FLORIDA
GEOLOGICAL SURVEY

REPORT OF INVESTIGATIONS
NO. 12

Conservation & Survey Division
University of Nebraska
Lincoln

STATE OF FLORIDA
STATE BOARD OF CONSERVATION
Charlie Bevis, Supervisor

FLORIDA GEOLOGICAL SURVEY
Herman Gunter, Director

REPORT OF INVESTIGATIONS
NO. 12

WATER RESOURCE STUDIES

GROUND WATER RESOURCES OF PINELLAS COUNTY, FLORIDA

By

Ralph C. Heath and Peter C. Smith
Ground Water Branch
U. S. GEOLOGICAL SURVEY

Prepared By The
UNITED STATES GEOLOGICAL SURVEY
In cooperation with the
FLORIDA GEOLOGICAL SURVEY
and the
BOARD OF COUNTY COMMISIONERS
of
Pinellas County

TALLAHASSEE, FLORIDA
1954

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Florida Geological Survey

Tallahassee

June 15, 1954

Mr. Charlie Bevis, *Supervisor*
Florida State Board of Conservation
Tallahassee, Florida

Dear Mr. Bevis:

One of the first cities in Florida to experience a failure of a well field through salt water intrusion was the city of St. Petersburg.

This large population center is located on a narrow peninsula and the heavy draft of water for municipal and other rapidly developing enterprises, such as tourist and beach attractions, permanent homes, and large agricultural and other water-using businesses encouraged the county commissioners and officials of the larger cities of the county to inventory its water supply.

This water resource study, undertaken by the United States and Florida Geological Surveys at the request of the citizens of Pinellas County is being published as Report of Investigations No. 12. It is a pleasure to record that a large source of potable water was discovered during the investigation, lying wholly within the boundaries of Pinellas County, and an adequate supply is available for an increased development of the economy of the area.

Respectfully,

Herman Gunter, *Director*

CONTENTS

	Page
Abstract	1
Introduction	2
Purpose and scope of investigation	3
Personnel and acknowledgments	3
Previous investigations	4
Geography	5
Location and area	5
Climate	5
Topography	6
Terraces	7
Drainage	10
Geology	10
Oligocene series	10
Suwannee limestone	10
Miocene series	12
Tampa formation	13
Hawthorn formation	15
Middle and upper Miocene deposits	15
Pliocene(?) and Pleistocene series	16
Ground water	16
Occurrence	16
Water-level records	18
Fluctuations of water levels	21
Fluctuations caused by rainfall	21
Fluctuations caused by pumping	22
Fluctuations caused by tides	24
Fluctuations caused by earthquakes and trains	25
Fluctuations caused by changes in atmospheric pressure	26
Piezometric surface in Florida	27
Piezometric surface in Pinellas County	29
Area of artesian flow	31
Salt-water encroachment	31
Relationship between fresh water and sea water	32
Salt-water encroachment in Pinellas County	34
Underground drainage of Lake Tarpon	38
Quality of water	42
Use of water	45
St. Petersburg water supply	47
Summary and conclusions	48
References	51

ILLUSTRATIONS

Figure		Page
1.	Map of Florida showing location of Pinellas County	5
2.	Map showing the Pleistocene terraces of Pinellas County	8
3.	Geologic map of the Miocene deposits in Pinellas County	11
4.	North-south geologic section through Pinellas County	12
5.	Map showing the approximate altitude of the top of the Tampa formation	Between 14 and 15
6.	Hydrographs of wells 246, 269, 272, and 337 in Pinellas County, and monthly rainfall at Clearwater	Between 18 and 19
7.	Hydrographs of wells 13, 77, and 561 in Pinellas County and monthly rainfall at three stations	21
8.	Daily highest and lowest water levels in well 337, 0.3 mile northeast of Coachman, and daily rainfall at Clearwater	22
9.	Fluctuations of the water level in well 269	23
10.	Water level in well 272 showing fluctuations due to ocean tides, earthquakes, and passing trains	25
11.	Effect of atmospheric pressure on the water level in well 337	26
12.	Map of Florida showing the piezometric surface	27
13.	Map showing the piezometric surface and the area of artesian flow in Pinellas County in June 1949	Between 28 and 29
14.	Map showing the piezometric surface in Pinellas County in May 1951	30
15.	Diagram showing the relation between fresh water and sea water beneath a narrow peninsula	32
16.	Map showing the chloride content of water in wells that penetrate the limestone aquifer in Pinellas County	Between 34 and 35
17.	Section along line B-B′ in figure 13 showing the theoretical contact between fresh water and sea water in Pinellas County	36
18.	Map of northwestern Pinellas County showing locations of Spring Bayou and Lake Tarpon	38
19.	Factors relating to underground drainage of Lake Tarpon	40
20.	Chloride content of water in sinkhole in Lake Tarpon in 1947	41
21.	Hydrograph of well 13 in Hillsborough County and monthly rainfall at St. Leo, Pasco County	46

TABLES

Table		
1.	Comparison of various types of data used to compile figure 5	14
2.	Relationship between length of pumping time and chloride content of water in well 420	35
3.	Analyses of water from wells in Pinellas County	44
4.	Average daily output of public water supplies in Pinellas County, 1947	45
5.	Record of wells	53-139

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GROUND-WATER RESOURCES
of
PINELLAS COUNTY, FLORIDA

By

Ralph C. Heath and Peter C. Smith

ABSTRACT

Pinellas County comprises a land area of 290 square miles along the west coast of Florida, and forms a peninsula between Old Tampa Bay and the Gulf of Mexico. It is underlain by a series of limestone formations having a total thickness of several thousand feet. The upper several hundred feet of the limestone consists of the Suwannee limestone of late Oligocene age and the Tampa formation of early Miocene age. South of Palm Harbor these limestones are overlain by clays and sandy clays of middle and late Miocene age. A veneer of Pliocene(?) and Pleistocene sands and shelly sands, ranging in thickness from several feet to more than 50 feet, overlies the clays and sandy clays in the area south of Palm Harbor and overlies the Tampa formation[1] in the area north of Palm Harbor.

The Tampa and Suwannee limestones constitute the principal source of water in the county. Water in these formations occurs under water-table conditions in most of the area north of Palm Harbor and west of Lake Tarpon, and under artesian conditions in the area south of Palm Harbor. Where the water is under water-table conditions the formations are recharged locally by rain. In the area south of Palm Harbor, where the clays and sandy clays confine the water in the limestones under pressure, water enters the formations wherever the confining beds are discontinuous or absent, but principally through sinkholes in the vicinity of Coachman. The artesian water in the Tampa formation and Suwannee limestone in the area north of Old Tampa Bay and east of Lake Tarpon is derived principally from recharge that enters the limestones in northern Hillsborough County and southern Pasco County.

In the area north of Palm Harbor and west of Lake Tarpon, the water table is relatively low, ranging from about 2 feet to about 6 feet above sea level. Over the rest of the county, where the water

[1]The stratigraphic nomenclature of this report conforms to the nomenclature of the Florida Geological Survey. It conforms also to the nomenclature of the U. S. Geological Survey except that Tampa formation is used in this report instead of Tampa limestone.

in the limestones is under artesian pressure, the piezometric surface ranges from about 2 feet above sea level in some areas near the coast to more than 22 feet in the northeastern part of the county.

The problem of salt-water encroachment first became prominent in Pinellas County between 1920 and 1930 when the early municipal-supply wells of St. Petersburg began to yield salty water. Areas on both coasts of the county have been affected by the encroachment. These include: (1) a small area that extends in a northeasterly direction from the coast south of Palm Harbor almost to Lake Tarpon; (2) most of the area between Indian Rocks and Long Bayou; (3) an area along the southeastern coast of the county beginning in the vicinity of Lake Maggiore and extending northward for more than 15 miles; and (4) a small area at the north end of Old Tampa Bay about 2 miles west of Oldsmar.

The chloride content of the water from many of the deep wells in the areas of salt-water encroachment is more than 500 parts per million, whereas the chloride content of uncontaminated ground water in the county is generally less than 50 ppm. Uncontaminated ground water generally contains less than 300 ppm of dissolved solids and has a total hardness of less than 250 ppm.

INTRODUCTION

The difficulty of locating and preserving adequate potable water supplies is a problem confronting many of Florida's coastal communities. In some areas the problem is one of finding satisfactory water in sufficient quantity to supply the needs of the community; in others, the problem is one of protecting supplies already developed against an encroachment of salt water. The presence of naturally salty ground water in some of the water-bearing formations in Brevard, Sarasota, Charlotte, Lee, and other counties of the State makes the finding of satisfactory ground-water supplies difficult. In Pinellas County, however, the problem is primarily one of preventing the encroachment of salt water into the water-bearing formations.

Salt-water encroachment began first in the southern part of the county in the early twenties. By 1930 it had so seriously affected the St. Petersburg supply that a new well field was developed for the city at Cosme, more than 20 miles north of the city, in Hills-

borough County. Since 1930 salt water has continued to move into the water-bearing formations as a result of a gradual increase in the withdrawal from wells. Among the other public water supplies in the county that have increased in salinity are those of Clearwater, Tarpon Springs, Pinellas Park, and the Pinellas County Water System. In addition, many wells supplying water for irrigation and domestic uses have also been affected by the encroachment.

PURPOSE AND SCOPE OF INVESTIGATION

The investigation leading to this report was begun in 1944 by the United States Geological Survey in cooperation with the Florida Geological Survey and the Board of County Commissioners of Pinellas County. Its primary purpose was to determine the extent to which salt water had encroached into the water-bearing formations and to evaluate the factors governing encroachment. An investigation of the surface-water resources of the county also was begun in 1944 by the Surface Water Branch of the U. S. Geological Survey.

The field work of the ground-water investigation consisted of:

1. The collection of information on the location, the depth and diameter, and other pertinent facts on the existing wells in the county.

2. Analyses of the chloride content of water from all flowing wells and from most of the wells equipped with pumps.

3. Repeated analyses of the chloride content of water from selected wells.

4. Measurements of the water level in all open wells that could be found.

5. The collection and geologic study of rock cuttings from 34 wells.

6. The installation of eight automatic water-stage recorders.

PERSONNEL AND ACKNOWLEDGMENTS

Most of the field work of the investigation was done by P. C. Smith, of the U. S. Geological Survey, whose death in March 1949

prevented his writing the report. Earlier field work was done by A. G. Unklesbay and T. C. Wiggins, also of the Federal Survey. R. C. Heath collected the data on the piezometric surfaces, the terraces, and the geology and prepared the report. The investigation was made under the immediate supervision of H. H. Cooper, Jr., District Engineer, and under the general supervision of A. N. Sayre, Chief of the Ground Water Branch, U. S. Geological Survey, and Herman Gunter, Director of the Florida Geological Survey.

Helpful assistance was given throughout the investigation by W. A. McMullen, who was then County Engineer of Pinellas County. A. R. Swartz, of the U. S. Department of Agriculture, Soil Conservation Service, placed his office facilities at the disposal of the authors during the investigation, and F. S. Mann, also of the Soil Conservation Service, assisted in making water-level measurements. A. O. Dunlap and other well drillers saved cuttings and gave information on numerous wells. Also, information on wells was given by many public officials and private individuals.

PREVIOUS INVESTIGATIONS

The water resources and geology of Pinellas County have been treated briefly in previous reports of the Florida Geological Survey and the U. S. Geological Survey. A report by Matson and Sanford (1913, pp. 319-325) describes the geology and ground water of Hillsborough County, which at that time included the area that is now Pinellas County. A report by Sellards and Gunter (1913, pp. 258-262) contains a generalized map of the area of artesian flow and describes the water-bearing formations. Chemical analyses of 23 samples of water from Pinellas County are listed in a report by Collins and Howard (1928, p. 224). A recent report on the chemical character of Florida waters (Black and Brown, 1951, pp. 91-93) contains 81 analyses of water samples from Pinellas County. A report by Stringfield (1933, pp. 13-17) gives a general discussion of the occurrence of ground water in the county and calls attention to the problems that need investigation. A map of the piezometric surface of the principal artesian aquifers in the Florida peninsula and a discussion of recharge and discharge areas are included in a report by Stringfield (1936). The geologic formations that crop out in Pinellas County have been described by Cooke (1945, pp. 131, 192, 224). A report by Ferguson and others (1947, p. 137) describes two of the largest springs in the county and gives chemical analyses of their waters.

GEOGRAPHY

LOCATION AND AREA

Pinellas County is approximately in the center of the west coast of Florida (see fig. 1) and includes the peninsula that separates Old Tampa Bay from the Gulf of Mexico. It has a total of 439 square miles, of which only 290 square miles, or 185,600 acres, is land. The county has a coast line of 128 miles, a length of about 40 miles, and an average width of about 7 miles.

CLIMATE

The climate of the county is subtropical. The average annual rainfall at Tarpon Springs during the 51-year period beginning in 1892, according to the records of the U. S. Weather Bureau, was 51.20 inches. The average annual rainfall at St. Petersburg over the 32-year period beginning in 1915 was 53.24 inches. Thus, the

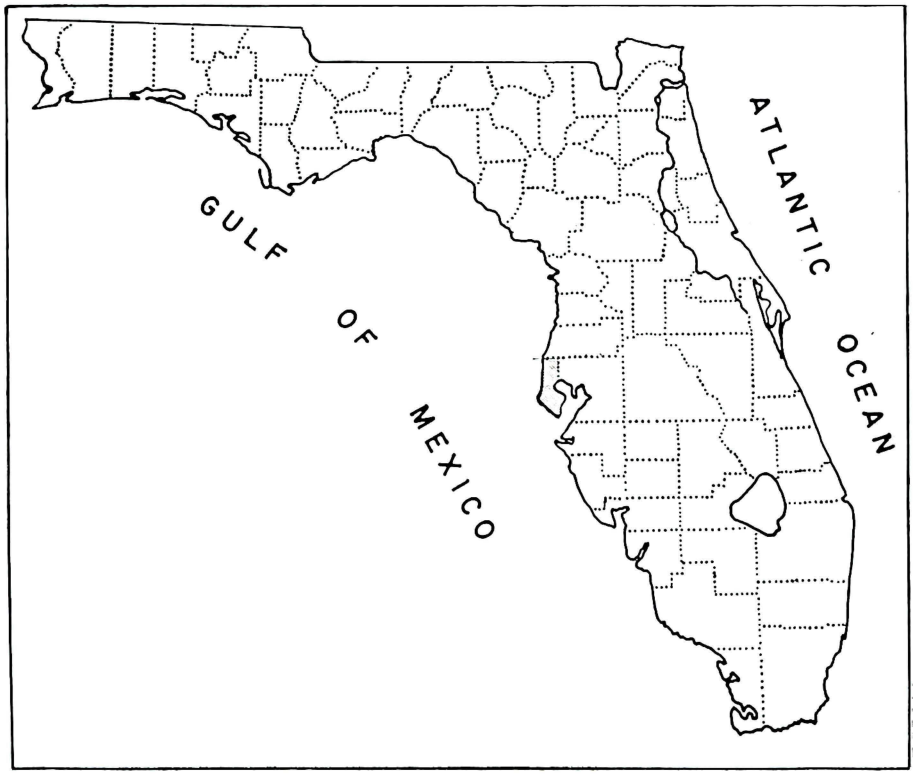


Figure 1.—Map of Florida showing location of Pinellas County.

average annual rainfall over a long period of years is about the same in the northern part as it is in the southern part of the county. However, in any particular year the amount falling on one part may differ from that falling on another part by as much as 15 inches, or more. In 1941, for instance, Tarpon Springs had 62.46 inches of rainfall, whereas St. Petersburg had only 45.77 inches. The months of heaviest rainfall are June through September. The mean temperature in the county is 71.7° F.

TOPOGRAPHY

The topography of Pinellas County may be divided into three types: hilly uplands, characteristic of the area from Oakhurst to Palm Harbor; a flat upland, around St. Petersburg; and level lowlands, characteristic of the area north and east of Pinellas Park. All of these subdivisions lie within "The Terraced Coastal Lowlands" (see Vernon, 1951, p. 16.).

The principal upland area, here referred to as the "Pinellas ridge," is an area ranging from 3 to 4 miles in width, bordering the Gulf of Mexico from the vicinity of Oakhurst to the vicinity of Palm Harbor. It consists of gently rolling hills formed by the erosion of small streams, and of sinkholes formed by collapse of the surface formations into limestone caverns. Altitudes on the ridge range from about 25 feet to as much as 100 feet above sea level. However, the summits of most of the hills are between 80 and 95 feet above sea level, their concordance indicating that the Pinellas ridge may once have been a continuous, relatively level upland. The highest altitude in Pinellas County, as recorded on the topographic maps of the U. S. Corps of Engineers, is 97 feet, on State Highway 580 about 4 miles east of Dunedin. The maximum relief on the ridge is in Sec. 5, T. 28 S., R. 16 E., near the southwest shore of Lake Tarpon, where the altitude changes more than 40 feet in less than a tenth of a mile. North of Pinellas ridge, and separated from it, is a line of small hills, extending around the north end of Lake Tarpon, whose summits range in altitude from about 20 to about 60 feet. Although these hills are not a part of the ridge, they give the area in which they occur a topography similar to that of the ridge.

The upland in the vicinity of St. Petersburg has low relief, the maximum altitude being about 50 feet. This area is roughly circular and has a diameter of about 5 miles.

Surrounding the upland areas are areas of low-lying level land and swamps, which range in altitude from sea level to about 25 feet. These level lowlands are best exemplified and have the greatest

areal extent north and west of St. Petersburg and south and east of Lake Tarpon.

TERRACES

During Pleistocene time the sea stood above and below its present level, submerging greater and lesser portions of the land according to its height. Whenever it remained relatively stationary for a long period, waves and currents washing back and forth across the sea floor formed an essentially level surface, called a "terrace." Upon the retreat of the sea to a lower level each terrace emerged as a level plain having a slight seaward dip. The landward margin of such a terrace is the abandoned shoreline, which is generally marked by a low scarp.

Discussions of the Pleistocene history and the terraces in Florida are included in a report by Cooke (1945, pp. 245-312) and Vernon (1951, pp. 19-32). Three of these terraces, the Pamlico, Penholoway, and Wicomico, have been recognized by the senior author in Pinellas County. The Pamlico terrace, whose shoreline is approximately 25 feet above present sea level, is well preserved in Pinellas County. The Penholoway may be associated with a scarp that is present at several places in the county between 60 and 70 feet above sea level. The Wicomico terrace, built when the sea stood approximately 100 feet above its present level, is represented by the highest surfaces of the Pinellas ridge.

The terraces are not readily recognizable on the topographic maps of the county because the maps have 20-foot contour intervals and hence do not show sufficient detail. In order to identify and delineate the terraces, several traverses across the county were made with an aneroid barometer. However, the topographic maps were used to delineate them in the relatively inaccessible areas where traverses were not made. The boundaries of the terraces are shown in figure 2.

When the sea stood 100 feet higher than it does today, during Wicomico time, the Pinellas ridge was a shoal about 40 miles west of the nearest land, which consisted of a large island located in what is now the relatively high lake region of central Florida. Much of the shoal, particularly in the area northeast of Dunedin, was so near sea level that some parts of it may have emerged during low tide.

During the formation of the Penholoway terrace, which is believed by Cooke (1945, p. 17) to have occurred during the Sanga-

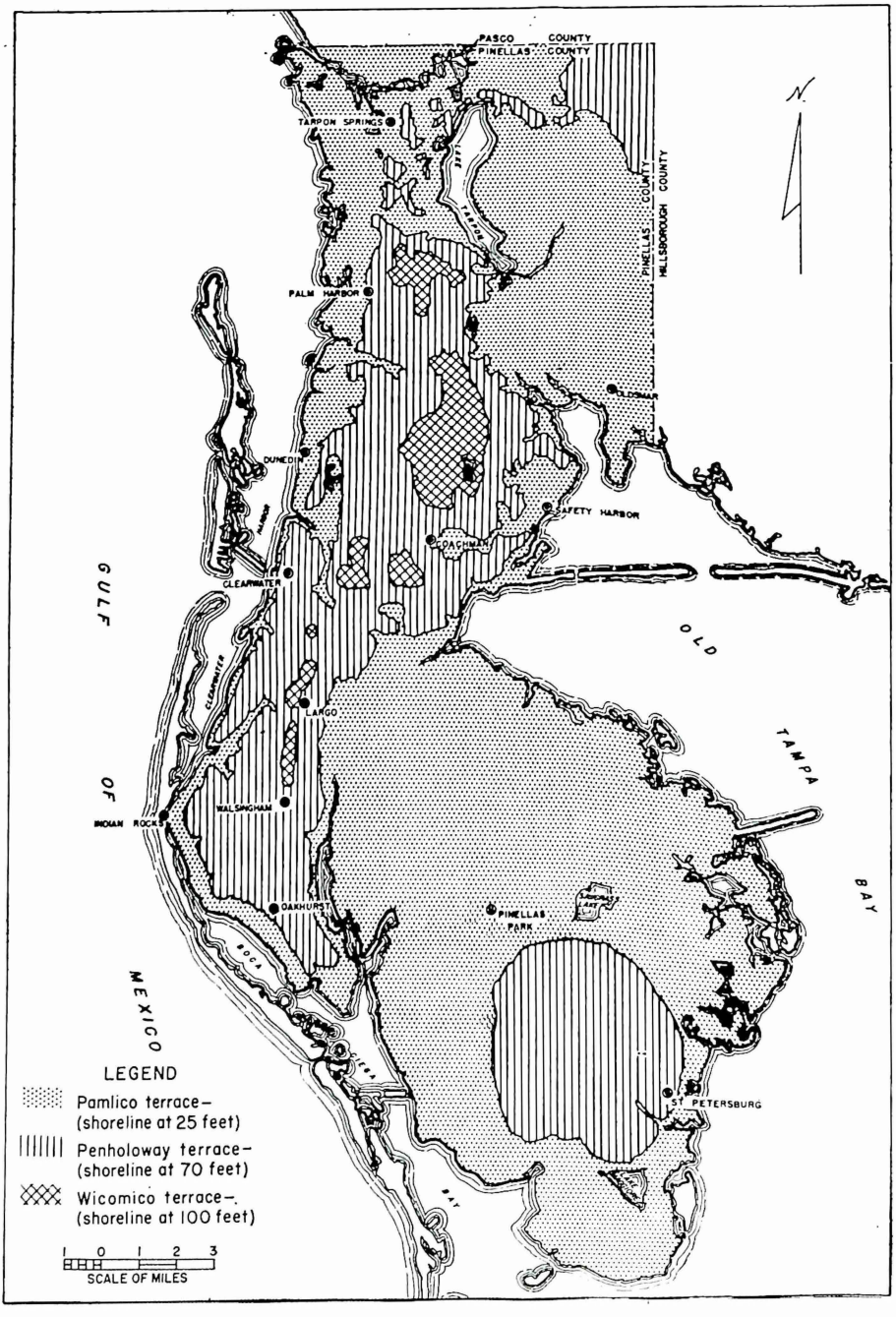


Figure 2.—Map showing the Pleistocene terraces of Pinellas County.

mon stage (interglacial), about 200,000 years ago, the Pinellas ridge was a chain of islands about 35 miles west of the mainland. Remnants of a scarp that was formed during that time are, among other places, at the following locations: about three-fourths of a mile east of Palm Harbor on State Road 580; about 3 miles east of Dunedin and also about 5 miles east of Dunedin; near the south side of Largo on U. S. Highway 19; and about a quarter of a mile north of Walsingham on U. S. Highway 19.

Cooke (1945, p. 292) recognized the Talbot terrace having a scarp based at 42 feet. The senior author recognized no such terrace in Pinellas County but included in the Pamlico terrace deposits which Cooke might have considered to be Talbot. However, at several places in the county the base of the Pamlico terrace is at an altitude of 42 feet. The most notable example is the segment of the scarp on State Road 580 about half a mile west of Tampa Bay. There, the land surface rises from 40 to 52 feet above sea level in less than a tenth of a mile. Another is near the intersection of 38th Avenue West and 44th Street North in St. Petersburg, where the surface rises from 42 to 53 feet above sea level.

The Pamlico is the best preserved and therefore the most easily recognizable terrace in Pinellas County. Its landward margin, which coincides with the shoreline of the Pamlico sea, occurs at the base of a low scarp that is well preserved at many places in the county. The scarp is well preserved, for example, along Clearwater Harbor in the vicinity of Clearwater, where it is rarely more than several hundred feet inland from the present shore, and also along the west side of Old Tampa Bay. However, it is not generally as well preserved on the bay as on the gulf.

The line of hills (see fig. 2) that extends from the Pinellas ridge along the west and north shores of Lake Tarpon may have been formed, as a bar (Leverett, 1931, p. 21) or a spit, of material transported from the Pinellas ridge by an ocean current flowing in a northerly direction. The change in trend of the islands from north to east around the north end of Lake Tarpon was probably caused either by local currents, such as would accompany eastward-moving storms, or by a change in direction of the dominant ocean current during the formation of the Pamlico terrace. The building of sand dunes has increased the altitude of some of these islands by as much as 15 to 40 feet above the level of the sea at that time.

DRAINAGE

The northern part of the county is drained underground by solution channels in the Tampa formation, and by the Anclote River. The Pinellas ridge is drained by a series of short creeks on both the east and west coasts. Sinkholes and lakes also receive some of the surface drainage of the ridge, particularly in the area around Coachman, where part of the rainfall percolates downward through sinkholes into the underlying formations. The southern part of the peninsula is drained by Long Bayou and Cross Bayou and their short natural tributaries, and by the network of canals that have been dug to drain the previously swampy areas in the vicinity of Pinellas Park.

GEOLOGY

The geologic formations that are exposed in Pinellas County range from deposits of early Miocene age (the Tampa formation) to undifferentiated deposits of Pliocene(?) and Pleistocene age. Those below the Pliocene(?) and Pleistocene are exposed in a series of belts across the county (fig. 3). The boundaries of the formations as shown on figure 3 are generalized, but probably represent the true boundaries rather closely. Information on which the geologic map was drawn was obtained from 34 well logs and from a study of several outcrops of the formation. A geologic cross section showing the vertical extent of the different formations from the vicinity of Tarpon Springs to St. Petersburg is given in figure 4.

The following discussion of the formations of Pinellas County does not include the Ocala limestone which, although it underlies the county, is not important locally as a water-bearing formation because it is more than 300 feet beneath the surface and is overlain by a productive aquifer composed of the Tampa formation and Suwannee limestone, and because the water from the Ocala in Pinellas County is more highly mineralized than the water in the overlying formations.

OLIGOCENE SERIES

All deposits of Oligocene age in Pinellas County are referred to the Suwannee limestone. These deposits are differentiated from the underlying deposits of Eocene age and from the overlying deposits of Miocene age on the basis of lithology and fossil content.

Suwannee Limestone

In Pinellas County the Suwannee limestone is composed pre-

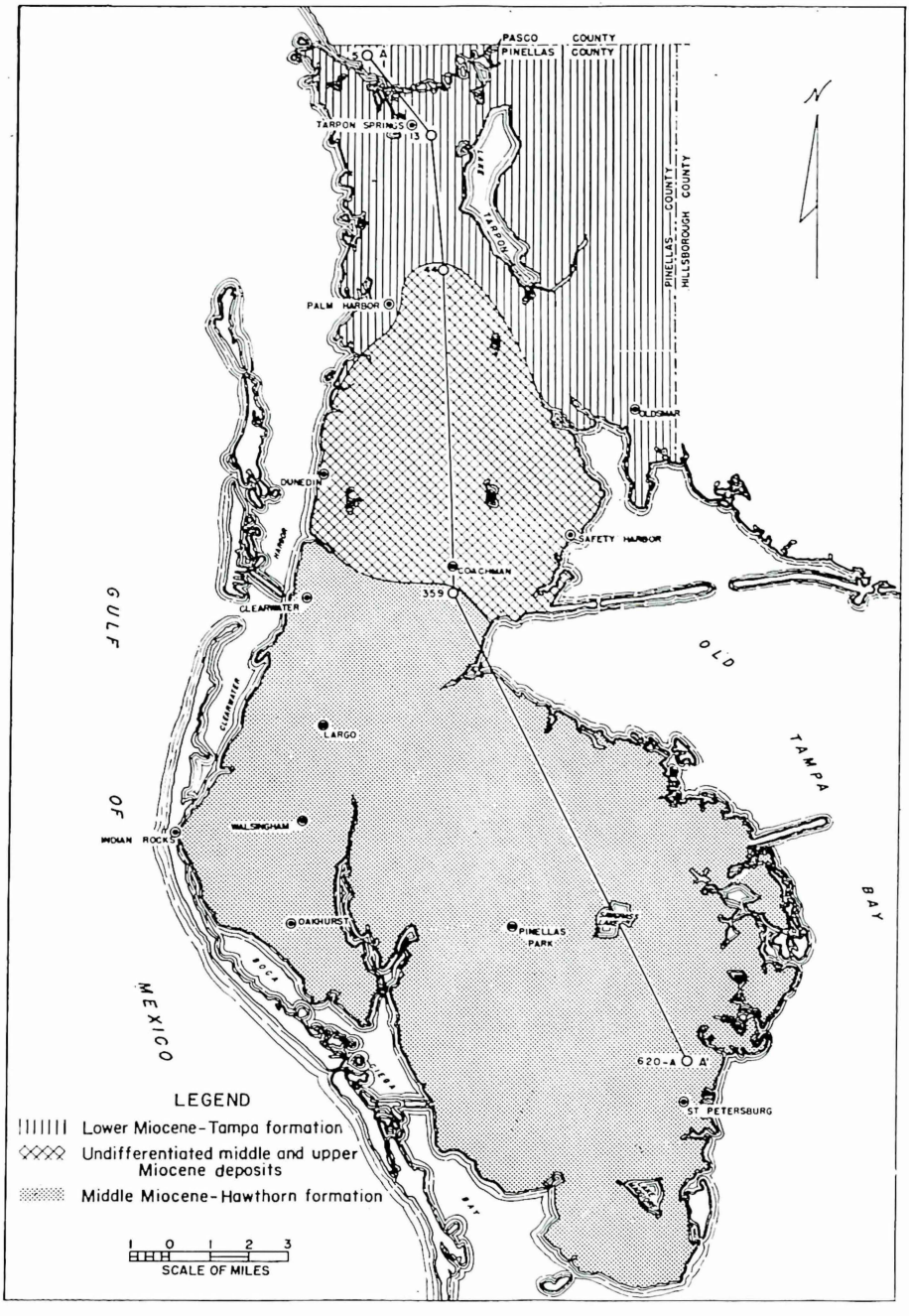


Figure 3.—Geologic map of the Miocene deposits in Pinellas County.

dominantly of a white to cream-colored, hard, generally fossiliferous limestone. Well 5 (fig. 4), north of Tarpon Springs, penetrated 180 feet of Suwannee limestone. Although the well ended in the Suwannee, the formation is believed to be not much over 180 feet thick. Cooke (1945, p. 88) reports that the Suwannee lies unconformably on the Byram limestone or, where that is absent, on the Ocala limestone and that it is unconformably overlain by the Tampa formation. It is highly permeable and a good source of water where salt water has not entered it. Water from the Suwannee is relatively hard.

MIOCENE SERIES

Sedimentary rocks and sediments of Miocene age in Pinellas County cannot be differentiated on the basis of fossils because of the scarcity of identifiable specimens. Therefore, a division of the Miocene can be made only on the basis of lithology.

The lower part of the section of Miocene age consists of hard, sandy limestone referred to the Tampa formation. In the southern part of the county the Tampa is overlain by marine sands and clays of the Hawthorn formation, also of Miocene age (see fig. 4). In the central part of the county, from the vicinity of Clearwater to

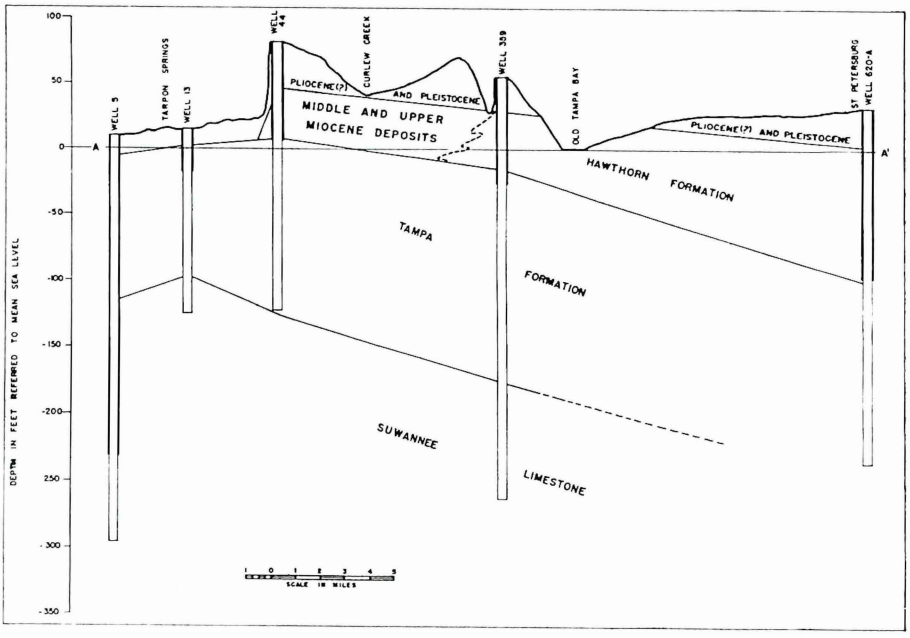


Figure 4.—North-south geologic section through Pinellas County along line A-A′ in figure 3.

Palm Harbor, the Tampa is overlain by sediments that appear to have been derived from weathering of the limestone. They are referred to in this report as deposits of middle and upper Miocene age.

Tampa Formation[1]

The Tampa formation is generally a hard, sandy limestone, whose color varies from white to light tan. Chert fragments are abundant in some well cuttings. The formation contains many molds of Gastropods and Pelecypods, and a few specimens of the foraminifera *Archais floridanus* and *Sorites* (?) sp. The Tampa ranges in thickness from about 100 feet in the northern part of the county to about 150 feet in the southern part.

The Tampa formation is believed by Cooke (1945, p. 115) to lie unconformably on the Suwannee limestone. The Hawthorn formation, according to Cooke (1945, p. 145), lies conformably on the Tampa, and in some areas of the State the two formations are so similar lithologically that it is difficult to differentiate them. However, according to Vernon (1951, pp. 183-186, table 14) there is an unconformity between the two in the west-central and southwestern parts of the Floridan peninsula.

The altitude of the top of the Tampa formation is shown in figure 5. This map is based on the altitude of the top of the first limestone penetrated in wells, as determined from a study of rock cuttings from 34 wells, as reported in 75 drillers' logs, and as indicated by the depth of casing in 7 wells.

Where no well cuttings or drillers' logs are available, the records of the depths of casing in wells are a generally reliable index of the depth to the limestone, because wells are commonly cased only to the top of the limestone. Thus, in the area north of Pinellas Park, where other data were lacking, the records of casings were used to determine the altitude of the top of the formation. Table 1 shows the generally close correlation between the various types of data used in compiling figure 5. This table lists the wells for which all three types of data were available. Only in wells 13 and 410 was there any considerable discrepancy among the data.

Limestones such as those of the Tampa are formed beneath the sea and originally have a smooth upper surface which dips gently seaward. Later, if a different type of sediment, such as sand, is

[1]The stratigraphic nomenclature of this report conforms to the nomenclature of the Florida Geological Survey. It conforms also to the nomenclature of the U. S. Geological Survey except that Tampa formation is used in this report instead of Tampa limestone.

TABLE 1
COMPARISON OF VARIOUS TYPES OF DATA USED TO COMPILE FIGURE 5, MAP SHOWING ALTITUDE OF THE TOP OF THE TAMPA FORMATION

No. of well in table 5	Depth to limestone from well cuttings (feet)	Depth to limestone from driller's log (feet	Depth of casing (feet)
2	33	33	33
13	12	30	33
44	72	72	74
90	50	52	56
140	30	28	31
145	40	35	37
223	75	75	73
268	65	71	74
278	71	67	73
290	73	73	75
291	90	94	95
293	88	90	89
359	70	75	81
361	70	80	82
410	130	140	124
442	126	122	120
484	140	140	146

deposited on the limestone before it emerges from the sea, the smooth surface is preserved, and the contact between the limestone and sand is said to be conformable. If, on the other hand, the younger material is deposited after the surface of the limestone has been exposed to the atmosphere and altered by erosion, the contact is irregular, and is said to be unconformable.

An inspection of figure 5 reveals that the surface of the Tampa formation is irregular. Actually, the generalized representation shown in the figure cannot show the numerous pinnacles and sinkholes that are presumed to exist. As pointed out above, Vernon has found that the Tampa formation and the Hawthorn formation are separated by an unconformity in the west-central and southwestern parts of the Florida peninsula. Thus, the irregular surface of the Tampa in southern Pinellas County is doubtless due primarily to erosion that preceded the deposition of the Hawthorn formation. The irregular surface of the Tampa in the central part of the county is probably due partly to erosion and partly to irregular weathering of the Tampa during the formation of the middle and upper Miocene deposits.

The limestone of the Tampa contains numerous solution channels, which provide a large storage capacity and readily transmit water to wells. It comprises the upper part of the productive limestone aquifer, which is the principal source of water in the county.

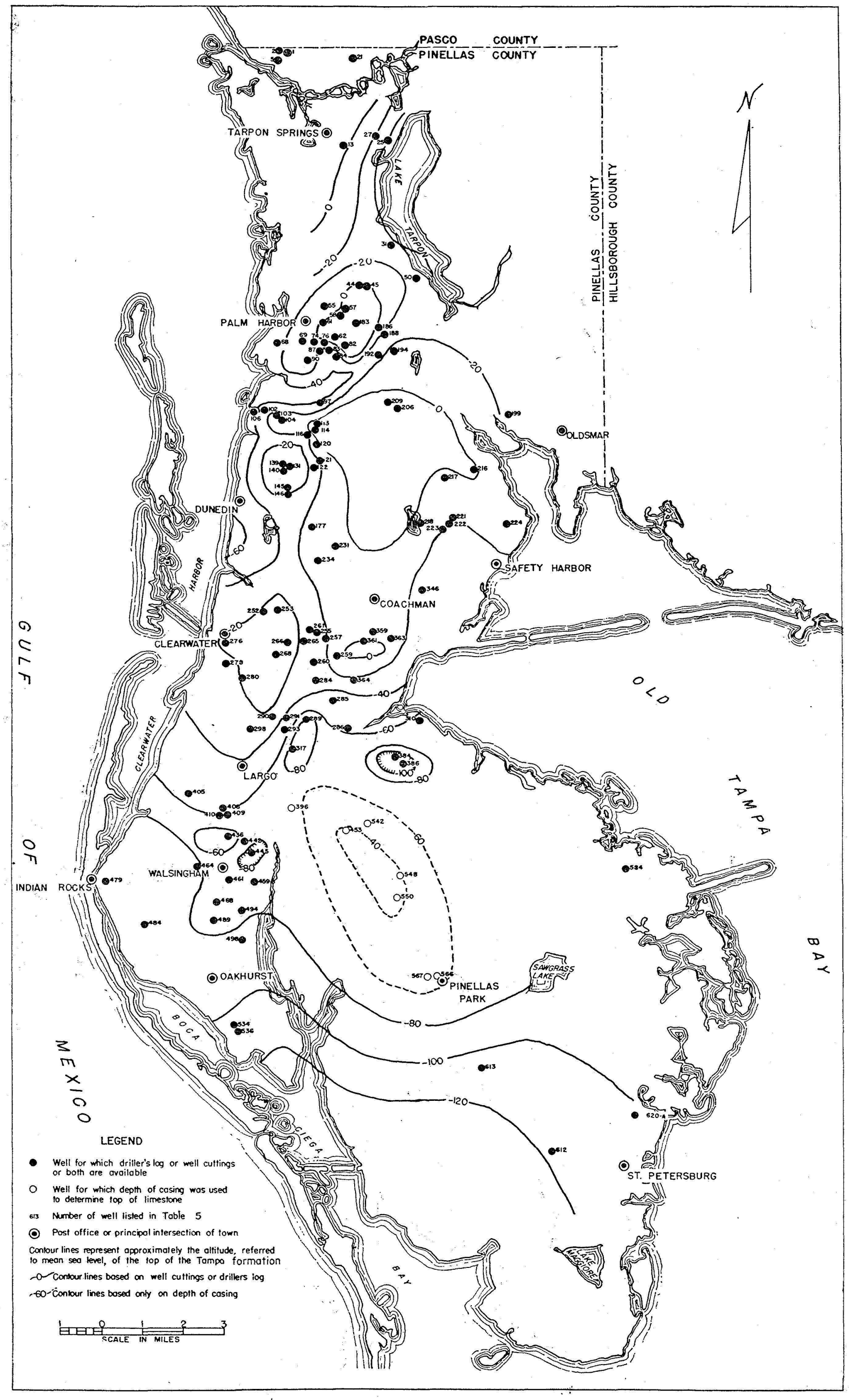


Figure 5.—Map showing the approximate altitude of the top of the Tampa formation in Pinellas County.

The hardness of its water ranges generally between 150 and 225 ppm in those wells whose water has not been contaminated by salt-water encroachment.

Hawthorn Formation

As shown in figure 3, the Hawthorn formation underlies the peninsula south of Clearwater. It ranges from a fairly hard gray sandstone to sandy gray clay, and is calcareous in places. Irregularly distributed through it are small grains of black and brownish phosphate and angular fragments of chert. The formation ranges in thickness from about 50 feet in the vicinity of Clearwater to 80 or 90 feet at the southern end of the county. It is overlain by sands and shelly sands of Pliocene(?) and Pleistocene age.

The Hawthorn contains beds of sand which yield water to domestic wells, but as a whole it is a relatively poor producer of water because the sands are discontinuous and have a low permeability. No analysis of water from the Hawthorn formation was made as a part of this investigation, but it appears probable that the water would be less hard than that from the underlying limestone formations.

The clays of the Hawthorn formation, together with those in the deposits of middle and late Miocene age, confine the artesian water in the limestone, retarding or preventing vertical movement of water to or from the limestone.

Middle and Upper Miocene Deposits

The Tampa formation in the central part of the county, from Clearwater to Palm Harbor, is overlain by deposits consisting predominantly of blue to gray clay, fine-grained sandstone, and weathered lumps of limestone. Occurring irregularly in the deposits are fragments of chert and cavities containing sand that probably washed down from the Pliocene(?) and Pleistocene deposits above. The thickness of these deposits is generally less than 50 feet.

The age of these deposits is uncertain because of the absence of fossils. However, studies of well cuttings indicate that near their contact with the Hawthorn formation the lower part may interfinger with the Hawthorn, whereas the upper part apparently overlies the Hawthorn. Thus, these deposits are probably in part contemporaneous with the Hawthorn formation and in part younger

than the Hawthorn. They are probably equivalent to deposits referred by Vernon (1951, pp. 180 and 189) to the Alachua formation in Citrus and Levy counties.

The large percentage of clay in these deposits would probably prevent them from yielding even small supplies of water. However, they constitute a competent confining bed for the water in the underlying limestones.

PLIOCENE(?) AND PLEISTOCENE SERIES

The surface deposits in Pinellas County consist of sands and shelly sands ranging in thickness from a few feet to more than 50 feet. North of Oakhurst and north and west of Largo they consist predominantly of fine to coarse sand. Southeast of Largo and east of Oakhurst they consist principally of calcareous sandstone. These deposits unconformably overlie the deposits of Miocene age.

The age of the surface deposits is not definitely known. Cooke (1945, p. 224) referred the sand and shell deposits in the southern part of the county to the Caloosahatchee formation of Pliocene age. On the other hand, Vernon[2] believes all the deposits in Pinellas County above those of Miocene age were deposited during the Pleistocene.

The Pliocene(?) and Pleistocene deposits are not generally an important source of water in those parts of the county where water of satisfactory quality is available from the limestone, although they yield a few small domestic supplies throughout the county. Where salt water has moved into the limestone formations many domestic supplies are obtained from these deposits. However, the water from these deposits is likely to contain appreciable amounts of salt in some of the coastal areas, particularly around the southern end of the county. Water from these deposits is likely to be corrosive and to contain objectionable amounts of iron.

GROUND WATER

OCCURRENCE

Ground water is the subsurface water that is in the zone of saturation—the zone in which all pore spaces are completely filled with water. The zone of saturation is the reservoir from which all water from wells and springs is derived. The water in the zone

[2]Personal communication.

of saturation is derived from rain and snow that falls on the earth's surface. Not all the precipitation on the earth's surface soaks into the ground, however; part of it is returned to the atmosphere by evaporation, and part of it enters streams, lakes, and other open bodies of water and becomes surface water. Of the part that does filter into the earth some is lost by transpiration of plants, and some reaches the zone of saturation. Upon reaching the zone of saturation, the water is available to supply wells and springs and is thereafter referred to as ground water. Water between the zone of saturation and the land surface is subsurface water but is not called ground water.

The amount of rainfall that enters the ground to become ground water depends upon many factors. Among these are the slope of the land on which the rain falls, the vegetal cover, the intensity of the rain, the climate and the character of the surface material through which the water must percolate to reach the zone of saturation. After water reaches the zone of saturation it begins to move laterally under the influence of gravity toward a place of discharge, such as a spring, a surface stream, or the ocean.

The ground water thus moving toward a point of discharge may be under either water-table (nonartesian) conditions or artesian conditions. Where it only partly fills a permeable formation, its surface is free to rise and fall and it is said to be under water-table conditions. Where it completely fills a permeable bed that is overlain by a relatively impermeable bed, it is confined and its surface is not free to rise and fall. Water thus confined is said to be under "artesian" conditions. Technically, the term "artesian" is applied to ground water that is confined under sufficient pressure to rise above the top of the permeable bed that contains it, but not necessarily above the land surface.

A formation in the zone of saturation that is permeable enough to transmit water in a usable quantity to wells and springs is called an "aquifer" or water-bearing formation. Areas in which water from the surface percolates downward to the zone of saturation are called "recharge areas." Ordinarily, water-table aquifers are exposed at the land surface almost everywhere and hence receive recharge over most of their expanse. On the other hand, artesian aquifers can receive recharge only in areas in which their confining beds are discontinuous or absent.

Ground water in Florida occurs under both artesian and water-table conditions. The principal artesian aquifer consists of several

limestone formations of Eocene, Oligocene, and Miocene age that act more or less as a single hydrologic unit. Stringfield (1936, pp. 125-132, 146) described the aquifer and mapped the piezometric surface of artesian water in 1933 and 1934. Later, Parker (1946) proposed the name "Floridan aquifer" as a collective term for the water-bearing limestone formations. In a large part of Florida the water in this aquifer is confined under pressure by relatively impermeable beds of Miocene age. The collective term "Floridan aquiclude" has been applied to these confining beds by Parker (1951, pp. 819-820).

Ground water in Pinellas County occurs under both water-table and artesian conditions. The water in the surficial sand deposits throughout the county and the water in the Tampa formation and Suwannee limestone in the area lying north of Palm Harbor and west of Lake Tarpon is under water-table conditions. South of Palm Harbor and east of Lake Tarpon the water in the limestone aquifer is under artesian conditions.

The height to which water in an artesian well will rise above a given datum is called the artesian "pressure head." The pressure head at any place in the artesian system is controlled in part by the head in the area in which the aquifer is recharged, which in turn is determined by the amount of replenishment that reaches the aquifer from rainfall. Systematic observations of the artesian head or, as the case may be, of the water table are an important part of any investigation of ground water.

WATER LEVEL RECORDS

Measurements of water levels have been made in many wells in Pinellas County. The measurements are recorded in table 5, together with the dates on which they were made. They provide information on the altitude and seasonal variations of the artesian head in the county.

Variations in water level from one time to another are principally the result of such factors as rainfall, pumping, and tides. In order to obtain continuous records of the changes in the artesian head, eight wells in Pinellas County were equipped with automatic water-stage recorders. Hydrographs for seven of the wells, prepared from the records of these recording gages, are shown in figures 6 and 7. The first recorder was installed on well 272 at Clearwater in November 1945 and was kept in operation until June 1949, when it became necessary for the city to place the well in service as a

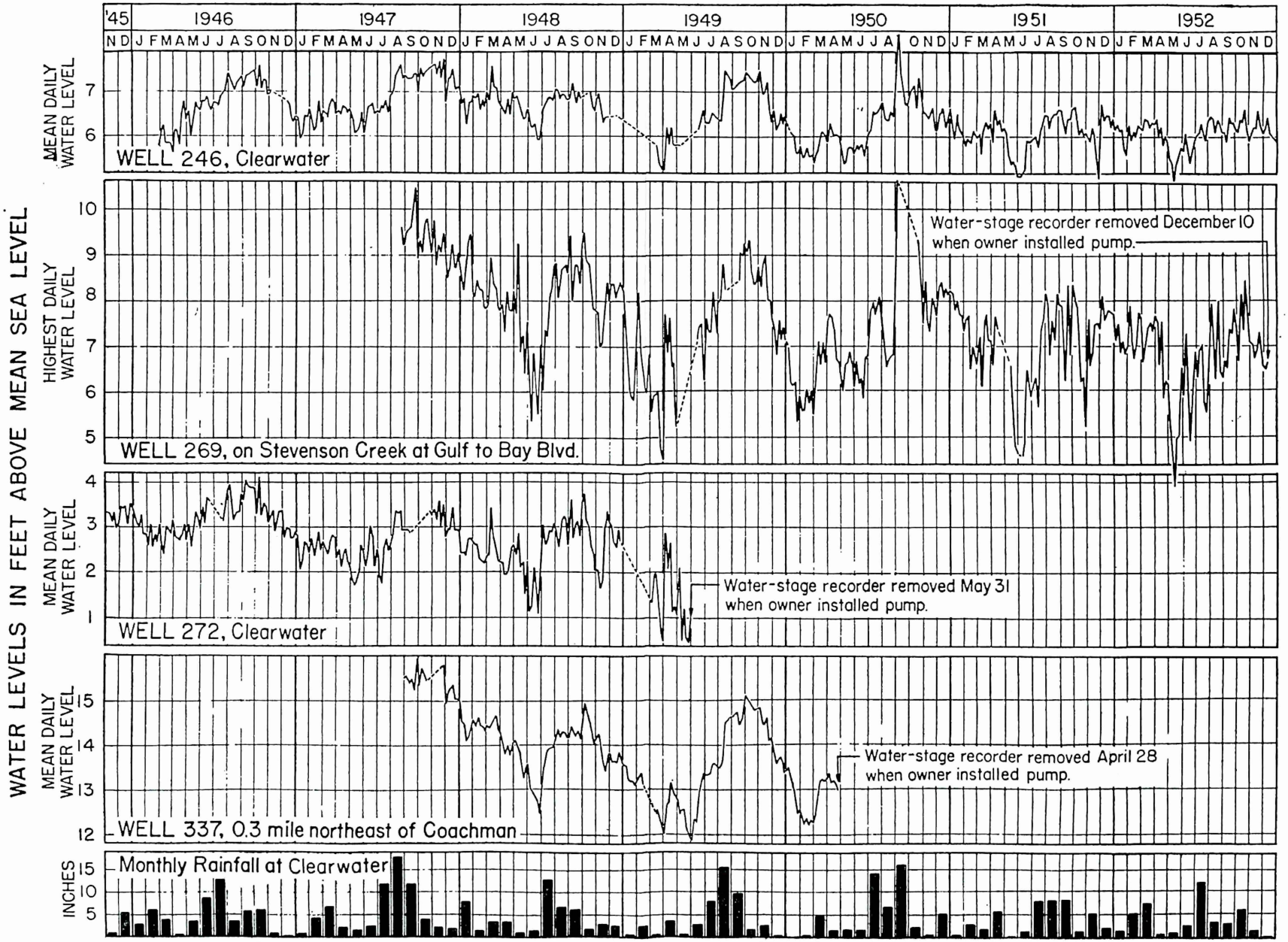


Figure 6.—Hydrographs of wells 246, 269, 272, and 337 in Pinellas County, and monthly rainfall at Clearwater.

municipal-supply well. Fortunately, however, the recorder on well 246, only eight-tenths of a mile north of well 272, was placed in operation shortly after the one on well 272. The records for the other wells in the county were begun in the last half of 1947.

As may be seen from figures 6 and 7 the water-stage recorders were removed from wells 269 and 337 when the owners installed pumps. The record for well 337 ended in April 1950, and that for well 269 ended in December 1952.

Long-time records from water-stage recording instruments are very useful in studies of salt-water encroachment, as they indicate the extent to which water levels may be declining because of such factors as heavy pumping and artificial drainage through canals. As the artesian head controls the extent to which sea water may move into the formation, a progressive decline, however slow, would indicate that the encroachment problem is likely to become more critical. The hydrographs of the wells equipped with automatic water-stage recorders (figs. 6 and 7) show a slight decline of water levels from the beginning of each record to the spring of 1950. The decline was probably due in part to a relatively low rainfall during 1948 and 1949, although some of the decline may have been due to withdrawal. During the summer and fall of 1950 the water levels rose to the highest point on record in all wells except well 13. A new high probably would have been recorded in well 13 also, had the gage not become temporarily inoperative early in September.

After the high levels of September 1950 the water levels in all wells declined slowly until May 1951, after which they declined rapidly in all wells except well 13. This rapid decline was doubtless due to a heavier use of water for irrigation during May and June when the rainfall was below normal. About the middle of June the water levels began to recover, probably as a result of decreased pumping. During the rainy season, from July through September, they were about the same as at the beginning of the year, although they were still 1 to 3 feet lower than in September 1950. They remained relatively stable until April 1952 when they began to decline rapidly once more. By the middle of May they had reached the lowest points on record in wells 246 and 269, in Clearwater, and in well 561, east of Pinellas Park. These low water levels were probably due to heavy pumping during April and May, which months were exceptionally dry—the rainfall at Clearwater and Tarpon Springs totaling less than 2 inches during the 2-month period.

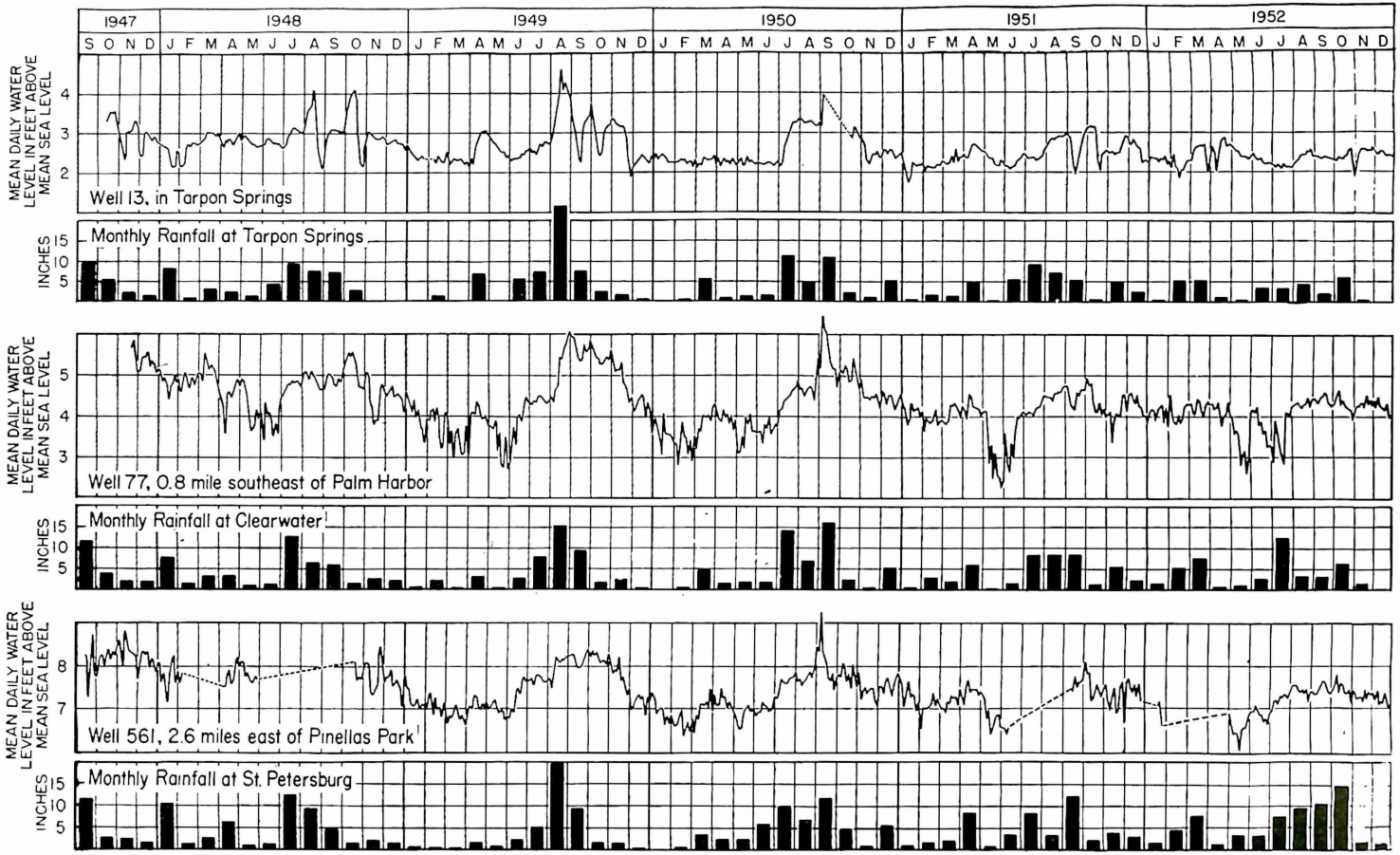


Figure 7.—Hydrographs of wells 13, 77, and 561 in Pinellas County, and monthly rainfall at three stations.

FLUCTUATIONS OF WATER LEVELS

The water levels in artesian wells fluctuate almost continuously. Some of the varied causes of the fluctuations observed in Pinellas County are rainfall, pumping, ocean tides, variations in barometric pressure, earthquakes, and moving railroad trains. The fluctuations range from almost inperceptible movements to changes of several feet. The changes of water level produced by rainfall and pumping are the largest of all the fluctuations and are the most important because they affect the amount of water in the aquifer and the extent to which sea water will encroach.

Fluctuations caused by tides, changes in barometric pressure, earthquakes, and trains are usually less than a foot in amplitude and of short duration, and are significant only in that they reveal the elastic properties of the aquifer. Generally these fluctuations, except those due to tides, occur only in wells that end in artesian aquifers. Tidal fluctuations occur along coasts in both artesian and water-table aquifers.

Fluctuations Caused by Rainfall

Fluctuations caused by rainfall are especially significant because they indicate the extent to which the water in the aquifer is replenished. Well 337, near Coachman, is in an area in which the artesian limestone aquifer receives recharge from rain. Thus, the water level in this well may be expected to respond relatively rapidly and strongly to rains. A hydrograph giving the complete record for well 337 is shown in figure 6, but the time scale of this hydrograph is so condensed that the response of the water level to individual rains is not apparent. However, the response is obvious in figure 8, which gives the record for 1948 on an expanded time scale. As the water level in the well is lowered during certain periods of the year by intermittent pumping from other wells in the vicinity, the daily highest and lowest water levels are given so that the effect of pumping may be observed and differentiated from the effect of rainfall.

A study of figure 8 indicates that rain at Clearwater is generally followed within a few days by a rise in the water level in well 337. At times, however, a rain at Clearwater is not followed by a rise in the water level, and at other times the water level rises appreciably when no rain at Clearwater is recorded. This occasional lack of correlation between the water level and the rainfall is doubtless due principally to differences between the rainfall at

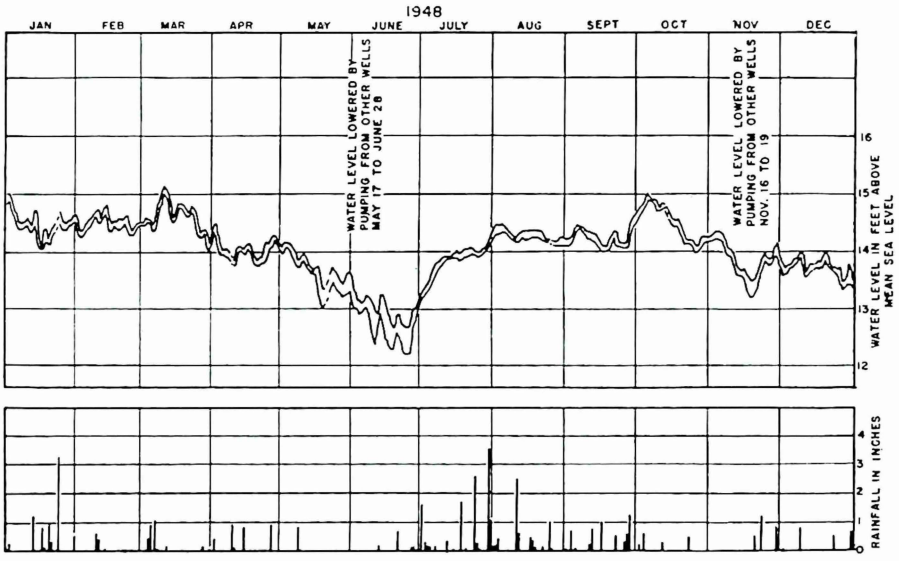


Figure 8.—Daily highest and lowest water levels in well 337, 0.3 mile northeast of Coachman, and daily rainfall at Clearwater.

Clearwater and that at Coachman. Such differences in rainfall within short distances are common in Florida.

The hydrographs of those wells in the county on which recording gages are maintained and the rainfall at the stations nearest the wells, given in figures 6 and 7, indicate the manner in which the water levels vary seasonally and from year to year in relation to rainfall. The relationship is somewhat obscured by the fact that periods of relatively heavy pumping accompany periods of little or no rainfall. Thus, the decline of water levels during droughts is only in part a direct result of the lack of rainfall, and the recovery of water levels during rainy periods is only in part a direct result of the rains. Where relatively heavy pumping of water for irrigation accompanies droughts, as it does in Pinellas County, a differentiation between respective effects of rainfall and of pumping on water levels can be made only after much investigation and study, if at all. The available information does not permit a differentiation of the two effects in figures 6 and 7.

Fluctuations Caused by Pumping

When water is pumped from a well that penetrates an artesian aquifer the water level in the well and the artesian head in the surrounding area are lowered. The decline of the artesian head is greatest at the pumped well and it decreases as the distance

the demand for water decreased during the evening, the pumping became intermittent, and the water level recovered and declined in a complicated fashion. The rise of the water level during the night of April 5 and the morning of April 6 has the form of a typical recovery curve, such as that which follows the cessation of pumping from one or more wells. Such curves have very nearly the form of a drawdown curve on an inverted scale. If there had been no further pumping, the recovery during the morning of April 6 would have continued at a diminishing rate, as indicated by the dashed line A-A', until the water became stabilized at some higher level.

The relationship between the hydrograph shown in figure 9 and the rainfall at Clearwater demonstrates the manner in which rainfall acts as a secondary influence on water levels through its effect on the use of water and, hence, on the rate of pumping. The rainfall recorded by the U. S. Weather Bureau at Clearwater was 0.45 inch on April 5, 0.11 inch on April 6, 0.26 inch on April 11, and 0.90 inch on April 12. No rainfall was recorded during the period April 7 to 10. A heavier use of water during the period April 8 to 11 is indicated by the fact that the water level in well 269 was more strongly affected by pumping during that period. It appears probable that the heavier pumping of water beginning April 8 was a result of the use of water for lawn sprinkling during the brief drought. The fact that the heavier pumping extended into April 11, when 0.26 inch of rain was recorded, might be explained by the possibility that the rain fell during the late afternoon, or by the fact that April 11 fell on Monday, which is washday for many homes.

Wherever there is pumping, water levels react in much the same way as they do in well 269. The resultant effect is a general lowering of the water levels which is most pronounced where heavily pumped wells are concentrated. In those areas where large quantities of ground water are used for irrigation, water levels will be lowered most during droughts, when wells are pumped most heavily.

Fluctuations Caused by Tides

The water levels in many wells near the coast fluctuate in response to ocean tides. These fluctuations are due to one of two causes: (1) where the aquifer is exposed to the sea, to a direct marginal transfer of water between the ocean and the ground water, and (2) in an artesian aquifer that is exposed to the ocean

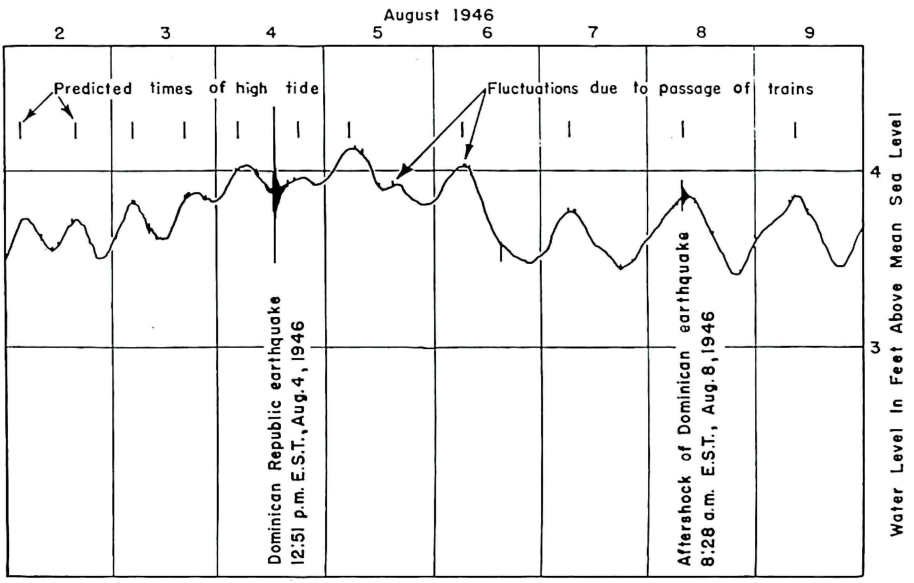


Figure 10.—Water level in well 272 showing fluctuations due to ocean tides, earthquakes, and passing trains.

only at places more or less remote from the well, to an alternate compression and expansion of the aquifer by the rise and fall of the tide. Tidal fluctuations are apparent on the records of the automatic recording gages on wells 246 and 272, which are respectively 0.2 and 0.3 mile from Clearwater Harbor. The maximum recorded tidal fluctuation in these wells is about half a foot. Figure 10, which is a tracing of the record of an automatic recorder, shows the effect of tides on the water level in well 272 during the period August 2 to 9, 1946. Short vertical lines above the line representing the water level show the predicted times of high tide at St. Josephs Sound (Clearwater Harbor) as given in the tide tables of the U. S. Coast and Geodetic Survey, 1946. The maximum water levels in the well lag half an hour or more behind the predicted times of high tide.

Fluctuations Caused by Earthquakes and Trains

The water levels in many wells that penetrate the artesian aquifers in Florida fluctuate when earthquake waves pass the wells. Such waves cause very rapid alternate expansion and contraction of the acquifer, which force the water level in the well to rise and fall.

Fluctuations of the water level in well 272 that were caused by the destructive Dominican Republic earthquake of August 4, 1946, are shown in figure 10. Also shown are fluctuations caused by the aftershock of the earthquake, which occurred on August 8, 1946. The maximum magnitude of the earthquake fluctuation of August 4 was 0.9 foot, and the water level continued to fluctuate for about 2 hours.

Slight fluctuations caused by the passing of trains are not uncommon in artesian wells near railroad tracks (Jacob, 1939, pp. 666-674). Such fluctuations are small and are perceptible only in wells that are within a few hundred feet of the railroad tracks. They are caused by a compression of the aquifer by the weight of the train. The fluctuations in well 272, shown in figure 10, were caused by trains passing on the Seaboard Air Line Railroad tracks about 50 feet from the well.

Fluctuations Caused by Changes in Atmospheric Pressure

Changes in atmospheric pressure cause corresponding changes in the water level of artesian wells (Parker and Stringfield, 1950, pp. 450-453). Fluctuations of water level due to changes in atmospheric pressure are often masked by greater fluctuations that are due to other causes, but they are readily recognizable on the charts obtained from the water-stage recording instruments on wells 337 and 561.

Figure 11 shows a comparison between the water level in well 337 and the atmospheric pressure as recorded by a barograph at the U. S. Weather Bureau Station, Drew Field, Tampa, from April

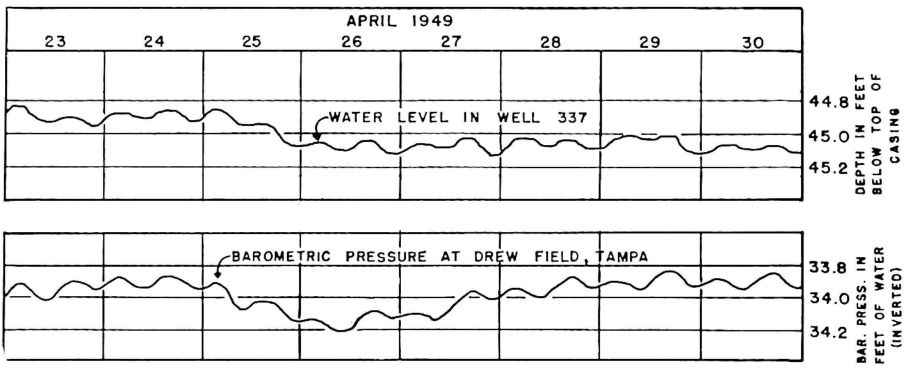


Figure 11.—Effect of atmospheric pressure on the water level in well 337, located 0.3 mile northeast of Coachman.

23 to 30, 1949. The atmospheric pressure, which is recorded on the barograph in inches of mercury, has been converted to the equivalent pressure in feet of water and plotted on an inverted scale. The similarity between the two graphs is obvious. Rises in atmospheric pressure cause corresponding declines in the water level in the well, and vice versa.

PIEZOMETRIC SURFACE IN FLORIDA

The height to which water will rise above sea level in wells that penetrate the principal artesian aquifer in Florida is shown by the contour lines in figure 12. The imaginary surface represented by the contour lines is referred to as a "piezometric surface." The shape of the piezometric surface indicates the direction of movement of artesian water and the areas in which the aquifer is replenished by water that falls as rain. Water enters the aquifer

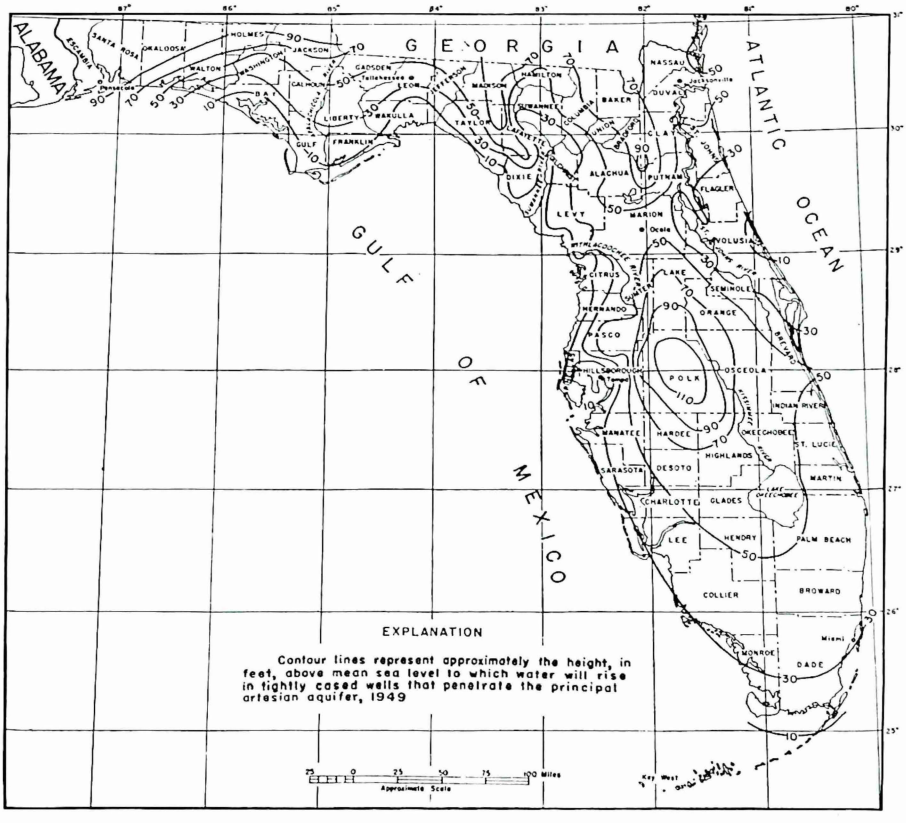


Figure 12.—Map of Florida showing the piezometric surface.

in those areas in which the piezometric surface is high and moves in a direction approximately perpendicular to the contour lines to the areas in which the piezometric surface is low.

One of the most conspicuous features of the piezometric surface in Florida, shown in figure 12, is the dome centered in Polk County, which indicates that considerable recharge enters the artesian aquifer in Polk and surrounding counties (Stringfield, 1936, p. 148). The artesian aquifer is also recharged in Pasco County and parts of Hernando and Hillsborough Counties, where the piezometric surface has the shape of a smaller dome with a maximum altitude of about 80 feet. As indicated by the slope of the piezometric surface, the artesian water flows southwestward from the central part of Pasco County into northeastern Pinellas County.

PIEZOMETRIC SURFACE IN PINELLAS COUNTY

The piezometric surface in Pinellas County is shown in figures 13 and 14. Figure 13 was prepared from measurements made in June 1949 of water levels in 69 wells in the county. Figure 14 was prepared from measurements made in May 1951 of water levels in 57 wells in the county. As indicated by the contours in the figures, the piezometric surface at the time of the measurements ranged from less than 2 feet above sea level in the northwestern part of the county to slightly more than 22 feet above sea level in the northeastern part of the county. In the Pinellas peninsula the piezometric surface is highest in a small area south of Coachman, where it stands slightly more than 16 feet above sea level.

The piezometric surface changes constantly in response to such influences as rainfall and pumping, but its general features remain the same. Thus it can be seen from a comparison of figures 13 and 14 that in response to differences in rainfall and pumping the piezometric surface was appreciably lower in May 1951 than it was in June 1949. In fact, a comparison of the water-level measurements, which are included in table 5, shows that the water levels were 0.2 foot to 4.3 feet lower in 1951 than in 1949.

Owing to the lack of a sufficient number of wells in which water-level measurements can be made, the details of the piezometric surface cannot be mapped accurately in many parts of the county. Although nearly 1,000 wells have been drilled to the Tampa formation in Pinellas County, water levels were accessible for measurement in less than 75 wells, because of the way in which

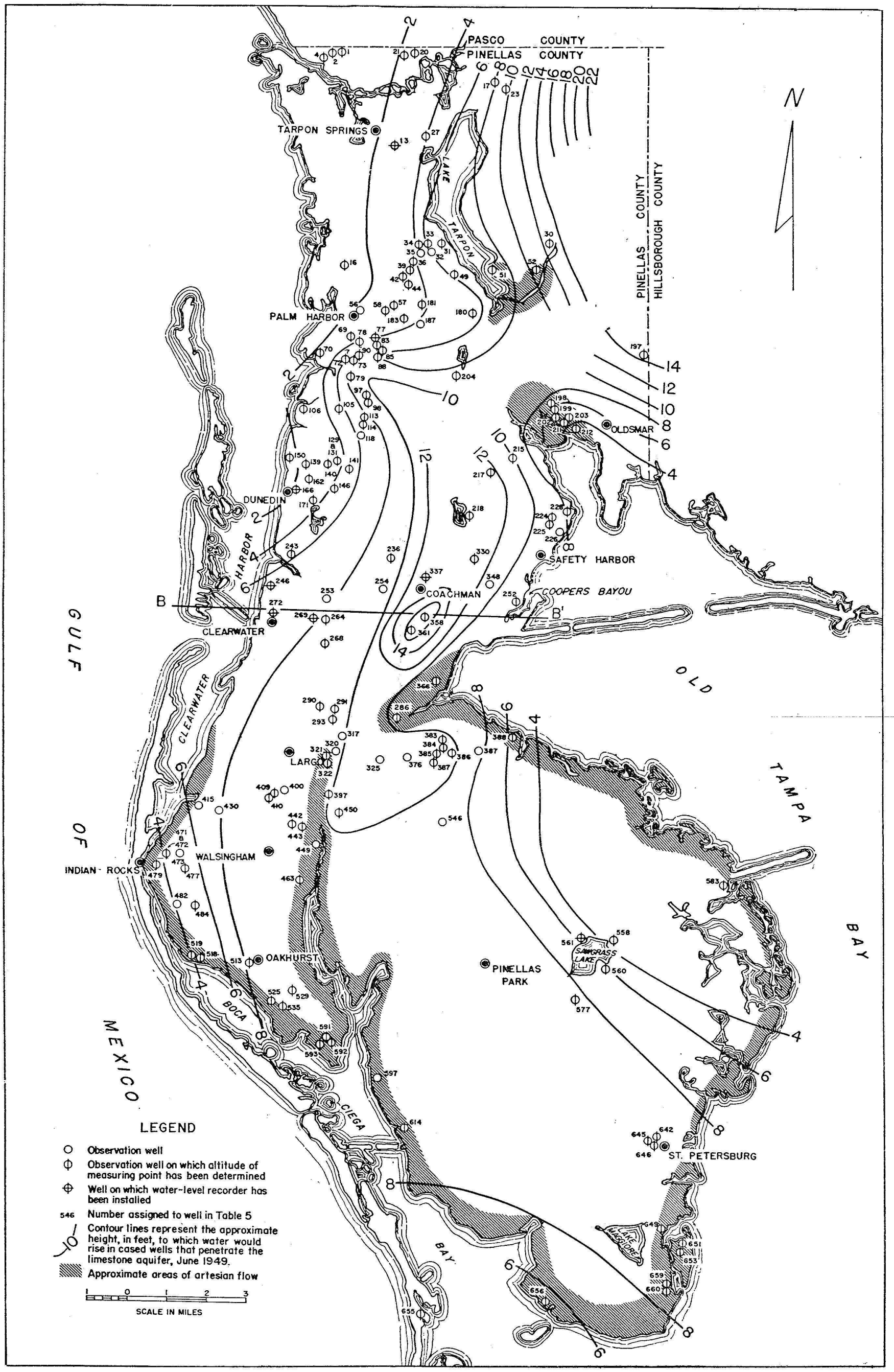


Figure 13.—Map showing the piezometric surface and the area of artesian flow in Pinellas County in June 1949.

turbine pumps were installed. In other parts of the State most wells that have turbine pumps are equipped with air lines which permit measurement of the water levels, but few wells in Pinellas County are so equipped. Facilities for making water-level measurements are especially desirable in areas affected by salt-water encroachment to aid in determining the extent of encroachment, which is controlled by the height of the water table or the artesian head.

Prior to the mapping of the piezometric surface it was thought that the artesian water in the Pinellas peninsula was derived from recharge in Pasco and Hillsborough counties (Stringfield, 1933, pp. 15-16). The more detailed mapping of the piezometric surface (fig. 13 and 14) has revealed, however, that in addition to the artesian water moving into the county from adjoining counties the aquifer receives recharge locally by rains. Most of the local recharge apparently occurs where the piezometric surface has a ridgelike shape in the area north and south of Coachman. The rate of recharge is probably greatest in the area centered about a mile south of Coachman where the piezometric surface has the shape of an elongated dome.

It is not possible to determine the extent of the recharge area from a study of the piezometric surfaces. In fact, it appears probable that some recharge enters the aquifer by slow percolation through the confining bed wherever the water table stands appreciably higher than the piezometric surface. Recharge doubtless enters the aquifer also wherever the confining bed is discontinuous or absent, as, for example, through the sinkholes in the eastern part of Dunedin. A study of the piezometric surfaces has revealed, however, that the artesian water in all the county south of a line through Palm Harbor and Oldsmar is derived wholly from local rainfall. The water in the aquifer in the county north of Palm Harbor and Oldsmar is derived in part from local recharge and in part from recharge in Pasco and Hillsborough counties.

In the area north of Palm Harbor and west of Lake Tarpon the piezometric surface is low and has very little slope. In this area the aquifer contains large solution channels and is so permeable that the water moves very freely through the aquifer on its way to the Gulf. Wall Springs, the submarine spring offshore at Crystal Beach, and the spring in Spring Bayou at Tarpon Springs are three known points of discharge from the aquifer in this area. East of Palm Harbor is an embayment in the piezometric surface, which may be caused by heavy pumping from the large number of irri-

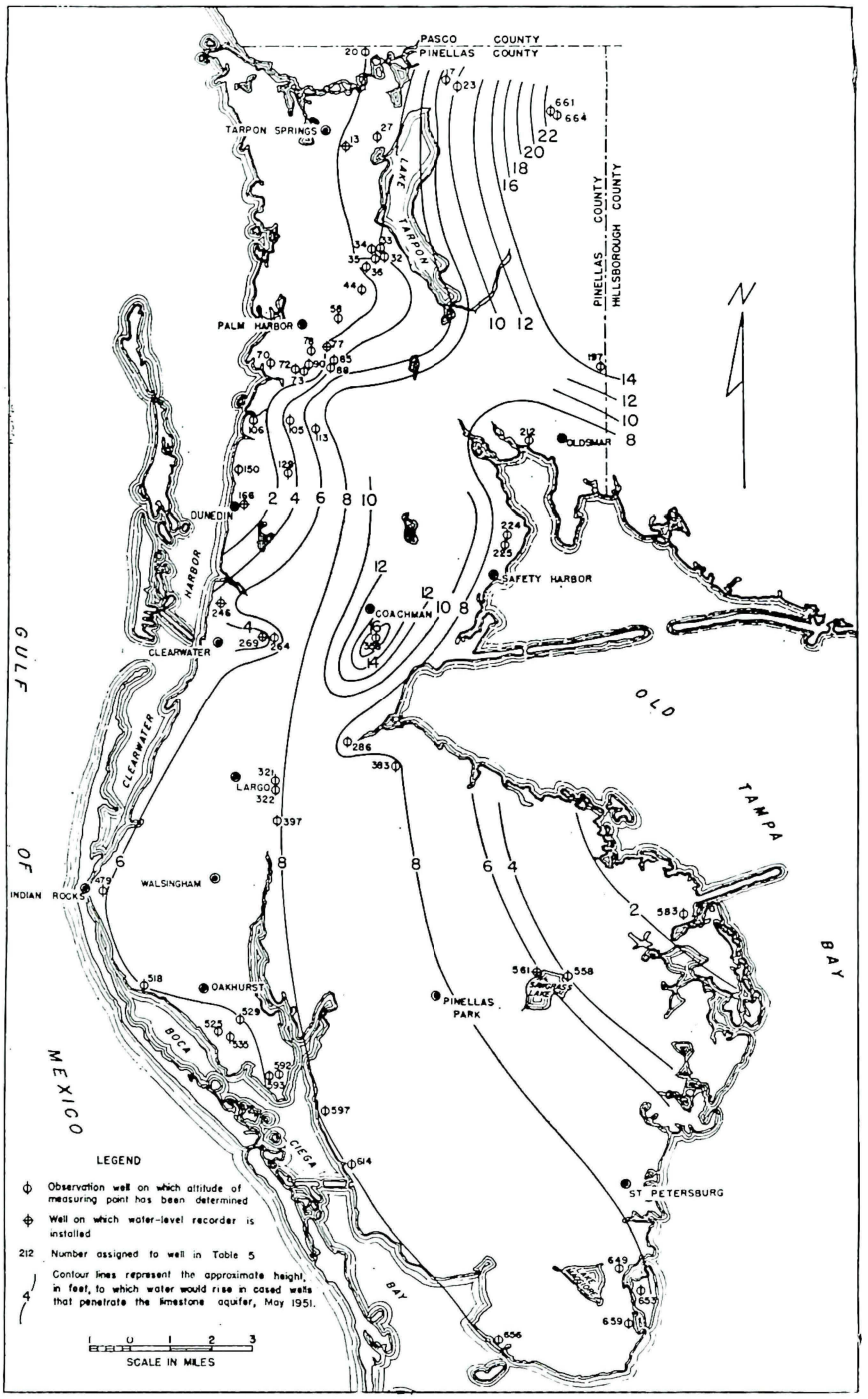


Figure 14.—Map showing the piezometric surface in Pinellas County in May 1951.

gation wells in that area, or possibly by a relatively free movement of water through subterranean solution channels, or by both. Another small embayment occurs south of Palm Harbor on the 1951 piezometric surface, but not on the 1949 piezometric surface. This feature is probably due to heavy pumping in that area for irrigation at the time the water-level measurements were made in 1951. The largest embayment in the piezometric surface, which occurs around the north end of Old Tampa Bay, is doubtless caused by natural discharge of water into the bay. Over all the southern part of Pinellas County, south of Walsingham, the piezometric surface is relatively flat and has a maximum height of less than 10 feet. The lowness of the piezometric surface in this area doubtless is a result of the lack of local recharge.

AREA OF ARTESIAN FLOW

Wherever the piezometric surface stands higher than the land surface, wells will flow under natural artesian pressure. The stippled areas in figure 13 represent the areas in Pinellas County in which artesian wells will flow. The areas of flow include: a narrow band, generally less than a mile in width, that extends from a point about 2 miles south of Clearwater around the southern end of the peninsula to a point on the east coast about 2 miles south of Coachman; an area about a mile wide that extends up the valleys of Long Bayou and Cross Bayou east of Oakhurst and Largo; a small area slightly more than a mile wide at the north end of Old Tampa Bay about 2 miles west of Oldsmar; and a small area at the south end of Lake Tarpon which extends a short distance up Booker Creek. The areas of artesian flow decrease in size as the artesian head declines. Many wells that are reported to have flowed continuously when first drilled 10 or more years ago now flow only when there is a high tide in the Gulf or in wet periods when there is little or no use.

SALT-WATER ENCROACHMENT

The encroachment of sea water into fresh ground water has, in the last few decades, become a major problem in many coastal areas in the Nation. Such encroachment may occur wherever the pressure head in an aquifer that is exposed to the sea is lowered excessively by pumping or by artificial surface drainage. The problem first became prominent in Pinellas County between 1920 and 1930 when the early municipal-supply wells of St. Petersburg began to yield

salty water. Subsequently many irrigation wells, other public-supply wells, and domestic wells began to yield salty water.

Relationship Between Fresh Water and Sea Water

The relationship between fresh ground water and sea water in coastal areas was investigated by Badon Ghyben in 1887 and, apparently independently, by Baurat Herzberg about 1900 (Brown, 1925, p. 16). These investigators found that in small islands and in certain coastal areas that are composed of permeable material, fresh ground water, because of its lower density "floats" upon the sea water. As with any other floating body, part of it is above sea level and part of it is below sea level, the ratio of the density of fresh water to that of sea water being such that the volume of fresh water below sea level is much larger than that above sea level. Thus, as postulated by Ghyben and Herzberg, the depth to salt water is a function of the height of the water table above sea level and of the density of sea water. The relationship may be expressed by the formula

$$h = \frac{t}{g - 1},$$

where h is the depth of fresh water below sea level, t is the height of the water table (or piezometric surface) above sea level, and

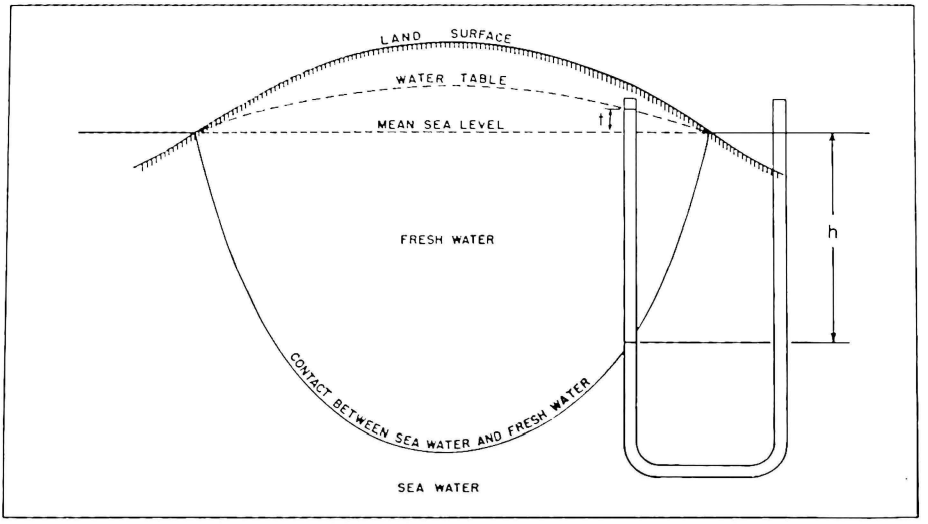


Figure 15.—Diagram showing the relation between fresh water and sea water beneath a narrow peninsula, according to the Ghyben-Herzberg principle.

g is the specific gravity of sea water. For practical purposes the specific gravity of fresh water is assumed to be 1.000.

The formula may be explained by reference to figure 15 which represents the occurrence of fresh water and sea water in a small island, or narrow peninsula, composed of permeable material, in conjunction with a large imaginary U-tube having one leg beneath the land and one leg in the sea. It is apparent that in such a U-tube the column of fresh water in one leg, which has a height of $h + t$, will balance the column of sea water in the other leg, which has a height h. The ratio of the height of the column of fresh water to that of the column of sea water will be equal to the ratio of the specific gravity of sea water to the specific gravity of fresh water. That is,

$$\frac{h+t}{h} = \frac{g}{1}.$$

This equation reduces to the formula given above.

The specific gravity of sea water varies from one place to another but is generally considered to be 1.025. If this value is substituted in the formula given above then $h = 40t$ which indicates that the depth of fresh water below sea level is 40 times the height of the water table above sea level. In other words, for each foot that the water table stands above sea level the fresh water will extend below sea level an additional 40 feet.

The Ghyben-Herzberg principle is tacitly based on the assumption that the body of fresh water floats on sea water in static equilibrium. In fact, however, such a body of ground water is never static but, instead, is in constant motion, receiving replenishment from rain and discharging into the sea. It has been shown by Muskat (1937, p. 289) and Hubbert (1940, p. 924) that the dynamic condition under which ground water occurs tends to vitiate the Ghyben-Herzberg principle wherever the slope of the water table is comparatively steep, as in the immediate vicinity of discharge along a shoreline or a pumped well. In general, however, the slope of the water table is so gentle that the condition of hydrostatic equilibrium assumed by Ghyben and Herzberg is closely approximated.

The contact between fresh and sea water is not a well-defined boundary such that on one side is found fresh water and on the other side sea water. Instead there is a zone of intermixture, commonly called the "zone of diffusion," which separates the overlying fresh water from the underlying sea water. Within the zone of diffusion

the salinity of the water ranges from that of uncontaminated ground water to undiluted sea water. The zone of diffusion arises principally from the vacillation of the fresh water-sea water contact in response to fluctuations of the water level and the rise and fall of the tide. As indicated by Brown (1925, p. 36), European investigators found the zone of diffusion ranges in thickness from 60 to 100 feet under normal conditions. Investigations in the Miami area have shown the width of the zone of diffusion there to be 60 feet (Parker, 1945, p. 539).

Salt-Water Encroachment in Pinellas County

About 91 percent of the dissolved solids content of sea water consists of chloride salts. Thus, determinations of the chloride content of ground water are generally a reliable indication of the extent to which normally fresh ground water has become contaminated with sea water. More than 500 determinations of chloride content of water from wells in Pinellas County have been made. It has been found that, in general, ground water which has not been contaminated by sea water contains less than 50 ppm of chloride, whereas that which is contaminated contains up to 1,000 ppm and more. To most persons, water having a chloride content of 350 to 500 ppm has a perceptibly salty taste.

The determinations of chloride content are listed in table 5. The generalized results of these determinations are shown in figure 16. As can be seen from this figure, there are four areas in the county in which a considerable number of wells yield water with a chloride content in excess of 50 ppm, and in which salt-water encroachment has likely occurred. These areas include: a small area south and east of Palm Harbor that extends from Clearwater Harbor inland for a distance of 2 to 3 miles; most of the area in the vicinity of Indian Rocks, Walsingham, and Oakhurst; a narrow band about a mile wide along the southeastern coast; and a small area at the north end of Old Tampa Bay about 2 miles west of Oldsmar.

Although salt water has apparently encroached into the areas described above, it can be seen from figure 16 that there are a few wells in each of the areas that yield water with a chloride content of less than 50 ppm. Conversely, there are a few wells in nearly every other part of the county that yield water with a chloride content of more than 50 ppm. These irregularities are due in part to the fact that the wells sampled varied considerably in depth, and in part to the fact that some had been pumped extensively prior

to sampling. As a rule the deeper wells may be expected to yield water with a higher chloride content than the shallower ones and a given well will yield water with a higher chloride content after prolonged pumping.

One example of how the chloride content differs between wells of different depths may be cited. On January 28, 1947, well 458, which is 108 feet deep, had a chloride content of 25 ppm, whereas on the same day well 459, which is no more than about 0.1 mile from well 458 and is 289 feet deep, had a chloride content of 400 ppm.

An example of how the chloride content increases when a well is pumped is shown in table 2, which gives the results of tests made on well 420 by V. C. Jamison of the University of Florida Citrus Experiment Station at Lake Alfred.

TABLE 2

RELATIONSHIP BETWEEN LENGTH OF PUMPING TIME AND CHLORIDE CONTENT OF WATER IN WELL 420

Date	Period pumped	Chloride content as Cl (parts per million)
1943		
June 7	15 min.	129
June 7	3 hrs.	2,984
June 7	8 hrs.	2,940
June 8	10 min.	2,970
June 8	4 hrs.	2,970
June 8	8 hrs.	2,928
June 9	10 min.	2,914
June 9	9 hrs.	2,970
June 10	10 min.	2,928
June 10	3 hrs.	2,928
June 10	9 hrs.	2,941

The well had been idle for at least several days prior to June 7. After it had been pumped for 15 minutes the chloride content was only 129 ppm, but after 3 hours of pumping the chloride content had risen to 2,984 ppm. The chloride content did not change significantly after the first 3 hours of pumping. Although the yield of the well is unknown, it was probably more than 100 gallons a minute.

According to the Ghyben-Herzberg principle, the contact between fresh water and sea water along a section from Clearwater Harbor to Coopers Bayou would be as shown in figure 17. Several assumptions were made in drawing this section and it approximates the actual contact so far as these assumptions are correct. One as-

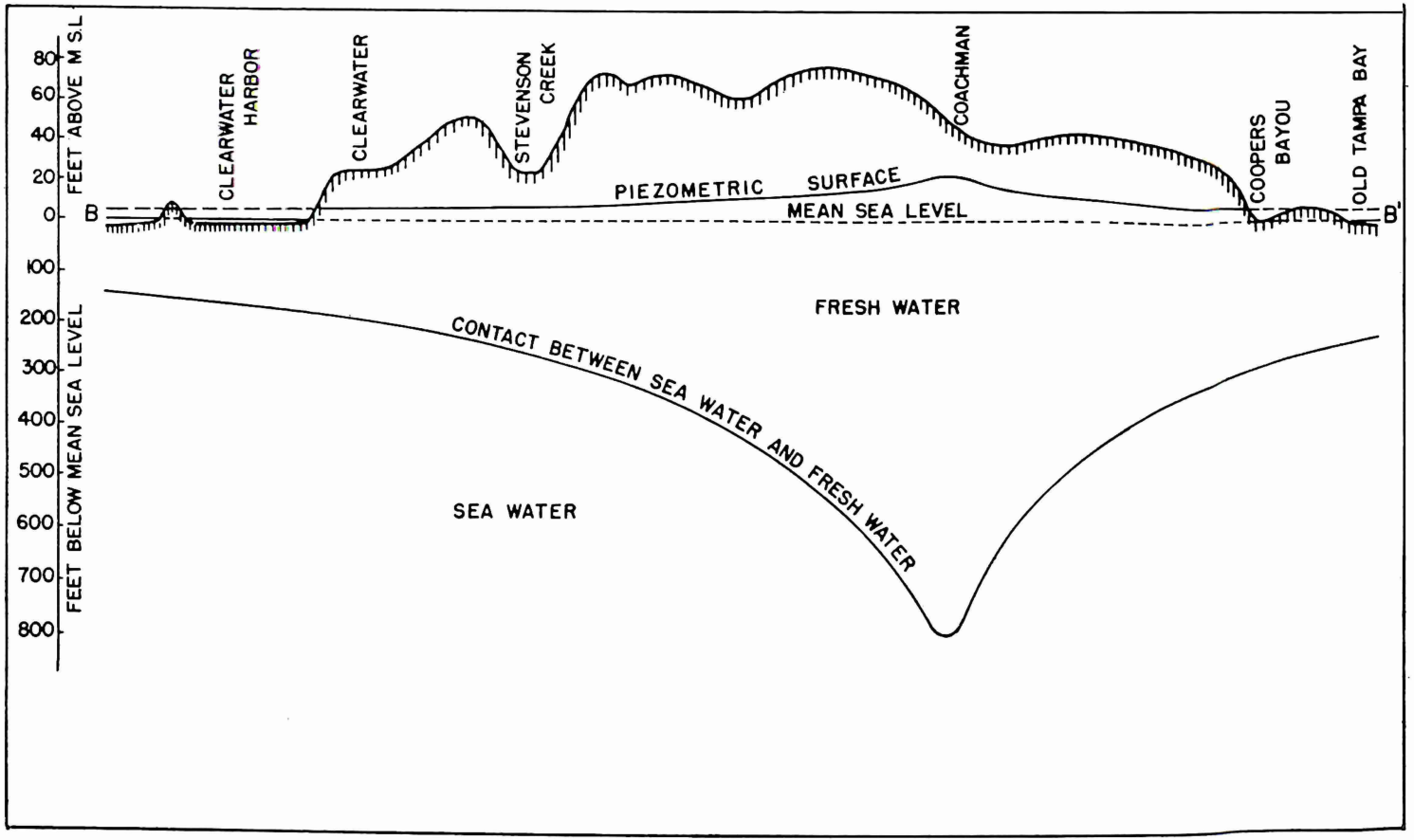


Figure 17.—Section along line B-B′ in figure 13 showing the theoretical contact between fresh water and sea water in Pinellas County.

sumption is that the limestone aquifer is isotropic (equally permeable in all directions) so that water may move through it vertically as well as horizontally. There appears to be no doubt that the limestone contains some layers that are less permeable than others and hence that water will move less freely vertically than horizontally. It appears likely, however, that there is enough interchange of water between the upper and lower parts of the aquifer to enable the fresh water-sea water contact to adjust, in time, to the piezometric surface. Moreover, because there are hundreds of wells in the county which have open holes through several hundred feet of limestone, there is probably a relatively free exchange of water between the different permeable zones in some parts of the county.

Another assumption is that the fresh water-sea water contact is in equilibrium with the piezometric surface. The contact probably rises during times of heavy withdrawal and is depressed by fresh water entering the aquifer during the wet season. However, because the contact can rise only as the fresh water immediately above it is withdrawn from storage and replaced by sea water, a process referred to by Wentworth (1942, pp. 683-693) as "change in bottom storage," there is necessarily a lag between the time the fresh-water head is lowered and the time the contact has reached the new point of equilibrium. In fact, the recent experience of well owners in some of the coastal areas in Pinellas County, especially in the area from Clearwater to Indian Rocks, where wells have become contaminated with salt water without any detectable decline in artesian head, seems to indicate that the head declined to about its present level prior to 1947, when water-level observations were begun, and that the contact has not yet reached equilibrium with the lowered position of the piezometric surface.

A study of figure 16 reveals that wells on the upland area in the vicinity of St. Petersburg (see fig. 2) yield water with a chloride content of less than 50 ppm, although numerous wells between this area and the principal recharge area near Coachman yield water with a chloride content of more than 50 ppm. Thus, it appears probable that the limestone aquifer in the vicinity of the upland area is being recharged by water percolating downward from the water-table aquifer through the confining bed. Additional evidence that local recharge is occurring in southern Pinellas County is offered by the configuration of the contour lines of the piezometric surface on figure 14.

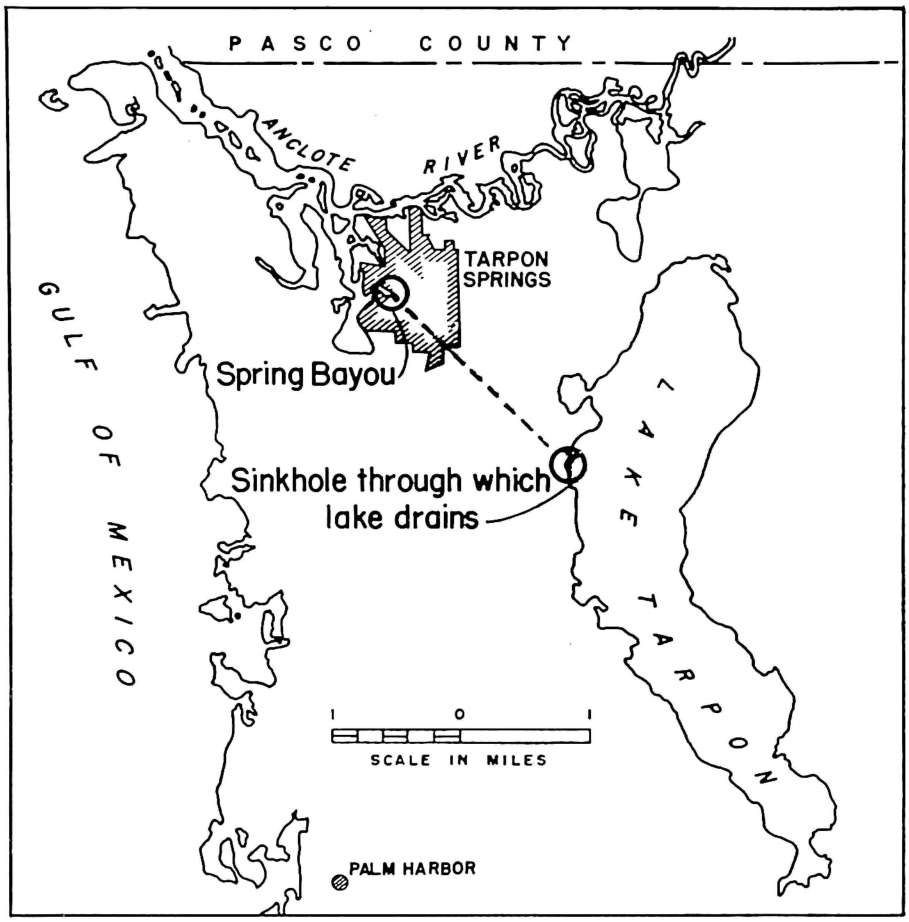


Figure 18.—Map of northwestern Pinellas County showing locations of Spring Bayou and Lake Tarpon.

UNDERGROUND DRAINAGE OF LAKE TARPON

Lake Tarpon, formerly known as Lake Butler, in the northern part of Pinellas County, is connected by an underground channel with Spring Bayou, at Tarpon Springs (fig. 18). At irregular intervals the lake drains through this underground channel into Spring Bayou, and between drainings the salt water from Spring Bayou moves through the channel, contaminating the lake water. An explanation of how the draining occurs has been suggested by O. E. Meinzer and V. T. Stringfield and described by H. H. Cooper, Jr. (personal communication) as follows:

"During the intervals between drainings the channel evidently becomes blocked in such a way as to retain the water in the lake and allow the stage to build up. Ultimately the stage builds up so high that the block is overcome, and the lake drains. The nature and mechanics of this block have been a subject of interesting speculation.

"A plausible explanation of the phenomenon has been suggested by Mr. Meinzer. He points out that the underground channel, in conjunction with the vents in the lake and bayou, forms a crude U-tube, in which a column of the relatively dense sea water in Spring Bayou balances a higher column of fresh water in the lake. So long as the system is in balance, the contact between fresh water and sea water is in the lake vent at a depth which depends on the lake stage, the tide in the bayou, and the relative densities of the two waters. As the differential in head increases with a rising stage or a falling tide, this contact is depressed. When the differential in head is great enough to depress the contact to the bottom of the U, any further increase throws the system out of balance, the sea water flushes out of the channel, and the lake drains.

"The lake will cease to drain when a new static balance between the two columns of water is established at a lower stage. Probably the cessation of flow occurs during a rising tide in the bayou, and subsequently, near high tide, sea water moves back through the channel into the lake vent once more to complete the cycle.

"The reason that the lake stage at which flushing begins varies from one time to another is apparent when one considers that this critical stage is dependent on two variables: one is the tide level in the bayou, and the other is the density of the lake water. The density of the lake water varies with the extent to which it is mixed with sea water by the constant agitation of the tide. At times the concentration of salts in the lake water, especially in the vicinity of the sink, may be so high as to allow the lake to flush under a considerably lower head differential than if the water were altogether fresh.

"The ratio of the specific gravity of sea water to that of fresh water is about 1.025 to 1.000, or 41 to 40. Thus, a column of sea water 40 feet in height will balance a column of fresh water 41 feet in height. Applied to the problem at hand, this relationship indicates that for each foot of lake stage above the bayou tide level there will be a depth of 40 feet below the bayou level to the contact between the two waters, providing the lake water is fresh. If the lowest section of the U-system were, for example, 120 feet below sea level, the highest possible head differential that could occur without flushing would be about 3.0 feet. Differentials in head of more than 3.0 feet would indicate that the lowest section of the underground channel is more than 120 feet below sea level. When additional studies have been made, it may become possible to predict with a fair degree of accuracy when flushings will occur. Investigations of the specific gravity of water at various depths in the lake sink immediately prior to the flushings are needed. Also needed are studies of the differentials in head with consideration of the time required for tidal fluctuations to be transmitted through the system."

An investigation of the underground drainage of the lake was undertaken by the U. S. Geological Survey. As a part of the investigation, automatic recording gages were installed on well 13 at Tarpon Springs and on Lake Tarpon. Charts from the recorder on Lake Tarpon show that the lake drained 27 times from July 1945 to November 1949. The stage of the lake at the start of the drainings has ranged from 2.5 to 5.5 feet above mean sea level

and at the cessation of the drainings, from 1.2 to 3.1 feet above mean sea level.

The hydrograph for well 13 (see fig. 19) shows that the water level in the area west of Lake Tarpon fluctuates in response to the changes in lake level. In fact, the fluctuations of water level in well 13 and of Lake Tarpon are almost identical. Thus, as shown in figure 19, unusual fluctuations associated with the draining of Lake Tarpon occurred in both the well and the lake in August and October of 1948 and in August, September, October, and November of 1949.

The lake drains through a sinkhole having a maximum measured depth of 115 feet just off the northwest shore of the lake (fig. 18). After entering the sinkhole the water moves through an underground channel or channels and emerges through a vent in the bottom of Spring Bayou.

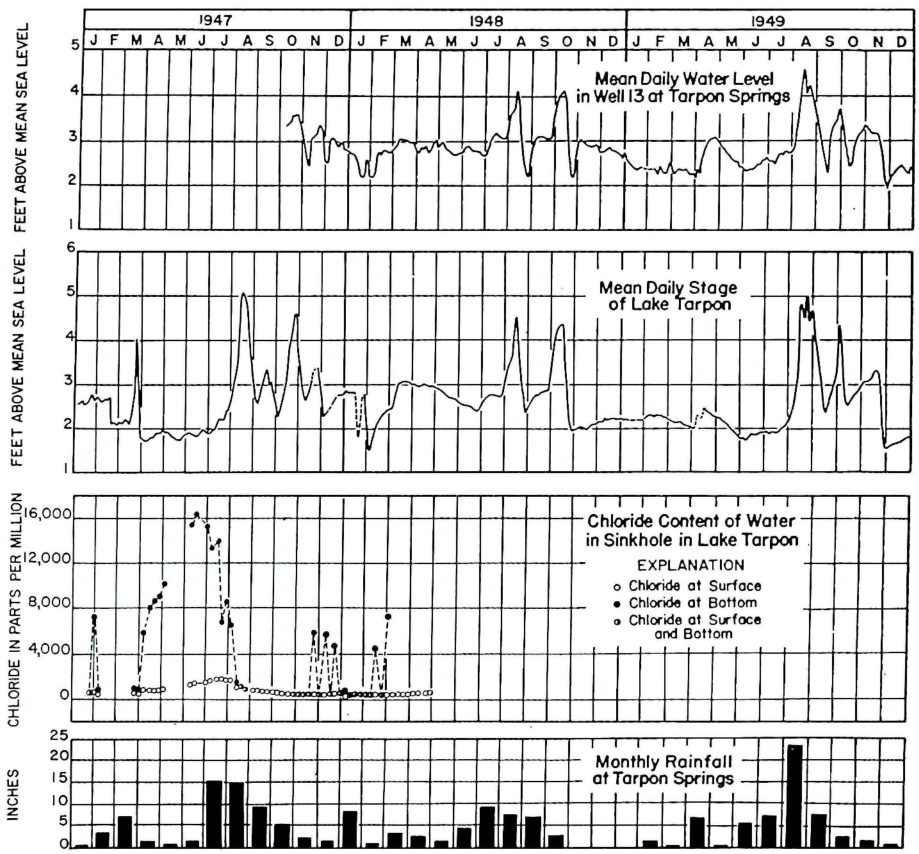


Figure 19.—Factors relating to underground drainage of Lake Tarpon.

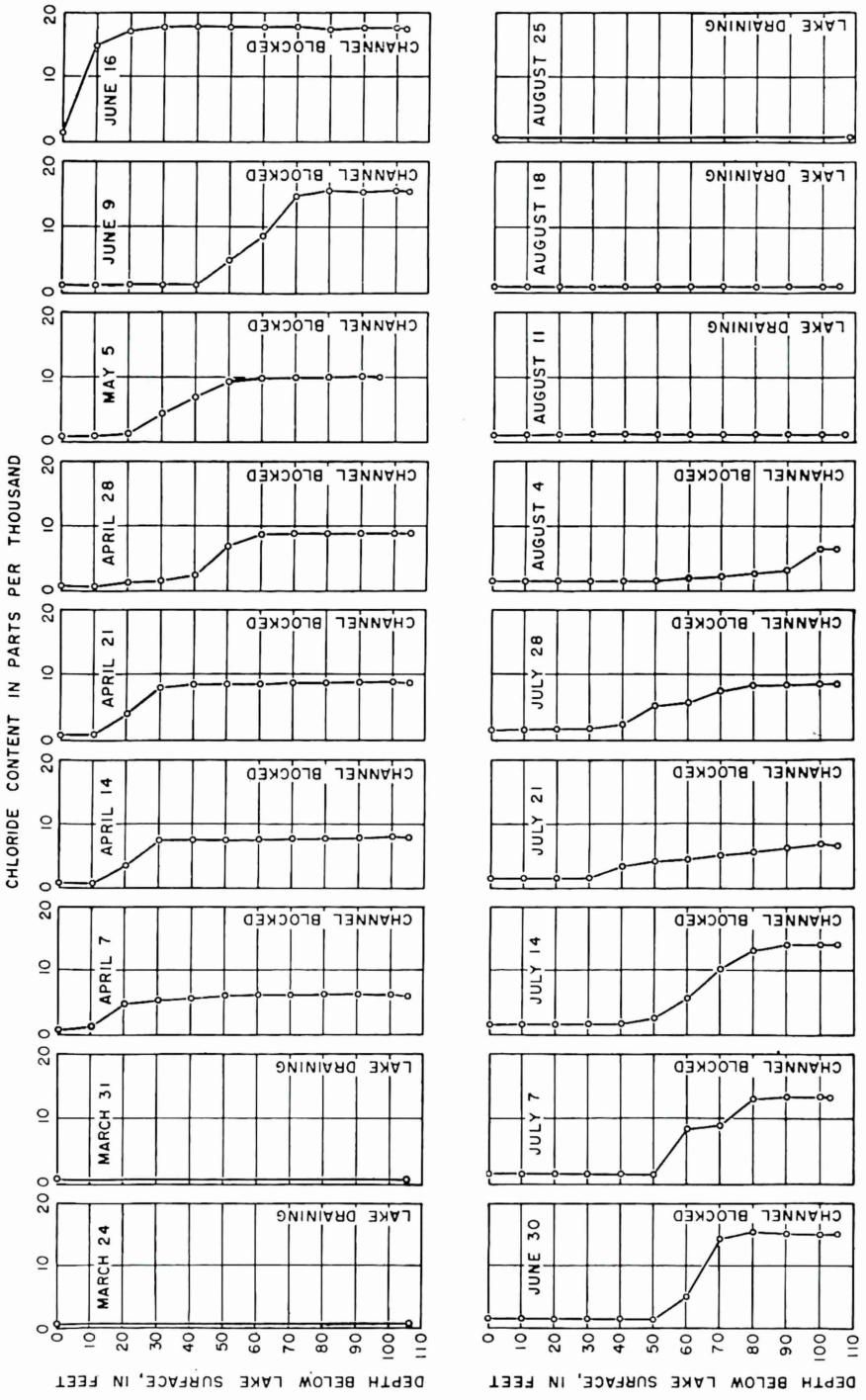


Figure 20.—Chloride content of water in sinkhole in Lake Tarpon in 1947.

Figure 20 shows the variations in the chloride content, and thus indicates the variations in density, of the water in the lake sink during one drainage cycle. The lake stopped draining on March 30 or 31, 1949, probably during a high tide in the bayou, after which relatively salty water flushed into the lake sink, reaching almost to the surface of the lake by April 7. From April 7 to June 30, while the lake was relatively low (fig. 19), salty water remained in the lake sink, its vertical position changing, partly as a result of tides in Spring Bayou. As the lake rose, beginning in July (fig. 19), the salt water in the lake sink was depressed and diluted (fig. 20) until, sometime between August 4 and August 11, the balance between the fresh water and salt water was upset and the lake started to drain. Draining of the lake is accompanied by a partial draining of the aquifer in the area west of the lake, as indicated by the hydrograph of well 13 in figure 19. A plot of the chloride content of water at the surface and at the bottom of the sinkhole in Lake Tarpon from early 1947 to April 1948 is shown in figure 19. A comparison of this plot with the mean daily stage of the lake during 1947 shows that during the period from May to July, after the lake had drained, its level remained relatively low and salty water was present in the bottom of the sinkhole. In August, as the stage of the lake began to rise, the salty water in the sinkhole was depressed until it could no longer be reached for sampling.

QUALITY OF WATER

Chemical analyses of 10 samples of water from selected wells in the county, made by the Quality of Water Branch of the U. S. Geological Survey, are shown in table 3. The relative mineralization of the different samples is best observed by comparing the amount of dissolved solids. In general, such a comparison shows that mineralization increases with depth and with distance from the recharge area. Thus, the wells at Clearwater, Dunedin, Largo, and Safety Harbor, all of which are relatively near the Coachman recharge area, contained less than 300 ppm of dissolved solids, whereas the wells at Bay Pines, Oldsmar, and Pinellas Park, which are much farther from points of recharge, contained more than 900 ppm.

Nitrate is derived from the decomposition of organic material, and a relatively high content of this constituent generally indicates the presence of local recharge. No analyses were made of the nitrate content of water from wells near the center of the Coachman

recharge area. However, the nitrate content of well 167 at Dunedin and well 640 at St. Petersburg was 6.0 and 6.5 ppm respectively, indicating local recharge near both these wells. As pointed out in a previous section, the possibility of local recharge at St. Petersburg is indicated also by the fact that wells in the upland part of the city yield water having a lower chloride content than wells in the area between St. Petersburg and the principal recharge area in the vicinity of Coachman.

Hardness affects the suitability of water for certain uses. Among the most noticeable effects are the increased quantities of soap needed to form a lather and the scale formed in vessels when the water is heated. Most hardness is due to the presence of calcium and magnesium, although iron, aluminum, and other substances, which are generally present only in negligible quantities, contribute to it. Water having a hardness of less than 50 ppm is generally considered soft. Hardness of 50 to 150 ppm does not seriously interfere with the use of water for most purposes, although the quantity of soap required to form a lather is noticeably larger. Water having a hardness of more than 150 ppm is rated as hard and is commonly softened when used for household and other domestic uses. Each sample analyzed for this report had a hardness of more than 175 ppm. Three samples, those from Bay Pines, Oldsmar, and Pinellas Park, each had a hardness of more than 495 ppm.

Studies in some areas of the United States have shown that children who drink water that contains about 1 ppm of fluoride have fewer cavities in their teeth than children who drink water that contains much less than 1 ppm (Dean, 1943, pp. 1161-1183). However, fluoride in concentrations more than 1.5 ppm tend to cause mottling of the enamel of the permanent teeth of young children who habitually use the water. In view of this, it is significant that the samples from well 167 at Dunedin and well 25 at Tarpon Springs did not contain measurable amounts of fluoride and the others contained only 0.1 to 0.6 ppm.

Iron differs from most of the other chemical constituents normally found in ground water in that concentrations as low as 0.1 ppm may impart objectionable characteristics such as a ferruginous taste and the staining of plumbing fixtures. Three of the samples from Pinellas County, those from Oldsmar, Safety Harbor, and St. Petersburg, contained more than 0.1 ppm of iron. However, it appears possible that the relatively high iron contents of 0.81 ppm in well 212A at Oldsmar and 1.64 ppm in well 640 at St. Peters-

TABLE 3

ANALYSES OF WATER FROM WELLS IN PINELLAS COUNTY

(Analyses by Quality of Water Branch, U. S. Geological Survey. All results are expressed in parts per million except those for color and pH.)

Town	Well No.	Probable geologic formations	Date of collection	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Total hardness as $CaCO_3$	Noncarbonate hardness	Color	pH
Bay Pines	594	Tampa fm.	3-10-49	42	0.08	138	37	76	245	46	308	0.2	0.5	911	496	296	5	7.1
Clearwater	270	Tampa fm.	3-8-49	25	.08	62	9.2	23	196	3.0	52	.3	.5	288	193	32	0	7.7
Dunedin	167	Tampa fm.	3-8-49	18	.01	66	4.8	15	142	63	23	0	6.0	271	184	68	0	7.7
Largo	315	Tampa fm.	3-8-49	29	.08	58	11	18	187	4.0	48	.3	1.5	288	190	37	10	7.5
Largo (at Walsingham Reservoir)	464	Tampa fm. & Suwannee ls.	3-28-49	36	.02	63	28	32	223	3.4	107	.6	1.0	428	272	89	30	7.5
Oldsmar	212A	Tampa fm. & Suwannee ls.	3-9-49	28	.81	162	23	255	207	57	560	.2	1.5	1,190	498	329	5	7.3
Pinellas Park	566	Tampa fm. & Suwannee ls.	3-10-49	29	.04	186	36	193	215	42	540	.1	1.0	1,130	612	436	0.0	7.5
Safety Harbor	326	Tampa fm. & Suwannee ls.	3-9-49	15	.17	72	8.1	18	231	2.6	43	.1	1.0	281	213	24	5	7.4
St. Petersburg	640	Tampa fm.	3-9-49	19	1.64	72	7.6	27	216	2.5	57	.10	6.5	328	211	34	20	7.2
Tarpon Springs (near NW shore of Lake Tarpon)	25	Tampa fm.	3-7-49	10	.02	49	13	135	63	39	262	.00	.5	588	176	124	0.0	7.5

burg are due in part to contamination by the casing and other iron pipes through which the water passed and thus do not give a true indication of the iron content of water in the aquifer.

The significance of the chloride content of water is discussed in the section entitled "Salt-Water Encroachment."

USE OF WATER

Nearly all water for public, industrial, agricultural, and domestic uses in Pinellas County is obtained from wells. The Pinellas County Water System, which obtains part of its supply from McKay Creek, is the only public system using surface water as a source of supply at the present time, but it, also, obtains part of its supply from ground water.

Wells tapping the artesian aquifer range in diameter from 3 to 12 inches and range in depth from about 50 feet to as much as 300 feet. The yield of deep wells varies with the permeability of the limestone penetrated, the amount of open hole, and the diameter, but wells having diameters of 8 inches and more generally yield several hundred gallons a minute. Shallow wells are generally developed by driving 1½ inch casing, equipped with a well point, to a depth of from 25 to 50 feet. A few shallow domestic supplies are obtained from dug wells having diameters of 24 inches or more.

The Florida State Board of Health lists 13 public water systems in Pinellas County, all of which, except the St. Petersburg system, obtain water from wells in the county. St. Petersburg obtains its water from wells in Hillsborough County. The average output of each system in 1947 (Florida State Board of Health, 1948, pp. 20-21) is given in table 4.

TABLE 4
AVERAGE DAILY OUTPUT OF PUBLIC WATER SUPPLIES IN PINELLAS COUNTY, 1947

Public supply	Million gallons a day
Pinellas County Water System	0.650
Belleair	.18
Belleview-Biltmore	.144
Clearwater	1.50
Crystal Beach	.036
Dunedin	.33
Largo	.175
Oldsmar	.20
Palm Harbor	.024
Pinellas Park	.070
Safety Harbor	.075
St. Petersburg	7.10
Tarpon Springs	.20

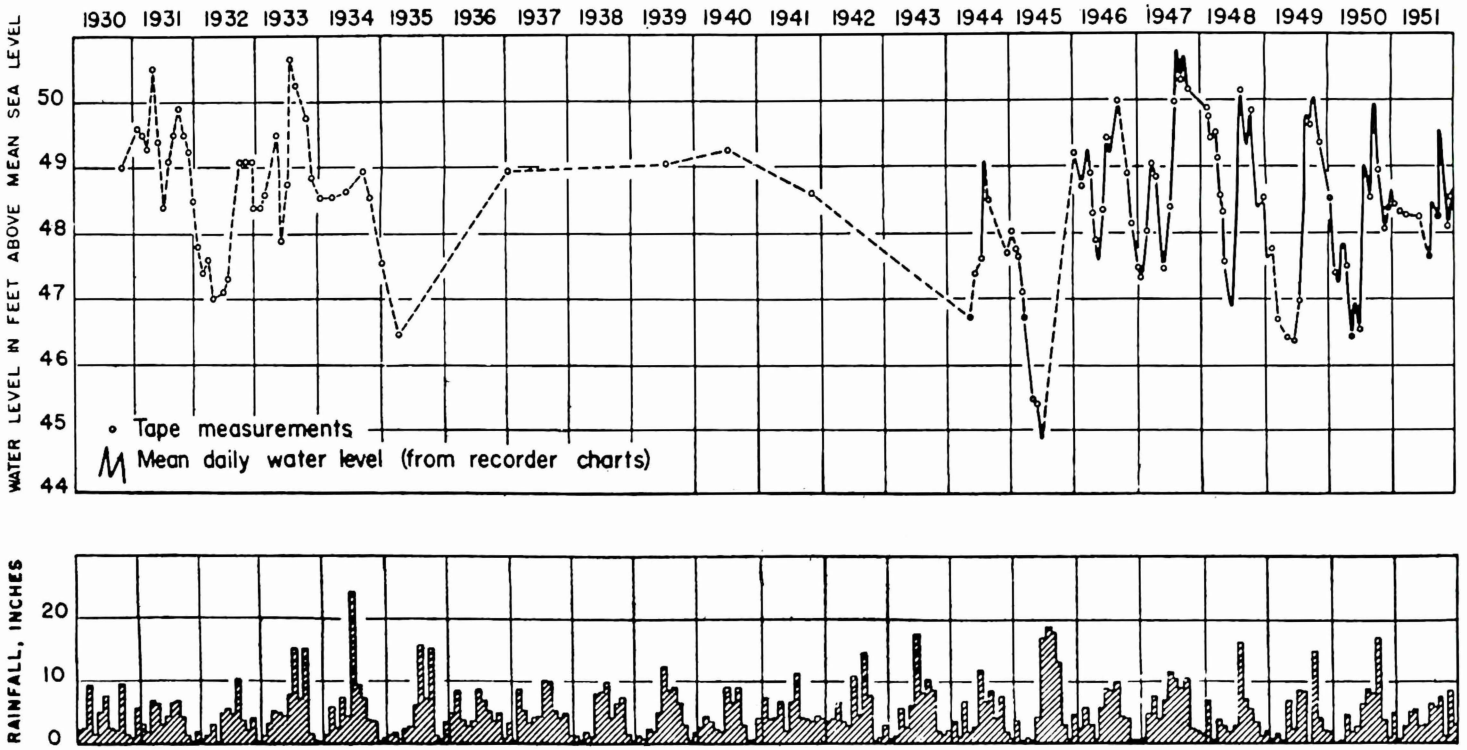


Figure 21.—Hydrograph of well 13 in Hillsborough County and monthly rainfall at St. Leo, Pasco County, 1930-1951 inclusive.

borough County well 13 appears to indicate that the ground-water resources in the Cosme area are not being unduly affected by pumping. In fact, the available information indicates that the ground water resources in the region north and east of Cosme have the capacity to yield several times the amount of water that is now being pumped, provided new wells are dispersed over an area of sufficient breadth to avoid excessive drawdowns.

SUMMARY AND CONCLUSIONS

The results of the investigation of ground-water resources in Pinellas County may be summarized as follows:

1. The principal source of ground water in Pinellas County is an aquifer composed of the Tampa formation and Suwannee limestone. In the northern part of the county the top of this aquifer is 10 to 50 feet beneath the surface. Toward the south its depth increases until in the vicinity of St. Petersburg it is more than 125 feet beneath the surface. In the area north of Palm Harbor and west of Lake Tarpon the water in the aquifer is under water-table conditions. In the remainder of the county the water is under artesian conditions.

2. West and south of Lake Tarpon the water in the aquifer is derived wholly from local rainfall. North of Palm Harbor the aquifer is covered only with permeable material and hence receives recharge from rainfall readily. South of Palm Harbor the aquifer is overlain by material of low permeability but nevertheless receives substantial quantities of recharge through sinkholes in the area around Coachman; the area of recharge possibly includes the vicinity of Dunedin. Recharge in this area is indicated by the fact that the piezometric surface stands high—as much as 16 feet above sea level about a mile south of Coachman. Lesser quantities of recharge doubtless enter the artesian aquifer wherever the water table stands very high above the piezometric surface, as, for example, in the upland area around St. Petersburg.

3. Salt-water encroachment is the most critical ground-water problem confronting the county. Areas already affected by encroachment include: (1) most of the area between Palm Harbor and the southwest shore of Lake Tarpon; (2) most of the area between Indian Rocks, Walsingham, and Oakhurst; (3) an area about a mile wide along the southeastern coast of the county; and

(4) a small area at the north end of Old Tampa Bay about 2 miles west of Oldsmar. The chloride content of the water from wells in these areas ranges from less than 50 to as much as several thousand parts per million.

The quantity of water that may be safely withdrawn from the aquifer at a given place depends on the water-transmitting capacity of the aquifer and on the height of the piezometric surface. Where the piezometric surface stands highest, more water can be withdrawn without causing salt water to move into the wells. Wherever the piezometric surface is lowered, water is removed from storage, and the water so removed is replaced in part by water from the sea.

4. In the long run, salt-water encroachment can be controlled only by limiting the total draft to a rate at which an adequate freshwater head will be maintained. Where feasible, the safe draft at a given place and from a given group of wells might be increased by artificially recharging the aquifer—that is, by injecting surplus surface water into the aquifer through wells. To be effective, however, the artificial recharge would have to be introduced in the immediate vicinity of the pumped wells. If, for example, the aquifer were artificially recharged in the vicinity of Coachman, no appreciable beneficial results would accrue to the wells in the vicinity of Walsingham, but the safe draft at Coachman might be increased.

At some places, where geologic conditions are favorable, artificial recharge would be most effective if applied immediately adjacent to the coast, where it would build up a ground-water "ridge" to act as a barrier to the inland advance of sea water (Laverty and others, 1951). This approach to the problem would be effective, however, only if the aquifer were underlain by a watertight formation, for otherwise the salt water could move upward from the deeper formation, thereby bypassing the barrier. The scanty information on the geology of Pinellas County indicates that there is no watertight formation underlying the aquifer and, hence, that an attempt to halt the advance of sea water by creating a ground-water ridge along the coast probably would not be successful.

Artificial recharge can put a stop to an encroachment of salt water only if the rate of recharge exceeds the rate of withdrawal. So long as the draft of ground water in Pinellas County continues to increase the problem of salt-water encroachment will grow more serious. An encroachment of salt water is especially lamentable because its effects are long lasting. Having once established inroads

into the aquifer, the salty water will rinse out only very slowly, leaving traces for many years and perhaps for generations after remedial measures are undertaken.

The investigation leading to this report was restricted largely to a study of the existing wells in the county, because funds for drilling test wells and observation wells were not available. As most of the wells are finished with open holes that extend through more than 100 feet of limestone and thus draw from more than one water-bearing zone, several aspects of the problem of salt-water encroachment could not be investigated. Among these are (1) the relation between the height of the piezometric surface and the depth below sea level of the fresh water-sea water contact, (2) the rate of advance of the contact in the areas already affected by salt-water encroachment, and (3) the possibility of differences in pressure heads between various water-bearing zones.

The relation between the height of the piezometric surface and the depth to the salt-water contact must be studied before the problem of salt-water encroachment can be adequately understood. Figure 17 was drawn on the basis of the Ghyben-Herzberg principle, described in the section titled "Salt-Water Encroachment," to show where the contact would be if it were in hydrostatic equilibrium with the piezometric surface. The position of the contact as shown in figure 17 may differ from the true position because the permeability of the aquifer in a vertical direction is doubtless much less than the permeability in a horizontal direction, and because vertical movements of the contact that accompany changes in the height of the piezometric surface are delayed by changes in "bottom storage." On the other hand, if the Ghyben-Herzberg principle is found to apply approximately, the effects of pumping at a given place can be predicted fairly well.

Studies are needed also to determine the rate at which salt-water encroachment is occurring. Water samples for chloride analyses have been collected from selected wells several times since 1948 in an effort to determine the rate of encroachment. However, the results of these analyses have not been consistent, because each well draws from several water-bearing zones so that the samples are mixtures of water from several depths, and possibly because intermittent pumping of the wells by the owners causes the chloride content to vary inconsistently from one sampling to another. Where the rate of encroachment can be determined it may be possible to predict when the wells will become contaminated.

A program designed to determine how closely the Ghyben-Herzberg principle applies and to observe the advance of the salt-water contact would consist of establishing a series of observation stations approximately 1 mile apart across the county from Clearwater to Tampa Bay. Each station should consist of three or four small-diameter wells drilled and cased to different depths in the aquifer. The deepest of the wells would end in the zone of diffusion between fresh water and salt water, the shallowest would end near the top of the aquifer, and the other one or two would end at intervening depths. Such a system of wells would provide a means of extracting water samples and measuring pressure heads at isolated depths in the aquifer, an operation that is not possible with the existing, open-hole wells. Tests of chloride content of water from the wells of each station would indicate how the salt-water contact advances and retreats, and measurements of the water levels would provide a record of the changes in pressure head that cause the contact to advance and retreat. Similar stations could well be established in each of the areas affected by salt-water encroachment to provide accurate information on how the extent of the encroachment may increase or decrease.

Further analyses of the chloride content of water from many wells throughout the county, at least once a year, would provide much needed additional information on the extent of salt-water encroachment. As of February 1, 1953, five recorders were in operation (on wells 13, 77, 166, 246, and 561), three having been discontinued because the owners of the wells rightfully elected to restore the wells to their own service. As the height of the piezometric surface controls the extent to which salt water will encroach, it is especially desirable that records of water levels such as are obtained through the use of automatic recording gages be continued indefinitely on at least five or six wells strategically located over the county.

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TABLE 5

RECORD OF WELLS

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
60	---	8	Top of 8-inch casing, 0.3 foot above land surface.	14.2	8.51	9-12-47	12	0	9-12-47	Industrial	
48	33	8	Top of 8-inch casing, flush with land surface.	13.5	8.50	9-12-47	15	0	9-12-47	Industrial	
25	---	8	---	---	---	---	---	0	---	Industrial	Drawdown 5 feet when pumped 110 g.p.m.
25	25	8	Top of 12-inch casing, flush with land surface.	13.0	6.67	9-12-47	20	0	9-12-47	Test	Well probably destroyed.
305	---	---	---	---	10.52	6-21-49	490	---	3-28-47	Industrial	
130	---	3	---	---	---	---	---	---	---	---	Well filled with rubbish.
---	---	4	---	---	---	---	---	---	---	Unused Domestic	Well abandoned owing to high salinity of water.
105	65	6	---	---	---	---	---	---	---	---	Well probably buried.
103	40	6	---	---	---	---	---	---	---	---	Well probably buried.
57	42	6	---	---	---	---	---	---	---	---	Well probably buried.
105	40	8	---	---	---	---	276 470 450	--- --- ---	4-?-48 9-?-48 5-15-51	Public Supply	Water samples were a mixture from wells 11 and 12.
103	40	8	---	---	---	---	276 470 450	--- --- ---	4-?-48 9-?-48 5-15-51	Public Supply	Water samples were a mixture from wells 11 and 12.
141	33	6	Top of 6-inch casing, 2.9 feet above land surface.	14.88	12.08 12.89 12.22 12.51	12-18-47 1-29-48 4-19-48 5-14-51	60 50 50 50 50	0 0 0 0 0	10-2-47 11-10-47 11-18-47 11-25-47 12-1-47	Observation	F.G.S. Well W1619. Cuttings from strata penetrated on file with Florida Geological Survey. Automatic water-level recorder installed 10-6-47.
---	---	10	---	---	---	---	131	0	5-28-43	Irrigation	
---	---	2	---	---	---	---	220 255	0 0	4-3-47 5-15-51	Domestic	
84	---	12	Top of 12-inch casing, 0.4 foot above land surface.	9.75	6.88	8-1-46	50	0	9-3-47	Irrigation	
108	90	3	Top of 3-inch casing, 0.2 foot above land surface.	14.08	4.06 3.18 5.41 5.0	3-3-47 4-29-48 6-21-49 5-14-51	5	0	3-31-47	Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
18	Two and four-tenths miles northeast of Tarpon Springs, 1.0 mile east of U. S. Highway 19, 75 feet east of a residence, near County Line. Near NW cor. NW¼NW¼ sec. 5, T. 27 S., R. 16 E.	E. H. Beckett Tarpon Springs, Florida	A. O. Dunlap Dunedin, Florida	1924
19	Two and two-tenths miles northeast of Tarpon Springs, west side of Salt Lake, 0.3 mile north of Atlantic Coast Line Railroad. Near SW cor. NW¼SW¼ sec. 5, T. 27 S., R. 16 E.	Warren	---	---
20	Two miles northeast of Tarpon Springs, 0.4 mile east of U. S. Highway 19, 0.28 mile north of County Road 71, east side of small pond, about 100 feet west of location for new State Highway 55, in an orange grove. Near SE cor. NE¼NW¼ sec. 6, T. 27 S., R. 16 E.	E. H. Beckett Tarpon Springs, Florida	A. O. Dunlap Dunedin, Florida	May 1946
21	One and eight-tenths miles northeast of Tarpon Springs, 0.3 mile west of State Highway 55, 300 feet south of a small pond, 10 feet north of a dirt road, southwest of well 20. SW¼NW¼ sec. 6, T. 27 S., R. 16 E.	E. H. Beckett Tarpon Springs, Florida	A. O. Dunlap Dunedin, Florida	May 1946
22	About 3.0 miles northeast of Tarpon Springs, 0.45 mile north of State Highway 582, 0.1 mile east of Seaboard Air Line Railroad, east of a residence. Near NW cor. NE¼NW¼ sec. 9, T. 27 S., R. 16 E.	J. L. Boyd	Porter Zimmerman Ozona, Florida	April 1936
23	Three and one-tenth miles northeast of Tarpon Springs, 0.5 mile north of State Highway 582, 0.4 mile east of a dirt road. NW¼NE¼ sec. 9, T. 27 S., R. 16 E.	J. L. Boyd	Porter Zimmerman Ozona, Florida	May 1946
24	Three and four-tenths miles northeast of Tarpon Springs, 0.5 mile north of State Highway 582, 0.6 mile east of a dirt road. Near NW cor. NE¼NE¼ sec. 9, T. 27 S., R. 16 E.	J. L. Boyd	Porter Zimmerman Ozona, Florida	April 1946
25	One and five-tenths miles east of Tarpon Springs, 0.4 mile south of State Highway 582, 0.45 mile east of State Highway 55, west side of a water tank. SW¼NW¼ sec. 17, T. 27 S., R. 16 E.	City of Tarpon Springs	A. O. Dunlap Dunedin, Florida	June 1947
26	One and four-tenths miles east of Tarpon Springs, 0.2 mile south of State Highway 582, 0.35 mile east of State Highway 55. NE¼NE¼ sec. 18, T. 27 S., R. 16 E.	City of Tarpon Springs	A. O. Dunlap Dunedin, Florida	June 1947
27	One and one-tenth miles east of Tarpon Springs, 0.25 mile south of State Highway 582, 0.1 mile east of State Highway 55, north side of a Skeet Range, on a sand hill, 10 feet north of a dirt road. NW¼NE¼ sec. 18, T. 27 S., R. 16 E.	City of Tarpon Springs	A. O. Dunlap Dunedin, Florida	July 1947
28	Six tenths of a mile east of Tarpon Springs, 0.2 mile south of State Highway 582, about 300 feet east of Boyer St., top of a hill. Near NE cor. NW¼NW¼ sec. 18, T. 27 S., R. 16 E.	Atlantic Ice Co. Tarpon Springs, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1927
29	One mile southeast of Tarpon Springs, 0.5 mile south of State Highway 582, about 200 feet west of State Highway 55, north side of a small pond. SE¼NW¼ sec. 18, T. 27 S., R. 16 E.	David Bilgore Co.	Frank May Tampa, Florida	---
30	Five miles southeast of Tarpon Springs, 3.1 miles east of State Highway 55, 3.0 miles south of State Highway 582, 0.1 mile east of East Lake Road, east side of a residence. SW¼SE¼ sec. 27, T. 27 S., R. 16 E.	Johnson	---	---
31	Three and three-tenths miles southeast of Tarpon Springs, 0.55 mile east of State Highway 55, 0.6 mile north of County Road 42, about 50 feet north of a sand road. Near NW cor. SW¼SW¼ sec. 29, T. 27 S., R. 16 E.	L. O. Binder	A. O. Dunlap Dunedin, Florida	March 1947

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
98	--	4	---	---	---	---	112	--	3-31-47	Domestic	
100 (?)	--	3	---	---	---	---	---	--	---	---	
87	--	8	Top of 8-inch coupling, 0.2 foot above land surface.	18.35	14.18 15.50 17.56 15.55 15.82 16.3	8-29-47 12-18-47 4-19-48 10-25-48 6-21-49 5-14-51	120 100	0 --	3-31-47 5-10-48	Irrigation	
101	66	6	Top of 6-inch coupling, 0.2 foot above land surface.	20.60	17.50 17.18 16.50 15.68 17.63	3-31-47 12-18-47 1-29-48 4-19-48 6-21-49	20 20	0 --	3-31-47 5-10-48	Irrigation	
70	--	2	---	---	---	---	25	--	3-31-47	Domestic	
73	--	3	Top of 3-inch casing, 0.8 foot above land surface.	15.79	4.14 4.70 4.89	3-31-47 6-21-49 5-14-51	52	0	3-31-47	Irrigation	
56	--	3	---	---	---	---	25	0	3-31-47	Irrigation	
115	76	10	---	---	---	---	132	--	4-?-48	Public Supply	
85	66	10	---	---	---	---	---	--	---	---	F.G.S. Well W-1521. Cuttings from strata penetrated on file with Florida Geological Survey. Drilling discontinued when well failed to produce water.
72	78	10	Top of 10-inch coupling, flush with land surface.	24.34	20.80 17.70 18.09 20.92 21.88 22.0	8-1-47 12-18-47 3-11-48 4-19-48 6-21-49 5-14-51	---	--	---	---	F.G.S. Well W-1522. Cuttings from strata penetrated on file with Florida Geological Survey. Drilling discontinued when well caved.
128	98	4	---	---	---	---	20	--	3-27-47	Ice Plant	
270 (?)	--	4	---	---	---	---	80	--	3-31-47	Irrigation	
97	---	2	Top of 2-inch casing, 3.4 feet above land surface.	20.07	5.77 6.40 6.77 7.10	12-5-47 4-19-48 6-22-49 5-16-51	25	0	12-4-47	Domestic	
190	57	12	Top of 12-inch coupling, 0.3 foot above land surface.	16.29	11.90 11.49 9.55 10.84 10.76 11.50	3-10-47 7-16-47 8-28-47 12-18-47 1-29-48 4-19-48	15 12	0 --	3-10-47 5-5-48	Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
32	Three and three-tenths miles southeast of Tarpon Springs, 0.45 mile east of State Highway 55, 0.55 mile north of County Road 42, south side of a sand road. SE¼ SE¼ sec. 30, T. 27 S., R. 16 E.	L. O. Binder	A. O. Dunlap Dunedin, Florida	1947
33	Three and two-tenths miles southeast of Tarpon Springs, 0.6 mile north of County Road 42, 0.3 mile east of State Highway 55, 30 feet north of a sand road. Near NW cor. SE¼SE¼ sec. 30, T. 27 S., R. 16 E.	L. O. Binder	A. O. Dunlap Dunedin, Florida	1944
34	Three and two-tenths miles southeast of Tarpon Springs, 0.6 mile north of ty Road 42, 250 feet east of State Highway 55, 30 feet north of a sand road. SW¼SE¼ sec. 30, T. 27 S., R. 16 E.	L. O. Binder	Jack Clyatt Ozona, Florida	1947
35	Three and three-tenths miles southeast of Tarpon Springs, 0.55 mile north of County Road 42, 200 feet east of State Highway 55, 300 feet south of a sand road. SW¼SE¼ sec. 30, T. 27 S., R. 16 E.	L. O. Binder	Jack Clyatt Ozona, Florida	1947
36	Two miles northeast of Palm Harbor, 0.35 mile north of County Road 42, about 500 feet west of State Highway 55, about 600 feet north of owner's residence. NE¼NW¼ sec. 31, T. 27 S., R. 16 E.	W. B. Thompson Tarpon Springs, Florida	D. C. Ammons	Aug. 1946
37	One and nine-tenths miles northeast of Palm Harbor, 0.25 mile north of County Road 42, about 300 feet west of owner's residence, on south side of a small building. Near NW cor. SE¼NW¼ sec. 31, T. 27 S., R. 16 E.	W. B. Thompson Tarpon Springs, Florida	W. B. Thompson Tarpon Springs, Florida	1934
38	Two miles northeast of Palm Harbor, 0.25 mile north of County Road 42, about 75 feet west of State Highway 55, southeast of owner's residence. SE¼NW¼ sec. 31, T. 27 S., R. 16 E.	W. B. Thompson Tarpon Springs, Florida	W. B. Thompson Tarpon Springs, Florida	1934
39	Two and one-tenth miles northeast of Palm Harbor, 0.22 mile north of County Road 42, about 600 feet east of State Highway 55, northwest of a residence, in a pump-house. Near NW cor. SW¼NE¼ sec. 31, T. 27 S., R. 16 E.	L. L. Riviere Palm Harbor, Florida	Frank May Tampa, Florida	Oct. 1947
40	Two and two-tenths miles northeast of Palm Harbor, 0.2 mile north of County Road 42, about 700 feet east of State Highway 55, east side of a residence. SW¼NE¼ sec. 31, T. 27 S., R. 16 E.	L. L. Riviere Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	---
41	One and eight-tenths miles northeast of Palm Harbor, 0 1 mile north of County Road 42, 0.2 mile west of State Highway 55, 0.1 mile north of a sand road, in an orange grove. SW¼NW¼ sec. 31, T. 27 S., R. 16 E.	Pasco Packing Co.	Frank May Tampa, Florida	April 1945
42	One and seven-tenths miles northeast of Palm Harbor, 0.3 mile west of State Highway 55, 15 feet north of County Road 42, south side of an orange tree, southeast corner of grove. Near SE cor. SW¼NW¼ sec. 31, T. 27 S., R. 16 E.	E. E. E. Developing Co. Dade City, Florida	Frank May Tampa, Florida	1944
43	One and eight-tenths miles northeast of Palm Harbor, 0.1 mile north of County Road 42, about 0.2 mile west of State Highway 55, north side of a residence, in an orange grove. SE¼NW¼ sec. 31, T. 27 S., R. 16 E.	W. B. Thompson Tarpon Springs, Florida		1934
44	One and five-tenths miles northeast of Palm Harbor, 0.4 mile south of County Road 42, 0.25 mile west of State Highway 55, 0.1 mile north of a sand road, west side of an equipment shed at edge of an orange grove. Near NW cor. SE¼SW¼ sec. 31, T. 27 S., R. 16 E.	Manatee Packing Co.	A. O. Dunlap Dunedin, Florida	Aug. 1947
45	One and six-tenths miles northeast of Palm Harbor, 0.35 mile south of County Road 42, 0.15 mile west of State Highway 55, 0.15 mile north of a sand road, east side of an equipment shed, in a pumphouse, in an orange grove. SE¼SW¼ sec. 31, T. 27 S., R. 16 E.	Manatee Packing Co.	A. O. Dunlap Dunedin, Florida	Oct. 1945
46	One and five-tenths miles northeast of Palm Harbor, 0.4 mile south of County Road 42, 0.25 mile west of State Highway 55, 0.1 mile north of a sand road, east side of an equipment shed, in a pumphouse, at edge of an orange grove. SE¼SW¼ sec. 31, T. 27 S., R. 16 E.	Manatee Packing Co.	A. O. Dunlap Dunedin, Florida	---
47	Two miles northeast of Palm Harbor, 0.45 mile south of County Road 42, 1100 feet east of State Highway 55, in an orange grove. SW¼SE¼ sec. 31, T. 27 S., R. 16 E.	Chase	Frank May Tampa, Florida	1940

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	120	10	Top of 10-inch casing, flush with land surface.	17.58	9.45 6.73 7.72	3-10-47 6-21-49 5-15-51	20	0	3-10-47	---	Driller reported sand entire depth of well. Drilling discontinued when well failed to produce water.
187	187	12	Top of 12-inch coupling, 3.8 feet above land surface.	21.09	21.41 19.1 17.89 14.10 10.47 5.22	8-2-46 3-10-47 7-16-47 12-18-47 6-21-49 5-15-51	10	0	3-10-47	---	Driller reported sand entire depth of well. Drilling discontinued when well failed to produce water.
55	55	2	Top of 2-inch coupling, 0.5 foot above land surface.	16.78	12.53 11.50 9.54 12.91	3-10-47 12-18-47 6-21-49 5-15-51	---	---	---	Test	
57	57	2	Top of 2-inch coupling, 0.9 foot above land surface.	21.12	16.85 15.78 16.82 17.20	3-10-47 12-18-47 6-21-49 5-15-51	---	---	---	Test	
102	83	4	Top of 4-inch coupling, 0.5 foot above land surface.	17.51	12.78 12.67 12.82 13.42 13.98 14.66	3-10-47 1- 5-48 1-29-48 4-19-48 6-21-49 5-15-51	---	---	---	Irrigation	
90	42	2	Top of 2-inch casing, 1.3 feet above land surface.	11.19	7.08 7.17 7.80 7.86	3-10-47 4-19-48 6-21-49 5-15-51	---	---	---	Irrigation	
65	40	2	---	---	---	---	12	---	3-10-47	Domestic Irrigation	
151	69	12	---	---	---	---	---	---	---	Irrigation	
68	48	2	---	---	---	---	30	0	3-11-47	Domestic	
118	87	12	---	---	---	---	---	---	---	Irrigation	
---	---	12	Top of 12-inch casing, flush with land surface.	51.58	48.34 49.80	7-11-46 6-21-49	---	---	---	---	
90	---	2	---	---	---	---	10	---	3-10-47	Domestic	
205	74	12	Top of 12-inch coupling, 0.6 foot above land surface.	81.43	76.96 77.18 77.61 78.35 78.78 79.93	12-18-47 1- 5-48 1-29-48 4-19-48 6-21-49 5-15-51	300 300	0 0	9-11-47 1-5-48	---	F.G.S. Well W1614. Cuttings from strata penetrated on file with Florida Geological Survey.
130	66	12	---	---	---	---	1187	0	3-12-47	Irrigation	Salinity is reported to decrease with pumping.
287	90	12	---	---	---	---	612* 2200 510	--- 0 ---	5-28-43 3-12-47 5-15-51	Irrigation	
250	---	12	---	---	---	---	---	---	---	Irrigation	

* Chloride analysis supplied by Agricultural Experimental Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
48	Two and two-tenths miles northeast of Palm Harbor, 0.3 mile south of County Road 42, 0.5 mile east of State Highway 55, in an orange grove. SE¼SE¼ sec. 31, T. 27 S., R. 16 E.	Chase	Frank May Tampa, Florida	1942
49	One and five-tenths miles northeast of Palm Harbor, 0.1 mile south of County Road 42, 0.75 mile east of State Highway 55, in a pumphouse, in an orange grove. NE¼SW¼ sec. 32, T. 27 S., R. 16 E.	L. J. Cobb	A. O. Dunlap Dunedin, Florida	Oct. 1946
50	Two and eight-tenths miles northeast of Palm Harbor, about 75 feet south of County Road 42, 1.0 mile east of State Highway 55, south side of owner's residence. NW¼ SE¼ sec. 32, T. 27 S., R. 16 E.	L. J. Cobb	A. O. Dunlap Dunedin, Florida	1943
51	Three and five-tenths miles northeast of Palm Harbor, east side of Lake Butler, about 2.0 miles north of State Highway 584, 1.8 miles east of State Highway 55, 1.0 mile west of East Lake Road, southeast corner of a cottage, at edge of Lake. SW¼NW¼ sec. 33, T. 27 S., R. 16 E.	C. Jackson	---	Jan. 1948
52	East side of Lake Butler, 1.0 mile north from Brooker Creek Bridge, along East Lake Road, 0.2 mile east of East Lake Road, south side of a shack, 50 feet north of a sand road. Near SW cor. SE¼NW¼ sec. 34, T. 27 S., R. 16 E.	C. M. Johnson	---	---
53	East side of Lake Butler, 1.4 miles north from Brooker Creek Bridge, along East Lake Road, about 1.0 mile east of East Lake Road. SW¼NW¼ sec. 35, T. 27 S., R. 16 E.	J. A. Boyd	L. W. Mixon Tampa, Florida	Incomplete June 1948
54	One and one-tenth miles northeast of Palm Harbor, 0.5 mile north of County Road 41, 0.65 mile west of State Highway 55. Near NW cor. NE¼NE¼ sec. 1, T. 28 S., R. 15 E.	James O. Hamilton Palm Harbor, Florida	---	1918
55	Six-tenths mile northeast of Palm Harbor, 0.25 mile north of County Road 41, 0.65 mile east of U. S. Highway 19. Near SE cor NE¼NW¼ sec. 1, T. 28 S., R. 15 E.	Food Machinery Co. Dunedin, Florida	A. O. Dunlap Dunedin, Florida	May 1946
56	Two-tenths mile northeast of Palm Harbor, 0.26 mile east of U. S. Highway 19, 300 feet north of County Road 41, at site of old college. SW¼NW¼ sec. 1, T. 28 S., R. 15 E.	Claude Wood Dunedin, Florida	---	1900
57	One mile east of Palm Harbor, 0.55 mile west of State Highway 55, 0.1 mile north of County Road 41, 100 feet west of a paved road. SE¼NE¼ sec. 1, T. 28 S., R. 15 E.	Herbert C. Mann Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	May 1948
58	About 0.95 mile east of Palm Harbor, 0.6 mile west of State Highway 55, 0.1 mile west of a paved road, 400 feet north of County Road 41, north side of owner's residence, in a pumphouse. SE¼NE¼ sec. 1, T. 28 S., R. 15 E.	H. O. Scoggins Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Feb. 1946
59	Nine-tenths mile east of Palm Harbor, 0.7 mile west of State Highway 55, 0.18 mile west of a paved road, north side of County Road 41. SE¼NE¼ sec. 1, T. 28 S., R. 15 E.	Robert Hamilton Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1945
60	Five-tenths mile east of Palm Harbor, 0.2 mile east of County Road 36, south side of County Road 41, east side of a house. NE¼SW¼ sec. 1, T. 28 S., R. 15 E.	Hubert McDaniels	---	---
61	Six-tenths mile east of Palm Harbor, 0.15 mile east of County Road 36, 800 feet south of County Road 41, in a grove. NE¼SW¼ sec. 1, T. 28 S., R. 15 E.	Charles Jackson Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	1943
62	Nine-tenths mile southeast of Palm Harbor, 0.35 mile north of State Highway 584, west side of County Road 39. Near SE cor. SW¼SE¼ sec. 1, T. 28 S., R. 15 E.	J. L. Beckton Palm Harbor, Florida	Frank May Tampa, Florida	1945
63	Two-tenths mile southwest of Palm Harbor, 900 feet south of a fruit packing house at Palm Harbor, 100 feet east of U. S. Highway 19. NE¼SE¼ sec. 2, T. 28 S., R. 15 E.	E. M. Harris Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	Apr. 1946
63a	Palm Harbor, 200 feet north of Florida Ave., 400 feet east of U. S. Highway 19, 20 feet west of a dirt road. NE¼SE¼ sec. 2, T. 28 S., R. 15 E.	H. K. Richmond	---	---

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
265	--	12	Top of 12-inch casing, 3.85 feet below land surface datum.	9.72	---	---	103*	5	5-28-43	Irrigation	Continuous automatic water-stage recorder installed 12-15-48.
170	52	12	Top of 12-inch casing, 0.4 foot above land surface.	34.9	29.78	3-11-47	71	0	3-11-47	Irrigation	
105	46	4.5	---	---	---	---	11	--	3-11-47	Domestic	
80	---	2	Top of 2-inch casing, flush with land surface.	4.20	a3.10 a3.50	1-29-48 6-22-49	350 345	-- --	1-29-48 5-15-51	Domestic	
65	---	2	Top of 2-inch casing, 1.0 foot below land surface.	12.0	a2.0 a1.74 a1.30 a1.10	12-5-47 1-29-48 4-19-48 6-21-49	75 70	-- --	12-5-47 5-16-51	Stock	
1400	---	6	---	---	---	---	---	--	---	Oil test	
305	---	15	---	---	---	---	400	0	4-7-47	Irrigation	
260	75	10	---	---	---	---	---	--	---	Irrigation	
100	---	6	Top of highest point on 6-inch casing, 1.0 foot above land surface.	---	60.69 62.19	8-1-46 2-28-47	42	0	2-28-47	---	
147	67	6	Top or 6-inch coupling, 0.4 foot above land surface.	67.96	65.00	5-25-48	30 30 23	0 0 0	5-24-48 5-24-48 5-24-48	Irrigation Domestic	F.G.S. Well W1742. Cuttings from strata penetrated on file with Florida Geological Survey.
253	75	10	Top of 10-inch casing, 0.5 foot above land surface.	72.3	67.51 68.93 70.63	6-3-46 6-21-49 5-15-51	100 137	0 0.5	3-12-47 5-20-48	Irrigation	
116	54	4.5	---	---	---	---	550 920	-- --	3-17-47 5-15-51	Domestic	
---	---	--	---	---	---	---	437	--	3-17-47	---	
202	53	10	---	---	---	---	621* 590	-- --	6-4-43 5-16-51	Irrigation	
255	33	10	---	---	---	---	110	0	3-20-47	Irrigation	
66	---	3	---	---	---	---	117	--	3-20-47	Domestic	
---	---	2.5	---	---	---	---	---	--	---	Public Supply	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	--	---	---	---	---	---	--	---	---	
30	28	2	---	---	---	---	27	--	7-1-47	Domestic	
38	38	2.5	---	---	---	---	5100	--	7-1-47	Domestic	Water not used for drinking.
42	34	2	---	---	---	---	2100 340	-- --	7-1-47 5-16-51	Domestic	Water not used for drinking.
174	51	10	---	---	---	---	---	--	---	---	Water unfit for any use owing to high salinity. Well is capped and covered with dirt.
85	44	4	Top of 4-inch casing, 0.8 foot above land surface.	24.58	18.63	3-5-48	---	--	---	Domestic Irrigation	F.G.S. Well W1738. Cuttings from Strata penetrated on file with Florida Geological Survey.
41	--	4	Top of 4-inch coupling, 3.2 feet above land surface.	17.79	15.34 14.95 14.53 15.42 15.42 15.84	5- 1-46 4- 2-47 3-10-48 4-19-48 6-23-49 5-15-51	15	0	4-2-47	---	
180	--	12	---	---	---	---	65	0	6-19-47	Irrigation	
180	--	12	Top of 12-inch coupling, 0.3 foot above land surface.	47.57	44.04 43.70 43.97 44.73 45.00 45.67	7-11-46 12-18-47 1-29-48 4-19-48 6-23-49 5-16-51	162 125	0 0	3-17-47 4-30-48	Irrigation	
185	--	12	Top of 12-inch coupling, 0.5 foot above land surface.	40.33	30.19 30.4 29.71 30.54 30.44 41.63	7-11-46 3-17-47 12-18-47 4-19-48 6-23-49 5-16-51	640 400	0 0	3-17-47 4-30-47	Irrigation	
90	55	4	---	---	---	---	225	--	4-30-48	School	
---	---	4	---	---	---	---	25	0	4-3-47	Domestic	
226	77	12	---	---	---	---	525 350 400	0 --- --	3-27-47 5-25-48 5-16-51	Irrigation	
100	---	10	Top of 10-inch casing, flush with land surface.	69.50	64.04 64.74 65.84 64.86 65.09 66.76	11-20-47 2-20-48 5-25-48 8-25-48 4-19-48 5-16-51	600 425	0 0	3-28-47 5-5-48	Irrigation	Automatic water-stage recorder installed 11-19-47.
200	85	12	Top of 12-inch coupling, 0.8 foot above land surface.	46.19	41.94 42.40 43.02 43.17 43.71 42.94 44.16	9- 3-47 12- 4-47 12-18-47 1-29-48 4-19-48 6-23-49 5-16-51	20 25	0 0	9-3-47 4-30-48	Irrigation	
140	80	4	---	---	---	---	372 115	-- --	2-28-47 5-25-48	Domestic	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
80	About 0.85 mile southeast of Palm Harbor, 0.6 mile east of County Road 1, about 700 feet north of State Highway 584, northeast of owner's residence, in an orange grove, south side of a small pond. NW¼NE¼ sec. 12, T. 28 S., R. 15 E.	R. Duguid Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	---
81	One mile southeast of Palm Harbor, 600 feet west of County Road 39, 15 feet north of State Highway 584, at south edge of an orange grove, in a pumphouse. NW¼NE¼ sec. 12, T. 28 S., R. 15 E.	Charles E. Sanford Sarasota, Florida	Harold May Tampa, Florida	---
82	One and two-tenths miles southeast of Palm Harbor, 0.25 mile east of County Road 39, 0.1 mile north of State Highway 584, west side of a dirt road, south side of a house. Near SE cor. NE¼NE¼ sec. 12, T. 28 S., R. 15 E.	James Smith Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Jan. 1947
83	Nine-tenths mile southeast of Palm Harbor, 0.6 mile east of County Road 1, 30 feet south of State Highway 584, 5 feet west of a pumphouse, at north edge of an orange grove. Near NW cor. SW¼NE¼ sec. 12, T. 28 S., R. 15 E.	Harry Biggins Clearwater, Florida	Frank May Tampa, Florida	April 1944
84	Nine-tenths mile southeast of Palm Harbor, 0.6 mile east of County Road 1, 30 feet south of State Highway 584, in a pumphouse, at north edge of an orange grove. Near NW cor. SW¼NE¼ sec. 12, T. 28 S., R. 15 E.	Harry Biggins Clearwater, Florida	Frank May Tampa, Florida	April 1944
85	One and one-tenth miles southeast of Palm Harbor, 0.7 mile east of County Road 1, 900 feet south of State Highway 584, 400 feet west of County Road 39, in an orange grove, in a pumphouse. SW¼NE¼ sec. 12, T. 28 S., R. 15 E.	Harry Biggins Clearwater, Florida	Frank May Tampa, Florida	April 1944
86	Eight-tenths mile southeast of Palm Harbor, 0.15 mile south of State Highway 584, 700 feet east of County Road 1, in an orange grove. SW¼NW¼ sec. 12, T. 28 S., R. 15 E.	Arthur E. Yahn	Frank May Tampa, Florida	1945
87	Eight-tenths mile southeast of Palm Harbor, 0.3 mile east of County Road 1, 700 feet south of State Highway 584, in an orange grove. Near NW cor. SE¼NW¼ sec. 12, T. 28 S., R. 15 E.	F. H. Moody Crystal Beach, Florida	Frank May Tampa, Florida	April 1945
88	One and two-tenths miles southeast of Palm Harbor, 0.2 mile west of County Road 39, 0.3 mile south of State Highway 584, 890 feet north of a barn, in an orange grove, north side of a shed. Near SW cor. SW¼NE¼ sec. 12, T. 28 S., R. 15 E.	A. S. Schneider Plant City, Florida	A. O. Dunlap Dunedin, Florida	1920
89	One and three-tenths miles southeast of Palm Harbor, 0.45 mile south of State Highway 584, 900 feet west of County Road 39, about 300 feet northeast of a barn, in an orange grove. NW¼SE¼ sec. 12, T. 28 S., R. 15 E.	A. S. Schneider Plant City, Florida	Frank May Tampa, Florida	Jan. 1945
90	One mile south of Palm Harbor, 0.35 mile south of State Highway 584, 300 feet east of County Road 1, north side of owner's residence. Near NW cor. NW¼SW¼ sec. 12, T. 28 S., R. 15 E.	Kenneth Overcash Dunedin, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1947
91	One mile south of Palm Harbor, 0.36 mile south of State Highway 584, east side of County Road 1, east side of owner's residence, in a pumphouse. NW¼SW¼ sec. 12, T. 28 S., R. 15 E.	Kenneth Overcash Dunedin, Florida	---	1940
92	One and four-tenths miles southeast of Palm Harbor, 0.7 mile south of State Highway 584, 0.4 mile east of County Road 1, east side of a dirt road, under a tank. SE¼SW¼ sec. 12, T. 28 S., R. 15 E.	Carl Merritt Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	1935
93	One and seven-tenths miles south of Palm Harbor, 0.25 mile north of County Road 38, about 300 feet southwest of County Road 1, in a cement pumphouse, near a residence. Near NW cor. SW¼NW¼ sec. 13, T. 28 S., R. 15 E.	W. C. McClane Tampa, Florida	---	---
94	Two and one-tenth miles southeast of Palm Harbor, 0.6 mile east of County Road 1, north side of County Road 38, north side of owner's residence. SE¼NE¼ sec. 13, T. 28 S., R. 15 E.	J. H. Woodham Palm Harbor, Florida	A. O. Dunlap and Howell Dunedin, Florida	1927
95	Two and one-tenth miles southeast of Palm Harbor, 0.65 mile east of County Road 1, north side of County Road 38, northeast corner of a residence. SE¼NE¼ sec. 13, T. 28 S., R. 15 E.	John C. John Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
110	--	4	---	---	---	---	1681*	--	3-29-45	---	
252	---	10	---	---	---	---	199* 300 275 375	-- -- -- --	6-4-43 4-9-48 4-12-48 5-16-51	Irrigation	
104	57	4.5	---	---	---	---	445	--	9-8-47	Domestic	
165	82	4.5	Top of 4.5-inch coupling, 0.5 foot above land surface.	57.59	53.29 54.39 52.45 52.71 52.65 53.03 54.32	7-10-46 3-27-47 9-5-47 12-4-47 12-15-47 12-18-47 4-19-48	37 50	0 0	3-27-47 5-5-48	Test well	
152	92	12	---	---	---	---	85*	0	2-26-45	Irrigation	
241	204	10	Top of 10-inch casing, 0.2 foot above land surface.	59.9	54.18 54.99 54.93 56.60	7-10-46 3-27-47 6-23-49 5-16-51	275	0	3-27-47	---	
220	---	12	---	---	---	---	131*	--	5-28-43	Irrigation	
122	76	12	---	---	---	---	---	--	---	Irrigation	
260	52	10	Top of 10-inch casing, 0.2 foot above land surface.	65.63	61.11 61.14 59.87 61.35 61.20 62.55	6-26-46 4- 3-47 12-18-47 4-19-48 6-23-49 5-16-51	557* 534* 200	-- 5 0	5-28-43 3-22-45 4-3-47	---	
---	---	12	---	---	---	---	300	0	4-3-47	Irrigation	
108	56	6	Top of 6-inch coupling, 0.9 foot above land surface.	44.87	41.24 43.38 43.04	1-2-48 6-21-49 5-16-51	25	0	1-2-48	Irrigation	
108	51	3	---	---	---	---	25	--	12-31-47	Domestic	
90	60	2	---	---	---	---	20	--	9-11-47	Domestic	
---	---	4	---	---	---	---	50	--	9-11-47	Domestic	
100	---	2	---	---	---	---	35	--	3-18-47	Domestic	
50	---	3	---	---	---	---	40	--	3-18-47	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	2	---	---	---	---	---	--	---	Domestic	
107	77	4.5	Top of 4.5-inch casing, 0.5 foot above land surface.	25.6	21.42	6-26-46	13 17	-- --	3-17-47 4-30-48	Domestic	
97	45	4.5	Top of 4.5-inch casing, flush with land surface.	19.3	10.50	7-10-46	16 17	-- --	4-3-47 4-30-48	Domestic	
---	---	12	Top of 12-inch coupling, 0.7 foot above land surface.	36.24	---	---	---	--	---	---	Well is capped.
---	---	12	---	---	---	---	1880 450 1020	0 2 --	4-3-47 5-5-48 5-16-51	Irrigation	
---	---	--	---	---	---	---	280	0	6-19-47	Domestic	
180	21	8	---	---	---	---	180	0	4-4-47	Irrigation	F.G.S. Well W584. Cuttings from strata penetrated between 40 and 80 feet on file with Florida Geological Survey.
255	40	--	---	---	---	---	283 185	0	4-4-47 5-15-51	Irrigation	
276	31	8	---	---	---	---	80 75	0 2	4-4-47 4-30-48	Irrigation	
237	25	8	Top of 8-inch casing, 0.1 foot above land surface.	34.54	26.81 26.06 26.23 27.10 28.33 28.36	4- 4-47 12-18-47 1-29-48 4-19-48 6-23-49 5-15-51	32 37	0 0	4-4-47 4-30-48	Irrigation	
194	53	8	Top of 8-inch casing, flush with land surface.	7.99	5.44 6.49 6.43 5.15 5.57 7.05	4- 3-47 12-18-47 1-29-48 4-19-48 6-23-49 5-15-51	430 375	0 0	4-3-47 4-28-48	---	
60	30	6	---	---	---	---	591 360	0 --	4-8-47 5-15-51	Irrigation	Listed in the U. S. Geological Survey Water-Supply Paper 319, p. 322. Formerly owned by L. B. Skinner.
178	84	4.5	---	---	---	---	45	--	4-4-47	Domestic	
278	84	8	---	---	---	---	45	0	4-4-47	Irrigation	
268	64	8	---	---	---	---	---	--	---	---	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
111	One and seven-tenths miles northeast of Dunedin, 0.32 mile north of County Road 1, about 0.15 mile east of County Road 99, northeast of a barn, in an orange grove known as Old Tappan Grove. SW¼SE¼ sec. 23, T. 28 S., R. 15 E.	---	A. O. Dunlap Dunedin, Florida	1942
112	One and nine-tenths miles northeast of Dunedin, 0.7 mile south of County Road 98, 0.1 mile west of County Road 1, east side of a small pond, in a pumphouse. Near SE cor. SW¼SW¼ sec. 23, T. 28 S., R. 15 E.	G. A. Davis Dunedin, Florida	J. L. Howell	1928
113	Two and seven-tenths miles northeast of Dunedin, 0.6 mile south of County Road 38, 150 feet east of County Road 1, on south side of a fruit packing house. NE¼NW¼ sec. 24, T. 28 S., R. 15 E.	Inman Howell	A. O. Dunlap Dunedin, Florida	June 1945
114	Two and six-tenths miles northeast of Dunedin, 0.65 mile south of County Road 38, about 100 feet east of County Road 1, east side of owner's residence, in a pumphouse. NE¼NW¼ sec. 24, T. 28 S., R. 15 E.	Bill Garrison Dunedin, Florida	A. O. Dunlap Dunedin, Florida	June 1946
115	Two and four-tenths miles northeast of Dunedin, 660 feet west of County Road 1, 150 feet north of County Road 98, in a tool house. Near SW cor. NW¼NW¼ sec. 24, T. 28 S., R. 15 E.	A. J. Grant Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1944
116	Two and three-tenths miles northeast of Dunedin, 0.1 mile south of County Road 98, 0.1 mile west of County Road 1, west of well 117. SW¼NW¼ sec. 24, T. 28 S., R. 15 E.	E. W. Nigles Dunedin, Florida	A. O. Dunlap Dunedin, Florida	May 1946
117	Two and three-tenths miles northeast of Dunedin, 0.1 mile south of County Road 98, about 400 feet west of County Road 1, west side of owner's residence, east of well 116. SW¼NW¼ sec. 24, T. 28 S., R. 15 E.	E. W. Nigles Dunedin, Florida	Sermons	---
118	Two and three-tenths miles northeast of Dunedin, 0.25 mile south of County Road 98, 60 feet east of County Road 1, in an orange grove. NW¼SW¼ sec. 24, T. 28 S. R. 15 E.	E. W. Nigles Dunedin, Florida	Frank May Tampa, Florida	---
119	Two and two-tenths miles northeast of Dunedin, 0.35 mile south of County Road 98, 38 feet west of County Road 1, southeast of owner's residence. NW¼SW¼ sec. 24, T. 28 S., R. 15 E.	Eugene Nigles Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1931
120	Two and three-tenths miles northeast of Dunedin, 0.9 mile south of County Road 38, about 350 feet east of County Road 1, in an orange grove. NW¼SW¼ sec. 24, T. 28 S., R. 15 E.	Lee Nigles Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1943
121	Two and two-tenths miles northeast of Dunedin, 0.6 mile north of State Highway 580, 0.25 mile east of County Road 1, in an orange grove. Near SW cor. SE¼SW¼ sec. 24, T. 28 S., R. 15 E.	E. E. E. Developing Co. Dade City, Florida	Frank May Tampa, Florida	1944
122	Two and one-tenth miles northeast of Dunedin, 0.45 mile north of State Highway 580, 0.2 mile east of County Road 1, in an orange grove. NW¼NW¼ sec. 25, T. 28 S., R. 15 E.	Royal Barnum Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Feb. 1945
123	One and eight-tenths miles northeast of Dunedin, 0.55 mile east of County Road 1, 660 feet north of State Highway 580, in an orange grove. SW¼NW¼ sec. 25, T. 28 S., R. 15 E.	A. J. Grant Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1934
124	Two miles northeast of Dunedin, 0.8 mile east of County Road 1, 660 feet north of State Highway 580, in an orange grove. SE¼NW¼ sec. 25, T. 28 S., R. 15 E.	J. L. Howell	A. O. Dunlap Dunedin, Florida	1942
125	Two and two-tenths miles northeast of Dunedin, 1.0 mile east of County Road 1, 100 feet north of State Highway 580. Near NE cor. SE¼NW¼ sec. 25, T. 28 S., R. 15 E.	W. C. Overcash Dunedin, Florida	A. O. Dunlap Dunedin, Florida	Aug. 1946
126	Two and two-tenths miles northeast of Dunedin, 1.1 miles east of County Road 1, 100 feet south of State Highway 580. Near NW cor. NW¼SE¼ sec. 25, T. 28 S., R. 15 E.	Jernigan and Thomas Clearwater, Florida	A. O. Dunlap Dunedin, Florida	---
127	One and nine-tenths miles east of Dunedin, 0.75 mile east of County Road 1, about 400 feet south of State Highway 580, 300 feet east of County Road 36. NW¼SW¼ sec. 25, T. 28 S., R. 15 E.	Covey	A. O. Dunlap Dunedin, Florida	1940

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION		DATE OF SAMPLING		
202	61	8	---	---	---	---	45	--	4-8-47	Domestic Irrigation	
220	90	6	---	---	---	---	40	0	6-19-47	Irrigation	
216	58	8	Top of 8-inch casing, 0.5 foot above land surface.	57.58	45.60 47.70 46.60 46.87 49.33 50.15	10-23-45 6-19-47 12-30-47 1-29-48 6-23-49 5-16-51	---	--	---	---	
92	57	4.5	Top of 4.5-inch casing, 0.5 foot above land surface.	57	47.3	3-18-47	10	--	3-18-47	Domestic	
226	53	8	---	---	---	---	---	--	---	Irrigation	
271	156	8	---	---	---	---	17	--	3-20-47	Domestic Irrigation	
88	---	2	---	---	---	---	22	--	3-20-47	Domestic	
495	---	8	Top of concrete pump base, 0.2 foot above land surface.	---	42.90 43.23	5-27-46 3-18-47	5	0	3-18-47	---	Well is covered with sand.
269	98	10	---	---	---	---	76* 25	-- --	5-28-43 4-2-47	---	
288	62	12	---	---	---	---	36*	0	7-6-45	Irrigation	
185	103	12	---	---	---	---	230 225	-- --	6-27-47 5-16-51	Irrigation	
234	78	8	---	---	---	---	73	0	4-2-47	Irrigation	
362	61	10	---	---	---	---	35*	--	5-28-43	Irrigation	
246	77	12	---	---	---	---	22	0	4-9-47	---	
292	76	8	---	---	---	---	---	--	---	Domestic Irrigation	
105	57	4.5	---	---	---	---	16	--	3-20-47	Domestic	
284	87	8	---	---	---	---	---	--	---	---	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
128	One and nine-tenths miles east of Dunedin, 0.3 mile south of State Highway 580, 50 feet west of County Road 36, at east edge of an orange grove. Near NE cor. SW¼ SW¼ sec. 25, T. 28 S., R. 15 E.	J. L. Howell Dunedin, Florida	A. O. Dunlap Dunedin, Florida	May 1945
129	One and five-tenths miles northeast of Dunedin, 0.75 mile south of County Road 98, 0.25 mile north of County Road 1, 50 feet east of County Road 99, about 5 feet north of owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	A. A. Schultz Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	June 1941
130	One and five-tenths miles northeast of Dunedin, 0.75 mile south of County Road 98, 0.25 mile north of County Road 1, about 50 feet east of County Road 99, south of well 129, at owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	A. A. Schultz Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	1944
131	One and five-tenths miles northeast of Dunedin, 0.8 mile south of County Road 98, 0.2 mile north of County Road 1, about 300 feet east of County Road 99, on east side of owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	Clarence E. Burns Dunedin, Florida	F. H. McBride Tampa, Florida	Aug. 1947
132	One and five-tenths miles northeast of Dunedin, 0.15 mile north of intersection of County Road 1 with County Road 99, east side of County Road 99, at 1310 Georgia Ave. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	H. J. Filliaux Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	1942
133	One and five-tenths miles northeast of Dunedin, 0.15 mile north of intersection of County Road 1 with County Road 99, 0.1 mile east of County Road 99, north side of Georgia Ave., east of well 132. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	J. O. Hagin Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	---
134	One and five-tenths miles northeast of Dunedin, 0.13 mile north of intersection of County Road 1 with County Road 99, about 0.05 mile east of County Road 99, south side of Georgia Ave., at owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	R. S. Whitaker Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	---
135	One and five-tenths miles northeast of Dunedin, 0.13 mile north of intersection of County Road 1 with County Road 99, about 0.07 mile east of County Road 99, south side of Georgia Ave., at owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	T. J. Whitaker Dunedin, Florida	A. E. Mountain and Howell	1926
136	One and five-tenths miles northeast of Dunedin, 0.13 mile north of intersection of County Road 1 with County Road 99, about 0.12 mile east of County Road 99, south side of Georgia Ave., east of well 137. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	W. Owen Palm Harbor, Florida	---	---
137	One and five-tenths miles northeast of Dunedin, about 0.1 mile east of County Road 99, 0.13 mile north of County Road 1, south side of Georgia Ave., east of well 135, at owner's residence. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	L. F. Helms Dunedin, Florida	L. F. Helms Dunedin, Florida	---
138	About 1.4 miles northeast of Dunedin, about 400 feet north of County Road 1, 150 feet east of County Road 99, south side of Ohio Ave., under a water tank. NW¼NE¼ sec. 26, T. 28 S., R. 15 E.	O. S. Gladding Dunedin, Florida	O. S. Gladding Dunedin, Florida	1926
139	One and five-tenths miles northeast of Dunedin, 0.75 mile south of County Road 98, 0.25 mile north of intersection of County Road 1 with County Road 99, about 400 feet west of County Road 99, at owner's residence. NE¼ NW¼ sec. 26, T. 28 S., R. 15 E.	Logan V. Davis Dunedin, Florida	A. O. Dunlap Dunedin, Florida	April 1946
140	One and three-tenths miles northeast of Dunedin, about 0.1 mile west of intersection of County Road 1 with County Road 99, 200 feet north of County Road 99. NE¼ NW¼ sec. 26, T. 28 S., R. 15 E.	Elliott Beatty Dunedin, Florida	A. O. Dunlap Dunedin, Florida	Mar. 1948
141	One and six-tenths miles northeast of Dunedin, about 0.4 mile east of intersection of County Road 1 with County Road 99, about 400 feet south of County Road 1, in pumphouse, southeast of owner's residence. SE¼NE¼ sec. 26, T. 28 S., R. 15 E.	M. E. Sumner Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1946
142	One and eight-tenths miles northeast of Dunedin, 0.62 mile east of intersection of County Road 1 with State Highway 580, 60 feet south of State Highway 580. NW¼ SW¼ sec. 25, T. 28 S., R. 15 E.	Eugene Nigels Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
283	93	8	---	---	---	---	15	0	4-9-47	Irrigation	
65	---	2	Top of 2-inch casing, 1.7 feet above land surface.	37.82	29.75 34.23 34.18	4-23-46 6-23-49 5-15-51	25	0	4-2-47	---	Well is capped.
65	---	2	---	---	---	---	22	---	4-2-47	Domestic	
115	42	4	---	37.	---	---	---	---	---	Domestic	F.G.S. Well W1620. Cuttings from strata penetrated on file with Florida Geological Survey.
78	---	2	---	---	---	---	37	---	2-5-47	Domestic	
78	---	4	---	---	---	---	29	---	2-5-47	Domestic	
78	---	4	---	---	---	---	27	---	6-19-47	Domestic	
84	---	4	---	---	---	---	32	---	4-2-47	Domestic	
---	---	2	---	---	---	---	30	---	2-5-47	Domestic	
47	---	2	---	---	---	---	31	---	4-2-47	Domestic	
62	---	2	---	---	---	---	35	---	2-5-47	Domestic	
117	43	6	---	---	---	---	25 215	--- ---	4-2-47 5-17-51	Domestic	
85	31	4	Top of 4-inch coupling, 2.2 feet above land surface.	26.76	18.00 13.54	3-26-48 4-19-48	25	---	3-26-48	Domestic	F.G.S. Well W1743. Cuttings from strata penetrated on file with Florida Geological Survey.
232	44	8	Top of 8-inch casing, 0.1 foot above land surface.	50.6	40.43	6-26-46	32	0	3-18-47	Irrigation	
111	80	10	---	---	---	---	---	---	---	Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
143	About 1.85 miles northeast of Dunedin, 0.70 mile east of intersection of County Road 1 with State Highway 580, 100 feet south of State Highway 580, south side of owner's residence. NW¼SW¼ sec. 25, T. 28 S., R. 15 E.	David Nigels Dunedin, Florida	A. O. Dunlap Dunedin, Florida	Aug. 1943
144	One and eight-tenths miles east of Dunedin, 0.70 mile east of intersection of County Road 1 with State Highway 580, 800 feet south of State Highway 580, south of well 143. NW¼SW¼ sec. 25, T. 28 S., R. 15 E.	David Nigels Dunedin, Florida	A. O. Dunlap Dunedin, Florida	1927
145	One and two-tenths miles northeast of Dunedin, about 100 feet east of intersection of County Road 1 with State Highway 580, about 0.2 mile south of State Highway 580 along sand road leading into owner's residence, west side of house. NW¼SE¼ sec. 26, T. 28 S., R. 15 E.	Major Dickinson Dunedin, Florida	A. O. Dunlap Dunedin, Florida	May 1948
146	One and three-tenths miles east of Dunedin, 0.25 mile north of County Road 34, 0.25 mile south of State Highway 580, 0.15 mile east of intersection of County Road 1 with State Highway 580, about 100 feet west of a hard surface road. Near NW cor. SW¼SE¼ sec. 26, T. 28 S., R. 15 E.	Norman Mendel Dunedin, Florida	A. O. Dunlap Dunedin, Florida	Jan. 1948
147	Eight-tenths mile, east of Dunedin, 0.5 mile east of intersection of County Road 34 with State Highway 580, 0.20 mile north of County Road 34, 500 feet east of New York Ave., in a grove. SW¼SW¼ sec. 26, T. 28 S., R. 15 E.	Robert McDougal Chicago	---	---
148	About 0.8 mile east of Dunedin, 0.55 mile east of intersection of County Road 34 with State Highway 580, 600 feet north of County Road 34, 0.2 mile east of New York Ave., in a grove, southeast of well 147. SW¼SW¼ sec. 26, T. 28 S., R. 15 E.	Robert McDougal Chicago	---	---
149	One and four-tenths miles east of Dunedin, 1.2 miles east of intersection of County Road 34 with State Highway 580, 0.45 mile south of State Highway 580, about 660 feet east of a hard surface road, about 400 feet north of County Road 34, south side of owner's residence. SW¼ SE¼ sec. 26, T. 28 S., R. 15 E.	J. L. Howell Dunedin, Florida	A. O. Dunlap Dunedin, Florida	---
150	Nine-tenths mile north of Dunedin, 0.85 mile south of County Road 98, 300 feet west of U. S. Highway 19, about 300 feet east of shore line. NE¼NW¼ sec. 27, T. 28 S., R. 15 E.	B. L. Skinner Dunedin, Florida	Frank May Tampa, Florida	Aug. 1946
151	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, at northeast corner of property belonging to Juice Industries, near guard house. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 1.	Juice Industries, Inc. Dunedin, Florida	Morrill Bradenton, Florida	---
152	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, known as "feed mill" well. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 2.	Juice Industries, Inc. Dunedin, Florida	Morrill Bradenton, Florida	---
153	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, southeast of a boiler house. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 3.	Juice Industries, Inc. Dunedin, Florida	Morrill Bradenton, Florida	---
154	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, at southeast corner of main building. Known as "main plant" well. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 4.	Juice Industries, Inc. Dunedin, Florida	Morrill Bradenton, Florida	---
155	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, west of a water tank. Known as "general supply" well. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 5.	Juice Industries, Inc. Dunedin, Florida	May Plant City, Florida	---
156	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, in southwest section of property. Known as the "fire well". SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 6.	Juice Industries, Inc. Dunedin, Florida	May Plant City, Florida	---
157	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19, near main gate, at southeast edge of property. Known as "boiler house" well. SW¼NE¼ sec. 27, T. 28 S., R. 15 E. Owner's well 7.	Juice Industries, Inc. Dunedin, Florida	May Plant City, Florida	---

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	4	---	---	---	---	31	---	2-5-47	Domestic	
250	76	8	---	---	---	---	---	---	---	---	
83	37	4	---	---	---	---	37	---	5-20-48	Domestic	
100	65	4	Top of 4-inch casing, 1.3 feet above land surface.	28.4	18.05	1-2-48	25	0	1-2-48	Domestic	
235	---	8	---	---	---	---	21*	---	5-28-43	Irrigation	
110	---	10	---	---	---	---	21*	---	5-28-43	Irrigation	
80	60	--	---	---	---	---	30	---	3-20-47	Domestic	
90	37	6	Top of 6-inch coupling, 0.7 foot above land surface.	8.27	1.03 0.95 2.94 8.4 10.18 8.13	4- 2-47 8- 1-47 4-19-48 4-28-48 6-23-49 5-14-51	196 200	0 0	4-2-47 4-28-48	---	
400	---	12	---	---	---	---	---	---	---	Industrial	
200	---	12	---	---	---	---	---	---	---	Industrial	
400	---	12	---	---	---	---	---	---	---	Industrial	
400	---	12	---	---	---	---	---	---	---	Industrial	
300	---	12	---	---	---	---	---	---	---	Industrial	
200	---	12	---	---	---	---	---	---	---	Industrial	
100	---	12	---	---	---	---	---	---	---	Industrial	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
158	About 0.75 mile north of Dunedin, 1.0 mile south of County Road 98, 0.25 mile east of U. S. Highway 19. SW¼ NE¼ sec. 27, T. 28 S., R. 15 E.	Juice Industries, Inc. Dunedin, Florida	---	Feb. 1947
159	About 0.85 mile north of Dunedin, 1.05 mile south of County Road 98, 0.4 mile east of U. S. Highway 19, in a pumphouse, in an orange grove, northeast of well 160. Near SW cor. NE¼NE¼ sec. 27, T. 28 S., R. 15 E.	L. B. Skinner Dunedin, Florida	T. J. Zimmerman Ozona, Florida	1904
160	Seven-tenths mile north of Dunedin, 0.4 mile north of Skinner Blvd., east side of Highland Ave., east of Juice Industries, Inc., near a windmill. SE¼NE¼ sec. 27, T. 28 S., R. 15 E.	F. L. Skinner Dunedin, Florida	T. J. Zimmerman Ozona, Florida	---
161	Five-tenths mile north of Dunedin, about 0.25 mile north of Skinner Blvd., west side of Highland Ave., near southeast corner of a cyclone fence, on property belonging to Juice Industries, Inc., south of main gate, in swampy land. SW¼NE¼ sec. 27, T. 28 S., R. 15 E.	Juice Industries, Inc. Dunedin, Florida	Frank May Tampa, Florida	---
162	Dunedin, 1053 Bass Blvd., in basement of owner's residence. NE¼SE¼ sec. 27, T. 28 S , R. 15 E.	O. S. Gladding Dunedin, Florida	O. S. Gladding Dunedin, Florida	1939
163	Dunedin, 1244 Bass Blvd., NE¼SE¼ sec. 27, T. 28 S., R. 15 E.	O. S. Gladding Dunedin, Florida	Porter Zimmerman Ozona, Florida	1936
164	Dunedin, 500 feet west of Bass Blvd., opposite 1129 Bass Blvd., in an orange grove. Near SW cor. NE¼SE¼ sec. 27, T. 28 S., R. 15 E.	West Coast Packing Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1927
165	Dunedin, 300 feet west of Bass Blvd., 50 feet south of Bay Street, near a residence. Near SW cor. NE¼SE¼ sec. 27, T. 28 S., R. 15 E.	O. S. Gladding Dunedin, Florida	O. S. Gladding Dunedin, Florida	1942
166	Dunedin, one block north of Main Street, east side of Atlantic Coast Line Railroad, at south platform, south plant of Juice Industries, Inc. SW¼SE¼ sec. 27, T. 28 S., R. 15 E.	Juice Industries, Inc. Dunedin, Florida	---	---
167	Dunedin, southeast of intersection of Grant Street and Highland Ave., northeast of Fire Station and City Hall, in a pumphouse. SW¼SE¼ sec. 27, T. 28 S., R. 15 E.	City of Dunedin	A. O. Dunlap Dunedin, Florida	1942
168	Dunedin, northeast of intersection of Main Street with Broadway, under city water tank, in a pumphouse. SE¼ SW¼ sec. 27, T. 28 S., R. 15 E.	City of Dunedin	---	---
169	Nine-tenths mile south of Dunedin, 45 feet west of Edgewater Drive, 300 feet south of Orangewood Drive, across road from 43 Edgewater Drive. SW¼SW¼ sec. 34, T. 28 S., R. 15 E.	Guy A. Neal Dunedin, Florida	---	1925
170	Five-tenths mile southeast of Dunedin, about 20 feet east of Milwaukee St., at southeast corner of intersection of Milwaukee St. and James St., near a garage, in a pumphouse. Near SW cor. NE¼NE¼ sec. 34, T. 28 S., R. 15 E.	Green	A. O. Dunlap Dunedin, Florida	---
171	Seven-tenths mile southeast of Dunedin, 300 feet east of New York Ave., on projection of Scotland Ave. NW¼NW¼ sec. 35, T. 28 S., R. 15 E.	F. L. Skinner Dunedin, Florida	Howell	---
172	One and one-tenth miles east of Dunedin, 1.2 miles east of U. S. Highway 19, 0.25 mile south of County Road 34, near a house, in an orange grove, known as Milwaukee Grove, southeast of well 171. NE¼NW¼ sec. 35, T. 28 S., R. 15 E.	F. L. Skinner Dunedin, Florida	Howell	1928
173	One and two-tenths miles southeast of Dunedin, 1.2 miles east of U. S. Highway 19, 0.45 mile south of County Road 34, southeast of a barn, in an orange grove, known as Milwaukee Grove, south of well 172. SE¼NW¼ sec. 35, T. 28 S., R. 15 E.	F. L. Skinner Dunedin, Florida	Howell	---
174	One and five-tenths miles southeast of Dunedin, 1.6 miles east of U. S. Highway 19, 0.4 mile south of County Road 34, about 0.2 mile west of County Road 34, about 0.4 mile southeast of County Barn, southeast of a pond, in an orange grove. SE¼NW¼ sec. 35, T. 28 S., R. 15 E.	Robert McDougal	A. O. Dunlap Dunedin, Florida	Oct. 1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
188	---	12	---	---	---	---	---	---	---	Industrial	
120	80	6	Top of 6-inch casing, flush with land surface.	18.35	7.69 10.88 10.92 15.69	10-23-45 3-25-48 4-19-48 6-23-49	30	0	4-9-47	Irrigation	Listed in U. S. Geological Survey Water Supply Paper 319, p. 322.
50	50	1.5	---	---	---	---	47	0	4-8-47	Irrigation	Listed in U. S. Geological Survey Water Supply Paper 319, p. 322.
---	---	12	---	---	---	---	41	---	4-3-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
100	73	2	Top of 2-inch casing, 9.2 feet below land surface.	---	21.56	4-23-46	---	---	---	Domestic	
55	50	2	---	---	---	---	18	---	3-20-47	Domestic	
164	38	6	---	---	---	---	32	0	4-8-47	Irrigation	
80	65	2	---	---	---	---	41	---	3-20-47	Domestic	
200	---	12	Top of 12-inch casing, 3.85 feet below land surface.	9.72	7.67 9.00 9.54	10-22-45 6-23-49 5-14-51	80	---	2-5-47	Industrial	Automatic water level recorder installed 12-15-48.
146	32	10	---	---	---	---	27 25	--- ---	2-5-47 4-28-48	Public Supply	
96	---	10	---	---	---	---	40	---	2-5-47	Public Supply	Water analysis given in U. S. Geological Survey Water-Supply Paper 596-G, p. 224, analysis 316.
60	---	---	---	---	---	---	32 25	--- ---	12-1-47 5-7-48	---	Samples for chloride determinations taken after well had been flowing for an indefinite period.
202	71	10	---	---	---	---	---	---	---	Irrigation	
240	26	8	Top of 4-inch casing, about 2.0 feet below land surface.	20.70	9.8	2-2-48	30	0	2-5-47	Irrigation	
114	65	3	---	---	---	---	30	0	2-5-47	Domestic	Well was originally drilled to a depth of 161 feet but later filled to depth of 114 feet.
201	---	8	---	---	---	---	20	0	2-5-47	---	
275	74	10	---	---	---	---	---	---	---	Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
175	One and seven-tenths miles southeast of Dunedin, 300 feet west of County Road 34, 0.1 mile south of a cemetery, in an orange grove, west side of a house. SE¼NE¼ sec. 35, T. 28 S., R. 15 E.	Dorthy Douglas	A. O. Dunlap Dunedin, Florida	1937
176	About 2.0 miles east of Dunedin, 0.5 mile south of State Highway 580, east side of County Road 36, north side of Jerry Lake. NE¼NW¼ sec. 36, T. 28 S., R. 15 E.	H. F. Heye Clearwater, Florida	---	---
177	One and eight-tenths miles southeast of Dunedin, 0.2 mile west of intersection of County Road 36 with County Road 34, about 600 feet south of County Road 34, near a house. NW¼SW¼ sec. 36, T. 28 S., R. 15 E.	J. Springer	A. O. Dunlap Dunedin, Florida	June 1945
178	Two and three-tenths miles southeast of Dunedin, about 0.35 mile north of Sunset Point Drive (County Road 32), 350 feet west of County Road 34. SE¼SW¼ sec. 36, T. 28 S., R. 15 E.	Henry Wilson Clearwater, Florida	A. O. Dunlap Dunedin, Florida	May 1944
179	Three and seven-tenths miles east of Palm Harbor, about 2.1 miles east of State Highway 55, east side of Lake Butler, 0.2 mile south of Brooker Creek, about 0.1 mile west of East Lake Road. Near NW cor. SW¼NE¼ sec. 4, T. 28 S., R. 16 E.	J. A. Boyd	---	---
180	Two and nine-tenths miles east of Palm Harbor, 1.3 miles east of State Highway 55, 0.7 mile north of State Highway 584, about 0.7 mile northeast of a bridge, in an orange grove, about 10 feet south of a sand road. Near SW cor. SE¼NE¼ sec. 5, T. 28 S., R. 16 E.	E. E. E. Developing Co. Dade City, Florida	Frank May Tampa, Florida	June 1946
181	One and eight-tenths miles east of Palm Harbor, 0.8 mile south of County Road 42, 0.2 mile east of State Highway 55, in an orange grove, in a pumphouse. NW¼NE¼ sec. 6, T. 28 S., R. 16 E.	S. Chase Dunedin, Florida	A. O. Dunlap Dunedin, Florida	June 1936
182	One and eight-tenths miles east of Palm Harbor, 1.1 miles south of County Road 42, 0.2 mile east of State Highway 55, 0.7 mile north of State Highway 584. Near SE cor. SW¼NE¼ sec. 6, T. 28 S., R. 16 E.	C. E. Jackson Palm Harbor, Florida	---	---
183	One and three-tenths miles east of Palm Harbor, 0.55 mile west of State Highway 55, 0.3 mile south of County Road 41, about 300 feet west of County Road 94, west side of a dairy. NW¼SW¼ sec. 6, T. 28 S., R. 16 E.	McClane Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Mar. 1947
184	One and three-tenths miles east of Palm Harbor, 0.55 mile west of State Highway 55, about 0.3 mile south of County Road 41, west side of County Road 94. SW¼SW¼ sec. 6, T. 28 S., R. 16 E.	Riviere Dairy Palm Harbor, Florida	A. E. Mountain Palm Harbor, Florida	1944
185	About 1.8 miles east of Palm Harbor, 0.6 mile north of State Highway 584, about 0.1 mile west of State Highway 55, west of well 187. NW¼SE¼ sec. 6, T. 28 S., R. 16 E.	C. E. Jackson Palm Harbor, Florida	Frank May Tampa, Florida	1944
186	One and eight-tenths miles east of Palm Harbor, 0.5 mile north of State Highway 584, west side of State Highway 55, in an orange grove, east of well 187, north side of road to a residence. SW¼SE¼ sec. 6, T. 28 S., R. 16 E.	C. E. Jackson Palm Harbor, Florida	Frank May Tampa, Florida	Dec. 1944
187	About 1.8 miles east of Palm Harbor, 0.5 mile north of State Highway 584, 0.1 mile west of State Highway 55, west of well 186, east of well 185. SW¼SE¼ sec. 6, T. 28 S., R. 16 E.	C. E. Jackson Palm Harbor, Florida	---	---
188	Two miles east of Palm Harbor, 0.3 mile north of State Highway 584, 315 feet east of State Highway 55. SE¼SE¼ sec. 6, T. 28 S., R. 16 E.	J. M. McCord	Frank May Tampa, Florida	Sept. 1945
189	Two and one-tenth miles southeast of Palm Harbor, 0.2 mile north of State Highway 584, 0.2 mile east of State Highway 55, in swampy land. SE¼SE¼ sec. 6, T. 28 S., R. 16 E.	Sanford Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	---
190	One and eight-tenths miles southeast of Palm Harbor, 0.3 mile west of intersection of State Highway 584 with State Highway 55, about 100 feet north of State Highway 584. NE¼NW¼ sec. 7, T. 28 S., R. 16 E.	G. W. Kersey Palm Harbor, Florida	Frank May Tampa, Florida	1944
191	One and nine-tenths miles southeast of Palm Harbor, 800 feet south of State Highway 584, 500 feet west of County Road 74, north of well 192. SW¼NE¼ sec. 7, T. 28 S., R. 16 E.	H. L. Grider Palm Harbor, Florida	Frank May Tampa, Florida	1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF MEASUREMENT		
286	64	12	---	---	---	---	17	0	4-8-47	Irrigation	
---	---	3	---	---	---	---	17	---	2-5-47	Domestic	
227	76	8	---	---	---	---	20	0	2-5-47	---	
96	61	4	---	---	---	---	---	---	---	Domestic	
---	---	2	---	---	---	---	825	0	3-27-47	Domestic	
325	50	12	Top of 12-inch casing, 0.5 foot above land surface.	38.8	29.75 30.56 33.12	7-13-46 3-13-47 6-24-49	45	0	3-13-47	Irrigation	
255	---	12	Base of pump, flush with land surface.	69.8	65.89	3-12-47	275	0	3-12-47	Irrigation	
375	95	12	---	---	---	---	63	0	3-13-47	Irrigation	
225	79	6	Top of 6-inch casing, 0.2 foot above land surface.	67.65	61.48	3-11-47	13	0	3-11-47	Stock	
84	---	---	---	---	---	---	12	0	3-18-47	Domestic Stock	
145	---	12	---	---	---	---	---	---	---	Domestic	
300	61	12	---	---	---	---	15	0	3-13-47	Irrigation	
82	---	3	Top of 3-inch casing, 0.2 foot above land surface.	---	59.69	7-12-46	47	0	3-13-47	---	
250	94	12	---	---	---	---	23	0	3-13-47	Irrigation	
202	52	10	---	---	---	---	---	---	---	Drainage	Well is covered.
305	---	12	---	---	---	---	---	---	---	Irrigation	
165	40	6	---	---	---	---	17	0	3-13-47	Domestic	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
192	Two miles southeast of Palm Harbor, 0.1 mile west of intersection of State Highway 584 with County Road 74, 1200 feet south of State Highway 584, southwest of a barn. SW¼NE¼ sec. 7, T. 28 S., R. 16 E.	H. L. Grider Palm Harbor, Florida	Frank May Tampa, Florida	Sept. 1945
193	Two and seven-tenths miles southeast of Palm Harbor, 0.7 mile east of intersection of State Highway 584 with State Highway 55, about 200 feet north of State Highway 584, 50 feet northeast of a house, near a bridge. Near SE cor. NE¼NW¼ sec. 8, T. 28 S., R. 16 E.	E. E. E. Developing Co. Dade City, Florida	Frank May Tampa, Florida	---
194	Two and three tenths miles southeast of Palm Harbor, 0.35 mile east of intersection of State Highway 584 with County Road 74, 350 feet south of State Highway 584, in an orange grove. SW¼NW¼ sec. 8, T. 28 S., R. 16 E.	F. J. Sutton Palm Harbor, Florida	Frank May Tampa, Florida	---
195	Two and five-tenths miles southeast of Palm Harbor, 0.42 mile east of County Road 74, 200 feet south of State Highway 584. SW¼NW¼ sec. 8, T. 28 S., R. 16 E.	F. J. Sutton Palm Harbor, Florida	Caraway Tarpon Springs, Florida	---
196	Two and six-tenths miles southeast of Palm Harbor, about 0.2 mile north of east end of County Road 95, 0.45 mile east of County Road 74, west side of a sand road, north side of a residence. Near SW cor. NW¼SW¼ sec. 8, T. 28 S., R. 16 E.	J. C. Mueller Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	1917
197	About 2.0 miles northeast of Oldsmar, 2.1 miles north of intersection of State Highway 580 with Tampa Shores Road, about 0.8 mile north of Sunshine Race Track, about 0.5 mile north of intersection of Tampa Shores Road with a sand road, 50 feet west of a sand road, west of a log gate, near County Line. Near NE cor. NE¼SE¼ sec. 12, T. 28 S., R. 16 E.	Jessie Boyd Palm Harbor, Florida	---	---
198	About 1.5 miles northwest of Oldsmar, 0.5 mile northwest of intersection of State Highway 584 with State Highway 580, about 50 feet south of State Highway 584, 2 feet south of an irrigation ditch, northwest of well 200 and well 201. Near NE cor. SW¼SE¼ sec. 15, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
199	About 1.5 miles northwest of Oldsmar, about 800 feet south of well 198, north of well 202, about 20 feet east of an irrigation ditch, west of wells 201, 203, and 211. SW¼SE¼ sec. 15, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
200	About 1.3 miles northwest of Oldsmar, 0.28 mile northwest of intersection of State Highway 584 with State Highway 580, about 500 feet south of State Highway 584, 20 feet east of a small house, east of well 198, west of well 201. SW¼SW¼ sec. 15, T. 28 S., R. 16 E.	W. D. Day Oldsmar, Florida	L. W. Mixon Tampa, Florida	Jan. 1948
201	About 1.2 miles northwest of Oldsmar, 0.2 mile northwest of intersection of State Highway 584 with State Highway 580, 40 feet south of State Highway 584, 5 feet south of an irrigation ditch, east of well 200, north of well 203. SW¼SW¼ sec. 15, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
202	About 1.3 miles northwest of Oldsmar, 0.45 mile southwest of intersection of State Highway 584 with State Highway 580, 5 feet east of an irrigation ditch, at north edge of swampy area, south of wells 198 and 199, west of wells 203 and 211. Near SE cor. SW¼SE¼ sec. 15, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
203	About 1.2 miles northeast of Oldsmar, 0.30 mile southwest of intersection of State Highway 584 with State Highway 580, south of well 201, north of well 211, east of well 202, about 50 feet south of an irrigation ditch, about 200 feet south of a bulb packing house. SE¼SE¼ sec. 15, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
204	Three miles southeast of Palm Harbor, 0.4 mile east of east end of County Road 95, about 0.5 mile north of County Road 38, about 0.25 mile south of St. George Lake, on a sand hill, east of well 205. NE¼NW¼ sec. 17, T. 28 S., R. 16 E.	E. E. E. Developing Co. Dade City, Florida	Frank May Tampa, Florida	June 1946

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
350	250	12	---	---	---	---	375	0	3-13-47	Irrigation	
250	60	12	---	---	---	---	30	0	3-13-47	Domestic Irrigation	
236	53	12	---	---	---	---	58	0	3-20-47	Irrigation	
82	---	2	---	---	---	---	12	0	3-13-47	Domestic	
72	---	2	---	---	---	---	---	---	---	---	
55	---	2	Top of 2-inch casing, 1.0 foot above land surface.	13.19	a2.16 a2.97 a2.27 a1.78 a1.80 a1.2	7-25-47 11-24-47 1-29-48 4-19-48 6-24-49 5-16-51	30 25	--- ---	3-18-47 5-10-48	---	Samples for chloride determinations taken after well had been flowing for an indefinite period.
242	33	8	Top of 8-inch casing, flush with land surface.	7.79	1.52	12-22-47	825	0	12-30-47	Irrigation	F.G.S. Well W1643. Cuttings from strata penetrated on file with Florida Geological Survey. Well was originally drilled to a depth of 140 feet, but was later deepened to a depth of 242 feet to obtain more water.
140	36	8	Top of 8-inch casing, flush with land surface.	9.34	4.31 4.12 4.18	12-18-47 1-2-48 6-22-49	1950	3.5	12-18-47	Irrigation	F.G.S. Well W1645. Cuttings from strata penetrated on file with Florida Geological Survey.
---	---	4	---	---	---	---	---	---	---	Domestic Irrigation	
140	41	8	---	---	---	---	500 550 587	--- --- ---	12-10-47 12-10-47 5-7-48	Irrigation	Samples for chloride determinations taken after well had been flowing for an indefinite period.
155	24	8	Top of extreme west end of 5-inch pipe which empties into irrigation ditch.	2.59	a2.54	1-2-48	1750 1800	--- ---	1-2-48 5-7-48	Irrigation	Samples for chloride determinations taken after well had been flowing for an indefinite period.
130	33	6	Top of 6-inch casing, flush with land surface.	8.51	2.76 3.03 3.27 3.20 3.80 3.38	12-8-47 12-10-47 12-22-47 1-2-48 1-29-48 6-22-49	400 125 1775	--- --- 1	12-3-47 12-8-47 4-19-48	Irrigation	
---	---	12	Top of 12-inch casing, 0.8 foot above land surface.	56	44.12 45.26	7-13-46 3-13-47	12	0	3-13-47	Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
205	Two and eight-tenths miles southeast of Palm Harbor, about 0.1 mile east of east end of County Road 95, 0.5 mile north of County Road 38, near a small house, in a shed, near a large tank, west of well 204. Near NE cor. NW¼NW¼ sec. 17, T. 28 S., R. 16 E.	Pasco Packing Co. Dade City, Florida	Frank May Tampa, Florida	---
206	About 3.2 miles southeast of Palm Harbor, 1.1 miles west of County Road 31, 900 feet south of County Road 38, south of owner's residence, in an orange grove. NW¼SW¼ sec. 17, T. 28 S., R. 16 E.	W. R. Thomas Palm Harbor, Florida	Frank May Tampa, Florida	Jan. 1946
207	Two and five-tenths miles southeast of Palm Harbor, 1.5 miles east of intersection of County Road 1 with County Road 38, 0.3 mile north of County Road 38, 0.2 mile south of County Road 95, about 1200 feet east of County Road 74 (a dirt road). Near SW cor. NE¼NE¼ sec. 18, T. 28 S., R. 16 E.	David Bilgore Co. Clearwater, Florida	Frank May Tampa, Florida	May 1946
208	Two and one-tenth miles southeast of Palm Harbor, about 1.0 mile east of intersection of County Road 1 with County Road 38, 0.3 mile north of County Road 38, northeast of Curlew Church, south side of a house. Near NE cor. SW¼NW¼ sec. 18, T. 28 S., R. 16 E.	Floyd Grissett Palm Harbor, Florida	---	1945
209	Two and nine-tenths miles southeast of Palm Harbor, 1.8 miles east of intersection of County Road 1 with County Road 38, about 0.1 mile south of County Road 38, south side of owner's residence. NE¼SE¼ sec. 18, T. 28 S., R. 16 E.	A. D. Boyd Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	Mar. 1945
210	About 3.0 miles southeast of Palm Harbor, 1.8 miles east of intersection of County Road 1 with County Road 38, 0.25 mile south of County Road 38, west side of a dirt road, east side of a house, south of well 209. NE¼SE¼ sec. 18, T. 28 S., R. 16 E.	Jessie Boyd Palm Harbor, Florida	A. O. Dunlap Dunedin, Florida	July 1947
211	About 1.2 miles northwest of Oldsmar, about 0.4 mile southwest of intersection of State Highway 584 with State Highway 580, south of well 203, east of well 202, about 30 feet south of an irrigation ditch. NE¼NE¼ sec. 22, T. 28 S., R. 16 E.	A. and W. Bulb Co. Clearwater, Florida	L. W. Mixon Tampa, Florida	Dec. 1947
212	About 0.6 mile west of Oldsmar, about 0.4 mile east of a bridge across Moccasin Creek, 400 feet south of State Highway 580, east side of a dirt road, south side of a residence, in a vacant lot, near shore line of Safety Harbor. SW¼NW¼ sec. 23, T. 28 S., R. 16 E.	Farmer Oldsmar, Florida	Frank May Tampa, Florida	Feb. 1948
212a	Oldsmar, west side of Bay View Blvd., between Seaboard Air Line Railroad and State Highway 584. NW¼NE¼ sec. 23, T. 28 S., R. 16 E.	Town of Oldsmar	---	1916
213	About 2.0 miles southwest of Oldsmar, 0.2 mile west of State Highway 590, 0.2 mile south of State Highway 580, about 0.2 mile from a railroad crossing along a dirt road, north side of a house. NW¼NW¼ sec. 27, T. 28 S., R. 16 E.	J. T. Humphries Safety Harbor, Florida	Frank May Tampa, Florida	---
214	About 2.0 miles southwest of Oldsmar, 0.4 mile west of intersection of State Highway 580 with State Highway 590, south side of State Highway 580, at the Tangerine Shop. NE¼NE¼ sec. 28, T. 28 S., R. 16 E.	J. T. Humphries Safety Harbor, Florida	Frank May Tampa, Florida	---
215	About 2.3 miles southwest of Oldsmar, 0.5 mile west of intersection of State Highway 580 with State Highway 590, about 300 feet south of State Highway 580, east side of a dirt road, south side of location for new house. Near NW cor. NE¼NE¼ sec. 28, T. 28 S., R. 16 E.	J. T. Humphries Safety Harbor, Florida	P. Vasbinder Safety Harbor, Florida	---
216	About 2.2 miles southwest of Oldsmar, about 0.35 mile west of intersection of State Highway 580 with State Highway 590, 700 feet south of State Highway 580. NE¼ NE¼ sec. 28, T. 28 S., R. 16 E.	J. T. Humphries Safety Harbor, Florida	Frank May Tampa, Florida	May 1945
217	Two and five-tenths miles north of Safety Harbor, 300 feet south of State Highway 580, 100 feet west of State Highway 593, east side of owner's residence, in a small pumphouse. SW¼NW¼ sec. 28, T. 28 S., R. 16 E.	B. O. Nason Dunedin, Florida	A. O. Dunlap Dunedin, Florida	July 1946
218	Two and one-tenth miles northwest of Safety Harbor, about 1.0 mile north of County Road 50, east side of Lake Bowden, at Camp Soule. SW¼NE¼ sec.32, T. 28 S., R. 16 E.	Boy Scouts of America	A. O. Dunlap Dunedin, Florida	Oct. 1947

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
175	76	4	---	---	---	---	11	0	3-13-47	Domestic Irrigation	
304	42	12	---	---	---	---	16 20	0 1.5	3-18-47 4-7-48	Irrigation	
155	58	10	---	---	---	---	20	0	3-18-47	Irrigation	
14	---	2	---	---	---	---	---	---	---	Domestic	Well consists of a battery of 3 sand-points, 2 inches in diameter and 14 feet in depth.
140	62	4.5	---	---	---	---	20	---	8-1-47	Domestic	
104	72	4.5	---	---	---	---	---	---	---	Domestic	
140	20	8	Top of 8-inch casing, flush with land surface.	7.10	2.43 2.45 2.33 2.23 2.80	12-6-47 12-10-47 12-22-47 1-2-48 4-19-48	2525 2575	0 0	12-5-47 12-6-47	Irrigation	
66	---	2	Top of 2-inch casing, 0.5 foot above land surface.	5.91	1.57 2.20 2.15	2-10-48 4-19-48 6-22-49	---	---	---	Domestic	
309	---	6	---	---	---	---	---	---	---	Public Supply	
72	---	3	---	---	---	---	48	---	3-18-47	Domestic	
72	---	2	---	---	---	---	20	---	3-18-47	Domestic	
80	---	3	Top of 3-inch casing, 0.8 foot above land surface.	46.45	36.09 35.13 35.84 36.36	3-18-47 12-8-47 1-29-48 4-19-48	22 25	0 0	3-18-47 12-8-47	Domestic	
264	42	12	---	---	---	---	---	---	---	Irrigation	
177	65	6	Top of 6-inch casing, 0.2 foot above land surface.	58.5	46.82 46.71 46.86	8-5-46 8-11-46 9-5-47	50	---	12-9-47	Domestic	
171	149	6	Top of 6-inch casing, 0.2 foot above land surface.	89.9	79.11	10-7-47	20	0	10-3-47	Camp	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
219	One and eight-tenths miles northwest of Safety Harbor, 0.55 mile north of County Road 50, 600 feet east of a dirt road leading into Scout Camp. SW¼SE¼ sec. 32, T. 28 S., R. 16 E.	David Bilgore Co. Clearwater, Florida	Frank May Tampa, Florida	---
220	One and seven-tenths miles northwest of Safety Harbor, 700 feet north of County Road 105, 0.45 mile west of State Highway 593, 0.6 mile north of County Road 50, east of well 219. SE¼SE¼ sec. 32, T. 28 S., R. 16 E.	C. H. Taylor Portsmouth, Ohio	---	1920
221	One and five-tenths miles northwest of Safety Harbor, 1.1 miles north of County Road 50, about 0.1 mile east of State Highway 593 (Haines Road). SE¼NW¼ sec. 33, T. 28 S., R. 16 E.	J. Couch Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	1946
222	One and five-tenths miles northwest of Safety Harbor, 1.0 mile north of County Road 50, 1.25 miles south of State Highway 580, 150 feet east of State Highway 593 (Haines Road). Near SW cor. SE¼NW¼ sec. 33, T. 28 S., R. 16 E.	J. Couch Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	June 1946
223	One and five-tenths miles northwest of Safety Harbor, 0.9 mile north of County Road 50, 1.35 miles south of State Highway 580, about 200 feet west of State Highway 593 (Haines Road). NW¼SW¼ sec. 33, T. 28 S., R. 16 E.	Harold Toth Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	March 1948
224	About 0.8 mile northeast of Safety Harbor, 1.7 miles south of State Highway 580, about 30 feet west of State Highway 590, east edge of an orange grove, across highway from owner's residence. NW¼SE¼ sec. 34, T. 28 S., R. 16 E.	E. L. Hackney Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	---
225	About 0.7 mile northeast of Safety Harbor, 1.8 miles south of State Highway 580, about 0.1 mile west of State Highway 590, southwest of well 224, about 300 feet north of a dirt road, in an orange grove, in a pumphouse, in owner's grove 1. NW¼SE¼ sec. 34, T. 28 S., R. 16 E.	C. H. Taylor Portsmouth, Ohio	---	---
226	About 0.7 mile northeast of Safety Harbor, about 200 feet southwest of intersection of Bay Shore Blvd. with Grand Central Ave., in a vacant lot. Near SE cor. SE¼ SE¼ sec. 34, T. 28 S., R. 16 E.	Zinzer Safety Harbor, Florida	---	---
227	One and five-tenths miles northeast of Safety Harbor, northeast of Phillippi's Grave, in Phillippi Park, about 200 feet east of County Road 30, at bottom of a hill, 50 feet west of shore line, 15 feet northwest of well 228. NW¼NW¼ sec. 35, T. 28 S., R. 16 E.	Pinellas County Clearwater, Florida	---	---
228	One and five-tenths miles northeast of Safety Harbor, northeast of Phillippi's Grave, about 200 feet east of County Road 30, at bottom of a hill, 15 feet east of shore line, southeast of well 227. NW¼NW¼ sec. 35, T. 28 S., R. 16 E.	Pinellas County Clearwater, Florida	---	---
229	About 0.85 mile northeast of Safety Harbor, about 300 feet northeast of intersection of Grand Central Avenue with Bay Shore Drive, west side of Bay Shore Drive, west side of owner's residence. SW¼SW¼ sec. 35, T. 28 S., R. 16 E.	L. E. Wilson Safety Harbor, Florida	P. Vasbinder Safety Harbor, Florida	June 1941
230	About 0.85 mile northeast of Safety Harbor, about 300 feet northeast of intersection of Grand Central Avenue and Bay Shore Blvd., east side of Bay Shore Blvd., 5 feet from shore line, east of well 229. SW¼SW¼ sec. 35, T. 28 S., R. 16 E.	L. E. Wilson Safety Harbor Florida	---	---
231	Two and five-tenths miles southeast of Dunedin, 0.2 mile north of Sunset Point Drive, about 300 feet east of County Road 34. NW¼NE¼ sec. 1, T. 29 S., R. 15 E.	Buster Allen	A. O. Dunlap Dunedin, Florida	1946
232	Two and three-tenths miles southeast of Dunedin, 750 feet north of Sunset Point Drive, 500 feet west of County Road 34. NE¼NW¼ sec. 1, T. 29 S., R. 15 E.	T. Kamenskey Dunedin, Florida	Frank May Tampa, Florida	1929
233	Two and seven-tenths miles southeast of Dunedin, 0.18 mile east of County Road 34, about 150 feet north of Sunset Point Drive, north side of a shed. NW¼NE¼ sec. 1, T. 29 S., R. 15 E.	J. B. Johnson	A. O. Dunlap Dunedin, Florida	---
234	Two and three-tenths miles southeast of Dunedin, 0.3 mile west of intersection of County Road 34 with Sunset Point Drive, south side of Sunset Point Drive, across road from a fruit packing house. SW¼NW¼ sec. 1, T. 29 S., R. 15 E.	Gifford	A. O. Dunlap Dunedin, Florida	March 1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
380	---	10	---	---	---	---	---	---	---	Irrigation	
270	80	8	---	---	---	---	176*	---	10-23-44	Irrigation	
258	63	10	---	---	---	---	---	---	---	Irrigation	
129	69	4.5	---	---	---	---	35	---	3-18-47	Domestic	
130	73	4	---	55	---	---	25	0	3-24-48	Domestic	
212	36	10	Top of 10-inch casing, 0.3 foot above land surface.	23.81	16.96 16.27 16.87 15.60 17.30	7-11-47 1-29-48 4-19-48 6-22-49 5-17-51	30	0	7-11-47	Irrigation	
180	20	6	Top of 6-inch casing, 0.2 foot above top of concrete pumphouse floor.	21.2	13.95 13.90 14.71 14.72	6-24-46 4-19-48 6-22-49 5-15-51	---	---	---	Irrigation	
---	---	6	Top of 6-inch casing, 0.6 foot above land surface.	---	11.58	4-24-47	50	0	4-24-47	---	
8	---	20	Top of 20-inch steel curbing, 2.0 feet below land surface.	5.66	2.70 4.80	4-20-48 6-22-49	20	0	4-21-48	---	
---	---	6	Top of 6-inch coupling, 0.2 foot above land surface.	3.89	2.10	4-20-48	1175	0	4-21-48	---	
62	30	2	---	---	---	---	185	---	4-24-47	Domestic	
---	---	24	---	---	---	---	100	---	4-24-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
306	64	10	---	---	---	---	---	---	---	Irrigation	
307	90	10	---	---	---	---	21* 21	--- 0	6-4-43 2-4-47	Irrigation	
96	40	4	---	---	---	---	17	---	2-4-47	Domestic	
126	80	4.5	---	---	---	---	22	---	8-1-47	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
235	Two and five-tenths miles southeast of Dunedin, about 600 feet west of intersection of County Road 34 with Sunset Point Drive, about 600 feet south of Sunset Point Drive, in an orange grove. SE¼NW¼ sec. 1, T. 29 S., R. 15 E.	George Smoyer Clearwater, Florida	Frank May Tampa, Florida	1941
236	Three miles southeast of Dunedin, about 0.3 mile east of intersection of County Road 34 with Sunset Point Drive, about 0.3 mile south of Sunset Point Drive, about 15 feet south of an irrigation ditch. NE¼SE¼ sec. 1, T. 29 S., R. 15 E.	T. J. Constantine Clearwater, Florida	Frank May Tampa, Florida	---
237	Two miles southeast of Dunedin, about 0.6 mile east of intersection of Sunset Point Drive (County Road 32) with Highland Ave., 0.25 mile north of Sunset Point Drive, north side of well 238, north edge of an orange grove. NE¼NE¼ sec. 2, T. 29 S., R. 15 E.	Nevers Yerxa	---	1930
238	About 2 miles southeast of Dunedin, 0.6 mile east of intersection of Sunset Point Drive with Highland Ave., about 0.2 mile north of Sunset Point Drive, in an orange grove, south of well 237, 300 feet north of a pond. SE¼ NE¼ sec. 2, T. 29 S., R. 15 E.	H. H. Constantine Clearwater, Florida	Frank May Tampa, Florida	March 1945
239	One and eight-tenths miles southeast of Dunedin, 0.3 mile east of intersection of Sunset Point Drive with Highland Ave., about 0.2 mile north of Sunset Point Drive, in a pumphouse, in an orange grove. Near NW cor. SW¼NE¼ sec. 2, T. 29 S., R. 15 E.	H. H. Constantine Clearwater, Florida	---	---
240	One and eight-tenths miles southeast of Dunedin, about 300 feet east of intersection of Sunset Point Drive with Highland Ave., about 500 feet north of Sunset Point Drive. SE¼NW¼ sec. 2, T. 29 S., R. 15 E.	Nevers Yerxa	---	1932
241	One and two-tenths miles south of Dunedin, 0.45 mile east of U. S. Highway 19, 0.4 mile north of Sunset Point Drive, at 1222 Idlewild Drive. NW¼NE¼ sec. 3, T. 29 S., R. 15 E.	D. E. Wilcox Clearwater, Florida	P. Vasbinder Safety Harbor, Florida	1945
242	One and three-tenths miles south of Dunedin, at 1261 Idlewild Drive. NW¼NE¼ sec. 3, T. 29 S., R. 15 E.	A. H. Patterson Clearwater, Florida	Frank May Tampa, Florida	---
243	One and five-tenths miles south of Dunedin, 100 feet north of Sunset Point Drive, 50 feet west of Douglas Ave. Near SE cor. SE¼NW¼ sec. 3, T. 29 S., R. 15 E.	City of Clearwater	---	---
244	One and eight-tenths miles northeast of Clearwater, 0.35 mile west of Highland Ave., 1100 feet south of Sunset Point Drive, in an orange grove, 400 feet west of a dirt road. Near SE cor. NE¼SE¼ sec. 3, T. 29 S., R. 15 E.	H. F. Heye Clearwater, Florida	Frank May Tampa, Florida	---
245	Clearwater, 200 feet north of Fairmont St., 10 feet west of Myrtle Ave., east side of Sunburst Apartments. Near NE cor. NE¼NE¼ sec. 9, T. 29 S., R. 15 E.	Sunburst Apartments Clearwater, Florida	Albert Ginn Clearwater, Florida	1906
246	Clearwater, 250 feet south of Marshall St., 30 feet east of Garden Ave. SE¼NE¼ sec. 9, T. 29 S., R. 15 E.	City of Clearwater	---	---
247	Clearwater, west end of Seminole Street, at Seminole Street Pier, east of Clearwater Harbor. NW¼SE¼ sec. 9, T. 29 S., R. 15 E.	City of Clearwater	---	---
248	Clearwater, west end of Seminole Street, at Seminole Street Pier, east of Clearwater Harbor. NW¼SE¼ sec. 9, T. 29 S., R. 15 E.	City of Clearwater	---	---
249	Clearwater, west end of Seminole Street, at Seminole Street Pier, east of Clearwater Harbor. NW¼SE¼ sec. T. 29 S., R. 15 E.	City of Clearwater	---	---

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
283	---	10	---	---	---	---	21 25	--- 0	6-4-43 4-11-47	Irrigation	
---	---	12	Top of 12-inch casing, 0.5 foot above land surface.	57.49	43.53 42.35	7-16-47 10-17-47	35	0	7-16-47	Irrigation	
995	---	---	---	---	---	---	---	---	---	Oil Test	F.G.S. Well W1668. Cuttings from strata penetrated between 220 feet and 995 feet on file with Florida Geological Survey.
300	94	12	---	---	---	---	21*	---	6-4-43	Irrigation	
---	---	8	---	---	---	---	---	---	---	Irrigation	
1534	---	---	---	---	---	---	---	---	---	Oil Test	F.G.S. Well W221. Cores on file with Florida Geological Survey.
137	---	2	---	---	---	---	20	---	6-20-47	Domestic	
127	---	3	---	---	---	---	25	---	6-20-47	Domestic	
---	---	12	Top of concrete pump base, 1.0 foot above land surface.	27.40	19.89	8-6-46	---	---	---	Unused Public Supply	Well never used owing to high salinity.
---	---	10	---	---	---	---	27* 26	--- 0	5-28-43 4-11-47	Irrigation	
26	---	2	Top of 3-inch casing, 1.4 feet above land surface.	---	21.04	---	---	---	---	Unused Domestic	
---	---	10	Top of 10-inch casing, 1.0 foot above land surface.	32.27	24.94 25.23 25.40 25.26 25.75 26.59	9-4-45 10-22-45 1-12-48 1-29-48 4-19-48 5-14-51	20	0	3-26-47	Unused Public Supply	Well never used owing to high turbidity of water. Automatic water-level recorder installed 2-25-46.
250	30	8	---	---	---	---	---	---	---	Destroyed Public Supply	Well was abandoned owing to high salinity and is cemented over.
270	30	8	---	---	---	---	---	---	---	Destroyed Public Supply	Well was abandoned owing to high salinity and is cemented over.
204	---	8	---	---	---	---	---	---	---	Destroyed Public Supply	Well is abandoned and cemented over. Water analysis given in U. S. Geological Survey Water-Supply Paper 596-G, p. 224, analysis 314.

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
250	Clearwater, at intersection of Drew St. and Atlantic Coast Line Railroad, behind Fire Station. Near SE cor. SW¼SE¼ sec. 9, T. 29 S., R. 15 E.	City of Clearwater	---	---
251	Clearwater, north side of Drew St., east of Atlantic Coast Line Railroad. SE¼SE¼ sec. 9, T. 29 S., R. 15 E.	Atlantic Ice Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1925
252	Clearwater, on a golf course, at intersection of Betty Lane and Seaboard Air Line Railroad, in a pumphouse. NE¼ SE¼ sec. 10, T. 29 S., R. 15 E. City well 14.	City of Clearwater	Southern Drilling Corporation.	May 1936
253	Clearwater, 20 feet northwest of intersection of Highland Ave. with Rosemere Road. NW¼SW¼ sec. 11, T. 29 S., R. 15 E.	City of Clearwater	A. O. Dunlap Dunedin, Florida	June 1946
254	Two and eight-tenths miles northeast of Clearwater, 0.65 mile north of Drew St., 300 feet east of Grand Ave. SW¼ NE¼ sec. 12, T. 29 S., R. 15 E.	C. Walker Clearwater, Florida	A. O. Dunlap Dunedin, Florida	June 1946
255	Clearwater, 1200 feet east of Duncan Ave., 600 feet south of Drew St., east of well 261, west of well 256. NW¼NW¼ sec. 13, T. 29 S., R. 15 E. Owner's well 4.	A. and W. Bulb Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Nov. 1945
256	Clearwater, about 0.6 mile east of Duncan Ave., 600 feet south of Drew St., about 1100 feet east of well 255. NE¼NW¼ sec. 13, T. 29 S., R. 15 E.	A. and W. Bulb Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	July 1945
257	Clearwater, about 0.7 mile east of Duncan Ave., 600 feet north of Gulf to Bay Blvd. SE¼NW¼ sec. 13, T. 29 S., R. 15 E. Owner's well 2.	A. and W. Bulb Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Aug. 1943
258	Three miles east of Clearwater, 700 feet west of Belcher Road, about 400 feet north of Gulf to Bay Blvd., north of bulb packing house. SE¼NE¼ sec. 13, T. 29 S., R. 15 E.	H. H. Constantine Clearwater, Florida	Frank May Tampa, Florida	---
259	Two and nine-tenths miles southeast of Clearwater, 0.25 mile west of Belcher Road, about 400 feet south of Druid Road, in an orange grove. NW¼SE¼ sec. 13, T. 29 S., R. 15 E.	F. L. Hendrix Clearwater, Florida	A. O. Dunlap Dunedin, Fla.	April 1945
260	Two and three-tenths miles southeast of Clearwater, 0.2 mile south of Druid Road, about 300 feet east of Keene Road, north of owner's residence. SW¼SW¼ sec. 13, T. 29 S., R. 15 E. Owner's well 2.	F. L. Hendrix Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1945
261	Clearwater, about 0.3 mile east of Duncan St., 50 feet south of Drew St., west of well 255, in a pumphouse. NE¼NE¼ sec. 14, T. 29 S., R. 15 E. Owner's well 3.	A. and W. Bulb Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	June 1945
262	Clearwater, north side of Harvard St., 200 feet east of Lake Ave., at 1612 Harvard St. Near SW cor. NW¼NE¼ sec. 14, T. 29 S., R. 15 E.	Henry Blanton Clearwater, Florida	A. O. Dunlap Dunedin, Florida	---
263	Clearwater, south side of Cleveland St., 250 feet east of Glenwood Ave., in a pumphouse. NE¼NW¼ sec. 14, T. 29 S., R. 15 E. City well 16.	City of Clearwater	Milton R. Vaughn Tampa, Florida	1934
264	Clearwater, 100 feet north of Cleveland St., 100 feet west of San Remo Ave., at 1434 Cleveland St. NW¼NW¼ sec. 14, T. 29 S., R. 15 E.	City of Clearwater	---	1933
265	Clearwater, about 700 feet east of Duncan Ave., about 700 feet north of Gulf to Bay Blvd. SE¼NE¼ sec. 14, T. 29 S., R. 15 E. Owner's well 1.	A. and W. Bulb Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1944
266	Clearwater, northwest corner of intersection of Gulf to Bay Blvd. and Lake Ave. SW¼NW¼ sec. 14, T. 29 S., R. 15 E. City well 19.	City of Clearwater	A. O. Dunlap Dunedin, Florida	1940
267	Clearwater, northeast corner of intersection of Gulf to Bay Blvd. and Glenwood Ave. SW¼NW¼ sec. 14, T. 29 S., R. 15 E. City well 18.	City of Clearwater	---	1935

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
19	---	10	---	---	---	---	---	---	---	Destroyed Public Supply.	Well is abandoned. Water analysis given in U. S. Geological Survey Water-Supply Paper 596-G, p. 224, analysis 312.
95	---	4	---	---	---	---	51	---	4-11-47	Ice Manufacture.	
206 (?)	44	10	---	---	---	---	22	0	4-1-47	Irrigation	
157	65	10	Top of 10-inch casing, 0.5 foot above land surface.	---	48.45	---	---	---	---	Public Supply	
207	87	6	Top of 6-inch casing, 0.5 foot above land surface.	---	53.52	---	20	0	2-4-47	Domestic	
303	91	10	---	---	---	---	60 62	--- 3	3-27-47 5-19-48	Irrigation	
301	85	10	---	---	---	---	35 37	--- 0	4-14-47 5-19-48	Irrigation	
303	86	10	---	---	---	---	25 25	--- 3	4-14-47 5-19-48	Irrigation	
300	---	12	---	---	---	---	25	0	9-11-47	Irrigation	
295	74	8	---	---	---	---	---	---	---	Irrigation	
277	107	---	---	---	---	---	20	0	2-18-47	Irrigation	
300	94	10	---	71	---	---	21 20	0 3	4-14-47 5-19-48	Irrigation	
291	82	10	---	---	---	---	---	---	---	Unused Public Supply	well was formerly a Clearwater supply well. Now abandoned and plugged.
135	57	10	---	---	---	---	25 25	--- ---	1-27-47 4-21-48	Public Supply	
125	60	10	Top of 10-inch casing, 0.78 foot below top of concrete pump base, about 0.5 foot above land surface.	59.04	49.88 50.76 50.35 49.13 53.45	1-2-48 1-12-48 1-29-48 6-23-49 5-14-51	50	0	5-17-48	Unused Public Supply	Well was formerly a Clearwater supply well. Abandoned owing to high turbidity and hydrogen sulphide content.
278	96	12	---	68	---	---	30* 22 17	--- --- 0	6-30-43 4-14-47 5-19-48	Irrigation	
215	87	10	---	---	---	---	49	---	1-27-47	Public Supply	
183	88	10	---	---	---	---	16 34* 32 50	--- --- --- ---	8-20-41 6-4-43 1-27-47 4-21-48	Public Supply	Chloride information for 8-20-41 obtained from files of Clearwater Gas and Water Dept.

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
268	Clearwater, southwest of intersection of Highland Ave. and Druid Road., west side of a dairy. Near NW cor. SW¼SW¼ sec. 14, T. 29 S., R. 15 E.	Clearwater Jersey Dairy Clearwater, Florida	A. O. Dunlap Dunedin, Florida	April 1948
269	Clearwater, 200 feet north of Cleveland St., between Lady Mary Dr. and Evergreen Ave., 10 feet east of Stevenson Creek. NE¼NE¼ sec. 15, T. 29 S., R. 15 E. City well 12.	City of Clearwater	---	---
270	Clearwater, 200 feet south of Cleveland St., between Missouri Ave. and Jefferson Ave., east of well 271. NW¼NE¼ sec. 15, T. 29 S., R. 15 E. City well 13.	City of Clearwater	---	---
271	Clearwater, 200 feet south of Cleveland St., between Missouri Ave. and Jefferson Ave., west of well 270. NW¼ NE¼ sec. 15, T. 29 S., R. 15 E. City well 11.	City of Clearwater	Milton R. Vaughn Tampa, Fla.	---
272	Clearwater, between Laura St. and Grove St., 75 feet east of East Ave., in pumphouse, east of a water tank, north of well 273. NE¼NE¼ sec. 16, T. 29 S., R. 15 E. City well 7.	City of Clearwater	---	---
273	Clearwater, south side of Drew St., between Myrtle Ave. and Seaboard Air Line Railroad, 100 feet south of a water tank, 100 feet south of well 272. NE¼NE¼ sec. 16, T. 29 S., R. 15 E. City well 8.	City of Clearwater	---	---
274	Clearwater, east side of Garden Ave., south side of Drew St. Near NW cor. NE¼NE¼ sec. 16, T. 29 S., R. 15 E.	Florida Power Corp.	Wm. Taylor.	1900
275	Clearwater, east side of Garden St., south side of Drew St. Near NW cor. NE¼NE¼ sec. 16, T. 29 S., R. 15 E.	Florida Power Corp.	T. J. Zimmerman Ozona, Florida	1904
276	Clearwater, 200 feet south of Court St., 60 feet west of Myrtle Ave., south side of plant, in a pumphouse. SE¼NE¼ sec. 16, T. 29 S., R. 15 E.	C. C. Henery Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Aug. 1946
277	Clearwater, west end of Turner Ave., near Clearwater Harbor, north side of Turner Ave. NE¼SW¼ sec. 16, T. 29 S., R. 15 E.	Col. Scott's Estate	John Philpot	1898
278	Clearwater, northwest corner of intersection of Jefford St. and Prospect Ave. SE¼SE¼ sec. 16, T. 29 S., R. 15 E. City well 21.	City of Clearwater	A. O. Dunlap Dunedin, Florida	April 1944
279	Clearwater, 700 feet east of Fort Harrison Ave., at the east end of D. St., under a water tank. SE¼NE¼ sec. 21, T. 29 S., R. 15 E.	Bellview Hotel Co. Clearwater, Florida	---	---
280	Clearwater, southeast corner of Lakeview Rd. and Madison St., in a pumphouse. SE¼NW¼ sec. 22, T. 29 S., R. 15 E. City well 22.	City of Clearwater	A. O. Dunlap Dunedin, Florida	April 1945
281	Two and two-tenths miles southeast of Clearwater, about 0.3 mile south of intersection of Druid Rd. with Keene Rd., west side of Keene Rd., near owner's residence. Near NE cor. NE¼NE¼ sec. 23, T. 29 S., R. 15 E.	Bergeson Clearwater, Florida	---	1933
282	Two and three-tenths miles southeast of Clearwater, 0.7 mile south of Lakeview Rd., 0.15 mile east of Highland Ave., north side of a hard surface road, north side of owner's residence. SE¼SW¼ sec. 23, T. 29 S., R. 15 E.	I. C. Nelson Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1940
283	Two and three-tenths miles southeast of Clearwater, 0.25 mile south of Druid Rd., about 300 feet east of Keene Rd., east of a small pond. Near NW cor. NW¼NW¼ sec. 24, T. 29 S., R. 15 E.	F. L. Hendrix. Clearwater, Florida	A. E. Mountain Palm Harbor, Florida	1937

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
188	74	6	Top of 6-inch coupling, 0.3 foot above land surface.	62.72	53.72	4-19-48	---	---	---	Stock	F.G.S. Well W1745. Cuttings from strata penetrated on file with Florida Geological Survey.
192	---	10	Top of 10-inch casing, 0.5 foot above land surface.	15.53	5.8 7.9 6.43 6.80 10.00 11.55	9-12-30 7-23-47 8-21-47 10-17-47 4-19-48 5-14-51	50	0	5-17-48	Unused Public Supply	Well was abandoned in 1935.
195	80	10	---	---	---	---	23 50	--- ---	1-27-47 4-21-48	Public Supply	
195	---	10	---	---	---	---	20	---	4-1-47	Public Supply	
165	---	10	Top of tin rim, about 1.0 foot above cement floor.	29.62	25.03 26.49 26.18 27.21 26.84 26.41 27.38	9-4-45 4-18-46 11-8-46 4-23-47 12-30-47 8-25-48 4-19-48	15	0	5-17-48	Unused Public Supply	Water analysis is given in U. S. Geological Survey Water-Supply Paper 596-G, p. 224, analysis 313. Automatic water-level recorder installed 10-24-45. Recorder was removed 5-31-49.
---	---	10	---	---	---	---	147	0	4-1-47	Public Supply	Well is stand-by well for City supply.
52	36	4	---	---	---	---	---	---	---	---	Well has been filled and covered by concrete floor.
80	36	6	---	---	---	---	---	---	---	---	Well has been filled and covered by concrete floor.
180	42	8	---	---	---	---	60	---	8-7-47	Refrigeration	
125	125	4	---	---	---	---	---	---	---	---	Well is filled and covered over. Well is listed in U. S. Geological Survey Water-Supply Paper 319, p. 322.
296	73	10	---	---	---	---	25	---	4-21-48	Public Supply	F.G.S. Well W953.
146	70	12	---	---	---	---	25	---	3-27-47	Hotel	Water analysis given in U. S. Geological Survey Water-Supply Paper 596-G, p. 224, analysis 310.
285	76	10	---	---	---	---	30 40	--- ---	1-24-47 4-21-48	Public Supply	
123	---	4	---	---	---	---	25	---	5-1-47	Domestic	
336	80	10	---	---	---	---	48* 272	10 ---	5-28-43 4-11-47	Domestic Irrigation	
168	---	---	---	---	---	---	17 15	--- ---	2-14-47 5-10-48	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
284	Two and six-tenths miles southeast of Clearwater, about 0.6 mile south of Druid Rd., 900 feet east of Keene Rd., in an orange grove. SW¼NW¼ sec. 24, T. 29 S., R. 15 E.	Ernest E. Whitacre Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1945
285	Two and nine-tenths miles northeast of Largo, about 1.0 mile south of Druid Rd., 0.65 mile east of Keene Rd., south side of owner's residence. SW¼SE¼ sec. 24, T. 29 S., R. 15 E.	Edward R. Watson Clearwater, Florida	A. O. Dunlap Dunedin, Florida	July 1946
286	Two and eight-tenths miles northeast of Largo, 0.9 mile north of State Highway 686, about 200 feet west of Belcher Road (County Road 27). NE¼SE¼ sec. 25, T. 29 S., R. 15 E.	H. S. Beckett Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1947
287	Two and one-tenth miles northeast of Largo, about 1.4 miles south of Druid Rd., about 0.15 mile west of Keene Rd., north of well 288. NE¼NE¼ sec. 26, T. 29 S., R. 15 E.	J. S. Taylor Largo, Florida	---	---
288	Two miles northeast of Largo, 1.5 miles south of Druid Rd., about 600 feet west of Keene Rd., near owner's residence, south of well 287, north of well 289. NE¼NE¼ sec. 26, T. 29 S., R. 15 E.	J. S. Taylor Largo, Florida	A. O. Dunlap Dunedin, Florida	1934
289	About 2.0 miles northeast of Largo, 1.55 miles south of Druid Rd., 200 feet west of Keene Rd., 50 feet north of a pond. SE¼NE¼ sec. 26, T. 29 S., R. 15 E.	J. S. Taylor Largo, Florida	A. O. Dunlap Dunedin, Florida	Nov. 1943
290	One and five-tenths miles northeast of Largo, 1.2 miles north of State Highway 686, 500 feet west of Highland Ave. (County Road 111), west side of owner's residence. NW¼NW¼ sec. 26, T. 29 S., R. 15 E.	Jack Strickland Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1947
291	One and six-tenths miles northeast of Largo, 1.2 miles north of State Highway 686, about 200 feet west of County Road 110, west side of owner's residence. Near NE cor. SE¼NW¼ sec. 26, T. 29 S., R. 15 E.	W. T. Woods Largo, Florida	A. O. Dunlap Dunedin, Florida	April 1948
292	One and seven-tenths miles northeast of Largo, about 1.1 miles north of State Highway 686, about 0.2 mile east of County Road 110. SW¼NE¼ sec. 26, T. 29 S., R. 15 E.	Charles B. McMullen Largo, Florida	Tobin Madson Largo, Florida	1937
293	One and four-tenths miles northeast of Largo, 0.6 mile south of County Road 116, 300 feet west of County Road 110 (McMullen Road), 20 feet west of a residence. NE¼ SW¼ sec. 26, T. 29 S., R. 15 E.	T. Tucker Largo, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1947
294	One and three-tenths miles northeast of Largo, 0.7 mile north of State Highway 686, about 100 feet west of County Road 110. SE¼SW¼ sec. 26, T. 29 S., R. 15 E.	L. H. Anderson Largo, Florida	Porter Zimmerman Ozona, Florida	April 1940
295	One and three-tenths miles northeast of Largo, about 0.7 mile north of State Highway 686, about 100 feet west of County Road 110. SE¼SW¼ sec. 26, T. 29 S., R. 15 E.	William Leavell Largo, Florida	Porter Zimmerman Ozona, Florida	April 1946
296	One and seven-tenths miles north of Largo, 200 feet east of U. S. Highway 19, 50 feet south of Wyatt St., at 709 Wyatt St. SW¼NW¼ sec. 27, T. 29 S., R. 15 E.	J. O. Apgar Bellmont, Florida	A. O. Dunlap Dunedin, Florida	1934
297	About 1.0 mile north of Largo, 0.95 mile north of State Hiznway 686, 0.2 mile east of County Road 25, in an orange grove, in a pond, east of well 298. SW¼NE¼ sec. 27, T. 29 S., R. 15 E.	Markley Largo, Florida	---	---
298	About 0.9 mile north of Largo, 0.9 mile north of State Highway 686, 660 feet north of County Road 24, 50 feet east of extension of County Road 25, in an orange grove. NW¼SE¼ sec. 27, T. 29 S., R. 15 E.	Markley Largo, Florida	A. O. Dunlap Dunedin, Florida	Sept. 1943
299	About 0.9 mile northeast of Largo, 0.75 mile north of State Highway 686, 0.25 mile east of County Road 25, 100 feet northeast of east end of Rosery Road. Near SW cor. NE¼SE¼ sec. 27, T. 29 S., R. 15 E.	C. F. Emiling Largo, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1946
300	About 2.0 miles north of Largo, 0.18 mile north of Wyatt St., about 300 feet west of U. S. Highway 19. NE¼NE¼ sec. 28, T. 29 S., R. 15 E.	Thomas Dairy	T. J. Zimmerman Ozona, Florida	1905

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
273	65	10	---	---	---	---	27	0	1-31-47	Irrigation	
102	67	4.5	---	---	---	---	20	---	2-24-48	Domestic	
114	61	6	Top of 6-inch coupling, 0.4 foot above land surface.	6.48	a2.05 a1.37 a2.16 a0.5	2-19-48 4-19-48 6-24-49 5-15-51	20	---	9-11-47	Domestic	
---	---	10	---	---	---	---	20	---	3-28-47	Domestic Irrigation	
330	100	6	---	---	---	---	22	---	3-28-47	Domestic	
240	104	---	---	---	---	---	25	0	1-3-47	---	
106	75	4	Top of 4-inch casing, 0.5 foot above land surface.	51.7	42.09	10-21-47	20	0	10-21-47	Domestic	F.G.S. Well W1617. Cuttings from strata penetrated on file with Florida Geological Survey.
137	95	4	Top of 4-inch coupling, 0.3 foot above land surface.	39.11	32.10	4-27-48	---	---	---	Domestic Irrigation	F.G.S. Well W1744. Cuttings from strata penetrated on file with Florida Geological Survey.
15	15	1.25	---	---	---	---	---	---	---	Domestic	Well is in larger dug well.
120	89	4	Top of 4-inch coupling, 0.5 foot above land surface.	37.99	28.85 29.23 29.06	12-19-47 1-12-48 1-29-48	50	0	12-19-47	Domestic	F.G.S. Well W1647. Cuttings from strata penetrated on file with Florida Geological Survey.
120	---	2	---	---	---	---	20	---	9-25-47	Domestic	
55	---	2	---	---	---	---	25	---	9-25-47	Domestic	
87	---	---	---	---	---	---	21	---	2-14-47	Domestic	
---	---	---	---	---	---	---	---	---	---	Drainage	Well is apparently plugged as it does not drain pond in which it is located.
255	96	10	---	---	---	---	25	0	1-24-47	---	
275	50	10	---	---	---	---	59	0	4-11-47	Domestic Irrigation	
135	50	6	---	---	---	---	---	---	---	---	Well reported to be filled and buried. Well is listed in U. S. Geological Survey Water-Supply Paper 319, p. 322.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
301	About 1.8 miles north of Largo, 200 feet west of U. S. Highway 19, 50 feet north of Wyatt St. SE¼NE¼ sec. 28, T. 29 S., R. 15 E.	Newton Brown Belleair, Florida	---	---
302	One and four-tenths miles north of Largo, 0.3 mile west of U. S. Highway 19, about 500 feet south of Wyatt St., west side of Seaboard Air Line Railroad. SW¼NE¼ sec. 28, T. 29 S., R. 15 E.	Town of Belleair	Phillip Morrill Valrico, Florida	1926
303	About 1.15 miles northwest of Largo, 0.15 mile north of County Road 129, 1500 feet west of Seaboard Air Line Railroad. SE¼SW¼ sec. 28, T. 29 S., R. 15 E.	Belleair Estate Clearwater, Florida	---	---
304	Two miles west of Largo, 0.35 mile west of County Road 51, 600 feet north of County Road 53, in a pumphouse. SE¼NW¼ sec. 32, T. 29 S., R. 15 E.	R. A. Trapeen Nashville, Tenn.	---	1910
305	Two and one-tenth miles southwest of Largo, 600 feet west of County Road 4, about 500 feet north of intersection of County Road 4 with Taylor Ave. SE¼SW¼ sec. 32, T. 29 S., R. 15 E.	T. H. Leary Largo, Florida	---	---
306	About 0.5 mile west of Largo, about 0.12 mile north of County Road 4, 300 feet west of U. S. Highway 19. SE¼ NE¼ sec. 33, T. 29 S., R. 15 E.	A. White Tampa, Florida	---	---
306A	About 1.9 miles southwest of Largo, about 600 feet east of County Road 4, about 600 feet north of Taylor Ave., in a grove. SW¼SE¼ sec. 32, T. 29 S., R. 15 E.	G. Trotter Largo, Florida	A. O. Dunlap Dunedin, Florida	April 1945
307	One and two-tenths miles west of Largo, about 0.8 mile west of U. S. Highway 19, about 600 feet south of County Road 4, 50 feet south of a creek, in an orange grove, in a pumphouse, 7 feet below land surface. NW¼ SW¼ sec. 33, T. 29 S., R. 15 E.	David Bilgore Co.	---	---
308	About 1.4 miles southwest of Largo, about 0.85 mile west of County Road 20, 0.1 mile north of Taylor Ave., 0.1 mile west of a dirt road, northwest of owner's residence. SW¼SW¼ sec. 33, T. 29 S., R. 15 E.	P. H. Fuller Largo, Florida	---	---
309	One and three-tenths miles southwest of Largo, 0.8 mile west of County Road 20, 300 feet north of Taylor Ave., near owner's residence. SW¼SW¼ sec. 33, T. 29 S., R. 15 E.	P. H. Fuller Largo, Florida	Frank May Tampa, Florida	Sept. 1945
310	About 0.45 mile northwest of Largo, 0.15 mile north of State Highway 686, at 672 Clearwater Rd. Near SW cor. NW¼NW¼ sec. 34, T. 29 S., R. 15 E	Frank Haasl Clearwater, Florida	---	---
311	Largo, northwest corner of intersection of First St., N. W. with Woodrow Ave., 200 feet north of well 312. NE¼NW¼ sec. 34, T. 29 S., R. 15 E. City well 2.	Town of Largo	---	1930
312	Largo, southwest corner of intersection of First St., N. W. with Woodrow Ave., 200 feet south of well 311. NE¼NW¼ sec. 34, T. 29 S., R. 15 E. City well 1.	Town of Largo	---	1930
313	Largo, east side of Third St., N. W., south side of Woodrow Ave., west of well 312. NE¼NW¼ sec. 34, T. 29 S., R. 15 E.	Town of Largo	---	---
314	Largo, 0.1 mile north of State Highway 686, 100 feet east of U. S. Highway 19, at 252 Clearwater Rd. SW¼NW¼ sec. 34, T. 29 S., R. 15 E.	H. D. Hudson Largo, Florida	H. D. Hudson Largo, Florida	1944
315	Largo, 0.25 mile east of intersection of U. S. Highway 19 with State Highway 686, north side of State Highway 686, north side of City Auditorium, in a pumphouse. SW¼ NW¼ sec. 34, T. 29 S., R. 15 E.	Town of Largo	A. O. Dunlap Dunedin, Florida	Dec. 1945
316	Largo, about 400 feet south of intersection of U. S. Highway 19 with State Highway 686, south side of a stone building, south of a railroad station. NE¼SW¼ sec. 34, T. 29 S., R. 15 E.	Lewis Johnson Largo, Florida	T. J. Zimmerman Ozona, Florida	1911
317	One and four-tenths miles northeast of Largo, 0.55 mile north of State Highway 686, about 100 feet west of State Highway 695, near owner's residence. NW¼NE¼ sec. 35, T. 29 S., R. 15 E.	Pyatt Largo, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1947

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
18	---	1.25	Top of 1.25-inch casing, 2.6 feet above land surface.	---	8.22 7.48	4-22-46 4-17-47	---	---	---	Stock	
310	60	8	---	---	---	---	30	---	2-14-47	Public Supply	
---	---	---	---	---	---	---	---	---	---	Drainage	Well is reported to be plugged.
286	---	6	---	---	---	---	583	10	10-5-44	Irrigation	
---	---	4	---	---	---	---	30	0	1-24-47	Domestic	
---	---	---	---	---	---	---	27	0	4-16-47	Irrigation	
257	88	10	---	---	---	---	52	0	4-15-47	Irrigation	
---	---	---	---	---	---	---	---	---	---	Irrigation	
---	---	4 to 3	---	---	---	---	17	0	4-16-47	Domestic Irrigation	
218	95	10	---	---	---	---	20	---	2-10-47	Domestic Irrigation	
22	---	1.25	Base of pitcher pump, 3.0 feet above land surface.	---	6.02	4-22-46	---	---	---	---	
174	---	---	---	---	---	---	25 17	0 0	1-31-47 5-13-48	Irrigation	
174	---	10	---	---	---	---	104 75	--- ---	1-31-47 5-13-48	Public Supply	
230	---	16	---	---	---	---	300	0	1-31-47	Irrigation	
7	---	1.25	Top of 2-inch elbow, 1.10 feet above land surface.	---	3.60	---	27	0	4-15-47	Irrigation	Well consists of battery of 3 sand points, 1.25 inches in diameter, 7 feet in depth, and spaced at four feet.
267	130	10	---	---	---	---	30 37	--- ---	1-31-47 5-13-48	Public Supply	
200	---	4	---	---	---	---	---	---	---	---	Well is plugged and buried.
127	101	4	Top of 4-inch casing, 0.6 foot above land surface.	---	11.46	10-24-47	---	---	---	Domestic	F.G.S. Well W1622. Cuttings from strata penetrated on file with Florida Geological Survey.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
318	One and four-tenths miles northeast of Largo, 0.25 mile north of State Highway 686, about 0.1 mile east of State Highway 695 (Keene Rd.), 50 feet east of owner's residence, in an orange grove. Near NE cor. SW¼NE¼ sec. 35, T. 29 S., R. 15 E.	Dr. R. L. McMullen Largo, Florida	Frank May Tampa, Florida	June 1944
319	One and four-tenths miles northeast of Largo, 0.25 mile north of State Highway 686, about 0.1 mile east of State Highway 695 (Keene Rd.), west of well 318. Near NE cor. SW¼NE¼ sec. 35, T. 29 S., R. 15 E.	Dr. R. L. McMullen Largo, Florida	A. O. Dunlap Dunedin, Florida	1926
320	About 1.1 miles east of Largo, 0.2 mile west of intersection of State Highway 695 (Keene Rd.) with State Highway 686, about 100 feet north of State Highway 686. SE¼ NW¼ sec. 35, T. 29 S., R. 15 E.	Jack E. Prestley Largo, Florida	Jack Clyatt Ozona, Florida	Sept. 1947
321	About 0.8 mile east of Largo, 0.4 mile west of intersection of State Highway 695 (Keene Rd.) with State Highway 686, 300 feet south of State Highway 686, north of well 322, in a pasture. NW¼SW¼ sec. 35, T. 29 S., R. 15 E.	Donigan's Dairy Largo, Florida	Perkins	---
322	About 0.9 mile east of Largo, 0.35 mile west of intersection of State Highway 695 (Keene Rd.) with State Highway 686, about 1500 feet south of State Highway 686, about 1000 feet south of well 321, in a pasture. NW¼ SW¼ sec. 35, T. 29 S., R. 15 E.	Donigan's Dairy Largo, Florida	---	---
323	About 2.0 miles east of Largo, 0.7 mile east of intersection of State Highway 695 (Keene Rd.) with State Highway 686, 0.3 mile north of State Highway 686. Near SW cor. NE¼NW¼ sec. 36, T. 29 S., R. 15 E.	W. A. McMullen Largo, Florida	---	---
324	Two and seven-tenths miles northeast of Largo, 1.0 mile west of intersection of State Highway 693 with State Highway 686, 0.4 mile north of State Highway 686, 100 feet west of Belcher Rd. NE¼NE¼ sec. 36, T. 29 S., R. 15 E.	Hagan	A. O. Dunlap Dunedin, Florida	Mar. 1945
325	Two and two-tenths miles east of Largo, 0.9 mile east of intersection of State Highway 695 (Keene Rd.) with State Highway 686, south side of State Highway 686, south side of owner's residence. Near NW cor. NW¼SE¼ sec. 36, T. 29 S., R. 15 E.	James Michelson Largo, Florida	James Michelson Largo, Florida	1939
326	Safety Harbor, 600 feet west of N. 11th Ave., 200 feet north of Main St. SE¼NE¼ sec. 4, T. 29 S., R. 16 E.	Town of Safety Harbor	Frank May Tampa, Florida	1936
326A	Safety Harbor, about 600 feet west of N. 11th Ave., about 200 feet north of Main St., 25 feet west of well 326. SE¼NE¼ sec. 4, T. 29 S., R. 16 E.	Town of Safety Harbor	Frank May Tampa, Florida	1936
327	Safety Harbor, one block south of Main St., southeast of intersection of Iron Age St. with Second Ave., east of Tennis and Shuffleboard Courts, about 300 feet west of County Road 30. Near NE cor. NE¼SW¼ sec. 3, T. 29 S., R. 16 E.	Town of Safety Harbor	---	---
328	One and two-tenths miles northwest of Safety Harbor, 0.3 mile north of County Road 50, about 100 feet west of State Highway 590 (Haines Rd.), at owner's residence. NW¼NW¼ sec. 4, T. 29 S., R. 16 E.	Guy McMullen	---	---
329	One and three-tenths miles southwest of Safety Harbor, 0.26 mile north of State Highway 590, about 0.1 mile west of State Highway 593 (Haines Rd.). Near SE cor. NW¼SW¼ sec. 4, T. 29 S., R. 16 E.	R. B. Swearington	---	---
330	One and five-tenths miles west of Safety Harbor, 0.35 mile west of intersection of State Highway 593 (Haines Rd.) with County Road 50, about 250 feet south of County Road 50. Near NE cor. NE¼SE¼ sec. 5, T. 29 S., R. 16 E.	Allen McMullen Safety Harbor, Florida	P. Vasbinder Safety Harbor, Florida	Feb. 1948
331	One and five-tenths miles west of Safety Harbor, 0.4 mile west of State Highway 593 (Haines Rd.), 0.2 mile south of County Road 50. Near SE cor. NE¼SE¼ sec. 5, T. 29 S., R. 16 E.	Waller and Mitchel	Frank May Tampa, Florida	June 1944
332	Seven-tenths mile northeast of Coachman, 0.1 mile east of intersection of new State Highway 55 with State Highway 590, north side of State Highway 590. Near SE cor. SW¼SW¼ sec. 5, T. 29 S., R. 16 E.	J. C. Weaver Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	---

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
228	114	10	---	---	---	---	---	---	---	Irrigation	
118	---	3 to 2	---	---	---	---	20	---	3-26-47	Domestic	
125	100	3	Top of 3-inch coupling, 0.4 foot above land surface.	---	3.64	9-9-47	25	0	9-9-47	Domestic	
---	---	6	Top of 6-inch casing, flush with land surface.	7.47	a1.00 a1.55 a0.95 a0.60 a1.03 a0.80	7-25-47 9-11-47 1-12-48 1-16-48 1-29-48 4-19-48	55 50	--- ---	1-31-47 5-5-48	Stock	Samples for chloride determinations taken after well had been flowing for an indefinite period.
90	---	4	Top of pipe, about 3.0 feet above land surface.	8.17	0.10 a0.30 1.17	1-16-48 6-24-49 5-15-51	85 80	--- ---	1-31-47 5-15-51	Stock	Samples for chloride determinations taken after well had been flowing for an indefinite period.
111	---	2	---	---	---	---	40	---	1-31-47	Domestic	
242	107	8	---	---	---	---	---	---	---	---	
46	---	1.25	Top of 1.25-inch casing, 2.4 feet above land surface.	---	5.56 5.00	4-8-48 6-24-49	100	---	7-10-47	Domestic	
286	98	8	---	---	---	---	40	---	4-24-47	Public Supply	
285	60	4	---	---	---	---	---	---	---	Public Supply	Stand-by well for city supply.
---	---	8	---	---	---	---	---	---	---	---	Well is plugged.
---	---	---	---	---	---	---	40	---	4-28-47	Domestic	
---	---	---	---	---	---	---	---	---	---	---	
90	63	2	Top of 2-inch casing, 1.1 feet above land surface.	45.76	32.80 33.48	2-10-48 4-19-48	---	---	---	Domestic	
218	90	10	---	---	---	---	---	---	---	Irrigation	
220	64	8	---	---	---	---	21*	---	5-28-43	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
333	About 1.5 miles northeast of Coachman, 0.4 mile west of intersection of State Highway 593 (Haines Rd.) with State Highway 590, 300 feet north of State Highway 590. SE¼SE¼ sec. 5, T. 29 S., R. 16 E.	E. W. McMullen Estate Clearwater, Florida	---	---
334	One and one-tenth miles north of Coachman, 0.4 mile east of intersection of County Road 106 with County Road 32, about 600 feet north of County Road 106, north of a residence. SW¼NE¼ sec. 6, T. 29 S., R. 16 E.	Vosburg	---	---
335	Four-tenths mile northwest of Coachman, 0.5 mile south of County Road 106, about 300 feet east of County Road 32, in a grove. SE¼SW¼ sec. 6, T. 29 S., R. 16 E.	Coachman Packing Co. Clearwater, Florida	Frank May Tampa, Florida	May 1945
336	About 600 feet northwest of a packing house at Coachman, in a grove, in a sink. NW¼NE¼ sec. 7, T. 29 S., R. 16 E.	Coachman Packing Co. Clearwater, Florida	Frank May Tampa, Florida	1935
337	About 0.28 mile northeast of Coachman, about 600 feet northwest of State Highway 590, 50 feet north of a small residence. NW¼NE¼ sec. 7, T. 29 S., R. 16 E.	Coachman Packing Co. Clearwater, Florida	Frank May Tampa, Florida	June 1946
338	About 400 feet northwest of intersection of State Highway 590 with County Road 32, at Coachman, northeast side of County Road 32, across road from a packing house, 5 feet west of well 339. Near SE cor. NE¼NW¼ sec. 7, T. 29 S., R. 16 E.	Coachman Packing Co. Clearwater, Fla.	Frank May Tampa, Florida	---
339	Coachman, about 400 feet northwest of intersection of State Highway 590 with County Road 32, northeast side of County Road 32, across road from a packing house, 5 feet east of well 338. Near SE cor. NE¼NW¼ sec. 7, T. 29 S., R. 16 E.	Coachman Packing Co. Clearwater, Florida	Frank May Tampa, Florida	---
340	Four-tenths mile southeast of Coachman, 0.8 mile north of Gulf to Bay Blvd., west side of County Road 32, near a residence, north of well 341. NW¼SE¼ sec. 7, T. 29 S., R. 16 E.	R. B. Pickeral Clearwater, Florida	P. Vasbinder Safety Harbor, Florida	June 1941
341	About 0.45 mile southeast of Coachman, 0.75 mile north of Gulf to Bay Blvd., west side of County Road 32, at owner's residence, south of well 340. SW¼SE¼ sec. 7, T. 29 S., R. 16 E.	Russel Sharkey Clearwater, Florida	P. Vasbinder Safety Harbor, Florida	1942
342	About 0.6 mile southwest of Coachman, 0.2 mile southeast of State Highway 590, in grove known as "Byrd McMullen grove". SW¼SW¼ sec. 7, T. 29 S., R. 16 E.	David Bilgore Co. Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1938
343	One mile northeast of Coachman, 0.45 mile east of intersection of new State Highway 55 with State Highway 590, about 200 feet south of State Highway 590. NE¼NW¼ sec. 8, T. 29 S., R. 16 E.	W. H. Oberry Safety Harbor, Florida	A. O. Dunlap Dunedin, Florida	Feb. 1946
344	About 1.3 miles northeast of Coachman, 0.5 mile west of intersection of State Highway 593 (Haines Rd.) with State Highway 590, about 300 feet south of State Highway 590. NW¼NE¼ sec. 8, T. 29 S., R. 16 E.	McIntyre Safety Harbor, Florida	McConnell Clearwater, Florida	---
345	One and five-tenths miles northeast of Coachman, 0.35 mile west of intersection of State Highway 593 (Haines Rd.) with State Highway 590, about 100 feet south of State Highway 590, in grove known as "Del Ora grove". Near NE cor. NE¼NE¼ sec. 8, T. 29 S., R. 16 E.	Dr. P. Phillips Tampa, Florida	Frank May Tampa, Florida	---
346	About 1.25 miles northeast of Coachman, 0.57 mile west of State Highway 593 (Haines Rd.), about 0.2 mile south of State Highway 590, in owner's grove 2, known as "Del Ora grove". NW¼NE¼ sec. 8, T. 29 S., R. 16 E.	Dr. P. Phillips Tampa, Florida	A. O. Dunlap Dunedin, Florida	1932
347	About 1.25 miles east of Coachman, 0.6 mile west of State Highway 593 (Haines Rd.), 0.26 mile south of State Highway 590, south of well 346. Near NE cor. SW¼NE¼ sec. 8, T. 29 S., R. 16 E.	A. W. Belleau	Howell and Dunlap Dunedin, Florida	1926
348	One and four-tenths miles southwest of Safety Harbor, 100 feet west of State Highway 593 (Haines Rd.), 100 feet south of Seaboard Air Line Railroad, at a fruit packing plant. Near SE cor. NW¼NW¼ sec. 9, T. 29 S., R. 16 E.	David Bilgore Co. Clearwater, Florida	Frank May Tampa, Florida	July 1946
349	One and one-tenth miles southwest of Safety Harbor, 0.25 mile southwest from Alligator Creek on County Road 30, about 300 feet west of County Road 30, south of a dirt road. SE¼NE¼ sec. 9, T. 29 S., R. 16 E.	Dr. P. Phillips Co. Tampa, Florida	A. O. Dunlap Dunedin, Florida	---

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
117	---	4	---	---	---	---	12	---	2-11-47	Domestic	
250	---	---	---	---	---	---	---	---	---	Irrigation	
102	44	8	---	---	---	---	---	---	---	Irrigation	
585	118	10	---	---	---	---	---	---	---	Irrigation	
428	63	12	Top of 12-inch casing, 0.4 foot above land surface.	57.81	44.39 43.73 42.97 44.09 44.57	4-28-47 7-29-47 12-18-47 4-19-48 6-23-49	25 12	0 0	4-28-47 5-6-48	Unused Irrigation	Automatic water level recorder installed 8-22-47. Recorder was removed 4-28-50.
80	---	4	---	---	---	---	45	---	4-28-47	Processing fruit	
---	---	4	---	---	---	---	---	---	---	Processing fruit	
134	84	2.5	---	---	---	---	20	---	9-19-47	Domestic	
90	---	2	---	---	---	---	22	---	9-19-47	Domestic	
380	---	8	---	---	---	---	15	---	4-28-47	Domestic Irrigation	
320	60	12	---	---	---	---	21	0	2-11-47	Irrigation	
30	---	2	---	---	---	---	15	---	2-11-47	Domestic	
---	---	---	---	---	---	---	531*	---	5-28-43	Irrigation	
390	43	12	---	---	---	---	62*	0.4	5-28-43	Irrigation	
265	---	8	---	---	---	---	32	---	2-11-47	Domestic Irrigation	
212	64	12	Top of 12-inch casing, flush with land surface.	---	16.22	7-31-46	43	---	5-15-47	Processing fruit	
---	95	2	---	---	---	---	---	---	---	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
350	About 1.2 miles southwest of Safety Harbor, about 0.4 mile southwest from Alligator Creek along County Road 30, 400 feet east of County Road 30, at a fish camp. Near NE cor. NE¼SE¼ sec. 9, T. 29 S., R. 16 E.	Dewey Linton Safety Harbor, Florida	P. Vasbinder Safety Harbor, Florida	1945
351	One and four-tenths miles southwest of Safety Harbor, about 0.6 mile southwest from Alligator Creek along County Road 30, about 75 feet east of County Road 30, west of well 352. NE¼SE¼ sec. 9, T. 29 S., R. 16 E.	B. H. Urschel Safety Harbor, Florida	H. Francis Clearwater, Florida	1946
352	One and four-tenths miles southwest of Safety Harbor, about 0.6 mile south from Alligator Creek along County Road 30, about 300 feet east of County Road 30, east of well 351. NE¼SE¼ sec. 9, T. 29 S., R. 16 E.	B. H. Urschel Safety Harbor, Florida	P. Vasbinder Safety Harbor, Florida	1941
353	One and seven-tenths miles southwest of Safety Harbor, 0.6 mile north of Gulf to Bay Blvd., about 300 feet west of County Road 30, at owner's residence. SW¼SE¼ sec. 9, T. 29 S., R. 16 E.	Harold H. Francis Clearwater, Florida	Harold H. Francis Clearwater, Florida	1925
354	About 2.2 miles southeast of Coachman, 0.2 mile south of Gulf to Bay Blvd., 1.2 miles east of State Highway 593 (Haines Rd.), north of owner's residence, under a windmill. Near NE cor. NW¼SW¼ sec. 16, T. 29 S., R. 16 E.	Myron A. Smith Bayview, Florida	Smallwood	---
355	About 2.0 miles southeast of Coachman, 1.05 miles east of State Highway 593 (Haines Rd.), about 300 feet south of Gulf to Bay Boulevard., west side of Bayview Ave. Near NE cor. NE¼SE¼ sec. 17, T. 29 S., R. 16 E.	R. R. Meador Clearwater, Florida	P. Vasbinder Safety Harbor, Florida	1935
356	One and eight-tenths miles southeast of Coachman, 0.7 mile east of State Highway 593 (Haines Rd.), 0.2 mile south of Gulf to Bay Blvd., west side of a stream. NW¼ SE¼ sec. 17, T. 29 S., R. 16 E.	---	---	---
357	One and seven-tenths miles southeast of Coachman, 0.35 mile south of Gulf to Bay Blvd., 0.3 mile east of State Highway 593 (Haines Rd.), at Peacock Farm. Near NE cor. SW¼SW¼ sec. 17, T. 29 S., R. 16 E.	Eugene L. Pearce Clearwater, Florida	Frank May Tampa, Florida	1943
358	Eight-tenths mile south of Coachman, 0.4 mile north of Gulf to Bay Blvd., 0.1 mile west of County Road 32, northeast of well 359. NW¼NE¼ sec. 18, T. 29 S., R. 16 E.	G. C. Eldridge Clearwater, Florida	Johnson St. Petersburg, Florida	Jan. 1947
359	About 0.85 mile south of Coachman, 0.3 mile north of Gulf to Bay Blvd., 0.22 mile west of County Road 32, southwest of well 358. NW¼NE¼ sec. 18, T. 29 S., R. 16 E.	G. C. Eldridge Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1947
360	One mile south of Coachman, 0.25 mile north of Gulf to Bay Blvd., 300 feet east of County Road 32, in a small sink. NE¼NE¼ sec. 18, T. 29 S., R. 16 E.	Brown Clearwater, Florida	---	---
361	One and one-tenth miles south of Coachman, 0.45 mile west of County Road 32, 300 feet north of Gulf to Bay Blvd., in an orange grove. SE¼NW¼ sec. 18, T. 29 S., R. 16 E.	Hamilton Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Nov. 1947
362	About 0.22 mile north of State Highway 60, about 1000 feet east of County Road 32, 800 feet west of well 363. SE¼NE¼ sec. 18, T. 29 S., R. 16 E.	Robert Brown Clearwater, Florida	Frank May Tampa, Florida	1942
363	About 0.22 mile north of State Highway 60, about 1800 feet east of County Road 32, about 800 feet east of well 362. SE¼NE¼ sec. 18, T. 29 S., R. 16 E.	Robert Brown Clearwater, Florida	Frank May Tampa, Florida	Nov. 1944
364	Two and one-tenth miles southwest of Coachman, 0.9 mile south of Gulf to Bay Blvd., about 100 feet east of County Road 27 (Belcher Rd.). SW¼NW¼ sec. 19, T. 29 S., R. 16 E.	Meyers	A. O. Dunlap Dunedin, Florida	April 1945
365	Two and three-tenths miles south of Coachman, 1.1 miles south of Gulf to Bay Blvd., 0.5 mile north of Allen Creek, about 200 feet west of new State Highway 55 (Haines Rd.). NE¼SE¼ sec. 19, T. 29 S., R. 16 E.	E. Weber Clearwater, Florida	E. Weber Clearwater, Florida	Nov. 1946
366	Two and four-tenths miles south of Coachman, 1.17 miles south of Gulf to Bay Blvd., 0.45 mile north of Allen Creek, about 200 feet west of new State Highway 55 (Haines Rd.), south of well 365. NE¼SE¼ sec. 19, T. 29 S., R. 16 E.	Louise Reiman Clearwater, Florida	Rudchick Largo, Florida	1947

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
110	---	2	---	---	---	---	730 728	--- ---	2-5-48 5-15-51	Domestic	
65	34	3	---	---	---	---	210	---	2-5-48	Domestic	
80	---	3	Top of coupling on 1-inch pipe, 1.3 feet above land surface.	5.85	2.20	3-4-48	---	---	---	Unused Domestic	Water reported to be unfit for use owing to high salinity.
61	35	2	---	---	---	---	---	---	---	Domestic	
70	25	60 to 18	---	---	---	---	115 85	--- ---	7-1-47 5-15-51	Domestic	
65	---	2	---	---	---	---	115	---	7-1-47	Domestic	
15	---	30 to 2	---	---	---	---	56	---	2-21-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
284	---	3	---	---	---	---	35	6	5-7-43	Irrigation	
285	43	8	Top of 8-inch casing, flush with land surface.	---	43.47 45.15	9-10-47 6-23-49	---	---	---	Irrigation	
318	81	10	Bottom of pump base, 0.1 foot above cement base.	66.1	51.74 53.29	11-3-47 1-15-48	---	---	---	Irrigation	
---	---	---	---	---	---	---	---	---	---	Drainage	
280	82	10	Top of 10-inch casing, 0.6 foot above land surface.	72.54	59.78	11-24-47	--- 13	--- ---	--- 5-17-51	Irrigation	
284	60	10	---	---	---	---	21*	---	6-10-43	Irrigation	
303	63	12	---	---	---	---	---	---	---	Irrigation	
100	55	4.5	---	---	---	---	22	---	8-1-47	Domestic	
65	40	1.5	---	---	---	---	32	---	6-9-47	Domestic	
100	---	3	Top of 3-inch casing, 0.5 foot above land surface.	15.97	7.36	2-11-48	25	---	2-11-48	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
367	Two and seven-tenths miles south of Coachman, 1.5 miles south of Gulf to Bay Blvd., about 0.15 mile north of Allen Creek, 0.12 mile west of new State Highway 55 (Haines Rd.), at Browning's Dairy. SE¼SE¼ sec. 19, T. 29 S., R. 16 E.	Wayne Walters	Wiggins Dunedin, Florida	1931
368	About 2.1 miles southwest of Coachman, 0.8 mile south of Gulf to Bay Blvd., 0.3 mile east of new State Highway 55 (Haines Rd.). SE¼NW¼ sec. 20, T. 29 S., R. 16 E.	Henry L. McMullen Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1926
369	Two and two-tenths miles southeast of Coachman, 1.0 mile south of Gulf to Bay Blvd., 0.2 mile east of new State Highway 55 (Haines Rd.). SW¼NW¼ sec. 20, T. 29 S., R. 16 E.	Mary E. Kilgore Clearwater, Florida	Cars. New York	1906
370	Three and two-tenths miles southeast of Coachman, 1.2 miles north of State Highway 686, 0.6 mile east of new State Highway 55 (Haines Rd.), at edge of an orange grove. SW¼NE¼ sec. 29, T. 29 S., R. 16 E.	E. Hurlybaus Dunedin, Florida	A. O. Dunlap Dunedin, Florida	June 1947
371	Three and three-tenths miles south of Coachman, 0.95 mile north of State Hignway 686, about 400 feet east of State Highway 693 (Haines Rd.). NW¼SW¼ sec. 29, T. 29 S., R. 16 E.	William Tersey Clearwater, Florida	---	---
372	Three and seven-tenths miles south of Coachman, 0.55 mile north of State Highway 686, about 250 feet east of new State Highway 55 (Haines Rd.). SW¼SW¼ sec. 29, T. 29 S., R. 16 E.	Saminick Clearwater, Florida	---	---
373	About 3.9 miles southeast of Coachman, 0.5 mile north of State Highway 686, 0.7 mile east of new State Highway 55 (Haines Rd.), north side of Whittney Rd. Near SW cor. SE¼SE¼ sec. 29, T. 29 S., R. 16 E.	J. G. Buis	R. H. Hall	---
374	About 2.8 miles northeast of Largo, 0.56 mile north of State Highway 686, 0,1 mile east of County Road 27 (Belcher Rd.). SW¼SW¼ sec. 30, T. 29 S., R. 16 E.	Francis Belcher	A. O. Dunlap Dunedin, Florida	1943
375	Two and seven-tenths miles east of Largo, at southeast corner of intersection of State Highway 686 with County Road 27 (Belcher Rd.). NW¼SW¼ sec. 31, T. 29 S., R. 16 E.	Grace Garrett Largo, Florida	A. E. Mountain Palm Harbor, Florida	Dec. 1934
376	Two and nine-tenths miles east of Largo, 0.2 mile east of County Road 27 (Belcher Rd.), 300 feet south of State Highway 686. Near NE cor. NW¼SW¼ sec. 31, T. 29 S., R. 16 E.	Tyner's Dairy Largo, Florida	---	---
377	Three and six-tenths miles east of Largo, 0.15 mile south of State Highway 686, about 300 feet west of State Highway 693 (Haines Rd.). NE¼SE¼ sec. 31, T. 29 S., R. 16 E.	George Wallace Detroit, Michigan	Jack Clyatt Ozona, Florida	Sept. 1947
378	Three and six-tenths miles east of Largo, 0.17 mile south of State Highway 686, about 300 feet west of State Highway 693 (Haines Rd.), south of well 377. NE¼SE¼ sec. 31, T. 29 S., R. 16 E.	Norman Tarbet Largo, Florida	Frank May Tampa, Florida	---
379	About 3.6 miles east of Largo, 0.2 mile south of State Highway 686, 300 feet west of State Highway 693 (Haines Rd.), at owner's residence. Near SE cor. NE¼SE¼ sec. 31, T. 29 S., R. 16 E.	W. E. Hart	---	1937
380	About 3.6 miles east of Largo, 0.5 mile north of State Highway 686, about 100 feet east of new State Highway 55 (Haines Rd.), west of wells 381 and 382, east side of owner's residence. Near NW cor. NW¼NW¼ sec. 32, T. 29 S., R. 16 E.	C. H. Whitney	C. S. Kelly St. Petersburg, Florida	---
381	About 3.6 miles east of Largo, 0.5 mile north of State Highway 686, about 120 feet east of new State Highway 55 (Haines Rd.), east of well 380, west of well 382. Near NW cor. NW¼NW¼ sec. 32, T. 29 S., R. 16 E.	C. H. Whitney	Scott	---
382	About 3.6 miles east of Largo, 0.5 mile north of State Highway 686, about 140 feet east of new State Highway 55 (Haines Rd.), east of wells 380 and 381. Near NW cor. NW¼NW¼ sec. 32, T. 29 S., R. 16 E.	C. H. Whitney	A. E. Mountain Palm Harbor, Florida	---
383	About 3.7 miles east of Largo, 0.35 mile north of State Highway 686, about 400 feet east of new State Highway 55 (Haines Rd.). NW¼NW¼ sec. 32, T. 29 S., R. 16 E.	J. E. Prestley Clearwater, Florida	Jack Clyatt Ozona, Florida	Sept. 1947

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
102	100	3	---	---	---	---	27	---	2-21-47	Domestic Stock	
100	98	---	---	---	---	---	37	---	2-21-47	Domestic	
99	---	4	---	---	---	---	29	---	2-21-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
178	65	8	---	---	---	---	---	---	---	Irrigation	
---	---	---	---	---	---	---	39	---	2-21-47	---	
65	---	1.25	---	---	---	---	55	---	2-21-47	Domestic	
76	---	4	---	---	---	---	270 265	--- ---	4-30-47 5-16-51	Domestic	
215	92	8	---	---	---	---	---	---	---	Irrigation	
133	---	3	---	---	---	---	180	---	7-10-47	Domestic Irrigation	
51	---	3	Top of 3-inch casing, 0.3 foot above land surface.	---	4.5 2.87	7-10-47 9-25-47	160	---	7-10-47	Stock	
---	96	3	Top of 3-inch coupling, 0.3 foot above land surface.	15.14	7.3	9-9-47	205 200	--- ---	9-9-47 2-11-48	Domestic	
75	65	2	---	---	---	---	---	---	---	Domestic	
96	---	3	---	---	---	---	180	---	7-18-47	Domestic	
76	---	2	---	---	---	---	20	---	2-21-47	Irrigation	Well reported to pump sand.
69	---	4	---	---	---	---	14	---	2-21-47	Domestic	
99	---	4	---	---	---	---	225	---	2-21-47	Domestic	
138	105	3	Top of 1.25-inch pipe, 1.75 feet above top of 3-inch coupling.	20.15	5.8 7.65 9.38 8.15	2-11-48 4-19-48 6-24-49 5-15-51	37	---	2-11-48	Domestic	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
384	About 3.6 miles east of Largo, 0.2 mile north of State Highway 686, about 300 feet east of new State Highway 55 (Haines Rd.), north of well 385. SW¼NW¼ sec. 32, T. 29 S., R. 16 E.	Charles A. Graham	A. O. Dunlap Dunedin, Florida	May 1947
385	About 3.6 miles east of Largo, 0.15 mile north of State Highway 686, about 300 feet east of new State Highway 55 (Haines Rd.), east side of owner's residence, south of well 384. SW¼NW¼ sec. 32, T. 29 S., R. 16 E.	W. H. Deal	---	1938
386	Three and nine-tenths miles east of Largo, 0.25 mile east of new State Highway 55 (Haines Rd.), about 200 feet north of State Highway 686, in a pumphouse. Near NE cor. SW¼NW¼ sec. 32, T. 29 S., R. 16 E.	W. E. Smith	A. O. Dunlap Dunedin, Florida	June 1947
387	About 4.6 miles east of Largo, 0.95 mile east of new State Highway 55 (Haines Rd.), about 200 feet north of State Highway 686, near Highpoint. Near SE cor. SE¼NE¼ sec. 32, T. 29 S., R. 16 E.	A. Greenhalgh	P. Vasbinder Safety Harbor, Florida	1945
388	Five and five-tenths miles east of Largo, 1.9 miles east of new State Highway 55 (Haines Rd.), 0.95 mile north of State Highway 686, 0.75 mile northeast of Highpoint, 350 feet north of Boleata Fish Camp. Near NW cor. NE¼NE¼ sec. 33, T. 29 S., R. 16 E.	W. Hawrak	P. Vasbinder Safety Harbor, Florida	July 1947
389	Five and four-tenths miles east of Largo, 1.75 miles east of new State Highway 55 (Haines Rd.), 0.65 mile north of State Highway 686, about 0.5 mile northeast of Highpoint, south side of a sand road. Near NE cor. SW¼ NE¼ sec. 33, T. 29 S., R. 16 E.	W. A. Jordan Highpoint, Florida	---	---
390	About 5.4 miles east of Largo, 1.85 miles east of new State Highway 55 (Haines Rd.), 0.65 mile north of State Highway 686, about 0.6 mile northeast of Highpoint, south side of a dirt road, about 0.25 mile southeast of mouth of Cross Bayou Canal. Near NE cor. SW¼NE¼ sec. 33, T. 29 S., R. 16 E.	---	---	---
391	Five and one-tenth miles east of Largo, about 0.3 mile northeast of Highpoint, 1.5 miles east of new State Highway 55 (Haines Rd.), 0.3 mile north of State Highway 686, west side of a sand road. SE¼NW¼ sec. 33, T. 29 S., R. 16 E.	E. B. Rhenke Clearwater, Florida	Howell	1927
392	About 5.0 miles east of Largo at Highpoint, 1.3 miles east of new State Highway 55 (Haines Rd.), about 300 feet north of State Highway 686, under a windmill. SE¼ NW¼ sec. 33, T. 29 S., R. 16 E.	Hi-Point Cabins	---	---
393	Four and seven-tenths miles east of Largo, about 1.1 miles east of new State Highway 55 (Haines Rd.), about 100 feet south of State Highway 686, about 0.2 mile west of Highpoint. NW¼SW¼ sec. 32, T. 29 S., R. 16 E.	H. I. Bellinger	---	1941
394	Five and two-tenths miles east of Largo, 1.55 miles east of new State Highway 55 (Haines Rd.), about 600 feet north of State Highway 686, north of well 395, about 0.4 mile southeast of Highpoint. Near NW cor. NW¼SE¼ sec. 33, T. 29 S., R. 16 E.	Frank Fitzgerald Clearwater, Florida	Pucket St. Petersburg, Florida	1938
395	Five and two-tenths miles east of Largo, 1.55 miles east of new State Highway 55 (Haines Rd.), about 300 feet north of State Highway 686, south of well 394, about 0.4 mile southeast of Highpoint. Near NW cor. NW¼SE¼ sec. 33, T. 29 S., R. 16 E.	Frank Fitzgerald Clearwater, Florida	Pucket St. Petersburg, Florida	1938
396	One and three-tenths miles southeast of Largo, 1.0 mile east of U. S. Highway 19, about 0.7 mile north of County Road 22 (Ulmerton Rd.), northwest of well 397. SE¼NW¼ sec. 2, T. 30 S., R. 15 E.	W. A. McMullen, Jr. Largo, Florida	A. E. Mountain Palm Harbor, Florida	May 1934
397	About 1.4 miles southeast of Largo, 0.83 mile east of U. S. Highway 19, about 0.4 mile north of County Road 22 (Ulmerton Rd.), about 0.1 mile south of a dirt road, in a field, near a residence. NE¼SW¼ sec. 2, T. 30 S., R. 15 E.	Mayme Lane Largo, Florida	Jack Clyatt Ozona, Florida	---
398	About 0.7 mile southeast of Largo, 0.85 mile north of County Road 22 (Ulmerton Rd.), about 300 feet east of U. S. Highway 19. NW¼NE¼ sec. 3, T. 30 S., R. 15 E.	Wright St. Petersburg, Florida	---	---

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
180	114	4.5	Top of 4.5-inch casing, 0.4 foot above land surface.	17.25	9.16 9.52	7-18-47 1-12-48	31 37	--- ---	7-18-47 5-6-48	Domestic	
85	---	2	Top of 2-inch casing, flush with land surface.	16.27	4.77	7-18-47	31	---	7-18-47	Domestic	
241	223	6	Top of 6-inch casing, 0.2 foot above land surface.	13.83	5.98 6.10 5.38 6.21 6.15 6.63	7-10-47 7-23-47 9-25-47 1-12-48 1-29-48 4-19-48	240 225	--- ---	7-10-47 5-4-48	Domestic	
106	---	3	Top of 3-inch casing, 0.8 foot above land surface.	---	8.50	7-12-47	32 25	--- ---	7-18-47 5-15-51	Domestic	
101	40	2	Top of pipe joint, 0.5 foot above land surface.	4.49	a0.7 a0.85	11-1-48 6-24-49	---	---	---	Domestic	
80	---	3	---	---	---	---	315 380	--- ---	7-16-47 5-16-51	Domestic	Samples for chloride determinations taken after well had been flowing for an indefinite period.
---	---	---	---	---	---	---	---	---	---	---	Well reported to be filled with trash.
194	---	6	---	---	---	---	91	---	2-21-47	Domestic Irrigation	
26	---	2	---	---	---	---	262	---	2-21-47	Domestic	
84	---	3	---	---	---	---	35	---	7-18-47	Domestic	
57	---	2	---	---	---	---	22	---	2-21-47	Irrigation	
97	---	2	---	---	---	---	225	---	2-21-47	Domestic	
108	90	5 to 1.25	---	---	---	---	142	---	6-11-47	Stock	Sample for chloride determination taken after well had been flowing for an indefinite period.
107	95	3	Top of 5-inch casing, 2 feet above land surface.	14.22	3.56 3.98 4.17 5.61	9-11-47 4-19-48 6-24-49 5-15-51	70	0	9-11-47	---	
---	---	1.25	---	---	---	---	25	---	2-14-47	Domestic	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
399	Eight-tenths mile south of Largo, 0.65 mile north of State Highway 686, 650 feet west of U. S. Highway 19. SE¼NW¼ sec. 3, T. 30 S., R. 15 E.	A. White Tampa, Florida	---	---
400	Nine-tenths mile south of Largo, 0.4 mile south of Taylor Ave., 650 feet east of County Road 20 (Ridge Rd.), in an orange grove. SW¼NW¼ sec. 3, T. 30 S., R. 15 E.	J. S. Taylor Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1941
401	One mile south of Largo, 0.5 mile south of Largo city limits, about 300 feet east of U. S. Highway 19. NW¼ SE¼ sec. 3, T. 30 S., R. 15 E.	Kathryn McGarrah Largo, Florida	---	1914
402	One and three-tenths miles south of Largo, about 0.8 mile south of Taylor Ave., about 50 feet east of County Road 20 (Ridge Rd.). Near NW cor. NW¼SW¼ sec. 3, T. 30 S., R. 15 E.	H. L. Ulmer Baskin, Florida	A. O. Dunlap Dunedin, Florida	July 1945
403	One and five-tenths miles south of Largo, 0.1 mile east of U. S. Highway 19, north side of County Road 22 (Ulmerton Rd.), north side of owner's residence. SW¼ SE¼ sec. 3, T. 30 S., R. 15 E.	H. L. Herington	---	---
404	One and five-tenths miles southeast of Largo, about 0.3 mile east of U. S. Highway 19, north side of County Road 22 (Ulmerton Rd.), north side of owner's residence. SE¼ SE¼ sec. 3, T. 30 S., R. 15 E.	J. M. Carr	---	---
405	One and four-tenths miles southwest of Largo, 0.9 mile west of County Road 20 (Ridge Rd.), 0.32 mile west of McKay Creek Reservoir, 800 feet south of Taylor Ave. NW¼NW¼ sec. 4, T. 30 S., R. 15 E.	B. Kilgore Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Jan. 1945
406	Nine-tenths mile southwest of Largo, 0.25 mile south of Taylor Ave., west side of County Road 20 (Ridge Rd.). Near NE cor. SE¼NE¼ sec. 4, T. 30 S., R. 15 E.	F. L. Bockover Largo, Florida	F. L. Bockover Largo, Florida	1942
407	One mile southwest of Largo, 0.45 mile south of Taylor Ave., 300 feet west of County Road 20 (Ridge Rd.), north side of a sand road. Near NE cor. NE¼SE¼ sec 4, T. 30 S., R. 15 E.	G. Herring Largo, Florida	---	---
408	One and one-tenth miles southwest of Largo, 0.45 mile south of Taylor Ave., 900 feet west of County Road 20 (Ridge Rd.), 200 feet north of a sand road in Oak Fern Grove. NE¼SE¼ sec. 4, T. 30 S., R. 15 E.	G. Herring Largo, Florida	A. O. Dunlap Dunedin, Florida	Nov. 1944
409	One and one-tenth miles southwest of Largo, 0.50 mile south of Taylor Ave., 600 feet west of County Road 20 (Ridge Rd.), 30 feet south of a sand road, in an orange grove. NE¼SE¼ sec. 4, T. 30 S., R. 15 E.	Godeno	A. O. Dunlap Dunedin, Florida	Apr. 1946
410	One and two-tenths miles southwest of Largo, about 0.6 mile south of Taylor Ave., 0.17 mile west of County Road 20 (Ridge Rd.), about 600 feet south of a sand road, east of well 409, in an orange grove. NE¼SE¼ sec. 4, T. 30 S., R. 15 E.	Helen Walhberg Chicago, Illinois	A. O. Dunlap Dunedin, Florida	Oct. 1947
411	About 1.5 miles southwest of Largo, about 1.0 mile south of Taylor Ave., 20 feet west of County Road 20 (Ridge Rd.), 300 feet south of Baskin. SE¼SE¼ sec. 4, T. 30 S., R. 15 E.	David Bilgore Co. Clearwater, Florida	---	---
412	One and five-tenths miles southwest of Largo, about 0.5 mile east of County Road 4, 0.5 mile west of McKay Creek Reservoir, 100 feet south of Taylor Ave. NE¼NE¼ sec. 5, T. 30 S., R. 15 E.	J. W. Trotter Largo, Florida	Smith Largo, Florida	1929
413	About 1.5 miles southwest of Largo, 0.5 mile east of County Road 4, 0.5 mile west of McKay Creek Reservoir, about 150 feet south of Taylor Ave., south of well 412. NE¼NE¼ sec. 5, T. 30 S., R. 15 E.	J. W. Trotter Largo, Florida	Smith Largo, Florida	1926
414	One and six-tenths miles southwest of Largo, 0.5 mile east of County Road 4, 0.5 mile west of McKay Creek Reservoir, 0.2 mile south of Taylor Ave., along a dirt road, 900 feet west of a dirt road, in a grove. NE¼NE¼ sec. 5, T. 30 S., R. 15 E.	T. A. Mitchell Indian Rocks, Florida	---	---
415	Two miles northeast of Indian Rocks, 1.15 miles north of County Road 21, 300 feet east of County Road 4, north side of Church Creek. SW¼SW¼ sec. 5, T. 30 S., R. 15 E.	Vesta McCarty Stockton, California	---	---

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
205	---	---	---	---	---	---	---	---	---	Irrigation	
317	---	12 to 10	Half inch hole in pump base, 0.3 foot above land surface.	---	58.64	6-27-46	22	0	3-28-47	Irrigation	
85	---	2	---	---	---	---	15	---	2-14-47	Domestic	
390	---	6	---	---	---	---	61	0	2-14-47	Irrigation	
90	---	---	---	---	---	---	20	---	6-27-47	Domestic	
210	---	6	---	---	---	---	37	---	6-27-47	Domestic	
323	98	8	---	---	---	---	---	---	---	Irrigation	
9	---	2	Top of 2-inch casing, 0.2 foot above land surface.	---	2.55	4-24-46	---	---	---	---	Sand point well. Never used.
25	---	2	---	---	---	---	---	---	---	Irrigation	
175	114	10	---	---	---	---	---	---	---	Irrigation	
326	---	8 to 6	Top of 8-inch casing, flush with land surface.	69.84	61.50 62.04	6-27-46 1-15-48	--- 338	--- ---	--- 5-16-51	Irrigation	
303	124	10	Top of 10-inch casing, 0.6 foot above land surface.	69.0	60.42	10-13-47	30	0	10-13-47	Irrigation	F.G.S. Well W1621. Cuttings from strata penetrated on file with Florida Geological Survey.
---	84	4	---	---	---	---	16	---	1-29-47	Domestic	
25	---	1.5	---	---	---	---	140	---	2-10-47	Domestic	
16	---	1.25	Top of 1.25-inch casing, 1.5 feet above land surface.	---	8.95	4-25-46	---	---	---	---	
210	---	8	---	---	---	---	20	---	2-10-47	Domestic Irrigation	
73	---	2	Top of 2-inch casing, 1.2 feet above land surface.	---	7.35	4-26-46	70	0	1-24-47	---	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
416	One and six-tenths miles northeast of Indian Rocks, 0.95 mile north of County Road 21, 200 feet west of County Road 4, at Ozona, west of a cemetery. Near NE cor. NW¼NE¼ sec. 7, T. 30 S., R. 15 E.	A. Merritt Indian Rocks, Florida	A. O. Dunlap Dunedin, Florida	1938
417	About 1.4 miles northeast of Indian Rocks, 0.8 mile north of State Highway 694, about 0.2 mile west of County Road 4, south side of a dirt road, west of Anona. Near SW cor. NW¼NE¼ sec. 7, T. 30 S., R. 15 E.	W. M. Herzog Largo, Florida	Frank Hayden Anona, Florida	---
418	One and five-tenths miles northeast of Indian Rocks, 0.65 mile north of County Road 21, 900 feet east of County Road 4, 600 feet south of a dirt road, east of Anona. SE¼NE¼ sec. 7, T. 30 S., R. 15 E.	A. R. Miller Largo, Florida	A. O. Dunlap Dunedin, Florida	1938
419	About 1.0 mile northeast of Indian Rocks, 0.5 mile north of State Highway 694, 0.3 mile west of County Road 4, 400 feet west of a dirt road. NE¼SW¼ sec. 7, T. 30 S., R. 15 E.	Warren Hammock Largo, Florida	A. O. Dunlap Dunedin, Florida	1944
420	One and five-tenths miles northeast of Indian Rocks, 0.45 mile north of County Road 21, 0.22 mile east of County Road 4, 50 feet south of owner's residence. NE¼SE¼ sec. 7, T. 30 S., R. 15 E.	M. F. Goering	Frank May Tampa, Florida	---
421	One and four-tenths miles northeast of Indian Rocks, 0.38 mile north of County Road 21, 0.16 mile east of County Road 4, northeast of a school house, in a grove. NE¼SE¼ sec. 7, T. 30 S., R. 15 E.	M. F. Goering	Frank May Tampa, Florida	1940
422	Eight-tenths mile northeast of Indian Rocks, 0.3 mile west of County Road 4, 800 feet north of State Highway 694, about 300 feet east of a dirt road. SE¼SW¼ sec. 7, T. 30 S., R. 15 E.	Kirsten New York	A. O. Dunlap Dunedin, Florida	1942
423	Eight-tenths mile northeast of Indian Rocks, 0.25 mile west of County Road 4, 150 feet north of State Highway 694, southwest of well 422. SE¼SW¼ sec. 7, T. 30 S., R. 15 E.	J. J. Currie Indian Rocks, Florida	---	---
424	About 0.9 mile northeast of Indian Rocks, 0.22 mile west of County Road 4, north side of State Highway 694, east of well 423. SW¼SE¼ sec. 7, T. 30 S., R. 15 E.	Castagna Indian Rocks, Florida	A. O. Dunlap Dunedin, Florida	---
425	About 0.9 mile northeast of Indian Rocks, 0.2 mile west of County Road 4, north side of State Highway 694, east of well 424. SW¼SE¼ sec. 7, T. 30 S., R. 15 E.	Claude Hammock Indian Rocks, Florida	A. O. Dunlap Dunedin, Florida	1924
426	About 0.9 mile northeast of Indian Rocks, about 0.2 mile west of County Road 4, north side of State Highway 694, east of well 425. SW¼SE¼ sec. 7, T. 30 S., R. 15 E.	Harry Hammock, Jr. Indian Rocks, Florida	---	---
427	About 0.9 mile northeast of Indian Rocks, 0.18 mile west of County Road 4, north side of State Highway 694, east of well 426. SW¼SE¼ sec. 7, T. 30 S., R. 15 E.	Harry Hammock Indian Rocks, Florida	---	1945
428	One and three-tenths miles northeast of Largo, 0.15 mile north of County Road 21, 0.22 mile east of County Road 4, west side of a dirt road. SE¼SE¼ sec. 7, T. 30 S., R. 15 E.	G. E. Nelson Indian Rocks, Florida	Porter Zimmerman Ozona, Florida	1937
429	Two and three-tenths miles northeast of Indian Rocks, 0.9 mile south of Taylor Ave., about 0.6 mile east of County Road 4, about 0.2 mile west of dirt road, in an orange grove, west of well 430. NW¼NE¼ sec. 8, T. 30 S., R. 15 E.	L. Nuhoff Clearwater, Florida	Frank May Tampa, Florida	Feb. 1945
430	About 2.3 miles northeast of Indian Rocks, 0.9 mile south of Taylor Ave., 0.7 mile east of County Road 4, east of well 429. NW¼NE¼ sec. 8, T. 30 S., R. 15 E.	L. Nuhoff Clearwater, Florida	---	---
431	Two and four-tenths miles northeast of Indian Rocks, 0.95 mile south of Taylor Ave., 0.8 mile east of County Road 4, east of well 430. NW¼NE¼ sec. 8, T. 30 S., R. 15 E.	L. Nuhoff Clearwater, Florida	James Walker Largo, Florida	---
432	About 2.3 miles northeast of Indian Rocks, about 1.1 miles south of Taylor Ave., about 1.0 mile east of County Road 4, east side of a dirt road, south of well 433. NE¼NE¼ sec. 8, T. 30 S., R. 15 E.	Dan Henry Largo, Florida	Dan Henry Largo, Florida	March 1946
433	Two and four-tenths miles northeast of Indian Rocks, about 1.1 miles south of Taylor Ave., about 1.0 mile east of County Road 4, north of well 432. NE¼NE¼ sec. 8, T. 30 S., R. 15 E.	Dan Henry Largo, Florida	Dan Henry Largo, Florida	April 1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
260	---	8	---	---	---	---	1371* 1350	--- 0	5-28-43 4-17-47	Irrigation	
23	---	2	Base of plug, highest point on pipe, 1.0 foot above land surface.	---	3.42	4-26-46	32	---	1-24-47	Domestic	
288	200	12	---	---	---	---	1627* 1675 382	--- 0 ---	10-23-44 1-24-47 5-16-51	Irrigation	
135	---	4.5	---	---	---	---	121*	5	8-7-44	Irrigation	
120	80	3	---	---	---	---	129* 2984* 2940* 1050	0.4 3.0 8.0 0	6-7-43 6-7-43 6-7-43 1-24-47	Domestic	
357	---	12	---	---	---	---	---	---	---	Irrigation	
309	222	10 to 8	---	---	---	---	---	---	---	Irrigation	
97	---	2	---	---	---	---	42	---	1-30-47	Domestic	
95	---	4	---	---	---	---	50	---	1-30-47	Domestic	
125	---	2	---	---	---	---	46	---	2-17-47	Domestic	
92	---	2	---	---	---	---	103	---	2-17-47	Domestic	
94	40	3	---	---	---	---	22	---	4-17-47	Domestic	
90	---	4	---	---	---	---	62	---	1-30-47	Domestic Irrigation	
251	74	12	---	---	---	---	55	0	2-14-47	Irrigation	
69	---	2	Top of 2-inch casing, flush with land surface.	---	4.36	4-26-46	---	---	---	---	
10	---	1.25	---	---	---	---	15	0	2-10-47	Domestic	
12	---	1.25	Top of 1.25-inch casing, 1.1 feet above land surface.	---	5.36	4-26-46	16	0	2-10-47	Domestic	
14	---	---	---	---	---	---	10	0	2-10-47	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
434	About 2.4 miles northeast of Indian Rocks, about 1.0 mile south of Taylor Ave., about 1.0 mile east of County Road 4, north of well 433. NE¼NE¼ sec. 8, T. 30 S., R. 15 E.	Dan Henry Largo, Florida	Dan Henry Largo, Florida	---
435	One and six-tenths miles southwest of Largo, about 1.0 mile north of County Road 21, 300 feet west of County Road 20 (Ridge Rd.), south of Baskin. Near NW cor. NE¼ NE¼ sec. 9, T. 30 S., R. 15 E.	David Bilgore Co. Clearwater, Florida	---	---
436	One and eight-tenths miles southwest of Largo, 0.75 mile north of County Road 21, about 600 feet east of County Road 20, south of Baskin. Near NE cor. SE¼NE¼ sec. 9, T. 30 S., R. 15 E.	Rex Cole St. Petersburg, Florida	A. O. Dunlap Dunedin, Florida	Feb. 1946
437	Two miles southwest of Largo, 0.7 mile north of County Road 21, 0.42 mile west of County Road 20 (Ridge Rd.), 900 feet west of railroad at Indian Beach Junction. Near NW cor. SW¼NE¼ sec. 9, T. 30 S., R. 15 E.	L. O. Henry Largo, Florida	Johnson St. Petersburg, Florida	1945
438	One and nine-tenths miles southwest of Largo, 0.65 mile north of County Road 21, 200 feet east of County Road 20 (Ridge Rd.). SE¼NE¼ sec. 9, T. 30 S., R. 15 E.	Rex Cole St. Petersburg, Florida	Littlefield Largo, Florida	Dec. 1945
439	Two and two-tenths miles southwest of Largo, 0.3 mile north of County Road 21, about 50 feet west of County Road 20 (Ridge Road). Near SW cor. NE¼SE¼ sec. 9, T. 30 S., R. 15 E.	J. A. Walsingham Largo, Florida	Johnson St. Petersburg, Florida	1945
440	One and six-tenths miles south of Largo, 0.9 mile north of County Road 21, 0.22 mile east of County Road 20 (Ridge Rd.), west of County Home. NW¼NW¼ sec. 10, T. 30 S., R. 15 E.	J. S. Taylor, Jr. Largo, Florida	A. O. Dunlap Dunedin, Florida	1941
441	One and five-tenths miles south of Largo, west side of County Home. NE¼NW¼ sec. 10, T. 30 S., R. 15 E.	Pinellas County Home Largo, Florida	---	---
442	About 1.85 miles south of Largo, 0.6 mile north of County Road 21, 500 feet west of U. S. Highway 19, at a trailer park. SE¼NW¼ sec. 10, T. 30 S., R. 15 E.	D. H. Bowie and S. Day Largo, Florida	A. O. Dunlap Dunedin, Florida	Sept. 1947
443	One and nine-tenths miles south of Largo, 0.37 mile south of County Road 22 (Ulmerton Rd.), about 350 feet east of U. S. Highway 19. SW¼NE¼ sec. 10, T. 30 S., R. 15 E.	K. J. Obermeyer St. Petersburg, Florida	B. F. Stahly St. Petersburg, Florida	Aug. 1947
444	Two miles south of Largo, 0.5 mile south of County Road 22 (Ulmerton Rd.), about 350 feet west of U. S. Highway 19. SE¼NW¼ sec. 10, T. 30 S., R. 15 E.	King-Thomas-Pruden Largo, Florida	A. O. Dunlap Dunedin, Florida	Sept. 1946
445	Two and two-tenths miles south of Largo, about 0.7 mile south of County Road 22 (Ulmerton Rd.), about 100 feet east of U. S. Highway 19. NW¼SE¼ sec. 10, T. 30 S., R. 15 E.	J. E. Whittle Oklahoma City, Oklahoma	A. O. Dunlap Dunedin, Florida	---
446	Two and two-tenths miles south of Largo, about 0.7 mile south of County Road 22 (Ulmerton Rd.), about 0.18 mile east of U. S. Highway 19, north side of a dirt road. NW¼SE¼ sec. 10, T. 30 S., R. 15 E.	J. L. Cone Tampa, Florida	Jonnson St. Petersburg, Florida	May 1945
447	About 2.3 miles south of Largo, about 0.75 mile south of County Road 22 (Ulmerton Rd.), 0.4 mile east of U. S. Highway 19, north side of owner's house. NE¼SE¼ sec. 10, T. 30 S., R. 15 E.	J. R. McMullen Largo, Florida	B. F. Stahly St. Petersburg, Florida	1945
448	Two and five-tenths miles south of Largo, 500 feet east of intersection of U. S. Highway 19 with County Road 21, in a grove, near a water tank. SW¼SE¼ sec. 10, T. 30 S., R. 15 E.	J. L. Cone Tampa, Florida	A. O. Dunlap Dunedin, Florida	---
449	One and five-tenths miles south of Largo, 0.1 mile north of intersection of County Road 22 with U. S. Highway 19, about 0.20 mile southeast of owner's house, 5 feet west of bayou, east of a barn. SE¼SE¼ sec. 10, T. 30 S., R. 15 E.	J. R. McMullen Largo, Florida	B. F. Stahly St. Petersburg, Florida	1945

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
14	---	1.25	---	---	---	---	11	0	2-10-47	Domestic	
---	70	8	---	---	---	---	29	0	1-29-47	Irrigation	
305	98	12	---	---	---	---	---	---	---	Irrigation	
303	---	---	---	---	---	---	18	0	2-27-47	Irrigation	
18	---	2	Top of 2-inch casing, 4.3 feet above land surface.	---	8.80	4-24-46	37	0	4-15-47	Domestic	
289	62	8	---	---	---	---	---	---	---	Irrigation	
343	123	10	---	---	---	---	500	0	4-15-47	Irrigation	
35	---	1.25	---	---	---	---	30	---	10-10-47	Irrigation	Well consists of battery of five sand points, 1.25 inches in diameter, 35 feet in depth.
142	120	6	Top of 6-inch casing, flush with cement floor, about 0.3 feet above land surface.	38.44	29.84	10-3-47	25 25	--- ---	10-3-47 5-10-48	Domestic	F.G.S. Well W1623. Cuttings from strata penetrated on file with Florida Geological Survey
113	109	3 to 1.25	Top of 3-inch casing, 0.4 foot above land surface.	23.00	1.18 2.18 .98 2.00 3.10	9-11-47 1-12-48 1-29-48 4-19-48 5-15-51	35 25	0 0	9-11-47 5-5-48	Domestic	F.G.S. Well W1616. Cuttings from 80 to 113 feet on file with Florida Geological Survey.
178	172	6 to 4	---	---	---	---	50	---	1-15-48	Domestic Irrigation	
223	88	12	---	---	---	---	1277*	---	5-1-43	Irrigation	
118	---	2	---	---	---	---	---	---	---	Domestic	
125	---	3	---	---	---	---	25 25	--- ---	1-22-48 5-16-51	Domestic	
362	60	10	---	---	---	---	710* 925	--- 0	5-28-43 1-28-47	Irrigation	
114	---	2	Top of faucet connection, 0.5 foot above land surface.	3.44	a0.40 a0.10 a0.16	1-22-48 4-19-48 6-24-49	45 25	--- ---	1-28-47 1-22-48	Stock	Water samples for chloride determinations taken after well had been flowing for an indefinite period.

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
450	One and nine-tenths miles southeast of Largo, 1.0 mile east of U. S. Highway 19, about 200 feet south of County Road 22 (Ulmerton Rd.), south side of owner's garage. NE¼NW¼ sec. 11, T. 30 S., R. 15 E.	G. N. Graves Largo, Florida	A. O. Dunlap Dunedin, Florida	Aug. 1947
451	One and nine-tenths miles southeast of Largo, 1.0 mile east of U. S. Highway 19, about 200 feet south of County Road 22 (Ulmerton Rd.), about 15 feet southwest of well 450. Near NE cor. NE¼NW¼ sec. 11, T. 30 S., R. 15 E.	G. N. Graves Largo, Florida	B. F. Stahly St. Petersburg, Florida	Dec. 1947
452	About 2.0 miles southeast of Largo, 0.95 mile east of U. S. Highway 19, 0.2 mile south of County Road 22 (Ulmerton Rd.), west side of Atlantic Coast Line Railroad. NE¼NW¼ sec. 11, T. 30 S., R. 15 E.	F. F. Munger Largo, Florida	P. Vasbinder Safety Harbor, Florida	1942
453	Two and nine-tenths miles southeast of Largo, 2.4 miles east of U. S. Highway 19, about 300 feet south of County Road 22 (Ulmerton Rd.). NE¼NE¼ sec. 12, T. 30 S., R. 15 E.	W. H. Adams Largo, Florida	B. F. Stahly St. Petersburg, Florida	June 1947
454	About 3.15 miles southeast of Largo, about 2.4 miles east of U. S. Highway 19, 0.35 mile south of County Road 22 (Ulmerton Rd.), about 500 feet west of a dirt road, northwest of well 455. SE¼NE¼ sec. 12, T. 30 S., R. 15 E.	M. P. Bowden St. Petersburg, Florida	B. F. Stahly St. Petersburg, Florida	July 1945
455	About 3.25 miles southeast of Largo, about 2.45 miles east of U. S. Highway 19, 0.4 mile south of County Road 22 (Ulmerton Rd.), west side of a house, southeast of well 454. SE¼NE¼ sec. 12, T. 30 S., R. 15 E.	M. P. Bowden St. Petersburg, Florida	B. F. Stahly St. Petersburg, Florida	June 1944
456	Three miles southeast of Largo, about 1.5 miles east of U. S. Highway 19, 1.0 mile south of County Road 22 (Ulmerton Rd.), west side of a graded road. Near NE cor. NE¼NE¼ sec. 14, T. 30 S., R. 15 E.	J. B. Starkey	---	1935
457	Two and six-tenths miles south of Largo, 700 feet south of intersection of County Road 21 with U. S. Highway 19, 400 feet east of U. S. Highway 19, in a grove. NW¼NE¼ sec. 15, T. 30 S., R. 15 E.	J. L. Cone Tampa, Florida	Frank May Tampa, Florida	---
458	About 2.75 miles south of Largo, 0.2 mile south of intersection of County Road 21 with U. S. Highway 19, 0.3 mile east of U. S. Highway 19. Near NW cor. SE¼NE¼ sec. 15, T. 30 S., R. 15 E.	J. L. Cone Tampa, Florida	Johnson St. Petersburg, Florida	Dec. 1945
459	Two and nine-tenths miles south of Largo, about 0.4 mile south of intersection of County Road 21 with U. S. Highway 19, about 200 feet east of U. S. Highway 19, in a grove. SW¼NE¼ sec. 15, T. 30 S., R. 15 E.	R. H. Van Dousen	A. O. Dunlap Dunedin, Florida	Feb. 1945
460	About 2.9 miles south of Largo, 0.35 mile south of intersection of County Road 21 with U. S. Highway 19, about 350 feet west of U. S. Highway 19, in old "Gun Grove". SE¼NW¼ sec. 15, T. 30 S., R. 15 E.	J. H. Trowbridge Largo, Florida	A. O. Dunlap Dunedin, Florida	1932
461	Two and nine-tenths miles south of Largo, 0.35 mile south of County Road 21, about 0.15 mile east of County Road 20 (Ridge Rd.), east side of a dirt road. Near NW cor. SW¼NW¼ sec. 15, T. 30 S., R. 15 E.	Charles Kramer Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1946
462	Three and one-tenth miles south of Largo, 0.6 mile south of intersection of County Road 21 with U. S. Highway 19, about 100 feet east of U. S. Highway 19. NW¼SE¼ sec. 15, T. 30 S., R. 15 E.	G. L. Velboom Largo, Florida	Johnson St. Petersburg, Florida	---
463	Two and two-tenths miles northeast of Oakhurst, 0.8 mile south of intersection of County Road 21 with U. S. Highway 19, about 200 feet east of U. S. Highway 19, east side of owner's house. Near SW cor. NW¼SE¼ sec. 15, T. 30 S., R. 15 E.	W. W. Baker Largo, Florida	Frank May Tampa, Florida	1930
464	Two and eight-tenths miles southwest of Largo, 0.6 mile west of County Road 20 (Ridge Rd.), 100 feet south of County Road 21, east side of Walsingham Reservoir. Near NE cor. NW¼NW¼ sec. 16, T. 30 S., R. 15 E. County well 1.	Pinellas County Water System	A. O. Dunlap Dunedin, Florida	Nov. 1944
465	Two and nine-tenths miles southwest of Largo, 0.6 mile west of County Road 21 (Ridge Rd.), about 1200 feet south of County Road 21, south of well 464. NW¼NW¼ sec. 16, T. 30 S., R. 15 E. County well 2.	Pinellas County Water System	A. O. Dunlap Dunedin, Florida	July 1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
160	---	4	Top of 4-inch coupling, 0.3 foot above land surface.	15.79	8.52	8-28-47	64	0	8-28-47	---	F. G. S. Well W1650. Cuttings from strata penetrated on file with Florida Geological Survey.
161	---	2	---	---	---	---	90	---	12-5-47	Domestic	
95	73	2	---	---	---	---	75	---	6-27-47	Domestic	
93	50	2	---	---	---	---	235	---	10-3-47	Domestic	
149	48	3	---	---	---	---	195	---	10-3-47	Domestic	
129	60	2	---	---	---	---	210	---	10-3-47	Domestic	
119	---	3	---	---	---	---	160	---	6-27-47	Domestic	
362	60	10	---	---	---	---	710* 583	--- ---	--- 5-16-51	Irrigation	
108	---	2	---	---	---	---	25	---	1-28-47	Domestic	
289	103	10	---	---	---	---	400	0	1-28-47	Irrigation	
---	---	8	---	---	---	---	206*	5	5-28-43	Irrigation	
301	176	10	---	---	---	---	---	---	---	Irrigation	
174	40	2.5	---	---	---	---	30	---	1-28-47	Irrigation	
250	100	6	Top of 6-inch coupling, 0.4 foot above land surface.	8.47	0.20 0.20	4-13-48 4-19-48	56 45	--- ---	1-28-47 5-16-51	Domestic	
303	95	12	---	---	---	---	96	---	2-5-47	Public Supply	
302	105	12	---	---	---	---	160	---	1-29-47	Public Supply	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
466	About 2.6 miles south of Largo, 800 feet south of County Road 21, 200 feet west of County Road 20 (Ridge Rd.). NE¼NE¼ sec. 16, T. 30 S., R. 15 E.	H. F. Heye Clearwater, Florida	Johnson St. Petersburg, Florida	1932
467	One and nine-tenths miles north of Oakhurst, 0.9 mile south of County Road 21, 0.28 mile west of County Road 20 (Ridge Rd.), west side of Seaboard Air Line Railroad. SW¼SE¼ sec. 16, T. 30 S., R. 15 E.	J. T. Thurston Clearwater, Florida	A. O. Dunlap Dunedin, Florida	June 1939
468	About 1.9 miles north of Oakhurst, 600 feet north of County Road 131, 0.9 mile south of County Road 21, 700 feet west of County Road 20 (Ridge Rd.). SW¼SE¼ sec. 16, T. 30 S., R. 15 E.	Judge Hamilton Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1946
469	One and four-tenths miles east of Indian Rocks, 0.35 mile south of County Road 21, 0.4 mile east of State Highway 694, 0.2 mile east of County Road 132 (a sand road), about 800 feet southeast of owner's house. SW¼ NW¼ sec. 17, T. 30 S., R. 15 E.	C. H. Olliff Largo, Florida	A. O. Dunlap Dunedin, Florida	1932
470	Seven-tenths mile northeast of Indian Rocks, 0.4 mile west of State Highway 694, about 300 feet south of County Road 4, west of wells 471 and 472, south side of owner's house. NE¼NW¼ sec. 18, T. 30 S., R. 15 E.	S. A. Whitsell Indian Rocks, Florida	Frank May Tampa, Florida	May 1946
471	Seven-tenths mile northeast of Indian Rocks, 0.4 mile west of State Highway 694, about 300 feet south of County Road 4, about 20 feet north of well 472. NE¼NW¼ sec. 18, T. 30 S., R. 15 E.	S. A. Whitsell Indian Rocks, Florida	---	---
472	Seven-tenths mile northeast of Indian Rocks, 0.4 mile west of State Highway 694, about 320 feet south of County Road 4, about 20 feet south of well 471. NE¼NW¼ sec. 18, T. 30 S., R. 15 E.	S. A. Whitsell Indian Rocks, Florida	---	---
473	One mile northeast of Indian Rocks, 400 feet west of County Road 19, about 600 feet south of County Road 4, near owner's house. NW¼NE¼ sec. 18, T. 30 S., R. 15 E.	H. D. Ulmer Indian Rocks, Florida	A. O. Dunlap and Howell Dunedin, Florida	1941
474	One and one-tenth miles northeast of Indian Rocks, 50 feet east of State Highway 694, 200 feet south of County Road 21. NE¼NE¼ sec. 18, T. 30 S., R. 15 E.	R. G. Olliff Largo, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1944
475	One mile east of Indian Rocks, about 0.25 mile south of County Road 4, 100 feet west of State Highway 694. Near SE cor. NW¼NE¼ sec. 18, T. 30 S., R. 15 E.	S. A. Whitsell Indian Rocks, Florida	Frank May Tampa, Florida	---
476	About 1.05 miles east of Indian Rocks, 0.45 mile south of County Road 21, about 75 feet east of State Highway 694, north of wells 477 and 478. SE¼NE¼ sec. 18, T. 30 S., R. 15 E.	R. M. Mears Indian Rocks Florida	---	---
477	About 1.05 miles east of Indian Rocks, 0.45 mile south of County Road 21, about 100 feet east of State Highway 694, west of well 478, in shed south side of owner's house. SE¼NE¼ sec. 18, T. 30 S., R. 15 E.	R. M. Mears Indian Rocks, Florida	---	---
478	About 1.05 miles east of Indian Rocks, about 0.45 mile south of County Road 21, about 110 feet east of State Highway 694, east of well 477. SE¼NE¼ sec. 18, T. 30 S., R. 15 E.	R. M. Mears Indian Rocks, Florida	A. O. Dunlap Dunedin, Florida	1936
479	Three tenths mile east of Indian Rocks, about 0.3 mile east of the bridge at Indian Rocks, 750 feet south of County Road 4, about 500 feet south of a house. SW¼NW¼ sec. 19, T. 30 S., R. 15 E.	Palmer Indian Rocks, Florida	A. O. Dunlap Dunedin, Florida	July 1947
480	About 1.20 miles southeast of Indian Rocks, 0.70 mile south of County Road 21, about 100 feet east of State Highway 694. SE¼SE¼ sec. 18, T. 30 S., R. 15 E.	Fred Yunker Largo, Florida	A. O. Dunlap Dunedin, Florida	1945
481	One and one-tenth miles southeast of Indian Rocks, 1.1 miles south of County Road 4, 400 feet south of County Road 131, 800 feet west of State Highway 694. NW¼NE¼ sec. 19, T. 30 S., R. 15 E.	Kilgore Clearwater, Florida	A. O. Dunlap Dunedin, Florida	1932
482	One and four-tenths miles southeast of Indian Rocks, 1.4 miles south of County Road 4, about 800 feet west of State Highway 694, about 700 feet north of County Road 220. SW¼NE¼ sec. 19, T. 30 S., R. 15 E.	Kilgore Clearwater, Florida	A. O. Dunlap Dunedin, Florida	Oct. 1945

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	8	---	---	---	---	20	0	4-17-47	Irrigation	
300	100	10	---	---	---	---	21 24	--- ---	5-28-43 5-19-44	Irrigation	
285	53	10	---	---	---	---	---	---	---	Irrigation	
300	111	8	---	---	---	---	288*	---	5-28-43	Irrigation	
296	72	8	---	---	---	---	---	---	---	Domestic Irrigation	
75	---	4	Top of concrete floor, 0.2 foot above land surface.	38.17	19.75	5-16-46	---	---	---	---	
61	---	2	Top of 2-inch casing, 0.2 foot above land surface.	37.84	15.71 17.65	12-2-47 4-19-48	152	0	4-17-47	---	
260	110	10	Top cement pump base, 1.1 feet above land surface.	---	41.67	11-3-48	1309* 141	--- ---	5-28-43 4-17-47	Irrigation	
265	100	8 to 6	---	---	---	---	72	0	4-17-47	Irrigation	
340	126	12 to 10	---	---	---	---	1092*	4	6-4-43	Irrigation	
200	---	4	---	---	---	---	30	0	4-18-47	Domestic	
50	---	6 to 4	Top of 6-inch casing, 0.8 foot above cement floor	44.6	10.46 9.90	4-18-47 4-19-48	195	---	4-18-47	Domestic	
300	---	6	---	---	---	---	965* 934* 977* 1121* 232	12 --- --- --- 0	5-28-43 3-31-44 5-9-44 5-21-45 4-18-47	Irrigation	
258	78	8	Top of 8-inch coupling, 0.5 foot above land surface.	14.40	7.25 10.62 8.49	7-23-47 6-24-49 5-15-51	---	---	---	Irrigation	F.G.S. Well W1523. Cuttings from strata penetrated on file with Florida Geological Survey.
278	---	8	---	---	---	---	50	0	1-30-47	Irrigation	
449	---	8	---	---	---	---	1962	0	2-17-47	Irrigation	
350	90	10	Top of 10-inch casing, 0.4 foot above land surface.	---	6.6 6.1	2-27-47 7-21-47	76 1760	0 --	2-17-47 5-15-51	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
483	About 1.5 miles southeast of Indian Rocks, about 1.35 miles south of County Road 21, 800 feet east of State Highway 694, 600 feet north of State Highway 694. SE¼ NE¼ sec. 19, T. 30 S., R. 15 E.	J. S. Taylor Largo, Florida	---	---
484	About 1.7 miles southeast of Indian Rocks, about 200 feet north of State Highway 694, 50 feet east of County Road 132. SW¼NW¼ sec. 20, T. 30 S., R. 15 E.	George Adriance Clearwater, Florida	A. O. Dunlap Dunedin, Florida	April 1948
485	About 1.75 miles southeast of Indian Rocks, about 100 feet south of intersection of State Highway 694 with County Road 132, 150 feet east of State Highway 694. Near SW cor. SW¼NW¼ sec. 20, T. 30 S., R. 15 E.	Roy Head Largo, Florida	Johnson St. Petersburg, Florida	April 1948
486	About 1.1 miles southwest of Walsingham, 1.05 miles south of County Road 21, about 50 feet west of Seaboard Air Line Railroad. Near NE cor. NE¼NW¼ sec. 21, T. 30 S., R. 15 E.	H. F. Heye Clearwater, Florida	A. O. Dunlap Dunedin, Florida	---
487	About 1.1 miles south of Walsingham, 1.1 miles south of County Road 21, 300 feet east of County Road 20 (Ridge Rd.). NE¼NE¼ sec. 21, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	---
488	One and three-tenths miles south of Walsingham, 1.3 miles south of County Road 21, about 300 feet west of County Road 20 (Ridge Rd.). Near NE cor. SW¼NE¼ sec. 21, T. 30 S., R. 15 E.	W. J. Newbern Oakhurst, Florida	A. O. Dunlap Dunedin, Florida	---
489	About 1.35 miles south of Walsingham, 1.32 miles south of County Road 21, about 300 feet west of County Road 20 (Ridge Rd.). SW¼NE¼ sec. 21, T. 30 S., R. 15 E.	W. J. Newbern Oakhurst, Florida	A. O. Dunlap Dunedin, Florida	Nov. 1945
490	About 1.6 miles south of Walsingham, 1.58 miles south of County Road 21, about 300 feet west of County Road 20 (Ridge Rd.), northeast of well 491. NW¼SE¼ sec. 21, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	---
491	About 1.6 miles south of Walsingham, 1.6 miles south of County Road 21, about 500 feet west of County Road 20 (Ridge Rd.), southwest of well 490. NW¼SE¼ sec. 21, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	1941
492	About 1.7 miles south of Walsingham, 1.7 miles south of County Road 21, about 100 feet west of County Road 20 (Ridge Rd.). SW¼SE¼ sec. 21, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	---
493	About 1.9 miles south of Walsingham, 1.9 miles south of County Road 21, about 200 feet west of County Road 20 (Ridge Rd.), 0.1 mile north of County Road 139. SW¼SE¼ sec. 21, T. 30 S., R. 15 E.	James Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	1945
494	One and two-tenths miles southeast of Walsingham, 1.15 miles south of County Road 21, 0.25 mile west of U. S. Highway 19, west of well 495. NE¼NW¼ sec. 22, T. 30 S., R. 15 E.	W. J. Root Largo, Florida	A. O. Dunlap Dunedin, Florida	1945
495	About 1.25 miles southeast of Walsingham, 1.15 miles south of County Road 21, 200 feet west of U. S. Highway 19, east of well 494. NE¼NW¼ sec. 22, T. 30 S., R. 15 E.	W. J. Root Largo, Florida	Rutset Largo, Florida	---
496	About 1.65 miles southeast of Walsingham, about 1.6 miles south of County Road 21, about 600 feet west of U. S. Highway 19, west of well 497. NE¼SW¼ sec. 22, T. 30 S.,R. 15 E.	W. A. Repetto Seminole, Florida	Johnson St. Petersburg, Florida	---
497	One and seven-tenths miles southeast of Walsingham, about 1.6 miles south of County Road 21, about 300 feet west of U. S. Highway 19, east of well 496. NE¼SW¼ sec. 22, T. 30 S., R. 15 E.	W. A. Repetto Seminole, Florida	Zimmerman Ozona, Florida	1920
498	One and two-tenths miles northeast of Oakhurst, 0.2 mile north of County Road 139, about 0.2 mile west of U. S. Highway 19, east side of a house. SE¼SW¼ sec. 22, T. 30 S., R. 15 E.	Thomas J. Barns Seminole, Florida	Frank May Tampa, Florida	Jan. 1945
499	About 1.15 miles northeast of Oakhurst, 0.75 mile north of County Road 19, 160 feet west of U. S. Highway 19, 30 feet north of County Road 139, about 20 feet southwest of well 500. SE¼SW¼ sec. 22, T. 30 S., R. 15 E.	C. W. Whittle Seminole, Florida	A. O. Dunlap Dunedin, Florida	1938

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	10	---	---	---	---	25	0	1-31-47	Irrigation	
195	146	6 to 4	Top of 6-inch coupling, 0.5 foot above land surface.	52.81	44.39	4-13-48	---	---	---	Domestic	F.G.S. Well W1740. Cuttings from strata penetrated on file with Florida Geological Survey.
147	84	3	---	---	---	---	25	0	5-10-48	Domestic	
332	132	12 to 10	---	---	---	---	362 775	--- ---	2-14-47 5-15-51	Domestic Irrigation	
220	90	6	---	---	---	---	25	0	5-19-48	Stock	
164	---	---	---	---	---	---	22	---	1-29-47	Domestic	
284	128	10 to 8	---	---	---	---	127	0	1-29-47	Irrigation	
200	90	4	---	---	---	---	21* 25	--- ---	6-4-43 1-22-47	Domestic	
320	90	10	---	---	---	---	416* 280	3.5 0	4-16-43 1-22-47	Irrigation	
220	90	4	---	---	---	---	14	---	2-14-47	Domestic	
283	93	10	---	---	---	---	25	0	1-29-47	Irrigation	
253	99	12	---	---	---	---	55	0	1-28-47	Irrigation	
78	---	2	---	---	---	---	27	---	1-28-47	Domestic	
255	84	12	---	---	---	---	64* 70* 67* 30* 73* 27	--- --- 12 --- --- 0	4-16-43 5-28-43 5-19-44 9-25-44 3-29-45 1-29-47	Irrigation	Sample for chloride determination for 4-16-43 taken after well had been pumped for 5 days.
142	---	2	---	---	---	---	60	---	1-28-47	Domestic	
250	127	12	---	---	---	---	145	---	2-14-47	Domestic	
270	120	8	---	---	---	---	---	---	---	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
500	About 1.15 miles northeast of Oakhurst, about 0.75 mile north of County Road 19, about 150 feet west of U. S. Highway 19, 50 feet north of County Road 139, 20 feet northeast of well 499. SE¼SW¼ sec. 22, T. 30 S., R. 15 E.	C. W. Whittle Seminole, Florida	Johnson St. Petersburg, Florida	1942
501	Nine-tenths mile northeast of Oakhurst, about 0.25 mile north of County Road 19, 150 feet west of U. S. Highway 19, at northwest corner of a greenhouse, 150 feet north of well 502. Near SE cor. SE¼NW¼ sec. 27, T. 30 S., R. 15 E.	J. W. Johnson Largo, Florida	Johnson St. Petersburg, Florida	---
502	Nine-tenths mile northeast of Oakhurst, 0.22 mile north of County Road 19, 150 feet west of U. S. Highway 19, 150 feet south of well 501. Near NE cor. NE¼SW¼ sec. 27, T. 30 S., R. 15 E.	J. W. Johnson Largo, Florida	A. O. Dunlap Dunedin, Florida	May 1946
503	About 0.8 mile northwest of Oakhurst, 0.67 mile north of State Highway 694, about 600 feet west of Seaboard Air Line Railroad, 300 feet south of County Road 139, in a pond. NE¼NW¼ sec. 28, T. 30 S., R. 15 E.	A. M. Forsyth Largo, Florida	J. P. Adams Sarasota, Florida	---
504	About 0.6 mile north of Oakhurst, 0.6 mile north of intersection of County Road 20 with County Road 19, 150 feet west of County Road 20 (Ridge Rd.). NW¼NE¼ sec. 28, T. 30 S., R. 15 E.	G. H. Cadman Oakhurst, Florida	A. E. Mountain Ozona, Florida	---
505	About 0.5 mile north of Oakhurst, 0.6 mile north of intersection of County Road 20 with County Road 19, about 500 feet west of County Road 20 (Ridge Rd.). NW¼NE¼ sec. 28, T. 30 S., R. 15 E.	G. H. Cadman Oakhurst, Florida	A. O. Dunlap Dunedin, Florida	---
506	About 0.35 mile north of Oakhurst, 0.3 mile north of intersection of County Road 19 with County Road 20, west side of County Road 20 (Ridge Rd.), east of well 507. SW¼NE¼ sec. 28, T. 30 S., R. 15 E.	A. M. Forsyth Largo, Florida	A. E. Mountain Palm Harbor, Florida	---
507	About 0.3 mile north of Oakhurst, 0.25 mile north of intersection of County Road 20 with County Road 19, about 800 feet west of County Road 20 (Ridge Rd.), west of well 506. SW¼NE¼ sec. 28, T. 30 S., R. 15 E.	A. M. Forsyth Largo, Florida	J. P. Adams Sarasota, Florida	1933
508	About 0.5 mile northwest of Oakhurst, 0.22 mile north of State Highway 694, 0.3 mile west of Seaboard Air Line Railroad, west side of owner's house. Near NE cor. NW¼SW¼ sec. 28, T. 30 S., R. 15 E.	H. G. Mowry Largo, Florida	Johnson St. Petersburg, Florida	1946
509	About 0.4 mile northwest of Oakhurst, 0.23 mile north of State Highway 694, 0.25 mile west of Seaboard Air Line Railroad, east side of owner's house. Near NW cor. NE¼SW¼ sec. 28, T. 30 S., R. 15 E.	H. G. Mowry Largo, Florida	Frank May Tampa, Florida	1939
510	Oakhurst, about 0.1 mile north of the railroad crossing in Oakhurst, east of the Seaboard Air Line Railroad, west of a large pond, west side of owner's residence. NW¼SE¼ sec. 28, T. 30 S., R. 15 E.	V. E. Mears Largo, Florida	Frank May Tampa, Florida	Dec. 1945
511	Oakhurst, about 500 feet northwest of the railroad crossing, about 10 feet north of State Highway 694, about 150 feet west of Seaboard Air Line Railroad, near southwest corner of an abandoned store. Near SW cor. NW¼SE¼ sec. 28, T. 30 S., R. 15 E.	E. M. Mears Clearwater, Florida	---	---
512	About 0.55 mile west of Oakhurst, south side of State Highway 694, near southwest corner of owner's residence. SW¼SW¼ sec. 28, T. 30 S., R. 15 E.	G. E. Barela Oakhurst, Florida	Johnson St. Petersburg, Florida	---
513	Oakhurst, about 0.2 mile west of the Seaboard Air Line Railroad, about 30 feet south of State Highway 694, in a pumphouse. SE¼SW¼ sec. 28, T. 30 S., R. 15 E.	Florence Robinson	A. O. Dunlap Dunedin, Florida	1945
514	Oakhurst, about 0.15 mile east of intersection of County Road 19 with County Road 18 at railroad crossing, about 360 feet south of County Road 19. SE¼SE¼ sec. 28, T. 30 S., R. 15 E.	H. E. Mears Largo, Florida	Frank May Tampa, Florida	Oct. 1944
515	Oakhurst, about 350 feet southwest of intersection of Seaboard Air Line Railroad with County Road 19, in an orange grove. SW¼SE¼ sec. 28, T. 30 S., R. 15 E.	Rice	A. O. Dunlap Dunedin, Florida	Dec. 1943
516	About 1.7 miles northwest of Oakhurst, about 300 feet east of State Highway 694, about 0.6 mile south of intersection of County Road 132 with State Highway 694. NW¼NW¼ sec. 28, T. 30 S., R. 15 E.	Blair and Sons Co. Seminole, Florida	A. O. Dunlap Dunedin, Florida	1939

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
130	80	2	---	---	---	---	125	---	4-18-47	Domestic	
250	---	6	---	---	---	---	288* 140	--- ---	5-28-43 5-15-51	Irrigation	
212	---	6	---	---	---	---	201	---	1-29-47	Domestic Irrigation	
460	44	8	---	---	---	---	---	---	---	Drainage	
142	---	4	---	---	---	---	45	---	1-29-47	Domestic	
300	---	8	---	---	---	---	337* 290	0 ---	5-28-43 5-15-51	Irrigation	
168	---	4	---	---	---	---	40	---	1-29-47	Domestic	
400	---	10 to 8	---	---	---	---	---	---	---	Irrigation	Well was originally drilled to a depth of about 500 feet, but was later filled to a depth of 400 feet.
345	60	4	---	---	---	---	15	0	2-10-47	Irrigation	
285	60	4	---	---	---	---	---	---	---	Irrigation	
250	127	12	---	---	---	---	40	0	4-18-47	Irrigation	
18	---	1	Top of 1-inch casing, 0.7 foot above land surface.	57.67	13.8 12.98	7-17-47 6-23-49	---	---	---	---	
---	---	2	---	---	---	---	---	---	---	Domestic	
282	107	10	Top of concrete pump base, 0.2 foot above land surface.	55.68	46.38	6-11-46	---	---	---	Irrigation	
225	---	10	---	---	---	---	42* 36*	6 90	1-5-44 5-2-45	Irrigation	
288	115	8	---	---	---	---	---	---	---	Irrigation	
312	156	12	---	---	---	---	269*	---	5-28-43	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
517	About 1.3 miles west of Oakhurst, 1.3 miles west of Seaboard Air Line Railroad, 600 feet north of State Highway 694. NE¼SW¼ sec. 29, T. 30 S., R. 15 E.	Bill Williams	---	---
518	One and six-tenths miles west of Oakhurst, 1.6 miles west of Seaboard Air Line Railroad, about 350 feet south of State Highway 694, east side of owner's residence. Near NW cor. SW¼SW¼ sec. 29, T. 30 S., R. 15 E.	W. B. Duke Oakhurst, Florida	Johnson St. Petersburg, Florida	Feb. 1948
519	About 1.65 miles west of Oakhurst, 1.65 miles west of Seaboard Air Line Railroad, about 1.2 miles south of intersection of County Road 132 with State Highway 694, about 100 feet west of State Highway 694. Near SE cor. NE¼SE¼ sec. 30, T. 30 S., R. 15 E.	Jim Smith Oakhurst, Florida	Johnson St. Petersburg, Florida	April 1948
520	Oakhurst, about 0.22 mile south of intersection of Seaboard Air Line Railroad with County Road 19, 0.2 mile west of County Road 18, northeast of well 522. NW¼NE¼ sec. 33, T. 30 S., R. 15 E.	Robert Leach Largo, Florida	Zimmerman Ozona, Florida	---
521	Oakhurst, 0.25 mile south of County Road 19, about 300 feet east of County Road 18, east side of owner's residence. Near NW cor. NE¼NE¼ sec. 33, T. 30 S., R. 15 E.	Henry Leach Indian Rocks, Florida	Henry Leach Indian Rocks, Florida	1938
522	Oakhurst, about 0.3 mile south of intersection of Seaboard Air Line Railroad with County Road 19, about 0.2 mile west of County Road 18, southwest of well 520. NW¼NE¼ sec. 33, T. 30 S., R. 15 E.	Robert Leach Largo, Florida	Campbell	1916
523	Oakhurst, about 0.3 mile south of intersection of Seaboard Air Line Railroad with County Road 19, about 0.15 mile east of County Road 18, about 900 feet north of County Road 18. NE¼NE¼ sec. 33, T. 30 S., R. 15 E.	W. G. Blair and Co. Seminole, Florida	A. O. Dunlap Dunedin, Florida	July 1944
524	About 0.65 mile southeast of Oakhurst, about 750 feet south and 750 feet west of County Road 18. SE¼NE¼ sec. 33, T. 30 S., R. 15 E.	Robert Leach Largo, Florida	A. O. Dunlap Dunedin, Florida	Jan. 1944
525	About 1.1 miles southeast of Oakhurst, about 0.55 mile south of County Road 18, about 350 feet west of County Road 18. Near NE cor. SE¼SE¼ sec. 33, T. 30 S., R. 15 E.	R. M. Brumby Oakhurst, Florida	Fuller Tampa, Florida	1918
526	About 0.7 mile southeast of Oakhurst, about 0.28 mile south of County Road 19, about 0.22 mile west of U. S. Highway 19, south side of a dirt road, west of well 527. Near NW cor. NE¼NW¼ sec. 34, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	1941
527	Nine-tenths mile southeast of Oakhurst, about 0.2 mile north of the intersection of Seaboard Air Line Railroad with U. S. Highway 19, 300 feet west of U. S. Highway 19. Near NE cor. NE¼NW¼ sec. 34, T. 30 S., R. 15 E.	Ernest Cobb Largo, Florida	A. O. Dunlap Dunedin, Florida	---
528	About 1.0 mile southeast of Oakhurst, about 500 feet south of intersection of State Highway 19 with Seaboard Air Line Railroad, about 500 feet west of U. S. Highway 19. SE¼NW¼ sec. 34, T. 30 S., R. 15 E.	W. G. Blair and Co. Seminole, Florida	Frank May Tampa, Florida	---
529	About 1.1 miles southeast of Oakhurst, about 0.21 mile south of intersection of State Highway 19 with Seaboard Air Line Railroad, about 400 feet west of U. S. Highway 19, west of owner's fruit packing house. Near NE cor. NE¼SW¼ sec. 34, T. 30 S., R. 15 E.	J. A. Walsingham Seminole, Florida	Johnson St. Petersburg, Florida	---
530	About 1.15 miles southeast of Oakhurst, about 0.4 mile north of County Road 18, about 500 feet west of U. S. Highway 19. NE¼SW¼ sec. 34, T. 30 S., R. 15 E.	F. L. Campbell Largo, Florida	A. O. Dunlap Dunedin, Florida	Dec. 1945
531	One and four-tenths miles southeast of Oakhurst, 0.3 mile north of County Road 67, 900 feet east of U. S. Highway 19, west of well 532. NW¼SE¼ sec. 34, T. 30 S., R. 15 E.	Kersey and Brown Largo, Florida	A. O. Dunlap Dunedin, Florida	1940
532	About 1.45 miles southeast of Oakhurst, about 0.28 mile north of County Road 67, about 0.2 mile east of U. S. Highway 19, east of well 531. Near SW cor. NE¼SE¼ sec. 34, T. 30 S., R. 15 E.	Kersey and Brown Largo, Florida	---	---
533	One and one-tenth miles southeast of Oakhurst, about 0.22 mile north of County Road 18, about 350 feet east of County Road 18. Near SW cor. NW¼SW¼ sec. 34, T. 30 S., R. 15 E.	R. M. Brumby Oakhurst, Florida	Zimmerman Ozona, Florida	1913

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
200	---	4	---	---	---	---	---	---	---	Irrigation	
80	63	2	Top of 1-inch pipe, 2.7 feet above land surface.	7.17	0.35 2.83 0.96	3-24-48 6-23-48 5-15-51	20	---	2-12-48	Domestic	
106	60	3 to 2	Top of 3-inch casing, flush with land surface.	6.12	a0.47	4-1-48	25	---	4-1-48	Domestic	Sample for chloride determination taken after well had been flowing for an indefinite period.
140	---	2	---	---	---	---	21* 22	--- ---	5-28-43 4-18-47	Domestic	
25	---	1.25	Top of coupling on 1.25-inch pipe, 1.2 feet above land surface.	55.68	18.77	7-17-47	25	---	7-17-47	Domestic	
180	---	8	---	---	---	---	62*	---	5-28-43	Irrigation	
278	100	10	---	---	---	---	1636*	24	3-7-44	Irrigation	
303	106	10	---	---	---	---	522*	5	7-15-44	Irrigation	
252	155	8 to 6	Top of 8-inch coupling, 0.3 foot above land surface.	14.24	5.51 5.60 6.17 7.81	8-8-46 3-24-48 6-22-49 5-15-51	1703* 1724* 1779* 1900* 2076*	10 8 --- 8 8	5-28-43 5-19-44 7-15-44 3-20-45 5-21-45	---	
260	90	10	---	---	---	---	1232* 1269* 543* 197* 252* 655	8 --- 10 10 10 --	4-16-43 4-30-43 6-22-43 6-23-43 6-24-43 5-15-51	Irrigation	Well was originally drilled to a depth of 300 feet, but was later filled to a depth of 260 feet.
200	90	4	---	---	---	---	---	---	---	Domestic	
258	90	12	---	---	---	---	262	0	1-29-47	Irrigation	Well was originally drilled to a depth of 310 feet, but was later filled to a depth of 258 feet.
236	60	4	Top of 4-inch coupling, flush with land surface.	37.70	28.75 29.06 29.44 31.80	4-13-48 4-19-48 6-21-49 5-15-51	---	---	---	Irrigation	
255	128	12	---	---	---	---	---	---	---	Irrigation	
333	---	12 to 10	---	---	---	---	1350 1435	--- ---	2-18-47 5-15-51	Irrigation	
100	---	4	---	---	---	---	22	---	2-14-47	Domestic	
114	---	4	---	---	---	---	35	---	1-29-47	Domestic	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
534	About 1.3 miles southeast of Oakhurst, about 600 feet north of County Road 18, about 0.35 mile west of U. S. Highway 19, northwest of well 535. SW¼SW¼ sec. 34, T. 30 S., R. 15 E.	Bill Williams Oakhurst, Florida	A. O. Dunlap Dunedin, Florida	May 1946
535	About 1.35 miles southeast of Oakhurst, 100 feet north of County Road 18, 0.3 mile west of U. S. Highway 19, southeast of well 534. Near SE cor. SW¼SW¼ sec. 34, T. 30 S., R. 15 E.	Williams Oakhurst, Florida	A. O. Dunlap Dunedin, Florida	---
536	About 1.4 miles southeast of Oakhurst, about 0.1 mile north of County Road 18, about 200 feet west of U. S. Highway 19. SE¼SW¼ sec. 34, T. 30 S., R. 15 E.	F. L. Campbell Largo, Florida	A. O. Dunlap Dunedin, Florida	1944
537	Seminole, 1.6 miles southeast of Oakhurst, about 0.15 mile east of U. S. Highway 19, about 200 feet north of 54th Ave., N. SW¼SE¼ sec. 34, T. 30 S., R. 15 E.	Kersey and Brown Largo, Florida	---	---
538	Seminole, 1.8 miles southeast of Oakhurst, about 0.32 mile east of U. S. Highway 19, north side of 54th Ave., N. Near SW cor. SE¼SE¼ sec. 34, T. 30 S., R. 15 E.	Kersey Clearwater, Florida	A. O. Dunlap Dunedin, Florida	---
539	About 5.0 miles northeast of Pinellas Park, 0.8 mile north of intersection of State Highway 688 with State Highway 686, about 0.12 mile east of a hard surface road. NW¼NW¼ sec. 2, T. 30 S., R. 16 E.	B. L. McMullen Largo, Florida	---	---
540	About 4.5 miles northwest of Pinellas Park, 0.86 mile south of State Highway 686, west side of State Highway 693. Near NE cor. SE¼NE¼ sec. 6, T. 30 S., R. 16 E.	Joseph Segar Clearwater, Florida	---	July 1946
541	About 4.3 miles northwest of Pinellas Park, about 1.05 miles south of State Highway 686, west side of State Highway 693, south of well 540. Near NE cor. NE¼SE¼ sec. 6, T. 30 S., R. 15 E.	L. J. Burd Clearwater, Florida	---	1942
542	About 5.4 miles northeast of Oakhurst, about 0.7 mile west of State Highway 693, north side of County Road 22 (Ulmerton Rd.), west of well 543. SE¼SW¼ sec. 6, T. 30 S., R. 16 E.	Gay's Dairy	Johnson St. Petersburg, Florida	---
543	About 5.5 miles northeast of Oakhurst, about 0.65 mile west of State Highway 693, north side of County Road 22 (Ulmerton Rd.), east of well 542. SE¼SW¼ sec. 6, T. 30 S., R. 16 E.	Albert W. Gay	---	---
544	About 5.6 miles northeast of Oakhurst, about 0.6 mile west of State Highway 693, north side of County Road 22 (Ulmerton Rd.), east of well 543. SW¼SE¼ sec. 6, T. 30 S., R. 16 E.	H. H. Wittstruck Largo, Florida	---	July 1945
545	About 3.2 miles northwest of Pinellas Park, 0.7 mile south of County Road 22 (Ulmerton Rd.), west side of State Highway 693. NE¼SE¼ sec. 7, T. 30 S., R. 16 E.	R. Rothermel	Johnson St. Petersburg, Florida	March 1947
546	About 3.6 miles northwest of Pinellas Park, 0.2 mile south of intersection of State Highway 693 with County Road 22 (Ulmerton Rd.). Near NW cor. SW¼NW¼ sec. 8, T. 30 S., R. 16 E.	F. W. Sable Largo, Florida	B. F. Stahly St. Petersburg, Florida	April 1947
547	About 3.7 miles north of Pinellas Park, about 1.1 miles east of State Highway 693, about 300 feet south of State Highway 688, 200 feet west of Cross Bayou Canal. NE¼NE¼ sec. 8, T. 30 S., R. 16 E.	---	---	---
548	Two and six-tenths miles northwest of Pinellas Park, 1.2 miles south of intersection of State Highway 693 with County Road 22 (Ulmerton Rd.), about 0.2 mile east of State Highway 693. NW¼NW¼ sec. 17, T. 30 S., R. 16 E.	Hunt's Dairy	C. S. Kelly St. Petersburg, Florida	March 1946
549	About 2.3 miles northwest of Pinellas Park, 0.1 mile south of intersection of Cross Bayou Canal with State Highway 693, about 200 feet east of State Highway 693. NW¼SW¼ sec. 17, T. 30 S., R. 16 E.	H. W. Rowe	---	1917
550	Two and two-tenths miles northwest of Pinellas Park, about 0.21 mile south of intersection of Cross Bayou Canal with State Highway 693, about 500 feet east of State Highway 693. Near SW cor. NW¼SW¼ sec. 17, T. 30 S., R. 16 E.	Paul Renner	C. S. Kelly St. Petersburg, Florida	1945

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
255	99	10	---	---	---	---	---	---	---	Irrigation	
155	---	6	Top of 6-inch casing, 0.9 foot above land surface.	27.93	19.10 19.31 19.73 20.05 22.05	7-21-47 1-12-48 4-19-48 6-21-49 5-15-51	17	0	2-18-47	---	
255	128	12 to 6	---	---	---	---	250	0	4-21-47	Irrigation	
330	---	8	---	---	---	---	1447*	---	5-28-43	Irrigation	
180	---	10	---	---	---	---	212* 230*	0 3.5	3-20-45 3-20-45	Irrigation	
---	---	---	---	---	---	---	---	---	---	Domestic	
105	---	2	---	---	---	---	225	---	9-25-47	Domestic	
107	---	1.25	---	---	---	---	125	---	9-25-47	Domestic	
125	68	2	---	---	---	---	200	---	6-27-47	Stock	
106	---	2	---	---	---	---	---	---	---	Domestic	
105	---	---	---	---	---	---	190	---	4-30-47	Domestic	
88	34	2 to 1.25	---	---	---	---	182	---	4-30-47	Domestic	
85	42	2 to 1	Top of 2-inch casing, 1.2 feet above land surface.	---	10.37	4-29-47	190	---	9-25-47	Domestic	
---	---	1.5	Top of 2-inch casing, 0.3 foot above land surface.	4.94	a3.5 a3.0 a2.45 a2.11 a 2.70	7-22-46 7-29-47 1-12-48 4-19-48 6-24-49	255 225	--- ---	7-29-47 5-4-48	---	Samples for chloride determinations taken after well had been flowing for an indefinite period.
140	36	2	---	---	---	---	145	---	4-30-47	Domestic Stock	
540	---	6	---	---	---	---	200	---	7-29-47	Domestic	Sample for chloride determination taken after well had been flowing for an indefinite period.
100	40	2	---	---	---	---	100	---	5-1-47	Domestic Stock	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
551	About 2.7 miles northwest of Pinellas Park, about 0.4 mile west of intersection of State Highway 693 with Cross Bayou Canal, about 100 feet north of a graded road. SW¼NE¼ sec. 18, T. 30 S., R. 16 E.	Bryan's Dairy Largo, Florida	May Bros. Tampa, Florida	1947
552	About 2.35 miles northwest of Pinellas Park, about 0.1 mile south of intersection of Cross Bayou Canal with State Highway 693, west side of State Highway 693, north of well 553. NE¼SE¼ sec. 18, T. 30 S., R. 16 E.	John Wilcox	---	1945
553	Two and three-tenths miles northwest of Pinellas Park, about 0.15 mile south of intersection of Cross Bayou Canal with State Highway 693, west side of State Highway 693, south of well 552. NE¼SE¼ sec. 18, T. 30 S., R. 16 E.	B. E. Johnson	---	---
554	About 2.3 miles northwest of Pinellas Park, about 0.16 mile south of intersection of Cross Bayou Canal with State Highway 693, west side of State Highway 693, south of well 553. NE¼SE¼ sec. 18, T. 30 S., R. 16 E.	Herbert Slack Largo, Florida	---	---
555	Two and three-tenths miles northwest of Pinellas Park, about 0.2 mile south of intersection of Cross Bayou Canal with State Highway 693, west side of State Highway 693, south of well 554. NE¼SE¼ sec. 18, T. 30 S., R. 16 E.	Renner	---	---
556	One and nine-tenths miles north of Pinellas Park, 0.1 mile east of State Highway 693, south side of 102nd. Ave. N. NW¼NW¼ sec. 20, T. 30 S., R. 16 E.	L. Page Pinellas Park, Florida	---	---
557	Three and nine-tenths miles east of Pinellas Park, about 1.0 mile south of State Highway 600, 0.1 mile west of 9th Street. SE¼NE¼ sec. 25, T. 30 S., R. 16 E.	W. E. Wells St. Petersburg, Florida	---	1924
558	Three and two-tenths miles northeast of Pinellas Park, 0.85 mile west of 9th Street N., 0.45 mile south of State Highway 600, about 600 feet south of a dirt road, 1200 feet west of a dairy, 2 feet north of a fence. NW¼ NW¼ sec. 25, T. 30 S., R. 16 E.	City of St. Petersburg	---	---
559	About 3.3 miles northeast of Pinellas Park, 0.7 mile west of 9th Street N., 0.6 mile south of State Highway 600, east of well 558, at dairy. Near SW cor. NE¼NW¼ sec. 25, T. 30 S., R. 16 E.	Fortner and Gladwell Dairy Pinellas Park, Florida	Tampa Deep Well Drilling Co. Tampa, Florida	July 1942
560	About 2.9 miles east of Pinellas Park, about 1.15 miles east of intersection of 74th Ave. N. with State Highway 600, 0.85 mile south of State Highway 600, about 0.65 mile southwest of well 559, in a pasture. Near NW cor. SW¼SW¼ sec. 25, T. 30 S., R. 16 E.	City of St. Petersburg	---	---
561	About 2.6 miles northeast of Pinellas Park, about 1.0 mile northeast of intersection of 74th Ave. N. with State Highway 600, about 700 feet south of State Highway 600. NW¼NE¼ sec. 26, T. 30 S., R. 16 E.	City of St. Petersburg	---	---
562	Two and three-tenths miles east of Pinellas Park, 0.6 mile northeast of intersection of 74th Ave. N. with State Highway 600, about 300 feet south of State Highway 600. SW¼NW¼ sec. 26, T. 30 S., R. 16 E.	Sellers' Dairy St. Petersburg, Florida	C. S. Kelly St. Petersburg, Florida	1932
563	St. Petersburg, about 1.65 miles east of Pinellas Park, at 3725 70th Ave. N. SW¼SE¼ sec. 27, T. 30 S., R. 16 E.	T. C. Evans St. Petersburg, Florida	Pyles St. Petersburg, Florida	Sept. 1940
564	One and seven-tenths miles east of Pinellas Park, 150 feet south of 70th Ave. N., at 6940 37th St. NW¼SE¼ sec. 27, T. 30 S., R. 16 E.	Eugene Bryan	---	1945
565	About 1.7 miles east of Pinellas Park, 600 feet south of 70th Ave. N., on west side of 37th St. SW¼SE¼ sec. 27, T. 30 S., R. 16 E.	Frank B. Delay St. Petersburg, Florida	Green	July 1946
566	Pinellas Park, at northeast corner of intersection of 74th Ave. N. with Atlantic Coast Line Railroad, near a water tank, east of well 567. NE¼SE¼ sec. 29, T. 30 S., R. 16 E.	Town of Pinellas Park	Frank May Tampa, Florida	---
567	Pinellas Park, at northwest corner of intersection of Atlantic Coast Line Railroad and 74th Ave. N., west of well 566. Near SW cor. NE¼SE¼ sec. 29, T. 30 S., R. 16 E.	Town of Pinellas Park	Frank May Tampa, Florida	---

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
130	---	6	---	---	---	---	200	---	4-30-47	Domestic Stock	
---	---	---	---	---	---	---	73	---	4-30-47	Domestic	
120	---	---	---	---	---	---	35	--	4-30-47	Domestic	
---	---	---	---	---	---	---	---	---	---	Domestic	
---	---	---	---	---	---	---	---	---	---	---	
110	---	2	---	---	---	---	225	---	4-30-47	Domestic	
8	---	1.50	---	---	---	---	112	---	10-3-47	Domestic	Sample for chloride determination taken after well had been flowing for an indefinite period.
---	---	13	Top of 13-inch casing, flush with land surface.	7.68	2.04 5.31 3.72	10-22-47 6-22-49 5-15-51	7	0	10-22-47	---	
110	80	4	---	---	---	---	157	---	6-9-47	Domestic Stock	
---	---	14	Top of 14-inch coupling, 1.1 feet above land surface.	9.62	1.01 2.05 1.73	10-24-47 4-19-48 6-22-49	170	0	10-24-47	---	
300	---	14	Top of 14-inch casing, flush with land surface.	9.72	3.98 1.25 1.74 1.23 5.18 3.30	5- 1-47 9-11-47 10- 3-47 11-26-47 6-22-49 5-15-51	121	0	5-1-47	Unused Public Supply	Automatic water level recorder installed 8-19-47.
135	60	1.25	---	---	---	---	220	---	5-1-47	Domestic Stock	
15	15	1.25	---	---	---	---	105	---	5-1-47	Domestic	
165	---	2	---	---	---	---	---	---	---	Domestic	
16	16	1.25	---	---	---	---	100	0	5-1-47	Domestic	
432	80	12	---	---	---	---	482 525	--- ---	2-3-47 4-9-48	Public Supply	Listed in U. S. Geological Survey Water Supply Paper 319, p. 322.
480	65	12	---	---	---	---	---	---	---	Public Supply	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
568	One mile northwest of Pinellas Park, about 0.22 mile north of intersection of 74th Ave. N. and State Highway 693 (Haines Rd.), west side of Haines Road. NE¼SE¼ sec. 30, T. 30 S., R. 16 E.	Wilkinson	C. W. May Tampa, Florida	July 1947
569	About 1.15 miles southwest of Pinellas Park, 0.62 mile north of intersection of 54th Ave. N. with State Highway 693, west side of State Highway 693. SE¼NE¼ sec. 31, T. 30 S., R. 16 E.	G. A. Sawyer	Johnson St. Petersburg, Florida	Aug. 1947
570	About 2.1 miles southwest of Pinellas Park, 0.65 mile west of State Highway 693, north side of 54th Ave. N. SE¼SW¼ sec. 31, T. 30 S., R. 16 E.	W. and W. Cattle Co. St. Petersburg, Florida	---	---
571	Seven-tenths mile southwest of Pinellas Park, 0.6 mile south of 74th Ave. N., about 0.6 mile east of State Highway 693. SW¼NE¼ sec. 32, T. 30 S., R. 16 E.	Shoecraft Nursery Pinellas Park, Florida	Newman Pinellas Park, Florida	---
572	About 0.85 mile southwest of Pinellas Park, at 6222 Washington Blvd. (62nd Ave.). Sec. 32, T. 30 S., R. 16 E.	J. F. Yount St. Petersburg, Florida	B. F. Stahly St. Petersburg, Florida	June 1946
573	One mile southeast of Pinellas Park, northwest corner of intersection of Disston Blvd. and Atlantic Coast Line Railroad. Near SE cor. SW¼NE¼ sec. 33, T. 30 S., R. 16 E.	Palmtex Corp. St. Petersburg, Florida	Frank May Tampa, Florida	Oct. 1946
574	About 1.5 miles southeast of Pinellas Park, about 0.16 mile east of Disston Blvd., about 500 feet north of 54th Ave. N., in a grove. SE¼SE¼ sec. 33, T. 30 S., R. 16 E.	F. S. Holcroof St. Petersburg, Florida	A. O. Dunlap Dunedin, Florida	Sept. 1944
575	St. Petersburg, 3990 Lealman Ave. SE¼SW¼ sec. 34, T. 30 S., R. 16 E.	J. A. Boyle St. Petersburg, Florida	Green St. Petersburg, Florida	---
576	St. Petersburg, 3707 Lealman Ave. N. NW¼SE¼ sec. 34, T. 30 S., R. 16 E.	J. W. Bruce St. Petersburg, Florida	Harry Green St. Petersburg, Florida	1945
577	St. Petersburg, 2901 Lealman Ave. Near SW cor. NE¼SW¼ sec. 35, T. 30 S., R. 16 E.	Charles R. Wedding St. Petersburg, Florida	---	---
578	About 6.2 miles northeast of Pinellas Park, 0.35 mile east of San Martin Blvd., 200 feet south of Gandy Blvd., at a residence, east of well 579. Near SE cor. NE¼SE¼ sec. 17, T. 30 S., R. 17 E.	L. D. Lyons St. Petersburg, Florida	May Bros. Tampa, Florida	July 1947
579	Six miles northeast of Pinellas Park, 0.15 mile east of San Martin Blvd., 100 feet south of Gandy Blvd. Near SE cor. NW¼SE¼ sec. 17, T. 30 S., R. 17 E.	Charles L. Debbs St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	June 1946
580	About 5.9 miles northeast of Pinellas Park, 150 feet south of Gandy Blvd., 350 feet east of San Martin Blvd. SW¼SE¼ sec 17, T. 30 S., R. 17 E.	---	---	---
581	About 5.6 miles northeast of Pinellas Park, about 0.7 mile northeast from intersection of State Highway 600 (Gandy Blvd.) with 4th Street N. along Gandy Blvd., at 10,600 Gandy Blvd., south side. SE¼SW¼ sec. 17, T. 30 S., R. 17 E.	C. A. Smith St. Petersburg, Florida	---	---
582	Six miles northeast of Pinellas Park, 1.1 miles east of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., about 0.3 mile south of Gandy Blvd. in a trailer camp. SE¼SE¼ sec. 17, T. 30 S., R. 17 E.	Walter Collany St. Petersburg, Florida	Green St. Petersburg, Florida	Sept. 1946
583	About 6.15 miles northeast of Pinellas Park, about 1.2 miles east of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., about 0.3 mile south of Gandy Blvd., northeast of well 582. SE¼SE¼ sec. 17, T. 30 S., R. 17 E. (east side of dirt road).	Walter Collany St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	1939
584	Five and three-tenths miles northeast of Pinellas Park, about 1.0 mile north of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., east side of a dirt road. Near NW cor. NW¼NE¼ sec. 18, T. 30 S., R. 17 E.	E. C. Wright	Parker Drilling Co. Tulsa, Oklahoma	July 1948

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT: DESCRIPTION	MEASURING POINT: ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	WATER LEVEL: DEPTH TO WATER (FEET)	WATER LEVEL: DATE OF MEASUREMENT	CHLORIDE CONTENT: PARTS PER MILLION	CHLORIDE CONTENT: HOURS PUMPED	CHLORIDE CONTENT: DATE OF SAMPLING	USE OF WELL	REMARKS
82	45	2	---	---	---	---	185	---	7-29-47	Domestic	
137	---	3	---	---	---	---	240	---	9-9-47	Domestic	
---	---	4	---	---	---	---	250	---	2-3-47	Domestic Stock	
182	100	4	---	---	---	---	201	0	2-3-47	Irrigation	
108	---	2	---	---	---	---	35	---	2-3-47	Domestic	
256	119	8 to 6	---	---	---	---	155	---	5-1-47	Industrial	
275	114	---	---	---	---	---	---	---	---	Irrigation	
25	---	1	---	---	---	---	25	---	2-11-48	Domestic	
26	26	1.25	---	---	---	---	50	---	2-11-48	Domestic	
---	---	8	Top of cement pump base, 1.0 foot above land surface.	40.62	32.28	2-11-48	25	0	2-1148	Irrigation	
88	44	2	---	---	---	---	5200	---	10-10-47	Domestic	Water not used for drinking.
18	---	1.5	---	---	---	---	735	---	10-10-47	Irrigation	Well consists of battery of six sand points, 1.50 inches in diameter, 18 feet in depth.
35	---	6	Top of 6-inch casing, 0.5 foot above land surface.	6.40	3.35 4.44 3.87 5.00	10-10-47 4-19-48 6-22-49 5-15-51	1660	---	10-10-47	Irrigation	
40	---	---	---	---	---	---	3050	---	10-10-47	Irrigation	
14	---	1.25	---	---	---	---	30 90	--- ---	10-10-47 5-15-51	Irrigation	
500	385	2	Top of 1-inch casing, 1.7 feet above land surface.	5.84	5.81	10-10-47	---	---	---	---	
11507	3700	22	---	---	---	---	46100	---	5-13-48	Oil Test. Dry and abandoned July 8, 1948.	Sample for chloride determination taken when well had been drilled to a depth of about 8900 feet and cased to 3700 feet. Analysis by U. S. Geological Survey. F.G.S. Well W-1669.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
585	Five and three-tenths miles northeast of Pinellas Park, about 1.0 mile north of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., east side of a dirt road, near well 584. Near NW cor. NW¼NE¼ sec. 18, T. 30 S., R. 17 E.	E. C. Wright	Parker Drilling Co. Tulsa, Oklahoma	March 1948
586	Four and eight-tenths miles northeast of Pinellas Park, at center of intersection of State Highway 600 (Gandy Blvd.) and State Highway 686 (Roosevelt Blvd.) with 4th Street N., at a gas station. NW¼NE¼ sec. 19, T. 30 S., R. 17 E.	W. C. Thornton St. Petersburg, Florida	---	1935
587	Four and three-tenths miles east of Pinellas Park, about 1.3 miles south of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., about 800 feet west of 4th Street N., at Suwannee Farm, south of dairy, south side of a creek, 30 feet northeast of well 588. NE¼SW¼ sec. 30, T. 30 S., R. 17 E.	W. E. Wells St. Petersburg, Florida	---	192
588	Four and three-tenths miles east of Pinellas Park, about 1.3 miles south of intersection of State Highway 600 (Gandy Blvd.) with 4th Street N., about 800 feet west of 4th Street, at Suwannee Farm, south of dairy, south side of a creek, southwest of well 587. Near SW cor. NE¼SW¼ sec. 30, T. 30 S., R. 17 E.	W. E. Wells St. Petersburg, Florida	---	19
589	Two and seven-tenths miles southwest of Pinellas Park, 0.8 mile east of Seminole Bridge, near intersection of 46th Ave. N. (County Road 16) and 77th St., north side of County Road 16. SE¼NE¼ sec. 1, T. 31 S., R. 15 E.	G. C. Lewis St. Petersburg, Florida	Miller	--
590	About 3.4 miles southwest of Pinellas Park, at east end of Seminole Bridge, south side of U. S. Highway 19, south side of a road side stand. NW¼SW¼ sec. 1, T. 31 S., R. 15 E.	Eddy Storey	---	---
591	About 2.4 miles southeast of Oakhurst, about 0.5 mile west of Seminole Bridge, 0.15 mile south of U. S. Highway 19, north side of a small pond, at U. S. Veterans Hospital, northwest of wells 592 and 594. Near SE cor. NW¼SW¼ sec. 2, T. 31 S., R. 15 E.	Veterans Administration Bay Pines, Florida	A. O. Dunlap Dunedin, Florida	---
592	About 2.5 miles southeast of Oakhurst, about 0.5 mile west of Seminole Bridge, about 0.17 mile south of U. S. Highway 19, 2 feet south of a small building, about 50 feet northeast of well 594. NE¼SW¼ sec. 2, T. 31 S., R. 15 E.	Veterans Administration Bay Pines, Florida	A. O. Dunlap Dunedin, Florida	Ma 19
593	About 2.45 miles southeast of Oakhurst, 0.6 mile west of Seminole Bridge, about 0.2 mile south of U. S. Highway 19, southwest of well 591, about 5 feet west of a pond. NW¼SW¼ sec. 2, T. 31 S., R. 15 E.	Veterans Administration Bay Pines, Florida	A. O. Dunlap Dunedin, Florida	19
594	About 2.65 miles southeast of Oakhurst, about 0.5 mile west of Seminole Bridge, about 0.2 mile south of U. S. Highway 19, about 50 feet southwest of well 592. Near NW cor. SE¼SW¼ sec. 2, T. 31 S., R. 15 E.	Veterans Administration Bay Pines, Florida	A. O. Dunlap Dunedin, Florida	-
595	Seminole, 1.7 miles southeast of Oakhurst, 0.25 mile east of U. S. Highway 19, south side of 54th Ave. N. Near NE cor. NW¼NE¼ sec. 3, T. 31 S., R. 15 E.	H. W. Kloss Largo, Florida	Barnham Clearwater, Florida	192
596	One and six-tenths miles southeast of Oakhurst, 0.3 mile south of County Road 18, 0.5 mile west of U. S. Highway 19, east of a dirt road, south of owner's residence. SW¼NW¼ sec. 3, T. 31 S., R. 15 E.	Frank Duhme Seminole, Florida	Al Roulo	191
597	Four miles southeast of Oakhurst, 500 feet west of Park St., N., north side of 26th Ave. N., St. Petersburg. NE¼SW¼ sec. 12, T. 31 S., R. 15 E.	A. E. Smith St. Petersburg, Florida	Jones St. Petersburg, Florida	Jan 19
598	St. Petersburg, 3506 54th Ave. N. Near NW cor. NE¼NE¼ sec. 3, T. 31 S., R. 16 E.	Fred Camfield St. Petersburg, Florida	---	
599	St. Petersburg, 750 feet south of 54th Ave. N., about 700 feet east of Disston Blvd., in a grove. NE¼NE¼ sec. 4, T. 31 S., R. 16 E.	Rex Cole St. Petersburg, Florida	A. O. Dunlap Dunedin, Florida	1

a Water level expressed in feet above the measuring point.

(FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT: DESCRIPTION	MEASURING POINT: ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	WATER LEVEL: DEPTH TO WATER (FEET)	WATER LEVEL: DATE OF MEASUREMENT	CHLORIDE CONTENT: PARTS PER MILLION	CHLORIDE CONTENT: HOURS PUMPED	CHLORIDE CONTENT: DATE OF SAMPLING	USE OF WELL	REMARKS
230	100	6	---	---	---	---	3125	---	4-26-48	Drilling Processes	Well apparently destroyed.
50	---	2	---	---	---	---	550	---	10-10-47	Domestic	
45	---	---	---	---	---	---	205	---	10-3-47	Stock	
	---	---	---	---	---	---	240	---	10-3-47	Stock	
	20	1.5	---	---	---	---	20	---	2-3-47	---	
3	40	3	---	---	---	---	250	---	10-9-47	Domestic	
70	---	4	Top of 4-inch casing, 1.2 feet below land surface.	5.07	a3.1 a3.41 a3.10	7-24-47 1-12-48 6-24-49	310	---	7-23-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
2	91	6	Highest point on 6-inch casing, 1.7 feet below land surface.	5.93	a2.00 a2.24 a2.00 a1.1	7-24-47 1-12-48 4-19-48 5-16-51	1395 1365	--- ---	7-23-47 5-16-51	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
	---	4	Highest point on 4-inch casing, 1.0 foot below land surface.	5.25	a2.87 a3.27 a2.92 a2.4	7-24-47 1-12-48 6-24-49 5-16-51	275 300 250	--- --- ---	7-23-47 5-5-48 5-16-51	---	Samples for chloride determinations taken after well had been flowing for an indefinite period.
	---	4	---	---	---	---	325	---	7-23-47	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
	---	4	---	---	---	---	240	---	4-21-47	Domestic Irrigation	
1	40	8	---	---	---	---	225	---	7-7-47	Domestic	Sample for chloride determination taken after well had been flowing for an indefinite period.
	45	3	Top of elbow near faucet, 1.5 feet above land surface.	6.23	a1.9 a1.00 a3.40 a2.65	1-21-48 4-19-48 6-24-49 5-16-51	250 250 220	--- --- ---	1-21-48 5-13-48 5-15-51	Domestic Irrigation	Samples for chloride determinations taken after well had been flowing for an indefinite period.
		1.5	---	---	---	---	50	---	2-11-48	Domestic Irrigation	
	90	8	---	---	---	---	239*	4	2-22-45	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
600	St. Petersburg, about 1000 feet south of 54th Ave. N., about 1000 feet west of Disston Blvd., at Memorial Cemetery. Near SW cor. NW¼NE¼ sec. 4, T. 31 S., R. 16 E.	F. J. Burns St. Petersburg, Florida	Milton R. Vaughn Tampa, Florida	---
601	St. Petersburg, about 100 feet west of 63rd St. N., about 400 feet south of 54th Ave. N. NE¼NW¼ sec. 5, T. 31 S., R. 16 E.	Belcher's Dairy Pinellas Park, Florida	---	---
602	About 1.8 miles southwest of Pinellas Park, about 0.3 mile west of County Road 16, south side of 54th Ave. N. NW¼NE¼ sec. 6, T. 31 S., R. 16 E.	R. N. Bennett St. Petersburg, Florida	---	---
603	About 2.6 miles southwest of Pinellas Park, about 1.0 mile east of Seminole Bridge, one house east of 7555 46th Ave. N., north side of County Road 16, west of well 604. SW¼SW¼ sec. 6, T. 31 S., R. 16 E.	F. X. Miller	---	---
604	About 2.6 miles southwest of Pinellas Park, about 1.0 mile east of Seminole Bridge, in 7500 block of 46th Ave. N., (County Road 16), north side of County Road 16, east of well 603. SW¼SW¼ sec. 6, T. 31 S., R. 16 E.	O. H. Ford St. Petersburg, Florida	O. H. Ford St. Petersburg, Florida	---
605	About 2.5 miles southwest of Pinellas Park, 1.0 mile east of Seminole Bridge, in 7500 block of 46th Ave. N. (County Road 16), north side of County Road 16, south of well 604. SW¼NW¼ sec. 6, T. 31 S., R. 16 E.	O. H. Ford St. Petersburg, Florida	Tom Johnson	1942
606	St. Petersburg, 6515 38th Ave. N. Near NW cor. NW¼NW¼ sec. 8, T. 31 S., R. 16 E.	A. G. Lord St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	1941
607	St. Petersburg, 2601 49th St. N., northeast corner of 26th Ave. N. and 49th St. N. NE¼SE¼ sec. 9, T. 31 S., R. 16 E.	F. H. Robinson St. Petersburg, Florida	Ellenberger St. Petersburg, Florida	1944
608	St. Petersburg, 3710 Haines Rd., at Allendale Nursery. NE¼NE¼ sec. 12, T. 31 S., R. 16 E.	George Dill St. Petersburg, Florida	---	---
609	St. Petersburg, 650 16th St. N. SW¼SE¼ sec. 13, T. 31 S., R. 16 E.	R. J. Foster St. Petersburg, Florida	Anderson St. Petersburg, Florida	---
610	St. Petersburg, 530 16th Ave. N. SW¼SE¼ sec. 13, T. 31 S., R. 16 E.	R. B. Husing St. Petersburg, Florida	Newman	1944
611	St. Petersburg, about 300 feet north of 5th Ave. N., between 25th St. N. and 26th St. N., south of well 612. SE¼SE¼ sec. 14, T. 31 S., R. 16 E.	St. Petersburg High School St. Petersburg, Florida	---	1936
612	St. Petersburg, about 300 feet north of 5th Ave. N., between 25th St. N. and 26th St. N., north of well 611. SE¼SE¼ sec. 14, T. 31 S., R. 16 E.	St. Petersburg High School St. Petersburg, Florida	A. O. Dunlap Dunedin, Florida	1945
613	St. Petersburg, 700 feet north of 38th Ave. N., 150 feet west of 43rd St. N. Near SW cor. sec. 3, T. 31 S., R. 16 E.	Skaggs St. Petersburg, Florida	A. O. Dunlap Dunedin, Florida	Sept. 1945
614	St. Petersburg, north side of 5th Ave. N., east side of Park St. SW¼SW¼ sec. 18, T. 31 S., R. 16 E.	Admiral Farragut Academy St. Petersburg, Florida	---	---
615	St. Petersburg, in vacant lot of corner of 52nd St. N. and 1st Ave. N. Near NW cor. SW¼NE¼ sec. 21, T. 31 S., R. 16 E.	City of St. Petersburg	---	---
616	St. Petersburg, 50 feet east of 10th St. N., 120 feet north of 4th Ave. N. Near NE cor. NE¼NE¼ sec. 24, T. 31 S., R. 16 E.	Foremost Farms, Inc. St. Petersburg, Florida	Frank May Tampa, Florida	1933
617	St. Petersburg, 4810 23rd Ave. S. NE¼NE¼ sec. 33, T. 31 S., R. 16 E.	Bob Lone Star	---	1938

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
450	---	10	---	---	---	---	60	---	2-3-47	Irrigation	
192	---	---	---	---	---	---	---	---	---	Domestic Stock	
114	---	1.5	---	---	---	---	67	---	2-3-47	Domestic	
---	---	---	---	---	---	---	15	---	2-3-47	Domestic	
85	---	1.25	---	---	---	---	---	---	---	Domestic	
171	---	2	---	---	---	---	20	0	2-3-47	---	
260	---	2.5	---	---	---	---	205	---	4-30-47	Stock	
163	80	2	---	---	---	---	20	---	7-28-47	Domestic	
168	---	3	---	---	---	---	25	0	2-11-48	Irrigation	
25	---	2	---	---	---	---	25	0	10-9-47	Irrigation	Well consists of battery of five sand points, 2 inches in diameter, 25 feet in depth.
18	---	1.25	---	---	---	---	35	---	10-9-47	Domestic	Well consists of battery of three sand points, 1.25 inches in diameter, 18 feet in depth.
190	90	6	---	---	---	---	---	---	---	School	
232	166	8	---	---	---	---	28	---	2-3-47	School	
343	---	10 to 8	---	---	---	---	---	---	---	Irrigation	
130	---	5	Hole in pipe elbow, 0.6 foot above land surface.	9.49	0.58 0.68	1-28-48 4-19-48	425 370	--- ---	1-28-48 5-16-51	Domestic Irrigation	
---	---	12	---	---	---	---	---	---	---	Unused Public Supply	Well is plugged with rocks.
216	102	8	---	---	---	---	---	---	---	Dairy	
92	76	---	---	---	---	---	17	---	6-26-47	Domestic Irrigation	

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
618	St. Petersburg, about 0.20 mile west of 37th St. S., about 100 feet south of a dirt road extending west from the intersection of 37th St. S. with 30th Ave. S., near east side of a barn, north of well 619. SW¼NE¼ sec. 34, T. 31 S., R. 16 E.	Barber St. Petersburg, Florida	---	---
619	St. Petersburg, about 0.2 mile west of 37th St. S., about 900 feet south of a dirt road extending west from intersection of 37th St. S. with 30th Ave. S., south of well 618, in a grove. NW¼SE¼ sec. 34, T. 31 S., R. 16 E.	Barber St. Petersburg, Florida	---	---
620	St. Petersburg, 1927 4th St. N. SW¼SE¼ sec. 7, T. 31 S., R. 17 E.	Coca Cola Bottling Co. St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	1940
620A	St. Petersburg, 1927 4th St. N. SW¼SE¼ sec. 7, T. 31 S., R. 17 E.	Coca Cola Bottling Co. St. Petersburg, Florida	May Bros. Tampa, Florida	1949
621	St. Petersburg, 210 Brightwaters Blvd. SE¼SW¼ sec. 8, T. 31 S., R. 17 E.	A. G. Boone St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
622	St. Petersburg, 307 Brightwaters Blvd. SW¼SE¼ sec. 8, T. 31 S., R. 17 E.	E. B. Holtam St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
623	St. Petersburg, 324 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	Col. R. B. Hart St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
624	St. Petersburg, 321 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	A. C. Bergman St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
625	St. Petersburg, 515 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	R. W. Roberts St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
626	St. Petersburg, 551 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	G. N. Wilson St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	1938
627	St. Petersburg, 622 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	M. J. Fleming St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
628	St. Petersburg, 651 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	J. L. Young St. Petersburg, Florida	L. J. Anderson St. Petersburg, Florida	1942
629	St. Petersburg, 711 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	S. P. Harling St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
630	St. Petersburg, 831 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	H. W. Holland St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
631	St. Petersburg, 1011 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	Thomas Dreirer St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
632	St. Petersburg, 1105 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	H. F. Allen St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
633	St. Petersburg, 1222 Brightwaters Blvd. Sec. 8, T. 31 S., R. 17 E.	C. Markey St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	Sept. 1945
634	St. Petersburg, 1650 Beach Drive N. Sec. 17, T. 31 S., R. 17 E.	Frank M. Harris St. Petersburg, Florida	Ellenberger St. Petersburg, Florida	1944
635	St. Petersburg, 1525 Beach Drive N. Sec. 17, T. 31 S., R. 17 E.	C. M. Gray St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	---
636	St. Petersburg, 12th Ave. N., between Beach Drive N. and North Shore Drive. Sec. 17, T. 31 S., R. 17 E.	Inedza Apartment St. Petersburg, Florida	Langsnaw St. Petersburg, Florida	---
637	St. Petersburg, 1000 Beach Drive N. Sec. 17, T. 31 S. R. 17 E.	G. E. Johnson St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	1940

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
---	---	3	---	---	---	---	1085 1050 940	--- --- ---	6-26-47 1-21-48 5-16-51	Stock	Samples for chloride determinations taken after well had been flowing for an indefinite period.
220	---	5	---	---	---	---	1037*	---	3-22-45	Irrigation	
260	---	---	---	---	---	---	50 25	--- ---	10-14-47 5-13-48	Industrial	
267	127	8	---	---	---	---	---	---	---	Industrial	F.G.S. Well W1901. Cuttings on file with Florida Geol. Survey.
---	---	---	---	---	---	---	375	---	10-14-47	Irrigation	
---	---	1.25	---	---	---	---	250	---	10-14-47	Irrigation	
---	---	1.25	---	---	---	---	225	---	10-13-47	Irrigation	
---	---	---	---	---	---	---	210	---	10-13-47	Irrigation	
---	---	---	---	---	---	---	250	---	10-14-47	Irrigation	
125	---	---	---	---	---	---	300 308	--- ---	10-14-47 5-16-51	Irrigation	
85	---	1.25	---	---	---	---	275	---	10-14-47	Irrigation	
100	---	3	---	---	---	---	375	---	10-14-47	Irrigation	
---	---	2	---	---	---	---	300	---	10-14-47	Irrigation	
---	---	---	---	---	---	---	350	---	10-14-47	Irrigation	
---	---	---	---	---	---	---	200	---	10-14-47	Irrigation	
---	---	---	---	---	---	---	200 20	--- ---	10-14-47 5-17-51	Irrigation	
82	---	2	---	---	---	---	250	---	10-14-47	Irrigation	
127	---	2	---	---	---	---	75	---	10-17-47	Irrigation	
---	---	---	---	---	---	---	100	---	10-17-47	Irrigation	
102	---	3	---	---	---	---	275 260	--- ---	2-4-47 5-16-51	Domestic	
180	---	2	---	---	---	---	75	---	10-17-47	Irrigation	

* Chloride analysis supplied by Agricultural Experiment Station, Lake Alfred, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
638	St. Petersburg, 305 18th Ave. N. Sec. 18, T. 31 S., R. 17 E.	George T. Turner St. Petersburg, Florida	May Bros. Tampa, Florida	April 1948
639	St. Petersburg, near intersection of 15th Ave. N. with 5th St. N., north of wells 640 and 641. Sec. 18, T. 31 S., R. 17 E. City well 15.	City of St. Petersburg	R. J. Neikirk Lakeland, Florida	1926
640	St. Petersburg, south end of Crescent Lake, west of well 641, in a ball park, 600 feet west of water tower. Sec 18, T. 31 S., R. 17 E. City well 16.	City of St. Petersburg.	R. J. Neikirk Lakeland, Florida	1926
641	St. Petersburg, south side of Crescent Lake, in a ball park, 600 feet east of well 640, near water tank. Sec. 18, T. 31 S., R. 17 E. City well 14.	City of St. Petersburg	R. J. Neikirk Lakeland, Florida	1926
642	St. Petersburg, on Mirror Lake Drive, north side of Mirror Lake, north of well 643. Sec. 19, T. 31 S., R. 17 E. City well 9.	City of St. Petersburg	---	---
643	St. Petersburg, east side of Mirror Lake, north of well 644, south of well 642, north of a parking lot. Sec. 19, T. 31 S., R. 17 E. City well 1.	City of St. Petersburg.	---	---
644	St. Petersburg, east side of Mirror Lake, 20 feet east of Water Works Building. Sec. 19, T. 31 S., R. 17 E. City well 3.	City of St. Petersburg	---	---
645	St. Petersburg, west side of Mirror Lake, west of well 646, northeast of a church. Sec. 19, T. 31 S., R. 17 E. City well 7.	City of St. Petersburg	---	Dec. 1922
646	St. Petersburg, south side of Mirror Lake, near intersection of 6th St. N. with Mirror Lake Drive. Sec. 19, T. 31 S., R. 17 E.	City of St. Petersburg	---	---
647	St. Petersburg, 90 feet east of 1st St. S., at intersection of 1st St. S. with 3rd Ave. S., known as "Fountain of Youth". Sec. 19, T. 31 S., R. 17 E.	City of St. Petersburg	---	---
648	St. Petersburg, west side of guard house, at main gate to U. S. Maritime Service, at Port of St. Petersburg. Sec. 20, T. 31 S., R. 17 E.	U. S. Maritime Service St. Petersburg, Florida	---	---
649	St. Petersburg, at northwest corner of intersection of 4th St. S. and 30th Ave. S. Sec. 30, T. 31 S., R. 17 E.	Harry Price St. Petersburg, Florida	---	1917
650	St. Petersburg, Lewis Island, north end of Lewis Island, 50 feet north of a tractor shed, southwest of well 651, west of well 652. Sec. 31, T. 31 S., R. 17 E.	D. Johnstone St. Petersburg, Florida	Johnstone St. Petersburg, Florida	1945
651	St. Petersburg, Lewis Island, north end of island in circular cement enclosure, northeast of well 650, northwest of well 652. Sec. 31, T. 31 S., R. 17 E.	D. Johnstone St. Petersburg, Florida	---	---
652	St. Petersburg, Lewis Island, north end of island, east of well 650, southeast of well 651. Sec. 31, T. 31 S., R. 17 E.	D. Johnstone St. Petersburg, Florida	Johnstone St. Petersburg, Florida	1945

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
200	125	6	---	---	---	---	---	---	---	Irrigation	
---	---	12	---	---	---	---	---	---	---	Unused Public Supply	Standy-by well for City supply.
---	---	12	---	---	---	---	---	---	---	Unused Public Supply	Stand-by well for City supply.
---	---	12	---	---	---	---	---	---	---	Unused Public Supply	Stand-by well for City supply.
207	---	12	Top of concrete rim, 2.3 feet above top of casing, flush with land surface.	36	26.0	4-8-33	---	---	---	Unused Public Supply	Well 3 in U. S. Geological Survey Water-Supply Paper 773-C, p. 172.
200	---	12	---	---	---	---	150	---	8-31-23	Unused Public Supply	Chloride information from water analysis given in U. S. Geological Survey Water Supply-Paper 596-G, analysis 320.
200	---	12	---	---	---	---	148	---	8-31-23	Unused Public Supply	Chloride information from water analysis given in U. S. Geological Survey Water Supply-Paper 596-G, analysis 321.
166	75	13	Top of 13-inch casing, flush with land surface.	36	25.9	4-8-33	---	---	---	Unused Public Supply	Well 1 in U. S. Geological Survey Water Supply-Paper 773-C, p. 172.
186	---	12	Top of concrete rim, flush with land surface.	37	27.0	4-8-33	---	---	---	Unused Public Supply	Well 2 in U. S. Geological Survey Water Supply-Paper 773-C, p. 172.
216	---	4	---	---	---	---	458 725 675	--- --- ---	11-3-23 2-4-47 5-16-51	Public Supply	Chloride information on 11-3-23 is from water analysis given in U. S. Geological Survey Water Supply-Paper 596-G, analysis 323. Samples for chloride determinations taken after well had been flowing for an indefinite period.
420	---	10	---	---	---	---	675 590	0 ---	2-4-47 5-17-51	Irrigation	
190	---	---	Top of cement mound, about 0.5 foot above land surface.	8.07	a1.7 a1.9 a0.5	7-28-47 6-24-49 5-17-51	1200 1045	--- ---	7-28-47 5-17-51	Unused Domestic	Samples for chloride determinations taken after well had been flowing for an indefinite period.
300	---	8	---	---	---	---	1300	---	2-16-48	Irrigation	Sample for chloride determination taken after well had been flowing for an indefinite period.
187	---	3	Top of 3-inch casing, 0.2 foot above land surface.	3.89	a4.88	2-16-48	1200	---	2-16-48	---	Sample for chloride determination taken after well had been flowing for an indefinite period.
300	---	8	---	---	---	---	1200	---	2-16-48	---	Sample for chloride determination taken after well had been flowing for an indefinite period.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
653	St. Petersburg, north end of Lewis Island, south of wells 650, 651, and 652, in a cement enclosure, east side of a dirt road. Sec. 31, T. 31 S., R. 17 E.	L. D. Chields	---	---
654	Pass-A-Grille Beach, St. Petersburg, at Don-Ce-Sar Hotel. Sec. 7, T. 32 S., R. 16 E.	Don-Ce-Sar Hotel St. Petersburg, Florida	---	1926
655	Pass-A-Grille Beach, St. Petersburg, about 0.25 mile southeast of Don-Ce-Sar Hotel, under water tank in Lazarillo Park. Sec. 7, T. 32 S., R. 16 E.	Don-Ce-Sar Hotel St. Petersburg, Florida	---	1926
656	Maximo Point, St. Petersburg, about 2.4 miles south of 22nd Ave. S., about 0.65 mile west of 31st St. S., west side of owner's residence. Sec. 10, T. 32 S., R. 16 E.	J. D. Fulford St. Petersburg, Florida	B. F. Stahly St. Petersburg, Florida	May 1947
657	Maximo Point, St. Petersburg, 6712 30th St. S. Sec. 10, T. 32 S., R. 16 E.	J. L. Ward St. Petersburg, Florida	---	---
658	Maximo Point, St. Petersburg, east of well 657, about 0.1 mile south of Pinellas Point Drive, about 300 feet east of 29th St. S., northeast of a residence, in a small pump house. Sec. 11, T. 32 S., R. 16 E.	L. Bennett St. Petersburg, Florida	---	---
659	St. Petersburg, 4908 Sunrise Drive S. Sec. 7, T. 32 S., R. 17 E.	Homer Smith St. Petersburg, Florida	Pinellas Machine Co. St. Petersburg, Florida	May 1947
660	St. Petersburg, 4930 Sunrise Drive. Sec. 7, T. 32 S., R. 17 E.	R. N. Wechtel St. Petersburg, Florida	Johnson St. Petersburg, Florida	June 1947
661	Five and one-tenth miles east of Tarpon Springs, south side of State Highway 582. SE¼ sec. 11, T. 24 S., R. 16 E.	County of Pinellas	Central Florida Well Drillers, Orlando, Florida	Nov. 1951
662	Five and one-tenth miles east of Tarpon Springs, south of State Highway 582, 20 feet SE of well 661. SE¼ sec. 11, T. 24 S., R. 16 E.	County of Pinellas	Central Florida Well Drillers, Orlando, Florida	Dec. 1951
663	Five and one-tenth miles east of Tarpon Springs, south of State Highway 582, 50 feet SE of well 661. SE¼ sec. 11, T. 24 S., R. 16 E.	County of Pinellas	Central Florida Well Drillers, Orlando, Florida	Dec. 1951
664	Five and three-tenths miles east of Tarpon Springs, south side of State Highway 582, 950 feet SE of well 661. SE¼ sec. 11, T. 24 S., R. 16 E.	County of Pinellas	Central Florida Well Drillers, Orlando, Florida	Dec. 1951

a Water level expressed in feet above the measuring point.

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT: DESCRIPTION	MEASURING POINT: ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	WATER LEVEL: DEPTH TO WATER (FEET)	WATER LEVEL: DATE OF MEASUREMENT	CHLORIDE CONTENT: PARTS PER MILLION	CHLORIDE CONTENT: HOURS PUMPED	CHLORIDE CONTENT: DATE OF SAMPLING	USE OF WELL	REMARKS
152	---	6	Top of 6-inch casing, 0.5 foot above land surface.	8.06	a1.2 a0.9	2-16-48 5-17-51	1050 870	--- ---	2-16-48 5-17-51	Irrigation	Samples for chloride determinations taken after well had been flowing for an indefinite period.
---	---	---	---	---	---	---	1515	---	6-26-47	Irrigation	Sample for chloride determination taken after well had been flowing for an indefinite period.
200	---	4	Top of southeast corner of a 4 by 5 foot concrete tank, located at north side of reservoir into which well discharges, 2 feet above land surface.	5.06	a5.65	10-30-48	1610	---	6-26-47	Unused	Sample for chloride determination taken after well had been flowing for an indefinite period.
200	180	---	Top of 1.25-inch coupling, 0.7 foot above land surface.	6.35	a4.23 1.01 0.78 a3.27	1-21-48 6-21-49 6-24-49 5-16-51	1320 1250 1170	--- --- ---	7-28-47 1-21-48 5-16-51	Unused Domestic	Samples for chloride determinations taken after well had been flowing for an indefinite period.
---	---	4	---	---	---	---	1220 1200 20	--- --- ---	7-28-47 5-13-48 5-17-51	Swimming Pool	Samples for chloride determinations taken after well had been flowing for an indefinite period.
300	---	10	---	---	---	---	1525 1350	--- ---	5-13-48 5-16-51	Irrigation	
180	150	2	Top of northeast corner of cement post, south side of driveway, 3.5 feet above land surface.	6.57	a2.55 a1.60 a1.85 a1.5	3-9-48 4-19-48 6-24-49 5-16-51	1200 1150	--- ---	7-28-47 5-16-51	Irrigation	
182	---	3.5	Base of faucet connection, 25 feet east of house, 0.35 foot above land surface.	2.03	a6.70 a6.28	3-9-48 6-24-49	1075	---	1-21-48	Irrigation	
380	173	12	Top of 12-inch casing, 1.5 feet above land surface.	26.27	2.57	1- 8-52	12†	28	1- 9-52	Test	F.G.S. well W-2526. Cuttings from strata penetrated on file with Florida Geological Survey. Yielded 650 g. p. m. with drawdown of 49 feet after 29 hours of pumping.
380	173	4	Top of 3-inch casing, 1 foot above land surface.	25.79	2.10	1- 8-52				Observation	F.G.S. well W-2560. Cuttings from strata penetrated on file with Florida Geological Survey.
101	67	3	Top of 3-inch casing.	24.46	0.91	1- 8-52				Observation	F.G.S. well W-2561. Cuttings from strata penetrated on file with Florida Geological Survey.
250	173	4	Top of 3-inch casing.	25.36	1.99	1- 8-52				Observation	

† Chloride analyses supplied by Black Laboratories, Gainesville, Florida.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
1	About 2.7 miles northwest of Citrus Park, NW¼ NW¼ sec. 34, T. 27 S., R. 18 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
2	About 2.6 miles northwest of Citrus Park, NE¼ NW¼ sec. 34, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
3	About 2.8 miles northwest of Citrus Park, SE¼ SW¼ sec. 27, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
4	About 2.8 miles north of Citrus Park, NW¼ SW¼ sec. 27, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
5	About 2.9 miles north of Citrus Park, NE¼ SE¼ sec. 27, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
6	About 3.0 miles north of Citrus Park, SE¼ NE¼ sec. 27, T. 27 S., R. 17 E.	City of St. Petersburg.	Milton R. Vaughn Tampa, Florida	1930
7	About 3.2 miles north of Citrus Park, NW¼ NW¼ sec. 26, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
8	About 3.3 miles north of Citrus Park, NW¼ NW¼ sec. 36, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
340	80	12	Base of pump over well, 1.0 foot above land surface.	44.08	6.8 13.2	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-131. Cuttings from strata penetrated on file with Florida Geological Survey.
305	65	12	Base of pump over well, 1.0 foot above land surface.	43.73	7.8 11.6	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-123. Cuttings from strata penetrated on file with Florida Geological Survey.
354	79	12	Base of pump over well, 1.0 foot above land surface.	47.39	11.1 14.9	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-118. Cuttings from strata penetrated on file with Florida Geological Survey.
345	65 ?	12 to 10	Base of pump over well, 1.0 foot above land surface.	48.67	10.7 16.2	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-120. Cuttings from strata penetrated on file with Florida Geological Survey.
350	89	12	Base of pump over well, 1.0 foot above land surface.	48.48	10.5 14.8	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-132. Cuttings from strata penetrated on file with Florida Geological Survey.
297	61	12	Base of pump over well, 1.0 foot above land surface.	49.59	11.39 16.0	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-134. Cuttings from strata penetrated on file with Florida Geological Survey.
350	107	16	Base of pump over well, 1.0 foot above land surface.	54.87	16.27 21.9	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-124. Cuttings from strata penetrated on file with Florida Geological Survey.
345	82 ?	12 to 10	Base of pump over well, 1.0 foot above land surface.	53.35	13.65 18.4	6-20-30 12-22-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G. S. well W-133. Cuttings from strata penetrated on file with Florida Geological Survey.

TABLE 5. WELL RECORDS (Continued)

WELL NUMBER	LOCATION	OWNER	DRILLER	COMPLETED
9	About 3.1 miles north of Citrus Park. SE¼ NE¼ sec. 27, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
10	About 3.4 miles north of Citrus Park. SE¼ SW¼ sec. 23, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
11	About 3.5 miles north of Citrus Park. SW¼ SE¼ sec. 23, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
12	About 3.7 miles north of Citrus Park. NE¼ SE¼ sec. 23, T. 27 S., R. 17 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930
13	About 5.3 miles northeast of Citrus Park. NW¼ SE¼ sec. 21, T. 27 S., R. 18 E.	City of St. Petersburg	Milton R. Vaughn Tampa, Florida	1930

DEPTH OF WELL (FEET)	DEPTH OF CASING (FEET)	DIAMETER OF CASING (INCHES)	MEASURING POINT		WATER LEVEL		CHLORIDE CONTENT			USE OF WELL	REMARKS
			DESCRIPTION	ALTITUDE ABOVE MEAN SEA LEVEL (FEET)	DEPTH TO WATER (FEET)	DATE OF MEASUREMENT	PARTS PER MILLION	HOURS PUMPED	DATE OF SAMPLING		
318	96	12	Base of pump over well, 1.0 foot above land surface.	53.58	15.58 20.9	7-2-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-128. Cuttings from strata penetrated on file with Florida Geological Survey.
289 ?	60 ?	16 to 12	Base of pump over well, 1.0 foot above land surface.	53.31	12.01 16.5	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-130. Cuttings from strata penetrated on file with Florida Geological Survey.
300	76 ?	16 to 12	Base of pump over well, 1.0 foot above land surface.	59.33	17.63 22.5	6-20-30 12-29-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-129. Cuttings from strata penetrated on file with Florida Geological Survey.
299	54 ?	12 to 10	Base of pump over well, 1.0 foot above land surface.	57.55	15.35 19.8	7-20-30 12-22-34	---	---	---	Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-100. Cuttings from strata penetrated on file with Florida Geological Survey.
362 ?	---	12	Top of 12-inch casing, 1.0 foot above land surface.	57.09	8.08 9.55 7.85 9.08 10.15	10-23-30 1-9-35 7-13-40 1-10-45 7-25-49	---	---	---	Unused Public Supply	Listed in U. S. Geological Survey Water-Supply Paper 773-C, p. 168. F.G.S. well W-143. Cuttings from strata penetrated on file with Florida Geological Survey. Automatic water-stage recorder installed 5-17-44.