.....	33.52	33.31	32.84	.....
23	33.76	31.80	35.6	33.84	31.88	33.98	33.88	33.03	33.49	33.44	32.76	.....
24	e33.8	32.68	34.8	33.89	32.12	34.45	33.69	33.12	33.40	33.57	32.75	.....
25	33.65	33.45	35.8	33.89	32.74	34.70	33.40	33.49	.....	33.52	32.76	.....
26	e32.6	33.96	34.6	33.59	33.30	35.06	33.24	33.92	.....	33.08	32.68	.....
27	32.92	34.18	32.9	32.58	33.06	35.12	33.38	34.46	33.69	33.08	32.98	34.04
28	e33.0	34.34	29.2	31.40	32.21	35.09	33.88	34.93	33.13	33.01	33.00	34.67
29	32.97	.....	29.1	31.19	31.93	34.46	34.03	35.15	33.26	33.15	32.55	35.04
30	32.88	.....	30.2	31.38	e31.9	34.05	34.07	35.15	33.26	33.15	32.83	35.53
31	32.77	.....	31.1	.....	31.18	.....	34.54	34.97	.....	33.10	.....	35.74

e Estimated.

Sn 178. Leroy Kennedy. Near Duaneburg. Lat. 42°45'49", long. 74°08'37". Dug domestic water-table well in glacial gravel of Pleistocene age, diameter 40 inches, depth 14 feet. Land-surface datum is about 670 feet above msl. Highest water level 2.28 below lsd, Dec. 10, 1950; lowest 11.10 below lsd, Aug. 28, 1949. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18, 1946	5.05	July 20, 1947	5.36	Feb. 8, 1948	5.93	Aug. 16, 1948	5.27
Jan. 22, 1947	4.67	27	5.39	15	4.93	22	6.49
26	4.66	Aug. 3	5.46	23	4.16	29	8.55
Feb. 2	4.49	10	5.39	Mar. 1	4.93	Sept. 5	8.37
9	4.70	17	5.55	8	5.19	12	7.89
16	5.15	Sept. 8	8.94	15	5.26	19	9.47
23	4.77	15	8.53	22	4.87	26	9.50
Mar. 2	5.19	22	5.08	29	4.44	Oct. 3	10.08
9	5.18	28	5.86	Apr. 4	4.09	10	9.58
16	3.69	Oct. 5	7.85	12	5.10	17	9.30
23	5.36	12	7.06	18	4.86	24	6.16
30	5.19	19	7.14	25	5.06	31	6.58
Apr. 6	3.86	26	8.46	May 2	5.07	Nov. 7	6.37
13	4.57	Nov. 2	6.62	9	5.07	14	5.17
20	4.88	9	5.00	16	4.46	21	5.17
27	4.76	16	5.06	23	3.37	28	5.14
May 4	4.06	23	5.07	31	4.86	Dec. 5	5.09
11	4.59	30	5.09	June 6	4.46	12	4.10
18	5.18	Dec. 7	5.17	13	5.91	20	5.18
25	3.39	14	5.16	20	4.49	27	5.07
June 1	4.99	21	5.14	27	4.84	Jan. 2, 1949	3.10
8	5.07	28	5.16	July 4	4.77	10	3.70
15	5.07	Jan. 4, 1948	4.97	11	5.38	17	3.40
22	5.26	11	5.20	18	4.09	24	4.99
29	5.17	18	4.96	26	5.10	30	4.97
July 5	5.26	25	5.08	Aug. 1	4.04	Feb. 6	5.13
15	5.34	Feb. 1	5.37	9	4.37	13	5.07

Sn 178--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 20, 1949	5.03	May 14, 1950	5.03	July 22, 1951	5.13	Oct. 11, 1952	8.10
27	4.83	21	4.97	29	5.10	18	8.10
Mar. 6	4.47	29	5.05	Aug. 5	5.07	25	8.03
13	4.54	June 5	5.10	12	5.18	Nov. 1	8.48
20	5.00	11	5.03	19	5.06	8	8.44
27	4.03	18	5.14	Sept. 2	5.00	15	8.36
Apr. 3	5.10	25	5.30	9	5.16	23	5.06
10	5.16	July 2	5.50	16	5.19	30	5.10
17	5.28	10	5.47	23	5.20	Dec. 6	5.08
24	5.40	16	5.46	30	5.50	13	5.18
May 1	5.04	18	6.52	Oct. 8	5.10	20	5.07
8	5.08	23	5.57	15	4.98	27	5.06
15	5.02	31	7.99	21	5.20	Jan. 3, 1953	5.09
22	5.33	Aug. 6	6.86	28	5.07	10	5.00
29	5.29	13	6.20	Nov. 4	5.14	17	4.99
June 5	5.22	20	5.05	11	4.90	25	4.50
12	7.00	27	5.25	18	4.10	31	5.00
19	8.46	Sept. 3	3.16	25	5.00	Feb. 7	4.77
26	7.97	10	3.24	Dec. 2	5.10	14	5.07
July 3	8.87	17	5.18	10	4.77	21	4.80
11	9.58	24	5.46	16	5.07	28	5.00
17	9.77	Oct. 1	5.40	23	5.30	Mar. 7	5.24
24	10.69	8	5.12	30	4.57	14	5.26
Aug. 1	9.44	15	5.10	Jan. 7, 1952	4.47	21	4.42
8	7.90	22	5.40	14	5.10	28	2.86
14	10.67	29	5.29	21	5.00	Apr. 4	5.00
22	10.70	Nov. 5	5.16	27	4.45	11	4.98
28	11.10	12	5.17	Feb. 3	4.98	18	4.99
Sept. 4	5.27	19	5.19	11	5.02	25	4.98
11	5.50	26	4.67	18	5.09	May 2	3.76
18	5.37	Dec. 3	4.57	25	5.03	10	4.73
25	5.33	10	2.28	Mar. 3	5.06	16	5.07
Oct. 2	5.29	17	2.30	9	5.15	23	5.06
9	5.18	26	5.10	17	5.00	31	5.07
16	5.47	31	5.29	23	5.08	June 6	5.20
23	5.40	Jan. 7, 1951	4.80	30	5.02	13	5.32
30	5.24	15	5.00	Apr. 6	4.28	20	5.64
Nov. 6	5.37	22	4.20	12	5.07	27	6.26
14	5.00	29	4.04	19	5.05	July 4	5.68
21	5.12	Feb. 4	5.05	26	5.08	11	7.60
28	5.20	11	5.06	May 4	5.02	18	7.26
Dec. 4	5.10	18	5.10	10	5.16	25	5.29
11	5.13	25	5.00	17	4.96	Aug. 1	7.56
18	5.07	Mar. 4	5.03	24	5.00	8	7.30
25	5.38	11	4.58	31	5.06	17	5.80
Jan. 1, 1950	5.26	18	4.37	June 7	5.16	22	6.76
9	4.79	25	4.23	14	5.13	30	7.90
15	4.70	Apr. 1	3.68	21	5.28	Sept. 5	7.84
22	4.79	8	4.70	30	5.24	12	8.36
29	6.15	15	4.59	July 7	5.67	19	9.05
Feb. 5	5.10	22	4.90	13	5.18	26	8.57
13	5.14	29	5.11	20	5.56	Oct. 3	8.70
19	4.99	May 6	5.07	28	6.20	10	7.60
26	5.08	13	5.05	Aug. 3	7.40	18	9.31
Mar. 5	5.16	20	5.11	9	7.20	26	8.80
12	5.11	28	5.08	17	5.48	Nov. 9	5.10
20	5.09	June 3	5.17	24	7.50	14	5.20
26	3.07	10	5.25	31	7.80	21	5.26
Apr. 2	4.76	17	5.10	Sept. 7	5.29	28	5.30
9	5.01	24	5.00	14	5.61	Dec. 5	5.09
16	5.23	July 1	4.80	22	6.60	12	5.07
23	5.00	8	5.01	28	7.46	19	5.08
30	5.15	15	5.07	Oct. 4	7.83	28	5.10
May 7	5.01						

Steuben County

Sb 200. Roy Calkins. Near Woodhull. Lat. 42°05'34", long. 77°25'18". Dug unused water-table well in glacial till of Pleistocene age, diameter 24 inches, depth 16 feet. Land-surface datum is about 1,420 feet above msl. Highest water level 4.06 below lsd, Mar. 31, 1951; lowest 13.80 below lsd, Dec. 24, 1949. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.60	Apr. 11	5.55	July 4	8.52	Oct. 3	10.90
10	8.51	18	5.85	11	9.00	10	11.00
17	8.23	25	6.89	18	9.50	17	11.12
24	7.80	May 2	6.56	25	9.94	24	11.56
31	7.56	9	6.17	Aug. 1	10.54	31	11.62
Feb. 7	7.12	16	6.25	8	10.61	Nov. 7	11.87
14	6.70	23	6.39	15	10.79	14	11.94
21	6.39	30	6.48	22	10.82	21	12.10
28	5.75	June 1	4.77	29	11.00	28	12.17
Mar. 7	4.90	6	6.29	Sept. 5	11.12	Dec. 5	12.23
14	4.74	13	5.98	12	11.23	12	12.33
21	4.42	15	7.38	19	11.39	19	12.42
29	4.80	20	6.59	26	11.45	26	12.51
Apr. 4	5.15	27	7.63				

Sb 240. Corning Glass Works. West Market St., Corning. Lat. 42°08'37", long. 77°03'18". Drilled unused artesian well in glacial outwash of Pleistocene age, diameter 10 inches, depth 78 feet. Land-surface datum is about 940 feet above msl. Highest water level 20.60 below lsd, Apr. 2, 1951; lowest 30.35 below lsd, Nov. 17, 1952. Records available: 1943-44, 1946-53.

Jan. 5	27.77	Apr. 6	25.24	July 6	27.8	Oct. 5	30.2
12	28.07	13	26.00	13	28.2	12	30.0
19	27.00	21	26.35	20	28.6	19	30.3
25	26.00	27	25.80	27	28.7	26	30.18
Feb. 2	27.00	May 4	26.25	Aug. 3	28.7	Nov. 2	30.25
9	27.05	11	26.40	10	28.32	9	30.3
16	27.68	18	25.80	17	28.7	16	30.0
23	25.36	25	26.35	24	29.75	23	29.56
Mar. 2	27.00	June 1	24.5	30	29.8	30	29.8
9	26.74	8	26.0	Sept. 8	29.95	Dec. 7	29.5
16	26.48	15	26.8	14	30.0	14	28.6
23	26.76	22	27.55	21	30.05	21	29.04
30	23.80	29	28.2	28	30.0	28	28.55

Washington County

W 264. Village of Salem. North Main St., Salem. Lat. 43°10'27", long. 73°19'43". Dug fire-protection water-table well in glacial gravel of Pleistocene age, diameter 36 inches, depth 15 feet. Land-surface datum is 485.5 feet above msl. Highest water level 7.19 below lsd, May 18, 1953; lowest 11.32 below lsd, Oct. 5, 1953. Records available: 1946-53.

Jan. 5	10.09	Apr. 13	8.76	July 19	10.86	Oct. 19	11.27
12	10.18	20	8.95	26	11.00	21	11.23
19	9.97	27	8.39	Aug. 3	11.02	26	11.28
26	7.89	May 4	8.15	10	10.96	Nov. 3	11.17
Feb. 2	8.49	11	7.84	17	11.09	10	11.20
9	8.93	18	7.19	24	11.19	17	11.22
16	9.08	25	8.87	31	11.22	18	11.20
23	9.19	June 1	9.14	Sept. 8	11.20	23	11.14
Mar. 2	9.37	8	9.73	14	11.22	30	11.07
9	9.35	15	9.92	21	11.25	Dec. 7	10.74
16	9.30	22	10.29	28	11.31	14	10.07
23	9.27	29	10.49	Oct. 5	11.32	21	10.03
30	8.43	July 5	10.68	12	11.24	28	10.02
Apr. 6	8.69	12	10.84				

Wayne County

Wn 29. Village of Marion. 55 Mill St., Marion. Lat. 43°08'14", long. 77°11'19". Drilled unused artesian well in Lockport dolomite. diameter 8 inches. depth 107 feet, cased to 25. Land-surface datum is about 460 feet above msl. Highest water level 10.03 below lsd, Mar. 30, 1950; lowest 20.83 below lsd, Sept. 11, 1952. Records available: 1947-53. Recording gage removed June 5.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.04	18.35	18.34	17.96	18.34	18.29	h19.01	.....	.....	.....	.....	.....
2	19.04	18.35	18.35	18.07	18.07	18.35	.....	.....	h20.14	.....	.....	h19.20
3	18.96	18.28	18.35	18.10	18.10	.....	.....	.....	.....	.....	.....	.....
4	18.98	18.32	18.17	18.12	18.10	.....	.....	.....	.....	.....	h19.74	.....
5	18.99	18.33	18.07	18.17	18.06	.....	.....	h19.45	.....	.....	.....	.....
6	19.07	18.32	18.15	18.17	18.08	.....	.....	.....	.....	.....	.....	.....
7	19.10	18.29	18.20	18.20	18.09	.....	.....	.....	.....	h19.73	.....	.....
8	19.09	18.27	18.19	18.25	18.09	.....	h19.24	.....	.....	.....	.....	.....
9	18.99	18.33	18.20	18.24	18.13	.....	.....	.....	h19.99	.....	.....	h19.05
10	18.98	18.35	18.28	18.20	18.17	h18.57	.....	.....	.....	.....	.....	.....
11	18.85	18.34	18.28	18.26	18.20	.....	.....	.....	.....	.....	h19.46	.....
12	18.88	18.17	18.27	18.26	18.25	.....	.....	h19.35	.....	.....	.....	.....
13	18.86	18.24	18.30	18.25	18.30	.....	.....	.....	.....	.....	.....	.....
14	18.86	18.24	18.35	18.33	18.34	.....	.....	.....	.....	h19.78	.....	.....
15	18.82	18.22	18.35	18.36	18.31	.....	h19.38	.....	.....	.....	.....	.....
16	18.78	18.18	18.39	18.30	18.25	.....	.....	.....	h19.90	.....	.....	h18.95
17	18.79	18.26	18.42	18.34	18.21	h18.66	.....	.....	.....	.....	.....	.....
18	18.57	18.30	18.42	18.36	18.03	.....	.....	.....	.....	.....	h19.34	.....
19	18.51	18.33	18.41	18.36	18.05	.....	.....	h19.65	.....	.....	.....	.....
20	18.52	18.33	18.52	18.34	18.12	.....	.....	.....	.....	.....	.....	.....
21	18.52	18.18	18.54	18.39	18.14	.....	.....	.....	.....	h19.81	.....	.....
22	18.55	18.24	18.54	18.39	18.13	.....	h19.31	.....	.....	.....	.....	.....
23	18.55	18.24	18.54	18.41	18.24	.....	.....	.....	h19.75	.....	.....	h18.69
24	18.47	18.24	18.45	18.48	18.27	h18.55	.....	.....	.....	.....	.....	.....
25	18.37	18.20	18.04	18.48	18.29	.....	.....	.....	.....	.....	h19.19	.....
26	18.44	18.18	18.03	18.39	18.27	.....	.....	h19.74	.....	.....	.....	.....
27	18.44	18.16	17.88	18.35	18.21	.....	.....	.....	.....	h19.66	.....	.....
28	18.34	18.23	17.78	18.38	18.27	.....	.....	.....	.....	.....	.....	.....
29	18.39	.....	17.87	18.42	18.29	.....	h19.45	.....	.....	.....	.....	.....
30	18.40	.....	17.90	18.42	18.25	.....	.....	.....	h19.91	.....	.....	h18.63
31	18.39	.....	17.94	.....	18.24	.....	.....	.....	.....	.....	.....	.....

h Tape measurement.

Wyoming County

Wo 1. State Department of Conservation. In Letchworth State Park, near Castile. Lat. 42°37'39", long. 78°00'03". Dug unused water-table well in glacial till of Pleistocene age, diameter 24 inches, depth 14 feet. Land-surface datum is about 1,030 feet above msl. Highest water level 0.5 below lsd, Apr. 5, 1947; lowest 12.94 below lsd, Apr. 5, 1947; lowest 12.94 below lsd, Nov. 22, 1952. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.44	Apr. 4	2.61	June 27	4.76	Oct. 4	9.99
11	9.58	12	3.10	July 5	4.27	11	10.20
17	8.05	18	3.19	12	4.41	18	10.44
24	5.90	25	2.93	19	5.27	25	10.64
31	4.82	May 2	2.23	26	5.87	Nov. 1	10.82
Feb. 7	3.75	10	2.58	Aug. 9	7.52	7	10.98
14	3.71	16	2.34	18	6.41	14	11.00
21	3.95	23	2.86	23	7.29	21	10.59
28	3.90	31	1.87	30	8.24	28	7.54
Mar. 7	2.83	June 2	1.97	Sept. 6	8.92	Dec. 5	7.32
14	2.33	6	3.00	13	9.43	12	5.52
21	2.54	13	3.71	20	9.69	19	4.96
28	1.06	20	4.07	27	9.78	26	2.64

OHIO

By W. C. Walton

Scope of Water-Level Program

The observation-well program in Ohio was continued in 1953 in cooperation with the Ohio Department of Natural Resources, Divisions of Water and Wildlife, the Commissioners of Hamilton County, and the city of Canton. Measurements of water levels were made in 227 wells, 130 of which were equipped with recording gages. Weekly measurements were made in about 55 wells in the Mill Creek valley in southwestern Ohio. Monthly water-level measurements were made in 30 wells at Canton. Ten wells in the Upper Little Miami River area were equipped with recording gages. The records of 83 wells are included in this report. Figures 28 through 33 show the location of the cooperative observation wells. Bulletin 28, "Ground-water levels in Ohio 1951-1952," was prepared during the year by Paul Kaser of the Ohio Department of Natural Resources, Division of Water. Water-level data were also collected during the year by means of well surveys, 8 aquifer-hydraulic tests, and extensive hydrologic studies at Dayton, Cincinnati, and Canton.

Precipitation

Precipitation during the year averaged 28.64 inches for the State, or 8.98 inches below normal. The total for the year ranged from 22.11 inches at New Lexington in south-central Ohio to 39.03 inches at Chardon in northeastern Ohio. Above-normal amounts of precipitation fell during January and May 1953. In general, precipitation deficiency was greatest in the southern half of the State; the deficiency of precipitation amounted to more than 15 inches in parts of southwestern Ohio. January was the wettest month with an average of 3.82 inches, or 0.84 inch above normal. October was the driest month with an average of 0.74 inch, or 1.71 inches below normal. January and May were the months most favorable for ground-water recharge. Below-normal precipitation coincident with above-normal temperatures during the summer and fall months reduced ground-water storage considerably.

Interpretation of Water-Level Fluctuations

Drought conditions and resulting well failures in 1953 forced many farmers to buy and haul water; in many metropolitan areas restrictions were placed on water use. Several municipal water supplies failed because of heavy withdrawals and deficient precipitation. Ground-water levels declined in more than 60 percent of the observation wells to record lows during the months of August through December and were still declining at the end of the year. Peak levels in most wells occurred in May and June, much later in the year than average. Recharge during the spring months was not sufficient to replenish water taken from storage during 1952. This resulted in the continued decline of ground-water levels through the summer, fall, and winter months of 1953 and presages the likelihood of additional water-supply failures in 1954. The hydrographs of observation wells shown in figures 34, 35, and 36, which are unaffected by pumping, reveal the effects of drought conditions in various parts of Ohio. In general, water levels in wells in the southern half of Ohio declined more than those in wells in the northern half of the State. Several streams were dry during part of the year because of low ground-water levels and deficient runoff. The most productive aquifers in Ohio are glacial deposits of sand and gravel that underlie streams. Recharge to the sand and gravel deposits is derived, under pumping conditions, chiefly from streamflow by induced infiltration. Extended periods of low streamflow, such as existed during 1952 and 1953, have an adverse effect upon infiltration rates because of the silting of the stream bed. High streamflows are required to scour the stream bed periodically and restore infiltration rates. Below-normal runoff and generally low streamflow in 1953 were largely responsible for the decreased recharge to most of the heavily pumped valley-fill aquifers.

Dayton area, Montgomery County. --Over 120 million gallons a day is pumped by industries and municipalities in the Dayton area. Water supplies are obtained principally from sand and gravel deposits in the valleys of the Mad and the Miami Rivers. Peak pumping rates during the summer months have increased for the past several years and water levels have declined to progressively lower levels. Prior to 1952, the first year of the current deficient precipitation cycle, the peak ground-water levels were restored each spring to approximately the levels of the preceding year. Recharge during 1952 and especially 1953 was not sufficient to balance the amount of

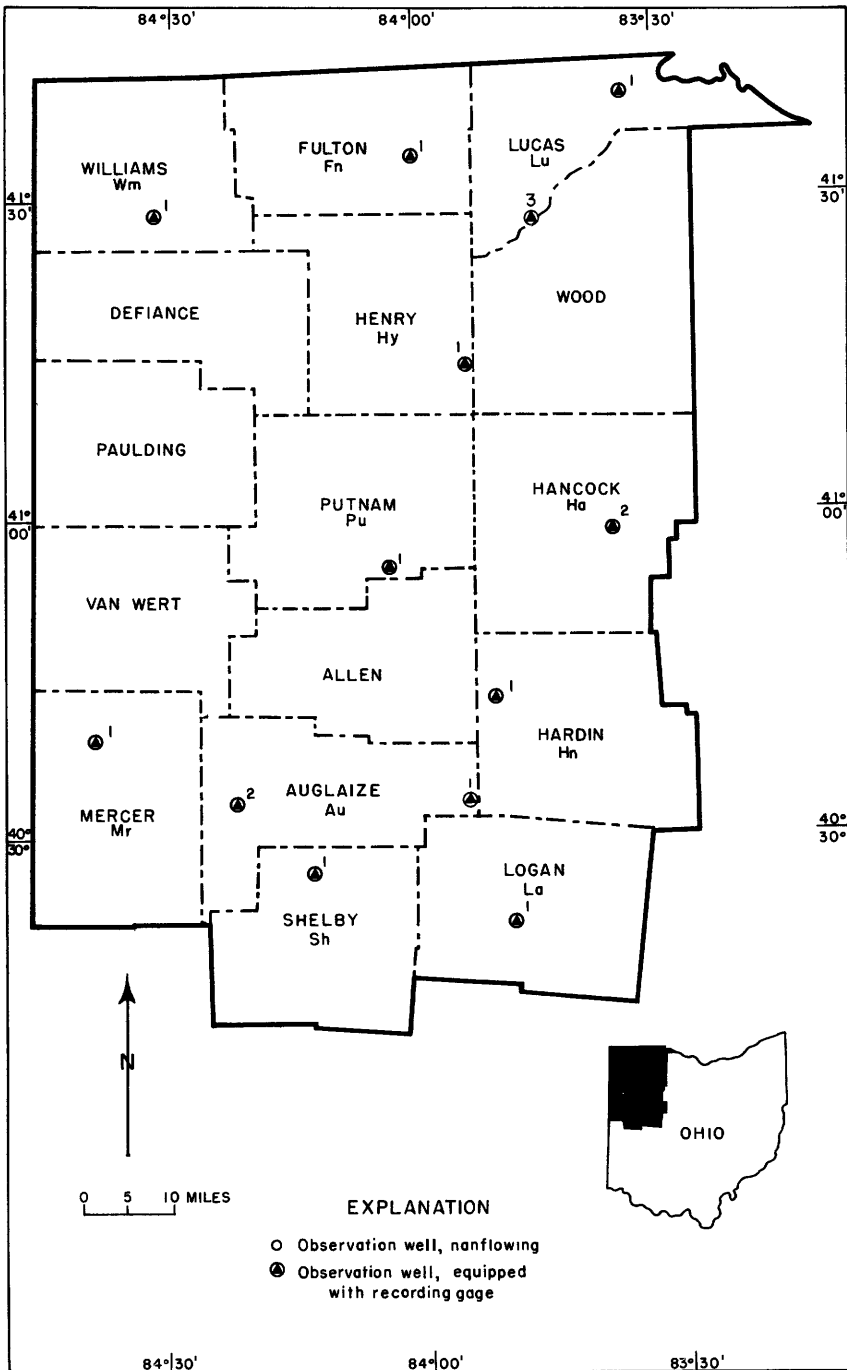


Figure 28. -- Location of observation wells in northwestern Ohio, 1953.

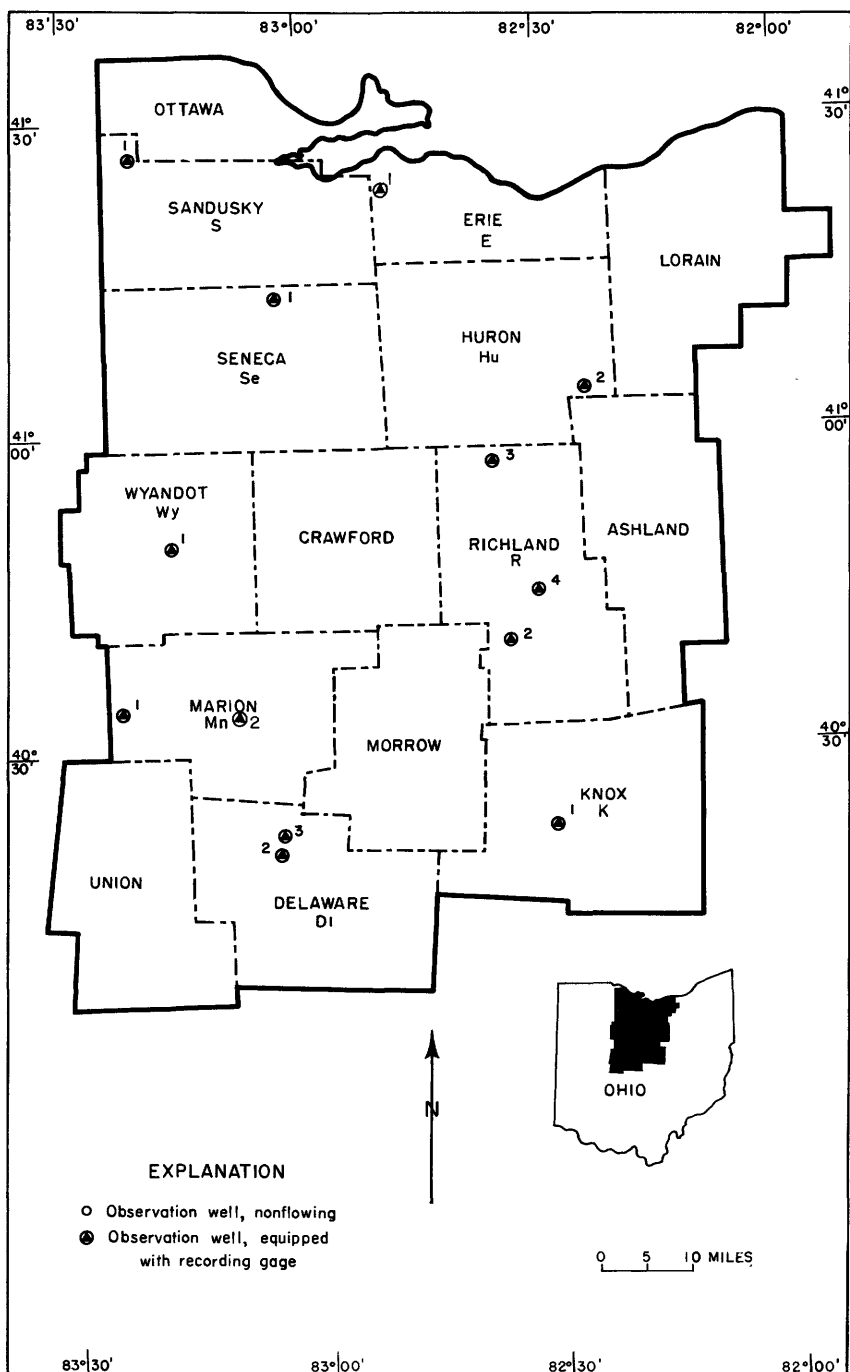


Figure 29. --Location of observation wells in north-central Ohio, 1953.

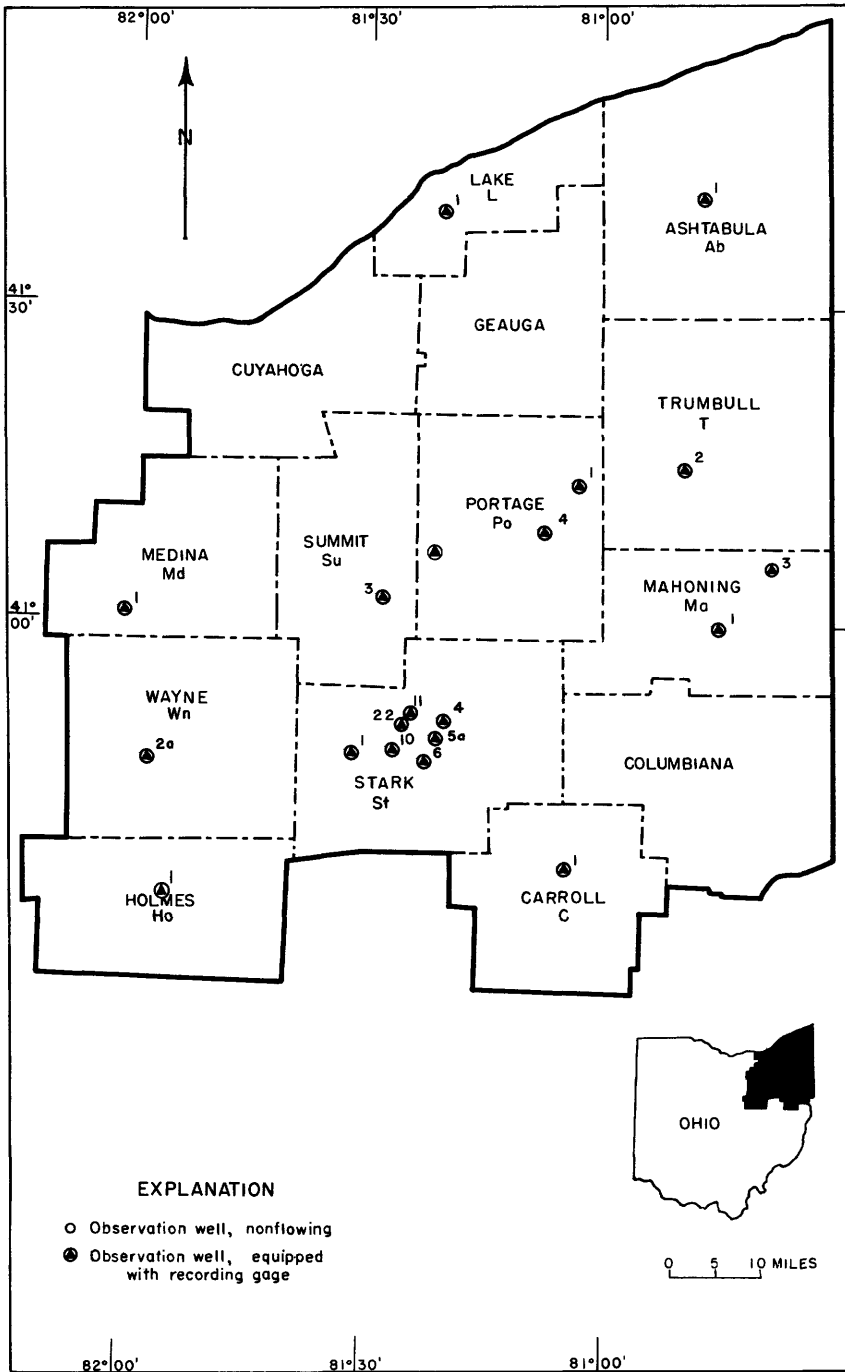


Figure 30. --Location of observation wells in northeastern Ohio, 1953.

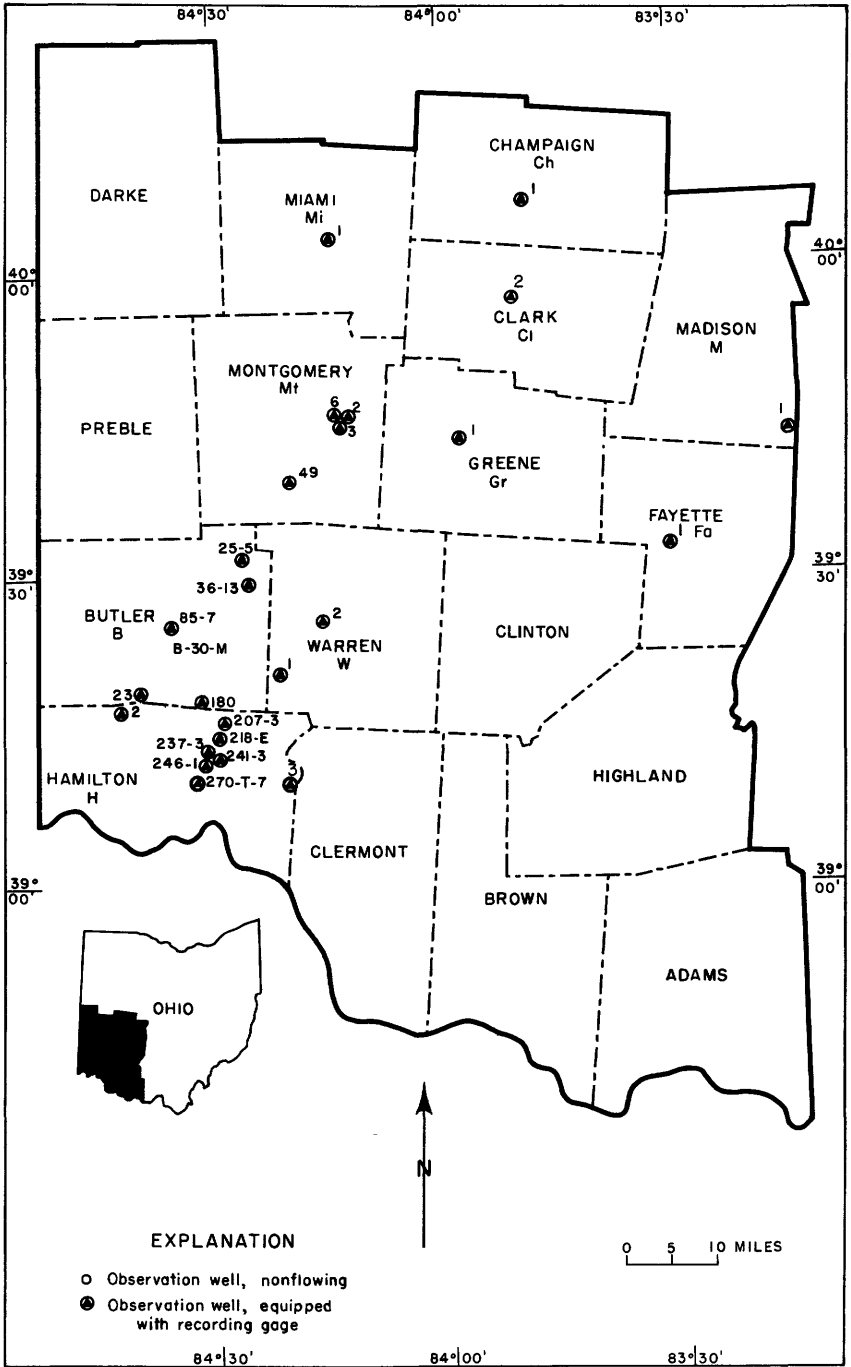


Figure 31. --Location of observation wells in southwestern Ohio, 1953.

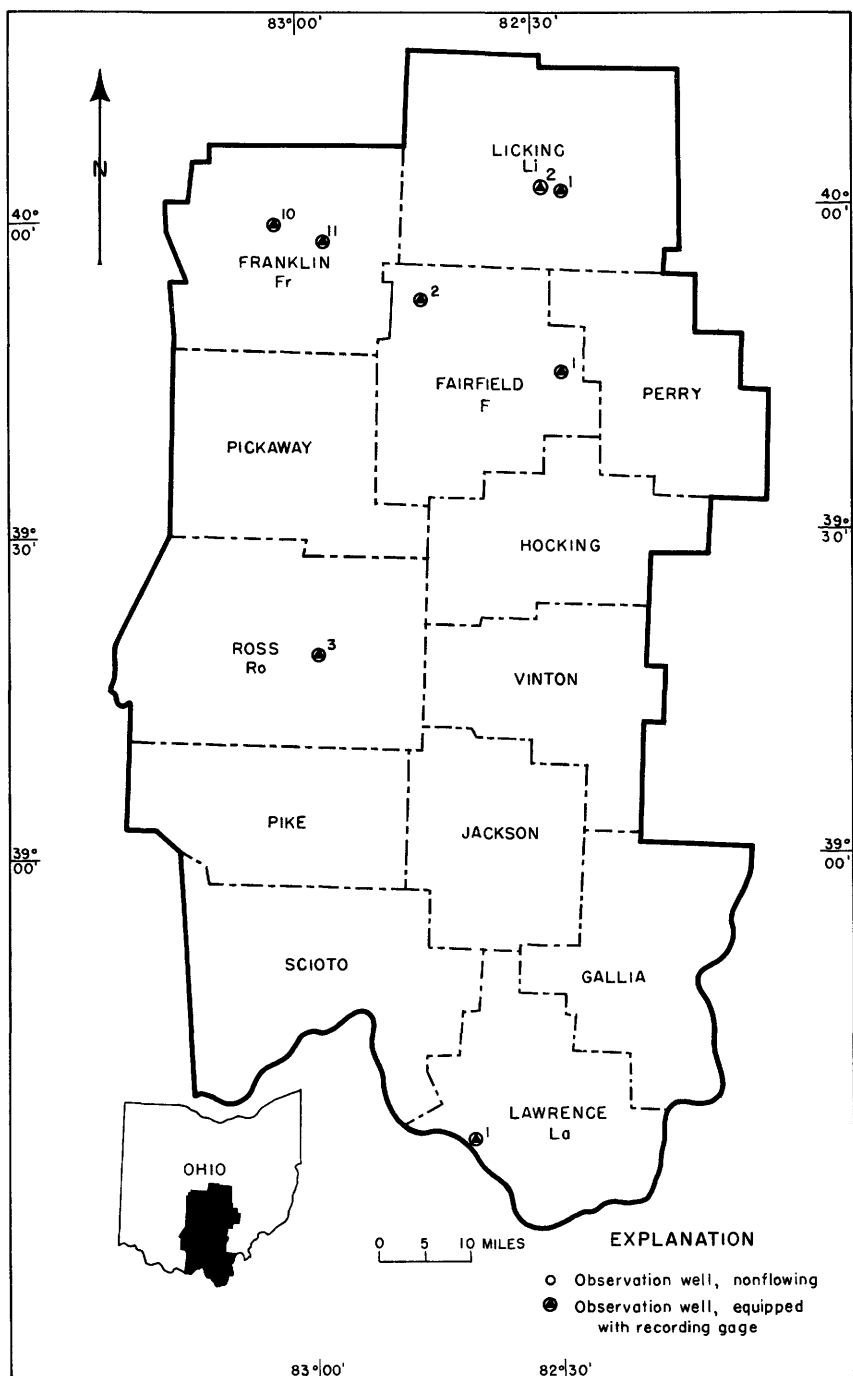


Figure 32.--Location of observation wells in south-central Ohio, 1953.

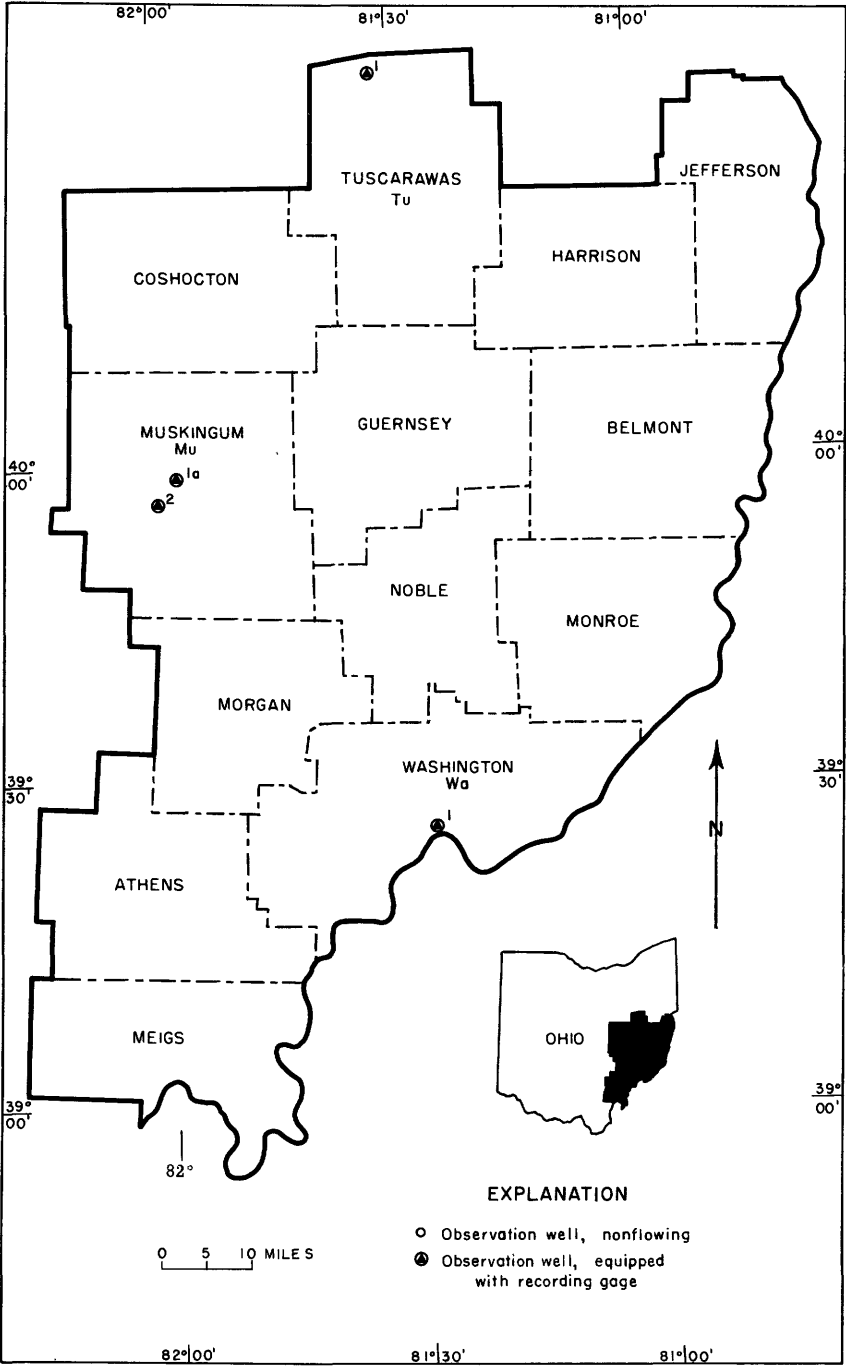
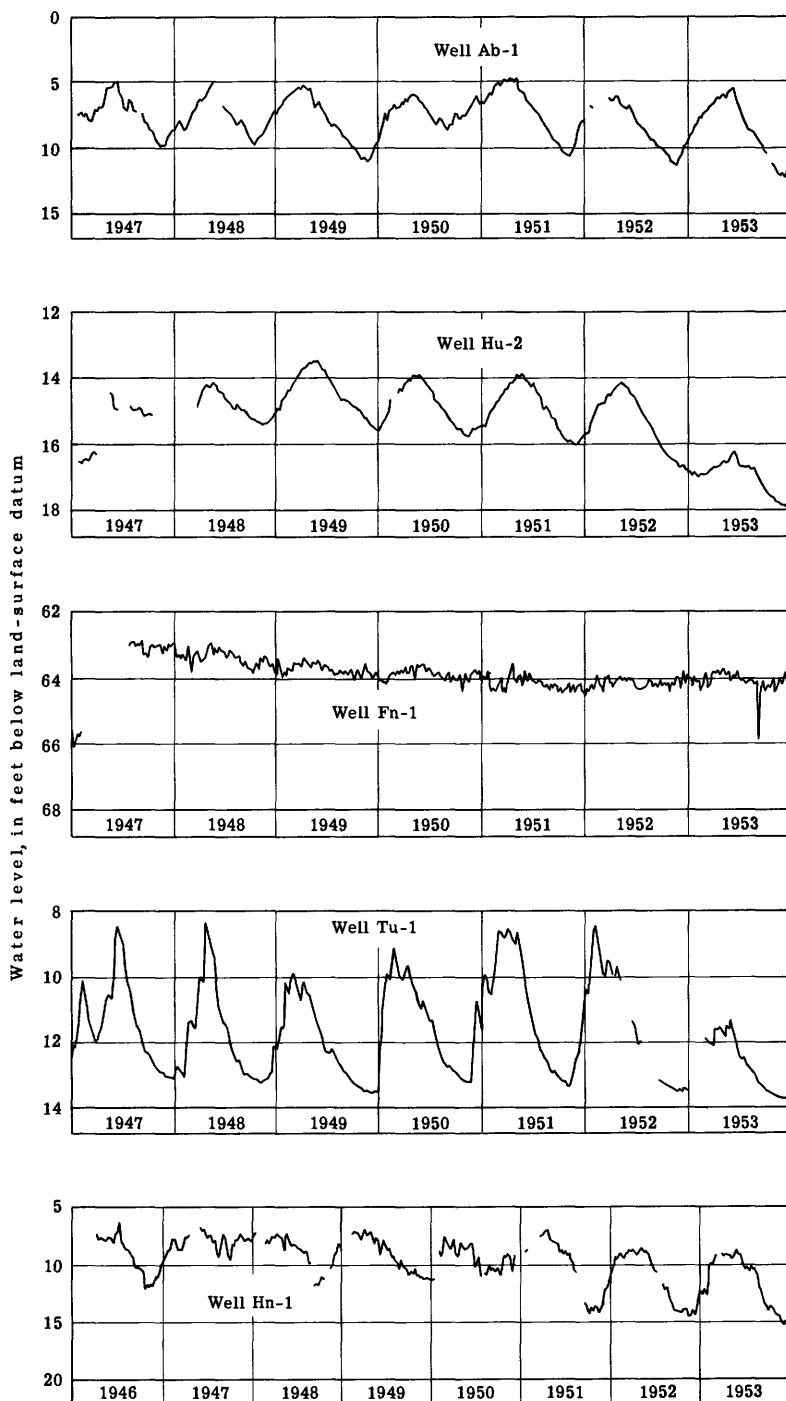


Figure 33. --Location of observation wells in southeastern Ohio, 1953.



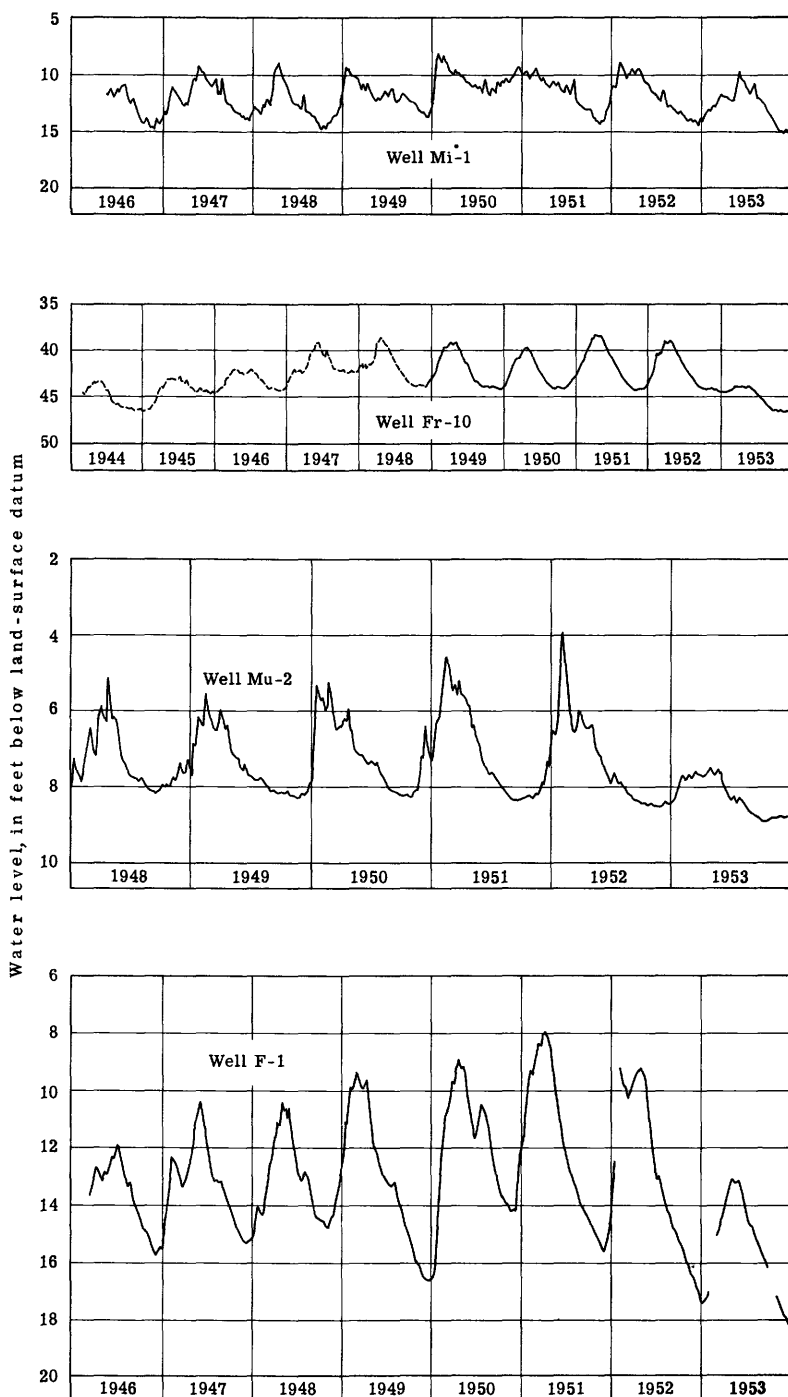


Figure 35.--Water levels in selected wells in central Ohio.

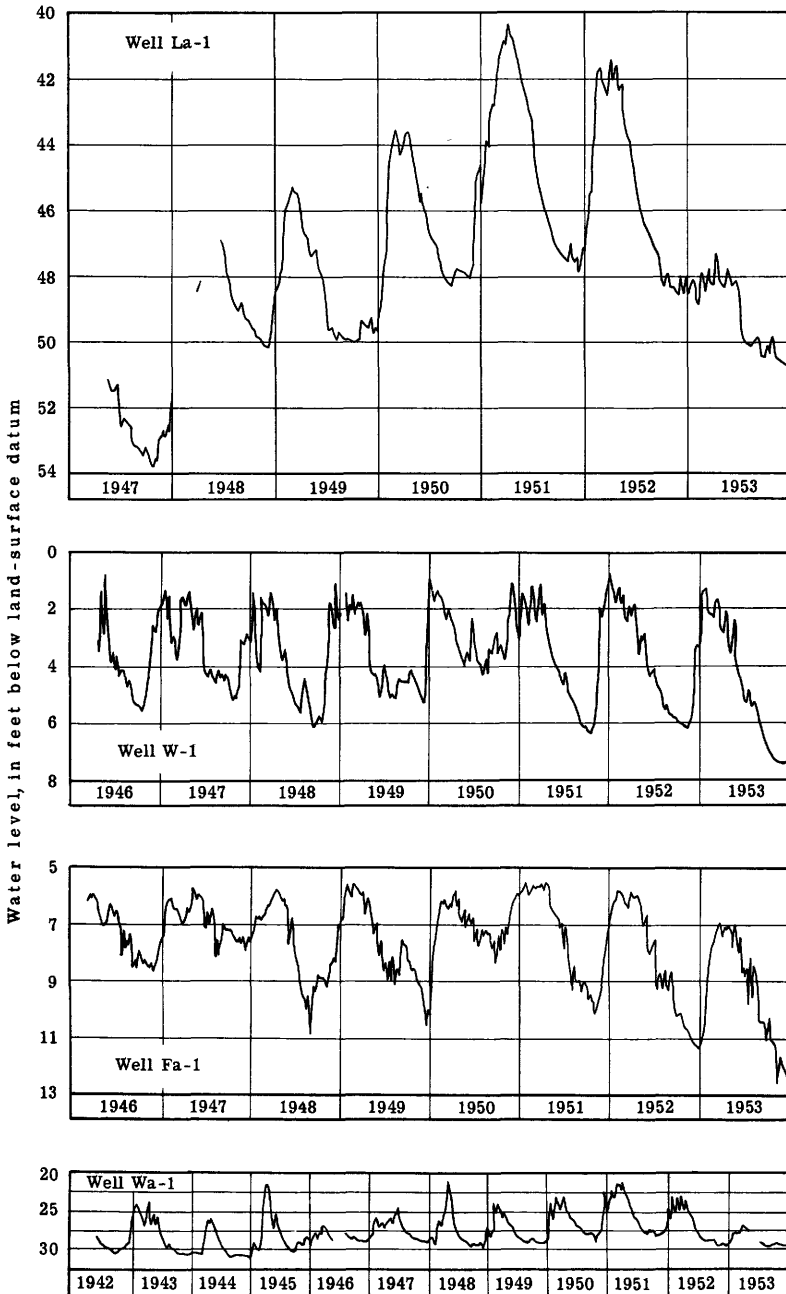


Figure 36. --Water levels in selected wells in southern Ohio.

water pumped and water levels did not recover to highs of previous years. Record low levels occurred in all the observation wells in the heavily pumped areas of Dayton during September and November. The major portion of the recharge to the glacial gravels in the Dayton area is induced from the flow of the Miami and the Mad Rivers by pumping. Heavy pumping during the summer months, when the rivers are at pool stage, exceeds the amount of recharge by induced infiltration. Water is taken from storage in the aquifer. Several high streamflows are required to scour the stream bed, increase infiltration, and recharge the amount of water taken from storage. There are relatively few high streamflows during 1952 and 1953. Peak levels, which were as much as 10 feet below average, occurred in May and June as the result of minor high streamflows. The hydrographs of wells Mt-2, Mt-3, Mt-6, and Mt-10 shown in figure 37 reveal the effects of extended low streamflows on ground-water conditions in the Dayton area.

Mill Creek valley north of Cincinnati, Hamilton County. --The recovery of water levels in the Mill Creek valley between Lockland and Cincinnati, which began in June 1952 after a reduction in the rate of pumping by several industries in the area, continued during 1953. The glacial gravels south of Lockland in the buried valley underlying Mill Creek are overlain by relatively impermeable till, which excludes recharge in the immediate area. Heavy pumping prior to June 1, 1952, when 9 industries began purchasing water from the Southwestern Ohio Water Company, produced a downgradient of the piezometric surface, extending from the recharge area north of Lockland to the Norwood trough at Cincinnati. Water taken from storage in the aquifer during the years prior to 1952, when the requirements of the industries exceeded the amount of ground water available, is now being replenished. The rate of replenishment is governed primarily by the capacity of the glacial gravels to transmit water from the recharge area north of Lockland. Water levels also respond to changes in the rate of precipitation on the recharge area and to changes in the rate of pumping. The hydrographs of wells 270-T-7 and 241-3, shown in figure 38, illustrate the recovery of water levels in the southern part of the Mill Creek valley. Water levels in the Mill Creek valley north of Lockland receded during 1953 because of unusually heavy pumping and an appreciable deficiency in precipitation. Three municipal water departments increased their pumpage in 1953. The water requirements of the village of Reading increased from 0.965 mgd in 1952 to 1.066 mgd in 1953. The village of Glendale increased its withdrawal from 0.253 mgd in 1952 to 0.275 mgd in 1953. The village of Lockland increased its pumpage from 0.68 mgd in 1952 to 0.81 mgd in 1953. In addition, the water requirements of several industries still pumping ground water from the glacial gravels in the area north of Lockland increased during the year. Climatological data collected at the Mount Healthy Experiment Farm near the northern part of the Mill Creek valley show that precipitation during 1953 was 29.54 inches, or 10.94 inches below normal. Above-normal amounts of precipitation fell during January, May, and July and below-normal precipitation prevailed during the rest of the year. Recharge to the glacial gravels underlying Mill Creek was far below average. Deficient precipitation coincident with above-normal temperatures and increased pumping rates resulted in record low ground-water levels in the Mill Creek valley from Lockland north to the Butler-Hamilton County line. See records of wells 216-E and 207-3, figure 38. Water levels in well 180, which is north of the heavily pumped areas in the Mill Creek valley, declined almost without interruption from May through December to reach a record low at the end of 1953. The deficiency in precipitation which began in February persisted in the main through the spring months. Recharge to the ground-water reservoir during the summer and fall months was exceeded by the combined effects of evapotranspiration losses and ground-water seepage to streamflow.

The reversal of the downward trend in water levels in the lower Mill Creek valley can be attributed largely to the reduction in pumping in the area following the completion of an industrial water-supply development in the Miami River valley. The Southwestern Ohio Water Company is presently pumping about 12 mgd from a ground-water collector near Venice along the Miami River in Hamilton County. Ground water is pumped from the collector through a 14-mile pipeline into a 15-million-gallon surface reservoir in the Mill Creek valley just north of Lockland. The water is distributed to 11 industries in the Mill Creek valley. The collector is developed in permeable glacial sands and gravels underlying the Miami River. The depth to bedrock is about 125 feet. Recharge to the aquifer is induced from the flow of the Miami River by pumping in the collector. The hydrograph in figure 39, showing the water level in well H-2, 1,200 feet south of the collector, indicates that recharge was adequate to replenish the amount of ground water pumped in 1952 and in 1953. The water level in well H-2 fluctuated between 14 and 20 feet below land surface; and at the end of December 1953, when at the lowest level of record, it was 1 foot lower than in December 1952, despite the serious deficiency of precipitation and low flows in the Miami River. Peak levels in well H-2 were recorded on May 26 and 27. The fine materials deposited on the stream bed during extended low flows substantially reduced the infiltration rate of the Miami River. Heavy precipitation in the nongrowing season produce high streamflows sufficient to scour the stream bed and replenish the water taken from storage in the aquifer during protracted periods of low streamflows.

Miami River valley, Butler County. --Ground-water conditions in the Miami River valley in Butler County are revealed by the records of wells B-23, 85-7, 25-5, and 36-13 shown in figure 39. Water levels in well B-23, 2,000 feet southeast of the Miami River in southwestern Butler County, began to rise in January as the result of heavy above-normal precipitation during the month. The rise terminated about the last of March and water levels began to decline. Heavy precipitation and high streamflow, which occurred about the last of May, caused the water level

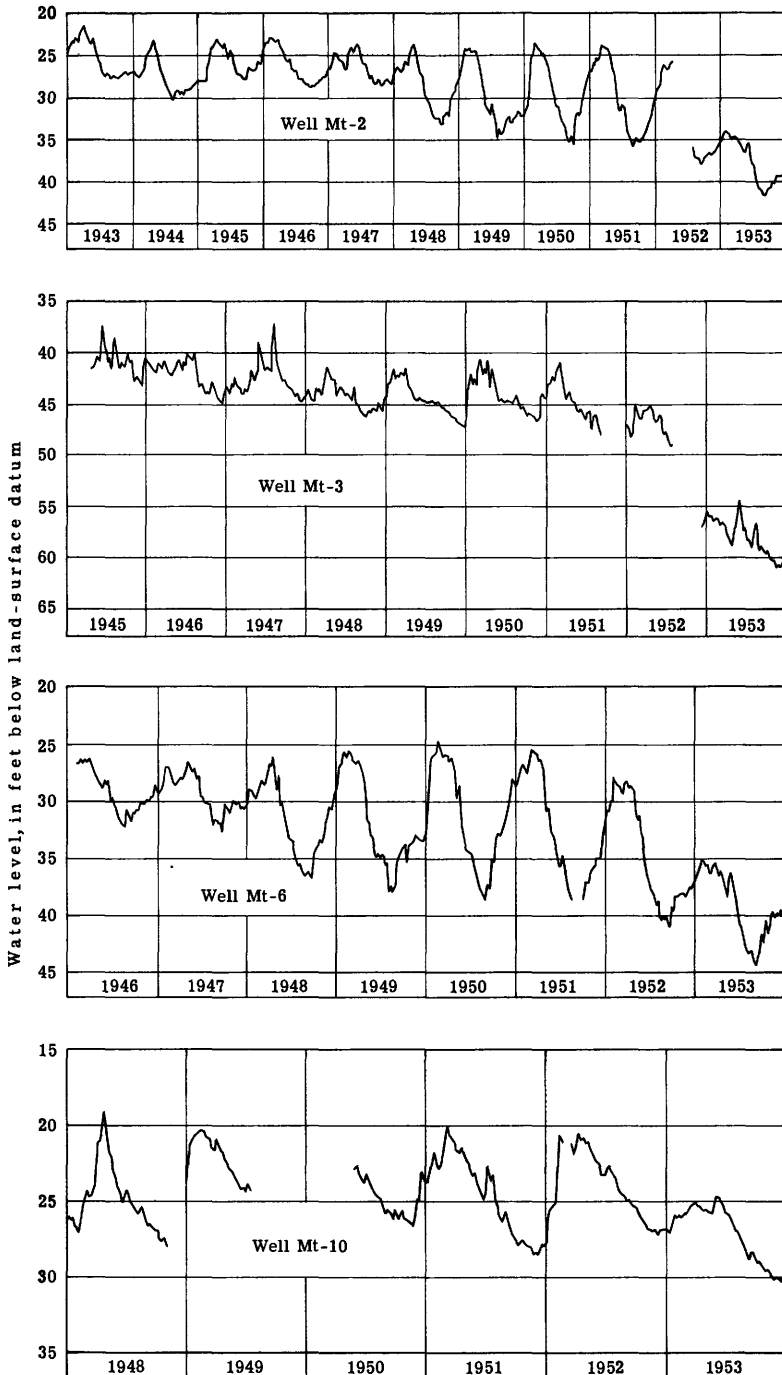


Figure 37. --Water levels in selected wells in the Dayton area, Montgomery County, Ohio.

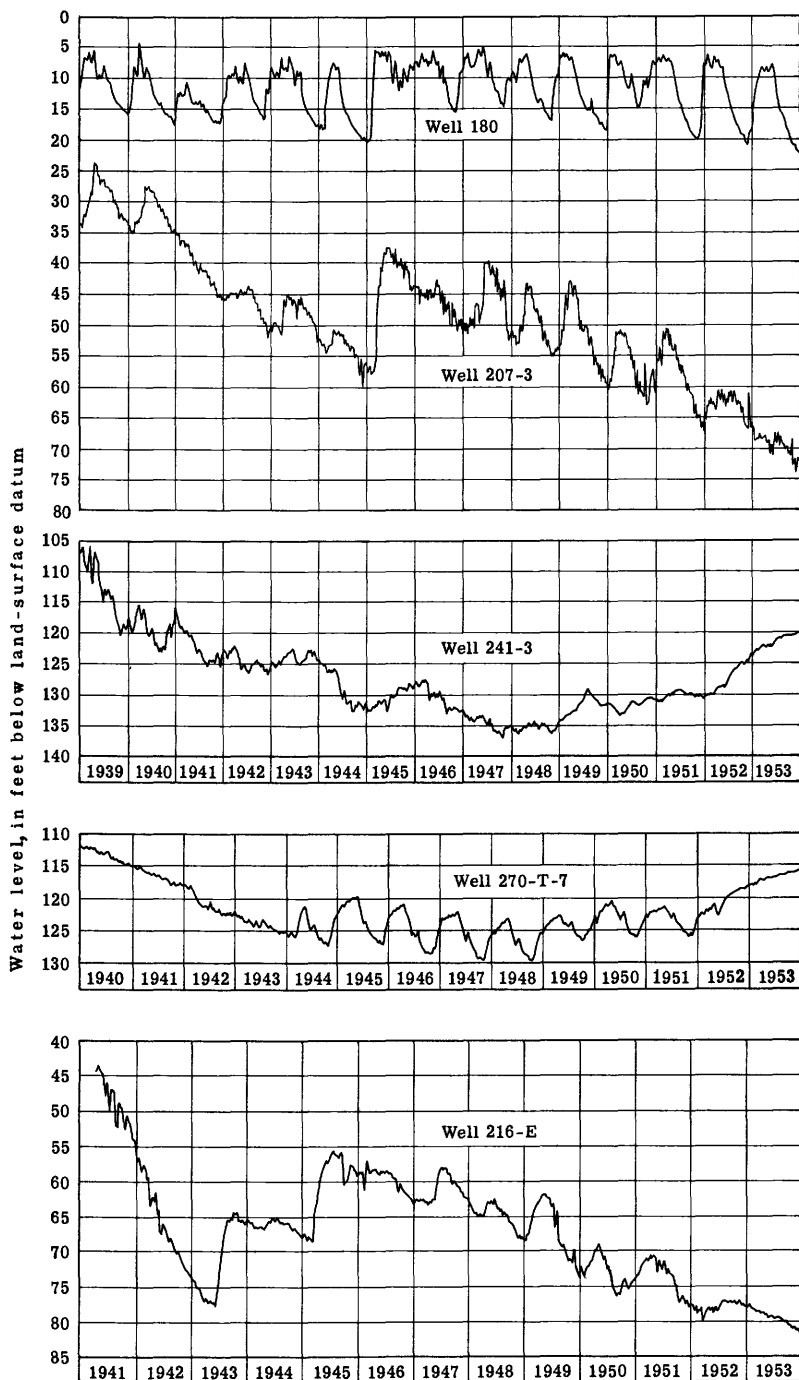


Figure 38. --Water levels in selected wells in the Mill Creek valley, Hamilton County, Ohio.

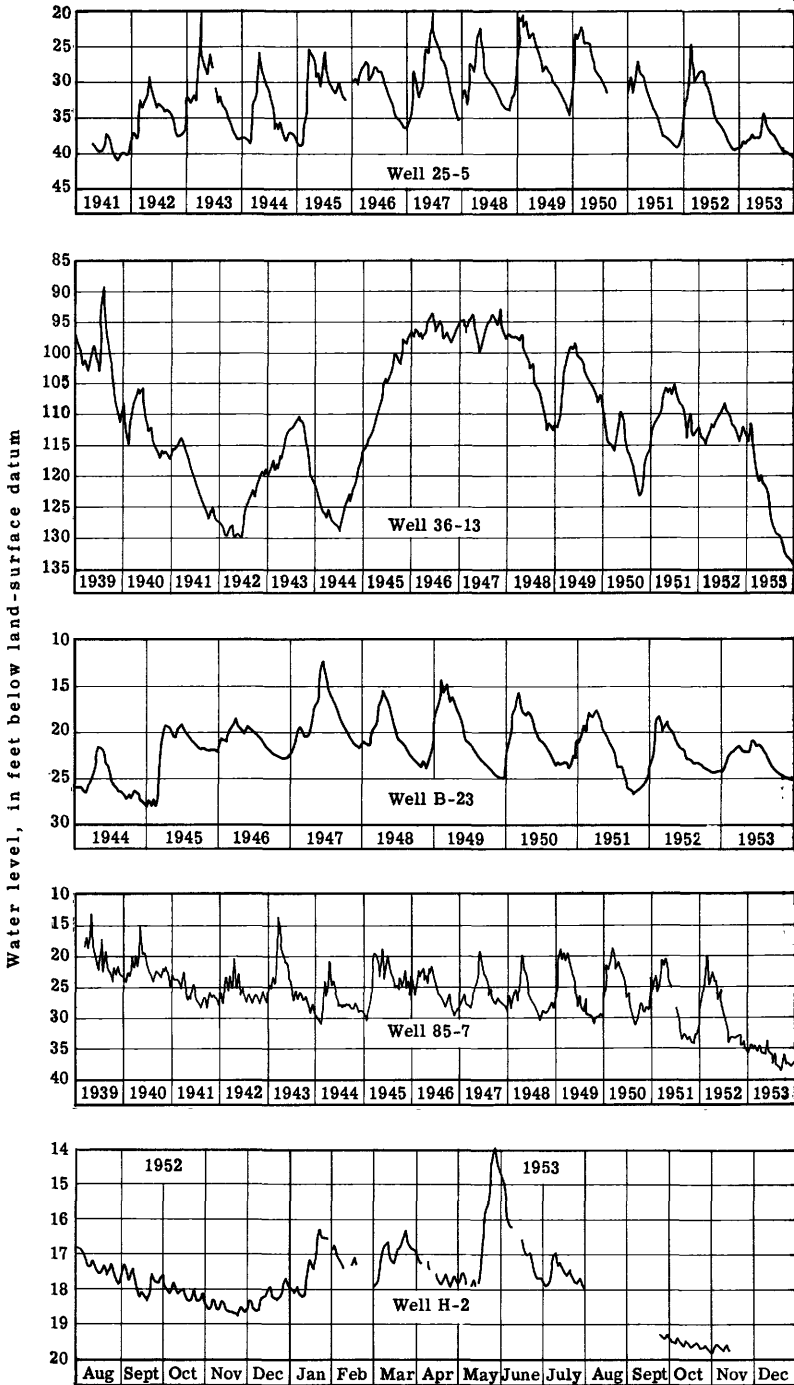


Figure 39. --Water levels in selected wells in the Miami River valley, Ohio.

in well B-23 to rise to a peak level in June. The water level then declined until above-normal precipitation during the first week of July again exceeded the natural discharge of ground water. The downward trend of the water level was then resumed in well B-23 and persisted from the middle of July into 1954. The peak level in 1953 is near the record low and is below average for the period of record. The lowest water level in December, however, is not the record low for well B-23. Increased pumping by the Hamilton Water Department and the Hamilton Coke and Iron Plant, coincident with deficient precipitation and low streamflow, caused the water level in well 85-7 to recede to a record low in September. Peak levels in well 85-7 occurred the last of May and were the lowest of record, indicating below-normal recharge to the valley-fill deposits underlying the Miami River at Hamilton. Precipitation at the Hamilton Waterworks during 1953 amounted to 27.22 inches, or 13.34 inches below normal; however, sufficient water is in storage in the aquifer to supply the Hamilton Waterworks during several years of deficient precipitation. The buried valley is 2.5 miles wide and approximately 170 feet deep. The hydrograph of well 25-5, shown in figure 39, illustrates the fluctuations of ground-water levels in the city of Middletown proper. Water supplies at Middletown are obtained from permeable glacial gravels in a buried valley. Recharge, under pumping conditions, is derived primarily from the flow of the Miami River by induced infiltration. Peak levels in well 25-5 occurred in June, much later in the year than average, and were the lowest of record. The lowest water level of record was in December. Despite deficient precipitation and low flows in the Miami River, ground-water conditions in the vicinity of well 25-5 are not serious. The record of well 36-13, however, shows an alarming downward trend. Well 36-13 is in the well field of the American Rolling Mill Company in the southeastern part of Middletown, 2 miles from the Miami River. Because of the long distances from the major recharge areas to the well field, the water levels in the vicinity of well 36-13 decline more under much less pumping than is the case in the vicinity of well 25-5. The American Rolling Mill Company increased pumping from 8.63 mgd in 1952 to 8.75 mgd in 1953. Precipitation measured 27.97 inches, or 13.23 inches below normal at Middletown. The water level in well 36-13 declined to a record low in December, 6 feet below the previous record low in 1942. Ground-water conditions in the vicinity of well 36-13 are crucial, and heavy pumping coincident with below-normal recharge during 1954 could seriously deplete the aquifer.

Canton area, Stark County. --The hydrographs of wells St-2, St-4, St-5, St-5a, St-6, St-11, and St-22, shown in figures 40 and 41, are representative of the water-level trend in the Canton area in Stark County. Water supplies at Canton are pumped from permeable glacial gravels in buried valleys which underlie the city proper and parts of the East, Middle, and West branches of Nimishillen Creek. Several industries pump ground water from a sandstone aquifer underlying the glacial deposits. The major portion of the recharge to the glacial gravels, under pumping conditions, is derived from streamflow by induced infiltration. Maximum recharge generally occurs during the nongrowing season when heavy precipitation produces high streamflows. The municipal water department pumps ground water from 4 well fields, Northeast, Northwest, Ninth Street, and Grovemiller. Average daily pumpage by the city of Canton increased from 18.51 mgd in 1952 to 19.61 mgd in 1953. The bulk of the municipal supply is pumped from the Northeast and Northwest well fields. Industries in the Canton area pump ground water from the glacial gravels in the main buried valley underlying the city proper. Water-level trends in this area have improved greatly since 1945 when conservation measures were taken by industries; pumpage was considerably reduced. The municipal water department reduced its pumpage in the city proper in 1948 when the Northwest well field was completed. As the result of the decrease in withdrawal of ground water from the main buried valley, water levels in well St-6 recovered from a record low in February 1945 to a record high in January 1952. The water level in well St-2 recovered about 23 feet from the record low in 1945. Deficient precipitation and increased pumpage by industries and the municipal water department during 1953 stopped the recovery of water levels and started another downward trend in wells St-2 and St-6. Total precipitation at the Akron-Canton WB Airport during 1953 was 29.67 inches, or 7.59 inches below normal. Precipitation was below normal except in January, May, and June. The Canton Water Department increased its pumpage in the Ninth Street well field from 3.86 mgd in 1952 to 4.16 mgd in 1953 and decreased its pumpage in the Grovemiller well field from 1.26 mgd in 1952 to 1.12 mgd in 1953. Pumpage by industries in the area increased during 1953 as the result of above-normal temperatures. The Ninth Street pumping station was shut down January through March and the water level in well St-6 recovered during these months. The water level began declining again in April when pumping was resumed in the Ninth Street well field. Heavy precipitation during May and June temporarily stalled the downward trend that, except for this interruption, continued through 1953 and into 1954. Well St-2 is in the immediate vicinity of the heavily pumped industrial area. Industries pumped large quantities of ground water during the late winter and spring months of 1953. The water level in well St-2 declined throughout the year except during May and June when recharge exceeded discharge. Municipal pumpage in the Northeast well field, along the Middle Branch of Nimishillen Creek, increased from 9.27 mgd in 1952 to 9.96 mgd in 1953. The water level in well St-5a in the Northeast well field declined to a record low in April. Recharge during the spring months was below average. The Northeast well field is recharged from the flow of the Middle Branch by induced infiltration, which is impeded by fine materials deposited on the stream bed during extended periods of low flow. Streamflow was high in January, May, and June for short periods; and despite generally deficient precipitation, all the water taken from storage in the aquifer during the period January through July was replenished. The water level in well St-5a began rising in May as the pumpage was reduced in the Northeast well field from 11.02 mgd in April to 8.87 mgd

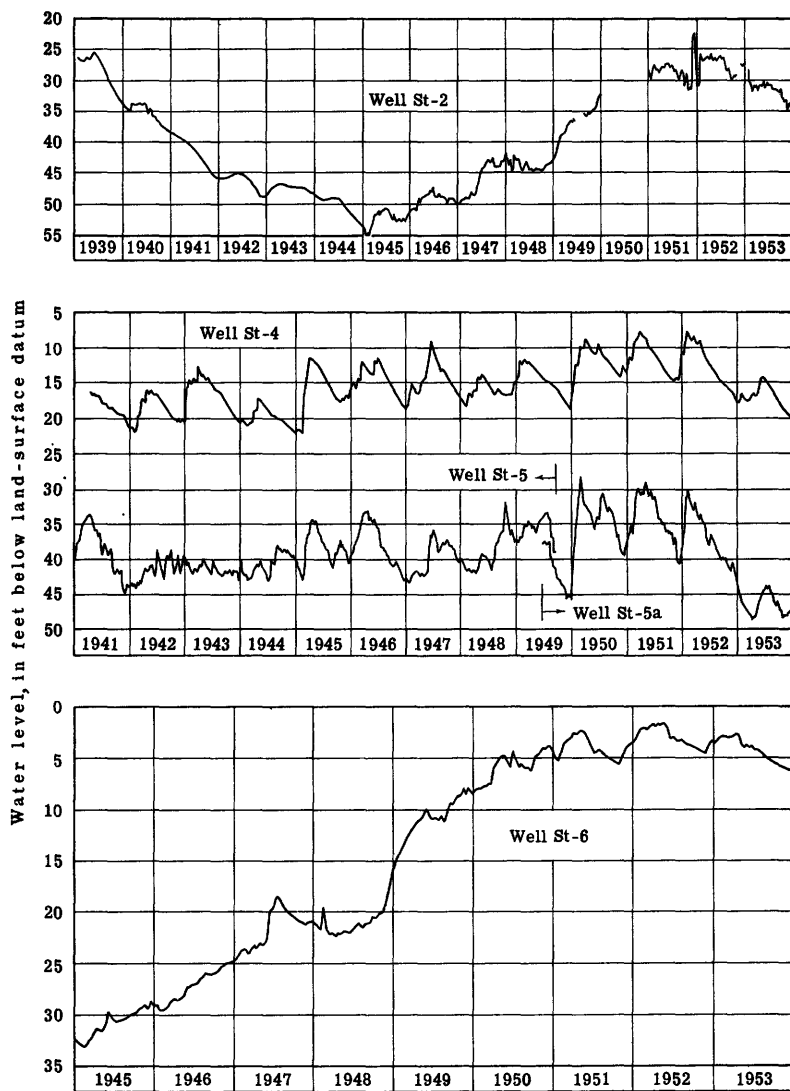


Figure 40. --Water levels in selected wells in the city of Canton, Stark County, Ohio.

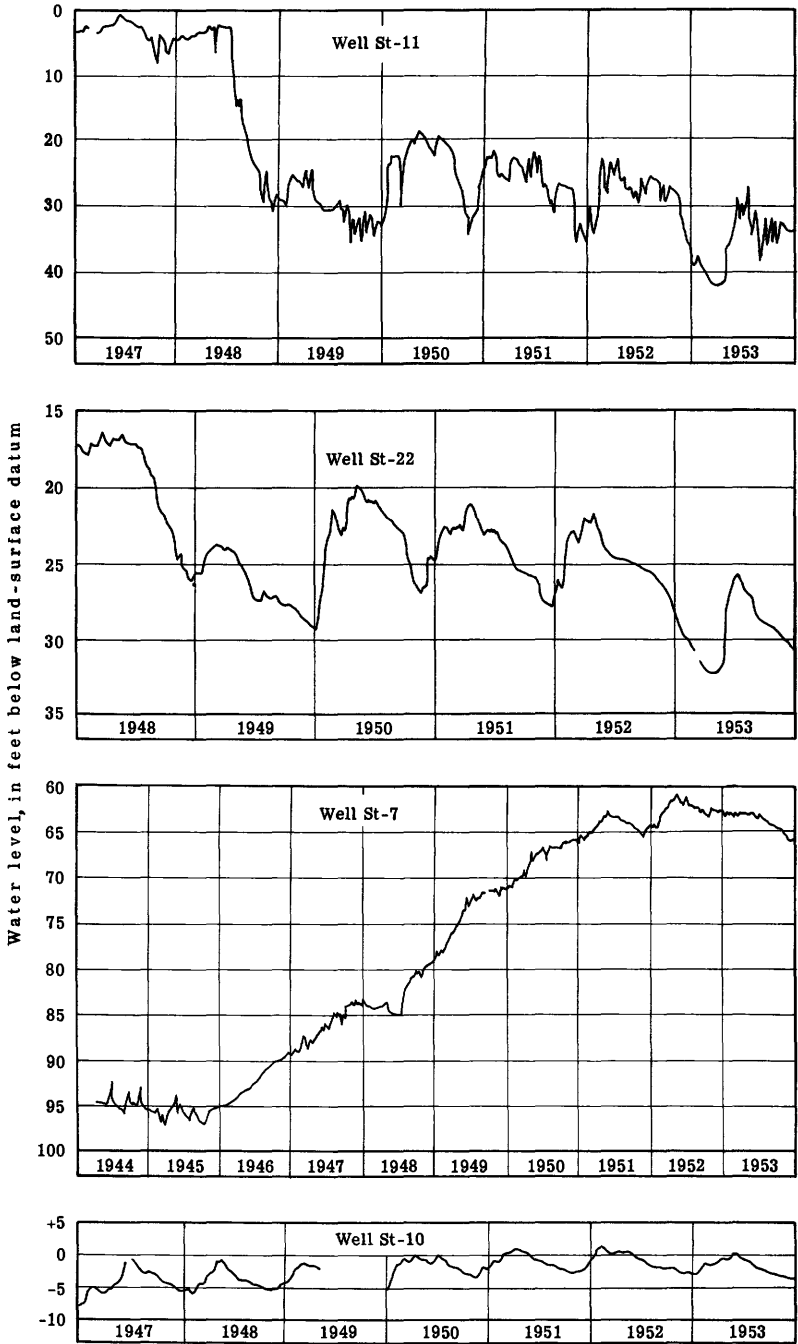


Figure 41. --Water levels in selected wells in the Canton area, Stark County, Ohio.

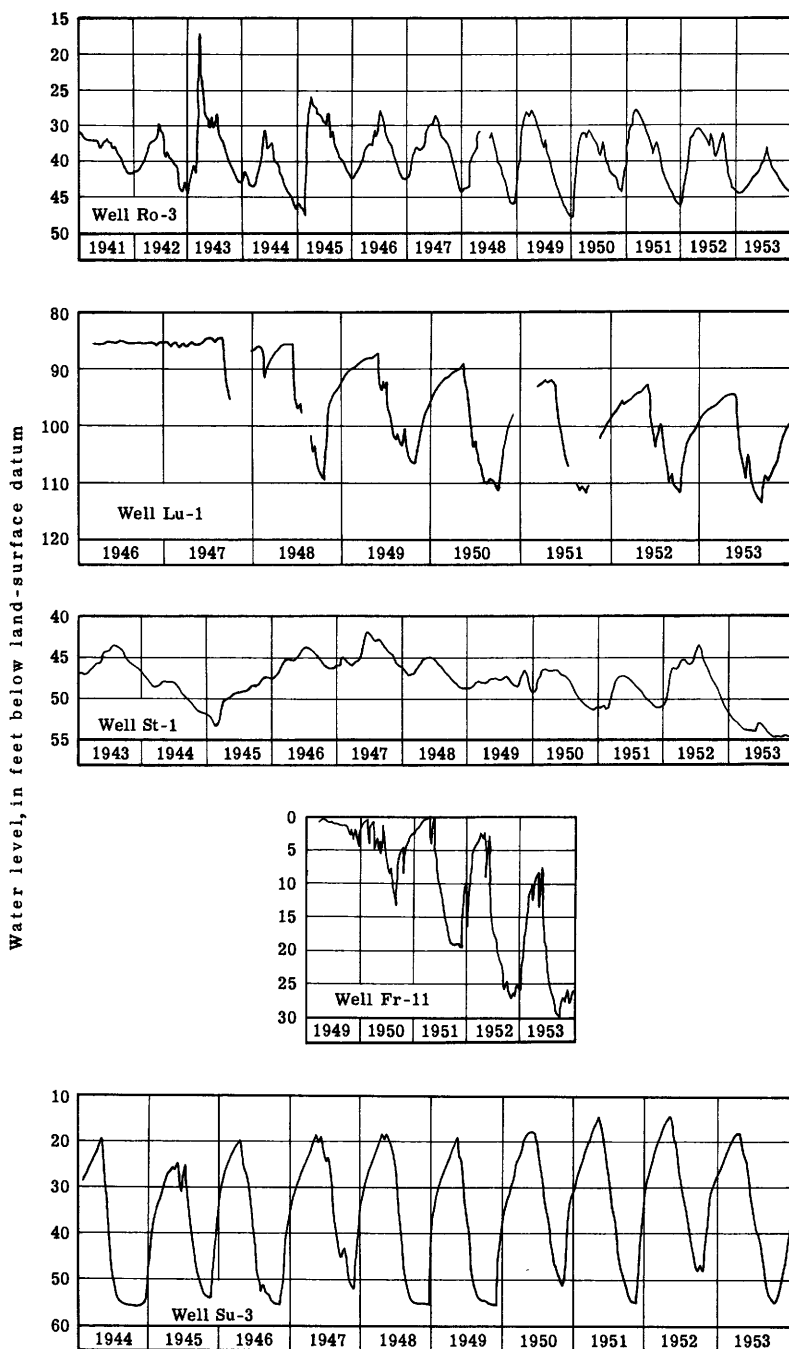


Figure 42. --Water levels in wells Ro-3, Lu-1, St-1, Fr-11, and Su-3 in heavily pumped areas in Ohio.

in May. Heavy precipitation in May and June contributed to the recovery. No serious downward trend existed at the end of the year, partly because lower water levels induce correspondingly more water from high streamflows. The aquifer underlying the Northeast well field is about 200 feet thick and holds sufficient water in storage to balance pumpage at the rate of at least 10 mgd in excess of recharge during years of deficient precipitation. The highest water level during 1953 in well St-4, north of the Northeast well field, occurred in June; the lowest water level occurred in December. The water level in well St-4 was still declining at the end of the year but did not reach the record low level. Pumpage by the city of Canton in the Northwest well field was reduced from 6.36 mgd in 1952 to 5.89 mgd in 1953. A till layer approximately 4 feet thick separates the valley fill deposits underlying the Northwest well field into two aquifers. The shallow aquifer is 40 feet thick and the deep aquifer is about 100 feet thick. Three horizontal collecting units effectively connect the two aquifers. Recharge to the shallow aquifer is chiefly from the flow in the two forks of the West Branch of Nimishillen Creek. Recharge to the deep aquifer is derived artificially from the shallow aquifer through horizontal collecting pipes in the three collectors. The water levels in well St-11, in the deep aquifer, and in well St-22, in the shallow aquifer, declined to record lows in March 1953. Water levels in the area of the Northwest well field began to rise in April as the result of a decrease in pumping from 6.36 mgd in April to 4.67 mgd in May. Months most favorable for recharge were January, May, and June. Despite near-drought conditions during 1953 and record low water levels, the water stored in the deep aquifer was virtually untapped. Recent detailed studies of the ground-water resources of the Northwest well field area revealed that recharge by induced infiltration during years of normal precipitation is sufficient to replenish a pumping rate of at least 6.5 mgd. Water taken from storage during periods of deficient precipitation is replenished during years of normal and above-normal precipitation. No serious continuing downward trend in water levels has resulted from pumping an average of 6.5 mgd during the period 1948-1953. Ground-water storage in the Canton area was considerably reduced during 1953. Ground-water conditions in other heavily pumped areas in Ohio are shown in figure 42.

Well-Numbering System

The observation wells for which records are given in this report, with the exception of those in the Mill Creek valley and Miami Valley areas of Butler and Hamilton Counties, are identified by numbers prefixed by letters which are abbreviations of the counties. The same prefix is used for all wells in a particular county. The wells in the Mill Creek and Miami River valleys in Butler and Hamilton Counties are numbered consecutively according to their geographic location, beginning in the northern part of Butler County.

Well Descriptions and Water-Level Measurements

Water levels are in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately preceding the first entry in each column of each mixed table. Readings between minus (-) signs are below the plane of reference, and those between plus (+) signs are above the plane of reference.

Ashtabula County

Ab-1. K. K. Tisch. Lat. 41°41'12", long. 80°46'54". Drilled unused well in shale, diameter 3 inches, depth 40 feet. Highest water level 4.40 below lsd, Apr. 14, 1951; lowest 12.36 below lsd, Dec. 1, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.17	7.68	7.23	6.32	5.85	5.32	7.23	8.63	9.37	.....	.....	12.36
2	9.17	7.68	7.23	6.19	5.99	5.39	7.20	8.63	9.38	.....	.....	.....
3	8.96	7.50	7.19	6.12	6.18	5.42	7.29	8.70	9.38	.....	11.80	.....
4	8.95	7.54	6.82	6.14	6.26	5.42	7.38	8.70	.....	.....	.....	.....
5	8.95	7.54	7.01	6.07	6.25	5.43	7.38	8.62	.....	.....	.....	.....
6	9.06	7.46	7.16	.....	6.19	5.54	7.38	8.68	.....	.....	.....	.....
7	9.12	7.43	7.23	.....	6.05	5.68	7.38	8.68	.....	.....	.....	.....
8	9.11	7.47	7.17	6.18	5.90	5.71	7.53	8.68	9.75	.....	.....	12.26
9	8.89	7.69	7.14	6.18	5.85	5.79	7.69	8.64	.....	.....	.....	.....
10	8.84	7.71	7.12	6.02	5.87	5.90	7.81	8.66	.....	.....	11.95	.....
11	8.60	7.66	7.11	6.13	5.85	5.98	7.86	8.71	.....	.....	.....	.....
12	8.74	7.18	7.05	6.13	5.83	5.98	7.89	8.71	.....	.....	.....	.....
13	8.65	7.23	6.91	6.10	5.88	5.90	7.90	8.66	.....	.....	.....	.....
14	8.62	7.23	6.87	6.24	5.88	6.00	8.00	8.66	.....	.....	.....	.....
15	8.62	7.19	6.79	6.24	5.80	6.07	8.06	8.67	9.89	.....	.....	11.95
16	8.62	7.19	6.76	6.01	5.79	6.09	8.13	8.69	.....	.....	.....	.....
17	8.62	7.40	6.76	6.07	5.67	6.14	8.13	8.76	.....	.....	12.20	.....
18	8.22	7.46	6.73	6.07	5.48	6.25	8.12	8.80	.....	.....	.....	.....
19	8.20	7.45	6.56	6.06	5.47	6.31	8.11	8.82	.....	.....	.....	.....
20	8.14	7.45	6.72	6.00	5.48	6.38	8.15	8.88	.....	11.30	.....	.....

Ab-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	8.12	7.25	6.75	6.01	5.48	6.52	8.20	8.95	.....	.....	.....	.....
22	8.14	7.35	6.76	6.00	5.39	6.61	8.21	8.98	10.35	.....	.....	11.25
23	8.12	7.35	6.72	5.95	5.48	6.79	8.28	8.98	.....	.....	.....	.....
24	7.77	7.35	6.66	6.05	5.50	6.86	8.46	9.00	.....	.....	12.18	.....
25	7.92	7.15	6.56	5.99	5.49	6.86	8.53	9.09	.....	.....	.....	.....
26	8.03	7.00	6.56	5.85	5.28	6.99	8.54	9.13	.....	.....	.....	.....
27	7.96	6.85	6.43	5.92	5.42	7.07	8.55	9.17	.....	11.45	.....	.....
28	7.68	7.02	6.30	6.00	5.52	7.07	8.57	9.17	10.50	.....	.....	.....
29	7.73	.....	6.22	6.07	5.52	7.18	8.58	9.20	.....	.....	.....	11.00
30	7.73	.....	6.31	6.06	5.35	7.23	8.61	9.23	.....	.....	.....	.....
31	7.68	.....	6.33	.....	5.20	.....	8.63	9.29	.....	.....	.....	.....

Auglaize County

Au-1. C. W. Manchester. Lat. 40°33'42", long. 83°54'18". Drilled unused well in limestone, diameter 4 inches, depth 96 feet. Highest water level 14.33 below lsd, Apr. 11, 1948; lowest 21.30 below lsd, Dec. 29, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.62	19.55	17.93	16.76	16.48	16.03	16.73	17.58	18.00	18.82	19.85	20.61
2	20.61	19.54	17.91	16.76	16.58	16.04	16.66	17.39	18.01	18.88	19.91	20.62
3	20.51	19.47	17.90	16.75	16.62	16.02	16.66	17.34	18.01	19.07	19.96	20.62
4	20.49	19.43	17.74	16.75	16.62	16.18	16.72	17.37	18.03	18.96	20.20	20.65
5	20.48	19.41	17.76	.....	16.55	16.31	16.70	17.35	18.03	18.93	20.02	20.69
6	20.47	19.32	17.76	.....	16.53	16.21	16.75	17.44	18.03	18.90	20.02	20.68
7	20.47	19.29	17.72	.....	16.51	16.10	16.80	17.37	18.04	18.95	20.03	20.68
8	20.47	.....	17.62	16.65	16.41	16.28	16.82	17.26	18.09	18.98	20.07	20.68
9	20.36	.....	17.57	16.62	16.44	16.19	16.85	17.29	18.09	18.98	20.10	20.68
10	20.35	.....	17.52	16.58	16.47	.....	16.89	17.32	18.14	19.05	20.13	20.68
11	20.29	.....	17.48	16.65	16.50	.....	16.91	17.37	18.15	19.12	20.13	20.70
12	20.29	.....	17.57	16.60	16.49	16.39	16.91	17.35	18.17	19.18	20.15	20.70
13	20.26	18.37	17.47	16.58	16.46	.....	16.91	17.36	18.17	19.18	20.16	20.70
14	20.26	18.37	17.42	16.59	16.44	.....	17.10	17.36	18.17	19.24	20.18	20.77
15	20.22	18.36	17.24	16.56	16.35	.....	17.09	17.37	18.17	19.28	20.22	20.80
16	20.37	18.35	17.22	16.58	16.32	16.28	17.19	17.40	18.25	19.34	20.27	20.83
17	20.25	18.30	.....	16.56	16.22	16.32	17.18	17.48	18.27	19.38	20.30	20.83
18	20.06	18.26	.....	16.57	16.18	16.34	17.14	17.51	18.27	19.41	20.32	20.84
19	20.05	18.20	.....	16.52	16.20	16.41	17.21	17.55	18.27	19.43	20.32	20.84
20	20.16	18.13	.....	16.51	16.21	.....	17.19	17.53	18.27	19.55	20.37	20.84
21	20.01	18.10	.....	16.53	16.21	16.55	17.29	17.55	18.28	19.55	20.36	20.90
22	20.00	18.09	.....	16.53	16.12	.....	17.28	17.57	18.37	19.64	20.34	.....
23	19.97	18.11	.....	16.55	15.95	16.63	17.36	17.55	18.38	19.67	20.34	.....
24	19.90	18.15	.....	16.55	15.96	.....	17.49	17.58	18.38	19.64	20.37	.....
25	19.85	18.14	16.89	16.51	15.95	.....	17.53	17.62	18.39	19.64	20.45	.....
26	19.85	18.01	16.87	16.49	15.99	16.92	17.58	17.80	18.41	19.64	20.54	.....
27	19.85	17.94	16.84	16.49	16.06	.....	17.65	17.79	18.46	19.64	20.53	.....
28	19.77	17.94	16.82	16.53	16.08	.....	17.88	17.87	18.53	19.63	20.52	.....
29	19.70	.....	16.82	16.53	16.02	.....	17.62	17.99	18.60	19.68	20.53	21.30
30	19.68	.....	16.80	16.48	16.03	16.63	17.59	17.99	18.69	19.73	20.54	.....
31	19.61	.....	16.76	.....	16.01	.....	17.54	17.98	.....	19.81	.....	.....

Au-2. City of St. Marys. Lat. 40°33'42", long. 84°23'26". Drilled unused well in gravel, diameter 8 inches, depth 100 feet. Highest water level 0.09 below lsd, Apr. 30, 1946; lowest 7.27 below lsd, Oct. 1, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.94	5.88	4.81	5.20	5.13	4.25	5.50	6.61	6.71	7.27	6.76	6.76
2	5.70	5.62	4.77	5.41	4.94	4.58	5.48	6.40	6.75	7.17	.....	6.76
3	5.89	.....	4.92	5.42	4.64	4.72	5.66	6.27	6.77	7.08	.....	6.71
4	5.92	.....	4.49	5.38	5.00	4.78	5.52	6.36	6.75	6.91	.....	6.71
5	6.04	.....	4.83	4.81	4.97	4.93	4.30	6.58	6.56	6.62	.....	6.92
6	6.19	.....	5.17	5.00	4.98	4.92	5.36	6.69	6.22	.....	.....	6.78
7	6.32	.....	5.25	5.33	4.97	4.66	5.73	6.72	5.77	.....	.....	6.64
8	6.23	.....	5.04	5.42	5.01	4.67	5.98	6.60	6.55	7.01	.....	6.69
9	6.06	5.46	5.06	5.36	4.87	5.12	6.23	5.98	6.77	7.01	.....	6.69
10	6.01	5.68	5.14	5.45	4.36	5.14	6.38	6.36	.....	6.97	.....	6.82

Au-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	5.52	5.64	5.15	5.39	4.60	5.18	6.39	6.57	6.68	....	....	6.87
12	5.74	5.42	5.16	4.66	4.69	5.13	6.38	6.68	6.62	....	6.82	6.85
13	5.91	5.53	5.14	5.26	4.90	5.06	6.11	6.73	6.34	....	6.85	6.78
14	5.95	5.49	5.13	5.51	4.92	4.72	6.35	6.72	6.46	....	6.82	6.40
15	5.95	5.45	4.74	5.48	4.88	4.75	6.42	6.67	6.62	6.60	6.46	6.75
16	6.26	4.82	4.79	5.40	4.74	4.92	6.46	5.87	6.81	6.75	6.56	7.02
17	6.26	5.26	4.87	5.53	3.92	5.13	6.46	6.39	6.93	6.68	6.71	7.12
18	5.62	5.28	4.80	5.52	4.09	5.26	6.42	6.57	6.97	6.21	6.79	7.12
19	5.71	5.33	4.76	5.52	4.28	5.31	6.04	6.66	6.82	6.40	6.81	7.10
20	5.84	5.24	4.95	5.35	4.42	5.36	6.06	6.73	6.33	6.57	6.79	6.71
21	5.96	4.67	5.02	5.53	4.41	5.22	6.25	6.83	6.82	6.65	6.78	6.61
22	6.02	4.37	5.02	5.53	4.33	5.16	6.26	6.79	7.08	6.67	6.79	6.98
23	5.96	5.09	4.95	5.69	3.78	5.42	6.46	6.53	7.16	6.63	6.36	7.14
24	5.68	5.23	5.12	5.74	3.52	5.46	6.58	6.48	7.09	6.24	6.38	7.15
25	5.78	5.25	5.34	5.52	3.62	5.54	6.66	6.71	7.07	6.27	6.50	....
26	5.86	5.17	5.39	4.63	3.96	5.73	6.60	6.78	6.98	6.26	6.51	....
27	5.84	5.34	5.38	5.31	4.30	5.71	6.30	6.81	6.87	6.30	6.60	....
28	5.94	5.29	5.31	5.48	4.41	5.26	6.37	6.79	6.66	6.46	6.85	....
29	6.10		4.64	5.56	4.28	5.32	6.42	6.53	6.88	6.62	6.85	6.56
30	6.10		5.14	5.48	3.45	5.50	6.52	6.21	7.16	....	6.57	6.77
31	6.00		5.22		3.15		6.58	6.50		....		6.77

Butler County

B-1. State of Ohio. State Highway Dept. Lat. 39°21'03", long. 84°32'30". Drilled unused well in gravel, diameter 6 inches, depth 245 feet. Highest water level 26.50 below lsd, July 28, 1947; lowest 45.10 below lsd, Mar. 12, 1945. Records available: 1942-52. Reclassified as project observation well.

B-4. A. H. Kollstadt. Lat. 39°20'33", long. 84°34'00". Drilled unused well in gravel, diameter 6 inches, depth 221 feet. Highest water level 17.54 below lsd, Jan. 29, 1952; lowest 32.60 below lsd, Nov. 20, 1951. Records available: 1942-52. Reclassified as project observation well.

B-11. Fred Bandtel. Lat. 39°20'48", long. 84°31'15". Drilled unused well in gravel, diameter 6 inches, depth 247 feet, casing opened at 151 feet. Highest water level 19.00 below lsd, June 11, 1947; lowest 51.50 below lsd, Oct. 17, 1944. Records available: 1942-52. Reclassified as project observation well.

B-23. Carl E. Schiering. Lat. 39°20'15", long. 84°34'56". Drilled unused well in gravel, diameter 6 inches, depth 176 feet. Highest water level 11.41 below lsd, June 5, 1947; lowest 28.10 below lsd, Dec. 26, 1944. Records available: 1943-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.10	22.45	22.10	21.60	22.05	20.65	21.55	22.00	23.05	23.95	24.55	24.90
2	24.10	22.40	22.10	21.65	22.05	20.70	21.55	22.05	23.10	23.95	24.55	24.90
3	24.15	22.35	22.10	21.65	22.10	20.75	21.40	22.05	23.10	23.95	24.55	24.90
4	24.15	22.35	22.05	21.70	22.10	20.75	21.45	22.10	23.15	24.00	24.55	24.95
5	24.15	22.35	22.00	21.75	22.15	20.85	21.45	22.10	23.20	24.00	24.55	24.95
6	24.15	22.30	21.85	21.75	22.15	20.90	21.40	22.15	23.25	24.05	24.60	24.95
7	24.20	22.30	21.80	21.80	22.15	20.90	21.20	22.20	23.25	24.05	24.60	24.95
8	24.20	22.30	21.75	21.80	22.20	20.85	....	22.20	23.30	24.10	24.60	24.95
9	24.10	22.30	21.75	21.80	22.20	20.90	21.00	22.25	23.35	24.10	24.65	24.95
10	24.00	22.30	21.75	21.85	22.20	20.90	21.00	22.25	23.35	24.10	24.65	24.95
11	23.95	22.30	21.75	21.90	22.15	20.90	21.00	22.30	23.40	24.15	24.65	24.95
12	23.85	22.25	21.75	21.90	22.20	20.85	21.05	22.30	23.40	24.15	24.70	24.95
13	23.70	22.20	21.75	21.90	22.20	20.75	21.10	22.35	23.45	24.20	24.70	24.95
14	23.60	22.10	21.75	21.95	22.20	20.70	21.15	22.40	23.45	24.20	24.70	25.00
15	23.55	22.05	21.70	21.95	22.20	20.75	21.20	22.45	23.50	24.20	24.70	25.00
16	23.45	22.05	21.70	22.00	22.15	20.75	21.25	22.45	23.55	24.25	24.75	25.05
17	23.40	22.05	21.70	22.00	22.05	20.80	21.30	22.50	23.60	24.25	24.75	25.05
18	23.30	22.05	21.65	22.00	21.90	20.85	21.35	22.60	23.60	24.25	24.75	25.05
19	23.15	22.05	21.60	22.00	21.70	20.90	21.40	22.60	23.60	24.30	24.80	25.05
20	23.00	22.05	21.55	22.00	21.60	20.95	21.45	22.65	23.65	24.35	24.80	25.05
21	22.90	22.10	21.45	21.95	21.50	21.00	21.55	22.70	23.65	24.35	24.80	25.05
22	22.85	22.10	21.40	21.95	21.45	21.05	21.55	22.75	23.75	24.35	24.80	25.05
23	22.80	22.10	21.40	21.95	21.35	21.15	21.60	22.75	23.75	24.40	24.80	25.05
24	22.70	22.05	21.40	21.95	21.15	21.20	21.65	22.80	23.75	24.40	24.80	25.05
25	22.70	22.05	21.45	21.95	20.95	21.25	21.70	22.80	23.80	24.40	24.80	25.05

B-23--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	22.70	22.05	21.45	22.00	20.75	21.30	21.70	22.85	23.80	24.45	24.85	25.10
27	22.65	22.05	21.45	22.00	20.70	21.35	21.75	22.90	23.80	24.45	24.85	25.10
28	22.60	22.10	21.50	22.00	20.65	21.40	21.85	22.95	23.85	24.45	24.85	25.10
29	22.55		21.55	22.00	20.60	21.45	21.90	22.95	23.90	24.50	24.85	25.15
30	22.50		21.55	22.00	20.60	21.55	21.90	23.00	23.90	24.50	24.90	25.15
31	22.45		21.60		20.60		21.95	23.05		24.50		25.15

B-30-M. City of Hamilton. Pleasant and Marshall Aves. Drilled unused well in gravel, diameter 2 inches, depth 85 feet. Highest water level 26.64 below lsd, June 16, 1947; lowest 36.99 below lsd, Feb. 5, 1945. Records available: 1943-52. Reclassified as project observation well.

25-5. City of Middletown. Columbia Ave., Middletown. Lat. 39°32', long. 84°25'. Drilled unused well in gravel, diameter 8 inches, depth 62 feet. Highest water level 13.25 below lsd, May 4, 1947; lowest 41.10 below lsd, Sept. 25, 1941. Records available: 1941-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.10	33.00	33.05	32.35	32.80	29.00	30.80	32.20	32.95	33.75	34.20	35.20
2	34.15	33.05	33.05	32.50	32.80	29.00	30.85	32.25	33.00	33.85	34.25	35.20
3	34.15	33.20	33.10	32.65	32.75	29.20	30.95	32.25	33.00	33.85	34.35	35.30
4	34.20	33.20	33.20	32.65	32.80	29.40	30.95	32.30	33.05	33.90	34.35	35.35
5	34.20	33.25	33.20	32.70	32.80	29.60	30.95	32.25	33.10	33.90	34.40	35.40
6	34.20	33.30	33.10	32.70	32.80	29.60	30.95	32.25	33.15	33.90	34.45	35.35
7	34.25	33.35	33.00	32.60	32.85	29.65	30.95	32.25	33.15	34.00	34.50	35.30
8	34.25	33.30	32.85	32.65	32.85	29.75	31.00	32.25	33.15	34.10	34.45	35.30
9	34.25	33.30	32.70	32.65	32.85	29.85	31.00	32.25	33.15	34.30	34.45	35.25
10	34.25	33.35	32.75	32.65	32.80	29.90	31.10	32.25	33.15	34.45	34.45	35.25
11	34.15	33.40	32.75	32.65	32.80	29.95	31.15	32.30	33.20	34.60	34.50	35.30
12	34.00	33.40	32.75	32.80	32.80	29.90	31.20	32.25	33.25	34.70	34.50	35.30
13	33.85	33.40	32.85	32.90	32.80	29.80	31.25	32.25	33.25	34.65	34.60	35.25
14	33.65	33.30	32.85	32.90	32.85	29.70	31.30	32.25	33.30	34.45	34.60	35.20
15	33.55	33.20	32.85	32.85	32.90	29.65	31.40	32.25	33.30	34.35	34.60	35.25
16	33.75	33.10	32.70	32.85	32.85	29.70	31.45	32.25	33.35	34.30	34.60	35.25
17	33.90	33.10	32.65	32.90	32.70	29.75	31.50	32.25	33.35	34.25	34.70	35.30
18	33.95	33.05	32.60	32.95	32.50	29.85	31.55	32.30	33.40	34.25	34.75	35.35
19	33.80	33.10	32.55	33.00	32.20	29.90	31.60	32.30	33.45	34.20	34.85	35.40
20	33.65	33.10	32.50	32.95	31.65	30.00	31.65	32.35	33.45	34.20	34.85	35.40
21	33.35	33.15	32.45	32.85	31.20	30.05	31.70	32.40	33.50	34.20	34.90	35.40
22	33.25	33.20	32.35	32.85	30.80	30.15	31.75	32.45	33.50	34.15	34.85	35.40
23	33.15	33.20	32.25	32.85	30.60	30.20	31.80	32.45	33.55	34.15	34.80	35.40
24	33.05	33.00	32.10	32.85	30.25	30.30	31.85	32.50	33.60	34.15	34.85	35.40
25	33.00	33.05	32.05	32.80	29.65	30.35	31.90	32.55	33.60	34.15	34.90	35.40
26	32.85	33.10	32.15	32.80	29.35	30.50	31.90	32.60	33.65	34.20	34.90	35.40
27	32.80	33.15	32.20	32.80	29.10	30.55	31.95	32.70	33.65	34.20	34.90	35.40
28	32.80	33.15	32.20	32.75	29.00	30.60	32.00	32.75	33.70	34.15	34.90	35.40
29	32.80		32.25	32.75	28.85	30.70	32.05	32.80	33.70	34.20	34.90	35.35
30	32.90		32.35	32.75	28.85	30.75	32.10	32.85	33.70	34.20	35.05	35.35
31	32.95		32.35		28.85		32.15	32.90		34.20		35.45

33-1. Prairie State Paper Mills. Vanderveer and Fifth Ave., Middletown. Dug unused well in gravel, diameter 16 feet, depth 45 feet. Highest water level 25.13 below lsd, June 17, 1947; lowest 46.78 below lsd, Nov. 7, 1944. Records available: 1939-52. Reclassified as project observation well.

36-13. American Rolling Mill Co. Crawford St. and South Ave., Middletown. Lat. 39°30'00", long. 84°23'00". Drilled unused well in gravel, diameter 26 inches, depth 183 feet. Highest water level 76.83 below lsd, Aug. 1, 1938; lowest 135.55 below lsd, Dec. 4-5, 1953. Records available: 1938-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	113.70	.....	118.35	119.75	121.50	124.35	128.60	129.45	130.25	132.45	132.45	133.10
2	114.10	.....	118.00	119.85	121.65	124.55	128.75	129.35	130.45	132.60	132.30	133.35
3	114.25	113.55	118.40	119.95	121.65	124.80	128.80	129.00	130.55	132.65	132.45	133.50
4	113.80	114.15	118.75	120.00	121.20	125.10	128.85	128.75	130.60	132.60	132.70	135.55
5	114.35	114.50	119.00	119.75	121.45	125.35	128.75	128.75	130.60	132.35	132.85	135.55

36-13--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	114.50	.....	119.20	119.45	121.60	125.55	128.15	128.80	130.50	132.55	133.00	133.45
7	114.40	115.40	119.30	119.40	121.65	125.55	128.35	128.90	130.15	132.65	133.00	133.35
8	114.65	115.35	119.10	119.50	121.70	125.55	128.55	128.90	130.20	132.80	132.95	133.60
9	114.70	115.25	118.95	119.65	121.70	125.75	128.75	128.90	130.35	132.90	132.50	133.70
10	114.30	115.30	119.20	119.85	121.40	125.95	128.85	128.75	130.55	132.95	132.65	133.90
11	114.05	115.60	119.50	119.85	120.90	126.10	128.90	128.85	130.70	132.90	133.10	133.95
12	113.65	115.80	119.70	119.80	121.10	126.35	128.85	129.10	130.95	132.85	133.20	133.90
13	113.00	.....	119.85	119.35	121.25	126.55	128.50	129.05	.....	133.00	133.40	133.80
14	112.70	116.60	119.90	119.35	121.30	126.60	128.75	129.20	.....	133.15	133.40	133.70
15	112.35	116.60	119.70	119.45	121.40	126.55	128.95	129.25	131.15	133.30	133.00	133.85
16	112.00	116.70	119.65	119.60	121.50	126.80	129.05	129.25	131.30	133.45	132.75	.....
17	111.60	116.90	119.60	119.65	121.50	127.05	129.15	129.30	131.35	133.50	133.15	.....
18	110.95	117.15	119.95	120.55	121.25	127.25	129.20	129.35	131.45	133.45	133.40	.....
19	110.65	117.20	120.20	120.40	121.60	127.45	129.50	129.40	.....	133.45	133.50	.....
20	110.70	117.25	120.40	120.55	121.95	127.60	129.55	129.45	.....	133.45	133.60	.....
21	110.95	117.55	120.45	120.80	122.40	127.70	129.45	129.50	.....	133.55	133.65	.....
22	111.00	117.50	120.45	120.70	122.80	127.75	.....	129.50	.....	133.55	134.05	134.30
23	111.10	116.95	120.20	120.85	123.05	127.95	.....	129.55	.....	133.60	134.05	134.30
24	111.40	117.45	120.40	120.95	123.05	128.10	.....	129.60	.....	133.65	133.50	134.30
25	111.45	117.70	120.60	121.05	123.10	128.30	.....	129.60	.....	133.65	133.60	.....
26	111.40	117.95	120.70	121.05	123.50	128.40	.....	129.65	.....	133.20	133.75	.....
27	111.45	118.30	120.90	121.00	123.80	128.45	.....	129.70	.....	132.65	133.80	.....
28	111.70	118.35	121.05	121.15	124.05	128.45	129.75	129.75	.....	132.85	133.80	.....
29	112.05	.....	120.90	121.25	124.25	128.25	129.80	129.85	132.15	132.60	133.25	132.15
30	112.25	.....	120.05	121.35	124.40	128.50	129.85	129.85	132.30	132.65	132.80	132.45
31	112.35	.....	119.65	.....	124.40	.....	129.65	130.00	.....	132.65	.....	132.60

85-7. City of Hamilton. Lat. 39°25', long. 84°32'. Drilled unused well in gravel, diameter 3 inches, depth 110 feet. Highest water level 12.45 below lsd, Apr. 23, 1940; lowest 38.80 below lsd, Sept. 4-5, 1953. Records available: 1939-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.45	34.65	35.05	35.35	35.75	.....	37.45	37.90	38.25	.....	.....	36.70
2	35.85	34.65	35.20	35.35	35.85	35.05	37.55	37.95	38.55	.....	.....	37.45
3	35.85	34.75	35.30	35.35	36.00	35.20	36.55	37.90	38.70	.....	37.15	37.60
4	34.75	34.75	35.30	35.30	.....	35.65	36.00	37.70	38.80	.....	37.50	37.60
5	34.65	34.80	34.80	35.05	.....	.....	35.95	37.45	38.80	.....	37.25	36.60
6	34.75	34.30	34.30	34.90	.....	.....	35.20	37.00	37.10	.....	.....	36.55
7	34.80	33.75	34.15	35.35	.....	35.10	35.25	36.85	36.00	.....	.....	36.90
8	34.80	34.20	34.25	35.05	.....	35.25	34.95	36.30	.....	.....	.....	37.25
9	34.55	34.80	34.25	36.00	.....	35.35	34.80	36.30	.....	.....	.....	37.15
10	34.40	34.55	34.45	35.60	.....	35.45	34.80	36.90	37.35	.....	37.05	36.55
11	34.20	33.90	34.60	35.25	.....	35.25	34.75	35.60	37.00	.....	37.10	36.55
12	33.90	33.95	34.80	35.25	.....	35.15	34.10	36.70	37.50	.....	37.20	36.70
13	33.95	34.25	34.80	35.70	.....	33.85	34.75	36.85	36.45	.....	37.40	36.70
14	34.30	34.50	34.80	35.75	.....	33.70	35.15	37.00	36.00	.....	37.45	36.95
15	34.50	34.30	34.05	.....	.....	33.60	35.75	37.70	36.70	.....	37.25	36.65
16	34.65	34.30	34.70	.....	.....	33.60	36.05	37.70	36.95	.....	37.75	36.90
17	34.70	34.30	34.70	.....	.....	34.80	36.05	.....	36.00	.....	37.60	36.95
18	34.45	34.35	34.40	.....	.....	35.10	35.35	36.85	37.05	.....	37.60	37.00
19	33.95	34.05	.....	35.50	34.40	35.25	34.40	36.90	36.10	.....	37.55	37.05
20	33.55	34.60	.....	35.50	34.35	35.80	35.40	37.05	35.65	.....	37.70	37.10
21	33.75	35.00	.....	35.40	35.15	.....	35.45	36.65	35.60	.....	37.70	37.10
22	33.80	34.80	.....	35.35	35.10	.....	35.15	37.35	35.60	.....	36.80	37.20
23	33.55	34.80	.....	35.45	34.55	.....	35.00	37.30	35.55	.....	37.60	37.20
24	33.55	34.85	34.45	35.80	33.85	.....	35.30	37.15	35.65	.....	37.80	37.25
25	33.85	35.20	34.50	35.25	33.30	.....	36.35	37.35	35.65	.....	37.90	37.30
26	33.85	35.05	34.90	35.30	33.10	.....	35.80	38.10	35.50	.....	37.00	37.35
27	34.30	34.90	34.55	35.65	35.15	.....	36.45	38.25	35.35	37.10	36.50	37.00
28	34.45	35.10	34.95	35.35	.....	.....	36.70	37.80	36.40	37.50	36.40	37.40
29	34.00	.....	35.25	35.60	.....	.....	37.25	38.40	35.95	37.15	36.60	37.90
30	34.20	.....	35.30	36.00	.....	37.15	37.65	38.55	.....	.....	36.55	37.80
31	34.50	.....	35.40	.....	.....	.....	37.85	38.05	.....	37.35	.....	37.95

117. Anna Magie. Lat. 39°21'30", long. 84°34'56". Driven unused well in gravel, diameter 1½ inches, depth 40 feet. Highest water level 15.90 below lsd, June 10, 1947; lowest 32.57 below lsd, Dec. 4, 1951. Records available: 1938-52. Reclassified as project observation well.

150-2. Mrs. J. Wesley Morris. Lat. 39°21'01", long. 84°29'18". Dug unused well in gravel, diameter 24 inches, depth 28 feet. Highest water level 1.00 below lsd, Mar. 16, 1943; lowest 21.37 below lsd, Aug. 12, 1941. Records available: 1938-52. Reclassified as project observation well.

151-1. Harry A. Morris. Lat. 39°21'00", long. 84°29'18". Drilled unused well in gravel, diameter 6 inches, depth 227 feet. Highest water level 1.45 below lsd, June 4, 1947; lowest 33.20 below lsd, Dec. 24, 1941. Records available: 1940-52. Reclassified as project observation well.

180. Fox Paper Co. Crescentville. Lat. 39°18'05", long. 84°26'18". Drilled unused well in gravel, diameter 26 inches, depth 90 feet. Highest water level 3.77 below lsd, Jan. 27, 1949; lowest 22.20 below lsd, Dec. 16-17, 23-24, 31, 1953. Records available: 1938-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.90	10.60	9.35	....	....	....	....	15.45	17.65	19.55	20.65	21.60
2	17.75	10.50	9.20	....	....	7.73	....	15.55	17.60	19.45	20.70	21.55
3	17.80	10.20	9.15	....	....	....	....	15.55	17.55	19.50	20.70	21.35
4	17.95	10.30	8.15	....	9.30	....	....	15.50	17.80	19.40	20.85	21.45
5	18.25	10.20	8.25	....	....	....	....	15.60	17.95	19.35	20.95	21.70
6	18.35	10.10	8.35	....	....	....	....	15.65	18.00	19.65	20.95	21.60
7	18.35	10.15	8.35	9.10	....	....	....	15.75	18.20	19.80	20.80	21.80
8	17.65	10.30	8.25	....	....	....	....	15.75	18.35	19.75	20.75	21.65
9	14.70	10.45	8.25	....	....	....	....	15.95	18.40	19.55	20.90	21.50
10	14.50	10.40	8.25	....	....	....	....	16.15	18.30	19.55	20.95	21.75
11	14.55	10.10	8.35	....	....	....	....	16.20	18.15	19.55	21.00	21.80
12	14.60	9.70	8.40	....	....	....	....	16.20	18.30	20.00	21.10	21.70
13	14.25	9.40	8.45	....	....	....	....	16.25	18.40	20.05	21.10	21.60
14	14.20	9.45	8.45	....	....	....	....	16.25	18.35	20.00	21.05	21.55
15	14.10	9.55	8.20	....	....	10.94	....	16.40	....	19.95	20.90	21.90
16	14.10	9.80	8.25	....	....	....	....	16.50	....	19.95	20.95	22.20
17	14.05	9.95	8.30	....	....	....	....	16.60	....	20.05	21.05	22.20
18	13.15	9.95	8.25	....	7.87	....	....	16.65	....	20.10	21.10	22.15
19	12.95	9.95	....	....	....	....	....	16.65	....	20.10	....	21.95
20	12.80	9.80	....	8.19	....	....	....	16.80	....	20.20	....	21.65
21	12.70	9.40	....	....	....	....	....	16.90	19.10	20.20	....	21.50
22	12.70	8.95	....	....	....	....	....	16.95	19.25	20.20	....	22.05
23	12.45	8.90	....	....	....	....	....	16.90	19.25	20.05	21.00	22.20
24	11.90	8.80	....	....	....	....	....	17.05	19.10	20.15	20.95	22.20
25	12.15	8.65	....	....	....	....	....	17.15	18.95	20.30	21.15	21.90
26	12.15	8.65	....	....	....	....	....	17.20	18.90	20.25	21.40	21.85
27	11.80	9.00	....	....	....	....	15.05	17.25	19.00	20.20	21.65	21.95
28	11.20	9.15	....	....	....	....	15.10	17.25	19.10	20.30	21.80	21.75
29	11.05	....	....	....	....	13.52	15.20	17.30	19.20	20.50	21.70	21.85
30	10.95	....	....	....	....	....	15.35	17.40	19.40	20.70	21.50	21.10
31	10.70	....	....	....	....	....	15.40	17.55	....	20.65	....	22.20

Carroll County

C-1. City of Carrollton. Lat. 40°37'26", long. 81°05'12". Drilled unused well in sandstone, diameter 10 inches, depth 60 feet. Highest water level 19.25 below lsd, May 5, 1952; lowest 37.65 below lsd, Dec. 16, 1952. Records available: 1951-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.95	....	25.85	22.70	22.35	21.00	26.80	26.95	30.80	25.00	28.05	29.50
2	35.40	....	25.10	22.55	23.05	21.65	26.80	27.05	29.75	24.55	27.90	30.55
3	35.45	....	25.35	22.05	23.05	21.60	26.95	27.65	28.05	24.75	27.10	30.90
4	34.85	....	25.10	22.05	22.00	22.35	26.90	....	26.95	25.50	26.20	30.60
5	34.90	....	24.60	21.80	21.95	22.85	26.40	....	25.90	25.20	26.15	30.20
6	35.15	....	25.40	21.85	22.00	23.25	25.60	30.25	26.20	24.50	26.90	30.65
7	35.30	27.30	25.45	22.20	21.80	23.30	25.45	....	26.50	23.75	....	31.50
8	35.10	27.25	24.40	22.40	21.75	23.75	25.50	....	....	23.15	....	32.00
9	34.70	27.10	24.85	22.40	21.55	24.25	25.05	....	....	23.50	....	32.45
10	34.75	26.90	24.80	22.35	21.40	24.90	25.10	29.70	26.00	24.60	....	32.55
11	34.25	26.90	24.10	22.40	21.45	25.60	24.75	29.75	....	25.60	26.80	33.20
12	34.50	26.90	23.85	21.90	21.50	26.15	24.70	29.85	....	25.95	27.00	32.30
13	34.80	26.40	23.75	22.30	21.55	26.20	24.45	30.00	....	24.80	28.35	33.25
14	34.85	26.20	23.85	22.85	21.25	26.50	24.60	30.10	24.40	24.50	28.60	32.60
15	34.00	26.20	23.55	22.95	21.30	27.60	24.80	29.95	23.80	24.15	28.60	32.85

C-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	34.00	26.20	23.65	23.30	21.20	28.05	25.10	30.15	23.00	25.25	27.80	31.65
17	33.50	25.85	23.35	23.25	22.15	28.30	25.40	29.50	22.35	26.40	27.50	32.25
18	33.45	25.60	22.60	22.20	.....	28.30	25.55	29.75	21.70	26.95	28.75	32.80
19	32.40	25.60	22.75	22.55	22.00	27.45	25.25	29.80	22.85	27.05	29.35	31.85
20	32.35	25.60	22.60	.....	21.70	27.55	25.30	30.05	23.45	26.40	28.90	32.95
21	32.65	25.60	23.55	.....	21.45	26.60	25.50	29.90	23.35	26.20	29.10	33.15
22	32.60	25.60	23.60	.....	20.45	26.10	25.60	30.40	22.70	26.60	29.20	32.40
23	31.50	25.15	23.75	22.60	20.40	25.70	25.45	30.10	22.05	26.80	28.50	33.20
24	31.55	25.60	23.75	.....	20.70	25.90	25.90	30.15	22.60	26.40	28.90	33.70
25	30.80	25.50	22.95	.....	20.90	26.15	26.30	30.50	23.65	26.85	30.25	34.15
26	30.95	24.95	23.45	.....	20.90	26.25	26.35	30.80	23.95	26.55	30.05	33.70
27	31.00	25.70	23.50	22.70	21.20	25.90	25.75	31.05	24.05	25.80	29.80	33.85
28	31.05	25.75	23.35	22.90	21.25	26.20	26.10	31.30	25.00	25.75	30.55	33.10
29	30.30	.....	22.75	23.05	21.05	26.40	26.30	31.55	25.70	26.85	30.45	32.50
30	29.60	.....	22.95	22.90	21.20	26.70	26.00	31.70	26.00	27.45	30.30	33.40
31	.....	.....	22.65	.....	20.80	.....	26.90	30.60	.....	28.00	.....	33.85

Champaign County

Ch-1. State of Ohio. Lat. 40°06'36", long. 83°48'00". Drilled observation well in gravel, diameter 6 inches, depth 45 feet. Highest water level 1.43 below lsd, Jan. 17, 1950; lowest 9.41 below lsd, Dec. 31, 1953. Records available: 1948-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.14	8.40	8.55	8.47	8.59	7.67	8.32	8.65	8.95	9.12	9.24	9.34
2	9.15	8.43	8.57	8.48	8.61	7.72	8.33	8.64	8.97	9.13	9.24	9.34
3	9.15	8.47	8.58	8.49	8.61	7.77	8.19	8.62	8.98	9.13	9.24	9.34
4	9.16	8.51	8.42	8.51	8.61	7.81	8.22	8.64	8.99	9.14	9.25	9.35
5	9.17	8.53	7.77	8.52	8.61	7.86	8.24	8.67	8.99	9.14	9.26	9.35
6	9.18	8.56	7.85	8.53	8.61	7.88	8.27	8.68	8.99	.....	9.26	9.35
7	9.18	8.58	7.91	8.55	8.62	7.89	8.30	8.69	9.00	.....	9.26	9.35
8	9.18	8.61	8.00	8.56	8.53	7.91	8.34	8.70	9.01	.....	9.26	9.36
9	9.13	8.64	8.06	8.56	8.57	7.94	8.36	8.71	9.01	9.15	9.27	9.36
10	9.08	8.65	8.11	8.56	8.59	7.95	8.38	8.72	9.02	9.15	9.27	9.35
11	8.87	8.65	8.15	8.57	8.62	7.83	8.40	8.74	9.03	9.16	9.27	9.36
12	8.51	8.55	8.18	8.58	8.63	7.86	8.41	8.74	9.03	9.16	9.28	9.36
13	8.52	8.49	8.23	8.59	8.63	7.91	8.43	8.76	9.04	.....	9.28	9.36
14	8.56	8.49	8.25	8.60	8.60	7.95	8.45	8.76	9.04	.....	9.28	9.36
15	8.60	8.47	8.28	8.60	8.51	7.98	8.46	8.78	9.04	9.18	9.28	9.37
16	8.65	8.48	8.33	8.58	8.44	8.00	8.48	8.78	9.05	9.19	9.29	9.37
17	8.66	8.51	8.35	8.59	8.27	8.03	8.49	8.80	9.06	9.19	9.29	9.38
18	8.42	8.53	8.35	8.59	7.60	8.06	8.49	8.81	9.06	9.20	9.29	.....
19	8.01	8.55	8.28	8.59	7.50	8.07	8.47	8.83	9.06	9.20	9.30	.....
20	8.09	8.56	8.28	8.58	7.59	8.10	8.50	8.84	9.06	9.21	9.30	.....
21	8.18	8.55	.....	8.57	7.65	8.13	8.52	8.86	9.07	9.21	9.31	.....
22	8.25	8.48	.....	8.56	7.65	8.16	8.53	8.86	9.08	9.22	9.31	9.35
23	8.30	8.46	.....	8.55	7.35	8.18	8.53	8.87	9.08	9.22	9.31	9.35
24	8.35	8.43	8.33	8.56	7.09	8.20	8.55	8.88	9.09	9.22	9.31	9.35
25	8.42	8.44	8.35	8.55	7.04	8.22	8.56	8.89	9.09	9.22	9.31	9.35
26	.....	8.44	8.39	8.55	7.17	8.24	8.58	8.90	9.10	9.22	9.32	9.36
27	.....	8.48	8.39	8.57	7.30	8.26	8.59	8.92	9.10	9.22	9.32	9.38
28	8.48	8.52	8.42	8.58	7.38	8.27	8.60	8.93	9.11	9.23	9.33	9.38
29	8.41	.....	8.44	8.58	7.44	8.29	8.61	8.93	9.11	9.23	9.33	9.39
30	8.40	.....	8.45	8.58	7.52	8.31	8.63	8.94	9.12	9.23	9.33	9.40
31	8.38	.....	8.46	.....	7.59	.....	8.64	8.95	.....	9.24	.....	9.41

Clark County

C1-2. City of Springfield. Lat. 39°55'50", long. 83°51'12". Drilled unused well in gravel, diameter 6 inches, depth 74 feet. Highest water 0.20 below lsd, Jan. 15, 1950; lowest 7.40 below lsd, Sept. 18, 29-30, Oct. 1-3, 16-17, 21-22, Nov. 6-7, Dec. 1-5, 18-19, 30-31, 1953. Records available: 1949-53.

C1-2--Continued.

Daily lowest water level from recorder graph, 1950

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	5.31	5.80	5.37	6.35	6.68	6.75	6.68	6.75	6.71	....
2	6.54	....	5.45	5.81	5.54	6.37	6.65	6.79	6.68	6.80	....	....
3	6.35	....	5.53	5.80	5.65	6.37	6.60	6.81	6.70	6.79	....	....
4	....	....	5.57	5.66	5.78	6.25	6.41	6.82	6.75	6.80	....	3.22
5	....	....	5.61	3.57	5.84	6.35	6.16	6.83	6.77	6.82	....	3.93
6	1.63	5.32	5.65	4.28	5.90	6.39	6.33	6.84	6.80	6.82	6.75	4.37
7	3.38	5.44	5.63	4.91	5.97	6.40	6.43	6.85	6.82	6.81	....	4.37
8	4.14	5.47	5.62	4.99	6.02	6.42	6.48	6.87	6.85	6.80	....	3.90
9	4.52	5.03	5.64	5.22	6.02	6.44	6.54	6.85	6.84	....	....	4.48
10	4.43	4.64	5.72	5.26	6.04	6.36	6.56	6.80	6.82	....	....	4.83
11	3.32	4.93	5.70	5.37	5.84	6.35	6.60	6.81	6.75	....	....	5.10
12	4.00	5.07	5.58	5.50	5.94	6.40	6.62	6.82	6.68	....	....	....
13	4.06	4.78	5.44	5.61	5.98	6.34	6.62	6.87	6.40	....	....	....
14	3.74	2.63	5.45	5.71	6.02	6.37	6.65	6.90	6.52	....	....	....
15	4.00	3.16	5.53	5.76	6.03	6.38	6.65	6.92	6.61	....	....	....
16	1.42	3.78	5.57	5.78	6.07	6.38	6.65	6.94	6.66	6.50	6.71	....
17	3.08	4.22	5.63	5.89	6.10	6.33	6.68	6.92	6.70	6.53	6.74	....
18	3.76	4.45	5.65	5.92	6.07	6.37	6.63	6.90	6.75	....	6.74	....
19	4.27	4.62	5.73	5.94	6.11	6.45	6.46	6.78	6.75	....	6.74	....
20	4.59	4.81	5.75	5.96	6.14	6.49	6.54	6.85	6.66	....	6.50	....
21	4.77	4.94	5.05	6.01	6.15	6.54	6.57	6.91	6.65	6.61	3.91	....
22	4.91	4.71	5.20	6.05	6.15	6.55	....	6.93	6.10	6.62	4.56	....
23	5.02	4.05	5.34	6.04	6.15	6.55	....	6.94	6.30	....	4.92	....
24	4.79	4.45	5.47	5.53	6.18	6.55	6.67	6.94	6.41	....	5.32	....
25	3.77	4.79	5.60	5.49	6.22	6.47	6.70	6.94	6.53	....	5.64	....
26	3.85	5.04	5.63	5.45	6.25	6.53	6.72	6.96	6.61	....	5.72	....
27	3.71	5.20	5.63	5.61	6.25	6.61	6.73	6.96	6.66	....	5.77	....
28	4.21	5.21	5.44	5.75	6.25	6.60	6.76	6.97	6.71	....	....	....
29	4.42	....	5.79	5.77	6.30	6.63	6.77	6.45	6.75	6.69	....	....
30	4.59	....	5.70	5.76	6.30	6.67	6.76	6.53	6.73	6.70	....	....
31	....	....	5.77	....	6.31	....	6.78	6.61	....	....	....	....

Daily lowest water level from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.89	5.28	5.12	5.63	6.08	6.10	6.87	7.06	7.00	6.95	6.80
2	5.88	5.38	5.29	5.70	6.14	6.20	6.88	7.07	7.00	6.95	6.85
3	5.98	5.38	5.39	5.70	6.19	6.27	6.89	7.06	7.05	6.90	6.85
4	6.00	4.78	5.54	5.74	6.20	6.30	6.91	7.05	7.05	6.95	6.85
5	6.12	5.00	5.62	5.79	6.24	6.37	6.91	7.05	7.05	7.00	6.55
6	6.19	5.16	5.68	5.85	6.26	6.42	6.86	7.05	7.05	7.00	6.55
7	5.93	5.17	5.70	5.94	6.28	6.47	6.80	7.00	7.00	6.70	6.55
8	5.93	5.11	....	5.98	6.29	6.47	6.85	7.00	7.00	6.75	6.15
9	5.93	5.37	5.60	6.03	6.22	6.54	6.83	7.05	7.00	6.85	5.75
10	6.40	5.42	5.40	6.03	6.10	6.55	6.87	7.05	7.00	6.90	5.50
11	6.43	5.49	5.45	5.42	6.24	6.54	6.85	6.95	7.00	6.90	5.80
12	6.02	5.56	5.38	5.61	6.30	6.53	6.88	6.95	7.00	6.95	6.05
13	3.50	5.56	5.15	5.71	6.29	6.51	6.92	6.95	7.00	6.95	6.20
14	4.25	5.00	4.87	5.94	6.34	6.55	6.93	6.90	7.00	6.70	6.30
15	4.75	5.00	5.02	6.00	6.39	6.56	6.94	6.95	7.00	6.70	6.40
16	4.90	5.10	5.24	6.07	6.43	6.62	6.95	6.95	7.00	6.70	....
17	4.88	5.14	5.41	6.10	6.45	6.64	6.95	7.00	7.00	6.90	....
18	4.78	5.28	5.50	5.93	6.50	6.64	6.97	7.00	7.00	7.00	....
19	4.55	5.38	5.60	6.02	6.53	6.67	6.97	7.05	7.00	7.10	6.65
20	4.45	5.42	5.70	6.05	6.50	6.69	7.04	7.05	7.00	6.95	....
21	2.85	5.45	5.75	6.06	6.54	6.71	7.06	7.10	7.00	6.95	....
22	3.57	5.48	5.75	6.08	6.52	6.70	7.07	7.10	7.05	6.95	....
23	4.11	5.34	5.68	5.98	6.27	6.70	7.08	7.05	7.05	6.80	6.15
24	4.45	5.37	5.74	6.09	6.38	6.74	7.09	7.10	6.95	6.45	6.30
25	4.70	5.50	5.79	6.16	6.46	6.78	7.10	7.10	6.90	6.55	6.30
26	5.63	4.90	5.58	5.82	6.17	6.50	6.80	7.06	7.10	6.95	6.55	5.65
27	5.65	5.10	5.64	5.85	5.85	6.50	6.82	7.01	7.15	6.90	6.65	5.70
28	5.70	5.20	5.63	5.87	5.63	6.30	6.84	7.00	7.10	6.95	6.70	5.95
29	5.80	....	5.14	5.86	5.72	6.06	6.84	7.01	7.10	6.95	6.75	6.00
30	5.90	....	4.78	5.86	5.88	6.04	6.84	7.04	7.00	6.95	6.80	5.65
31	5.92	....	4.95	....	5.97	....	6.85	7.06	....	6.95	....	4.45

242 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

C1 -2--Continued.

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.75	4.55	5.85	5.50	5.75	6.10	6.60	6.95	7.05	7.20	7.20	7.20
2	4.95	4.15	5.85	5.60	5.80	6.15	6.65	7.00	6.85	7.15	7.15	7.20
3	5.05	4.05	5.85	5.70	5.85	6.20	6.65	7.00	6.95	7.20	7.10	7.25
4	5.20	3.25	5.85	5.70	5.90	6.20	6.60	7.00	7.00	7.15	7.15	7.25
5	5.30	4.00	5.95	5.40	5.95	6.20	6.65	7.00	7.05	7.15	7.15	6.95
6	5.45	4.30	6.00	5.10	5.60	6.25	6.65	7.00	7.05	7.05	7.15	6.85
7	5.55	4.55	6.00	5.25	5.75	6.30	6.70	7.00	7.00	7.10	7.15	6.85
8	5.70	4.70	6.00	5.45	5.85	6.35	6.70	7.05	7.05	7.10	7.15	6.95
9	5.85	4.90	6.00	5.55	5.90	6.35	6.70	7.00	7.10	7.10	7.15	7.00
10	5.95	5.00	6.00	5.60	5.90	6.40	6.75	6.90	7.10	7.10	7.10	6.35
11	6.05	5.20	4.60	5.70	5.95	6.40	6.75	6.95	7.15	7.10	7.10	6.45
12	6.10	5.35	3.80	5.70	6.00	6.40	6.80	6.90	7.15	7.05	7.10	6.55
13	6.10	5.45	4.35	5.40	6.05	6.40	6.80	6.95	7.15	7.10	7.10	6.65
14	6.10	5.50	4.70	3.80	6.10	6.40	6.80	6.95	7.15	7.15	7.10	6.70
15	5.85	5.55	4.95	4.20	6.15	6.35	6.80	6.90	7.10	7.15	7.10	6.80
16	5.70	5.55	5.15	4.60	6.15	6.40	6.80	6.90	7.15	7.15	7.10	6.90
17	5.55	5.60	5.35	4.90	5.95	6.45	6.80	6.80	7.15	7.15	7.15	6.95
18	5.15	5.70	5.45	5.15	6.05	6.45	6.85	6.85	7.15	7.15	7.15	7.00
19	5.30	5.70	5.25	5.35	6.05	6.50	6.85	6.90	6.85	7.10	7.15	7.00
20	5.15	5.70	5.25	5.50	6.05	6.55	6.80	6.95	6.95	7.15	7.15	7.00
21	5.35	4.75	5.40	5.55	6.05	6.50	6.85	6.90	6.95	7.15	7.15	7.00
22	5.45	5.10	5.35	5.65	6.10	6.50	6.85	6.95	7.00	7.15	7.15	6.95
23	5.65	5.30	3.40	5.65	6.15	6.50	6.85	6.95	7.05	7.15	7.15	7.00
24	5.80	5.45	4.15	4.80	5.40	6.55	6.90	7.00	7.10	7.20	7.15	7.05
25	5.85	5.55	4.55	5.05	5.20	6.60	6.90	7.05	7.10	7.20	7.20	7.05
26	5.25	5.65	4.85	5.25	5.30	6.65	6.95	7.05	7.15	7.15	7.20	7.05
27	1.90	5.70	5.15	5.40	5.50	6.30	6.95	7.10	7.15	7.15	7.20	7.10
28	2.80	5.75	5.30	5.50	5.70	6.45	6.95	7.10	7.10	7.15	7.20	7.10
29	3.55	5.85	5.45	5.65	5.85	6.50	6.90	7.10	7.15	7.15	7.20	7.10
30	4.15		5.50	5.70	5.95	6.55	6.95	7.05	7.15	7.15	7.15	7.15
31	4.45		5.55		6.00		6.95	7.00		7.20		7.15

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec..
1	7.15	6.30	6.75	6.65	....	....	6.85	7.15	7.30	7.40	7.30	7.40
2	7.10	6.40	6.75	6.65	....	....	6.80	6.55	7.30	7.40	7.30	7.40
3	7.15	6.50	6.80	6.65	....	....	6.75	6.70	7.30	7.40	7.30	7.40
4	7.15	6.60	5.20	6.65	....	6.35	6.80	6.80	7.30	7.35	7.35	7.40
5	7.20	6.65	5.50	6.65	....	6.40	6.80	6.70	7.25	7.30	7.35	7.40
6	....	6.70	5.85	6.75	....	6.40	6.80	6.80	7.20	7.30	7.40	7.35
7	....	6.70	5.95	6.75	6.75	6.30	6.85	6.85	7.20	7.30	7.40	7.35
8	....	6.75	6.05	6.75	6.65	6.35	6.85	6.85	7.25	7.30	7.35	7.35
9	....	6.80	6.15	6.55	....	6.45	6.90	6.85	7.30	7.30	7.35	7.35
10	....	6.80	6.25	6.55	....	6.45	6.90	6.90	7.30	7.30	7.30	7.30
11	6.10	6.80	6.30	6.55	....	6.15	6.95	6.95	7.35	7.25	7.30	7.35
12	6.25	6.15	6.30	6.55	....	6.25	6.95	6.95	7.35	7.30	7.30	7.35
13	6.40	6.25	6.30	6.55	....	6.35	6.95	7.00	7.30	7.35	7.30	7.35
14	6.50	6.35	6.30	6.60	6.55	6.40	6.95	7.00	7.30	7.35	7.30	7.25
15	6.55	6.40	6.30	6.65	6.40	6.45	7.00	7.05	7.35	7.35	7.30	7.30
16	6.65	6.50	6.30	6.40	6.35	6.50	7.00	7.00	7.35	7.40	7.30	7.35
17	6.65	6.60	6.35	6.45	5.65	6.50	6.95	7.05	7.35	7.40	7.35	7.35
18	5.40	6.65	6.35	6.45	5.00	6.55	6.95	7.05	7.40	7.35	7.35	7.40
19	5.75	6.70	5.90	6.45	5.40	6.60	6.80	7.10	7.35	7.35	7.35	7.40
20	6.00	6.70	6.05	6.25	5.75	6.65	6.90	7.15	7.30	7.35	7.35	7.35
21	6.20	6.55	6.15	6.30	5.90	6.70	7.00	7.15	7.30	7.40	7.30	7.30
22	6.30	6.40	6.20	6.35	5.85	6.75	6.95	7.15	7.30	7.40	7.30	7.30
23	6.35	6.45	6.30	6.45	3.75	6.75	6.90	7.15	7.35	7.35	7.30	7.30
24	6.35	6.55	6.35	6.50	4.10	6.80	7.00	7.15	7.35	7.35	7.30	7.35
25	6.45	6.60	6.40	6.50	4.65	6.85	7.00	7.20	7.35	7.35	7.35	7.30
26	6.55	6.65	6.45	6.50	5.10	6.85	7.05	7.20	7.35	7.35	7.35	7.35
27	6.60	6.70	6.50	6.55	5.45	6.80	7.05	7.25	7.30	7.40	7.35	7.35
28	6.40	6.75	6.50	6.60	5.65	6.85	7.05	7.25	7.35	7.30	7.35	7.35
29	6.20		6.50	6.65	....	6.80	7.10	7.25	7.40	7.30	7.35	7.35
30	6.25		6.55	6.65	....	6.85	7.10	7.25	7.40	7.30	7.35	7.40
31	6.25		6.60		....		7.15	7.25		7.30		7.40

Delaware County

Dl-2. U. S. Army Engineer Corps. Lat. 40°21'42", long. 83°04'25". Dug unused well in sand and gravel, diameter 24 inches, depth 31 feet. Highest water level 1.45 below lsd, Jan. 26, 1952; lowest 18.55 below lsd, Dec. 24-31, 1953. Records available: 1949-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.08	10.65	8.25	7.20	6.95	7.25	10.75	11.95	13.35	14.65	16.05	17.90
2	16.08	10.47	8.47	7.35	7.10	7.50	10.70	12.00	13.40	14.75	16.05	17.90
3	16.05	10.48	8.55	7.45	7.30	7.70	10.65	12.00	13.45	14.80	16.10	17.95
4	16.03	10.58	8.65	7.60	7.50	7.90	10.65	12.05	13.45	14.85	16.20	17.95
5	16.03	10.67	....	7.75	7.65	8.05	10.70	12.05	13.50	14.85	16.25	18.00
6	16.04	10.75	....	7.85	7.75	8.25	10.70	12.10	13.55	14.90	16.35	18.05
7	16.05	10.87	....	8.00	7.90	8.40	10.75	12.15	13.60	14.95	16.40	18.10
8	16.05	11.00	....	8.10	8.00	8.55	10.80	12.20	13.65	15.05	16.45	....
9	15.98	11.18	....	8.20	8.15	8.70	10.90	12.20	13.75	15.05	16.55	....
10	15.97	11.32	....	8.20	8.25	8.80	11.00	12.25	13.80	15.10	16.60	....
11	15.70	11.32	....	7.40	8.35	8.90	11.05	12.35	13.80	15.10	16.65	....
12	15.40	10.80	3.45	7.25	8.45	9.00	11.15	12.40	13.80	15.15	16.75	....
13	15.38	9.95	3.65	7.20	8.55	9.05	11.20	12.45	13.85	15.25	16.85	....
14	15.37	9.18	3.85	7.30	8.55	9.15	11.25	12.45	13.90	15.30	16.90	....
15	15.36	9.05	3.85	7.35	7.85	9.25	11.35	12.50	13.90	15.35	16.95	18.20
16	15.33	9.03	3.60	7.10	6.75	9.30	11.45	12.55	13.95	15.40	17.05	18.25
17	15.33	9.20	3.85	6.45	4.70	9.35	11.50	12.60	14.00	15.45	17.10	18.35
18	14.25	9.30	3.95	6.30	3.10	9.45	11.50	12.70	14.05	15.50	17.15	18.40
19	13.78	9.45	3.80	6.25	3.55	9.55	11.50	12.70	14.10	15.55	17.20	18.45
20	13.71	9.47	....	6.00	4.00	9.65	11.50	12.75	14.15	15.60	17.30	18.45
21	13.68	9.30	....	5.75	4.45	9.75	11.50	12.80	14.20	....	17.35	18.45
22	13.68	7.75	....	5.65	4.60	9.90	11.50	12.85	14.30	....	17.40	18.45
23	13.68	7.61	....	5.75	4.65	10.00	11.55	12.90	14.35	....	17.40	18.50
24	13.63	7.65	....	5.90	4.90	10.10	11.60	12.95	14.40	....	17.40	18.55
25	13.60	7.71	....	6.10	5.15	10.20	11.65	13.00	14.45	....	17.45	18.55
26	13.62	7.76	....	6.30	5.50	10.30	11.70	13.05	14.45	....	17.50	18.55
27	13.62	7.89	5.95	6.50	5.90	10.40	11.75	13.10	14.45	....	17.55	18.55
28	13.65	8.07	6.20	6.75	6.25	10.50	11.75	13.15	14.50	15.85	17.65	18.55
29	12.05	....	6.50	6.85	6.45	10.60	11.80	13.20	14.55	15.85	17.70	18.55
30	11.80	....	6.80	6.90	6.70	10.70	11.85	13.25	14.60	15.90	17.80	18.55
31	11.45	....	7.00	....	6.95	....	11.90	13.30	....	16.00	....	18.55

Dl-3. U. S. Army Engineer Corps. Lat. 40°21'42", long. 83°04'00". Drilled unused well in limestone, diameter 12 inches, depth 135 feet. Highest water level 23.40 below lsd, Jan. 29, 1952; lowest 37.04 below lsd, Nov. 1, 1948. Records available: 1948-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	29.05	28.58	28.87	28.82	27.08	27.05	27.30	27.15	27.41	28.03	28.47	....
2	28.92	28.35	28.77	28.90	27.22	27.07	27.10	27.21	27.37	27.97	28.51	....
3	28.90	28.47	28.73	28.85	27.27	27.06	26.87	27.20	27.35	27.95	28.56	....
4	28.97	28.61	28.43	28.67	27.24	27.03	26.84	27.14	27.45	27.91	28.62	....
5	29.07	28.62	28.02	28.61	27.15	27.10	26.75	27.22	27.48	27.91	28.65	....
6	29.12	28.75	28.15	28.47	27.15	27.15	26.94	27.22	27.47	28.01	28.67	....
7	29.15	28.80	28.34	28.40	27.11	27.17	27.11	27.22	27.57	28.08	28.58	....
8	29.00	28.94	28.49	28.39	27.03	27.15	27.13	27.15	27.60	28.04	28.63	....
9	28.89	29.04	28.50	28.24	26.77	27.22	27.27	27.17	27.62	27.91	28.74	....
10	28.84	29.03	28.45	28.05	26.61	27.32	27.37	27.20	27.55	27.90	28.74	....
11	28.65	28.81	28.43	28.02	26.76	27.16	27.36	27.15	27.47	28.00	28.80	....
12	28.49	28.56	28.36	27.50	26.81	27.07	27.31	27.10	27.57	28.15	28.85	....
13	28.40	28.57	28.20	27.20	26.98	27.11	27.29	27.12	27.63	28.15	28.86	....
14	28.58	28.52	28.27	27.28	26.65	27.17	27.30	27.10	27.61	28.11	28.84	....
15	26.61	28.58	28.31	27.12	26.23	27.19	27.37	27.17	27.57	28.05	28.78	....
16	28.75	28.74	28.40	27.08	26.15	27.17	27.39	27.20	27.68	28.12	28.85	....
17	28.74	28.82	28.35	27.05	25.95	27.28	27.39	27.24	27.75	28.17	28.91	....
18	28.36	28.85	28.25	26.84	26.05	27.32	27.29	27.24	27.72	28.17	28.95	....
19	27.82	28.88	28.39	26.88	25.68	27.32	27.22	27.23	27.67	28.17	28.97	....
20	27.95	28.75	28.47	26.87	24.45	27.32	27.25	27.27	27.68	28.20	28.93	....
21	28.36	28.67	28.42	26.92	25.70	27.38	27.27	27.32	27.89	28.24	28.98	....
22	28.44	28.47	28.42	26.83	26.00	27.39	27.22	27.31	27.95	28.22	28.98	....
23	28.40	28.33	28.53	27.00	26.09	27.40	27.27	27.27	27.92	28.15	28.95	....
24	28.50	28.38	28.52	27.02	25.68	27.39	27.33	27.32	27.81	28.24	28.89	....
25	28.81	28.42	28.55	26.83	25.11	27.35	27.25	27.35	27.75	28.29	28.78	....

DI-3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	28.83	28.36	28.59	26.99	24.72	27.41	27.02	27.35	27.75	28.27	29.03	.....
27	28.64	28.60	28.56	27.14	25.25	27.43	26.87	27.35	27.80	28.23	29.28	.....
28	28.63	28.75	28.61	27.17	26.36	27.37	26.83	27.31	27.83	28.27	29.49	.....
29	28.53		28.75	27.17	26.46	27.40	27.05	27.32	27.87	28.40	29.67	.....
30	28.50		28.75	27.04	26.55	27.38	27.14	27.35	27.97	28.47	29.79	.....
31	28.49		28.67		26.75		27.17	27.40		28.45		.....

Erie County

E-1. State of Ohio. Lat. 41°25', long. 83°50'. Drilled unused well in dolomite, diameter 10 inches, depth 169 feet. Highest water level 3.97 below lsd, Mar. 13, 1952; lowest 5.85 below lsd, Dec. 5, 7, 1953. Records available: 1952-53. Recording gage installed Mar. 13, 1952.

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.35	4.32	4.53	4.70	5.03	5.11	5.31	5.54	5.62
2	4.41	4.36	4.55	4.74	5.01	5.13	5.35	5.49	5.54
3	4.46	4.37	4.53	4.78	5.02	5.20	5.35	5.50	5.54
4	4.44	4.38	4.55	4.81	5.05	5.19	5.36	5.51	5.53
5	4.38	4.35	4.57	4.81	5.09	5.17	5.39	5.46	....
6	4.49	4.44	4.59	4.81	5.05	5.17	5.40	5.60	....
7	4.48	4.45	4.63	4.81	5.04	5.14	5.36	5.65	....
8	4.43	4.39	4.61	4.80	5.04	5.12	5.34	5.61	5.54
9	4.40	4.39	4.67	4.85	5.03	....	5.34	5.51	5.52
10	4.47	4.36	....	4.85	5.08	....	5.31	5.51	5.50
11	4.47	4.45	....	4.88	5.09	....	5.29	5.54	5.58
12	4.38	4.57	4.63	4.91	5.05	5.20	5.34	5.59	5.57
13	4.02	4.28	4.60	4.63	4.90	5.06	5.20	5.40	5.54	5.59
14	4.12	4.34	4.53	4.64	4.89	5.07	5.20	5.41	5.52	5.70
15	4.16	4.27	4.53	4.66	4.93	5.06	5.23	5.35	5.52	5.70
16	4.25	4.23	....	4.64	4.93	5.08	5.25	5.45	5.51	5.67
17	4.27	4.18	....	4.68	4.92	5.12	5.25	5.43	5.47	5.65
18	4.24	4.18	....	4.74	4.92	5.10	5.25	5.38	5.47	5.59
19	4.27	4.17	....	4.74	4.89	5.09	5.28	5.45	5.49	5.59
20	4.27	4.20	....	4.69	4.91	5.07	5.28	5.46	5.50	5.50
21	4.26	4.21	....	4.65	4.96	5.09	5.27	5.46	5.41	5.51
22	4.24	4.22	....	4.70	4.96	5.09	5.27	5.47	5.57	5.52
23	4.28	4.22	....	4.72	4.98	5.08	5.29	5.47	5.59	5.52
24	4.32	4.18	....	4.72	4.99	5.08	5.30	5.45	5.51	5.60
25	4.32	4.21	....	4.76	4.96	5.09	5.27	5.44	5.67	5.64
26	4.32	4.26	....	4.80	4.98	5.10	5.29	5.41	5.80	5.68
27	4.32	4.28	....	4.79	4.95	5.10	5.29	5.43	5.77	5.70
28	4.29	4.29	....	4.78	4.94	5.10	5.30	5.47	5.75	5.65
29	4.31	4.32	....	4.78	4.95	5.10	5.31	5.50	5.73	5.60
30	4.32	4.34	....	4.68	5.01	5.11	5.29	5.55	5.66	5.58
31	4.31	....	....	....	5.01	5.10	....	5.54	....	5.59

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.60	5.44	....	5.25	5.25	....	5.13	5.24	5.32	5.48	5.63	5.69
2	5.60	5.40	....	5.29	5.28	....	5.11	5.21	5.32	5.44	5.62	5.68
3	5.54	5.32	....	5.28	5.33	....	5.15	5.20	5.31	5.42	5.69	5.65
4	5.56	5.34	....	....	5.30	....	5.15	5.19	5.32	5.45	5.69	5.68
5	5.61	5.33	....	....	5.27	5.20	5.14	5.20	5.34	5.40	5.67	5.85
6	5.67	5.41	....	....	5.27	5.22	5.13	5.19	5.35	5.40	5.59	5.76
7	5.59	5.41	5.37	....	5.27	5.16	5.17	5.20	5.35	5.44	5.50	5.85
8	5.52	5.42	5.31	....	5.27	5.14	5.18	5.16	5.37	5.46	5.67	5.84
9	5.44	5.46	5.33	....	5.30	5.20	5.20	5.16	5.37	5.45	5.69	5.74
10	5.44	5.46	5.33	5.44	5.30	5.19	5.22	5.19	5.35	5.46	5.67	5.84
11	5.44	5.35	5.28	5.45	5.28	5.19	5.22	5.21	5.29	5.45	5.65	5.82
12	5.44	5.40	5.28	5.36	5.30	5.16	5.20	5.20	5.50	5.47	5.67	5.75
13	5.48	5.44	5.30	5.32	5.32	5.16	5.19	5.20	5.56	5.48	5.64	5.72
14	5.48	5.46	5.30	5.38	5.27	5.14	5.21	5.18	5.56	5.45	5.63	5.65
15	5.44	5.42	....	5.34	5.28	5.15	5.21	5.21	5.50	5.50	5.65	5.80
16	5.54	5.48	....	5.43	5.26	5.11	5.21	5.22	5.52	5.50	5.67	5.80
17	5.48	5.46	....	5.44	5.20	5.13	5.18	5.25	5.48	5.52	5.68	5.76
18	5.43	5.47	5.22	5.40	5.30	5.14	5.17	5.25	5.40	5.51	5.67	5.80
19	5.43	5.41	5.35	5.34	5.26	5.14	5.19	5.24	5.40	5.52	5.67	5.79
20	5.36	5.39	5.37	5.35	5.25	5.15	5.19	5.26	5.44	5.52	5.65	5.76

E-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	5.35	5.67	5.33	5.35	5.24	5.17	5.20	5.28	5.47	5.51	5.65	5.75
22	5.35	5.69	5.30	....	....	5.19	5.19	5.28	5.49	5.51	5.66	5.76
23	5.33	5.58	5.32	....	....	5.19	5.18	5.28	5.48	5.49	5.68	5.77
24	5.35	5.47	5.32	5.33	....	5.17	5.24	5.29	5.40	5.53	5.67	5.76
25	5.49	5.41	5.34	5.25	....	....	5.24	5.29	5.43	5.54	5.68	5.78
26	5.49	....	5.37	5.29	....	5.22	5.27	5.30	5.48	5.56	5.82	5.80
27	5.35	....	5.34	5.40	....	5.21	5.26	5.29	5.42	5.54	5.82	5.80
28	5.40	....	5.35	5.38	....	5.18	5.23	5.28	5.45	5.59	5.73	5.69
29	5.41	....	5.37	5.31	....	5.20	5.26	5.29	5.45	5.59	5.72	5.70
30	5.42	....	5.35	5.22	....	5.20	5.25	5.30	5.47	5.61	5.68	5.71
31	5.35	....	5.30	....	....	....	5.25	5.33	....	5.62	....	5.76

Fairfield County

F-1. C. E. Howdyshe. Lat. 39°46'06", long. 82°26'42". Drilled unused well in sandstone, diameter 4 inches, depth 110 feet. Highest water level 7.44 below lsd, Apr. 4, 1951; lowest 18.19 below lsd, Dec. 31, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.33	17.03	....	14.05	12.92	13.16	14.07	14.89	15.48	16.15	....	17.70
2	....	17.03	....	14.02	12.93	13.18	14.04	14.88	15.50	16.17	....	17.70
3	....	16.93	15.07	14.01	13.00	13.20	14.11	14.91	15.50	....	17.05	17.70
4	....	16.91	14.97	14.00	13.04	13.21	14.16	14.91	15.51	....	17.08	17.72
5	....	....	14.98	14.00	12.98	13.25	14.16	14.93	15.55	....	17.15	17.76
6	....	....	14.98	13.98	12.98	13.28	14.19	15.00	15.57	....	....	17.76
7	....	....	14.98	13.94	12.95	13.28	14.23	15.03	15.62	....	....	17.82
8	....	....	14.90	13.94	12.97	13.31	14.29	15.03	15.64	....	....	17.83
9	....	....	14.88	13.93	13.02	13.36	14.35	15.02	15.67	....	17.15	17.83
10	....	....	14.83	13.87	13.05	13.38	14.40	15.07	15.67	....	17.24	17.82
11	....	....	14.78	13.86	13.07	13.40	14.42	15.11	15.65	....	17.30	17.86
12	....	....	14.73	13.85	13.08	13.41	14.45	15.14	15.64	....	17.33	17.87
13	17.36	....	14.66	13.81	13.11	13.41	14.47	15.14	15.69	....	17.37	17.88
14	17.37	....	14.61	13.84	13.12	13.45	14.48	15.14	15.70	....	17.39	17.84
15	17.38	....	14.52	13.81	13.14	13.50	14.52	15.14	15.70	....	17.39	....
16	17.40	....	14.52	13.70	13.14	13.50	14.57	15.17	15.74	....	17.38	....
17	17.41	....	....	13.66	13.09	13.52	14.60	15.21	15.80	....	17.43	....
18	17.27	....	....	13.65	13.11	13.58	14.56	15.23	15.82	....	17.46	....
19	17.27	....	....	13.56	13.12	13.60	14.52	15.25	15.83	....	17.47	....
20	17.28	....	14.37	13.54	13.13	13.65	14.56	15.28	15.79	....	17.50	....
21	17.31	....	14.35	13.50	13.13	13.71	14.56	15.31	15.91	....	17.50	18.03
22	17.31	....	14.33	13.47	13.10	13.78	14.56	15.33	15.94	....	17.50	18.03
23	17.28	....	14.28	13.34	13.11	13.81	14.60	15.36	15.95	....	17.54	18.00
24	17.18	....	14.25	13.30	13.11	13.86	14.67	15.36	15.95	....	17.50	18.06
25	17.25	....	14.20	13.22	13.08	13.89	14.70	15.41	15.95	....	17.50	18.10
26	....	....	14.19	13.14	13.07	13.93	14.73	15.43	15.95	....	17.50	18.09
27	....	....	14.17	13.08	13.11	13.99	14.76	15.42	15.96	....	17.50	18.10
28	17.13	....	14.13	13.06	13.16	14.03	14.77	15.38	15.99	....	17.61	18.11
29	17.13	....	14.12	13.02	13.16	14.07	14.82	15.41	16.02	....	17.69	18.10
30	17.12	....	14.12	12.99	13.11	14.06	14.87	15.42	16.07	....	17.67	18.14
31	17.09	....	14.09	....	13.10	....	14.88	15.45	....	....	....	18.19

F-2. Pickerington Creamery Co. Lat. 39°53'25", long. 82°44'50". Drilled unused well in sandstone, diameter 6 inches, depth 190 feet. Highest water level 18.19 below lsd, May 17-18, 1953; lowest 26.40 below lsd, Oct. 26, 1951. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.03	19.30	18.94	18.57	18.34	18.29	18.44	18.41	18.52	18.66	18.73	18.66
2	20.02	19.30	18.93	18.56	18.35	18.29	18.43	18.31	18.52	18.68	18.74	18.66
3	19.97	19.28	18.90	18.56	18.37	18.29	18.32	18.33	18.52	18.68	18.76	18.66
4	19.95	19.28	18.82	18.55	18.37	18.29	18.33	18.33	18.51	18.67	18.77	18.65
5	19.95	19.28	18.84	18.55	18.36	18.30	18.33	18.29	18.50	18.67	18.77	18.66
6	19.93	19.25	18.84	18.55	18.34	18.31	18.34	18.29	18.50	18.66	18.77	18.65
7	19.90	19.25	18.84	18.52	18.31	18.31	18.35	18.31	18.50	18.67	18.77	18.64
8	19.86	19.25	18.82	18.52	18.29	18.31	18.37	18.31	18.52	18.67	18.77	18.64
9	19.79	19.26	18.82	18.51	18.30	18.33	18.39	18.30	18.52	18.67	18.77	18.63
10	19.78	19.26	18.81	18.48	18.31	18.35	18.40	18.33	18.52	18.67	18.77	18.58

F-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	19.73	19.24	18.80	18.48	18.31	18.33	18.42	18.34	18.52	18.67	18.77	18.58
12	19.72	19.08	18.79	18.48	18.31	18.33	18.42	18.35	18.52	18.69	18.77	18.58
13	19.71	19.08	18.78	18.46	18.32	18.33	18.42	18.35	18.54	18.70	18.77	18.58
14	19.71	19.08	18.76	18.48	18.32	18.34	18.44	18.35	18.54	18.70	18.77	18.54
15	19.70	19.06	18.74	18.47	18.30	18.34	18.46	18.36	18.54	18.70	18.77	18.51
16	19.69	19.06	18.73	18.41	18.30	18.34	18.47	18.38	18.54	18.71	18.77	18.51
17	19.69	19.07	.....	18.42	18.26	18.35	18.47	18.39	18.56	18.72	18.77	18.52
18	19.53	19.07	.....	18.41	18.20	18.36	18.47	18.40	18.57	18.72	18.77	18.52
19	19.53	19.05	.....	18.36	18.21	18.37	18.36	18.40	18.57	18.73	18.77	18.52
20	19.52	19.04	18.68	18.36	18.22	18.37	18.37	18.41	18.56	18.73	18.77	18.51
21	19.52	18.99	18.67	18.37	18.22	18.39	18.37	18.43	18.58	18.74	18.76	18.50
22	19.52	18.99	18.67	18.37	18.22	18.40	18.37	18.44	18.59	18.74	18.76	18.49
23	19.50	18.99	18.65	18.38	18.22	18.42	18.35	18.44	18.60	18.74	18.70	18.49
24	19.45	18.98	18.65	18.38	18.22	18.43	18.38	18.46	18.60	18.73	18.69	18.49
25	19.43	18.95	18.63	18.36	18.22	18.44	18.40	18.47	18.60	18.74	18.67	18.49
26	19.43	18.94	18.62	18.35	18.22	18.44	18.40	18.47	18.60	18.74	18.66	18.48
27	19.42	18.93	18.62	18.36	18.25	18.46	18.42	18.48	18.60	18.74	18.66	18.48
28	19.35	18.94	18.60	18.36	18.27	18.46	18.37	18.48	18.60	18.71	18.68	18.48
29	19.33		18.60	18.34	18.27	18.45	18.39	18.48	18.62	18.71	18.68	18.47
30	19.33		18.60	.....	18.27	18.44	18.40	18.49	18.66	18.73	18.67	18.47
31	19.31		18.59		18.26		18.40	18.50		18.73		18.47

Fayette County

Fa-1. Martha Slagle. Lat. 39°32'09", long. 83°31'50". Drilled unused well in limestone, diameter 5 inches, depth 78 feet. Highest water level 5.23 below lsd, Jan. 28, 1949; lowest 12.60 below lsd, Nov. 17, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.26	8.95	7.43	6.93	6.95	8.00	8.60	9.55	10.20	10.25	11.00	11.65
2	11.21	8.87	7.43	6.97	7.10	7.50	7.85	8.45	9.55	10.20	11.00	11.65
3	11.20	8.70	7.28	7.00	7.10	7.25	8.85	.....	9.50	11.05	11.00	11.65
4	11.22	8.68	7.20	6.95	7.20	7.95	8.35	8.25	9.75	10.30	11.15	11.75
5	11.22	8.60	7.22	6.99	7.10	7.60	8.10	8.20	9.25	10.15	11.15	11.75
6	11.29	8.46	7.20	6.95	7.15	7.95	7.80	8.20	9.25	10.10	11.15	11.75
7	11.31	8.40	7.20	6.95	7.10	7.45	7.85	8.35	9.25	10.20	11.10	11.80
8	11.18	8.41	7.14	6.99	7.15	7.40	8.00	8.25	10.45	10.15	11.10	11.80
9	11.13	8.39	7.21	6.97	7.20	7.35	8.55	8.15	10.10	10.15	11.20	11.80
10	11.12	8.36	7.14	7.03	7.25	7.30	8.25	8.30	9.80	10.15	11.25	11.85
11	11.14	8.25	7.14	7.12	7.25	7.25	8.15	8.45	9.55	10.25	11.20	11.85
12	11.18	8.01	7.16	7.09	7.80	7.20	8.65	8.40	9.35	10.35	11.30	11.90
13	11.01	8.01	7.16	7.10	7.50	7.20	9.60	8.30	9.55	10.40	11.40	11.90
14	10.96	7.97	7.12	7.19	7.20	7.25	9.45	8.35	9.50	11.05	11.45	11.85
15	10.86	7.84	7.02	7.08	7.20	8.25	9.80	8.65	10.10	10.65	11.45	12.00
16	10.76	7.84	7.14	7.09	7.05	7.45	9.55	8.70	9.75	10.55	11.50	12.00
17	10.72	7.83	7.02	7.16	6.95	8.05	9.20	8.60	9.70	10.65	12.60	12.05
18	10.41	7.78	6.97	7.06	7.05	7.55	8.70	8.65	9.90	11.10	11.85	12.05
19	10.34	7.76	6.94	7.02	6.90	8.70	8.20	8.85	10.35	10.85	11.65	12.05
20	10.22	7.66	6.96	7.01	6.95	7.80	8.05	9.15	9.70	10.80	11.55	12.05
21	10.50	7.64	6.89	7.05	6.85	8.50	8.05	8.85	9.90	10.85	11.50	12.05
22	10.14	7.67	6.89	7.02	6.80	8.20	7.95	9.05	9.90	10.75	11.50	12.10
23	9.89	7.68	6.88	6.98	6.90	8.55	7.95	8.85	9.90	10.75	11.45	12.15
24	9.66	7.53	6.94	7.02	6.95	8.15	7.95	9.95	10.10	10.75	11.40	12.15
25	9.66	7.44	6.90	6.94	6.85	8.50	8.00	10.25	10.60	11.30	11.40	12.15
26	9.66	7.38	6.91	6.92	6.85	8.20	8.10	9.90	9.95	10.85	11.50	12.15
27	9.48	7.38	6.87	6.97	6.95	7.80	8.05	10.25	10.00	10.80	11.50	12.25
28	9.31	7.45	6.88	6.97	7.00	7.70	8.75	9.85	10.00	10.75	11.60	12.25
29	9.22		6.95	6.97	7.65	7.65	9.20	10.15	10.85	10.85	11.65	12.35
30	9.14		7.44	6.93		8.30	9.05	9.90	10.20	10.95	11.65	12.35
31	9.04		6.99		7.95		9.55	10.45		10.95		12.40

Franklin County

Fr-10. State of Ohio. Lat. 40°01'00", long. 83°02'18". Drilled unused well in gravel, diameter 4 inches, depth 75 feet. Highest water level 37.75 below lsd, Apr. 14, 1951; lowest 46.60 below lsd, Nov. 28, 1953. Records available: 1944-53.

Fr-10--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44.35	44.35	44.20	43.70	43.60	43.60	44.40	45.25	45.95	46.50	46.40	46.50
2	44.30	44.35	44.10	43.80	43.75	43.60	44.30	45.10	45.95	46.50	46.45	46.50
3	44.10	44.15	44.05	43.80	43.85	43.65	44.40	45.05	45.95	46.50	46.40	46.40
4	44.20	44.25	43.90	43.80	43.85	43.70	44.45	45.05	45.95	46.40	46.50	46.40
5	44.30	44.25	44.10	43.80	43.80	43.80	44.45	45.05	46.00	46.40	46.50	46.50
6	44.35	44.10	44.20	43.75	43.85	43.75	44.50	45.15	46.00	.....	46.50	46.40
7	44.35	44.15	44.25	43.80	43.75	43.80	44.55	45.15	46.10	46.35	46.50	46.45
8	44.25	44.25	44.15	43.85	43.70	43.75	44.60	45.15	46.15	46.35	46.35	46.45
9	44.15	44.35	44.15	43.70	43.80	43.80	44.70	45.20	46.15	46.25	46.45	46.25
10	44.15	44.35	44.05	43.75	43.80	43.85	44.75	45.35	46.10	46.30	46.45	46.40
11	44.35	44.25	44.05	43.85	43.80	43.85	44.75	45.35	46.05	46.25	.....	46.40
12	44.40	44.05	44.00	43.75	43.80	43.80	44.75	45.35	46.00	46.45	.....	46.40
13	44.35	44.10	43.90	43.85	43.95	43.85	44.75	45.35	46.05	46.50	46.50	46.35
14	44.35	44.10	43.90	43.90	43.90	43.90	44.80	45.30	46.05	46.50	46.50	46.20
15	44.35	44.10	43.85	43.85	43.80	43.95	44.80	45.45	45.95	46.45	46.35	46.30
16	44.50	44.15	43.90	43.75	43.75	43.95	44.85	45.45	46.05	46.55	46.45	46.50
17	44.50	44.25	43.85	43.75	43.65	43.95	44.85	45.55	46.15	46.55	46.55	.....
18	44.20	44.25	43.75	43.75	43.65	43.95	44.85	45.55	46.15	46.55	46.55	.....
19	44.20	44.25	43.85	43.75	43.65	44.05	44.75	45.50	46.10	46.55	46.50	.....
20	44.20	44.15	43.90	43.75	43.70	44.10	44.75	45.55	46.15	46.55	46.40	.....
21	44.35	44.30	43.85	43.80	43.70	44.20	44.75	45.60	46.30	46.55	46.35	.....
22	44.35	44.30	43.85	43.80	43.65	44.30	44.80	45.60	46.35	46.55	46.35	.....
23	44.30	44.30	43.80	43.75	43.65	44.35	44.85	45.60	46.40	46.55	46.25	.....
24	44.15	44.20	43.80	43.80	43.60	44.35	44.95	45.70	46.25	46.40	46.20	.....
25	44.40	44.05	43.85	43.70	43.50	44.35	45.00	45.80	46.20	46.40	46.15	.....
26	44.45	43.90	43.85	43.60	43.50	44.45	45.05	45.85	46.10	46.40	46.35	.....
27	44.30	44.00	43.75	43.75	43.70	44.45	.....	45.85	46.15	46.35	46.45	.....
28	44.25	44.10	43.75	43.80	43.75	44.35	.....	45.80	46.15	46.25	46.60	.....
29	44.35		43.90	43.80	43.65	44.40	45.15	45.85	46.20	46.30	46.55	.....
30	44.35		43.90	43.60	43.45	44.45	45.25	45.85	46.45	46.40	46.45	46.40
31	44.30		43.80		43.40		45.25	45.95		46.40		46.45

Fr-11. City of Columbus. Lat. 39°58'30", long. 82°56'42". Drilled unused well in gravel, diameter 6 inches, depth 85 feet. Highest water level 0.20 above lsd, Feb. 14, 1950; lowest 30.20 below lsd, Sept. 28, 1953. Records available: 1949-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.15	15.90	11.60	12.40	8.00	.....	22.40	25.80	29.20	28.65	24.60	.....
2	24.00	15.95	11.40	9.45	8.05	.....	22.60	24.45	29.30	28.95	26.55	25.50
3	24.50	16.65	11.25	9.35	8.10	.....	22.90	25.65	29.40	29.00	27.10	24.90
4	24.80	15.20	11.15	9.20	13.35	.....	23.00	26.05	29.55	28.95	27.15	25.10
5	24.85	14.90	11.15	9.20	13.50	.....	23.00	26.10	29.40	29.05	27.15	24.95
6	25.30	15.60	11.15	9.10	11.40	.....	23.35	26.10	28.45	29.15	26.75	23.50
7	25.45	14.30	11.10	9.05	11.00	.....	23.50	26.20	28.05	28.30	26.75	25.45
8	25.45	14.10	10.90	9.05	12.85	.....	23.80	25.50	29.00	28.15	24.35	25.50
9	25.60	14.10	10.90	10.55	.....	17.40	24.00	24.70	29.15	28.10	25.85	25.00
10	25.30	15.00	10.70	8.90	.....	17.20	23.80	26.10	29.25	28.05	26.30	24.20
11	22.05	13.60	10.65	8.90	7.80	17.65	24.00	26.30	29.30	26.10	26.10	26.05
12	21.70	13.30	.....	8.75	13.35	18.10	24.15	26.40	29.00	26.15	27.55	27.10
13	.....	13.25	.....	8.75	9.35	18.35	24.35	26.55	28.80	26.15	27.55	27.30
14	22.90	13.15	.....	8.85	8.35	18.40	24.55	26.70	29.35	26.10	26.50	27.30
15	22.30	12.90	.....	.....	8.05	18.45	24.75	26.75	29.75	26.15	26.50	27.80
16	21.50	12.90	.....	.....	7.90	19.05	24.85	25.55	29.70	26.75	26.55	27.75
17	20.15	.....	.....	.....	7.70	19.50	24.90	26.80	29.95	26.80	26.80	26.85
18	19.05	.....	.....	.....	7.70	17.80	24.90	26.90	29.85	26.80	26.55	26.60
19	19.45	.....	.....	.....	7.55	18.40	23.05	27.00	29.85	26.40	25.90	26.40
20	21.35	.....	10.05	.....	7.55	18.75	24.70	27.30	29.70	27.25	25.90	23.60
21	21.60	.....	10.00	.....	7.50	19.10	25.15	27.50	29.35	27.35	25.95	25.20
22	21.65	.....	9.90	8.70	7.45	19.40	25.00	27.65	28.35	27.30	24.40	.....
23	21.20	.....	9.75	8.55	7.50	.....	24.85	27.50	29.75	25.85	25.35	25.50
24	18.10	11.80	9.75	8.55	7.40	.....	23.95	27.95	28.25	25.95	25.45	24.90
25	17.80	11.80	10.65	8.30	11.25	.....	23.60	28.15	28.30	24.80	26.05	22.90
26	20.60	11.60	9.70	8.25	.....	.....	23.95	28.25	29.70	25.40	23.55	21.95
27	20.50	11.60	10.45	8.30	.....	.....	24.85	28.45	29.90	26.15	26.15	21.45
28	17.25	11.65	9.50	8.25	.....	.....	25.15	28.65	30.20	26.30	25.50	24.25
29	16.65	.....	9.50	8.15	.....	.....	25.35	28.80	28.95	26.35	23.45	24.55
30	16.60	.....	9.50	8.00	.....	.....	25.65	28.85	29.00	27.15	24.95	24.05
31	15.75	.....	11.65	.....	.....	.....	25.90	29.10		27.10		23.75

Fulton County

Fn-1. City of Delta. Lat. 41°35'05", long. 84°00'12". Drilled unused well in gravel, diameter 8 inches, depth 130 feet. Highest water level 61.83 below lsd, Oct. 18, 1946; lowest 66.10 below lsd, Jan. 8, 1947. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	63.92	64.06	64.09	63.53	63.26	63.84	63.96	63.98	64.06	64.30	64.04	64.09
2	63.80	64.03	64.02	63.73	63.59	63.89	63.71	63.94	63.99	64.26	64.08	64.09
3	63.46	63.83	63.82	63.73	63.86	63.84	63.86	63.99	63.88	64.14	64.07	63.86
4	63.56	63.95	63.44	63.65	63.92	63.70	63.88	63.66	.....	.....	64.30	63.69
5	63.75	63.87	63.84	63.70	63.79	63.62	63.77	64.01	65.84	.....	64.43	63.99
6	63.91	63.69	64.22	63.68	63.72	63.74	63.74	64.05	64.20	.....	64.45	63.74
7	64.07	63.74	64.29	63.71	63.65	63.83	63.76	64.02	64.25	64.20	64.30	63.83
8	63.84	64.01	64.15	63.79	63.63	63.81	63.79	63.93	64.48	64.20	63.93	.....
9	63.72	64.37	64.19	63.60	63.75	63.85	63.99	64.03	.....	64.02	64.12	.....
10	63.67	64.40	64.09	63.43	63.79	64.01	64.11	64.14	64.25	63.90	64.15	.....
11	63.91	64.04	64.06	63.63	63.70	64.03	64.10	64.19	64.10	63.85	64.18	.....
12	63.98	63.53	63.97	63.61	63.70	63.90	64.04	64.12	63.86	64.23	64.30	.....
13	63.65	63.65	63.95	63.68	63.95	63.69	63.96	64.15	63.95	64.30	64.30	.....
14	63.86	63.65	63.95	63.88	63.96	63.77	63.95	64.04	63.95	64.22	64.19	.....
15	63.82	63.57	63.61	63.60	63.82	63.79	64.06	64.06	63.86	64.05	63.91	63.71
16	64.30	63.78	63.83	63.43	63.78	63.69	64.14	64.08	63.93	64.11	63.86	64.11
17	64.30	64.07	63.84	63.57	63.56	63.69	64.08	64.16	64.04	64.17	63.94	.....
18	63.66	64.07	63.70	63.62	63.51	63.74	63.93	64.18	64.02	64.15	64.00	.....
19	63.69	64.04	63.69	63.64	63.57	63.71	63.88	64.11	63.81	64.10	64.05	.....
20	63.83	63.94	63.86	63.60	63.61	63.67	63.88	64.17	63.77	64.16	63.92	.....
21	63.90	64.21	63.85	63.67	63.55	63.81	63.88	64.21	64.16	64.22	63.86	.....
22	63.96	.....	63.76	63.60	63.55	63.86	63.78	64.23	64.34	.....	63.86	63.99
23	63.84	.....	63.68	63.65	63.81	63.98	63.92	64.11	64.42	.....	63.61	64.13
24	63.37	.....	63.66	63.78	63.91	63.94	64.11	64.09	64.24	.....	63.41	64.12
25	63.99	.....	63.79	63.49	63.75	63.76	64.14	64.13	64.04	.....	63.29	63.75
26	64.09	63.23	63.80	63.32	63.71	63.97	64.06	64.15	63.93	.....	63.67	63.76
27	63.77	63.60	63.69	63.56	64.03	64.04	64.04	64.13	63.83	.....	63.93	63.84
28	63.72	63.79	.....	63.66	64.15	63.92	64.02	64.06	63.84	.....	64.19	63.56
29	63.92	.....	.....	63.70	64.07	64.04	63.93	64.00	63.85	63.89	64.18	63.58
30	63.92	.....	63.82	63.57	63.62	64.03	64.05	63.95	64.19	64.02	63.97	63.79
31	63.72	.....	63.77	.....	63.48	.....	64.07	64.02	.....	63.99	.....	63.84

Geauga County

Ge-2. D. L. Cameron. Lat. 41°25'42", long. 81°11'56". Drilled unused well in gravel, diameter 6 inches, depth 61 feet. Highest water level 9.83 below lsd, May 29, 1947; lowest 15.71 below lsd, Nov. 16, 1952. Records available: 1946-52. Measurement discontinued.

Greene County

Gr-1. City of Xenia. Lat. 39°44'30", long. 83°56'12". Drilled unused well in gravel, diameter 30 inches, depth 77 feet. Highest water level 2.45 above lsd, Jan. 27, 1952; lowest 13.85 below lsd, Sept. 4, 1953. Records available: 1944-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.15	8.40	8.80	8.50	8.70	9.85	11.05	12.65	.....	11.50	11.80	11.00
2	9.80	8.70	9.45	8.45	8.75	9.50	11.10	12.55	13.50	11.40	11.80	11.00
3	9.35	8.70	9.05	8.50	8.30	.....	11.10	11.95	13.75	11.50	11.90	11.25
4	.....	8.90	9.05	8.55	9.10	.....	11.05	11.95	13.85	11.50	11.95	11.25
5	9.15	8.90	8.40	8.55	9.20	.....	11.00	11.65	13.80	11.15	11.85	11.20
6	10.20	9.00	8.80	8.50	8.80	.....	10.80	11.85	12.90	11.10	12.10	.....
7	10.00	9.00	8.85	8.60	8.85	.....	10.80	11.80	12.35	10.70	12.10	.....
8	10.00	9.00	8.30	8.50	9.45	.....	10.90	11.60	11.80	11.20	11.55	.....
9	9.30	9.05	9.00	8.55	.....	.....	11.25	11.95	11.85	11.60	11.95	.....
10	8.90	9.05	8.60	8.55	.....	.....	11.05	11.10	.....	11.75	12.00	.....
11	8.60	8.60	9.05	8.60	.....	.....	11.25	11.30	11.80	11.15	12.05	.....
12	8.55	7.90	9.05	8.55	.....	.....	11.20	11.50	11.85	11.75	12.05	.....
13	8.95	8.25	9.10	8.55	8.10	.....	.....	11.65	11.35	11.75	11.60	.....
14	8.95	.....	8.70	8.65	8.10	.....	.....	11.80	11.15	11.80	11.10	.....
15	9.15	.....	8.95	8.65	8.05	.....	11.85	11.95	11.45	11.85	11.10	.....

Gr-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	9.05	....	9.05	9.20	8.05	....	12.25	11.95	11.55	11.95	11.25	10.90
17	9.10	....	9.10	9.40	7.90	....	12.35	11.70	11.70	12.10	11.35	10.95
18	7.60	....	8.80	9.00	7.35	....	12.30	11.35	11.80	12.10	11.45	11.00
19	8.00	....	8.80	8.60	7.50	....	....	11.50	11.85	12.15	11.45	11.20
20	8.00	....	8.70	8.70	8.50	....	....	11.50	11.75	12.10	11.30	11.20
21	8.30	8.75	8.65	8.25	8.55	....	....	11.65	11.55	12.10	11.15	11.35
22	8.30	8.35	8.45	8.20	8.60	....	11.30	11.90	11.55	12.10	11.20	11.15
23	8.55	8.90	8.75	8.20	8.75	....	11.55	11.90	11.75	12.05	10.95	10.70
24	8.20	8.50	8.25	8.00	8.25	....	11.50	12.15	11.90	12.00	12.70	10.90
25	8.70	8.70	9.00	7.95	9.00	....	11.20	12.35	11.90	11.95	13.00	10.95
26	8.70	9.00	8.35	8.00	9.45	....	11.15	12.40	11.85	12.05	12.35	10.45
27	8.60	9.00	8.30	7.90	9.30	....	11.50	12.60	11.85	12.05	11.10	11.20
28	8.65	9.35	....	7.80	9.35	....	11.80	12.70	11.95	11.65	11.15	11.05
29	8.30	....	....	7.85	9.45	....	11.95	12.95	11.95	11.40	10.70	10.65
30	8.50	....	8.45	7.85	9.60	....	12.45	12.95	11.60	11.70	11.05	10.65
31	8.25	....	8.45	....	9.65	....	12.65	....	....	11.75	....	11.05

Hamilton County

H-2. Leo Willheim. Lat. 39°18', long. 84°39'. Drilled unused well in gravel, diameter 7 inches, depth 89 feet. Highest water level 13.90 below lsd, May 27, 1953; lowest 19.80 below lsd, Oct. 30-31, 1953. Records available: 1952-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.00	16.90	17.90	17.00	17.85	14.75	17.80	....	....	19.50	19.75	....
2	18.00	16.85	17.85	17.15	17.85	15.00	17.80	....	....	19.55	19.60	....
3	18.10	16.85	17.85	17.25	17.60	15.35	17.90	17.85	....	19.50	19.55	19.50
4	18.10	17.00	17.85	17.25	17.55	15.70	17.90	....	....	19.50	19.60	19.60
5	18.00	17.15	17.55	17.25	17.70	16.00	17.85	....	....	19.40	19.65	19.60
6	18.10	17.20	17.20	....	17.85	16.20	17.55	....	....	19.45	19.70	19.60
7	18.25	....	16.90	....	....	16.20	17.10	....	....	19.50	19.75	19.50
8	18.25	17.30	16.80	17.25	....	16.20	17.00	....	....	19.55	19.70	19.50
9	18.25	17.40	16.75	17.45	....	....	17.00	....	....	19.60	19.60	19.60
10	18.00	....	16.70	....	....	....	17.15	....	....	19.60	19.60	19.65
11	17.80	....	16.90	....	17.85	....	17.25	....	....	19.55	19.65	19.70
12	17.55	....	17.10	....	17.70	....	17.25	....	....	19.45	....	....
13	17.25	....	17.25	....	17.90	....	17.20	....	....	19.50	....	....
14	17.20	17.35	17.30	....	....	....	17.30	....	....	19.60	....	....
15	17.30	17.20	17.30	17.60	....	....	17.40	....	....	19.65	....	....
16	17.40	17.10	17.10	17.75	....	16.60	17.45	....	....	19.65	....	....
17	17.40	17.25	16.95	17.80	17.75	16.80	17.55	....	....	19.60	....	....
18	17.30	....	16.90	17.85	17.15	16.90	17.60	....	....	19.55	....	....
19	16.85	....	16.90	17.85	16.45	16.95	17.60	....	....	19.45	....	....
20	16.40	....	16.80	17.75	15.85	17.00	17.45	....	....	19.55	....	....
21	16.30	....	16.60	17.60	15.65	17.00	17.55	....	....	19.65	....	....
22	16.45	....	16.50	17.75	15.60	16.95	17.65	....	19.25	19.70	....	....
23	16.55	....	16.35	17.90	15.60	17.10	17.75	....	19.30	19.70	....	....
24	16.55	....	16.40	17.95	15.25	17.25	17.85	....	19.30	19.70	....	....
25	16.55	....	16.60	17.95	15.50	17.45	17.85	....	19.35	19.70	....	....
26	16.55	....	16.70	17.95	14.15	17.60	17.85	....	19.40	19.60	....	....
27	....	....	16.80	17.70	13.95	17.70	17.70	....	19.35	19.60	....	....
28	....	....	16.85	17.65	14.15	17.70	17.85	....	19.25	19.65	....	....
29	....	....	16.90	17.85	14.50	17.60	17.90	....	19.30	19.75	....	....
30	....	....	16.90	17.85	....	17.75	18.00	....	19.40	19.80	....	....
31	....	....	16.90	....	....	....	....	....	....	19.80	....	....

H-3. Village of Indian Hill. Lat. 39°11', long. 84°17'. Drilled unused well in gravel, diameter 4 inches, depth 60 feet. Highest water level 19.95 below lsd, May 22, 1953; lowest 29.40 below lsd, Oct. 24, 1953. Records available: 1952-53. Recording gage installed Aug. 27, 1952.

H-3--Continued.

Daily lowest water level from recorder graph, 1952

Day	Aug.	Sept.	Oct.	Nov.	Dec.	Day	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.40	27.05	27.00	25.95	17	.....	26.35	25.45	25.95	24.95
2	25.80	27.05	27.10	26.10	18	.....	26.00	26.35	26.70	25.45
3	24.80	26.80	27.15	25.90	19	.....	26.15	26.50	25.75	25.25
4	24.95	26.75	26.95	26.10	20	.....	26.05	26.25	26.45	25.30
5	24.80	26.30	26.55	26.15	21	.....	.....	26.25	25.45	25.65
6	24.85	26.30	26.85	25.60	22	.....	.....	25.55	26.35	25.70
7	24.90	26.45	26.25	25.40	23	.....	.....	26.70	25.60	.....
8	25.05	26.40	26.80	25.50	24	.....	.....	26.85	25.90	25.90
9	25.05	26.25	.....	25.50	25	.....	.....	26.90	25.70	.....
10	26.40	26.25	.....	25.50	26	.....	26.00	26.85	25.95	.....
11	26.40	26.40	.....	24.10	27	26.65	26.80	26.95	26.00	25.60
12	26.60	26.35	.....	24.65	28	26.70	26.85	27.00	26.05	25.65
13	26.75	26.35	.....	24.75	29	26.65	26.80	26.90	26.10	26.40
14	26.60	25.80	.....	24.95	30	26.50	26.85	26.95	26.05	25.70
15	25.50	25.25	25.45	24.90	31	26.55	.....	26.95	.....	26.50
16	26.45	26.35	26.75	25.25						

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.90	.....	23.10	24.10	23.00	25.20	26.60	27.45	28.50	29.10	28.15	27.95
2	26.05	23.00	24.10	24.35	23.80	25.25	26.35	27.50	28.50	29.10	28.20	27.80
3	25.95	22.15	23.05	24.00	24.15	.....	26.20	27.35	28.55	29.25	28.50	27.80
4	26.30	23.35	22.35	23.90	24.95	.....	26.55	27.15	28.55	29.20	28.30	27.75
5	25.95	22.50	21.50	24.15	24.80	25.75	26.60	27.15	28.30	29.25	27.70	27.90
6	25.05	23.55	22.90	24.60	23.60	25.85	25.70	27.10	28.30	.....	27.85	27.75
7	25.90	22.90	22.10	24.10	24.65	25.90	25.70	26.85	28.05	.....	28.30	27.50
8	25.05	23.75	23.35	23.80	24.40	25.30	25.85	27.05	28.00	.....	28.00	27.80
9	23.60	23.10	22.35	24.00	24.40	25.60	26.00	26.60	28.10	.....	28.15	27.70
10	22.55	23.85	23.55	23.85	24.55	24.80	26.10	26.75	28.20	27.95	28.20	27.65
11	23.00	23.15	23.90	24.15	24.80	24.25	26.45	27.00	28.45	28.20	28.35	27.60
12	22.65	23.10	23.75	23.95	24.85	24.30	26.65	27.15	28.55	28.35	28.15	27.65
13	23.75	22.15	23.75	23.35	24.50	24.65	26.65	27.35	28.65	28.25	28.30	27.70
14	23.20	23.25	23.65	23.40	24.40	24.25	26.90	27.55	28.55	28.35	28.20	27.60
15	23.80	22.45	23.25	23.25	24.85	24.70	27.05	27.65	28.60	28.50	28.50	27.55
16	23.30	23.40	23.45	23.10	24.60	25.25	27.10	27.70	28.80	28.75	28.45	27.65
17	23.85	22.70	23.85	23.25	23.25	25.05	27.20	27.75	28.85	28.65	28.55	27.65
18	21.55	23.95	23.15	22.90	21.50	24.80	27.00	27.85	28.90	28.90	28.50	27.65
19	21.80	23.00	21.95	22.30	22.55	25.20	26.65	27.90	28.90	28.90	28.65	27.75
20	21.50	23.95	22.75	21.95	22.35	25.50	26.40	27.95	28.90	29.05	28.50	27.65
21	22.60	22.80	22.10	22.20	23.50	25.80	26.70	28.00	28.75	29.05	28.45	27.75
22	22.05	23.45	23.20	22.10	22.65	26.00	26.45	28.10	28.65	29.20	28.55	27.65
23	23.30	22.65	23.10	22.45	21.85	26.25	26.50	28.20	28.70	29.20	28.40	27.75
24	22.40	23.65	23.45	22.35	22.85	26.20	26.45	28.00	28.70	29.40	27.75	.....
25	23.05	22.70	23.25	22.75	22.95	26.35	26.50	28.40	29.00	29.25	27.90	.....
26	22.50	23.60	23.70	22.85	23.75	26.50	26.70	28.45	28.85	28.70	27.85	27.75
27	23.75	22.95	22.90	22.85	23.90	26.55	26.85	.....	28.70	28.75	28.05	27.95
28	22.45	24.00	23.75	22.75	24.15	26.45	26.90	.....	28.85	28.50	27.65	27.90
29	21.50	.....	24.30	22.90	24.30	26.30	27.05	28.40	28.95	27.90	27.80	27.90
30	21.15	.....	24.00	23.85	24.75	26.45	27.20	28.40	29.05	27.30	27.75	27.75
31	22.65	.....	23.70	.....	24.90	.....	27.30	28.40	.....	27.95	.....	27.80

207-3. Village of Glendale. Mosteller and Sharon Rds. Lat. 39°16', long. 84°25'.
 Drilled unused well in gravel, diameter 8 inches, depth 167 feet. Highest water level 13.35 below
 lsd, Apr. 29, 1939; lowest 74.05 below lsd, Nov. 25, 1953. Records available: 1938-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	66.40	64.45	64.00	67.85	68.50	65.70	67.80	66.90	69.95	70.50	66.85	70.40
2	.....	65.20	66.90	.....	66.75	68.00	69.55	63.80	70.15	71.00	68.60	71.50
3	.....	65.30	66.85	.....	.....	68.30	67.85	65.60	70.05	68.65	70.05	71.60
4	64.20	67.95	66.85	.....	.....	68.05	65.30	67.90	69.80	67.55	71.45	71.55
5	65.70	67.60	67.10	.....	.....	68.70	63.50	68.25	68.45	69.40	72.70	69.05
6	66.25	68.60	67.40	65.50	68.50	66.75	66.95	67.95	68.25	69.95	71.05	69.10
7	.....	65.90	66.10	66.30	68.10	64.40	65.75	68.00	66.55	70.30	68.75	68.40
8	.....	63.75	64.55	67.05	68.45	67.60	67.45	68.45	69.80	70.15	67.05	70.55
9	.....	67.25	67.00	68.50	66.70	.....	67.10	64.70	69.25	69.95	68.10	70.95
10	.....	65.80	66.05	66.10	64.65	.....	67.45	66.20	70.05	68.45	69.90	71.25

207-3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	64.50	67.60	68.50	66.25	66.00	.....	65.30	68.20	69.50	66.60	70.45	71.65
12	63.80	67.65	67.20	64.25	68.40	.....	63.75	68.45	68.85	68.75	71.10	69.05
13	.....	68.15	67.90	67.30	71.15	65.35	65.05	68.55	65.40	70.80	71.65	67.30
14	68.80	66.20	66.50	68.20	68.70	63.55	66.65	68.85	67.10	70.70	69.00	68.30
15	67.90	63.95	64.30	64.40	68.50	65.20	67.40	66.60	69.05	70.95	67.35	70.90
16	68.20	65.25	65.60	69.20	66.20	67.10	67.85	66.10	69.40	68.60	68.20	71.85
17	66.00	66.00	66.60	68.65	64.50	67.40	67.85	66.15	69.40	66.80	68.05	71.90
18	64.40	68.00	67.35	66.55	65.45	67.40	65.15	68.45	69.65	68.80	70.95	71.80
19	64.95	68.20	67.75	64.70	67.35	68.00	63.10	68.90	67.30	71.45	71.50	69.45
20	65.90	67.75	68.05	65.80	68.30	66.10	65.05	68.75	67.95	70.85	71.25	69.35
21	67.90	66.35	66.00	.....	68.50	66.50	65.45	68.95	68.50	71.20	69.30	68.15
22	68.40	64.50	64.45	68.70	69.25	65.70	65.65	67.45	68.75	68.95	68.90	70.15
23	68.10	67.50	67.90	68.90	66.40	67.40	66.30	67.80	69.70	66.30	68.15	71.05
24	66.05	67.20	65.95	68.70	64.75	68.20	69.50	66.50	69.70	65.10	70.40	71.80
25	64.55	67.80	68.00	66.60	65.75	68.25	65.90	69.45	69.55	65.45	74.05	69.20
26	67.60	66.60	68.10	66.90	68.05	68.25	62.80	69.75	67.50	67.70	69.80	68.75
27	65.95	65.75	68.35	66.60	71.45	67.05	64.75	69.70	66.35	66.00	69.90	68.00
28	68.45	65.60	.....	67.80	68.85	66.00	65.30	69.20	67.20	67.65	69.00	68.70
29	68.60	.....	.....	68.60	68.55	65.35	67.35	67.35	70.25	68.40	67.40	69.10
30	68.45	65.40	68.65	66.45	67.25	67.50	66.10	70.50	68.30	68.00	70.95	70.65
31	66.00	.....	67.25	.....	64.45	.....	67.90	67.40	.....	68.20	.....	.....

216-E. Electric Auto Lite Plant. Jimson Road. Lat. 39°14'56", long. 84°26'20". Drilled unused well in gravel, diameter 6 inches, depth 180 feet. Highest water level 42.93 below lsd, Apr. 9, 1941; lowest 81.35 below lsd, Dec. 17-18, 1953. Records available: 1941-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	77.55	77.90	78.20	78.25	78.50	79.00	79.20	79.25	79.65	.....	80.50	80.85
2	77.50	77.90	78.05	78.50	78.80	79.15	79.05	79.20	79.60	.....	80.55	80.85
3	77.20	77.75	78.00	78.55	79.05	79.10	79.15	79.25	79.45	.....	80.50	80.60
4	77.40	77.90	77.90	78.55	79.10	78.95	79.25	79.25	79.55	.....	80.60	80.55
5	77.50	77.90	78.25	78.65	79.00	78.90	79.20	79.25	79.75	80.00	80.70	80.85
6	77.70	77.65	78.45	78.65	78.85	78.95	79.10	79.30	79.75	80.20	80.70	80.60
7	77.65	77.80	78.55	78.50	78.80	79.05	79.20	79.35	79.80	80.45	80.60	80.90
8	77.50	77.95	78.35	78.60	78.85	79.05	79.20	79.25	79.95	80.45	80.35	80.85
9	77.35	78.25	78.40	78.45	78.95	79.05	79.40	79.30	80.00	80.20	80.55	80.65
10	77.30	78.25	78.20	78.50	78.95	79.15	79.50	79.45	79.90	80.10	80.55	80.80
11	77.65	77.95	78.10	78.65	78.85	79.20	79.45	79.55	79.65	80.00	80.45	80.90
12	77.85	77.60	78.20	78.60	78.80	79.15	79.35	79.50	79.55	80.40	80.65	80.90
13	77.60	77.80	78.10	78.70	78.95	78.90	79.25	79.45	79.75	80.50	80.65	80.70
14	77.65	77.80	78.10	78.90	78.95	78.95	79.25	79.40	79.75	80.45	80.60	80.40
15	77.65	77.75	78.15	78.80	78.90	79.00	79.35	79.40	.....	80.30	80.40	80.90
16	77.90	77.80	78.35	78.60	78.90	78.95	79.40	79.45	79.70	80.25	80.35	81.25
17	77.90	78.25	78.35	78.65	78.70	79.00	79.35	79.50	79.90	80.30	80.45	81.35
18	77.40	78.30	78.10	78.70	78.75	79.10	79.25	79.55	79.90	80.35	80.55	81.35
19	77.40	78.15	78.25	78.75	78.75	79.10	79.20	79.50	79.95	80.35	80.55	.....
20	.....	78.05	78.40	78.75	78.90	79.05	79.25	79.50	79.75	80.40	80.45	.....
21	.....	78.20	78.35	78.75	78.85	79.10	79.20	79.55	80.05	80.40	80.45	80.45
22	.....	78.35	78.30	78.70	78.80	79.20	79.15	79.55	80.25	80.35	80.45	80.90
23	.....	78.30	78.20	78.65	79.05	79.25	79.25	79.45	80.35	80.20	80.35	81.25
24	.....	78.20	78.25	78.75	79.05	79.20	79.45	79.50	80.10	80.15	80.30	81.25
25	.....	77.85	78.40	78.55	79.00	79.15	79.50	79.55	79.90	80.30	80.35	80.95
26	77.85	77.60	78.50	78.60	78.90	79.25	79.45	79.60	79.80	80.30	80.70	80.75
27	77.75	77.75	78.45	78.80	79.20	79.30	79.35	79.60	79.70	80.15	80.85	80.85
28	77.70	78.05	78.25	78.80	79.35	79.25	79.30	79.55	79.85	80.15	81.15	80.70
29	77.85	.....	78.45	78.75	79.20	79.30	79.20	79.45	.....	80.40	81.15	80.75
30	77.85	.....	78.50	78.55	78.80	79.30	79.30	79.50	.....	80.55	81.15	80.80
31	77.70	.....	78.40	.....	78.70	.....	79.30	79.60	.....	80.55	.....	81.10

237-3. Village of Wyoming. Vine and Water Sts., Wyoming. Lat. 39°13', long. 84°28'. Drilled unused well in gravel, diameter 8 inches, depth 194 feet. Highest water level 111.32 below lsd, May 8, 1939; lowest 148.70 below lsd, Nov. 11, 1948. Records available: 1938-53.

237-3--Continued.

Daily lowest water level from recorder graph												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	145.40	144.60	144.60	143.90	143.55	144.45	144.45	144.20	145.30	145.05	143.95	143.90
2	144.75	145.00	144.25	144.20	143.85	144.80	143.85	144.20	145.35	145.00	144.00	143.45
3	144.85	145.00	144.00	144.10	144.25	144.30	143.85	144.40	144.95	144.80	144.00	142.85
4	145.05	144.90	144.15	144.20	144.00	144.40	143.95	144.15	145.15	144.60	144.15	143.50
5	145.25	144.90	144.10	144.20	144.35	144.35	143.95	144.15	144.65	144.75	144.15	143.40
6	145.05	144.25	144.55	144.00	144.20	144.45	143.75	143.95	144.25	144.30	143.85	142.85
7	145.25	144.80	144.55	143.70	144.30	144.45	143.80	143.90	144.50	144.40	143.90	143.75
8	144.85	144.45	144.50	144.15	144.15	144.30	143.70	143.75	144.50	144.25	143.80	143.55
9	144.90	145.35	144.65	143.85	144.35	144.35	143.70	143.80	144.45	143.90	143.90	143.00
10	144.55	144.95	144.30	143.85	144.00	144.40	144.00	143.90	144.50	143.90	143.95	143.50
11	144.50	144.15	144.45	144.20	144.15	144.55	144.00	143.95	144.10	143.70	143.90	143.50
12	145.30	144.30	144.00	143.70	143.70	144.15	143.80	144.15	144.20	144.25	144.20	143.55
13	145.10	144.15	144.35	143.90	143.90	143.90	143.90	144.15	144.35	144.55	143.95	143.20
14	145.15	144.40	144.15	144.55	143.95	143.80	144.15	144.20	144.00	144.25	143.85	143.55
15	144.90	144.10	143.65	143.75	143.45	143.90	144.40	144.10	144.00	144.10	143.70	143.50
16	145.45	144.35	144.25	144.05	143.30	143.70	144.25	144.20	144.25	144.15	144.00	143.90
17	145.00	144.80	144.20	143.65	143.35	143.65	144.00	144.25	144.55	144.30	144.00	144.10
18	144.90	144.80	144.55	143.80	143.75	143.80	143.60	144.45	144.35	144.55	144.05	143.85
19	144.90	144.75	144.50	143.90	143.50	143.85	143.45	144.25	144.25	144.50	143.95	143.65
20	145.00	144.25	144.45	143.70	143.70	143.85	143.70	144.35	144.20	144.30	143.35	143.40
21	145.15	144.65	144.15	144.25	143.40	144.10	143.60	144.45	144.80	144.45	143.75	143.15
22	145.25	145.00	144.40	143.55	.....	144.50	143.50	144.40	144.80	144.50	143.20	143.25
23	144.55	144.85	144.25	143.90	.....	144.60	143.70	144.50	144.70	144.10	143.35	144.05
24	144.15	144.60	144.15	144.10	.....	144.45	143.70	144.50	144.90	144.15	143.05	143.50
25	144.35	144.35	144.30	143.45	.....	144.50	143.80	144.80	144.30	144.00	143.15	143.60
26	145.10	144.10	144.45	143.45	.....	144.40	144.05	144.40	144.20	143.95	143.35	143.30
27	144.90	144.15	144.15	143.80	.....	144.80	143.85	144.80	144.25	143.60	143.25	143.30
28	144.95	144.60	144.10	143.80	.....	144.85	144.10	144.90	144.35	143.50	143.90	143.35
29	145.00		144.15	143.80	.....	144.45	144.20	144.80	144.35	143.80	143.65	143.25
30	144.90		144.10	143.50	.....	144.60	144.40	144.90	144.70	143.75	143.60	143.45
31	144.60		143.85	.....	.....		144.40	145.05		143.95		143.35

241-3. Gardner-Richardson Co., South Cooper Ave., Lockland. Lat. 39°14', long. 84°27'. Drilled unused well in gravel, diameter 10 inches, depth 168 feet. Highest water level 104.70 below lsd, Jan. 30, 1939; lowest 136.80 below lsd, Nov. 9, 1947. Records available: 1938-53.

Daily lowest water level from recorder graph												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	123.10	122.95	122.30	121.95	121.90	121.80	120.90	120.60	120.40	120.45	120.40	119.95
2	122.85	122.85	122.00	122.20	122.20	121.85	120.75	120.60	120.30	120.35	120.40	119.90
3	122.70	122.60	121.90	122.20	122.35	121.75	120.90	120.55	120.20	120.35	120.35	119.65
4	122.80	122.75	121.90	122.25	122.30	121.60	120.95	120.55	120.30	120.20	120.45	119.70
5	122.90	122.60	122.15	122.30	122.00	121.55	120.85	120.55	120.40	120.15	120.40	119.90
6	122.95	122.45	122.35	122.10	121.90	121.60	120.80	120.55	120.40	120.25	.....	119.75
7	122.90	122.55	122.35	122.20	121.80	121.65	120.80	120.55	120.35	120.40	120.35	119.90
8	122.65	122.65	122.15	122.30	121.80	121.55	120.80	120.50	120.45	120.35	120.15	119.75
9	122.60	122.85	122.15	122.10	121.90	121.65	120.90	120.50	120.40	120.10	120.25	119.55
10	122.60	122.80	121.95	122.20	121.85	121.75	121.00	120.55	120.25	120.00	120.20	119.75
11	123.00	122.40	121.95	122.25	121.60	121.70	120.95	120.60	120.05	119.95	120.10	119.85
12	123.05	122.20	121.95	122.10	121.60	121.55	120.85	120.50	120.10	120.35	.....	119.70
13	122.80	122.35	121.95	122.15	121.80	121.35	120.70	120.45	120.15	120.40	120.30	119.55
14	122.80	122.30	121.95	122.30	121.80	121.40	120.70	120.35	120.05	120.35	.....	119.40
15	122.80	122.25	121.90	122.10	121.80	121.35	120.75	120.40	119.95	.....	120.05	119.70
16	123.10	122.45	121.95	121.90	121.80	121.25	120.85	120.40	120.05	.....	120.00	120.00
17	123.05	122.60	121.95	121.95	121.65	121.30	120.75	120.45	120.20	120.35	120.10	120.10
18	122.60	122.60	121.65	121.95	121.75	121.35	120.65	120.45	120.15	120.35	120.10	120.10
19	122.45	122.45	121.95	121.95	121.85	121.30	120.65	120.40	120.05	120.35	120.10	119.85
20	122.50	122.25	122.05	121.85	122.00	121.25	120.60	120.45	120.05	120.40	119.90	119.55
21	122.70	122.60	122.00	121.85	121.90	121.25	120.55	120.45	120.40	.....	119.95	119.35
22	122.75	122.70	122.00	121.75	121.95	121.25	120.50	120.50	120.55	.....	119.80	119.90
23	122.55	122.50	121.85	121.80	122.25	121.20	120.70	120.45	120.45	.....	119.65	120.00
24	122.40	122.30	121.90	121.90	122.20	121.15	120.85	120.40	120.25	.....	119.80	119.95
25	122.80	122.00	122.10	121.75	121.95	121.05	120.90	120.40	120.05	.....	120.05	119.65
26	122.85	121.75	122.10	121.90	121.90	121.15	120.85	120.50	119.95	120.10	120.20	119.45
27	122.50	122.05	121.95	121.95	122.10	121.20	120.70	120.50	119.95	120.10	120.35	119.45
28	122.75	122.25	121.90	121.95	122.15	121.05	120.60	120.40	120.00	120.10	120.20	119.20
29	122.90		122.10	121.90	121.95	121.10	120.60	120.30	120.05	120.30	120.20	119.25
30	122.85		122.10	121.75	121.55	121.05	120.70	120.30	120.35	120.50	119.90	119.45
31	122.80		121.90		121.45		120.70	120.35		.....		119.60

246-1. National Distillers Corp. Wayne Ave. and 78th St., Carthage. Lat. 39°12', long. 84°28'. Drilled unused well in gravel, diameter 8 inches, depth 170 feet. Highest water level 103.20 below lsd, May 28, 1945; lowest 121.58 below lsd, Nov. 10, 1950. Records available: 1944-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	105.15	105.05	104.80	104.75	105.55	106.00	104.90	104.80	104.75	105.45	108.90	115.85
2	104.85	104.90	104.45	104.85	105.65	106.05	104.75	104.80	104.75	105.45	109.70	114.15
3	104.80	104.80	104.45	104.80	105.75	106.00	104.95	104.85	104.70	105.45	110.75	114.40
4	104.80	104.90	104.80	104.90	105.85	105.90	104.90	104.85	104.80	105.40	110.35	113.35
5	105.25	104.70	105.00	105.05	105.75	105.90	104.85	104.95	104.85	105.35	111.20	112.05
6	105.05	104.85	105.15	104.90	105.75	105.75	104.80	104.95	104.85	105.55	111.85	111.25
7	105.20	104.90	105.25	104.90	105.65	105.75	104.85	104.95	105.00	105.60	113.20	112.45
8	104.85	104.95	105.05	104.95	105.70	105.70	104.95	104.95	105.05	106.80	112.55	112.30
9	104.65	105.20	105.05	104.75	105.75	105.75	104.90	104.90	105.05	105.95	114.40	112.00
10	104.85	104.90	105.00	105.15	105.75	105.70	104.95	104.85	104.95	105.70	112.05	112.80
11	105.00	104.70	104.70	105.25	105.70	105.55	104.85	104.90	104.85	105.80	112.55	111.30
12	105.15	104.60	104.70	105.25	105.70	105.25	104.90	104.85	104.85	108.70	112.85	111.15
13	104.75	104.70	104.60	105.45	105.80	105.05	104.80	104.85	104.90	108.30	113.90	111.05
14	104.90	104.80	104.75	105.55	105.80	105.10	104.85	104.85	104.80	112.10	114.20	112.65
15	104.70	104.75	104.60	105.45	105.80	105.10	104.85	104.85	104.80	111.75	113.30	113.20
16	105.10	105.00	104.60	105.50	105.75	105.00	104.90	104.80	104.80	110.80	112.60	113.60
17	104.75	105.10	104.65	105.50	105.60	105.05	104.80	104.85	104.85	112.05	113.15	113.65
18	104.85	104.90	104.65	105.60	105.70	105.05	104.60	104.75	104.85	111.70	113.30	113.15
19	104.55	104.80	104.85	105.60	105.75	105.15	104.60	104.55	104.80	112.35	113.20	111.40
20	104.80	104.55	104.95	105.60	105.80	105.10	104.55	104.60	104.85	111.25	114.50	111.15
21	104.70	104.85	104.90	105.65	105.80	105.10	104.50	104.65	105.20	111.90	114.35	112.10
22	104.80	104.95	104.85	105.60	105.85	105.15	104.50	104.55	105.25	111.95	.....	114.40
23	104.55	104.80	104.80	105.70	106.00	105.05	104.60	104.45	105.25	112.65	111.80	114.00
24	104.60	104.60	104.80	105.70	105.95	105.00	104.85	104.45	105.15	112.95	112.50	114.50
25	105.10	104.50	104.70	105.50	105.80	105.00	104.90	104.60	104.90	110.05	112.70	112.10
26	105.15	104.20	104.95	105.65	105.80	105.15	104.90	104.60	104.90	111.35	114.85	113.45
27	105.00	104.55	104.80	105.75	106.10	105.10	104.90	104.60	104.90	111.70	113.70	111.50
28	105.15	104.75	104.75	105.65	106.10	104.95	104.90	104.60	104.95	110.45	114.90	113.80
29	105.00		104.90	105.55	106.00	105.10	104.85	104.70	106.15	110.35	113.75	114.20
30	104.90		104.90	105.35	105.75	105.05	104.75	104.70	105.40	110.25	115.25	114.50
31	104.95		104.75		105.75		104.85	104.75		110.50		113.40

270-T-7. Procter & Gamble Co. Vine St., Ivorydale. Lat. 39°10', long. 84°29'. Drilled unused well in sand and gravel, diameter 6 inches, depth 151 feet. Highest water level 110.6 below lsd, Apr. 8, 1940; lowest 129.70 below lsd, Oct. 6, 1947. Records available: 1939-53. Recording gage installed Apr. 6, 1953.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	116.95	116.85	116.80	116.60	116.40	116.10	116.05	115.95
2	117.95	.....	.....	117.05	116.90	116.65	116.55	116.40	116.10	116.05	115.95
3	117.15	116.95	116.55	116.55	116.35	116.10	116.00	115.85
4	117.20	116.95	116.60	116.55	116.25	116.05	115.95	115.60
5	117.94	.....	.....	.....	117.20	116.90	116.65	116.45	116.35	116.00	116.00	115.65
6	117.15	117.20	116.90	116.70	116.50	116.35	115.85	116.00	115.65
7	117.10	117.15	116.90	116.70	116.50	116.45	115.95	116.00	115.75
8	117.15	117.10	116.90	116.70	116.50	116.50	116.00	115.85	115.80
9	117.88	117.49	117.15	117.10	116.90	116.75	116.50	116.50	116.00	115.90	115.80
10	117.00	117.10	116.90	116.80	116.60	116.50	115.90	115.90	115.60
11	117.10	117.05	116.95	116.80	116.60	116.35	115.80	115.90	115.70
12	118.04	.....	.....	117.10	117.05	116.95	116.80	116.60	116.10	115.85	115.95	115.75
13	117.15	117.00	116.80	116.75	116.60	116.20	116.00	116.00	115.75
14	117.25	117.00	116.75	116.70	116.55	116.20	116.05	116.00	115.55
15	117.25	117.00	116.80	116.70	116.50	116.20	116.05	115.90	115.60
16	117.60	117.24	116.95	117.00	116.80	116.70	116.50	116.20	116.05	115.85	115.75
17	117.00	116.90	116.70	116.70	116.55	116.25	116.05	116.00	115.90
18	117.05	116.90	116.75	116.65	116.55	116.25	116.10	115.95	115.95
19	117.76	.....	.....	117.15	116.90	116.80	116.60	116.55	116.20	116.10	115.95	115.95
20	117.20	116.95	116.80	116.60	116.55	116.15	116.10	115.90	115.75
21	117.20	116.95	116.80	116.60	116.55	116.15	116.10	115.80	115.55
22	117.20	116.95	116.80	116.60	116.55	116.25	116.10	115.80	115.55
23	117.74	117.16	117.05	117.00	116.85	116.60	116.50	116.30	116.00	115.70	115.75
24	117.10	117.05	116.85	116.65	116.45	116.30	115.80	115.70	115.80
25	117.05	117.05	116.80	116.70	116.45	116.15	115.85	115.60	115.80

270-T-7--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	117.89	.....	.....	117.00	116.95	116.80	116.70	116.50	116.05	115.95	115.75	115.60
27	117.10	117.00	116.85	116.70	116.50	115.95	115.95	115.85	115.60
28	117.15	117.10	116.85	116.65	116.45	115.90	115.85	116.00	115.60
29	117.15	117.10	116.85	116.60	116.40	115.95	115.90	116.00	115.60
30	117.26	117.05	116.80	116.85	116.60	116.40	116.00	116.00	115.95	115.65
31	116.75	.....	116.60	116.40	.....	116.05	.....	115.70

Hancock County

Ha-2. R. E. Ascham. Lat. 40°57'00", long. 83°46'00". Drilled unused well in limestone, diameter 6 inches, depth 27 feet. Highest water level 2.88 above lsd, Mar. 22, 1948; lowest 7.65 below lsd, Nov. 16-17, 1952. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.92	....	....	2.92	3.19	3.14	4.02	3.60	4.04	6.25	7.07	7.54
2	5.88	3.22	....	2.99	3.32	3.22	2.78	3.64	4.12	6.25	7.08	7.54
3	5.72	....	....	2.99	3.37	3.26	3.14	3.65	4.58	6.27	7.12	7.51
4	....	....	....	2.98	3.38	3.29	3.28	3.61	4.74	6.31	7.16	7.50
5	....	3.22	....	3.00	3.21	3.36	3.38	3.63	4.35	6.31	7.20	7.56
6	....	3.28	....	3.00	3.21	3.41	3.47	3.67	4.50	6.40	7.20	7.48
7	6.13	3.31	....	3.08	3.21	3.46	3.54	3.70	4.97	6.42	7.17	7.06
8	6.03	3.39	....	3.11	2.98	3.46	3.60	3.48	5.26	6.43	7.15	....
9	4.02	3.46	....	3.07	3.08	3.54	3.67	3.60	....	6.42	7.22	....
10	3.74	3.47	....	2.96	3.12	3.56	3.69	3.70	5.27	6.42	7.23	....
11	2.91	3.37	....	3.01	3.18	3.56	3.69	3.76	5.27	6.47	7.27	....
12	3.00	3.24	....	3.00	3.19	3.54	3.70	3.78	5.33	6.61	7.30	....
13	3.04	3.26	....	3.06	3.05	3.58	3.70	3.79	5.42	6.64	7.31	....
14	2.90	3.25	....	3.12	3.05	3.59	3.75	3.79	5.44	6.64	7.30	....
15	2.74	3.26	....	3.10	2.88	3.60	3.79	3.85	5.45	6.63	7.28	7.32
16	2.99	3.31	....	2.95	2.89	3.60	3.77	3.88	5.55	6.69	7.31	7.47
17	2.99	3.40	....	2.98	1.86	3.64	3.77	3.93	5.63	6.73	7.34	7.50
18	2.18	3.40	....	2.98	1.28	3.69	3.76	3.95	5.64	6.74	7.38	7.50
19	2.41	....	....	2.98	1.60	3.73	3.75	4.01	5.63	6.79	7.38	7.50
20	2.60	....	....	3.03	1.84	3.74	3.82	4.08	5.69	6.81	7.37	7.42
21	2.79	....	....	3.06	2.01	3.81	3.84	4.19	5.84	6.85	7.43	7.40
22	2.84	....	....	3.05	2.07	3.83	3.84	4.43	5.92	....	7.42	6.06
23	2.84	....	2.54	3.13	1.58	3.88	2.81	4.62	5.95	....	7.39	4.51
24	2.74	....	2.60	3.15	1.77	3.91	3.10	4.76	5.90	....	7.37	6.01
25	2.97	....	2.74	3.08	1.92	3.91	3.22	4.86	5.87	....	7.40	6.51
26	3.01	....	2.78	3.11	2.27	3.91	3.33	4.98	5.91	....	7.49	6.78
27	2.94	....	2.79	3.20	2.58	3.91	3.42	5.06	5.94	....	7.51	6.88
28	3.04	....	2.86	3.22	2.70	3.92	3.46	5.10	5.98	....	7.56	6.90
29	....	....	3.00	3.23	2.72	....	3.53	5.16	....	6.99	7.56	6.98
30	3.16	....	3.02	3.20	2.80	....	3.57	5.24	6.19	7.03	7.51	7.06
31	....	....	3.00	....	2.98	....	3.61	5.29	....	7.05	....	7.16

Hardin County

Hn-1. Village of Alger. Lat. 40°42'15", long. 83°50'08". Drilled unused well in limestone, diameter 6 inches, depth 140 feet. Highest water level 4.35 below lsd, Apr. 15, 1951; lowest 15.65 below lsd, Dec. 25, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.30	9.55	9.05	....	9.20	8.80	10.20	10.55	12.05	14.05	14.15	14.95
2	12.35	....	....	....	9.15	8.80	10.10	10.25	12.20	14.00	14.10	14.90
3	12.35	....	....	....	9.50	8.35	10.25	10.20	12.35	13.85	14.15	14.70
4	12.15	....	....	....	9.45	8.85	10.25	10.35	12.35	13.45	14.20	14.65
5	12.05	....	....	....	9.35	9.15	10.30	10.00	12.30	13.30	14.50	14.85
6	12.15	....	....	....	9.35	9.15	9.95	10.10	12.30	13.40	14.45	14.60
7	12.15	....	....	8.60	9.35	9.10	9.65	10.20	11.90	13.50	14.50	14.75
8	12.65	....	....	9.30	9.25	9.00	9.45	10.50	12.10	13.65	14.15	15.25
9	12.30	....	....	....	9.30	9.10	9.95	10.80	12.35	13.45	14.30	14.75
10	12.05	....	....	....	9.40	9.25	9.85	10.50	12.60	13.40	14.55	14.85

Hn-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	12.10	9.90	....	....	8.60	9.15	10.10	10.55	12.70	13.60	14.45	14.85
12	11.60	....	....	....	9.30	9.25	9.95	10.50	12.85	13.60	14.50	14.75
13	....	....	....	....	8.35	9.25	10.15	10.55	12.90	13.65	14.45	14.80
14	....	....	....	7.70	9.25	9.30	10.30	10.60	12.75	13.70	14.50	14.60
15	....	9.55	....	9.15	9.30	9.30	10.30	10.60	12.85	13.85	14.40	14.70
16	....	9.50	....	9.15	8.35	9.35	10.60	10.55	13.05	13.85	14.50	14.95
17	....	9.85	....	9.20	8.95	9.40	10.65	10.80	13.20	13.90	14.50	....
18	....	9.85	....	9.20	8.75	9.50	10.00	11.00	13.25	13.75	14.65	....
19	....	9.75	....	9.10	9.10	9.75	9.95	11.00	13.30	13.85	14.70	....
20	....	9.70	....	9.15	8.90	9.95	9.85	10.90	13.15	13.90	14.75	....
21	....	9.55	....	9.05	8.60	10.10	10.20	11.00	13.35	13.95	14.75	....
22	....	9.45	....	9.10	8.65	10.10	9.70	10.95	13.60	14.00	14.65	....
23	....	9.35	....	9.25	8.50	10.25	9.60	10.95	....	13.90	14.75	....
24	....	9.15	8.25	9.25	8.50	10.30	9.60	11.00	....	13.90	14.70	....
25	....	9.10	9.15	8.30	8.35	10.30	9.70	11.50	13.60	13.95	14.75	15.65
26	....	8.90	8.95	9.15	8.35	10.30	9.75	11.65	13.65	13.95	14.95	....
27	....	9.05	9.15	9.10	8.55	10.25	10.00	11.85	13.65	13.95	15.15	....
28	9.90	9.15	....	9.05	8.55	10.35	10.25	11.95	13.60	14.30	15.25	....
29	10.00	....	....	8.95	8.60	10.05	10.50	12.05	13.75	14.50	15.10	15.55
30	10.00	....	....	9.15	8.55	....	10.65	12.10	13.90	14.25	14.95	15.30
31	9.75	....	....	....	8.60	....	10.60	11.90	....	14.25	....	15.30

Hn-2. Edw. Abaler. Lat. 40°46'56", long. 83°41'30". Drilled unused well in limestone, diameter 4 inches, depth 50 feet. Highest water level 5.61 below lsd, Apr. 28, 1952; lowest 25.10 below lsd, Dec. 29, 1946. Records available: 1946-52. Measurement discontinued.

Henry County

Hy-1. H. Fosnow. Lat. 41°14'26", long. 83°54'03". Drilled unused well in limestone, diameter 4 inches, depth 81 feet. Highest water level 19.59 below lsd, May 21, 1948; lowest 25.45 below lsd, Dec. 30, 1953. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	23.27	Mar. 30	23.58	June 29	23.94	Sept. 30	24.69
10	23.35	Apr. 6	23.45	July 6	23.94	Oct. 7	24.85
17	23.39	13	23.49	13	24.01	14	24.88
24	23.45	20	23.43	20	24.17	29	24.89
31	23.54	27	23.45	27	24.24	Nov. 2	24.93
Feb. 7	23.67	May 4	23.57	Aug. 3	24.21	10	25.03
14	23.60	11	23.58	10	24.27	18	25.03
21	23.48	18	23.49	17	24.39	24	24.99
28	23.54	25	23.52	24	24.47	30	25.15
Mar. 7	23.62	June 1	23.61	31	24.54	Dec. 15	25.25
14	23.60	8	23.74	Sept. 10	24.73	22	25.27
21	23.57	15	23.78	14	24.62	30	25.45
23	23.53	22	23.91				

Holmes County

Ho-1. Sarah Walters. Millersburg. Lat. 40°35', long. 81°55'. Drilled unused well in sandstone, diameter 4 inches, depth 43 feet. Highest water level 2.50 below lsd, May 22, 1953; lowest 6.66 below lsd, Dec. 31, 1953. Records available: 1953. Recording gage installed May 8, 1953.

Daily lowest water level from recorder graph*

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	3.35	4.35	5.00	5.65	6.00	6.25	6.50
2	....	3.50	4.25	5.00	5.70	6.05	6.25	6.55
3	....	3.55	4.15	5.05	5.70	6.05	6.25	6.55
4	....	3.65	4.30	5.05	5.70	6.05	6.30	6.55
5	....	3.80	4.35	4.95	5.70	6.05	6.30	6.55
6	....	3.85	4.45	5.00	5.70	6.05	6.30	6.55
7	....	3.55	4.50	5.05	5.70	6.10	6.30	6.55
8	3.25	3.65	4.55	5.05	5.75	6.10	6.30	6.55
9	3.30	3.80	4.55	4.95	5.75	6.10	6.30	6.55
10	3.30	3.85	4.60	4.95	5.75	6.10	6.35	6.55

Ho-1--Continued.

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	3.30	3.90	4.65	5.05	5.75	6.10	6.35	6.55
12	3.30	3.95	4.70	5.05	5.75	6.10	6.35	6.55
13	3.30	4.05	4.70	5.10	5.75	6.15	6.40	6.55
14	3.30	4.10	4.75	5.15	5.75	6.15	6.40	6.55
15	3.30	4.15	4.80	5.15	5.75	6.15	6.40	6.55
16	3.30	4.15	4.85	5.20	5.80	6.15	6.40	6.55
17	3.20	4.15	4.85	5.20	5.80	6.15	6.45	6.60
18	3.15	4.20	4.85	5.25	5.85	6.15	6.45	6.60
19	3.20	4.25	4.80	5.25	5.85	6.15	6.45	6.60
20	3.20	4.30	4.85	5.30	5.85	6.15	6.45	6.65
21	3.25	4.35	4.90	5.35	5.90	6.15	6.45	6.62
22	3.20	4.35	4.90	5.40	5.90	6.20	6.45	6.60
23	2.90	4.40	4.70	5.40	5.90	6.20	6.45	6.60
24	2.95	4.45	4.80	5.45	5.95	6.20	6.45	6.61
25	2.95	4.50	4.85	5.50	5.95	6.20	6.45	6.62
26	3.00	4.50	4.90	5.50	5.95	6.20	6.50	6.63
27	3.05	4.40	4.90	5.55	5.95	6.20	6.50	6.64
28	3.10	4.45	4.95	5.60	5.95	6.20	6.50	6.64
29	3.15	4.50	5.00	5.60	5.95	6.20	6.50	6.64
30	3.20	4.55	5.00	5.65	6.00	6.25	6.50	6.64
31	3.20		4.95	5.65		6.25		6.66

*No record for January, February, March, and April.

Huron County

Hu-2. City of New London. Lat. 41°04'54", long. 82°25'00". Drilled unused well in sandstone, diameter 4 inches, depth 105 feet. Highest water level 13.25 below lsd, May 22, 1949; lowest 17.98 below lsd, Dec. 31, 1953. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	16.85	16.65	16.46	16.26	16.63	16.78	17.03	17.40	17.63	17.85
2	.....	.....	16.85	16.66	16.50	16.26	16.57	16.74	17.02	17.40	17.65	17.85
3	.....	16.98	16.81	16.66	16.57	16.26	16.58	16.75	17.02	17.40	17.66	17.82
4	.....	.....	16.70	16.65	16.58	16.26	16.60	16.73	17.03	17.39	17.71	17.79
5	.....	.....	16.80	16.65	16.55	16.25	16.59	16.70	17.08	17.38	17.75	17.85
6	.....	.....	16.86	16.65	16.51	16.26	16.58	16.72	17.09	17.37	17.75	17.81
7	.....	.....	16.88	16.65	16.50	16.27	16.60	16.73	17.14	17.41	17.73	17.84
8	.....	.....	16.85	16.67	16.47	16.27	16.61	16.72	17.19	17.42	17.65	17.85
9	.....	.....	16.86	16.65	16.49	16.23	16.66	16.74	17.20	17.40	17.70	17.83
10	.....	.....	16.84	16.56	16.51	16.25	16.69	16.79	17.20	17.38	17.70	17.84
11	.....	.....	16.84	16.60	16.48	16.27	16.71	16.81	17.18	17.38	17.71	17.86
12	.....	.....	16.83	16.59	16.48	.....	16.70	16.82	17.12	17.47	17.76	17.86
13	16.86	.....	16.82	16.58	16.48	.....	16.69	16.82	17.16	17.49	17.78	17.85
14	16.87	.....	16.82	16.64	16.48	.....	16.71	16.81	17.17	17.49	17.77	17.80
15	16.88	16.88	16.75	16.62	16.45	.....	16.74	16.83	17.15	17.47	17.73	17.80
16	16.95	.....	16.77	16.53	16.45	.....	16.75	16.84	17.19	17.50	17.73	17.88
17	16.85	.....	16.77	16.55	16.36	.....	16.73	16.87	17.23	17.52	17.76	17.92
18	16.80	.....	16.74	16.55	16.34	16.47	16.72	16.88	17.23	17.53	17.78	17.92
19	16.81	16.88	16.72	16.54	16.34	16.55	16.68	16.88	17.20	17.54	17.79	17.92
20	16.84	16.86	16.76	16.53	16.36	16.58	16.70	16.92	17.17	17.56	17.78	17.88
21	16.85	16.85	16.76	16.54	16.35	16.63	16.72	16.93	17.26	17.58	17.77	17.85
22	16.87	16.89	16.74	16.53	16.33	16.65	16.70	16.94	17.33	17.58	17.77	17.91
23	16.87	16.89	16.72	15.54	16.28	16.68	16.63	16.93	17.34	17.56	17.70	17.96
24	16.83	16.89	16.71	16.56	16.30	16.68	16.70	16.95	17.33	17.52	17.67	17.96
25	16.77	16.83	16.72	16.52	16.28	16.66	16.72	16.96	17.30	17.56	17.62	17.92
26	16.87	16.79	16.72	16.47	16.26	16.68	16.73	16.97	17.28	17.56	17.71	17.92
27	.....	16.73	16.68	16.51	16.31	16.70	16.73	16.98	17.27	17.55	17.75	17.95
28	.....	16.80	16.65	16.54	16.33	16.68	16.74	16.98	17.28	17.51	17.84	17.91
29	.....	.....	16.70	16.55	16.32	16.69	16.74	16.97	17.30	17.55	17.84	17.92
30	.....	.....	16.72	16.52	16.24	16.70	16.77	16.98	17.37	17.60	17.81	17.97
31	.....	.....	16.70	.....	16.19	.....	16.78	17.01	.....	17.61	.....	17.98

Knox County

K-1. City of Mount Vernon. Lat. 40°23'45", long. 82°30'05". Drilled unused well in gravel, diameter 8 inches, depth 90 feet. Highest water level 1.9 above lsd, Mar. 19, 1948; lowest 14.13 below lsd, June 28, 1949. Records available: 1946-52.

K-1--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.40	4.00	5.65	6.10	5.35	8.45	9.20	9.75	12.65	12.40	6.35	6.70
2	4.30	3.95	6.60	5.85	5.45	9.10	8.65	9.75	12.20	12.45	6.90	8.85
3	4.10	6.70	5.20	5.05	3.75	9.10	7.35	8.80	12.10	10.95	7.50	9.15
4	4.00	6.80	5.10	5.35	5.85	6.85	6.60	11.35	11.45	11.85	7.50	9.25
5	5.25	6.95	8.10	5.05	5.80	9.65	6.10	8.65	10.40	7.95	7.35	9.10
6	5.15	8.10	5.90	5.95	5.80	9.65	8.65	9.50	6.95	9.90	7.25	5.75
7	4.90	7.75	5.35	6.00	5.75	5.80	7.00	9.60	6.50	8.25	7.05	6.50
8	4.80	4.25	4.40	5.45	4.75	8.95	9.10	9.60	10.00	7.75	5.65	8.05
9	5.15	4.70	4.70	5.75	5.35	9.05	9.10	8.00	10.15	9.35	6.35	8.35
10	5.20	6.85	4.90	5.75	3.85	9.10	7.15	8.65	10.35	7.55	.....	8.55
11	3.70	6.60	7.45	5.80	5.25	9.35	6.75	9.25	8.70	7.25	.....	8.55
12	6.05	6.95	5.75	5.15	5.65	7.50	6.35	9.45	9.85	7.35	10.10	8.60
13	4.45	5.40	7.70	5.40	6.05	7.85	6.90	9.50	8.10	7.75	9.60	5.10
14	7.60	5.45	5.35	6.70	8.00	8.45	9.15	9.50	6.95	8.50	7.80	6.35
15	7.75	3.90	4.55	7.20	5.40	8.25	11.30	9.00	9.65	10.55	7.30	6.90
16	6.80	4.95	4.85	5.60	5.45	7.35	11.20	6.80	10.45	10.65	7.05	7.15
17	4.50	5.30	4.85	6.00	3.45	7.50	11.35	8.85	8.05	9.35	8.80	7.65
18	3.45	6.95	5.20	5.60	5.00	7.60	9.90	7.15	7.75	7.70	8.80	7.45
19	2.25	5.40	5.40	3.20	5.50	8.95	7.10	7.05	7.60	7.05	8.70	7.10
20	....	5.60	4.75	4.50	5.55	9.00	6.90	9.50	5.20	10.80	7.40	5.55
21	....	5.55	4.45	4.90	5.45	9.05	9.70	10.00	7.20	11.55	7.45	5.65
22	6.55	4.70	4.45	5.10	7.35	9.50	9.75	9.40	7.45	8.55	6.45	6.40
23	6.60	5.20	5.05	5.65	4.90	11.20	9.10	9.35	9.45	7.45	5.95	8.05
24	5.90	5.55	5.05	5.60	5.30	....	9.45	9.00	9.65	9.20	7.75	7.50
25	4.25	7.20	5.55	5.30	7.60	....	8.75	10.80	11.05	7.30	7.75	....
26	4.20	6.50	6.10	4.80	8.80	12.25	7.00	11.20	7.80	7.10	7.65	4.95
27	7.10	7.50	7.20	5.85	9.10	....	6.65	10.15	7.35	9.90	7.25	4.55
28	7.80	7.70	5.10	5.15	8.80	....	8.60	10.70	9.60	10.45	5.90	5.60
29	6.15	....	3.50	5.25	6.00	....	9.05	12.10	10.60	7.85	4.65	6.60
30	6.60	....	4.85	5.40	5.75	....	9.30	12.35	8.80	7.50	6.00	6.55
31	6.10	....	4.95	....	4.45	....	9.75	13.00	....	7.50	....	6.45

Lake County

L-1. City of Mentor. Lat. 41°41'00", long. 81°22'03". Drilled unused well in sand, diameter 8 inches, depth 32 feet. Highest water level 14.30 below lsd, Apr. 11, 1950; lowest 23.10 below lsd, Oct. 20-22, 1953. Records available: 1948-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.10	20.50	20.05	19.55	19.40	....	20.60	20.85	21.85	22.25	22.55	....
2	21.00	20.50	20.15	19.70	19.60	....	20.15	20.90	21.90	22.35	22.65	22.15
3	20.95	20.55	19.95	19.80	19.70	....	20.10	20.85	21.90	22.40	22.85	22.30
4	21.00	20.35	20.05	19.80	19.85	....	20.15	20.90	21.90	22.45	23.00	22.35
5	21.15	20.45	20.10	19.80	19.90	....	20.25	20.20	21.90	22.40	23.05	22.20
6	21.10	20.20	20.25	19.70	19.65	19.45	20.35	19.80	21.90	22.40	23.05	22.25
7	21.15	20.15	19.85	19.60	19.55	....	20.50	19.75	21.70	22.25	22.90	22.55
8	20.65	20.35	20.05	19.60	19.50	....	20.60	19.65	21.60	22.20	22.75	22.65
9	20.45	20.45	20.10	19.65	19.65	19.15	20.55	19.65	21.65	22.15	22.90	22.55
10	20.35	20.40	20.10	20.00	19.90	19.25	20.55	20.45	21.55	21.60	22.75	22.35
11	20.45	19.85	19.90	20.20	19.85	19.15	20.70	20.55	21.55	22.30	22.90	22.50
12	20.65	19.85	20.05	19.75	19.75	19.15	21.05	....	21.50	22.65	22.95	22.45
13	20.80	19.85	19.95	19.50	19.85	19.15	21.20	....	21.35	22.70	22.85	22.65
14	20.70	20.05	20.05	19.50	19.65	19.30	21.30	....	21.55	22.65	22.85	22.65
15	20.70	20.10	20.10	19.30	19.65	....	21.30	20.85	21.60	22.75	22.70	22.60
16	20.70	19.95	20.20	19.25	19.50	....	21.30	20.90	21.70	22.50	22.60	22.45
17	20.75	19.90	20.10	19.30	19.50	19.20	21.15	21.10	21.65	22.75	22.60	22.15
18	20.60	19.85	19.80	19.45	....	19.40	21.25	21.15	21.55	22.95	22.85	22.50
19	20.75	19.90	19.70	19.45	....	19.20	21.15	21.10	21.55	23.00	22.90	22.50
20	20.60	19.85	19.75	....	19.55	19.75	21.05	21.20	21.65	23.10	22.80	22.45
21	20.50	19.80	19.80	19.40	19.75	19.90	21.10	21.30	21.55	23.10	22.80	22.65
22	20.60	19.95	19.75	....	19.50	20.05	20.75	21.40	21.45	23.10	22.60	22.45
23	20.20	19.95	20.00	19.45	19.40	20.15	20.65	21.45	21.55	23.05	22.55	22.60
24	20.45	20.00	20.20	19.50	19.50	20.20	20.85	21.50	21.65	22.70	22.50	22.65
25	20.95	19.90	20.25	19.45	19.45	20.20	20.85	21.65	21.70	22.75	22.55	22.40
26	20.96	19.80	19.90	19.45	....	20.30	21.15	21.70	21.70	22.75	22.35	22.25
27	20.75	19.70	19.90	19.45	....	20.25	21.10	21.75	21.75	22.80	22.40	22.15
28	20.55	19.80	19.80	19.30	....	20.55	21.10	21.80	21.90	22.55	22.35	22.15
29	20.70	....	19.70	19.50	....	20.75	20.55	21.80	22.10	21.95	....	22.25
30	20.50	....	19.75	19.50	....	20.75	20.65	21.85	22.25	22.25	....	22.10
31	20.50	....	19.75	....	19.50	....	....	....	....	22.55	....	....

Lawrence County

La-1. Crystal Ice Co. 9th and Railroad Sts., Ironton. Lat. 38°32', long. 83°41'. Drilled unused well in gravel, diameter 16 inches, depth 77 feet. Highest water level 40.03 below lsd, Apr. 13, 1951; lowest 53.77 below lsd, Oct. 19, 1947. Records available: 1947-53.

Daily lowest water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.
1	.....	47.84	48.30	47.61	.....	47.55	48.48	49.23	50.47
2	.....	48.23	48.38	47.45	.....	47.80	48.67	49.86	50.48
3	.....	48.36	48.43	47.52	.....	47.96	.....	.....	49.84
4	.....	48.43	48.47	47.61	.....	48.03	.....	.....	49.66
5	.....	48.44	48.48	.....	.....	48.06	.....	.....	49.74
6	.....	48.70	48.48	47.34	48.20	48.10	.....	.....	49.56
7	.....	48.77	48.17	.....	48.25	48.11	.....	.....	49.52
8	.....	48.85	47.85	47.02	48.29	48.25	.....	.....	49.63
9	.....	48.87	47.75	47.15	48.33	48.30	.....	.....	49.96
10	.....	48.55	47.77	47.23	48.35	48.31	.....	.....	50.16
11	.....	48.25	47.70	.....	48.03	48.25	.....	.....	50.26
12	.....	48.15	47.70	.....	47.76	48.25	.....	.....	50.33
13	.....	48.07	47.65	.....	47.62	48.27	.....	.....	50.36
14	.....	48.00	47.63	.....	47.40	48.20	.....	.....	50.39
15	.....	47.80	47.42	.....	47.35	47.91	.....	.....	50.42
16	.....	47.92	47.60	.....	47.22	47.64	.....	.....	50.43
17	.....	47.87	47.67	.....	47.13	47.57	.....	.....	50.07
18	.....	47.85	47.50	.....	47.42	47.88	.....	.....	49.83
19	47.93	47.70	47.61	.....	47.52	48.07	.....	.....	49.74
20	48.14	47.77	47.53	.....	47.65	48.11	.....	.....	49.72
21	48.16	47.85	47.78	48.17	47.72	48.25	.....	.....	49.78
22	48.09	47.67	47.55	.....	47.75	48.25	.....	.....	49.70
23	48.04	47.77	48.01	.....	47.80	48.28	.....	.....	49.65
24	48.01	47.70	48.15	.....	47.82	48.32	.....	.....	49.64
25	47.86	47.64	48.23	.....	47.82	48.33	.....	.....	49.58
26	48.06	47.77	48.25	.....	47.87	48.38	.....	.....	50.01
27	.....	47.82	48.25	.....	47.90	48.35	.....	.....	50.21
28	48.19	48.10	48.23	.....	47.91	48.35	.....	.....	50.31
29	.....	.....	48.23	.....	47.91	48.37	.....	.....	50.39
30	48.05	.....	48.19	.....	47.70	48.40	.....	.....	50.44
31	48.16	.....	47.65	.....	47.75	.....	.....	.....	.....

*No record for August, November, and December.

Licking County

Li-1. Newark Stove Co. Lat. 40°03', long. 82°25'. Drilled unused well in sand and gravel, diameter 8 inches, depth 68 feet. Highest water level 21.50 below lsd, Feb. 8, 1952; lowest 24.80 below lsd, Dec. 22, 1953. Records available: 1951-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.10	23.90	23.80	23.90	23.85	.....	24.00	24.05	24.35	24.45	24.50	24.70
2	23.95	23.80	23.70	23.90	23.90	.....	23.95	.....	24.35	24.45	24.55	24.65
3	24.00	23.80	23.70	23.90	23.90	.....	23.95	.....	24.35	24.45	24.55	24.65
4	24.05	23.80	23.75	23.90	23.85	.....	23.95	24.05	24.40	24.45	24.55	24.70
5	24.05	23.75	23.80	23.90	23.85	.....	23.95	24.05	24.40	24.40	24.55	24.75
6	24.10	23.80	23.80	23.85	23.85	.....	24.00	24.05	24.40	24.50	24.55	24.75
7	24.05	23.80	23.80	23.95	23.85	.....	24.00	24.05	24.40	24.50	24.50	24.75
8	23.95	23.80	.....	23.95	23.90	.....	23.95	24.10	24.40	24.45	24.50	24.70
9	24.00	23.85	.....	23.95	23.90	.....	23.95	24.10	24.45	24.40	24.55	24.65
10	23.95	23.80	.....	23.95	23.90	.....	24.00	24.15	24.40	24.40	24.55	24.75
11	24.10	23.70	.....	23.95	.....	.....	.....	24.10	24.40	24.45	24.60	24.70
12	24.10	23.75	.....	23.85	.....	.....	.....	24.15	24.45	24.50	24.60	24.65
13	24.00	23.80	.....	23.90	.....	.....	.....	24.15	24.45	24.55	24.60	24.65
14	24.00	23.75	.....	23.95	.....	.....	24.05	24.10	24.40	24.50	24.55	24.70
15	24.00	23.75	.....	23.85	.....	.....	24.05	24.15	24.40	.....	24.55	24.70
16	24.05	23.85	.....	23.90	.....	.....	24.05	24.15	24.40	.....	24.60	24.70
17	24.00	23.80	23.80	23.90	.....	.....	24.00	24.15	24.40	24.50	24.60	24.70
18	23.95	23.80	23.80	23.90	.....	.....	.....	24.25	24.40	24.50	24.60	24.65
19	23.90	23.75	23.85	23.90	.....	.....	.....	24.25	24.40	24.50	24.60	24.60
20	23.95	23.65	23.85	23.85	.....	.....	.....	24.30	24.40	24.50	24.55	24.60
21	23.95	23.80	23.85	23.90	.....	.....	24.05	24.30	24.45	24.50	24.60	24.60
22	23.90	23.80	23.85	23.80	.....	.....	24.05	24.30	24.50	24.50	24.60	24.80
23	23.85	23.75	23.85	23.85	.....	.....	24.05	24.25	24.45	24.45	24.60	24.75
24	23.90	23.65	23.80	23.85	.....	.....	24.10	24.30	24.40	24.50	24.55	24.70
25	23.95	23.65	23.85	23.75	.....	.....	24.10	24.30	24.40	24.55	24.60	24.60

Li-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	.....	23.65	23.85	23.80	.....	.....	24.05	24.30	24.40	24.50	24.65	24.70
27	.....	23.75	23.80	23.85	.....	.....	24.05	24.30	24.45	24.50	24.65	24.70
28	.....	23.75	23.85	23.85	.....	.....	24.05	24.30	24.45	24.50	24.70	24.65
29	.....	.....	23.90	23.85	.....	.....	24.05	24.30	24.45	24.55	24.65	24.65
30	23.80	.....	23.85	23.80	.....	23.95	24.05	.....	24.45	24.55	24.60	24.70
31	23.80	.....	23.85	.....	.....	.....	24.05	.....	.....	24.50	.....	24.70

Li-2. Heath Refinery. Newark. Lat. 40°02', long. 82°28'. Drilled observation well in gravel, diameter 6 inches, depth 23 feet. Highest water level 1.55 below lsd, May 22, 1953; lowest 18.55 below lsd, Dec. 17-18, 1953. Records available: 1953.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.79	....	3.63	3.75	3.65	2.65	4.00	.....	11.75	15.05	16.20	12.20
2	6.79	....	3.66	3.80	3.70	2.90	4.00	.....	12.00	14.95	16.60	12.15
3	6.81	....	3.66	3.80	3.80	2.95	4.10	.....	12.40	14.60	16.90	12.50
4	6.83	....	3.48	3.85	3.80	3.00	4.15	9.25	12.50	14.20	16.95	12.95
5	6.85	....	3.44	3.90	3.80	3.05	4.25	9.05	12.60	13.85	16.80	13.55
6	6.86	....	3.50	3.90	3.80	3.05	4.30	8.95	12.65	13.55	16.45	14.20
7	.....	.....	3.53	3.90	3.80	3.15	4.40	9.00	12.70	13.50	16.05	14.75
8	.....	.....	3.56	3.95	3.35	3.15	4.40	9.05	12.80	13.75	15.65	15.30
9	6.58	.....	3.58	3.95	3.05	3.20	4.35	9.05	12.90	14.15	15.25	15.80
10	6.50	4.39	3.59	3.95	3.05	3.20	4.40	9.15	13.05	14.50	14.90	16.25
11	6.17	4.37	3.62	4.00	3.15	3.15	4.50	9.30	13.25	14.75	14.60	16.70
12	6.08	3.97	3.63	4.00	3.20	2.95	4.55	9.35	13.40	15.00	14.60	17.10
13	6.10	.....	3.62	4.05	3.30	2.85	4.60	9.35	13.60	15.00	14.35	17.45
14	6.13	.....	3.63	4.10	3.30	2.95	4.65	9.40	13.80	14.85	14.10	17.75
15	6.16	.....	3.50	4.05	3.40	2.90	4.70	9.45	13.95	14.55	13.90	18.05
16	6.22	....	3.40	4.00	3.40	2.85	4.75	9.55	14.10	14.45	13.70	18.35
17	6.22	3.82	3.32	4.00	3.35	2.90	4.80	9.60	14.30	14.85	13.50	18.55
18	4.92	3.85	3.30	4.00	2.05	3.00	4.80	9.30	14.50	15.30	13.35	18.55
19	4.91	3.89	3.40	4.00	2.10	3.25	4.45	9.00	14.65	15.65	13.20	18.30
20	4.99	3.89	3.45	3.50	2.25	3.45	4.45	9.25	14.80	16.05	13.05	17.90
21	5.12	3.82	3.45	3.30	2.30	3.60	4.20	9.55	14.95	16.35	12.90	17.50
22	5.19	3.43	3.50	3.25	2.35	3.65	4.25	9.65	14.90	16.45	12.80	17.00
23	5.20	3.40	3.50	3.30	1.90	3.70	4.05	9.80	14.70	16.30	12.65	16.60
24	5.15	3.40	3.55	3.35	2.00	3.75	4.65	10.10	14.75	15.95	12.60	16.20
25	4.69	3.42	3.55	3.35	2.05	3.80	5.50	10.35	14.80	15.60	12.70	15.85
26	4.74	3.41	3.55	3.40	2.15	3.95	6.45	10.60	14.80	15.20	12.70	15.50
27	4.75	3.48	3.60	3.50	2.30	4.10	6.90	10.90	14.85	14.85	12.55	15.20
28	4.56	3.55	3.60	3.60	2.35	4.15	7.35	11.15	14.95	14.55	12.45	14.90
29	3.80	.....	3.70	3.60	2.40	3.90	.....	11.25	15.00	14.75	12.40	15.10
30	3.81	.....	3.70	3.60	2.45	3.90	.....	11.45	15.05	15.30	12.30	15.25
31	.....	.....	3.75	.....	2.55	.....	.....	11.60	.....	15.70	.....	15.30

Logan County

Lo-1. Ohio Grange. Bellefontaine. Lat. 40°21'45", long. 83°47'18". Drilled unused well in gravel, diameter 4 inches, depth 120 feet. Highest water level 12.68 below lsd, Apr. 14, 1948; lowest 21.99 below lsd, Dec. 31, 1946. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.42	21.25	21.17	20.50	20.65	19.95	19.80	19.95	20.20	20.70	21.10	21.50
2	21.39	21.21	21.12	20.50	20.75	19.90	19.75	19.95	20.15	20.70	21.10	21.50
3	21.43	21.19	21.10	20.50	20.75	19.90	19.80	19.85	20.20	20.70	21.15	21.50
4	21.45	21.21	21.08	20.50	20.75	19.90	19.80	19.85	20.25	20.70	21.15	21.55
5	21.50	21.20	21.07	20.50	20.70	19.90	19.80	19.90	20.25	20.70	21.20	21.55
6	21.50	21.23	21.07	20.50	20.70	19.90	19.80	19.90	20.25	20.75	21.20	21.55
7	21.51	21.24	21.05	20.50	20.70	19.95	19.80	19.95	20.30	20.75	21.20	21.60
8	21.50	21.29	20.97	20.50	20.70	19.90	19.80	19.90	20.30	20.80	21.20	21.55
9	21.50	21.31	20.97	20.50	20.70	19.95	19.85	19.80	20.35	20.75	21.20	21.60
10	21.50	21.30	20.91	20.50	20.70	19.95	19.85	19.85	20.35	20.75	21.20	21.60
11	21.50	21.22	20.87	20.50	20.65	19.85	19.85	19.85	20.35	20.80	21.25	21.60
12	21.51	21.20	20.84	20.50	20.65	19.75	19.85	19.90	20.40	20.85	21.30	21.60
13	21.45	21.20	20.79	20.50	20.70	19.80	19.85	19.90	20.40	20.85	21.30	21.65
14	21.45	21.19	20.78	20.50	20.65	19.80	19.90	19.90	20.35	20.85	21.30	21.70
15	21.44	21.18	20.74	20.50	20.65	19.80	19.90	19.90	20.40	20.90	21.25	21.75

Lo-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	21.50	21.21	20.75	20.55	20.60	19.80	19.90	19.95	20.45	20.90	21.30	21.75
17	21.50	21.21	20.70	20.55	20.50	19.80	19.90	19.95	20.50	20.90	21.30	21.75
18	21.36	21.20	20.65	20.55	20.40	19.80	19.90	20.00	20.45	20.90	21.30	21.75
19	21.32	21.18	20.65	20.55	20.25	19.75	19.90	20.00	20.45	20.95	21.35	21.75
20	21.27	21.14	20.60	20.55	20.15	19.80	19.85	20.05	20.50	20.95	21.35	21.75
21	21.25	21.21	20.60	20.60	20.10	19.80	19.85	20.10	20.55	21.00	21.35	21.85
22	21.24	21.21	20.55	20.60	20.00	19.80	19.85	20.10	20.55	21.00	21.35	21.85
23	21.19	21.17	20.55	20.60	20.05	19.80	19.85	20.10	20.55	21.00	21.35	21.85
24	21.20	21.14	.....	20.60	20.00	19.80	19.90	20.10	20.55	21.05	21.35	21.80
25	21.25	21.08	.....	20.55	19.90	19.80	19.90	20.15	20.55	21.05	21.40	21.85
26	21.25	21.04	20.45	20.55	19.90	19.85	19.90	20.15	20.55	21.05	21.45	21.85
27	21.14	21.13	20.45	20.60	20.00	19.85	19.90	20.15	20.60	21.05	21.50	21.80
28	21.20	21.14	20.45	20.60	19.95	19.80	19.95	20.15	20.60	21.05	21.50	21.85
29	21.23	.....	20.50	20.60	19.90	19.80	19.95	20.15	20.60	21.10	21.50	21.85
30	21.22	.....	20.50	20.60	19.85	19.80	19.95	20.15	20.70	21.10	21.50	21.90
31	21.21	.....	20.45	.....	19.85	.....	19.95	20.15	.....	21.10	.....	21.90

Lucas County

Lu-1. State of Ohio. Toledo State Hospital, Detroit Ave. and Arlington St., Toledo. Lat. 41°40'32", long. 83°36'24". Drilled unused well in limestone, diameter 12 inches, depth 250 feet. Highest water level 84.10 below lsd, July 18, 1947; lowest 113.95 below lsd, Sept. 5, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	98.20	97.00	96.25	94.80	93.95	96.05	108.20	110.30	112.70	109.70	105.75	101.95
2	98.10	96.95	96.15	95.00	94.35	96.15	108.60	109.60	113.15	109.65	105.60	101.90
3	97.65	96.60	95.95	95.00	94.50	98.90	109.15	108.30	113.40	109.55	105.70	101.60
4	.....	96.70	95.65	94.85	94.55	99.70	109.15	109.45	113.80	109.15	106.05	101.35
5	.....	96.65	96.05	94.90	94.40	100.90	108.00	110.40	113.95	108.75	106.05	101.50
6	.....	96.40	96.20	94.85	94.30	101.35	106.95	110.75	113.05	108.50	105.80	101.20
7	.....	96.30	96.25	94.85	94.30	101.15	106.45	111.05	111.85	108.60	105.35	101.25
8	.....	96.55	96.10	94.90	94.25	100.40	105.95	111.30	.....	108.55	104.70	101.25
9	.....	96.90	96.05	94.65	94.40	102.10	105.70	110.35	.....	108.15	104.55	.....
10	97.45	96.90	95.90	94.60	94.40	102.80	105.60	109.35	.....	107.60	104.55	.....
11	97.80	96.55	95.85	94.75	94.30	103.10	105.35	110.60	110.90	107.25	104.20	.....
12	.....	96.10	95.75	94.70	94.35	103.25	105.10	111.30	110.45	107.25	104.25	.....
13	.....	96.15	95.70	94.75	94.60	103.70	104.80	111.75	110.45	107.45	104.15	.....
14	97.85	96.15	95.70	94.90	94.60	103.85	104.50	112.05	109.85	107.50	103.90	.....
15	.....	96.10	95.40	94.75	94.40	102.65	104.40	112.15	109.25	107.35	103.45	100.65
16	.....	96.20	95.65	94.45	94.35	103.35	104.35	111.15	109.45	107.40	103.25	100.90
17	97.45	96.30	95.60	94.60	94.10	104.25	104.15	110.15	109.65	107.70	103.15	100.90
18	97.20	96.30	95.40	94.60	94.15	104.55	103.85	111.05	109.65	107.75	103.15	100.85
19	97.20	96.25	95.45	94.55	94.20	105.00	103.70	111.70	109.40	107.75	103.15	100.70
20	97.20	96.20	95.60	94.50	94.25	105.40	104.65	112.10	109.05	108.10	103.15	100.35
21	97.20	96.25	95.60	94.55	94.25	105.45	106.00	112.50	108.75	108.20	102.75	100.10
22	97.25	96.30	95.40	94.45	94.40	104.90	106.80	112.75	109.00	108.15	102.75	100.00
23	97.10	96.25	95.25	94.55	94.70	105.80	107.75	111.65	109.05	.....	102.35	.....
24	96.65	96.15	95.20	94.65	94.70	106.20	108.45	110.80	108.90	.....	102.05	.....
25	97.20	95.95	95.30	94.25	94.55	106.65	108.75	111.90	108.90	.....	101.75	99.95
26	97.25	95.65	95.30	94.15	94.55	107.25	107.80	112.60	109.00	.....	101.95	99.80
27	97.00	95.80	95.10	94.40	95.10	107.65	107.25	113.00	108.60	.....	102.10	99.85
28	96.80	96.10	94.95	94.45	95.30	107.85	108.30	113.25	108.50	.....	102.25	99.55
29	97.00	.....	95.25	94.45	95.40	.....	109.05	113.35	108.50	106.25	102.20	99.55
30	97.00	.....	95.25	94.25	95.35	.....	109.70	112.60	109.40	106.25	101.90	99.65
31	96.80	.....	95.10	.....	95.60	.....	110.10	111.80	.....	106.05	.....	99.65

Lu-3. Metropolitan Parks, Toledo. Lat. 41°30', long. 83°45'. Drilled unused well in limestone, diameter 6 inches, depth 39 feet. Highest water level 10.90 below lsd, Jan. 1, 1952; lowest 17.50 below lsd, Aug. 30, 1953. Records available: 1950-53. Recording gage installed Sept. 18, 1950.

Lu-3--Continued.

Daily lowest water level from recorder graph, 1950

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 18	16.48	Sept. 24	16.08	Sept. 30	16.23	Oct. 19	15.70
19	16.48	25	16.10	Oct. 1	16.29	20	15.81
20	16.26	26	16.14	2	16.26	21	15.84
21	16.04	27	16.18	16	15.54	22	15.96
22	15.98	28	16.22	17	15.66	23	16.09
23	15.98	29	16.23	18	15.68	24	16.08

Daily lowest water level from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.49	14.74	15.80	15.55	16.20	16.50	16.40	16.00	16.15
2	14.91	14.67	14.73	15.79	15.56	16.20	16.60	16.40	15.85	15.15
3	14.89	14.86	14.74	15.87	15.52	16.20	16.50	16.50	15.75	16.15
4	15.11	15.02	14.93	15.78	15.57	16.30	16.45	16.45	16.05	16.10
5	15.13	15.10	15.05	15.73	15.59	16.25	16.45	16.55	16.05	15.35
6	15.16	15.28	15.24	15.70	15.58	16.15	16.35	16.55	16.00	15.40
7	15.15	15.29	15.33	15.70	15.60	16.20	16.40	16.40	15.60	15.55
8	15.04	15.31	15.44	15.71	15.82	16.20	16.40	16.40	15.65	15.70
9	15.29	15.29	15.62	15.57	15.59	16.30	16.80	16.50	15.70	15.60
10	15.45	15.13	15.62	15.40	15.51	16.25	16.60	16.45	15.65	15.55
11	15.46	14.86	14.75	15.45	.....	16.25	16.55	16.40	.....	15.50
12	15.45	14.65	13.01	15.53	.....	16.60	16.45	16.45	.....	15.80
13	15.39	14.63	13.78	15.50	.....	16.40	16.35	16.45	.....	15.90
14	15.15	14.62	14.35	14.30	15.48	16.35	16.35	16.55	.....	15.90
15	14.98	14.60	14.69	14.71	15.78	16.30	16.40	16.45	.....	15.95
16	14.49	14.61	14.88	14.82	15.64	16.25	16.55	16.45	.....	.....
17	14.70	14.78	15.20	15.45	15.81	16.25	16.50	16.40	.....	.....
18	14.88	14.82	15.20	15.43	15.83	16.20	16.40	16.40	.....	.....
19	14.96	15.14	15.61	15.43	15.92	.....	16.50	16.40	.....	.....
20	15.10	15.25	15.58	15.20	15.96	.....	16.45	16.40	.....	.....
21	15.30	15.26	14.55	15.30	15.92	.....	16.45	16.50	.....	.....
22	15.37	15.21	15.28	15.22	.....	16.40	16.55	16.40	.....	16.05
23	15.32	15.22	15.49	15.17	16.27	.....	16.55	16.40	.....	16.00
24	15.16	15.12	15.49	15.42	.....	.....	16.50	16.15	.....	15.95
25	15.17	15.05	15.62	15.41	16.15	16.45	16.45	16.20	.....	15.90
26	15.14	15.23	15.02	15.40	16.10	16.40	16.45	16.20	.....	15.95
27	15.25	15.42	15.60	15.38	16.05	16.35	16.40	16.10	.....	15.95
28	15.25	15.41	16.65	15.40	15.95	16.45	16.50	16.15	.....	15.90
29	14.93	15.12	15.70	15.31	16.20	16.45	16.50	16.15	.....	15.55
30	14.17	14.71	16.09	15.33	16.15	16.50	16.45	16.10	.....	15.60
31	14.31	.....	16.03	.....	16.05	16.60	.....	16.15	.....	15.45

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.95	15.15	16.05	15.80	15.70	16.10	16.55	16.55	16.75	16.60	16.65	16.60
2	12.90	15.25	16.05	15.80	15.80	16.10	16.70	16.70	16.60	16.70	16.75	16.55
3	13.85	15.30	15.95	15.90	15.90	16.05	16.60	.....	17.15	16.70	16.70	16.55
4	14.70	15.00	16.05	15.90	16.50	16.15	17.00	.....	16.70	16.65	16.65	16.55
5	14.90	14.35	16.05	15.55	16.25	16.40	16.75	.....	16.70	16.75	16.60	16.40
6	15.30	14.50	15.95	15.20	16.15	16.25	16.80	.....	16.70	16.70	16.60	16.45
7	15.35	14.70	15.80	14.80	16.15	16.45	16.70	.....	16.70	16.75	16.65	16.50
8	15.45	15.10	15.80	15.00	16.05	16.70	16.60	.....	16.65	16.65	16.60	16.50
9	15.70	15.10	15.85	15.05	15.95	16.45	16.60	16.55	16.70	16.65	16.70	16.45
10	15.80	15.10	15.75	15.35	15.80	16.40	16.65	16.85	16.70	16.65	16.70	16.35
11	15.80	14.80	15.40	15.45	.....	16.50	16.70	16.75	16.70	16.65	16.65	16.45
12	.....	15.00	13.45	15.40	.....	16.45	16.65	16.65	16.65	16.65	16.70	16.55
13	.....	15.10	.....	15.35	.....	16.50	17.05	16.65	16.65	16.85	16.70	16.50
14	.....	15.35	13.55	.....	.....	16.50	17.00	16.70	16.65	16.80	16.60	16.40
15	.....	15.55	14.40	14.85	.....	16.80	16.65	16.60	16.60	16.65	.....	16.45
16	.....	15.65	14.90	15.75	.....	16.50	16.65	16.70	16.60	16.60	.....	16.45
17	.....	15.80	15.05	14.70	.....	16.40	.....	16.80	16.65	16.65	.....	16.45
18	.....	15.85	15.05	.....	.....	16.30	.....	16.60	16.60	16.65	.....	16.55
19	.....	15.80	15.00	.....	.....	16.45	.....	16.65	16.55	16.70	.....	16.55
20	.....	15.80	14.80	.....	.....	16.50	.....	16.60	16.65	16.80	.....	16.45
21	.....	15.90	15.00	.....	15.85	16.45	.....	16.70	16.75	16.75	.....	16.50
22	.....	15.95	15.05	15.65	15.95	16.60	16.50	16.65	16.70	16.65	.....	16.50
23	.....	15.90	14.80	15.70	15.85	16.50	16.40	16.65	16.70	16.60	.....	16.35
24	15.90	14.95	15.65	15.20	16.60	16.40	16.75	16.65	16.60	16.35
25	15.95	15.05	15.25	15.85	16.75	16.35	16.75	16.60	16.65	16.45	16.35

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Lu-3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	15.90	15.20	14.90	14.05	16.80	16.50	16.70	17.00	16.65	16.50	16.40
27	.....	15.90	15.40	15.20	14.65	16.60	16.75	16.70	16.75	16.60	16.55	16.55
28	.....	16.00	15.55	16.25	15.15	16.65	16.45	16.70	16.80	16.65	16.60	16.55
29	13.65	16.00	15.85	15.45	15.45	16.85	16.70	16.75	16.75	16.65	16.60	16.45
30	14.40		15.85	15.55	15.75	16.60	16.50	16.90	16.75	16.60	16.60	16.55
31	14.90		15.80		15.90		16.55	17.10		16.60		16.50

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.55	16.55	16.45	16.15	16.15	16.40	16.85	16.75	17.05	16.80	16.80	16.70
2	16.60	16.50	16.40	16.15	16.35	16.40	16.70	.....	17.20	16.80	16.70	16.70
3	16.55	16.50	16.40	15.95	16.45	16.40	16.60	16.70	16.95	16.80	16.75	16.75
4	16.55	16.50	15.95	15.85	16.40	16.60	16.95	16.55	16.85	16.80	16.80	16.75
5	16.70	16.45	15.35	15.95	16.30	16.55	17.00	16.40	16.90	16.70	16.80	16.85
6	16.75	16.50	15.25	16.05	16.20	16.50	16.85	16.40	17.05	16.75	16.75	16.75
7	.....	16.50	15.40	16.15	16.20	16.55	16.65	16.40	17.15	16.75	16.75	16.75
8	.....	16.60	15.80	16.20	16.15	16.55	16.55	16.50	.....	16.75	16.75	.....
9	.....	16.70	15.85	16.20	16.25	16.60	16.75	16.70	.....	16.70	16.70	.....
10	.....	16.70	16.00	16.05	16.55	16.60	16.75	16.55	16.80	16.80	16.75	.....
11	.....	16.55	16.10	16.00	16.50	16.50	16.70	16.70	16.70	17.05	16.75	.....
12	16.40	16.50	16.15	16.05	16.15	16.50	17.15	16.60	16.80	17.00	16.75	.....
13	16.35	16.55	16.15	16.10	16.20	16.55	16.80	16.50	16.85	16.90	16.75	.....
14	16.25	16.40	16.10	16.20	16.20	16.55	16.80	16.70	16.75	16.80	17.40	.....
15	16.20	16.35	15.95	16.15	16.20	16.60	16.80	16.75	16.75	16.70	16.95	16.65
16	16.20	16.55	15.85	16.05	16.20	16.55	16.85	16.95	16.80	16.75	16.75	16.80
17	16.20	16.60	15.75	16.10	16.10	16.55	16.80	16.75	16.80	16.80	16.80	16.80
18	15.95	16.55	15.70	16.00	16.05	16.60	16.70	16.65	16.75	17.30	16.75	16.75
19	15.95	16.50	15.80	15.95	16.05	16.70	17.15	16.75	16.75	17.00	16.70	16.70
20	16.00	16.45	15.85	16.05	15.90	17.05	16.90	16.80	16.85	16.85	16.70	16.60
21	16.00	16.25	15.80	16.05	16.05	17.30	16.90	16.75	16.75	16.85	16.70	16.65
22	16.05	16.10	15.85	16.05	15.90	17.25	16.90	16.95	16.75	.....	16.70	16.70
23	16.10	15.85	16.00	16.20	16.80	16.80	16.65	17.00	16.75	.....	16.70	16.70
24	16.10	15.85	16.10	16.25	15.75	.....	.....	16.85	16.70	.....	16.60	16.65
25	16.05	15.95	17.40	16.30	15.70	.....	.....	16.80	16.65	.....	16.60	16.65
26	16.05	16.00	16.55	16.30	15.95	.....	.....	17.10	16.70	.....	16.75	16.65
27	16.00	16.25	16.30	16.25	15.95	.....	16.75	17.05	16.90	.....	16.75	16.65
28	16.20	16.35	16.30	16.25	16.20	.....	16.80	17.00	16.75	.....	16.85	16.60
29	16.45		16.40	16.25	16.15	16.90	16.80	17.15	16.90	16.75	16.75	16.65
30	16.45		16.40	16.25	17.05	17.15	16.85	17.50	16.85	16.80	16.75	16.70
31	16.40		16.35		16.75		16.85	17.05		16.80		16.70

Madison County

M-1. Max Chenoweth. Lat. 39°43'40", long. 83°15'35". Drilled unused well in gravel, diameter 4 inches, depth 60 feet. Highest water level 21.89 below lsd, Apr. 14, 1948; lowest 28.90 below lsd, Nov. 17, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.95	26.55	26.30	25.70	25.60	25.60	26.30	26.85	28.55	27.95	28.05	28.25
2	27.80	26.65	26.30	25.80	25.75	25.65	26.15	26.60	28.25	28.00	28.15	28.25
3	27.70	26.60	26.20	25.75	25.75	25.70	26.30	26.60	28.20	28.00	28.25	28.20
4	27.85	26.70	26.00	25.85	25.90	25.70	26.30	26.70	28.15	27.95	28.30	28.15
5	27.95	26.65	26.15	25.75	25.75	25.85	26.15	26.90	28.05	27.85	28.30	28.30
6	27.90	26.60	26.20	25.75	25.75	25.90	26.20	27.20	27.90	27.80	28.30	28.10
7	28.00	26.70	26.25	25.80	25.50	25.70	26.20	27.30	27.80	27.90	28.25	28.25
8	27.75	26.65	26.20	25.80	25.45	25.80	26.30	27.00	27.85	27.85	28.10	28.20
9	27.55	26.80	26.25	25.70	.....	25.80	26.30	26.85	27.85	27.80	28.25	28.05
10	27.45	26.80	26.30	25.70	.....	25.70	26.50	27.40	27.80	27.85	28.25	28.00
11	27.45	26.60	26.15	25.80	25.55	25.70	26.60	27.40	27.75	27.75	28.30	28.10
12	27.55	26.25	26.25	25.60	25.60	25.65	26.60	27.20	27.70	28.00	28.35	28.15
13	.....	26.35	26.25	25.80	25.60	25.75	26.65	27.35	27.75	28.05	28.35	28.05
14	27.55	26.30	26.10	25.95	25.50	25.80	26.65	27.50	27.70	28.00	28.35	27.90
15	.....	26.20	25.95	25.80	25.60	25.80	26.80	27.40	27.70	27.95	28.30	28.00
16	27.55	26.30	26.05	25.70	25.45	25.75	26.90	27.25	27.75	28.00	28.60	28.15
17	27.45	26.55	26.10	25.75	25.25	25.80	26.90	27.35	27.80	28.05	28.90	28.25
18	27.05	26.50	25.95	25.70	25.25	25.85	26.75	27.35	27.70	28.00	28.75	28.15
19	27.10	26.60	25.80	25.60	25.25	26.05	26.45	27.40	27.70	28.10	28.50	28.35
20	27.00	26.35	25.75	25.55	25.20	26.15	26.50	27.60	27.55	28.10	28.40	28.35

M-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	27.10	.....	25.75	25.65	25.20	26.05	26.50	27.75	27.70	28.20	28.50	28.25
22	27.10	26.40	25.70	25.50	25.15	26.25	26.40	27.90	27.80	28.15	28.40	28.30
23	27.05	26.45	25.70	25.80	25.30	26.25	26.45	27.70	27.80	28.05	28.05	28.40
24	26.95	26.30	25.75	25.85	25.25	26.40	26.50	28.05	27.80	28.00	28.10	28.35
25	27.05	26.20	25.85	25.65	25.30	26.30	26.70	28.35	27.80	28.00	28.05	28.30
26	27.10	.....	25.80	25.55	25.40	26.35	26.65	28.60	27.75	28.10	28.05	28.30
27	27.00	26.10	25.75	25.65	25.50	26.40	26.65	28.60	27.65	28.00	28.10	28.35
28	26.85	26.35	25.80	25.70	25.50	26.45	26.60	28.70	27.80	27.90	28.20	28.25
29	26.90		25.75	25.75	25.40	26.35	26.75	28.70	27.90	27.90	28.10	28.25
30	26.75		25.90	25.65	25.35	26.25	26.85	28.50	27.90	28.00	28.20	28.25
31	26.60		25.80		25.45		27.00	28.60		28.10		28.25

Mahoning County

Ma-1. City of Canfield. Lat. 41°00'46", long. 80°45'36". Drilled unused well in sandstone, diameter 8 inches, depth 300 feet. Highest water level 27.15 below lsd, May 22, 1949; lowest 110.75 below lsd, Sept. 27, 1946. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.25	32.40	31.60	30.90	30.55	30.40	31.20	32.25	33.35	35.90	35.85	35.90
2	33.20	32.40	31.60	31.00	30.60	30.45	31.20	32.25	33.35	35.75	35.85	35.90
3	33.20	32.35	31.60	31.00	31.60	30.45	31.20	32.30	33.40	35.55	35.85	35.80
4	33.20	32.30	31.45	31.00	31.95	30.40	31.25	32.30	33.40	35.75	35.90	35.90
5	33.30	32.30	31.50	31.00	31.15	30.40	31.25	32.30	33.40	35.85	35.85	35.95
6	33.30	32.35	31.55	31.00	30.95	30.45	31.30	32.40	33.45	35.75	35.75	36.00
7	33.10	32.30	31.55	30.45	30.80	30.45	31.35	32.40	33.60	36.10	35.70	36.05
8	33.10	32.30	31.50	31.00	30.65	30.45	31.40	32.40	33.60	36.05	35.55	35.90
9	33.10	32.25	31.65	31.00	30.65	30.50	31.45	32.40	33.60	36.05	35.50	35.90
10	33.15	32.25	31.60	30.90	30.65	30.55	31.50	32.40	33.60	36.25	35.50	35.95
11	33.15	32.20	31.50	30.85	30.70	30.55	31.50	32.45	33.65	36.20	35.55	35.80
12	33.15	32.15	31.45	30.85	30.75	30.60	31.60	32.50	33.65	35.85	35.55	35.80
13	33.10	32.00	31.40	30.80	30.65	30.60	31.70	32.55	33.70	35.85	35.55	35.80
14	33.10	31.95	31.40	30.85	30.60	30.60	31.70	32.60	34.10	35.75	35.65	35.75
15	33.25	31.90	31.40	30.85	30.55	30.65	31.75	32.65	.....	35.90	35.60	35.80
16	33.30	31.85	31.35	30.75	.....	30.65	31.80	32.70	34.55	36.00	35.65	35.55
17	33.25	31.85	31.35	30.75	.....	30.60	31.85	32.70	34.60	35.90	35.65	35.40
18	33.00	31.90	31.30	30.75	.....	30.65	31.85	32.75	34.65	35.90	35.40	.....
19	33.00	31.85	31.30	30.70	.....	30.70	31.75	32.80	34.90	35.90	35.25	.....
20	33.00	31.80	31.30	30.65	30.50	30.75	31.80	32.85	35.05	35.90	35.15	.....
21	32.95	31.80	31.35	30.65	30.50	30.80	31.95	32.95	35.10	36.10	35.10	.....
22	32.90	31.80	31.35	30.70	30.45	30.85	31.95	33.00	35.10	36.05	34.95	35.60
23	32.90	31.75	31.30	30.70	30.65	30.95	31.90	33.00	35.05	35.90	34.85	35.60
24	32.80	31.75	31.25	30.70	30.55	31.00	32.00	33.05	35.05	35.95	34.90	35.50
25	32.80	31.70	31.10	30.70	30.50	31.05	32.00	33.05	35.15	35.85	35.30	35.40
26	32.70	31.60	31.15	30.70	30.60	31.05	32.00	33.10	35.25	35.85	35.90	35.40
27	32.70	31.60	31.10	30.65	30.65	31.15	32.10	33.15	35.30	36.10	35.85	35.45
28	32.60	31.60	31.05	30.65	30.60	31.15	32.15	33.15	35.35	36.05	36.15	35.45
29	32.55		31.05	30.65	30.50	31.15	32.20	33.20	35.40	35.90	36.20	35.60
30	32.45		31.00	30.65	30.45	31.25	32.20	33.25	35.80	36.00	36.15	35.60
31	32.45		31.00		30.40		32.25	33.30		35.95		35.55

Ma-3. Tod Hotel. 7 Market St., Youngstown. Lat. 41°06', long. 80°39'. Drilled unused well in sandstone, diameter 8 inches, depth 400 feet. Highest water level 23.35 below lsd, Apr. 14, 1951; lowest 27.91 below lsd, July 2, 1948. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.01	27.13	27.29	27.29	27.24	27.37	27.58	27.60	27.81	27.75	27.58	27.66
2	27.01	27.13	27.29	27.29	27.29	27.39	27.56	27.59	27.81	27.73	27.56	27.66
3	26.95	27.08	27.27	27.29	27.39	27.40	27.56	27.59	27.82	27.72	27.56	27.64
4	26.95	27.08	27.22	27.28	27.42	.....	27.59	27.60	27.84	27.69	27.57	27.62
5	26.95	27.09	27.27	27.28	27.42	.....	27.56	27.58	27.84	27.64	27.60	27.61
6	26.97	27.09	27.33	27.28	27.42	.....	27.52	27.61	27.84	27.61	27.61	27.61
7	27.01	27.10	27.35	27.27	27.42	.....	27.53	27.62	27.81	27.65	27.60	27.55
8	27.01	27.11	27.35	27.27	27.44	.....	27.56	27.61	27.81	27.67	27.54	27.56
9	26.99	27.17	27.33	27.27	27.46	27.47	27.58	27.61	27.82	27.67	27.67	27.64
10	26.99	27.18	27.33	27.24	27.47	27.50	27.62	27.62	27.82	27.65	27.57	27.50

Ma-3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	26.97	27.17	27.33	27.26	27.46	27.54	27.63	27.66	27.78	27.62	27.57	27.52
12	27.02	27.08	27.34	27.26	27.47	27.53	27.61	27.67	27.72	27.61	27.60	27.58
13	27.03	27.12	27.33	27.23	27.50	27.53	27.58	27.69	27.73	27.63	.....	27.50
14	27.06	27.14	27.34	27.26	27.50	27.54	27.58	27.69	27.73	27.63	.....	27.47
15	27.09	27.13	27.34	27.26	27.48	27.53	27.61	27.69	27.67	27.60	.....	27.43
16	27.16	27.12	27.32	27.22	27.47	27.53	27.62	27.69	27.65	27.62	.....	27.44
17	27.19	27.17	27.33	27.23	27.44	27.52	27.62	27.69	27.68	27.62	.....	27.46
18	27.12	27.20	27.33	27.24	27.40	27.52	27.61	27.72	27.69	27.61	27.72	27.46
19	27.09	27.23	27.35	27.23	27.40	27.54	27.60	27.73	27.68	27.60	27.75	27.44
20	27.08	27.23	27.40	27.22	27.41	27.56	27.59	27.75	27.65	27.60	27.75	27.41
21	27.10	27.24	27.41	27.21	27.42	27.55	27.60	27.79	27.65	27.61	27.76	27.35
22	27.13	27.27	27.40	27.22	27.42	27.54	27.60	27.81	27.71	27.61	27.76	27.29
23	27.13	27.27	27.39	27.20	27.44	27.55	27.58	27.81	27.75	27.59	27.71	27.27
24	27.09	27.25	27.37	27.23	27.44	27.55	27.61	27.81	27.76	27.54	27.70	27.27
25	27.12	27.23	27.36	27.23	27.41	27.55	27.63	27.82	27.74	27.56	27.67	27.24
26	27.16	27.21	27.36	27.21	27.35	27.57	27.63	27.83	27.70	27.57	27.71	27.18
27	27.16	27.20	27.34	27.21	27.40	27.59	27.60	27.86	27.70	27.55	27.72	27.13
28	27.11	27.25	27.32	27.24	27.43	27.58	27.59	27.86	27.70	27.52	27.72	27.13
29	27.13		27.32	27.26	27.42	27.57	27.59	27.87	27.70	27.54	27.73	27.07
30	27.14		27.32	27.26	27.39	27.58	27.60	27.86	27.73	27.58	27.71	27.02
31	27.14		27.31		27.33		.....	.....		27.59		27.01

Marion County

Mn-1. Village of La Rue. Lat. 40°34'50", long. 83°23'00". Drilled unused well in gravel, diameter 4 inches, depth 100 feet. Highest water level 5.55 below lsd, June 3, 1947; lowest 14.55 below lsd, Aug. 10, 1950. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.40	10.90	10.55	10.15	10.40	9.75	11.20	11.35	11.95	12.55	12.70	12.90
2	12.40	10.80	10.70	10.00	10.40	10.00	11.10	11.30	12.20	12.30	12.75	12.80
3	12.40	10.85	10.55	9.65	10.20	10.05	11.10	11.40	12.10	11.90	12.90	12.80
4	12.30	10.85	10.25	10.25	10.50	10.25	11.45	11.35	12.00	12.15	12.90	12.75
5	12.50	10.90	9.75	10.25	10.40	10.25	11.40	11.35	12.00	12.65	12.85	12.75
6	12.55	10.85	9.65	10.15	10.40	10.25	11.55	11.30	11.95	12.55	12.80	12.75
7	12.55	10.90	9.70	10.30	10.45	10.25	11.50	11.35	12.10	12.95	12.70	12.75
8	12.65	10.85	.....	10.35	10.10	10.20	11.45	11.20	12.10	13.10	12.65	.....
9	12.60	11.10	.....	10.35	9.55	10.45	11.60	11.90	12.15	12.95	12.80	.....
10	12.60	11.10	.....	10.15	9.60	10.75	11.60	11.70	12.50	12.55	12.75	.....
11	12.00	10.90	.....	9.90	9.75	10.95	11.65	11.40	12.20	12.55	12.75	.....
12	11.75	11.00	.....	9.80	9.90	10.70	11.75	11.60	12.15	12.65	12.80	.....
13	11.80	10.75	.....	9.95	9.95	10.55	11.80	11.60	12.10	12.70	12.80	.....
14	11.75	10.65	.....	10.55	9.80	10.55	11.80	11.35	12.05	12.75	12.90	.....
15	11.65	10.55	.....	10.75	9.55	10.70	11.85	11.45	12.10	12.70	13.00	12.85
16	11.85	10.65	.....	10.20	9.45	10.65	11.95	11.45	12.15	12.65	12.80	12.90
17	11.60	10.85	10.25	10.20	9.45	10.85	11.90	11.55	12.25	12.60	12.90	12.85
18	11.25	10.80	.....	10.15	8.45	11.00	11.75	11.45	12.20	12.65	12.90	12.90
19	10.85	10.75	.....	10.10	8.15	10.95	11.60	11.46	12.10	12.75	12.90	12.85
20	10.65	10.85	.....	10.15	8.45	11.30	11.65	11.60	12.00	12.80	12.85	12.75
21	10.90	10.60	.....	10.25	8.70	11.20	11.65	11.70	12.20	.....	12.90	12.70
22	10.90	10.60	.....	10.30	8.75	11.20	11.50	11.70	12.40	.....	12.75	12.75
23	10.60	10.35	.....	10.30	7.75	11.40	11.00	11.70	12.25	.....	12.70	12.85
24	10.90	10.55	.....	10.30	7.60	11.40	11.10	11.80	12.30	.....	12.65	12.80
25	10.90	10.65	.....	10.20	7.85	11.35	11.20	11.75	12.25	.....	12.40	12.75
26	10.85	10.45	.....	10.15	7.90	11.30	11.15	11.90	12.30	.....	12.80	12.70
27	10.80	10.50	10.15	10.75	8.45	11.35	11.35	11.95	12.35	.....	12.75	12.65
28	11.05	10.60	10.20	10.35	8.90	11.50	11.45	12.10	12.40	12.65	12.70	12.60
29	11.10		10.15	10.40	8.90	11.55	11.50	11.95	12.45	12.70	12.65	12.65
30	10.95		10.25	10.40	9.15	11.20	11.45	11.95	12.50	12.70	12.80	12.70
31	10.95		10.30		9.45		11.60	12.00		12.80		12.70

Mn-2. City of Marion. Lat. 40°35'46", long. 80°10'56". Drilled unused well in limestone, diameter 12 inches, depth 67 feet. Highest water level 31.14 below lsd, Apr. 16, 1951; lowest 43.58 below lsd, Apr. 30, May 1, 1953. Records available: 1950-53. Recording gage installed May 4, 1950.

Mn-2--Continued.

Daily lowest water level from recorder graph, 1950

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	32.69	32.96	.....	.....	33.46	34.08	.....
2	.....	32.74	32.76	.....	33.71	36.36	34.00	34.92
3	.....	32.89	32.70	.....	33.69	33.44	34.05	34.97
4	32.61	.....	32.68	.....	33.51	33.37	34.03	34.91
5	32.64	.....	32.56	32.87	33.52	33.32	33.94	34.85
6	32.76	32.88	32.24	32.84	33.64	33.24	33.95	34.98
7	32.78	32.89	32.23	32.72	33.83	33.28	34.11	34.98
8	32.92	32.95	32.26	33.00	33.88	33.22	34.17	34.81
9	32.92	33.08	32.24	33.07	33.77	33.16	34.25	34.74
10	32.91	32.84	32.19	33.07	33.72	33.21	34.35	34.80
11	32.93	32.82	32.11	32.93	33.77	33.43	34.38	34.80
12	32.51	32.74	32.16	32.90	33.79	33.45	34.42	34.80
13	32.51	32.77	32.20	32.82	33.85	33.65	34.39	34.98
14	32.34	32.72	32.33	32.86	33.83	33.70	34.43	35.16
15	32.35	32.91	32.42	33.02	33.85	33.90	34.50	35.13
16	32.54	32.92	32.32	33.14	33.81	33.80	34.54	34.64
17	32.61	.....	32.26	33.17	33.83	33.84	34.60	34.55
18	32.68	.....	32.38	33.24	33.64	33.86	34.62	34.34
19	32.86	.....	32.38	33.03	33.71	33.74	34.64	34.27
20	32.72	.....	32.33	32.96	33.76	33.83	34.58	34.28
21	32.81	.....	32.41	32.89	33.77	33.85	34.66	34.28
22	32.66	.....	32.30	33.12	33.73	33.78	34.72	34.22
23	32.58	.....	32.21	33.18	33.73	33.72	34.74	34.18
24	32.87	.....	32.05	33.22	33.83	33.80	34.63	33.90
25	32.96	.....	32.28	33.32	33.86	33.84	34.66	33.66
26	32.78	.....	32.34	33.40	33.90	33.88	.....	.....
27	32.73	.....	32.29	33.40	33.91	33.96	.....	.....
28	32.66	.....	32.47	33.40	33.90	34.04	.....	.....
29	32.68	.....	32.55	33.55	33.65	33.99	.....	.....
30	32.57	32.94	32.54	33.64	33.52	34.08	.....	.....
31	32.61	.....	32.56	33.60	.....	.....	.....	.....

Daily lowest water level from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.54	32.28	32.12	31.96	32.63	33.60	35.74	37.02	37.30	38.74	39.97
2	33.52	32.40	32.06	32.11	32.87	33.50	35.83	36.75	37.50	38.74	39.74
3	33.33	32.31	32.07	32.31	32.88	33.68	35.93	36.43	37.68	38.78	39.44
4	33.15	32.19	32.00	32.26	32.72	33.68	36.00	36.48	37.93	38.62	39.70
5	33.22	31.94	31.84	32.20	32.91	33.50	35.99	36.60	37.95	38.59	39.77
6	33.47	32.02	31.79	32.22	33.00	33.70	36.02	36.72	37.97	38.82	39.83
7	33.74	32.07	31.71	32.23	33.01	33.75	35.97	36.75	38.00	38.89	39.93
8	33.76	32.10	31.59	32.23	33.02	33.63	35.83	36.78	37.87	38.97	39.92
9	33.80	32.14	31.54	32.28	33.00	33.71	35.84	36.56	38.11	39.02	39.67
10	33.80	32.18	31.68	32.28	32.91	34.06	35.82	36.56	38.13	39.03	39.47
11	33.46	33.00	31.67	32.19	32.82	34.21	35.84	36.75	38.13	38.86	39.59
12	33.30	33.00	31.57	32.18	32.95	34.21	35.57	36.88	38.16	38.96	39.75
13	33.55	33.68	33.18	31.54	32.20	33.08	34.21	35.65	37.00	38.21	39.09
14	33.50	33.85	33.16	31.57	32.17	33.17	34.21	35.78	37.02	37.95	39.15
15	33.33	33.84	33.24	31.45	32.18	33.24	34.10	35.93	37.10	37.84	39.22
16	33.45	33.66	33.24	31.30	32.31	33.30	34.21	36.04	36.92	38.02	39.25
17	33.41	33.73	33.20	31.43	32.42	33.14	34.48	36.10	36.84	38.10	39.30
18	33.48	33.60	32.15	31.57	32.51	33.24	34.55	36.11	37.08	38.14	39.28
19	33.45	33.31	32.00	31.68	32.56	33.25	34.77	35.87	37.18	38.14	39.20
20	33.40	33.33	32.03	31.69	32.44	33.42	34.80	35.80	37.28	38.30	39.39
21	33.34	33.29	32.00	31.69	32.61	33.49	35.08	36.11	37.42	38.17	39.42
22	33.22	33.21	32.10	31.54	32.65	33.56	35.06	36.22	37.48	38.05	39.44
23	33.16	33.09	32.00	31.46	32.73	33.64	34.95	36.28	37.22	38.17	39.16
24	33.26	32.98	32.04	31.48	32.91	33.64	35.05	36.42	37.09	38.21	39.03
25	33.26	32.78	32.01	31.68	32.91	33.44	35.13	36.42	37.32	38.30	39.95
26	33.27	32.48	31.82	31.72	32.87	33.60	35.24	36.15	37.58	38.40	39.87
27	33.33	32.49	32.02	31.72	32.79	33.71	35.41	36.15	37.73	38.55	39.09
28	33.32	32.46	32.03	31.77	32.53	33.78	35.50	36.38	37.73	38.55	39.28
29	33.20	.....	32.24	31.68	32.65	33.82	35.46	36.70	37.70	37.70	38.36
30	33.54	.....	32.26	31.83	32.68	33.85	35.44	36.85	36.85	37.48	38.61
31	33.54	.....	32.30	32.51	.....	35.62	36.97	.....	.....	.....	39.97

Mn-2--Continued.

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.99	.....	35.46	35.26	36.77	36.32	38.19	39.72	38.62	39.23	40.35	40.81
2	39.73	.....	35.35	.....	36.93	36.26	38.26	39.78	38.60	39.26	40.32	41.17
3	39.78	35.56	35.28	.....	36.93	36.42	38.33	39.77	38.65	39.25	40.22	41.34
4	39.78	35.31	35.29	35.18	.....	36.52	38.30	39.77	38.65	39.26	40.36	41.52
5	39.80	35.17	35.37	35.57	.....	36.54	37.79	39.95	38.68	39.22	40.46	41.57
6	39.47	35.10	35.50	35.49	37.28	36.72	37.70	40.10	38.68	38.97	40.50	41.58
7	39.26	35.04	35.52	35.23	37.36	36.86	38.04	40.24	38.56	39.14	40.58	41.35
8	39.34	34.94	35.63	35.32	37.41	36.81	38.40	40.36	38.54	39.19	40.60	41.29
9	39.39	35.03	35.38	35.35	37.42	36.77	38.59	40.40	38.68	39.32	40.42	41.52
10	39.46	34.86	35.31	35.42	37.45	37.21	38.73	40.24	38.80	39.39	40.43	41.52
11	39.46	34.78	35.44	35.44	37.14	37.56	38.85	39.84	38.92	39.40	40.65	41.58
12	39.51	34.86	35.41	35.44	37.10	37.72	38.83	39.88	39.05	39.26	40.72	41.68
13	39.20	35.00	35.45	35.32	37.15	37.70	38.69	39.79	39.12	39.17	40.79	41.75
14	39.18	35.06	35.48	35.21	37.20	37.78	38.74	39.96	39.10	39.36	40.84	41.61
15	39.32	35.06	35.51	35.30	37.14	37.60	38.78	39.98	38.80	39.44	40.88	41.59
16	39.42	35.07	35.26	35.38	36.90	37.55	38.82	40.09	38.94	39.49	40.88	41.80
17	39.42	34.98	35.17	35.50	36.73	37.84	38.82	39.97	38.97	39.61	40.79	41.96
18	39.47	34.99	35.31	35.38	36.54	37.88	38.82	39.43	39.03	39.68	40.95	42.06
19	39.39	35.14	35.27	35.75	36.39	37.94	38.80	39.35	39.03	39.55	41.03	42.15
20	38.95	35.17	35.24	35.96	36.58	38.06	38.75	39.30	39.10	39.58	41.17	42.17
21	38.64	35.26	35.42	35.87	36.70	38.05	38.74	39.35	39.00	39.63	41.24	42.22
22	38.46	35.30	35.40	35.98	36.84	37.84	38.90	39.31	38.84	39.80	41.26	42.35
23	38.31	35.35	35.17	35.97	36.93	37.79	38.91	39.24	38.96	39.88	41.02	42.48
24	38.19	35.23	35.10	35.95	36.95	38.04	38.96	39.16	39.02	40.00	40.90	42.56
25	38.01	35.20	35.25	36.11	37.10	38.26	38.96	38.86	39.08	40.10	41.07	42.57
26	37.87	35.32	35.31	36.23	36.84	38.50	38.93	38.90	39.14	40.00	41.18	42.65
27	37.79	35.36	35.32	36.21	36.97	38.54	38.97	38.92	39.17	39.89	41.20	42.73
28	37.34	35.37	35.33	36.38	36.93	38.54	39.13	38.99	39.16	40.09	41.04	42.73
29	37.24	35.39	35.34	36.56	36.90	38.31	39.35	39.05	38.87	40.12	41.05	42.73
30	.....	.....	35.28	36.63	36.88	38.12	39.51	39.06	39.10	40.16	40.86	42.83
31	37.03	.....	35.06	.....	36.56	.....	39.61	38.84	.....	40.30	.....	42.93

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	42.97	42.81	43.36	43.30	43.58	42.11	42.86	42.04	41.55	41.91	42.43	42.66
2	42.84	42.59	43.02	43.42	43.48	42.02	.....	41.69	41.72	41.91	42.41	42.65
3	42.84	42.73	43.18	43.50	43.25	42.16	42.87	41.48	41.84	41.91	42.44	42.62
4	42.59	42.83	43.32	43.49	42.98	42.35	42.83	41.59	41.86	41.90	42.41	42.59
5	42.54	42.85	43.43	43.45	43.23	42.63	42.53	41.59	41.84	41.84	42.39	42.66
6	42.75	42.85	43.51	43.17	43.33	42.66	42.23	41.40	41.62	42.02	42.45	42.70
7	42.92	42.85	43.52	43.27	43.46	42.50	42.29	41.46	41.32	42.07	42.42	.....
8	43.04	42.83	43.28	43.30	43.56	42.34	.....	41.45	41.22	42.15	42.36	.....
9	43.10	42.59	43.11	43.39	43.56	42.44	.....	41.22	41.28	42.20	42.44	.....
10	43.16	42.72	43.29	43.51	43.34	42.54	42.28	41.20	41.33	42.19	42.52	.....
11	43.16	42.74	43.40	43.52	43.15	42.59	42.17	41.24	41.37	42.09	42.53	.....
12	43.04	42.76	43.48	43.40	43.33	42.62	41.96	41.32	41.38	42.07	42.70	.....
13	43.12	42.92	43.50	43.01	43.37	42.67	41.86	41.46	41.20	42.07	42.82	.....
14	43.24	42.98	.....	43.10	43.36	42.60	42.07	41.46	41.05	42.13	42.91	.....
15	43.32	42.92	43.15	43.14	43.38	42.54	42.08	41.36	41.11	42.16	42.92	42.53
16	43.33	42.68	43.02	43.18	43.38	42.81	42.12	41.11	41.17	42.20	42.82	42.54
17	43.28	42.84	.....	43.21	43.23	42.80	42.20	41.07	41.38	42.22	42.83	42.54
18	43.03	42.98	.....	43.20	43.07	42.84	42.21	41.14	41.42	42.15	42.93	42.55
19	42.79	43.12	.....	42.96	43.17	42.82	41.91	41.14	41.48	42.04	42.90	42.55
20	42.94	43.23	.....	42.82	43.20	42.83	41.61	41.11	41.53	42.16	42.84	42.53
21	43.01	43.31	.....	43.00	43.29	42.75	41.68	41.06	41.40	.....	42.84	42.51
22	43.07	43.16	43.19	43.10	43.28	42.45	41.80	41.06	41.51	.....	42.83	42.54
23	43.06	43.02	42.90	43.18	.....	42.48	41.76	40.94	41.53	.....	42.89	42.55
24	43.06	43.24	43.06	43.30	.....	42.52	41.91	40.91	41.57	.....	42.89	42.56
25	42.88	43.31	43.15	43.38	.....	42.58	41.91	41.08	41.78	.....	42.88	42.43
26	42.65	43.36	43.24	43.31	42.97	42.65	41.80	41.30	41.79	.....	42.82	42.35
27	42.79	43.44	43.32	43.21	43.08	42.64	41.80	41.58	41.62	.....	42.68	42.39
28	42.85	43.47	43.32	43.37	43.10	42.71	41.92	41.68	41.64	42.38	42.69	42.40
29	42.90	.....	43.19	43.48	43.09	42.30	42.03	41.62	41.73	42.52	42.71	42.41
30	42.95	.....	42.93	43.58	42.80	42.54	42.06	41.53	41.84	42.51	42.65	42.43
31	42.94	.....	43.15	.....	42.41	.....	42.06	41.47	.....	42.45	.....	42.45

Medina County

Md-1. City of Lodi. Lat. 41°01'46", long. 82°01'06". Drilled unused well in gravel, diameter 6 inches, depth 65 feet. Highest water level 9.00 below lsd, Mar. 2, 1952; lowest 28.80 below lsd, Sept. 30, 1950. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	19.45	May 8	17.47	July 23	19.40	Oct. 21	17.40
19	19.40	14	19.82	30	23.86	29	14.39
25	17.94	21	17.71	Aug. 6	21.40	Nov. 4	17.13
Mar. 5	19.12	28	16.92	12	19.29	12	18.35
12	18.62	June 4	17.69	Sept. 3	26.30	19	16.95
19	18.53	10	16.98	10	20.82	25	18.29
26	18.86	18	18.96	17	18.53	Dec. 3	18.87
Apr. 2	16.02	25	19.49	25	22.22	10	17.01
9	18.10	July 2	17.55	Oct. 1	19.25	17	15.48
16	14.05	9	20.40	8	16.75	23	19.43
23	16.39	16	23.76	15	17.59	30	20.07
30	16.18						

Mercer County

Mr-1. S. O. Self. Lat. 40°39'36", long. 84°38'56". Drilled unused well in limestone, diameter 4 inches, depth 130 feet. Highest water level 8.47 below lsd, Mar. 27, 1950; lowest 12.03 below lsd, Dec. 31, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.53	10.29	10.15	9.65	9.57	9.68	.....	.....	10.72	11.09	11.36	11.66
2	10.49	10.29	10.11	9.72	9.65	9.67	.....	.....	10.71	11.08	11.36	11.63
3	10.41	10.23	10.05	9.68	9.69	9.68	.....	.....	10.69	11.09	11.40	11.67
4	10.41	10.24	9.95	9.71	9.69	9.68	.....	.....	10.69	11.10	11.44	11.67
5	10.43	10.23	9.96	9.69	9.67	9.74	.....	.....	10.72	11.01	11.49	11.72
6	10.46	10.20	9.96	9.67	9.63	9.73	.....	.....	10.73	11.10	11.50	11.68
7	10.46	10.26	9.96	9.67	9.63	9.74	.....	.....	10.78	11.13	11.45	11.68
8	10.41	10.26	9.96	9.67	9.64	9.74	.....	.....	10.83	11.09	11.41	11.68
9	10.38	10.29	9.96	9.62	9.69	9.75	.....	.....	10.82	11.07	11.47	11.66
10	10.32	10.29	9.96	9.63	9.69	9.74	.....	.....	10.82	11.06	11.47	11.70
11	10.40	10.27	9.93	9.72	9.69	9.75	.....	.....	10.73	11.07	11.49	11.72
12	10.40	10.12	9.92	9.63	9.69	9.70	.....	.....	10.73	11.16	11.52	11.72
13	10.40	10.12	9.90	9.67	9.75	9.64	.....	.....	10.74	11.19	11.54	11.69
14	10.42	10.12	9.90	9.74	9.69	9.72	.....	.....	10.74	11.17	11.49	11.63
15	10.42	10.10	9.84	9.63	9.64	9.70	.....	.....	10.70	11.16	11.46	11.73
16	10.42	10.12	9.90	9.57	9.61	9.66	.....	.....	10.77	11.18	11.51	11.64
17	10.42	10.20	9.85	9.60	9.50	9.70	.....	.....	10.80	11.19	11.53	11.89
18	10.35	10.20	9.81	9.57	9.53	9.73	.....	.....	10.80	11.19	11.55	11.86
19	10.33	10.16	9.81	9.57	9.56	9.74	.....	.....	10.76	11.23	11.60	11.84
20	10.37	10.10	9.86	9.60	9.58	9.74	.....	.....	10.78	11.27	11.55	11.78
21	10.43	10.16	9.84	9.69	9.54	.....	.....	.....	10.90	11.27	11.53	11.75
22	10.40	10.15	9.81	9.65	9.53	.....	.....	.....	10.92	11.25	11.53	11.91
23	10.36	10.15	9.80	9.67	9.61	.....	.....	.....	10.94	11.17	11.49	11.93
24	10.26	10.15	9.80	9.67	9.59	.....	.....	.....	10.91	11.25	11.41	11.93
25	10.27	10.06	9.78	9.59	9.52	.....	.....	.....	10.89	11.25	11.46	11.82
26	10.27	9.99	9.78	9.57	9.55	.....	.....	10.58	10.90	11.23	11.53	11.87
27	10.27	10.07	9.78	9.64	9.68	.....	.....	10.58	10.88	11.20	11.59	11.90
28	10.26	10.11	9.78	9.69	9.68	.....	.....	10.58	10.89	11.24	11.59	11.89
29	10.29		9.78	9.65	9.63	.....	.....	10.60	10.86	11.28	11.59	11.94
30	10.28		9.80	9.67	9.54	.....	.....	10.63	11.04	11.35	11.59	12.01
31	10.22		.....		9.57	.....	.....	10.67		11.32		12.03

Miami County

Mi-1. Troy Sunshade Co. 612 Grant St., Troy. Lat. 40°02', long. 84°13'. Drilled unused well in gravel, diameter 8 inches, depth 49 feet. Highest water level 7.15 below lsd, Feb. 26, 1951; lowest 15.10 below lsd, Dec. 11, 23, 1953. Records available: 1946-53.

Mi-1--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.65	12.65	.....	11.70	12.25	9.40	10.75	10.90	12.15	12.85	13.60	14.80
2	13.80	12.80	12.45	11.80	11.95	10.05	11.15	10.65	11.95	13.25	13.85	14.70
3	13.60	12.90	12.50	11.85	11.70	9.80	10.65	10.65	12.45	12.85	14.40	15.00
4	13.35	12.95	12.50	11.55	11.85	10.30	10.55	.....	12.15	12.50	14.25	14.75
5	13.70	12.95	12.50	11.25	12.05	10.05	10.20	.....	11.95	12.80	14.60	14.55
6	13.90	13.00	12.55	11.45	12.20	9.70	10.90	.....	11.70	13.35	14.60	14.20
7	14.00	12.70	12.25	11.65	12.30	9.35	.....	.....	11.60	13.20	14.30	14.75
8	14.05	12.40	11.90	11.80	12.35	10.00	11.25	.....	12.20	13.65	13.90	14.60
9	14.05	12.65	12.10	11.85	12.10	10.00	11.00	.....	12.05	13.40	14.40	15.00
10	13.75	13.10	12.20	11.90	11.75	10.25	11.45	11.40	12.45	13.20	14.30	14.75
11	13.45	12.85	12.25	11.60	12.00	10.00	10.90	11.30	12.20	12.85	14.70	15.10
12	13.55	12.85	12.25	11.35	12.20	10.40	10.55	11.75	11.95	13.50	14.50	14.60
13	13.65	12.85	12.35	11.50	12.30	9.85	10.85	11.50	11.65	13.35	14.85	14.15
14	13.75	12.60	12.00	11.65	12.25	9.45	11.45	11.95	12.30	13.75	14.50	14.45
15	13.75	12.30	11.65	11.75	12.25	9.80	11.30	11.45	12.10	13.50	14.00	14.85
16	13.80	12.44	11.90	11.85	11.90	10.35	11.70	11.20	12.55	13.90	14.20	14.70
17	13.65	12.60	12.00	11.90	11.45	10.15	11.45	11.40	12.30	13.55	14.40	14.70
18	13.20	12.60	12.00	11.60	11.30	10.55	11.15	12.00	12.65	13.10	14.85	14.70
19	13.25	12.70	12.05	11.35	11.30	10.30	10.80	11.75	12.25	13.35	14.70	14.45
20	13.35	12.70	12.05	11.55	11.30	10.10	11.35	12.15	11.90	13.90	14.95	14.15
21	13.40	12.40	11.70	11.75	11.30	9.75	11.25	11.90	12.20	13.75	14.65	14.50
22	13.40	12.20	11.35	11.85	11.05	10.40	11.25	11.60	12.70	14.10	14.20	14.95
23	13.40	12.65	11.60	11.95	9.55	10.30	11.40	11.40	12.50	13.85	14.65	15.10
24	13.15	12.60	11.70	12.00	9.00	10.80	11.50	11.95	12.85	13.55	14.50	15.05
25	12.85	12.65	11.80	11.70	9.15	10.55	11.20	11.75	12.65	13.30	14.95	14.55
26	13.00	12.70	11.85	11.45	9.35	10.95	10.95	12.15	12.45	13.90	14.60	14.10
27	13.10	12.75	11.85	11.75	9.50	10.45	10.75	11.80	12.15	13.75	14.80	13.95
28	13.15	.....	11.55	11.95	9.65	10.05	10.80	12.20	12.70	14.20	14.40	14.05
29	13.25		11.25	12.05	9.30	10.35	10.85	11.70	12.60	14.00	14.10	14.15
30	13.20		11.50	12.15	9.15	10.90	10.90	11.40	13.05	14.35	14.30	14.45
31	13.00		11.65		8.95		10.90	11.60		14.05		14.55

Montgomery County

Mt-2. Dayton Power and Light Co. 118 East Fourth St. Lat. 39°45', long. 84°11'.
 Drilled unused well in gravel, diameter 8 inches, depth 57 feet. Highest water level 20.97 below
 lsd, Mar. 25, 1943; lowest 41.75 below lsd, Sept. 4, 1953. Records available: 1942-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.25	33.85	34.70	34.60	35.85	34.40	37.85	40.60	.....	40.50	39.40	38.75
2	35.05	33.65	34.70	34.70	35.95	34.50	37.95	.....	.....	40.60	39.10	38.90
3	35.05	33.70	34.80	34.80	35.90	34.70	37.95	.....	.....	40.60	39.25	39.05
4	34.95	33.75	34.85	34.85	35.95	34.90	37.85	40.55	41.75	40.50	39.30	39.20
5	34.90	33.85	34.85	34.80	36.15	35.15	37.50	40.75	41.65	40.10	39.30	39.15
6	34.95	33.90	34.85	34.90	36.30	35.30	37.60	40.85	41.50	40.05	39.25	38.95
7	35.00	33.90	34.80	34.80	36.45	35.25	37.85	40.95	41.00	40.05	39.20	38.85
8	35.00	33.90	34.65	34.90	36.50	35.35	38.15	40.85	40.80	40.00	38.95	38.95
9	35.05	33.85	34.50	35.05	36.55	35.65	38.30	40.65	40.90	40.00	38.80	39.05
10	35.05	33.90	34.50	35.10	36.50	35.85	38.45	40.25	41.05	39.95	38.85	39.20
11	34.95	34.00	34.55	35.20	36.35	36.05	38.55	40.40	41.30	39.70	39.00	39.25
12	34.75	34.05	34.65	35.15	36.50	36.25	38.40	40.60	41.30	39.40	39.05	39.25
13	34.60	34.10	34.75	35.00	36.55	36.35	38.45	40.75	41.20	39.45	39.10	39.05
14	34.55	34.10	34.75	35.10	36.50	36.25	38.70	40.95	40.75	39.55	39.10	38.80
15	34.60	34.00	34.70	35.15	36.50	36.15	38.85	40.90	40.75	39.65	38.90	38.85
16	34.55	33.90	34.50	35.20	36.50	36.35	39.05	40.75	40.85	39.85	38.75	38.95
17	34.45	34.00	34.60	35.25	36.40	36.55	39.25	40.50	40.95	39.80	38.90	39.00
18	34.30	34.05	34.60	35.25	36.00	36.75	39.40	40.65	41.00	39.65	39.05	38.95
19	34.10	34.10	34.65	35.20	35.90	36.95	39.35	40.50	40.80	39.45	39.15	38.75
20	34.00	34.20	34.70	35.05	35.80	37.10	39.40	40.95	40.45	39.65	39.25	38.70
21	33.85	34.25	34.70	35.10	35.75	37.05	39.60	41.10	40.45	39.80	39.25	38.85
22	33.80	34.25	34.65	35.20	35.75	37.10	39.80	41.05	40.45	40.00	39.15	38.95
23	33.75	34.25	34.50	35.30	35.65	37.35	39.95	40.90	40.45	40.10	39.00	38.90
24	33.65	34.35	34.50	35.40	35.35	37.55	40.05	40.85	40.60	40.10	39.10	38.70
25	33.65	34.45	34.50	35.50	34.95	37.75	40.10	41.10	40.50	39.85	39.15	38.45

Mt-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	33.55	34.55	34.50	35.45	34.95	37.90	39.95	41.30	40.35	39.45	39.15	38.20
27	33.65	34.70	34.50	35.30	34.90	37.95	39.80	41.30	40.05	39.50	38.95	38.15
28	33.70	34.70	34.55	35.35	34.80	37.85	40.05	41.50	40.20	39.55	38.90	38.30
29	33.75		34.50	35.50	34.75	37.75	40.20	41.45	40.45	39.60	38.75	38.40
30	33.85		34.40	35.65	34.70	37.80	40.35	.....	.....	39.65	38.65	38.40
31	33.85		34.45		34.40		40.55	.....		39.65		38.40

Mt-3. State of Ohio. State Highway Dept. Stewart St., Patterson Blvd. and Miami River. Lat. 39°44', long. 84°12'. Drilled unused well in gravel, diameter 6 inches, depth 80 feet. Highest water level 34.53 below lsd, Aug. 17, 1947; lowest 60.95 below lsd, Nov. 21, Dec. 11, 1953. Records available: 1945-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	55.45	55.85	56.35	56.95	58.90	52.45	.....	59.10	58.50	59.40	59.80	59.60
2	55.00	55.55	56.05	57.20	58.90	52.90	.....	58.75	58.85	59.55	59.35	59.80
3	54.65	55.80	56.20	57.45	58.25	53.40	.....	58.15	59.15	59.60	59.50	60.15
4	54.25	55.90	56.45	57.45	57.40	53.95	.....	57.90	59.35	59.30	59.80	60.60
5	54.45	56.10	56.45	57.20	57.55	54.45	.....	57.65	59.35	58.70	60.05	60.65
6	54.75	56.30	56.55	56.65	57.75	54.45	.....	57.30	58.80	58.85	60.20	60.55
7	55.00	56.15	56.40	56.90	58.05	53.90	.....	57.05	58.10	59.10	60.15	60.20
8	55.30	55.80	55.75	57.30	58.35	53.50	.....	57.05	57.55	59.30	59.70	60.40
9	55.70	55.60	55.05	57.80	58.35	54.10	.....	56.50	57.80	59.40	59.20	60.70
10	55.70	55.75	55.40	58.00	57.75	54.70	.....	55.85	58.05	59.40	59.40	60.85
11	55.20	55.95	55.80	58.00	57.10	55.15	.....	55.65	58.35	58.90	59.75	60.95
12	55.10	56.20	56.20	57.80	57.25	55.50	.....	55.25	58.45	58.40	60.05	60.90
13	55.25	55.95	56.55	57.60	57.50	55.50	.....	55.20	58.05	58.70	60.30	60.75
14	55.55	55.35	56.60	57.75	57.55	55.05	57.15	55.05	57.50	58.95	60.35	60.40
15	55.80	55.00	56.25	58.05	57.50	54.40	57.55	54.85	57.85	59.30	60.05	60.40
16	56.10	55.15	.....	58.20	57.30	54.75	57.95	54.45	58.30	59.60	59.75	60.45
17	56.00	55.40	56.10	58.35	56.85	55.30	58.35	54.80	58.70	59.60	60.05	60.45
18	55.70	55.75	56.50	58.35	55.90	55.75	58.40	55.40	59.05	59.40	60.40	60.50
19	55.55	56.20	56.75	57.85	55.65	56.20	58.05	55.90	59.10	58.85	60.65	60.50
20	55.65	56.30	56.80	57.50	55.55	56.25	57.55	56.45	58.85	59.10	60.90	60.30
21	55.75	55.90	56.75	57.70	55.75	55.70	57.90	56.90	58.15	59.45	60.95	60.05
22	55.80	55.65	56.40	58.10	56.00	55.55	58.30	56.90	58.35	59.70	60.65	60.30
23	55.95	55.95	56.20	58.40	55.95	56.00	58.65	56.55	58.65	60.00	60.40	60.40
24	55.90	56.20	56.40	58.70	54.55	56.45	58.85	56.45	58.95	60.00	60.55	60.40
25	55.65	56.50	56.65	58.70	53.35	56.95	58.85	57.00	59.20	59.80	60.70	60.40
26	55.30	56.80	56.75	58.60	53.40	57.40	58.25	57.55	59.20	59.20	60.70	59.70
27	55.65	56.70	56.95	58.30	53.80	57.40	57.75	58.00	58.90	59.45	60.20	59.25
28	55.90	56.75	56.95	58.50	54.10	56.95	58.15	58.45	58.55	59.75	60.15	59.00
29	56.15		56.75	58.70	54.05	56.85	58.55	58.50	58.80	60.00	59.80	59.20
30	56.50		56.45	58.80	53.25	57.35	58.90	58.40	59.10	60.20	59.95	59.50
31	56.50		56.65		52.50		59.10	58.15		60.20		59.50

Mt-5. Kuhn Bros. Foundry Co. 1800 McCall St., Dayton. Lat. 39°45', long. 84°13'. Drilled unused well in gravel, diameter 6 inches, depth 156 feet. Highest water level 33.99 below lsd, June 18, 1947; lowest 45.61 below lsd, Dec. 27, 1952. Records available: 1946-52. Measurement discontinued.

Mt-6. City of Dayton. Third and Ludlow Sts., Dayton. Lat. 39°46', long. 84°12'. Drilled unused well in gravel, diameter 8 inches, depth 60 feet. Highest water level 23.70 below lsd, Feb. 20, 1950; lowest 44.45 below lsd, Sept. 4, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.45	34.85	36.00	35.85	36.85	36.50	.....	43.40	44.20	42.25	39.90	39.20
2	36.55	34.60	36.20	35.95	37.05	36.75	.....	42.15	44.30	42.30	40.00	39.45
3	36.55	34.65	36.20	36.05	36.95	37.00	.....	42.95	44.35	42.40	40.05	39.60
4	36.55	34.70	36.30	36.15	37.05	37.35	.....	43.10	44.45	41.40	39.95	39.85
5	36.50	35.05	36.00	36.00	37.20	37.70	.....	43.20	44.15	41.85	39.80	39.85
6	36.45	35.25	35.75	36.10	37.35	37.85	.....	43.10	43.50	40.70	39.55	39.60
7	35.95	35.30	35.40	36.15	37.50	36.60	.....	43.15	43.10	40.50	39.45	39.70
8	36.35	35.05	35.20	36.25	37.60	38.20	.....	43.05	43.10	40.50	39.35	39.80
9	36.45	35.30	35.40	36.35	37.60	38.55	.....	42.45	43.00	40.45	39.25	39.85
10	36.45	35.35	35.45	36.40	37.30	38.80	.....	42.70	43.10	40.35	39.45	39.95
11	36.00	35.40	35.55	36.45	37.35	38.95	.....	42.80	43.40	40.00	39.50	39.90
12	35.85	35.55	35.70	36.15	38.50	39.05	.....	42.85	43.25	40.20	39.60	39.95
13	35.65	35.50	35.80	36.25	37.35	39.05	.....	43.05	42.10	40.15	39.70	39.65
14	35.60	35.50	35.75	36.00	37.20	37.70	41.40	43.15	41.55	40.15	39.65	39.40
15	35.50	35.10	35.60	36.20	37.20	38.80	41.60	43.05	41.50	40.25	39.45	39.40

270 WATER LEVELS AND ARTESIAN PRESSURES, 1953, NORTHEASTERN STATES

Mt-6--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	35.45	35.25	35.60	36.10	37.10	38.95	41.70	42.50	41.50	40.35	39.65	39.45
17	35.35	34.95	35.65	36.15	36.95	39.20	41.85	42.85	41.50	40.40	39.70	39.45
18	35.10	35.25	35.70	36.05	36.40	39.40	41.90	42.95	41.55	40.10	39.75	39.50
19	35.00	35.40	35.70	35.85	36.15	39.65	41.40	43.10	41.75	40.20	39.90	39.45
20	34.80	35.60	35.55	35.90	35.85	39.65	42.05	43.20	41.65	40.30	40.10	39.40
21	34.80	35.40	35.55	36.10	35.70	39.40	42.35	43.50	41.35	41.35	40.15	39.35
22	34.65	35.30	35.20	36.30	36.80	39.90	42.60	43.35	41.25	41.60	39.85	39.70
23	34.60	35.60	35.50	36.45	35.65	40.25	42.70	42.30	41.05	40.60	39.60	39.55
24	34.85	35.80	35.50	36.50	35.30	40.40	42.90	43.20	40.95	40.55	39.75	39.50
25	34.50	35.95	35.35	36.35	36.80	40.55	42.70	43.50	40.95	40.25	39.50	39.40
26	34.45	36.05	35.05	36.40	36.40	40.80	41.65	43.70	40.95	40.30	39.40	39.25
27	35.00	36.30	35.50	36.45	36.40	40.75	42.45	43.80	40.90	40.30	39.35	39.10
28	34.80	36.05	35.40	36.50	36.40	40.25	42.75	44.00	40.75	40.25	39.30	39.25
29	34.95		35.20	36.60	36.45	40.75	42.75	44.15	41.90	40.25	39.20	39.30
30	35.05		35.60	36.70	35.10	40.95	43.05	43.60	42.20	40.25	39.15	39.35
31	35.15		35.70		36.00		43.20	43.95		40.20		39.15

Mt-49. E. F. Stenger. Lat. 39°40'20", long. 84°16'30". Drilled unused well in gravel, diameter 6 inches, depth 212 feet. Highest water level 10.82 below lsd, Feb. 18, 1950; lowest 20.20 below lsd, Dec. 22-23, 31, 1953. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.33	17.52	17.36	16.83	17.09	16.35	17.39	18.15	18.82	19.35	19.74	20.05
2	18.33	17.50	17.35	16.85	17.71	16.39	17.42	18.14	18.85	.....	19.76	20.07
3	18.32	17.50	17.35	16.86	17.11	16.45	17.45	18.14	18.88	.....	19.78	20.08
4	18.33	17.50	17.30	16.86	17.13	16.50	17.45	18.16	18.89	.....	19.80	20.10
5	18.35	17.50	17.13	16.86	17.15	16.55	17.45	18.18	18.89	.....	19.82	20.10
6	.....	17.53	17.06	16.87	17.18	16.57	17.47	18.20	18.89	.....	19.84	20.07
7	.....	17.53	17.06	16.90	17.20	16.59	17.50	18.23	18.88	.....	19.84	20.08
8	18.33	17.52	17.02	16.93	17.20	16.65	17.54	18.24	18.92	.....	19.82	20.10
9	18.31	17.53	17.01	16.93	17.18	16.70	17.57	18.24	18.94	19.47	19.86	20.10
10	18.30	17.54	17.01	16.95	17.15	16.73	17.61	18.24	.....	19.47	19.87	20.11
11	18.24	17.54	17.01	16.94	17.17	16.71	17.62	18.26	19.01	.....	19.89	20.12
12	18.12	17.47	17.00	16.92	17.19	16.68	17.62	18.31	19.02	.....	19.90	20.12
13	18.06	17.40	16.98	16.96	17.22	16.71	17.66	18.34	19.02	.....	19.91	20.11
14	18.05	17.40	16.98	16.97	17.22	16.77	17.70	18.37	19.05	.....	19.91	20.11
15	18.05	17.36	16.91	16.97	17.20	16.77	17.75	18.39	19.08	19.56	19.90	20.13
16	18.02	17.38	16.89	16.99	17.14	16.80	17.78	18.39	19.10	19.58	19.91	20.16
17	17.99	17.38	16.86	17.00	17.00	16.84	17.81	18.41	19.12	19.58	19.94	20.15
18	17.89	17.38	16.84	16.99	16.86	16.88	17.81	18.45	19.13	19.58	19.96	20.16
19	17.73	17.38	16.81	16.95	16.68	16.93	17.80	18.49	19.13	19.59	19.97	20.16
20	17.68	17.38	16.73	16.94	16.65	16.96	17.85	18.52	19.13	19.60	19.98	20.15
21	17.67	17.39	16.73	16.95	16.67	16.99	17.89	18.54	19.17	19.62	19.98	20.18
22	17.67	17.37	16.68	16.96	16.67	17.04	17.90	18.57	19.19	19.65	19.97	20.20
23	17.66	17.33	16.69	16.99	16.53	17.10	17.93	18.57	19.21	19.68	19.98	20.20
24	17.63	17.33	16.71	17.00	16.29	17.15	17.95	18.61	19.24	19.68	20.00	20.19
25	17.62	17.34	16.74	17.00	16.20	17.20	17.95	18.64	19.26	19.67	20.02	20.17
26	17.60	17.35	16.75	17.00	16.16	17.24	17.96	18.68	19.26	19.68	20.02	20.16
27	17.60	17.38	16.76	17.03	16.20	17.26	18.01	18.71	19.26	19.70	20.01	20.14
28	17.59	17.38	16.76	17.04	16.22	17.27	18.04	18.73	19.29	19.73	20.01	20.13
29	17.56		16.77	17.05	16.24	17.31	18.08	18.74	19.32	19.74	20.00	20.15
30	17.54		16.78	17.07	16.28	17.35	18.11	18.75	19.35	19.75	20.03	20.18
31	17.52		16.78		16.31		18.14	18.79		19.75		20.20

Muskingum County

Mu-1a. City of Zanesville. Lat. 39°57'15", long. 81°59'30". Drilled unused well in gravel, diameter 6 inches, depth 135 feet. Highest water level 11.40 below lsd, Mar. 29, 1945; lowest 35.60 below lsd, Dec. 24, 1951. Records available: 1942-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.25	21.10	23.35	23.05	23.00	20.90	26.00	26.25	29.45	29.85	29.55	31.35
2	22.20	22.10	23.00	23.20	23.10	21.25	25.90	26.20	29.95	29.45	29.50	31.00
3	22.45	22.30	23.25	23.20	23.20	21.70	25.25	25.55	30.35	29.35	29.65	31.45
4	22.05	22.85	23.60	23.00	23.20	21.85	25.25	25.80	30.90	29.35	29.95	31.40
5	22.10	22.45	23.60	22.85	23.00	23.10	24.40	26.60	30.90	29.20	30.00	31.30

Mu-1a--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	22.15	23.00	23.65	22.35	23.00	23.45	22.00	26.65	30.20	29.40	30.00	31.00
7	21.30	23.20	23.65	22.80	23.05	23.35	23.20	25.75	29.90	29.65	30.00	31.60
8	19.35	22.80	23.00	23.20	22.85	23.35	24.30	26.05	29.70	29.70	29.55	31.70
9	19.35	22.80	23.30	23.20	22.85	23.25	24.60	26.10	29.75	29.15	.....	31.85
10	19.35	23.10	23.70	22.80	22.05	22.95	24.10	25.45	29.70	29.30	.....	31.85
11	19.30	22.45	23.65	23.15	.....	22.85	24.10	25.75	29.45	29.05	29.75	31.45
12	18.65	23.40	23.70	22.55	21.70	23.30	24.10	25.80	29.60	29.15	30.20	31.40
13	18.30	23.45	.....	22.70	21.75	22.80	24.40	26.05	29.70	29.65	30.25	31.20
14	18.05	23.20	.....	22.50	22.55	22.80	24.65	26.20	27.60	29.75	30.35	31.15
15	18.10	22.70	.....	22.45	22.45	22.80	25.05	26.25	29.50	29.55	30.20	30.85
16	18.40	23.15	.....	22.20	21.60	23.40	25.65	26.20	29.65	29.65	30.25	.....
17	18.45	23.25	22.70	22.15	21.45	23.40	26.00	26.20	29.35	29.40	30.40	.....
18	18.15	23.45	22.95	22.50	21.40	23.15	25.95	26.85	29.45	29.00	30.45	.....
19	20.50	23.60	23.25	22.40	21.45	23.75	25.65	26.80	29.45	29.15	30.50	.....
20	19.40	23.65	23.35	22.90	21.55	24.00	25.20	27.05	28.80	29.60	30.50	.....
21	21.20	23.70	23.25	22.90	21.55	24.55	25.70	27.20	28.80	29.80	30.30	32.20
22	17.80	23.50	23.40	23.00	21.65	23.85	25.75	27.25	28.85	29.85	30.30	32.25
23	18.00	23.60	23.45	22.75	21.20	24.55	25.80	27.00	29.00	29.75	30.85	32.40
24	20.80	23.35	23.45	22.70	21.40	24.65	25.65	26.80	28.85	29.75	30.75	32.45
25	18.40	23.45	20.20	22.70	21.35	25.45	25.65	27.60	29.50	29.55	30.75	32.25
26	21.90	23.20	23.15	22.25	20.85	25.70	25.30	28.00	29.50	29.85	30.95	32.35
27	22.60	23.20	23.15	22.50	20.85	26.20	24.75	28.20	29.35	29.90	30.95	32.45
28	22.60	23.20	22.55	22.90	21.50	26.90	24.35	28.55	29.65	29.95	31.00	32.35
29	22.50	.....	23.15	22.95	21.50	26.20	25.00	28.55	29.45	29.85	30.85	32.80
30	22.60	.....	23.05	23.05	20.80	26.50	25.65	28.50	29.55	29.75	30.65	32.80
31	21.80	.....	23.05	.....	20.95	.....	26.20	28.95	.....	30.00	.....	33.00

Mu-2. State of Ohio. Lat. 39°57'00", long. 82°01'30". Drilled test well in gravel, diameter 6 inches, depth 54 feet. Highest water level 0.00, Jan. 27, 1952; lowest 8.88 below lsd, Oct. 1, 1953. Records available: 1947-53:

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.37	7.35	7.72	7.66	7.54	7.83	8.15	8.36	8.72	8.88	8.80	.....
2	8.37	7.42	7.72	7.64	7.60	7.87	8.09	8.35	8.72	8.87	8.80	.....
3	8.35	7.50	7.72	7.63	7.67	7.90	7.74	8.33	8.73	8.87	8.80	.....
4	8.37	7.59	7.63	7.64	7.71	7.93	7.89	8.34	8.73	8.87	8.80	.....
5	8.39	7.62	7.40	7.67	7.67	7.97	7.98	8.34	8.73	8.85	8.82	.....
6	8.40	7.66	7.49	7.67	7.68	8.01	8.05	8.37	8.73	8.84	8.82	.....
7	8.38	7.71	7.50	7.69	7.67	7.96	8.10	8.39	8.78	8.85	8.80	.....
8	8.36	7.76	7.53	7.71	7.49	7.98	8.13	8.40	.....	8.85	8.80	.....
9	8.27	7.82	7.55	7.70	7.34	8.04	8.20	8.40	.....	8.84	8.80	.....
10	8.21	7.83	7.56	7.62	7.42	8.06	8.23	8.40	.....	8.83	8.80	.....
11	8.12	7.83	7.56	7.50	7.51	8.04	8.26	8.43	.....	8.83	8.79	.....
12	8.10	7.69	7.56	7.50	7.55	8.05	8.29	8.45	.....	8.86	8.80	.....
13	8.12	7.45	7.56	7.54	7.55	8.06	8.30	8.47	.....	8.86	8.81	.....
14	8.13	7.48	7.56	7.60	7.57	8.08	8.34	8.50	.....	8.85	8.81	.....
15	8.13	7.50	7.54	7.61	7.60	8.10	8.37	8.52	.....	8.84	8.80	.....
16	8.18	7.53	7.52	7.58	7.60	8.12	8.40	8.54	.....	8.85	8.80	.....
17	8.19	7.59	7.49	7.56	7.53	8.13	8.43	8.55	.....	8.87	8.80	.....
18	8.02	7.61	7.50	7.55	7.37	8.15	8.43	8.56	.....	8.87	8.80	.....
19	7.60	7.64	7.55	7.48	7.29	8.17	8.27	8.57	.....	8.87	8.80	.....
20	7.69	7.64	7.59	7.38	7.38	8.19	8.20	8.59	.....	8.86	8.80	.....
21	7.79	7.56	7.63	7.17	7.45	8.20	8.25	8.63	.....	8.85	8.80	8.74
22	7.84	7.45	7.63	7.18	7.47	8.21	8.26	8.64	.....	8.85	8.79	8.76
23	7.85	7.51	7.63	7.27	7.28	8.25	8.19	8.63	.....	8.84	8.77	8.76
24	7.84	7.54	7.61	7.34	7.29	8.27	8.25	8.64	.....	8.83	.....	8.77
25	7.63	7.54	7.58	7.37	7.32	8.29	8.28	8.64	.....	8.83	.....	8.75
26	7.68	7.56	7.56	7.40	7.41	8.31	8.32	8.64	.....	8.84	.....	8.76
27	7.69	7.62	7.56	7.44	7.53	8.33	8.33	.....	.....	8.81	.....	8.77
28	7.65	7.67	7.58	7.48	7.61	8.35	8.34	.....	.....	8.78	.....	8.76
29	7.32	.....	7.63	7.50	7.65	8.30	8.25	.....	8.85	8.78	.....	8.75
30	7.41	.....	7.66	7.50	7.70	8.09	8.30	.....	8.86	8.81	.....	8.77
31	7.41	.....	7.66	.....	7.76	.....	8.35	.....	.....	8.80	.....	8.77

Portage County

Po-1. Edward Tiddle. Lat. 41°14'06", long. 81°02'48". Drilled unused well in sandstone, diameter 6 inches, depth 55 feet. Highest water level 14.49 below lsd, June 13, 1947; lowest 22.85 below lsd, Dec. 31, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.72	21.65	21.52	21.15	20.62	20.30	20.48	20.97	21.50	21.95	22.24	22.58
2	21.70	21.63	21.49	21.11	20.62	20.30	20.47	20.99	21.51	21.95	22.25	22.59
3	21.72	21.61	21.46	21.11	20.62	20.31	20.51	21.00	21.53	21.97	22.29	22.60
4	21.75	21.62	21.42	21.06	20.60	20.31	20.51	20.99	21.57	21.95	22.31	22.62
5	21.77	21.62	21.42	21.05	20.56	20.31	20.51	21.03	21.60	21.96	22.31	22.65
6	21.78	21.66	21.45	21.04	20.55	20.32	20.51	21.03	21.59	21.99	22.31	22.62
7	21.78	21.64	21.45	21.05	20.59	20.32	20.54	21.05	21.60	21.99	22.34	22.66
8	21.75	21.65	21.40	21.05	20.58	20.30	20.56	21.04	21.61	22.01	22.34	22.65
9	21.77	21.68	21.41	21.01	20.55	20.32	20.58	.....	21.62	21.99	22.38	22.64
10	21.76	21.67	21.39	20.96	20.54	20.32	20.60	.....	21.61	22.00	22.37	.....
11	21.78	21.66	21.40	20.96	20.51	20.32	20.62	.....	21.61	22.01	22.40	.....
12	21.79	21.68	21.42	20.92	20.52	20.30	20.61	21.06	21.63	22.05	22.42	.....
13	21.78	21.74	21.42	20.90	20.52	20.29	20.62	21.08	21.66	22.06	22.42	.....
14	21.80	21.76	21.42	20.90	20.52	20.31	20.63	21.09	21.66	22.06	22.42	.....
15	21.79	21.74	21.35	20.88	20.50	20.31	20.69	21.12	21.67	22.07	22.40	.....
16	21.81	21.68	21.36	20.83	20.50	20.30	20.69	21.14	21.70	22.10	22.42	22.74
17	21.81	21.65	21.34	20.83	20.45	20.30	20.69	21.16	21.72	22.12	22.46	22.75
18	21.73	21.65	21.31	20.82	20.43	20.30	20.69	21.27	21.72	22.12	22.46	22.75
19	21.73	21.62	21.32	20.79	20.43	20.32	20.72	21.28	21.72	22.13	22.49	22.75
20	21.74	21.61	21.33	20.74	20.43	20.32	20.74	21.25	21.77	22.14	22.48	22.75
21	21.76	21.60	21.33	20.72	20.42	20.34	20.75	21.26	21.79	22.17	22.49	22.75
22	21.76	21.59	21.32	20.72	20.41	20.34	20.77	21.27	21.78	22.17	22.50	22.80
23	21.74	21.55	21.29	20.72	20.39	20.38	20.82	21.27	21.79	22.18	22.51	22.80
24	21.71	21.53	21.31	20.72	20.37	20.42	20.83	21.28	21.80	22.21	22.50	22.80
25	21.74	21.52	21.29	20.68	20.33	20.43	20.85	21.33	21.81	22.21	22.52	22.77
26	21.74	21.47	21.28	20.67	20.33	20.43	20.84	21.39	21.86	22.22	22.55	22.80
27	21.70	21.51	21.27	20.67	20.35	20.45	20.88	21.39	21.86	22.22	22.56	22.83
28	21.66	21.52	21.24	20.65	20.30	20.43	20.90	21.44	21.87	22.22	22.57	22.80
29	21.66		21.21	20.64	20.32	20.46	20.92	21.50	21.89	22.24	22.56	22.81
30	21.67		21.20	20.61	20.27	20.47	20.95	21.50	.....	22.27	22.57	22.84
31	21.62		21.17		20.27		20.96	21.53		22.25		22.85

Po-2. City of Kent. Lat. 41°08'43", long. 81°22'08". Drilled unused well in gravel, diameter 10 inches, depth 65 feet. Highest water level 10.67 below lsd, June 9, 1947; lowest 25.45 below lsd, Dec. 18, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph, 1951

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.00	21.85	20.91	17.15	17.59	18.48	18.30	20.15	21.65	20.60	.....	22.30
2	20.48	21.85	20.95	17.50	17.69	18.60	18.75	20.50	20.40	.....	.....	21.85
3	21.50	21.45	20.78	17.67	17.60	18.65	18.70	20.30	20.05	.....	.....	22.35
4	21.40	21.45	19.92	17.77	17.40	18.50	18.60	20.20	21.00	.....	.....	22.45
5	21.55	21.60	20.20	17.80	17.28	18.60	18.50	19.50	21.10	.....	.....	22.45
6	21.40	21.80	20.30	18.09	16.25	18.70	18.65	19.85	21.05	.....	.....	22.50
7	21.05	21.90	20.08	18.01	17.39	18.75	18.55	20.00	21.00	.....	22.85	22.45
8	21.15	21.95	19.90	16.25	17.71	.....	18.35	20.45	20.70	.....	.....	22.30
9	21.50	21.90	20.08	17.32	17.81	18.20	18.50	20.70	19.80	.....	.....	21.25
10	21.50	21.90	19.76	17.26	17.83	17.10	19.00	20.90	20.65	21.30	.....	22.25
11	21.55	21.75	18.60	17.59	17.67	18.35	19.15	21.00	20.75	21.30	.....	22.25
12	21.70	21.80	19.45	17.50	17.70	18.30	18.85	20.90	20.80	21.15	22.80	22.25
13	21.45	21.90	20.01	17.46	.....	18.30	18.90	21.10	.....	20.80	22.90	22.25
14	21.25	21.90	17.79	17.16	.....	18.25	18.75	.....	.....	20.30	22.90	22.50
15	21.15	21.95	19.70	16.87	.....	.....	18.80	.....	.....	20.65	22.95	22.45
16	21.30	22.00	.....	17.62	.....	.....	19.40	.....	19.35	21.55	22.85	22.25
17	21.55	21.90	19.00	17.74	.....	.....	19.80	.....	20.40	21.90	22.80	.....
18	21.35	21.60	17.73	17.60	.....	.....	19.85	21.20	.....	21.90	22.25	.....
19	21.68	21.60	18.46	17.61	17.42	.....	19.65	21.00	.....	21.85	.....	22.80
20	21.50	21.50	18.18	17.65	.....	.....	20.00	21.50	20.65	21.85	.....	.....
21	21.35	21.50	18.20	17.35	.....	.....	19.70	21.55	20.75	.....	.....	22.70
22	21.50	21.30	18.27	16.85	.....	.....	18.60	21.50	20.80	22.00	22.55	22.65
23	21.70	21.40	17.90	17.60	.....	.....	19.65	21.40	19.65	22.15	.....	22.00
24	21.70	21.40	17.91	17.55	.....	18.20	19.75	21.70	.....	22.30	.....	21.70
25	21.70	20.85	16.65	17.65	.....	18.85	19.85	21.35	.....	22.20	.....	22.10

Po-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	21.78	20.73	17.76	17.45	17.93	19.05	.....	21.35	.....	22.30	22.10	22.05
27	21.60	20.91	17.88	17.60	17.33	19.25	.....	21.55	.....	22.15	.....	22.05
28	21.30	20.86	18.10	17.12	17.95	19.40	19.60	21.70	.....	21.00	22.20	22.00
29	21.50		18.09	16.90	18.10	19.50	18.70	21.90	.....	.....	22.20	22.10
30	21.70		17.81	17.38	17.90	19.25	19.95	22.20	19.65	.....	22.40	21.75
31	21.80		17.12		18.30		20.60	22.15		22.10		22.05

Daily lowest water level from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.95	.....	18.10	17.80	18.00	18.10	20.00	19.95	20.70	22.75	23.65	23.30
2	21.75	18.90	17.00	18.05	18.40	18.55	20.00	19.85	20.90	22.70	23.55	23.45
3	22.00	18.90	18.05	18.80	18.35	18.65	20.10	19.90	20.75	22.80	23.60	23.60
4	21.85	19.00	18.20	18.95	18.00	19.00	19.70	20.00	20.75	22.80	23.60	23.75
5	21.80	19.00	18.40	17.95	18.35	19.10	19.30	20.00	20.75	22.50	23.75	23.80
6	20.60	18.85	18.50	16.35	18.60	19.25	19.55	20.05	20.60	22.55	23.80	23.75
7	21.70	18.90	18.55	17.50	18.70	19.35	20.15	20.10	19.60	22.65	23.95	23.80
8	21.75	18.90	18.45	17.50	18.40	19.00	20.20	20.60	20.55	22.70	23.90	23.65
9	21.65	18.70	18.30	17.70	18.40	18.85	20.05	20.40	20.65	22.80	23.80	23.90
10	21.75	18.40	18.20	17.75	18.05	19.25	19.70	19.05	20.75	22.85	23.55	24.00
11	21.80	18.55	18.40	17.70	17.00	19.10	19.75	19.80	21.25	22.90	23.65	24.05
12	21.55	18.70	18.40	17.70	17.90	19.10	19.70	19.85	21.45	22.10	23.85	24.10
13	21.40	18.80	18.80	16.00	18.05	19.50	19.70	20.00	21.50	22.75	23.80	24.00
14	21.45	18.70	18.70	17.55	18.10	19.65	20.20	20.00	21.55	22.70	23.85	24.05
15	21.40	18.65	18.70	17.50	18.20	.....	20.15	20.05	21.20	22.80	23.80	23.85
16	21.45	18.20	17.10	17.75	18.30	.....	20.00	20.00	21.20	22.90	22.80	24.00
17	21.45	16.80	18.00	17.80	18.35	.....	20.05	18.90	21.20	23.00	23.55	24.10
18	21.40	18.25	17.95	17.65	18.05	.....	20.45	19.90	21.20	22.95	23.70	24.10
19	21.30	18.15	17.95	17.55	18.40	.....	19.95	20.05	21.50	22.90	23.80	24.10
20	20.65	18.05	18.00	17.30	18.25	.....	19.55	20.15	21.45	23.10	23.90	23.90
21	20.95	18.15	18.05	17.80	18.30	.....	19.90	20.20	21.70	23.30	23.90	23.90
22	21.05	18.25	17.40	17.40	18.40	.....	20.10	20.30	21.65	23.25	23.95	23.60
23	21.00	18.10	16.20	17.35	18.40	.....	19.75	20.20	21.70	23.30	23.90	23.55
24	21.00	17.20	17.75	17.35	18.40	.....	19.80	19.10	22.00	23.40	23.75	23.50
25	21.05	17.80	17.90	17.60	17.65	.....	19.90	20.25	22.20	23.45	23.80	22.70
26	20.95	17.90	18.00	17.65	18.10	.....	19.90	20.60	22.25	23.20	23.80	22.00
27	19.55	17.95	18.10	16.15	18.65	.....	18.60	20.95	22.45	23.30	23.70	21.90
28	19.75	18.00	18.05	17.60	18.50	20.30	19.55	21.20	22.15	23.40	23.40	22.50
29	19.65	18.10	18.00	17.75	18.45	20.20	19.75	21.35	22.45	23.55	23.40	22.90
30	.....		17.20	17.90	18.45	19.95	19.75	21.40	22.60	23.60	22.55	23.00
31	19.75		17.70		18.10		19.80	21.10		23.60		23.10

Daily lowest water level from recorder graph, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.20	22.75	23.00	22.50	22.10	21.25	21.75	22.95	24.20	23.85	24.70	24.90
2	22.90	23.30	23.10	22.50	22.10	21.75	21.90	22.65	24.40	23.95	24.75	24.90
3	21.75	23.45	23.05	22.35	21.70	21.90	21.75	22.25	24.55	24.05	24.90	25.05
4	21.70	23.55	22.70	22.25	22.15	22.10	21.55	22.25	24.65	23.85	25.00	25.10
5	22.95	23.65	22.75	22.25	22.25	22.40	20.85	22.20	24.45	23.95	25.05	25.20
6	23.15	23.65	22.70	22.00	22.15	22.45	21.35	22.20	23.05	23.95	25.05	24.90
7	23.30	23.50	22.70	22.10	22.30	22.15	21.35	22.20	22.45	24.00	24.95	24.85
8	23.45	23.50	21.70	22.20	22.30	22.15	21.40	22.20	23.30	24.25	24.90	25.05
9	23.55	23.45	22.65	22.35	21.80	22.20	21.40	21.05	23.45	24.40	24.60	25.10
10	23.55	23.80	22.85	22.35	21.75	22.30	21.40	22.00	23.40	24.45	24.80	25.20
11	23.60	23.80	22.85	22.15	22.00	22.30	21.40	22.25	23.45	24.25	25.05	25.15
12	23.45	23.40	23.05	22.20	22.00	22.15	21.50	22.25	23.35	24.15	25.10	25.15
13	23.65	23.40	23.25	22.00	21.95	22.40	21.90	22.35	22.35	24.25	25.15	24.85
14	23.80	23.30	23.40	22.05	21.90	22.45	21.90	22.40	23.15	24.35	25.15	25.00
15	23.90	23.30	23.35	22.05	22.00	22.25	21.70	22.55	23.20	24.45	24.90	25.15
16	23.95	23.10	22.95	22.10	22.10	22.35	21.95	22.45	23.30	24.55	25.10	25.30
17	23.90	23.25	23.00	22.25	21.95	22.30	21.95	22.45	23.35	24.60	25.20	25.40
18	22.95	23.30	23.10	22.35	21.50	21.95	21.85	22.50	23.35	24.50	25.25	25.45
19	23.65	23.30	23.40	22.35	21.55	21.90	20.50	22.40	23.25	24.50	25.30	.....
20	23.85	23.10	23.45	22.10	21.70	21.90	21.90	22.55	22.00	24.65	25.35	.....
21	23.90	23.05	23.35	22.15	21.90	21.80	22.20	22.85	23.00	24.85	25.30	.....
22	23.95	22.10	23.20	22.15	21.75	22.00	22.20	22.85	23.05	24.95	25.00	25.10
23	24.00	23.10	22.95	22.10	21.70	22.30	22.00	22.75	23.10	25.05	25.05	25.10
24	24.00	23.05	22.80	22.30	21.40	22.40	22.00	22.85	23.30	25.05	25.25	25.15
25	23.75	22.95	22.65	22.25	21.30	22.45	22.05	23.10	23.30	24.85	25.30	25.15

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Po-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	23.50	23.10	22.55	22.25	21.70	22.40	22.05	23.35	23.30	24.65	25.25	25.05
27	23.55	23.20	22.50	21.95	21.75	22.15	22.30	23.65	23.30	24.75	25.05	25.00
28	23.60	23.15	21.75	22.05	21.55	21.75	22.50	23.90	23.20	24.80	25.05	25.00
29	23.55		21.75	22.05	21.55	21.90	22.75	24.10	23.40	24.75	24.85	25.10
30	23.65		22.30	22.05	21.50	21.70	22.80	24.15	23.70	24.75	24.70	25.10
31	23.65		22.45		21.50		22.90	24.15		24.75		25.15

Po-4. U. S. Army Engineer Corps. Ravenna Ordnance Plant. Lat. 41°11', long. 81°08'. Drilled unused well in sandstone, diameter 12 inches, depth 225 feet. Highest water level 24.15 below lsd, May 4, 1951; lowest 34.55 below lsd, Dec. 22-23, 1953. Records available: 1950-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.15	33.40	33.00	32.25	31.00	30.75	31.35	31.95	32.45	33.00	33.50	33.85
2	33.00	33.35	32.85	32.35	31.25	30.85	31.20	31.85	32.45	32.80	33.55	33.85
3	33.10	33.00	32.60	32.30	31.40	31.00	31.55	31.90	32.45	32.70	33.55	33.85
4	33.25	33.20	32.50	32.45	31.35	30.90	31.45	31.75	32.40	32.90	33.65	34.05
5	33.25	33.20	33.05	32.45	31.15	31.05	31.30	32.00	32.45	32.90	33.65	34.05
6	33.30	33.05	33.20	32.20	31.05	.....	31.30	32.05	32.45	33.00	33.75	33.95
7	33.30	33.05	33.25	32.10	31.00	.....	31.45	32.05	32.45	33.05	33.60	34.00
8	33.15	33.15	33.15	32.15	31.05	.....	31.60	31.95	32.65	33.00	33.45	34.00
9	33.20	33.25	33.15	31.95	31.25	.....	31.70	32.10	32.75	33.00	33.65	33.90
10	33.15	33.20	33.10	31.75	31.30	.....	31.60	32.25	32.55	33.00	33.60	34.20
11	33.35	32.85	33.15	31.85	31.15	.....	31.50	32.25	32.40	33.10	33.50	34.10
12	33.40	32.80	33.15	31.75	31.25	30.60	31.60	32.30	32.35	33.30	33.55	34.00
13	33.25	32.95	32.95	31.75	31.45	30.85	31.70	32.30	32.40	33.25	33.70	33.95
14	33.25	32.95	32.95	31.85	31.45	30.80	31.80	32.25	32.35	33.10	33.70	34.20
15	33.25	32.80	32.75	31.75	31.45	30.80	31.95	32.20	32.30	32.95	33.45	34.30
16	33.40	32.90	32.90	31.55	31.40	31.00	31.85	32.15	32.40	33.15	33.65	34.30
17	33.30	33.05	32.85	31.70	31.15	31.15	31.70	32.30	32.40	33.10	33.60	34.30
18	33.10	33.05	32.85	31.70	31.20	31.25	31.85	32.30	32.35	33.15	33.65	34.35
19	33.05	32.95	32.90	31.55	31.35	31.25	31.75	32.30	32.30	33.20	33.65	34.35
20	33.20	32.85	33.05	31.30	31.40	31.40	31.85	32.40	32.50	33.15	33.60	34.30
21	33.25	32.85	32.95	31.45	31.10	31.25	31.95	32.45	32.70	33.35	33.60	34.25
22	33.30	32.95	32.65	31.35	31.30	31.15	31.85	32.40	32.70	33.35	33.55	34.55
23	33.10	32.80	32.50	31.35	31.60	31.25	31.70	32.45	32.65	33.15	33.60	34.55
24	32.95	32.65	32.45	31.40	31.60	31.25	31.95	32.50	32.55	33.20	33.55	34.35
25	33.30	32.55	32.60	31.10	31.30	31.25	32.05	32.55	32.65	33.20	33.55	34.25
26	33.40	32.35	32.60	31.00	30.95	31.40	32.00	32.50	32.80	33.20	33.65	34.40
27	33.05	32.70	32.50	31.20	31.10	31.40	31.80	32.55	32.60	33.30	33.60	34.40
28	33.15	32.85	32.85	31.30	31.15	31.20	31.85	32.50	32.60	33.20	33.70	34.30
29	33.35		32.45	31.35	31.15	31.35	31.90	32.45	32.60	33.25	33.75	34.40
30	33.35		32.40	31.10	30.90	31.50	32.00	32.45	33.00	33.50	33.75	34.40
31	33.10		32.25		30.60		32.05	32.40		33.40		34.40

Putnam County

Pu-1. City of Columbus Grove. Lat. 40°55'10", long. 84°03'20". Drilled unused well in limestone, diameter 6 inches, depth 110 feet. Highest water level 7.34 below lsd, Jan. 7, 1950; lowest 23.30 below lsd, Aug. 30, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.45	13.30	11.95	12.95	12.75	14.55	17.70	19.50	22.60	20.70	19.80	18.40
2	15.10	13.15	11.90	13.45	13.15	15.15	17.05	17.55	.....	20.15	18.35	18.40
3	15.20	13.30	12.20	13.50	12.60	15.15	16.40	17.30	.....	21.35	19.45	18.25
4	15.05	12.80	12.00	13.80	13.30	15.65	18.20	17.70	.....	19.85	19.10	18.10
5	.....	13.15	11.55	13.10	12.90	16.10	17.70	16.15	.....	19.50	19.65	19.45
6	.....	13.35	11.80	13.30	12.80	16.45	17.95	16.20	.....	18.55	19.40	17.85
7	.....	13.15	11.60	13.50	12.75	15.35	18.00	17.65	.....	19.70	20.05	18.85
8	.....	12.90	11.55	13.70	12.80	15.50	18.30	17.80	.....	17.95	18.95	18.25
9	15.50	13.25	11.70	13.15	13.45	15.90	18.45	16.70	.....	.....	19.65	17.90
10	.....	13.10	11.55	13.30	12.75	15.60	19.50	17.85	18.60	19.00	18.85	17.25
11	.....	13.05	11.20	13.50	13.35	16.10	19.05	18.00	19.25	.....	19.20	18.65
12	.....	13.04	11.30	12.90	13.35	.....	18.35	18.15	19.25	.....	19.30	18.80
13	.....	13.15	11.50	13.60	13.30	.....	18.70	17.85	17.65	.....	19.40	18.10
14	.....	13.50	11.80	13.65	13.35	.....	19.65	18.95	18.65	.....	19.05	16.95
15	.....	13.00	11.40	13.30	13.70	.....	19.65	19.60	19.20	18.55	19.55	17.45

Pu-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	.....	.....	11.60	13.30	13.55	17.60	20.05	17.85	18.70	19.25	19.75	.....
17	.....	.....	11.30	13.25	12.40	17.80	20.25	17.20	18.80	20.00	19.70	.....
18	.....	13.60	11.35	13.50	12.95	17.90	18.85	19.40	19.65	19.45	18.75	.....
19	.....	.....	11.35	12.80	13.10	18.50	18.10	19.55	19.70	20.00	18.60	17.40
20	.....	12.90	11.55	13.35	13.05	18.05	18.90	18.35	17.90	19.15	18.05	16.60
21	.....	.....	11.60	19.05	13.20	17.40	18.50	19.35	.....	19.50	19.75	17.15
22	.....	13.30	11.40	13.30	13.25	20.85	17.40	20.20	.....	18.95	18.85	16.85
23	.....	.....	.....	13.00	13.35	20.40	17.35	19.65	.....	19.35	18.75	17.40
24	.....	12.10	11.45	12.80	13.65	19.25	17.80	20.30	.....	18.80	18.15	.....
25	13.50	12.35	11.70	12.95	13.60	18.40	17.20	20.60	19.95	19.40	19.00	.....
26	13.60	11.95	11.55	12.15	13.95	18.45	17.05	20.55	20.55	19.25	18.45	.....
27	13.20	12.05	11.75	12.55	14.05	17.55	18.25	21.60	21.25	19.25	19.55	.....
28	12.90	12.55	11.75	12.40	14.65	16.80	18.60	22.30	20.60	17.55	19.60	.....
29	13.45	.....	11.10	12.65	14.65	17.70	18.15	23.25	20.40	17.55	19.55	17.15
30	13.45	.....	11.80	12.45	14.85	17.05	18.25	23.30	.....	18.55	18.40	16.80
31	13.55	.....	12.10	.....	14.40	.....	18.55	20.90	.....	18.95	.....	17.45

Richland County

R-2. City of Lexington. Lat. 40°40'42", long. 82°34'40". Drilled unused well in sandstone, diameter 6 inches, depth 129 feet. Highest water level 22.12 below lsd, June 8, 1947; lowest 28.24 below lsd, Dec. 3, 1952. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.99	26.64	26.37	26.36	26.31	25.09	26.72	26.87	27.31	27.68	27.99	28.12
2	27.96	.....	26.40	26.32	26.35	25.16	26.66	26.88	27.31	27.69	28.01	28.15
3	27.94	.....	26.41	26.31	26.38	25.23	.....	26.89	27.33	27.70	28.03	28.15
4	27.93	.....	26.37	26.29	26.37	25.32	.....	26.92	27.35	27.70	28.06	28.11
5	27.93	.....	26.28	26.28	26.40	25.40	.....	26.89	27.37	27.70	28.10	28.09
6	27.95	.....	26.25	.....	26.42	25.47	26.48	26.88	27.38	27.71	28.10	28.08
7	27.92	.....	26.24	.....	26.45	25.54	26.52	26.88	27.40	.....	28.11	28.07
8	27.97	26.62	26.24	26.36	26.42	25.61	26.60	26.89	27.43	.....	28.12	28.06
9	27.99	26.65	26.25	26.35	26.30	25.71	26.63	26.85	27.44	27.73	28.13	28.06
10	27.99	26.66	26.25	26.33	26.27	25.85	26.66	26.82	27.45	27.73	28.14	28.05
11	27.92	26.66	26.25	26.25	26.24	25.93	26.69	26.83	27.46	27.73	28.16	28.05
12	27.84	26.62	26.25	26.22	26.24	26.01	26.71	26.85	27.47	27.74	28.17	28.05
13	27.78	26.59	26.23	26.22	.....	26.04	26.74	26.87	27.47	27.74	28.18	28.07
14	27.75	26.59	26.23	26.29	.....	26.11	26.78	26.90	27.47	27.74	28.18	28.07
15	27.63	26.59	26.22	26.30	.....	26.19	26.81	26.92	27.48	27.74	28.19	28.08
16	27.59	26.59	26.21	26.25	.....	26.16	26.86	26.94	27.50	27.75	28.20	28.08
17	27.54	26.62	26.22	26.27	.....	26.25	26.86	26.96	27.51	.....	28.21	28.09
18	27.35	26.64	26.21	26.26	.....	26.31	26.87	26.98	27.53	.....	28.18	28.10
19	27.11	26.65	26.22	26.22	25.27	26.35	26.88	.....	27.54	.....	28.18	28.10
20	26.98	26.65	26.24	26.17	25.22	26.38	26.88	.....	27.55	27.78	28.18	28.10
21	26.90	26.61	26.26	26.14	25.21	26.40	26.88	.....	27.57	27.80	28.18	28.10
22	26.86	26.47	26.27	26.14	25.13	26.47	26.88	.....	27.63	27.80	28.13	28.08
23	26.82	26.43	26.28	26.16	24.83	26.50	26.80	.....	27.64	27.81	28.13	28.01
24	26.77	26.40	26.28	26.18	24.59	26.54	26.73	.....	27.61	27.91	28.09	27.95
25	26.72	26.38	26.28	26.19	24.52	26.56	26.72	27.14	27.62	27.92	28.10	27.92
26	.....	26.36	26.28	26.17	24.53	26.61	26.73	27.16	27.63	27.86	28.09	27.95
27	.....	26.34	26.27	26.18	24.65	26.65	26.75	27.18	27.63	27.91	28.06	27.97
28	.....	26.34	26.28	26.22	24.74	26.64	26.77	27.20	27.64	27.93	28.06	27.99
29	.....	.....	26.31	26.26	24.81	26.67	26.81	27.21	27.66	27.95	28.05	28.00
30	.....	.....	26.34	26.28	24.87	26.71	26.83	27.24	27.67	27.99	28.09	28.01
31	.....	.....	26.36	.....	24.94	.....	26.85	27.25	.....	27.98	.....	28.03

R-3. Voisard Factory. Shiloh. Lat. 41°58'00", long. 82°36'06". Drilled unused well in gravel, diameter 8 inches, depth 150 feet. Highest water level 23.42 below lsd, June 24, 1947; lowest 31.00 below lsd, Dec. 31, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	29.60	.....	29.50	29.10	28.60	28.55	28.90	29.25	30.30	30.35	30.40	30.60
2	29.25	.....	.....	29.35	28.80	28.50	28.60	29.30	30.35	30.35	30.45	30.45
3	29.30	29.50	.....	29.00	29.00	28.45	28.90	29.25	30.25	30.30	30.45	30.40
4	29.45	.....	29.20	28.90	29.10	28.40	28.95	29.25	30.20	30.25	30.60	30.15
5	29.30	.....	29.40	28.95	28.85	28.35	28.85	29.25	30.25	30.05	30.60	30.70

R-3--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	.....	.....	29.50	28.85	29.05	28.65	28.80	29.25	30.15	30.05	30.65	30.30
7	.....	29.45	.....	29.10	28.85	28.85	28.85	29.20	30.25	30.30	30.50	30.65
8	29.70	.....	.....	29.05	28.90	28.70	28.90	29.20	30.40	30.15	30.25	30.50
9	.....	29.70	29.65	28.80	29.00	28.75	29.05	29.10	30.45	30.10	30.50	30.35
10	.....	.....	.....	28.95	28.95	28.85	29.15	29.40	30.25	30.10	30.45	30.55
11	29.55	.....	.....	29.00	28.95	28.80	29.20	29.40	29.90	30.25	30.40	30.65
12	29.60	29.10	29.30	28.90	28.85	28.75	29.15	29.40	29.90	30.65	30.50	30.50
13	29.65	29.15	29.35	29.05	29.00	28.60	29.30	29.35	30.00	30.65	30.50	30.30
14	29.60	29.15	29.40	29.20	28.95	28.70	29.35	29.25	29.90	30.40	30.45	30.15
15	29.65	29.00	29.25	29.15	28.90	28.70	29.45	29.40	29.80	30.35	30.25	30.55
16	29.85	29.15	29.40	28.80	28.90	28.55	29.45	29.45	29.95	30.35	30.25	30.70
17	29.65	29.55	29.35	28.95	28.65	28.65	29.50	29.50	30.15	30.45	30.35	30.95
18	29.35	.....	29.20	28.95	28.65	28.60	29.25	29.45	30.05	30.40	30.40	30.80
19	29.35	29.50	29.20	28.85	28.65	28.75	29.20	29.45	29.95	30.40	30.50	30.65
20	29.40	29.35	29.35	28.95	28.75	28.85	29.20	29.45	29.85	30.40	30.35	30.50
21	29.60	29.35	29.45	28.95	28.65	29.00	29.20	29.60	30.15	30.55	30.40	30.40
22	29.45	.....	29.30	28.95	28.55	29.05	29.10	29.65	30.30	30.35	30.20	30.50
23	29.25	29.60	29.25	28.85	28.80	29.30	29.05	29.55	30.25	30.20	30.10	30.85
24	28.90	.....	29.25	29.00	28.80	29.25	29.25	29.70	30.05	30.35	29.95	30.90
25	29.55	.....	29.30	28.70	28.60	29.15	29.30	29.75	29.90	30.30	30.10	30.55
26	.....	28.85	29.25	28.65	28.50	29.25	29.25	29.90	29.95	30.35	30.35	30.45
27	.....	29.15	29.05	28.85	28.75	29.30	29.25	29.90	29.90	30.15	30.55	30.65
28	.....	.....	29.00	28.90	28.80	29.20	29.35	29.90	30.00	30.20	30.70	30.50
29	29.65	.....	29.20	28.95	28.60	29.25	29.25	30.00	30.05	30.30	30.70	30.60
30	.....	.....	29.20	28.65	28.20	29.20	29.40	30.05	30.15	30.40	30.40	30.85
31	.....	.....	29.00	.....	28.20	.....	29.35	30.20	.....	30.40	.....	31.00

R-4. City of Mansfield. Lat. 40°45'30", long. 82°31'00". Drilled unused well in gravel, diameter 14 inches, depth 127 feet. Highest water level 28.70 below lsd, May 31, 1949; lowest 53.95 below lsd, Oct. 30-31, 1953. Records available: 1942-47, 1949-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	49.10	50.70	52.00	51.55	52.80	49.70	42.50	51.65	51.70	53.45	50.60	51.05
2	47.30	48.95	50.90	51.85	52.70	50.60	43.40	50.10	52.55	53.25	50.20	51.70
3	44.55	50.10	51.40	51.90	52.60	51.05	44.75	49.45	53.00	52.75	52.35	52.35
4	43.85	50.50	51.90	51.90	51.30	51.25	43.05	50.85	53.35	49.60	53.25	52.60
5	45.90	50.60	52.20	51.35	52.10	51.40	41.70	51.80	53.45	49.60	53.35	52.65
6	47.70	50.80	52.25	49.80	52.50	51.45	45.15	52.10	50.25	52.15	53.20	48.40
7	48.55	50.85	52.30	50.60	52.65	51.30	45.95	52.20	47.55	.....	53.25	49.40
8	49.30	50.50	51.90	51.00	52.80	51.00	46.55	52.20	49.80	.....	49.85	51.40
9	49.95	49.60	50.90	51.40	52.90	51.50	46.75	51.60	51.75	53.25	50.20	51.90
10	50.10	50.30	51.50	51.85	52.65	51.75	46.80	51.50	52.35	53.35	52.00	52.75
11	50.15	50.35	51.80	52.10	51.95	51.85	46.75	52.35	52.60	50.25	52.80	53.05
12	48.70	.....	51.85	52.05	52.40	51.85	44.60	52.75	52.65	50.00	53.35	53.00
13	49.95	51.25	52.00	51.50	52.75	51.70	45.45	53.25	49.95	52.05	53.70	48.75
14	50.40	51.30	52.00	52.50	52.80	47.80	47.45	53.35	50.45	52.70	53.75	48.90
15	50.60	51.25	51.70	52.60	52.85	49.50	49.00	53.00	52.10	52.70	49.80	51.50
16	50.90	50.80	51.40	53.00	52.85	50.50	50.85	49.20	52.70	52.75	50.00	52.55
17	50.95	51.40	51.70	53.10	51.90	50.85	51.30	47.95	53.10	52.85	52.20	53.10
18	50.60	51.55	51.85	53.10	51.40	50.80	51.30	50.10	53.20	49.45	52.80	53.40
19	50.05	51.85	52.10	52.80	51.75	50.60	47.95	.....	53.25	49.00	53.30	53.45
20	50.60	51.85	52.25	51.35	51.85	50.50	47.45	.....	49.90	51.50	53.65	49.20
21	50.75	52.10	52.25	52.30	51.80	47.95	49.45	.....	50.10	52.15	53.70	48.90
22	50.85	52.10	51.90	52.55	51.65	48.35	50.55	.....	51.75	52.85	49.95	51.20
23	50.80	50.40	50.60	52.90	51.70	49.00	51.20	.....	52.55	53.20	50.00	51.90
24	50.60	51.10	51.30	53.00	51.20	49.40	51.70	.....	52.95	53.30	51.70	52.00
25	50.55	51.45	51.80	52.95	50.30	49.65	51.85	51.10	53.20	50.40	52.55	48.45
26	48.10	51.65	51.95	52.75	50.95	49.80	49.60	52.15	53.30	50.45	52.75	45.80
27	49.60	51.95	52.05	51.55	51.40	49.85	48.90	52.70	50.50	52.30	49.75	44.70
28	50.25	52.10	52.05	52.35	51.50	46.65	50.55	53.05	50.65	53.20	47.60	46.75
29	50.60	.....	51.05	52.70	51.50	43.80	51.15	53.10	52.30	53.65	46.20	48.10
30	50.75	.....	50.40	52.70	51.35	43.00	51.45	50.30	53.30	53.95	48.25	48.55
31	50.80	.....	51.10	.....	47.20	.....	51.65	49.75	.....	53.95	.....	48.55

Ross County

Ro-3. Mead Paper Co. Hickory St. and Baltimore & Ohio Railroad tracks, Chillicothe. Lat. 39°20', long. 82°58'. Drilled unused well in gravel, diameter 30 inches, depth 91 feet. Highest water level 17.20 below lsd, Mar. 21, 1943; lowest 42.92 below lsd, Dec. 24, 1949. Records available: 1941-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.05	39.55	38.80	37.65	37.05	36.01	34.90	34.68	35.98	37.05	38.18	38.92
2	39.05	39.55	38.85	37.60	37.10	35.91	34.65	34.77	36.05	37.10	38.18	38.94
3	39.10	39.45	38.80	37.60	37.10	35.82	34.37	34.83	36.12	37.15	38.17	38.97
4	39.15	.....	.....	37.55	37.10	35.74	34.05	34.87	36.18	37.20	38.17	39.00
5	39.15	.....	.....	37.55	37.10	35.69	33.73	34.92	36.25	37.21	38.20	39.04
6	39.15	.....	.....	37.50	37.00	35.65	33.39	34.97	36.31	37.23	38.23	39.07
7	39.20	.....	.....	37.50	36.95	35.62	33.09	35.03	36.32	37.27	38.26	39.07
8	39.25	.....	.....	37.45	36.95	35.58	32.86	35.09	36.31	37.31	38.30	39.07
9	39.25	39.30	38.60	37.40	36.90	35.52	32.71	35.13	36.24	37.37	38.32	39.07
10	39.30	39.25	38.60	37.40	36.90	35.47	32.60	35.13	36.20	37.43	38.34	39.10
11	39.35	39.25	38.55	37.35	36.85	35.43	32.55	35.12	36.19	37.49	38.38	39.13
12	.....	39.20	38.50	37.35	36.80	35.40	32.52	35.12	36.20	37.50	38.42	39.17
13	39.35	39.20	38.45	37.30	36.78	35.37	32.50	35.15	36.24	37.52	38.46	39.18
14	.....	.....	38.45	37.25	36.77	35.35	32.50	35.20	36.27	37.55	38.50	39.18
15	.....	.....	38.40	37.20	36.77	35.31	32.56	35.25	36.32	37.59	38.53	39.16
16	39.35	.....	38.40	37.15	36.77	35.20	32.66	35.29	36.37	37.64	38.53	39.14
17	39.40	.....	.....	37.15	36.77	35.11	32.78	35.31	36.42	37.68	38.53	39.14
18	39.45	.....	.....	37.15	36.77	35.07	32.93	35.34	36.47	37.73	38.55	39.15
19	39.45	.....	.....	37.20	37.72	35.05	33.07	35.38	36.52	37.74	38.58	39.16
20	39.45	.....	38.20	37.20	36.67	35.05	33.18	35.43	36.58	37.73	38.62	39.16
21	39.45	.....	38.20	37.15	36.63	35.06	33.32	35.49	36.60	37.75	38.65	39.16
22	39.45	.....	38.15	37.05	36.60	35.05	33.45	35.55	36.62	37.79	38.68	39.14
23	39.45	.....	38.10	37.05	36.57	35.03	33.60	35.61	36.67	37.83	38.70	39.14
24	39.50	38.90	38.10	37.00	36.53	35.03	33.75	35.61	36.72	37.88	38.73	.....
25	39.50	38.85	38.00	37.00	36.47	35.05	33.89	35.62	36.75	37.94	38.76	.....
26	39.50	38.85	37.95	37.00	36.37	35.08	34.04	35.65	36.81	37.97	38.79	.....
27	39.50	38.80	37.90	37.00	36.27	35.12	34.15	35.68	36.86	37.99	38.83	.....
28	39.50	38.80	37.85	37.00	36.20	35.13	34.25	35.73	36.88	38.03	38.87	.....
29	39.50	.....	37.80	37.00	36.14	35.13	34.36	35.77	36.93	38.08	38.92	.....
30	39.55	.....	37.75	37.05	36.09	35.06	34.46	35.83	36.98	38.12	38.92	.....
31	39.55	.....	37.70	.....	36.05	.....	34.57	35.91	.....	38.16	.....	.....

Sandusky County

S-1. City of Woodville. Lat. 41°27', long. 83°22'. Drilled unused well in limestone, diameter 10 inches, depth 188 feet. Highest water level 8.85 below lsd, May 2, 1950; lowest 25.60 below lsd, Dec. 7, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.70	21.40	21.45	20.45	19.60	20.05	21.45	22.25	22.90	23.55	25.05	25.45
2	21.45	21.25	21.35	20.55	19.70	20.00	21.35	22.15	22.95	23.50	25.05	25.45
3	21.70	21.35	21.20	20.35	19.90	19.85	21.65	22.15	22.95	23.70	25.30	25.50
4	21.65	21.40	21.05	20.45	19.75	20.00	21.60	22.15	23.05	23.70	25.25	25.55
5	21.65	21.25	21.10	20.40	19.60	20.15	21.45	22.35	23.00	23.80	25.20	25.55
6	21.65	21.40	.....	20.25	19.65	20.25	21.50	22.15	22.90	23.80	25.25	25.55
7	21.65	.....	.....	20.50	19.50	20.45	21.60	22.30	23.00	24.00	25.25	25.60
8	21.60	.....	21.05	20.30	19.50	20.25	21.60	22.30	.....	23.90	25.25	.....
9	21.70	.....	.....	20.20	19.85	20.50	21.80	22.25	.....	23.90	25.20	.....
10	21.65	.....	.....	20.20	19.85	20.65	21.85	22.40	23.10	23.90	25.25	.....
11	21.80	.....	.....	20.30	19.75	20.65	21.80	22.30	23.00	24.00	25.30	.....
12	21.75	21.65	20.55	20.05	19.70	20.55	21.85	22.25	23.05	24.10	25.30	.....
13	21.75	.....	20.70	20.10	19.85	20.80	21.80	22.40	23.00	24.15	25.30	.....
14	21.60	.....	20.60	20.05	19.75	20.75	21.90	22.40	23.05	24.15	25.35	.....
15	21.50	.....	20.50	19.80	19.60	20.80	21.90	22.45	23.05	24.25	25.40	25.30
16	21.95	.....	20.70	20.05	19.65	20.75	21.95	22.45	23.15	24.25	25.35	25.40
17	21.65	.....	20.50	19.95	19.50	21.00	21.95	22.35	23.10	24.45	25.35	25.40
18	21.50	.....	20.25	19.90	19.70	20.90	22.05	22.45	23.00	24.45	25.35	25.35
19	21.50	21.45	20.55	19.80	19.55	20.90	22.05	22.35	23.05	24.50	25.35	25.15
20	21.65	21.25	20.55	19.70	19.50	21.00	22.05	22.50	22.95	24.50	25.30	25.30

S-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	21.60	21.55	20.40	19.65	19.40	21.20	22.00	22.55	23.25	24.70	25.40	25.35
22	21.45	21.45	20.40	19.55	19.40	21.25	22.15	22.60	23.25	.....	25.40	25.45
23	21.40	21.35	20.45	19.65	19.70	21.35	22.15	22.50	23.15	.....	25.45	25.40
24	21.60	21.25	20.35	19.65	19.70	21.20	22.25	22.65	23.20	.....	25.45	25.40
25	21.65	21.10	20.55	19.50	19.35	21.40	22.15	22.60	23.20	.....	25.45	25.35
26	21.55	21.05	20.40	19.45	19.45	21.35	22.05	22.65	23.30	.....	25.45	25.45
27	21.30	21.25	20.45	19.75	19.55	21.35	22.15	22.70	23.35	.....	25.50	25.40
28	21.35	21.35	20.55	19.70	19.70	21.35	22.25	22.75	23.35	24.90	25.45	25.40
29	21.25		20.65	19.75	19.55	21.45	22.25	22.80	23.40	24.90	25.45	25.40
30	21.25		20.50	19.55	19.45	21.50	22.30	22.75	23.55	23.15	25.50	25.45
31	21.35		20.45		19.60		22.30	22.85		25.15		25.40

Seneca County

Se-1. City of Green Springs. Lat. 41°13'15", long. 83°03'18". Drilled unused well in limestone, diameter 10 inches, depth 88 feet. Highest water level 24.20 below lsd, June 3, 1947; lowest 36.60 below lsd, Nov. 19, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	34.55	32.55	32.30	32.60	.....	33.15	.....	34.90	34.35	34.40	34.95
2	.....	34.90	34.15	32.65	32.95	.....	33.50	.....	34.35	34.45	35.05	34.65
3	.....	34.30	33.90	32.70	32.95	.....	32.90	.....	34.60	34.40	34.60	34.45
4	33.20	32.65	31.90	33.20	33.55	.....	33.25	.....	34.10	34.00	35.25	34.95
5	33.50	33.05	32.30	32.70	34.25	33.15	32.55	.....	33.85	34.40	34.95	35.05
6	33.75	33.70	32.85	.....	32.75	32.60	32.90	.....	33.70	33.75	35.15	34.45
7	34.10	33.60	33.35	33.30	32.80	32.30	33.60	34.05	33.85	34.85	35.05	35.00
8	33.45	33.35	33.25	.....	33.65	33.15	33.25	33.85	34.25	34.35	34.40	34.55
9	33.60	33.55	33.20	.....	33.05	32.60	34.10	34.75	34.85	34.50	34.70	34.75
10	34.20	33.50	32.80	.....	33.15	32.65	33.05	33.50	34.45	34.65	34.55	34.70
11	33.60	33.55	33.40	.....	32.95	32.60	33.75	33.20	35.35	34.00	34.30	34.90
12	33.70	33.95	33.20	.....	33.05	31.30	33.75	33.95	34.50	34.75	34.25	35.00
13	34.25	32.15	32.55	.....	33.00	.....	33.45	32.85	34.10	34.65	34.60	34.85
14	32.95	33.10	31.70	.....	32.80	.....	33.70	33.50	34.30	35.75	35.15	34.90
15	33.10	32.85	31.85	.....	33.00	.....	34.10	33.15	34.15	35.95	34.75	35.55
16	33.45	33.10	31.85	34.70	32.85	32.80	33.75	33.20	33.95	34.50	35.10	34.65
17	33.20	33.00	31.90	.....	32.00	.....	33.75	33.75	34.50	34.35	34.60	34.85
18	34.75	33.55	31.70	.....	32.10	.....	33.60	33.90	34.25	34.90	36.55	35.15
19	35.40	33.20	32.00	.....	35.50	32.90	33.25	34.30	34.00	35.20	36.60	34.45
20	33.05	32.75	32.30	.....	32.50	33.15	33.65	33.10	33.75	34.60	34.55	34.65
21	32.70	32.90	32.40	.....	32.05	32.45	33.75	34.10	33.70	34.20	34.95	34.75
22	32.65	33.65	32.05	.....	.....	34.10	33.85	34.00	33.40	34.40	34.35	34.80
23	33.35	32.75	32.35	.....	.....	33.75	33.50	34.10	33.65	35.90	34.60	34.85
24	32.50	33.20	32.25	33.90	.....	33.15	33.40	34.90	34.35	34.75	34.65	34.75
25	33.65	33.25	32.30	32.95	.....	33.15	33.35	34.75	34.50	34.50	34.60	34.45
26	32.55	33.00	32.40	32.45	.....	33.10	33.25	35.10	35.90	34.70	34.60	35.00
27	32.80	32.70	32.40	33.45	33.70	33.30	33.45	35.50	36.15	34.65	34.50	34.55
28	33.30	33.20	31.90	34.20	.....	32.80	33.50	35.00	34.40	34.30	34.80	35.00
29	33.85		30.90	33.85	.....	33.55	33.50	34.40	34.55	34.50	34.70	34.75
30	33.35		32.15	33.20	.....	33.20	34.15	34.15	34.40	34.55	34.95	34.65
31	33.50		32.30	.....	.....		33.30	34.90		35.30		35.10

Shelby County

Sh-1. John Wenger. Lat. 40°26'15", long. 84°12'06". Drilled unused well in limestone, diameter 4 inches, depth 120 feet. Highest water level 10.35 below lsd, Jan. 28, 1949; lowest 14.91 below lsd, Dec. 23-24, 31, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.82	12.93	12.83	12.33	12.70	12.01	12.87	13.39	13.73	14.25	14.54	14.81
2	13.82	12.95	12.83	12.41	12.77	12.11	12.86	13.38	13.73	14.26	14.57	14.81
3	13.71	12.93	12.82	12.43	12.90	12.19	12.92	13.38	13.73	.....	14.57	14.80
4	13.73	12.97	12.48	12.46	12.92	12.20	12.96	13.38	13.73	.....	14.61	14.75
5	13.73	12.97	12.36	12.51	12.92	12.26	12.96	13.38	13.76	.....	14.66	14.83
6	13.79	12.94	.....	12.51	12.89	12.30	12.96	13.42	13.78	.....	14.67	14.81
7	13.79	12.98	12.26	12.52	12.87	12.38	12.98	13.43	13.82	.....	14.67	14.77
8	13.79	13.03	12.26	12.56	12.81	12.40	13.00	13.40	13.88	14.33	14.63	14.80
9	13.68	13.16	.....	12.56	12.78	12.47	13.07	13.21	13.91	14.33	14.64	14.80
10	13.66	13.18	12.31	12.53	12.78	12.48	13.12	13.18	.....	14.30	14.65	14.75

Sh-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	13.52	13.18	12.31	12.59	12.78	12.38	13.15	13.21	13.89	.....	14.64	14.81
12	13.23	12.92	12.28	12.59	12.76	12.31	13.15	13.23	13.86	.....	14.69	14.81
13	13.08	12.85	12.20	12.60	12.78	12.25	13.15	13.26	13.91	.....	14.71	.....
14	13.06	12.84	12.17	12.69	12.78	12.30	13.18	13.26	13.92	.....	14.71	.....
15	13.05	12.80	12.06	12.70	12.73	12.35	13.23	13.29	13.90	14.40	14.68	14.77
16	13.06	12.77	11.95	12.59	12.68	12.37	13.26	13.33	13.93	14.42	14.67	14.84
17	13.07	12.88	11.96	12.62	12.50	12.40	13.27	13.37	13.98	14.45	14.68	14.90
18	12.72	12.92	11.96	12.64	11.90	12.47	13.27	13.39	13.98	14.45	14.69	14.90
19	12.55	12.94	11.76	12.65	11.72	12.50	13.20	13.41	13.98	14.46	14.71	14.90
20	12.49	12.94	11.73	12.66	11.67	12.53	13.23	13.44	13.97	14.47	14.71	14.86
21	12.56	12.79	11.76	12.70	11.71	12.58	13.24	13.48	14.02	14.50	14.69	14.84
22	12.65	12.79	11.80	12.70	11.72	12.64	13.24	13.50	14.10	14.50	14.69	14.81
23	12.65	12.78	11.87	12.71	11.40	12.68	13.17	13.52	14.11	14.50	14.66	14.91
24	12.60	12.77	11.91	12.74	11.34	12.72	13.23	13.55	14.11	14.45	14.65	14.91
25	12.73	12.72	12.02	12.78	11.22	12.74	13.26	13.59	14.10	14.49	14.63	14.90
26	12.81	12.68	12.11	12.68	11.27	12.79	13.27	13.60	14.09	14.50	14.69	14.86
27	12.81	12.61	12.12	12.73	11.63	12.85	13.29	13.61	14.11	14.49	14.72	14.87
28	12.80	12.74	12.15	12.77	11.70	12.85	13.29	13.63	14.13	14.44	14.81	14.86
29	12.85		12.27	12.78	11.74	12.86	13.32	13.65	14.20	14.49	14.81	14.85
30	12.86		12.31	12.78	11.75	12.87	13.35	13.70	14.20	14.53	14.78	14.89
31	12.87		12.31		11.84		13.39	13.71		14.53		14.91

Stark County

St-1. Republic Steel Corp. Oberlin Ave., Massillon. Lat. 40°47', long. 81°31'. Drilled unused well in gravel, diameter 6 inches, depth 48 feet. Highest water level 41.70 below lsd, June 16, 1947; lowest 54.45 below lsd, Dec. 23-24, 1953. Records available: 1942-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	51.60	52.25	52.85	53.55	53.65	52.75	52.90	.....	.....	.....	54.20	54.15
2	51.65	52.25	52.90	53.55	53.65	52.70	52.90	.....	54.25	.....	54.10	54.20
3	51.65	52.25	52.90	52.55	53.65	52.70	52.90	.....	54.30	.....	54.15	54.30
4	51.65	52.30	52.95	53.55	53.65	52.70	.....	.....	54.30	.....	54.20	54.35
5	51.65	52.30	52.95	53.50	53.65	52.65	.....	53.80	54.30	.....	54.25	54.35
6	51.70	52.30	53.00	53.50	53.65	52.65	52.95	53.80	54.25	.....	54.25	54.25
7	51.75	52.35	53.00	53.45	53.65	52.65	.....	53.85	54.20	54.30	54.25	54.15
8	51.85	52.35	53.00	53.45	53.65	52.65	53.00	53.85	54.25	54.35	54.15	54.20
9	51.90	52.40	53.05	53.50	53.65	52.65	53.05	53.85	54.30	54.35	54.10	54.25
10	51.90	52.40	53.05	53.55	53.65	52.70	53.05	53.90	54.30	.....	54.15	54.35
11	51.90	52.40	53.10	53.50	53.60	52.70	53.10	53.90	54.35	.....	54.20	54.35
12	51.95	52.45	53.15	53.50	53.65	52.65	.....	53.95	54.35	.....	.....	54.35
13	51.95	52.50	53.15	53.45	53.75	52.70	53.20	.....	54.30	.....	.....	54.25
14	52.00	52.50	53.20	53.40	53.75	52.70	.....	.....	54.25	54.30	.....	54.15
15	52.05	52.50	53.20	53.35	53.75	52.65	53.20	54.00	54.30	54.30	.....	54.20
16	52.10	52.50	53.30	53.35	53.75	52.70	53.25	54.00	54.30	54.35	.....	54.25
17	52.10	52.55	.....	53.35	53.75	52.75	53.30	53.95	54.35	54.35	.....	54.30
18	52.15	52.55	53.35	53.35	53.65	52.75	.....	54.00	54.35	54.25	54.30	54.35
19	52.05	52.60	53.35	53.35	53.65	52.75	.....	54.05	54.35	.....	54.30	54.35
20	52.10	52.60	53.40	53.35	53.60	52.75	.....	54.05	54.35	.....	54.35	54.30
21	52.15	52.65	.....	53.40	53.55	52.75	.....	54.10	54.25	54.35	54.35	54.30
22	52.15	52.65	53.50	53.45	53.60	52.75	53.45	54.15	54.30	54.35	54.25	54.40
23	52.20	52.60	.....	53.50	53.55	52.80	53.45	54.15	54.30	54.35	54.20	54.45
24	52.20	52.65	.....	53.55	53.45	52.80	.....	54.15	54.30	54.25	54.25	54.45
25	52.20	52.70	53.60	53.55	53.20	52.85	.....	54.20	54.30	54.15	54.30	54.40
26	52.20	52.75	53.50	53.55	53.05	52.85	.....	54.25	54.30	54.10	54.35	54.25
27	52.25	52.80	53.55	53.55	52.95	52.90	.....	54.25	54.25	54.20	54.35	54.20
28	52.25	52.85	53.55	53.55	52.90	52.90	.....	54.30	.....	54.30	54.35	54.15
29	52.25		53.55	53.60	52.85	52.80	53.65	54.35	.....	54.30	54.25	54.15
30	52.25		53.55	53.60	52.85	52.85	53.70	54.35	.....	54.30	54.15	.....
31	52.25		53.55		52.80		53.75	54.35		54.30		.....

St-4. Adessi Bros. Lat. 40°51'00", long. 81°20'00". Drilled unused well in gravel, diameter 4 inches, depth 190 feet. Highest water level 6.92 below lsd, Feb. 6, 1952; lowest 22.42 below lsd, Feb. 2, 1942. Records available: 1941-53.

St-4--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.25	16.31	17.08	17.32	16.52	13.97	14.25	.....	16.37	17.38	18.28	19.13
2	17.29	16.29	17.12	17.31	16.55	14.02	14.27	.....	16.39	17.40	18.32	19.16
3	17.33	16.27	17.15	17.19	16.58	14.06	14.29	15.35	16.43	17.43	18.35	19.18
4	17.37	16.28	17.18	17.06	16.61	14.10	14.31	15.38	16.47	17.46	18.38	19.21
5	17.41	16.31	17.18	17.00	16.63	14.15	14.34	15.41	16.52	17.50	18.40	19.23
6	17.44	16.35	17.18	16.98	16.65	14.20	14.35	15.45	16.56	17.53	18.44	19.26
7	17.48	16.39	.....	16.97	16.67	14.24	14.37	15.48	16.59	17.56	18.48	19.28
8	17.51	16.44	.....	16.98	16.68	14.26	14.39	15.52	16.62	17.60	18.51	19.31
9	17.56	16.50	17.24	16.99	16.68	14.27	14.43	15.56	16.66	17.62	18.53	19.33
10	17.58	.....	17.27	16.99	16.68	14.24	14.47	15.59	16.69	17.65	18.56	19.36
11	17.59	.....	17.29	16.95	16.68	14.11	14.51	15.63	16.73	17.68	18.58	19.38
12	17.58	.....	17.32	16.63	16.69	14.06	14.54	15.66	16.77	17.70	18.62	19.40
13	17.57	.....	17.34	16.45	16.71	14.07	14.57	15.70	16.81	17.73	18.65	19.42
14	17.57	.....	17.36	16.37	16.71	14.11	14.61	15.73	16.83	17.75	18.68	19.45
15	17.59	.....	17.39	16.36	16.70	14.16	14.64	15.77	.....	17.78	18.70	19.47
16	17.61	16.68	17.40	16.35	16.70	14.20	14.68	15.80	.....	17.81	18.72	19.49
17	17.63	16.73	.....	16.37	16.70	14.20	14.72	15.84	.....	17.84	18.74	19.51
18	17.64	.....	.....	16.38	16.70	14.06	14.76	15.86	.....	17.87	18.76	19.53
19	17.55	.....	.....	16.39	16.67	13.91	14.80	15.90	.....	17.90	18.79	19.56
20	17.22	16.90	.....	16.39	16.64	13.88	14.83	15.94	.....	17.92	18.83	19.58
21	17.04	.....	.....	16.39	16.62	13.89	14.86	15.97	17.08	17.95	18.86	19.61
22	16.99	.....	.....	16.38	16.62	13.91	14.89	16.01	17.12	17.98	18.89	19.63
23	16.97	16.90	17.54	16.36	16.59	13.95	14.93	16.05	.....	18.01	18.92	19.66
24	16.97	16.91	17.57	16.37	15.65	13.99	14.98	16.08	.....	18.04	18.94	19.67
25	16.97	16.93	17.57	16.39	14.58	14.03	15.01	16.10	17.30	18.08	18.97	19.69
26	16.90	16.96	17.56	16.41	14.07	14.07	15.05	16.14	.....	18.11	19.00	19.71
27	16.85	17.00	17.45	16.43	13.91	13.91	15.07	16.17	.....	18.14	19.03	19.73
28	16.83	17.04	17.38	16.46	13.88	13.88	.....	16.21	17.32	18.17	19.05	19.76
29	16.75	.....	17.34	16.48	13.89	13.89	.....	16.25	17.33	18.20	19.08	19.77
30	16.50	.....	17.33	16.50	13.90	13.90	.....	16.29	17.35	18.23	19.11	19.79
31	16.37	.....	17.32	.....	13.93	.....	.....	16.33	.....	18.26	.....	19.82

St-5a. City of Canton. 30th St. and Harrisburg Rd. Lat. 40°50', long. 81°21'. Drilled unused well in gravel, diameter 12 inches, depth 132 feet. Highest water level 26.45 below lsd, Mar. 11, 1950; lowest 48.50 below lsd, Apr. 10-11, 1953. Records available: 1949-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.70	46.30	47.05	48.00	48.05	45.50	44.40	44.65	46.15	47.00	47.05	47.15
2	43.70	46.30	47.10	48.05	47.90	45.65	44.35	44.60	46.30	47.15	47.55	47.60
3	43.70	46.35	47.15	48.10	47.95	45.75	44.15	44.15	46.45	47.25	47.65	47.30
4	43.15	46.40	47.15	48.10	47.80	45.80	44.15	44.35	46.50	47.35	47.55	47.70
5	43.45	46.40	46.25	48.10	47.75	45.75	43.50	44.50	46.55	47.20	48.00	47.50
6	43.65	46.45	46.20	48.10	47.50	45.80	43.30	44.75	46.45	47.00	48.00	47.00
7	44.40	46.50	46.15	48.05	47.60	44.60	43.60	44.70	45.55	46.95	47.50	46.80
8	44.65	46.50	46.15	48.15	47.15	44.70	43.75	44.75	45.75	47.20	47.65	47.40
9	44.55	46.15	46.15	48.20	47.35	45.00	43.80	44.35	46.05	47.10	47.50	47.30
10	44.80	.....	46.20	48.50	47.40	45.10	43.70	44.25	46.10	46.95	47.85	47.55
11	44.95	.....	46.20	48.50	47.10	45.25	43.85	44.45	46.30	46.50	47.80	47.55
12	45.05	.....	46.20	48.30	47.40	45.30	43.90	44.60	46.30	46.90	47.70	47.65
13	45.10	.....	47.10	48.40	47.35	45.25	43.75	44.90	45.60	46.90	48.00	47.20
14	45.25	.....	47.45	48.45	46.75	44.30	43.90	44.95	45.65	47.00	47.95	47.15
15	45.35	.....	47.55	48.25	47.10	44.50	44.05	45.10	45.95	47.20	47.30	47.35
16	45.45	46.25	47.60	48.20	47.10	44.65	44.15	45.15	46.05	47.45	47.65	47.10
17	45.55	46.45	47.35	48.25	46.40	44.65	44.20	44.80	46.05	47.60	48.00	46.90
18	.....	46.55	47.40	48.25	46.35	44.35	44.25	45.05	46.10	47.75	48.05	46.80
19	45.70	46.65	47.50	48.20	46.60	44.30	43.45	45.25	46.10	47.75	48.15	46.55
20	45.75	46.70	47.55	48.15	46.55	44.45	43.75	45.75	45.70	47.90	48.20	46.65
21	45.80	46.85	47.60	48.15	46.75	44.50	43.80	45.55	45.95	48.00	48.00	47.45
22	45.85	46.80	47.65	48.15	46.80	44.15	43.60	45.60	46.20	48.15	47.95	47.90
23	45.95	46.85	47.65	48.15	46.40	44.30	43.40	45.60	46.20	48.25	47.70	47.95
24	46.00	46.90	47.70	48.15	45.95	44.40	43.75	45.75	46.10	48.30	47.55	47.85
25	46.10	46.95	47.75	48.15	46.15	44.50	43.90	45.80	46.40	47.85	47.95	47.90
26	46.10	46.95	47.80	48.15	46.35	44.55	43.95	46.00	46.60	47.55	47.90	47.15
27	.....	47.00	47.85	48.15	46.30	44.30	44.05	46.10	46.50	47.85	47.30	46.60
28	46.20	47.05	47.90	48.15	46.15	44.10	44.03	46.20	46.35	47.85	46.75	46.80
29	46.25	.....	47.90	47.95	46.00	44.05	44.50	46.25	46.60	47.80	46.65	47.50
30	46.30	.....	47.95	48.25	45.90	44.30	44.50	46.10	46.85	47.85	47.15	48.00
31	46.30	.....	47.95	.....	45.85	.....	44.60	46.00	.....	47.70	.....	48.20

St-6. City of Canton. Ninth St. Pumping Station. Lat. 40°47', long. 81°23'. Drilled unused well in gravel, diameter 12 inches, depth 80 feet. Highest water level 1.29 above lsd, May 22, 1953; lowest 33.11 below lsd, Feb. 21, 1945. Records available: 1944-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.63	2.95	2.96	2.82	3.35	3.85	4.20	4.63	5.03	5.45	5.75	6.05
2	3.55	2.95	2.96	2.77	3.44	3.90	4.20	4.63	5.04	5.47	5.75	6.05
3	3.40	2.91	2.95	2.78	3.54	3.94	4.20	4.65	5.05	5.48	5.75	6.06
4	3.35	2.94	2.85	2.76	3.59	3.96	4.21	4.65	5.06	5.48	5.78	6.06
5	3.35	2.94	2.92	2.76	3.63	3.99	4.21	4.65	5.07	5.47	5.81	6.07
6	3.37	2.92	2.97	2.75	3.66	4.01	4.21	4.68	5.08	5.44	5.83	6.07
7	3.38	2.92	2.99	2.73	3.68	4.01	4.19	4.70	5.08	5.47	5.84	6.07
8	3.38	2.92	2.97	2.76	3.70	3.95	4.19	4.72	5.10	5.50	5.81	6.09
9	3.30	2.97	2.98	2.76	3.74	3.95	4.19	4.72	5.12	5.51	5.82	6.10
10	3.29	2.99	2.97	2.71	3.77	2.51	4.20	4.65	5.14	5.51	5.84	6.10
11	3.22	2.98	2.97	2.64	3.79	3.06	4.20	4.66	5.15	5.51	5.86	6.14
12	3.26	2.85	2.96	2.64	3.83	3.39	4.20	4.69	5.14	5.51	5.89	6.15
13	3.26	2.89	2.94	2.62	3.87	3.59	4.19	4.72	5.16	5.54	5.91	6.17
14	3.26	2.90	2.94	2.68	3.90	3.73	4.19	4.74	5.19	5.55	5.92	6.17
15	3.25	2.89	2.91	2.68	3.93	3.83	4.22	4.77	5.19	5.56	5.91	6.20
16	3.27	2.89	2.91	2.62	3.95	3.89	4.25	4.78	5.21	5.58	5.90	6.23
17	3.28	2.96	2.91	2.68	3.94	3.89	4.25	4.80	5.24	5.59	5.90	6.28
18	3.13	2.99	2.91	2.69	3.91	3.85	4.28	4.82	5.26	5.60	5.92	6.30
19	3.08	3.00	2.89	2.66	3.94	3.89	4.30	4.83	5.27	5.59	5.95	6.32
20	3.07	3.00	2.94	2.62	3.99	3.93	4.32	4.86	5.27	5.59	5.96	6.32
21	3.07	2.93	2.95	2.60	4.01	3.97	4.34	4.89	5.28	5.62	5.96	6.24
22	3.11	2.97	2.94	2.60	4.02	4.00	4.36	4.90	5.32	5.63	5.96	6.26
23	3.11	2.97	2.91	2.60	1.82	4.04	4.39	4.91	5.35	5.64	5.94	6.31
24	3.05	2.97	2.88	2.70	2.56	4.07	4.44	4.93	5.37	5.65	5.93	6.35
25	3.05	2.92	2.85	2.70	3.01	4.10	4.48	4.95	5.38	5.65	5.93	6.35
26	3.09	2.89	2.83	2.62	3.29	4.12	4.50	4.97	5.38	5.66	5.96	6.36
27	3.08	2.86	2.83	2.74	3.50	4.14	4.52	5.00	5.38	5.66	5.97	6.38
28	3.01	2.92	2.81	3.01	3.66	4.15	4.54	5.01	5.38	5.68	6.01	6.38
29	2.97		2.83	3.18	3.74	4.17	4.57	5.02	5.39	5.70	6.02	6.40
30	2.97		2.84	3.27	3.78	4.19	4.60	5.02	5.42	5.73	6.02	6.42
31	2.96		2.83		3.81		4.62	5.03		5.75		6.45

St-10. City of Canton. Lat. 45°48'40", long. 81°27'36". Drilled unused well in gravel, diameter 12 inches, depth 188 feet. Highest water level 0.78 above lsd, Feb. 4, 1952; lowest 10.21 below lsd, Dec. 21, 1945. Records available: 1944-53.

Daily lowest water level, above and below lsd, from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-1.45	-0.57	-0.84	-0.59	-0.37	+0.08	+0.38	+0.85	+1.19	+1.38	+1.48	+1.66
2	1.43	.57	.83	.54	.41	.05	.38	.86	1.18	1.39	1.50	1.66
3	1.42	.54	....	.52	.46	.02	.41	.87	1.18	1.39	1.50	1.66
4	1.44	.57	....	.47	.46	.00	.42	.86	1.20	1.39	1.51	1.67
5	1.46	.57	.84	.46	.46	.04	.44	.87	1.22	1.38	1.51	1.70
6	1.47	.59	....	.45	.47	.07	.48	.88	1.23	1.39	1.52	1.69
7	1.48	.62	....	.45	.47	.10	.49	.89	1.26	1.40	1.52	1.72
8	1.45	.66	....	.46	.44	.10	.51	.89	1.27	1.40	1.50	1.71
9	1.43	.71	....	.44	.42	.09	.55	.90	1.28	1.39	1.52	1.71
10	1.40	.72	....	.41	.42	.12	.57	.93	1.28	1.38	1.52	1.73
11	1.32	.69	....	.37	.43	.14	.59	.94	1.27	1.39	1.52	1.73
12	1.30	.70	....	.34	.45	.14	.60	.94	1.28	1.43	1.54	1.72
13	1.24	.74	.79	.32	.48	.10	.62	.95	1.29	1.43	1.54	1.72
14	1.24	.74	.79	.35	.48	.04	.63	.95	1.30	1.42	1.54	1.73
15	1.22	.77	.76	.33	.48	.00	.66	.97	1.28	1.42	1.53	1.76
16	1.24	.79	.78	.32	.48	.02	.67	.99	1.30	1.43	1.55	1.78
17	1.24	.82	.75	.33	.45	.04	.67	1.02	1.31	1.44	1.56	1.78
18	1.12	.83	.72	.33	.46	.06	.68	1.02	1.32	1.45	1.57	1.78
19	1.00	.84	.73	.32	.45	.09	.69	1.03	1.31	1.45	1.57	1.78
20	.93	.84	.76	.30	.46	.11	.71	1.05	1.31	1.45	1.56	1.78
21	.90	.83	.76	.30	.46	.15	.72	1.07	1.33	1.46	1.55	1.78
22	.89	.82	.77	.29	.46	.18	.72	1.08	1.35	1.46	1.55	1.80
23	.87	.80	.76	.30	-.16	.21	.74	1.09	1.35	1.45	1.55	1.80
24	.82	.76	.76	.32	+.14	.23	.78	1.13	1.34	1.45	1.55	1.80
25	.82	.74	.74	.30	.23	.27	.49	1.14	1.33	1.46	1.56	1.78

St-10--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	-0.82	-0.72	-0.69	-0.31	+0.25	+0.28	+0.79	+1.15	+1.33	+1.46	+1.60	+1.81
27	.79	.77	....	.34	.20	.30	.81	1.16	1.33	1.45	1.62	1.81
28	.74	.80	....	.35	.18	.31	.81	1.16	1.34	1.44	1.64	1.81
29	.67	....	....	.37	.17	.35	.83	1.18	1.35	1.46	1.64	1.82
30	.63	.62	.35	.18	.38	.84	1.19	1.37	1.48	1.64	1.83	
31	.58	.60	.13			.85	1.20		1.47		1.84	

St-11. City of Canton. Lat. 40°51'02", long. 81°24'03". Drilled unused well in gravel, diameter 6 inches, depth 87 feet. Highest water level 0.29 below lsd, June 7, 1947; lowest 42.25 below lsd, Mar. 24, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.00	36.85	35.25	37.50	35.30	28.65	27.80	30.75	35.00	32.90	32.35	33.15
2	36.70	35.50	34.95	41.10	35.25	28.70	27.45	30.40	37.05	32.20	32.35	33.15
3	37.55	37.20	40.20	41.60	35.20	31.40	27.40	30.20	37.80	32.15	32.35	33.20
4	37.70	36.40	40.70	38.00	35.10	32.40	27.30	30.05	38.20	32.10	32.40	33.20
5	37.75	37.90	40.10	41.15	35.15	32.50	27.25	29.90	34.75	32.05	32.40	33.25
6	38.10	37.30	40.85	40.00	....	33.05	27.20	29.85	33.35	32.05	35.45	33.25
7	37.95	38.35	36.30	41.65	....	30.00	27.20	29.75	33.00	32.05	32.60	33.30
8	38.30	34.00	35.25	41.00	....	29.55	27.20	29.70	32.80	32.05	32.40	33.35
9	38.90	37.85	40.35	41.95	36.25	29.35	27.25	29.65	36.55	32.05	32.50	33.35
10	34.55	39.00	41.10	....	34.80	28.80	27.30	29.60	33.20	32.05	32.50	33.40
11	33.80	39.05	40.20	....	34.70	28.25	27.30	29.60	32.65	32.05	32.55	33.40
12	38.15	39.05	41.25	....	34.65	28.20	27.30	29.55	32.50	32.10	32.60	33.40
13	38.80	38.60	41.40	....	34.60	28.25	29.70	29.50	32.40	32.10	32.60	33.45
14	36.60	39.50	41.50	....	34.60	28.25	30.95	32.80	32.30	32.10	32.65	33.50
15	38.95	37.85	40.80	....	34.50	28.30	31.10	30.30	32.20	32.10	32.65	33.55
16	34.80	39.75	41.50	....	34.45	31.45	31.90	29.80	32.15	32.10	32.70	33.60
17	38.40	38.80	36.20	35.85	34.40	28.65	32.35	29.70	32.10	32.10	32.75	33.60
18	35.25	....	41.95	41.70	34.30	27.20	29.70	29.70	32.10	32.05	32.75	33.70
19	36.85	....	41.65	41.70	34.10	28.85	28.90	29.65	32.05	32.15	32.75	33.75
20	37.50	40.05	42.00	35.85	34.00	29.40	31.75	29.65	32.05	35.25	32.80	33.80
21	33.35	....	42.20	41.25	33.95	26.70	32.65	32.00	32.00	32.55	32.85	33.85
22	37.30	....	36.45	36.05	33.95	29.30	32.95	33.30	31.95	32.25	32.85	33.85
23	37.55	39.50	41.80	41.55	33.40	30.30	29.95	30.60	31.95	32.20	32.85	33.80
24	33.80	40.10	42.25	37.00	28.75	29.90	29.40	33.20	31.90	32.20	32.90	33.75
25	36.25	38.70	36.65	41.65	28.05	30.30	29.20	34.20	31.90	32.20	32.90	33.85
26	37.45	40.35	41.60	36.30	28.20	27.50	29.10	34.35	31.90	32.25	32.90	33.85
27	36.20	39.70	42.15	35.85	28.30	27.40	32.50	35.20	31.85	32.25	32.95	33.90
28	37.75	40.35	40.00	35.65	28.40	27.30	33.30	35.85	31.85	32.25	33.05	33.90
29	34.00	....	36.15	35.50	28.45	27.30	33.85	36.45	31.85	32.25	33.05	33.90
30	36.95	....	41.00	35.45	28.50	30.20	34.40	36.85	35.60	32.30	33.10	32.70
31	35.70	....	41.95	....	28.55	....	34.40	37.30	....	32.35	....	33.10

St-22. City of Canton. Lat. 50°50'56", long. 81°24'42". Drilled unused well in gravel, diameter 6 inches, depth 37 feet. Highest water level 15.50 below lsd, Apr. 15, 1948; lowest 32.22 below lsd, Apr. 27-29, 1953. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.59	....	....	31.93	32.21	28.08	25.97	26.92	27.97	29.07	29.40	....
2	28.64	29.92	....	31.96	32.20	27.92	25.95	26.99	28.12	29.08	29.43	29.99
3	28.70	29.92	....	31.99	32.19	27.81	25.93	27.04	28.27	29.10	29.44	30.04
4	28.77	29.91	....	32.02	32.18	27.72	25.92	27.08	28.40	29.11	29.46	30.08
5	28.85	29.90	....	32.04	32.15	27.66	25.91	27.13	28.51	29.11	29.48	30.12
6	28.94	29.91	....	32.06	32.14	27.63	25.89	27.16	28.60	29.12	29.49	30.16
7	29.03	29.92	....	32.08	....	27.61	25.87	27.18	28.67	29.13	29.51	30.16
8	29.12	29.94	....	32.10	....	27.60	25.85	27.20	28.72	29.15	29.53	....
9	29.22	29.97	....	32.12	32.08	27.58	25.83	27.22	28.77	29.16	29.54	....
10	29.31	30.00	....	32.13	32.07	27.54	25.83	27.22	28.81	29.17	....	....
11	29.40	30.03	....	32.15	32.04	27.47	25.83	27.20	28.84	29.18	....	....
12	29.47	30.06	....	32.16	32.01	27.40	25.84	27.22	28.86	29.18	....	....
13	29.53	30.09	....	32.16	31.98	27.33	25.86	27.23	28.89	29.19	....	....
14	29.60	30.13	....	32.16	31.95	27.25	25.87	27.24	28.90	29.20	....	30.39
15	29.67	30.18	....	32.17	31.92	27.16	25.91	27.25	28.92	29.21	....	30.41
16	29.74	30.23	31.28	32.17	31.89	27.09	25.97	27.26	28.93	29.22	....	30.44
17	29.79	30.28	31.32	32.18	31.89	27.02	26.04	27.27	28.95	29.23	....	30.47
18	29.84	30.32	31.38	32.18	31.83	26.96	26.10	27.28	28.96	29.24	....	30.50
19	29.85	30.38	31.42	32.19	31.80	26.84	26.15	27.29	28.97	29.25	....	30.53
20	29.87	30.43	31.47	32.19	31.76	26.66	26.20	27.30	28.98	29.26	....	30.55

St-22--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	29.89	30.48	31.52	32.19	31.71	26.50	26.27	27.31	29.00	29.27	.....	30.58
22	29.89	30.52	31.57	32.19	31.66	26.35	26.32	27.32	29.01	29.28	.....	30.61
23	29.90	30.55	31.60	32.19	31.49	26.22	26.38	27.34	29.02	29.30	.....	30.62
24	29.90	30.58	31.65	32.20	31.39	26.15	26.44	27.37	29.03	29.31	.....	30.65
25	29.91	30.63	31.69	32.21	30.91	26.11	26.49	27.40	29.03	29.32	.....	30.67
26	29.91	.....	31.73	32.21	30.20	26.08	26.53	27.43	29.04	29.32	.....	30.68
27	.....	.....	31.77	32.22	29.58	26.06	26.58	27.50	29.04	29.33	.....	30.70
28	.....	.....	31.81	32.22	29.10	26.05	26.62	27.56	29.05	29.34	.....	30.71
29	.....	.....	31.84	32.22	28.75	26.02	26.69	27.62	29.05	29.36	.....	30.73
30	.....	.....	31.87	32.21	28.48	25.98	26.76	27.71	29.06	29.37	.....	30.74
31	.....	.....	31.90	.....	28.26	.....	26.85	27.85	.....	29.39	.....	30.75

Summit County

Su-3. Goodyear Tire & Rubber Co. Lat. 41°03'09", long. 81°28'00". Drilled unused well in gravel, diameter 20 inches, depth 140 feet. Highest water level 14.75 below lsd, May 16, 1951; lowest 55.87 below lsd, Oct. 18-20, 26-28, 1944. Records available: 1943-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.80	24.65	22.45	20.20	18.80	23.95	35.70	42.75	.....	53.95	54.40	47.60
2	27.70	24.55	22.40	20.10	19.05	24.45	36.15	43.00	52.25	53.90	54.15	47.10
3	27.55	24.40	22.30	20.10	19.25	24.90	36.60	43.00	52.45	53.85	53.85	46.55
4	27.45	24.35	22.15	20.00	19.40	25.35	36.70	42.85	52.70	53.85	53.55	46.05
5	27.40	24.25	22.10	19.95	19.60	25.80	36.60	43.15	52.95	53.80	53.25	45.55
6	27.30	24.10	22.00	19.85	19.80	26.30	36.25	43.60	53.10	53.90	53.00	45.00
7	27.20	24.05	22.00	19.75	19.95	26.85	36.50	44.00	53.10	54.05	52.75	44.50
8	27.10	24.00	21.90	19.70	20.15	27.25	36.90	44.50	53.05	54.20	52.60	44.05
9	27.00	23.95	21.80	19.70	20.35	27.65	37.25	44.80	53.00	54.35	52.40	43.55
10	26.90	23.90	21.75	19.70	20.50	28.05	37.70	45.20	53.10	54.45	52.20	43.05
11	26.80	23.75	21.65	19.60	20.65	28.40	38.20	.....	53.25	54.55	52.10	42.75
12	26.75	23.60	21.60	19.55	20.85	28.70	38.40	46.40	53.35	54.60	52.10	42.25
13	26.60	23.55	21.50	19.45	21.15	29.05	38.70	.....	53.45	54.65	52.10	41.85
14	26.55	23.50	21.45	19.45	21.35	29.35	39.15	46.60	53.45	54.70	52.00	41.35
15	26.45	23.45	21.35	19.40	21.65	29.65	39.60	47.05	53.50	54.85	51.95	41.00
16	26.35	23.40	21.30	19.25	21.90	29.90	39.90	47.15	53.55	54.90	51.75	40.60
17	26.30	23.30	21.25	19.20	22.05	30.25	39.95	47.20	53.65	54.95	51.40	40.30
18	26.10	23.30	21.15	19.15	22.30	30.60	39.80	47.40	53.70	55.00	51.00	40.00
19	25.95	23.20	21.05	19.10	22.55	31.00	39.50	47.70	53.80	55.00	50.65	39.60
20	25.80	23.10	21.00	19.00	22.85	31.40	39.10	47.95	53.85	55.00	50.30	39.25
21	25.70	23.00	20.95	19.00	23.30	31.80	38.65	.....	53.90	55.05	50.20	38.90
22	25.65	23.00	20.90	18.90	23.75	32.10	38.20	.....	53.95	55.10	50.25	38.55
23	25.55	22.90	20.80	18.85	23.95	32.45	38.50	.....	54.00	55.10	50.20	38.30
24	25.35	22.80	20.75	18.85	24.00	32.80	39.05	.....	53.95	55.10	49.95	38.00
25	25.25	22.70	20.65	18.75	23.85	33.20	39.65	.....	54.00	55.10	49.70	37.65
26	25.25	22.55	20.60	18.70	23.55	33.60	39.80	.....	54.10	55.10	49.55	37.35
27	25.10	22.50	20.50	18.70	23.65	34.00	40.00	.....	54.15	55.05	49.30	37.10
28	25.00	22.50	20.45	18.70	23.80	34.45	40.50	.....	54.15	54.95	48.95	36.80
29	24.90	.....	20.40	18.70	23.85	34.80	41.00	.....	54.15	54.85	48.55	36.55
30	24.85	.....	20.35	18.65	23.90	35.20	41.55	.....	54.05	54.75	48.10	36.30
31	24.75	.....	20.30	.....	23.80	.....	42.10	.....	.....	54.60	.....	36.10

Trumbull County

T-2. Copperweld Steel Co. Mahoning Ave., Warren. Lat. 41°16'00", long. 80°50'30". Drilled unused well in sandstone, diameter 10 inches, depth 124 feet. Highest water level 25.95 below lsd, June 20, 1949; lowest 56.75 below lsd, Oct. 24, 1952. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	52.65	.....	52.35	52.90	50.75	47.75	51.20	52.20	51.80	49.60	44.25	41.95
2	52.70	51.90	52.25	53.10	.....	48.15	51.15	52.20	51.50	48.75	43.25	42.55
3	52.70	.....	52.35	53.15	50.30	48.70	50.80	52.20	53.10	50.05	43.45	42.90
4	52.25	52.05	52.60	52.75	50.15	49.25	50.70	52.25	54.30	50.10	43.70	42.75
5	51.80	51.95	52.90	51.85	50.10	49.50	49.45	51.15	54.55	50.30	43.85	42.60
6	52.45	51.70	53.05	51.85	50.20	49.50	49.65	49.80	54.65	50.90	44.00	41.65
7	52.65	51.70	53.05	52.65	49.75	48.65	49.95	49.15	54.70	51.05	43.70	41.20
8	52.70	51.05	52.40	52.85	49.15	48.25	50.20	48.95	54.80	51.10	42.15	41.70
9	52.85	50.70	51.05	52.85	49.00	48.70	50.40	48.10	54.15	51.05	41.40	42.10
10	52.80	50.80	51.70	52.90	48.20	48.55	50.45	47.10	53.90	50.95	41.60	42.55

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T-2--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	52.50	50.90	52.10	52.85	48.15	48.50	50.30	47.20	53.80	50.80	42.00	42.65
12	52.70	50.90	52.40	52.05	48.60	48.50	49.55	47.25	.....	51.25	42.50	42.45
13	52.95	50.95	52.70	51.90	48.60	48.45	49.95	47.55	.....	51.40	42.40	41.20
14	53.05	50.95	52.70	52.35	48.20	48.15	50.55	47.50	.....	51.45	42.25	40.60
15	53.30	50.20	51.85	52.30	48.10	48.55	51.15	47.40	.....	51.55	41.30	41.55
16	53.90	50.00	52.00	52.70	47.85	49.05	51.55	46.45	53.00	51.90	41.55	41.95
17	53.80	50.45	52.50	53.15	47.05	49.25	51.60	46.00	54.80	51.85	42.30	.....
18	52.90	50.40	52.60	53.15	46.85	49.50	51.55	46.05	55.55	51.50	42.70	.....
19	52.40	51.10	52.85	52.55	47.20	49.85	50.60	45.90	54.75	51.15	43.00	.....
20	52.65	51.40	53.00	52.55	47.50	50.05	50.30	45.60	53.85	51.20	43.15	.....
21	53.00	51.40	52.90	52.50	47.75	50.00	50.85	45.60	52.80	51.40	43.00	.....
22	53.05	51.05	51.75	51.95	47.90	50.60	51.25	45.60	52.90	51.35	41.00	42.15
23	52.95	51.85	51.55	51.90	47.85	51.15	51.30	45.10	53.10	51.60	40.50	42.55
24	52.75	52.20	52.10	51.90	46.90	51.00	51.55	45.25	53.40	51.65	41.15	42.55
25	52.15	52.45	52.80	51.75	46.55	50.60	51.60	47.25	53.25	50.80	41.40	42.00
26	.....	52.70	53.20	51.45	47.30	51.05	51.30	48.85	53.05	48.20	41.95	41.20
27	52.35	52.95	53.90	51.40	47.65	51.05	51.90	49.75	51.40	46.90	42.20	40.85
28	52.45	52.95	54.00	51.60	47.70	50.90	52.50	50.50	50.60	46.20	42.20	41.40
29	52.55	.....	53.60	51.85	47.60	51.15	52.65	51.45	50.35	45.90	41.75	42.25
30	52.55	.....	52.35	51.80	47.55	51.20	52.35	52.35	50.30	45.45	41.85	42.70
31	52.55	.....	52.75	.....	47.50	.....	52.10	52.45	.....	45.15	.....	42.80

Tuscarawas County

Tu-1. Everett Waltz. Lat. 40°37'09", long. 81°32'00". Drilled unused well in gravel, diameter 4 inches, depth 23 feet. Highest water level 8.03 below lsd, Feb. 8, 1952; lowest 13.73 below lsd, Dec. 21-24, 1953. Records available: 1946-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.52	.....	11.88	11.61	11.67	11.65	12.52	12.81	13.21	13.49	13.64	13.70
2	13.52	.....	11.90	11.58	11.74	11.50	12.52	12.83	13.23	13.50	13.64	13.71
3	13.52	.....	11.91	11.53	11.79	11.55	12.38	12.86	13.24	13.51	13.64	13.71
4	11.91	11.49	11.82	11.60	12.33	12.87	13.26	13.51	13.64	13.71
5	11.89	11.50	11.84	11.64	12.36	12.86	13.27	13.52	13.64	13.71
6	11.90	11.52	11.87	11.67	12.41	12.86	13.28	.....	13.64	13.71
7	11.90	11.56	11.88	11.74	12.45	12.87	13.28	13.54	13.64	13.71
8	11.94	11.57	11.81	11.78	12.49	12.88	13.29	13.55	13.65	13.71
9	11.97	11.59	11.60	11.83	12.50	12.88	13.29	13.55	13.65	13.72
10	11.99	11.59	11.52	11.88	12.50	12.85	13.30	13.55	13.66	13.72
11	12.00	11.54	11.52	11.91	12.50	12.85	13.31	13.56	13.68	13.71
12	12.00	11.50	11.56	11.94	12.53	12.88	13.31	13.56	13.68	13.69
13	11.99	11.50	11.56	11.98	12.55	12.90	13.32	13.57	13.68	13.69
14	11.99	11.53	11.54	12.01	12.57	12.92	13.36	13.57	13.68	13.69
15	11.99	11.55	11.54	12.04	12.60	12.93	13.36	13.57	13.68	13.69
16	12.00	11.58	11.54	12.07	12.63	12.95	13.37	13.57	13.69	13.69
17	11.99	11.60	11.54	12.10	12.64	12.97	13.38	13.58	13.69	13.69
18	11.97	11.60	11.51	12.13	12.66	13.00	13.38	13.59	13.69	13.70
19	12.00	11.60	11.51	12.16	12.68	13.01	13.39	13.59	13.68	13.71
20	12.02	11.57	11.54	12.20	12.73	13.02	13.40	13.60	13.68	13.72
21	12.04	11.55	11.60	12.24	12.73	13.05	13.41	13.62	13.68	13.73
22	12.05	11.51	11.61	12.28	12.69	13.06	13.41	13.62	13.68	13.73
23	11.85	12.08	11.50	11.46	12.32	12.68	13.08	13.42	13.62	13.68	13.73
24	11.83	12.08	11.52	11.28	12.35	12.68	13.11	13.42	13.62	13.69	13.73
25	11.81	11.95	11.53	11.14	12.39	12.71	13.12	13.43	13.63	13.69	13.70
26	11.79	11.79	11.53	11.11	12.42	12.72	13.14	13.44	13.63	13.70	13.70
27	11.81	11.68	11.56	11.16	12.43	12.73	13.15	13.45	13.63	13.70	13.71
28	11.84	11.62	11.59	11.21	12.46	12.75	13.17	13.47	13.64	13.70	13.72
29	11.59	11.61	11.24	12.49	12.77	13.18	13.48	13.64	13.70	13.72
30	11.60	11.62	11.30	12.51	12.79	13.20	13.49	13.64	13.70	.....
31	11.61	.....	11.36	.....	12.81	13.21	.....	13.64	.....	.....

Warren County

W-1. Crosley Broadcasting Co. Lat. 39°20'36", long. 84°19'45". Dug unused well in gravel, diameter 4 feet, depth 50 feet. Highest water level 0.26 below lsd, Feb. 8, 1950; lowest 7.40 below lsd, Dec. 8-9, 1953. Records available: 1946-53.

W-1--Continued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.25	1.25	2.25	2.70	2.65	3.80	5.10	5.40	6.10	6.75	7.15	7.35
2	3.20	1.45	2.30	2.45	2.90	3.90	5.15	5.25	6.10	6.75	7.15	7.35
3	3.10	1.40	2.25	2.50	3.10	4.00	5.20	5.20	6.15	6.75	7.15	7.35
4	3.05	1.55	.65	2.60	3.20	4.05	5.25	5.15	6.15	6.75	7.15	7.35
5	3.15	1.60	.80	2.75	3.20	4.15	5.25	5.15	6.20	6.80	7.20	7.35
6	3.20	1.70	1.05	2.75	3.05	4.20	4.85	5.10	6.20	6.80	7.20	7.35
7	3.30	1.80	1.30	2.40	3.10	4.25	4.25	5.10	6.25	6.85	7.20	7.35
8	2.25	1.95	1.35	2.35	3.15	4.30	4.15	5.10	6.30	6.85	7.20	7.40
9	.80	2.10	1.35	2.45	3.30	4.35	4.25	5.05	6.30	6.85	7.20	7.40
10	.80	2.05	1.50	2.65	3.40	4.35	4.35	5.05	6.35	6.85	7.25	7.35
11	.95	2.05	1.65	2.80	3.50	4.35	4.45	5.10	6.35	6.90	7.25	7.35
12	1.15	.80	1.75	2.85	3.55	4.40	4.50	5.15	6.35	6.90	7.25	7.35
13	1.10	1.10	1.40	2.65	3.55	4.40	4.60	5.20	6.40	6.90	7.25	7.35
14	1.25	1.30	1.50	2.80	3.50	4.35	4.65	5.25	6.40	6.90	7.25	7.35
15	1.35	1.50	1.20	2.80	3.40	4.35	4.75	5.35	6.45	6.95	7.25	7.30
16	1.35	1.60	1.45	2.35	3.20	4.40	4.80	5.40	6.45	6.95	7.30	7.30
17	1.30	1.95	1.65	2.15	1.35	4.40	4.85	5.45	6.50	6.95	7.30	7.30
18	.75	2.15	1.65	2.10	1.25	4.40	4.85	5.50	6.50	6.95	7.30	7.30
19	.90	2.10	1.05	.70	1.60	4.45	4.80	5.55	6.50	6.95	7.30	7.30
20	1.05	2.00	1.30	.80	1.95	4.50	4.85	5.60	6.55	7.00	7.30	7.30
21	1.25	.95	1.60	1.15	2.35	4.60	4.90	5.65	6.55	7.00	7.35	7.25
22	1.30	1.35	1.80	1.50	2.40	4.65	4.90	5.70	6.60	7.00	7.35	7.25
23	1.30	1.50	1.95	1.80	1.40	4.75	4.95	5.75	6.60	7.00	7.25	7.25
24	.85	1.50	2.05	1.95	1.75	4.80	5.00	5.75	6.65	7.00	7.25	7.25
25	1.10	1.60	2.20	2.10	2.20	4.85	5.05	5.80	6.65	7.00	7.25	7.25
26	1.30	1.70	2.30	2.25	2.65	4.90	5.10	5.85	6.65	7.05	7.30	7.25
27	1.15	1.95	2.40	2.35	2.95	4.95	5.15	5.90	6.65	7.05	7.30	7.20
28	.65	2.15	2.50	2.40	3.20	5.00	5.20	5.95	6.70	7.10	7.30	7.20
29	.80		2.65	2.35	3.35	5.05	5.25	5.95	6.70	7.10	7.30	7.15
30	.90		2.70	2.45	3.55	5.10	5.30	6.00	6.70	7.10	7.30	7.15
31	.95		2.75		3.70		5.35	6.05		7.10		7.15

W-2. City of Lebanon. Lat. 29°26'06", long. 84°13'06". Drilled unused well in gravel, diameter 6 inches, depth 100 feet. Highest water level 11.89 below lsd, June 30, 1947; lowest 24.70 below lsd, Oct. 1, 1953. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.70	18.75	19.05	17.95	19.25	21.10	22.05	22.70	24.15	24.70	23.75	23.60
2	19.65	19.00	19.15	18.20	19.40	21.45	21.60	22.00	24.25	24.45	23.85	23.75
3	19.60	18.20	18.95	19.00	19.20	21.45	21.90	22.85	24.10	24.35	24.05	23.55
4	19.00	19.10	19.05	.....	19.15	20.75	21.25	22.85	24.15	24.30	24.05	23.70
5	19.10	18.15	19.15	18.90	19.15	21.05	20.35	22.65	23.95	24.20	24.00	23.50
6	19.10	19.05	19.10	.....	19.25	21.35	21.20	22.10	22.40	24.15	24.10	23.40
7	19.15	18.15	18.20	19.30	19.35	20.75	21.35	22.25	23.70	24.20	23.95	23.55
8	19.20	18.20	18.00	19.00	19.35	21.15	21.30	21.10	23.90	24.15	23.70	23.85
9	19.15	18.20	18.95	19.00	19.35	21.10	20.35	21.00	23.40	24.15	24.00	23.80
10	19.00	18.95	18.80	18.40	19.20	19.90	20.30	21.90	23.40	24.10	24.00	23.95
11	19.05	18.75	19.00	19.10	19.60	19.85	19.75	21.90	23.65	23.80	23.80	23.75
12	19.05	19.00	19.05	18.10	19.20	19.85	20.35	22.00	23.70	24.05	23.90	23.65
13	19.15	19.00	19.05	18.20	19.30	19.85	20.50	22.35	23.45	24.00	23.85	23.60
14	18.30	18.90	18.95	18.20	19.00	19.60	20.60	22.85	23.35	24.20	23.95	23.70
15	19.15	17.90	18.95	18.80	19.10	19.80	21.50	22.90	23.95	24.15	23.85	23.90
16	18.85	18.35	19.00	18.90	19.05	19.85	20.75	22.25	23.95	24.20	23.90	24.05
17	18.10	19.00	19.10	19.10	18.85	19.85	20.75	22.95	23.80	24.05	23.85	23.75
18	18.10	19.10	18.80	19.05	19.10	19.75	20.55	23.10	23.55	23.90	23.90	23.85
19	18.85	19.10	19.20	18.15	19.15	20.70	21.25	22.90	23.60	24.25	23.95	23.70
20	18.90	17.90	19.15	18.15	19.20	20.80	20.65	22.75	23.55	24.20	23.95	23.60
21	19.20	19.20	19.15	18.85	19.35	20.70	21.45	23.15	23.55	24.20	23.75	23.75
22	19.95	19.45	18.20	19.00	19.40	21.10	20.75	23.20	23.40	24.30	23.70	23.80
23	18.10	.....	19.10	19.10	19.25	20.95	20.85	23.25	23.85	24.25	23.70	23.90
24	18.95	19.05	19.00	19.70	19.10	20.60	20.85	23.65	23.60	24.10	23.60	23.75
25	18.25	18.80	19.00	19.10	19.35	21.30	21.65	23.80	23.75	23.85	23.75	23.60
26	19.00	19.80	19.90	18.95	19.45	21.25	20.65	23.65	24.50	24.10	23.50	23.60
27	18.20	19.20	19.15	18.90	19.55	21.35	20.90	23.50	23.85	24.00	23.65	23.50
28	18.15	19.10	18.95	19.20	20.60	20.25	21.80	23.75	24.15	24.05	23.60	23.70
29	18.30		18.20	19.10	20.65	21.50	21.90	23.35	24.00	24.05	23.45	23.70
30	19.10		18.85	19.10	20.95	21.55	22.50	23.35	24.60	23.90	23.75	23.70
31	18.15		18.10		19.50		23.00	23.45		23.80		23.70

Washington County

Wa-1. Marietta Osteopathic Clinic. Fourth and Putnam Sts., Marietta. Lat. 39°25', long. 81°27'. Drilled unused well in gravel, diameter 6 inches, depth 42 feet. Highest water level 16.57 below lsd, Mar. 25, 1945; lowest 30.70 below lsd, Sept. 9, 1942. Records available: 1942-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	29.60	27.85	27.95	27.20	27.00	.....	.....	29.15	29.65	29.45	29.35	29.40
2	29.50	27.80	28.00	26.95	27.05	.....	.....	29.25	29.70	29.40	29.40	29.35
3	29.50	27.75	28.00	26.90	27.10	.....	.....	29.25	29.75	29.55	29.35	29.35
4	29.50	28.05	28.00	26.85	27.10	.....	.....	29.25	29.80	29.60	29.35	29.40
5	29.50	27.75	27.95	26.80	27.35	.....	.....	29.15	29.55	29.45	29.40	29.40
6	29.50	27.80	27.90	26.80	27.15	.....	.....	29.10	29.55	29.45	29.35	29.45
7	29.50	27.85	27.85	26.85	27.20	.....	.....	29.15	29.45	29.40	29.35	29.40
8	29.45	27.85	27.75	26.85	27.15	.....	.....	29.15	29.40	29.40	29.35	29.35
9	29.35	27.90	28.00	26.95	27.05	.....	.....	29.25	29.40	29.40	29.40	29.40
10	29.50	27.95	27.80	26.95	26.85	.....	.....	29.15	29.40	29.40	29.35	29.65
11	29.20	27.90	27.80	26.95	26.70	.....	.....	29.15	29.40	29.35	29.35	29.40
12	29.15	27.90	27.80	26.90	26.75	.....	.....	29.20	29.65	29.40	29.40	29.40
13	29.00	27.90	27.85	26.80	27.15	.....	.....	29.25	29.45	29.40	29.35	29.40
14	28.95	27.85	27.85	26.80	26.90	.....	.....	29.25	29.40	29.35	29.35	29.40
15	28.90	27.85	27.80	26.75	26.95	.....	.....	29.35	29.40	29.35	29.35	29.40
16	28.90	27.90	27.80	26.85	27.00	.....	.....	29.35	29.40	29.35	29.35	29.40
17	28.85	27.90	27.75	26.90	27.15	.....	.....	29.25	29.40	29.35	29.35	29.40
18	28.85	27.90	27.65	27.00	27.20	.....	.....	29.10	29.35	29.35	29.40	29.40
19	28.80	27.90	27.95	27.00	26.95	.....	.....	29.10	29.55	29.35	29.40	29.35
20	28.70	27.90	27.65	26.90	26.90	.....	.....	29.10	29.60	29.35	29.35	29.35
21	28.60	28.00	27.65	26.85	26.85	.....	.....	29.10	29.40	29.35	29.35	29.35
22	28.85	27.95	27.75	27.10	.....	.....	.....	29.30	29.40	29.40	29.35	29.45
23	28.50	27.90	27.75	26.80	.....	.....	.....	29.35	29.35	29.35	29.40	29.65
24	28.50	27.90	27.70	26.80	.....	.....	.....	29.35	29.35	29.35	29.35	29.40
25	28.40	27.80	27.65	26.80	.....	.....	.....	29.35	29.35	29.35	29.65	29.35
26	28.45	27.80	27.55	26.85	.....	.....	.....	29.35	29.50	29.35	29.40	29.40
27	28.30	27.85	27.35	26.90	.....	.....	.....	29.40	29.55	29.35	29.40	29.40
28	28.60	27.95	27.10	27.20	.....	.....	.....	29.55	29.40	29.35	29.40	29.35
29	28.15	.....	26.95	26.95	.....	.....	.....	29.60	29.40	29.35	29.40	29.35
30	28.05	.....	26.90	26.95	.....	.....	29.10	29.60	29.60	29.35	29.40	29.40
31	27.90	.....	26.90	.....	.....	.....	29.05	29.65	.....	29.35	.....	29.65

Wayne County

Wn-2a. City of Wooster. Lat. 40°48', long. 81°59'. Drilled unused well in gravel, diameter 6 inches, depth 65 feet. Highest water level 1.55 below lsd, Jan. 27, 1952; lowest 21.70 below lsd, Nov. 24, 1953. Records available: 1951-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.80	14.60	13.95	.....	13.95	12.00	15.60	18.35	20.80	20.40	20.45	20.15
2	18.40	15.00	14.50	.....	13.85	.....	15.55	16.80	20.90	20.40	20.70	20.45
3	18.25	15.20	14.50	.....	12.95	.....	15.20	18.20	21.05	20.45	20.00	20.80
4	17.80	15.25	14.25	14.00	14.15	.....	15.00	18.20	20.30	19.95	21.20	20.35
5	18.60	15.20	13.75	.....	14.15	13.25	13.50	18.10	20.15	20.40	20.50	20.40
6	18.60	14.75	14.15	.....	13.95	13.10	15.05	17.90	18.45	20.15	20.95	19.60
7	18.65	15.20	13.70	.....	14.30	11.90	15.10	18.10	18.45	20.25	20.30	20.50
8	18.65	14.40	13.05	.....	14.25	12.20	15.45	17.70	19.00	20.75	19.90	20.35
9	18.60	15.15	13.75	.....	13.75	13.15	15.30	16.75	19.65	20.55	21.05	19.95
10	18.50	15.20	13.85	.....	13.15	13.00	15.60	18.00	19.45	20.05	20.35	20.00
11	17.45	14.75	13.75	12.50	13.50	12.35	15.55	18.15	19.50	19.95	20.70	20.30
12	18.15	15.35	14.45	11.95	14.10	12.60	15.20	18.25	19.95	20.60	20.75	20.65
13	18.20	15.45	14.30	13.20	14.25	12.45	16.10	18.35	18.70	20.20	20.50	19.80
14	18.05	14.90	13.60	.....	13.50	11.90	16.55	18.55	19.15	20.15	20.55	19.80
15	18.00	14.60	12.80	.....	14.25	13.05	17.10	18.70	19.70	20.35	20.40	20.05
16	18.20	15.15	14.00	.....	13.95	13.75	17.30	17.60	20.00	20.75	20.75	.....
17	17.80	15.60	13.25	13.40	12.70	13.95	17.50	18.45	20.05	20.65	20.25	.....
18	17.05	15.55	13.30	13.55	12.50	13.80	.....	18.55	19.85	19.75	21.35	.....
19	16.85	15.55	13.30	11.80	12.85	14.30	.....	18.55	19.85	20.70	21.45	.....
20	16.70	16.00	13.45	13.15	12.85	14.45	.....	18.70	19.05	20.50	21.05	.....

Wn-2a--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	16.50	14.95	12.85	13.55	13.20	14.25	.....	18.75	19.95	20.90	21.30	.....
22	16.65	14.30	12.80	13.60	13.00	14.75	.....	18.80	19.60	20.90	20.35	.....
23	16.50	14.00	13.00	13.35	8.25	15.05	17.30	17.70	19.75	21.05	21.20	.....
24	16.40	15.20	13.25	13.70	5.40	15.10	17.10	18.90	19.95	21.00	21.70	19.80
25	15.50	14.35	13.45	13.35	6.60	15.40	16.35	19.10	19.65	19.80	21.35	19.75
26	16.20	14.55	12.50	.....	8.35	15.40	15.85	19.15	20.90	20.65	20.35	19.85
27	16.20	14.55	13.50	.....	8.80	15.50	17.30	20.65	19.40	21.00	20.50	19.75
28	15.90	14.20	.....	.....	8.95	14.65	18.00	20.40	19.80	20.80	20.50	19.50
29	15.75	.....	.....	.....	9.25	15.55	17.95	19.70	20.30	20.75	20.45	19.70
30	15.75	.....	.....	13.60	9.25	15.75	18.40	19.55	20.30	20.55	20.65	20.15
31	15.40	.....	.....	.....	8.90	.....	18.45	19.80	.....	20.10	.....	19.65

Williams County

Wm-1. City of Bryan. Lat. 41°20', long. 84°33'. Drilled unused well in gravel, diameter 8 inches, depth 118 feet. Highest water level 0.95 below lsd, Feb. 25, 1952; lowest 17.05 below lsd, Sept. 1-2, 4, 1953. Records available: 1951-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.40	6.10	.....	5.70	6.55	8.85	14.10	14.15	17.05	10.00	7.40	5.85
2	6.35	5.95	.....	6.00	6.15	10.70	14.00	13.10	17.05	11.10	6.90	6.55
3	6.50	5.65	.....	7.00	4.80	10.50	13.90	10.75	16.70	10.85	7.85	6.55
4	5.60	6.05	.....	5.75	5.55	11.10	13.15	12.10	17.05	9.45	7.35	6.30
5	7.00	5.95	.....	4.75	6.30	12.25	10.80	11.65	15.90	8.20	7.65	5.20
6	7.10	6.55	.....	5.55	8.60	12.20	10.00	.....	14.60	9.00	7.55	3.80
7	8.20	6.10	.....	6.15	.....	11.70	10.90	.....	.....	8.55	7.35	4.70
8	9.50	5.35	.....	6.20	.....	10.95	9.80	.....	11.70	8.45	5.40	5.90
9	8.50	5.55	.....	5.80	8.35	11.55	11.10	.....	12.75	9.45	6.45	5.65
10	7.60	5.25	5.60	6.95	7.90	12.00	10.25	.....	13.10	9.15	6.55	5.50
11	6.85	5.45	5.90	6.45	7.15	12.15	9.90	10.70	12.90	8.60	7.45	5.60
12	6.95	6.00	5.70	4.25	7.65	12.80	9.25	11.55	13.10	8.55	7.05	5.45
13	5.20	6.50	6.55	5.00	8.10	12.55	9.65	12.30	11.00	9.05	7.45	5.10
14	.....	7.10	6.45	6.50	8.10	11.30	11.70	12.10	10.20	8.85	7.30	5.00
15	.....	.....	4.85	6.15	8.60	11.10	12.75	11.90	11.55	8.80	5.65	5.95
16	.....	.....	4.10	6.85	8.30	12.90	13.55	10.90	11.85	10.20	6.80	5.60
17	.....	.....	6.70	7.10	6.50	13.15	14.15	9.70	12.40	9.85	7.85	6.40
18	.....	.....	5.25	6.55	6.05	12.35	13.55	10.65	12.25	8.70	7.40	6.65
19	.....	.....	5.90	6.00	7.25	13.10	.....	11.00	12.10	8.80	8.35	5.65
20	.....	.....	6.85	5.30	8.45	14.15	.....	11.55	10.05	9.75	7.75	4.70
21	.....	.....	5.45	6.40	8.85	.....	14.00	12.15	10.00	9.85	7.25	6.05
22	.....	.....	5.40	5.95	9.15	.....	13.10	12.20	11.15	9.70	6.70	7.65
23	.....	.....	5.45	6.20	8.35	14.50	12.90	11.50	11.70	9.45	6.25	7.30
24	.....	.....	5.35	6.70	7.10	14.70	14.20	11.85	.....	9.20	6.75	7.55
25	.....	.....	5.35	6.15	7.25	14.65	13.70	13.05	11.90	8.40	6.80	5.70
26	.....	.....	5.50	4.85	8.95	14.30	12.10	14.45	12.05	7.35	5.80	3.80
27	6.30	.....	6.05	5.30	8.95	13.60	11.95	15.20	10.70	7.95	5.80	3.15
28	6.40	.....	6.10	6.35	9.55	12.70	14.70	16.20	9.45	7.45	6.20	4.95
29	6.45	.....	5.55	5.60	9.40	11.55	15.15	.....	10.60	8.15	4.75	5.55
30	6.85	.....	5.60	5.75	8.85	13.35	15.10	.....	10.15	8.70	5.10	6.30
31	6.65	.....	5.70	.....	7.75	.....	14.45	15.35	.....	8.25	.....	6.25

Wyandot County

Wy-1. State of Ohio. State Highway Dept. Lat. 40°50'00", long. 83°17'00". Drilled unused well in limestone, diameter 5 inches, depth 90 feet. Highest water level 26.50 below lsd, Apr. 13, 1952; lowest 36.95 below lsd, Dec. 1, 1952. Records available: 1951-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.65	30.80	31.25	30.00	31.10	32.15	32.25	33.05	31.55	33.90	32.70	34.10
2	34.35	32.60	33.80	30.05	30.75	32.00	32.30	32.20	32.75	34.95	33.85	35.80
3	31.55	33.70	30.75	30.85	29.35	33.80	32.15	33.20	32.65	35.60	33.25	34.35
4	31.10	31.20	30.60	30.65	31.40	31.85	32.45	.....	31.85	32.60	33.00	35.95
5	34.60	30.90	.....	29.35	31.30	33.30	32.05	.....	33.05	33.40	32.40	34.05

Wy-1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	32.10	30.80	.....	29.70	31.55	34.20	32.55	.....	32.35	33.15	33.20	32.15
7	34.25	31.40	.....	31.10	31.15	32.05	32.35	33.50	34.00	34.35	.....	35.55
8	31.70	30.40	.....	29.90	31.55	33.95	32.50	34.85	34.65	31.50	.....	.....
9	35.70	33.35	30.75	30.95	31.25	34.25	32.35	32.55	33.20	33.05	34.90	.....
10	31.65	31.20	.....	31.15	30.70	34.40	32.65	33.15	32.80	33.15	35.10	.....
11	30.85	30.95	30.55	31.35	31.75	32.20	32.85	33.10	33.70	32.35	33.85	.....
12	31.75	30.80	.....	29.25	31.45	32.45	32.15	33.20	34.50	33.55	33.85	.....
13	31.70	30.90	.....	30.70	31.70	32.40	32.55	33.35	33.70	33.50	36.05	.....
14	35.70	31.40	.....	30.75	30.30	31.75	32.80	33.35	34.50	33.45	36.55	.....
15	31.85	32.70	.....	31.20	31.35	32.30	32.45	33.00	33.75	33.35	31.85	34.20
16	31.95	34.00	.....	30.50	30.75	32.70	32.80	32.50	33.65	33.05	33.90	34.05
17	35.15	31.05	.....	31.00	30.75	32.50	32.35	33.20	33.25	33.35	35.30	33.50
18	31.15	30.85	.....	30.60	30.70	32.60	32.35	33.80	33.45	32.65	35.35	33.85
19	31.60	34.05	.....	29.30	31.45	32.10	32.15	34.40	32.70	33.60	33.75	33.15
20	31.25	32.30	.....	30.90	31.45	32.75	32.10	34.55	32.60	34.60	33.80	32.30
21	31.20	31.15	.....	30.20	31.20	31.90	32.80	34.35	33.45	.....	33.75	32.90
22	31.20	30.45	.....	30.95	32.15	32.60	32.45	33.45	33.55	.....	32.45	34.20
23	32.15	33.90	.....	31.15	32.25	32.80	32.60	32.65	33.45	.....	32.45	35.20
24	33.70	31.10	.....	30.75	30.65	.....	32.40	32.60	34.95	.....	33.50	33.35
25	30.70	30.80	.....	30.60	32.20	.....	32.10	32.60	32.80	.....	33.10	32.10
26	31.35	30.55	.....	29.35	32.40	32.35	33.20	33.30	32.95	.....	33.20	33.85
27	30.95	33.25	29.85	31.30	32.85	32.45	34.40	32.70	32.15	.....	33.65	33.95
28	31.30	34.30	31.15	31.30	32.80	32.10	35.75	33.30	33.20	33.45	33.90	33.70
29	31.20		29.40	30.95	31.90	32.25	34.95	32.60	34.50	32.70	31.80	33.65
30	34.30		30.95	30.65	33.90	32.85	33.30	32.15	34.20	34.15	33.80	33.10
31	34.75		29.95		31.05		32.90	33.10		32.90		34.30

PENNSYLVANIA

By Maurice O. Holtzer

Scope of Water-Level Program

The observation-well program in Pennsylvania was continued in 1953 in cooperation with the Topographic and Geologic Survey, Pennsylvania Department of Internal Affairs. Measurements were made in 83 wells in 36 counties, 14 of which were equipped with recording gages. Measurements were made monthly or less frequently in some wells, weekly in others, and several times a day in those being observed during pumping tests. Figure 43 shows the location of wells for which records are given in this report, except those in the Philadelphia and Pittsburgh areas. Figure 44 shows the location of wells in the Philadelphia area and figure 45 shows the location of wells in the Pittsburgh area.

Precipitation

The average precipitation in Pennsylvania in 1953 was 41.11 inches, the least since 1949. The average was below the normal of 42.25 inches for the first time since 1949. Although the departure from the annual average was not large, the monthly average was below normal from June to November inclusive, and the cumulative departure from average at the end of November was 6.38 inches. The effects of the drought were felt throughout the State, and 18 municipalities that obtain their supply from ground-water sources reported critical shortages.

Interpretation of Water-Level Fluctuations

Water levels in all observation wells declined appreciably below average as a result of the drought, and record lows were recorded for 21 wells. Recovery was not appreciable in wells west of the mountains even at the end of the year. Natural changes in ground-water storage are reflected by records for most of the observation wells in Pennsylvania because most of them are in rural areas and are unaffected by pumping from nearby wells. A rise of water level can be attributed to an increment of ground-water storage resulting from precipitation at the aquifer outcrop or recharge from a stream hydraulically related to the aquifer tapped by the observation well. A decline can be attributed to a local reduction of ground-water storage resulting from seepage losses to a nearby stream or flattening of the water table in an extensive aquifer, or to transpiration and evaporation losses to the atmosphere. The hydrologic significance of unit rise or fall of water level may be, and generally is much different from well to well, as a result of differences in the hydraulic characteristics of aquifers tapped by the wells, differences in the topographic situation of water-table wells and the resulting aquifer drainage factors affecting water levels, and differences in vegetal cover and resulting local transpiration losses.

In Philadelphia and Allegheny Counties most observation wells tap aquifers from which moderate to large continuous withdrawals are made and water-level records indicate primarily changes in pressure head caused by changes in the rate or locus of the pumping. Interpretation of fluctuations of water level in any well in the Philadelphia or Pittsburgh areas therefore requires careful study of the local pumping conditions. Weekly water levels reported for 17 wells in the drainage basin of the Susquehanna River in Pennsylvania are used by the Pennsylvania Water and Power Company to predict the dry-weather flow of the stream 2 weeks in advance.

Well-Numbering System

Wells are designated by a two-letter abbreviation of the name of the county and a serial number beginning with 1. The location is shown by the part of the number enclosed by parentheses. A location number consists of letters and figures which identify a small area within which one or more wells are situated. Along the west border of the map of Pennsylvania (fig. 43) are letters A through L (except I) and along the north border are numbers 1 through 25. Each of these letters and numbers corresponds to 15 minutes of longitude and latitude, respectively. Therefore, a letter-number such as "K3" refers to quadrangle area 15 minutes on a side with "K" as its west and east borders and "3" as its north and south borders. The "K3" area is divided into four parts by using "a" to represent the northwest quarter, "b" the northeast, "c" the southwest, and "d" the southeast. Thus, "K3a" is a quadrangle $7\frac{1}{2}$ minutes on a side. The second half of the location number consists of 4 figures. These figures are distances south and

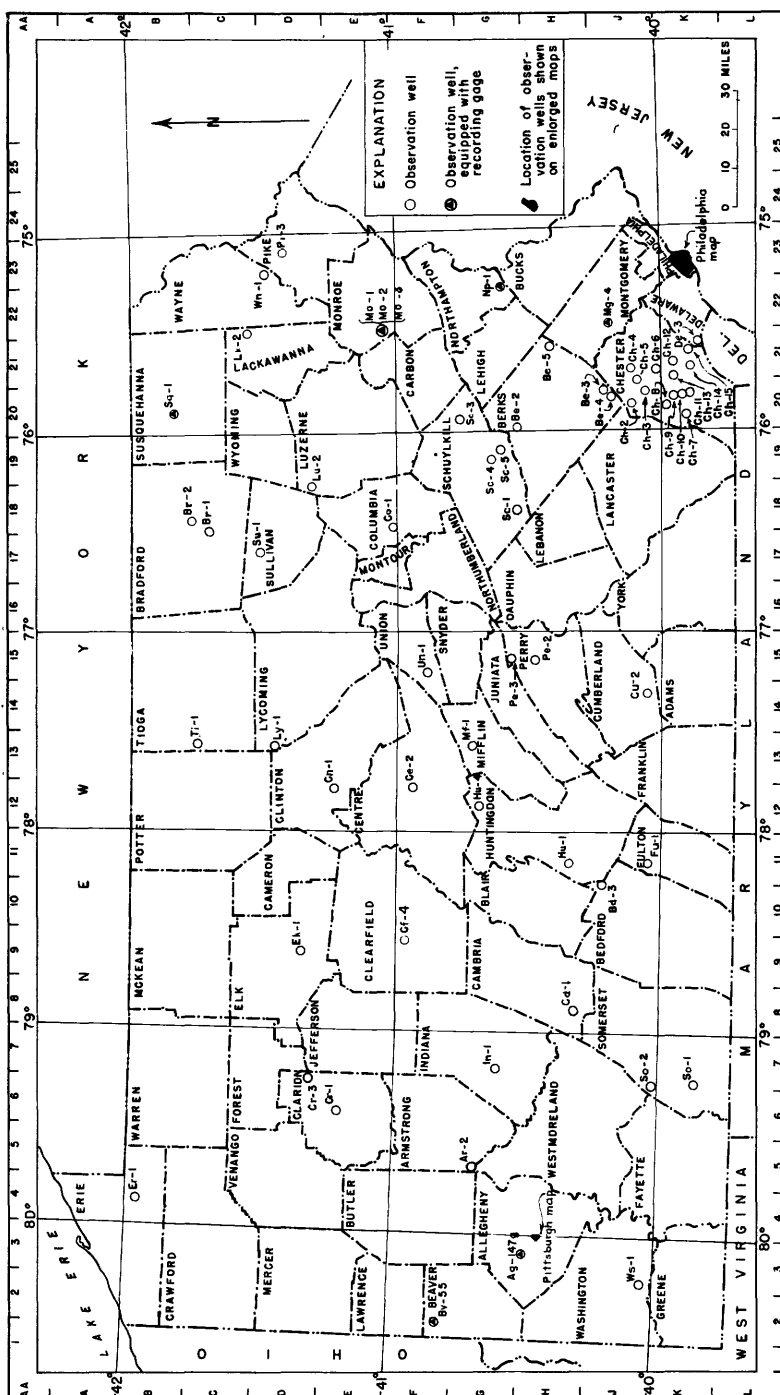


Figure 43. --Location of observation wells in Pennsylvania, 1953, excepting parts of Philadelphia and Pittsburgh.

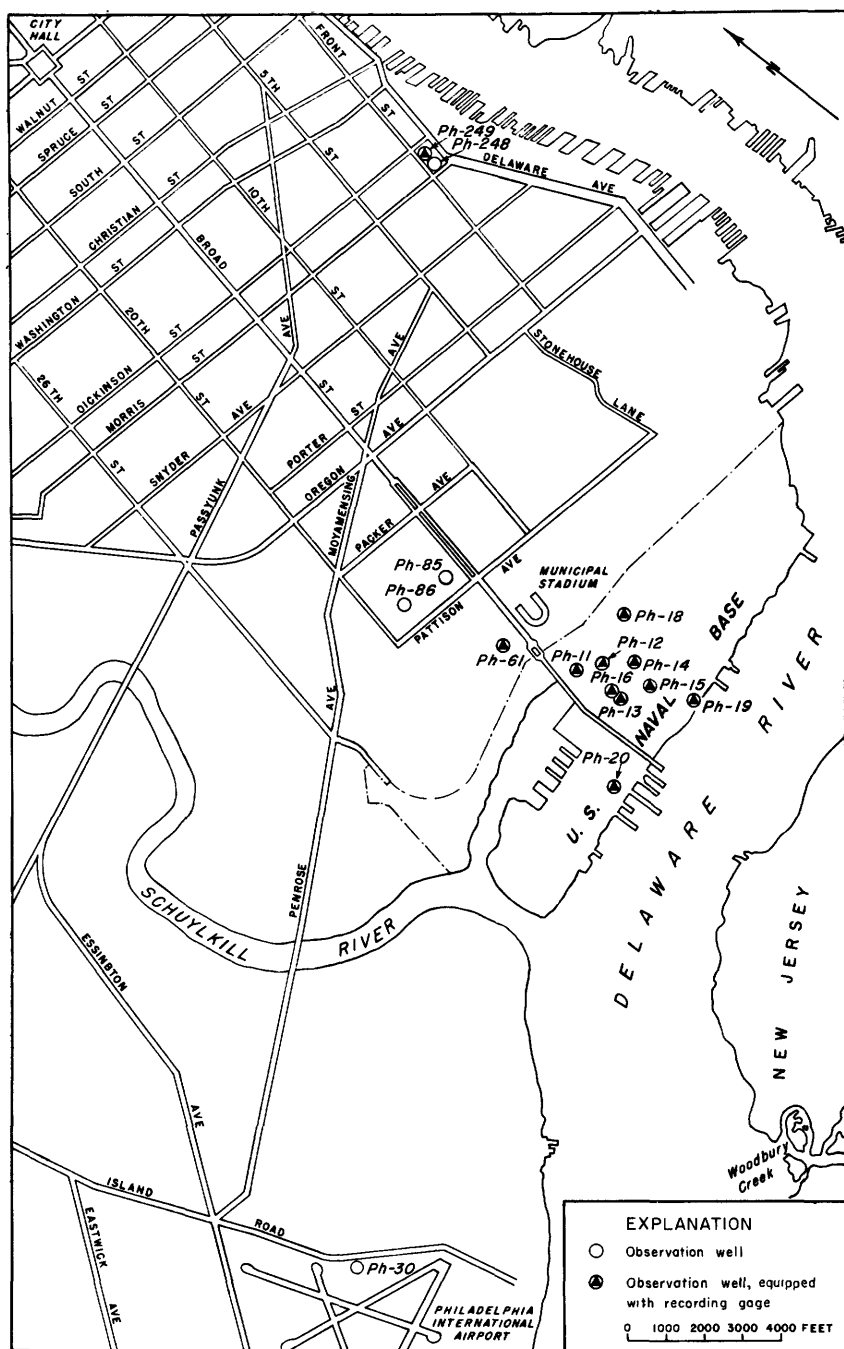


Figure 44. --Location of observation wells in southern part of Philadelphia County, Pa., 1953.

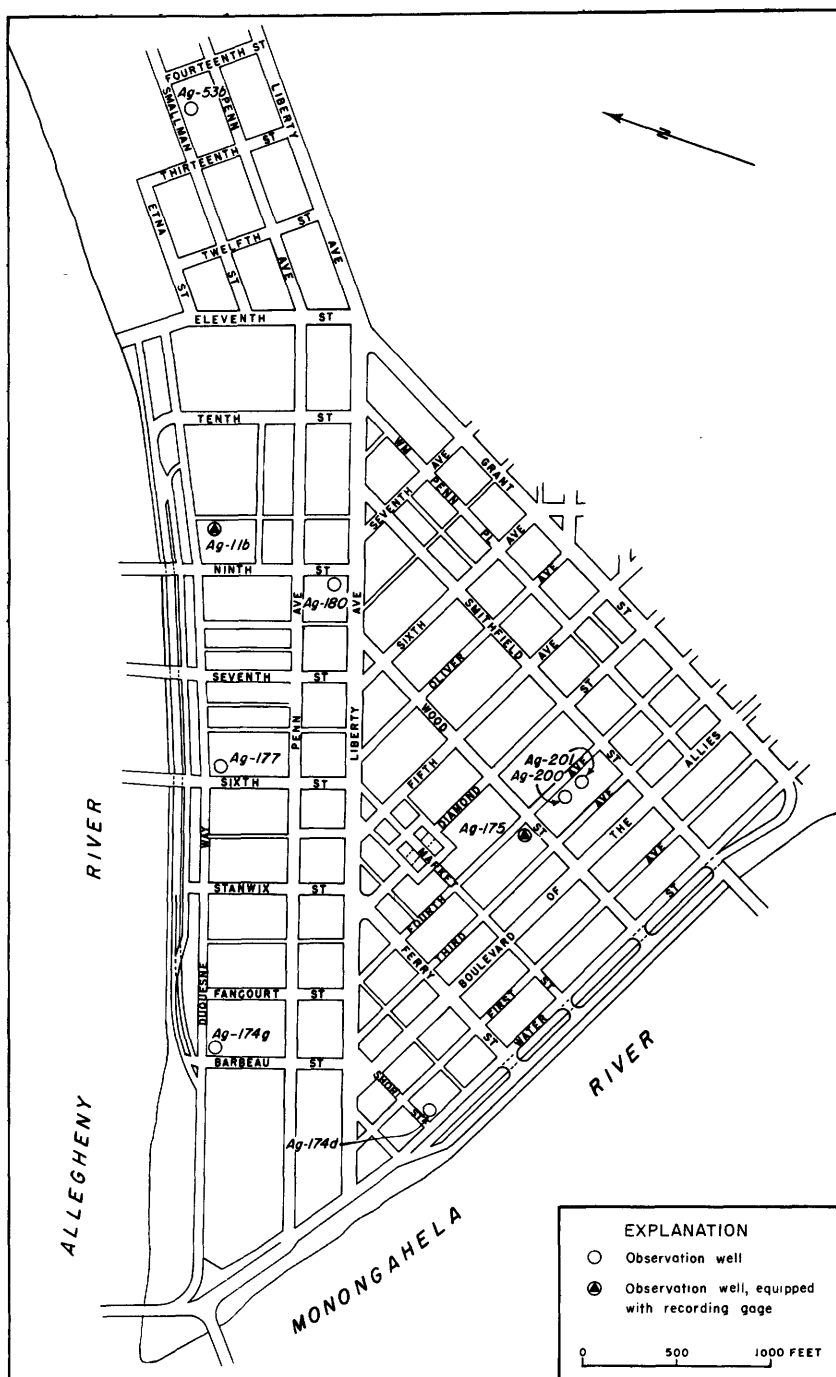


Figure 45. --Location of observation wells in Triangle area of Pittsburgh, Allegheny County, Pa., 1953.

east of the northwest corner of a 7½-minute quadrangle, such as quadrangle "K3a." Location "K2a-7534" is between 7.5 and 7.6 miles south and between 3.4 and 3.5 miles east of the northwest corner of "K3a." The number Ag-17a(H3b-3965) designates a well in Allegheny County within a tenth of a mile south and east of a point 3.9 miles south and 6.5 miles east of the northwest corner of quadrangle H3b.

Well Descriptions and Water-Level Measurements

All water-level measurements are below land-surface datum. The land-surface datum for some wells has been changed in this report, and has been indicated by an appropriate statement in the well description.

Allegheny County

Ag-11b(H4a-3700). Atlas Paste Co. 920 Duquesne Way, Pittsburgh. Lat. 40°26'40", long. 79°59'50". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 6 inches, depth 62 feet. Land-surface datum is about 730 feet above msl. Highest water level 27.12 below lsd, Feb. 3, 1952; lowest 41.88 below lsd, Aug. 1, 1946. Records available: 1946-53. Measurement discontinued.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	30.7	....	....	....	....	36.4	....	....	39.8	37.2	....	32.8
2	30.8	31.0	....	....	....	36.4	....	....	40.0	....	34.4	32.7
3	30.5	31.0	....	31.7	....	....	....	....	40.1	....	34.3	32.7
4	30.5	....	....	31.2	33.8	....	....	....	40.2	....	....	32.9
5	30.8	....	....	31.1	34.1	....	....	....	40.0	....	....	32.6
6	30.8	....	....	31.5	34.5	....	....	....	39.9	36.8	34.2	32.5
7	30.9	....	....	31.4	34.7	....	....	....	39.5	36.7	34.4	....
8	31.0	....	....	31.4	34.8	....	39.6	....	39.4	36.6	33.8	....
9	31.0	....	....	31.6	34.7	....	39.7	....	39.2	36.6	33.8	....
10	....	31.0	....	31.7	34.7	....	39.7	....	39.1	36.5	33.7	....
11	....	31.1	....	31.5	35.0	....	39.7	....	39.1	36.2	33.6	....
12	....	....	....	31.5	35.3	....	39.5	....	39.0	36.0	33.6	....
13	....	....	....	31.9	35.5	....	39.5	....	38.9	36.1	33.6	....
14	....	....	....	32.0	35.6	....	39.5	....	38.5	36.0	33.3	....
15	....	....	....	32.0	35.8	....	39.7	....	38.3	35.9	33.2	....
16	....	....	....	32.0	35.6	....	39.8	....	38.2	35.8	33.3	....
17	....	....	....	32.0	35.6	....	39.9	....	38.1	35.9	33.3	....
18	....	....	....	31.6	35.8	....	39.9	....	38.0	35.6	33.3	....
19	....	....	....	31.5	36.1	....	39.7	....	37.8	35.4	33.3	....
20	31.4	....	....	31.6	36.2	....	....	....	37.7	35.5	33.3	....
21	31.4	....	....	31.8	36.3	....	....	....	37.8	35.5	33.1	....
22	31.4	....	....	31.6	36.5	....	....	....	37.6	35.5	33.1	....
23	31.4	....	....	31.8	36.5	38.8	....	....	37.4	35.4	33.2	....
24	31.4	....	....	31.8	36.4	39.0	....	....	37.3	....	33.2	....
25	31.5	....	....	31.8	36.6	39.1	....	....	37.2	....	33.2	....
26	30.9	....	....	31.7	36.8	39.3	....	....	37.1	....	32.9	....
27	30.9	....	....	31.9	36.9	39.0	....	....	37.0	....	33.0	....
28	31.2	....	....	31.9	36.9	39.0	....	....	36.9	....	32.7	....
29	....	....	....	31.9	36.9	....	....	....	37.0	....	32.7	....
30	....	....	....	31.9	36.6	....	....	....	37.2	....	32.8	....
31	....	....	....	....	36.4	....	....	....	....	....	....	....

Ag-53b(H4a-3604). Hardie Bros. Co. 14th and Smallman Sts., Pittsburgh. Lat. 40°26'50", long. 79°59'30". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 14 inches, depth 70 feet. Land-surface datum is about 735 feet above msl. Highest water level 34.98 below lsd, Feb. 4, 1952; lowest 44.38 below lsd, July 25, 1952. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	39.70	Apr. 2	40.57	June 22	42.55	Oct. 6	43.03
Feb. 20	39.95	17	40.84	July 20	44.32	Nov. 9	41.65
Mar. 20	40.68	May 19	42.35	Aug. 31	44.24	Dec. 8	40.86

Ag-147g(H3b-0428). West View Municipal Water Authority. Neville Island, Pittsburgh. Lat. 40°29'30", long. 80°04'20". Drilled observation water-table well in sand and gravel of Pleistocene age, diameter 6 inches, depth 60 feet. Land-surface datum is 725 feet above msl. Highest water level 23.30 below lsd, Aug. 4, 1950; lowest 44.40 below lsd, Feb. 24, 1948. Records available: 1946-53.

Ag-147g(H3b-0428)--Continued.

Daily lowest water level from recorder graph												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.4	41.8	42.3	43.3	....	42.8	42.3	40.0	38.3	39.4	38.0	38.0
2	39.5	41.2	42.4	43.0	....	43.0	42.1	40.0	38.5	39.8	38.2	38.8
3	39.6	41.5	42.1	43.2	....	43.3	42.1	39.3	38.5	40.0	38.3	39.3
4	39.7	41.6	40.8	43.2	41.0	43.4	42.0	38.1	38.6	40.1	38.3	39.4
5	42.3	41.7	40.8	43.2	41.0	43.4	41.9	38.2	38.5	40.1	38.3	39.5
6	42.2	41.4	41.0	43.2	41.0	43.4	41.8	38.4	38.1	39.9	37.4	39.5
7	42.2	41.8	41.0	42.9	41.2	43.3	41.6	38.3	37.4	38.8	37.3	39.1
8	42.4	42.0	41.0	42.8	41.3	43.2	41.3	37.9	35.4	38.5	37.9	39.3
9	42.6	42.0	40.9	42.6	41.1	43.2	40.8	37.6	35.3	39.1	37.7	39.6
10	42.8	42.1	40.5	42.5	40.7	41.8	40.6	36.3	35.3	39.4	38.3	39.7
11	42.9	41.2	42.2	42.5	40.8	42.1	40.5	36.5	35.4	39.6	38.0	39.2
12	43.0	40.3	41.7	42.5	40.8	42.3	40.2	36.3	35.6	39.7	38.5	39.6
13	43.1	40.6	41.9	42.5	41.1	42.2	39.7	36.4	35.6	39.8	38.7	39.7
14	43.1	40.8	41.9	42.3	41.5	42.2	39.5	36.8	35.9	40.0	38.7	39.5
15	43.4	40.9	41.5	42.3	41.9	42.1	40.0	38.1	35.5	40.0	38.7	39.5
16	....	40.8	40.4	42.1	42.1	42.0	40.4	38.2	35.5	39.7	38.7	41.2
17	....	40.6	42.2	41.8	42.1	41.3	40.7	36.6	36.2	39.7	38.6	42.1
18	....	40.8	42.7	41.6	41.9	40.9	40.8	36.7	36.8	38.7	39.0	42.9
19	....	40.2	43.0	41.5	42.3	40.7	40.8	36.7	36.9	39.5	39.2	43.5
20	42.8	40.9	43.1	41.4	42.8	40.9	40.7	36.2	37.0	39.6	38.8	43.6
21	42.9	....	43.1	41.1	42.9	41.0	40.8	36.9	35.8	39.6	38.9	43.5
22	42.5	....	43.0	40.9	43.0	41.0	40.8	37.1	36.4	39.7	39.1	42.9
23	42.5	41.1	42.7	40.9	42.7	41.1	40.7	37.3	37.0	38.7	39.1	43.2
24	42.3	41.8	42.3	40.4	42.2	41.7	40.7	37.5	37.2	36.5	39.3	42.4
25	42.1	41.9	42.6	41.0	41.8	42.0	40.3	37.6	36.5	35.0	39.2	39.5
26	42.0	42.0	42.8	41.3	41.8	42.5	40.5	37.8	36.0	35.2	39.2	38.1
27	42.4	42.1	43.1	41.4	42.3	42.8	39.2	38.0	35.9	35.8	38.6	37.3
28	42.4	42.2	43.2	....	42.7	42.8	39.5	38.2	36.2	36.7	39.1	36.9
29	42.5	....	43.3	....	42.7	42.8	39.6	38.5	37.6	37.3	39.1	39.0
30	42.7	....	43.3	....	42.6	42.4	39.9	38.6	38.6	37.6	38.0	40.1
31	42.4	....	43.3	....	42.8	....	40.0	38.4	....	37.8	....	40.4

Ag-174d(H3b-4162). City of Pittsburgh well 4. Water and Short St. Lat. 40°26'20", long. 80°00'20". Drilled observation water-table well in sand and gravel of Pleistocene age, diameter 12 inches, depth 35 feet. Land-surface datum is 730 feet above msl. Highest water level 14.74 below lsd, Jan. 28, 1952; lowest 28.39 below lsd, Mar. 16, 1946. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	23.97	Apr. 17	25.06	July 20	26.91	Nov. 9	24.79
Feb. 20	24.34	May 19	26.45	Aug. 31	26.60	Dec. 8	24.51
Mar. 20	24.77	June 22	26.89	Oct. 6	25.59		

Ag-174g(H3b-3962). City of Pittsburgh well 7. Duquesne Way and Barbeau St. Lat. 40°26'30", long. 80°00'00". Drilled observation water-table well in sand and gravel of Pleistocene age, diameter 12 inches, depth 40 feet. Land-surface datum is 723 feet above msl. Highest water level 0.33 below lsd, Apr. 15, 1948; lowest 19.23 below lsd, Aug. 31, 1953. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	16.06	Apr. 2	15.96	June 22	18.15	Oct. 6	18.57
Feb. 20	16.51	17	16.96	July 20	17.74	Nov. 9	17.72
Mar. 20	17.04	May 19	18.66	Aug. 31	19.23	Dec. 8	17.52

Ag-175(H3b-4165). Columbia Building. Fourth Ave. and Wood St. Lat. 40°26'20", long. 80°00'00". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 8 inches, depth 60 feet. Land-surface datum is about 735 feet above msl. Highest water level 29.62 below lsd, Jan. 30, 1952; lowest 43.58 below lsd, July 26, 1952. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 19	33.76	Apr. 2	35.33	May 19	39.21	Nov. 9	36.39
Feb. 20	34.23	14	35.61	June 22	41.83	Dec. 8	35.64
Mar. 6	34.83	17	35.66	Aug. 31	42.64		

Ag-177(H3b-3864). Fulton Building. Duquesne Way and Sixth St. Lat. 40°26'40", long. 80°00'10". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 12 inches, depth 67 feet. Land-surface datum is about 733 feet above msl. Highest water level 24.25 below lsd, Jan. 28, 1952; lowest 40.91 below lsd, July 20, 1953. Records available: 1945-53.

Ag-177(H3b-3864)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	30.69	Apr. 2	32.22	June 22	38.84	Oct. 6	35.47
Feb. 20	31.22	17	32.75	July 20	40.91	Nov. 9	32.89
Mar. 20	32.43	May 19	37.87	Aug. 31	40.13	Dec. 8	32.24

Ag-180(H4a-3900). Victory Building. Liberty Ave. and Ninth St. Lat. 40°26'30", long. 79°59'50". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 4 inches, depth 61 feet. Land-surface datum is about 736 feet above msl. Highest water level 32.10 below lsd, Feb. 4-5, 1952; lowest 46.88 below lsd, July 25, 1952. Records available: 1946-53.

Jan. 23	35.87	Apr. 17	37.36	July 20	43.51	Nov. 2	40.38
Feb. 20	36.05	May 19	41.48	Aug. 31	46.33	9	39.68
Mar. 20	36.82	June 22	44.88	Oct. 6	43.22	Dec. 8	38.15

Ag-200(H3b-4265). Commonwealth Building. 316 Fourth Ave. Lat. 40°26'20", long. 80°00'00". Drilled unused artesian well in shale of Conemaugh formation, diameter 8 inches, depth 99 feet. Land-surface datum is 737 feet above msl. Highest water level 35.90 below lsd, Jan. 22, 1948; lowest 58.91 below lsd, Apr. 3, 1946. Records available: 1945-52. Measurement discontinued.

Ag-201(H3b-4265). Keystone Building. 324 Fourth Ave. Lat. 40°26'20", long. 80°00'00". Drilled unused artesian well in shale of Conemaugh formation, diameter 8 inches, depth 77 feet. Land-surface datum is 737 feet above msl. Highest water level 34.40 below lsd, Jan. 22, 1948; lowest 53.93 below lsd, Apr. 3, 1946. Records available: 1945-53. Measurement discontinued.

Jan. 23	42.06	Apr. 17	42.25	July 20	36.43	Nov. 9	42.44
Feb. 20	40.11	May 19	42.88	Aug. 31	38.80	Dec. 8	39.12
Mar. 20	46.85	June 22	36.76	Oct. 6	42.91		

Armstrong County

Ar-2(G5a-4744). Martin J. Cordera. Schenley. Lat. 40°40'50", long. 79°39'50". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 6 inches, depth 82 feet. Land-surface datum is about 780 feet above msl. Highest water level 27.83 below lsd, Mar. 29, 1950; lowest 39.95 below lsd, Oct. 28, 1953. Records available: 1949-53.

Jan. 7	38.39	Apr. 8	35.60	July 8	38.77	Oct. 7	39.66
14	36.47	15	35.94	15	39.05	14	39.83
21	34.75	22	35.38	22	39.06	21	39.89
28	35.50	29	35.20	29	39.09	28	39.95
Feb. 4	35.24	May 6	36.70	Aug. 5	38.49	Nov. 4	39.85
11	36.10	13	36.44	12	37.54	11	39.83
18	36.85	20	33.60	19	39.00	18	39.84
25	35.09	27	29.60	26	39.35	25	39.48
Mar. 4	37.17	June 3	27.30	Sept. 2	39.41	Dec. 2	39.47
11	36.69	10	34.94	9	39.30	9	38.88
18	34.35	17	37.66	16	39.55	16	38.39
25	34.69	24	38.35	22	38.48	23	37.70
Apr. 1	33.20	July 1	38.65	30	39.68	30	37.80

Beaver County

Bv-55(F2c-4540). Mrs. F. E. Duff. Darlington. Lat. 40°48'30", long. 80°25'20". Drilled unused water-table well in sand and gravel of Pleistocene age, diameter 6 inches, depth 45 feet. Land-surface datum is about 915 feet above msl. Highest water level 12.5 below lsd, Apr. 3, 1951; lowest 19.3 below lsd, Nov. 12-21, 1952, Dec. 11, 30-31, 1953. Records available: 1949-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.7	17.4	17.7	17.2	16.6	15.5	....	17.8	18.5	....	18.9	19.2
2	18.7	17.4	17.7	17.1	16.6	15.5	....	17.8	18.4	....	19.0	19.2
3	18.7	17.4	17.7	17.0	16.7	15.6	....	17.9	18.4	....	19.0	19.2
4	18.7	17.4	17.7	17.0	16.7	15.7	16.4	17.9	18.5	....	19.0	19.2
5	18.7	17.3	17.7	16.9	16.8	15.7	16.5	17.9	18.5	....	19.0	19.2

Bv-55(F2c-4540)--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	18.7	17.3	17.7	16.9	16.8	15.8	16.5	18.0	18.4	....	19.0	19.2
7	18.7	17.3	17.8	16.8	16.8	15.7	16.6	18.0	18.4	....	19.0	19.2
8	18.7	17.3	17.8	16.8	16.6	15.6	16.6	18.0	18.3	....	19.1	19.2
9	18.7	17.4	17.8	16.8	16.5	15.6	16.6	17.9	18.3	....	19.1	19.2
10	18.6	17.4	17.8	16.8	16.5	15.6	16.7	17.9	18.4	....	19.1	19.2
11	18.5	17.4	17.8	16.7	16.5	15.7	16.7	18.0	18.4	....	19.1	19.3
12	18.4	17.3	17.8	16.7	16.5	15.7	16.8	18.0	18.4	....	19.1	19.2
13	18.4	17.4	17.8	16.6	16.5	15.6	16.8	18.0	....	....	19.1	19.3
14	18.3	17.4	17.8	16.7	16.4	15.9	16.9	18.1	....	....	19.2	19.2
15	18.3	17.4	17.8	16.7	16.4	15.9	17.0	18.0	....	....	19.2	19.2
16	18.3	17.4	17.8	16.7	16.3	16.0	17.0	18.0	....	....	19.2	19.2
17	18.3	17.5	17.8	16.7	16.2	16.0	17.1	18.1	....	18.6	19.2	19.2
18	18.2	17.5	17.8	16.6	16.1	16.0	17.1	18.1	....	18.6	19.2	19.2
19	18.1	17.5	17.8	16.6	16.1	16.1	17.1	18.2	....	18.7	19.2	19.2
20	18.1	17.5	17.8	16.5	16.1	16.1	17.2	18.2	....	18.7	19.2	19.2
21	18.1	17.5	17.8	16.5	16.1	16.2	17.3	18.2	....	18.7	19.2	19.2
22	18.0	17.5	17.8	16.5	16.1	16.0	17.3	....	....	18.7	19.2	19.2
23	18.0	17.5	17.8	16.5	15.8	15.9	17.4	....	....	18.8	19.2	19.2
24	18.0	17.5	17.7	16.5	15.6	15.9	17.4	....	....	18.8	19.2	19.2
25	17.9	17.5	17.6	16.5	15.5	16.0	17.5	....	....	18.8	19.2	19.2
26	17.9	17.5	17.5	16.5	15.4	16.0	17.5	....	....	18.8	19.2	19.2
27	17.9	17.6	17.4	16.5	15.4	16.1	17.6	....	....	18.8	19.2	19.2
28	17.8	17.6	17.3	16.6	15.4	....	17.6	....	....	18.9	19.2	19.2
29	17.6	....	17.3	16.6	15.4	....	17.7	18.6	....	18.9	....	19.2
30	17.6	....	17.3	16.6	15.4	....	17.7	18.6	....	18.9	....	19.3
31	17.5	....	17.2	....	15.4	....	17.8	18.7	....	18.9	....	19.3

Bedford County

Bd-3(J10b-2363). W. M. Hoffman. Norris and Liberty Sts., Saxton. Lat. 40°12'50", long. 78°15'20". Dug unused water-table well in shale of Chemung formation or Portage group, diameter 5 feet, depth 58 feet, cased with stone. Land-surface datum is about 895 feet above msl. Highest water level 44.08 below lsd, Apr. 16, 1948; lowest 53.69 below lsd, Feb. 13, 1948. Records available: 1941-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	52.20	Apr. 10	50.16	July 3	50.50	Oct. 2	51.98
9	52.14	17	50.34	10	50.32	9	52.46
16	49.96	24	50.42	17	50.80	16	52.22
23	49.52	May 1	50.54	24	47.86	23	52.32
30	49.62	8	50.68	31	49.72	30	52.40
Feb. 6	50.68	15	50.76	Aug. 7	50.62	Nov. 6	52.52
13	50.70	22	50.88	14	50.82	13	52.74
20	50.76	29	50.94	21	50.96	20	52.72
27	50.70	June 5	49.54	28	51.00	27	52.84
Mar. 6	50.64	12	50.58	Sept. 4	51.14	Dec. 4	52.90
13	50.56	19	51.60	11	51.30	11	52.94
20	49.64	26	51.70	18	51.46	18	52.98
27	45.38	July 1	50.51	25	51.72	25	53.08
Apr. 3	48.70						

Berks County

Be-3(J20b-3547). Commonwealth of Pennsylvania. French Creek State Park. Near Elverson. Lat. 40°11'50", long. 75°47'00". Drilled unused water-table well in Vintage dolomite, diameter 4 inches, depth 39 feet. Land-surface datum is about 540 feet above msl. Paul H. Walker, voluntary observer. Highest water level 22.43 below lsd, June 22, 1948; lowest 36.88 below lsd, Dec. 30, 1949. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	33.74	Feb. 27	27.68	Apr. 17	24.04	June 5	25.54
16	32.90	Mar. 6	27.55	24	23.78	10	25.95
23	32.17	13	26.77	May 1	23.38	12	26.09
30	31.38	20	26.58	7	23.78	19	26.51
Feb. 6	30.68	27	25.78	15	24.69	26	27.04
13	29.69	Apr. 3	25.56	22	24.93	July 3	27.54
20	28.80	10	24.74	29	25.50	10	28.26

Be-3(J20b-3547)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 17	28.85	Aug. 22	32.17	Sept. 25	34.73	Nov. 20	37.16
24	29.59	29	32.69	Oct. 16	35.97	Dec. 4	37.48
31	30.26	Sept. 4	33.29	23	36.18	11	37.50
Aug. 7	30.91	11	33.82	30	36.55	13	37.13
15	31.46	18	34.31	Nov. 13	37.01		

Be-4(J20b-4426). Commonwealth of Pennsylvania. French Creek State Park. Near Elverson. Lat. 40°11'00", long. 75°49'30". Dug unused water-table well in sandstone or shale of Stockton formation, diameter 4 feet, depth 20 feet. Land-surface datum is 694 feet above msl. Paul H. Walker, voluntary observer. Highest water level 5.04 below lsd, May 2, 1952; lowest dry, Aug. 12, 1949. Records available: 1948-53.

Jan. 9	8.43	Apr. 3	6.10	June 19	11.39	Sept. 11	15.88
16	7.25	10	6.23	26	11.09	18	16.07
23	7.06	17	6.14	July 3	12.08	25	16.22
30	7.70	24	8.79	10	12.85	Oct. 16	16.84
Feb. 6	9.80	May 1	9.63	17	13.30	23	17.05
13	8.91	7	10.71	24	13.98	30	17.05
20	8.64	15	11.31	31	14.16	Nov. 13	17.04
27	8.82	22	10.72	Aug. 7	14.59	20	16.53
Mar. 6	8.13	29	7.46	15	14.85	Dec. 4	16.18
13	8.53	June 5	7.14	22	15.28	11	12.66
20	6.39	10	9.73	29	15.65	13	10.68
27	5.16	12	10.24	Sept. 4	15.76		

Be-5(H21b-8720). Joseph A. Witman. Bally. Lat. 40°24'00", long. 75°35'10". Dug unused water-table well in alluvium of Recent age, diameter 36 inches, depth 20 feet. Land-surface datum is about 470 feet above msl. Highest water level 9.10 below lsd, Apr. 2, 1951; lowest 18.7 below lsd, Nov. 14, 1952. Records available: 1949-53. Jan. 12, 13.5; Jan. 19, 14.4; Jan. 26, 13.1; Feb. 2, 14.1; Feb. 23, 13.9; June 12, 13.5. Measurement discontinued.

Bradford County

Br-1(C18a-2806). Charlotte Payne. Monroeton. Lat. 41°42'20", long. 76°29'10". Dug unused water-table well in alluvium of Recent age, diameter 36 inches, depth 6 feet, cased with stone. Land-surface datum is about 780 feet above msl. Highest water level 0.67 below lsd, Mar. 31, 1951; lowest dry several times 1932, 1936, 1939, 1941-43. Records available: 1931-44, 1946-53. Measurement discontinued.

Jan. 15	1.67	Feb. 27	1.49	Apr. 3	1.45	May 14	1.71
23	1.54	Mar. 13	1.69	16	1.54	June 4	1.41
30	1.74	20	1.88	24	1.55	8	1.45
Feb. 5	1.88	23	1.94	28	1.58	9	1.94
14	1.89	31	1.99	May 6	1.29	29	4.11
21	2.54						

Br-2(B18c-7333). Holon. East Towanda. Lat. 41°46'00", long. 76°26'00". Dug unused water-table well in shale of Chemung formation and/or in drift of Pleistocene age, diameter 30 inches, depth 64 feet, cased with brick. Land-surface datum is about 820 feet above msl. Highest water level 17.00 below lsd, May 25, 1947; lowest 61.70 below lsd, Feb. 15, 1942. Records available: 1931-53.

Jan. 4	42.20	Apr. 6	28.41	July 5	43.06	Sept. 27	52.46
10	42.67	12	26.73	9	44.56	Oct. 4	53.08
16	35.82	19	30.16	12	45.05	11	53.65
18	34.20	26	32.11	19	45.97	18	54.25
25	31.54	30	31.54	26	46.83	22	55.57
Feb. 1	33.30	May 3	30.90	Aug. 2	47.61	25	54.81
8	36.58	10	28.92	9	48.27	Nov. 1	55.37
15	37.96	17	34.23	13	48.62	7	55.83
19	37.78	24	34.63	16	48.86	15	56.61
22	35.54	31	34.30	23	49.42	22	57.10
Mar. 2	32.23	June 4	32.49	30	50.00	29	57.50
9	32.21	7	35.68	Sept. 6	50.58	Dec. 6	57.85
15	34.41	14	39.22	13	51.17	13	57.16
22	31.75	21	41.08	15	52.38	20	51.47
26	28.74	28	42.70	20	51.83	27	50.60
29	26.54						

Cambria County

Ca-1(H8c-3343). Johnstown Tribune Publishing Co. Lat. 40°19'38", long. 78°55'06". Drilled unused water-table well in sandstone of Allegheny formation of Pennsylvanian age, diameter 12 to 8 inches, depth 45 feet. Land-surface datum is about 1,160 feet above msl. Mr. L. W. Barnes, voluntary observer. Highest water level 19.65 below lsd, June 1, 1953; lowest 26.79 below lsd, July 23, 1953. Records available: 1952-53.

1952

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	20.55	Apr. 8	21.65	May 20	21.65	July 1	25.60
25	20.55	22	21.93	June 5	23.43	15	22.70
Apr. 1	22.15	May 6	21.75	17	25.20	29	25.60

1953

May 11	22.15	July 9	26.00	Sept. 8	25.00	Nov. 5	23.90
14	22.90	13	25.10	10	24.50	9	24.10
18	22.20	16	25.95	14	24.60	12	24.40
21	23.17	20	26.00	17	24.80	16	24.40
25	22.00	23	26.79	21	24.00	19	24.40
28	22.85	27	25.15	24	24.70	23	24.20
June 1	19.65	30	26.40	28	24.40	26	24.20
4	21.95	Aug. 3	23.85	Oct. 1	24.80	30	24.20
8	22.00	6	24.90	5	24.25	3	24.40
11	23.60	10	24.50	8	24.10	7	24.45
15	23.00	13	24.70	12	24.10	10	24.40
18	25.10	17	24.55	15	23.30	14	23.60
22	24.20	20	24.70	19	23.10	17	24.10
25	26.00	24	24.30	22	23.10	21	24.00
29	26.20	27	24.70	26	23.20	24	24.10
July 2	26.30	31	24.80	29	23.50	28	24.10
6	26.20	Sept. 3	25.75	Nov. 2	23.20	31	24.10

Chester County

Ch2(J20d-0709). Lewis R. Shingle. Honeybrook Township. Lat. 40°06'50", long. 75°51'20". Dug unused water-table well in granodiorite or quartz monozite of Precambrian age, diameter 36 inches, depth 15 feet, cased with stone. Land-surface datum is about 640 feet above msl. Lewis R. Shingle, voluntary observer. Highest water level 3.50 below lsd, Mar. 11, 1952; lowest 12.78 below lsd, Oct. 30, 1951. Records available: 1951-53.

Jan. 6	7.93	Mar. 20	6.35	May 28	6.15	Oct. 9	11.27
13	7.04	24	5.73	June 2	5.26	23	11.29
20	6.96	31	6.48	8	6.67	25	11.47
27	7.44	Apr. 7	6.39	16	6.85	Nov. 1	11.47
Feb. 3	7.46	14	6.31	23	6.71	8	11.43
10	7.48	21	6.31	30	7.44	15	11.56
11	7.15	28	6.32	July 8	7.93	22	11.67
17	6.99	29	6.93	15	7.99	29	11.57
24	6.95	May 12	6.78	28	10.04	7	10.79
Mar. 3	6.97	19	6.80	Aug. 18	9.17	14	8.91
10	7.41	25	6.28	Oct. 4	10.82	20	9.53
17	6.27						

Ch-3(J20d-4839). Fred M. Anderson. West Brandywine Township. Lat. 40°03'20", long. 75°48'00". Dug unused water-table well in granodiorite of Precambrian age, diameter 36 inches, depth 31 feet, cased with stone. Land-surface datum is about 600 feet above msl. Mrs. Fred M. Anderson, voluntary observer. Highest water level 17.88 below lsd, June 5, 1952; lowest 29.75 below lsd, Nov. 18, 1953. Records available: 1951-53.

Feb. 11	19.92	June 23	20.62	Aug. 5	25.00	Sept. 21	26.10
Mar. 20	19.62	July 1	22.67	12	25.33	26	26.08
Apr. 29	18.53	8	23.05	19	26.00	Oct. 14	28.67
May 28	20.54	14	23.44	26	26.38	Nov. 18	29.75
June 17	21.92	22	24.00	Sept. 3	26.88	25	27.92

Ch-4(J21c-0838). G. Richland Rebmann, Jr. West Vincent Township. Lat. 40°06'40", long. 75°40'30". Dug unused water-table well in quartz monozite of Precambrian age, diameter 4 feet, depth 30 feet, cased with stone. Land-surface datum is about 570 feet above msl. Jesse A. Baxter, voluntary observer. Highest water level 19.45 below lsd, May 2, 1952; lowest 28.03 below lsd, Oct. 23, 1951. Records available: 1951-53. Feb. 11, 21.16; Mar. 20, 20.50; Apr. 29, 20.66; May 28, 21.42; June 23, 22.08; Sept. 21, 26.45; Oct. 23, 27.40.

Ch-5(J21c-2001). Richard Cadbury. Wallace Township. Lat. 40°05'40", long. 75°44'50". Dug unused water-table well in quartz monozite of Precambrian age, diameter 30 inches, depth 12 feet, cased with stone. Land-surface datum is about 560 feet above msl. Richard Cadbury, voluntary observer. Highest water level 1.55 below lsd, Apr. 29, 1952; lowest 9.17 below lsd, Nov. 3, 1951. Records available: 1951-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.47	Apr. 19	1.92	July 11	2.14	Oct. 28	6.97
10	2.34	24	1.97	18	2.20	30	7.04
17	2.25	29	2.05	25	2.22	31	7.08
25	2.10	May 2	2.05	Aug. 1	2.31	Nov. 7	7.41
31	2.04	9	2.07	8	2.38	8	7.47
Feb. 7	2.05	16	2.08	15	2.44	9	7.62
11	2.13	23	2.00	22	2.61	10	7.55
14	2.12	26	1.83	29	2.96	14	7.64
21	2.03	28	1.95	Sept. 5	3.35	21	7.65
28	2.08	30	1.92	12	3.75	23	7.65
Mar. 7	2.08	June 6	1.80	19	4.06	24	7.86
14	2.08	13	1.95	26	4.72	28	7.89
20	1.92	20	1.99	Oct. 3	4.40	Dec. 5	8.05
21	1.93	23	1.90	10	5.72	12	7.40
28	1.75	27	2.04	17	6.24	19	5.44
Apr. 4	1.95	July 4	2.08	24	6.70	26	5.50
11	1.95						

Ch-6(J21c-7630). John J. Englerth. Downingtown. Lat. 40°00'40", long. 75°41'30". Dug unused water-table well in Ledger dolomite, diameter 5 feet, depth 20 feet, cased with stone. Land-surface datum is about 270 feet above msl. John J. Englerth, voluntary observer. Highest water level 12.19 below lsd, Apr. 29, 1952; lowest 18.15 below lsd, Oct. 23, 1953. Records available: 1951-53.

Feb. 11	14.45	May 18	14.60	May 28	14.25	Sept. 21	17.94
Mar. 20	13.04	27	14.25	June 23	15.21	Oct. 23	18.15
Apr. 29	14.39						

Ch-7(K20a-7146). D. L. Gibbs. Cochranville. Lat. 39°53'40", long. 75°54'40". Dug unused water-table well in Peters Creek quartzite, diameter 4 feet, depth 40 feet, cased with stone. Land-surface datum is about 560 feet above msl. Highest water level 28.05 below lsd, May 2, 1952; lowest 36.58 below lsd, Oct. 23, 1953. Records available: 1951-53. Mar. 20, 29.38; Apr. 29, 30.10; May 28, 32.00; June 23, 32.00; Sept. 21, 35.82; Oct. 23, 36.58.

Ch-8(K20b-1001). John Robinson. Valley Township. Lat. 39°59'00", long. 75°52'20". Dug unused water-table well in Baltimore gneiss, diameter 36 inches, depth 20 feet, cased with stone. Land-surface datum is about 660 feet above msl. John Robinson, voluntary observer. Highest water level 6.86 below lsd, Apr. 27, 1952; lowest 18.30 below lsd, Oct. 23, 1953. Records available: 1951-53.

Jan. 9	9.30	Mar. 20	9.00	May 28	11.90	Sept. 21	16.95
25	7.83	Apr. 29	11.61	June 23	12.75	Oct. 23	18.30

Ch-9(K20b-3329). C. Raymond Young. Youngsburg. Lat. 39°57'00", long. 75°49'10". Dug unused water-table well in Peters Creek quartzite, diameter 30 inches, depth 25 feet, cased with stone. Land-surface datum is about 510 feet above msl. Mr. C. Raymond Young, voluntary observer. Highest water level 10.90 below lsd, June 6, 1952; lowest 20.66 below lsd, Oct. 23, 1953. Records available: 1951-53. Mar. 20, 11.59; Apr. 29, 12.64; May 28, 14.69; June 23, 14.78; Sept. 21, 19.45; Oct. 23, 20.66.

Ch-10(K20b-5932). Robert J. Kleberg, Jr. Doe Run. Lat. 39°54'50", long. 75°48'50". Drilled unused water-table well in Cockeysville marble, diameter 6 inches, depth 34 feet. Land-surface datum is about 300 feet above msl. Burnett Wilson, voluntary observer. Highest water level 8.46 below lsd, Apr. 29, 1952; lowest 15.10 below lsd, Oct. 12, 19, 26, 1951. Records available: 1951-53. Mar. 20, 8.72; Apr. 29, 9.94; May 28, 10.52; June 23, 10.83; Sept. 21, 13.56; Oct. 23, 14.06.

Ch-11(K20b-7632). J. E. Ryan. West Marlboro Township. Lat. 39°53'10", long. 75°48'50". Dug unused water-table well in Baltimore gneiss, diameter 24 inches, depth 20 feet, cased with stone. Land-surface datum is about 540 feet above msl. Sam Reyner, voluntary observer. Highest water level 10.24 below lsd, Mar. 20, 1953; lowest 14.90 below lsd, May 19, 1952. Records available: 1950-53.

Ch-11(K20b-7632)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	11.79	Feb. 9	11.05	Mar. 16	12.05	June 23	11.00
12	11.33	16	12.15	20	10.24	Oct. 23	13.47
19	11.09	24	12.15	23	12.05	Nov. 24	13.00
26	12.95	Mar. 3	12.10	Apr. 29	10.30	Dec. 7	13.00
Feb. 3	11.05	10	12.05	May 28	10.86		

Ch-12(K21a-3149). Thomas P. Harney. East Bradford Township. Lat. 39°57'10", long. 75°39'20". Dug unused water-table well in Baltimore gneiss, diameter 30 inches, depth 40 feet, cased with stone. Land-surface datum is about 290 feet above msl. Thomas P. Harney, voluntary observer. Highest water level 29.95 below lsd, Apr. 18, 1953; lowest dry, Dec. 7, 1951. Records available: 1951-53.

Jan. 11	34.75	Apr. 26	30.10	June 23	32.10	Sept. 21	35.64
18	34.05	29	30.20	28	32.28	27	35.80
Feb. 8	32.30	May 3	30.30	July 12	32.88	Oct. 21	36.50
11	32.28	10	30.30	19	33.30	23	36.75
Mar. 17	31.60	17	30.20	26	34.15	Nov. 18	36.50
20	30.73	24	31.15	Aug. 22	35.05	Dec. 16	36.50
22	30.60	28	31.27	Sept. 7	35.30	27	36.50
Apr. 18	29.95	June 21	32.00				

Ch-13(K21a-3512). Everett S. Barr. West Bradford Township. Lat. 39°57'00", long. 75°43'40". Dug unused water-table well in Peters Creek quartzite, diameter 24 inches, depth 18 feet, cased with stone. Land-surface datum is about 360 feet above msl. Highest water level 11.70 below lsd, June 6, 1952; lowest 17.20 below lsd, Sept. 26, 1951. Records available: 1951-53. Feb. 11, 13.39; Mar. 20, 12.40; Apr. 29, 13.33; May 28, 13.94; June 23, 13.88; Sept. 21, 16.00; Oct. 23, 16.78.

Ch-14(K21a-7841). John T. Crossland. Pocopson Township. Lat. 39°53'10", long. 75°40'20". Dug unused water-table well in gneiss of Wissahickon formation, diameter 36 inches, depth 26 feet, cased with stone. Land-surface datum is about 370 feet above msl. John T. Crossland, voluntary observer. Highest water level 17.30 below lsd, June 6, 1952; lowest 23.90 below lsd, Nov. 13, 1951. Records available: 1950-53.

Jan. 2	21.12	Mar. 30	17.35	June 15	18.76	Oct. 5	22.35
12	21.60	Apr. 9	17.42	22	19.05	12	22.56
19	20.25	13	17.40	23	19.07	19	22.73
26	19.82	27	17.37	29	19.32	23	22.78
Feb. 9	19.26	29	17.51	July 6	19.57	Nov. 2	22.95
23	19.17	May 4	17.74	20	20.10	16	23.07
Mar. 2	19.07	11	17.60	Aug. 10	20.72	23	23.24
9	18.93	18	18.14	24	21.16	30	23.35
20	18.06	25	18.47	31	21.45	Dec. 14	23.28
23	17.92	28	18.50	Sept. 21	22.95	28	23.12

Ch-15(K21b-7407). W. C. Appleton. Chadds Ford. Lat. 39°53'30", long. 75°36'40". Dug unused water-table well in gneiss of Wissahickon formation, diameter 42 inches, depth 38 feet, cased with stone. Land-surface datum is about 220 feet above msl. Miss Appleton, voluntary observer. Highest water level 20.94 below lsd, Feb. 14, 1952; lowest 31.98 below lsd, Oct. 23, 1953. Records available: 1950-53. Feb. 11, 22.60; Mar. 20, 21.25; Apr. 29, 23.14; May 28, 26.00; June 23, 26.23; Oct. 23, 31.98.

Clarion County

Cr-1(E6a-2560). John G. Meisinger. 614 Wood St., Clarion. Lat. 41°12'40", long. 79°23'00". Dug unused water-table well in sandstone of Allegheny formation, diameter 36 inches, depth 28 feet, cased with stone to 15. Land-surface datum is about 1,480 feet above msl. H. F. Brooks, voluntary observer. Highest water level 11.36 below lsd, Apr. 9, 1938; lowest 21.50 below lsd, Oct. 27, 1953. Records available: 1932-53.

Jan. 2	17.42	Feb. 20	15.24	Apr. 24	12.97	June 19	16.69
9	17.30	27	14.82	May 1	13.11	26	17.43
13	14.23	Mar. 6	14.57	8	13.99	July 3	17.65
16	14.16	13	14.36	15	14.20	17	18.84
23	13.59	20	13.04	23	13.54	25	18.06
30	13.04	27	12.10	29	12.82	28	18.69
Feb. 6	13.93	Apr. 6	12.70	June 5	12.83	31	17.98
14	13.81	10	13.11	12	15.10	Aug. 7	18.30
17	14.29	17	13.74	16	16.30	14	16.36

Cr-1(E6a-2560)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 18	17.70	Sept. 18	19.94	Oct. 27	21.50	Nov. 27	19.63
21	18.48	25	18.30	30	20.63	Dec. 4	19.60
28	19.38	Oct. 2	19.71	Nov. 6	20.73	11	17.46
Sept. 4	19.65	9	19.62	13	20.91	18	15.90
11	19.74	16	20.02	20	21.05	31	16.60
17	19.88	23	20.35				

Cr-3(D7c-2511). Commonwealth of Pennsylvania. Cook Forest Park. Lat. 41°20'20", long. 79°13'40". Drilled unused water-table well in sandstone of Pottsville or Pocono formation, diameter 6 inches, depth 130 feet, cased to 12. Land-surface datum is about 1,530 feet above msl. Paul R. Beattie, voluntary observer. Highest water level 44.7 below lsd, Mar. 16, May 5, 1951; lowest 92.20 below lsd, Dec. 6, 1952. Records available: 1950-53. Measurement discontinued.

Jan. 3	90.20	Apr. 11	62.60	July 11	57.90	Oct. 3	76.20
10	90.20	18	62.70	18	59.90	10	76.30
17	90.20	25	59.20	25	62.20	17	78.20
24	90.20	May 2	57.70	28	55.15	24	78.80
31	89.20	9	58.70	Aug. 1	63.80	31	80.00
Feb. 7	88.70	16	55.70	8	63.00	Nov. 7	82.00
14	85.70	23	56.20	15	65.30	14	82.40
21	77.10	30	50.80	22	68.00	21	83.00
28	75.70	June 6	51.00	29	68.70	28	83.40
Mar. 7	75.60	13	51.40	Sept. 5	69.60	Dec. 5	84.20
14	70.20	20	51.80	12	68.90	12	87.40
21	69.60	27	53.80	19	69.20	19	87.60
28	63.70	July 4	57.00	26	74.00	26	88.00
Apr. 4	64.30						

Clearfield County

Cf-4(F9b-2051). Jared I. McNaul. Curwensville. Lat. 40°58'10", long. 78°31'30". Dug unused water-table well in sandstone of Allegheny formation, diameter 5 feet, depth 30 feet. Land-surface datum is about 1,160 feet above msl. Highest water level 15.57 below lsd, Mar. 5, 1951; lowest 21.30 below lsd, Aug. 31, 1946. Records available: 1946-53.

Jan. 6	20.53	Apr. 13	19.05	July 6	18.94	Oct. 5	20.53
12	20.21	20	19.21	13	20.01	12	20.56
19	19.94	27	19.27	20	20.13	19	20.62
26	19.67	May 4	19.55	27	20.12	26	20.67
Feb. 2	19.88	11	19.74	Aug. 3	20.12	Nov. 2	20.82
9	19.88	18	19.72	10	19.84	9	20.78
16	19.90	25	19.26	17	19.71	16	20.67
23	19.78	June 1	18.03	24	20.04	23	19.90
Mar. 2	19.92	8	19.81	31	20.20	30	20.84
9	19.60	15	19.16	Sept. 7	20.32	Dec. 7	20.76
16	19.62	22	19.83	14	20.38	14	20.75
23	19.58	29	19.85	23	20.42	21	20.71
30	18.60	July 3	19.90	28	20.46	28	20.72
Apr. 6	19.02						

Clinton County

Cn-1(E12b-0653). Commonwealth of Pennsylvania. Sproul State Forest, Renovo. Lat. 41°14'20", long. 77°46'20". Drilled unused water-table well in sandstone of Pottsville formation, diameter 6 inches, depth 78 feet, cased to 38. Land-surface datum is about 2,050 feet above msl. Clarence F. Billotte, voluntary observer. Highest water level 44.0 below lsd, Jan. 13, 1951; lowest 55.72 below lsd, Nov. 14, 1953. Records available: 1950-53.

Jan. 3	55.18	Mar. 7	51.42	May 9	48.90	July 9	50.12
10	54.40	14	50.30	16	48.60	11	50.49
17	52.35	21	50.28	23	48.50	18	50.90
24	52.33	28	50.29	30	48.48	25	50.90
31	51.50	Apr. 4	48.90	June 6	48.47	Aug. 1	51.76
Feb. 7	51.48	11	48.89	13	48.46	8	51.77
14	51.48	18	48.50	20	48.60	15	51.79
21	51.46	25	48.50	27	49.00	22	52.90
28	51.45	May 2	48.52	July 4	49.55	29	52.96

Cn-1(E12b-0653)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 5	52.95	Oct. 10	53.56	Nov. 7	55.12	Dec. 5	55.24
12	53.55	17	54.81	14	55.72	12	55.20
19	53.54	24	55.10	21	55.59	19	55.19
26	53.58	31	55.12	28	55.50	26	53.20
Oct. 3	53.56						

Columbia County

Co-1(E18c-8318). Fred E. Walters. Fernville. Lat. 41°00'10", long. 76°27'50". Dug unused water-table well in sand of Pleistocene age, diameter 36 inches, depth 19 feet, cased with stone. Land-surface datum is about 490 feet above msl. Highest water level 4.88 below lsd, Sept. 2, 1933; lowest 14.51 below lsd, Dec. 15, 1931. Records available: 1931-53.

Jan. 3	10.95	Apr. 4	10.55	June 29	11.00	Sept. 26	13.48
10	9.98	11	10.46	July 4	11.58	Oct. 3	13.60
17	10.27	18	10.40	11	12.40	10	13.63
24	9.64	25	9.62	18	12.14	17	8.82
31	9.92	May 4	10.17	25	12.50	24	13.91
Feb. 8	10.52	9	11.50	Aug. 1	12.50	Nov. 7	13.70
14	10.40	16	10.80	8	12.40	14	13.34
21	10.51	24	9.70	15	11.75	21	13.50
28	11.12	30	9.72	22	13.42	28	13.34
Mar. 7	10.14	June 6	10.32	29	13.30	Dec. 5	12.73
14	11.32	9	10.39	Sept. 5	13.08	16	12.68
21	10.22	13	10.75	12	13.12	19	10.77
28	10.10	20	11.05	19	13.14	26	11.30

Cumberland County

Cu-2(J14d-6335). Commonwealth of Pennsylvania. Michaux State Forest. Lat. 40°02'03", long. 77°18'30". Drilled unused water-table well in sandstone of Loudoun formation of Early Cambrian age, diameter 6 inches, depth 60 feet. Land-surface datum is about 940 feet above msl. Mr. Hockley, voluntary observer. Highest water level 10.50 below lsd, May 1, 1952; lowest 29.50 below lsd, Dec. 3, 10, 1953. Records available: 1951-53.

1951

June 20	15.00	Aug. 30	24.58	Oct. 18	27.84	Nov. 23	28.50
July 17	19.49	Sept. 6	25.32	23	28.90	29	28.35
26	19.56	13	25.51	25	28.15	Dec. 6	27.51
Aug. 2	20.50	20	26.85	Nov. 2	28.65	13	26.44
9	22.17	27	26.77	8	28.58	20	25.85
16	23.13	Oct. 4	27.27	15	28.60	27	25.97
23	23.90	11	27.35				

1952

Jan. 3	23.53	Apr. 4	11.50	June 26	18.70	Sept. 25	23.40
10	22.25	17	12.50	July 3	19.80	Oct. 2	24.60
17	21.27	24	13.15	10	20.30	9	24.50
24	20.33	May 1	10.50	17	20.90	16	24.56
31	17.75	8	12.59	24	21.20	30	26.50
Feb. 7	18.25	15	13.10	31	21.00	Nov. 6	25.88
14	15.55	22	13.96	Aug. 14	22.80	13	26.00
21	15.89	29	13.40	21	22.55	20	27.50
28	16.20	June 5	15.10	28	23.78	27	27.20
Mar. 6	16.67	12	15.10	Sept. 4	23.10	Dec. 3	22.50
13	14.89	18	17.52	11	23.40	10	23.36
20	13.78	19	17.90	18	23.50	18	23.40
27	12.39						

Cu-2(J14d-6335)--Continued.

1953

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	22.27	Mar. 26	14.50	June 25	14.50	Sept. 24	25.50
8	16.80	Apr. 2	13.50	30	16.94	Oct. 1	25.30
15	16.60	9	13.78	July 9	18.10	8	25.50
22	14.50	16	13.40	16	19.50	15	25.50
29	14.40	23	14.10	23	20.50	22	28.50
Feb. 5	15.50	30	14.10	30	20.90	29	28.70
12	14.50	May 7	13.48	Aug. 13	22.50	Nov. 12	28.50
19	14.50	14	13.50	20	22.50	19	27.20
26	13.70	21	14.00	27	23.70	Dec. 3	29.50
Mar. 5	14.20	28	13.50	Sept. 3	24.90	10	29.50
12	14.90	June 11	13.70	10	24.70	17	28.70
19	15.10	18	14.50	17	26.10	31	28.50

Delaware County

De-3(K21d-2125). Michael S. Ebert. Birmingham Township. Lat. 39°50'40", long. 75°34'10". Dug unused water-table well in gneiss of Wissahickon formation, diameter 42 inches, depth 22 feet, cased with stone. Land-surface datum is about 260 feet above msl. Michael S. Ebert, voluntary observer. Highest water level 11.29 below lsd, Feb. 11, 1952; lowest 18.03 below lsd, Nov. 5, 1951. Records available: 1950-53.

Lowest water level from recorder graph

Jan. 5	13.55	May 11	13.87	Aug. 10	15.98	Nov. 3	17.76
12	12.70	18	14.25	17	16.15	4	17.77
19	12.37	25	14.54	24	16.35	7	17.77
26	12.03	28	14.33	31	16.52	8	17.78
Feb. 2	12.20	June 1	14.11	Sept. 7	16.70	9	17.78
9	13.03	8	13.59	14	16.99	10	17.77
16	13.52	15	13.78	21	17.01	11	17.74
23	13.75	22	14.19	28	17.14	12	17.71
Mar. 2	13.78	23	14.29	Oct. 5	17.30	13	17.65
9	13.75	29	14.62	12	17.40	14	17.61
16	13.14	July 6	14.87	19	17.56	15	17.59
20	12.27	7	15.00	23	17.66	16	17.55
23	12.18	8	14.88	26	17.71	19	17.40
30	11.90	9	15.01	28	17.75	23	17.17
Apr. 6	12.60	10	14.96	29	17.77	30	16.88
13	12.75	11	15.06	30	17.71	Dec. 7	16.53
20	12.43	13	15.14	31	17.74	14	15.45
27	12.83	20	15.36	Nov. 1	17.75	21	13.75
29	13.00	25	15.57	2	17.74	28	13.61
May 4	13.41	Aug. 3	15.80				

Elk County

Ek-1(D9d-0909). Mrs. Elizabeth Ernst. Kersey. Lat. 41°21'40", long. 78°36'20". Drilled unused water-table well in shale of Allegheny formation, diameter 4 inches, depth 87 feet. Land-surface datum is about 1,900 feet above msl. Highest water level 6.62 below lsd, June 11, 1943; lowest 11.40 below lsd, Nov. 2, 1951. Records available: 1941-53.

Jan. 2	9.06	Apr. 3	7.52	July 3	7.62	Oct. 2	9.08
9	9.19	10	7.30	10	8.05	9	8.85
16	9.25	17	7.40	17	8.25	16	8.90
23	9.00	24	7.30	24	8.15	23	9.06
30	8.89	May 1	7.30	31	8.12	30	9.20
Feb. 6	8.73	8	7.32	Aug. 7	8.02	Nov. 6	9.15
13	8.60	15	7.40	14	8.07	13	9.24
20	8.70	22	7.20	21	8.46	20	9.15
27	8.65	29	7.10	28	8.53	27	9.15
Mar. 6	8.60	June 5	6.96	Sept. 4	9.10	Dec. 4	9.02
13	8.39	12	7.12	11	8.85	11	8.82
20	8.18	19	7.45	18	9.05	18	8.84
27	7.60	26	7.60	25	8.78	25	8.72

Erie County

Er-1(B4b-3203). Mrs. Grace P. Estes. Near Carters Corners. Lat. 41°57'10", long. 79°52'00". Dug unused water-table well in sand of Pleistocene age, diameter 4 feet, depth 19 feet. Land-surface datum is about 1,440 feet above msl. Julius Horvath, voluntary observer. Highest water level 7.22 below lsd, Apr. 20, 1952; lowest dry, Sept. 8-Dec. 1, 1934. Records available: 1931-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	12.88	Apr. 13	11.79	July 19	17.11	Oct. 4	17.23
15	12.14	29	10.98	29	16.88	25	17.42
Feb. 1	11.13	May 10	11.16	Aug. 9	17.11	28	17.28
15	11.80	31	8.85	20	17.05	Nov. 8	17.56
19	12.38	June 2	8.95	23	17.23	22	17.56
Mar. 11	11.48	15	12.92	Sept. 13	17.16	Dec. 14	17.52
22	12.18	July 5	16.68	23	16.95		

Fulton County

Fu-1(J11c-4954). Commonwealth of Pennsylvania. Buchanan State Forest. Lat. 40°03'12", long. 78°08'52". Drilled unused water-table well in shale or sandstone of Mauch Chunk formation, diameter 6 inches, depth 116 feet. Land-surface datum is about 1,180 feet above msl. Harrison Horton, voluntary observer. Highest water level 2.60 below lsd, May 21, 1952; lowest 6.80 below lsd, Nov. 4, 11, 18, 1953. Records available: 1951-53.

1951

June 19	4.50	Aug. 31	5.80	Oct. 11	6.10	Nov. 21	5.70
July 18	4.50	Sept. 5	5.70	17	6.10	28	5.60
25	4.20	12	5.70	24	6.10	Dec. 6	5.50
Aug. 1	4.70	19	5.90	31	6.00	12	5.40
9	4.70	26	6.00	Nov. 8	5.70	20	5.40
15	5.30	Oct. 4	6.00	15	5.60	26	5.20
23	5.50						

1952

Jan. 3	3.00	Apr. 9	2.90	July 9	3.50	Oct. 8	5.20
9	3.50	16	2.90	16	4.30	15	5.20
16	3.40	23	3.40	23	4.90	22	5.40
23	3.70	30	3.00	30	5.00	29	5.60
30	3.10	May 7	2.90	Aug. 6	5.00	Nov. 5	5.60
Feb. 6	3.10	14	2.70	13	5.00	12	5.80
13	3.20	21	2.60	20	4.90	19	5.80
23	3.80	June 4	3.40	27	5.30	26	3.50
27	3.90	11	3.80	Sept. 3	4.60	Dec. 3	3.40
Mar. 5	4.10	17	4.70	10	4.80	10	3.40
12	3.40	19	4.79	17	5.30	17	3.30
19	3.40	25	4.30	24	5.20	24	3.40
26	3.20	July 1	4.90	Oct. 1	5.40	31	3.80
Apr. 2	3.20						

1953

Jan. 7	4.20	Apr. 15	3.00	July 15	5.40	Oct. 14	6.70
14	2.80	22	3.10	22	5.50	21	6.70
21	2.80	29	3.10	29	5.40	28	6.70
28	2.90	May 6	3.10	Aug. 5	5.50	Nov. 4	6.80
Feb. 4	3.60	13	3.20	12	5.50	11	6.80
11	3.50	20	3.40	19	5.70	18	6.80
18	3.40	27	4.00	26	5.90	25	6.50
25	3.20	June 3	3.20	Sept. 2	6.20	Dec. 2	6.40
Mar. 4	3.20	10	3.80	9	6.20	9	6.30
11	3.20	17	4.20	16	6.20	16	6.10
18	3.20	24	4.80	23	6.40	23	6.10
25	3.10	July 1	5.00	30	6.60	30	6.20
Apr. 8	3.00	8	5.30	Oct. 7	6.70		

Huntingdon County

Hu-1(H11c-1559). Fred M. Schell. Near Aitch and Marklesburg. Lat. 40°21'10", long. 78°08'20". Drilled unused water-table well in sandstone of Chemung formation, diameter 6 inches, depth 42 feet. Land-surface datum is about 720 feet above msl. Highest water level at land-surface datum, Mar. 15, 1941; lowest 26.25 below lsd, Oct. 1, 1932. Records available: 1931-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	21.12	Apr. 4	18.16	July 1	21.40	Sept. 26	22.66
10	20.85	11	19.06	4	20.99	Oct. 3	22.97
17	18.03	18	19.75	11	20.69	10	22.85
24	17.01	25	20.57	18	21.13	17	23.30
31	18.03	May 2	20.50	25	21.17	24	23.37
Feb. 7	19.88	9	20.91	Aug. 1	21.30	31	23.24
14	20.51	16	21.19	8	21.81	Nov. 7	23.13
21	20.42	23	21.41	15	21.45	14	24.62
28	20.40	30	21.37	22	21.55	21	24.86
Mar. 7	20.07	June 6	19.26	29	22.02	Dec. 5	24.60
14	21.89	13	19.95	Sept. 5	22.32	12	25.17
21	18.34	20	20.89	12	22.39	26	24.90
28	15.55	27	21.34	19	22.56		

Hu-4(G12b-4404). Commonwealth of Pennsylvania. Logan State Forest. Lat. 40°41'10", long. 77°51'50". Drilled unused water-table well in shale or sandstone of Clinton formation, diameter 6 inches, depth 73 feet. Land-surface datum is about 1,060 feet above msl. W. M. Eckley, voluntary observer. Highest water level 34.71 below lsd, June 15, 1951; lowest 39.37 below lsd, Nov. 14, 1952. Records available: 1950-53. Measurement discontinued.

Jan. 2	37.57	Feb. 13	36.42	Mar. 27	34.75	May 2	36.13
9	37.39	20	36.42	Apr. 5	36.12	10	36.18
16	35.71	27	36.29	11	35.56	16	36.44
23	35.61	Mar. 6	36.25	19	35.75	24	36.14
30	36.32	14	36.25	24	36.26	28	35.41
Feb. 6	36.69	20	35.85				

Indiana County

In-1(G7c-0547). Commonwealth of Pennsylvania. Indiana State Teachers College, Indiana. Lat. 40°37'00", long. 79°09'30". Drilled unused artesian well in sandstone of Cone-maugh formation, diameter 6 inches, depth 200 feet. Land-surface datum is about 1,300 feet above msl. Highest water level 73.80 below lsd, Apr. 7, 1953; lowest 92.45 below lsd, Sept. 27, 1952. Records available: 1944-53.

Jan. 3	82.50	Apr. 18	74.00	July 28	80.45	Oct. 12	82.70
17	82.70	25	74.10	Aug. 1	80.58	17	82.85
24	80.70	May 2	74.80	8	80.70	24	82.90
31	80.20	16	76.30	15	80.92	31	83.20
Feb. 7	79.34	29	77.50	22	81.40	Nov. 7	78.70
14	78.20	June 6	78.05	29	81.80	14	83.50
21	77.11	20	79.50	Sept. 5	82.15	21	82.70
Mar. 7	76.10	27	80.50	12	82.10	30	83.95
14	75.50	July 3	80.30	19	82.55	Dec. 5	84.25
28	74.20	11	80.70	26	82.30	12	83.90
Apr. 7	73.80	18	81.00	Oct. 3	82.52	19	83.60
11	73.90	27	80.50				

Lackawanna County

Lk-2(C22c-4709). Orval J. Ransom. Near Carbondale. Lat. 41°33'20", long. 75°28'50". Dug unused water-table well in sand of Pleistocene age, diameter 24 inches, depth 18 feet, cased with stone. Land-surface datum is about 1,615 feet above msl. Highest water level 1.00 below lsd, Jan. 24, 1953; lowest 13.10 below lsd, Oct. 15, 1943. Records available: 1931-53.

Jan. 2	5.01	Feb. 6	4.24	Mar. 27	1.48	May 15	3.70
9	5.95	13	4.14	Apr. 2	2.70	22	4.43
16	4.70	20	4.85	10	2.10	29	5.60
23	3.30	27	3.33	17	3.10	June 5	5.50
24	1.00	Mar. 6	2.80	25	3.98	9	4.55
28	3.25	13	4.85	May 1	2.90	12	5.10
30	3.23	20	2.38	7	2.10	19	5.01

Lk-2(C22c-4709)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 26	6.60	Aug. 13	10.21	Oct. 2	11.89	Nov. 21	10.75
July 3	7.33	21	10.80	10	12.42	27	8.59
10	8.52	27	10.85	17	12.71	Dec. 4	7.77
18	9.30	Sept. 4	11.84	23	12.95	11	3.75
23	9.52	11	12.92	30	12.83	19	4.95
31	9.59	18	11.90	Nov. 6	12.12	26	6.02
Aug. 7	9.86	25	12.02	13	12.45		

Luzerne County

Lu-2(D18d-5152). Commonwealth of Pennsylvania. Ricketts Glen State Park. Lat. 41°18'00", long. 76°16'20". Dug unused water-table well in sandstone or shale of Catskill formation, diameter 18 inches, depth 24 feet. Land-surface datum is about 1,290 feet above msl. Warren A. Cope, voluntary observer. Highest water level 9.29 below lsd, Dec. 31, 1949; lowest dry several times 1948-53. Records available: 1948-53.

Jan. 9	13.99	Feb. 27	11.51	Apr. 10	10.92	May 22	13.50
16	12.31	Mar. 6	11.12	17	11.08	29	13.60
23	11.45	13	12.39	24	11.80	June 5	11.40
30	10.93	20	12.30	May 1	12.26	9	12.06
Feb. 6	11.97	27	10.69	8	12.09	12	12.60
13	12.24	Apr. 2	10.80	15	11.20	19	12.40
20	12.30						

Lycoming County

Ly-1(D13b-2229). Commonwealth of Pennsylvania. Tiadaghton State Forest. Lat. 41°28'00", long. 77°33'50". Drilled unused water-table well in sandstone of Pottsville or Pocono formation, diameter 4 inches, depth 74 feet. Land-surface datum is about 2,070 feet above msl. George B. Will, voluntary observer. Highest water level 16.97 below lsd, Dec. 11, 1950; lowest 30.75 below lsd, Nov. 19, 1951. Records available: 1949-53.

Jan. 5	24.15	Apr. 21	22.10	July 16	27.00	Oct. 19	29.70
12	24.97	28	23.30	21	26.65	26	23.75
21	24.45	May 6	22.49	27	26.95	Nov. 4	24.10
26	24.54	18	23.00	Aug. 12	28.10	9	23.70
Feb. 4	22.95	26	20.60	17	28.28	16	30.60
9	23.22	June 1	19.36	25	22.05	23	22.53
16	23.80	9	19.52	31	23.00	30	24.72
Mar. 16	23.36	23	23.90	Sept. 10	23.25	Dec. 7	24.00
30	21.50	July 1	25.40	15	22.85	16	21.63
Apr. 7	21.10	8	25.80	Oct. 9	23.40	28	26.58
13	21.34	9	25.53	12	23.75		

Mifflin County

Mf-1(G13b-3237). Charles C. Naginey. Naginey. Lat. 40°42'10", long. 77°33'10". Dug unused water-table well in limestone of Cambrian or Ordovician age, diameter 36 inches, depth 28 feet, cased with stone. Land-surface datum is about 680 feet above msl. Highest water level 5.88 below lsd, Dec. 4, 1950; lowest 23.77 below lsd, Nov. 16, 1953. Records available: 1941-53.

Jan. 5	19.32	Apr. 6	16.58	July 2	21.38	Oct. 7	23.04
12	16.37	13	16.36	6	21.57	12	23.08
19	15.28	21	16.98	13	22.14	19	23.39
26	12.29	28	16.73	20	22.38	26	23.50
Feb. 3	16.94	May 5	17.02	28	22.45	Nov. 3	23.15
9	17.81	12	17.08	Aug. 3	22.83	9	23.17
16	18.72	18	17.31	10	19.40	16	23.77
23	17.15	25	16.64	17	22.56	23	20.25
Mar. 2	17.64	June 1	8.82	31	22.90	30	20.19
9	17.98	8	14.20	Sept. 8	22.90	Dec. 7	20.60
16	17.46	15	16.46	14	22.91	14	19.60
23	16.72	23	17.92	21	22.87	21	22.03
30	13.96	29	20.44	28	23.08	28	23.25

Montgomery County

Mg-3(J22a-0622). Gottfried Ott. Near Schwenksville. Lat. 40°14'20", long. 75°27'20". Dug unused water-table well in shale of Brunswick shale, diameter 4 feet, depth 29 feet. Land-surface datum is about 170 feet above msl. Highest water level 6.65 below lsd, Dec. 22, 1949; lowest 13.80 below lsd, Oct. 21, 1949. Records available: 1948-51. Measurement discontinued.

Mg-4(J22a-4018). Collegeville-Trappe Joint Water Works. West First Ave., Trappe. Lat. 40°11'30", long. 75°27'50". Drilled unused artesian well in Brunswick shale, diameter 8 inches, depth 275 feet. Land-surface datum is about 220 feet above msl. Charles J. Smedley, voluntary observer. Highest water level 12.80 below lsd, Apr. 30, 1952; lowest 85.0 below lsd, Nov. 26, 1953. Records available: 1949-53. Water levels are affected by pumping of other municipal wells.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.5	23.7	29.7	24.0	30.0	22.0	39.6	....	....	....	....	83.5
2	27.7	19.7	30.4	24.6	30.3	17.7	....	....	....	....	....	84.1
3	22.4	25.6	26.2	19.5	29.9	23.4	41.2	....	64.08	70.90	79.58	83.0
4	27.5	26.3	24.4	25.4	30.7	23.6	41.6	....	....	....	80.2	85.0
5	28.4	22.0	28.7	26.1	26.5	18.6	40.8	....	....	....	82.1	85.5
6	25.3	28.3	28.9	21.4	24.5	24.8	41.5	....	....	....	82.4	84.4
7	30.6	28.6	22.6	26.3	30.5	25.2	....	....	....	....	81.4	84.6
8	31.6	27.4	27.5	26.8	30.8	20.3	....	....	64.61	....	82.1	83.9
9	26.3	28.2	28.1	20.1	25.2	26.2	....	....	....	....	82.3	84.0
10	23.0	24.1	30.2	26.0	30.0	26.5	....	....	....	73.54	82.0	83.0
11	23.2	23.5	30.5	26.0	30.7	....	....	....	....	....	82.1	83.1
12	16.7	29.7	24.5	24.7	26.5	26.0	....	....	65.00	....	83.2	81.0
13	22.7	34.4	28.7	24.9	26.0	24.1	....	....	....	....	83.9	79.0
14	23.2	34.7	28.8	19.8	32.2	25.8	....	....	....	....	82.7	76.6
15	17.4	31.4	25.0	24.5	32.7	26.4	....	....	....	....	82.8	72.6
16	23.4	31.5	25.0	24.8	27.3	22.3	....	....	....	....	82.7	70.5
17	23.6	24.5	18.5	19.0	31.5	22.0	....	....	....	....	84.0	67.9
18	23.6	29.8	16.9	18.9	31.9	28.1	....	....	68.10	74.64	84.5	....
19	24.2	30.2	23.0	23.9	32.0	28.5	....	....	....	....	83.7	64.0
20	25.1	23.8	23.2	24.3	25.4	23.9	....	....	....	....	84.2	64.0
21	25.5	28.9	17.5	20.7	31.4	29.5	....	....	....	....	83.9	61.0
22	19.9	29.3	22.7	25.8	31.4	30.1	....	....	....	....	84.7	60.7
23	24.8	26.9	22.9	26.3	23.6	26.1	....	....	....	....	82.9	61.3
24	24.8	29.5	18.2	21.3	26.9	26.0	....	....	68.87	....	84.2	57.6
25	22.2	30.0	17.2	27.0	27.3	32.5	....	....	....	....	84.5	57.0
26	22.4	26.8	21.7	27.7	22.5	33.7	....	....	....	....	85.0	57.9
27	17.3	30.2	21.7	22.3	19.4	36.3	....	....	....	....	84.4	53.4
28	22.4	30.4	16.2	28.7	25.0	33.8	....	....	....	....	82.3	....
29	22.7	....	21.8	29.2	25.1	32.3	....	....	....	79.31	82.4	....
30	18.2	....	22.1	23.5	18.9	38.7	....	....	....	....	81.5	51.6
31	23.5	....	17.8	....	21.8	....	....	....	....	....	....	....

Northampton County

Np-1(G22d-1955). H. Richard Gault. Lower Saucon Township. Lat. 40°35'50", long. 75°16'10". Dug unused water-table well in Byram granite gneiss, diameter 4 feet, depth 41 feet, cased with stone. Land-surface datum is about 610 feet above msl. H. Richard Gault, voluntary observer. Highest water level 12.9 below lsd, May 2, 1952; lowest 33.2 below lsd, Sept. 26-27, 1953. Records available: 1951-53. Recording gage removed Sept. 28, 1953.

Daily lowest water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	....	e17.9	21.1	19.0	....	23.2	26.1	28.9	31.7
2	....	18.1	21.2	19.3	....	23.3	....	29.0	31.8
3	....	e18.3	21.3	19.4	19.6	23.4	....	e29.2	31.8
4	23.1	....	21.3	19.6	19.8	23.5	....	29.3	31.9
5	23.1	....	21.4	19.9	19.9	23.5	....	29.4	32.0
6	23.2	19.3	21.4	20.0	20.1	23.6	....	....	32.0
7	23.3	19.5	21.3	20.2	20.3	23.7	....	....	32.1
8	23.4	e19.7	21.0	20.4	20.5	23.7	....	....	32.2
9	23.4	....	20.8	20.4	20.6	23.8	....	e29.8	32.2
10	23.4	....	20.8	20.2	20.8	23.9	....	29.9	32.3

Np-1(G22d-1955)--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	23.4	....	20.8	19.9	20.9	24.0	....	29.9	32.3
12	23.3	....	20.8	19.8	21.1	24.1	....	30.0	32.4
13	23.2	....	20.9	....	21.3	24.1	....	30.1	32.4
14	22.4	....	21.0	....	21.4	24.3	....	30.2	32.5
15	21.7	....	21.0	....	21.5	24.4	....	30.3	32.5
16	21.1	....	21.1	....	21.7	24.5	....	30.4	32.6
17	20.8	....	21.1	....	21.8	24.6	....	30.4	32.7
18	e20.6	....	20.8	e19.2	21.9	....	....	30.5	32.7
19	....	....	20.4	e19.2	22.1	....	....	30.6	32.7
20	....	....	20.1	19.2	22.2	....	....	30.7	32.9
21	....	....	20.0	19.2	22.3	....	....	30.8	32.9
22	....	e21.1	19.9	19.2	22.4	e25.2	....	30.9	33.0
23	....	21.1	19.9	19.3	22.6	e25.3	....	30.9	33.0
24	....	21.1	19.8	19.4	22.8	e25.5	....	31.0	33.1
25	e19.9	20.9	19.8	19.5	22.8	e25.6	....	31.1	33.1
26	19.0	20.9	e19.7	19.7	22.9	25.7	....	31.2	33.2
27	e17.9	20.8	19.6	....	23.0	25.8	....	31.3	33.2
28	....	21.0	19.5	....	23.1	25.9	....	31.4	....
29	....	....	19.2	....	23.1	26.0	....	31.5	....
30	....	....	19.0	....	23.1	26.0	....	31.6	....
31	....	....	18.9	....	23.2	....	e28.8	31.6	....

* No record for October, November, and December.

e Estimated.

Perry County

Pe-2(H15a-1461). Bertha Demaree. 29 North Third St., Newport. Lat. 40°28'40", long. 77°08'00". Dug unused water-table well in sandstone of Chemung formation, diameter 36 inches, depth 20 feet, cased with stone. Land-surface datum is about 400 feet above msl. Mrs. Frances K. Fry, voluntary observer. Highest water level 7.18 below lsd, Apr. 27, 1940; lowest 18.19 below lsd, May 28, 1943. Records available: 1931-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	15.48	Mar. 7	13.21	Sept. 14	15.28	Nov. 5	16.26
18	13.86	Apr. 5	11.72	19	15.33	14	16.23
27	12.69	8	12.01	26	15.31	21	16.18
31	14.03	May 10	12.60	29	15.55	28	16.16
Feb. 8	14.42	June 23	11.89	Oct. 2	15.64	Dec. 5	16.28
14	14.48	July 16	13.44	18	15.96	11	16.33
21	14.53	24	12.54	24	16.04	19	16.31
Mar. 3	13.16	Aug. 25	14.74	31	16.09	27	15.93

Pe-3(G15c-4363). I. L. Zeigler. Near Millerstown. Lat. 40°33'40", long. 77°07'40". Dug unused water-table well in weathered shale of Cayuga group, diameter 4 feet, depth 12 feet, cased with stone. Land-surface datum is about 460 feet above msl. Highest water level 0.63 below lsd, May 7, 1943; lowest 8.33 below lsd, Dec. 11, 1939. Records available: 1936-48, 1950-53. Water levels in reports prior to 1953 are recorded 1.0 above lsd. Measurement discontinued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	1.49	May 11	1.52	July 22	1.35	Nov. 5	6.92
Mar. 2	1.52	June 22	1.54	Aug. 24	1.80	Dec. 10	1.98
Apr. 6	1.50	July 16	1.53	Sept. 29	3.77		

Philadelphia County

Ph-5(K23a-7634). U. S. Navy Department, Naval Base. League Island, Philadelphia. Lat. 39°53'20", long. 75°11'00". Drilled standby artesian well in sand and gravel of Cretaceous age ("lower" aquifer), diameter 30 to 12 inches, depth 203 feet (about 15 feet into rock), cased to 148, screen 148-173. Land-surface datum is 14.76 feet above msl. Highest water level 31.5 below lsd, Nov. 25, 1950; lowest 52.89 below lsd, Dec. 30, 1953. Records available: 1944-51, 1953. Mean daily range of fluctuation 1.4 feet.

Ph-5(K23a-7634)--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 17	42.00	May 26	40.85	Aug. 3	45.12	Oct. 8	42.47
Mar. 17	40.90	June 2	40.12	10	44.63	15	42.58
Apr. 7	39.36	8	40.38	21	43.40	22	40.20
14	37.12	15	38.20	28	46.12	Nov. 5	46.10
21	39.62	22	41.29	Sept. 3	47.92	12	48.47
28	39.02	July 6	42.42	10	48.48	25	47.24
May 5	39.78	13	42.60	16	46.50	Dec. 9	49.22
12	39.04	20	34.53	25	43.02	30	52.89
19	42.60	27	41.92	Oct. 1	43.37		

Ph-11. U. S. Navy Department, Naval Base, League Island. Lat. 39°53'40", long. 75°10'20". Drilled observation artesian well in sand of Cretaceous age ("middle" aquifer), diameter 8 inches, depth 237 feet (10 feet into rock), cased to 94, screen 94-104. Highest water level 24.98 below lsd, June 1, 1952; lowest 36.01 below lsd, Mar. 10, 1950. Records available: 1945-53. Water levels are affected by pumping of well 1,800 feet distant. Mean daily range of fluctuation caused by tidal loading, 0.2 foot. Water levels in reports prior to 1953 are recorded 1.0 above lsd.

Jan. 1	28.7	Feb. 10	28.14	June 8	25.24	Sept. 16	31.84
2	27.4	17	27.80	15	25.00	25	29.96
3	26.8	Mar. 3	28.89	22	26.24	Oct. 1	30.22
4	26.6	17	28.07	29	28.31	8	30.65
5	28.4	24	27.68	July 6	27.29	15	30.71
6	29.3	30	26.52	13	28.20	22	30.04
7	29.6	Apr. 7	25.74	20	29.64	29	29.37
8	29.6	14	26.04	27	29.02	Nov. 5	30.15
9	29.4	21	25.98	Aug. 3	30.60	12	32.48
10	29.2	28	26.36	10	30.75	25	32.33
11	28.4	May 5	26.27	17	31.05	Dec. 2	33.74
12	29.2	12	26.53	21	31.03	9	34.30
13	29.3	19	26.90	28	31.64	16	34.36
20	28.74	26	25.65	Sept. 3	32.10	23	35.03
27	28.97	June 2	25.47	10	32.52	30	32.73
Feb. 3	28.26						

Ph-12. U. S. Navy Department, Naval Base, League Island. Lat. 39°53'40", long. 75°10'20". Drilled observation artesian well in sand of Cretaceous age ("middle" aquifer), diameter 8 inches, depth 110 feet, cased to 94, screen 94-104. Highest water level 23.9 below lsd, May 31, 1953; lowest 36.17 below lsd, Mar. 10, 1950. Records available: 1944-53. Water levels are affected by pumping of well 1,100 feet distant. Mean daily range of fluctuation caused by tidal loading, 0.2 foot.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.9	25.7	25.4	26.5	25.6	25.1	27.8	28.7	30.5	29.2	27.4	31.5
2	26.1	27.0	27.2	26.6	25.2	25.6	27.8	28.6	30.5	29.7	28.6	32.0
3	25.5	27.3	27.6	26.5	24.0	26.3	28.0	29.3	30.7	29.2	28.6	32.3
4	25.2	27.6	27.4	26.0	25.2	26.2	28.1	28.9	30.8	27.0	29.4	32.0
5	27.1	27.4	28.1	24.9	25.9	26.4	26.6	28.4	30.8	27.6	29.4	31.0
6	27.8	27.3	28.0	25.9	26.0	25.7	27.0	29.6	29.9	28.0	29.7	30.9
7	28.2	27.2	27.6	26.1	26.2	24.5	27.7	29.6	29.6	29.1	29.2	31.8
8	28.0	25.2	26.4	26.7	26.5	26.4	27.9	29.5	30.8	29.5	29.0	32.2
9	27.9	26.9	27.5	26.8	26.4	26.3	28.4	28.6	31.1	29.4	29.7	32.2
10	27.3	27.5	28.1	26.9	24.6	26.8	28.8	28.8	31.1	29.0	30.5	32.2
11	....	27.6	28.4	25.9	26.0	26.9	28.7	29.0	31.1	27.3	30.4	32.6
12	....	27.1	28.3	24.3	26.1	26.6	26.8	29.1	30.8	28.5	31.2	32.3
13	28.3	27.6	28.0	25.9	26.6	26.3	27.6	29.7	29.4	29.0	31.4	30.9
14	28.6	27.4	27.4	26.2	27.0	24.2	28.4	29.9	30.2	29.2	31.0	31.0
15	28.6	25.9	25.5	26.2	27.0	25.8	28.5	29.6	30.2	29.1	29.4	31.9
16	28.7	26.2	26.7	25.8	26.6	25.8	28.9	29.0	30.3	29.4	29.8	32.3
17	28.7	26.6	27.1	26.1	25.1	26.2	29.0	29.7	30.9	28.6	30.0	32.5
18	27.3	27.1	27.3	25.8	25.7	26.6	28.9	29.6	31.0	27.6	30.0	32.8
19	27.1	27.8	27.4	24.1	26.2	26.9	27.5	29.0	30.4	29.0	30.0	32.7
20	27.6	27.8	....	25.4	26.6	26.1	28.7	29.2	28.6	28.6	....	31.7
21	27.6	27.7	....	26.0	26.8	25.3	29.0	30.0	29.3	28.8	....	32.4
22	28.0	25.4	25.7	26.2	26.3	25.6	29.2	29.3	29.4	29.0	....	32.5
23	27.9	25.3	26.7	26.0	25.2	26.8	29.2	29.0	28.9	29.0	....	32.6
24	27.8	26.8	26.7	26.5	24.8	27.4	29.7	29.5	....	28.7	....	32.2
25	25.9	27.3	27.0	26.5	25.9	27.6	29.7	30.1	29.5	26.9	30.2	30.9

Ph-12--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	27.6	27.3	27.2	24.1	25.9	27.7	28.4	29.9	29.3	28.3	30.0	30.0
27	27.6	27.0	27.3	25.2	25.9	27.8	29.1	30.1	27.0	28.4	29.8	30.8
28	27.4	27.1	26.7	25.7	26.5	27.2	29.2	30.2	28.1	28.4	30.1	30.5
29	27.9		24.7	25.9	26.3	27.3	29.0	30.2	28.8	28.0	30.0	30.1
30	28.0		26.0	26.0	25.7	27.8	29.0	29.0	28.7	28.9	31.0	30.6
31	28.0		26.4		23.9		29.0	30.0		28.5		30.3

Ph-13. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'30", long. 75°10'20". Drilled observation artesian well in sand and gravel of Pleistocene or Recent age, diameter 8 inches, depth 73 feet, cased to 54, screen 54-63. Highest water level 21.3 below lsd, June 1, 1953; lowest 29.33 below lsd, Mar. 11, 1950. Records available: 1945-53. Mean daily range of fluctuation caused by tidal loading, 0.1 foot. Water levels in reports prior to 1953 are recorded 1.9 above lsd.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.3	22.9	23.1	22.3	21.7	21.3	22.5	23.7	24.5	24.1	23.8	24.8
2	23.2	23.1	23.1	22.5	21.7	21.5	22.5	23.7	24.5	24.3	23.7	25.0
3	22.6	22.9	23.1	22.5	21.7	21.7	22.7	23.8	24.6	24.4	23.7	25.1
4	22.6	23.1	22.8	22.5	21.7	21.8	22.9	23.8	24.7	24.0	24.1	25.2
5	22.3	23.1	23.3	22.3	21.6	21.7	22.8	23.5	24.6	23.5	24.3	25.3
6	23.2	23.1	23.4	22.2	21.5	21.8	22.5	23.9	24.6	23.3	24.4	25.2
7	23.6	22.9	23.7	21.9	21.5	21.8	22.5	23.9	24.5	24.0	24.1	25.2
8	23.6	22.7	23.4	22.0	21.6	21.7	22.6	23.8	24.9	24.2	24.2	25.3
9	23.3	22.8	23.2	22.2	21.8	21.6	23.0	23.7	25.1	24.2	24.2	25.3
10	23.2	23.2	23.5	22.0	21.7	22.0	23.2	23.8	25.1	24.1	24.4	25.4
11	22.9	23.3	23.7	22.1	21.5	22.1	23.3	24.1	25.0	23.8	24.4	25.7
12	23.8	22.6	23.6	21.9	21.5	22.1	23.2	24.1	24.8	23.9	24.7	25.7
13	23.5	22.9	23.2	21.6	21.8	22.0	22.9	24.0	24.5	24.1	24.8	25.3
14	23.7	23.1	23.2	22.2	21.9	21.6	23.0	24.0	24.6	24.1	24.8	24.9
15	23.7	22.8	22.9	22.3	22.0	21.4	23.1	24.0	24.6	24.0	24.5	....
16	23.9	22.6	22.5	22.0	22.1	21.4	23.2	24.0	24.6	24.1	24.3	25.5
17	24.1	23.1	22.7	21.9	22.0	21.4	23.3	24.0	24.8	24.2	24.4	25.8
18	23.7	23.2	22.7	21.9	21.4	21.7	23.4	....	25.1	24.2	24.5	25.9
19	23.1	23.4	22.6	21.6	21.6	22.0	23.2	....	25.0	23.9	24.6	26.1
20	23.2	23.5	23.1	21.5	21.8	21.9	23.1	....	24.4	23.9	....	25.8
21	23.2	23.1	23.2	21.9	22.0	21.8	23.3	24.3	24.3	24.1	....	25.6
22	23.3	23.1	23.1	22.1	21.8	21.7	23.4	24.3	24.6	24.0	....	....
23	23.4	23.1	22.7	21.7	21.8	21.8	23.3	24.0	24.7	24.1	....	25.9
24	22.9	22.8	22.4	22.1	21.9	22.3	23.9	24.1	....	24.2	....	26.0
25	22.5	22.7	22.3	22.1	21.7	22.4	24.1	24.3	24.4	24.2	23.8	25.8
26	23.2	22.6	22.5	21.6	21.5	22.4	23.9	24.2	24.2	23.9	24.2	25.3
27	22.8	22.6	22.6	21.6	21.8	22.8	23.6	24.3	23.8	23.9	24.3	25.4
28	22.7	22.9	22.5	21.9	22.2	22.7	23.7	24.3	23.6	24.1	24.6	25.4
29	23.1		22.2	22.0	22.2	22.5	23.7	24.3	23.8	24.1	24.7	25.0
30	23.3		22.2	22.0	22.0	22.5	23.6	24.3	24.0	23.9	24.6	24.9
31	23.2		22.3		21.5		23.7	24.2		24.1		25.1

Ph-14. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'30", long. 75°10'10". Drilled observation artesian well in sand and gravel of Pleistocene or Recent age, diameter 3 inches, depth 70 feet, cased to 46, screen 46-56. Land-surface datum is 11.28 feet above msl. Highest water level 24.08 below lsd, June 15, 1953; lowest 32.12 below lsd, Mar. 10, 31, 1950. Records available: 1945-53. Mean daily range of fluctuation caused by tidal loading, 0.1 foot. Water levels in reports prior to 1953 are recorded 1.1 above lsd.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	26.1	Mar. 24	25.05	June 22	24.33	Sept. 10	28.32
2	26.0	30	24.77	29	25.28	16	27.68
3	25.3	Apr. 7	24.38	July 6	25.19	25	27.40
4	25.3	14	24.64	13	25.70	Oct. 1	26.99
5	25.7	21	24.48	20	26.10	8	27.14
6	26.1	28	24.54	27	26.46	15	26.94
20	25.96	May 5	24.25	Aug. 3	26.90	22	26.97
Feb. 3	25.55	12	24.52	10	26.82	Nov. 5	27.17
10	25.90	19	24.50	17	27.11	12	27.70
17	25.19	26	24.19	21	27.37	25	26.55
Mar. 3	25.98	June 2	24.15	28	27.56	Dec. 9	28.53
10	26.20	8	24.48	Sept. 3	27.72	30	28.04
17	25.36	15	24.08				

Ph-15. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'20", long. 75°10'10". Drilled observation artesian well in sand and gravel of Pleistocene or Recent age, diameter 3 inches, depth 82 feet, cased to 59, screen 59-69. Land-surface datum is 11.87 feet above msl. Highest water level 23.33 below lsd, June 15, 1953; lowest 31.39 below lsd, Mar. 31, 1950. Records available: 1945-53. Mean daily range of fluctuation caused by tidal loading, 0.1 foot. Water levels in reports prior to 1953 are recorded 1.5 above lsd.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	25.4	Mar. 17	24.59	June 15	23.33	Sept. 10	27.36
2	25.2	24	24.22	22	23.60	16	26.75
3	24.4	30	24.01	29	24.41	25	26.57
4	24.6	Apr. 7	23.64	July 6	24.37	Oct. 1	26.19
5	24.9	14	23.94	13	24.87	6	26.32
6	25.26	21	23.74	20	25.25	15	26.02
20	25.14	28	23.75	27	25.67	22	26.10
27	25.16	May 5	23.45	Aug. 3	26.02	Nov. 5	26.35
Feb. 3	24.76	12	23.73	10	26.94	12	26.74
10	25.10	19	23.68	17	26.23	25	25.61
17	24.79	26	23.42	21	26.50	Dec. 9	27.57
Mar. 3	25.15	June 2	23.42	28	26.59	23	28.13
10	25.38	8	23.68	Sept. 3	26.76	30	27.12

Ph-18. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'40", long. 75°10'00". Drilled observation artesian well in sand and gravel of Cretaceous age ("lower" aquifer), diameter 8 inches, depth 218 feet (2 feet into rock), cased to 207, screen 207-212. Land-surface datum is about 13 feet above msl. Highest water level 31.3 below lsd, Apr. 27, 1953; lowest lower than 51.97 below lsd, Mar. 22, 1950. Records available: 1946-53. Water levels are affected by pumping of 6 Naval Base water-supply wells and 2 Pennsylvania Railroad wells. Mean daily range of fluctuation caused by tidal loading, 0.4 foot.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.7	34.7	34.2	39.5	38.1	37.1	42.2	43.6	46.0	42.9	38.4	48.3
2	35.3	38.7	39.8	40.3	37.6	38.3	42.2	43.3	46.4	44.0	40.9	49.9
3	34.8	40.1	41.5	40.3	32.5	39.9	42.5	43.6	46.6	43.3	41.3	50.2
4	34.8	40.4	41.5	38.6	35.8	39.3	42.5	43.4	46.7	34.8	42.3	49.9
5	40.0	40.3	42.1	34.0	37.8	40.2	37.7	43.1	46.3	39.7	42.3	46.5
6	40.4	39.3	42.1	37.5	39.0	38.8	40.2	44.1	44.7	41.2	43.8	46.4
7	40.9	38.9	40.4	38.6	39.5	34.8	42.1	44.1	44.0	42.5	43.8	48.0
8	40.6	33.6	36.0	39.9	40.2	39.6	42.3	44.0	45.9	42.9	42.4	49.0
9	40.6	38.3	40.4	40.1	39.4	39.8	42.8	43.0	46.4	42.8	43.9	49.1
10	39.9	39.9	41.2	40.0	33.5	40.5	42.9	43.5	46.5	42.6	44.9	49.1
11	37.4	41.0	42.0	37.8	39.0	40.4	42.9	43.8	46.5	37.8	45.1	49.5
12	40.2	40.3	41.9	32.4	39.7	38.9	36.8	43.9	46.2	40.6	46.6	49.6
13	41.3	40.2	41.0	38.6	40.6	38.6	40.9	44.5	43.7	41.5	47.2	45.7
14	41.8	40.0	39.2	38.6	41.0	32.4	42.5	44.5	45.1	42.4	47.2	47.3
15	41.5	35.5	34.0	38.2	41.0	38.0	42.6	44.2	45.5	42.6	42.9	48.4
16	42.0	39.9	39.0	38.6	39.4	38.0	44.0	43.5	45.9	43.4	43.4	48.7
17	42.0	40.0	40.1	39.1	34.8	40.0	44.8	43.8	46.7	42.5	43.1	49.5
18	37.6	40.7	41.1	39.2	38.8	40.2	43.3	44.0	46.4	38.7	42.6	50.0
19	38.7	40.1	41.4	32.8	39.9	40.3	40.2	44.0	44.5	42.8	42.5	50.0
20	39.9	40.2	41.8	37.4	39.9	38.8	43.8	44.6	39.7	43.0	41.7	47.6
21	40.2	40.2	41.1	38.6	40.4	35.5	44.9	44.4	42.7	42.0	39.3	49.2
22	40.0	34.7	34.2	39.8	39.9	39.1	45.5	44.0	43.0	42.4	36.0	49.5
23	39.9	33.7	39.1	38.7	36.8	40.6	45.4	43.6	43.0	42.4	41.7	49.6
24	39.8	39.8	39.6	39.2	34.8	41.7	45.8	44.2	...	42.1	47.0	49.1
25	37.4	41.2	41.2	39.2	39.8	41.9	45.7	44.8	43.6	37.0	47.2	45.4
26	38.9	41.1	41.1	32.2	38.7	42.1	41.6	44.7	43.6	39.4	45.9	42.3
27	40.0	40.4	41.1	31.3	37.9	42.1	44.3	44.8	36.1	40.2	43.4	45.5
28	40.0	39.6	39.4	38.1	39.2	40.8	44.3	44.9	39.7	40.4	43.7	46.0
29	40.5		32.9	38.3	38.7	41.1	43.7	44.8	40.4	40.3	44.5	44.1
30	40.6		38.6	38.7	36.9	42.3	43.4	43.1	40.9	41.9	46.6	46.9
31	40.6		39.5		32.3		43.6	44.3		41.7		45.3

Ph-19. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'10", long. 75°10'00". Drilled observation artesian well in sand and gravel of Cretaceous age ("lower" aquifer), diameter 8 to 6 inches, depth 274 feet (15 feet into rock), cased to 242, screen 242-247. Land-surface datum is about 17 feet above msl. Highest water level 29.55 below lsd, Nov. 25, 1950; lowest 66.9 below lsd, Dec. 30, 1953. Records available: 1946-53. Water levels are affected by pumping of 6 Naval Base water-supply wells and by Texas Co. wells on New Jersey side of river. Mean daily range of fluctuation caused by tidal loading, 2.1 feet.

Ph-19--Continued.

Daily lowest water level from recorder graph*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Dec.
1	48.0	40.1	40.7	47.6	46.8	44.4	52.4	....
2	42.3	48.4	48.5	49.2	45.0	46.2	52.4	....
3	41.2	50.3	50.9	48.1	37.5	47.8	52.9	....
4	41.8	50.6	51.5	45.1	44.6	48.2	53.0	....
5	49.6	50.6	52.3	39.2	46.7	49.4	45.5	....
6	50.5	48.6	52.2	43.4	47.6	45.8	48.8	....
7	51.1	48.1	51.0	45.9	48.0	39.8	61.7	....
8	50.7	....	43.7	47.8	49.3	47.9	59.1	....
9	50.5	45.3	48.6	48.4	47.8	49.0	52.8	....
10	49.8	49.3	50.0	47.1	38.8	49.8	53.0	....
11	46.0	50.0	51.4	44.1	47.2	48.8	52.2	....
12	49.9	48.0	50.9	37.4	48.7	48.2	44.5	....
13	50.5	50.0	49.7	46.6	50.0	46.8	49.6	....
14	51.3	48.3	47.2	45.8	50.8	37.9	52.4	....
15	50.9	42.2	49.0	45.9	50.0	46.1	52.9	....
16	51.6	49.0	47.3	47.3	48.1	46.9	65.3	....
17	....	49.3	....	48.3	41.8	49.0	....	....
18	44.5	49.6	....	48.2	47.4	49.5	....	....
19	48.0	48.8	....	39.2	49.0	49.9	....	....
20	49.5	49.7	....	44.5	48.9	47.8	65.6	....
21	49.8	50.0	....	46.2	49.8	42.4	....	....
22	49.6	39.8	....	48.6	48.8	47.1	....	....
23	49.4	39.6	....	47.5	44.8	49.7	....	....
24	49.5	47.6	47.9	47.4	41.0	51.5	....	....
25	45.9	50.6	50.7	46.4	47.0	51.7	....	....
26	....	50.5	42.4	37.6	45.4	52.1	....	....
27	49.4	49.8	49.7	45.7	45.3	52.1	....	....
28	50.1	48.0	45.5	46.1	47.7	49.6	....	64.9
29	50.5	....	38.4	46.4	45.1	50.9	....	65.7
30	50.5	....	46.7	46.6	43.4	61.9	....	66.9
31	49.2	....	47.5	....	37.7	....	....	65.7

* No record for August, September, October, and November.

Ph-20. U. S. Navy Department, Naval Base. League Island. Lat. 39°53'10", long. 75°10'40". Drilled observation artesian well in sand and gravel of Cretaceous age ("lower" aquifer), diameter 8 inches, depth 269 feet (19 feet into rock), cased to 238, screen 238-243. Land-surface datum is 13 feet above msl. Highest water level higher than 28.17 below lsd, Nov. 25, 1950; lowest 59.54 below lsd, Feb. 3, 1950. Records available: 1946-53. Water levels are affected by tidal loading, 1.7 feet.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	49.5	....	42.3	47.8	47.8	43.6	53.6	52.1	53.2	49.5	41.2	56.0
2	43.9	....	49.2	50.3	42.5	45.0	54.1	51.5	53.9	49.8	50.5	57.1
3	43.7	51.5	51.7	48.2	36.9	48.3	54.2	51.6	54.2	47.8	51.3	57.6
4	43.4	52.0	52.4	42.5	46.7	48.6	54.3	51.4	54.3	39.0	51.7	....
5	50.4	51.6	53.4	38.3	48.0	49.8	46.1	51.2	53.1	43.0	50.7	....
6	51.6	49.2	52.5	45.1	48.5	....	50.1	51.9	52.4	46.0	50.8	....
7	52.4	47.4	51.1	46.3	....	....	53.4	52.2	....	47.9	50.6	55.3
8	52.0	39.2	44.9	49.2	....	49.0	53.7	51.6	....	48.5	47.1	57.0
9	52.0	47.8	50.9	49.7	....	49.1	54.2	51.4	....	47.7	51.7	57.0
10	51.1	50.7	51.3	46.2	....	50.4	54.1	51.7	53.8	46.5	52.8	57.4
11	49.0	51.1	52.7	44.6	....	49.9	52.1	51.6	53.6	39.2	53.0	57.7
12	....	50.0	52.1	37.6	....	49.1	46.8	51.7	52.8	45.2	54.8	57.7
13	51.8	51.6	....	47.8	50.8	46.9	51.7	52.2	51.6	46.2	55.5	54.1
14	52.8	49.6	....	45.8	51.4	36.7	53.7	52.1	52.5	48.3	55.7	55.0
15	52.5	43.8	....	45.9	50.0	47.1	54.7	52.0	52.5	48.5	50.3	55.6
16	52.6	50.3	....	46.2	46.9	48.2	56.7	51.2	53.2	48.9	50.5	55.3
17	48.9	50.3	....	46.9	39.3	50.2	57.3	51.6	54.5	45.4	52.7	57.5
18	45.4	51.3	51.6	43.4	48.9	50.3	55.8	51.9	....	40.3	52.2	58.0
19	49.6	51.3	52.0	38.3	50.1	50.5	53.1	51.7	....	47.4	52.5	....
20	51.1	51.6	52.6	45.5	....	49.6	54.9	52.1	....	47.1	....	....
21	51.5	51.7	49.4	47.1	....	42.0	56.6	51.9	....	44.6	....	....
22	51.2	39.7	39.9	49.4	....	48.6	57.8	51.5	....	47.9	....	....
23	50.9	42.0	38.9	48.7	....	50.9	57.5	51.2	....	47.7	....	57.5
24	50.9	49.0	49.3	47.5	....	52.5	57.9	52.0	....	47.0	....	56.9
25	46.4	51.8	52.0	45.3	....	52.7	55.9	52.9	49.8	37.7	54.2	....

Ph-20--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	49.5	51.4	50.8	37.0	45.1	53.0	53.0	52.4	49.7	45.2	54.2	51.1
27	51.0	50.4	50.6	46.6	46.8	52.8	50.9	52.8	37.4	46.7	50.1	54.0
28	50.9	47.7	45.7	45.1	46.4	50.3	51.4	53.1	45.7	46.6	53.6	54.2
29	51.4		38.4	46.1	45.3	51.8	51.1	53.2	46.9	47.0	53.5	55.1
30	51.5		47.3	48.2	42.6	53.3	51.3	51.1	47.2	50.8	53.9	55.6
31	50.1		48.4		36.8		52.0	52.3		48.9		53.0

Ph-30. City of Philadelphia. Island Ave. at International Airport. Lat. 39°52'40", long. 75°13'40". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 30 to 10 inches, depth 198 feet, cased to 117, screen 117-137. Land-surface datum is about 10 feet above msl. Highest water level 8.49 below lsd, Dec. 21, 1945; lowest 14.76 below lsd, Nov. 19, 1948. Records available: 1943-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.35	Apr. 7	9.30	July 6	10.81	Oct. 1	12.38
13	9.49	14	9.46	13	10.84	8	12.48
20	9.86	21	9.45	20	11.04	15	12.67
27	9.45	28	9.84	27	10.98	22	13.04
Feb. 3	9.94	May 5	9.96	Aug. 3	11.09	29	11.91
10	10.25	12	10.50	10	11.20	Nov. 5	11.70
17	9.91	19	10.32	17	11.30	12	11.25
24	10.14	26	10.22	21	11.50	25	10.80
Mar. 3	10.44	June 2	9.68	28	11.62	Dec. 2	11.06
10	10.05	6	9.40	Sept. 3	11.88	9	10.54
17	9.12	15	9.54	10	12.04	16	9.77
24	9.36	22	10.34	16	12.02	23	10.17
30	9.65	29	10.58	25	12.24	30	10.34

Ph-61. City of Philadelphia. League Island Park. Lat. 39°54'00", long. 75°10'30". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 8 inches, depth 176 feet. Land-surface datum is about 16 feet above msl. Highest water level 21.7 below lsd, June 1, 1952; lowest 37.09 below lsd, June 16, 1950. Records available: 1943-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.5	25.4	25.1	27.2	26.3	....	31.7	32.6	34.2	30.8	....	....
2	25.9	27.6	27.6	27.7	26.3	25.5	31.9	32.5	34.5	31.0	....	34.9
3	28.6	28.4	28.8	27.7	24.2	26.8	32.0	33.0	34.7	30.8	....	35.3
4	25.7	29.0	28.9	26.6	25.2	26.8	31.9	32.6	34.9	26.2	....	35.3
5	28.5	28.8	29.5	24.4	26.1	27.0	29.5	32.7	33.9	27.8	....	....
6	29.0	28.0	29.6	....	26.4	27.0	30.7	33.2	33.8	29.4	....	....
7	29.5	27.6	29.0	27.3	26.8	24.6	31.8	33.2	33.4	30.5	....	....
8	29.3	24.4	26.5	27.3	27.5	26.6	32.0	32.6	32.0	30.9	....	....
9	29.4	27.2	27.9	27.7	27.2	27.0	32.3	32.8	32.5	30.9	....	....
10	29.7	....	28.7	27.5	24.3	27.5	32.4	33.0	....	30.5	....	....
11	27.5	....	29.5	25.9	26.5	27.5	32.2	32.9	....	28.0	....	....
12	29.0	27.8	29.4	23.2	27.0	27.2	29.7	33.1	....	28.7	33.4	....
13	29.4	28.7	28.4	26.3	27.7	26.8	31.2	33.0	....	29.6	33.8	....
14	29.8	28.4	27.8	26.3	28.0	23.1	32.1	33.1	....	30.3	33.8	....
15	29.4	25.9	23.7	26.2	28.0	25.4	32.1	32.4	....	30.5	31.8	....
16	29.7	27.7	27.0	26.3	27.1	25.5	32.5	32.5	....	30.8	....	34.5
17	29.5	27.9	28.0	26.7	25.3	26.7	32.6	33.2	....	30.4	....	35.2
18	27.6	28.7	28.7	26.7	26.2	27.3	31.8	....	....	28.6	....	35.5
19	28.0	28.7	28.7	23.6	27.3	27.8	31.5	....	....	29.1	....	35.5
20	28.9	28.8	29.2	25.6	27.1	28.9	31.9	....	....	29.6	....	34.6
21	29.0	28.7	28.5	26.5	27.7	28.9	32.6	33.4	....	29.0	....	35.0
22	28.5	24.6	24.7	27.3	27.6	29.1	33.2	....	....	30.1	....	35.3
23	28.5	24.9	26.8	27.2	25.8	30.2	32.9	....	....	30.1	....	35.3
24	28.4	27.7	27.5	26.7	24.3	31.1	....	33.2	....	29.9	....	....
25	27.0	28.9	28.5	26.7	26.2	31.2	32.1	33.6	30.4	28.4	32.7	....
26	28.1	28.7	28.2	23.1	26.2	31.5	....	33.3	30.5	28.1	....	....
27	28.7	27.9	28.1	25.6	25.9	31.6	32.0	33.2	33.8	29.5	....	....
28	28.7	27.9	27.6	26.0	25.9	31.1	32.8	33.6	28.5	29.5	....	....
29	29.0		23.6	26.3	....	30.8	32.6	32.9	29.4	29.9	....	....
30	29.0		26.7	26.5	....	31.7	32.5	32.7	30.0	....	....	33.2
31	28.8		27.1		....		33.0	33.5		....		....

Ph-85(K23a-6438). U. S. Navy Department, Naval Hospital. Lat. 39°54'20", long. 75°10'30". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 24 to 10 inches, depth 147 feet, cased to 108, screen 108-133. Land-surface datum is about 14 feet above msl. Highest water level 20.55 below lsd, June 15, 1953; lowest 30.70 below lsd, Nov. 9, 1945. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	23.89	Apr. 7	21.23	June 29	23.15	Oct. 1	24.64
13	23.85	14	21.60	July 6	22.74	8	24.92
20	23.68	21	21.40	13	23.16	15	24.90
27	23.64	28	21.61	20	23.47	22	24.75
Feb. 3	23.36	May 5	21.46	27	23.71	29	24.23
10	22.95	12	21.66	Aug. 3	24.64	Nov. 5	25.25
17	22.96	19	21.92	10	24.86	12	26.10
24	22.45	26	21.12	28	25.38	25	26.12
Mar. 3	23.50	June 2	20.93	Sept. 3	25.88	Dec. 2	26.88
10	23.29	8	20.64	10	25.60	9	27.16
17	23.20	15	20.55	16	25.36	23	27.88
24	22.66	22	21.88	25	24.24	30	26.30
30	21.83						

Ph-86. U. S. Navy Department, Naval Hospital. Lat. 39°54'20", long. 75°10'40". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 24 to 10 inches, depth 151 feet, cased to 101, screen 101-126. Land-surface datum is about 14 feet above msl. Highest water level 19.50 below lsd, June 2, 1953; lowest 28.69 below lsd, Nov. 9, 1945. Records available: 1944-53. Water levels in reports prior to 1953 are recorded 0.5 above lsd.

Jan. 6	22.32	Feb. 10	21.45	Mar. 17	21.36	Apr. 21	19.95
13	22.54	17	21.48	24	21.04	28	20.05
20	22.02	24	21.57	30	20.37	June 2	19.50
27	22.03	Mar. 3	21.80	Apr. 7	19.90	Oct. 1	22.78
Feb. 3	21.74	10	21.65	14	20.22		

Ph-248. McCahan Sugar Refinery. Lat. 39°55'30", long. 75°08'40". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 8 inches, depth 105 feet. Land-surface datum is about 13 feet above msl. Highest water level 29.34 below lsd, Apr. 30, 1952; lowest 61.57 below lsd, Sept. 16, 1944. Records available: 1944-53.

Jan. 6	34.82	Jan. 27	35.09	Feb. 10	34.85	Mar. 30	33.25
13	34.77	Feb. 3	34.80	17	34.51	June 29	37.03
20	34.62						

Ph-249. Crown Paper Board Co., Inc. Lat. 39°55'40", long. 75°08'40". Drilled unused artesian well in sand and gravel of Cretaceous age, diameter 8 to 6 inches, depth 156 feet. Land-surface datum is about 13 feet above msl. Highest water level 26.6 below lsd, May 25, 1952; lowest 47.9 below lsd, May 18, 1951. Records available: 1947-53.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.2	33.2	32.5	33.0	33.4	35.2	36.7	40.9	43.1	41.1	39.9	37.6
2	33.0	33.7	33.0	33.2	33.0	35.7	36.9	40.6	42.9	42.2	41.4	38.0
3	33.2	33.7	33.8	33.4	32.6	36.0	35.3	42.4	43.4	40.4	42.3	38.2
4	33.3	33.7	33.3	32.2	33.4	35.9	30.4	42.8	42.7	35.8	41.8	37.5
5	33.4	33.9	34.0	31.3	33.6	35.9	29.5	43.9	42.3	43.3	40.4	37.7
6	33.9	33.6	34.3	32.4	33.6	35.7	31.6	44.3	35.9	44.3	41.0	36.4
7	34.3	33.0	33.8	32.5	34.7	33.2	32.2	44.0	35.4	44.4	42.9	37.4
8	34.1	32.7	33.0	32.7	33.6	35.5	33.1	42.5	42.2	43.2	38.9	38.0
9	33.5	33.6	33.2	32.6	32.9	35.6	32.9	35.2	42.9	42.9	41.0	37.4
10	33.2	34.1	33.6	32.0	32.3	36.0	33.0	41.8	43.5	40.7	41.2	37.5
11	32.4	33.7	33.4	31.9	33.6	36.3	33.1	43.1	43.8	38.6	39.9	38.5
12	33.9	33.5	33.1	31.2	34.0	36.4	30.2	43.5	43.1	42.6	37.9	37.5
13	33.9	33.5	33.0	31.9	34.6	35.7	36.6	43.2	35.3	44.0	38.1	36.6
14	34.0	33.8	33.0	34.1	34.8	34.5	37.4	43.1	42.6	42.0	47.9	37.2
15	34.1	32.5	32.1	33.4	34.4	34.4	37.8	40.1	43.3	40.4	35.3	38.3
16	33.8	33.3	33.0	32.9	35.5	35.3	38.5	35.3	39.4	41.4	37.8	38.0
17	34.2	33.8	32.6	33.0	32.7	35.2	39.1	39.0	39.2	42.6	38.2	37.9
18	32.6	33.8	33.2	32.7	35.5	35.6	37.8	41.0	37.9	38.1	38.0	37.9
19	33.5	33.8	33.2	32.3	36.3	35.7	34.5	42.3	36.3	39.3	37.9	37.7
20	34.0	33.6	33.0	32.5	36.1	35.5	37.9	42.4	33.8	40.5	....	37.5
21	34.0	32.8	33.0	33.2	36.5	33.7	38.4	42.1	37.5	40.1	....	38.0
22	34.0	32.8	32.2	33.2	35.9	35.7	38.2	41.0	38.2	40.2	....	38.2
23	33.7	33.4	33.6	33.1	35.3	36.7	38.3	35.2	38.6	41.5	....	38.3
24	33.0	33.8	33.0	33.2	33.0	36.8	38.6	39.2	....	42.4	....	38.7
25	32.7	33.4	32.8	32.5	33.2	36.8	37.4	40.3	38.7	37.4	....	33.9

Ph-249--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	33.7	33.6	33.4	31.6	35.2	36.7	34.5	41.2	37.4	41.0	35.0	33.1
27	33.3	32.9	33.2	33.7	35.6	36.9	37.5	41.8	34.3	42.5	37.3	37.3
28	33.5	....	32.5	33.1	35.9	34.6	38.6	41.5	39.3	41.5	36.8	37.8
29	33.8		32.8	33.7	35.8	36.0	38.7	41.2	40.7	39.9	34.8	38.2
30	33.8		32.6	33.5	33.4	36.6	39.3	38.3	40.5	42.8	37.4	38.0
31	33.4		32.9		32.8		40.5	42.2		43.0		38.5

Pike County

Pi-1. Commonwealth of Pennsylvania. Delaware State Forest near Bushkill.

Lat. 41°10'30", long. 75°04'50". Dug unused water-table well in shale or sandstone of Catskill formation, diameter 24 inches, depth 32 feet. Land-surface datum is about 1,183 feet above msl. Clyde L. Raitt, Jr., voluntary observer. Highest water level 1.00 below lsd, Apr. 30, 1949; lowest 15.33 below lsd, Nov. 23, 1948. Records available: 1948-49, 1951-52. Measurement discontinued.

Pi-3(D23b-5615). Commonwealth of Pennsylvania. Delaware State Forest. Lat. 41°25'00", long. 75°05'40". Drilled unused water-table well in shale or sandstone of Catskill formation, diameter 6 inches, depth 43 feet. Land-surface datum is about 1,310 feet above msl. Fred Hatton, voluntary observer. Highest water level 17.17 below lsd, Mar. 28, 1953; lowest 45.76 below lsd, Oct. 23, 1949. Records available: 1948-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	20.87	Mar. 14	20.08	May 16	18.88	Aug. 1	33.08
10	21.68	21	19.07	23	19.57	8	34.36
17	20.76	28	17.17	June 6	20.90	22	36.18
24	17.24	Apr. 4	18.63	8	21.16	Sept. 19	33.39
Feb. 14	20.76	11	18.32	13	22.18	Oct. 3	39.30
21	19.85	19	18.06	28	24.52	10	38.04
28	20.05	25	18.10	July 11	29.08	Nov. 7	30.70
Mar. 7	20.40	May 2	18.00				

Schuykill County

Sc-1(G18c-5864). Nick C. Donofrio. Pine Grove. Lat. 40°32'20", long. 76°22'40". Dug domestic water-table well in shale of Portage group, diameter 36 inches, depth 31 feet, cased with stone. Land-surface datum is about 560 feet above msl. Highest water level 4.14 below lsd, Aug. 31, 1940; lowest 31.78 below lsd, Nov. 5, 1944. Records available: 1931-53.

Jan. 3	15.00	Apr. 11	12.48	July 4	19.00	Oct. 3	23.27
10	12.37	18	13.80	12	19.60	10	23.20
17	12.70	25	15.00	18	20.20	17	23.96
24	15.27	May 2	14.20	25	21.00	24	26.06
31	14.90	9	16.26	Aug. 1	21.20	31	24.10
Feb. 7	13.50	16	15.90	8	22.00	Nov. 7	25.70
14	14.00	23	12.07	15	22.30	14	24.50
21	13.28	30	11.19	22	22.80	21	23.28
28	14.57	June 2	14.37	29	23.30	28	21.70
Mar. 7	15.00	10	16.09	Sept. 5	22.87	Dec. 5	16.28
14	13.57	13	13.70	11	22.05	12	12.07
21	11.30	20	15.76	18	21.60	19	13.17
28	14.76	27	18.10	25	23.00	26	14.48
Apr. 4	13.00						

Sc-3. John Perla. Near South Tamaqua. Lat. 40°45'20", long. 75°56'00". Dug unused water-table well in shale or sandstone of Chemung formation or Portage group, diameter 4 feet, depth 37 feet. Land-surface datum is about 835 feet above msl. Highest water level 11.41 below lsd, Dec. 12, 1950; lowest 28.56 below lsd, Nov. 10, 1948. Records available: 1948-53. Aug. 14, 25.43; Oct. 20, 26.27; Nov. 2, 25.68; Nov. 27, 22.91; Dec. 16, 13.99.

Sc-4. Paul Fritz. Adamsdale. Lat. 40°38'00", long. 76°07'40". Dug unused water-table well in shale of Portage group or Hamilton formation, diameter 5 feet, depth 19 feet. Land-surface datum is about 500 feet above msl. Highest water level 2.07 below lsd, Oct. 9, 1950; lowest 8.99 below lsd, Aug. 10, 1949. Records available: 1948-53. Aug. 14, 7.96; Sept. 23, 5.32; Oct. 20, 7.74; Nov. 2, 5.35; Nov. 27, 3.42; Dec. 16, 2.84.

Sc-5. George Mengle. Near Auburn. Lat. 40°36'20", long. 76°05'30". Dug unused water-table well in Marcellus shale in Hamilton formation of Portage group, diameter 36 inches, depth 34 feet. Land-surface datum is about 490 feet above msl. Highest water level 23.48 below lsd, Feb. 4, 1952; lowest 29.49 below lsd, Dec. 20, 1949. Records available: 1948-53. Aug. 14, 27.29; Sept. 23, 28.14; Oct. 20, 28.55; Nov. 2, 28.68; Nov. 27, 28.60; Dec. 16, 26.97.

Somerset County

So-1(K7c-0912). N. B. Sanner. Markleton. Lat. 39°51'40", long. 79°13'30". Dug unused water-table well in Allegheny formation, diameter 18 inches, depth 19 feet, cased with tile. Land-surface datum is about 1,680 feet above msl. R. E. Carpenter, voluntary observer. Highest water level 11.02 below lsd, Apr. 12, 1948; lowest 17.45 below lsd, Nov. 30, 1953. Records available: 1931-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	15.50	Apr. 12	12.02	July 5	15.37	Oct. 12	17.08
12	14.65	20	12.12	12	15.62	14	16.71
18	14.05	22	11.97	18	15.92	19	17.18
26	13.88	27	12.72	23	16.03	26	17.25
Feb. 2	13.68	May 4	13.60	25	16.09	Nov. 2	17.27
8	13.63	11	12.96	Aug. 1	16.05	9	17.34
11	13.77	18	12.42	8	16.03	16	17.38
16	13.30	25	13.25	16	16.00	17	17.39
23	13.30	June 1	13.22	24	16.20	23	17.40
Mar. 2	13.93	3	13.30	31	16.40	30	17.45
9	13.50	8	13.70	Sept. 8	16.55	Dec. 7	17.43
15	12.16	15	14.20	14	16.62	15	17.32
22	12.90	21	14.62	21	16.74	21	17.22
30	12.20	23	14.81	28	16.85	23	17.23
Apr. 6	12.42	28	15.06	Oct. 5	17.00	30	17.20

So-2. Commonwealth of Pennsylvania. Formerly U. S. National Park Service. Laurel Hill Recreational Area. Bakersville. Lat. 40°00'00", long. 79°14'20". Drilled unused artesian well in sandstone of Pottsville formation, diameter 4 to 6 inches, depth 450 feet, cased to 311. Land-surface datum is 2,040 feet above msl. Ray Martz, voluntary observer. Highest water level 29.35 below lsd, May 3, 1948; lowest 35.97 below lsd, Aug. 21, 1937. Records available: 1937-53. Water levels in reports prior to 1953 are recorded 3.0 above lsd.

Jan. 6	32.31	Apr. 9	30.90	July 4	30.96	Sept. 21	32.30
13	32.11	14	30.95	10	31.27	Oct. 7	32.58
20	32.00	23	30.69	17	31.43	19	32.76
29	31.76	25	30.72	23	31.34	29	32.78
Feb. 2	31.81	30	30.72	28	31.60	Nov. 4	32.88
9	31.74	May 8	30.63	Aug. 6	31.55	10	32.86
16	31.48	16	30.70	11	31.54	17	32.95
27	31.40	21	30.60	17	31.28	19	32.97
Mar. 3	31.45	29	30.72	28	32.00	Dec. 1	32.95
10	31.33	June 5	30.65	Sept. 1	32.18	10	32.99
17	31.26	13	30.72	9	32.29	16	32.94
24	31.00	20	30.86	15	32.22	22	32.79
Apr. 2	30.95	22	30.93				

Sullivan County

Su-1(C17d-8117). Carl D. Molyneux. Near Forksville. Lat. 41°30'20", long. 76°35'20". Dug unused water-table well in sand and gravel of Pleistocene age, diameter 4 feet, depth 28 feet, cased with stone. Land-surface datum is about 1,280 feet above msl. Highest water level 18.11 below lsd, Dec. 2, 1950; lowest dry several times between 1935-53. Records available: 1935-53.

Jan. 3	24.16	Apr. 6	24.46	July 6	26.02	Oct. 3	(f)
10	22.37	11	24.11	9	26.91	10	26.72
17	23.08	18	24.53	13	26.79	17	(f)
24	22.55	25	24.71	20	(f)	24	(f)
31	23.68	May 2	24.62	27	(f)	31	(f)
Feb. 7	24.04	9	24.56	Aug. 1	(f)	Nov. 7	(f)
14	24.13	16	24.49	8	(f)	14	(f)
21	23.06	23	24.43	15	(f)	21	(f)
28	24.79	30	24.07	22	(f)	28	23.78
Mar. 7	24.64	June 8	24.11	29	(f)	Dec. 5	21.13
14	24.92	13	25.03	Sept. 12	26.73	12	21.74
21	24.96	20	25.59	19	26.81	19	22.07
28	24.29	27	25.91	26	26.94	26	22.71

f Dry.

Susquehanna County

Sq-1(B20c-2461). Carlton farm. Montrose. Lat. 41°50'20", long. 75°52'50". Dug unused water-table well in drift of Pleistocene age, diameter 36 inches, depth 38 feet, cased with stone. Land-surface datum is about 1,685 feet above msl. Highest water level 0.70 below lsd, Mar. 18, 1936; lowest 9.41 below lsd, Nov. 9, 1953. Records available: 1930-53. Recording gage removed June 9, 1953. Water levels in reports prior to 1953 are recorded 1.1 above lsd.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.2	3.3	4.1	3.1	3.2	5.1	....	....	(f)	....	....	8.67
2	4.3	3.3	4.2	3.2	3.0	5.1	....	....	....	....	9.38	....
3	4.4	3.4	4.2	3.2	2.7	5.2	....	8.66	....	....	....	....
4	4.5	3.5	4.2	3.3	2.9	5.2	....	....	....	....	....	....
5	4.5	3.6	3.7	3.4	3.0	5.2	7.90	....	....	....	....	....
6	4.8	3.7	3.5	3.5	2.8	5.3	....	....	....	9.20	....	....
7	4.9	3.8	3.6	3.4	2.9	5.4	....	....	(f)	....	....	....
8	5.1	3.9	3.7	2.5	2.6	5.6	....	....	....	....	....	....
9	5.2	4.0	3.8	2.7	2.9	5.62	....	....	....	....	9.41	....
10	5.2	4.1	3.9	2.8	3.1	....	....	8.55	....	....	....	8.03
11	5.1	4.2	4.0	3.0	3.3	....	....	....	....	....	....	....
12	5.1	4.3	4.2	3.1	3.5	....	....	....	....	....	....	....
13	5.1	4.4	4.3	3.2	3.7	....	8.30	....	....	8.90	....	....
14	5.1	4.5	4.4	3.4	3.8	....	....	....	....	....	....	....
15	5.1	4.6	4.4	3.5	4.0	....	....	....	(f)	....	....	7.34
16	5.1	4.7	4.4	3.6	4.1	....	....	8.62	....	....	....	....
17	4.2	4.9	4.4	3.6	4.2	....	....	....	....	....	9.39	....
18	3.9	5.0	4.4	3.7	4.3	....	....	....	....	....	....	....
19	3.6	5.2	4.4	3.8	4.4	....	....	....	....	....	....	....
20	3.5	5.3	4.3	3.8	4.5	....	....	....	....	9.28	....	....
21	3.4	4.9	4.2	3.7	4.6	....	8.47	....	....	....	....	....
22	3.5	3.9	4.2	3.7	4.7	....	....	....	....	....	....	6.35
23	3.5	3.8	4.1	3.7	4.8	....	....	....	(f)	....	....	....
24	3.5	3.8	4.1	3.8	4.9	....	....	....	....	....	....	....
25	2.1	3.9	3.4	3.9	5.0	....	....	....	....	....	....	....
26	2.5	3.9	3.2	3.9	5.0	....	....	....	....	....	9.19	....
27	2.8	3.9	2.6	3.7	5.0	....	....	8.80	....	9.35	....	....
28	2.9	4.0	2.5	2.9	5.1	7.87	8.57	....	....	....	....	....
29	3.1	....	2.7	3.1	5.1	....	....	....	(f)	....	....	6.33
30	3.2	....	2.8	3.2	5.1	....	....	....	....	....	....	....
31	3.3	....	3.0	....	5.1	....	....	....	....	....	....	....

f Dry.

Tioga County

T1-1(B13d-8436). Lewis Robert Kohler. Gaines. Lat. 41°45'00", long. 77°33'30". Dug used water-table well in sand of Pleistocene age, diameter 4 feet, depth 23 feet, cased with stone. Land-surface datum is about 1,290 feet above msl. Highest water level 4.65 below lsd, Mar. 21, 1936; lowest 21.18 below lsd, Sept. 16, 1939. Records available: 1935-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.20	Apr. 4	7.89	July 5	16.04	Oct. 3	19.67
10	16.21	11	9.37	11	17.20	10	19.49
17	14.08	18	10.85	18	18.97	17	19.65
24	7.22	25	10.45	25	18.30	25	19.98
31	8.62	May 2	9.67	Aug. 1	18.45	31	20.20
Feb. 7	10.68	9	11.86	8	18.65	Nov. 7	20.30
14	11.65	16	8.47	15	18.87	14	18.35
21	11.18	23	6.75	22	19.05	21	17.97
28	10.23	30	6.35	26	19.13	28	17.95
Mar. 7	9.86	June 6	7.25	29	19.34	Dec. 5	18.44
14	11.18	13	10.67	Sept. 5	19.51	12	17.14
21	11.78	20	13.23	12	19.60	19	17.87
28	6.18	27	16.37	26	19.67	26	17.57

Union County

Un-1(F15a-8127). D. R. Pursley. Laurelton. Lat. 40°52'50", long. 77°51'50". Dug unused water-table well in shale or limestone of Cayuga group, diameter 5 feet, depth 13 feet. Land-surface datum is about 655 feet above msl. Highest water level 2.84 below lsd, Mar. 22, 1952; lowest 9.18 below lsd, Oct. 26, 1951. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.06	Apr. 3	3.24	July 3	4.67	Sept. 28	7.97
10	4.10	10	4.11	9	6.19	Oct. 3	8.67
16	4.24	18	4.11	17	5.28	9	8.69
23	4.26	24	4.46	24	5.28	17	8.70
30	4.25	May 1	4.46	31	7.18	23	8.73
Feb. 7	4.22	7	4.56	Aug. 8	7.18	30	8.79
13	4.22	15	4.56	14	6.95	Nov. 5	8.79
20	4.22	22	5.18	22	6.93	13	7.33
27	4.37	29	4.03	26	7.68	21	6.35
Mar. 6	4.38	June 5	4.23	29	7.82	27	6.33
13	4.38	12	4.24	Sept. 4	7.92	Dec. 11	5.18
20	4.40	19	4.24	11	7.93	18	4.32
27	3.22	26	4.68	18	7.96	26	6.72

Washington County

Ws-1(J3c-5924). Albert Mankey. Amity. Lat. 40°02'20", long. 80°12'10". Dug unused water-table well in limestone of Washington formation, diameter 40 inches, depth 36 feet, cased with stone to 4. Land-surface datum is about 1,190 feet above msl. Highest water level 8.39 below lsd, June 22, 1946; lowest 34.14 below lsd, Oct. 1, 1938. Records available: 1936-53.

Jan. 3	25.21	Apr. 11	11.44	June 17	20.59	Sept. 12	26.71
10	19.09	17	14.61	27	21.91	25	26.05
17	18.21	20	12.50	July 4	22.16	Oct. 3	26.05
28	14.81	27	13.53	11	23.31	26	31.43
Feb. 7	15.97	May 2	13.58	20	23.95	Nov. 14	29.79
18	15.09	7	12.12	24	23.26	21	29.42
28	16.36	23	16.61	Aug. 14	27.16	28	29.16
Mar. 14	15.01	June 5	19.46	22	26.47	Dec. 8	28.99
28	12.85	12	19.69	31	26.15	21	28.52

Wayne County

Wn-1(D23a-0933). Arthur H. Tyce. Near Hawley. Lat. 41°29'10", long. 75°11'10". Dug unused water-table well in sand and gravel of Pleistocene age, diameter 30 inches, depth 17 feet, cased with stone. Land-surface datum is about 920 feet above msl. Highest water level 2.08 below lsd, May 23, 1942; lowest dry several times in 1941 and in Oct. 1953. Records available: 1931-42, 1944-53.

Jan. 3	10.07	Apr. 11	7.44	July 4	11.63	Oct. 3	15.71
10	10.17	18	7.38	11	12.02	10	(f)
17	9.83	25	7.87	18	12.70	17	(f)
24	6.87	May 2	6.23	25	13.37	24	(f)
31	7.14	9	7.65	Aug. 1	14.15	31	15.36
Feb. 7	7.35	16	8.50	8	14.50	Nov. 7	15.26
14	7.63	23	8.98	15	14.82	14	15.70
21	7.37	30	10.00	22	15.12	21	15.50
28	7.96	June 6	9.80	29	15.33	28	15.05
Mar. 7	8.20	8	9.90	Sept. 5	15.39	Dec. 5	15.35
14	8.39	13	10.08	12	15.33	12	13.90
21	7.20	20	10.35	19	15.50	19	12.15
28	5.85	27	11.02	26	15.60	26	11.80
Apr. 4	7.50						

f Dry.

RHODE ISLAND

By W. B. Allen

Scope of Water-Level Program

The observation-well program was continued in 1953 in cooperation with the Rhode Island Development Council. Measurements were made in 50 wells, 5 of which were equipped with recording gages. About half the wells show water-level fluctuations caused principally by pumping and the other half show natural recharge and discharge. Figures 46 and 47 show the location of observation wells in Rhode Island. During 1953, field work was completed for detailed investigations of ground-water resources in central Rhode Island covering the Coventry and Hope Valley quadrangles and the Rhode Island part of the Voluntown and Oneco quadrangles. Monthly sampling of ground water for chloride content in the Woonasquatucket River valley in Providence was continued during the year.

Precipitation

Average statewide precipitation in 1953 was 58.44 inches, or about 16.7 inches more than in 1952 and about 14.7 inches more than normal. The precipitation at Providence (City Airport) during the year was 57.01 inches, or about 15.5 inches more than in 1952 and 17.4 inches more than the normal for the preceding 30 years. In general, the average temperature for the State was about 3° above normal. In 1953, with the largest precipitation on record, recharge of ground-water reservoirs was high.

Pumpage

Pumpage in 1953 was about the same as in 1952. As reported in the 1952 annual water-level report, the average withdrawal of ground water was estimated to be about 33 million gallons a day.

Interpretation of Water-Level Fluctuations

In Rhode Island, the natural fluctuations of ground-water levels are chiefly the result of evapotranspiration and differences in the amount and distribution of precipitation. The yearly trend of water levels usually consists of a rise during the early months with the peak in March or April, a recession until October or November, then a rise to the end of the year. During 1953, water levels followed this general pattern. At the beginning of 1953, ground-water levels were below normal because of below-normal precipitation from September through December 1952. From January through April 1953, precipitation of 9 inches above normal caused water levels in observation wells to reach their highest peaks for the year, and the highest in 6 to 10 years of record in 23 wells. Water levels declined steadily in May and dropped rapidly in June with only 0.75 inch of rain (26 percent of normal) for the State. Above-normal precipitation in July and August slowed the seasonal decline in water levels and resulted in small recoveries in several wells. Water levels continued to decline in September and October, but levels were above normal for most of the State. However, in October, water levels in 5 wells in the State reached lowest stages in 5 to 6 years of record. Heavy rains late in November reversed the downward trend of water levels and increased ground-water storage considerably. Water levels rose to stages much higher than those at the end of November 1952, and at many places to record high stages for the month. This rising trend continued through the end of December. As a result there was a considerable net gain in ground-water storage for the year throughout the State.

Well-Numbering System

The identifying symbols for wells in Rhode Island consist of the name of the town or city followed by a number, wells in each town or city being numbered independently.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum unless otherwise indicated.)

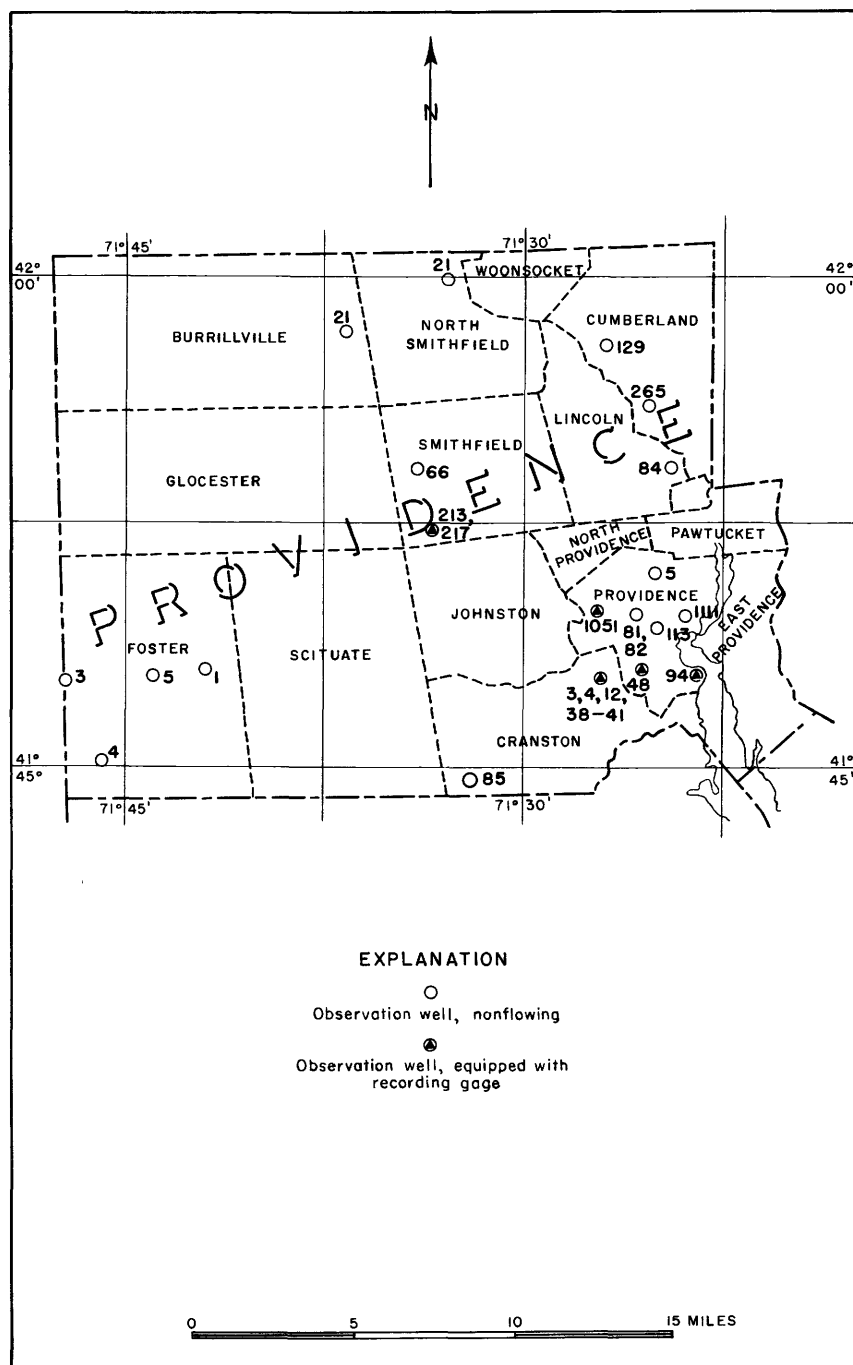


Figure 46. --Location of observation wells in Providence County, R. I., 1953.

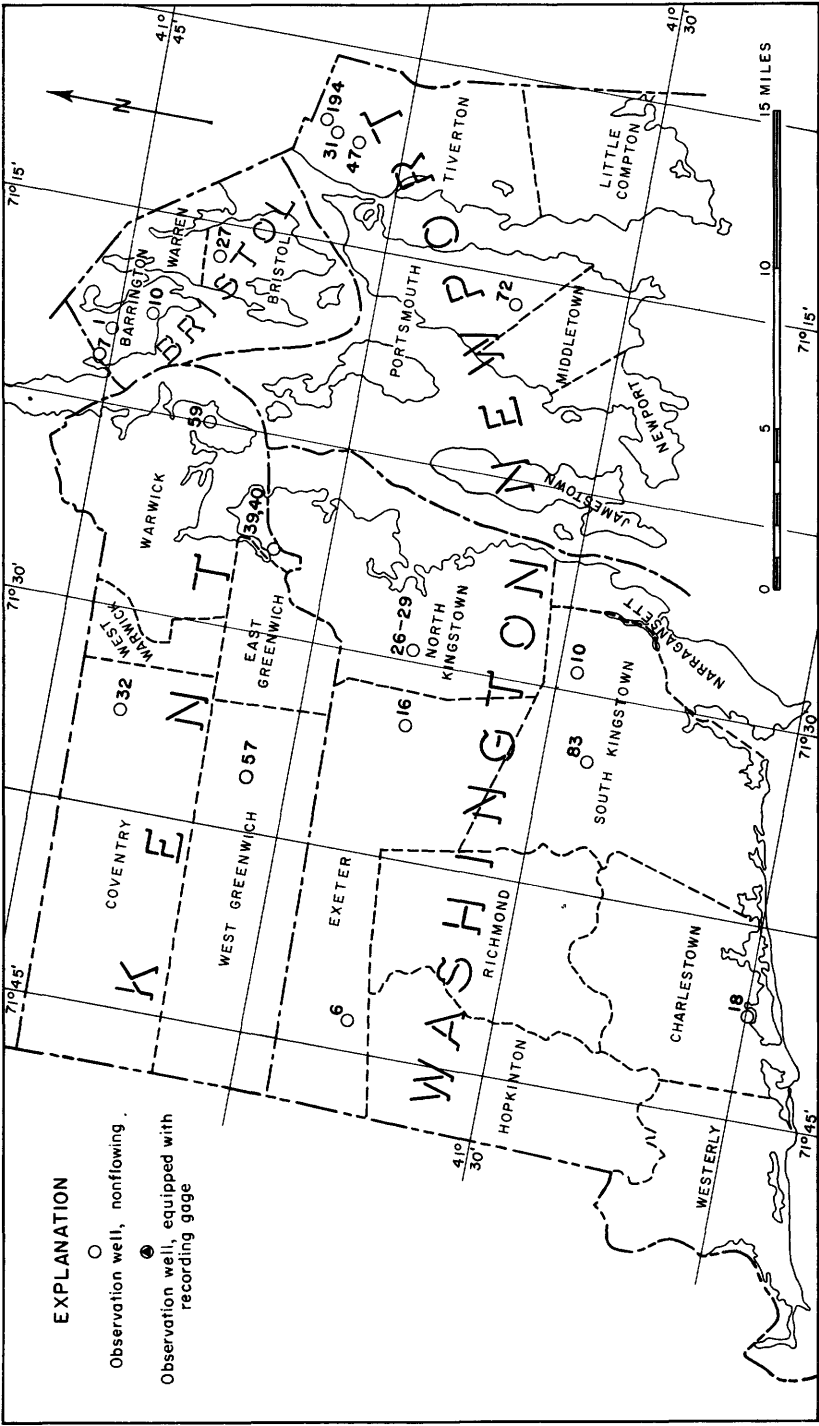


Figure 47. --- Location of observation wells in Kent, Newport, and Washington Counties, R. I., 1953.

Bristol County

Barrington 1. Barrington. Lat. $41^{\circ}44'35''$, long. $71^{\circ}19'31''$. Drilled unused water-table well in bedrock, diameter 10 inches, depth 232 feet. Land-surface datum is 50.90 feet above msl. Highest water level 42.71 below lsd, May 29, 1948; lowest 46.92 below lsd, Dec. 15, 1945. Records available: 1945-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	44.86	Apr. 24	42.68	July 30	44.87	Oct. 30	45.76
Feb. 27	44.20	May 27	43.16	Aug. 28	45.20	Nov. 30	44.75
Mar. 27	43.53	June 29	44.20	Oct. 2	45.71	Dec. 30	43.97

Barrington 7. Rhode Island Lace Works, Inc. Narragansett and Bay Spring Aves. Lat. $41^{\circ}45'00''$, long. $71^{\circ}20'57''$. Dug unused water-table well in sand and gravel, diameter $4\frac{1}{2}$ feet, depth 12 feet. Land-surface datum is about 15 feet above msl. Highest water level 4.99 below lsd, June 1, 1948; lowest 10.91 below lsd, Oct. 31, 1949. Records available: 1947-53. Nearby wells being pumped.

Jan. 5	8.38	Mar. 23	6.03	June 15	6.82	Sept. 14	8.51
12	7.70	30	5.89	22	7.00	21	8.70
19	7.51	Apr. 6	5.69	29	7.22	Oct. 5	8.85
26	7.30	13	5.55	July 20	7.58	13	8.91
Feb. 2	7.18	20	5.23	27	7.40	26	8.68
9	7.02	27	5.57	Aug. 10	8.56	Nov. 2	8.22
16	6.56	May 4	5.53	17	7.70	16	8.16
23	6.43	11	5.83	24	8.06	30	6.78
Mar. 2	6.63	18	6.99	30	8.32	Dec. 7	6.80
9	6.56	25	6.23	Sept. 8	8.48	14	6.57
16	6.19	June 1	6.31				

Barrington 10. Charles Douglas. Lat. $41^{\circ}43'33''$, long. $71^{\circ}18'57''$. Dug unused water-table well in sand and gravel, diameter 30 inches, depth 38 feet. Land-surface datum is about 40 feet above msl. Highest water level 32.81 below lsd, June 30, 1948; lowest dry, Oct. 31, Nov. 28, Dec. 27, 1952, Oct. 2, 30, 1953. Records available: 1947-53.

Jan. 30	37.87	Apr. 24	34.30	July 30	35.88	Oct. 30	(f)
Feb. 27	36.51	May 27	34.16	Aug. 28	37.42	Nov. 30	37.93
Mar. 27	35.44	June 29	35.32	Oct. 2	(f)	Dec. 30	36.45

f Dry.

Bristol 27. H. T. Sullivan. Hope and Tupelo Sts. Lat. $41^{\circ}42'14''$, long. $71^{\circ}16'53''$. Dug unused water-table well in till, diameter 30 inches, depth 26 feet. Land-surface datum is about 120 feet above msl. Highest water level 9.21 below lsd, Mar. 26, 1950; lowest 18.51 below lsd, Oct. 30, 1951. Records available: 1949-53.

Jan. 30	10.09	Apr. 24	9.34	July 30	14.40	Oct. 30	14.19
Feb. 27	9.42	May 27	13.17	Aug. 28	13.92	Nov. 30	8.82
Mar. 27	9.34	June 29	14.65	Oct. 2	14.82	Dec. 30	11.56

Kent County

Coventry 32. Kent County Water Authority. Lat. $41^{\circ}41'15''$, long. $71^{\circ}33'48''$. Driven unused water-table well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 34 feet. Land-surface datum is about 230 feet above msl. Highest water level 1.86 below lsd, Mar. 26, 1952; lowest 11.65 below lsd, Nov. 15, 1949. Records available: 1948-53.

Jan. 12	c8.72	Mar. 12	c8.00	Apr. 29	c5.96	Aug. 25	c9.06
20	c8.81	20	c6.16	May 28	c7.24	Sept. 8	8.68
29	c7.51	25	c6.01	June 5	c7.71	30	7.62
Feb. 10	c7.18	Apr. 10	c5.22	15	c7.56	Dec. 3	7.54
18	c6.50	22	c5.21	July 16	c9.52	30	7.07

c Nearby wells being pumped.

Warwick 39. U. S. Naval Advance Base Depot. Davisville. Lat. $41^{\circ}38'19''$, long. $71^{\circ}27'54''$. Drilled public-supply water-table well in sand and gravel, diameter 18 inches, depth 61 feet. Land-surface datum is 35.9 feet above msl. Highest water level 9.8 below lsd, Mar. 21, 1948; lowest 39.8 below lsd, Sept. 10, 1944. Records available: 1943-53. Nearby well being pumped.

Warwick 39--Continued.

Water level below land-surface datum

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.55	12.95	11.75	10.75	10.25	12.35	a27.95	16.25	a27.55	18.25	a29.20	a26.75
2	16.10	12.55	11.75	10.55	11.15	12.95	a28.20	16.25	a27.55	18.25	a29.10	a26.80
3	15.25	12.55	11.75	10.55	10.90	13.10	a28.55	16.75	a27.75	18.80	a29.10	a26.90
4	15.25	12.55	11.75	11.40	10.70	a24.20	16.65	a27.25	a27.75	18.35	a29.25	a26.80
5	15.25	12.65	11.75	11.20	11.00	a24.80	16.25	a27.25	a28.50	a29.35	a29.23	a26.75
6	15.45	12.65	11.75	10.95	11.20	a24.75	16.25	a27.25	a29.25	18.55	a28.25	a26.75
7	15.45	13.20	11.65	11.40	11.60	12.95	a28.25	a27.25	19.00	18.60	a28.25	a26.75
8	15.25	12.55	11.15	11.20	11.15	12.75	a28.25	a28.50	18.65	18.60	a28.25	a26.25
9	15.25	12.35	11.60	11.10	11.25	a24.75	a28.55	16.90	19.00	18.65	a28.25	a26.55
10	16.40	12.85	11.90	11.10	11.25	a24.75	a28.75	a28.00	a28.75	18.65	a28.25	a26.55
11	14.45	13.25	12.00	10.55	11.25	12.75	17.15	a28.55	a28.75	17.95	a28.25	a26.55
12	a24.20	13.00	12.00	10.25	11.25	12.75	16.90	a29.00	18.75	17.95	a28.75	a25.65
13	14.00	13.00	12.00	10.25	11.25	14.15	16.65	a29.40	18.75	17.75	a28.75	a25.45
14	14.40	13.25	11.75	10.25	11.25	a25.10	a27.85	18.30	a28.50	17.75	a29.20	a25.20
15	14.45	12.25	10.75	10.35	11.25	14.00	16.40	18.25	a28.50	17.75	a29.15	a25.00
16	14.20	12.25	10.75	10.25	10.70	a25.45	16.45	15.45	a28.75	17.85	a28.80	a24.85
17	13.75	12.25	10.75	10.25	11.40	a26.85	16.85	a29.25	a28.75	18.85	a29.15	a24.95
18	13.75	12.25	10.75	10.50	11.00	a25.90	16.75	a29.25	a28.75	18.40	a29.75	a25.00
19	12.95	12.45	10.75	10.25	11.65	15.75	16.75	a29.25	18.95	18.00	a29.65	a24.75
20	12.95	12.45	10.75	10.35	12.10	14.75	a27.25	a29.25	18.60	a30.00	a29.75	a24.75
21	12.95	12.15	10.90	10.90	12.30	14.75	a27.25	a29.25	a29.70	18.90	a29.75	a24.75
22	12.75	11.60	10.65	a21.50	12.35	a25.25	a27.25	16.45	18.20	18.95	a29.75	a24.55
23	12.75	11.55	10.70	11.15	12.25	a25.25	a27.25	16.20	a28.75	19.00	a29.75	a24.55
24	13.60	11.55	11.00	11.10	11.75	a25.25	a27.55	15.95	17.75	18.75	a29.75	a24.55
25	13.00	11.90	10.80	10.75	a22.75	a25.55	15.90	a27.80	a28.60	18.75	a29.65	a24.55
26	12.90	12.00	10.90	10.75	a22.75	a25.55	15.10	a27.95	17.75	17.75	a29.65	a25.00
27	13.50	12.00	10.95	10.25	a22.75	a26.90	14.90	17.00	17.55	17.75	a29.55	a25.00
28	14.20	12.25	10.75	10.25	a22.75	a26.65	15.65	a28.55	a28.55	16.10	a27.00	a24.95
29	13.40		10.75	10.25	a22.95	16.10	a27.20	17.55	17.55	18.30	a26.75	a25.10
30	13.55		10.75	10.25	12.85	16.55	a27.10	a27.55	18.25	a29.75	a26.60	a25.00
31	12.95		10.75		12.45		a27.60	a27.55		a28.00		a25.20

a Pumping.

Warwick 40. U. S. Naval Advance Base Depot. Davisville. Lat. 41°38'16", long. 71°27'54". Drilled public-supply water-table well in sand and gravel, diameter 18 inches depth 80 feet. Land-surface datum is 31.4 feet above msl. Highest water level 4.5 below lsd, Apr. 2, 1948; lowest 22.6 below lsd, Sept. 6, 1944. Records available: 1943-53. Pumping except when indicated by footnote.

Water level below land-surface datum

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.35	10.55	8.75	7.95	7.75	9.45	13.00	12.65	13.55	14.75	j11.00	10.50
2	12.90	10.65	8.75	7.95	8.00	9.80	13.20	12.65	14.25	14.75	j10.85	10.35
3	12.00	9.75	8.75	7.95	8.00	9.90	13.30	12.65	14.25	15.10	j11.10	10.35
4	11.75	9.75	8.75	8.35	8.10	10.15	13.25	12.65	14.25	14.90	12.65	10.10
5	11.75	9.75	8.75	8.25	8.40	10.40	13.25	13.45	15.10	14.35	12.75	j8.75
6	11.75	9.75	8.75	8.35	8.30	10.65	12.95	13.45	15.40	14.85	12.95	j8.75
7	12.25	9.90	8.55	8.60	8.35	9.95	12.95	13.45	15.00	14.25	j11.25	10.85
8	12.25	9.45	6.75	7.75	8.45	9.95	12.95	13.85	15.00	14.60	j10.75	10.85
9	12.25	9.35	8.80	7.90	8.25	10.25	13.45	13.35	14.75	15.00	j10.75	j8.75
10	11.65	9.35	9.00	8.15	8.25	10.25	13.45	13.60	15.25	14.75	j10.85	j8.75
11	11.00	10.10	9.00	8.25	8.55	10.55	13.20	13.90	15.25	14.75	j10.75	j8.75
12	10.70	10.20	9.15	7.65	8.55	10.55	13.10	13.85	15.25	14.25	j10.75	j7.95
13	10.45	10.30	8.95	7.55	8.55	10.55	13.10	14.20	15.25	14.25	j10.75	j7.80
14	11.10	9.95	8.95	7.55	8.55	10.50	12.95	14.20	14.75	14.25	j11.00	9.00
15	9.00	9.00	8.75	7.55	8.55	10.70	12.70	14.25	14.75	14.25	j10.85	9.10
16	9.00	7.75	7.75	7.55	8.70	11.00	12.80	14.25	14.75	14.25	12.25	8.80
17	11.25	7.75	7.75	7.55	8.50	11.60	13.10	11.25	14.75	15.20	j11.35	8.25
18	11.25	8.55	7.75	7.35	8.30	11.50	13.15	11.25	14.75	14.60	13.20	j7.65
19	9.75	8.55	7.75	7.50	8.75	11.65	13.25	11.45	15.20	14.40	j11.70	j7.75
20	9.75	8.55	7.75	7.75	9.60	11.75	13.25	11.95	14.85	14.75	12.60	j7.75
21	9.95	9.00	8.10	7.95	9.15	11.75	13.95	11.95	13.70	15.00	j11.25	8.75
22	9.95	8.55	7.90	8.20	9.25	12.25	13.95	12.15	14.35	15.45	j11.25	8.95
23	9.95	8.70	8.15	8.20	9.25	12.25	13.95	11.95	14.85	15.50	j11.25	8.95
24	10.25	8.90	8.15	8.30	8.75	12.00	13.95	12.00	14.85	14.75	j11.55	8.95
25	9.80	9.10	8.00	8.25	8.95	12.55	11.85	12.60	14.40	14.75	j11.55	j7.25

Warwick 40--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	10.25	9.50	8.00	8.25	8.95	12.55	11.50	12.75	14.75	13.95	j11.55	j7.45
27	10.65	9.10	8.00	7.75	9.25	12.65	11.90	12.80	14.75	13.95	j11.55	j7.50
28	10.20	9.10	7.95	7.75	9.25	12.30	11.95	13.25	14.75	14.25	j8.70	8.65
29	10.35		7.95	7.95	9.25	12.50	12.30	13.25	14.85	14.10	j8.65	j7.65
30	10.55		7.75	7.75	9.45	12.70	12.50	13.25	14.75	14.25	9.90	9.00
31	10.55		7.75		9.15		12.70	13.55		12.40		8.20

j Not pumping.

Warwick 59. Our Lady of Providence Seminary. Warwick Neck and Aldrich Aves.

Lat. 41°41'06", long. 71°22'39". Dug unused water-table well in till, diameter 30 inches, depth 27 feet. Land-surface datum is about 125 feet above msl. Highest water level 4.26 below lsd, Apr. 29, 1952; lowest 24.77 below lsd, Oct. 31, 1949. Records available: 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	4.54	Apr. 25	4.79	July 31	12.05	Oct. 28	16.08
Feb. 28	4.67	May 28	5.35	Aug. 31	12.01	Nov. 27	4.59
Mar. 28	4.43	June 30	8.94	Oct. 1	14.42	Dec. 31	4.77

West Greenwich 57. Frank Altieri. Division St. Lat. 41°38'45", long. 71°35'27". Dug unused water-table well in sand, diameter 30 inches, depth 13 feet. Land-surface datum is about 270 feet above msl. Highest water level 1.65 below lsd, Apr. 25, 1953; lowest 8.71 below lsd, Nov. 1, 1952. Records available: 1952-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 30, 1952	4.91	Nov. 29, 1952	7.93	Apr. 25, 1953	1.65	Oct. 1, 1953	7.29
July 31	7.57	Dec. 27	6.92	May 28	2.18	28	5.83
Aug. 29	7.18	Jan. 31, 1953	3.94	June 30	5.31	Nov. 27	3.22
Sept. 29	8.00	Feb. 28	3.28	July 31	5.63	Dec. 30	2.98
Nov. 1	8.71	Mar. 28	1.70	Aug. 31	7.09		

Newport County

Portsmouth 72. St. Mary's Church. East Main Rd. Lat. 41°32'47", long. 71°15'42".

Dug unused water-table well in till, diameter 36 inches, depth 42 feet. Land-surface datum is about 235 feet above msl. Highest water level 6.96 below lsd, Feb. 20, 1948; lowest 29.94 below lsd, Nov. 22, 1949. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	22.25	Apr. 8	12.91	July 8	21.63	Oct. 7	22.41
13	10.97	15	8.27	15	21.97	14	23.07
20	12.16	21	9.23	22	22.71	21	23.65
26	12.53	28	13.29	29	22.87	28	24.06
Feb. 4	12.81	May 6	15.25	Aug. 5	22.81	Nov. 4	22.95
10	13.16	12	16.23	12	22.81	12	18.62
18	8.35	20	17.48	19	21.82	18	17.25
24	10.72	27	18.04	26	20.27	25	14.27
Mar. 2	13.47	June 3	18.62	Sept. 2	19.68	Dec. 2	11.26
9	13.17	10	19.12	9	19.91	9	11.79
16	11.13	17	19.68	16	20.44	16	7.60
24	10.72	24	20.30	23	21.12	22	11.40
Apr. 1	10.66	July 1	20.98	30	21.75	30	15.36

Tiverton 31. North Tiverton Water District. Lat. 41°39'11", long. 71°11'15". Driven unused water-table well in sand and gravel, diameter 8 inches, depth 21 feet. Land-surface datum is about 250 feet above msl. Highest water level flowing, 1948, 1949, 1951; lowest 12.37 below lsd, Aug. 26, 1950. Records available: 1947-53. Nearby wells being pumped.

Jan.	12	-0.54	Jan. 25	-1.01	Feb. 25	+0.84	Oct. 5	-5.04
	18	+.96	Feb. 1	+2.08	July 9	-5.40	12	-1.62

Tiverton 47. North Tiverton Water District. Lat. 41°38'08", long. 71°11'08". Driven unused water-table well in sand and gravel, diameter 2½ inches, depth 27 feet. Land-surface datum is about 160 feet above msl. Highest water level flowing, 1948; lowest 16.88 below lsd, Oct. 16, 1948. Records available: 1947-53. Nearby wells being pumped. Jan. 18, -2.29; Jan. 25, +0.80; Feb. 1, -2.01; Feb. 25, -2.18; July 9, -10.88; Oct. 5, -7.55; Oct. 12, -7.18.

Tiverton 194. North Tiverton Water District. Osborn well field, well 27. Lat. 41°39'44", long. 71°10'36". Driven unused water-table well in sand and gravel, diameter 6 inches, depth 21 feet. Land-surface datum is about 175 feet above msl. Highest water level 0.93 below lsd, Aug. 24, 1952; lowest 7.26 below lsd, July 20, 1952. Records available: 1952-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	0.99	Jan. 25	1.19	Feb. 25	1.01	Oct. 5	3.07
18	1.37	Feb. 1	1.10	July 9	5.55	12	5.21

Providence County

Burrillville 21. Cyrille Bruynel. Lat. 41°57'26", long. 71°36'15". Dug unused water-table well in till, diameter 24 inches, depth 15 feet. Land-surface datum is about 400 feet above msl. Highest water level 3.82 below lsd, Mar. 28, 1953; lowest dry, Nov. 1, 28, 1952, Oct. 2, 30, 1953. Records available: 1947-53.

Jan. 31	4.82	Apr. 25	4.39	July 30	11.39	Oct. 30	(f)
Feb. 28	5.12	May 28	6.89	Aug. 31	12.91	Nov. 30	6.64
Mar. 28	3.82	June 29	9.67	Oct. 2	(f)	Dec. 31	5.70

f Dry.

Cranston 3. Narragansett Brewing Co. Lat. 41°47'59", long. 71°26'36". Drilled industrial water-table well in sand and gravel, diameter 24 inches, depth 56 feet. Land-surface datum is 65.29 feet above msl. Highest water level 24.5 below lsd, Aug. 26, 1938; lowest 36.3 below lsd, Jan. 28, 1951. Records available: 1938-53. Measurements made an hour after pump shut off.

Jan. 4	30.1	Apr. 5	27.1	July 5	28.5	Oct. 4	30.7
11	29.9	12	27.1	12	27.7	11	31.0
18	29.9	19	27.0	19	29.1	18	30.8
25	29.8	26	26.4	26	29.2	25	28.8
Feb. 1	29.1	May 3	26.3	Aug. 2	29.3	Nov. 1	30.7
8	28.7	10	26.2	9	29.1	15	31.0
15	28.7	17	26.2	16	29.5	22	30.2
22	28.5	24	26.3	24	29.5	29	30.0
Mar. 1	28.4	31	26.7	30	30.0	Dec. 6	29.7
8	28.0	June 7	26.8	Sept. 6	30.8	15	29.6
15	28.0	14	27.1	20	30.9	20	29.6
22	27.5	21	26.7	27	31.4	27	29.5
29	27.2	28	28.5				

Cranston 4. Narragansett Brewing Co. Lat. 41°47'51", long. 71°26'39". Drilled industrial water-table well in sand and gravel, diameter 24 inches, depth 69 feet. Land-surface datum is 65.57 feet above msl. Highest water level 22.3 below lsd, June 22, 1939; lowest 36.7 below lsd, Jan. 2, 9, 16, 23, 1949. Records available: 1939-53. Measurements made 30 minutes after pump shut off.

Jan. 4	33.2	Apr. 5	30.3	July 12	31.7	Oct. 4	33.3
11	31.3	12	29.7	19	32.7	11	33.9
18	32.2	19	29.6	26	32.7	18	33.9
25	29.6	26	28.7	Aug. 2	33.1	25	32.7
Feb. 1	30.8	May 3	28.4	9	32.3	Nov. 1	33.1
8	30.7	10	28.5	16	32.6	15	32.2
15	30.5	17	28.4	24	33.7	22	32.7
22	31.4	24	28.6	30	33.5	29	32.6
Mar. 1	30.2	June 7	29.4	Sept. 6	33.9	Dec. 6	32.3
8	30.5	14	30.2	13	33.9	13	31.1
15	29.6	21	30.0	20	33.9	20	31.2
22	29.5	28	30.4	27	33.2	27	31.1
29	29.5	July 5	31.1				

Cranston 12. Narragansett Brewing Co. Lat. 41°47'59", long. 71°26'36". Drilled unused water-table well in sand and gravel, diameter 24 inches, depth 56 feet. Land-surface datum is 68.91 feet above msl. Highest water level 28.36 below lsd, May 11, 1953; lowest 34.9 below lsd, Sept. 4, 11, 1949. Records available: 1938-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.56	30.58	29.61	29.06	29.33	30.81	31.74	32.41	33.26	32.59	31.65
2	31.62	30.76	29.62	28.74	29.57	30.87	31.53	32.53	33.27	32.70	31.74
3	31.70	30.85	29.61	28.56	29.66	.....	31.65	32.63	33.03	32.80	31.94
4	31.72	30.85	29.60	28.57	29.72	.....	31.82	32.71	29.90	32.85	31.96
5	31.60	30.72	29.56	.....	29.65	.....	31.92	32.75	33.06	32.86	31.79

Cranston 12--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	.....	31.40	30.57	29.49	28.92	29.41	.....	31.97	32.75	33.22	32.72	31.66
7	.....	31.30	30.51	29.48	28.98	29.31	.....	31.93	32.43	33.28	32.47	31.52
8	.....	31.22	30.42	29.47	28.85	29.56	31.10	31.72	32.58	33.33	32.35	31.68
9	.....	31.36	30.54	29.43	28.61	29.76	31.19	31.62	32.77	33.34	32.47	31.78
10	.....	31.48	30.67	29.42	28.48	29.87	31.25	31.80	32.83	33.08	32.57	31.84
11	.....	31.53	30.70	29.40	28.68	29.96	31.21	31.91	32.90	32.92	32.50	31.86
12	.....	31.42	30.62	29.34	28.90	30.00	31.11	32.01	32.90	32.80	.....	31.77
13	.....	31.22	30.45	29.24	29.01	29.94	31.16	32.04	32.69	32.98	.....	31.48
14	.....	31.15	30.35	29.18	29.08	29.64	31.32	31.93	32.84	33.13	.....	31.35
15	32.50	31.08	30.25	29.13	28.99	29.79	31.42	31.73	32.92	33.20	.....	31.25
16	32.39	31.13	30.17	29.10	29.73	29.99	31.49	31.60	32.96	33.16	.....	31.38
17	32.15	31.23	30.15	29.04	29.60	30.20	31.55	31.76	33.01	32.92	.....	31.48
18	31.98	31.25	30.12	29.03	29.76	30.29	31.51	31.96	33.06	32.81	32.47	31.38
19	31.86	31.13	30.07	28.94	29.00	30.37	31.27	32.09	33.07	32.98	32.36	31.19
20	32.18	29.93	30.03	28.83	29.15	30.34	31.43	32.16	32.81	33.15	32.16	31.12
21	32.24	29.84	29.98	28.79	29.24	30.06	31.60	32.14	32.78	33.25	32.09	31.02
22	32.27	29.76	29.90	28.78	29.29	30.21	31.67	31.91	32.93	33.27	32.02	31.21
23	32.16	29.84	29.81	28.73	29.20	.....	31.70	31.78	33.02	33.16	31.95	31.39
24	31.91	29.90	29.79	28.71	28.96	30.54	31.53	31.96	33.07	32.91	32.09	31.46
25	31.78	29.94	29.79	29.78	29.09	30.63	31.49	32.18	33.12	32.80	32.25	31.35
26	31.90	30.85	29.79	28.71	29.30	30.68	31.31	32.29	33.14	32.87	32.22	31.05
27	31.99	30.66	29.78	28.83	29.43	30.64	31.44	32.40	33.14	33.03	31.94	30.91
28	32.06	30.60	29.76	29.03	29.50	30.40	31.63	32.41	32.99	33.11	31.85	31.05
29	32.06	.....	29.70	29.04	29.41	30.54	31.72	32.21	33.15	33.11	31.81	31.24
30	31.91	.....	29.60	29.15	29.20	30.71	31.79	32.08	32.21	32.86	31.72	31.31
31	31.70	.....	29.62	.....	29.10	.....	31.82	32.24	.....	32.70	.....	31.35

Cranston 38. Narragansett Brewing Co. Lat. $41^{\circ}47'44''$, long. $71^{\circ}26'43''$. Driven observation water-table well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 30 feet. Land-surface datum is 52.43 feet above msl. Highest water level 15.1 below lsd, May 7, 1946; lowest 25.5 below lsd, Aug. 29, 1949, Sept. 14, 1953. Records available: 1947-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	22.4	Apr. 5	19.7	July 7	22.7	Oct. 5	24.8
12	22.4	13	19.7	13	23.1	13	24.7
19	22.5	20	19.5	20	23.5	19	24.7
25	22.3	27	19.4	27	23.3	26	24.7
Feb. 2	22.1	May 4	19.1	Aug. 3	23.5	Nov. 2	24.1
9	21.9	11	19.0	10	23.4	16	23.3
16	21.5	18	19.0	17	22.5	23	23.4
23	20.9	25	19.5	24	24.3	29	22.8
Mar. 2	20.6	June 1	19.9	31	24.0	Dec. 6	22.6
9	20.5	8	20.1	Sept. 8	24.1	13	22.4
16	20.5	15	20.7	14	25.5	21	21.9
23	20.1	22	21.6	21	23.2	27	21.6
30	19.9	29	21.9	28	24.8		

Cranston 39. Narragansett Brewing Co. Lat. $41^{\circ}47'44''$, long. $71^{\circ}26'43''$. Driven observation water-table well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 20 feet. Land-surface datum is 46.03 feet above msl. Highest water level 9.2 below lsd, June 14, 1946; lowest 15.7 below lsd, Aug. 29, 1949. Records available: 1946-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	13.9	Apr. 5	11.3	July 7	13.6	Oct. 5	15.3
12	13.9	13	11.2	13	14.6	13	15.3
19	13.6	20	11.0	20	14.9	19	15.3
25	13.4	27	10.9	27	14.7	26	15.0
Feb. 2	13.1	May 4	10.6	Aug. 3	14.2	Nov. 2	15.6
9	13.1	11	10.1	10	14.1	16	13.7
16	12.8	18	10.5	17	13.9	23	13.8
23	12.2	25	10.6	24	14.4	29	13.4
Mar. 2	12.0	June 1	11.0	31	14.6	Dec. 6	13.3
9	12.1	8	11.3	Sept. 8	14.7	13	13.2
16	12.0	15	11.6	14	15.3	21	12.7
23	11.6	22	12.5	21	15.2	27	12.6
30	11.6	29	13.3	28	15.2		

Cranston 40. Narragansett Brewing Co. Lat. 41°47'44", long. 71°26'43". Driven observation water-table well in sand and gravel, diameter 2½ inches, depth 40 feet. Land-surface datum is 54.02 feet above msl. Highest water level 17.3 below lsd, June 14, 1948; lowest 22.3 below lsd, Aug. 29, Sept. 19, 1949. Records available: 1946-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	19.8	Apr. 5	18.4	July 7	20.3	Oct. 5	22.2
12	20.7	13	18.3	13	20.6	13	22.0
19	20.5	20	17.8	20	21.0	19	22.1
25	20.2	27	17.7	27	20.8	26	21.7
Feb. 2	20.1	May 4	17.5	Aug. 3	21.0	Nov. 2	21.4
9	19.7	11	17.4	10	21.0	16	20.7
16	19.5	18	17.7	17	20.7	23	20.7
23	19.2	25	17.8	24	21.1	30	20.2
Mar. 2	19.2	June 1	18.2	31	21.4	Dec. 7	20.2
9	19.1	8	18.5	Sept. 8	21.9	13	20.1
16	19.0	15	18.9	14	21.9	21	19.7
23	18.5	22	19.4	21	21.9	28	19.6
30	18.4	29	19.8	28	22.1		

Cranston 41. Narragansett Brewing Co. Lat. 41°47'41", long. 71°26'45". Driven observation water-table well in sand and gravel, diameter 2½ inches, depth 33 feet. Land-surface datum is 56.53 feet above msl. Highest water level 17.54 below lsd, May 7, 1946; lowest 24.9 below lsd, Oct. 5, 1953. Records available: 1946-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	20.6	Apr. 5	20.1	July 7	21.7	Oct. 5	24.9
12	22.7	13	20.0	13	22.8	13	23.8
19	22.4	20	19.8	20	22.4	19	24.0
25	22.3	27	19.7	27	22.6	26	23.9
Feb. 2	21.9	May 4	19.6	Aug. 3	22.6	Nov. 2	23.3
9	21.8	11	19.5	10	22.5	16	22.9
16	21.7	18	19.7	17	22.7	23	23.0
23	21.2	25	19.9	24	23.2	30	22.3
Mar. 2	20.8	June 1	20.0	31	23.2	Dec. 7	22.4
9	20.7	8	20.4	Sept. 8	23.3	13	22.5
16	20.8	15	20.8	14	23.8	21	21.7
23	20.5	22	21.3	21	23.3	28	21.4
30	20.3	29	21.6	28	23.8		

Cranston 85. E. E. Searle. Hope Road. Lat. 41°44'27", long. 71°32'30". Dug domestic water-table well in till, diameter 30 inches, depth 25 feet. Land-surface datum is about 300 feet above msl. Highest water level 8.18 below lsd, May 28, 1953; lowest dry, Nov. 29, Dec. 27, 1952, Oct. 1, 28, 1953. Records available: 1952-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 14, 1952	15.75	Nov. 1, 1952	24.90	Mar. 28, 1953	10.63	Aug. 31, 1953	24.38
June 26	17.28	29	(f)	Apr. 25	9.74	Oct. 1	(f)
July 31	22.88	Dec. 27	(f)	May 28	8.18	28	(f)
Aug. 29	23.89	Jan. 31, 1953	13.44	June 30	21.49	Nov. 27	22.86
Sept. 29	24.50	Feb. 28	11.43	July 31	23.29	Dec. 30	12.66

f Dry.

Cumberland 129. Thomas Cooney Estate. Lat. 41°58'20", long. 71°27'14". Dug unused water-table well in till, diameter 30 inches, depth 30 feet. Land-surface datum is about 330 feet above msl. Highest water level 5.35 below lsd, Mar. 28, 1953; lowest 17.99 below lsd, Aug. 31, 1949. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	6.47	Apr. 25	6.48	July 30	13.57	Oct. 30	16.02
Feb. 28	6.84	May 28	8.79	Aug. 31	15.30	Nov. 30	6.96
Mar. 28	5.35	June 29	12.57	Oct. 1	16.82	Dec. 31	7.90

Cumberland 265. Clarence Lawton. Lat. 41°56'26", long. 71°25'45". Dug unused water-table well in sand and gravel, diameter 30 inches, depth 20 feet. Land-surface datum is about 130 feet above msl. Highest water level 10.67 below lsd, Feb. 26, 1948; lowest 17.20 below lsd, Sept. 29, 1949. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	10.82	Apr. 25	11.40	July 30	14.85	Oct. 30	15.01
Feb. 28	11.68	May 28	13.21	Aug. 31	15.90	Nov. 30	11.13
Mar. 28	11.02	June 29	15.06	Oct. 1	15.88	Dec. 31	12.02

Foster 1. Old Staples Farm. Lat. 41°48'53", long. 71°42'18". Dug unused water-table well in sand and gravel, diameter 20 inches, depth 13 feet. Land-surface datum is about 380 feet above msl. Highest water level 5.06 below lsd, May 28, 1951; lowest dry, Oct. 28, 1949, Oct. 2, 1953. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	5.94	Apr. 25	6.10	July 31	12.39	Oct. 30	12.81
Feb. 28	6.40	May 28	7.89	Aug. 31	12.15	Nov. 27	5.91
Mar. 28	5.54	June 30	11.09	Oct. 2	(f)	Dec. 31	6.93

f Dry.

Foster 3. Clarence S. Cook. Lat. 41°47'42", long. 71°47'33". Dug unused water-table well in till, diameter 24 inches, depth 36 feet. Land-surface datum is about 610 feet above msl. Highest water level 13.19 below lsd, Apr. 25, 1953; lowest 34.32 below lsd, Oct. 30, 1953. Records available: 1947-53.

Jan. 31	33.46	Apr. 25	13.19	July 31	22.02	Oct. 30	34.32
Feb. 28	21.50	May 28	15.56	Aug. 31	25.45	Nov. 27	32.78
Mar. 28	14.14	June 30	18.59	Oct. 2	28.84	Dec. 31	21.47

Foster 4. Cucumber Hill. Lat. 41°45'17", long. 71°46'01". Dug unused water-table well in till, diameter 24 inches, depth 17 feet. Land-surface datum is about 605 feet above msl. Highest water level 7.11 below lsd, Mar. 28, 1953; lowest 16.71 below lsd, Oct. 28, 1949. Records available: 1947-53.

Jan. 31	7.63	Apr. 25	8.24	July 31	10.58	Oct. 30	12.71
Feb. 28	8.09	May 28	9.32	Aug. 31	11.11	Nov. 27	8.31
Mar. 28	7.11	June 30	11.40	Oct. 2	11.96	Dec. 31	8.87

Foster 5. S. J. Chatterson. Lat. 41°48'29", long. 71°43'45". Dug unused water-table well in sand and gravel, diameter 30 inches, depth 12 feet. Land-surface datum is about 465 feet above msl. Highest water level 7.39 below lsd, Mar. 28, 1953; lowest 11.48 below lsd, July 29, 1949. Records available: 1947-53.

Jan. 31	7.65	Apr. 25	7.86	July 31	10.80	Oct. 30	10.19
Feb. 28	8.35	May 28	9.31	Aug. 31	11.18	Nov. 27	7.51
Mar. 28	7.39	June 30	10.72	Oct. 2	11.31	Dec. 31	9.02

Lincoln 84. Lincoln Bleachery & Dye Works. Lonsdale. Lat. 41°54'38", long. 71°24'24". Driven unused water-table well in sand and gravel, diameter 3 inches, depth 107 feet. Land-surface datum is about 60 feet above msl. Highest water level 2.70 below lsd, Mar. 20, 1948, Apr. 17, 1953; lowest 7.22 below lsd, Oct. 28, 1950. Records available: 1946-53. Nearby wells being pumped.

Jan. 2	6.88	Apr. 3	2.81	July 3	5.59	Oct. 9	6.69
9	6.38	10	2.74	11	6.04	17	6.65
16	6.27	17	2.70	17	6.09	23	6.69
23	5.77	24	3.55	31	6.01	30	5.45
30	4.52	May 1	3.87	Aug. 7	6.27	Nov. 6	6.54
Feb. 6	5.34	8	3.28	14	6.20	13	6.45
13	4.98	15	4.18	21	6.26	20	6.46
20	4.60	22	4.49	28	6.39	27	4.44
27	4.89	29	4.60	Sept. 4	6.44	Dec. 4	5.72
Mar. 6	4.53	June 5	5.43	11	6.62	12	4.71
13	5.13	12	5.57	18	6.58	18	4.51
20	2.96	20	5.78	25	6.66	26	5.79
27	2.78	26	5.74	Oct. 2	6.66	31	5.68

North Smithfield 21. James W. Shaw. Branch Village. Lat. 41°59'48", long. 71°32'53". Dug unused water-table well in sand and gravel, diameter 24 inches, depth 16 feet. Land-surface datum is about 250 feet above msl. Highest water level 5.37 below lsd, Mar. 28, 1953; lowest 11.31 below lsd, Oct. 28, 1949. Records available: 1947-53.

Jan. 31	6.51	Apr. 25	5.85	July 30	10.05	Oct. 30	11.01
Feb. 28	6.57	May 28	7.64	Aug. 31	10.59	Nov. 30	7.78
Mar. 28	5.37	June 29	9.69	Oct. 1	11.08	Dec. 31	7.31

Providence 5. American Silk Spinning Co. Lat. 41°50'21", long. 71°25'12". Drilled unused water-table well in bedrock, diameter 6 inches, depth 472 feet. Land-surface datum is 28.28 feet above msl. Highest water level 7.55 below lsd, Apr. 24, 1953; lowest 9.46 below lsd, Nov. 3, 1945, Oct. 31, Nov. 28, 1952. Records available: 1944-53.

Jan. 30	8.96	Apr. 24	7.55	July 30	8.37	Oct. 30	8.79
Feb. 27	8.53	May 27	7.73	Aug. 28	8.20	Nov. 30	8.67
Mar. 27	8.10	June 29	8.15	Oct. 2	9.07	Dec. 30	8.42

Providence 48. Gorham Manufacturing Co. Lat. 41°47'47", long. 71°25'56". Drilled unused water-table well in sand, diameter 8 inches, depth 121 feet. Land-surface datum is 45.79 feet above msl. Highest water level 5.08 below lsd, May 4, 1953; lowest 10.20 below lsd, Oct. 20, 1947. Records available: 1944-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.10	6.66	6.26	5.67	5.22	5.78	6.11	6.48	6.81	7.02	6.58	6.19
2	7.09	6.69	6.30	5.68	5.14	5.80	6.12	6.48	6.79	7.05	6.51	6.27
3	7.07	6.69	6.32	5.72	5.09	5.83	6.19	6.52	6.84	7.02	6.51	6.34
4	6.97	6.69	6.31	5.71	5.15	5.85	6.16	6.54	6.88	7.00	6.54	6.38
5	6.99	6.68	6.24	5.66	5.16	5.88	6.15	6.55	6.87	7.02	6.54	6.36
6	6.99	6.68	6.25	5.68	5.20	5.88	6.19	6.59	6.85	7.02	6.53	6.36
7	7.02	6.66	6.23	5.67	5.20	5.87	6.23	6.61	6.85	7.03	6.50	6.27
8	7.02	6.61	6.22	5.58	5.21	5.92	6.26	6.58	6.90	7.05	6.40	6.28
9	7.00	6.56	6.22	5.48	5.22	5.91	6.27	6.57	6.93	7.04	6.35	6.29
10	6.95	6.57	6.27	5.42	5.23	5.92	6.30	6.59	6.93	7.04	6.37	6.30
11	6.86	6.56	6.30	5.36	5.28	5.93	6.31	6.62	6.94	7.02	6.38	6.35
12	6.85	6.56	6.29	5.34	5.34	5.95	6.30	6.62	6.93	7.04	....	6.35
13	6.86	6.55	6.28	5.32	5.40	5.92	6.29	6.67	6.91	7.06	....	6.33
14	6.87	6.56	6.16	5.24	5.41	5.90	6.33	6.65	6.84	7.05	....	6.33
15	6.87	6.55	6.11	5.21	5.41	5.95	6.35	6.55	6.84	7.07	....	6.31
16	6.84	6.42	6.00	5.21	5.43	5.98	6.38	6.53	6.86	7.11	....	6.32
17	6.83	6.39	5.93	5.22	5.41	6.02	6.40	6.56	6.89	7.10	....	6.33
18	6.80	6.35	5.88	5.20	5.43	6.02	6.37	6.59	6.93	7.08	6.63	6.32
19	6.77	6.32	5.82	5.15	5.49	6.04	6.36	6.62	6.92	7.09	6.64	6.32
20	6.79	6.31	5.80	5.14	5.57	6.03	6.35	6.65	6.88	7.13	6.64	6.31
21	6.80	6.28	5.79	5.14	....	6.03	6.39	6.69	6.84	7.15	6.63	6.32
22	6.80	6.22	5.77	5.15	....	6.04	6.42	6.66	6.77	7.15	6.63	6.32
23	6.78	6.21	5.82	5.16	....	6.05	6.42	6.64	6.81	7.12	6.60	6.34
24	6.77	6.21	5.82	5.19	....	6.10	6.27	6.69	6.82	7.08	6.43	6.35
25	6.67	6.21	5.80	5.19	....	6.12	6.27	6.71	6.87	7.07	6.40	6.36
26	6.74	6.21	5.79	5.16	....	6.14	6.27	6.73	6.86	7.00	6.27	6.33
27	6.74	6.23	5.80	5.14	5.78	6.13	6.33	6.78	6.87	7.00	6.20	6.34
28	6.72	6.25	5.80	5.19	5.79	6.10	6.38	6.79	6.94	6.99	6.16	6.36
29	6.71	....	5.77	5.21	5.79	6.12	6.44	6.77	7.00	6.89	6.13	6.40
30	6.71	....	5.72	5.23	5.78	6.12	6.47	6.76	6.99	6.77	6.14	6.39
31	6.70	....	5.70	....	5.75	....	6.48	6.79	....	6.68	....	6.41

Providence 81. Nicholson File Co. well 2. Lat. 41°49'40", long. 71°25'47". Drilled industrial water-table well in sand and gravel, diameter 10 inches, depth 145 feet. Land-surface datum is about 10 feet above msl. Highest water level 14.0 below lsd, Dec. 28, 1953; lowest 25.0 below lsd, Feb. 2, 1947, Aug. 28, Sept. 25, 1949, June 6, 1951. Records available: 1941, 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	21.0	Apr. 5	19.0	June 28	20.0	Oct. 12	17.0
11	20.0	12	19.0	July 5	20.0	19	17.0
18	20.0	19	18.0	12	19.0	26	17.0
25	20.0	26	19.0	19	19.0	Nov. 2	17.0
Feb. 1	21.0	May 3	18.0	26	19.0	9	17.0
8	20.0	10	19.0	Aug. 23	21.0	16	17.0
15	19.0	17	19.0	30	19.0	23	17.0
22	19.0	24	19.0	Sept. 7	19.0	30	17.0
Mar. 1	20.0	June 3	20.0	14	17.0	Dec. 7	16.0
8	20.0	7	19.0	21	17.0	15	17.0
15	19.0	14	19.0	27	17.0	21	16.0
22	19.0	21	20.0	Oct. 4	17.0	28	14.0
29	19.0	....	....	....	....	....	....

Providence 82. Nicholson File Co. well 1. Lat. 41°49'40", long. 71°25'47". Drilled industrial water-table well in sand and gravel, diameter 8 inches, depth 150 feet. Land-surface datum is about 8 feet above msl. Highest water level 9.0 below lsd, Dec. 28, 1953; lowest 22.8 below lsd, Aug. 4, 1946. Records available: 1946-53.

Providence 82--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	14.0	Apr. 5	12.0	June 28	13.0	Oct. 12	11.0
11	14.0	12	12.0	July 5	13.0	19	11.0
18	14.0	19	11.0	12	12.0	26	11.0
25	14.0	26	12.0	19	12.0	Nov. 2	11.0
Feb. 1	14.0	May 3	11.0	26	12.0	9	11.0
8	13.0	10	12.0	Aug. 23	12.0	16	11.0
15	12.0	17	12.0	30	14.0	23	11.0
22	13.0	24	12.0	Sept. 7	13.0	30	11.0
Mar. 1	13.0	31	13.0	14	11.0	Dec. 7	10.0
8	13.0	June 7	12.0	21	11.0	15	11.0
15	12.0	14	12.0	27	11.0	21	10.0
22	12.0	21	13.0	Oct. 4	11.0	28	9.0
29	12.0						

Providence 94. Providence Gas Co. Sassafras Point plant. Lat. 41°47'58", long. 71°23'33". Drilled unused water-table well in sand, diameter 16 inches, depth 120 feet. Land-surface datum is 12.32 feet above msl. Highest water level 9.41 below lsd, Dec. 15, 1953; lowest 28.34 below lsd, Sept. 1, 1945. Records available: 1944-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.57	16.53	15.41	14.93	14.83	14.62	15.62	15.45	14.79	15.55	14.33	11.32
2	15.60	16.15	15.51	14.80	14.67	14.65	15.60	15.40	14.75	14.74	14.36	11.06
3	15.50	15.97	15.80	14.95	14.73	14.75	15.49	15.28	14.81	14.85	14.44	11.17
4	15.47	15.77	15.38	14.86	14.70	14.67	15.58	15.24	14.91	14.82	14.70	11.05
5	15.52	15.80	16.10	14.84	14.55	14.71	15.67	15.16	14.90	14.93	14.75	11.47
6	15.61	15.63	15.84	14.78	14.97	.....	15.47	15.24	14.92	14.60	14.71	11.46
7	15.57	15.54	16.10	14.38	15.09	.....	15.40	15.31	14.85	14.85	14.10	11.96
8	15.52	15.65	15.53	14.30	15.20	.....	15.45	15.24	15.15	15.02	14.25	11.54
9	15.32	16.30	15.42	14.48	15.27	.....	15.56	15.35	15.18	15.00	14.45	11.40
10	15.08	16.31	15.83	14.35	15.40	15.04	15.71	15.32	15.10	14.93	14.62	11.21
11	15.05	16.05	15.80	14.60	15.50	15.19	15.73	15.35	15.10	14.84	14.70	11.42
12	15.78	15.85	16.10	14.76	15.05	15.15	15.65	15.44	14.95	14.77	.....	11.15
13	15.82	15.97	15.85	14.63	14.97	15.12	15.64	15.41	14.50	14.97	.....	10.88
14	15.87	16.08	15.92	15.00	14.99	14.98	15.64	15.39	14.70	14.94	.....	10.55
15	15.99	16.03	16.05	14.90	14.88	14.92	15.52	15.38	14.71	14.82	.....	10.91
16	15.96	16.12	15.67	14.67	14.85	15.04	15.44	15.05	14.63	14.84	.....	11.25
17	16.41	16.05	15.62	14.38	14.61	14.93	15.32	14.90	14.55	14.90	.....	11.24
18	16.00	15.97	15.47	14.35	14.45	14.84	15.36	14.95	14.63	15.03	15.15	11.35
19	15.96	15.69	15.31	14.22	14.55	14.90	15.25	15.67	14.77	15.19	15.18	11.28
20	15.89	15.22	15.19	13.82	14.58	14.85	15.20	14.72	14.90	15.30	15.16	11.35
21	15.70	15.11	15.20	.....	14.33	14.92	15.40	14.87	15.15	15.16	15.16	11.29
22	15.40	15.35	15.05	.....	14.51	14.83	15.36	15.04	15.17	14.96	15.17	10.87
23	.....	15.21	15.05	.....	14.69	.....	15.50	15.09	15.23	14.93	14.92	11.86
24	.....	15.25	14.79	.....	14.76	14.55	15.55	15.12	15.26	14.90	14.77	11.16
25	.....	15.24	14.77	.....	14.75	15.13	15.72	15.21	15.27	14.86	14.62	10.95
26	.....	15.03	14.77	.....	14.60	15.36	15.68	15.20	15.03	14.65	14.48	10.80
27	.....	15.00	14.81	.....	14.54	15.55	15.86	15.18	14.91	14.75	14.43	11.03
28	15.57	15.16	14.95	.....	14.26	15.50	15.77	15.15	14.65	14.35	11.36	10.71
29	15.65		14.94	15.02	14.81	15.52	15.70	15.13	14.56	14.31	11.25	10.85
30	15.86		14.90	15.08	14.62	15.39	15.64	14.95	14.56	14.30	11.21	10.74
31	15.82		14.86		14.61		15.47	14.75		14.30		11.34

Providence 113. Providence Young Men's Christian Association. 160 Broad St. Lat. 41°49'07", long. 71°24'55". Drilled unused water-table well in bedrock, diameter 12 inches, depth 208 feet. Land-surface datum is 79.89 feet above msl. Highest water level 44.75 below lsd, June 29, 1953; lowest 49.12 below lsd, Nov. 9, 1945. Records available: 1944-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	45.62	Apr. 24	44.77	July 30	44.89	Oct. 30	45.22
Feb. 27	45.25	May 27	45.57	Aug. 28	44.95	Nov. 30	45.13
Mar. 27	45.06	June 29	44.75	Oct. 2	45.23	Dec. 30	44.83

Providence 1051. U. S. Rubber Co. Lat. 41°49'40", long. 71°26'08". Drilled unused water-table well in sand and gravel, diameter 8 inches, depth 82 feet. Land-surface datum is about 10 feet above msl. Highest water level 4.71 below lsd, Dec. 26, 1951; lowest 16.10 below lsd, Jan. 16, 1948. Records available: 1948-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.28	....	9.15	....	9.62	7.40	10.40	....	9.49	8.90	8.68	6.65
2	9.37	....	8.51	....	9.62	8.15	10.82	....	10.07	9.36	7.12	7.35
3	9.44	....	9.05	....	8.90	8.78	10.82	....	10.44	9.39	7.87	7.95
4	9.33	10.17	9.44	....	7.55	9.30	9.69	7.10	10.68	9.93	8.50	8.33
5	9.34	10.44	9.71	....	8.18	9.72	7.55	7.51	10.73	7.15	9.00	8.33
6	9.95	10.63	9.92	....	8.65	9.74	5.65	7.67	10.07	7.81	9.24	8.20
7	10.20	10.63	9.92	....	8.90	9.35	5.45	7.90	7.98	8.33	9.24	7.09
8	10.55	9.98	9.31	7.40	9.21	7.67	5.63	8.07	7.22	8.69	8.80	....
9	10.76	8.80	8.52	8.20	9.21	8.25	5.85	7.95	8.41	8.98	7.27	8.13
10	10.76	9.53	8.98	8.75	8.70	8.64	6.24	7.13	9.17	9.02	8.01	8.42
11	10.26	10.10	9.58	9.10	7.37	8.75	6.27	7.85	9.65	8.73	8.11	8.80
12	9.59	10.44	9.94	9.02	8.05	8.80	5.85	8.40	9.72	6.85	7.73	8.81
13	9.95	10.70	10.17	7.95	8.60	8.80	5.27	8.93	9.38	5.85	8.35	9.31
14	10.30	10.70	10.17	8.15	9.05	8.30	5.35	9.00	7.46	6.85	8.44	6.01
15	10.71	10.18	9.70	9.08	9.35	7.45	5.56	8.00	8.23	7.62	8.30	7.20
16	10.93	8.90	8.00	9.47	9.35	....	6.10	6.20	8.66	8.26	6.90	8.21
17	10.93	9.55	8.55	9.77	8.90	9.64	6.58	6.38	8.93	8.33	....	....
18	10.25	9.93	9.10	9.77	7.40	10.40	6.64	7.88	9.10	8.03	8.21	9.04
19	9.53	9.93	9.60	9.15	8.08	10.86	6.38	9.21	9.10	6.62	8.60	9.06
20	10.02	9.82	9.88	7.51	8.60	10.94	6.45	10.11	7.75	7.67	8.90	8.65
21	10.35	9.82	9.88	8.35	8.93	10.45	....	10.55	....	8.45	8.91	7.33
22	10.62	9.35	9.17	8.94	9.15	9.65	....	10.60	....	9.05	8.50	7.84
23	10.80	7.77	7.75	9.35	9.15	10.17	....	10.14	8.45	9.38	7.25	8.35
24	10.80	8.50	8.65	9.68	8.83	10.65	....	9.27	8.82	9.38	7.86	8.52
25	10.10	9.10	....	9.68	7.65	11.00	....	10.67	9.04	8.65	8.24	8.49
26	9.01	9.37	....	9.07	8.40	11.25	....	10.24	9.04	7.90	8.27	6.94
27	9.80	9.57	....	7.62	9.01	11.27	....	10.86	8.53	7.69	7.28	5.42
28	....	9.58	....	8.43	9.46	10.80	....	11.22	7.10	8.32	7.05	4.61
29	....	....	....	8.97	9.78	8.85	....	11.29	7.72	8.60	6.11	5.58
30	....	....	....	9.37	9.78	....	....	10.46	8.30	8.94	5.61	6.29
31	....	....	....	....	8.60	....	....	8.62	....	8.95	....	6.84

Providence 1111. Brown University. Rhode Island Hall. Lat. 41°49'31", long. 71°24'46". Dug unused water-table well in till, diameter 30 inches, depth 24 feet. Land-surface datum is about 120 feet above msl. Highest water level 9.18 below lsd, Jan. 28, 1952; lowest 18.40 below lsd, Nov. 2-3, 1949. Records available: 1946-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	15.41	Apr. 13	9.35	July 14	14.76	Oct. 14	17.30
12	9.26	20	9.31	20	15.04	19	17.46
19	9.32	27	10.10	27	15.28	26	17.61
26	9.33	May 5	11.35	Aug. 3	15.40	Nov. 2	17.38
Feb. 3	9.67	12	11.69	10	15.54	9	16.94
9	9.31	17	11.88	17	15.73	16	16.26
16	9.23	25	12.40	24	15.92	23	15.69
23	9.38	June 1	12.83	Sept. 1	16.17	30	11.41
Mar. 2	10.02	8	13.27	7	16.35	Dec. 1	11.26
10	10.44	16	13.56	14	16.56	7	10.49
16	9.23	22	13.82	21	16.79	14	9.30
23	9.53	29	14.10	28	16.98	21	9.35
30	9.22	July 6	14.40	Oct. 5	17.12	30	9.99
Apr. 6	9.63						

Smithfield 66. E. Sheffield. Lat. 41°54'23", long. 71°34'39". Dug unused water-table well in sand and gravel, diameter 21 inches, depth 17 feet. Land-surface datum is about 415 feet above msl. Highest water level 1.96 below lsd, Mar. 28, 1953; lowest 15.52 below lsd, Oct. 2, 1953. Records available: 1947-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	5.97	Apr. 25	5.30	July 30	13.02	Oct. 30	13.16
Feb. 28	6.76	May 28	9.70	Aug. 31	14.46	Nov. 30	9.36
Mar. 28	1.96	June 29	11.73	Oct. 2	15.52	Dec. 31	8.91

Smithfield 213. Northwestern Water Co. Greenville. Lat. $41^{\circ}51'47''$, long. $71^{\circ}33'07''$. Drilled unused water-table well in sand and gravel, diameter 6 inches, depth 28 feet. Land-surface datum is about 285 feet above msl. Highest water level 10.67 below lsd, Apr. 19, 1953; lowest 16.48 below lsd, Nov. 29, 1949. Records available: 1945, 1949-53. Nearby wells being pumped.

Daily lowest water level from recorder graph

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.09	11.34	.....	10.88	11.15	11.59	12.27	12.60	13.22	13.52	.....	13.93
2	13.09	11.35	.....	.....	11.09	11.62	12.31	12.60	13.25	13.54	.....	13.93
3	13.09	11.36	.....	.....	11.12	11.65	12.32	12.64	13.26	13.56	.....	13.93
4	13.01	11.37	.....	.....	11.15	.....	12.33	12.66	13.27	13.59	13.82	13.94
5	12.92	11.40	.....	.....	11.17	11.70	12.38	12.66	13.27	13.62	13.90	13.94
6	12.89	11.40	.....	.....	11.14	11.73	12.41	12.67	13.28	13.62	13.96	13.92
7	12.86	11.40	11.31	.....	11.14	11.76	12.42	12.69	13.29	13.63	13.96	13.80
8	12.83	11.40	11.35	10.90	11.13	11.76	12.37	12.72	13.32	13.64	13.99	13.64
9	12.83	11.32	11.40	10.81	11.07	11.82	12.38	12.77	13.33	13.65	14.02	13.51
10	12.81	11.30	11.44	10.80	11.03	11.85	12.39	12.77	13.36	13.66	14.09	13.43
11	12.71	11.29	11.47	10.84	11.04	11.88	12.42	12.78	13.40	13.68	14.13	13.36
12	12.60	11.29	11.49	10.86	11.08	11.90	12.47	12.78	13.41	13.70	14.26	13.32
13	12.53	11.33	11.49	10.85	11.09	11.93	12.49	12.81	13.42	13.72	14.20	13.20
14	12.49	11.36	11.31	.....	11.12	11.95	12.45	12.85	13.41	13.73	14.24	13.20
15	12.43	11.36	11.28	10.75	11.17	11.98	12.43	12.86	13.38	13.74	14.28	13.01
16	12.43	11.29	11.07	10.74	11.21	12.02	12.42	12.83	13.38	13.76	14.32	12.93
17	12.38	11.12	10.93	10.71	11.25	12.07	12.46	12.78	13.38	13.78	14.36	12.81
18	12.33	11.07	10.80	10.68	11.26	12.12	12.52	12.78	13.38	13.79	14.40	12.74
19	12.19	11.10	10.75	10.67	11.28	12.15	12.58	12.78	13.40	13.80	14.47	12.70
20	12.07	11.14	10.83	10.69	11.29	12.19	12.62	12.80	13.42	13.81	14.51	12.69
21	11.99	11.15	10.91	10.75	11.30	12.22	12.64	12.83	13.43	13.82	14.55	12.67
22	11.96	11.16	10.97	10.75	11.32	12.22	12.65	12.86	13.43	13.85	14.58	12.66
23	11.91	11.20	11.03	10.80	11.34	12.15	12.66	12.89	13.39	13.89	14.58	12.65
24	11.86	11.22	11.05	10.87	11.39	12.05	12.58	12.81	13.37	13.93	14.47	12.62
25	11.75	11.22	11.03	10.93	11.43	12.08	12.42	12.95	13.41	13.94	14.38	12.62
26	11.54	.....	11.03	10.97	11.47	12.13	12.40	12.96	13.44	13.92	14.20	12.61
27	11.44	.....	11.03	11.01	11.48	12.18	12.41	12.98	13.47	13.90	14.07	12.61
28	11.39	.....	11.04	11.06	11.49	12.19	12.47	13.00	13.48	.....	13.95	12.61
29	11.31	.....	11.05	11.08	11.51	12.21	12.50	13.06	13.50	.....	13.92	12.61
30	11.31	.....	11.05	11.12	11.52	12.23	12.51	13.11	13.52	.....	13.93	12.60
31	11.32	.....	10.96	.....	11.54	.....	12.55	13.16	.....	.....	.....	12.62

Smithfield 217. Northwestern Water Co. Greenville. Lat. $41^{\circ}51'47''$, long. $71^{\circ}33'07''$. Drilled unused water-table well in sand and gravel, diameter 6 inches, depth 57 feet. Land-surface datum is about 300 feet above msl. Highest water level 17.19 below lsd, Mar. 28, 1952; lowest 24.29 below lsd, Nov. 29, 1949. Records available: 1945, 1949-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	18.15	Apr. 25	17.90	July 30	19.40	Oct. 30	21.26
Feb. 28	18.11	May 28	18.27	Aug. 31	20.12	Nov. 30	21.19
Mar. 28	17.84	June 29	19.04	Oct. 2	20.59	Dec. 31	19.56

Washington County

Charlestown 18. U. S. Navy Dept. Naval Auxiliary Air Station. Lat. $41^{\circ}22'21''$, long. $71^{\circ}39'43''$. Drilled unused water-table well in sand and clay, diameter 8 inches, depth 32 feet. Land-surface datum is 26.4 feet above msl. Highest water level 12.79 below lsd, Apr. 25, 1953; lowest 21.43 below lsd, Oct. 28, Nov. 30, 1949. Records available: 1946-53.

Jan. 31	18.04	Apr. 25	12.79	July 31	17.66	Oct. 28	19.37
Feb. 28	15.91	May 28	14.98	Aug. 31	17.92	Nov. 27	17.88
Mar. 28	14.40	June 30	16.90	Oct. 1	19.08	Dec. 30	16.76

Exeter 6. Wood River Picnic Area. Lat. $41^{\circ}34'23''$, long. $71^{\circ}43'19''$. Dug unused water-table well in sand and gravel, diameter 30 inches, depth 10 feet. Land-surface datum is about 130 feet above msl. Highest water level 3.92 below lsd, Mar. 28, 1953; lowest 7.49 below lsd, Sept. 6, 1949. Records available: 1946-53. Water level probably influenced by nearby Wood River.

Jan. 31	5.18	Apr. 25	4.19	July 31	6.70	Oct. 28	7.38
Feb. 28	4.98	May 28	5.06	Aug. 31	7.16	Nov. 27	4.69
Mar. 28	3.92	June 30	6.41	Oct. 1	7.32	Dec. 30	5.10

Exeter 16. State of Rhode Island, Exeter School. Lat. $41^{\circ}33'07''$, long. $71^{\circ}32'37''$. Driven unused water-table well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 27 feet. Land-surface datum is about 100 feet above msl. Highest water level 7.38 below lsd, Apr. 15, 1953; lowest 14.86 below lsd, Dec. 29, 1948. Records available: 1946-53. Nearby wells being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	12.50	Apr. 8	7.70	July 8	11.30	Oct. 14	12.95
14	11.62	15	7.38	15	10.90	21	13.10
21	11.50	22	7.42	29	11.16	28	13.07
28	11.16	29	7.73	Aug. 5	11.65	Nov. 4	12.80
Feb. 4	10.84	May 6	7.82	12	11.75	12	12.80
11	10.58	13	8.16	19	11.45	18	13.01
18	9.75	20	8.40	26	11.85	25	12.50
25	9.13	27	8.60	Sept. 2	12.10	Dec. 2	11.92
Mar. 4	9.02	June 3	8.81	9	12.19	9	11.30
11	8.86	10	9.10	16	12.45	16	10.44
18	8.04	17	9.50	23	12.49	23	10.38
25	7.70	24	9.82	30	12.60	30	10.02
Apr. 1	7.90	July 1	10.24	Oct. 7	12.75		

North Kingstown 26. North Kingstown Water Commission pumping station. Lat. $41^{\circ}33'25''$, long. $71^{\circ}29'01''$. Drilled public-supply water-table well in sand and gravel, diameter 12 inches, depth 50 feet. Land-surface datum is about 56 feet above msl. Highest water level 9.40 below lsd, June 1, 1948; lowest 13.45 below lsd, June 20, 1953. Records available: 1947-53. Measurements made about 10 hours after pump shut off.

Jan. 30	10.96	Apr. 24	10.67	Aug. 8	12.12	Oct. 11	11.99
Feb. 6	11.10	May 8	10.84	22	11.86	17	12.19
13	10.89	22	11.14	28	12.37	27	11.59
27	10.84	June 5	11.60	Sept. 4	13.34	31	11.05
Mar. 20	10.51	20	13.45	11	12.75	Nov. 21	11.72
27	10.77	28	13.20	18	12.31	Dec. 6	11.02
Apr. 3	10.42	July 18	12.90	25	11.80	21	11.10
11	10.46	25	11.57	Oct. 4	12.05	26	11.18
17	11.41						

North Kingstown 27. North Kingstown Water Commission observation well 1. Lat. $41^{\circ}33'25''$, long. $71^{\circ}29'01''$. Driven observation well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 15 feet. Land-surface datum is about 55 feet above msl. Highest water level 4.98 below lsd, June 15, 1949; lowest 8.94 below lsd, July 31, 1952. Records available: 1947-53. Nearby well being pumped.

Jan. 30	5.99	Apr. 24	5.70	Aug. 8	7.35	Oct. 11	7.10
Feb. 6	6.12	May 8	5.84	22	6.99	17	7.32
13	5.89	22	6.24	28	7.60	27	6.71
27	6.18	June 5	6.80	Sept. 4	8.87	31	6.44
Mar. 20	5.56	20	8.65	11	8.13	Nov. 21	6.77
27	5.90	28	8.90	18	7.54	Dec. 6	6.13
Apr. 3	5.74	July 18	8.12	25	7.15	21	6.05
11	5.49	25	6.90	Oct. 4	7.20	26	6.22
17	5.49						

North Kingstown 28. North Kingstown Water Commission observation well 2. Lat. $41^{\circ}33'25''$, long. $71^{\circ}29'01''$. Driven observation well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 15 feet. Land-surface datum is about 55 feet above msl. Highest water level 6.39 below lsd, Mar. 13, 1952; lowest 9.77 below lsd, June 20, 1953. Records available: 1947, 1949-53. Nearby well being pumped.

Jan. 30	7.24	Apr. 24	6.95	Aug. 8	8.40	Oct. 11	8.28
Feb. 6	7.38	May 8	7.10	22	8.16	17	8.50
13	7.15	22	7.40	28	8.66	27	7.86
27	7.13	June 5	7.86	Sept. 4	9.71	31	7.29
Mar. 20	6.84	20	9.77	11	9.09	Nov. 21	8.04
27	7.06	28	9.55	18	8.60	Dec. 6	7.32
Apr. 3	6.99	July 18	9.32	25	8.27	21	7.43
11	6.73	25	7.79	Oct. 4	8.33	26	7.49
17	6.67						

North Kingstown 29. North Kingstown Water Commission observation well 3. Lat. $41^{\circ}33'25''$, long. $71^{\circ}29'01''$. Driven observation water-table well in sand and gravel, diameter $2\frac{1}{2}$ inches, depth 13 feet. Land-surface datum is about 55 feet above msl. Highest water level 6.50 below lsd, Dec. 4, 1950; lowest 11.40 below lsd, June 28, 1953. Records available: 1947-53. Nearby well being pumped.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.07	Apr. 24	7.87	Aug. 8	9.73	Oct. 11	9.70
Feb. 6	8.24	May 8	8.16	22	9.23	17	9.54
13	8.07	22	8.54	28	9.83	27	9.19
27	8.01	June 5	9.05	Sept. 4	11.16	31	8.72
Mar. 20	7.85	20	10.64	11	10.70	Nov. 21	9.00
27	8.14	28	11.40	18	10.03	Dec. 6	8.46
Apr. 3	8.03	July 18	10.32	25	9.56	21	10.73
11	7.86	25	10.02	Oct. 4	9.57	26	10.95
17	7.82						

South Kingstown 10. Village of Kingston. South and Kingston Rds. Lat. $41^{\circ}28'48''$, long. $71^{\circ}28'24''$. Dug unused water-table well in till, diameter 36 inches, depth 18 feet. Land-surface datum is about 240 feet above msl. Highest water level 2.88 below lsd, Mar. 28, 1953; lowest 14.45 below lsd, Dec. 1, 1949. Records available: 1947-53.

Jan. 31	3.94	Apr. 25	3.32	July 31	8.35	Oct. 28	11.59
Feb. 28	3.27	May 28	3.99	Aug. 31	8.08	Nov. 27	6.25
Mar. 28	2.88	June 30	7.43	Oct. 1	10.31	Dec. 30	3.85

South Kingstown 83. Wakefield Water Co. Lat. $41^{\circ}26'04''$, long. $71^{\circ}32'11''$. Drilled unused water-table well in sand and gravel, diameter 8 inches, depth 26 feet. Land-surface datum is 92.77 feet above msl. Highest water level 0.47 above lsd, May 1, 1953; lowest 14.75 below lsd, Aug. 28, 1949. Records available: 1944, 1948-53.

Water level above and below land-surface datum

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.59	-1.48	-0.92	+0.03	+0.47	c+7.98	c+10.55	.....	c+11.74	c+11.35	+2.73	+2.14
2	2.32	1.54	.91	.07	.40	c8.72	c11.09	.....	c12.12	c9.85	2.74	2.33
3	2.27	1.51	.92	.07	.36	c8.74	c11.25	.....	c11.83	c10.43	c10.80	c9.20
4	2.33	1.55	.75	.09	.27	c8.62	1.78	.....	c12.47	4.12	c10.30	c9.60
5	2.37	1.54	.51	.09	.25	c8.62	c9.73	.....	c11.54	c11.34	c10.89	2.32
6	2.38	1.55	.63	.09	.25	c8.47	1.65	.....	c11.43	3.30	c10.85	c9.37
7	2.38	1.51	.64	.10	.20	c8.91	c10.45	.....	c11.47	c10.98	2.29	c8.88
8	.....	1.44	.64	.35	.19	c8.85	c10.64	.....	c11.54	c11.23	2.80	c9.09
9	1.81	1.40	.65	.22	.19	1.21	c11.28	.....	c10.48	c11.24	c10.45	c8.57
10	1.68	1.30	.71	.12	.11	c8.35	c9.35	c+10.54	c11.92	3.43	c10.75	c9.00
11	1.70	1.33	.71	.18	.08	c4.52	.....	c10.70	c11.78	c10.90	c10.73	c9.10
12	1.75	1.32	.72	.12	.09	1.11	.....	c11.29	c11.87	3.77	c10.55	1.28
13	1.83	1.31	.60	.15	.07	c9.05	.....	c10.99	c11.88	c11.19	c10.59	1.88
14	1.84	1.34	.35	.36	.05	c8.00	.....	c10.80	c12.15	c11.21	c10.61	.73
15	1.83	1.29	-.45	.31	.03	c8.24	.....	c11.01	c11.12	c11.25	c10.58	.83
16	1.88	.85	+0.05	.27	+0.02	c9.55	.....	c11.20	c10.79	c11.41	.....	c8.97
17	1.86	.90	.02	.30	-.01	c9.50	.....	c11.76	c11.06	4.22	2.08	c8.54
18	1.83	.87	.20	.25	+1.12	c9.38	.....	c12.07	c11.11	c11.29	1.82	.85
19	1.75	.93	.22	.35	.01	c9.56	.....	c12.34	c11.15	c11.14	1.37	1.42
20	1.78	1.05	.23	.35	.02	c9.94	.....	c11.23	c11.18	c11.10	1.40	.95
21	1.82	1.04	.28	.29	.08	c9.64	.....	c11.89	c11.29	3.83	1.89	1.10
22	1.74	.99	.27	.27	.11	c9.64	.....	c12.11	4.68	4.28	c9.45	1.00
23	1.74	.95	.26	.27	.07	c8.94	.....	c9.55	c11.25	3.85	c9.58	c8.85
24	1.72	.95	.24	.24	.15	c9.72	.....	c10.74	c11.50	4.98	.....	c8.65
25	1.53	.97	.17	.26	.19	2.63	.....	c10.28	c11.64	.....	.....	c8.69
26	1.58	.89	.18	.27	.22	c10.19	.....	c10.45	c11.53	2.94	.....	c8.55
27	1.64	.91	.13	.25	.19	c10.35	.....	c10.90	c11.51	3.08	.....	.10
28	1.55	.93	.15	.22	.17	c10.55	.....	c10.30	c11.70	2.85	.....	c8.83
29	1.53	.....	.18	.21	.22	c10.89	.....	c11.35	c11.73	2.83	.....	c8.45
30	1.56	.....	.06	.15	.26	c10.65	.....	c10.05	c12.51	2.95	.....	c8.33
31	.59	.....	.03	.....	.28	.....	.....	c11.10	.....	3.21	.....	c8.56

c Nearby well being pumped.

VERMONT

By Walter MacDonald, Jr.

Scope of Water-Level Program

In 1953, measurements were made weekly in three wells: Middlesex 1 in Washington County, Bethel 1 in Windsor County, and Newfane 1 in Windham County. (See fig. 48.)

Precipitation

During the first 5 months of the year, except for February, the precipitation was extremely high. During June and July, the precipitation was only about one-half the normal amount. Slightly less than normal rain fell in August, September, and October. November was also a dry month. Precipitation for December was slightly above normal. The amount of rainfall for the year for the State as a whole was 38.05 inches, which was 0.52 inch below normal and 0.96 inch less than in the previous year.

Interpretation of Water-Level Fluctuations

Water levels rose generally through March and April to near-record levels, declined sharply through June and July and remained at low levels until December when they recovered slightly, but were still below average and below the levels at the close of the previous year, resulting in a general net loss in the amount of ground water in storage at the close of 1953.

Well-Numbering System

Wells in Vermont are numbered serially within each town in the order that they were inventoried.

Well Descriptions and Water-Level Measurements

(Water levels are in feet below land-surface datum.)

Washington County

Middlesex 1. Lynford Roy. Lat. 44°18'08", long. 72°35'12". Dug unused water-table well in sandy glacial till, diameter 24 inches, depth 12 feet. Land-surface datum is about 760 feet above msl. Highest water level 4.34 below lsd, May 3, 1953; lowest dry several times in 1944, 1947, 1948, 1949, 1952, and from July to Dec. 30, 1953. Records available: 1942-53.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.49	Apr. 5	5.80	July 5	9.62	Oct. 5	(f)
11	7.50	14	5.89	12	10.28	12	(f)
18	6.99	21	4.96	19	10.70	19	(f)
26	6.09	26	4.70	26	(f)	Nov. 1	(f)
Feb. 2	6.09	May 3	4.34	Aug. 2	(f)	9	(f)
8	6.40	10	5.89	9	(f)	15	(f)
16	6.85	17	4.89	16	(f)	22	(f)
23	6.47	24	6.33	25	(f)	29	(f)
Mar. 1	6.52	31	7.04	30	(f)	Dec. 7	(f)
8	7.07	June 7	7.52	Sept. 7	(f)	14	(f)
15	6.56	14	7.92	14	(f)	21	(f)
22	5.30	21	8.90	20	(f)	30	(f)
29	5.07	28	9.20	27	(f)		

f Dry.

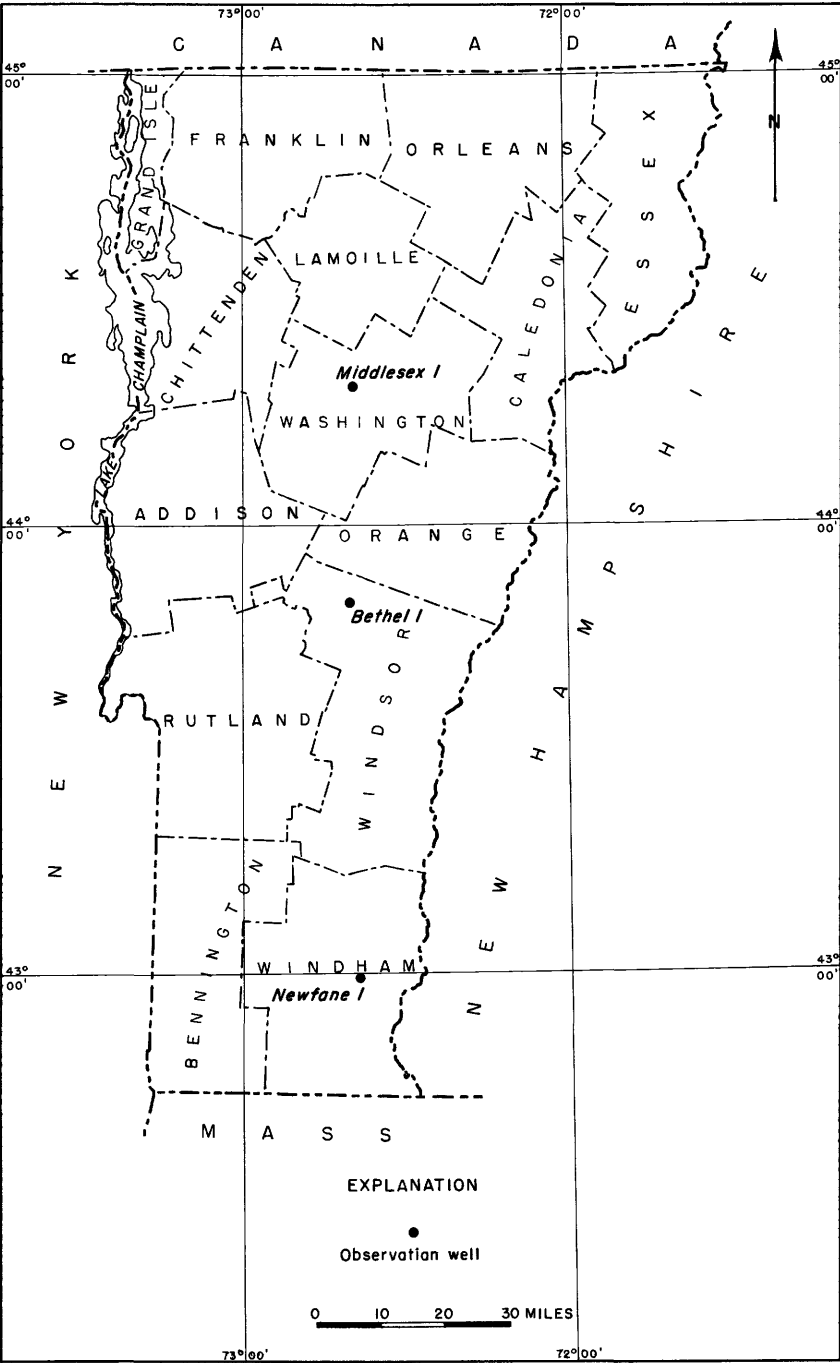


Figure 48. --Location of observation wells in Vermont, 1953.

Windham County

Newfane 1. Arthur Brooks. Lat. 42°59'05", long. 72°39'23". Dug unused water-table well in glacial drift, diameter 36 inches, depth 9 feet. Land-surface datum is about 550 feet above msl. Highest water level 1.55 below lsd, Apr. 1, 1953; lowest dry several times in 1952 and 1953. Records available: 1951-53. Measurement discontinued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.55	Apr. 8	2.52	July 8	(f)	Sept. 30	(f)
14	6.07	15	2.82	22	(f)	Oct. 7	(f)
21	4.63	22	3.36	29	(f)	14	(f)
Feb. 4	4.58	29	3.46	Aug. 5	(f)	21	(f)
11	4.76	May 6	2.98	12	(f)	28	(f)
18	5.15	13	3.34	19	(f)	Nov. 11	(f)
25	4.12	20	2.82	25	(f)	18	(f)
Mar. 4	4.00	27	4.13	Sept. 2	(f)	25	(f)
11	4.64	June 3	5.00	9	(f)	Dec. 2	7.71
18	3.87	17	6.92	17	(f)	9	5.40
25	1.64	24	7.44	23	(f)	16	5.59
Apr. 1	1.55	July 1	7.73				

f Dry.

Windsor County

Bethel 1. Tyler & Rice Veneer Mill. Lat. 43°49'46", long. 72°37'55". Dug unused water-table well in glacial drift, diameter 6 feet, depth 16 feet. Land-surface datum is about 550 feet above msl. Highest water level 7.00 below lsd, Feb. 5, 1952; lowest 14.20 below lsd, Nov. 17, 24, 1953. Records available: 1951-53.

Jan. 6	12.70	Apr. 7	10.70	July 7	13.80	Oct. 6	13.76
13	13.00	13	10.85	14	13.93	13	13.93
20	12.10	22	11.20	21	13.40	20	14.00
27	11.00	29	10.80	28	13.70	27	14.03
Feb. 3	11.20	May 5	9.40	Aug. 4	13.90	Nov. 3	14.10
11	10.40	13	10.00	12	13.70	10	14.15
17	10.00	19	10.70	19	13.85	17	14.20
25	9.80	26	11.50	25	13.95	24	14.20
Mar. 4	10.00	June 2	12.20	Sept. 1	14.00	Dec. 2	13.40
11	12.40	10	12.50	8	13.20	8	12.80
17	11.50	18	13.20	15	13.40	15	12.40
24	11.70	24	13.70	22	13.82	22	12.50
31	8.80	30	13.80	29	13.88	29	12.70

