CANADA
DEPARTMENT OF MINES

HON. T. A. CRERAR, MINISTER; CHARLES CAMSELL, DEPUTY MINISTER

BUREAU OF ECONOMIC GEOLOGY

GEOLOGICAL SURVEY

PRELIMINARY REPORT

# GROUND-WATER RESOURCES OF THE RURAL MUNICIPALITY OF ROCANVILLE No. 151 SASKATCHEWAN

BY

B. R. MacKay, H. N. Hainstock & P. D. Bugg

Water Supply Paper No. 85

OTTAWA

1936

CANADA

DEPARTMENT OF MINES

BUREAU OF ECONOMIC GEOLOGY

GEOLOGICAL SURVEY

# GROUND WATER RESOURCES OF THE RURAL MUNICIPALITY OF ROCANVILLE NO. 151 SASKATCHEWAN

BY

B.R. MacKAY, H.N. HAINSTOCK, and P.D. BUGG

WATER SUPPLY PAPER NO. 85

CONTENTS



Illustrations

# GROUND WATER RESOURCES OF THE RURAL MUNICIPALITY OF ROCANVILLE, NO. 151, SASKATCHEWAN

## INTRODUCTION

Lack of rainfall during the years 1930 to 1934 over a large part of the Prairie Provinces brought about an acute shortage both in the larger supplies of surface water used for irrigation and the smaller supplies of ground water required for domestic purposes and for stock. In an effort to relieve the serious situation the Geological Survey began an extensive study of the problem from the standpoint of domestic uses and stock raising. During the field season of 1935 an area of 80,000 square miles, comprising all that part of Saskatchewan south of the north boundary of township 32, was systematically examined, records of approximately 60,000 wells were obtained, and 720 samples of water were collected for analyses. The facts obtained have been classified and the information pertaining to any well is readily accessible. Examination of so large an area and the interpretation of the data collected were possible because the bedrock geology and the Pleistocene deposits had been studied previously by McLearn, Warren, Rose, Stansfield, Wickenden, Russell, and others of the Geological Survey. The Department of Natural Resources of Saskatchewan and local well drillers assisted considerably in supplying several hundred well records. The base maps used were supplied by the Topographical Surveys Branch of the Department of the Interior.

## Publication of Results

The essential information pertaining to the ground water conditions is being published in reports, one being issued for each municipality. Copies of these reports are being sent to the secretary treasurers of the municipalities and to certain Provincial and Federal Departments, where they can be consulted by residents of the municipalities or by other persons, or they may be obtained by writing direct to the Director, Bureau of Economic Geology, Department of Mines, Ottawa. Should anyone require more detailed information than that contained in the reports such additional information as the Geological Survey possesses can be obtained on application to the director. In making such request the applicant should indicate the exact location of the area by giving the quarter section, township, range, and meridian concerning which further information is desired.

The reports are written principally for farm residents, municipal bodies, and well drillers who are either planning to sink new wells or to deepen existing wells. Technical terms used in the reports are defined in the glossary.

## How to Use the Report

Anyone desiring information about ground water in any particular locality should read first the part dealing with the municipality as a whole in order to understand more fully the part of the report that deals with the place in which he is interested. At the same time he should study the two figures accompanying the report. Figure 1 shows the surface and bedrock geology as related to the ground water supply, and Figure 2 shows the relief and the location and type of water wells. Relief is shown by lines of equal elevation called "contours". The elevation above sea-level

is given on some or all of the contour lines on the figure.

If one intends to sink a well and wishes to find the approximate depth to a water-bearing horizon, he must learn: (1) the elevation of the site, and (2) the probable elevation of the water-bearing bed. The elevation of the well site is obtained by marking its position on the map, Figure 2, and estimating its elevation with respect to the two contour lines between which it lies and whose elevations are give on the figure. Where contour lines are not shown on the figure, the elevations of adjacent wells as indicated in the Table of Well Records accompanying each report can be used. The approximate elevation of the water-bearing horizon at the well-site can be obtained from the Table of Well Records by noting the elevation of the water-bearing horizon in surrounding wells and by estimating from these known elevations its elevation at the well-site.[1] If the water-bearing horizon is in bedrock the depth to water can be estimated fairly accurately in this way. If the water-bearing horizon is in unconsolidated deposits such as gravel, sand, clay, or glacial debris, however, the estimated elevation is less reliable, because the water-bearing horizon may be inclined, or may be in lenses or in sand beds which may lie at various horizons and may be of small lateral extent. In calculating the depth to water, care should be taken that the water-bearing horizons selected from the Table of Well Records be all in the same geological horizon either in the glacial drift or in the bedrock. From the data in the Table

---

[1] If the well-site is near the edge of the municipality, the map and report dealing with the adjoining municipality should be consulted in order to obtain the needed information about nearby wells.

of Well Records it is also possible to form some idea of the quality and quantity of the water likely to be found in the proposed well.

## GLOSSARY OF TERMS USED

Alkaline. The term "alkaline" has been applied rather loosely to some ground waters. In the Prairie Provinces a water is usually described as "alkaline" when it contains a large amount of salts, chiefly sodium sulphate and magnesium sulphate in solution. Water that tastes strongly of common salt is described as "salty". Many "alkaline" waters may be used for stock. Most of the so-called "alkaline" waters are more correctly termed "sulphate waters".

Alluvium. Deposits of earth, clay, silt, sand, gravel, and other material on the flood-plains of modern streams and in lake beds.

Aquifer or Water-bearing Horizon. A water-bearing bed, lens, or pocket in unconsolidated deposits or in bedrock.

Buried pre-Glacial Stream Channels. A channel carved into the bedrock by a stream before the advance of the continental ice-sheet, and subsequently either partly or wholly filled in by sands, gravels, and boulder clay deposited by the ice-sheet or later agencies.

Bedrock. Bedrock, as here used, refers to partly or wholly consolidated deposits of gravel, sand, silt, clay, and marl that are older than the glacial drift.

Coal Seam. The same as a coal bed. A deposit of carbonaceous material formed from the remains of plants by partial decomposition and burial.

Contour. A line on a map joining points that have the same elevation above sea-level.

Continental Ice-sheet. The great ice-sheet that covered most of the surface of Canada many thousands of years ago.

Escarpment. A cliff or a relatively steep slope separating level or gently sloping areas.

Flood-plain. A flat part in a river valley ordinarily above water but covered by water when the river is in flood.

Glacial Drift. The loose, unconsolidated surface deposits of sand, gravel, and clay, or a mixture of these, that were deposited by the continental ice-sheet. Clay containing boulders forms part of the drift and is referred to as glacial till or boulder clay. The glacial drift occurs in several forms:

(1) Ground Moraine. A boulder clay or till plain (includes areas where the glacial drift is very thin and the surface uneven).

(2) Terminal Moraine or Moraine. A hilly tract of country formed by glacial drift that was laid down at the margin of the continental ice-sheet during its retreat. The surface is characterized by irregular hills and undrained basins.

(3) Glacial Outwash. Sand and gravel plains or deltas formed by streams that issued from the continental ice-sheet.

(4) Glacial Lake Deposits. Sand and clay plains formed in glacial lakes during the retreat of the ice-sheet.

Ground Water. Sub-surface water, or water that occurs below the surface of the land.

Hydrostatic Pressure. The pressure that causes water in a well to rise above the point at which it is struck.

Impervious or Impermeable. Beds, such as fine clays or shale, are considered to be impervious or impermeable when they do not permit of the perceptible passage or movement of the ground water.

Pervious or Permeable. Beds are pervious when they permit of the perceptible passage or movement of ground water, as for example porous sands, gravel, and sandstone.

Pre-Glacial Land Surface. The surface of the land before it was covered by the continental ice-sheet.

Recent Deposits. Deposits that have been laid down by the agencies of water and wind since the disappearance of the continental ice-sheet.

Unconsolidated Deposits. The mantle or covering of alluvium and glacial drift consisting of loose sand, gravel, clay, and boulders that overlie the bedrock.

Water Table. The upper limit of the part of the ground wholly saturated with water. This may be very near the surface or many feet below it.

Wells. Holes sunk into the earth so as to reach a supply of water. When no water is obtained they are referred to as dry holes. Wells in which water is encountered are of three classes.

(1) Wells in which the water is under sufficient pressure to flow above the surface of the ground. These are called Flowing Artesian Wells.

(2) Wells in which the water is under pressure but does not rise to the surface. These wells are called Non-Flowing Artesian Wells.

(3) Wells in which the water does not rise above the water table. These wells are called Non-Artesian Wells.

## NAMES AND DESCRIPTIONS OF GEOLOGICAL FORMATIONS, REFERRED TO IN THESE REPORTS

Wood Mountain Formation. The name given to a series of gravel and sand beds which have a maximum thickness of 50 feet, and which occur as isolated patches on the higher parts of Wood mountain. This is the youngest bedrock formation and, where present, overlies the Ravenscrag formation.

Cypress Hills Formation. The name given to a series of conglomerates and sand beds which occur in the southwest corner of Saskatchewan, and rest upon the Ravenscrag or older formations. The formation is 30 to 125 feet thick.

Ravenscrag Formation. The name given to a thick series of light-coloured sandstones and shales containing one or more thick lignite coal seams. This formation is 500 to 1,000 feet thick, and covers a large part of southern Saskatchewan. The principal coal deposits of the province occur in this formation.

Whitemud Formation. The name given to a series of white, grey, and buff coloured clays and sands. The formation is 10 to 75 feet thick. At its base this formation grades in places into coarse, limy sand beds having a maximum thickness of 40 feet.

Eastend Formation. The name given to a series of fine-grained sands and silts. It has been recognized at various localities over the southern part of the province, from the Alberta boundary east to the escarpment of Missouri coteau. The thickness of the formation seldom exceeds 40 feet.

Bearpaw Formation. The Bearpaw consists mostly of incoherent dark grey to dark brownish grey, partly bentonitic shales, weathering light grey, or, in places where much iron

is present, buff. Beds of sand occur in places in the lower part of the formation. It forms the uppermost bedrock formation over much of western and southwestern Saskatchewan and has a maximum thickness of 700 feet or somewhat more.

Belly River Formation. The Belly River consists mostly of non-marine sand, shale, and coal, and underlies the Bearpaw in the western part of the area. It passes eastward and northeastward into marine shale. The principal area of transition is in the western half of the area where the Belly River is mostly thinner than it is to the west and includes marine zones. In the southwestern corner of the area it has a thickness of several hundred feet.

Marine Shale Series. This series of beds consists of dark grey to dark brownish grey, plastic shales, and underlies the central and northeastern parts of Saskatchewan. It includes beds equivalent to the Bearpaw, Belly River, and older formations that underlie the western part of the area.

## WATER-BEARING HORIZONS OF THE MUNICIPALITY

The rural municipality of Rocanville, No. 151, is an area of approximately 286 square miles in southeastern Saskatchewan. The northern boundary of the municipality follows Qu'Appelle river, so that only part of the northern townships are included in this municipality. It consists of three full townships, described as townships 16, ranges 30, 31, and 32, two fractional townships each having an area of 30 square miles, described as townships 16 and 17, range 33, and those parts of townships 17, ranges 30, 31, and 32, and of townships 18, ranges 31, 32, 33, west of the first meridian that lie to the south of Qu'Appelle river. The centre of the municipality is 12 miles west of the Manitoba boundary and 96 miles north of the International Boundary line. The village of Rocanville, which is approximately 125 miles due east of Regina, is situated in the central part of the municipality.

The maximum elevation of 1,950 feet above sea-level is attained in the southwestern corner of the municipality. From this point, the elevation gradually decreases towards the northeast until Qu'Appelle valley or some of its tributary valleys are reached. The elevation of the plain above the valleys is 1,600 feet above sea-level in the eastern part and 1,700 feet in the western part of the municipality. The elevation of the valley floor in the eastern part is 1,300 feet, and in the western part of the municipality, 1,400 feet. Qu'Appelle valley is 1 mile to 2 miles wide, and 300 feet deep. A number of deep tributary valleys, the largest two containing Bear and Scissors creeks, are located in the northwestern part of the municipality. Away from the valleys the ground surface of the municipality is undulating. Qu'Appelle valley and a few of its tributary valleys are floored with 10 to 40 feet of Recent alluvium. Part of a large area of glacial outwash sands and gravels extends over the northeastern corner of the municipality and smaller areas throughout the municipality are

mantled by similar deposits. Small areas in the southwestern and southeastern corners of the municipality, and an area in township 17, range 31, are mantled by moraines. The remainder of the municipality is covered with boulder clay or glacial till.

Water-bearing Horizons in the Unconsolidated Deposits

The uppermost water-bearing horizon occurs within the upper 30 feet of glacial drift and extends discontinuously throughout the municipality. Large quantities of medium hard to soft water are obtained from the glacial outwash sands and gravels. The water is used for all general farming purposes including, in some places, small scale irrigation. It is very easy to locate water in these areas and the supply is little affected by continued drought periods. In the boulder clay and moraine-covered areas, isolated pockets of sand or gravel occur in the upper 30 feet of yellow or blue clay. Many holes are dug in an attempt to tap these pockets which in some places contain supplies of water. The amount of water derived from these wells is dependant on the areal extent of the sand and gravel pocket and the amount of precipitation. A few of the wells yield large supplies of medium hard water, whereas others have only small or intermittent supplies of very hard and highly mineralized water. In most sections this water is used for all household purposes, but the quantity may not be sufficient throughout the year, particularly if it be a dry year.

In the southern part of this municipality a number of wells have tapped discontinuous beds of sand and gravel at depths of 30 to 60 feet. Small supplies of highly mineralized water are obtained from these deposits and is being used for domestic purposes, as water of better quality is not obtainable. In township 16, range 30, this aquifer appears to be fairly continuous and fairly large supplies of water are obtained, but elsewhere numerous holes

were sunk without encountering the aquifer.

Some difficulty is experienced in obtaining water in the southern part of the municipality and many holes have been sunk to depths of 60 to 300 feet in an effort to obtain a sufficient water supply. A few sections are supplied with water from wells that are 100 to 160 feet deep, but the water-bearing sand bed that they have tapped is of small areal extent. Other wells from 180 to 280 feet deep, particularly in township 16, ranges 32 and 33, are obtaining a fairly abundant supply of highly mineralized water from beds of fine sand. The water is under low hydrostatic pressure and is not desirable for domestic use, but in most instances it is being used as no other supply is available. A well on the NE. ¼, sec. 9, tp. 16, range 32, is 380 feet deep, and taps a fine sand from which an abundance of water is obtained. The water is highly mineralized and rises to a point 180 feet below the surface. It is not advisable to drill to this depth in this municipality to try and locate water, as it is believed that the few wells that have obtained water at depth have tapped deposits that occur in narrow stream channels or isolated depressions in the pre-glacial bedrock surface, which might not be struck in other deep wells.

Water-bearing Horizons in the Bedrcok

The Marine Shale series underlies the glacial drift throughout this municipality. In the area outlined by the "A" boundary line on Figure 1 of the accompanying map the shale bedrock is penetrated at 5 to 60 feet below the surface. In wells in several sections, for example on the NE. ¼, sec. 9, tp. 16, range 32, bedrock was not reached at a depth of 380 feet. A pre-glacial valley appears to be present in this locality. Where the Marine Shale beds are not over 60 feet below the surface fairly abundant supplies of hard water, which can be used for all farming purposes, are obtained from it. During the drought it was

necessary to deepen a few of the wells to obtain a sufficient supply of water. Holes that penetrate the Marine Shale series outside of the area outlined on the map are either dry or obtain only small supplies of water. The Marine Shale series is generally considered to be non-water-bearing at depth.

## GROUND WATER CONDITIONS BY TOWNSHIPS

### Township 16, Range 30

The drainage of this township is towards the east and northeast, the elevation decreasing from 1,700 feet above sea-level in the southwestern corner to 1,600 feet in the eastern and northeastern parts. In the southern part of the township there is a fairly deep valley in which an intermittent creek flows. It is fed by numerous springs and surface run-off waters. The remainder of the township is slightly rolling and contains a few small ravines.

Part of a large moraine that lies to the east of the municipality extends into the southeastern part of the township. Glacial outwash deposits extend into the township in the northern sections, and boulder clay or glacial till mantles the remainder of the area.

Wells sunk to a depth of 10 to 20 feet into the sands and gravels in the areas that are covered by glacial outwash, yield an abundant supply of moderately soft water. A few pockets of sand and gravel have also been located in the moraine and boulder clay deposits, but the amount of water derived from wells tapping these pockets is only sufficient for domestic purposes.

The main source of water is obtained from a water-bearing horizon that extends fairly continuously throughout most of the township. This aquifer is formed by a bed of sand and gravel that occurs between beds of impervious blue clay at depths of 50 to 70 feet. The amount of water derived varies with the individual well, but there is usually a sufficient amount to supply 20 to 40 head of stock. The water is very hard and highly mineralized and in some instances it cannot be used for drinking. The water rises to a point 18 to 30 feet below the surface, depending on the surface elevation.

In sections 18, 20, and 24, attempts have been made to locate water at depths of 100 to 320 feet. On the SW. ¼, section 18, a bed of sand that contained highly mineralized water was penetrated at a depth of 100 feet. The seepage is very slow and there is only a sufficient amount of water for 30 to 40 head of stock, but if no pumping takes place for 24 hours it rises to a point 30 feet below the surface. All of the other holes to this depth were dry, so that the aquifer in this well is of small areal extent.

The Marine Shale series underlies the glacial drift of this township. It was struck at the base of a number of wells in sections 7, 8, 14, 15, and 16, at depths of 60 to 80 feet. These wells obtain a fairly abundant supply of water from the upper few feet of the shale, and from the lower part of the glacial drift. Some of the deeper wells in other parts of the township do not encounter the shale. The pre-glacial surface of the Marine Shale bedrock is, therefore, irregular, and contains depressions up to 250 feet deep. A 300-foot hole on the SE. ¼, section 20, reached shale at an elevation of 1,370 feet above sea-level, another hole on the SW. ¼, section 16, less than a mile from the 300-foot hole, encountered the shale at an elevation of 1,600 feet above sea-level. Unless the Marine Shale beds are near the surface they are generally non-water-bearing and, therefore, it is not advisable to continue drilling to depth after this formation is penetrated for a short distance.

Some localities in this township experience a shortage of water, particularly in dry years. Dams could be constructed and dugouts excavated to retain the surface run-off water, and during seasons of drought the water shortage could be somewhat alleviated in this manner.

Township 16, Range 31

The elevation of the surface in this township rises from 1,670 feet in the northeastern corner to 1,750 feet in the southwestern part. The ground surface is gently rolling and is cut by a few small valleys and ravines. The very deep valley of Scissors creek begins in sections 30 and 31.

Abundant supplies of water are obtained from deposits of glacial outwash sands and gravels in the northern part of the township. Varying amounts of water are also obtained from isolated pockets of sand and gravel that occur in the yellow clay. These deposits of sands and gravel, which occur in the uppermost 30 feet of the glacial drift, constitute the highest water-bearing horizon of the township. This horizon, however, is not continuous. The water derived from this aquifer is medium hard and is suitable for general household purposes. In a few wells tapping the glacial outwash sands and gravels the water cannot be lowered by pumping and the supply is generally sufficient for 50 to 60 head of stock.

A second water-bearing horizon in the glacial drift is encountered in a small area in the southwestern corner of the township. This aquifer is a bed of sand that occurs at a depth of 100 to 160 feet, or at an average elevation of 1,600 feet above sea-level. It is overlain by a 90- to 100-foot bed of impervious blue clay and underlain by shale of unknown thickness. The water is exceptionally hard and is highly mineralized, since it comes into contact with the blue clay and shale beds. In a few wells it is used for drinking, but only when other water is not obtainable. The hydrostatic pressure is low, as the water only rises to a point 65 to 110 feet below the surface, depending on the surface elevation. The individual wells will supply not more than 100 head of stock throughout the year.

The pre-glacial surface of the bedrock in this township is very irregular and it appears as if buried stream channels are present, although their extent cannot be outlined due to lack of information. In the area lying within the "A" boundary line on Figure 1 of the accompanying map, shale beds of the Marine Shale series are located at depths of 5 to 40 feet. Elsewhere in the township the Marine Shale beds are encountered at a depth of 90 to 180 feet. The area mentioned is characterized by many small knolls. These are knolls of shale that are concealed by a few feet of glacial drift. Small areas of shale rubble, sand, and gravel, are also located near some of the knolls. A number of wells in this area obtain a large supply of water from the upper part of the shale at depths of 10 to 65 feet, depending on the thickness of the glacial drift. The water is soft in most instances, but it has a high "total dissolved solid" content. It is used for all farming purposes and there is a sufficient amount from individual wells to supply 50 to 100 head of stock. In times of drought when the water-table was lowered some of the wells were deepened a few feet and an adequate supply of water was again obtained.

Township 16, Range 32

The elevation of the surface of this township rises gradually from 1,600 feet in the northeastern corner to 1,900 feet in the southwestern corner. A few small ravines and valleys drain northeasterly into the valley of Scissors creek, which starts in section 36.

A small area in the northeastern part of the township is mantled by glacial outwash sands and gravels. Elsewhere, the glacial drift is in the form of boulder clay or glacial till.

The uppermost water-bearing horizon lies within the initial 30 feet of the glacial drift. It is formed by glacial outwash sands and gravels and by scattered pockets of sands that occur within the boulder clay. Good supplies of water are obtained

from the glacial outwash sands and gravels, but pockets of sand and gravel are difficult to locate and the horizon is not continuous as many holes are often dug before any water is encountered. A few wells yield an abundant supply of usable water, but generally the wells that tap the isolated pockets of sand and gravel yield an intermittent supply sufficient only for domestic purposes.

Small supplies of water are also obtained from pockets of sand and gravel that occur at a depth of 50 to 60 feet between beds of blue clay. Many dry holes indicate that this water-bearing horizon is not continuous throughout the township. The water is very hard, and is highly mineralized due to the proximity of the blue clay.

In sections 16, 17, 19, 20, and 27, wells obtain a fair supply of hard, drinkable water from a gravel bed at depths of 100 to 160 feet. The water rises to a point 85 to 140 feet below the surface, and the supply from an individual well is sufficient for 100 to 150 head of stock. This water-bearing horizon is of small areal extent, as deeper wells within a short distance did not strike an aquifer at this depth.

A water-bearing horizon that is tapped throughout the township is encountered at a depth of 200 to 380 feet or at an elevation of 1,475 to 1,600. This horizon, however, may not be continuous. The aquifer is a bed of fine sand that is overlain by an impervious bed of blue clay. It is probably underlain throughout by the Marine Shale series although shale was not reported in every well. The water from this horizon is very hard and highly mineralized, and is not used for household purposes unless better water cannot be obtained. It rises to a point 150 feet below the surface where it maintains a constant level. The majority of these wells will supply 200 head of stock. In some instances the fine sand has a tendency to plug the well casings and reduce the supply of water.

The Marine Shale series underlies the glacial drift of this township. A buried valley appears to exist in this area. A well on the NE. $\frac{1}{4}$, section 9, taps the fine sand bed that overlies the shale bedrock at a depth of 380 feet or at an elevation of 1,475 feet above sea-level. From this well eastward the shale bedrock surface rises to an elevation of 1,600 feet, and in township 16, range 31, it is encountered within a few feet of the surface. The same conditions exist towards the west. No water-bearing horizons are found in the Marine Shale series in this township, and it is improbable that any exist at places where the overlying glacial drift is very thick.

A great deal of digging and drilling has been done in this township in an effort to locate water, but many of the inhabitants have not as yet obtained an adequate supply. In a few sections dams could be constructed across the small valley or ravines. In other parts dugouts could be excavated, and the surface waters retained by these methods would greatly alleviate the water shortage during periods of drought.

Township 16, Range 33

This township comprises an area of 30 square miles, its western boundary being the second meridian. The surface is slightly rolling and is cut by a few small ravines that run in a northeasterly direction into Qu'Appelle valley. The northeastern and southwestern corners are mantled by boulder clay or glacial till and the remainder of the township is covered by part of a moraine.

The upper 5 to 40 feet of the glacial drift is composed of yellow clay. Small pockets of sand and gravel in this yellow clay yield small supplies of medium hard water. These pockets do not form a continuous aquifer and in many localities they may be absent. During periods of drought the wells that have located gravel pockets become completely or nearly dry, and thus many attempts have been made to locate water at depth. A few holes dug to depths

of 50 to 60 feet have obtained small supplies from thin layers of sand in the blue clay, but the seepage of water into the wells is so slow that only a few head of stock can be watered from them.

A number of wells throughout the township are deriving large supplies of water from a sand or gravel bed at depths of 125 to 180 feet in the drift. This aquifer is overlain by an impervious bed of blue clay and underlain by the Marine Shale series, but it is not known if the aquifer is continuous. The water is highly mineralized but in most of the wells it is being used for all farming purposes except irrigation. The hydrostatic pressure is sufficient to cause the water to rise to a point 80 to 120 feet below the surface.

A number of wells have encountered shale at elevations of 1,700 feet to 1,800 feet above sea level, the shale rising gradually towards the west. This shale is part of the Marine Shale series that underlies the glacial drift of this township. A hole on the SW. $\frac{1}{4}$, section 2, penetrated this formation at a depth of 80 feet, but no water was found. It is doubtful if any usable water will be obtained from the Marine Shale beds in this township.

Township 17, Range 30

Qu'Appelle valley occupies sections 32 to 36. It is approximately one mile wide and its banks rise abruptly for 250 feet. About a mile back from the river, and paralleling it, there is a second abrupt rise of approximately 25 feet, but beyond this rise the ground surface for the most part is quite level. A northwest-southeast trending ridge of gravel, approximately a mile long and 50 feet wide, occurs in sections 22 and 28. In the southern part of the township there are also a few deep valleys that dissect the plain in an east to west direction. The average elevation of the plain is 1,600 feet, and of the river, 1,300 feet.

The flood-plain of Qu'Appelle river is mantled with Recent alluvium to a depth of 5 to 40 feet, the deposit being

thickest near the river channel. With the exception of a small area in the southwestern corner that is mantled by boulder clay or till, the remainder of the township is covered by glacial outwash sands and gravels. In the eastern part of the township these deposits occur at the surface, but in the western part they are overlain by a thin covering of soil. Abundant supplies of usable water can be obtained from these glacial outwash deposits at shallow depth, so that where they occur it has not been necessary to attempt to locate water at depth.

In the area that is mantled by boulder clay, a fairly abundant supply of water is obtained from small deposits of sand and gravel that occur at depths of 10 to 20 feet in the drift. The individual wells generally yield a supply that is sufficient for 50 head of stock. A few wells have been drilled to depths of 60 to 100 feet, but they proved to be either dry, or yielded only small supplies of water. The best locations for shallow wells in this till-covered area are in the vicinity of the ravines.

Township 17, Range 31

The abrupt deep valley of Qu'Appelle river passes through sections 30 and 31. A low-lying area parallels Qu'Appelle valley, and contains two intermittent lakes. The southeastern corner of the township is mantled by a small moraine, the surface of which is rough and dissected by many deep ravines. In certain sections it is heavily wooded. An area in the southwestern corner is mantled by glacial outwash sands and gravels and the remainder of the township is covered by boulder clay or glacial till.

The main supply of water in this township is obtained from the glacial outwash gravels and from pockets of sand and gravel that occur within 20 feet of the surface in the glacial till and moraine. The supply from wells tapping the glacial outwash deposits and some of the pockets is abundant, and suitable for all farm needs. Some of the wells, however, that have tapped gravel

pockets are intermittent in character and are dependant upon the amount of annual precipitation for their supply. In a few sections holes have been bored to depths of 40 to 80 feet, and have encountered small supplies of hard, highly mineralized water in a fine sand aquifer. The sand usually plugs the well and shuts off the supply of water. Water has not been obtained from the glacial drift below a depth of 80 feet.

The Marine Shale series underlies the glacial drift of this township. In section 24 shale is reported at a depth of 60 feet or at an elevation of 1,565 feet above sea-level. In sections 16 and 22 the shale is at a depth of 80 and 65 feet, respectively, or at an elevation of 1,575 feet above sea-level. The valley and ridges in sections 17, 18, 19, 20, 21, 28, 29, 32, and 33 are formed largely by the Marine Shale series which outcrops in sections 20, 30, and 31, and is overlain by a few feet of glacial drift in the other sections mentioned. In the area outlined by the"A" boundary line on Figure 1 of the accompanying map, an abundance of usable water is obtained at a depth of 10 to 50 feet in the shale. In dry years when the level of the water-table is lowered, the wells are deepened and sufficient water obtained. It has been found that the water from the shale is more highly mineralized at depth, but it is being used for all farm purposes. The individual wells tapping this water-bearing horizon will supply from 30 to 100 head of stock, and in a few of them the water level cannot be lowered by pumping.

This township with the exception of a few sections has no shortage of water and the water that is obtained is of a better quality than that found in other townships. It would not be advisable to drill to any great depth in an effort to locate water in this township as the Marine Shale series is generally non-water-bearing at depth. In places where the shale beds are near the surface, however, moderate supplies of water can usually be obtained

from the upper few feet of the beds.

Township 17, Range 32

Qu'Appelle river enters this township in section 34, flows south for 2 miles and then flows east, leaving the township in section 25. The part of the township that lies to the north of the river belongs to another municipality and is not discussed in this report. The area under discussion is deeply dissected by the tributaries of Qu'Appelle river. The two largest tributaries are Bear and Scissors creeks, the valleys of which are very steep-sided and are from 200 to 300 feet deep.

Deposits of Recent alluvium floor the valleys of Bear and Scissors creeks, and Qu'Appelle river. Small areas in the southwestern corner are mantled with glacial outwash sands and gravels, but the remainder of the township is covered by boulder clay or glacial till.

The uppermost water-bearing horizon is formed by the glacial outwash sands and gravels and by pockets of sand and gravel that are interspersed in the upper 30 feet of the glacial till. An abundant supply of medium soft water is obtained from the outwash deposits, but a number of holes are usually sunk before the pockets of sand and gravel are located. Water from these pockets is hard and highly mineralized and the supply is greatly affected by the amount of seasonal precipitation. However, few farmers in the township experience a shortage of water. A few wells sunk into the Recent alluvium along the creek and river obtain a fairly good supply of highly mineralized water.

The Marine Shale series underlies the glacial drift throughout the township. It outcrops in many places along the valleys of Bear and Scissors creeks, and Qu'Appelle river. In the area that is outlined by the "A" boundary line on Figure 1 of the accompanying map the shale comes very close to the surface. In this area an abundance of water is obtained from wells sunk 10 to

30 feet into the shale beds. The water is quite hard and highly mineralized, but it is used for all farm purposes. The water that is derived from the deeper wells in the Marine Shale beds contains a greater concentration of mineral salts in solution than does the water derived from the shallow wells.

Township 17, Range 33

The elevation of the surface of this township rises from 1,700 feet in the north to 1,900 feet above sea-level in the southwestern part. The deep valley of Bear creek occurs in the northern part of the township and steep-sided tributary valleys extend for a few miles into the township on the eastern side.

A part of a large moraine extends into the southwestern part of the township. A large area in the western part is mantled by glacial outwash sands and gravels and the remainder of the township is covered by boulder clay or glacial till.

The main supply of water in this township is obtained from discontinuous water-bearing horizons in the glacial drift. Wells sunk to depths of 10 to 20 feet in the glacial outwash deposits yield an abundance of medium hard water that is usable for all domestic purposes. The majority of these wells will supply 50 to 100 head of stock with water throughout the year. Small supplies of hard water are also obtained from pockets of sand and gravel that are interspersed through the upper 30 feet of the glacial drift. Some of these wells are intermittent and others are only used for domestic purposes. In the southeastern part of the township a few wells 30 to 60 feet deep penetrate a sand bed that yields small supplies of highly mineralized water. There is a shortage of water in a few sections in this area, and the residents are forced to haul water from wells having a permanent supply. In sections 3 and 10, two wells tapped a good supply of water in a sand bed at depths of 184 and 135 feet, respectively. The sand aquifer in the well on the SW. $\frac{1}{4}$, section 10, is underlain by the Marine Shale series. The

water is very hard and highly mineralized, but is being used for domestic purposes. Possibly other wells to this depth in this locality would tap this same water-bearing bed of sand.

Shale is reported as occurring within a few feet of the surface in sections 20 and 34, and in these two localities fair supplies of water are obtained from it at a depth of 25 feet. The Marine Shale series has not been encountered elsewhere in the township. It is not advisable to drill far into this shale if it is overlain by a thick deposit of drift, as in such places it is usually non-water-bearing.

Township 18, Range 31

Only an area of 4 square miles along the southern border of this township, which lies to the south of Qu'Appelle river, is discussed in this report. The surface of this area is rough and the land is not cultivated. Only one 14-foot well is located in the area and it yields a supply of water that is used for domestic purposes only, the stock being watered at the river. Fairly abundant supplies of water should be obtained from pockets of sand and gravel at shallow depths in the glacial drift in the area.

Township 18, Range 32

Only the part of the township lying to the south of Qu'Appelle river, comprising an area of approximately 6 square miles and including sections 4, 5, 6, and 8, and parts of sections 3, 7, 9, and 10, is discussed in this report. Four wells have been located in this area and they yield an abundant supply of usable water. Three of these wells have tapped deposits of sand or gravel that lie within 25 feet of the surface.

Marine Shale bedrock is encountered in the fourth well in the SE. $\frac{1}{4}$, section 5, at a depth of 22 feet. This well yields an abundant supply of hard, usable water.

There should be no shortage of water in the part of this township under discussion. Adequate supplies of water for

domestic use can be obtained from the upper part of the drift, and the stock can be watered at Qu'Appelle river.

Township 18, Range 33

Only the part of this township that lies to the south of Qu'Appelle river is discussed in this report. It consists of sections 1, 2, 3, 4, 5, 8, and 9, and parts of sections 10, 11, 12, 16, and 17, and comprises an area of approximately 9 square miles. This area is dissected by many tributary valleys of Qu'Appelle river and is only sparsely settled. Only one well was reported. It is 20 feet deep and is located in the SW. $\frac{1}{4}$, section 12. It is obtaining a fairly abundant supply of highly mineralized water from deposits of Recent alluvium in a small valley. Numerous springs occur along the valleys and they and Qu'Appelle river can be used for watering stock.

Several outcrops of the Marine Shale were observed along the valley of Qu'Appelle river. Where this shale comes close to the surface, fairly abundant supplies of water are obtainable from the upper few feet of the rock. There should be no shortage of water in this township.

STATISTICAL SUMMARY OF WELL INFORMATION I: RURAL MUNICIPALITY OF ROCANVILLE, NO. 151, SASKATCHEWAN

| Township / West of 1st mer. Range | 16 30 | 16 31 | 16 32 | 16 33 | 17 30 | 17 31 | 17 32 | 17 33 | 18 31 | 18 32 | 18 33 | Total No. in municipality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total No. of Wells in Township | 90 | 83 | 115 | 93 | 68 | 105 | 45 | 119 | 5 | 18 | 2 | 743 |
| No. of wells in bedrock | 6 | 25 | 3 | 3 | 0 | 32 | 19 | 4 | 0 | 1 | 0 | 93 |
| No. of wells in glacial drift | 84 | 58 | 112 | 90 | 67 | 73 | 24 | 115 | 5 | 17 | 1 | 646 |
| No. of wells in alluvium | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 4 |
| Permanency of Water Supply | | | | | | | | | | | | |
| No. with permanent supply | 53 | 75 | 79 | 37 | 38 | 73 | 4, | 46 | 1 | 11 | 2 | 455 |
| No. with intermittent supply | 14 | 2 | 5 | 5 | 5 | 5 | 3 | 3 | 0 | 0 | 0 | 42 |
| No. dry holes | 23 | 6 | 31 | 51 | 25 | 27 | 2 | 70 | 4 | 7 | 0 | 246 |
| Types of Wells | | | | | | | | | | | | |
| No. of flowing artesian wells | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of non-flowing artesian wells | 16 | 19 | 25 | 12 | 1 | 6 | 2 | 6 | 0 | 0 | 0 | 87 |
| No. of non-artesian wells | 51 | 58 | 59 | 30 | 42 | 72 | 41 | 43 | 1 | 11 | 2 | 410 |
| Quality of Water | | | | | | | | | | | | |
| No. with hard water | 67 | 62 | 76 | 40 | 30 | 70 | 41 | 44 | 1 | 9 | 2 | 442 |
| No. with soft water | 0 | 15 | 8 | 2 | 13 | 8 | 2 | 5 | 0 | 2 | 0 | 55 |
| No. with salty water | 0 | 1 | 0 | 0 | 0 | 1 | 0 | [illegible] | 0 | 0 | 0 | 2 |
| No. with "alkaline" water | 18 | 5 | 1 | 2 | 1 | 1 | 1 | 7 | 0 | 0 | 1 | 37 |
| Depths of Wells | | | | | | | | | | | | |
| No. from 0 to 50 feet deep | 41 | 69 | 81 | 50 | 49 | 91 | 42 | 80 | 5 | 18 | 2 | 528 |
| No. from 51 to 100 feet deep | 44 | 9 | 17 | 29 | 17 | 14 | 3 | 37 | 0 | 0 | 0 | 170 |
| No. from 101 to 150 feet deep | 4 | 2 | 3 | 5 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 17 |
| No. from 151 to 200 feet deep | 0 | 2 | 7 | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 |
| No. from 201 to 500 feet deep | 1 | 1 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| No. from 501 to 1,000 feet deep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. over 1,000 feet deep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| How the Water is used | | | | | | | | | | | | |
| No. usable for domestic purposes | 56 | 69 | 73 | 38 | 40 | 72 | 41 | 46 | 1 | 11 | 2 | 449 |
| No. not usable for domestic purposes | 11 | 8 | 11 | 4 | 3 | 6 | 2 | 3 | 0 | 0 | 0 | 48 |
| No usable for stock | 63 | 77 | 81 | 41 | 42 | 76 | 43 | 48 | 1 | 11 | 2 | 485 |
| No. not usable for stock | 4 | 0 | 3 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 12 |
| Sufficiency of Water Supply | | | | | | | | | | | | |
| No. sufficient for domestic needs | 53 | 74 | 78 | 37 | 43 | 74 | 39 | 46 | 1 | 11 | 2 | 458 |
| No. insufficient for domestic needs | 14 | 3 | 6 | 5 | 0 | 4 | 4 | 3 | 0 | 0 | 0 | 39 |
| No. sufficient for stock needs | 44 | 57 | 65 | 28 | 34 | 64 | 32 | 43 | 1 | 11 | 2 | 381 |
| No. insufficient for stock needs | 23 | 20 | 19 | 14 | 9 | 14 | 11 | 6 | 0 | 0 | 0 | 116 |

## ANALYSES AND QUALITY OF WATER

### General Statement

Samples of water from representative wells in surface deposits and bedrock were taken for analyses. Except as otherwise stated in the table of analyses the samples were analysed in the laboratory of the Borings Division of the Geological Survey by the usual standard methods. The quantities of the following constituents were determined; total dissolved mineral solids, calcium oxide, magnesium oxide, sodium oxide by difference, sulphate, chloride, and alkalinity. The alkalinity referred to here is the calcium carbonate equivalent of all acid used in neutralizing the carbonates of sodium, calcium, and magnesium. The results of the analyses are given in parts per million--that is, parts by weight of the constituents in 1,000,000 parts of water; for example, 1 ounce of material dissolved in 10 gallons of water is equal to 625 parts per million. The samples were not examined for bacteria, and thus a water that may be termed suitable for use on the basis of its mineral salt content might be condemned on account of its bacteria content. Waters that are high in bacteria content have usually been polluted by surface waters.

### Total Dissolved Mineral Solids

The term "total dissolved mineral solids" as here used refers to the residue remaining when a sample of water is evaporated to dryness. It is generally considered that waters that have less than 1,000 parts per million of dissolved solids are suitable for ordinary uses, but in the Prairie Provinces this figure is often exceeded. Nearly all waters that contain more than 1,000 parts per million of total solids have a taste due to the dissolved mineral matter. Residents

accustomed to the waters may use those that have much more than 1,000 parts per million of dissolved solids without any marked inconvenience, although most persons not used to highly mineralized water would find such waters highly objectionable.

## Mineral Substances Present

### Calcium and Magnesium

The calcium (Ca) and magnesium (Mg) content of water is dissolved from rocks and soils, but mostly from limestone, dolomite, and gypsum. The calcium and magnesium salts impart hardness to water. The magnesium salts are laxative, especially magnesium sulphate (Epsom salts, $MgSO_4$), and they are more detrimental to health than the lime or calcium salts. The calcium salts have no laxative or other deleterious effects. The scale found on the inside of steam boilers and tea-kettles is formed from these mineral salts.

### Sodium

The salts of sodium are next in importance to those of calcium and magnesium. Of these, sodium sulphate (Glauber's salt, $Na_2SO_4$) is usually in excess of sodium chloride (common salt, NaCl). These sodium salts are dissolved from rocks and soils. When there is a large amount of sodium sulphate present the water is laxative and unfit for domestic use. Sodium carbonate ($Na_2CO_3$) "black alkali", sodium sulphate "white alkali", and sodium chloride are injurious to vegetation.

### Sulphates

Sulphates ($SO_4$) are one of the common constituents of natural water. The sulphate salts most commonly found are sodium sulphate, magnesium sulphate, and calcium sulphate ($CaSO_4$). When the water contains large quantities of the sulphate of sodium it is injurious to vegetation.

Chlorides

Chlorides are common constituents of all natural water and are dissolved in small quantities from rocks. They usually occur as sodium chloride and if the quantity of salt is much over 400 parts per million the water has a brackish taste.

Iron

Iron (Fe) is dissolved from many rocks and the surface deposits derived from them, and also from well casings, water pipes, and other fixtures. More than 0.1 part per million of iron in solution will settle as a red precipitate upon exposure to the air. A water that contains a considerable amount of iron will stain porcelain, enamelled ware, and clothing that is washed in it, and when used for drinking purposes has a tendency to cause constipation, but the iron can be almost completely removed by aeration and filtration of the water.

Hardness

Calcium and magnesium salts impart hardness to water. Hardness of water is commonly recognized by its soap-destroying powers as shown by the difficulty of obtaining lather with soap. The total hardness of a water is the hardness of the water in its original state. Total hardness is divided into "permanent hardness" and "temporary hardness". Permanent hardness is the hardness of the water remaining after the sample has been boiled and it represents the amount of mineral salts that cannot be removed by boiling. Temporary hardness is the difference between the total hardness and the permanent hardness and represents the amount of mineral salts that can be removed by boiling. Temporary hardness is due mainly to the bicarbonates of calcium and magnesium and iron, and permanent harness to the sulphates and chlorides of calcium and magnesium. The permanent hardness

can be partly eliminated by adding simple chemical softeners such as ammonia or sodium carbonate, or many prepared softeners. Water that contains a large amount of sodium carbonate and small amounts of calcium and magnesium salts is soft, but if the calcium and magnesium salts are present in large amounts the water is hard. Water that has a total hardness of 300 parts per million or more is usually classed as excessively hard. Many of the Saskatchewan water samples have a total hardness greatly in excess of 300 parts per million; when the total hardness exceeded 3,000 parts per million no exact hardness determination was made. Also no determination for temporary hardness was made on waters having a total hardness less than 50 parts per million. As the determinations of the soap hardness in some cases were made after the samples had been stored for some time, the temporary hardness of some of the waters as they come from the wells probably is higher than that given in the table of analyses.

Water from the Unconsolidated Deposits

No samples of water from the municipality of Rocanville were analysed. The water that is derived from the sand and gravel deposits in the moraine and glacial till contains a greater content of mineral saltsin solution than does the water that is derived from the Recent alluvium and outwash sands and gravels. This fact is noticeable in this municipality, the waters from the glacial outwash deposits being described locally as moderately hard, or soft, whereas those from the glacial till and moraine are reported as being very hard and often "alkaline". As a rule the water from the glacial outwash deposits and Recent alluvium has an approximate total dissolved solid content of 500 to 1,000 parts per million, whereas that from the other glacial deposits has a total dissolved solid content varying from 1,000 to 4,000 parts per million. Care should be taken to see that the wells tapping aquifers close to the surface are not contaminated by surface waters containing sewage. In general, the water from the upper part of the glacial drift in this municipality is suitable for all farm purposes. The water that is obtained at depth in the glacial drift is highly mineralized and in many instances is not suitable for drinking as it has a laxative effect. It is however, suitable for stock.

Water from the Bedrock

The water that is obtained from the upper few feet of the Marine Shale series, where it comes close to the surface in this municipality, has much the same qualities as that obtained from the glacial drift. It is hard and contains a considerable amount of mineral salts in solution, the total solid content increasing with depth. Sodium chloride or common salt is more concentrated in the waters from the upper part of the shale than in those from the drift, and imparts a brackish taste to the water. It can generally be used, however, for all farm purposes. Any water that is encountered at depth in the shale will probably be too highly mineralized for either domestic use or for stock.

# WELL RECORDS—Rural Municipality of - ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NW. | 1 | 16 | 30 | 1 | Dug | 30 | 1,600 | - 14 | 1,586 | 25 | 1,575 | Glacial gravel | Hard, clear, iron | | D, S | Sufficient for 40 head stock. |
| 2 | SE. | 2 | " | " | " | " | 55 | 1,648 | - 47 | 1,601 | 50 | 1,598 | " " | Hard, " | | D, S | " " 70 " " . |
| 3 | SW. | 2 | " | " | " | " | 50 | 1,670 | - 48 | 1,622 | 45 | 1,625 | " " | " , " , iron | | D, S | Small supply. |
| 4 | SE. | 3 | " | " | " | " | 70 | 1,660 | - 64 | 1,596 | 64 | 1,596 | " sand | Hard, " | | S | Intermittent supply; hauls from Welyn well. |
| 5 | SW. | 3 | " | " | " | Spring | 0 | 1,652 | 0 | 1,652 | 0 | 1,652 | " " | " , " , iron | | D, S | Abundant supply. Springs flows yearly. |
| 6 | NE. | 4 | " | " | " | Dug | 62 | 1,660 | - 58 | 1,602 | 62 | 1,598 | " " | Hard, " | | D, S | Waters 30 head stock. |
| 7 | SE. | 4 | " | " | " | " | 38 | 1,650 | | | 38 | 1,612 | " fine sand | " , " | | D, S | Waters 50 head stock. |
| 8 | NE. | 4 | " | " | " | " | 66 | 1,630 | - 63 | 1,617 | 61 | 1,619 | " sand | " , " | | D, S | Good supply; general farm use. |
| 9 | SW. | 4 | " | " | " | " | 60 | 1,680 | - 46 | 1,632 | 55 | 1,625 | " gravel | " , " | | D, S | Waters 50 head stock. |
| 10 | SE. | 6 | " | " | " | " | 25 | 1,685 | - 17 | 1,668 | 22 | 1,663 | " " | " , " | | D, S | Sufficient for 30 head stock. |
| 11 | SW. | 6 | " | " | " | Bored | 65 | 1,690 | - 61 | 1,629 | 61 | 1,629 | " fine sand | " , " , iron, sulphur | | D, S | Pumps dry; refills in 20 minutes. |
| 12 | SE. | 7 | " | " | " | Dug | 50 | 1,710 | - 10 | 1,700 | 49 | 1,661 | Marine shale | Hard, clear, red sediment | | D, S | Sufficient for 60 to 70 head stock. |
| 13 | SE. | 8 | " | " | " | " | 62 | 1,700 | - 53 | 1,647 | 42 | 1,658 | Glacial sand | Hard, clear, "alkaline" | | D, S | Small supply; two other wells. |
| 14 | NW. | 8 | " | " | " | " | 24 | 1,700 | - 6 | 1,694 | 18 | 1,682 | Marine shale | Hard, clear, iron | | D, S | Sufficient for 50 head stock. |
| 15 | NE. | 10 | " | " | " | " | 47 | 1,635 | - 27 | 1,608 | 33 | 1,602 | Glacial sand | Hard, clear, "alkaline" | | D, S | Good supply for few head stock. |
| 16 | NE. | 11 | " | " | " | " | 66 | 1,618 | - 36 | 1,582 | 59 | 1,559 | " " | Hard, clear, iron, "alk-aline" | | D, S | Sufficient with dugout. |
| 17 | NE. | 12 | " | " | " | " | 54 | 1,605 | - 24 | 1,581 | 53 | 1,552 | " " | Hard, clear, iron | | D, S | Intermittent supply; decreased 1932 to 1935. |
| 18 | NW. | 14 | " | " | " | " | 60 | 1,610 | - 25 | 1,585 | | | " " | Hard, clear, iron | | D, S | Waters 50 head stock; two other wells also. |
| 19 | SW. | 14 | " | " | " | " | 78 | 1,630 | - 58 | 1,572 | 60 | 1,570 | Marine shale | Hard, clear, iron | | D, S | Sufficient for local needs. |
| 20 | SE. | 15 | " | " | " | " | 67 | 1,630 | - 32 | 1,598 | 55 | 1,575 | " " | Hard, clear | | D, S | Waters 25 head stock. |
| 21 | SE. | 16 | " | " | " | " | 60 | 1,658 | - 48 | 1,610 | 50 | 1,608 | " " | Hard, clear, "alkaline" | | D, S | Bountiful supply; no shortage. |
| 22 | SW. | 16 | " | " | " | " | 60 | 1,670 | | | | | " " | | | | Dry holes; 20 dry holes dug; hauls water. |
| 23 | SE. | 17 | " | " | " | " | 15 | 1,700 | 0 | 1,700 | 2 | 1,698 | Glacial sand | Hard, clear | | D, S | Intermittent supply; depends on rainfall. |
| 24 | NE. | 18 | " | " | " | " | 12 | 1,690 | - 6 | 1,684 | 6 | 1,684 | " gravel | " , " | | D, S | Waters 30 head stock. |
| 25 | SW. | 18 | " | " | " | Drilled | 100 | 1,690 | - 30 | 1,660 | 95 | 1,595 | " sand | Hard, clear, iron, "alk-aline" | | D, S | Constant water level; waters 40 head stock; laxative. |
| 26 | SE. | 20 | " | " | " | " | 320 | 1,670 | | | | | Marine shale | | | | Dry hole; 2 dry holes 100 and 125 feet in blue clay. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | SW. | 20 | 16 | 30 | 1 | Dug | 12 | 1,675 | 0 | 1,675 | | | Glacial sand | Medium, hard, clear | | D, S | Intermittent supply; depends on rainfall. |
| 28 | NW. | 20 | " | " | " | Drilled | 150 | 1,665 | | | | | " gravel | | | | Dry hole. |
| 29 | NE. | 22 | " | " | " | Dug | 54 | 1,625 | - 53 | 1,572 | 34 | 1,591 | " sand | Hard, clear, iron | | D, S | Sufficient with aid of 2 more wells. |
| 30 | SE. | 23 | " | " | " | " | 70 | 1,615 | - 25 | 1,590 | 50 | 1,565 | " " | Hard, clear, "alkaline" | | S | Intermittent supply; two similar wells. |
| 31 | SE. | 24 | " | " | " | Bored | 80 | 1,620 | - 54 | 1,566 | 54 | 1,566 | " gravel | Hard, clear, "alkaline" | | S | Intermittent supply; hauls water and uses dugouts. |
| 32 | NW. | 24 | " | " | " | " | 90 | 1,575 | | | | | " sand | | | | Dry hole. |
| 33 | NE. | 26 | " | " | " | Dug | 55 | 1,570 | - 25 | 1,545 | | | " clay | Hard, clear, "alkaline" | | D, S | Sufficient with other similar well. |
| 34 | SE. | 26 | " | " | " | " | 72 | 1,580 | - 69 | 1,511 | 70 | 1,510 | " sand | Hard, clear, iron | | S | Dry in 1935; hauls water; uses dugout. |
| 35 | SE. | 27 | " | " | " | " | 65 | 1,590 | | | | | " clay | Hard, clear, "alkaline" | | D, S | Small supply; dammed ravine. |
| 36 | NE. | 28 | " | " | " | " | 10 | 1,600 | - 7 | 1,593 | 0 | 1,600 | " gravel | Hard, clear | | D, S | Bountiful supply; constant water level. |
| 37 | NW. | 28 | " | " | " | " | 11 | 1,625 | - 9 | 1,616 | | 1,625 | " " | " , " | | D, S | Waters 40 head stock. |
| 38 | SE. | 30 | " | " | " | " | 7 | 1,675 | - 4 | 1,671 | | | " " | " , " "alkaline" | | D | Intermittent supply; two other wells supplies stock. |
| 39 | SW. | 30 | " | " | " | " | 12 | 1,680 | 0 | 1,680 | 8 | 1,672 | " fine sand | Hard, clear, "alkaline" | | D, S | Abundant supply; neighbours haul 15 tanks daily in dry seasons. |
| 40 | SW. | 31 | " | " | " | " | 12 | 1,650 | - 8 | 1,642 | 4 | 1,646 | " sand, gravel | Hard, clear | | D, S | Waters 30 head stock. |
| 41 | NE. | 33 | " | " | " | " | 14 | 1,590 | - 10 | 1,580 | 0 | 1,590 | " gravel | " , " | | D, S | Strong supply. |
| 42 | SE. | 34 | " | " | " | " | 14 | 1,580 | - 6 | 1,574 | 2 | 1,578 | " " | " , " | | D, S | Intermittent supply; slough for stock. |
| 43 | SW. | 34 | " | " | " | " | 55 | 1,592 | - 35 | 1,557 | | | " clay | " , " , "alkaline" | | S | Intermittent supply; slow seepage. |
| 44 | SE. | 35 | " | " | " | " | 50 | 1,570 | - 25 | 1,545 | 25 | 1,545 | " " | Hard, clear, "alkaline" | | D, S | Intermittent supply; hauls water. |
| 1 | SW. | 1 | 16 | 31 | 1 | Dug | 32 | 1,715 | - 12 | 1,703 | 32 | 1,683 | Marine shale | Hard, clear, iron | | D, S | Strong supply; oversufficient. |
| 2 | SE. | 1 | " | " | " | " | 20 | 1,700 | - 10 | 1,690 | 10 | 1,690 | Glacial gravel | Hard, clear, sulphur | | D, S | Intermittent supply; several wells supply needs. |
| 3 | NE. | 2 | " | " | " | " | 30 | 1,700 | - 10 | 1,698 | 30 | 1,678 | Marine shale | Hard, clear | | D, S | Strong supply. |
| 4 | SE. | 3 | " | " | " | " | 11 | 1,725 | - 5 | 1,720 | 6 | 1,719 | Glacial gravel | Soft, clear | | D, S | Abundant supply. |
| 5 | NE. | 4 | " | " | " | Drilled | 80 | 1,725 | - 40 | 1,685 | 80 | 1,645 | " sand | Hard, clear, iron | | D, S | Sufficient with aid of dam and shallow well. |
| 6 | SE. | 5 | " | " | " | Bored | 45 | 1,748 | - 35 | 1,713 | 40 | 1,708 | " gravel | Hard, clear | | D, S | Waters 50 head stock. |
| 7 | NW. | 5 | " | " | " | Dug | 10 | 1,735 | - 7 | 1,728 | 7 | 1,728 | Marine shale | Soft, clear | | D, S | Strong supply; six farmers haul from this well. |
| 8 | SE. | 6 | " | " | " | Drilled | 70 | 1,760 | - 36 | 1,724 | 65 | 1,695 | Glacial gravel | Hard, cloudy, salty, iron | | D, S | Sufficient for 40 head stock. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE: Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED: Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | NW. | 6 | 16 | 31 | 1 | Drilled | 110 | 1,775 | - 55 | 1,720 | 110 | 1,665 | Glacial clay | Hard, clear, iron | | S | Slow seepage; insufficient. |
| 10 | SE. | 7 | " | " | " | " | 140 | 1,755 | -110 | 1,645 | 140 | 1,615 | " fine sand | Hard | | | Well plugged with fine sand; two shallow wells. |
| 11 | NW. | 8 | " | " | " | " | 170 | 1,740 | - 70 | 1,670 | 170 | 1,570 | " sand | Hard, clear, iron | | D, S | Small supply; shallow well for stock. |
| 12 | NE. | 8 | " | " | " | " | 94 | 1,740 | - 64 | 1,676 | 84 | 1,656 | " gravel | Hard, cloudy, attacks iron | | S | Strong supply; |
| 13 | SW. | 9 | " | " | " | " | 160 | 1,735 | | | | | | Hard, clear | | D, S | Sufficient for few head stock. |
| 14 | NW. | 9 | " | " | " | Dug | 85 | 1,737 | - 45 | 1,692 | 40 | 1,697 | Glacial sand | " , " | | D, S | Sufficient for 20 head stock. |
| 15 | NW. | 10 | " | " | " | " | 35 | 1,722 | - 30 | 1,692 | 35 | 1,687 | Marine shale | " , " , iron | | D, S | Small supply; two other wells. |
| 16 | SW. | 11 | " | " | " | " | 62 | 1,720 | - 22 | 1,698 | 62 | 1,658 | " " | Hard, clear, "alkaline" | | D, S | Waters 40 head stock. |
| 17 | NW. | 11 | " | " | " | " | 35 | 1,725 | - 30 | 1,695 | 35 | 1,690 | " " | Hard, clear, "alkaline" | | S | Waters 20 head stock. |
| 18 | SE. | 12 | " | " | " | " | 35 | 1,700 | - 17 | 1,683 | 30 | 1,670 | " " | Hard, clear, "alkaline" | | D, S | Sufficient for 60 head stock. |
| 19 | NW. | 12 | " | " | " | " | 35 | 1,710 | - 15 | 1,695 | 35 | 1,675 | " " | Hard, red sediment | | D, S | Waters 50 head stock. |
| 20 | NW. | 14 | " | " | " | " | 35 | 1,705 | - 17 | 1,688 | 35 | 1,670 | " " | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 21 | NE. | 14 | " | " | " | " | 40 | 1,708 | - 35 | 1,673 | 40 | 1,668 | " " | " , " , iron | | S | Waters 50 head stock. |
| 22 | NW. | 15 | " | " | " | " | 32 | 1,715 | - 17 | 1,698 | 32 | 1,683 | " " | Hard, clear, iron | | D, S | Sufficient for 50 head stock. |
| 23 | SE. | 16 | " | " | " | " | 22 | 1,720 | - 20 | 1,700 | 5 | 1,715 | Glacial sand | Hard, clear, iron | | D, S | Insufficient for 30 head stock. |
| 24 | NE. | 16 | " | " | " | " | 25 | 1,725 | - 19 | 1,706 | 20 | 1,705 | " gravel | Hard, clear | | D, S | Waters 25 head stock. |
| 25 | SW. | 18 | " | " | " | " | 20 | 1,755 | - 17 | 1,738 | | | " gravel | " , " | | D, S | Sufficient supply; constant water level. |
| 26 | SE. | 20 | " | " | " | " | 12 | 1,720 | - 9 | 1,711 | 12 | 1,708 | " " | " , " | | D, S | Oversufficient supply. |
| 27 | NW. | 20 | " | " | " | Bored | 85 | 1,718 | - 35 | 1,683 | 85 | 1,633 | Marine shale | " , " | | D, S | Sufficient for 80 head stock. |
| 28 | NW. | 21 | " | " | " | Dug | 20 | 1,717 | - 17 | 1,700 | 10 | 1,707 | Glacial sand | " , " | | Steam locomotive | Small supply. |
| 29 | NE. | 22 | " | " | " | " | 15 | 1,710 | - 9 | 1,701 | 9 | 1,701 | Marine shale | Soft, clear | | D, S | Sufficient for 100 head stock. |
| 30 | SE. | 23 | " | " | " | " | 28 | 1,695 | - 10 | 1,685 | 28 | 1,667 | " " | Hard, red sediment | | D, S | " " 100 " " . |
| 31 | NE. | 24 | " | " | " | " | 12 | 1,675 | - 6 | 1,669 | 6 | 1,669 | Glacial fine sand | Hard, clear | | S | Oversufficient. |
| 32 | SE. | 25 | " | " | " | " | 12 | 1,678 | - 4 | 1,674 | 0 | 1,678 | " sand | " , " | | D, S | Waters a few head stock in dry seasons. |
| 33 | NE. | 25 | " | " | " | " | 12 | 1,675 | - 7 | 1,668 | 0 | 1,675 | " " | Soft, " | | D, S | Insufficient in dry years; has 3 similar wells. |
| 34 | NE. | 25 | " | " | " | " | 25 | 1,680 | | | | | Marine shale | | | | Dry hole. |
| 35 | SW. | 27 | " | " | " | " | 12 | 1,712 | - 7 | 1,705 | 12 | 1,700 | " " | Soft, clear | | D, S | Sufficient for 20 head stock. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | NE. | 29 | 16 | 31 | 1 | Dug | 15 | 1,708 | - 11 | 1,697 | 0 | 1,708 | Glacial sand | Soft, clear | | D, S | Sufficient supply. |
| 37 | SE. | 30 | " | " | " | " | 6 | 1,730 | - 3 | 1,727 | 0 | 1,730 | " " | " , " | | D, S | Sufficient for 80 head stock; spring well. |
| 38 | NW. | 30 | " | " | " | " | 12 | 1,710 | - 7 | 1,703 | 0 | 1,710 | " gravel | Hard, " , iron | | D, S | Sufficient with creek water and 2 other wells. |
| 39 | SW. | 32 | " | " | " | " | 14 | 1,705 | - 9 | 1,696 | 11 | 1,694 | Marine shale | Hard, clear | | D, S | Three similar wells supplies needs. |
| 40 | NE. | 32 | " | " | " | " | 38 | 1,710 | - 37 | 1,673 | 36 | 1,674 | Glacial gravel | Hard, clear, iron | | D, S | Undergound stream; strong supply. |
| 41 | SW. | 33 | " | " | " | Bored | 50 | 1,710 | - 10 | 1,700 | 50 | 1,660 | Marine shale | Hard, cloudy, iron | | D | Seepage very slow; another well supplies 50 head stock. |
| 42 | SE. | 34 | " | " | " | Dug | 36 | 1,700 | - 16 | 1,684 | 36 | 1,664 | Glacial gravel | Hard, clear | | D, S | Fills very fast after pumping. |
| 43 | NW. | 34 | " | " | " | Bored | 30 | 1,690 | - 15 | 1,675 | 0 | 1,690 | " sand | " , " | | S | Two wells for 25 head stock; hauls drinking water. |
| 44 | NE. | 34 | " | " | " | Dug | 8 | 1,680 | - 4 | 1,676 | 8 | 1,672 | " " | Soft, " | | D, S | Sufficient for 25 head stock. |
| 45 | NE. | 36 | " | " | " | " | 14 | 1,665 | - 2 | 1,663 | 12 | 1,653 | " " | Hard, " | | D, S | Sufficient for a few head stock. |
| 46 | NE. | 36 | " | " | " | " | 12 | 1,670 | - 2 | 1,668 | 0 | 1,670 | " gravel | " , " , iron | | D, S | Oversufficient. |
| 1 | SE. | 1 | 16 | 32 | 1 | Dug | 13 | 1,800 | - 6 | 1,794 | 13 | 1,787 | Glacial gravel | Hard, clear | | D, S | Sufficient for 200 head stock. |
| 2 | SW. | 2 | " | " | " | " | 11 | 1,840 | 0 | 1,840 | 0 | 1,840 | " " | Soft, clear | | D, S | Good supply. |
| 3 | NE. | 3 | " | " | " | " | 40 | 1,840 | | | | | | | | | Three dry holes; hauls water. |
| 4 | SW. | 4 | " | " | " | Drilled | 197 | 1,870 | -187 | 1,683 | 190 | 1,680 | Glacial gravel | Hard, clear | | D, S | Sufficient supply; hard to pump. |
| 5 | SW. | 5 | " | " | " | Dug | 42 | 1,895 | - 22 | 1,873 | 42 | 1,853 | " " | " , " , iron | | D, S | Waters 50 head stock. |
| 6 | NE. | 6 | " | " | " | " | 43 | 1,900 | - 35 | 1,865 | 43 | 1,857 | " " | Hard, clear, iron | | D, S | Sufficient for local needs. |
| 7 | SW. | 7 | " | " | " | Bored | 42 | 1,905 | - 22 | 1,883 | 42 | 1,863 | " sand | Hard, clear | | D, S | Strong supply. |
| 8 | SE. | 8 | " | " | " | Drilled | 204 | 1,878 | -124 | 1,754 | 204 | 1,674 | " " | Hard, iron, cloudy | | S | Oversufficient. |
| 9 | NE. | 8 | " | " | " | " | 210 | 1,885 | -140 | 1,745 | 200 | 1,685 | " gravel | Hard, clear, iron | | S | Supplies 100 head stock. |
| 10 | SE. | 9 | " | " | " | Dug | 10 | 1,860 | - 8 | 1,852 | 8 | 1,852 | " " | Hard, clear | | D, S | Not sufficient in long drought periods. |
| 11 | NE. | 9 | 16 | 32 | 1 | Drilled | 380 | 1,855 | -190 | 1,665 | 375 | 1,480 | " sand | Hard, iron, clear | | D, S | Strong supply; difficult to pump. |
| 12 | SE. | 10 | " | " | " | Dug | 45 | 1,835 | | | | | | | | | Number of dry holes 20 to 45 feet; hauls water. |
| 13 | SW | 10 | " | " | " | " | 9 | 1,855 | - 6 | 1,849 | 6 | 1,849 | Glacial gravel | Hard, clear | | D , S | Sufficient for 30 head stock. |
| 14 | NW. | 10 | " | " | " | " | 50 | 1,835 | - 45 | 1,790 | | | | " , " | | S | Dry in dry seasons; hauls water; has a dam and cistern. |
| 15 | NW. | 11 | " | " | " | Drilled | 190 | 1,820 | | | | | Glacial sand | Hard, iron, clear | | S | Sand clogs well; dry holes 10 to 100 feet and no water. |
| 16 | NW. | 11 | " | " | " | " | 100 | 1,820 | | | | | | | | | Blue clay and no water. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

B 4-4

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | SE. | 12 | 16 | 32 | 1 | Dug | 24 | 1,780 | - 20 | 1,760 | 20 | 1,760 | Glacial gravel | Hard, clear | | D | Sufficient for domestic use; two more wells and slough for stock. |
| 18 | SE. | 13 | " | " | " | " | 60 | 1,775 | - 23 | 1,752 | 35 | 1,740 | " sand | " , " | | D, S | Small supply; hauls water from small lake. |
| 19 | SE. | 13 | " | " | " | Drilled | 230 | 1,775 | | | | | Marine shale | | | | Dry hole; hole closed in on drill. |
| 20 | NW. | 13 | " | " | " | Dug | 66 | 1,770 | - 60 | 1,710 | 60 | 1,710 | Glacial sand | Soft, clear | | D, S | Sufficient for 150 head stock. |
| 21 | SE. | 14 | " | " | " | Drilled | 190 | 1,790 | -130 | 1,660 | 130 | 1,660 | Marine shale | Hard, iron, clear | | D, S | Oversufficient. |
| 22 | NW. | 15 | " | " | " | " | 197 | 1,835 | -165 | 1,670 | 197 | 1,638 | Glacial black-sand | Hard, clear iron | | D, S | Constant level when pumping. |
| 23 | NW. | 16 | " | " | " | " | 162 | 1,850 | -140 | 1,710 | 162 | 1,688 | " sand | Hard, clear, iron | | D, S | Sufficient. |
| 24 | NE. | 16 | " | " | " | " | 156 | 1,850 | -136 | 1,714 | 150 | 1,700 | " " | Hard, iron, cloudy | | S | Sufficient for 100 head stock. |
| 25 | NW. | 17 | " | " | " | " | 142 | 1,875 | -136 | 1,739 | 120 | 1,755 | " gravel | Hard, clear, iron | | S | " " 200 " " . |
| 26 | SW. | 18 | " | " | " | Dug | 10 | 1,895 | - 5 | 1,890 | 5 | 1,890 | " sand | Soft, clear | | D, S | Oversufficient. |
| 27 | SE. | 19 | " | " | " | Drilled | 96 | 1,875 | - 81 | 1,794 | 96 | 1,779 | " sand | Hard, clear | | D, S | Sufficient; also has dam. |
| 28 | NW. | 19 | " | " | " | " | 100 | 1,880 | - 84 | 1,796 | 100 | 1,780 | " " | " , " , iron | | D, S | Oversufficient. |
| 29 | SE. | 20 | " | " | " | " | 134 | 1,860 | -110 | 1,750 | 110 | 1,750 | " gravel | Medium hard, clear | | D, S | Sufficient for 100 head stock. |
| 30 | SW. | 20 | " | " | " | " | 154 | 1,872 | | | | | " sand | Hard, clear | | D, S | Sufficient for 150 head stock. |
| 31 | SW. | 22 | " | " | " | Dug | 20 | 1,825 | - 15 | 1,810 | 15 | 1,810 | " gravel | Soft, clear | | D, S | Sufficient with similar well. |
| 32 | NW. | 22 | " | " | " | Drilled | 262 | 1,805 | -132 | 1,673 | 240 | 1,565 | Marine shale | Medium hard, iron, cloudy | | S | Oversufficient , |
| 33 | SE. | 23 | " | " | " | Dug | 32 | 1,785 | - 17 | 1,768 | 32 | 1,753 | Glacial sand | Hard, clear | | S | Polluted by stock; strong supply; three other shallow wells. |
| 34 | NE. | 23 | " | " | " | " | 30 | 1,760 | - 27 | 1,733 | 24 | 1,736 | " " | " , " | | D, S | Sufficient for 30 head stock. |
| 35 | SE. | 24 | " | " | " | " | 12 | 1,750 | - 7 | 1,743 | 7 | 1,743 | " " | Soft, clear | | D, S | " " 50 " " . |
| 36 | NW. | 24 | " | " | " | " | 55 | 1,746 | - 41 | 1,705 | 55 | 1,691 | " drift | Hard, clear, "alkaline" | | D, S | Intermittent seepage well. |
| 37 | NE. | 25 | " | " | " | " | 5 | 1,730 | 0 | 1,730 | 0 | 1,730 | " sand | Hard, clear | | D, S | Flows in wet periods; abundant supply. |
| 38 | SE. | 26 | " | " | " | " | 12 | 1,750 | - 5 | 1,745 | 5 | 1,745 | " gravel | Hard, clear, | | D, S | Abundant supply for local needs. |
| 39 | SW. | 27 | " | " | " | Drilled | 102 | 1,805 | - 60 | 1,745 | 100 | 1,705 | " " | Hard, clear, iron | | D, S | Oversufficient. |
| 40 | SE. | 28 | " | " | " | " | 270 | 1,815 | -170 | 1,645 | 270 | 1,545 | " fine sand | Hard, clear, red sediment | | D, S | Abundant supply but difficult to keep fine sand out. |
| 41 | SW. | 29 | " | " | " | Dug | 8 | 1,860 | - 3 | 1,857 | 3 | 1,857 | " sand | Hard, clear | | S | Dry in winter; melts snow. |
| 42 | NE. | 31 | " | " | " | " | 32 | 1,860 | - 15 | 1,845 | 15 | 1,845 | " " | " " | | D, S | Sufficient for 5 head stock. |
| 43 | SW. | 32 | " | " | " | " | 50 | 1,850 | - 40 | 1,810 | 40 | 1,810 | " " | " , " | | D, S | Sufficient with another similar well. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

B 4-4

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44 | NE. | 32 | 16 | 32 | 1 | Drilled | 216 | 1,825 | - 40 | 1,785 | 216 | 1,609 | Glacial fine sand | Hard, clear, iron | | S | Stands steady pumping; shallow well for house. |
| 45 | SW. | 33 | " | " | " | Drilled | 77 | 1,850 | - 40 | 1,810 | 40 | 1,810 | Glacial sand | Hard, iron, clear | | D, S | Abundant supply. |
| 46 | SW. | 34 | " | " | " | Dug | 25 | 1,790 | - 18 | 1,772 | 18 | 1,772 | " " | Hard, clear | | D, S | Sufficient for 40 head stock. |
| 47 | NW. | 35 | " | " | " | Bored | 87 | 1,749 | - 20 | 1,729 | 87 | 1,662 | " " | Hard, clear iron | | D, S | Oversufficient. |
| 48 | SE. | 35 | " | " | " | Dug | 40 | 1,748 | - 37 | 1,711 | 40 | 1,708 | " gravel | Hard, clear, iron | | D, S | Intermittent supply; decreased in 1932 to 1935; hauls from spring in section 36. |
| 49 | NW. | 36 | " | " | " | Dug | 55 | 1,800 | - 35 | 1,765 | 40 | 1,760 | " gravel | Hard, clear, iron | | D, S | Abundant supply; no shortage. |
| 50 | NE. | 36 | " | " | " | Dug | 8 | 1,680 | 0 | 1,680 | 0 | 1,680 | Glacial gravel | Hard, clear | | D, S | Good supply; numerous springs in same ravine. |
| 1 | SE. | 1 | 16 | 33 | 1 | Dug | 45 | 1,925 | - 42 | 1,883 | 42 | 1,883 | Glacial gravel | Hard, clear | | D, S | Sufficient for local needs. |
| 2 | NW. | 2 | " | " | " | Drilled | 141 | 1,950 | - 70 | 1,880 | 135 | 1,815 | Marine shale | Hard, clear | | D, S | Constant level; abundant supply. |
| 3 | SW. | 2 | " | " | " | Drilled | 240 | 1,955 | | | | | Marine shale | | | | Dry hole; several slow seepage wells. |
| 4 | SW. | 2 | " | " | " | Drilled | 68 | 1,955 | - 30 | 1,925 | 60 | 1,895 | Glacial sand | Hard, clear | | D, S | Small supply. |
| 5 | NE. | 3 | " | " | " | Dug | 24 | 1,955 | - 20 | 1,935 | 20 | 1,935 | Glacial sand | Hard, clear | | D, S | Insufficient; hauls from NW¼, Section 2. |
| 6 | SW. | 4 | " | " | " | Dug | 20 | 1,965 | - 4 | 1,961 | 4 | 1,961 | Glacial sand | Hard, clear | | D, S | Intermittent supply; hauls in dry years. |
| 7 | SE. | 9 | " | " | " | Drilled | 216 | 1,955 | - 70 | 1,885 | 200 | 1,755 | Glacial gravel | Hard, clear, iron | | D, S | Sufficient for local needs. |
| 8 | SE. | 10 | " | " | " | Dug | 50 | 1,950 | - 20 | 1,930 | | | | Hard, clear, "alkaline" | | D, S | Very small supply; uses slough for stock. |
| 9 | NE. | 11 | " | " | " | Dug | 60 | 1,930 | | | | | | | | N | Dry hole; other dry holes; haul from spring. |
| 10 | NW. | 12 | " | " | " | Drilled | 110 | 1,910 | - 20 | 1,890 | 110 | 1,800 | Glacial gravel | Hard, iron, clear | | D, S | Sufficient for local needs. |
| 11 | SW. | 12 | " | " | " | Dug | 20 | 1,925 | | | 20 | 1,905 | Glacial gravel | Hard, clear | | D | Household use only. |
| 12 | SW. | 12 | " | " | " | Drilled | 170 | 1,925 | - 80 | 1,845 | 170 | 1,755 | Glacial gravel | Hard, clear | | D, S | Abundant supply. |
| 13 | SE. | 14 | " | " | " | Drilled | 176 | 1,930 | - 60 | 1,870 | 170 | 1,760 | Glacial gravel | Hard, clear, iron | | S | Oversufficient supply. |
| 14 | NW. | 14 | " | " | " | Dug | 40 | 1,920 | | | | | Glacial drift | | | | Dry hole; several similar dry holes. |
| 15 | NW. | 15 | " | " | " | Dug | 20 | 1,955 | - 11 | 1,944 | 11 | 1,944 | Glacial sand | Soft, clear | | D, S | Sufficient supply. |
| 16 | SW. | 16 | " | " | " | Drilled | 180 | 1,955 | - 80 | 1,875 | 140 | 1,815 | Glacial fine sand | Hard, iron, clear | | D, S | Abundant supply; farmers haul from here. |
| 17 | SE. | 17 | " | " | " | Dug | 50 | 1,960 | - 30 | 1,930 | 50 | 1,910 | Glacial sand | Hard, clear, iron | | D, S | Oversufficient supply. |
| 18 | NE. | 22 | " | " | " | Dug | 70 | 1,920 | - 65 | 1,855 | 68 | 1,852 | Glacial sand | Hard, clear, iron | | D, S | Oversufficient supply. |
| 19 | SW. | 23 | " | " | " | Drilled | 160 | 1,925 | -144 | 1,781 | 160 | 1,765 | Glacial gravel | Hard, clear, iron | | D, S | Sufficient for local needs. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | SW. | 23 | 16 | 33 | 1 | Drilled | 167 | 1,915 | -156 | 1,759 | 167 | 1,748 | Glacial gravel | Hard, clear, iron | | D, S | Oversufficient supply. |
| 21 | NW. | 24 | " | " | " | Dug | 60 | 1,895 | - 54 | 1,841 | 54 | 1,841 | Glacial gravel | Hard, cloudy, iron | | D, S | Sufficient for local needs. |
| 22 | NE. | 24 | " | " | " | Dug | 16 | 1,880 | - 6 | 1,874 | 6 | 1,874 | Glacial sand | Hard, clear | | D, S | Sufficient supply. |
| 23 | SE. | 24 | " | " | " | Dug | 16 | 1,890 | - 9 | 1,881 | 14 | 1,876 | Glacial gravel | Hard, clear | | D, S | Sufficient supply. |
| 24 | SW. | 24 | " | " | " | Dug | 30 | 1,890 | - 28 | 1,862 | 30 | 1,860 | Glacial gravel | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 25 | SW. | 25 | " | " | " | Drilled | 123 | 1,883 | - 71 | 1,812 | 120 | 1,763 | Marine shale | Hard, clear | | D, S | Oversufficient supply; turns milky on standing. |
| 26 | NW. | 26 | " | " | " | Dug | 70 | 1,890 | | | | | Glacial drift | | | | Dry hole; 10 dry holes dug. |
| 27 | NE. | 26 | " | " | " | Bored | 74 | 1,890 | - 71 | 1,819 | 71 | 1,819 | Glacial sand | Hard, clear, iron | | S | Yields 2 barrels per day. |
| 28 | SW. | 26 | " | " | " | Drilled | 112 | 1,900 | | | | | Glacial drift | | | | Dry hole;25 dry holes 12 to 112 feet deep. |
| 29 | SW. | 27 | " | " | " | Dug | 10 | 1,925 | - 2 | 1,923 | 2 | 1,923 | Glacial gravel | Hard, clear | | D, S | Sufficient for local needs. |
| 30 | NW. | 32 | " | " | " | Dug | 40 | 1,955 | - 38 | 1,917 | 35 | 1,920 | Glacial gravel | Hard, clear | | D, S | Sufficient for local needs. |
| 31 | SW. | 33 | " | " | " | Drilled | 200 | 1,940 | -140 | 1,800 | 180 | 1,760 | Glacial sand | Hard, clear | | D, S | Oversufficient supply. |
| 32 | SE. | 33 | " | " | " | Dug | 10 | 1,925 | - 2 | 1,923 | 2 | 1,923 | Glacial sand | Hard, clear | | D, S | Decreased; small supply. |
| 33 | NE. | 33 | " | " | " | Drilled | 165 | 1,910 | | | | | Glacial sand | Hard, clear | | D, S | Good supply. |
| 34 | NW. | 34 | " | " | " | Dug | 30 | 1,910 | | | | | Glacial drift | | | | Dry hole; numberous other dry holes. |
| 35 | SW. | 36 | " | " | " | Dug | 60 | 1,880 | - 52 | 1,828 | 60 | 1,820 | Glacial sand | Hard clear | | D, S | Small supply; sufficient for 16 head stock in 1934. |
| 1 | SW. | 2 | 17 | 30 | 1 | Dug | 5 | 1,670 | 0 | 1,670 | 0 | 1,670 | Glacial sand | Soft, clear | | D, S | Spring flows the year round. |
| 2 | SW. | 3 | " | " | " | Dug | 10 | 1,670 | - 5 | 1,665 | 5 | 1,665 | Glacial gravel | Soft, clear | | D, S | Sufficient for 150 head stock. |
| 3 | SW. | 4 | " | " | " | Dug | 56 | 1,670 | | | | | Glacial blue clay | | | | Dry hole; has a dugout in ravine. |
| 4 | NW. | 4 | " | " | " | Dug | 14 | 1,675 | - 6 | 1,669 | 6 | 1,669 | Glacial gravel | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 5 | NE. | 5 | " | " | " | Dug | 12 | 1,670 | - 6 | 1,664 | 6 | 1,664 | Glacial gravel | Hard, clear | | D, S | Abundant supply. |
| 6 | SW. | 5 | " | " | " | Dug | 20 | 1,675 | - 14 | 1,661 | 14 | 1,661 | Glacial gravel | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 7 | NW. | 5 | " | " | " | Dug | 90 | 1,675 | - 70 | 1,605 | 90 | 1,585 | Glacial sand | Hard, clear | | D, S | Sufficient for 10 head stock. |
| 8 | SE. | 6 | " | " | " | Bored | 120 | 1,680 | | | | | Glacial blue clay | | | | Dry hole; hauls from SW.¼, Section 5. |
| 9 | SW. | 6 | " | " | " | Bored | 100 | 1,680 | | | | | Glacial blue clay | | | | Dry hole; many dry holes; hauls water. Good location for dugout or dam. |
| 10 | NW. | 6 | " | " | " | Dug | 11 | 1,680 | - 5 | 1,675 | 5 | 1,675 | Glacial gravel | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 11 | NW. | 7 | " | " | " | Dug | 7 | 1,670 | - 4 | 1,666 | 4 | 1,666 | Glacial gravel | Soft, clear | | D S | Cannot lower with farm pump. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | SE. | 7 | 17 | 30 | 1 | Dug | 65 | 1,670 | - 40 | 1,630 | 65 | 1,605 | Glacial fine sand | Hard, cloudy, "alkaline" | | N | Too highly mineralized for use. |
| 13 | SW. | 8 | " | " | " | Dug | 13 | 1,665 | - 10 | 1,655 | 10 | 1,655 | Glacial gravel | Hard, clear | | | Sufficient for 50 head stock. |
| 14 | NW. | 9 | " | " | " | Spring | 0 | 1,655 | + 3 | 1,658 | | | Glacial gravel | Soft, clear | | D, S | 1½ inch stream ; piped to buildings below the spring. |
| 15 | NE. | 9 | " | " | " | Dug | 7 | 1,650 | - 3 | 1,647 | 3 | 1,647 | Glacial gravel | Soft, clear | | D, S | Sufficient for 100 head stock. |
| 16 | NW. | 10 | " | " | " | Dug | 30 | 1,650 | - 15 | 1,635 | | | Glacial drift | Hard, clear | | S | Sufficient for 10 head stock. |
| 17 | SE. | 14 | " | " | " | Dug | 14 | 1,635 | - 8 | 1,627 | 8 | 1,627 | Glacial sand | Soft, clear | | D, S | Sufficient for 300 head stock. |
| 18 | NW. | 14 | " | " | " | Spring | 2 | 1,645 | 0 | 1,645 | 0 | 1,645 | Glacial sand | Soft, clear | | D, S | Abundant supply. |
| 19 | NE. | 16 | " | " | " | Dug | 5 | 1,590 | - 3 | 1,687 | 3 | 1,687 | Glacial gravel | Soft, clear | | D, S | Oversufficient supply; constant water level. |
| 20 | SW. | 16 | " | " | " | Dug | 18 | 1,580 | - 6 | 1,574 | 6 | 1,574 | Glacial sand | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 21 | SE. | 18 | " | " | " | Dug | 9 | 1,610 | - 6 | 1,604 | 6 | 1,604 | Glacial gravel | Soft, clear | | D, S | Sufficient for 50 head stock. |
| 22 | NW. | 18 | " | " | " | Dug | 12 | 1,605 | - 7 | 1,598 | 7 | 1,598 | Glacial gravel | Soft, clear | | D, S | Sufficient for 60 head stock. |
| 23 | NW. | 19 | " | " | " | Dug | 50 | 1,590 | - 23 | 1,567 | | | Glacial sand | Hard, clear | | D, S | Slow seepage well; sufficient supply. |
| 24 | SW. | 19 | " | " | " | Dug | 10 | 1,605 | - 7 | 1,598 | 7 | 1,598 | Glacial gravel | Soft, clear | | D, S | Sufficient for 50 head stock. |
| 25 | SE. | 19 | " | " | " | Dug | 5 | 1,600 | - 3 | 1,597 | 3 | 1,597 | Glacial gravel | Soft, clear | | D, S | Cannot be emptied by pumping. |
| 26 | SW. | 20 | " | " | " | Dug | 16 | 1,600 | - 6 | 1,594 | 6 | 1,594 | Glacial gravel | Soft, clear | | D, S | Sufficient for 150 head stock. |
| 27 | NW. | 22 | " | " | " | Dug | 3 | 1,600 | + 1 | 1,601 | 0 | 1,600 | Glacial gravel | Soft, clear | | D, S | Flows year round; oversufficient supply. |
| 28 | SE. | 22 | " | " | " | Dug | 10 | 1,615 | - 8 | 1,607 | 8 | 1,607 | Glacial gravel | Hard, clear | | D, S | Always 2 feet of water. |
| 29 | NE. | 27 | " | " | " | Dug | 12 | 1,600 | - 9 | 1,591 | 9 | 1,591 | Glacial sand | Soft, clear | | D, S | Sufficient for 200 head stock. |
| 30 | SE. | 30 | " | " | " | Dug | 12 | 1,600 | - 9 | 1,591 | 9 | 1,591 | Glacial sand | Soft, clear | | D, S | Water comes in as fast as dipped out. |
| 31 | SW. | 30 | " | " | " | Dug | 10 | 1,600 | - 5 | 1,595 | 5 | 1,595 | Glacial gravel | Soft, clear | | S | Small supply, but sufficient for local needs. |
| 32 | NW. | 30 | " | " | " | Dug | 12 | 1,600 | 0 | 1,600 | 0 | 1,600 | Glacial sand | Hard, clear | | D, S | Sufficient for 40 head stock. |
| 33 | SE. | 31 | " | " | " | Dug | 14 | 1,400 | - 11 | 1,389 | 13 | 1,387 | Recent sand | Hard, clear | | D, S | Insufficient for 20 head stock. |
| 1 | NE. | 1 | 17 | 31 | 1 | Dug | 30 | 1,680 | - 21 | 1,659 | 21 | 1,659 | Glacial sand | Hard, clear, salty | | D, S | Small intermittent supply; hauls water. |
| 2 | SE. | 1 | " | " | " | Dug | 14 | 1,685 | - 6 | 1,679 | 6 | 1,679 | Glacial gravel | Hard, clear | | D, S | Sufficient for 100 head stock . |
| 3 | SW. | 1 | " | " | " | Dug | 7 | 1,685 | 0 | 1,685 | 0 | 1,685 | Glacial gravel | Hard, clear | | D, S | Abundant supply; some haul from this well; cannot lower water level. |
| 4 | NE. | 3 | " | " | " | Dug | 6 | 1,680 | - 3 | 1,677 | 3 | 1,677 | Glacial gravel | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 5 | SE. | 4 | " | " | " | Dug | 14 | 1,690 | - 10 | 1,680 | 11 | 1,679 | Glacial sand | Hard, clear | | D, S | Sufficient for 60 head stock. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

ROCANVILLE, NO. 151, SASKATCHEWAN. B 4-4

# WELL RECORDS—Rural Municipality of

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE: Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED: Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | SW. | 4 | 17 | 31 | 1 | Dug | 12 | 1,690 | - 7 | 1,683 | 9 | 1,681 | Glacial sand | Hard, clear | | | Sufficient for 50 head stock. |
| 7 | NE. | 6 | " | " | " | Dug | 9 | 1,620 | - 6 | 1,614 | 6 | 1,614 | Glacial sand | Hard, clear | | D, S | Sufficient for 25 head stock. |
| 8 | SW. | 6 | " | " | " | Dug | 37 | 1,610 | - 30 | 1,580 | 37 | 1,573 | Glacial sand | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 9 | NW. | 6 | " | " | " | Dug | 16 | 1,615 | - 14 | 1,601 | 13 | 1,602 | Glacial sand | Hard, clear | | D, S | Insufficient; caving in; hauls water. |
| 10 | NE. | 7 | " | " | " | Dug | 18 | 1,620 | - 16 | 1,604 | 15 | 1,605 | Glacial gravel | Hard, clear | | D, S | Sufficient for 15 head stock. |
| 11 | NE. | 8 | " | " | " | Dug | 8 | 1,670 | - 3 | 1,667 | 3 | 1,667 | Glacial gravel | Hard, clear | | D, S | Abundant supply. |
| 12 | SE. | 10 | " | " | " | Dug | 30 | 1,660 | | | | | Glacial blue clay | | | | Dry hole; no. of dry holes dug. |
| 13 | NE. | 10 | " | " | " | Spring | 0 | 1,630 | 0 | 1,630 | 0 | 1,630 | Glacial gravel | Hard, clear | | D, S | One-half inch stream. |
| 14 | SE. | 12 | " | " | " | Dug | 80 | 1,635 | - 10 | 1,625 | 16 | 1,619 | Glacial sand | Hard, clear, "alkaline" | | S | Intermittent; dam also for stock; hauls water 1 mile. |
| 15 | NE. | 13 | " | " | " | Dug | 8 | 1,640 | - 4 | 1,636 | 4 | 1,636 | Glacial gravel | Soft, clear | | D, S | Sufficient for 30 head stock. |
| 16 | SE. | 14 | " | " | " | Dug | 10 | 1,640 | - 6 | 1,634 | 7 | 1,633 | Glacial gravel | Soft, clear | | D, S | Sufficient for 30 head stock. |
| 17 | NE. | 16 | " | " | " | Dug | 21 | 1,645 | - 19 | 1,626 | 15 | 1,630 | Glacial sand | Soft, clear | | D, S | Sufficient for 12 head stock. |
| 18 | SE. | 16 | " | " | " | Drilled | 80 | 1,655 | - 66 | 1,589 | 66 | 1,589 | Glacial sand | Soft, clear | | D, S | Insufficient supply; fine sand fills in plugging well; hauls water and has a dam. |
| 19 | SW. | 16 | " | " | " | Dug | 12 | 1,650 | - 8 | 1,642 | 8 | 1,642 | Glacial gravel | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 20 | SE. | 17 | " | " | " | Dug | 10 | 1,650 | - 8 | 1,642 | 10 | 1,640 | Glacial sand | Hard, clear | | D, S | Sufficient for local needs. |
| 21 | SW. | 17 | " | " | " | Dug | 18 | 1,645 | - 13 | 1,632 | 14 | 1,631 | Glacial sand | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 22 | NW. | 17 | " | " | " | Dug | 25 | 1,650 | - 20 | 1,630 | 20 | 1,630 | Glacial sand | Hard, clear | | D, S | School well; good supply. |
| 23 | SE. | 18 | " | " | " | Dug | 25 | 1,630 | - 10 | 1,620 | 25 | 1,605 | Glacial drift | Hard, clear | | D, S | Sufficient for 60 head stock. |
| 24 | NW. | 18 | " | " | " | Dug | 24 | 1,630 | - 19 | 1,611 | 20 | 1,610 | Marine shale | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 25 | SE. | 19 | " | " | " | Dug | 8 | 1,645 | - 4 | 1,641 | 4 | 1,641 | Marine shale | Hard, clear | | D, S | Abundant supply; oversufficient. |
| 26 | NE. | 19 | " | " | " | Dug | 10 | 1,620 | - 6 | 1,614 | 9 | 1,611 | Marine shale | Hard, clear | | D, S | Cannot lower with rotary pump. |
| 27 | NW. | 20 | " | " | " | Dug | 27 | 1,655 | - 20 | 1,635 | 20 | 1,635 | Marine shale | Hard, clear | | D, S | Oversufficient supply; constant water level. |
| 28 | SW. | 20 | " | " | " | Dug | 50 | 1,670 | - 42 | 1,628 | 42 | 1,628 | Marine shale | Hard, clear | | D, S | Sufficient for 300 head stock; also spring from shale outcrop. |
| 29 | SW. | 20 | " | " | " | Dug | 26 | 1,660 | - 20 | 1,640 | 20 | 1,640 | Marine shale | Hard, clear | | D, S | Sufficient for 60 head stock. |
| 30 | SE. | 20 | " | " | " | Dug | 16 | 1,630 | - 15 | 1,615 | 12 | 1,618 | Glacial sand | Hard, clear | | D, S | Intermittent supply; hauls water from SW. 20-17-31. |
| 31 | NE. | 20 | " | " | " | Dug | 10 | 1,660 | - 8 | 1,652 | 8 | 1,652 | Marine shale | Soft, clear | | D, S | Sufficient for 30 head stock. |
| 32 | NW. | 21 | " | " | " | Dug | 8 | 1,660 | - 1 | 1,659 | 8 | 1,652 | Marine shale | Hard, clear | | D, S | Sufficient for 100 head stock; has three similar wells. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE: Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED: Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | SW. | 21 | 17 | 31 | 1 | Dug | 9 | 1,620 | - 5 | 1,615 | 5 | 1,615 | Glacial gravel | Hard, clear | | D, S | Constant water level; sufficient supply. |
| 34 | SW. | 22 | " | " | " | Dug | 65 | 1,640 | | | | | Marine shale | | | | Dry hole; hauls from NE.¼, Section 22; many holes dug; all dry. |
| 35 | NE. | 22 | " | " | " | Dug | 12 | 1,630 | - 6 | 1,624 | 6 | 1,624 | Glacial gravel | Soft, clear | | D, S | Sufficient for 60 head stock. |
| 36 | SE. | 23 | " | " | " | Dug | 60 | 1,625 | - 10 | 1,615 | 52 | 1,573 | Marine shale | Hard, clear | | D, S | Sufficient for 35 head stock. |
| 37 | NE. | 23 | " | " | " | Dug | 12 | 1,630 | - 10 | 1,620 | 10 | 1,620 | Glacial gravel | Soft, clear | | D, S | Cannot lower water level by pumping. |
| 38 | NW. | 24 | " | " | " | Bored | 60 | 1,625 | - 10 | 1,615 | 60 | 1,565 | Marine shale | Hard, clear iron | | D, S | Sufficient for 40 head stock. |
| 39 | SW. | 24 | " | " | " | Bored | 65 | 1,630 | - 15 | 1,615 | 65 | 1,565 | Marine shale | Hard, clear, "alkaline" | | D, S | Analysed and condemned but being used; waters 35 head stock; results not obtainable. |
| 40 | SW. | 25 | " | " | " | Dug | 33 | 1,610 | - 8 | 1,602 | 30 | 1,580 | Glacial sand | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 41 | NW. | 26 | " | " | " | Dug | 28 | 1,620 | - 14 | 1,606 | 22 | 1,598 | Glacial sand | Hard, clear | | D, S | Intermittent, small supply; waters from well on NE. 27-17-31. |
| 42 | NE. | 27 | " | " | " | Dug | 12 | 1,610 | - 10 | 1,600 | 12 | 1,598 | Glacial sand | Soft, clear | | D, S | Abundant supply; no shortage. |
| 43 | NE. | 28 | " | " | " | Bored | 85 | 1,610 | - 70 | 1,540 | 52 | 1,558 | Glacial sand | Hard, cloudy, oily | | S | Insufficient for 25 head stock. |
| 44 | SE. | 28 | " | " | " | Dug | 23 | 1,620 | - 15 | 1,605 | 23 | 1,597 | Glacial stone | Hard, clear | | D, S | Sufficient for 125 head stock. |
| 45 | SW. | 28 | " | " | " | Dug | 28 | 1,630 | - 18 | 1,612 | 18 | 1,612 | Marine shale | Hard, clear | | D, S | Pumps steadily into 15 barrel tank. |
| 46 | NW. | 28 | " | " | " | Dug | 25 | 1,605 | - 21 | 1,584 | 21 | 1,584 | Marine shale | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 47 | NE. | 29 | " | " | " | Dug | 40 | 1,600 | - 36 | 1,564 | 36 | 1,564 | Marine shale | Hard, clear | | D, S | Sufficient for 45 head stock. |
| 48 | SW. | 29 | " | " | " | Dug | 42 | 1,595 | - 31 | 1,564 | 31 | 1,564 | Marine shale | Hard, clear | | D, S | Also a 20-foot well in ravine. Sufficient for 75 head stock. |
| 49 | NE. | 30 | " | " | " | Dug | 5 | 1,500 | 0 | 1,500 | 0 | 1,500 | Glacial sand | Hard, clear | | D, S | Intermittent spring; hauls in dry years. |
| 50 | SE. | 32 | " | " | " | Dug | 35 | 1,600 | - 25 | 1,575 | 33 | 1,567 | Marine shale | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 51 | NE. | 32 | " | " | " | Dug | 19 | 1,375 | - 16 | 1,359 | 16 | 1,359 | Glacial gravel | Hard, clear | | D, | Household use only; waters stock in Qu'Appelle River. |
| 52 | SW. | 33 | " | " | " | Dug | 8 | 1,600 | - 5 | 1,595 | 6 | 1,594 | Marine shale | Hard, clear | | D, S | Abundant supply; constant water level. |
| 53 | SW. | 35 | " | " | " | Bored | 33 | 1,610 | - 19 | 1,591 | 33 | 1,577 | Glacial sand | Hard, clear | | D, S | Sufficient for 15 head stock. |
| 54 | NE. | 35 | " | " | " | Dug | 28 | 1,600 | - 24 | 1,576 | 28 | 1,572 | Glacial sand | Hard, clear | | D, S | Sufficient for 15 head stock. |
| 55 | SW. | 36 | " | " | " | Dug | 10 | 1,605 | - 7 | 1,598 | 7 | 1,598 | Glacial gravel | Hard, clear | | D, S | Abundance of water; never a shortage. |
| 1 | SE. | 2 | 17 | 32 | 1 | Dug | 12 | 1,700 | - 6 | 1,694 | 6 | 1,694 | Glacial gravel | Hard, clear | | D, S | Sufficient for local needs. |
| 2 | SW. | 2 | " | " | " | Dug | 10 | 1,650 | - 6 | 1,644 | 6 | 1,644 | Marine shale | Hard, clear | | D, S | Sufficient for local needs. |
| 3 | NE. | 3 | " | " | " | Dug | 10 | 1,670 | - 4 | 1,666 | 5 | 1,665 | Marine shale | Hard, clear | | D, S | Oversufficient; never dry. |
| 4 | SE. | 3 | " | " | " | Dug | 25 | 1,710 | - 22 | 1,688 | 22 | 1,688 | Glacial gravel | Hard, clear | | D, S | Cannot pump dry; oversufficient supply. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | NW. | 3 | 17 | 32 | 1 | Bored | 50 | 1,770 | - 25 | 1,745 | 25 | 1,745 | Marine shale | Hard, clear; "alkaline" | | S | Sufficient for local needs; house well with strong supply. |
| 6 | NW. | 4 | " | " | " | Dug | 27 | 1,760 | - 24 | 1,736 | 27 | 1,733 | Glacial rocks | Hard, clear | | D, S | House well only; springs in ravine for stock. |
| 7 | SE. | 5 | " | " | " | Dug | 7 | 1,705 | - 4 | 1,701 | 4 | 1,701 | Glacial sand | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 8 | SW. | 5 | " | " | " | Dug | 40 | 1,810 | - 38 | 1,772 | 40 | 1,770 | Glacial gravel | Hard, clear | | D, S | For domestic purposes only; stock well for 15 head stock. |
| 9 | NE. | 6 | " | " | " | Drilled | 56 | 1,810 | - 40 | 1,770 | 50 | 1,760 | Glacial gravel | Hard, clear | | D, S | Abundance; pumps steadily to keep fresh. |
| 10 | SW. | 6 | " | " | " | Dug | 25 | 1,830 | - 22 | 1,808 | 25 | 1,805 | Glacial gravel | Hard, clear | | D, S | Cannot pump dry. Oversufficient. |
| 11 | SW. | 7 | " | " | " | Dug | 52 | 1,800 | - 50 | 1,750 | 52 | 1,748 | Glacial gravel | Hard, clear | | D, S | Sufficient for local needs; waters 27 head stock |
| 12 | NE. | 7 | " | " | " | Dug | 26 | 1,790 | - 23 | 1,767 | 26 | 1,764 | Glacial gravel | Hard, clear | | D, S | Always 3 feet of water; oversufficient supply. |
| 13 | SE. | 8 | " | " | " | Dug | 35 | 1,750 | - 33 | 1,717 | 35 | 1,715 | Glacial sand | Hard, clear | | D, S | Intermittent supply; insufficient; hauls water. |
| 14 | NW. | 10 | " | " | " | Dug | 10 | 1,550 | - 6 | 1,544 | 6 | 1,544 | Glacial gravel | Hard, clear | | D, S | Sufficient for 25 head stock. |
| 15 | SW. | 10 | " | " | " | Dug | 35 | 1,600 | - 30 | 1,570 | 30 | 1,570 | Marine shale | Hard, clear | | D, S | Sufficient with second similar well. |
| 16 | NE. | 15 | " | " | " | Dug | 25 | 1,700 | - 10 | 1,690 | 25 | 1,675 | Marine shale | Hard, clear | | D, S | Sufficient for 30 head stock. |
| 17 | NW. | 15 | " | " | " | Dug | 20 | 1,720 | - 5 | 1,715 | 20 | 1,700 | Marine shale | Hard, clear | | D, S | Abundant supply; never a shortage. |
| 18 | SE. | 16 | " | " | " | Dug | 15 | 1,700 | - 10 | 1,690 | 15 | 1,685 | Marine shale | Hard, clear | | D, S | Suffcieint for 20 head stock. |
| 19 | NW. | 16 | " | " | " | Dug | 45 | 1,710 | - 40 | 1,670 | 45 | 1,665 | Marine shale | Hard, clear | | | Insufficient supply; has another similar well. |
| 20 | SW. | 16 | " | " | " | Dug | 20 | 1,720 | - 17 | 1,703 | 17 | 1,703 | Glacial gravel | Soft, clear | | D, S | Abundance of water; cannot be emptied. |
| 21 | NE. | 17 | " | " | " | Dug | 21 | 1,700 | - 18 | 1,682 | 18 | 1,682 | Marine shale | Hard, clear, odour | | S | Condemned by Dept. of Health but used for stock; Hauls water for house. |
| 22 | SW. | 17 | " | " | " | Dug | 42 | 1,720 | | | | | Glacial blue clay | | | | Dry; well on SE.¼, 18-17-32 supplies this farm. |
| 23 | SE. | 18 | " | " | " | Dug | 10 | 1,690 | - 6 | 1,684 | 8 | 1,682 | Glacial gravel | Hard, clear | | D, S | Abundant supply; cannot lower water level. |
| 24 | SE. | 21 | " | " | " | Dug | 23 | 1,710 | - 13 | 1,697 | 23 | 1,687 | Marine shale | Hard, clear | | D, S | Not a large supply; another well in shale oversufficient. |
| 25 | NW. | 22 | " | " | " | Dug | 19 | 1,700 | - 12 | 1,688 | 19 | 1,681 | Marine shale | Hard, clear | | D, S | Intermittent supply; uses spring in ravine. |
| 26 | NE. | 22 | " | " | " | Dug | 23 | 1,400 | - 17 | 1,383 | 17 | 1,383 | Recent alluvium | Hard, clear | | D, S | Sufficient with creek near buildings. |
| 27 | NE. | 27 | " | " | " | Dug | 36 | 1,390 | - 20 | 1,370 | 28 | 1,362 | Recent alluvium | Hard, clear | | D | Household use only; Qu'Appelle River for stock. |
| 28 | NW. | 28 | " | " | " | Dug | 30 | 1,700 | - 28 | 1,372 | 30 | 1,670 | Marine shale | Soft, clear | | D, S | Sufficient for 50 head stock. |
| 29 | NW. | 30 | " | " | " | Dug | 28 | 1,700 | - 18 | 1,682 | 28 | 1,672 | Glacial gravel | Hard, clear, "alkaline" | | D, S | Sufficient for 50 head stock. |
| 30 | NE. | 32 | " | " | " | Dug | 9 | 1,695 | - 7 | 1,688 | 7 | 1,688 | Glacial gravel | Soft, clear | | D, S | Sufficient for 40 head stock. |
| 31 | SE. | 32 | " | " | " | Dug | 10 | 1,705 | - 6 | 1,699 | 6 | 1,699 | Glacial sand | Hard, clear | | D, S | Comes in as fast as boiled. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | SE. | 32 | 17 | 32 | 1 | Dug | 30 | 1,705 | | | 30 | 1,675 | Marine shale | Hard, clear | | D, S | Good supply but cribbing broken. |
| 33 | SE. | 33 | " | " | " | Dug | 30 | 1,690 | - 27 | 1,663 | 30 | 1,660 | Marine shale | Hard, clear | | D | Sufficient for house only; hauls water 1 mile for 10 head stock. |
| 1 | SE. | 1 | 17 | 33 | 1 | Dug | 62 | 1,840 | - 58 | 1,782 | 62 | 1,778 | Glacial gravel | Hard, clear, iron | | D, S | An abundance of water; no shortage. |
| 2 | NE. | 2 | " | " | " | Dug | 25 | 1,810 | - 21 | 1,789 | 25 | 1,785 | Glacial sand | Hard, clear | | D, S | No shortage; water located at 30 feet any place. |
| 3 | SE. | 3 | " | " | " | Dug | 65 | 1,900 | | | | | Glacial sand | | | | Dry hole; other dry holes; hauls water from neighbours well. |
| 4 | NW. | 3 | " | " | " | Drilled | 184 | 1,880 | -137 | 1,743 | 184 | 1,696 | Glacial sand | Hard, clear, "alkaline" | | D, S | Abundant supply; dam for stock as well . |
| 5 | NW. | 5 | " | " | " | Dug | 18 | 1,920 | - 15 | 1,905 | 18 | 1,902 | Glacial sand | Hard, clear, iron | | D, S, I | Abundant supply; never a shortage. |
| 6 | SW. | 9 | " | " | " | Dug | 18 | 1,880 | - 15 | 1,865 | 18 | 1,862 | Glacial sand | Hard, clear | | D, S | Just sufficient for 60 head stock. |
| 7 | NE. | 9 | " | " | " | Dug | 18 | 1,830 | - 12 | 1,818 | 18 | 1,812 | Glacial gravel | Soft, clear | | D, S | Sufficient for local needs. |
| 8 | SW. | 10 | " | " | " | Drilled | 135 | 1,860 | -105 | 1,755 | 135 | 1,725 | Glacial sand | Hard, clear, "alkaline" | | D, S | Sufficient for 65 head stock. |
| 9 | NE. | 10 | " | " | " | Dug | 14 | 1,810 | - 9 | 1,801 | 14 | 1,796 | Glacial gravel | Soft, clear | | D, S | Intermittent supply; has several wells; hauls water in dry years. |
| 10 | SW. | 12 | " | " | " | Dug | 53 | 1,810 | - 52 | 1,758 | 53 | 1,757 | Glacial gravel | Hard, clear | | D, S | Abundant supply; no shortage. |
| 11 | SE. | 12 | " | " | " | Dug | 66 | 1,810 | - 63 | 1,747 | 66 | 1,744 | Glacial gravel | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 12 | NE. | 12 | " | " | " | Dug | 26 | 1,800 | - 23 | 1,777 | 26 | 1,774 | Glacial sand | Hard, clear | | D, S | Sufficient for 10 head stock; no shortage. |
| 13 | NE. | 13 | " | " | " | Dug | 17 | 1,780 | - 10 | 1,770 | 13 | 1,767 | Glacial gravel | Hard, clear | | D, S, I | Good supply; has a spring on farm also. |
| 14 | SW. | 13 | " | " | " | Dug | 32 | 1,730 | - 12 | 1,718 | 30 | 1,700 | Glacial gravel | Hard, clear, "alkaline" | | D, S | Well needs a new cribbing; sufficient for 10 head stock. |
| 15 | SW. | 14 | " | " | " | Dug | 42 | 1,800 | - 14 | 1,786 | 42 | 1,758 | Glacial sand | Hard, clear, iron | | D, S | Cannot pump dry; neighbours haul from this well |
| 16 | SE. | 16 | " | " | " | Dug | 11 | 1,820 | - 1 | 1,819 | 11 | 1,809 | Glacial gravel | Hard, clear | | D, S, I | Abundance of water; has a dam and another well. |
| 17 | NE. | 16 | " | " | " | Dug | 14 | 1,800 | - 4 | 1,796 | 14 | 1,786 | Glacial sand | Hard, clear, "alkaline" | | D, S | Sufficient for local needs. |
| 18 | SW. | 16 | " | " | " | Dug | 33 | 1,850 | - 28 | 1,822 | 33 | 1,817 | Glacial gravel | Hard, clear, "alkaline" | | D, S, I | Sufficient for 15 head stock. |
| 19 | SW. | 17 | " | " | " | Dug | 18 | 1,825 | - 6 | 1,819 | 18 | 1,807 | Glacial gravel | Hard, clear | | D, S | Abundance of water with other well. |
| 20 | NW. | 17 | " | " | " | Dug | 16 | 1,820 | - 4 | 1,816 | 16 | 1,804 | Glacial sand | Hard, clear | | D, S | Sufficient for local needs; waters 5 head stock. |
| 21 | SW. | 20 | " | " | " | Dug | 20 | 1,840 | - 10 | 1,830 | 20 | 1,820 | Glacial sand | Hard, clear | | D, S | Sufficient for 60 head stock. |
| 22 | SE. | 20 | " | " | " | Dug | 24 | 1,840 | - 14 | 1,826 | 14 | 1,826 | Marine shale | Hard, clear | | D, S | Sufficient for 40 head stock. |
| 23 | NE. | 20 | " | " | " | Dug | 25 | 1,800 | - 8 | 1,792 | 8 | 1,792 | Marine shale | Hard, clear | | D, S | Good supply; has a dam also. |
| 24 | SW. | 21 | " | " | " | Dug | 11 | 1,830 | - 3 | 1,827 | 3 | 1,827 | Glacial sand | Soft, clear | | D, S, I | Sufficient for 70 head stock. |
| 25 | SW. | 23 | " | " | " | Dug | 12 | 1,800 | - 8 | 1,792 | 8 | 1,792 | Glacial sand | Hard, clear | | D, S | Sufficient for 15 head stock. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE, NO. 151, SASKATCHEWAN.

| WELL No. | LOCATION ¼ | Sec. | Tp. | Rge. | Mer. | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE Above (+) Below (−) Surface | Elev. | PRINCIPAL WATER-BEARING BED Depth | Elev. | Geological Horizon | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | NE. | 25 | 17 | 33 | 1 | Dug | 35 | 1,700 | - 32 | 1,668 | 32 | 1,668 | Glacial sand | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 27 | NW. | 25 | " | " | " | Dug | 35 | 1,710 | - 33 | 1,677 | 33 | 1,677 | Glacial sand | Hard, clear | | D, S | Sufficient for 15 head stock. |
| 28 | SE. | 27 | " | " | " | Dug | 35 | 1,720 | - 15 | 1,705 | 35 | 1,685 | Glacial sand | Hard, clear | | D, S | Sufficient for 15 head stock; Another well 30 feet deep, abundant supply. |
| 29 | NE. | 27 | " | " | " | Dug | 9 | 1,710 | - 6 | 1,704 | 6 | 1,704 | Glacial gravel | Soft, clear | | D, S, I | Sufficient for 80 head stock. |
| 30 | SE. | 28 | " | " | " | Dug | 22 | 1,700 | - 12 | 1,688 | 22 | 1,678 | Glacial gravel | Hard, clear | | D, S | Sufficient for 40 head stock. Lowers in dry seasons. |
| 31 | NE. | 28 | " | " | " | Dug | 12 | 1,715 | - 10 | 1,705 | 12 | 1,703 | Glacial gravel | Hard, clear | | D, S | No shortage several similar wells. |
| 32 | SW. | 28 | " | " | " | Dug | 14 | 1,680 | - 10 | 1,670 | 10 | 1,670 | Glacial gravel | Hard, clear | | D, S | Sufficient for 50 head stock. |
| 33 | SW | 32 | " | " | " | Dug | 20 | 1,710 | - 16 | 1,694 | 16 | 1,694 | Glacial sand | Hard, clear | | D, S | Insufficient for 15 head stock; has a flowing spring with abundant supply. |
| 34 | NE. | 32 | " | " | " | Dug | 15 | 1,700 | - 10 | 1,690 | 10 | 1,690 | Glacial sand | Hard, clear | | D, S | Sufficient for local needs. |
| 35 | NE. | 33 | " | " | " | Dug | 12 | 1,710 | - 8 | 1,702 | 8 | 1,702 | Glacial sand | Hard, clear | | D, S | Sufficient for 40 head stock. |
| 36 | NW. | 34 | " | " | " | Dug | 12 | 1,720 | - 6 | 1,714 | 10 | 1,710 | Glacial gravel | Hard, clear | | D, S | Sufficient for 20 head stock. Freezes down in winter. |
| 37 | SE. | 34 | " | " | " | Dug | 10 | 1,730 | - 4 | 1,726 | 4 | 1,726 | Marine shale | Hard, clear | | D, S | Sufficient for 15 head stock. |
| 38 | NE. | 34 | " | " | " | Dug | 14 | 1,675 | - 7 | 1,668 | 11 | 1,664 | Glacial sand | Hard, clear | | D, S | School supply. |
| 39 | NE. | 35 | " | " | " | Dug | 14 | 1,710 | - 7 | 1,703 | 14 | 1,696 | Glacial sand | Soft, clear | | D, S, I | Two wells supply sufficient water. |
| 40 | NW. | 36 | " | " | " | Dug | 60 | 1,720 | - 50 | 1,670 | 60 | 1,660 | Glacial sand | Hard, cloudy | | D, S | Intermittent supply; dug several dry holes; hauls water ½ mile. |
| 1 | SE. | 5 | 18 | 31 | 1 | Dug | 14 | 1,440 | - 12 | 1,428 | 12 | 1,428 | Glacial sand | Hard, clear | | D, S | Sufficient for local needs. Uses spring and Qu'Appelle River. |
| 1 | SE. | 4 | 18 | 32 | 1 | Dug | 6 | 1,450 | - 1 | 1,449 | 2 | 1,448 | Glacial sand | Soft, clear | | D, S, I | Household use; Qu'Appelle River for stock most of year. |
| 2 | SE. | 5 | " | " | " | Dug | 22 | 1,560 | - 19 | 1,541 | 19 | 1,541 | Marine shale | Hard, clear | | D, S | Abundant supply with springs and creeks. |
| 3 | SE. | 6 | " | " | " | Dug | 10 | 1,710 | - 8 | 1,702 | 8 | 1,702 | Glacial sand | Hard, clear | | D, S | Abundant supply with springs. |
| 4 | NE. | 9 | " | " | " | Dug | 6 | 1,425 | - 0 | 1,425 | 0 | 1,425 | Glacial sand | Soft, clear | | D, S, I | Abundance of water; springs and Qu'Appelle R. |
| 1 | SW. | 12 | 18 | 33 | 1 | Dug | 20 | 1,390 | - 10 | 1,380 | 10 | 1,380 | Recent alluvium sand | Hard, clear, iron, "alkaline" | | D, S | Abundance of water; also Qu'Appelle River. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.

# WELL RECORDS—Rural Municipality of ROCANVILLE #151 SASKATCHEWAN

| LOCATION | | | | | TYPE OF WELL | DEPTH OF WELL | ALTITUDE WELL (above sea level) | HEIGHT TO WHICH WATER WILL RISE | | PRINCIPAL WATER-BEARING BED | | | CHARACTER OF WATER | TEMP. OF WATER (in °F.) | USE TO WHICH WATER IS PUT | YIELD AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¼ | Sec. | Tp. | Rge. | Mer. | | | | Above (+) Below (−) Surface | Elev. | Depth | Elev. | Geological Horizon | | | | |
| SE | 10 | 17 | 33 | 1 | | 148 | 1900 | -35 | 1865 | 148 | 1752 | Glacial gravel | Fresh | | | No other information. |

NOTE—All depths, altitudes, heights and elevations given above are in feet.

(D) Domestic; (S) Stock; (I) Irrigation; (M) Municipality; (N) Not used.
(#) Sample taken for analysis.