

UNIVERSITY EXTENSION

THE UNIVERSITY OF WISCONSIN
GEOLOGICAL AND NATURAL HISTORY SURVEY
George F. Hanson, State Geologist and Director

TRENDS IN GROUND-WATER LEVELS
IN WISCONSIN THROUGH 1966

By

Robert W. Devaul
U.S. Geological Survey

Prepared by
United States Geological Survey
in cooperation with the
Wisconsin Geological and Natural History Survey

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Available from the Univ. of Wis. Geol. & Nat. History Survey
1815 University Ave., Madison, Wisconsin - 53706

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TRENDS IN GROUND-WATER LEVELS IN WISCONSIN THROUGH 1966

by

Robert W. Devaul

INTRODUCTION

The water supplies of Wisconsin are the State's most valuable natural resource. Although the State has abundant water supplies to maintain the perennial flow of most streams, and to sustain large increases in municipal, agricultural, and industrial use in many areas, the available supply is not distributed equally throughout the State, either areally or in time. Intelligent development of all water resources depends on knowledge of the occurrence, distribution and movement of water, the amount of discharge to and from a region, the interrelationship of ground and surface water, and the quantity and quality of the water available.

A fundamental part of the program of ground-water investigations in Wisconsin, begun in 1946 by the United States Geological Survey in cooperation with the Wisconsin Geological and Natural History Survey, is the collection of water-level data. The purpose of collecting water-level data is to determine short-range changes and long-range trends in ground-water levels in wells, and to relate these data to changes in storage in the ground-water reservoirs.

Fluctuations of the water level in wells indicate that the ground-water reservoir (aquifer) is adjusting to changes in storage because of variations in recharge and discharge. Other factors that affect water levels, such as atmospheric pressure, earthquakes, earth and ocean tides, and changes in surface loading, generally have only a temporary effect and indicate only a slight change in the actual quantity of water stored in the aquifer.

Water levels in wells in artesian (confined) aquifers are many times more sensitive to changes in storage than are water levels in wells in water-table (unconfined) aquifers. A change in water level of many feet in an artesian well may represent the same change in storage as a change in water level of a fraction of a foot in a water-table well.

Short-range fluctuations reflect intermittent pumping or local day-to-day variations in recharge and natural discharge. The fluctuations occur within minutes, or at most within a few days and have only a local effect upon water levels and ground-water storage.

Seasonal fluctuations generally reflect variations in natural recharge and discharge. The greatest rise in ground-water levels usually occurs in the spring owing to snowmelt and precipitation. Water levels generally decline during the remainder of the year.

Long-range fluctuations reflect differences between recharge and discharge from year to year. Water levels normally decline during years of below-average precipitation and rise in years of above-average precipitation. Comparison of some of the well hydrographs with a cumulative departure from normal precipitation curve for a nearby weather station often shows a close correlation.

Purpose and Scope

The purpose of this report is to present ground-water level data through 1966 in a graphic form and also to relate some of these data, as examples, to changes in precipitation, lake levels, storage in ground-water reservoirs, and pumpage.

In 1934-35, systematic measurements of ground-water levels were begun in a few wells in southwestern Wisconsin by the Soil Conservation Service, U. S. Department of Agriculture, and in central and northeastern Wisconsin by the Wisconsin Conservation Department. In 1946, water-level measurements were made in 77 observation wells by the U. S. Geological Survey in cooperation with the University of Wisconsin Geological and Natural History Survey.

At the end of 1966, measurements were being made in 192 wells in 66 of the 72 counties in the State. Of these wells, 24 were equipped with continuous recording gages; of the remaining 168, most were measured monthly, and a few were measured quarterly. The distribution of 220 active and inactive observation wells with hydrographs in this report is shown in figures 1a-1e. The principal geologic formation tapped by each well is given in the well description.

This report summarizes water-level trends in Wisconsin through 1966. The lowest water levels of record for all wells are indicated by the hydrographs. The highest water levels of record for wells with recorders, or wells measured more than once a month, are only approximately indicated by the hydrograph because in these wells only the lowest monthly measurements are plotted. Hydrographs of all wells published in the University of Wisconsin Geological Survey Circular #4 (1957) are plotted through 1966 or to the date discontinued, and reproduced in this publication. All current observation wells with more than three years of record are included. The hydrographs of current observation wells with less than three years of record are not included and their locations are not shown on the maps.

The observation-well network is constantly being re-evaluated and observation wells are dropped from or added to the network. Some wells are discontinued because they have been destroyed. Other may be discontinued that duplicate the record of another well in the region, and some are discontinued if the information is not considered useful.

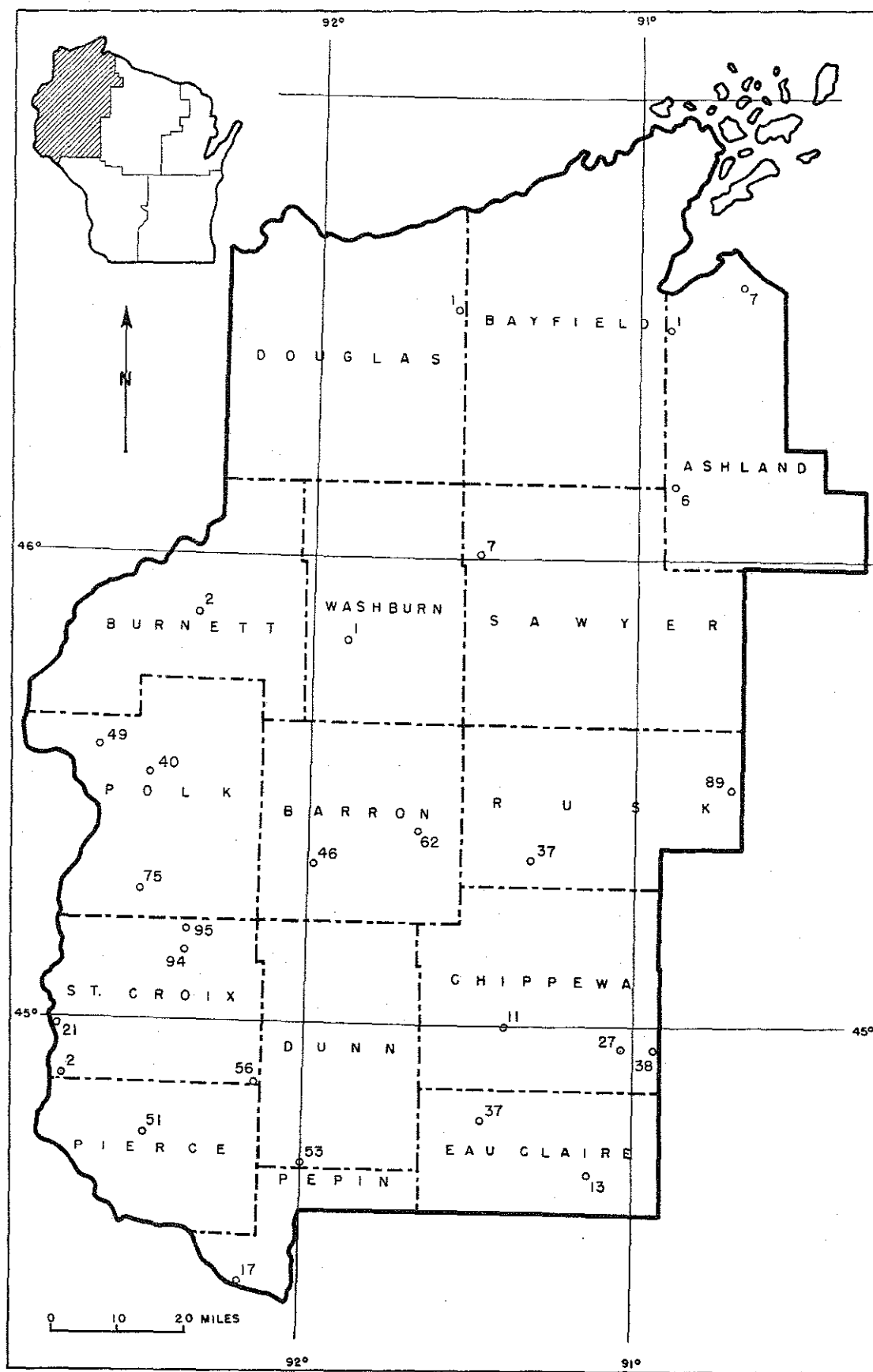


Figure 1a.--Map of northwestern Wisconsin showing locations of observation wells.

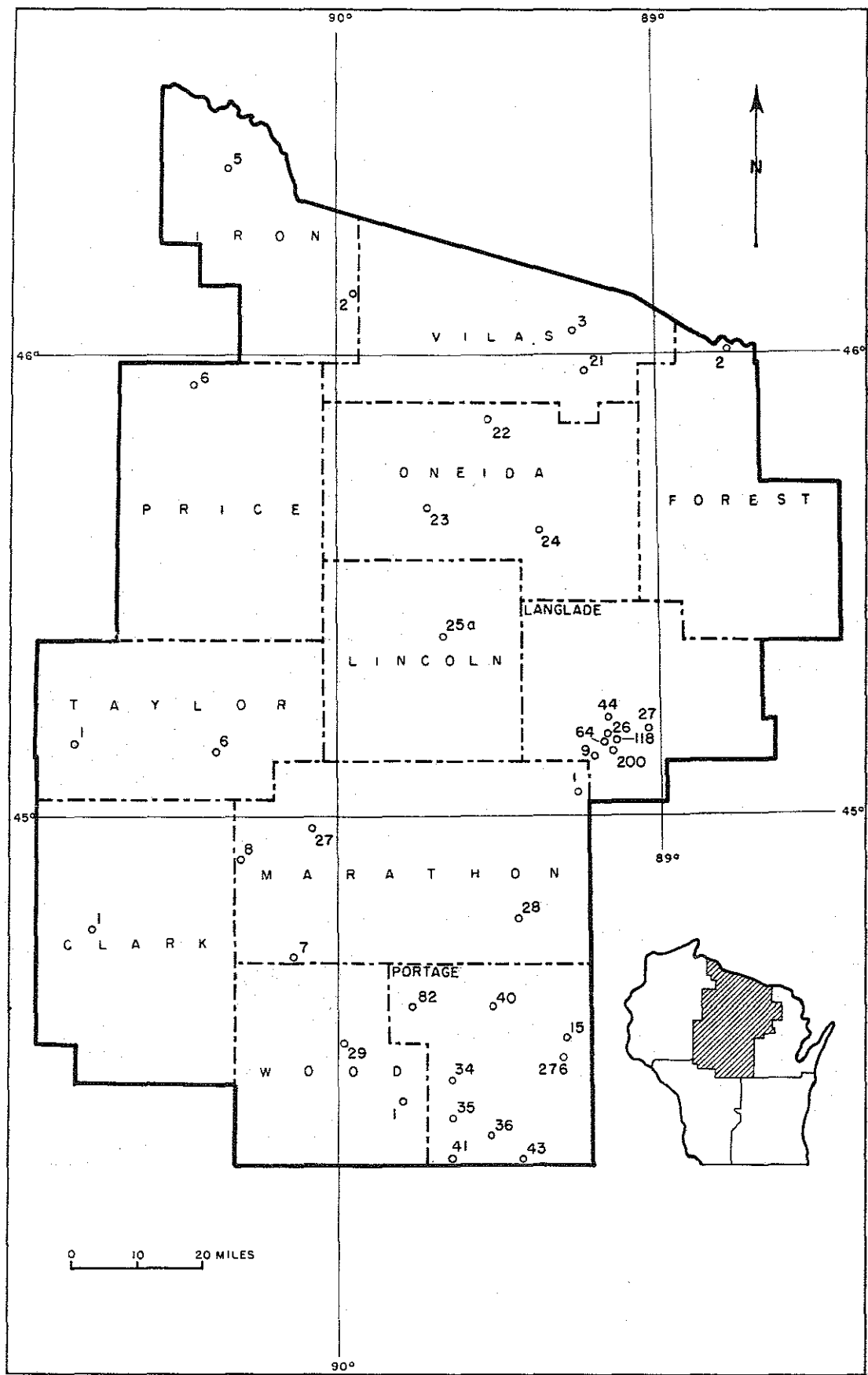


Figure 1b.--Map of northcentral Wisconsin showing locations of observation wells.

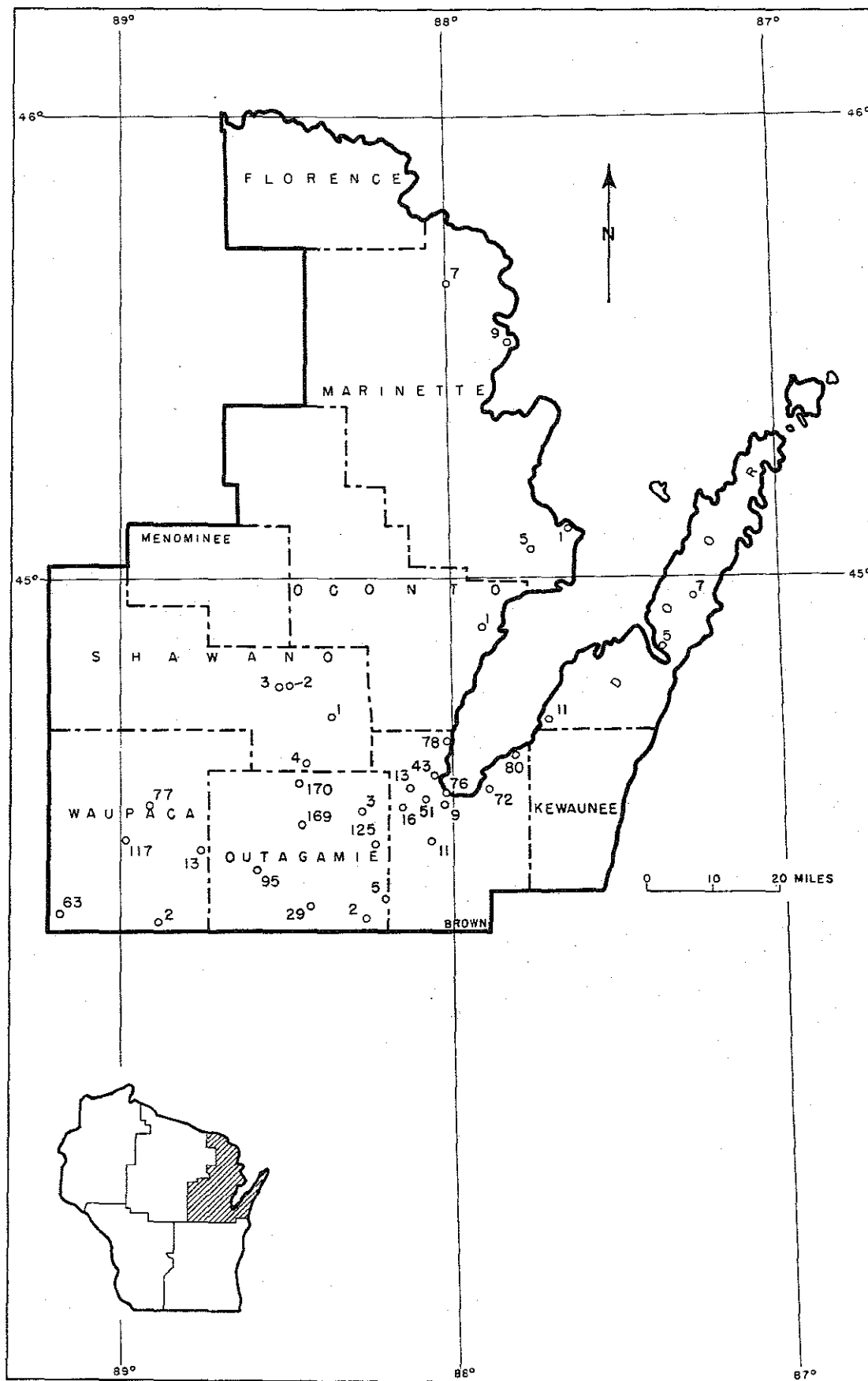


Figure 1c.--Map of northeastern Wisconsin showing locations of observation wells.

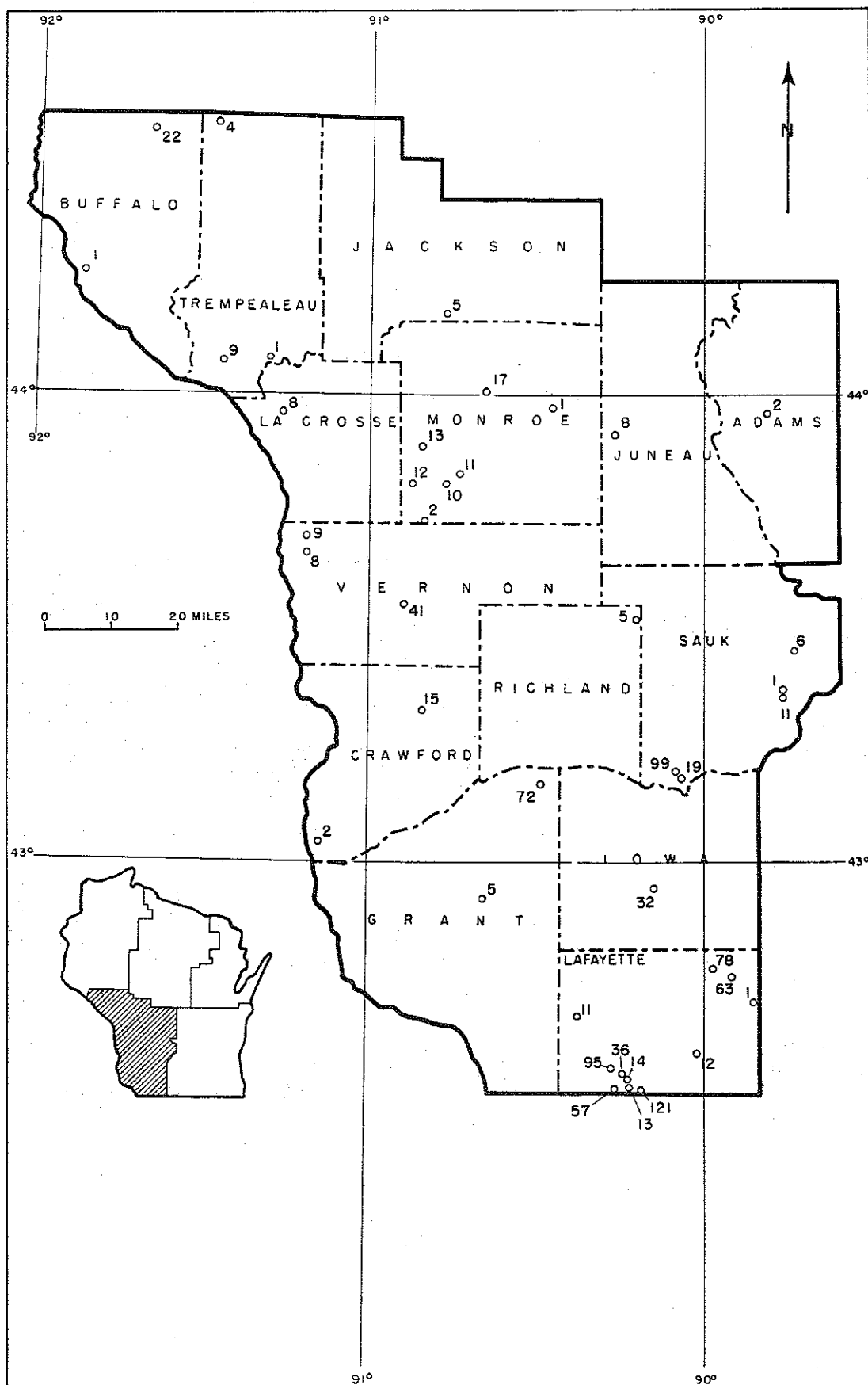


Figure 1d.--Map of southwestern Wisconsin showing locations of observation wells.

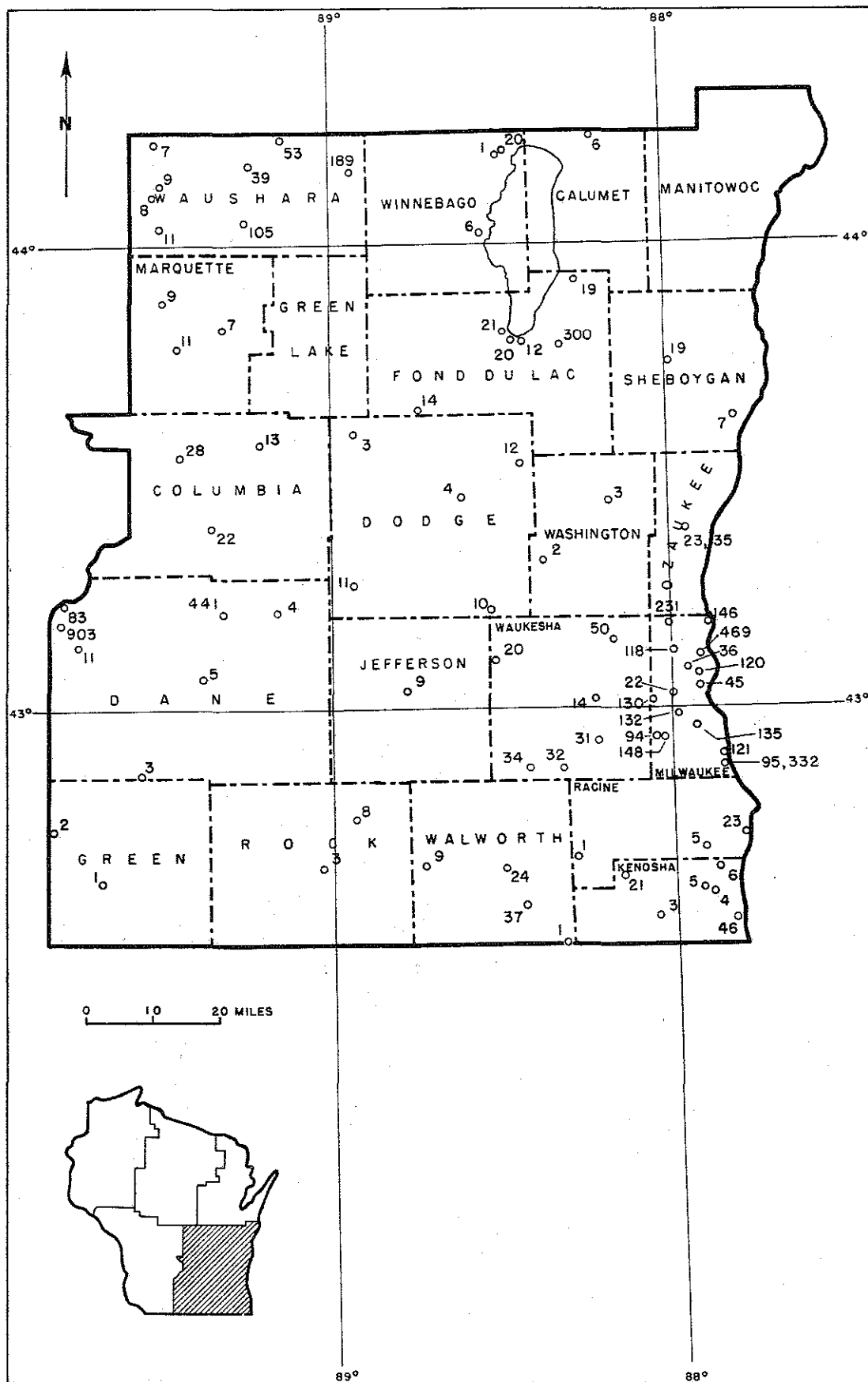


Figure 1e.--Map of southeastern Wisconsin showing locations of observation wells.

From 1935 through 1955, the water-level data were published in tabular form annually in the U. S. Geological Survey Water-Supply Paper Series, "Water Levels and Artesian Pressure in Observation Wells in the United States" (Meinzer and others, 1936-40; Meinzer and others, 1942-46; Sayre and others, 1947-57). For 1956 and subsequent years, water-level data for about 80 wells is a part of a basic national network being published at 5-year intervals in Water-Supply Papers by the U. S. Geological Survey. Water levels in observation wells in Wisconsin were published through 1957 in "Water Levels in Observation Wells in Wisconsin Through 1957" (Audini and others, 1959).

Hydrologic data--water levels, charts from recording gages, hydrographs, chemical analyses and temperatures of water, and logs and other data on wells--are available for consultation at the offices of the University of Wisconsin Geological and Natural History Survey and the U. S. Geological Survey, WRD, 1815 University Avenue, Madison, Wisconsin.

Well-Numbering System

A system of letters and numbers is used to designate a well (fig. 2). The county designation is derived from the county name (table 1); for example, the prefix Ad indicates the well is in Adams County, the prefix Mo indicates the well is in Monroe County, etc. The township designation within the county consists of the township, range, and section numbers. The letter W following the range number indicates that the well is located west of the principal meridian; the absence of a letter following the range number indicates that the well is located east of the principal meridian (fig. 2). The last numerals are assigned in the order that the wells were inventoried in the county. For example, well Wi-19/15/34-213 is located in Winnebago County; is in township 19 north, range 15 east, section 34; and was the 213th well inventoried in the county.

Only the serial numbers of the wells are shown on the location maps (figs. 1a-1e).

Acknowledgments

Acknowledgment is made to the Wisconsin Conservation Department for measuring water levels in 11 observation wells. Acknowledgment is also made to the citizens, industries, and local and State agencies for making available many of the observation wells. Appreciation is expressed to local observers who measured water levels and maintained recording gages on a few of the observation wells and several lakes. All precipitation records are from the U. S. Weather Bureau.

Because this report is primarily a basic data report and is essentially an up-dating of the University of Wisconsin Geological and Natural History Survey Circular #4, "Water Levels in Observation Wells in Wisconsin Through 1957," most of text of this report is taken directly from Circular #4, or U. S. Geological Survey Water-Supply Papers about Wisconsin and modified as necessary.

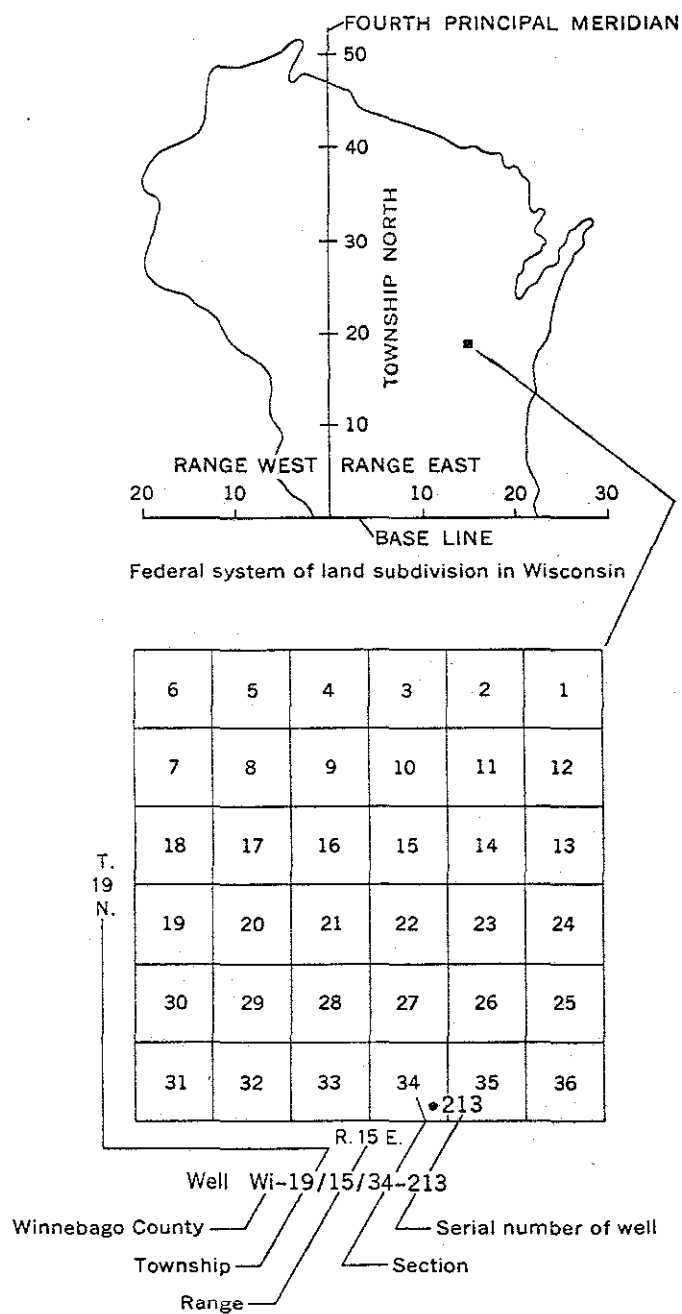


Figure 2.--Well-numbering system in Wisconsin

Table 1.--Wisconsin county names and prefixes for well-numbering system.

County	Prefix	County	Prefix
Adams	Ad	Marathon	Mr
Ashland	As	Marinette	Mt
Barron	Br	Marquette	Mq
Bayfield	Ba	Milwaukee	ML
Brown	Bn	Menominee	Me
Buffalo	Bf	Monroe	Mo
Burnett	Bt	Oconto	Oc
Calumet	Ca	Oneida	On
Chippewa	Ch	Outagamie	Ou
Clark	Ck	Ozaukee	Oz
Columbia	Co	Pepin	Pp
Crawford	Cr	Pierce	Pi
Dane	Dn	Polk	Pk
Dodge	Dg	Portage	Pt
Door	Dr	Price	Pr
Douglas	Ds	Racine	Ra
Dunn	Du	Richland	Ri
Eau Claire	EC	Rock	Ro
Florence	Fc	Rusk	Ru
Fond du Lac	FL	St. Croix	SC
Forest	Fr	Sauk	Sk
Grant	Gr	Sawyer	Sw
Green	Gn	Shawano	Sh
Green Lake	GL	Sheboygan	Sb
Iowa	Iw	Taylor	Ta
Iron	Ir	Trempealeau	Tr
Jackson	Ja	Vernon	Ve
Jefferson	Je	Vilas	Vi
Juneau	Ju	Walworth	Ww
Kenosha	Ke	Washburn	Wb
Kewaunee	Kw	Washington	Wn
La Crosse	LC	Waukesha	Wk
Lafayette	Lf	Waupaca	Wp
Langlade	La	Waushara	Ws
Lincoln	Ln	Winnebago	Wi
Manitowoc	Mn	Wood	Wd

A selected bibliography of reports containing information on the geology and ground-water resources of Wisconsin is at the end of this report.

The water-level program is financed on a 50/50 basis by the State and Federal geological surveys, and planned cooperatively with George F. Hanson, State Geologist, and is under the direct supervision of C. L. R. Holt, Jr., district chief of the U. S. Geological Survey, Water Resources Division, in charge of U. S. Geological Survey water-resources investigations in Wisconsin.

GROUND-WATER LEVELS REFLECT CHANGES IN THE WATER SYSTEM

Changes in ground-water levels reflect, in a general way, changes in the balance between precipitation, evapotranspiration, and runoff in the water system.

Precipitation

Precipitation, the source of all water in Wisconsin, averages about 30 inches a year. The greatest mean annual precipitation, 32-36 inches, occurs in the north-central and southern parts of the State. The lowest precipitation, below 26 inches a year, occurs in the Lake Superior, Green Bay, and St. Croix Falls areas (fig. 3). About two-thirds of the annual precipitation falls during the growing season, which averages 110 to 135 days in the northern part of the State and 135 to 160 days in the southern part (U. S. Dept. of Agriculture, 1941, p. 1191-1200). The mean monthly precipitation is greatest during the months of April through September and least during the months of December, January, and February.

Evapotranspiration

Evapotranspiration, the combined loss of water through evaporation and transpiration, averages about 20 inches per year in Wisconsin. Actually, evapotranspiration is not necessarily a detrimental loss but may be beneficial in supporting plant life. Figure 4 illustrates the relationship between precipitation, actual evapotranspiration, and potential evapotranspiration at Madison. (Potential evapotranspiration is the water loss that could occur if sufficient water were available.)

A close and complex relationship exists between vegetation and the hydrologic system. Vegetation retards runoff, thus promoting infiltration and reducing erosion. Plants also consume large amounts of water; shallow-rooted plants use only available moisture from the soil zone but deep-rooted plants may draw water from below the water table. The vegetation in swamps has a high rate of water use.

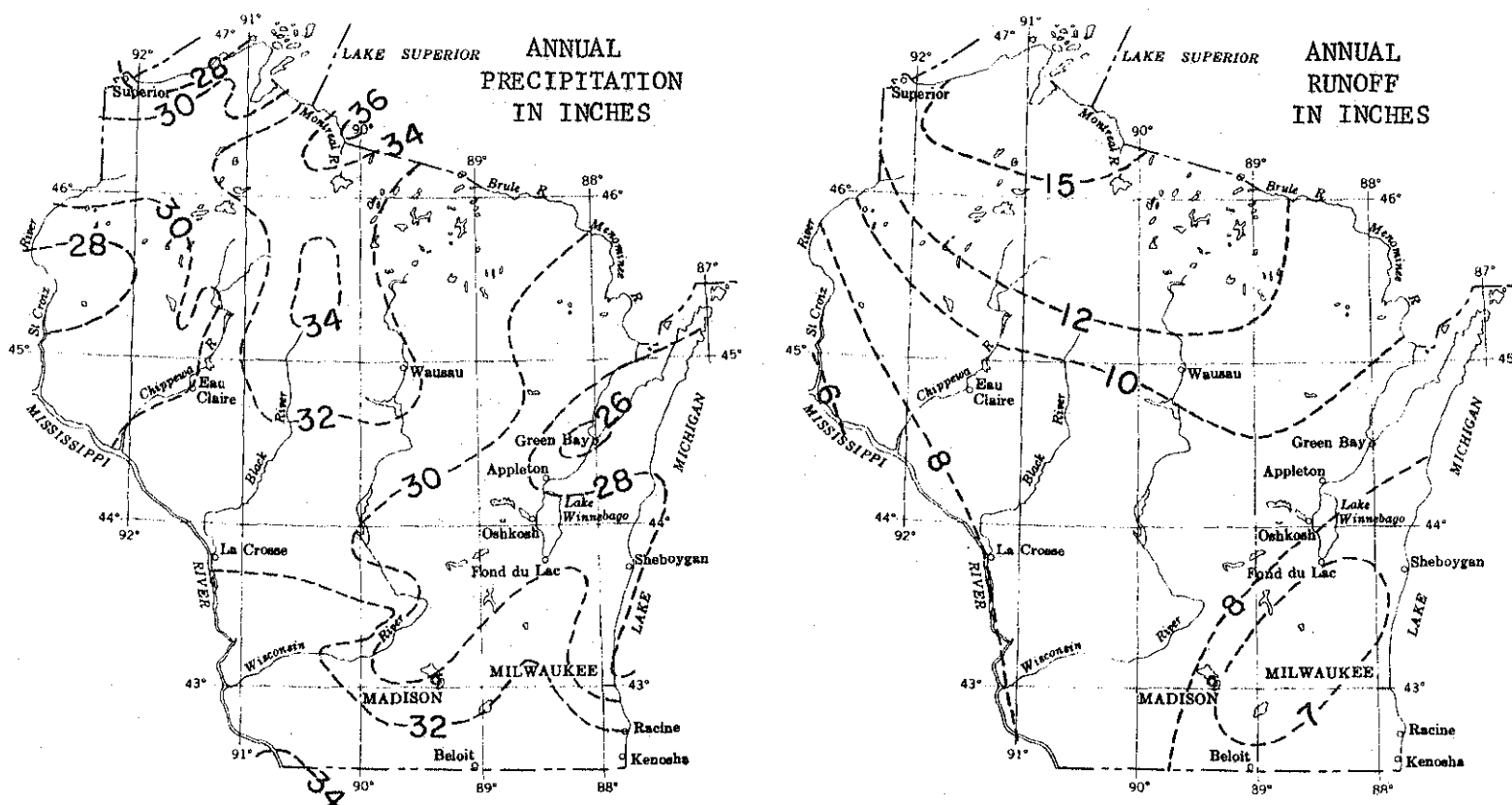


Figure 3.--Maps of Wisconsin showing mean annual precipitation, 1931-60, and mean annual runoff.
(Precipitation map compiled by H. E. Rosendahl, Wisconsin State Climatologist, 1967).

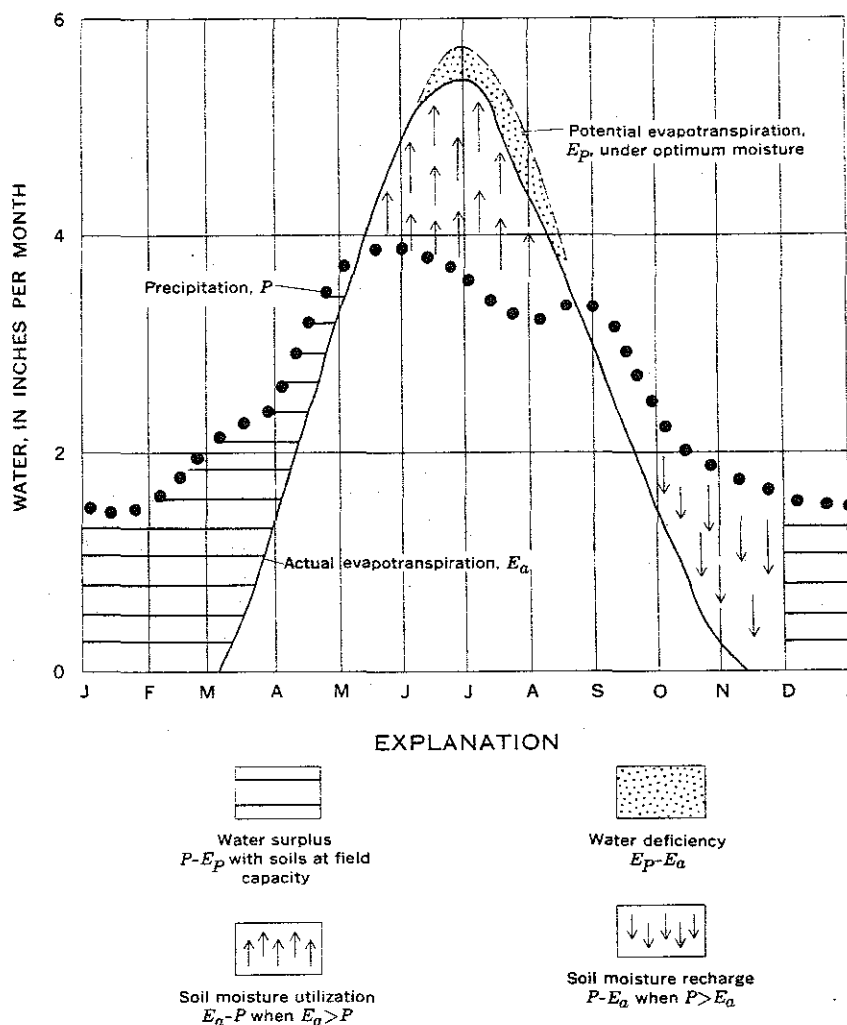


Figure 4.--Comparison of precipitation to estimated potential evapotranspiration at Madison, Wis.
Adapted from Thornthwaite, Mather, and Carter (1958).

Runoff

Runoff is that part of the precipitation that appears in surface streams. Of the 26 to 36 inches of precipitation that falls in Wisconsin, the average annual runoff in rivers and streams ranges from 6 to 20 inches, generally increasing from south to north (fig. 3). Of course, runoff has deviated widely from these averages and during the driest years of record has totaled less than 2 inches for some smaller drainage basins in central and southern Wisconsin.

For making comparisons and noting trends, it is customary to use average annual runoff. However, we seldom experience average conditions. For any one river, runoff fluctuates from periods of peak discharges, during floods,

to periods of extreme low flows, during droughts. Runoff from snowmelt and excessive rainfall contributes substantially to peak discharges of many rivers in Wisconsin. High flows may occur at any time from March to September, but almost 30 percent of the annual peak flows occur in March as a direct result of snowmelt and, occasionally, accompanying rains. The month with the next highest number of peaks is April with 25 percent, followed by June, which has 15 percent.

During periods of little or no precipitation, runoff is derived from ground-water reservoirs and a small amount from surface-water reservoirs. The average ground-water discharge ranges between 0 to 10 inches per year, and accounts for nearly all streamflow between 70 and 95 percent of the time.

HYDROGEOLOGIC PROVINCES OF WISCONSIN

The geology determines the permeability of the rocks and their storage capacity. A well sorted sand is generally more porous and more permeable than a silty and clayey sand or well cemented sandstone. In limestones or dolomites, the available storage commonly depends upon fracturing and the amount of solution that has taken place along the fractures. The permeability is generally greater along fractures and bedding planes than across the bedding.

On the basis of geology, as related to hydrology, Wisconsin is divided into 4 hydrogeologic provinces. These provinces are shown on figure 5 and are described in the following section of this report.

The geologic formations and their water-bearing characteristics are listed in table 2.

Drift Province

In a large part of northern Wisconsin, plentiful supplies of ground water are obtained from sands and gravels in the unconsolidated surficial deposits of glacial origin (glacial drift) or from valley alluvium. In areas where such deposits are scarce or lacking, or where the drift is mostly clay and silt, little water can be obtained. The bedrock is composed of crystalline rocks and only limited amounts of water may be obtained from fractures near the surface. The extreme northwestern part of the State is underlain by sandstones of Precambrian age which usually contain highly mineralized water.

In the central part of the State, the communities of Marshfield, Neillsville, Abbotsford, and Junction City are in a water-shortage area. Ground-water supplies are not extensive because crystalline rocks are at or near the surface and covered with a thin layer of clay till. Moderate supplies of ground water may be obtained locally in gravel-filled preglacial valleys.

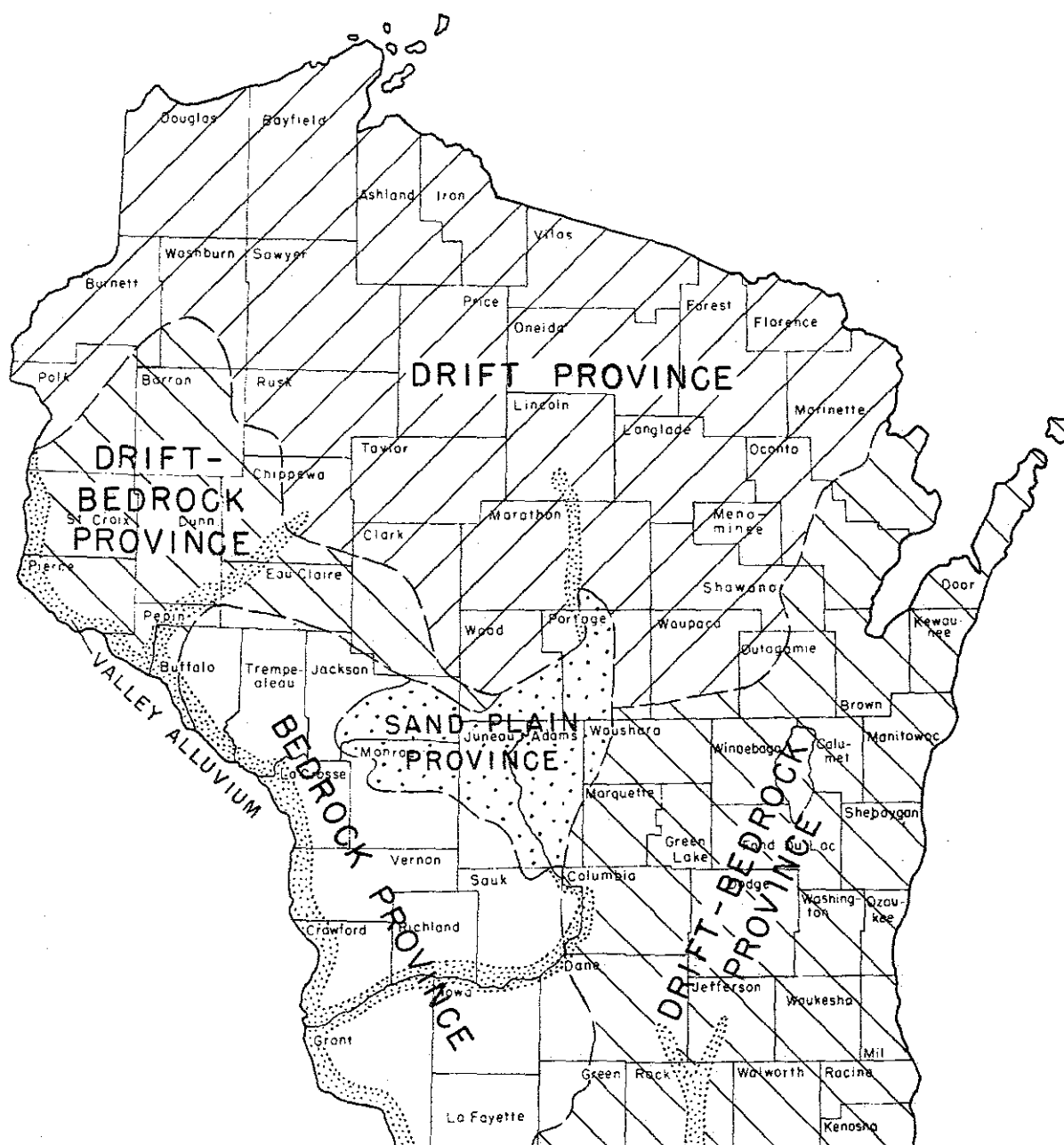


Figure 5.--Hydrologic provinces of Wisconsin.

Table 2.--Hydrogeologic section for Wisconsin.

System	Stratigraphic unit or aquifer name	Approximate maximum known thickness (feet)	Character	Water-bearing characteristics	Hydrogeologic Province				
					Drift	Sand plain	Drift-Bedrock	Bedrock	Bedrock
Quaternary	Recent alluvium	100	Sand, gravel, peat, muck, marl.	Small to large yields from sand and gravel.	X	X	X	X	
	Pleistocene	500	Boulder clay, silt, sand, gravel.		X	X	X	X	
Devonian		200	Dolomite, limestone, shale.	Yields small amounts of water.			X		
Silurian	Niagara Dolomite aquifer	825	White to gray dolomite, some coral reefs. Crevices and solution channels locally abundant	Yields small to moderate amounts of water.			X		
Ordovician	Maquoketa Shale	540	Shale, dolomitic shale, and dolomite. Some beds of dolomite up 40 feet thick.	Usually not an aquifer. Yields small amounts locally.			X	X	
	Galena Dolomite Decorah Shale Platteville Limestone	350	Dolomite and Limestone. Some shale (Decorah). Sandy at base.	Yields small supplies, principally in areas where not overlain by shale.			X	X	
	St. Peter Sandstone	300 (Missing in places)	Sandstone, fine to medium grained, white to light gray to pink, dolomitic in places, cross-bedded. Red shale near base in some places.	Yields small to moderate amounts of water.			X	X	
	Prairie du Chien Group (Includes Shakopee Dolomite and Oneota Dolomite.)	200 (Missing in places)	Dolomite. Sandy in some zones.	Yields small to moderate amounts of water.			X	X	
	Trempealeau Formation Franconia Sandstone Galesville Sandstone Eau Claire Sandstone Mount Simon Sandstone	1000 +	Fine to coarse-grained sandstone, dolomitic, some shale and dolomite beds. Eau Claire and Franconia commonly shaly.	Yields small to large amounts of water depending upon permeability and thickness. Each formation may be an aquifer but usually considered in aggregate.		X	X	X	
Precambrian			Sandstone, quartzite, slate, granite, and other crystalline rocks.	Water in sandstone be highly mineralized. Other rock types yield small amounts of water where creviced or weathered.	X	X	X	X	

Modified from Drescher (1956, p. 14)

Sand-Plain Province

The sand-plain province, which is underlain by glacial outwash (sands and gravels) and lake deposits, alluvium, and weathered sandstones, is in the central part of the State. High-capacity wells have been drilled in extensive and thick (50-120 feet) deposits of unconsolidated sand and gravel. In the southern part of the province sandstones, which underlie the sands and gravels, are an important source of water for several of the towns.

The use of ground water for irrigation and industry has increased rapidly in the last few years. Flat land, sandy soil, and abundant water at reasonable cost have been important factors in the expansion of irrigation.

Drift-Bedrock Province

Glacial deposits of Pleistocene age and consolidated rocks of Paleozoic age overlie rocks of Precambrian age in eastern, southern, and western Wisconsin. Locally any one of these rocks, except the Maquoketa Shale, may be considered an aquifer. The sandstone aquifer is composed primarily of sandstones of Cambrian and Ordovician age but includes dolomite and limestone of Ordovician age. The Niagara Dolomite aquifer is present only in the eastern part of the State.

The sandstone aquifer underlies the entire drift-bedrock province. It includes the Mount Simon, Eau Claire, Galesville, and Franconia Sandstones and the Trempealeau Formation of Cambrian age, all of which are composed of sandstone with some interbedded shale and dolomite (table 2). Each of the formations contributes some water to wells, but the Mount Simon and Galesville Sandstones are the most productive. Dolomites of the Prairie du Chien Group and the Platteville-Galena unit, both of Ordovician age, yield water where they are exposed or are overlain only by glacial drift, but yield little water where they are deeply buried. The St. Peter Sandstone, also of Ordovician age, yields small to moderate amounts of water depending primarily upon its thickness.

The sandstone aquifer is the most heavily pumped aquifer in the State because of its readily available supply of good-quality water, and because of the concentration of population and industry in the eastern part. It provides the public supply for many of the cities and much of industrial supply in the province.

In the eastern part of the State, the Niagara Dolomite aquifer is an important aquifer that supplies moderate to large amounts of water. In parts of Ozaukee, Sheboygan, Manitowoc, Calumet, Kewaunee, and Door Counties, the Niagara is the only source of ground water because the water from the sandstone aquifer is saline.

In many places the Niagara Dolomite is overlain by sand and gravel deposits of Pleistocene and Recent age. Such deposits are often hydraulically part of the Niagara Dolomite aquifer but may be important sources of water locally.

Although ground water of good chemical quality may be found in all parts of the province, saline water occurs at depth near Lake Winnebago and Lake Michigan (Ryling, 1963, p. 11). The saline water is currently contaminating a few municipal and industrial supply wells, and is a potential source of further contamination. Heavy pumping from the aquifer may cause increased movement of saline water toward the area of pumping.

Bedrock Province

Rocks of Cambrian and Ordovician age overlie the Precambrian rocks in western and southwestern Wisconsin (the Driftless Area). The entire sequence of formations may act as a single aquifer or, where less permeable zones separate parts of the sequence, act as several aquifers. The mantle material overlying the bedrock is generally thin and unsaturated and, therefore, is not a source of water.

Sufficient water for domestic and farm wells usually can be obtained from either the sandstones or the limestones, provided the well extends below the water table during the dry season. Most high-capacity wells tap the sandstones of Cambrian age.

Valley Alluvium

The Wisconsin, Mississippi, Chippewa, Rock, and several other river valleys contain as much as 200 feet of sand and gravel that are locally very productive aquifers. The river valleys were eroded before and during glacial times and later filled with sand and gravel and smaller amounts of silt and clay. The valleys are in the bedrock and the drift-bedrock provinces and are underlain by sandstones, except the upper Wisconsin and Chippewa River valleys that are underlain by crystalline rocks.

FACTORS AFFECTING THE FLUCTUATION OF GROUND-WATER LEVELS

Water levels fluctuate in response to changes in storage within the ground-water reservoir. Ground-water levels rise when more water is being recharged than discharged, and fall when more water is being discharged than recharged. In Wisconsin, water levels in shallow wells usually rise in the spring and occasionally in the fall and decline through the summer and winter. Water levels also fluctuate in response to long-range changes in precipitation. Water levels in wells in artesian aquifers also fluctuate briefly in response to changes in barometric pressure, earthquakes, tides, and other phenomena. Such fluctuations do not represent changes in ground-water storage, however.

Although ground-water levels fluctuate naturally, they remain fairly constant over long periods. However, when water is artificially removed by wells or drains, water levels decline until the hydraulic gradient around the well and the area drained is adequate to yield a constant quantity of water.

Water Table and Artesian Conditions

The upper surface of the zone of saturation is known as the water table. The water table is usually a subdued replica of the surface topography: the water is at highest altitudes under the hills and at lowest altitudes in the valleys. The depth to the water table is, however, greatest beneath the hills. Water moves in the direction of slope of the water table; in most areas the movement is from areas of recharge toward areas of discharge.

Water is under artesian conditions and the aquifer is artesian when water in a well rises above the top of the aquifer. The imaginary surface that coincides with the height to which water in wells tapping artesian aquifers will rise is known as the piezometric surface. The piezometric surface, like the water table, slopes in the direction of ground-water movement through the aquifer.

Natural Recharge and Discharge

Recharge to the ground-water reservoir is the replacement of water that has been discharged or removed. Recharge occurs when rainfall and snowmelt percolate to the water table, and when water moves from streams, ponds, or lakes into the ground. In Wisconsin most of the ground-water recharge occurs during the spring from melting snow and rainfall, when evaporation and transpiration are low.

Water levels decline during the summer when there is little recharge from precipitation, and when natural discharge by spring flow, evaporation, and transpiration is large. Small amounts of precipitation cause little, if any, recharge to ground water. But heavy rains on moist soils may contribute significant recharge with a resultant rise in water level. Water levels often rise in the fall after vegetation has been killed by the frost and soil moisture is at the optimum. Water levels then decline until the following spring because natural discharge continues while recharge is retarded or prevented by the frost zone in the soil, and water is stored on the land surface as snow or ice. A direct comparison between changes in precipitation for the period 1951-66 at the University of Wisconsin Experimental Farm in Hancock, Waushara County, to changes in water level in well Ws-9, also at the experimental farm, is shown in figure 6. The well in sand and gravel shows a slight lag in response to the precipitation.

Water discharges naturally from the ground-water reservoir to streams, springs, and other surface-water bodies. Ground water also discharges to the atmosphere by evaporation and transpiration in areas where the water table is at or near the land surface.

The fluctuations of ground-water levels in response to recharge and discharge are directly related to similar fluctuations in the stages of surface-water bodies. Examples of the close relations between precipitation, lake levels, and ground-water levels at North Lake in southeastern Wisconsin and at Anvil Lake in northern Wisconsin are shown in figures 7 and 8. The

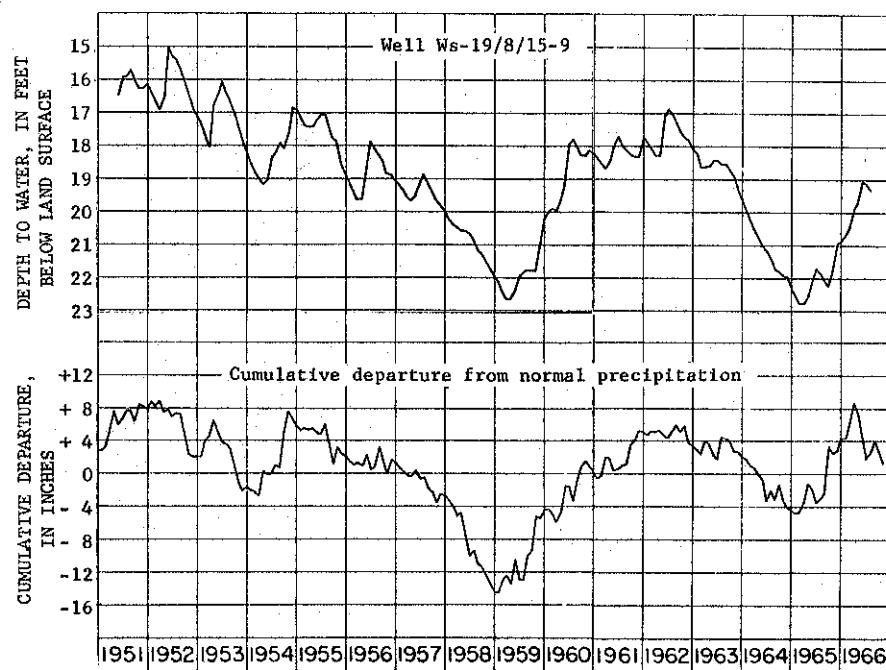


Figure 6.--Graphs comparing cumulative departure from normal monthly precipitation, based on period 1931-60, and water levels in well Ws-19/8/15-9 at Hancock Experimental Farm, Waushara County.

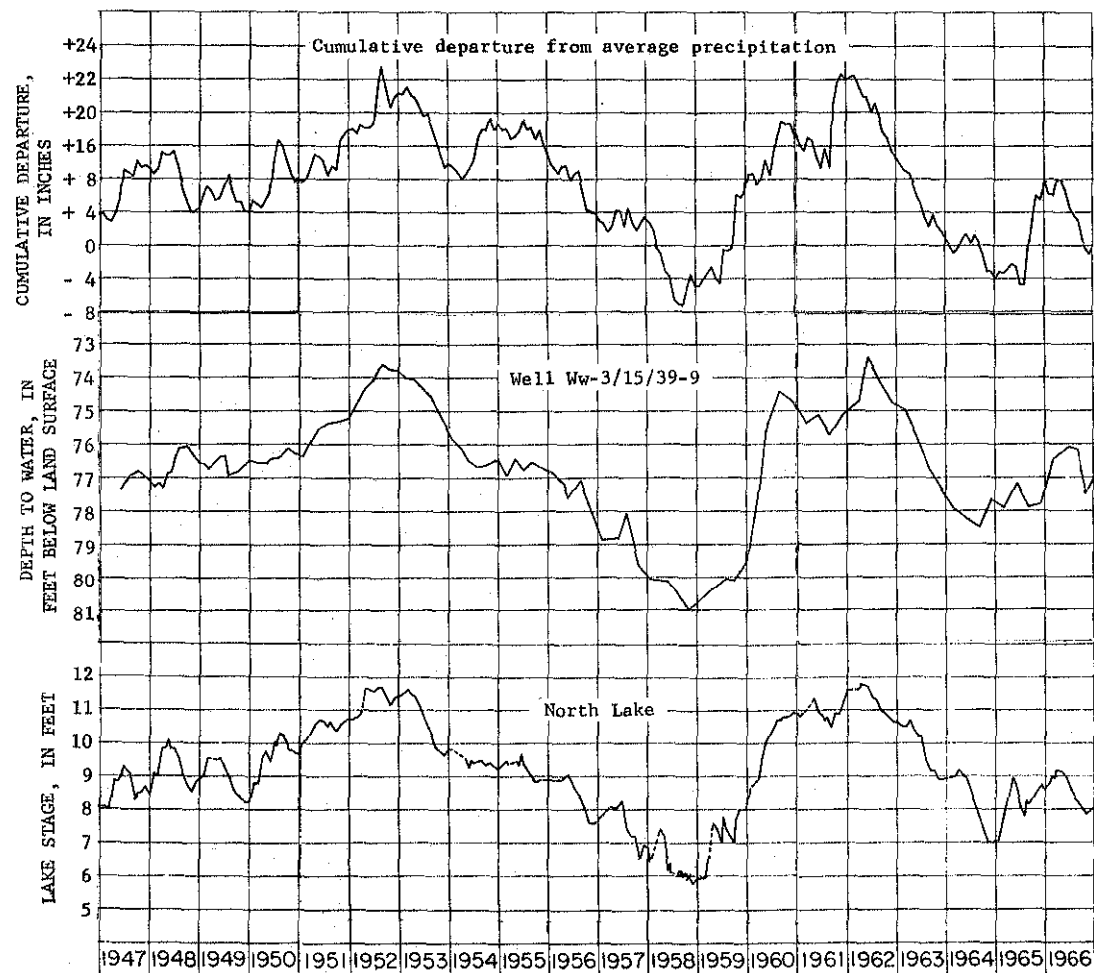


Figure 7.--Graphs comparing cumulative departure from the 25 year average monthly precipitation at Whitewater, based on period 1942-66, water levels in well Ww-3/15/39-9 Walworth County, and levels of North Lake, near Elkhorn.

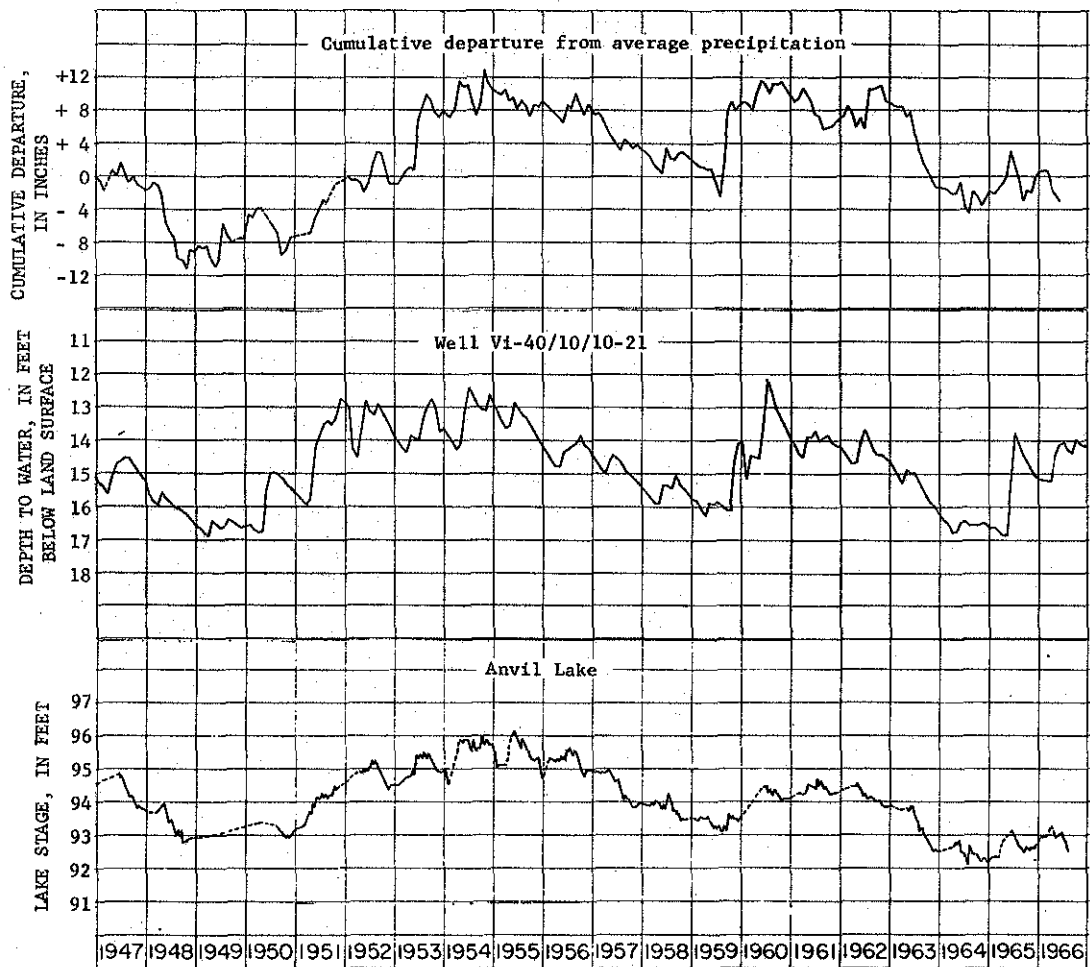


Figure 8.--Graphs comparing cumulative departure from the 23 year average monthly precipitation at Eagle River, based on period 1947 - 65, water levels in well Vi-40/10/10-21, Vilas County, and levels of Anvil Lake near Eagle River.

records are from weather stations, observation wells, and lakes which are located in the same area and affected by the same, or very nearly the same, climatic conditions.

A direct comparison between the flow of the Little Plover River at Plover to changes in water level in well Pt-358, which is only a few hundred feet from the stream, is shown in figure 9. The well and stream are interconnected by a permeable sand aquifer that readily transmits changes in water level and stream stage.

Pumping Effects in Areas of Concentrated Development

Pumping from wells or pits causes an initial rapid decline in water levels in the pumping well and in nearby wells. As pumping continues, the water levels in these wells continue to decline, but at a diminishing rate, until sufficient water is intercepted to prevent further decline. When pumping stops, the water levels at first rise rapidly and then at a diminishing rate until they are at or near the prepumping levels.

The late spring and summer need for increased pumpage of ground water for cooling, domestic use, and irrigation results in a local or regional decline in water levels. During the fall, winter, and early spring months, the lower air temperature decreases the need for ground water and allows a recovery in water levels. Examples of pumpage-induced fluctuations are shown in the hydrographs of wells Je-9 (p. 54), Mt-1 (p. 66), and Oc-1 (p. 79).

Increasing pumpage of ground water by industries and municipalities, and for irrigation, has created concern about declining water levels. However, in most of the State, serious declines in water levels have not occurred. The following paragraphs describe some of the pumpage effects in areas of heavy pumping.

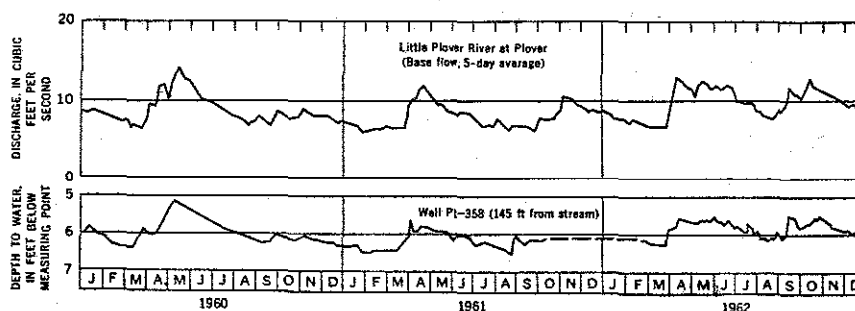


Figure 9.--Hydrographs comparing flow of Little Plover River, at Plover, to fluctuations of water level in well Pt-23/8/15-358. (After Weeks, 1965).

Central Sand Plain

The use of ground water for irrigation in Wisconsin has increased very rapidly in the last decade. In the central sand plain alone, the use of ground water for irrigation increased from an estimated 1,700 acre feet in 1953 to 22,000 acre feet in 1964 (one acre foot of water equals 325,850 gallons).

Pumping for irrigation has temporarily lowered water levels near wells but has not lowered regional water levels. In some cases, pumpage has reduced the amount of water that would have been discharged to streams; but in no case has the flow of streams been noticeably affected. Methods of farming have resulted in wells being spaced at distances adequate enough to minimize regional declines in water levels. Typical hydrographs in the sand-plain area are La-26 (p. 61), Pt-34 (p. 86), Pt-36 (p. 86), and Ws-8 (p. 106).

Green Bay Area

In August 1957, when the city of Green Bay began using water from Lake Michigan, the water levels in most observation wells in the Green Bay area were about 300 feet below the pre-1900 stages. Pumping from the municipal wells stopped in August 1957 and water levels rose 200 feet in well Bn-76 and nearly 300 feet in well Bn-3 by September 1960 (Knowles, 1964, p. 20 and pls. 4 and 6). However, industrial pumpage has increased since 1960; and several of the observation wells in the area have declined slightly. Well Bn-11 (p. 35), in DePere, has had the greatest decline, about 45 feet.

Madison Area

In 1882 static water levels in deep wells in the Madison area were 5 to 15 feet above the level of Lake Mendota (Weidman and Schultz, 1915, p. 291). A gradual increase in pumpage from wells has caused a gradual decline of water levels. The map showing contours on the piezometric surface in April-May 1960 of the sandstone aquifer shows the effect of pumping in the Madison area (fig. 10). The cones of depression are caused by large withdrawals of water from small areas. In 1960 the water levels in the center of each of these cones were nearly 50 feet below the level of Lake Mendota.

Declines of water levels in the Madison area are not great in comparison to other communities with similar water demands. Large water-level declines have not occurred because the wells are spaced approximately one mile apart and mutual interference is small.

Milwaukee-Waukesha Area

The heavy concentration and rapid increase of population and industry in Milwaukee County and in the eastern half of Waukesha County have placed a large demand upon the water resources. Although Lake Michigan is the principal source of water in terms of total pumpage, ground water was pumped at

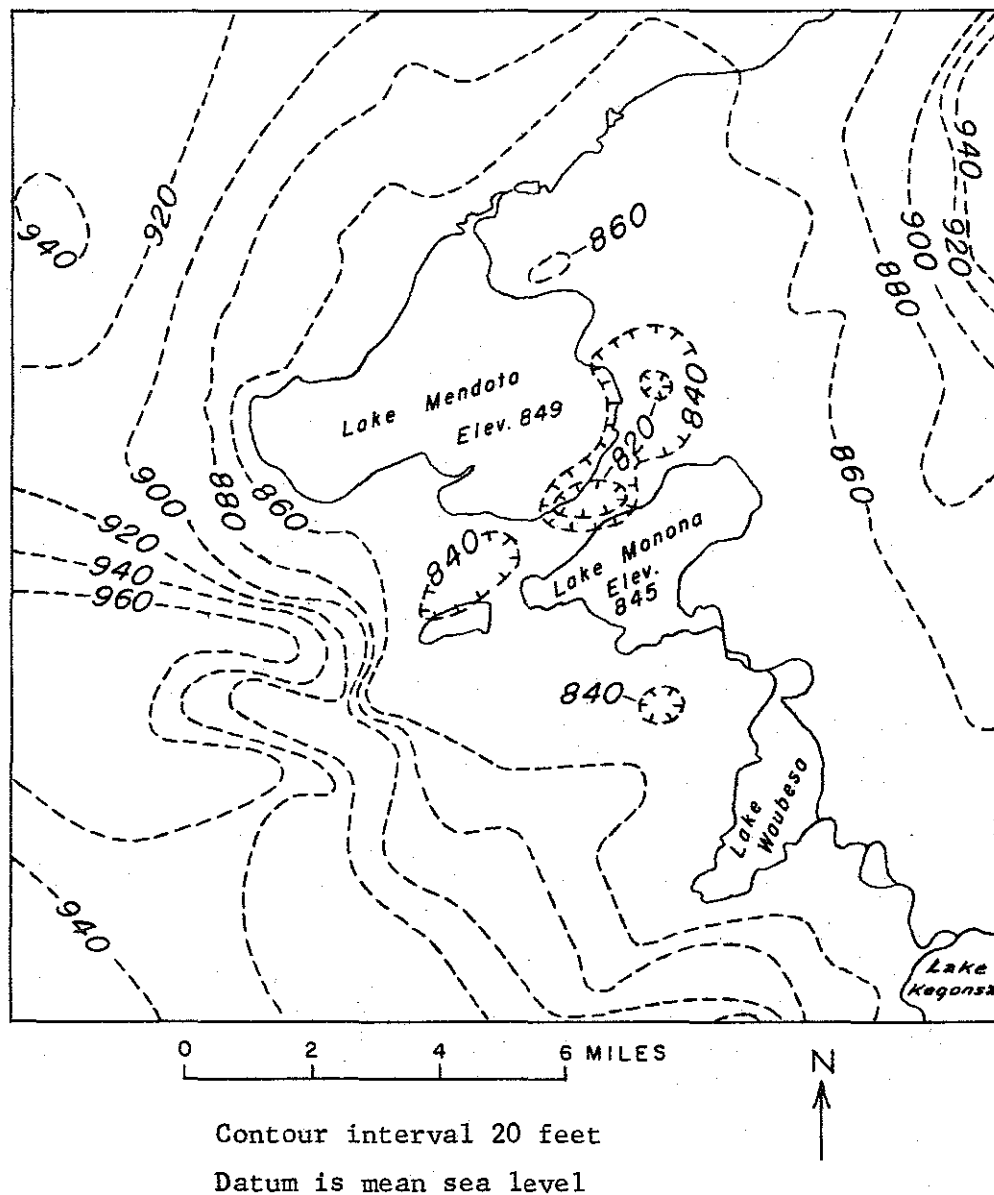


Figure 10.--Map showing contours on the piezometric surface of the sandstone aquifer in the Madison area in April and May 1960. (After Cline, 1965)

an estimated rate of 40 mgd (million gallons per day) in 1961, of which about 20 mgd was pumped from the sandstone aquifer and about 20 mgd from the Niagara Dolomite aquifer.

A gradual increase in the amount of ground water pumped in the area was accompanied by declining water levels primarily in the sandstone aquifer and secondarily in the Niagara Dolomite aquifer. The cones of depression in both Waukesha and Milwaukee (fig. 11) were somewhat deeper in 1961 (Green and Hutchinson, 1965, pl. 2) than in 1950 (Foley and others, 1953, pl. 6), and the whole area of pumping influence was gradually widened. Also, the area of pumping influence in the sandstone aquifer of the Milwaukee-Waukesha area and the area of influence from pumping centers in the Chicago area overlap in southern Walworth and Kenosha Counties (Green and Hutchinson, 1965, pl. 2).

The water levels in wells in the sandstone aquifer are lower than water levels in the overlying Niagara Dolomite aquifer. Water moves downward through wells open in both aquifers from the dolomite and through the Maquoketa Shale into the sandstone.

Seasonal fluctuations in water levels in wells in the sandstone aquifer caused by seasonal changes in the rates of pumping are shown in the hydrographs of wells Ml-36 (p. 70), Ml-94 (p. 71), and Wk-14 (p. 103). Water levels are generally lowest in late summer when air temperatures are highest and the pumpage of water is greatest.

The hydrographs of wells Ml-22 (p. 69), Ml-36 (p. 70), Ml-95 (p. 71), Wk-14 (p. 103), and Wk-20 (p. 103) show a long-range downward trend in water levels caused by gradually increasing pumpage from the sandstone aquifer. A slight rise occurred in the water level in these wells in late 1964 and early 1965, but by the end of 1965 they had started to decline again. The rate of decline ranges from about 8 feet per year in well Ml-22 to about 1 foot per year in well Wk-20. Before 1952, water levels in well Wk-20 fluctuated chiefly in response to changes in recharge and natural discharge.

The hydrographs of wells Ml-120 (p. 72), Ml-121 (p. 73), Ml-130 (p. 73), and Ml-146 (p. 74) show a long-range downward trend of water levels owing to gradually increasing pumpage from the Niagara Dolomite aquifer and seasonal fluctuations caused by changes in the rates of local pumping. From 1946 to 1959 the declines in water levels ranged from about 8 feet in well Ml-130 to about 15 feet in well Ml-120.

Glacial drift covers older rocks in most of the Milwaukee-Waukesha area. Ground-water withdrawals from glacial sand and gravel deposits were estimated at about 0.5 mgd in 1949 (Foley and others, 1963, p. 67) and are believed to have been about 1 mgd in 1961.

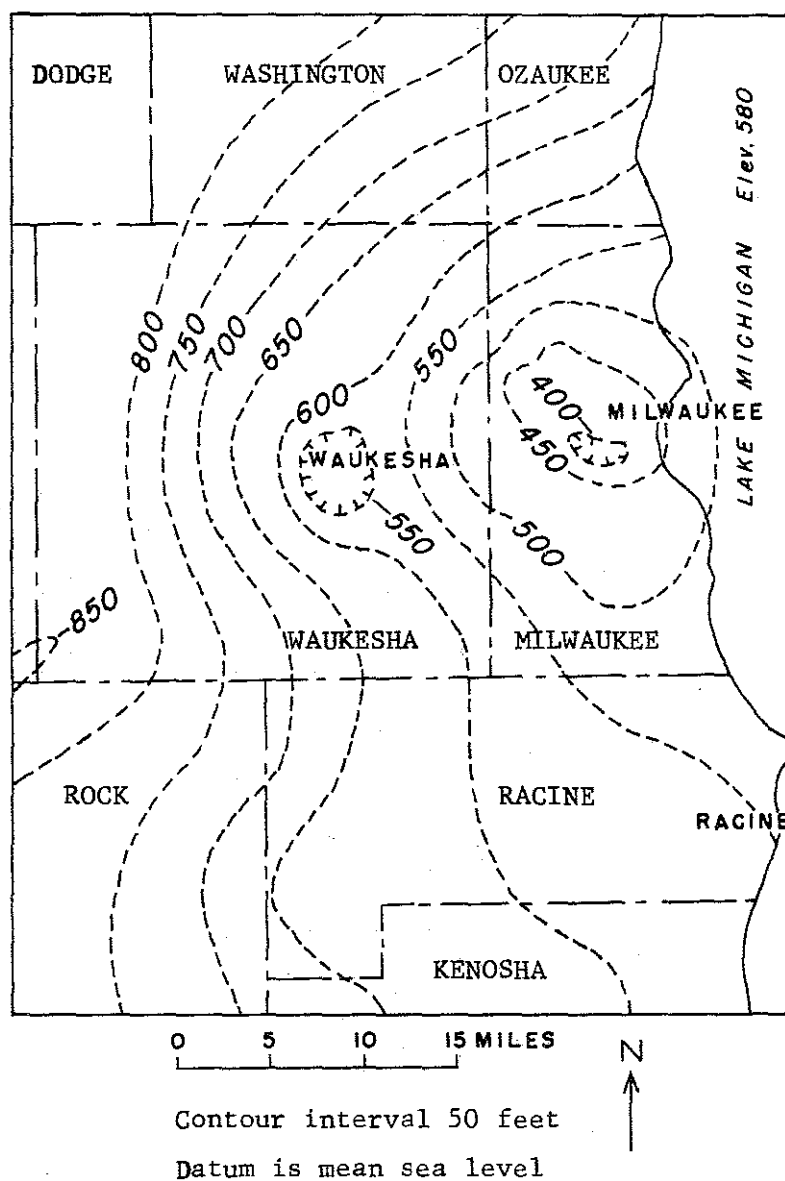


Figure 11.--Map showing contours on the piezometric surface of the sandstone aquifer in the Milwaukee-Waukesha area in October 1961. (After Green and Hutchinson, 1965)

Neenah-Menasha Area

Sandstones of Cambrian and Ordovician ages form the most important aquifer in the area. Total pumpage from these sandstones was estimated to be about 3.9 mgd in 1962 (Olcott, 1965, p. 48). Because of the concentration of pumpage, a cone of depression about 100 feet deep had developed by 1963 (fig. 12).

Recharge to the sandstones percolates through the overlying semi-permeable glacial drift and the Platteville-Galena unit. The greatest area of recharge is west of the two cities; however, induced recharge from Lake Winnebago and Little Lake Buttes des Morts probably prevents further northward and eastward expansion of the cone of depression.

The long-range trends in water levels resulting primarily from the effects of pumping are shown in hydrographs of wells Wi-1 (p.108) and

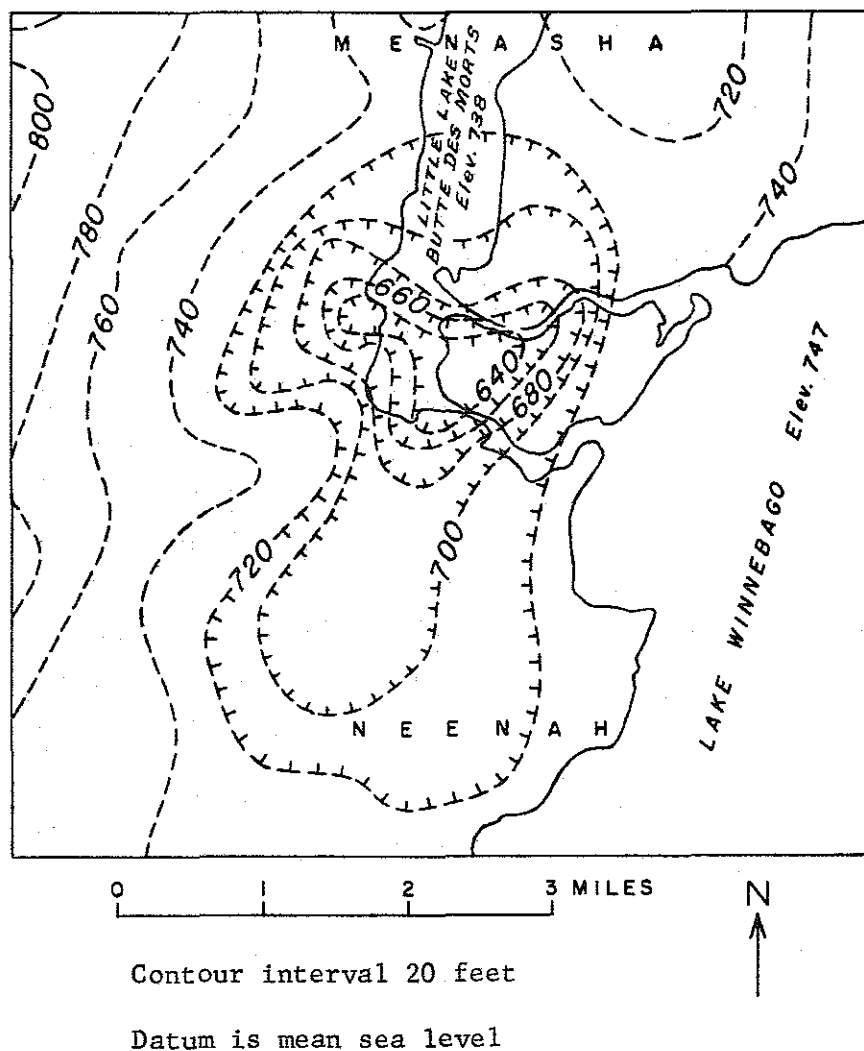


Figure 12.--Map showing contours on the piezometric surface of the sandstone aquifer in the Neenah-Menasha area in July and August 1963. (After Olcott, 1966)

Wi-20 (p.108). Both of these wells are near the edges of the cone of depression and, therefore, do not show the full extent of the decline in water levels. Well Wi-1 shows a general decline of about 20 feet from 1954 to 1966. A well nearer the center of the cone would show a much greater decline.

PUMPING INDUCES RECHARGE FROM SURFACE WATER

The pumping of ground water from shallow wells near streams, lakes, or marshes may lower the water table below the stage of the surface-water body and induce movement of surface water into the ground and toward the wells. Such induced recharge of ground water increases the yield of the wells and reduces the decline of water levels in the pumping wells.

Inducing ground-water recharge from a stream by pumping water from shallow wells located near the Plover River occurs at the Stevens Point well field, as well as at many other areas where high-capacity wells are located near surface-water bodies. Figure 13 shows the effects that pumping the Stevens Point wells 1 and 2 had on the water table and on the movement of water from the Plover River.

Before pumping, the water levels in the Stevens Point wells 1 and 2 and the surface of the Plover River were approximately the same level (fig. 13). When the pumping started, water was withdrawn and cones of depression in the water table formed around the pumped wells. As the pumping continued, the water levels declined and the cone of depression in well 2 expanded until it intersected the Plover River (fig. 13). The slope of the water table between the Plover River and well 2 induced water to move from the river toward the well. The recharge from the Plover River stopped the eastward expansion of the cone and limited the decline of the water table.

The pumping of shallow wells at distances of several thousand feet from streams may not induce recharge from the streams but will intercept part of the ground water that would normally move to the streams.

HYDROGRAPHS OF WELLS

Hydrographs of water levels in 220 observation wells follow the selected bibliography and are arranged alphabetically by county and consecutively by serial number within the county. The horizontal scale is the same for all wells, whereas the vertical scale is adjusted to fit the range of water-level fluctuations. In a few hydrographs the vertical scale was broken to keep the hydrograph within space limitation. In hydrographs of a few wells the vertical scale reads "Feet above or below land surface." A water level above the surface indicates that the well casing extends above land surface or that the well was closed in and the water pressure measured with a pressure gage.

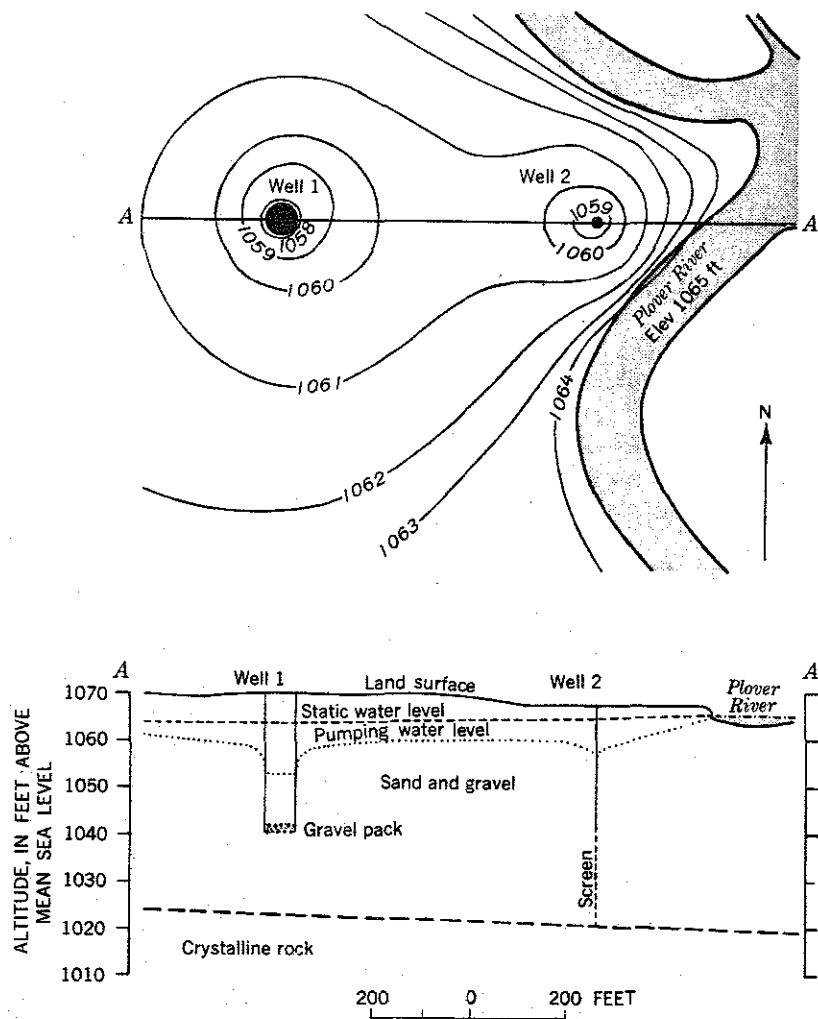


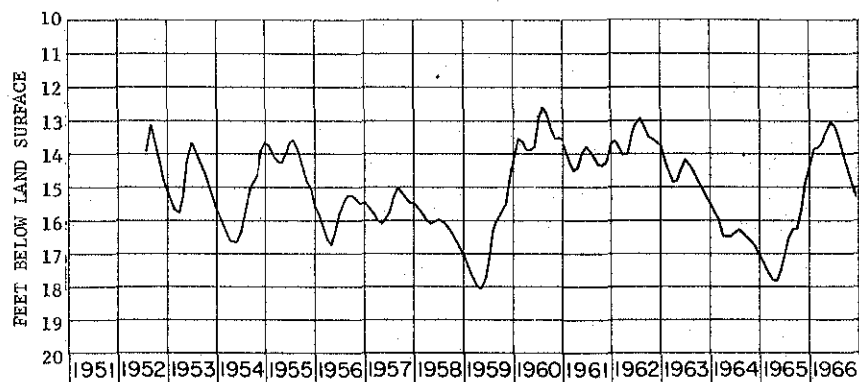
Figure 13.--Sketch map of configuration of the water-table and cross-section of part of Stevens Point well field, showing effects of pumping from wells. (After Holt, 1965).

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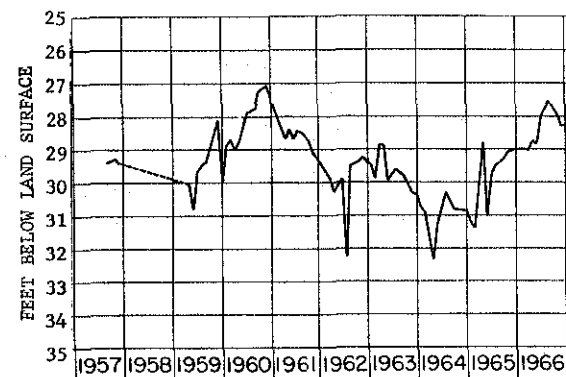
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ADAMS CO., Well-2

Ad-17/6/8-2

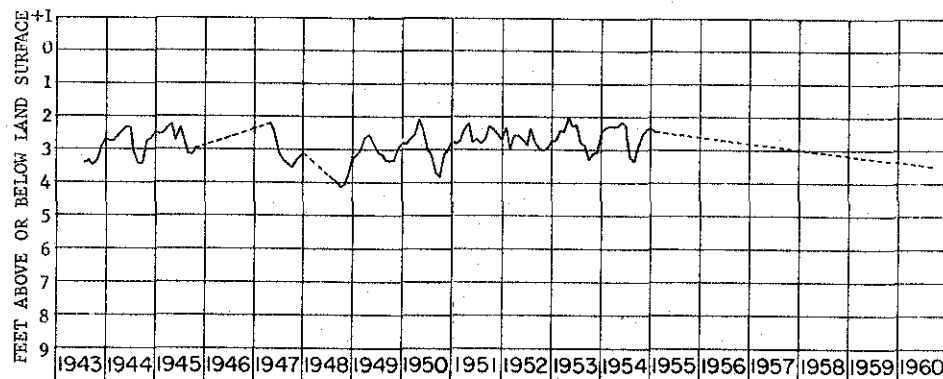
Wisconsin Conservation Dept. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 17 N., R. 6 E. Jetted observation water-table well in sand of Pleistocene age, diam 2 in, depth 21 ft, well point 19-21. MP top of casing, 1.70 ft above lsd. Measured weekly. Lowest monthly plotted.



ASHLAND CO., Well-6

As-43/4W/32-6

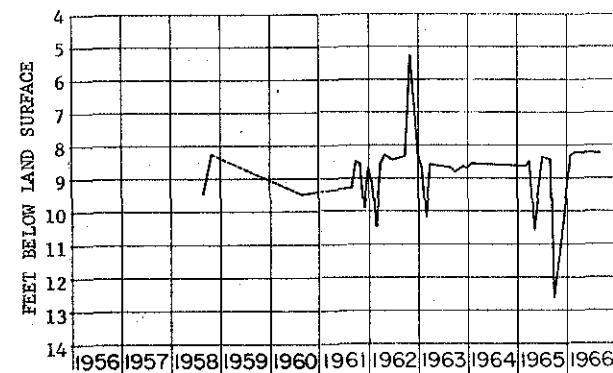
U. S. Forest Service. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 43 N., R. 4 W. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 5 in, depth 89 ft. MP top of hole in pump base, at lsd. Measured monthly. All plotted.



ASHLAND CO., Well-1

As-46/4W/6-1

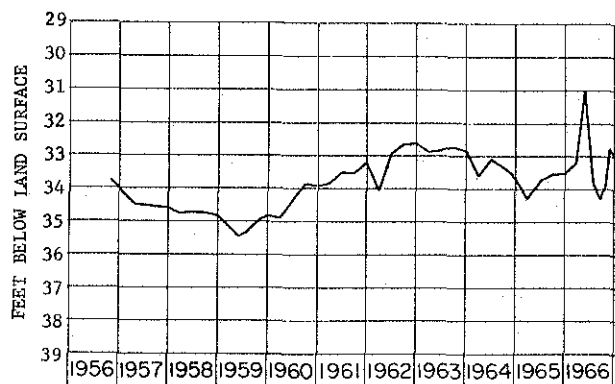
Lake Superior District Power Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 46 N., R. 4 W. Drilled unused artesian well in sandstone, diam 4 in, reported depth 90 ft, cased to 15. Lsd 690 ft above msl. MP top of casing, 0.75 ft above lsd. Discontinued 1960.



ASHLAND CO., Well-7

As-48/3W/36-7

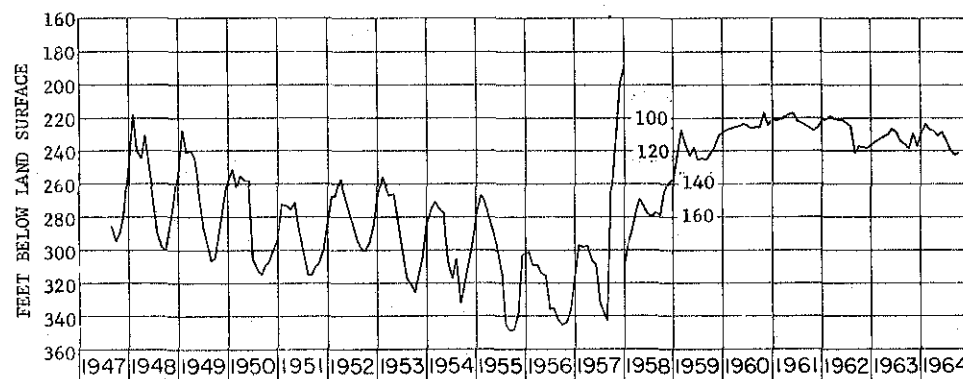
U. S. Department of the Interior, Bad River Indian Reservation. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 48 N., R. 3 W. Drilled domestic water-table well in sand and gravel of Pleistocene Age, diam 5 in, depth 105 ft. MP hole in casing, 1.00 ft above lsd. Measured monthly. All plotted.



BARRON CO., Well-46

Br-33/13W/21-46

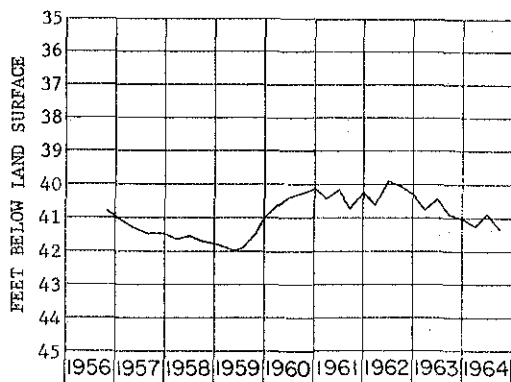
Edward Thufin. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 33 N., R. 13 W. Drilled unused water-table well in sandstone of Cambrian age, diam 4 in, depth 65 ft. Lsd about 1,115 ft above msl. MP top of casing, 2.00 ft above lsd. Measured monthly. All plotted.



BROWN CO., Well-9

Bn-24/20/25-9

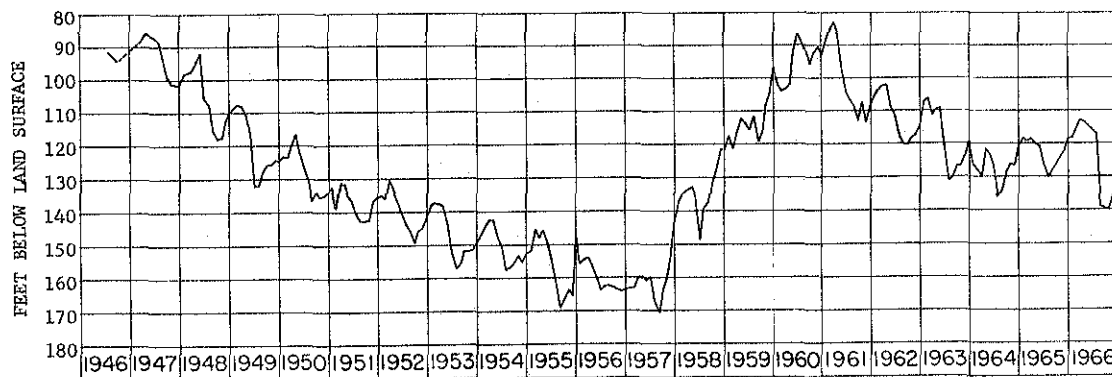
Larsen Canning Co., 320 North Broadway, Green Bay. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 24 N., R. 20 E. Drilled unused artesian well in sandstone of Cambrian age, diam 8 in, depth 800 ft. Lsd 590 ft above msl. MP top of casing, 5.00 ft below lsd. Discontinued 1964.



BARRON CO., Well-62

Br-34/11/25-62

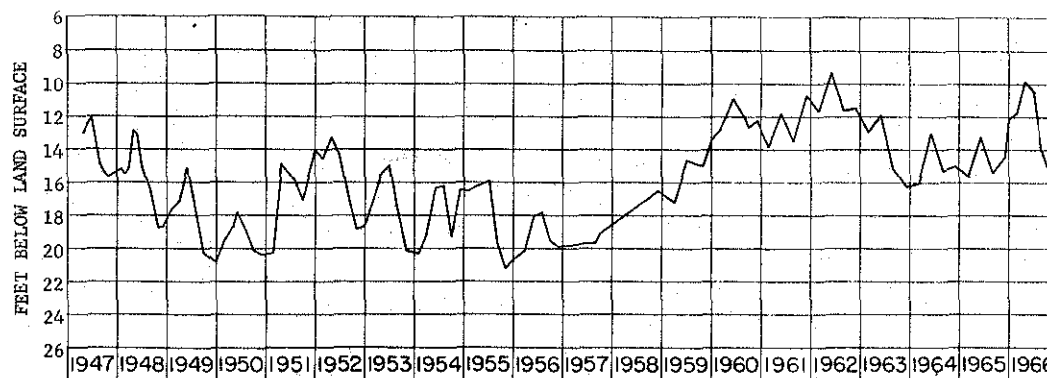
Pokegama School District 2. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 34 N., R. 11 W. Drilled public supply water-table well in sand and gravel of Pleistocene age, diam 4 in, depth 80 ft, cased to 78. Screen 78-80. Lsd, 1090 ft above msl. MP hole in pump base, 1.00 ft above lsd. Discontinued 1964.



BROWN CO., Well-11

Bn-23/20/22-11

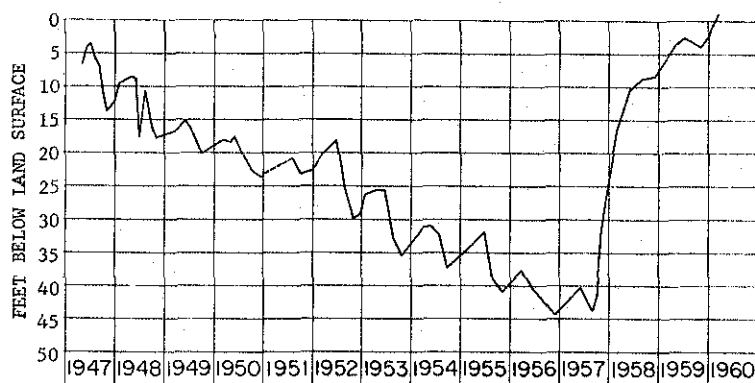
City of DePere. Broadway and George Sts. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 23 N., R. 20 E. Drilled unused artesian well in sandstone of Cambrian age, diam 12 in, reported depth 835 ft. Lsd 612 ft above msl. MP top of casing, 6.00 ft below lsd. Recording gage. Lowest monthly plotted.



BROWN CO., Well-13

Bn-24/20/18-13

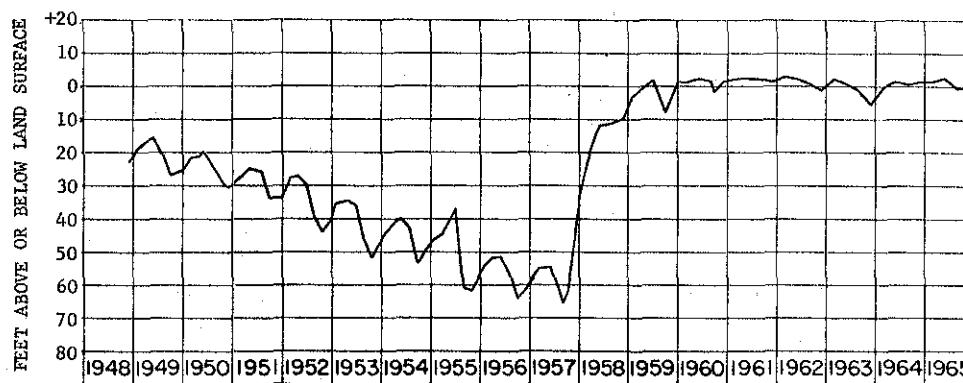
State of Wisconsin. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 24 N., R. 20 E. Drilled stock artesian well in St. Peter Sandstone and Platteville Formation, diam 6 in, reported depth 250 ft, cased to 90. Lsd 681 ft above msl. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



BROWN CO., Well-16

Bn-24/19/35-16

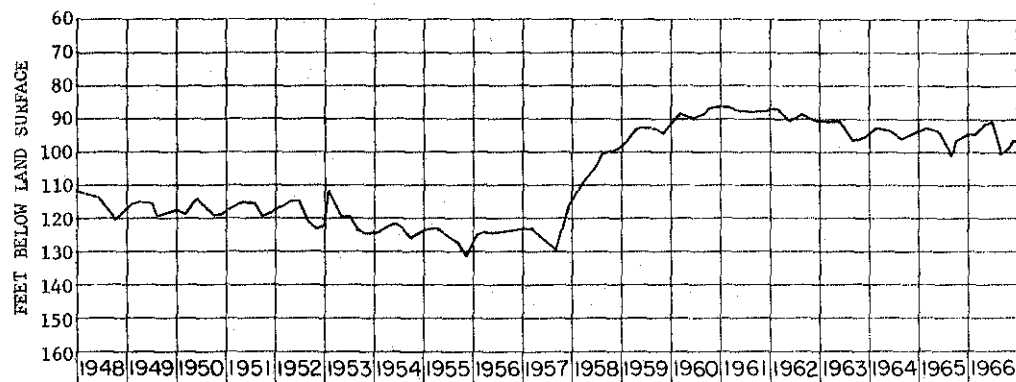
Frank Vandehei. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 N., R. 19 E. Drilled domestic stock artesian well in sandstone, diam 8 in, reported depth 800 ft. Lsd, 659 ft above msl. MP top of 8 in coupling on casing, 1.00 ft above lsd. Discontinued 1960.



BROWN CO., Well-43

Bn-24/20/2-43

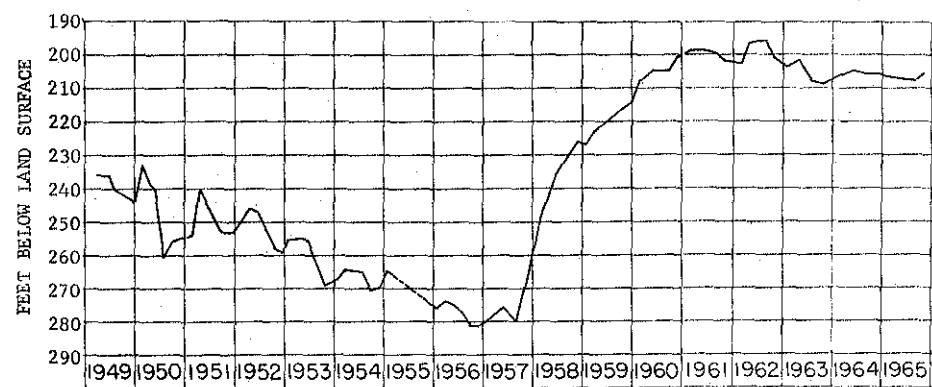
Harry Nick. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 24 N., R. 20 E. Drilled unused artesian well in St. Peter Sandstone, diam 5 in, depth 297 ft, reported cased to 60. Lsd 585 ft above msl. MP top of 1 $\frac{1}{2}$ -in pipe, 2.00 ft above lsd. Affected by cessation of pumping from Green Bay municipal wells; August 1957, and by local pumping. Discontinued 1965.



BROWN CO., Well-51

Bn-24/20/29-51

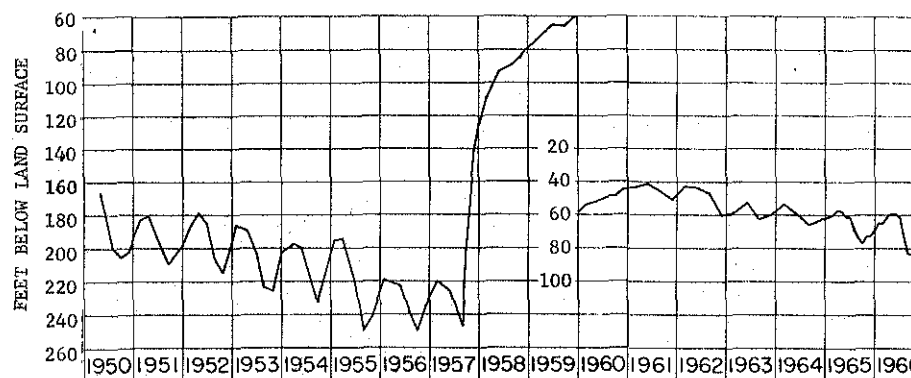
Larsen Orchards. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 24 N., R. 20 E. Drilled domestic artesian well in sandstone of Cambrian age, diam 6 in, reported depth 800 ft. Lsd 698 ft above msl. MP top of casing, at lsd. Measured monthly. All plotted.



BROWN CO., Well-72

Bn-24/21/13-72

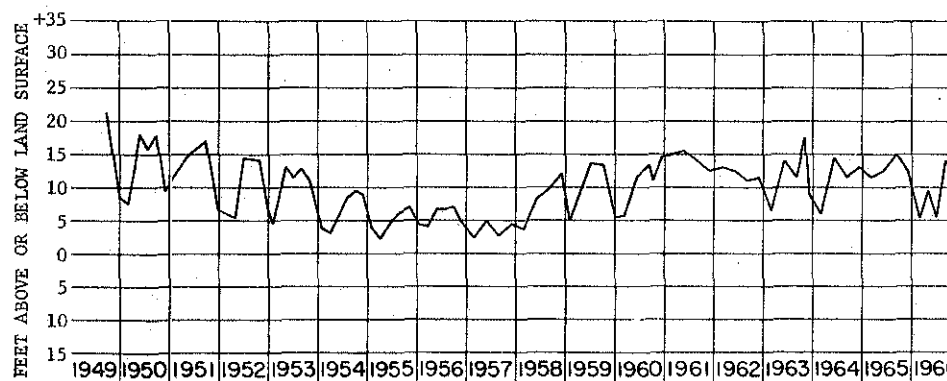
Gregoire Denis. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 24 N., R. 21 E. Drilled domestic artesian well in sandstone of Cambrian age, diam 8 to 6 in, reported depth 1,006 ft, cased to 400. Lsd 735 ft above msl. MP pump base, 3.00 ft below lsd. Discontinued 1966.



BROWN CO., Well-76

Bn-24/20/24-76

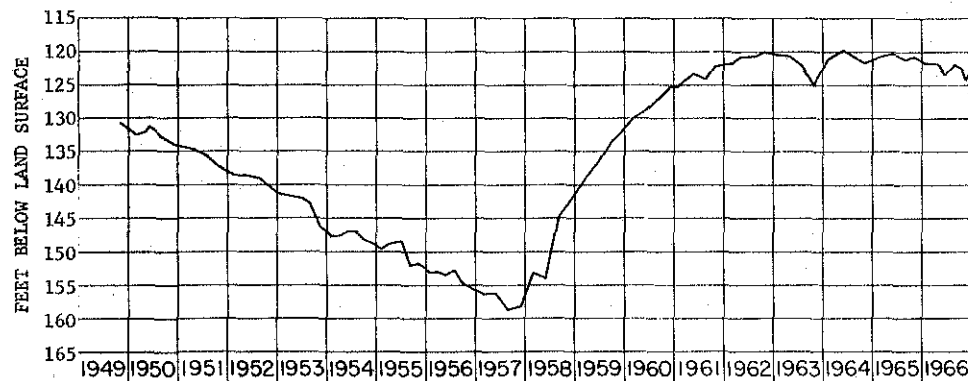
Wisconsin Public Service Corp. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 24 N., R. 20 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone, diam 5 in, reported depth 500 ft, cased to 150. MP top of 3-in pipe, 4.00 ft above lsd. Affected by cessation of pumping from Green Bay municipal wells, August 1957, and by local pumping. Measured monthly. All plotted.



BROWN CO., Well-78

Bn-25/21/7-78

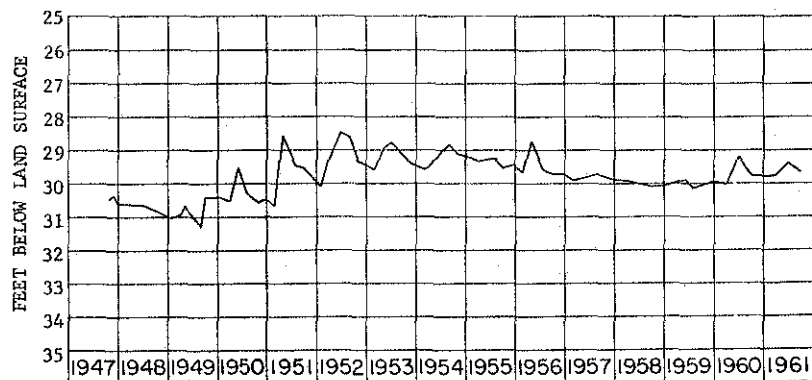
Carl Jenkins. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 25 N., R. 21 E. Drilled domestic artesian well in St. Peter Sandstone, diam 6 in, reported depth 198 ft. Lsd 587 ft above msl. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



BROWN CO., Well-80

Bn-25/22/14-80

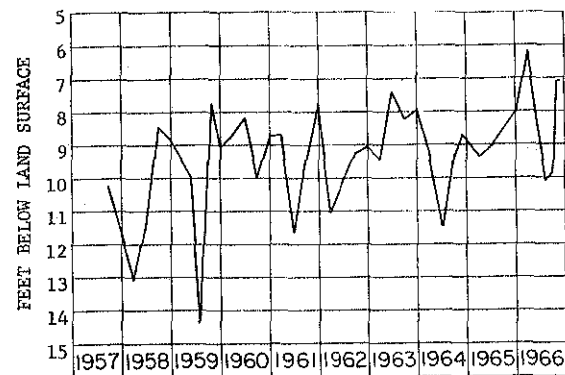
J. C. Pennings. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 25 N., R. 22 E. Drilled domestic artesian well in sandstone of Cambrian age, diam 8 in, reported depth 1,043 ft. Lsd 690 ft above msl. MP hole in top of casing, 6.40 ft below lsd. Measured monthly. All plotted.



BUFFALO CO., Well-1

Bf-21/12W/29-1

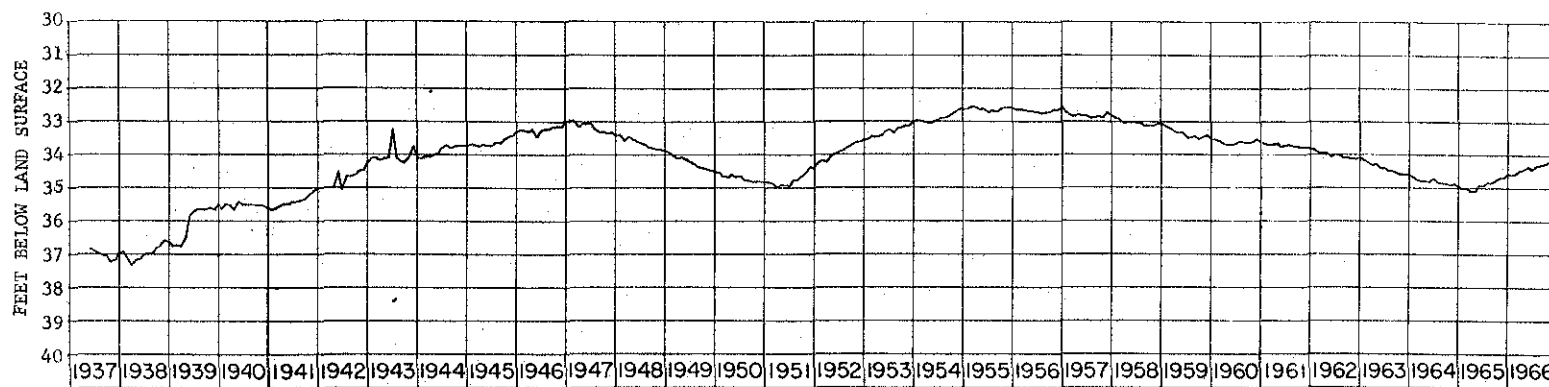
Donald C. DeMarce. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 21 N., R. 12 W. Drilled domestic water-table well in sandstone, diam 4 in, depth 78. MP top of casing, 1.50 ft above lsd.



BUFFALO CO., Well-22

Bf-24/11W/14-22

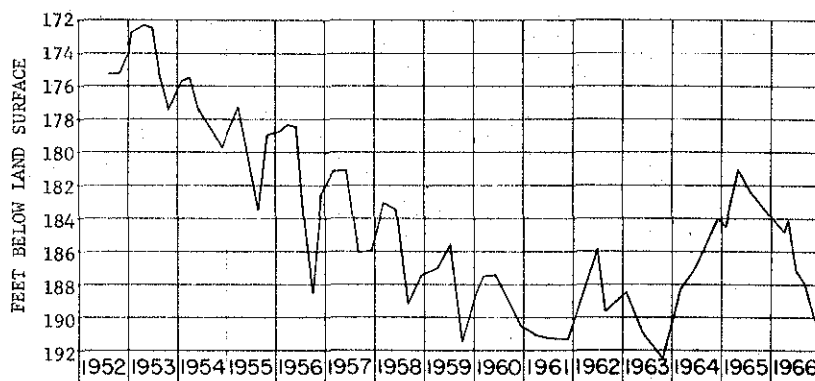
City of Mondovi. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 24 N., R. 11 W. Drilled public-supply artesian well in sandstone of Cambrian age, diam 10 in, reported depth 384 ft, cased to 100. Lsd, about 810 ft above msl. MP, hole in pump base, 2.00 ft above lsd. Measured monthly. All plotted.



BURNETT CO., Well-2

Bt-39/16W/17-2

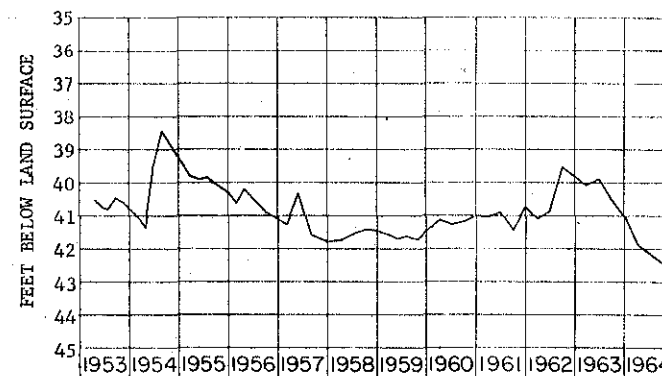
Wisconsin Conservation Dept. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 39 N., R. 16 W. Drilled observation water-table well in sand of Pleistocene age, diam 8 in, depth 46 ft, perforated 44 $\frac{1}{2}$ -46. Lsd 981 ft above msl. MP pointer on float gage, 4.87 ft above lsd. Measured weekly. Lowest monthly plotted.



CALUMET CO., Well-6

Ca-20/19/2-6

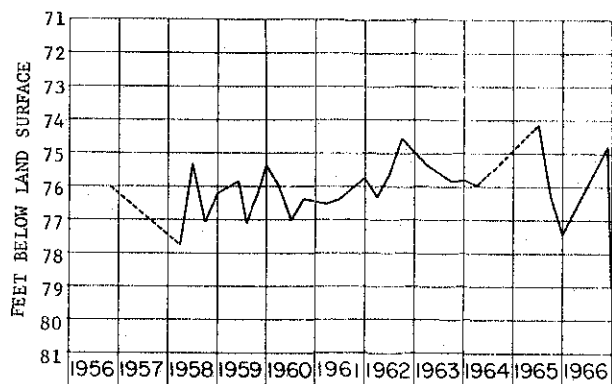
Calumet Corp. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 20 N., R. 19 E. Drilled industrial artesian well in sandstone of Late Cambrian age, diam 8 to 12 in, reported depth 1,050 ft, cased to 270 ft, 6 in liner 570-652. Lsd 820 ft above msl. MP pump base, at lsd. Measured monthly. All plotted.



CHIPPEWA CO., Well-11

Ch-29/8W/18-11

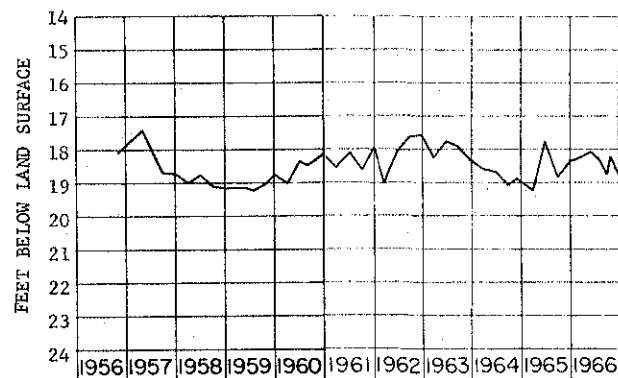
Wis. University Colony. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 29 N., R. 8 W. Drilled domestic and public-supply water-table well in drift of Pleistocene age, diam 6 in, depth 90 ft, cased to 78 ft. Screen 78-90. MP top of breather pipe, 5.00 ft below lsd. Discontinued 1964.



CHIPPEWA CO., Well-27

Ch-29/5W/31-27

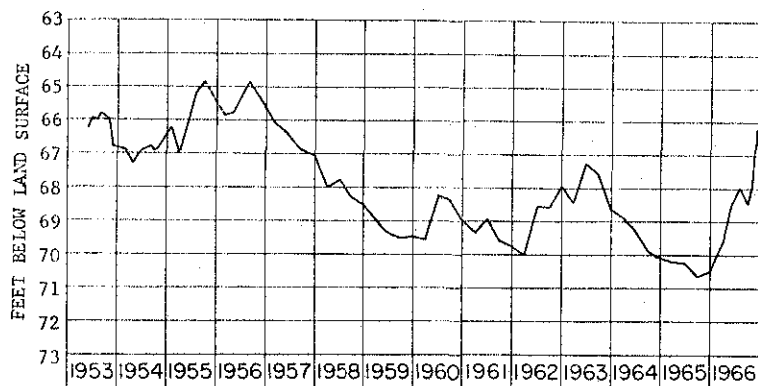
Village of Boyd. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 29 N., R. 5 W. Drilled public-supply water-table well in sandstone of Cambrian age, diam 10 in, reported depth 150 ft. MP hole in pump base, 2.00 ft above lsd. Measured monthly. All plotted.



CHIPPEWA CO., Well-38

Ch-28/5W/1-38

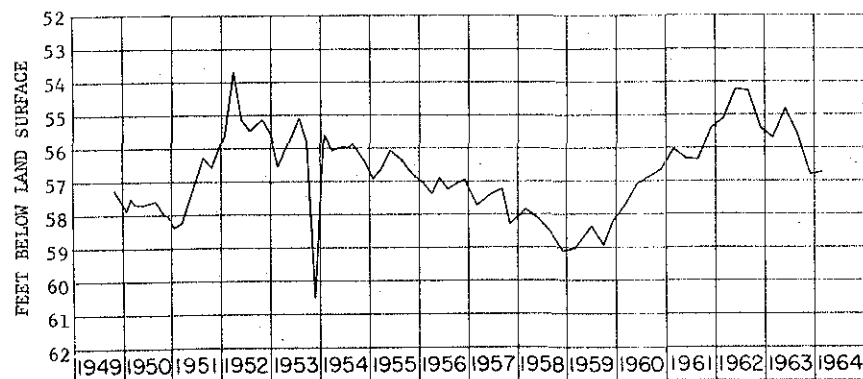
Chester Meeker. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec 1, T. 28 N., R. 5 W. Drilled public-supply water-table well in sandstone of Cambrian age, diam 4 in, reported depth 42 ft. Lsd about 1,100 ft above msl. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



CLARK CO., Well-1

Ck-26/3W/4-1

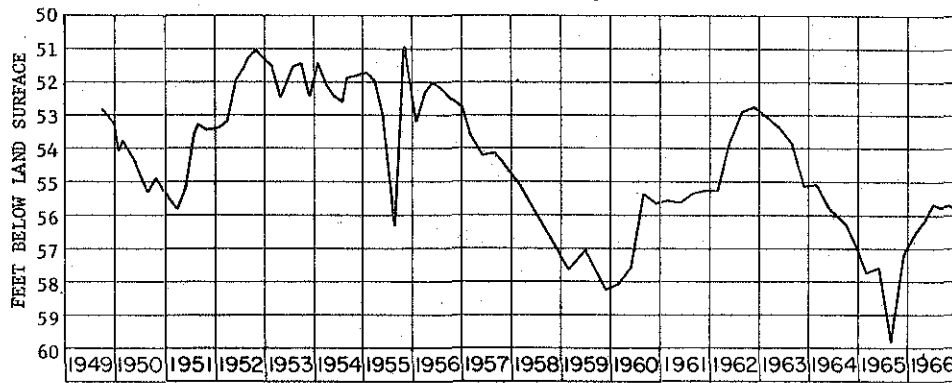
Wisconsin Conservation Dept. North Mound Tower. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 26 N., R. 3 W. Drilled domestic artesian well in sandstone of Cambrian age, diam 6 in, depth 150 ft, cased to 53. MP top of casing, at lsd. Measured monthly. All plotted.



COLUMBIA CO., Well-13

Co-13/11/29-13

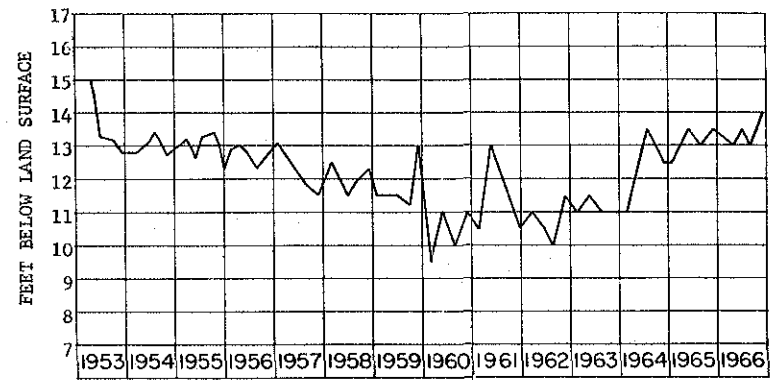
Rodney Sommers. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 13 N., R. 11 E. Drilled domestic water-table well in sandstone of Cambrian age, diam 6 in, depth 72 ft. Discontinued 1964.



COLUMBIA CO., Well-22

Co-11/9/36-22

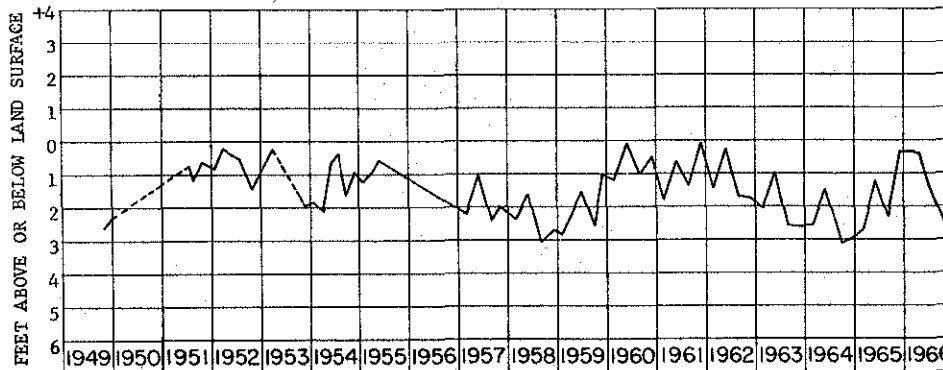
Wisconsin Fur and Game Farm. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 11 N., R. 9 E. Drilled unused water-table well in sandstone of Cambrian age, diam 6 in, depth 75 ft. MP rim of casing, at lsd. Measured monthly. All plotted.



CRAWFORD CO., Well-2

Cr-7/7/36-2

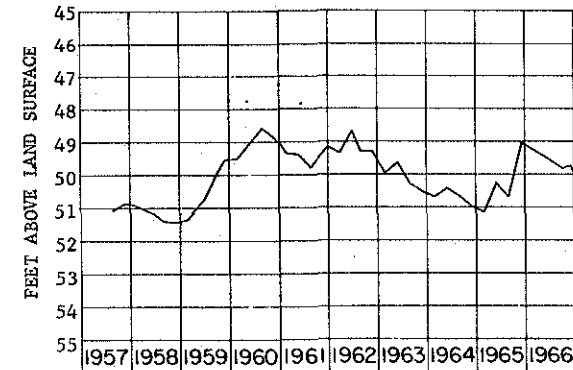
Prairie du Chien General Hospital. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 7 N., R. 7 W. Drilled public-supply artesian well in sandstone of Cambrian age, diam 8 in, reported depth 990 ft. Lsd 653 ft above msl. MP top of casing, 2.00 ft above lsd. Measured quarterly. All plotted.



COLUMBIA CO., Well-28

Co-12/9/5-28

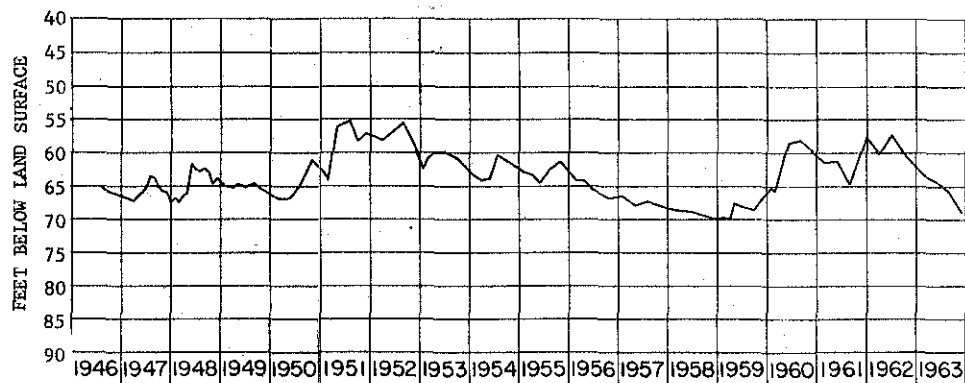
Flanders. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 12 N., R. 9 E. Drilled unused water-table well in sandstone of Cambrian age, diam 6 in, depth 71 ft. MP top of casing, 2.00 ft above lsd. Measured monthly. All plotted.



CRAWFORD CO., Well-15

Cr-10/4/22-15

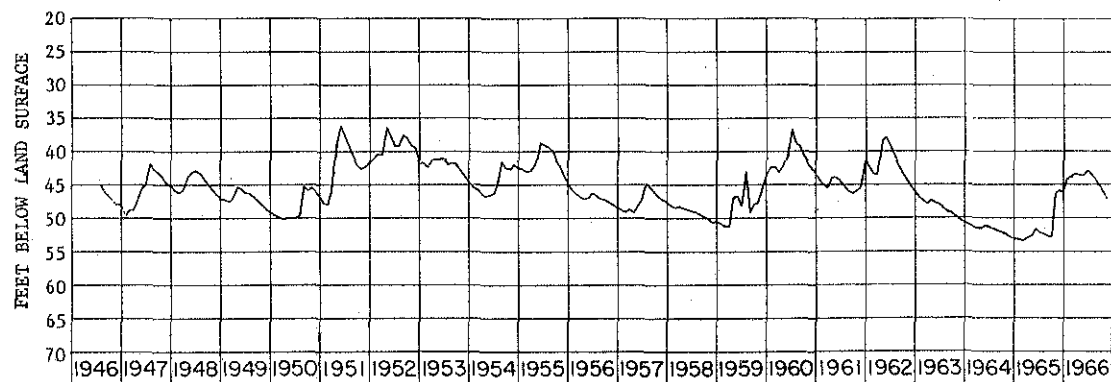
J. H. Kettner. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 10 N., R. 4 W. Drilled domestic water-table well in sandstone of Cambrian age, diam 5 in, reported depth 150 ft. MP top of first elbow of breather pipe, 1.00 ft above lsd. Measured monthly. All plotted.



DANE CO., Well-3

Dn-5/8/32-3

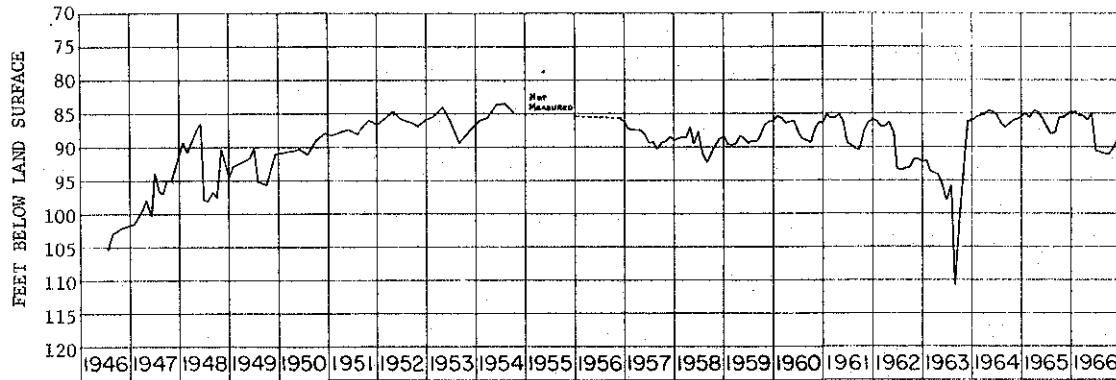
Gerald Hendrickson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 5 N., R. 8 E. Drilled unused well in St. Peter sandstone, diam 6 in, reported depth 100 ft. Lsd 930 above msl. MP hole in pump base, 0.50 ft above lsd. Discontinued 1964.



DANE CO., Well-4

Dn-9/11/34-4

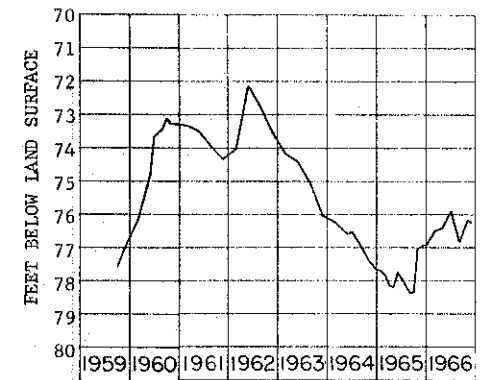
State of Wisconsin. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 9 N., R. 11 E. Drilled unused artesian well in St. Peter Sandstone of Middle Ordovician age, diam 6 in, depth 70 ft, cased to 20. Lsd 965 ft above msl. MP top of flange on casing, 14.83 ft below lsd. Recording gage. Lowest monthly plotted.



DANE CO., Well-5

Dn-7/9/23-5

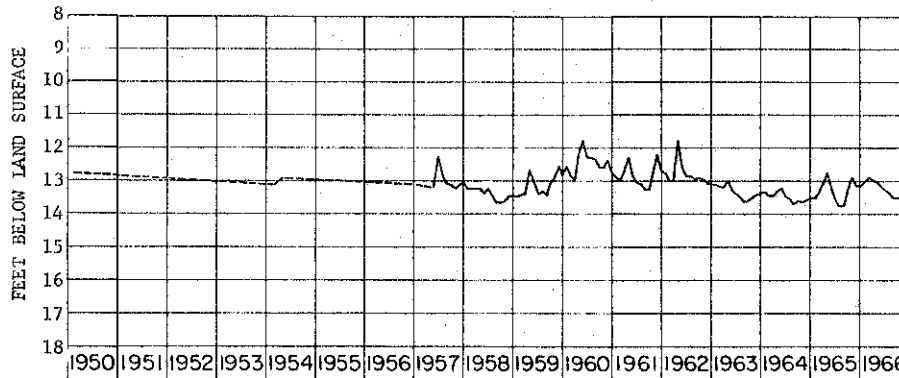
State of Wisconsin. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 7 N., R. 9 E. South wing of State Capitol Bldg. Drilled unused artesian well in sandstone of Cambrian age, diam 8 in, depth 346 ft, cased to 265. Lsd 930 ft above msl. MP hole in pump base. 3.50 ft below lsd. Affected primarily by pumping of nearby municipal wells. Measured monthly. All plotted.



DANE CO., Well-441

Dn-9/10/33-441

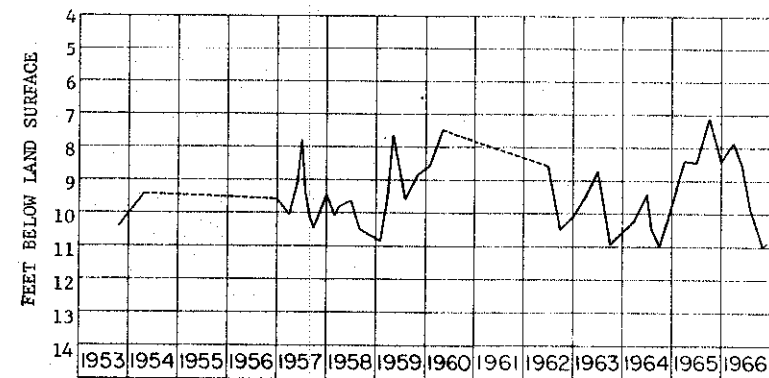
Loftus & Thompson. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 9 N., R. 10 E. Drilled unused water-table well in sandstone of Cambrian age, diam 6 in, depth 105 ft, cased to 43. Lsd 965 ft above msl. MP top of casing, 1.50 ft above lsd. Measured monthly. All plotted.



DANE CO., Well-11

Dn-8/6/26-11

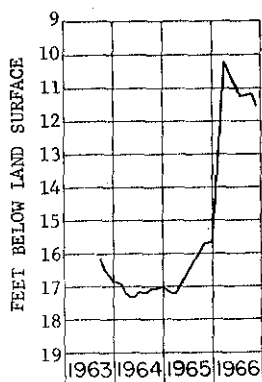
Black Earth Public School. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 8 N., R. 6 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 6 in, depth 59 ft, cased to 59. Lsd 818 ft above msl. MP top of casing, 6.00 ft below lsd. Recording gage. Lowest monthly plotted.



DANE CO., Well-83

Dn-9/6/28-83

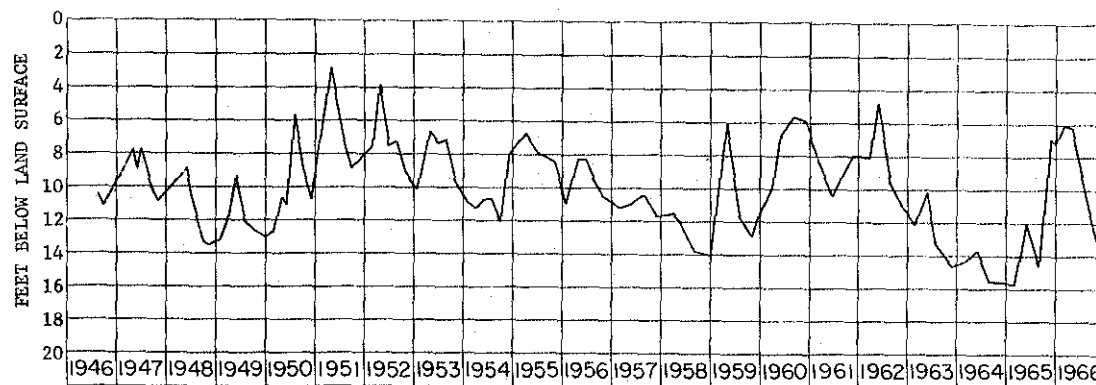
Wisconsin Conservation Dept. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 9 N., R. 6 E. Drilled domestic water-table well in sand and gravel of Pleistocene and Recent age, diam 6 in, reported depth 146 ft, screened 136-146. Lsd 740 ft above msl. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



DANE CO., Well-903

Dn-8/6/8-903

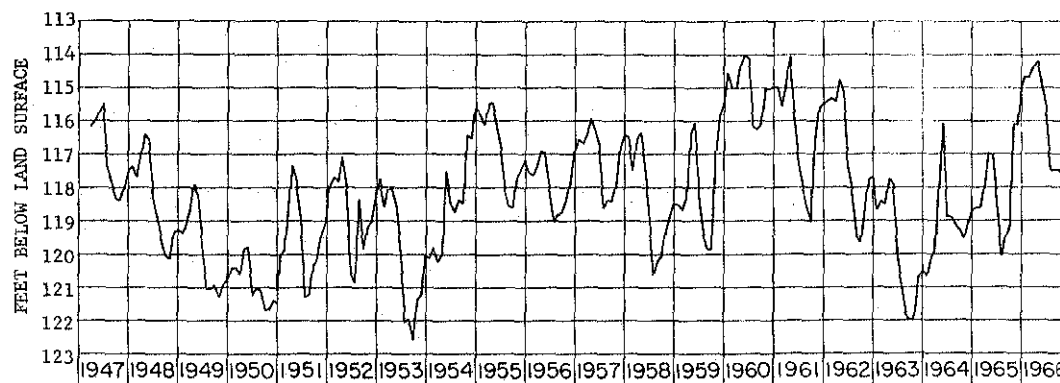
City of Mazomanie. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 8 N., R. 6 E. Bored observation water-table well in sand and gravel of Pleistocene age, diam 5 in, depth 19 ft, perforated 17-19. Lsd 768 ft above msl. MP top of casing, at lsd. Measured monthly. All plotted.



DODGE CO., Well-3

Dg-13/13/15-3

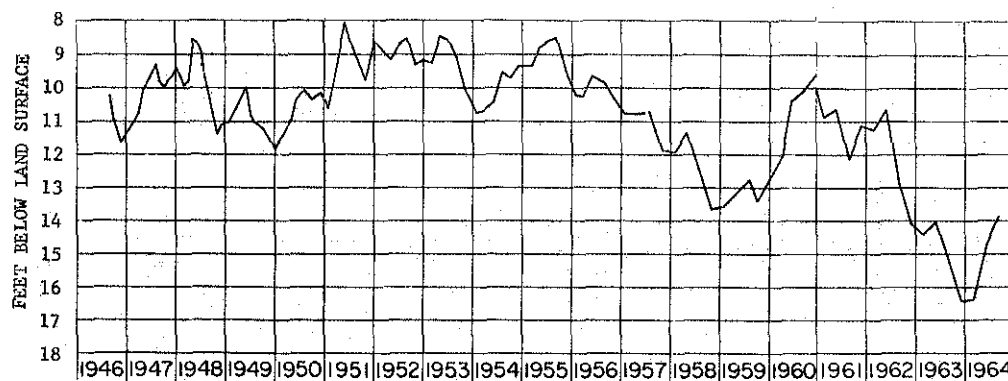
Lyle W. Buchda. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 13 N., R. 13 E. Drilled domestic artesian well in St. Peter Sandstone, diam 6 in, reported depth 170 ft. Lsd 909 ft above msl. MP top of cap on casing, 1.00 ft above lsd. Measured monthly. All plotted



DODGE CO., Well-4

Dg-11/16/5-4

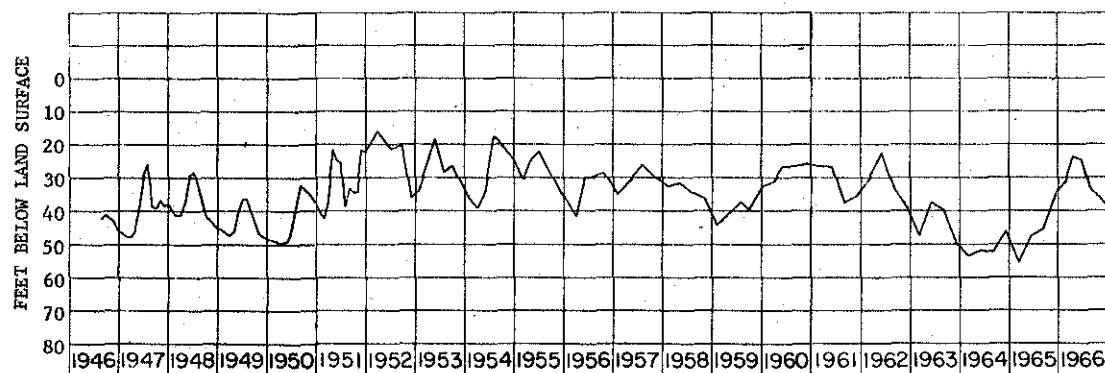
City of Horicon. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 11 N., R. 16 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone of Middle Ordovician age, diam 8 in, depth 475 ft, cased to 140. Lsd 980 ft above msl. MP top of concrete floor, 5.00 ft below lsd. Affected primarily by pumping of nearby municipal wells. Recording gage. Lowest monthly plotted.



DODGE CO., Well-10

Dg-9/17/30-10

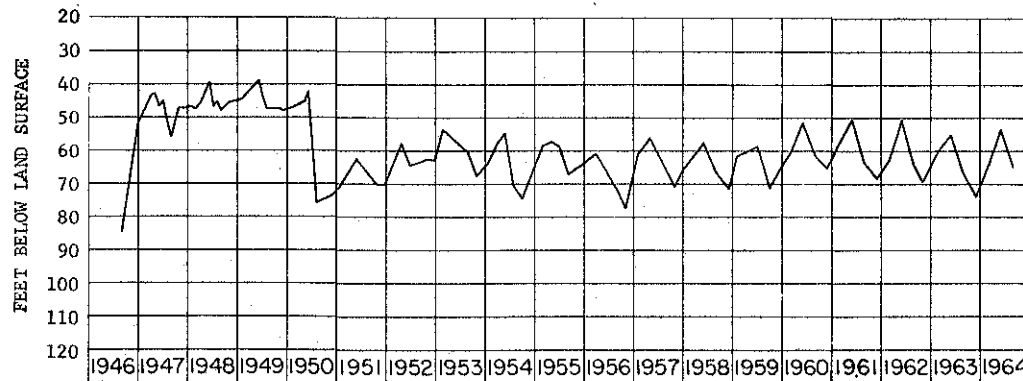
Ashippun Fire Dept. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 9 N., R. 17 E. Drilled unused artesian well in Galena Dolomite, diam 6 in, reported depth 200 ft. Lsd 868 ft above msl. MP end of 4-in nipple, 2.60 ft above lsd. Discontinued 1964.



DODGE CO., Well-11

Dg-9/13/1-11

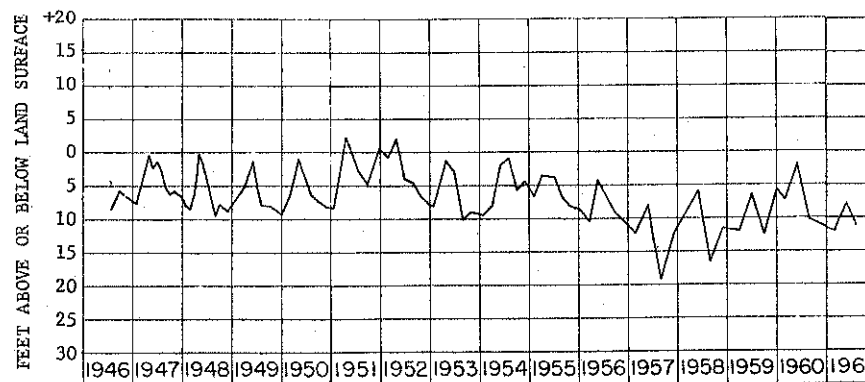
F. C. Etscheid. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 9 N., R. 13 E. Drilled unused artesian well in granite of Precambrian age, diam 6 in, reported depth 1,880 ft, cased to 1,200. MP top of casing, at lsd. Measured monthly. All plotted.



DODGE CO., Well-12

Dg-12/17/10-12

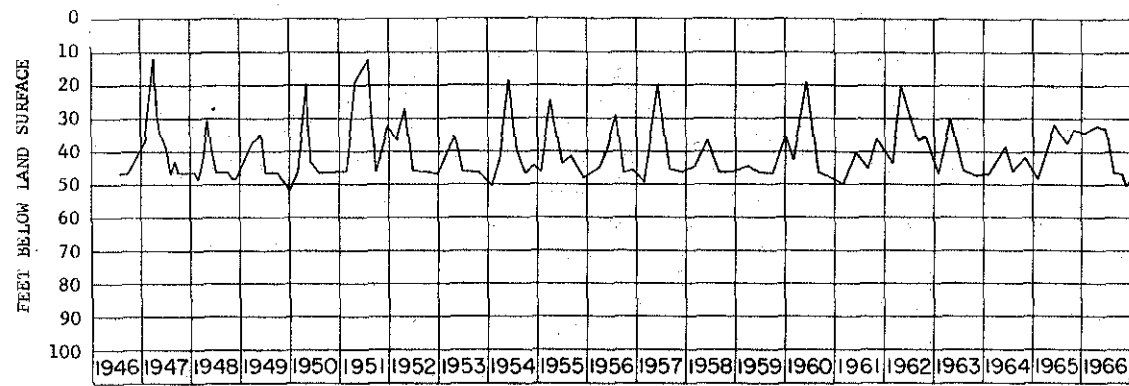
Baker Canning Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 12 N., R 17 E. Drilled industrial artesian well in sandstone, diam 10 to 8 in, reported depth 955 ft, cased to 353. Lsd 956 ft above msl. MP bottom edge of horizontal 3/4 in breather pipe, 2.53 above lsd. Discontinued 1964.



DOOR CO., Well-5

Dr-27/26/8-5

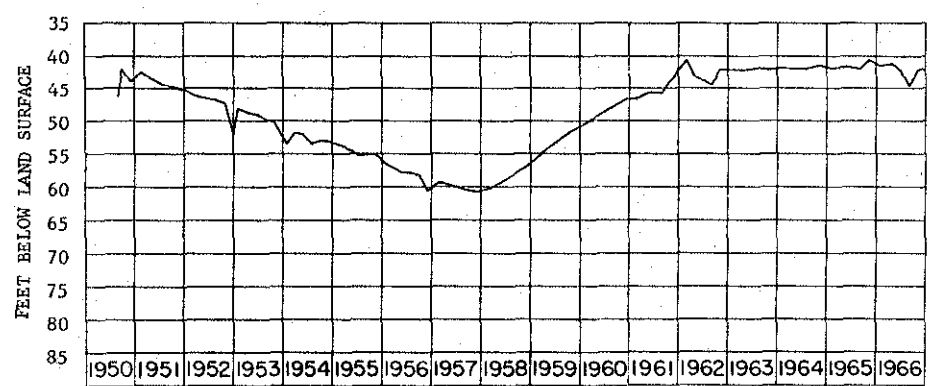
City of Sturgeon Bay. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 27 N., R. 26 E. Drilled unused municipal artesian well in Niagara Dolomite, diam 12 in, reported depth 1,169 ft, cased to 69. Lsd 590 above msl. MP inside edge of hole in case, 2.10 ft above lsd. Discontinued 1961.



DOOR CO., Well-7

Dr-29/27/30-7

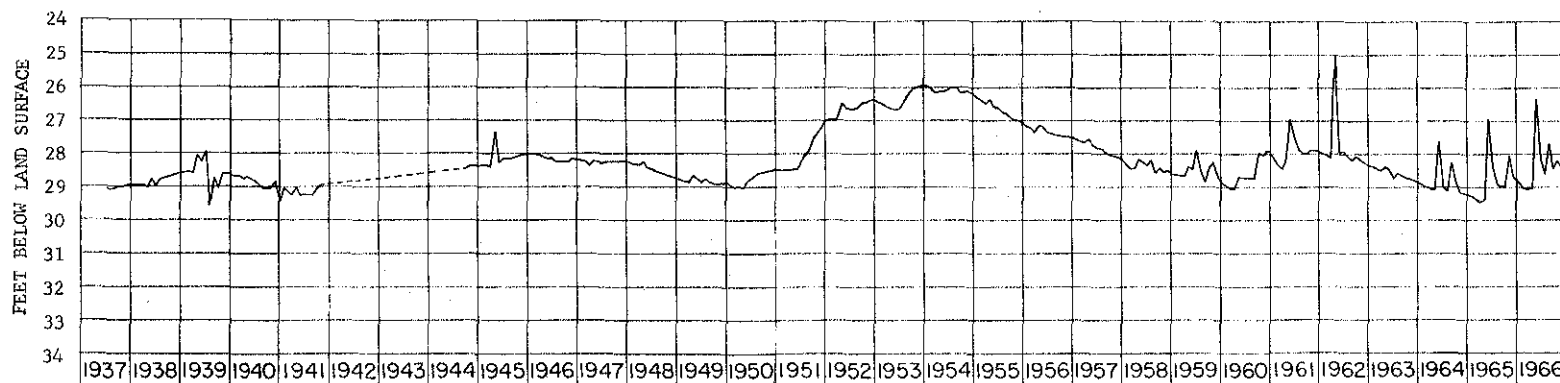
Fred Peterson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 29 N., R. 27 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 4 in, depth 111 ft. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



DOOR CO., Well-11

Dr-26/23/22-11

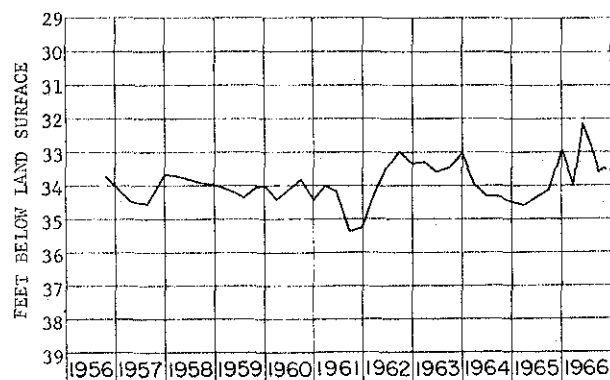
Wilfred LeMense. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 26 N., R. 23 E. Drilled stock artesian well in St. Peter Sandstone of Middle Ordovician age, diam 6 in, reported depth 816 ft, cased to 60. Lsd 630 ft above msl. MP hole in side of casing, 1.00 ft above lsd. Affected by cessation of pumping from Green Bay municipal wells, August 1957, and by regional pumping. Measured monthly. All plotted.



DOUGLAS CO., Well-1

Ds-47/10W/23-1

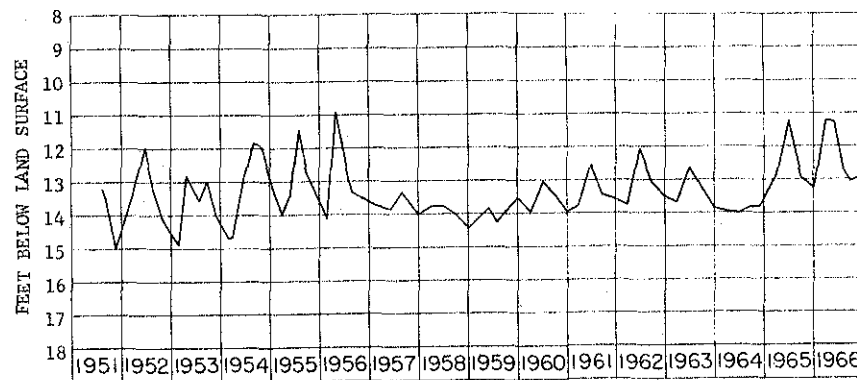
Wisconsin Conservation Dept. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 47 N., R. 10 W. Drilled observation artesian well in sand of Pleistocene age, diam 8 in, depth 40 ft, cased to 40. Lsd 980 ft above msl. MP pointer on float gage, 4.33 ft above lsd. Measured weekly. Lowest monthly plotted.



DUNN CO., Well-53

Du-26/13W/31-53

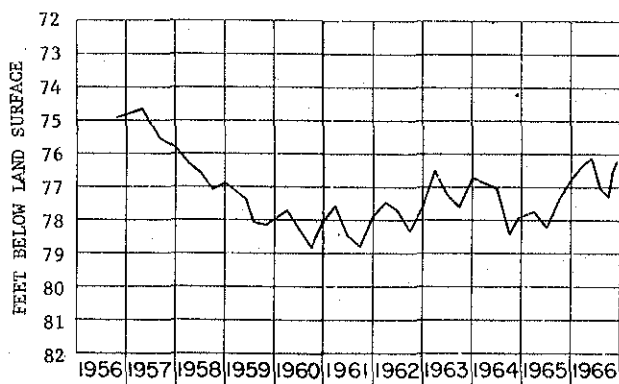
Eau Galle Cheese Company. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 26 N., R. 13 W. Drilled unused water-table well in sandstone of Cambrian age, diam 5 in, reported depth 75 ft, cased to 54. Lsd about 780 ft above msl. MP top of casing, 6.00 ft below lsd. Measured monthly. All plotted.



EAU CLAIRE CO., Well-13

EC-26/6W/32-13

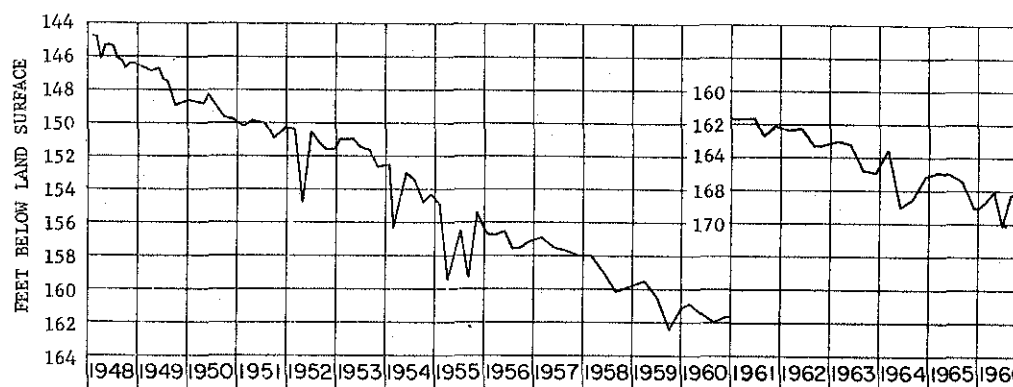
SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 26 N., R. 6 W. Driven unused water-table well in alluvium, diam 1 $\frac{1}{2}$ in, depth 26 ft, well point 24-26. MP top of casing, 1.50 ft above lsd. Measured monthly. All plotted.



EAU CLAIRE CO., Well-37

EC-27/9W/27-37

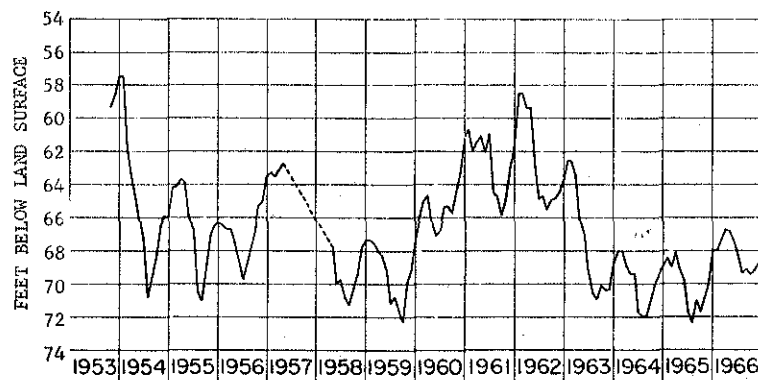
Joseph Estrene. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 27 N., R. 9 W. Drilled public-supply water-table well in sandstone of Cambrian age, diam 5 in, depth 101 ft, cased to 54. MP top of casing, 2.00 ft above lsd. Measured monthly. All plotted.



FOND DU LAC CO., Well-19

FL-17/19/30-19

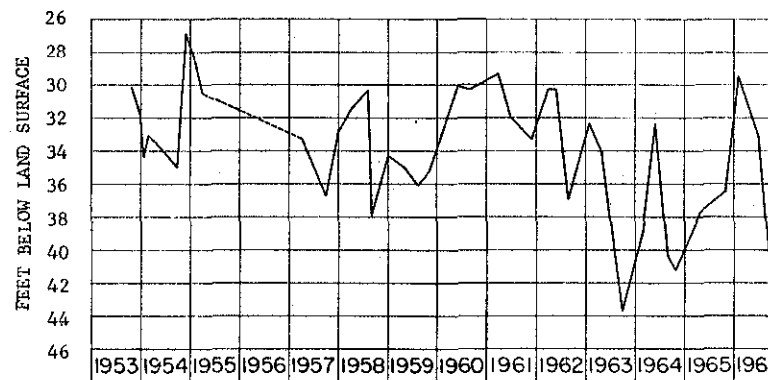
John Steffin. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 17 N., R. 19 E. Drilled stock artesian well in St. Peter Sandstone of Middle Ordovician age, diam 6 to 4 in, reported depth 695 ft, cased to 590. Lsd 895 ft above msl. MP top of casing, 1.50 ft above lsd. Affected by regional pumping. Measured monthly. All plotted.



FOND DU LAC CO., Well-12

FL-15/17/11-12

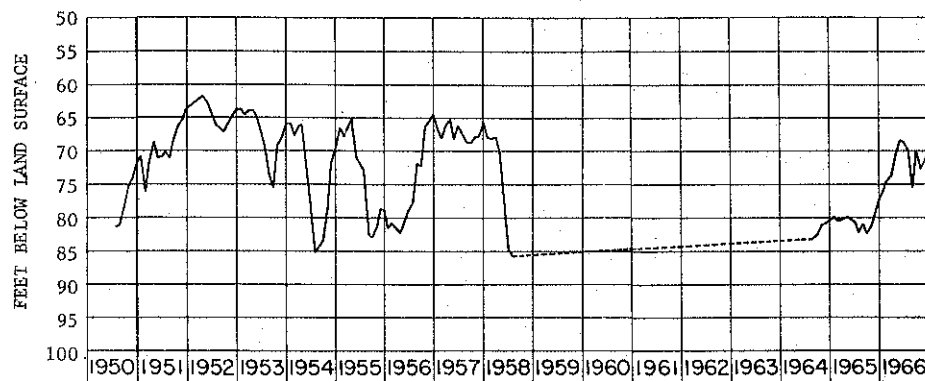
City of Fond du Lac. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 15 N., R. 17 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone, diam 4 in, reported depth 817 ft, cased to 127. Lsd 753 ft above msl. MP top of casing, at lsd. Affected primarily by pumping of nearby municipal wells. Recording gage. Lowest monthly plotted.



FOND DU LAC CO., Well-14

FL-14/15/32-14

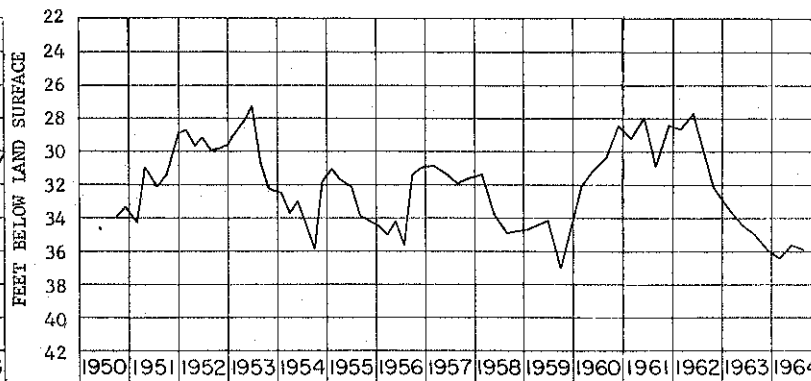
City of Waupun. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 14 N., R. 15 E. Drilled public-supply artesian well in sandstone of Cambrian age, diam 12 in, reported depth 611 ft, cased to 140. Lsd 883 ft above msl. MP hole in northwest side of pump base, 3.00 ft above lsd. Measured monthly. All plotted.



FOND DU LAC CO., Well-20

FL-15/17/3-20

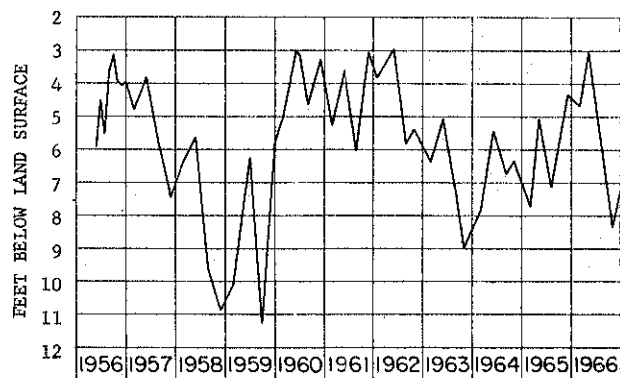
City of Fond du Lac. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 15 N., R. 17 E. Drilled unused artesian well in sandstone of Cambrian age, and St. Peter Sandstone of Middle Ordovician age, diam 6 in, reported depth 765 ft, cased to 58. Lsd 750 ft above msl. MP top of shelter brace, 1.50 ft above lsd. Recording gage. Lowest monthly plotted.



FOND DU LAC CO., Well-21

FL-16/17/33-21

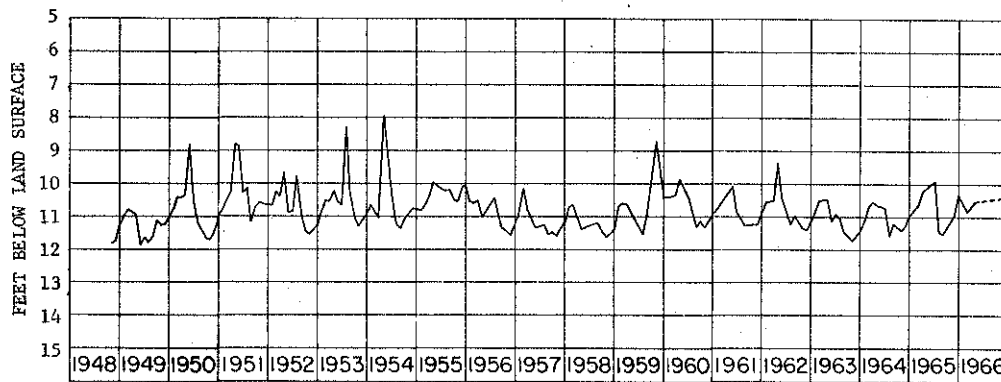
Wisconsin Central Railroad. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 16 N., R. 17 E. Drilled industrial artesian well in limestone of Ordovician age, diam 8 in, reported depth 450 ft. MP hole in top of casing, at lsd. Discontinued 1964.



FOND DU LAC CO., Well-300

FL-15/18/11-300

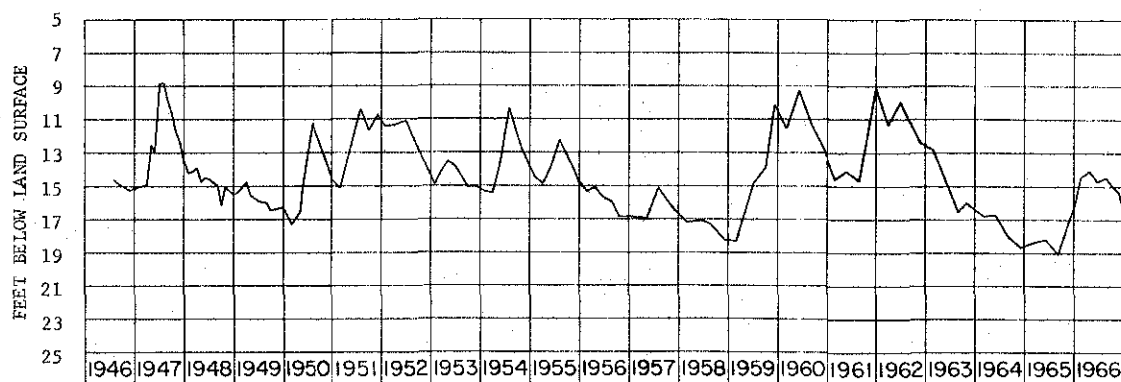
City of Fond du Lac. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 15 N., R. 18 E. Drilled observation artesian well in Niagara Dolomite of Middle Silurian age, diam 8 to 6 in, depth 135 ft, cased to 16. Lsd 995 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



FOREST CO., Well-2

Fr-41/14/18-2

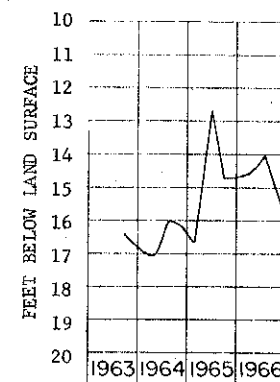
Wisconsin State Highway Comm. Wisconsin-Michigan Power Co. Brule River Profile well 5. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 41 N., R. 14 E. Driven observation water-table well in sand and gravel of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 18 ft, well point 15-18. Lsd 1,551 ft above msl. MP top of casing, 1.70 ft above lsd. Measured monthly. All plotted.



GRANT CO., Well-5

Ralph Shackelford. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 5 N., R. 2 W. Drilled unused water-table well in dolomite of Prairie du Chien Group of Lower Ordovician age, diam 5 in, depth 35 ft, cased to 5. Lsd 980 ft above msl. MP edge of pump base, 0.50 ft above lsd. Measured monthly. All plotted.

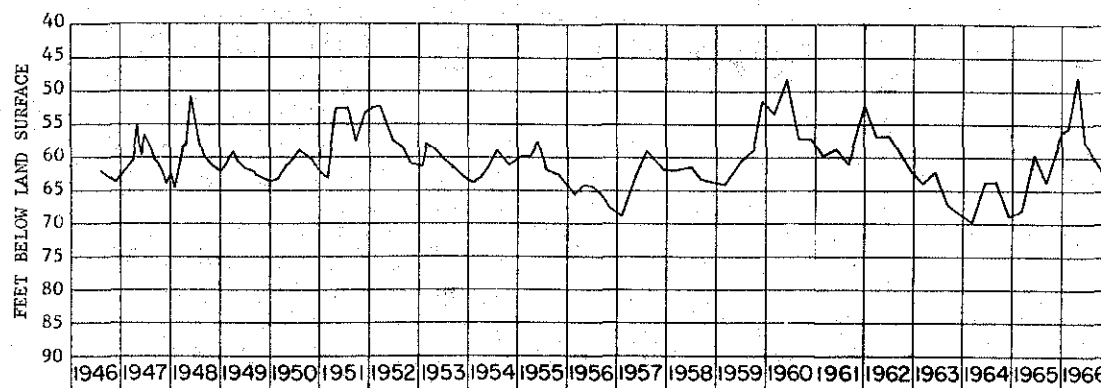
Gr-5/2W/6-5



GRANT CO., Well-72

Ervin Efinger. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 8 N., R. 1 W. Bored unused water-table well in sand and gravel of Pleistocene age, diam 5 in, depth 10 ft, cased to 10 ft, perforated 7-10. Lsd 687 ft above msl. MP top of casing, 7.00 ft below lsd. Measured monthly. All plotted.

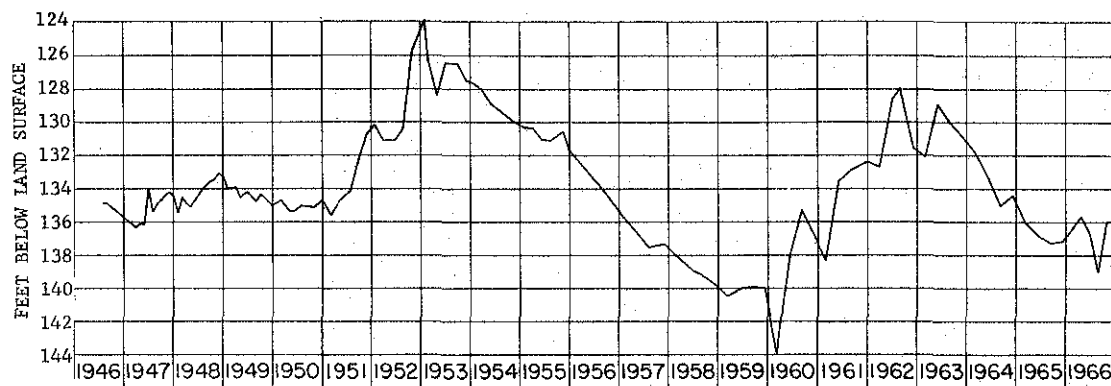
Gr-8/1W/10-72



GREEN CO., Well-1

Charles Segner. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 2 N., R. 7 E. Drill unused water-table well in Platteville Formation of Middle Ordovician age, diam 6 in, depth 75 ft. MP top of casing, 4.50 ft above lsd. Measured monthly. All plotted.

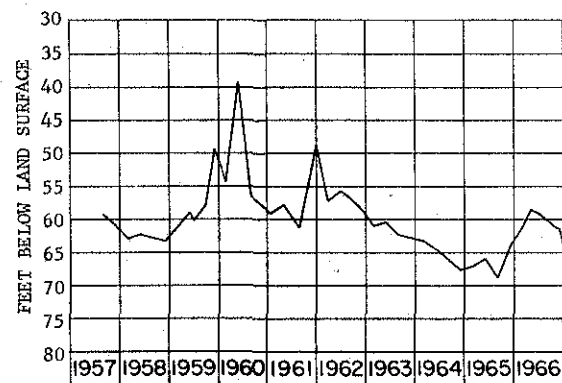
Gn-2/7/21-1



GREEN CO., Well-2

Gn-3/6/18-2

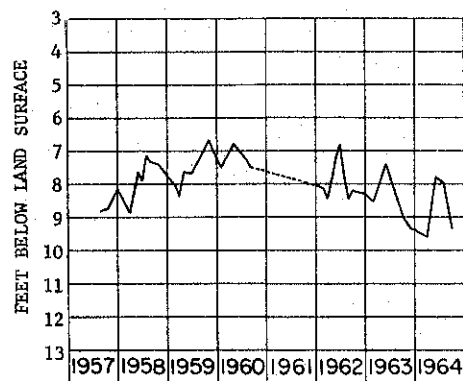
Earl Waddington, NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 3 N., R. 6 E. Drilled unused artesian well in St. Peter Sandstone, diam 6 in. MP hole in pump base, 0.50 ft above lsd. Measured monthly. All plotted.



IOWA CO., Well-32

Iw-6/3/32-32

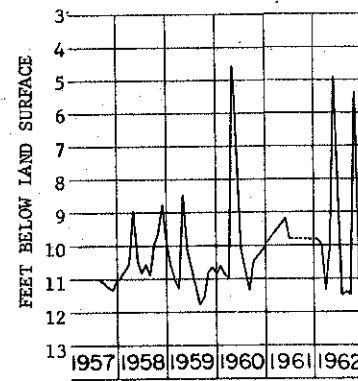
Archie Lee, SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 6 N., R. 3 E. Drilled public-supply artesian well in Galena Dolomite, diam 6 in, depth 92 ft. Lsd 1,200 ft above msl. MP $\frac{1}{2}$ -in hole in pump base, at lsd. Measured monthly. All plotted.



IRON CO., Well-2

Ir-42/4/12-2

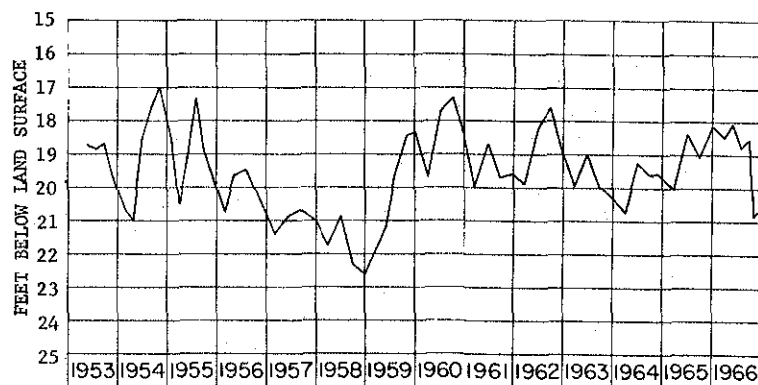
State of Wisconsin. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 42 N., R. 4 E. Drilled unused water-table well in deposits of Pleistocene age, diam 6 in, depth 40 ft. MP, top of casing, 1.00 ft above lsd. Discontinued 1964.



IRON CO., Well-5

Ir-45/1/2-5

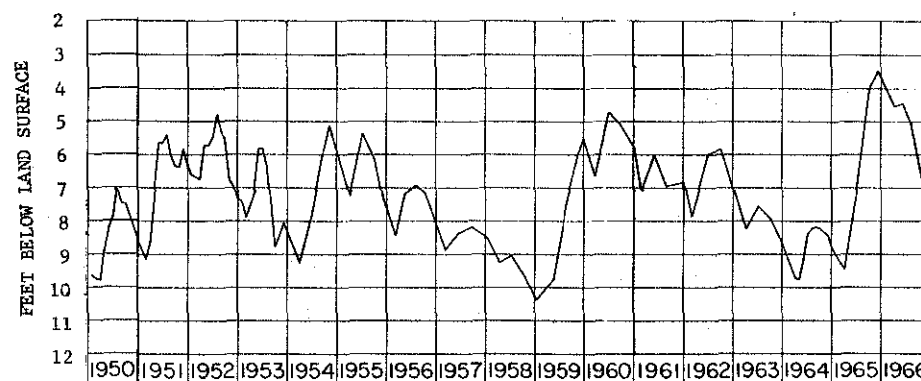
Toivo Juntti, SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 45 N., R. 1 E. Dug unused water-table well in sand and gravel of Pleistocene age, diam 18 in, depth 20 ft, curbed to 20. Lsd 1,462 ft above msl. MP top of curb, at lsd. Discontinued 1962.



JACKSON CO., Well-5

Ja-20/3W/30-5

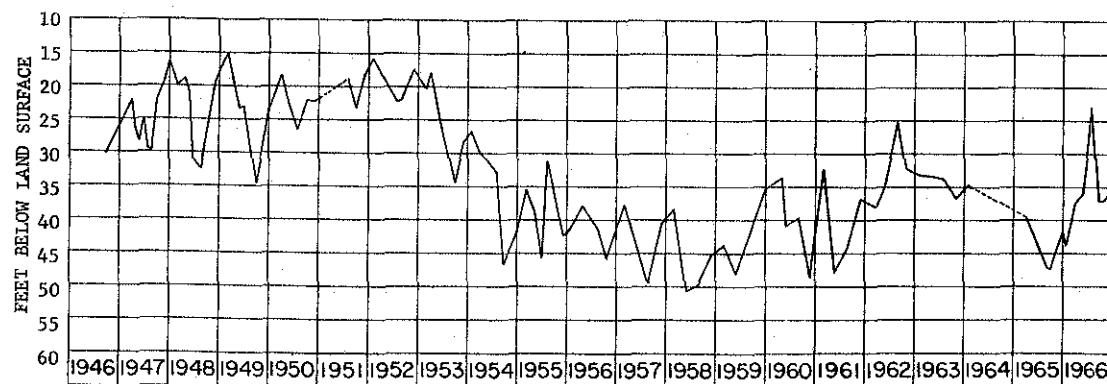
Henry Lange. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 20 N., R. 3 @. Drilled domestic artesian well in sandstone of Cambrian age, diam 10 in, reported depth 190 ft, cased to 54. Lsd 845 ft above msl. MP hole in pump base, at lsd. Measured monthly. All plotted.



JUNEAU CO., Well-8

Ju-17/2/21-8

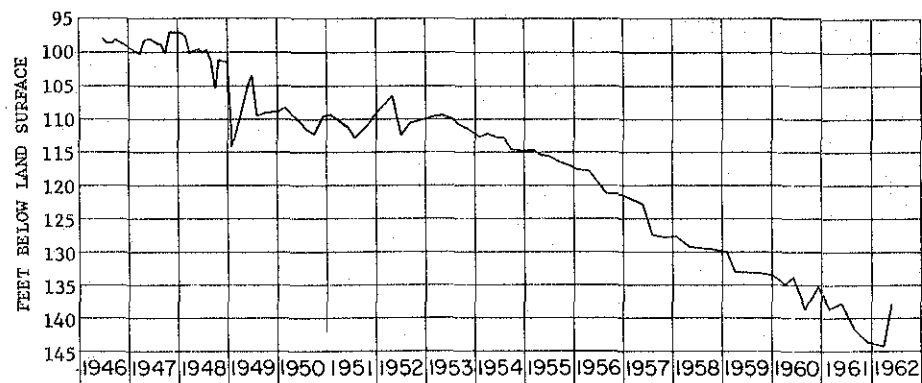
Camp Douglas. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 17 N., R. 2 E. Drilled unused water-table well in sandstone of Cambrian age, diam 4 in, depth 64 ft. Lsd 920 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



JEFFERSON CO., Well-9

Je-7/14/25-9

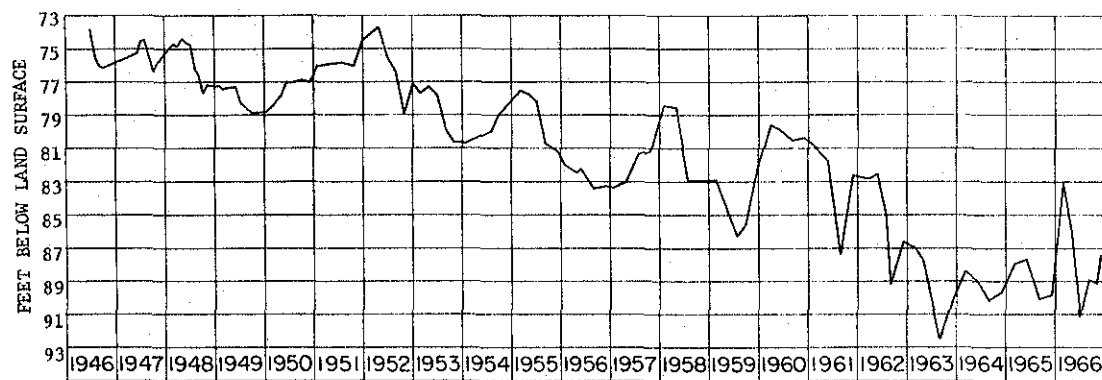
Ladish Malting Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 7 N., R. 14 E. Drilled industrial artesian well in sandstone of Cambrian age, diam 8 in, reported depth 716 ft, cased to 326. Lsd 813 ft above msl. MP pump base, 2.10 ft above lsd. Fluctuation caused primarily by local pumping. Measured monthly. All plotted.



KENOSHA CO., Well-3

Ke-1/21/8-3

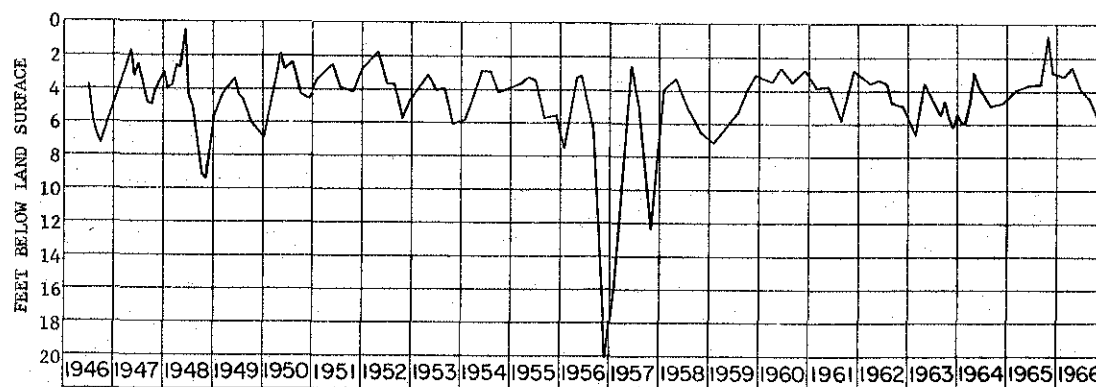
Bristol Sales and Service. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 1 N., R. 21 E. Drilled unused artesian well in Niagara dolomite and St. Peter sandstone, diam 8 in, depth 878 ft. Lsd 770 ft above msl. MP top of casing, 4.85 ft below lsd. Discontinued 1962.



KENOSHA CO., Well-4

Ke-2/22/27-4

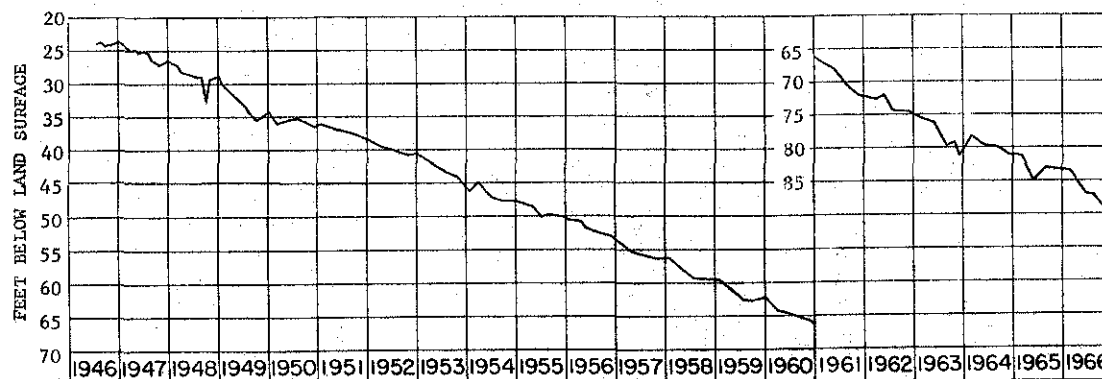
Sunset Ridge Memorial Park. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 2 N., R. 22 E. Drilled domestic and irrigation water-table well in Niagara Dolomite of Middle Silurian age, diam 6 in, reported depth 190 ft. Lsd 725 ft above msl. MP top of casing, 7.00 ft below lsd. Affected by regional pumping. Measured monthly. All plotted.



KENOSHA CO., Well-5

Ke-2/22/20-5

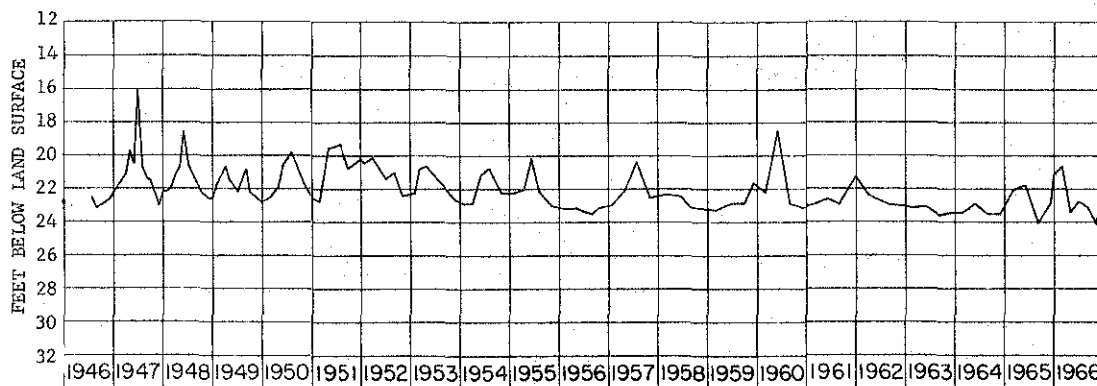
J. Bishop. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 2 N., R. 22 E. Dug unused water-table well in deposits of Pleistocene age, diam 4 ft, depth 28 ft. Lsd 695 ft above msl. MP pump base, 0.80 ft above lsd. Measured monthly. All plotted.



KENOSHA CO., Well-6

Ke-2/22/11-6

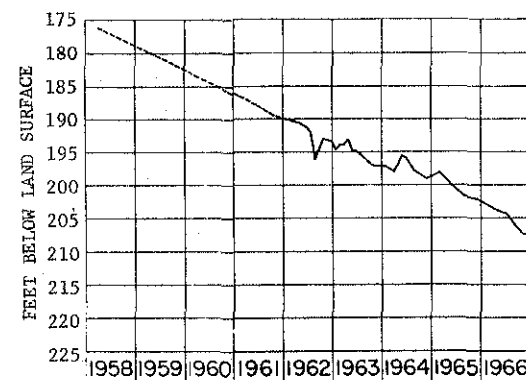
NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 2 N., R. 22 E. Drilled irrigation artesian well in sandstone of Cambrian age, diam 10 to 8 in, reported depth 1,751 ft, cased to 492. Lsd 639 ft above msl. MP top of casing, 0.80 ft above lsd. Affected by regional pumping. Measured monthly. All plotted.



LAFAYETTE CO., Well-1

Lf-3/5/25-1

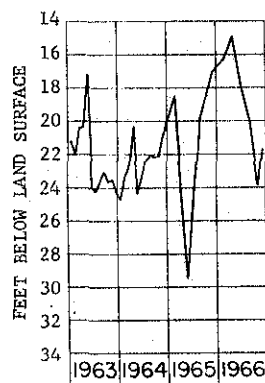
Ernest J. Legler. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 3 N., R. 5 E. Drilled unused water-table well in Prairie du Chien Group of Lower Ordovician age, diam 6 in, depth 55 ft. Lsd 820 ft above msl. MP bent edge of casing, 0.50 ft above lsd. Measured monthly. All plotted.



KENOSHA CO., Well-21

Ke-2/20/17-21

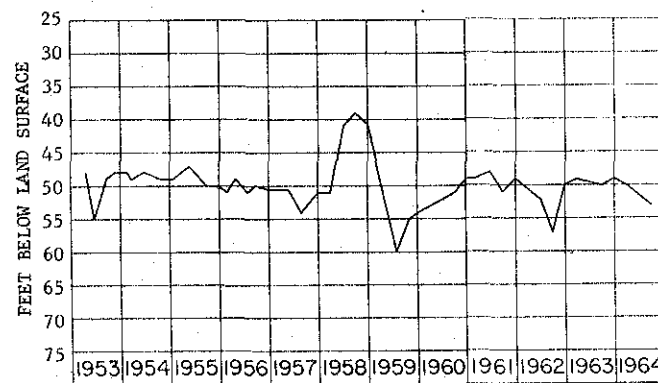
Bong Air Force Base. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 2 N., R. 20 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone of Middle Ordovician age, diam 16 in, depth 1908 ft, cased to 386. Lsd 802 ft above msl. MP pump base, 3.65 ft above lsd. Measured monthly. All plotted.



KENOSHA CO., Well-46

Ke-1/22/13-46

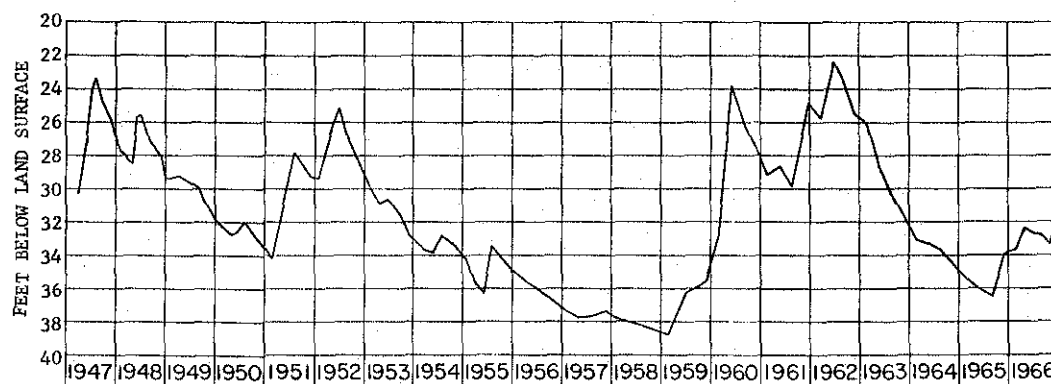
St. Joseph Home for the Aged. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 1 N., R. 22 E. Drilled observation artesian well in Niagara Dolomite of Middle Silurian age, diam 6 in, depth 135 ft, cased to 82. Lsd 645 ft above msl. MP top of casing, 1.60 ft above lsd. Measured monthly. All plotted.



LA CROSSE CO., Well-8

LC-17/7W/7-8

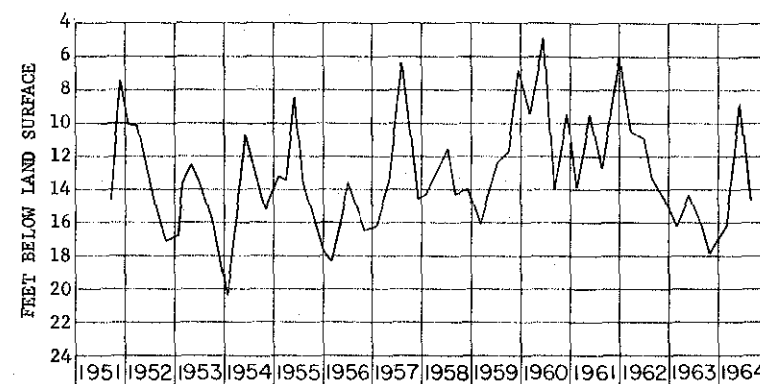
Holmen Canning Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 17 N., R. 7 W. Drilled industrial artesian well in sandstone of Cambrian age, diam 6 in, reported depth 398 ft. Lsd, 724 ft above msl. MP top of pump base, 2.00 ft above lsd. Discontinued 1964.



LAFAYETTE CO., Well-11

Lf-2/1/4-11

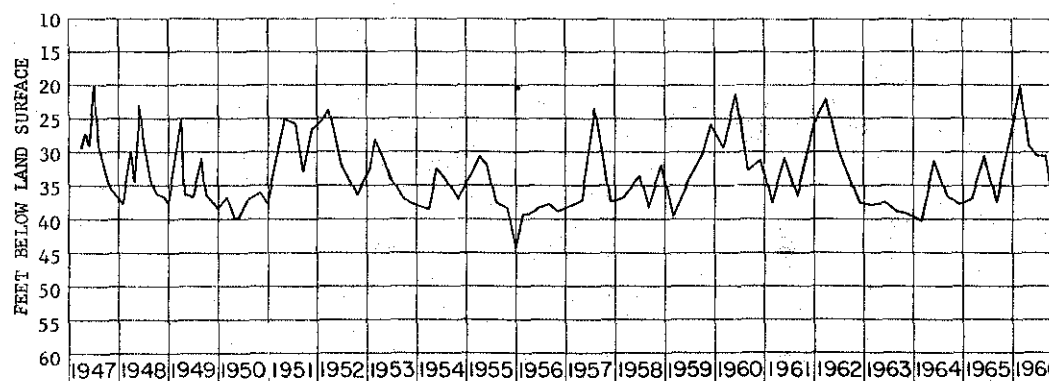
Ed Wiegel. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 2 N., R. 1 E. Drilled unused water-table well in Galena Dolomite, diam 6 in, depth 64 ft. MP edge of pump base, 1.00 ft above lsd. Measured monthly. All plotted.



LAFAYETTE CO., Well-13

Lf-1/2/34-13

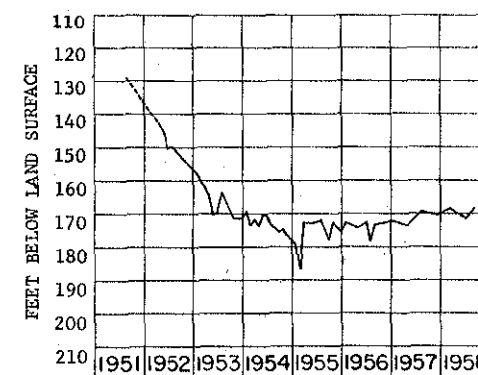
Lafayette Co. Viola Jeffery Lamont. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 1 N., R. 2 E. Drilled stock observation water-table well in limestone, diam 6 in, reported depth 175 ft. MP hole in pump base, 1.00 ft above lsd. Discontinued 1964.



LAFAYETTE CO., Well-12

Lf-2/4/33-12

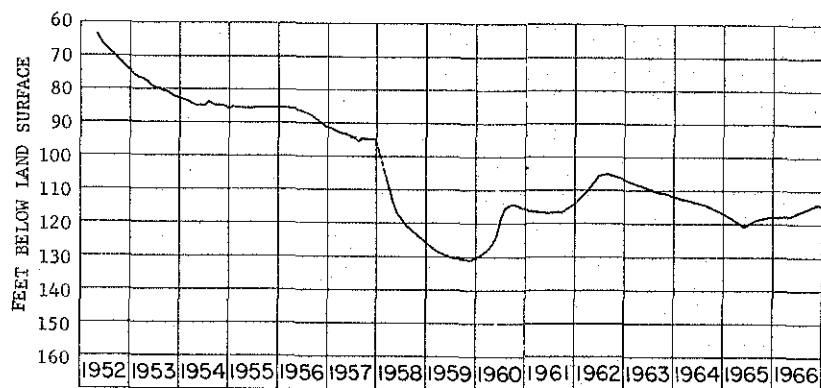
Pearl Ogelthre and others. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 2 N., R. 4 E. Drilled unused water-table well in Platteville Formation and St. Peter Sandstone, diam 6 in, 46 ft. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



LAFAYETTE CO., Well-14

Lf-1/2/34-14

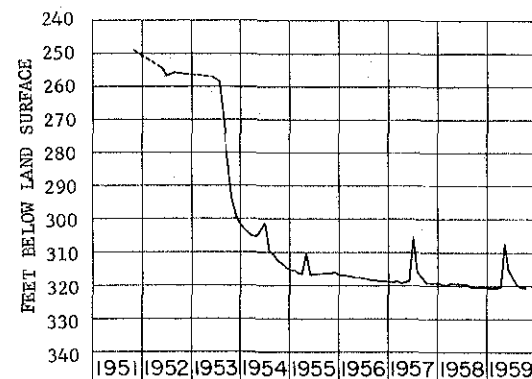
Viola Jeffery Lamont. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 1 N., R. 2 E. Drilled domestic artesian well in Galena Dolomite and Platteville Limestone, diam 6 in, reported depth 340 ft, cased to 77. MP top of casing, 3.00 ft below lsd. Discontinued 1958.



LAFAYETTE CO., Well-57

Lf-1/2/33-57

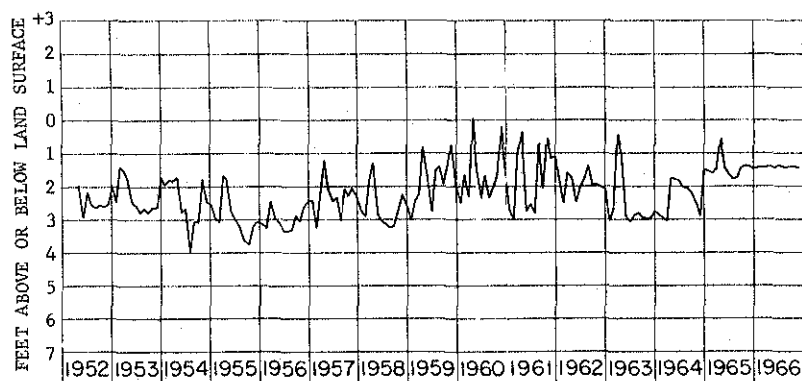
Coulthard Estate. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 1 N., R. 2 E. Drilled unused artesian well in Galena Dolomite and Platteville Formation, diam 10 in, reported depth 265 ft, cased to 16. Lsd 1,000 ft above msl. MP top of casing, 3.00 ft above lsd. Measured monthly. All plotted.



LAFAYETTE CO., Well-36

Lf-1/2/22-36

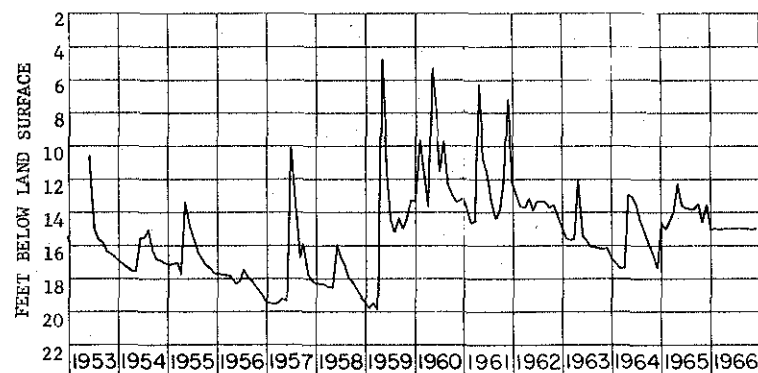
Calumet & Hecla Copper Co. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 1 N., R. 2 E. Drilled unused artesian well in Galena Dolomite, diam 12 in, reported depth 340 ft. Lsd 1,122 ft above msl. MP 1.00 ft above lsd. Discontinued 1959.



LAFAYETTE CO., Well-63

Lf-3/5/8-63

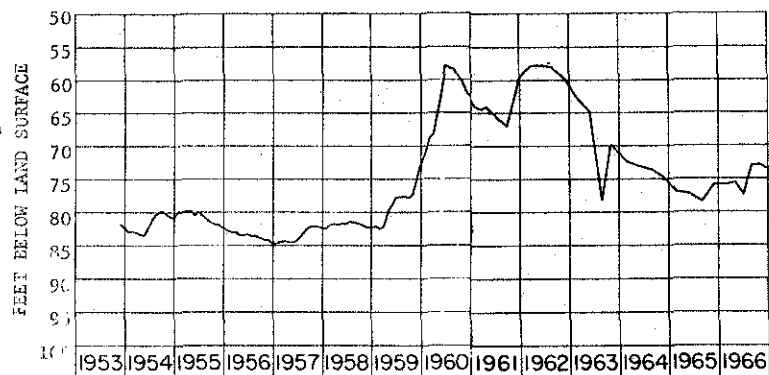
Wisconsin Conservation Dept. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 3 N., R. 5 E. Bored observation water-table well in alluvium of Recent age, diam 2 in, depth 17 ft, cased to 15 ft, well point 15-17. MP top of casing, 3.00 ft above lsd. Discontinued 1966.



LAFAYETTE CO., Well-78

Lf-4/4/35-78

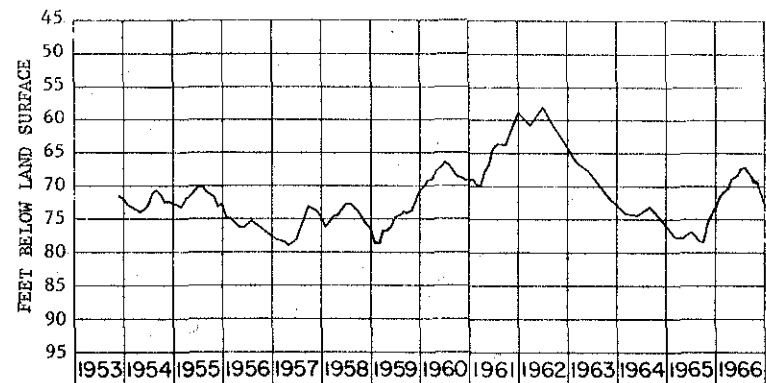
Wisconsin Conservation Dept. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 4 N., R. 4 E. Drilled unused artesian well in St. Peter Sandstone, diam 6 in, depth 29 ft, cased to 4. Lsd 850 ft above msl. MP top of casing, at lsd. Measured monthly. All plotted.



LAFAYETTE CO., Well-95

Lf-1/2/17-95

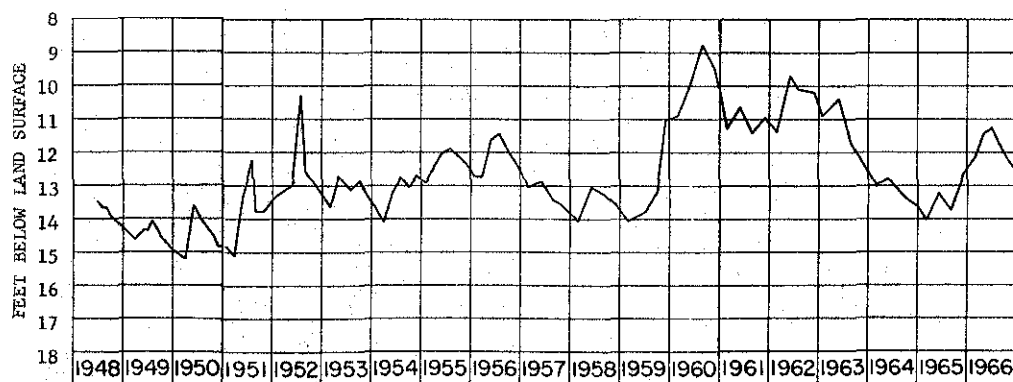
B. H. Bullen. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 1 N., R. 2 E. Dug unused mine shaft in Galena Dolomite, size 8 by 15 ft, depth 164 ft, curbed to 15. Lsd 988 ft above msl. MP top of concrete, at lsd. Measured monthly. All plotted.



LAFAYETTE CO., Well-121

Lf-1/2/35-121

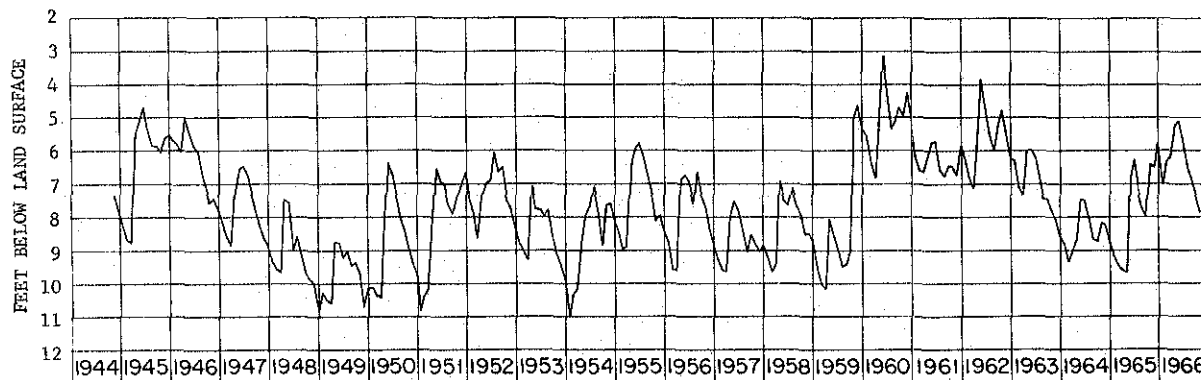
Arthur Hancock. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 1 N., R. 2 E. Drilled artesian well in Galena Dolomite, diam 6 in, depth 237 ft, cased to 20. Lsd 1,030 ft above msl. MP top of south side of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



LANGLADE CO., Well-9

La-31/10/35-9

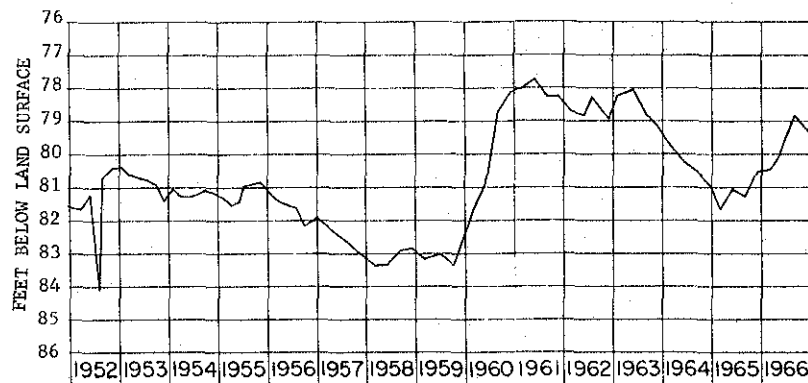
U. S. Geol. Survey. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 31 N., R. 10 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 19 ft, well point 17-19. Lsd 1,469 ft above msl. MP top of casing, 1.07 ft above lsd. Measured monthly. All plotted.



LANGLADE CO., Well-26

La-31/11/7-26

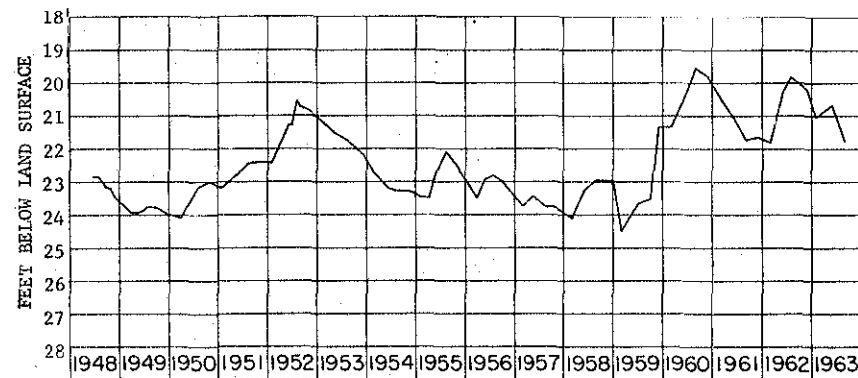
U. S. Geol. Survey. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 31 N., R. 11 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 23 ft, well point 21-23. Lsd 1,521 ft above msl. MP top of collar on casing, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



LANGLADE CO., Well-27

La-31/12/8-27

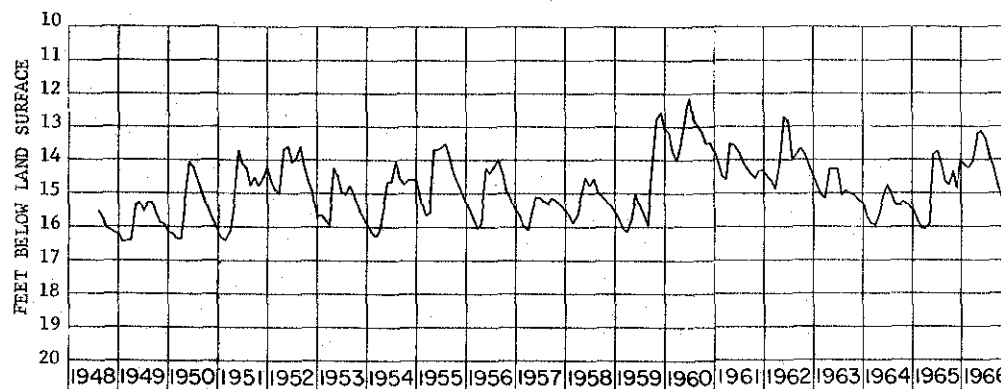
Julius and Sabrina Boelter. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 31 N., R. 12 E. Drilled stock water-table well in sand of Pleistocene age, diam 4 in, depth 93 ft. Lsd 1,594 ft above msl. MP hole in casing, at lsd. Measured monthly. All plotted.



LANGLADE CO., Well-44

La-32/11/32-44

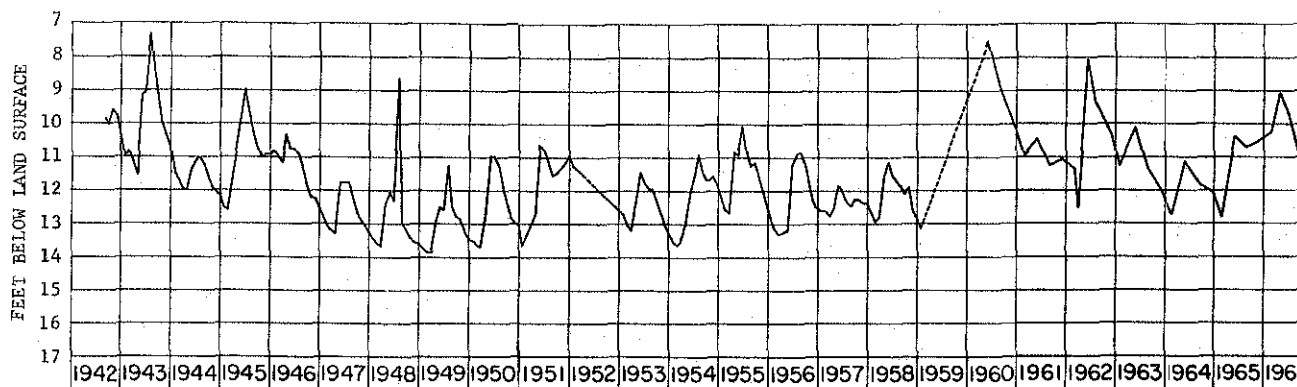
J. Jacobus. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 32 N., R. 11 E. Driven unused water-table well in sand, diam 1 $\frac{1}{2}$ in, depth 26 ft. Lsd 1,547.84 ft above msl. MP top of casing, 0.80 ft above lsd. Discontinued 1963.



LANGLADE CO., Well-64

La-31/11/20-64

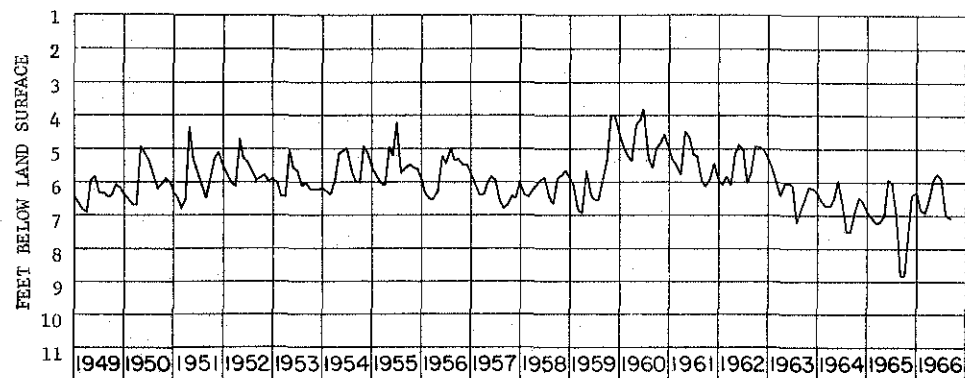
Wisconsin Conservation Dept. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 31 N., R. 11 E. Driven observation water-table well in sand of Pleistocene age, diam 2 in, depth 20 ft, well point 18-20. Lsd 1,507.63 ft above msl. MP top of collar on casing, 0.30 ft above lsd. Measured weekly. Lowest monthly plotted.



LANGLADE CO., Well-118

La-31/11/20-118

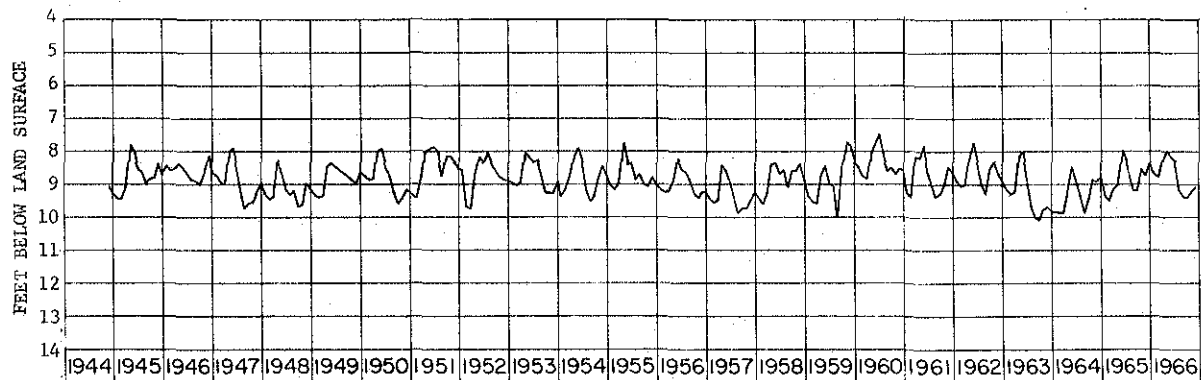
Wisconsin Public Service Corp. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 31 N., R. 11 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 21 ft, well point 19-21. Lsd 1,510.45 ft above msl. MP top of casing, 0.50 ft above msl. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



LANGLADE CO., Well-200

La-31/11/29-200

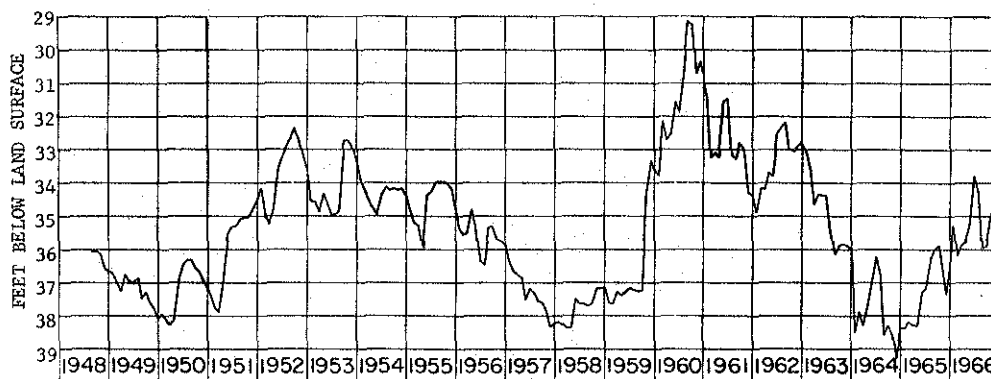
Antigo Water Dept. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 31 N., R. 11 E. Jetted unused water-table well in sand of Pleistocene age, diam 6 in, reported depth 15 ft, cased to 14. Lsd 1,491 ft above msl, MP top of casing, 2.00 ft above lsd. Recording gage. Lowest monthly plotted.



LINCOLN CO., Well-25a

Ln-34/6/36-25a

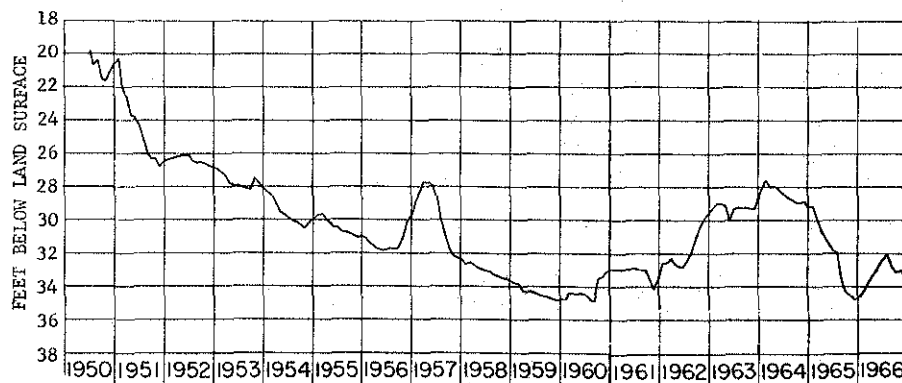
U. S. Geol. Survey. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 34 N., R 6 E. Driven observation water-table well in deposits of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 22 ft, well point 20-22. MP top of pipe, 3.00 ft above lsd. Measured weekly. Lowest monthly plotted.



MARATHON CO., Well-1

Mr-30/10/25-1

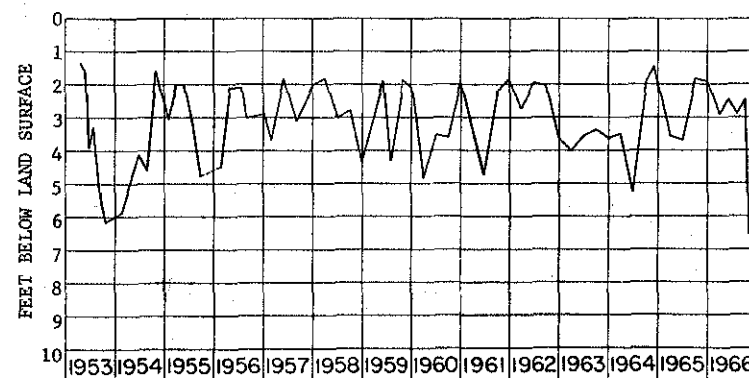
George Chrudimsky. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 30 N., R. 10 E. Drilled domestic and stock water-table well in sand and gravel of Pleistocene age, diam 4 in, reported depth 85 ft. MP hole in pump base, 0.63 ft above lsd. Measured weekly. Lowest monthly plotted.



MARATHON CO., Well-7

Mr-26/3/33-7

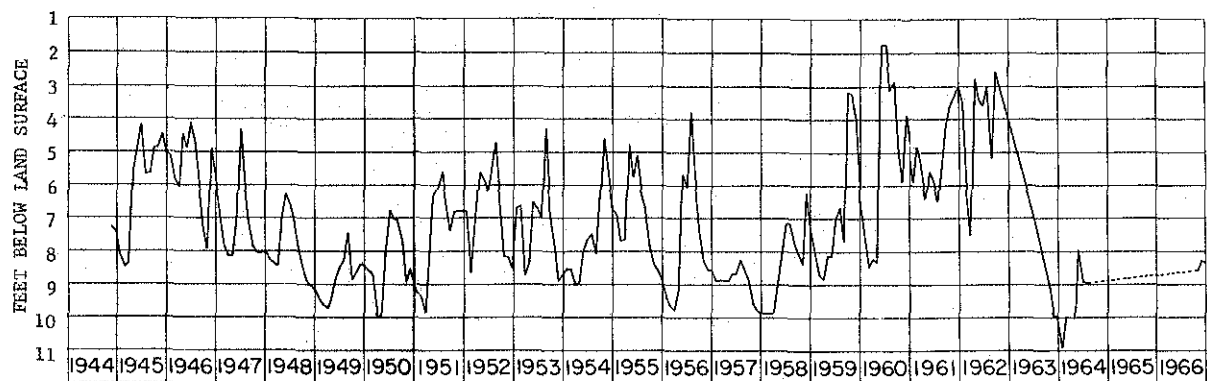
City of Marshfield. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 26 N., R. 3 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 7 in, depth 49 ft, cased to 30 ft, screened 30-49. MP top of casing, 1.00 ft above msl. Affected primarily by pumping of nearby municipal wells. Recording gage. Lowest monthly plotted.



MARATHON CO., Well-8

Mr-28/2/18-8

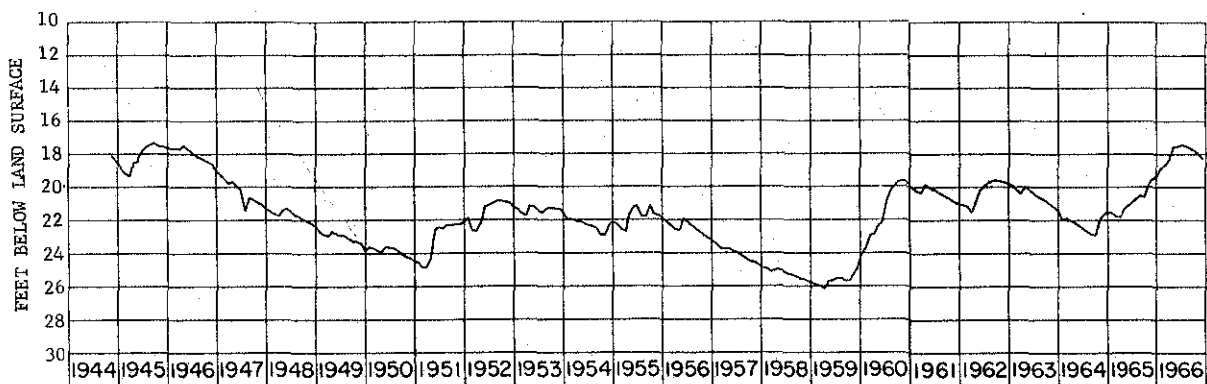
William Pacholke, Sr. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 28 N., R. 2 E. Drilled unused water-table well in sand of Pleistocene age, diam 7 in, depth 48 ft. MP top of casing, 2.00 ft above lsd. Measured monthly. All plotted.



MARATHON CO., Well-27

Mr-29/3/24-27

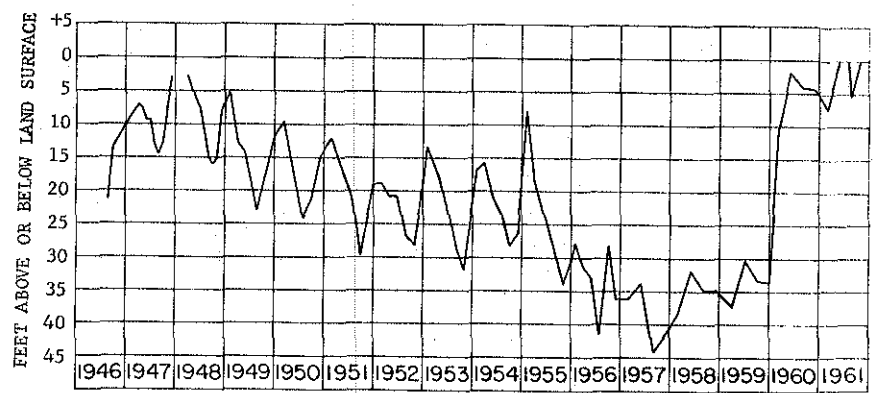
Conrad Kreamsreiter. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 29 N., R. 3 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 8 to 4 in, depth 42 ft. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



MARATHON CO., Well-28

Mr-27/9/31-28

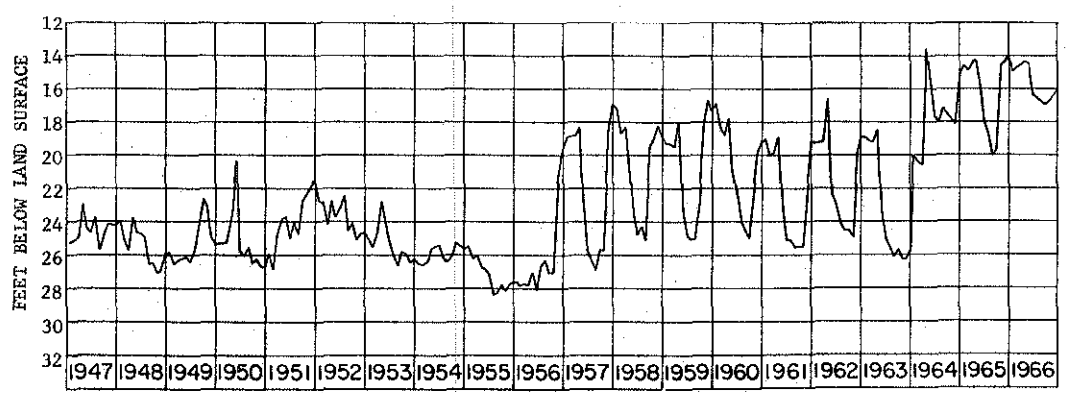
U. S. Geol. Survey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 27 N., R. 9 E. Driven observation water-table well in sand and gravel of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 27 ft, well point 25-27. Lsd 1,229 ft above msl. MP top of pipe, 9.80 ft above lsd. Measured weekly. Lowest monthly plotted.



MARINETTE CO., Well-1

Mt-30/24/6-1

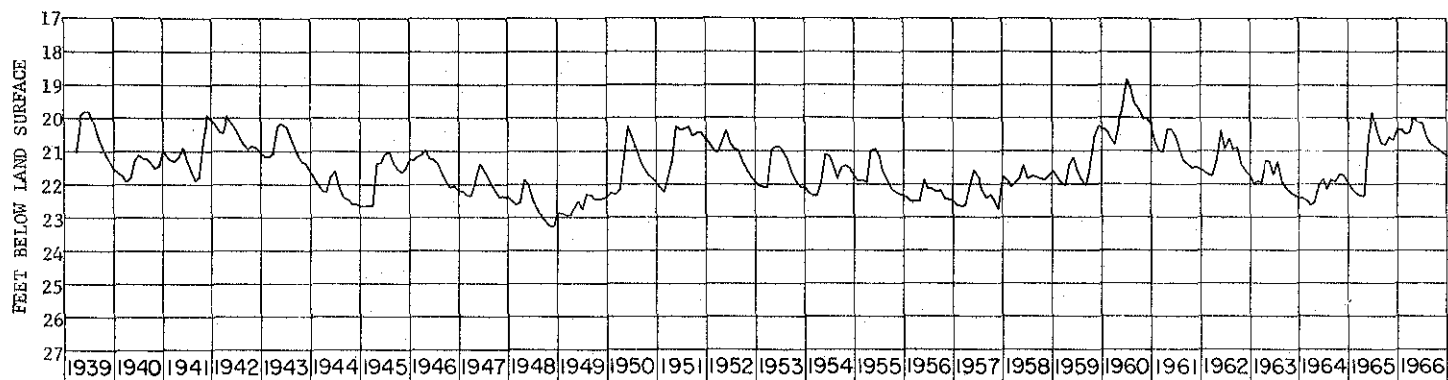
R. S. Skidmore. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 30 N., R. 24 E. Drilled unused artesian well in sandstone, diam 5 in, reported depth 700 ft. MP bottom inside edge of elbow, 3.00 ft below lsd. Discontinued 1961.



MARINETTE CO., Well-5

Mt-30/23/19-5

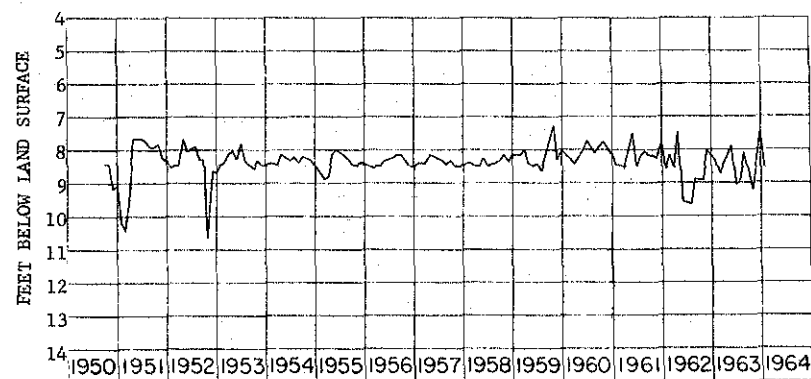
City of Peshtigo. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 30 N., R. 23 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone of Middle Ordovician age, diam 5 in, depth 703 ft, cased to 31. Lsd 610 ft above msl. MP top of casing, 0.50 ft above lsd. Affected by pumping of nearby wells. Recording gage. Lowest monthly plotted.



MARINETTE CO., Well-7

Mt-37/20/34-7

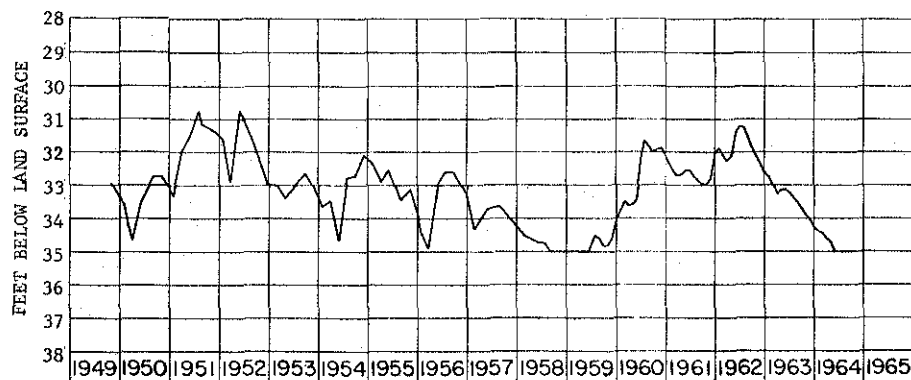
Wisconsin Conservation Dept. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 37 N., R. 20 E. Drilled unused water-table well in deposits of Pleistocene age, diam 8 in, depth 33 ft. Lsd 980 ft above msl. MP pointer on float gage, 4.00 ft above lsd. Measured weekly. Lowest monthly plotted.



MARINETTE CO., Well-9

Mt-35/22/18-9

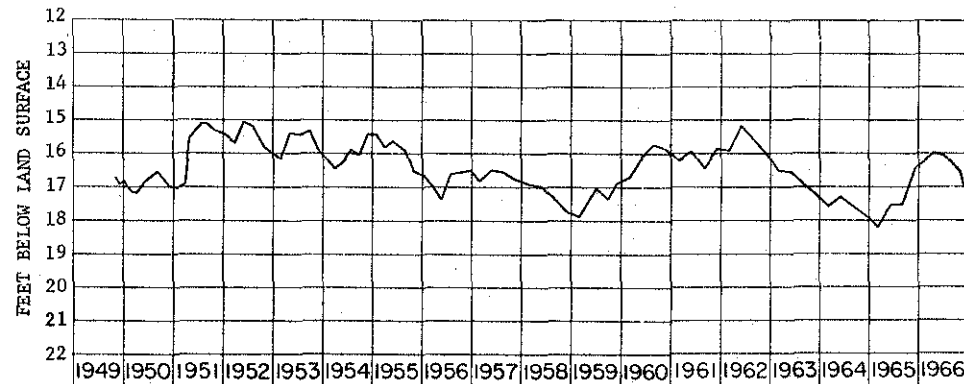
Menominee River Valley, Girl Scouts. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 35 N., R. 22 E. Drilled domestic water-table well in glacial till, diam 6 in, depth 75 ft. MP 0.75 ft above lsd. Discontinued 1964.



MARQUETTE CO., Well-7

Mq-16/10/33-7

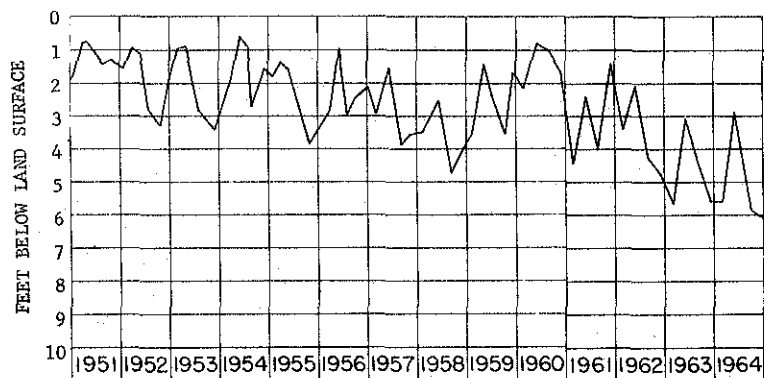
Atlas Sand & Gravel Co., Libertyville, Illinois. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 16 N., R. 10 E. Drilled unused water-table well in deposits of Pleistocene age, diam 4 in, depth 35 ft. MP top of casing, 0.20 ft above lsd. Discontinued 1964.



MARQUETTE CO., Well-9

Mq-16/8/12-9

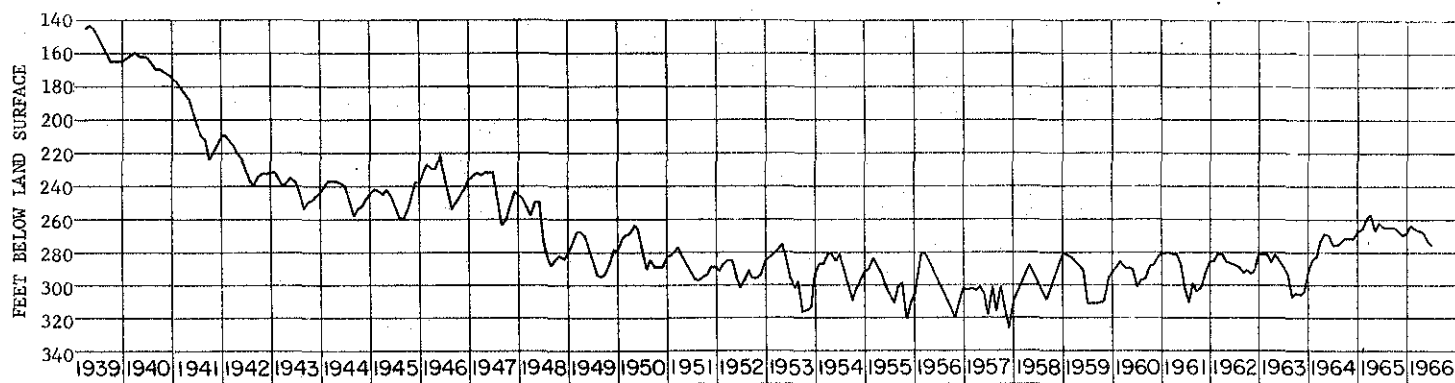
Village of Westfield. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 16 N., R. 8 E. Drilled unused artesian well in sandstone of Cambrian age, diam 6 in, depth 274 ft. Lsd 880 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



MARQUETTE CO., Well-11

Mq-15/9/17-11

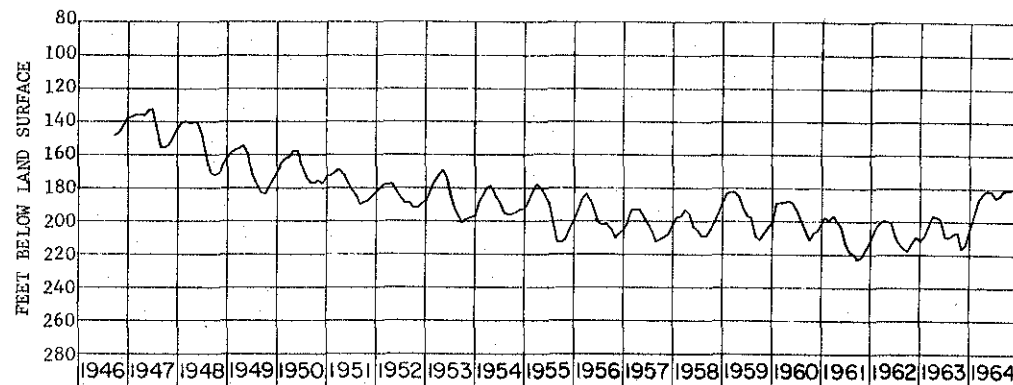
U. S. Geol. Survey. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 15 N., R. 9 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 12 ft, well point 10-12. MP top of casing, 2.00 ft above lsd. Affected by artificial draining of nearby marsh. Discontinued 1964.



MILWAUKEE CO., Well-22

M1-7/21/34-22

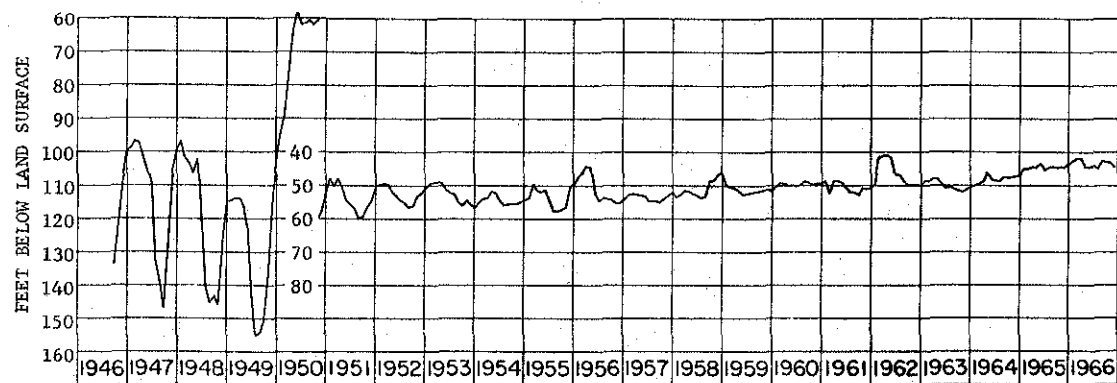
Allis Chalmers. 1126 S. 70th St., West Allis. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 7 N., R. 21 E. Drilled industrial artesian well in Niagara Dolomite, St. Peter Sandstone, and sandstone of Cambrian age, diam 16 in, reported depth 1,690 ft, cased to 146 ft, 12 in liner 485-585. Lsd 728 ft above msl. MP pump base, at lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-36

M1-7/21/12-36

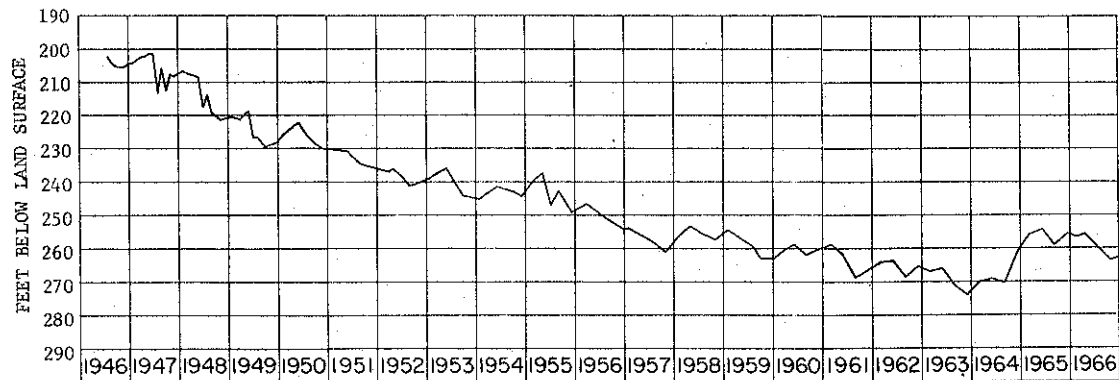
A. O. Smith Corp. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 7 N., R. 21 E. Drilled unused artesian well in St. Peter sandstone, diam 14 in, reported depth 1,091 ft, cased to 774. Lsd 673 ft above msl. MP top of flange, 3.00 ft above lsd. Discontinued 1965.



MILWAUKEE CO., Well-45

M1-7/22/29-45

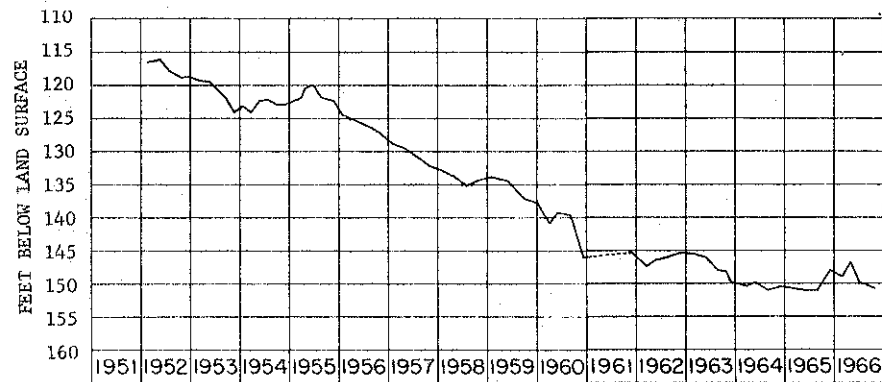
Milwaukee Journal. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 7 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite, diam 8 to 5 in, depth 1,015 ft, cased to 1,015 ft, ruptured 146-505. Lsd 591 ft above msl. MP top of casing, 8.50 ft below lsd. Recording gage. Lowest monthly plotted.



MILWAUKEE CO., Well-94

M1-6/21/32-94

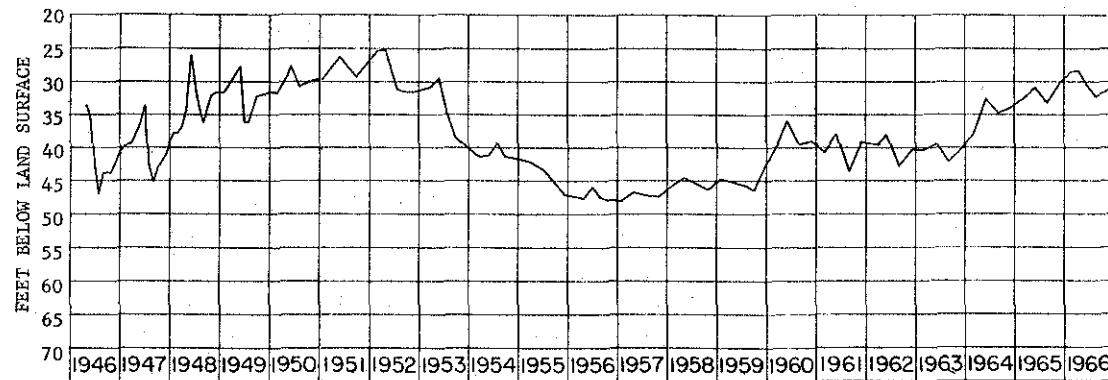
Whitnall Park. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 6 N., R. 21 E. Drilled public-supply artesian well in sandstone of Cambrian age and St. Peter Sandstone, diam 10 in, reported depth 1,845 ft, cased to 525. Lsd 733 ft above msl. MP top of pipe on side of concrete pump base, 14.21 ft below lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-95

M1-5/22/24-95

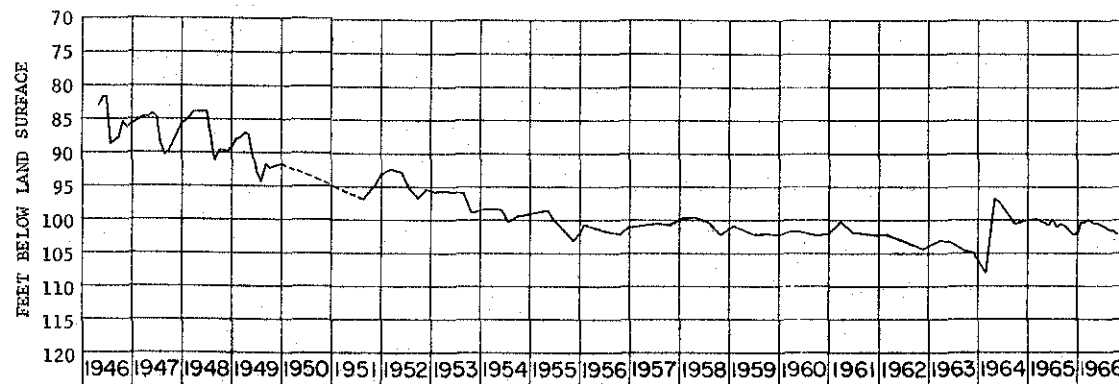
Allis Chalmers Mfg. Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 5 N., R. 22 E. Drilled unused artesian well in sandstone of Cambrian age, and St. Peter Sandstone, diam 8 in, reported depth 1,622 ft. Lsd 656 ft above msl. MP edge of manhole, at lsd. Affected by regional pumping. Measured quarterly. All plotted.



MILWAUKEE CO., Well-118

M1-8/21/35-118

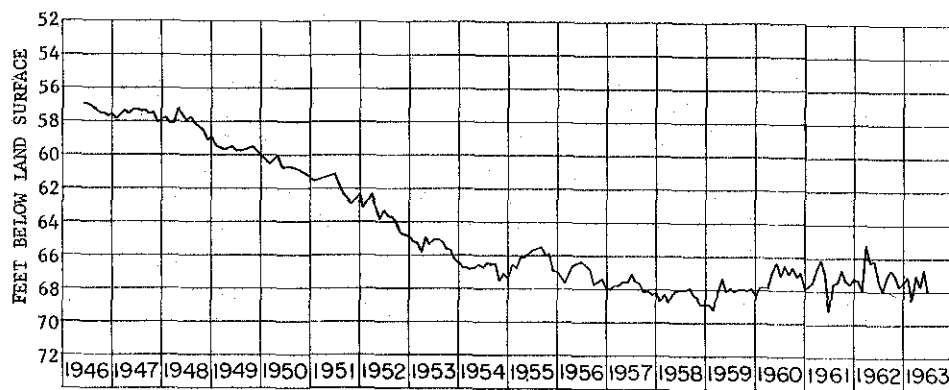
A. Schaefer. NE $\frac{1}{4}$ sec. 35, T. 8 N., R. 21 E. Drilled domestic artesian well in Niagara Dolomite, diam 6 in, depth 135 ft. Lsd 679.25 ft above msl. MP top of casing, 0.60 ft above lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-120

M1-7/22/17-120

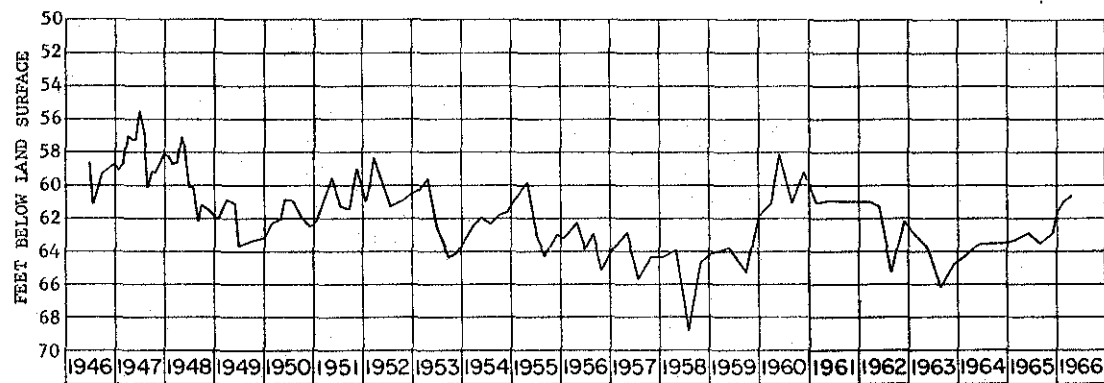
Nunn-Bush Shoe Co. SE $\frac{1}{4}$ sec. 17, T. 7 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 10 in, reported depth 400 ft, cased to 104. Lsd 685 ft above msl. MP top of concrete, 8.75 ft below lsd. Affected by regional pumping. Measured monthly. All plotted.



MILWAUKEE CO., Well-121

M1-5/22/13-121

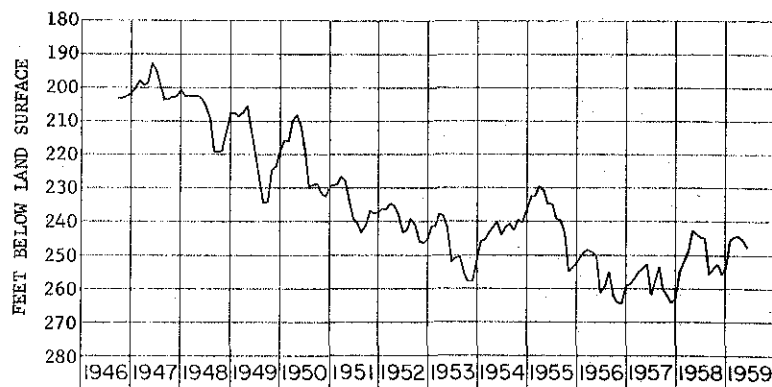
Propulsion Engine Corp. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 5 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite, diam 8 in, depth 268 ft, cased to 98. Lsd 644 ft above msl. MP top of casing, at lsd. Discontinued 1963.



MILWAUKEE CO., Well-130

M1-6/21/6-130

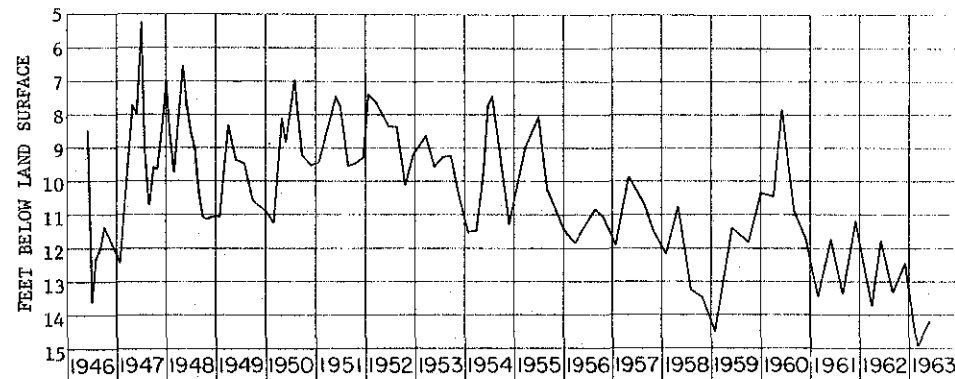
Greenfield Park. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 6 N., R. 21 E. Drilled public-supply artesian well in Niagara Dolomite, diam 10 in, reported depth 500 ft. Lsd 788 ft above msl. MP hole in pump base, 8.00 ft below lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-132

M1-6/21/11-132

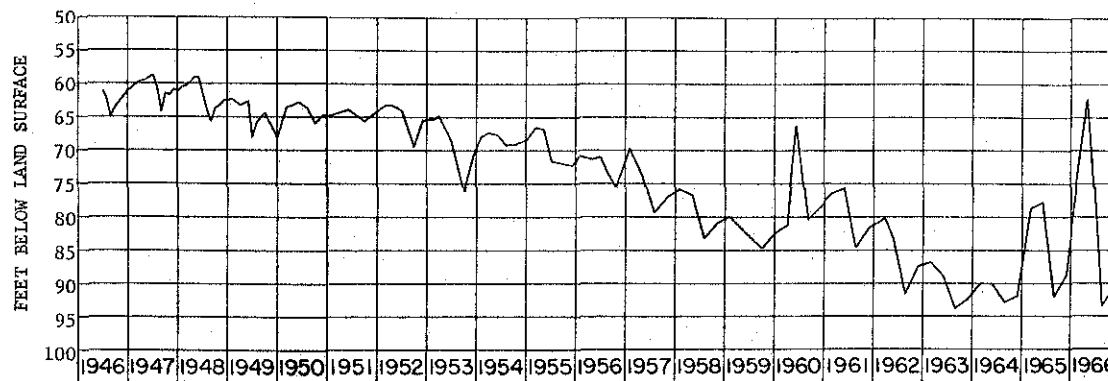
White Manor Water Cooperative. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 6 N., R. 21 E. Drilled unused artesian well in St. Peter Sandstone and Niagara Dolomite, diam 12 in, reported depth 1,115 ft, cased to 201 ft, 10 in liner 358-618. Lsd 730 ft above msl. MP bottom of notch in top of casing, 1.00 ft above lsd. Discontinued 1959.



MILWAUKEE CO., Well-135

M1-6/22/20-135

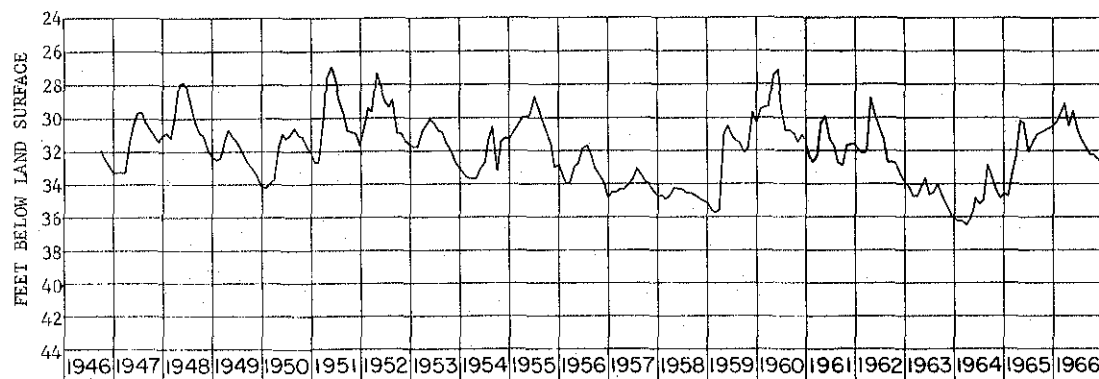
Leonard Budzein. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 6 M. R. 22 E. Dug irrigation water-table well in sand of Pleistocene age, diam 4 ft, reported depth 20 ft, cased to 20. Lsd 667 ft above msl. MP top of wooden platform, 2.00 ft below lsd. Discontinued 1963.



MILWAUKEE CO., Well-146

M1-8/22/4-146

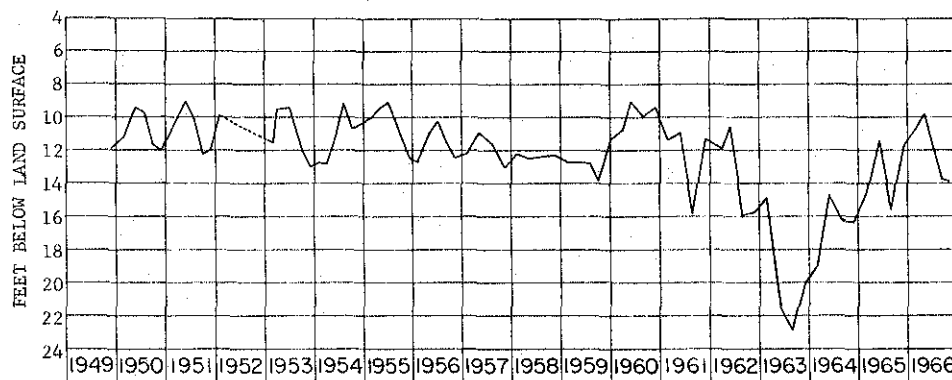
Stanley Larsen. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 8 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 5 in, depth 116 ft. Lsd 680 ft above msl. MP top of casing, 5.00 ft below lsd. Affected by regional pumping. Measured monthly. All plotted.



MILWAUKEE CO., Well-148

M1-6/21/32-148

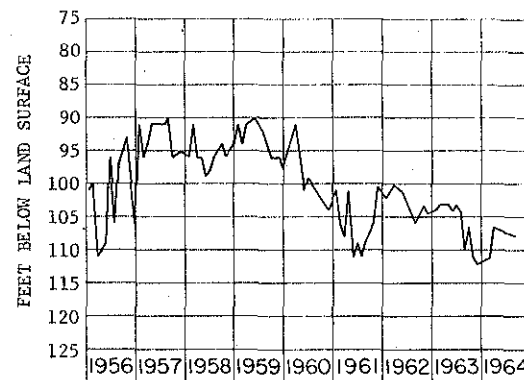
NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 6 N., R. 21 E. Drilled unused water-table well in Niagara Dolomite of Middle Silurian age, diam 5 in, depth 180 ft, cased to 43. Lsd 774 ft above msl. MP top of $\frac{1}{2}$ -in pipe, at lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-231

M1-8/21/3-231

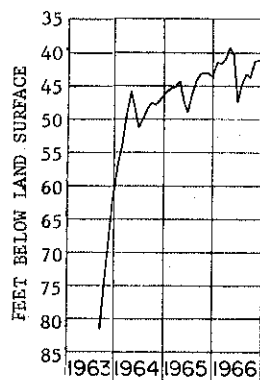
R. J. Cerletty. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 8 N., R. 21 E. Drilled domestic artesian well in Niagara Dolomite, diam 6 in, depth 80 ft, cased to 58. Lsd 695 ft above msl. MP top of casing, 2.50 ft above lsd. Measured monthly. All plotted.



MILWAUKEE CO., Well-332

M1-5/22/24-332

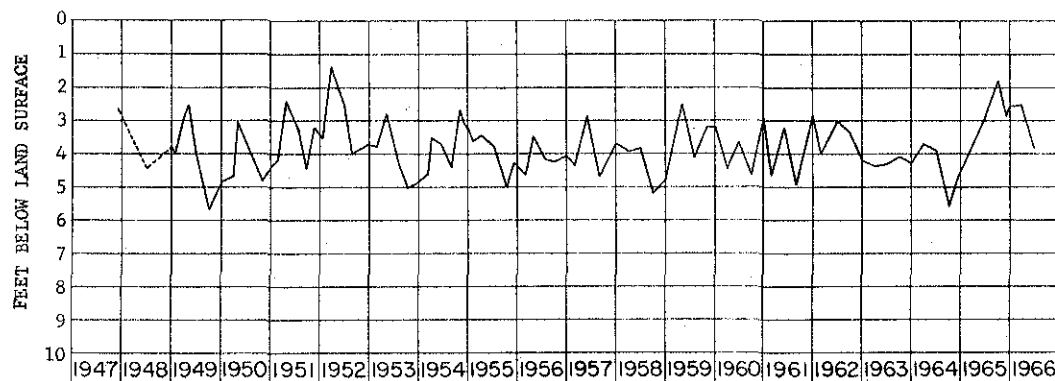
Allis Chalmers Mfg. Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 5 N., R. 22 E. Drilled fire-protection artesian well in sandstones of Ordovician and Cambrian ages, diam 16 to 12 in, depth 1,757 ft, cased to 680. Lsd 656 ft above msl. MP breather hole in pump base, 1.00 ft above lsd. Affected by regional pumping. Discontinued 1964.



MILWAUKEE CO., Well-469

M1-8/22/32-469

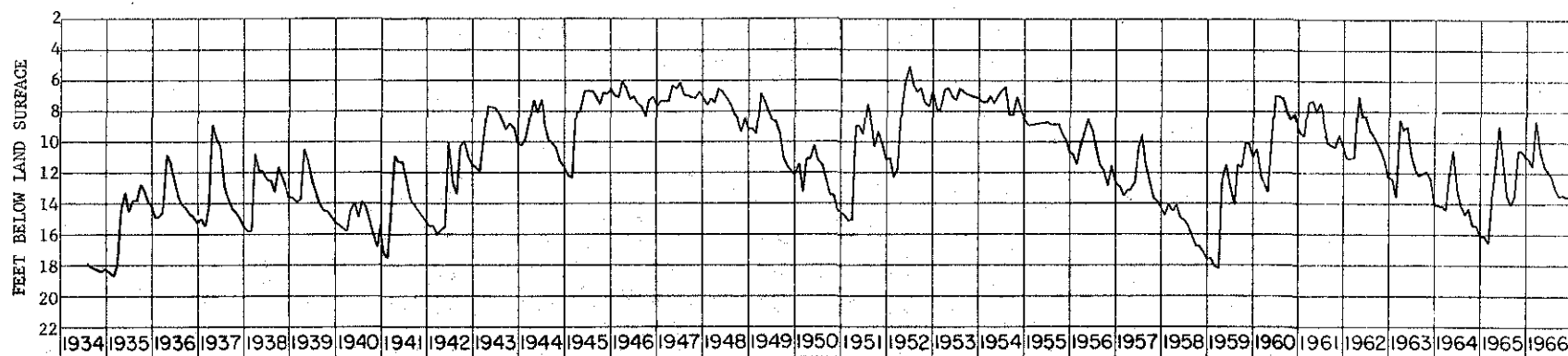
Clayton Corp. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 8 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 8 in, depth 355 ft, cased to 190. Lsd 632 ft above msl. MP 3/4-in bushing in pump base, 1.00 ft above lsd. Affected by regional pumping. Measured monthly. All plotted.



MONROE CO., Well-1

Mo-17/1W/1-1

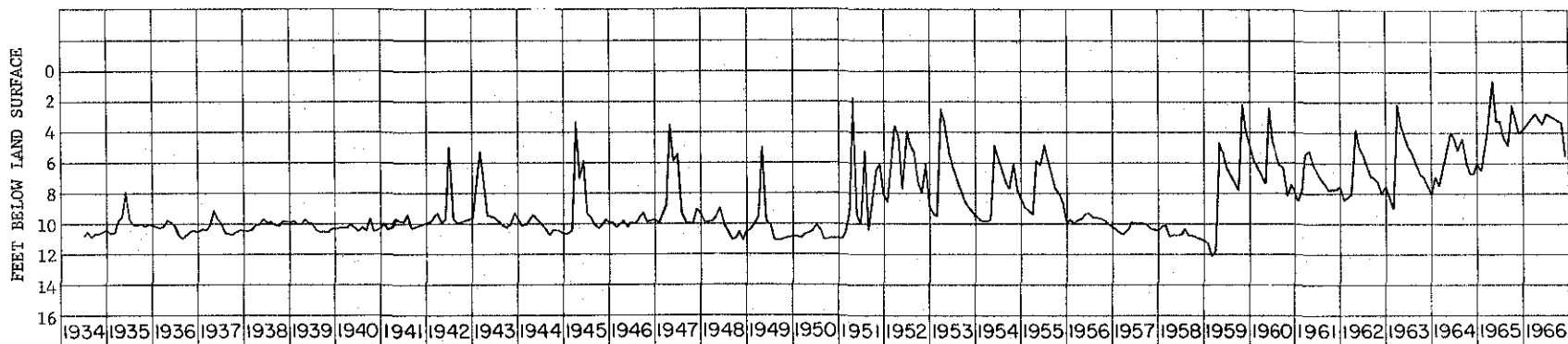
Nicholas Moran. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 17 N., R. 1 W. Drilled stock water-table well in sand of Pleistocene and Recent age, diam 6 in, depth 12 ft. MP hole in pump base, at lsd. Discontinued 1966.



MONROE CO., Well-2

Mo-15/4W/34-2

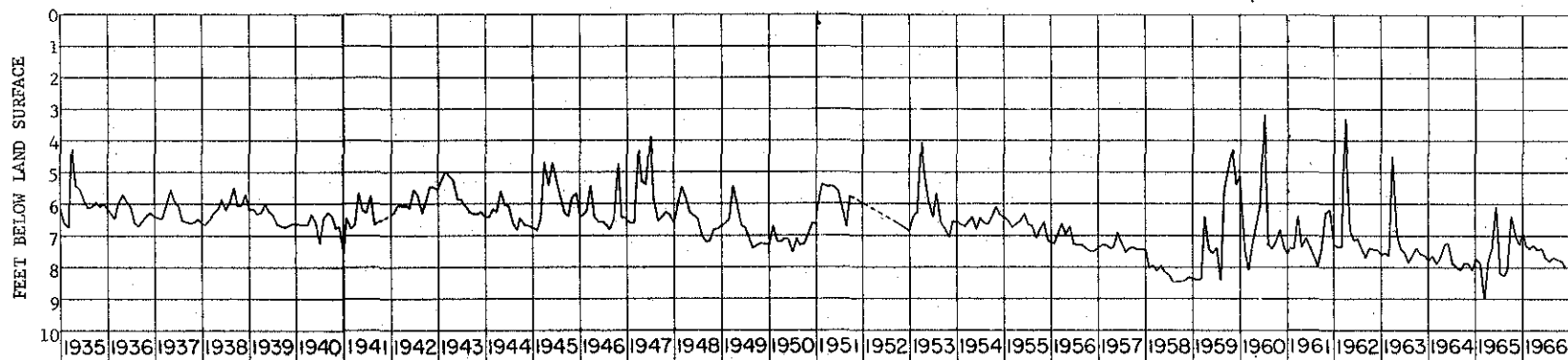
Joseph Anderson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 15 N., R. 4 W. Drilled unused water-table well in sandstone of Cambrian age, diam 5 in, depth 44 ft. Lsd 1,100 ft above msl. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



MONROE CO., Well-10

Mo-15/3W/5-10

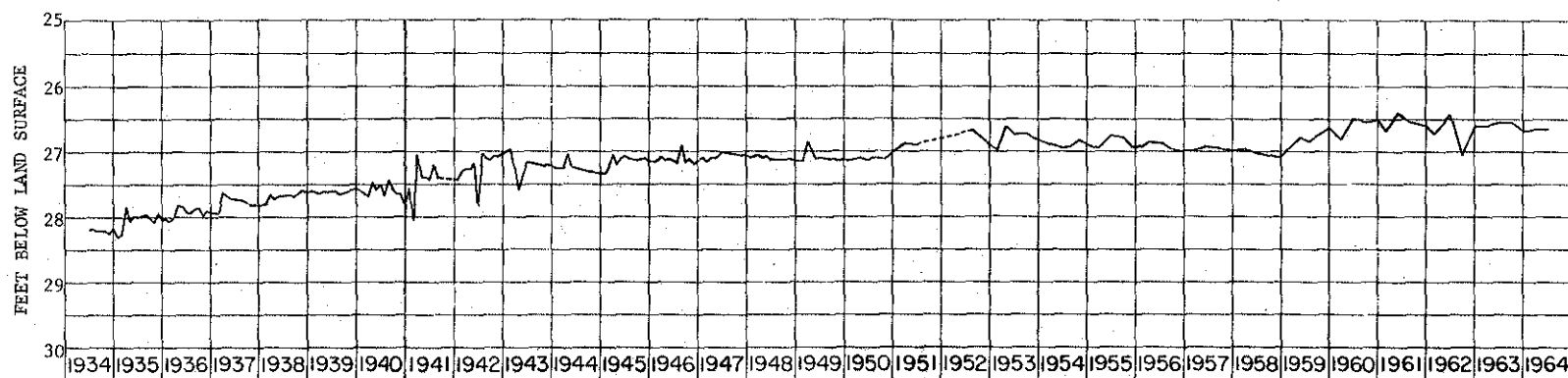
Lester Cooley. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 15 N., R. 3 W. Bored unused water-table well in sand of Pleistocene and Recent Age, diam 7 in, depth 17 ft, cased to 17. Lsd 880 ft above msl. MP top of casing, 0.90 ft above lsd. Measured monthly. All plotted.



MONROE CO., Well-11

Mo-16/3W/27-11

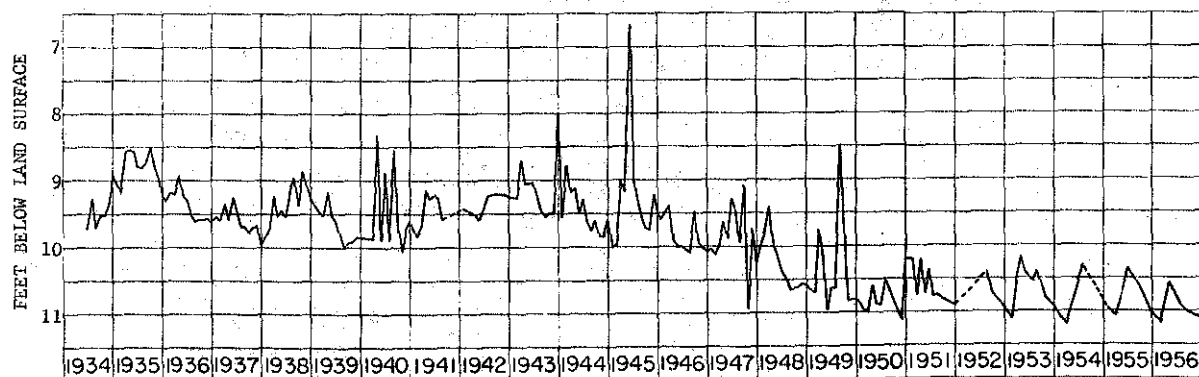
John Sullivan. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 16 N., R. 3 W. Bored unused water-table well in sand of Pleistocene and Recent age, diam 7 in, depth 11 ft. Lsd 925 ft above msl, MP top of casing, 2.50 ft above lsd. Measured monthly. All plotted.



MONROE CO., Well-12

Mo-16/4W/32-12

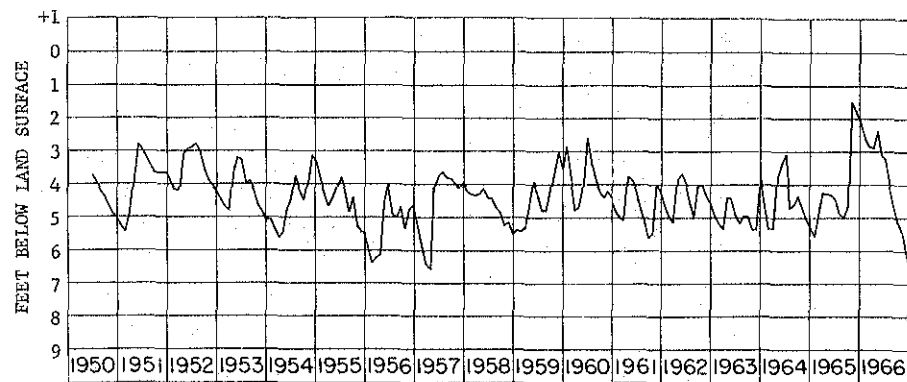
Robert S. Olson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 16 N., R. 4 W. Drilled unused water-table well in sandstone, diam 6 in, depth 31 ft, cased to 31. Lsd 1,020 ft above msl. MP top of casing, 0.60 ft above lsd. Discontinued 1964



MONROE CO., Well-13

Mo-16/4W/3-13

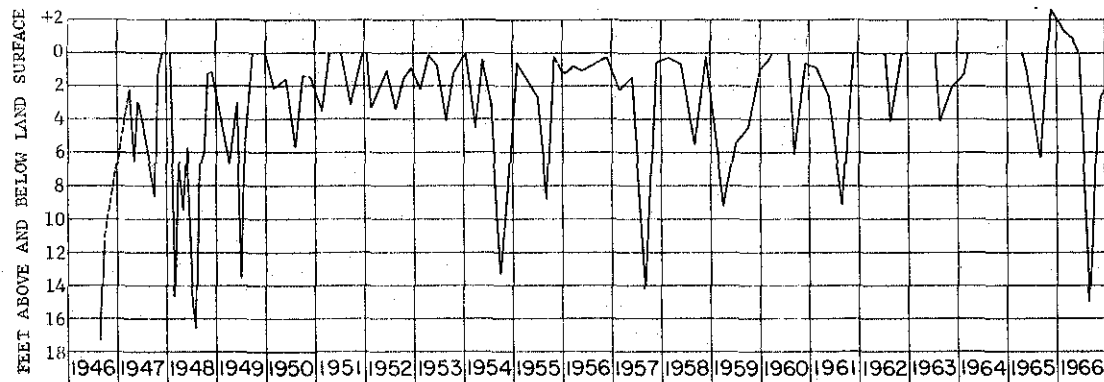
Walter Parks. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T 16 N., R. 4 W. Drilled unused water-table well in sand, diam 8 in, depth 13 ft, cased to 13. Lsd 780 ft above msl. MP top of casing, E. side, 1.00 ft above lsd. Discontinued 1956.



MONROE CO., Well-17

Mo-18/2W/29-17

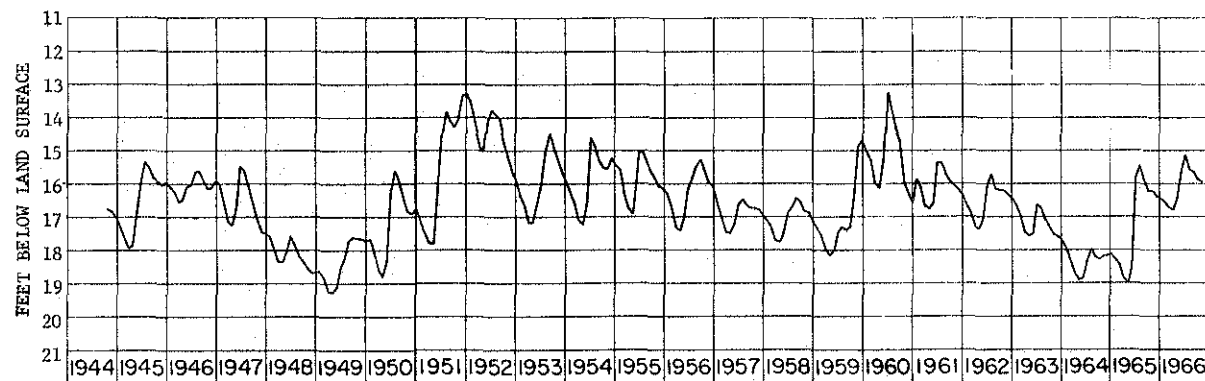
U. S. Army, Camp McCoy. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 18 N., R. 2 W. Drilled unused artesian well in sandstone of Cambrian age, diam 9 in, depth 192 ft, cased to 109. Lsd 909 ft above msl. MP top of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



OCONTO CO., Well-1

Oc-28/22/19-1

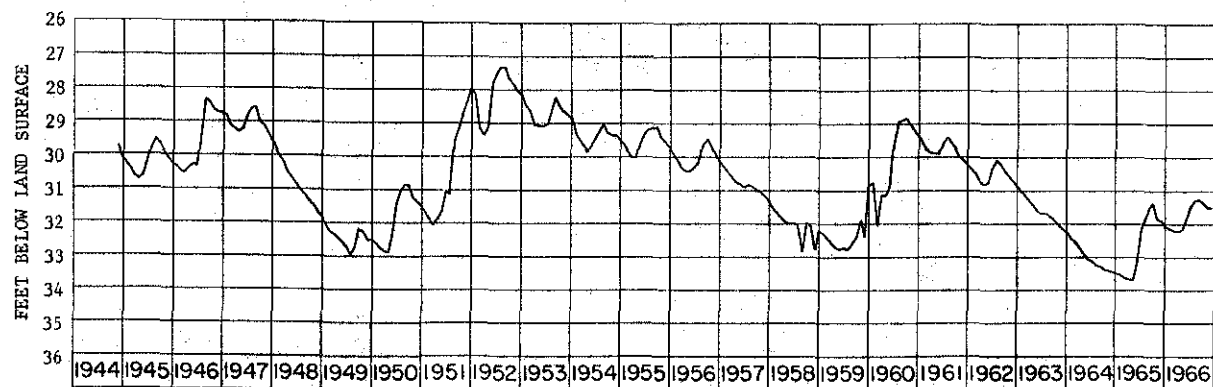
Oconto Utilities. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 28 N., R. 22 E. Drilled unused artesian well in sandstone of Cambrian age, diam 6 in. Lsd 591 ft above msl. MP hole in cap on casing, at lsd. Measured monthly. All plotted.



ONEIDA CO., Well-22

On-39/8/18-22

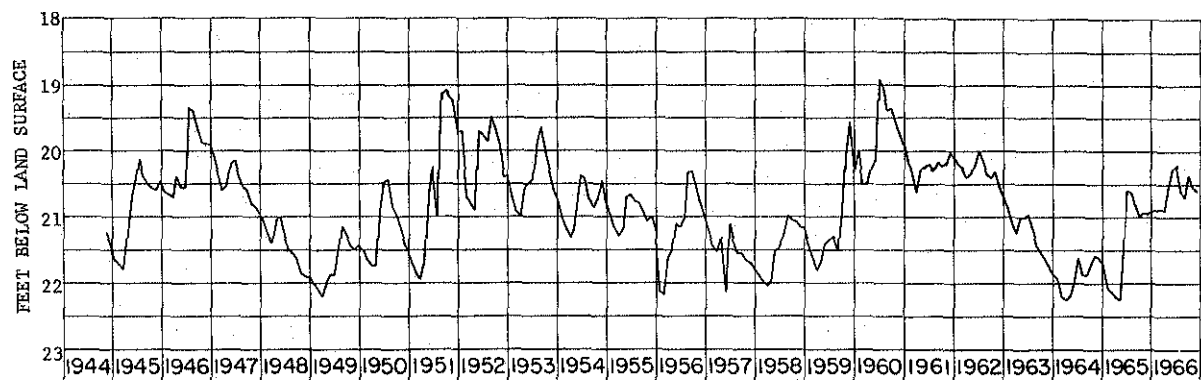
Wisconsin Valley Improvement Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 39 N., R. 8 E. Jetted unused water-table well in gravel of Pleistocene age, diam 6 in, depth 27 ft, cased to 27. Lsd 1,607 ft above msl. MP top of casing, 6.00 ft above lsd. Recording gage. Lowest monthly plotted.



ONEIDA CO., Well-23

On-37/6/27-23

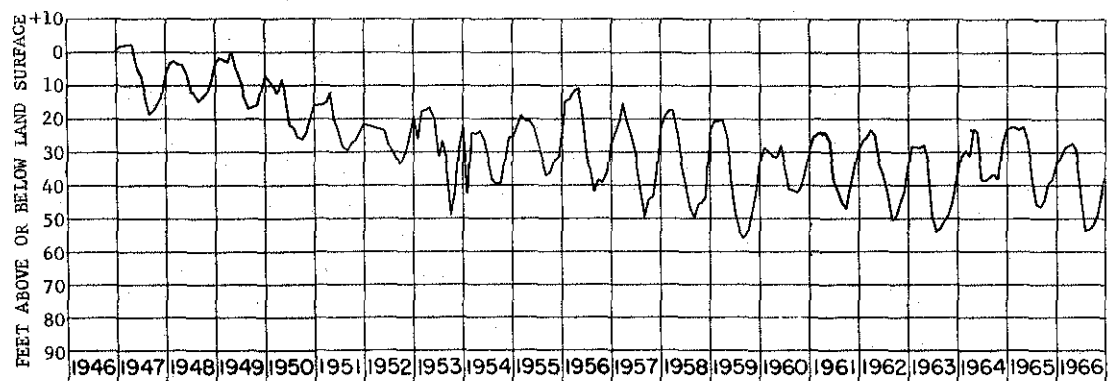
U. S. Geol. Survey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 37 N., R. 6 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 37 ft, well point 35-37. Lsd 1,529 ft above msl. MP top of casing, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



ONEIDA CO., Well-24

On-36/9/9-24

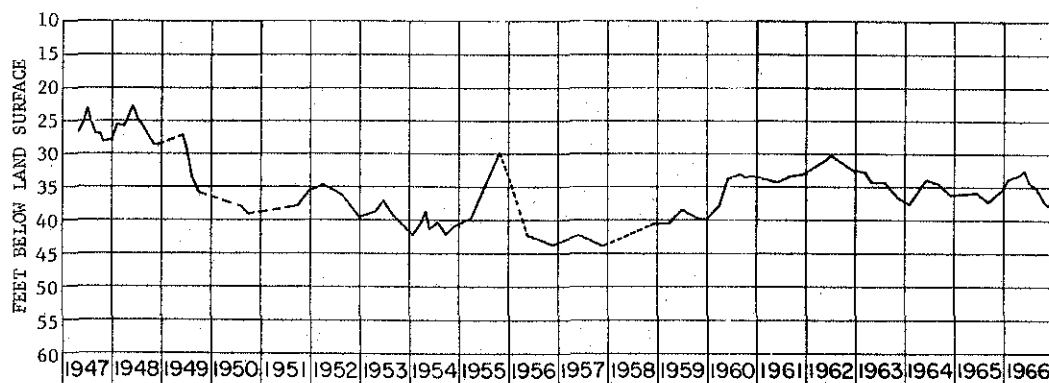
U. S. Geol. Survey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 36 N., R. 9 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{4}$ in, depth 33 ft, well point 31-33. MP top of collar on casing, 0.80 ft above lsd. Measured weekly. Lowest monthly plotted.



OUTAGAMIE CO., Well-2

Ou-21/18/24-2

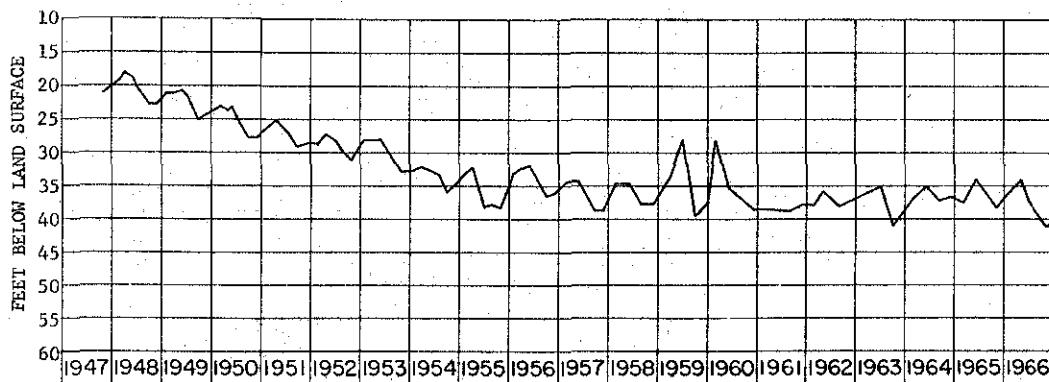
City of Kaukauna. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 21 N., R. 18 E. Kaukauna Water & Electric Co. Drilled unused artesian well in sandstone of Cambrian age, diam 12 in, reported depth 700 ft, cased to 208. Lsd 645 ft above msl. MP top of casing, 8.00 ft above lsd. Affected by pumping of nearby wells. Recording gage. Lowest monthly plotted.



OUTAGAMIE CO., Well-3

Ou-23/18/2-3

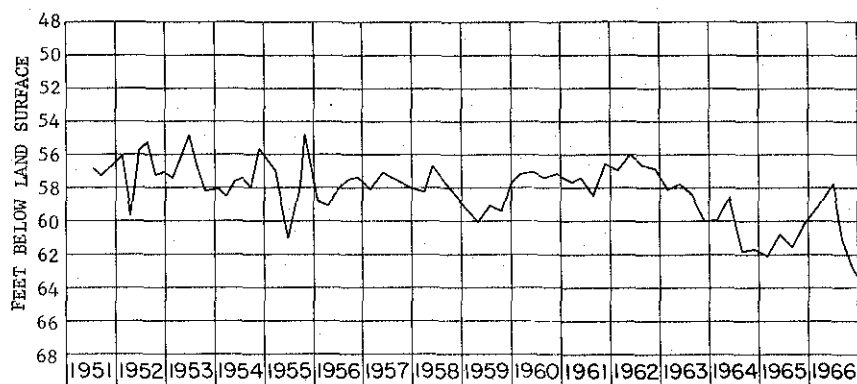
Vanden Heufel. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 23 N., R. 18 E. Drilled stock artesian well in sandstone, diam 5 in, depth 110 ft. MP top of casing, 1.50 ft above lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-5

Ou-21/19/4-5

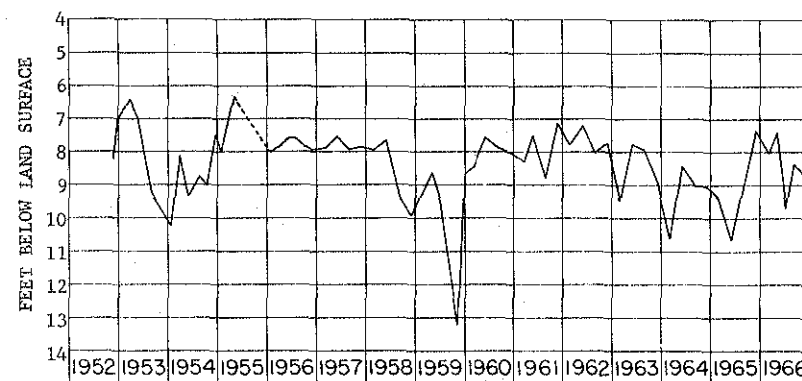
Kaukauna Water & Electric Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 21 N., R. 19 E. Drilled domestic artesian well in St. Peter Sandstone, diam 6 in, reported depth 408 ft, cased to 69. Lsd 660 ft above msl. MP hole in pump base, 3.45 ft below lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-29

Ou-21/17/15-29

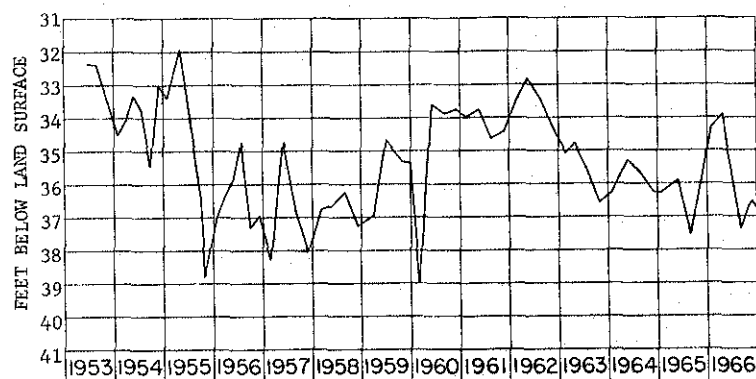
Highland Memorial Park. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 21 N., R. 17 E. Drilled industrial artesian well in sandstone of Cambrian age, reported depth 300 ft. Lsd 839 ft above msl. MP top of breather hole, 2.00 ft above lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-95

Ou-22/16/20-95

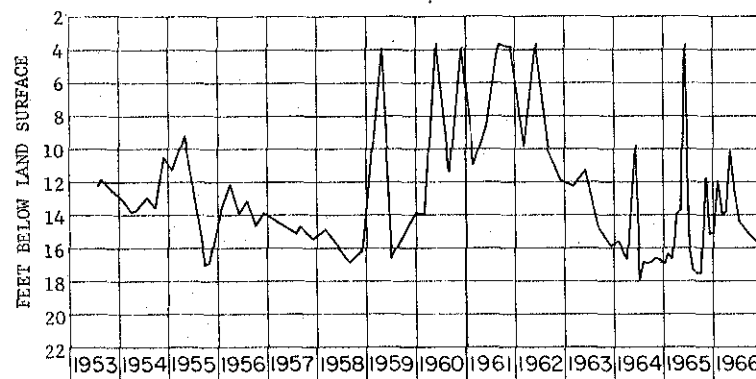
H. A. Booth. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 22 N., R. 16 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 6 in, reported depth 112 ft, cased to 111. Lsd 777 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-125

Ou-23/19/30-125

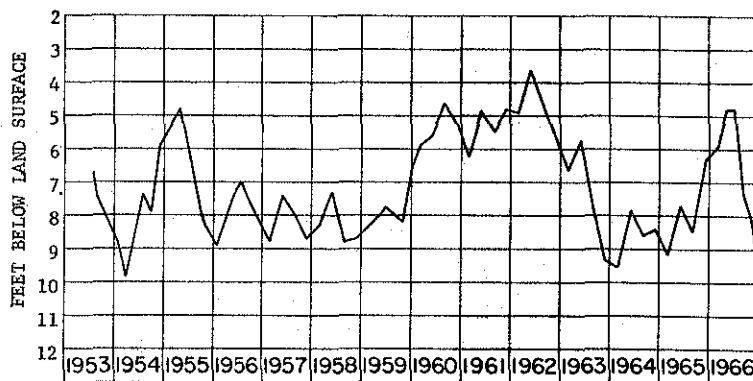
Immaculate Conception Mission. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 23 N., R. 19 E. Drilled public-supply artesian well in St. Peter Sandstone, diam 6 in, reported depth 122 ft, cased to 66. Lsd 729 ft above msl. MP breather hole in cap on casing, 1.00 ft above lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-169

Ou-23/17/8-169

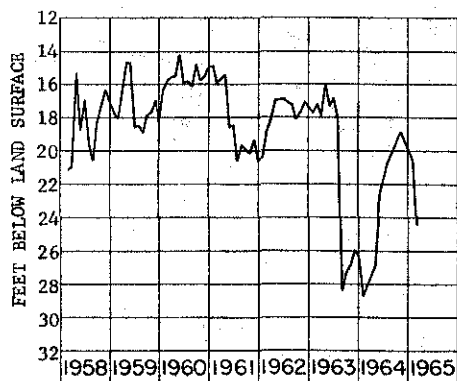
Outagamie Producers Cooperative. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 23 N., R. 17 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 8 in, depth 163 ft, screened 143-163. Lsd 781 ft above msl. MP edge of concrete, at lsd. Measured monthly. All plotted.



OUTAGAMIE CO., Well-170

Ou-24/17/8-170

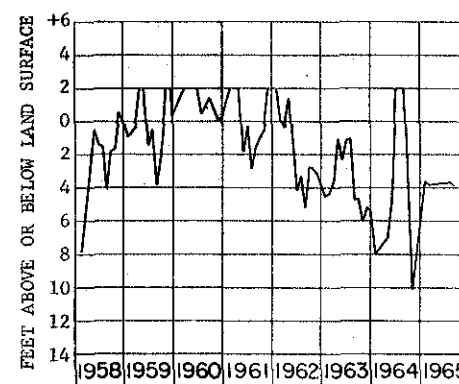
Nichols Paper Products. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 24 N., R. 17 E. Drilled unused artesian well in sandstone of Cambrian age, diam 6 in, reported depth 131 ft, cased to 78. Lsd 798 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



OZAUKEE CO., Well-35

Oz-11/21/26-35

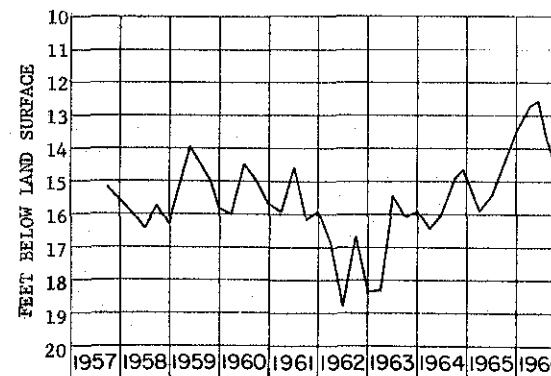
Northern Signal Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 11 N., R. 21 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 8 in, reported depth 500 ft. MP top of casing, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



OZAUKEE CO., Well-23

Oz-11/21/26-23

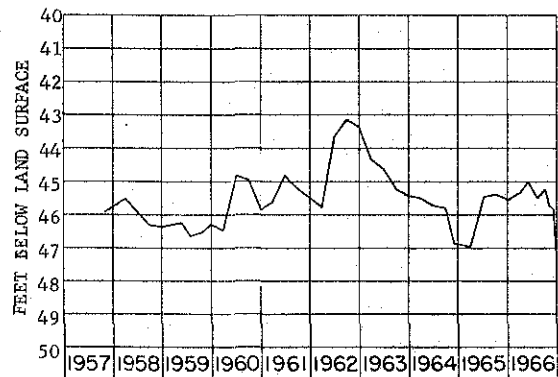
Village of Saukville. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 11 N., R. 21 E. Drilled municipal artesian well in Niagara Dolomite of Middle Silurian age, diam 10 in, reported depth 492 ft, cased to 108. MP end of 4 in horizontal breather pipe, 2.00 ft above lsd. Measured weekly. Lowest monthly plotted.



PEPIN CO., Well-17

Pp-23/15W/21-17

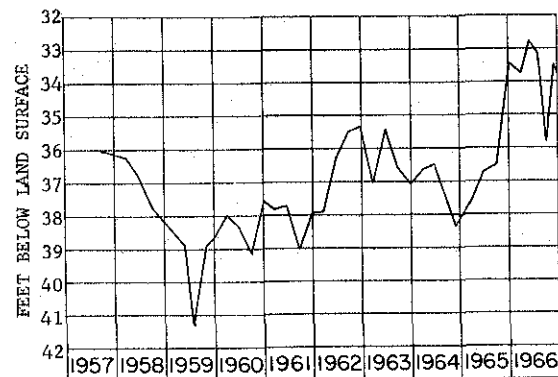
Red Wing Minn. YMCA. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 23 N., R. 15 W. Drilled public supply artesian well in sandstone of Cambrian age, diam 4 in, depth 166 ft, cased to 110. Lsd about 680 ft above msl. MP top of casing, 2.50 ft above lsd. Measured monthly. All plotted



PIERCE CO., Well-51

Pi-26/17W/7-51

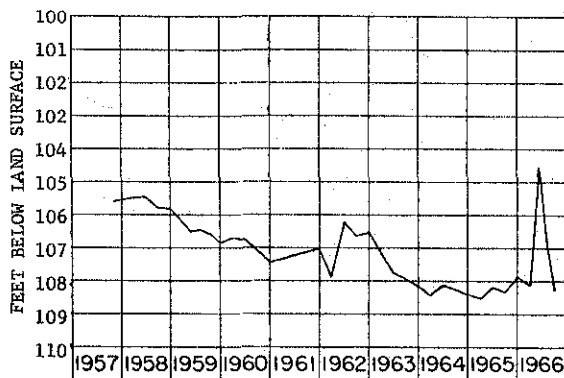
Pierce Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 26 N., R. 17 W. Drilled unused artesian well in sandstone of Cambrian age, diam 6 in, depth 107 ft. Lsd about 1,230 ft above msl. MP top of casing, at lsd. Measured monthly. All plotted.



POLK CO., Well-40

Pk-35/17W/8-40

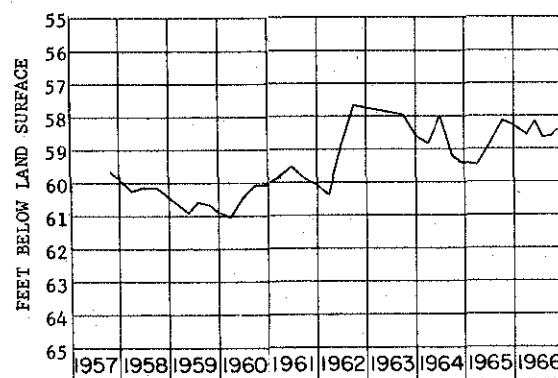
Village of Milltown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 35 N., R. 17 W. Drilled unused water-table well in deposits of Pleistocene age, diam 5 in, depth 52 ft. Lsd 1,250 ft above msl. MP hole in pump base, at lsd. Measured monthly. All plotted.



POLK CO., Well-49

Pk-36/19W/25-49

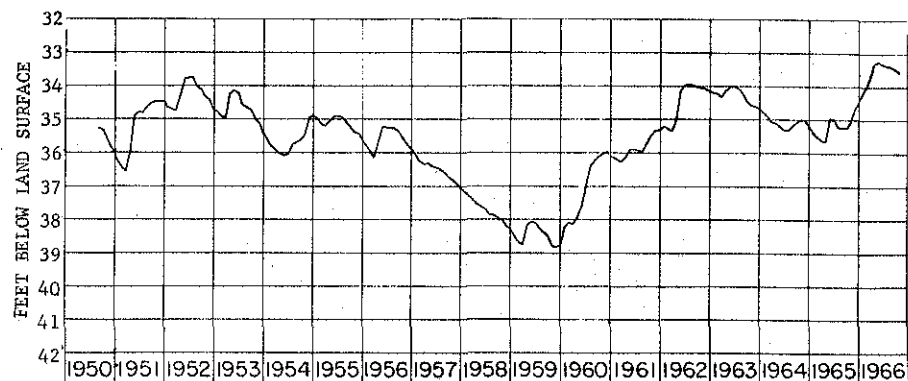
Stanley Jensen. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 36 N., R. 19 W. Drilled domestic and stock water-table well in sand of Pleistocene age, diam 4 in, reported depth 140 ft. Lsd about 1,000 ft above msl. MP hole in pump base, 2.00 ft above lsd. Discontinued 1966.



POLK CO., Well-75

Pk-32/17W/7-75

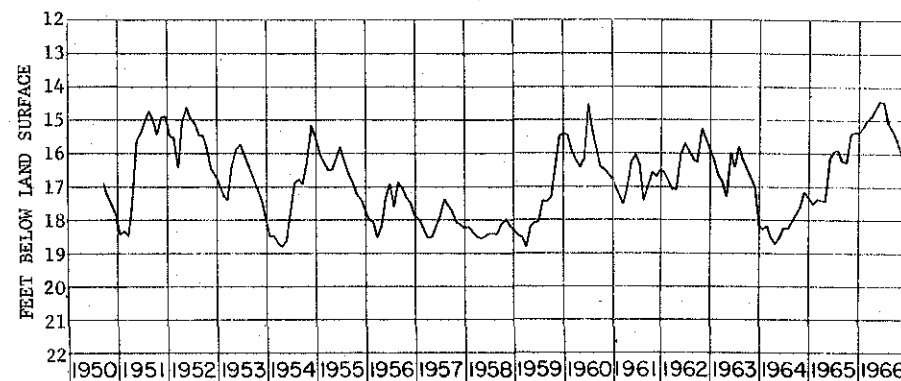
West Emanuel Lutheran Church. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 32 N., R. 17 W. Drilled public-supply water-table well in sandstone of Cambrian age, diam 5 in, reported depth 96 ft. Lsd about 1,025 ft above msl. MP top of casing, at lsd. Measured monthly. All plotted.



PORTAGE CO., Well-15

Pt-24/10/28-15

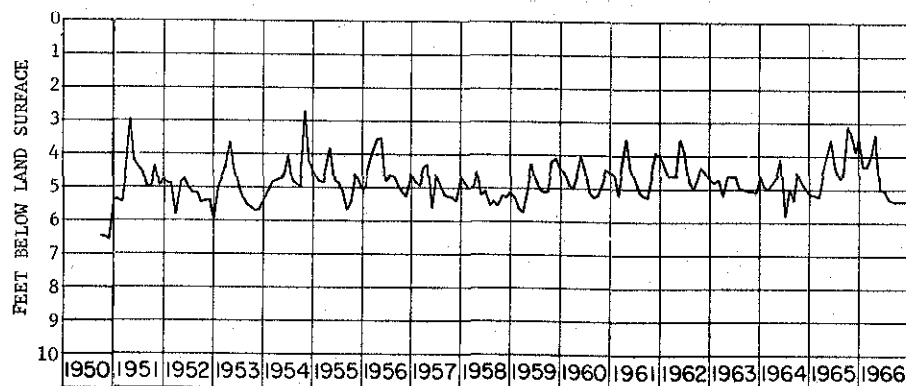
Lawrence Krogwold. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 24 N., R. 10 E. Driven unused water-table well in sand of Pleistocene age, diam 2 in, depth 52 ft, screened 50-52. Lsd 1,133 ft above msl. MP rim of casing, 1.50 ft above lsd. Measured weekly. Lowest monthly plotted.



PORTAGE CO., Well-34

Pt-23/7/34-34

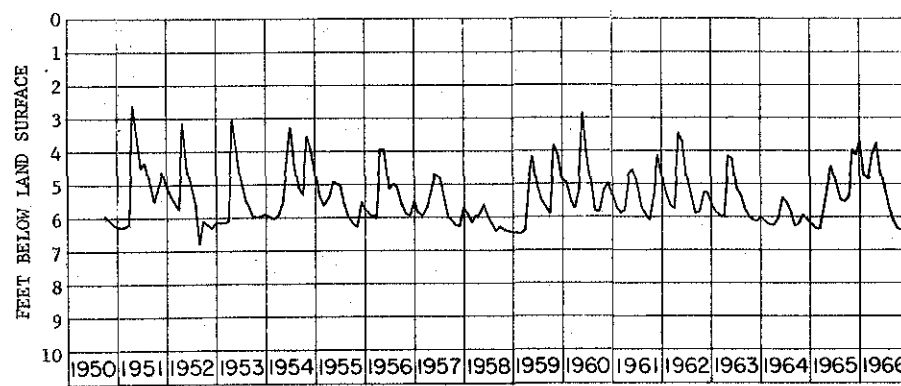
U. S. Geol. Survey. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 23 N., R. 7 E. Driven observation water-table well in sand and gravel of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 24 ft, well point 22-24. Lsd 1,066 ft above msl. MP top of casing, 2.50 ft above lsd. Measured weekly. Lowest monthly plotted.



PORTAGE CO., Well-35

Pt-22/7/35-35

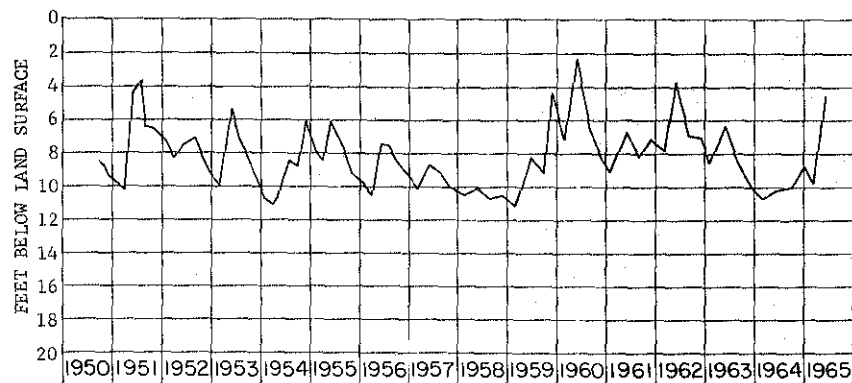
U. S. Geol. Survey. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 22 N., R. 7 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 11 ft, well point 9-11. Lsd 1,055 ft above msl. MP top of casing, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



PORTAGE CO., Well-36

Pt-21/8/10-36

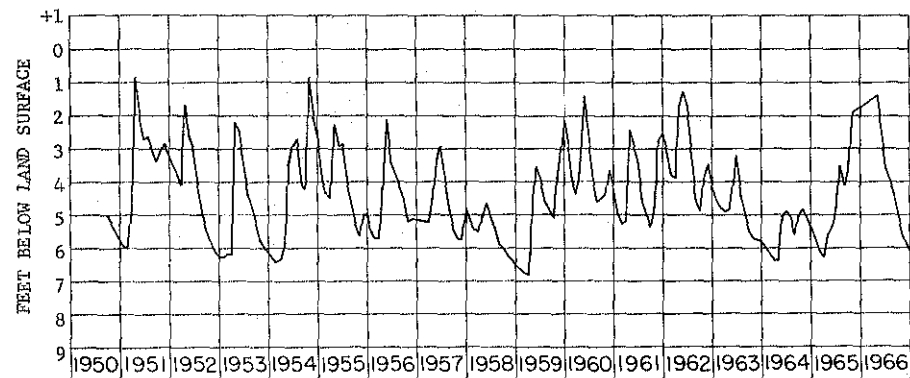
U. S. Geol. Survey. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 21 N., R. 8 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 12 ft, well point 10-12. Lsd 1,075 ft above msl. MP top of casing, 1.50 ft above lsd. Measured weekly. Lowest monthly plotted.



PORTAGE CO., Well-40

Pt-24/8/2-40

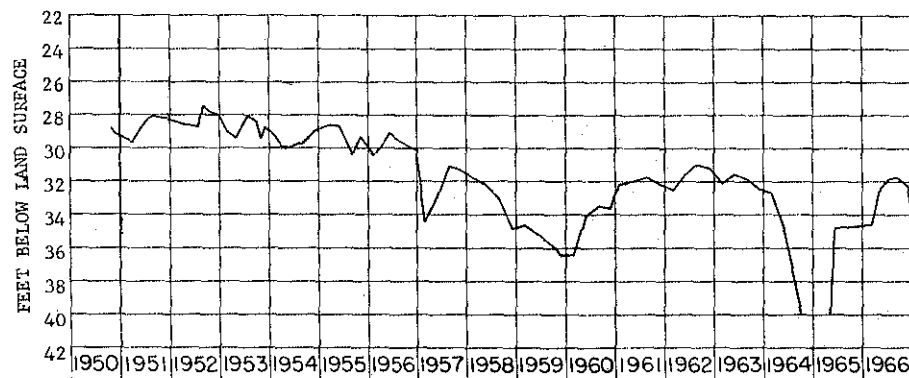
U. S. Geol. Survey. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 24 N., R. 8 E. Driven unused water-table well in sand and gravel, diam 1 $\frac{1}{2}$ in, depth 13 ft, well point 11-13. MP top of casing, 1.00 ft above lsd. Discontinued 1965.



PORTAGE CO., Well-41

Pt-21/7/35-41

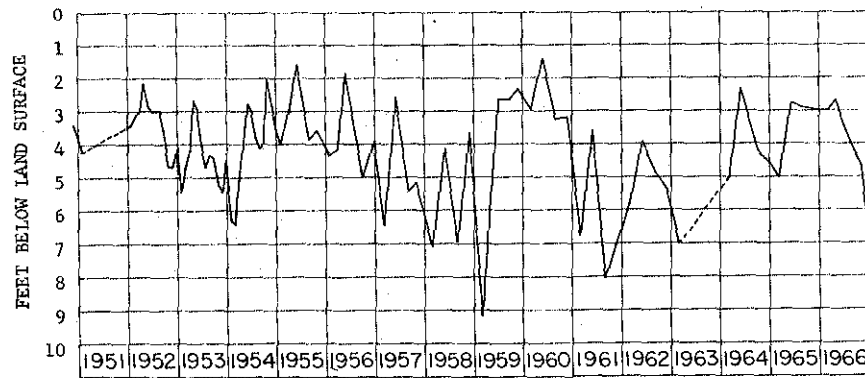
U. S. Geol. Survey. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 21 N., R. 7 E. Driven observation water-table well in sand and gravel of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 11 ft, well point 9-11. Lsd 1,051 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



PORTAGE CO., Well-43

Pt-21/9/29-43

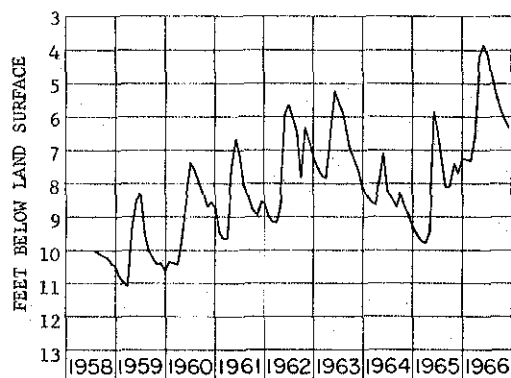
Alton Bowden. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 21 N., R. 9 E. Drilled unused water-table well in sand and gravel of Pleistocene age, diam 6 in, depth 40 ft. Lsd 1,130 ft above msl. MP lower edge of pump base, at lsd. Measured monthly. All plotted.



PORTAGE CO., Well-82

Pt-24/6/2-82

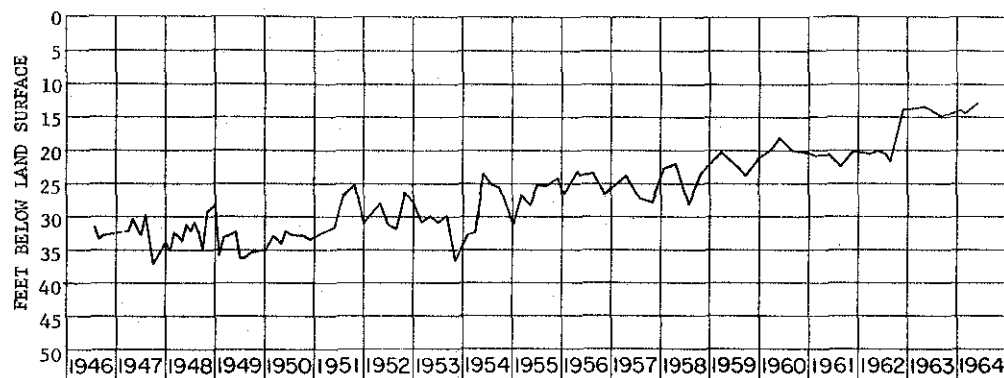
Bordens Condensery, Junction City. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 24 N., R. 6 E. Dug unused water-table well in Precambrian granite, diam 12 in, reported depth 40 ft, curbed to 40. Lsd 1,142 ft above msl. MP top of manhole, 1.00 ft above lsd. Measured monthly. All plotted.



PORTAGE CO., Well-276

Pt-23/10/18-276

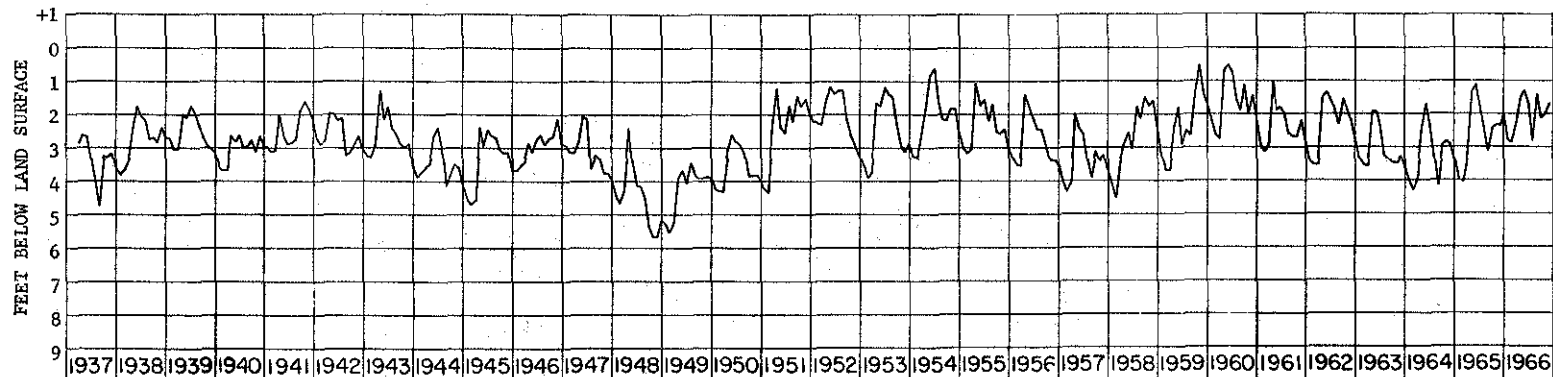
Portage Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 23 N., R. 10 E. Driven observation water-table well in sand and gravel of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 17.4 ft, cased to 16 ft, screened 16-17.4. MP hole in cap on casing, 2.30 ft above lsd. Measured weekly. Lowest monthly plotted.



RACINE CO., Well-1

Ra-3/19/32-1

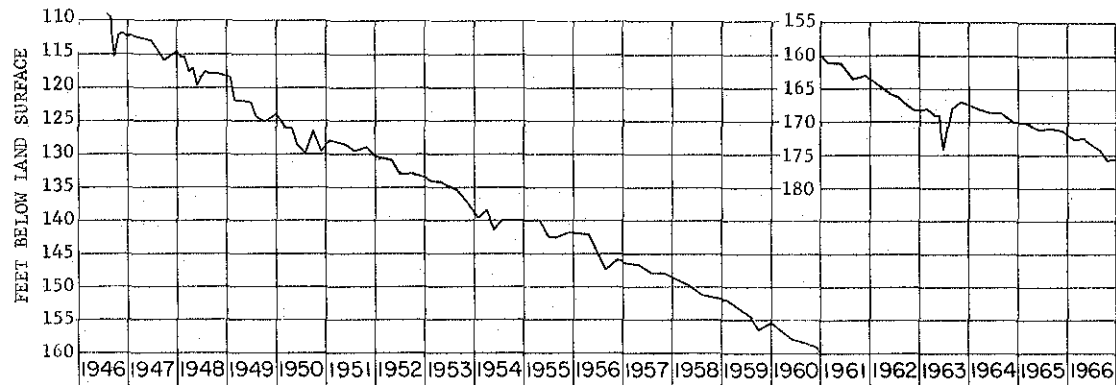
City of Burlington. Sec. 32, T. 3 N., R. 19 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 6 in, reported depth 600 ft. Lsd 775 ft above msl. MP top of 4-in pipe on top of casing, 5.00 ft above lsd. Discontinued 1964.



PRICE CO., Well-6

Pr-40/1W/24-6

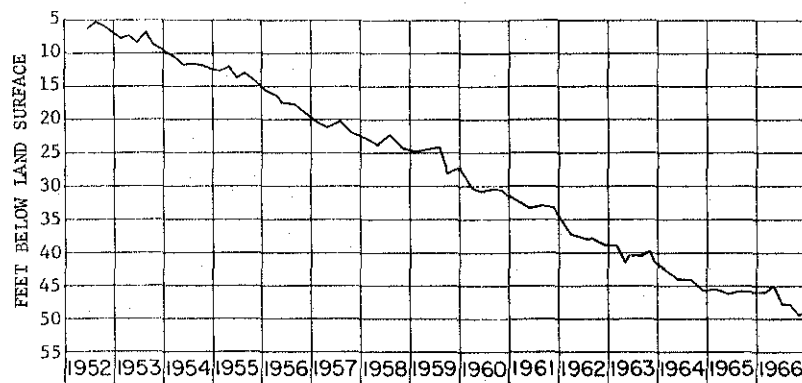
Wisconsin Conservation Dept. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 40 N., R. 1 W. Jetted unused water-table well in sand and gravel of Pleistocene age, diam 8 in, depth 13 ft, cased to 13. Lsd 1,490 ft above msl. MP top of casing, 5.00 ft above lsd. Measured weekly. Lowest monthly plotted.



RACINE CO., Well-5

Ra-3/22/21-5

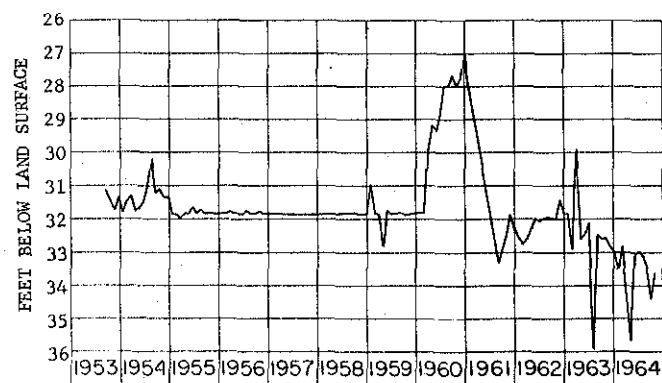
Chicago, Milwaukee, St. Paul & Pacific Railroad Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 3 N., R. 22 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone, diam 12 in, reported depth 1,176 ft, cased to 586 ft, 10 in liner 976-1,083. Lsd 730 ft above msl. MP edge of pump base, 1.00 ft above lsd. Measured monthly. All plotted.



RACINE CO., Well-23

Ra-3/23/9-23

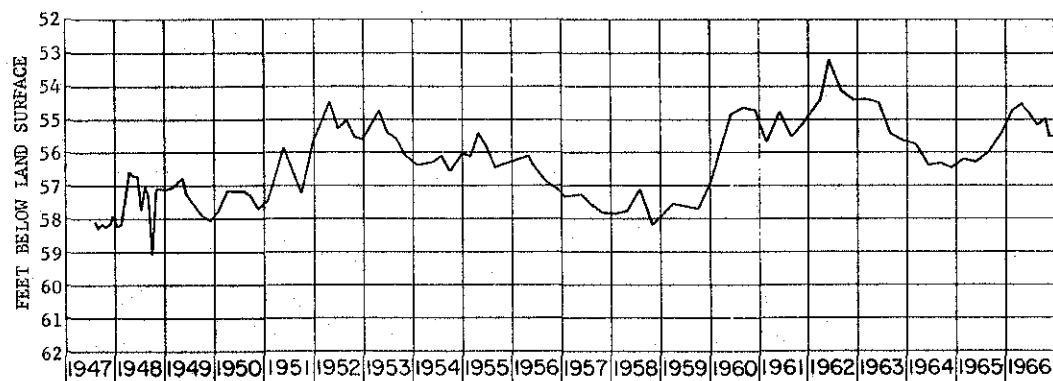
Wisconsin Gas & Electric Co. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 3 N., R. 23 E. Drilled unused artesian well in sandstone of Cambrian age, and Niagara Dolomite, diam 20 in, reported depth 1,720 ft, cased to 70 ft, 12 in liner 347-560. Lsd 587 ft above msl. MP top of casing, 4.00 below lsd. Measured monthly. All plotted.



RICHLAND CO., Well-5

Ri-12/2/12-5

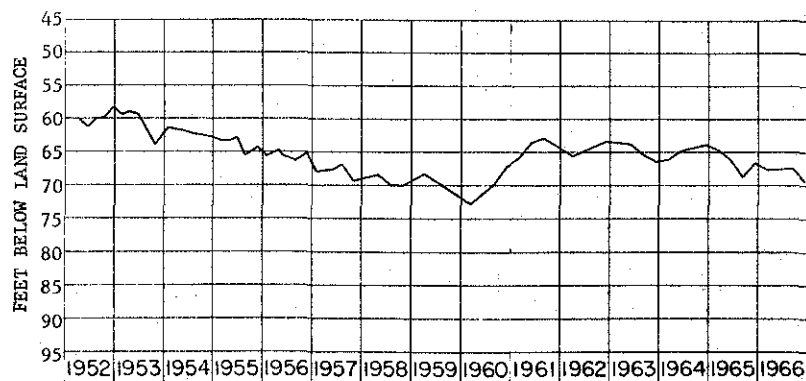
Village of Cazenovia. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 12 N., R. 2 E. Drilled public-supply artesian well in sandstone of Cambrian age, diam 10 in, reported depth 305 ft, cased to 39. MP top of pump base, 1.00 ft above lsd. Discontinued 1964.



ROCK CO., Well-3

Ro-2/12/2-3

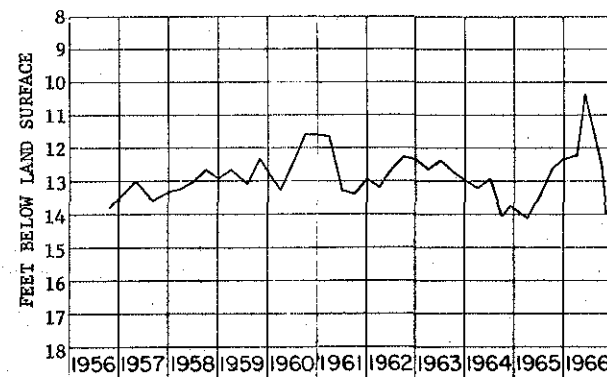
School for the Blind. Janesville. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 2 N., R. 12 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone of Middle Ordovician age, diam 10 in, reported depth 470 ft, cased to 113. Lsd 824 ft above msl. MP $\frac{1}{4}$ -in hole in cap on casing, 1.50 ft above lsd. Measured monthly. All plotted.



ROCK CO., Well-8

Ro-4/13/27-8

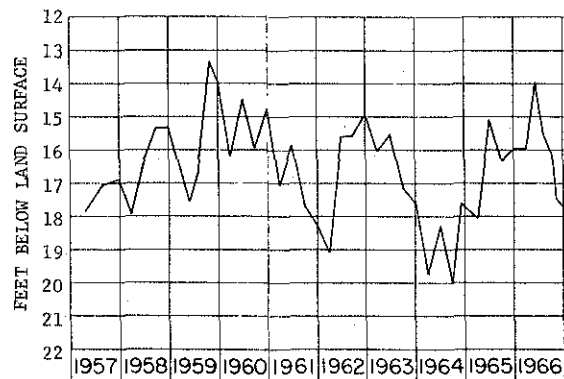
Village of Milton. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 4 N., R. 13 E. Drilled public-supply artesian well sandstone of Cambrian age, diam 12 in, reported depth 722 ft, cased to 276. Lsd 877 ft above msl. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



RUSK CO., Well-37

Ru-33/8W/11-37

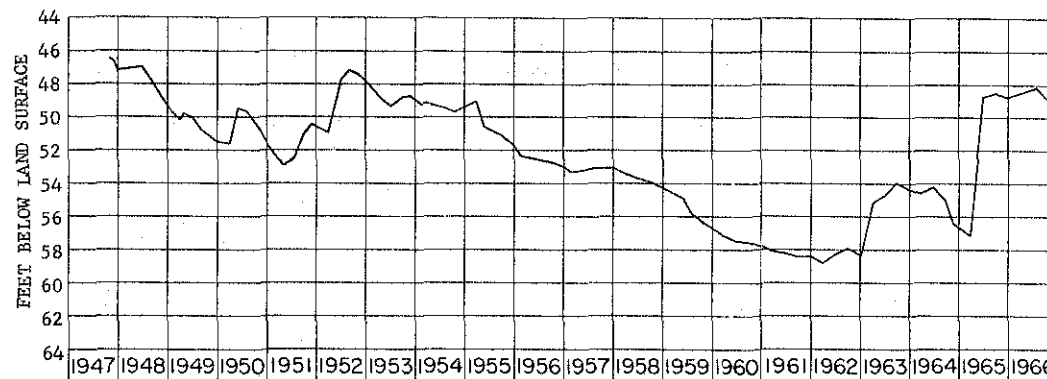
Tony Shydowski. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 33 N., R. 8 W. Drilled domestic and stock water-table well in sand and gravel of Pleistocene age, diam 4 in, reported depth 77 ft, cased to 27. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



RUSK CO., Well-89

Ru-35/3W/14-89

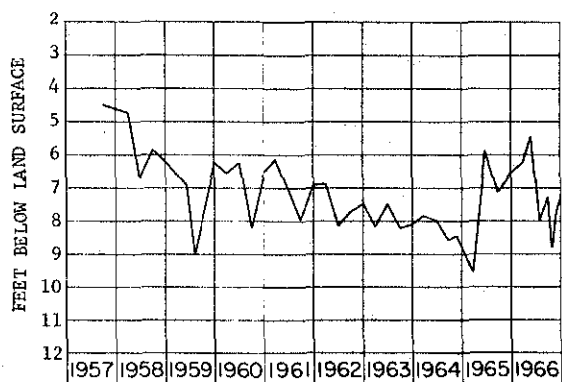
Hawkins Cemetery. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 35 N., R. 3 W. Drilled public-supply water-table well in sand and clay of Pleistocene age, diam 6 in, depth 25 ft. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



ST. CROIX CO., Well-2

SC-28/19W/31-2

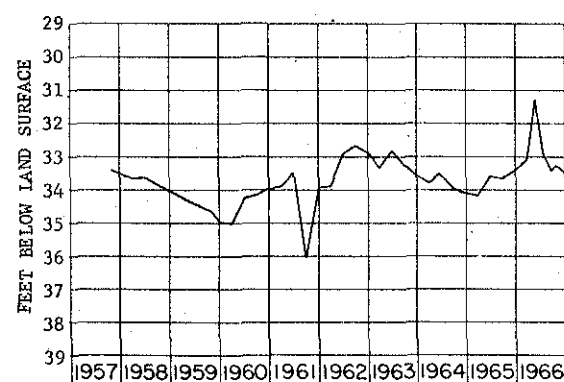
Casey Estate. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 28 N., R. 19 W. Drilled unused well, diam 5 in, depth 64 ft. Lsd 835 ft above msl. MP edge of concrete base, 0.50 ft above lsd. Measured monthly. All plotted.



ST. CROIX CO., Well-21

SC-29/20W/24-21

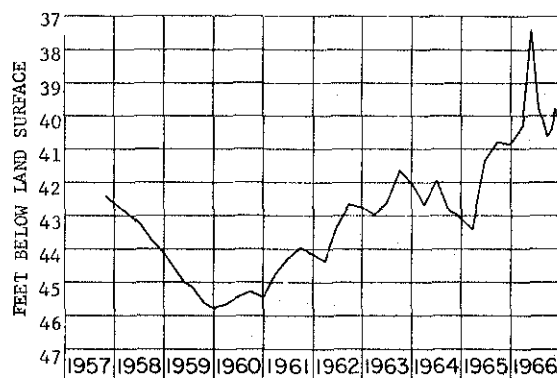
City of Hudson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 29 N., R. 20 W. Drilled unused artesian well in sandstone of Cambrian age, diam 10 in, reported depth 393 ft, cased to 100. Lsd about 680 ft above msl. MP top of 10 in casing, 2.50 ft below lsd. Measured monthly. All plotted.



ST. CROIX CO., Well-94

SC-31/16W/29-94

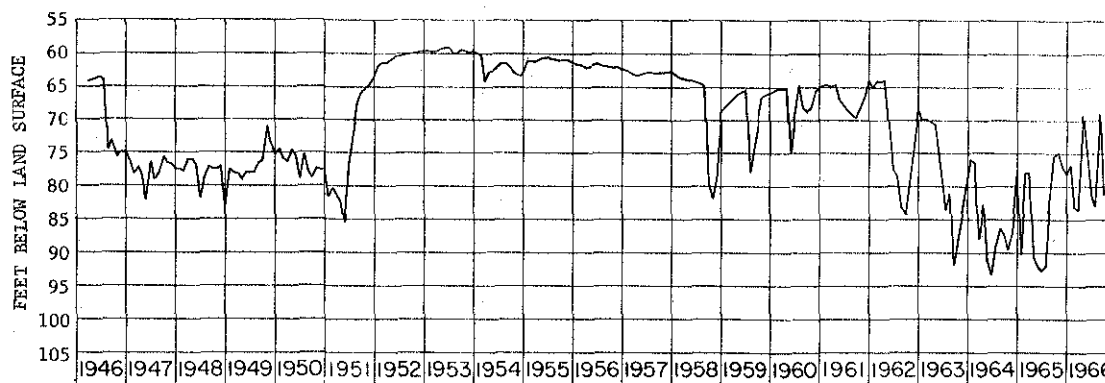
Cylon Methodist Church. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 31 N., R. 16 W. Drilled domestic artesian well in sandstone of Ordovician age, diam 4 in, reported depth 73 ft, cased to 63. Lsd 1,059 ft above msl. MP top of casing, 2.90 ft above lsd. Measured monthly. All plotted.



ST. CROIX CO., Well-95

SC-31/16W/8-95

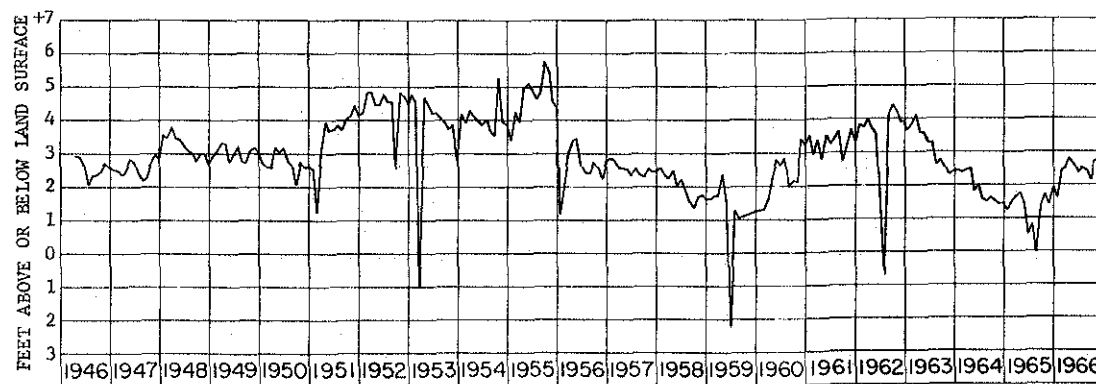
Village of Deer Park. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 31 N., R. 16 W. Drilled public-supply water-table well in sand and gravel of Pleistocene age, diam 8 in, reported depth 120 ft. Lsd 1,075 ft above msl. MP pump base, 2.20 ft above lsd. Measured monthly. All plotted.



SAUK CO., Well-1

Sk-10/6/3-1

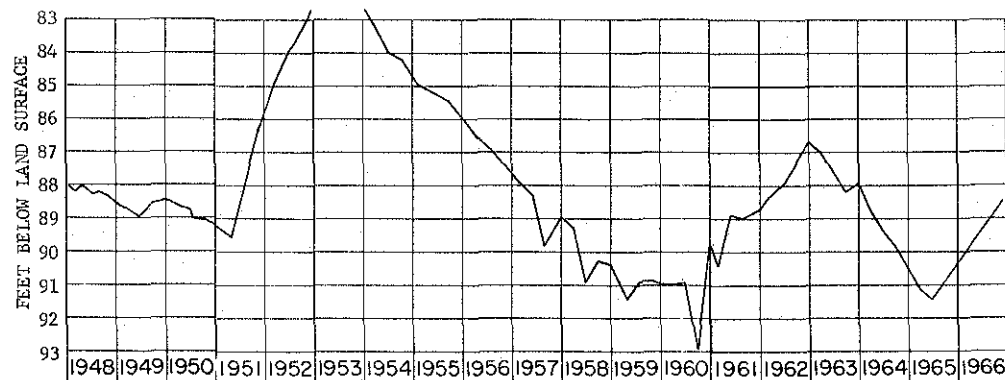
Badger Army Ammunition Plant. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 10 N., R. 6 E. Drilled unused artesian well in sandstone of Cambrian age, diam 16 in, depth 426 ft, cased to 203. Lsd 917 ft above msl. MP top of casing, 1.43 ft above lsd. Affected by pumping of nearby wells. Recording gage. Lowest monthly plotted.



SAUK CO., Well-6

Sk-11/6/1-6

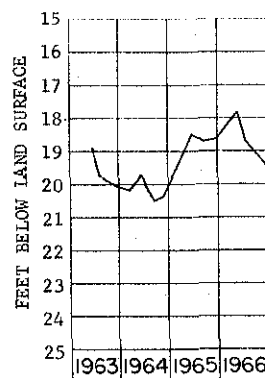
A. W. Rohn. Baraboo Iron Works. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 11 N., R. 6 E. Drilled unused artesian well in sandstone of Cambrian age, diam 5 to 4 in, depth 318 ft, cased to 266. Lsd 819 ft above msl. MP top of casing, 5.00 ft above lsd. Affected by pumping of nearby wells. Measured weekly. Lowest monthly plotted.



SAUK CO., Well-11

Sk-10/6/15-11

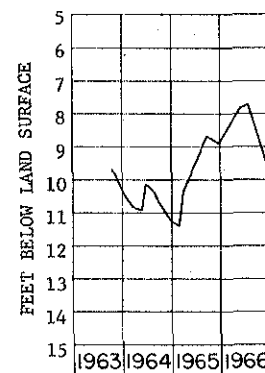
Our Lady of New Frauenthal, Inc. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 10 N., R. 6 E. Drilled domestic artesian well in sandstone of Cambrian age, diam 6 in, reported depth 625 ft, cased to 390. Lsd 859 ft above msl. MP breather hole in cap on casing, 4.00 ft below lsd. Measured monthly. All plotted.



SAUK CO., Well-19

Sk-8/4/7-19

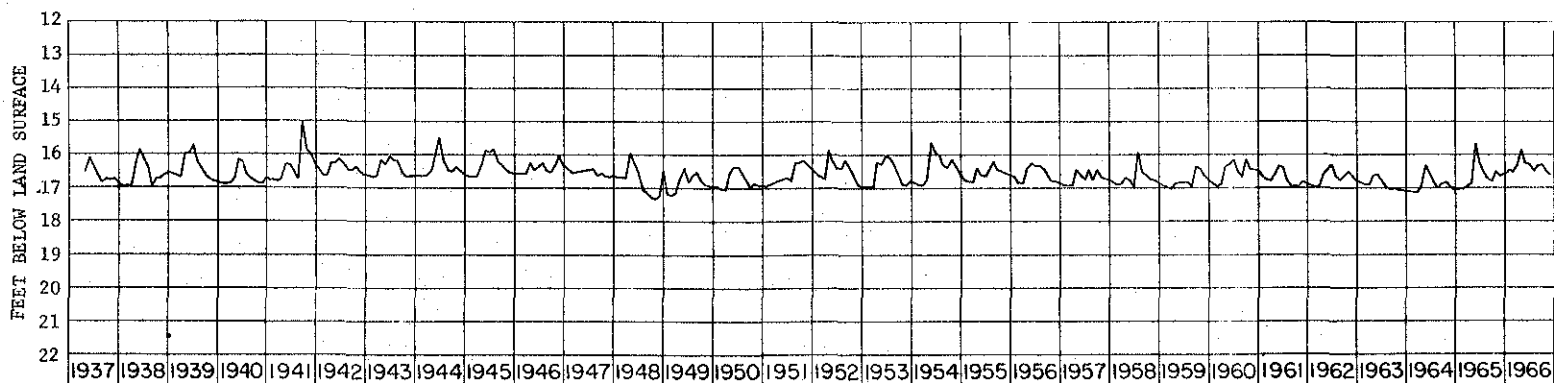
Krop Saver Chemical Co., Spring Green, Wis. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 8 N., R. 4 E. Drilled unused water-table well in sand of Pleistocene age, reported depth 100 ft. MP hole in pump base, 2.00 ft above lsd. Measured monthly. All plotted.



SAUK CO., Well-99

Sk-8/3/1-99

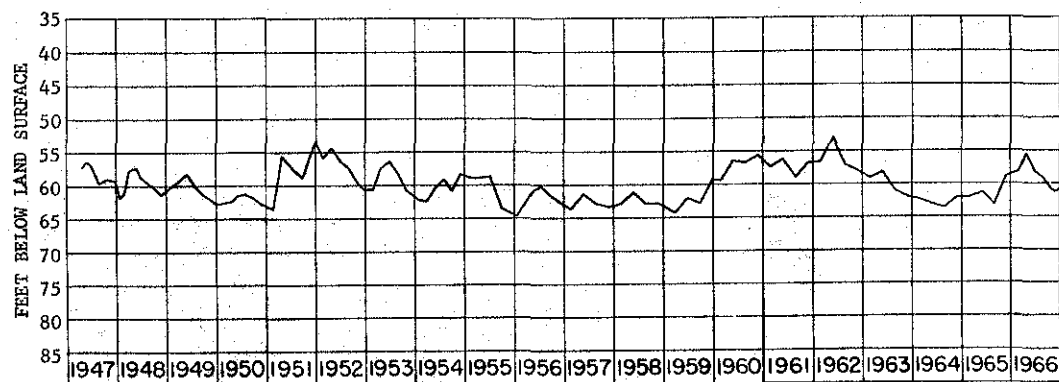
Donald O'Connor. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 8 N., R. 3 E. Driven unused water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 17 ft, well point 15-17. Lsd 723 ft above msl. MP top of casing, 0.50 ft above lsd. Measured monthly. All plotted.



SAWYER CO., Well-7

Sw-41/9W/28-7

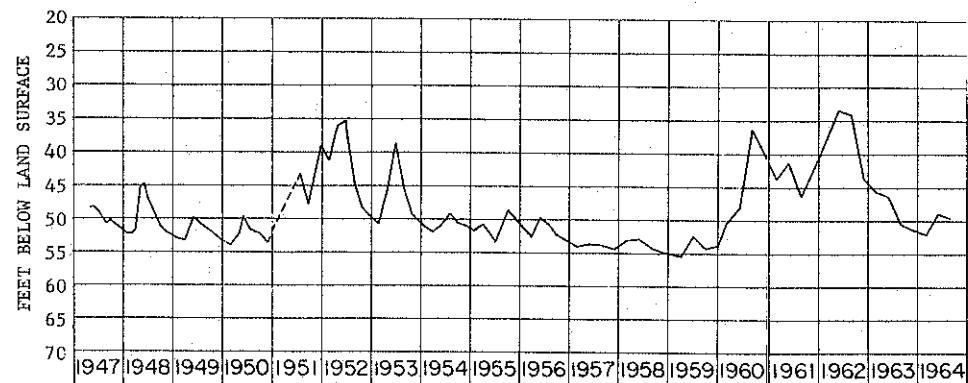
Wisconsin Conservation Dept. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 41 N., R. 9 W. Dug observation water-table well in gravel of Pleistocene age, diam 8 in, depth 25 ft, cased to 25. Lsd 1,190 ft above msl. MP pointer on float gage, 4.58 ft above lsd. Measured weekly. Lowest monthly plotted.



SHAWANO CO., Well-1

Sh-26/18/30-1

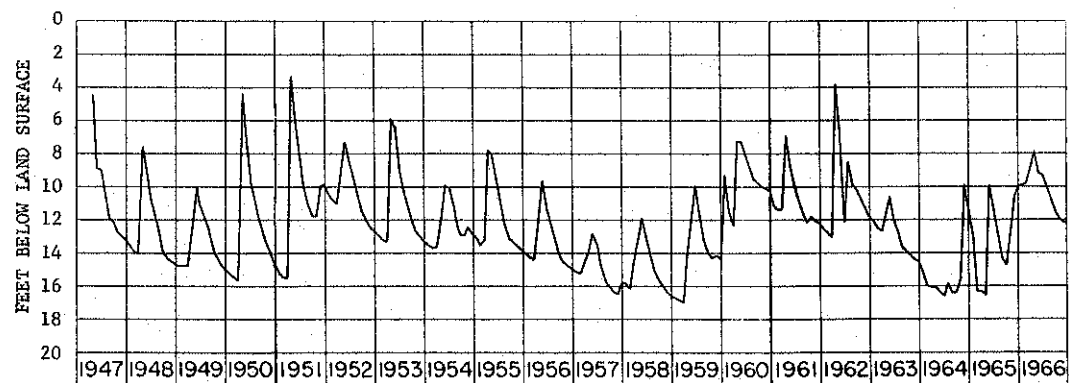
Harry Sievert. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 26 N., R. 18 E. Drilled unused water-table well in limestone, diam 6 in, depth 132 ft. Lsd 917 ft above msl. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



SHAWANO CO., Well-2

Sh-26/16/2-2

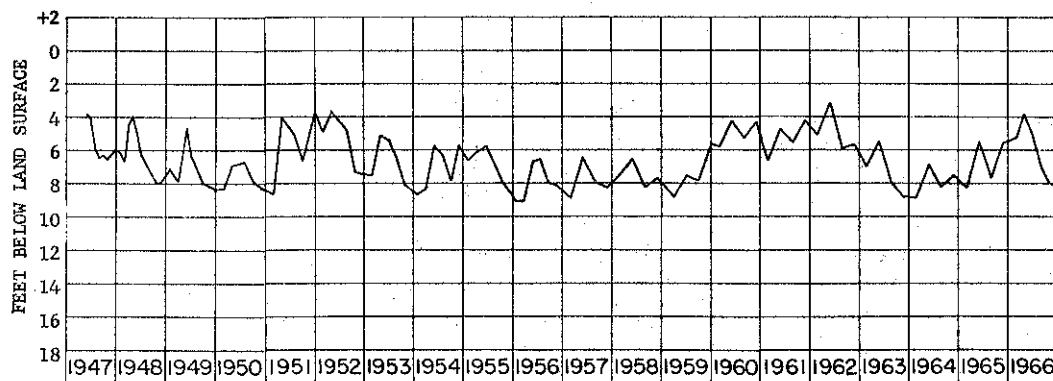
Schilling Bros. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 26 N., R. 16 E. Drilled unused water-table well in limestone, diam 5 in, depth 85 ft. Lsd 999 ft above msl. MP pump base, 0.50 ft above lsd. Discontinued 1964.



SHAWANO CO., Well-3

Sh-26/16/2-3

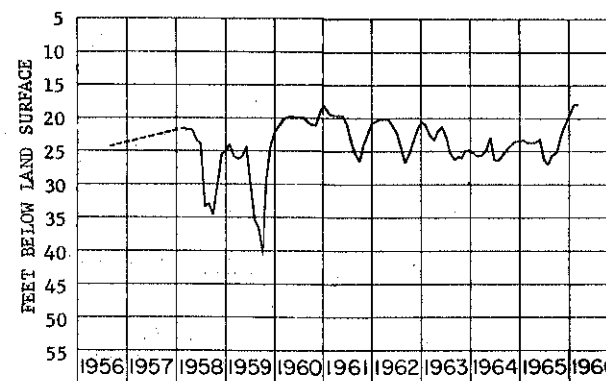
George Martin. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 26 N., R. 16 E. Drilled unused water-table well in Prairie du Chien Group, diam 4 in, depth 30 ft. Lsd 957 ft above msl. MP top of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



SHAWANO CO., Well-4

Sh-25/17/28-4

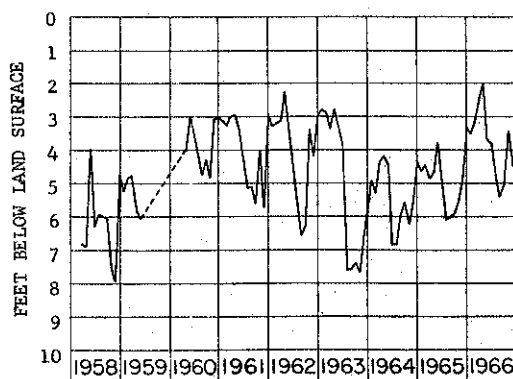
John Short. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 25 N., R. 17 E. Drilled unused water-table well in Prairie du Chien Group, diam 4 in, reported depth 50 ft. MP top of casing, 2.00 ft above lsd. Measured monthly. All plotted.



SHEBOYGAN CO., Well-7

Sb-13/22/1-7

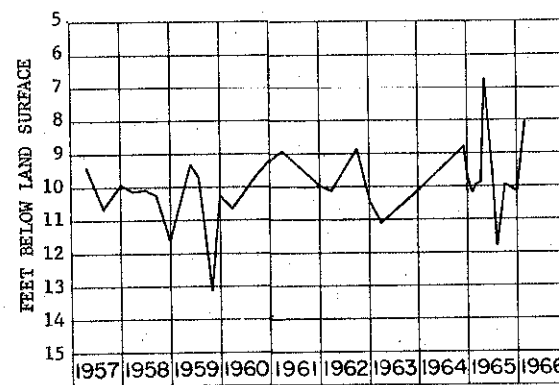
Oostburg Cold Storage. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 13 N., R. 22 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age and sandstone of Cambrian age, diam 8 in, reported depth 1,484 ft. Lsd 700 ft above msl. MP end of discharge pipe, 2.00 ft above lsd. Measured weekly. Lowest monthly plotted.



SHEBOYGAN CO., Well-19

Sb-15/21/28-19

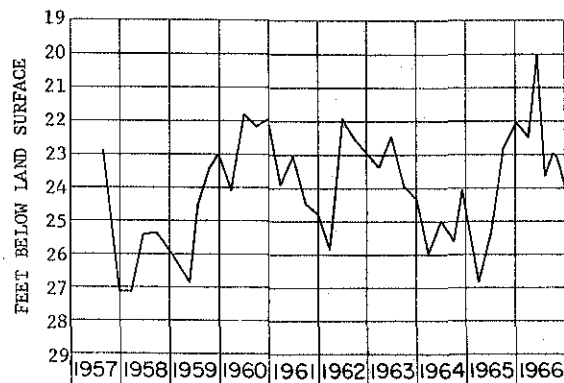
City of Plymouth. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 15 N., R. 21 E. Drilled unused artesian well in Niagara Dolomite, diam 10 in, depth 450 ft, cased to 61 MP top of casing, at lsd. Recording gage. Lowest monthly plotted.



TAYLOR CO., Well-1

Ta-31/4W/13-1

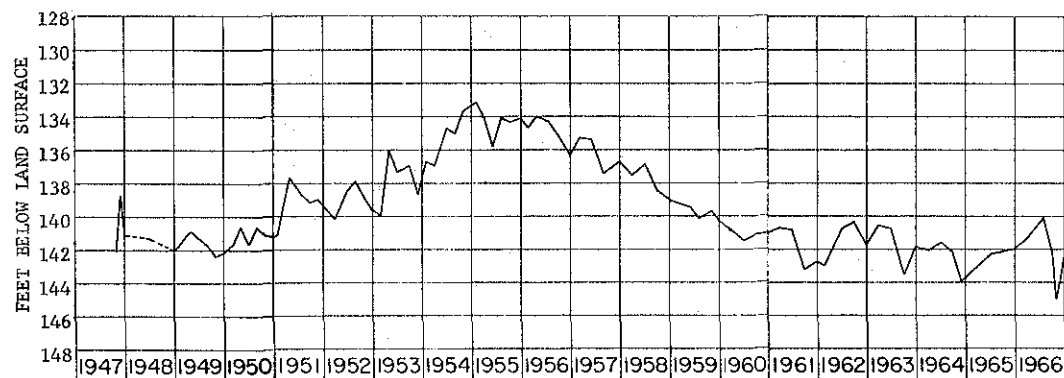
Village of Gilman. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 31 N., R. 4 W. Drilled public-supply water-table well in drift of Pleistocene age, diam 18 to 16 in, depth 26 ft, cased to 16 ft, screened 16-26. Lsd 1,200 ft above msl. MP top of casing, 2.00 ft above lsd. Affected by pumping of nearby wells. Measured monthly. All plotted.



TAYLOR CO., Well-6

Ta-31/1/28-6

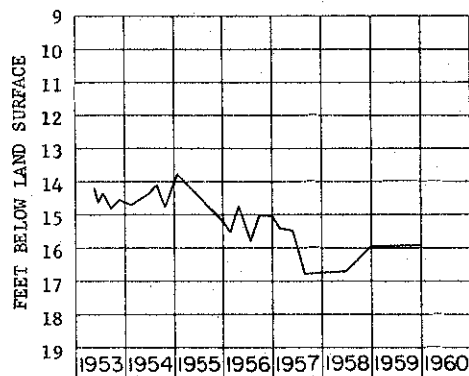
P. J. Ziehlke. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 31 N., R. 1 E. Dug domestic water-table well in sand and gravel of Pleistocene age, diam 36 in, reported depth 35 ft. MP top of curb, 1.00 ft above lsd. Measured monthly. All plotted.



TREMPLEAU CO., Well-1

Tr-19/8W/35-1

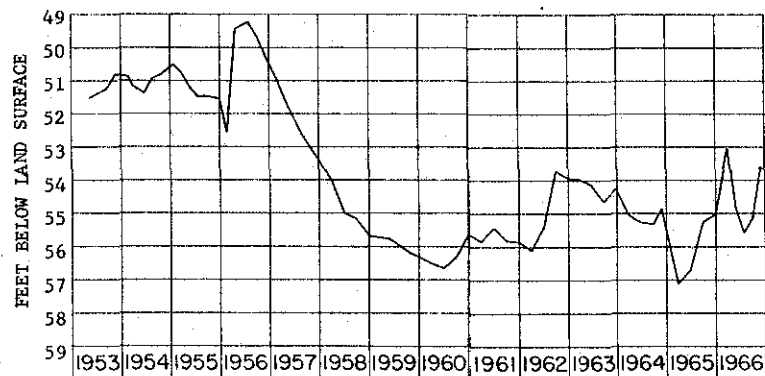
Mrs. William Davidson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 19 N., R. 8 W. Drilled unused water-table well in sandstone of Cambrian age, diam 6 in. Lsd 820 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



TREMPLEAU CO., Well-4

Tr-24/9W/9-4

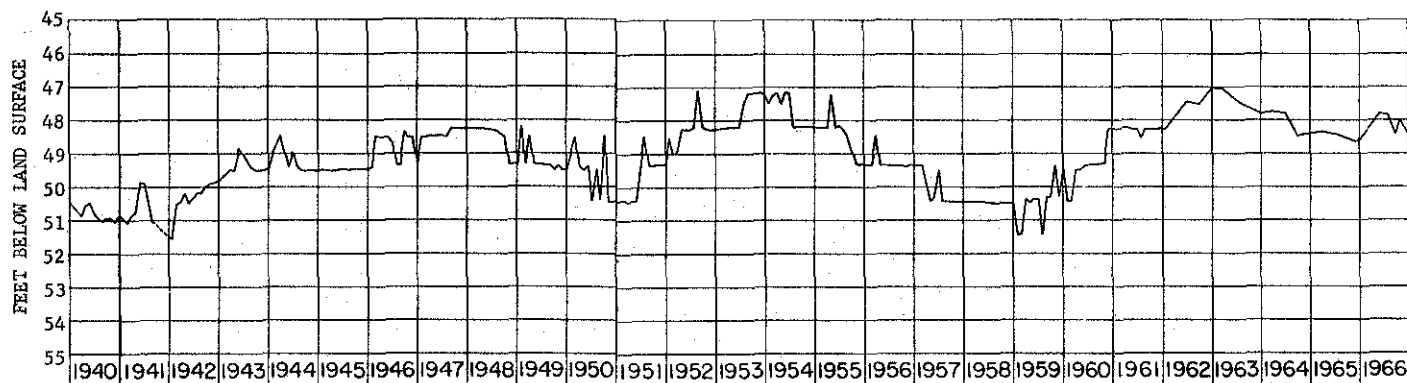
Village of Eleva. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 24 N., R. 9 W. Drilled public-supply artesian well in Eau Claire Sandstone, diam 10 in, reported depth 203 ft, cased to 108. Lsd 872 ft above msl. MP pump base, 2.00 ft above lsd. Discontinued 1960.



TREMPLEAU CO., Well-9

Tr-19/9W/33-9

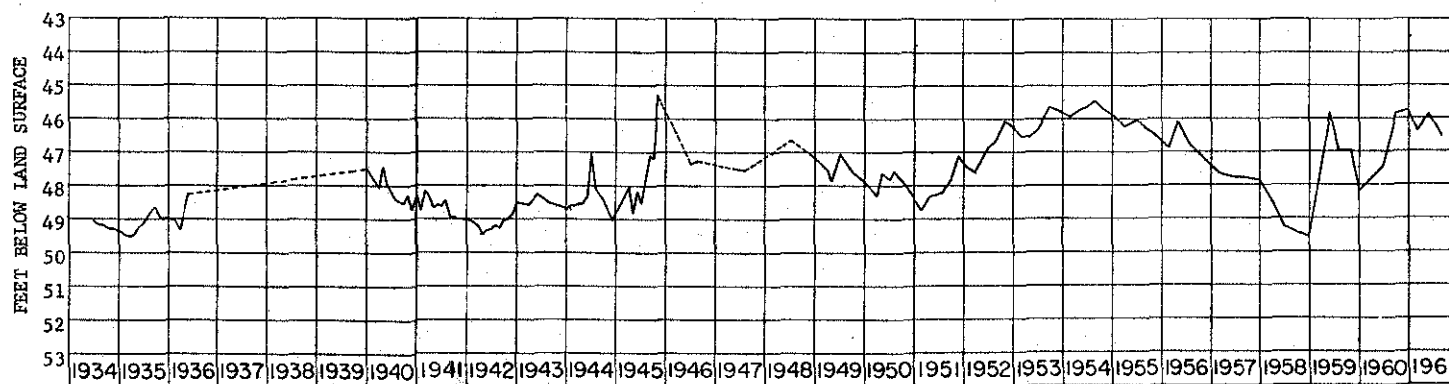
Village of Centerville. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 19 N., R. 9 W. Drilled public-supply water-table well in drift of Pleistocene age, diam 6 in, reported depth 71 ft, cased to 66 ft, screened 66-71. Lsd 740 ft above msl. MP top of breather pipe, at lsd. Affected by pumping of nearby wells. Measured monthly. All plotted.



VERNON CO., Well-8

Ve-14/7W/26-8

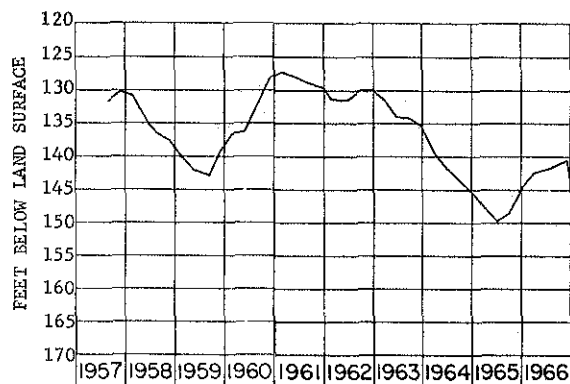
M. H. Willenberg. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 14 N., R. 7 W. Dug unused water-table well in alluvium of Quaternary age, diam 30 in, depth 54 ft, curbed to 54. Lsd 710 ft above msl. MP edge of well cover, 0.50 ft above lsd. Measured monthly. All plotted.



VERNON CO., Well-9

Ve-14/7W/14-9

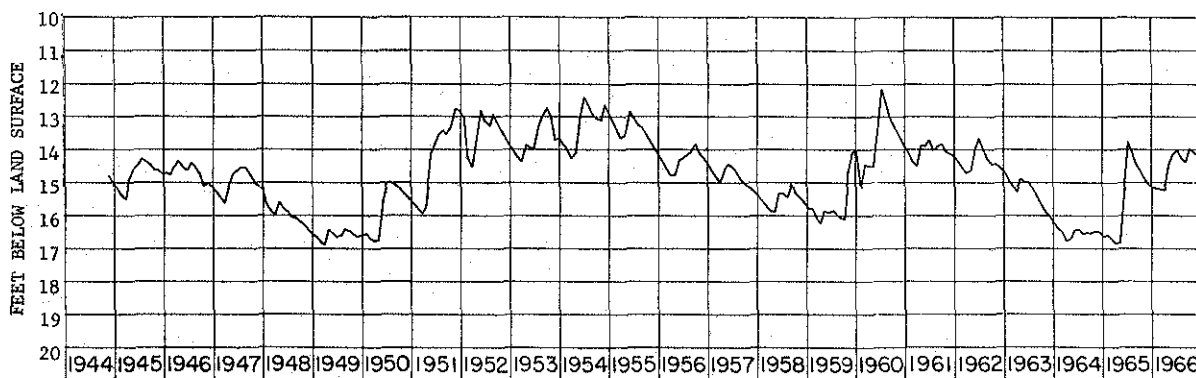
Ferdinand Lenser. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 14 N., R. 7 W. Dug unused artesian well in sandstone of Cambrian age, diam 30 to 48 in, depth 52 ft, curbed to 52. Lsd 940 ft above msl. MP top of plank cover, 1.60 above lsd. Discontinued 1961.



VERNON CO., Well-41

Ve-13/4W/31-41

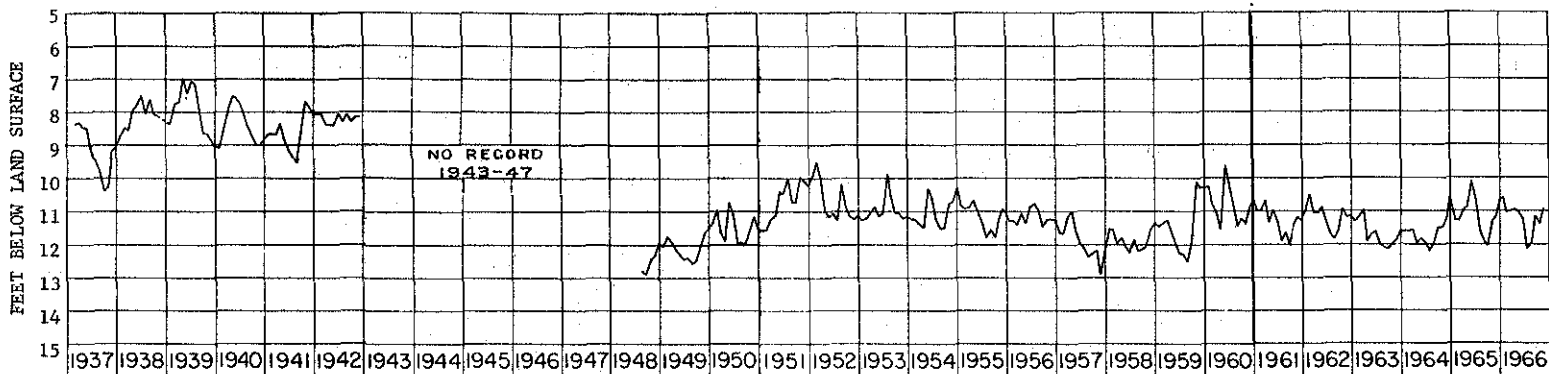
City of Viroqua. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 13 N., R. 4 W. Drilled unused artesian well in sandstone of Cambrian age, diam 10 in, depth 507 ft. Lsd 1,260 ft above msl. MP top of breather pipe, at lsd. Measured monthly. All plotted.



VILAS CO., Well-21

Vi-40/10/10-21

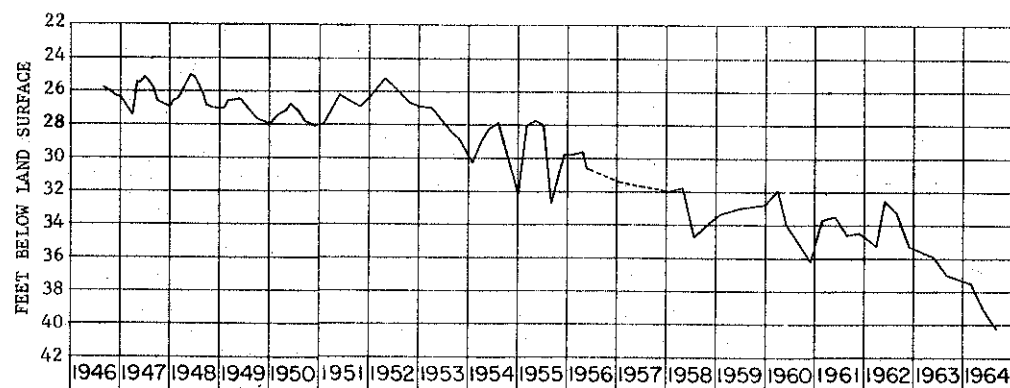
U. S. Geol. Survey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 40 N., R. 10 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 27 ft, cased to 27 ft, well point 25-27. Lsd 1,640 ft above msl. MP top of casing, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



VILAS CO., Well-3

Vi-41/10/9-3

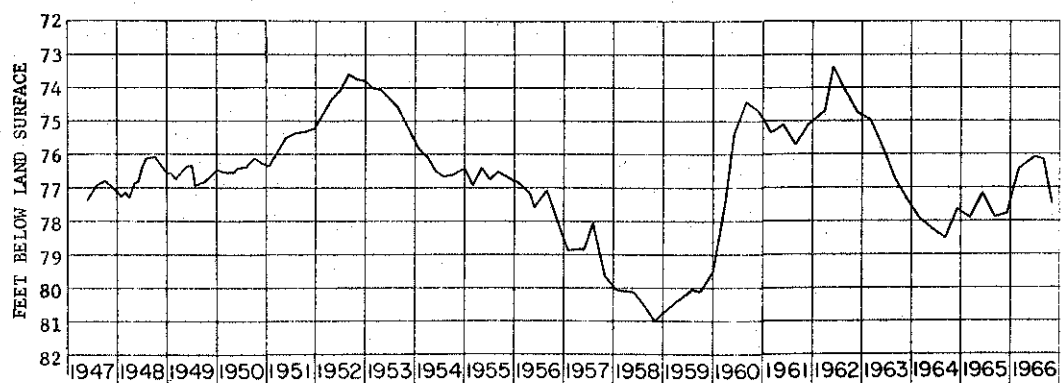
Wisconsin Conservation Dept. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 41 N., R. 10 E. Driven observation water-table well in sand of Pleistocene age, diam 2 in, depth 20 ft, well point 18-20. Lsd 1,658 ft above msl. MP top of casing, 2.00 ft above lsd. Measured weekly. Lowest monthly plotted.



WALWORTH CO., Well-1

Ww-1/18/35-1

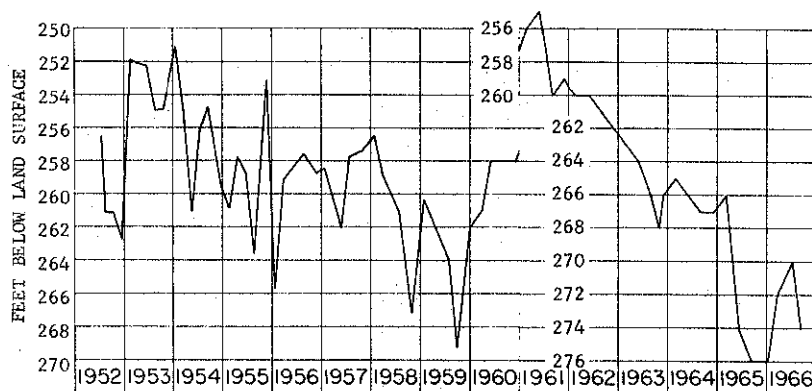
Village of Genoa City. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 1 N., R. 18 E. Drilled public-supply artesian well in sandstone of Cambrian age and St. Peter sandstone, diam 10 in, reported depth 1,080 ft, cased to 690 ft, 8 in liner 863-950. Lsd 829 ft above msl. MP flange on top of casing, 2.00 ft above lsd. Discontinued 1964.



WALWORTH CO., Well-9

Ww-3/15/33-9

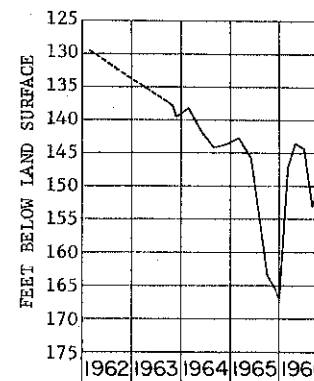
Russell Stewart. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 3 N., R. 15 E. Drilled stock artesian well in Galena Dolomite, diam 6 in, depth 287 ft, cased to 287. Lsd 965 ft above msl. MP hole in pump base, 1.00 ft above lsd. Measured monthly. All plotted.



WALWORTH CO., Well-24

Ww-2/17/4-24

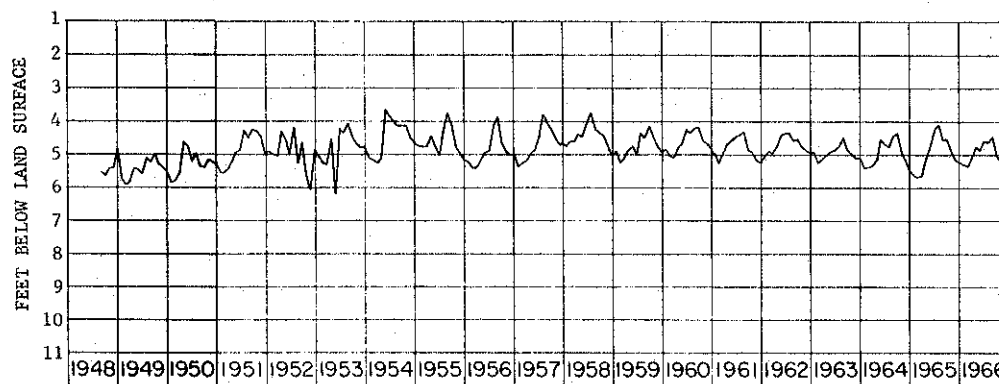
Walworth County Farm and Home. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 2 N., R. 17 E. Drilled public-supply artesian well in sandstone of Cambrian age, diam 12 in, reported depth 1,702 ft, cased to 435. Lsd 1,040 ft above msl. Measurements obtained by airline. Measured monthly. All plotted.



WALWORTH CO., Well-37

Ww-2/17/36-37

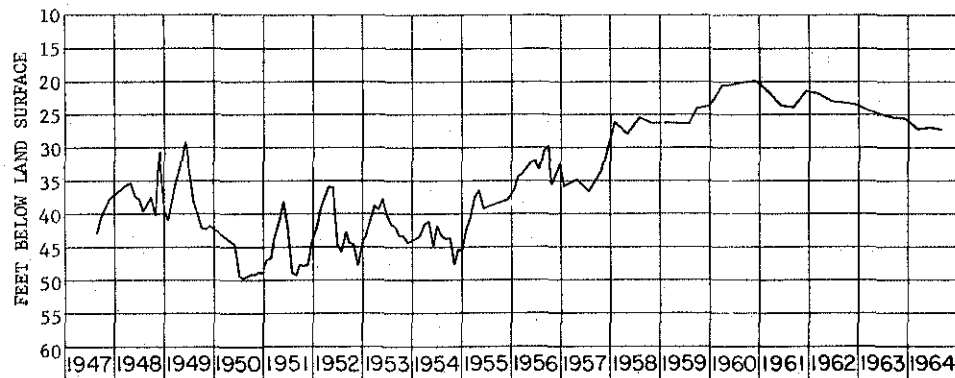
Lake Geneva Water Works. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 2 N., R. 17 E. Drilled unused artesian well in St. Peter Sandstone of Middle Ordovician age, diam 10 to 8 in, depth 820 ft, cased 10-in 0-214 ft, 8-in 214-227. Lsd 860 ft above msl. MP hole in east side of pump base, 1.00 ft above lsd. Measured monthly. All plotted.



WASHBURN CO., Well-1

Wb-39/12W/31-1

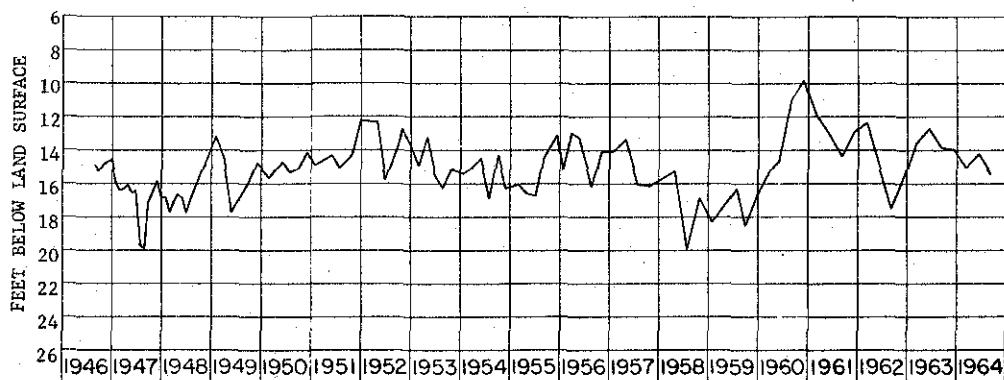
Wisconsin Conservation Dept. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 39 N., R. 12 W. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 18 ft, well point 16-18. Lsd 1,064 ft above msl. MP top of casing. 1.70 ft above lsd. Measured weekly. Lowest monthly plotted.



WASHINGTON CO., Well-2

Wn-10/18/20-2

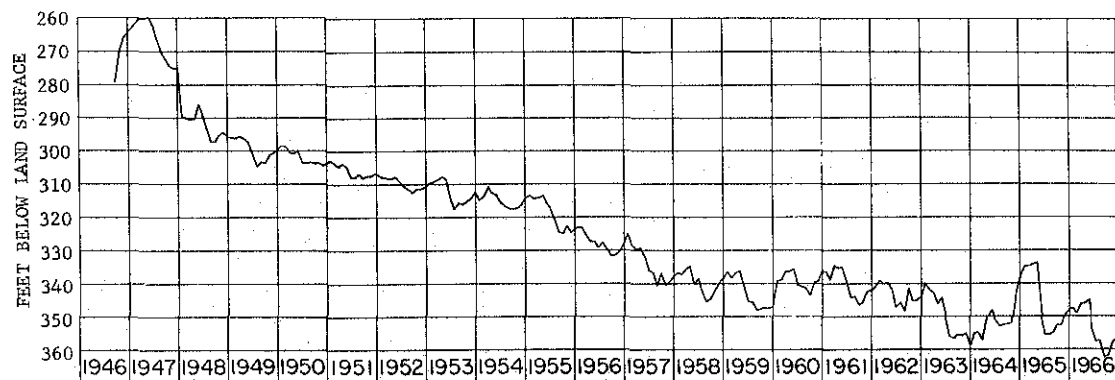
City of Hartford. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 10 N., R. 18 E. Drilled unused artesian well in Galena dolomite and Platteville Formation, diam 16 in, depth 497 ft, cased to 284. Lsd 980 ft above msl. MP top of concrete, 1.00 ft above lsd. Discontinued 1964.



WASHINGTON CO., Well-3

Wn-11/19/14-3

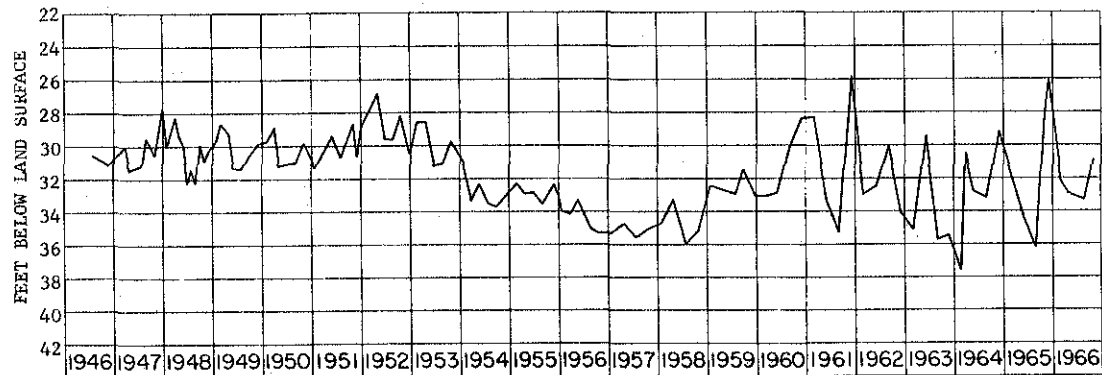
City of West Bend. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 11 N., R. 19 E. Drilled unused artesian well in St. Peter Sandstone, diam 8 inches, reported depth 1,200 ft, cased to 75. Lsd 920 ft above msl. MP top of casing, 3.00 ft below lsd. Discontinued 1964.



WAUKESHA CO., Well-14

Wk-6/19/2-14

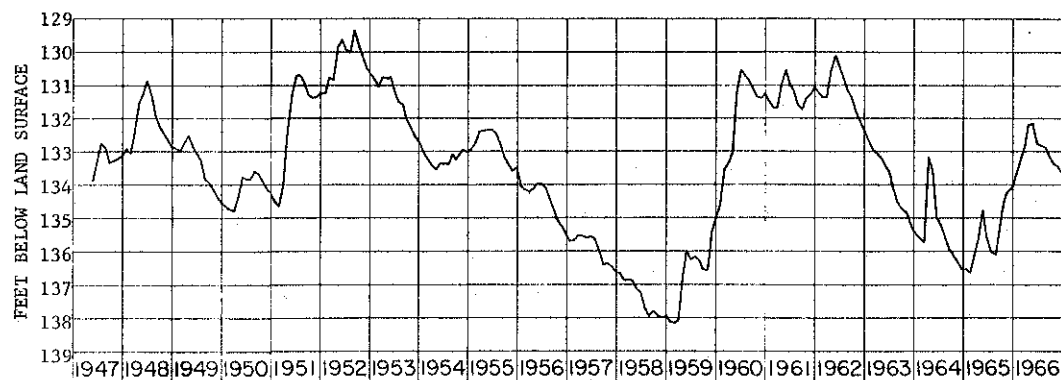
New Tribes Mission. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 6 N., R. 19 E. Drilled unused artesian well in sandstone of Cambrian age and St. Peter Sandstone of Middle Ordovician age, diam 8 in, reported depth 1,300 ft. Lsd 875.03 ft above msl. MP top of casing, at lsd. Affected primarily by pumping of nearby municipal wells. Recording gage. Lowest monthly plotted.



WAUKESHA CO., Well-20

Wk-7/17/5-20

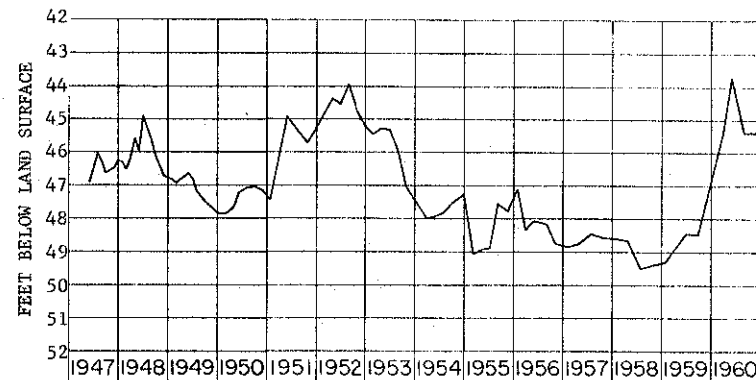
C. W. Aepler. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 7 N., R. 17 E. Drilled irrigation artesian well in sandstone of Cambrian age and St. Peter Sandstone, diam 10 in, reported depth 773 ft, cased to 187. Lsd 873 ft above msl. MP top of casing, 7.00 ft below lsd. Measured monthly. All plotted.



WAUKESHA CO., Well-31

Wk-5/19/2-31

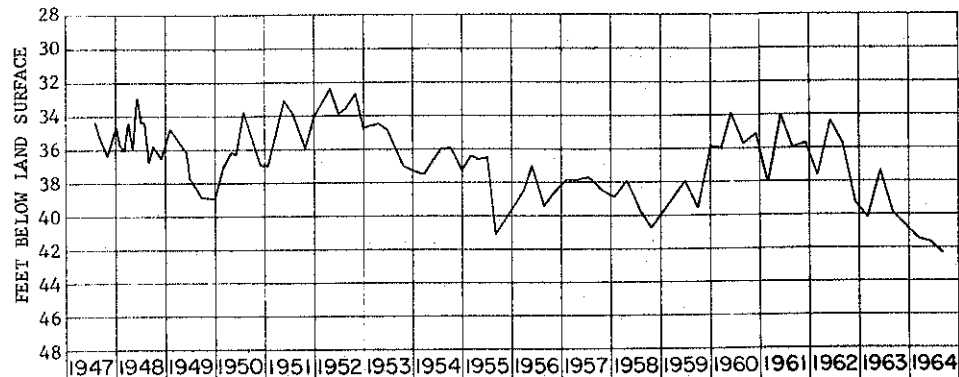
William M. Foss. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 5 N., R. 19 E. Drilled unused artesian well in Niagara Dolomite of Middle Silurian age, diam 6 in, depth 508 ft, cased to 434. Lsd 962 ft above msl. MP top of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



WAUKESHA CO., Well-32

Wk-5/18/23-32

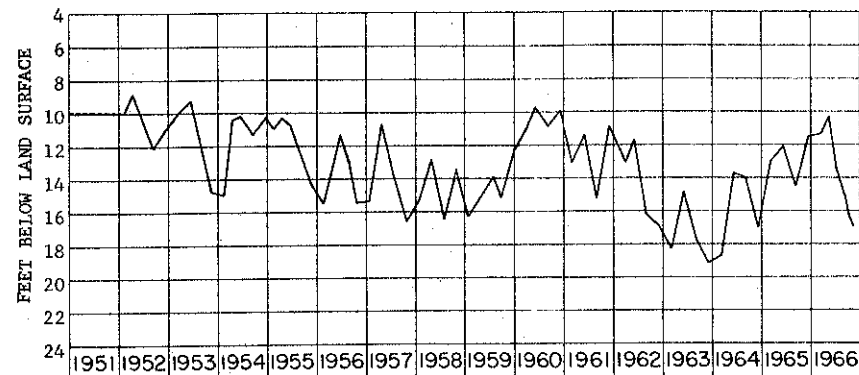
Western United Dairy Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 5 N., R. 18 E. Drilled unused artesian well in limestone, diam 6 in, depth 189 ft, cased to 100. MP top of casing, at lsd. Discontinued 1961.



WAUKESHA CO., Well-34

Wk-5/18/19-34

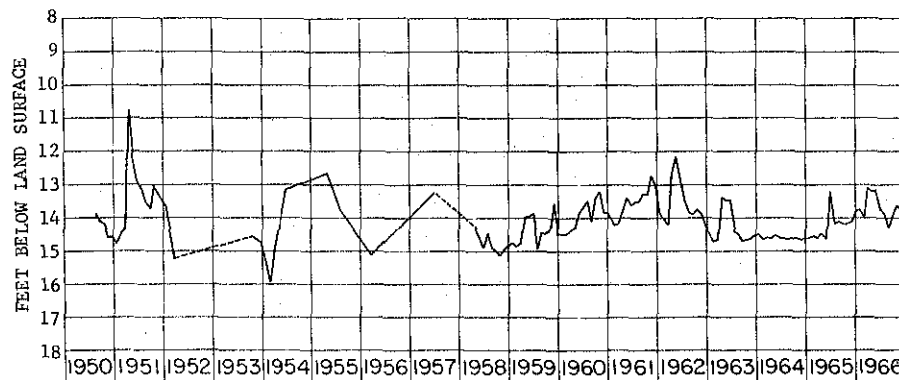
McGeoch Co. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 5 N., R. 18 E. Drilled domestic artesian well in sandstone, diam 6 in, reported depth 618 ft, cased to 255. Lsd 895 ft above msl. MP 7.00 ft below lsd. Discontinued 1964.



WAUKESHA CO., Well-50

Wk-8/20/19-50

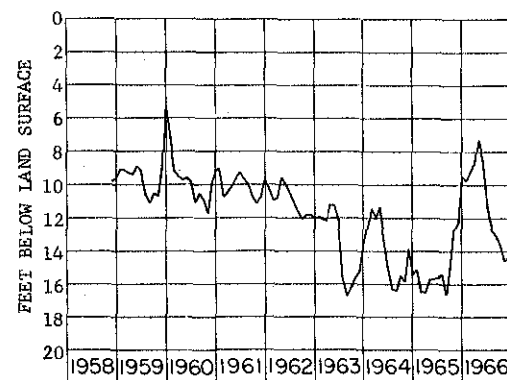
Richard H. Nelson. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 8 N., R. 20 E. Drilled domestic artesian well in Niagara Dolomite, diam 6 in, reported depth 86 ft. Lsd 878 ft above msl. MP top of casing, 2.50 ft above lsd. Measured monthly. All plotted.



WAUPACA CO., Well-2

Wp-21/13/25-2

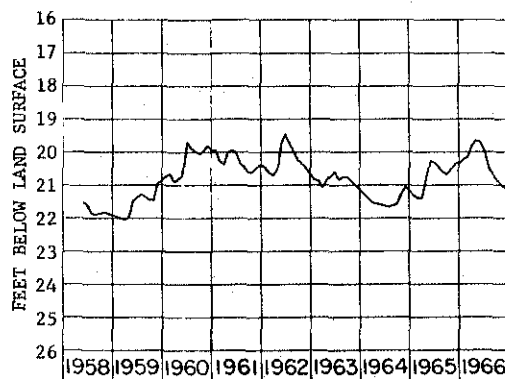
Village of Fremont. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 21 N., R. 13 E. Drilled public-supply artesian well in sandstone of Cambrian age, diam 8 in, reported depth 205 ft, cased to 109. Lsd 764 ft above msl. MP hole in cap, 1.00 ft above lsd. Measured weekly. Lowest monthly plotted.



WAUPACA CO., Well-13

Wp-22/14/12-13

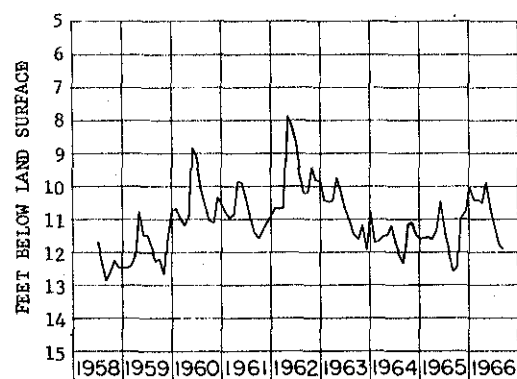
Green Bay and Western Railway Co. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 22 N., R. 14 E. Drilled unused artesian well in sand and gravel of Pleistocene age, diam 10 in, reported depth 203 ft, screened 188-203. Lsd 764 ft above msl. MP hole in cover on casing, 0.50 ft above lsd. Recording gage. Lowest monthly plotted.



WAUPACA CO., Well-63

Wp-21/11/9-63

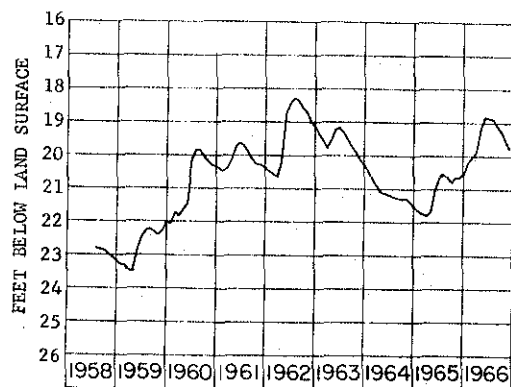
Red Dot Foods, Inc. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 21 N., R. 11 E. Drilled unused water-table well in sand of Pleistocene age, diam 4 in, depth 93.5 ft. Lsd 904 ft above msl. MP top of casing, 1.00 ft below lsd. Recording gage. Lowest monthly plotted.



WAUPACA CO., Well-77

Wp-24/13/34-77

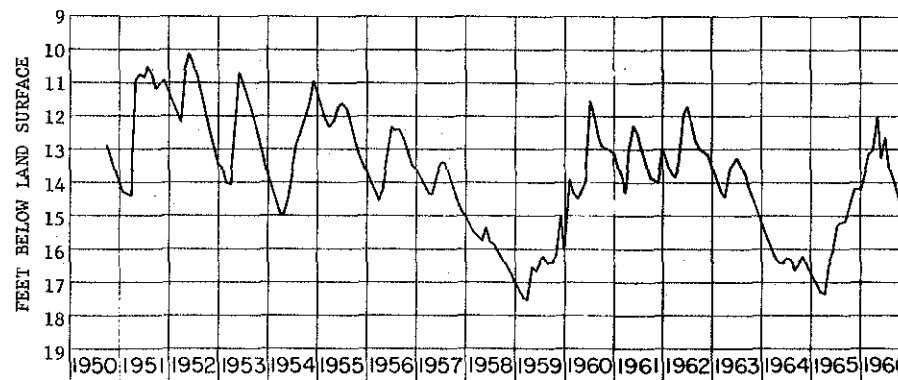
Willard Baldwin. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 24 N., R. 13 E. Drilled unused water-table well in sand of Pleistocene age, diam 4 in, depth 74.1 ft. Lsd 837 ft above msl. MP hole in cover on casing, 1.40 ft above lsd. Measured weekly. Lowest monthly plotted.



WAUPACA CO., Well-117

Wp-23/12/25-117

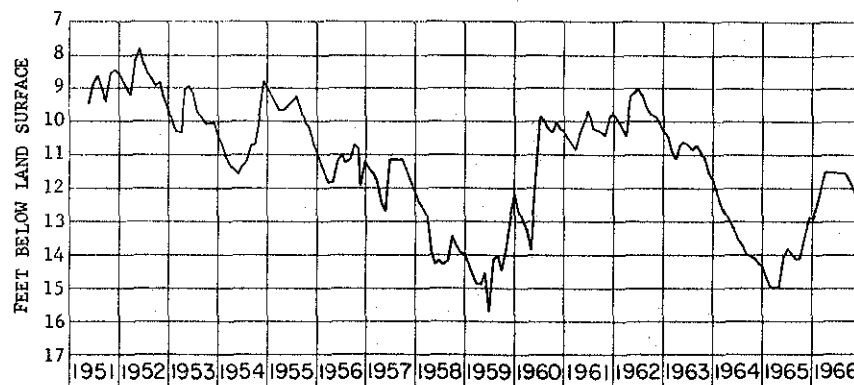
Eldor Schuelke. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 23 N., R. 12 E. Driven unused water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 26.7 ft, cased to 25.2 ft, screened 25.2-26.7. MP top of 1 $\frac{1}{2}$ in pipe, 0.40 ft above lsd. Measured weekly. Lowest monthly plotted.



WAUSHARA CO., Well-7

Ws-20/8/10-7

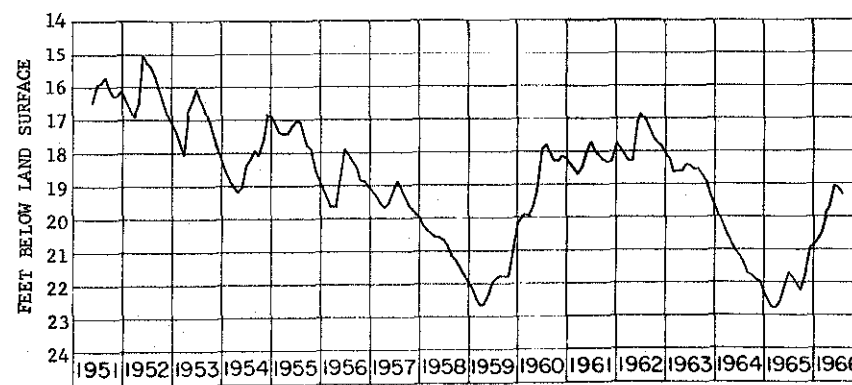
U. S. Geol. Survey. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 20 N., R. 8 E. Driven observation water-table well in sand of Pleistocene age, diam 1 $\frac{1}{2}$ in, depth 19 ft, well point 17-19. Lsd 1,104 ft above msl. MP top of casing, at lsd. Measured weekly. Lowest monthly plotted.



WAUSHARA CO., Well-8

Ws-19/8/15-8

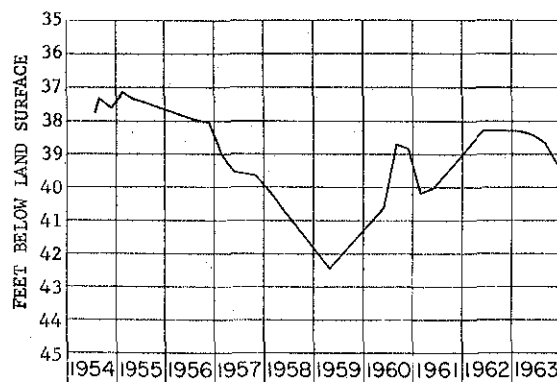
University of Wisconsin Experiment Farm, Hancock. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 19 N., R. 8 E. Jetted observation water-table well in sand and gravel of Pleistocene age, diam 4 in, depth 18 ft. Lsd 1,080 ft above msl. MP top of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



WAUSHARA CO., Well-9

Ws-19/8/15-9

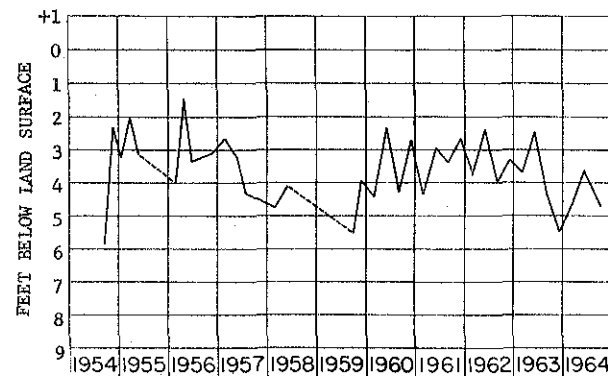
University of Wisconsin Experiment Farm. Hancock, Wis. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 19 N., R. 8 E. Jetted observation water-table well in sand and gravel of Pleistocene Age, diam 4 in, depth 26 ft. Lsd 1,090 ft above msl. MP top of casing, 1.00 ft above lsd. Affected by pumping of nearby wells. Discontinued 1966.



WAUSHARA CO., Well-11

Ws-18/8/14-11

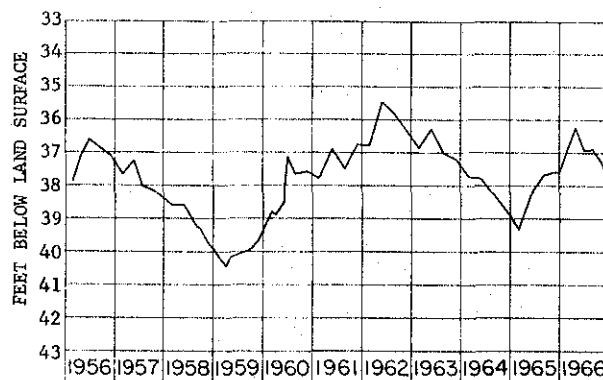
Village of Coloma. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 18 N., R. 8 E. Drilled public supply water-table well in sandstone of Cambrian age, diam 10 in, depth 390 ft, cased to 155 ft, 6 inch liner 140-170. Lsd 1,022 ft above msl. MP $\frac{1}{2}$ inch hole in east side of casing, 1.00 ft above lsd. Discontinued 1964.



WAUSHARA CO., Well-39

Ws-20/10/23-39

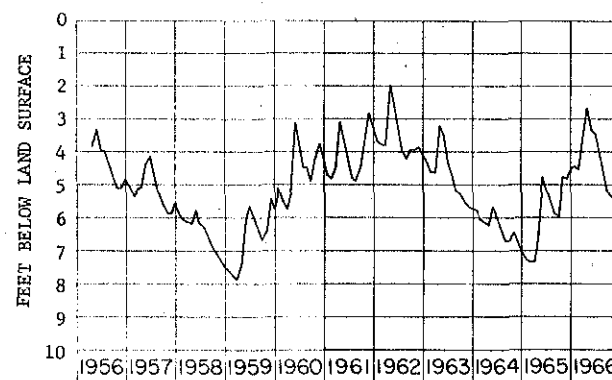
U. S. Geol. Survey. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 20 N., R. 10 E. Driven observation water-table well in sand and gravel of Quaternary age, diam 1 $\frac{1}{2}$ in, depth 12 ft. MP top of casing, 2.00 ft above lsd. Discontinued 1964.



WAUSHARA CO., Well-53

Ws-20/11/2-53

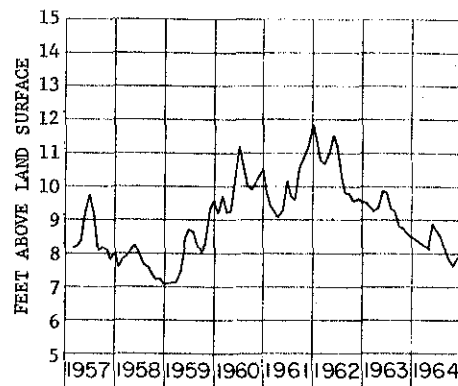
Oshkosh Council, Boy Scouts of America. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 20 N., R. 11 E. Drilled domestic water-table well in sand and gravel of Pleistocene age, diam 6 in depth 177 ft, cased to 172 ft, screened 172-177. Lsd 923 ft above msl. MP top of casing, 1.00 ft above lsd. Measured monthly. All plotted.



WAUSHARA CO., Well-105

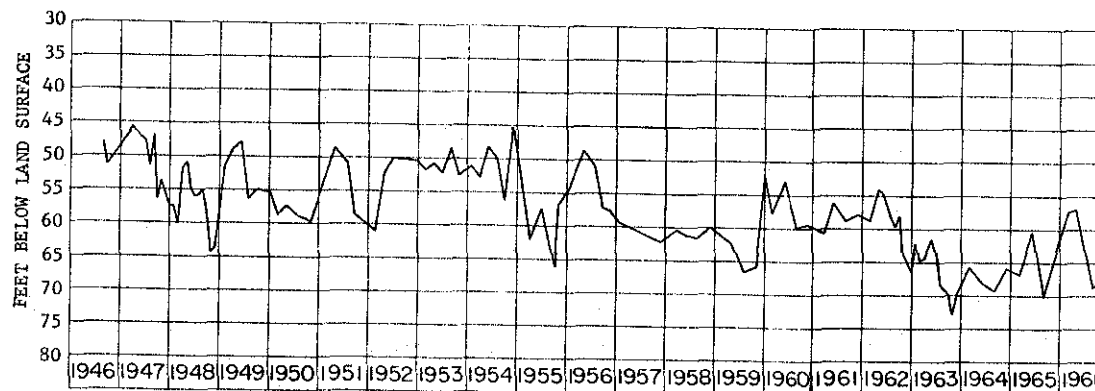
Ws-18/10/1-105

M. D. Bowen. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 18 N., R. 10 E. Drilled observation water-table well in sand of Pleistocene age, diam 4 in, depth 13.5 ft, cased to 13.5. Lsd 873 ft above msl. MP top of casing, 1.00 ft above lsd. Recording gage. Lowest monthly plotted.



WAUSHARA CO., Well-189 Ws-20/13/34-189

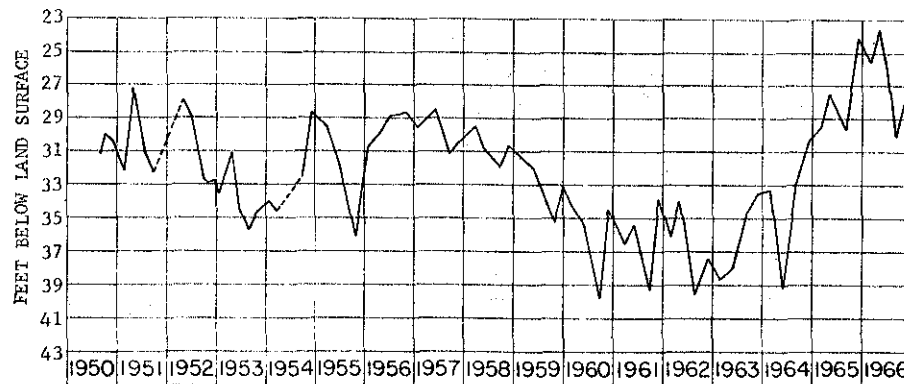
Elmer Thews. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 20 N., R. 13 E. Drilled artesian stock well in sandstone of Cambrian age, diam 2 in, depth 218 ft, cased to 218. Lsd 746 ft above msl. MP top of pipe tee, 2.00 ft above lsd. Discontinued 1964.



WINNEBAGO CO., Well-1

Wi-20/17/20-1

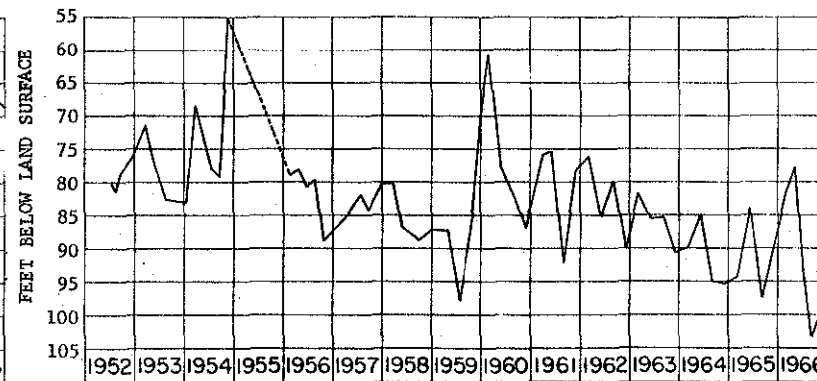
Oak Hill Cemetery. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 20 N., R. 17 E. Drilled irrigation artesian well in sandstone of Cambrian age, reported depth 340 ft. Lsd 771 ft above msl. MP end of 3/8-in pipe in base, 3.30 ft below lsd. Measured monthly. All plotted.



WINNEBAGO CO., Well-6

Wi-18/16/23-6

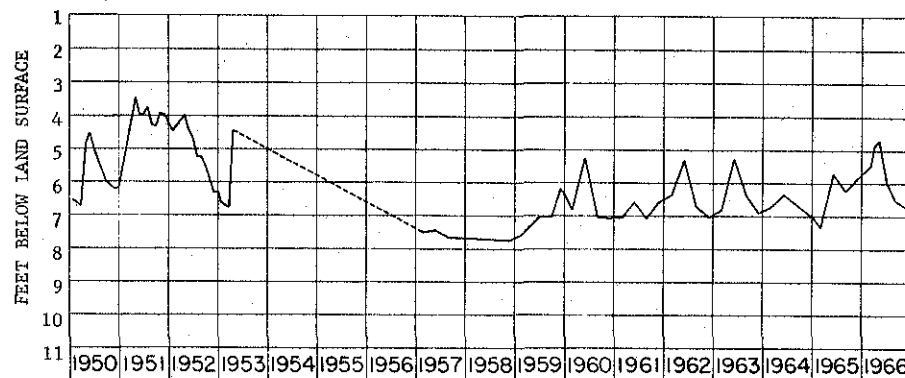
City of Oshkosh. Board of Education. Wisconsin Ave. and Algoma Blvd. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 18 N., R. 16 E. Drilled unused artesian well in St. Peter Sandstone of Middle Ordovician age, diam 8 in, reported depth 200 ft. Lsd 765 ft above msl. MP top of 1-in pipe, at lsd. Affected by pumping of nearby wells. Measured monthly. All plotted.



WINNEBAGO CO., Well-20

Wi-20/17/22-20

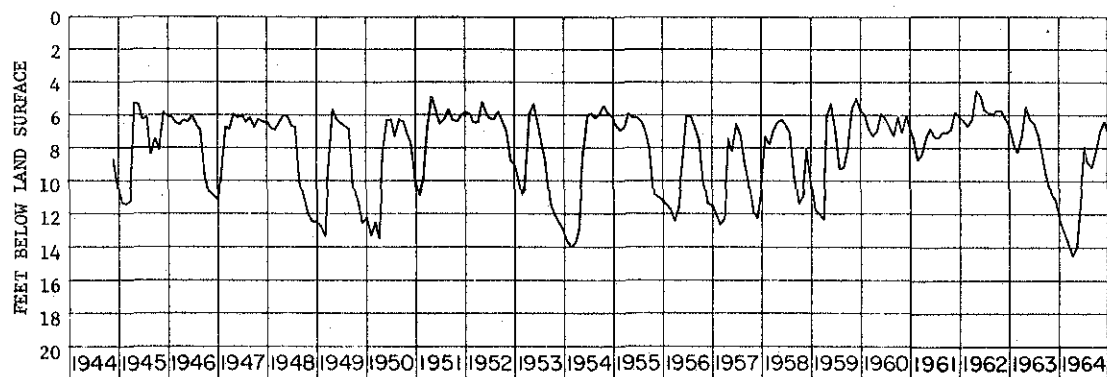
Gilbert Paper Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 20 N., R. 17 E. Drilled unused artesian well in sandstone of Cambrian age, diam 5 in, reported depth 900 ft. Lsd 746 ft above msl. MP top of concrete around casing, 2.00 ft below lsd. Measured monthly. All plotted.



WOOD CO., Well-1

Wd-22/6/16-1

City of Wisconsin Rapids. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 22 N., R 6 E. Driven observation water-table well in deposits of Pleistocene age, diam $1\frac{1}{2}$ in, depth 25 ft, well point 23-25. Lsd 1,001.80 ft above msl. MP top of $1\frac{1}{2}$ in cap on pipe, 2.00 ft above lsd. Measured monthly. All plotted.



WOOD CO., Well-29

Wd-23/4/2-29

Elmer Aschenbrenner. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 23 N., R. 4 E. Drilled unused water-table well in sand of Pleistocene age, diam 8 to 6 in, depth 18 ft. MP top of casing, 0.40 ft above lsd. Discontinued 1965.