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BUREAU OF ECONOMIC GEOLOGY
GEOLOGICAL SURVEY

PRELIMINARY REPORT

GROUND-WATER RESOURCES
OF THE
RURAL MUNICIPALITY OF KINGSLEY
No. 124
SASKATCHEWAN

BY

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

Water Supply Paper No. 58



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GROUND WATER RESOURCES OF THE RURAL MUNICIPALITY
OF KINGSLEY, NO. 124,
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. The 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 loss 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 Kingsley, No. 124, comprises an area of 324 square miles in southeastern Saskatchewan. It consists of nine townships described as tps. 13, 14, and 15, ranges 4, 5, and 6, W. 2nd mer. The village of Kipling, on the Canadian National Railways, about 90 miles southeast of Regina, lies approximately at the centre of the municipality.

The drainage of the municipality is toward Pipestone creek which originates from numerous springs in the northwestern corner and flows east-southeasterly into Pipestone lake in sec. 11, tp. 15, range 4. Ekapo lake is situated in the northwestern corner of the same township, and both lakes are in a deep, narrow valley crossing the township in a northwesterly direction.

The whole of the municipality is covered by a mantle of glacial drift from 100 to 280 feet thick, the thickness increasing with the rise in surface elevation towards the south.

With the exception of a flat area of approximately 28 square miles to the north of Kipling, which is covered by glacial till or boulder clay, the glacial drift in the southwestern half of the municipality is in the form of moraine. This moraine is part of a large moraine that terminates in Moose mountain. It is probable that this northern part of the moraine was laid down when the front of the continental ice-sheet was receding more quickly than at Moose mountain, and as a result the surface is not as rough and hilly as in Moose Mountain area. The northeastern half of the municipality is largely mantled by boulder clay or glacial till, which is overlain in the central part by a belt $2\frac{1}{2}$ to 4 miles wide of glacial outwash sands and gravels. The northeastern corner of the municipality is covered by the southern part of another extensive moraine.

The municipality is quite thickly populated and the farms are fairly well supplied with water. Water, however, is not easily located, but by systematic testing a supply can usually be obtained. A total of 855 wells are recorded, of which 411 are dry holes. Of the 444 wells that are used for water supplies, only 43 yield an intermittent supply. In certain sections larger herds of stock could be raised if dams were constructed or dugouts excavated to retain a suitable supply of water for them.

Water-bearing Horizons in the Unconsolidated Deposits

The uppermost water-bearing horizon that is found in scattered pockets of sand and gravel that occur within the upper 40 feet of the boulder clay and morainic deposits, and in the deposits of glacial outwash sands and gravels that occur in the northeastern half of the municipality. Over 400 dry holes have been dug in this municipality and most of them have been sunk to a depth of 30 to 40 feet in an attempt to locate these sand and gravel pockets. The amount of water obtained from wells tapping these deposits varies with the size of the pocket encountered, and the amount of annual precipitation, and during periods of drought many of them go completely dry. An abundance of water is easily obtained from wells dug into the deposits of glacial outwash sands and gravels. These wells yield a more constant supply of water than those that tap pockets of sand and gravel, the supply being such that it has not been necessary to search for water at deeper horizons.

The main source of water for the municipality is derived from a second water-bearing horizon located at a depth of 50 to 100 feet. This aquifer is formed by a bed of sand and gravel that underlies a 30- to 80-foot bed of impervious, blue clay. This bed of sand and gravel varies in thickness from a few feet to at least 55 feet, so that the amount of water obtainable from it

also varies in different localities. The wells increase in depth with the rise in elevation of the lands towards the west and south. The water is exceptionally hard and highly mineralized, but is used for domestic purposes when water of better quality is not obtainable. A few wells that are believed to penetrate this water-bearing horizon in the central part of township 13, range 5, are flowing artesian wells. The pressure is exceptionally high in some of the wells and the water is of very good quality for domestic use. The hydrostatic pressure is due to the difference in elevation of this area and the Moose Mountain area to the south, whence the water is fed to the flowing artesian area by means of a series of sand and gravel deposits.

A third water-bearing horizon is located in the south-eastern part of the municipality at a depth of 100 to 180 feet. It extends into township 13, ranges 4 and 5, and township 14, range 4. The water is obtained from a bed of sand that gradually disappears towards the northwestern part of the municipality. Individual wells tapping this horizon obtain a supply of hard water sufficient for 100 to 200 head of stock, and usable also for domestic purposes.

Water-bearing Horizons in the Bedrock

The Glacial drift is underlain throughout the municipality by the Marine Shale bedrock, which occurs at an average elevation of 1,900 feet above sea-level. Practically no water is obtained from this formation. Sometimes holes penetrating the upper 20 feet of the Marine Shale series obtain small amounts of water that has collected in small cracks and fissures. In this municipality two wells in township 13, range 4, obtain a fair supply of water from this source. Other holes that have penetrated the Marine Shale series were dry. Only one well on SE. $\frac{1}{4}$, sec. 14, tp. 15, range 4, located an abundant supply of water in a large fissure in the shale. While drilling this well a cavity was encountered at a depth of 156 feet which caused the drill to fall 25 feet vertically and the water to rush into the well.

GROUND WATER CONDITIONS BY TOWNSHIPS

Township 13, Range 4

This township is overlain with glacial drift to a depth of at least 210 feet. On the western side of the township the glacial drift is deposited in the form of a moraine and on the eastern side as boulder clay or till.

The first water-bearing horizon is found in the upper 30 feet of the glacial drift. The water occurs in small pockets of sand in the yellow clay. These water-bearing pockets are not extensive and yield only small amounts of water. The water is hard in character, but usable, and the supply is sufficient only for domestic purposes. A well on the SE. $\frac{1}{4}$, section 36, is an exception. It was dug through 27 feet of sand and gravel, and yields an abundant supply of hard, clear water, sufficient for at least 400 head of stock.

A second water-bearing horizon is located at an average depth of 60 feet. The water is obtained from a bed of sand that is overlain by pebbly, blue clay and underlain by a fine-textured, blue clay. The water is hard, and high in mineral salts, due to the proximity of the blue clay. It is used for domestic purposes in most instances, as better water cannot be obtained. The water rises to a point 20 to 30 feet below the surface and in most of the wells maintains a constant level at this point. Most wells that tap this water-bearing horizon will supply 50 to 100 head of stock. In a few wells the water runs in very slowly so that the daily supply is not so great. The water derived from this horizon is the main source of supply for the township.

A third water-bearing horizon, which extends throughout the township, is located at a depth of 115 to 180 feet. The aquifer is a bed of sand and gravel that occurs at an elevation of about 2,000 feet above sea-level. The wells tapping this horizon increase in depth towards the southwestern corner of the township, correspond-

ing to the rise in surface elevation. The water is used for domestic and stock purposes. Individual wells yield a sufficient amount to water 100 to 200 head of stock. Most of the wells were drilled some years ago, so that the amount of water from individual wells has decreased due to the fact that the casing has rusted out or that the well needs cleaning. The water is under sufficient hydrostatic pressure to rise to a point 20 to 40 feet below the surface.

Bedrock lies at a depth of 210 to 280 feet, or an elevation of about 1,950 feet above sea-level. Water is located in a well on the SE. $\frac{1}{4}$, section 5, at a depth of 317 feet. Water is very seldom found in the Marine Shale and in this well the water is derived from a crevice in the shale. Another well on the SE. $\frac{1}{4}$, section 20, penetrates the Marine Shale at a depth of 210 feet and a small amount of water is derived from the contact with the glacial drift. It is not advisable to drill into the Marine Shale to locate water, and drilling to depths of over 200 feet is not recommended throughout the township.

Township 13, Range 5

The northern half of this township is overlain with boulder clay or till. The whole area is flat, but an area composed of sections 27, 28, and 29 is virtually a swamp in wet seasons. The southern half of the township is a rolling area overlain with terminal moraine.

The upper 30 feet of the glacial drift is composed of yellow clay in which scattered pockets of sand and gravel occur. Many holes are generally sunk before the pockets are located and then the amount of water obtained from the individual wells varies a great deal within short distances. In the western half of section 20, and the southern parts of sections 29 and 30, a fairly large area of sand lies within a few feet of the surface, and is a source of clear usable water. The water derived from this water-

bearing horizon is medium hard and is generally only used for domestic purposes. This source of supply cannot be depended on for any large amount of stock as the individual wells are greatly affected by drought periods.

A second water-bearing horizon occurs at a depth of 60 to 80 feet, and is formed by a bed of sand 5 to 10 feet thick that underlies a layer of blue clay. This horizon yields an abundant supply of water, and is the main source of water throughout the township. The water has a high mineral salt content and is unpalatable until one becomes accustomed to it. It is under high hydrostatic pressure, and a number of the wells are flowing artesian in character. The water from a well located on the SW. $\frac{1}{4}$, section 16, flows at the rate of 10 gallons a minute. The hydrostatic head for these flowing wells is probably developed in Moose Mountain area to the south.

A third water-bearing horizon is formed by a sand bed that occurs at a depth of 120 to 200 feet, and which lies between impervious beds of fine-textured, blue clay. The water derived from this water-bearing horizon is hard, but is usable for both humans and animals, although it is quite unpalatable until one becomes accustomed to it. The water rises to within a few feet of the surface in most wells, and flows above the surface in others. One well in particular, on the SW. $\frac{1}{4}$, section 23, has a strong pressure and an abundance of water that flows the year round. The water is usable for both humans and animals, although it contains a high total dissolved solid content, and sufficient iron to cause a red sediment to form after the water stands in contact with the air. It is possible that other flowing artesian wells could be located within the area outlined on Figure 1.

A well on the SW. $\frac{1}{4}$, section 36, penetrated a sand bed lying upon the surface of the Marine Shale. Bedrock was reached at a depth of 295 feet or an elevation of 1,855 feet above sea-level

and drilling was discontinued at this level. There is a fair amount of hard, highly mineralized water, derived from the sand bed in this well. This aquifer is not continuous, so that it would not be advisable to drill to this depth to try to locate water in other sections. No great shortage of water is experienced in this township.

Township 13, Range 6

With the exception of a small area in the northwestern corner that is mantled with glacial till, this township is covered by terminal moraine. The land surface is very rolling, with numerous hills and many undrained depressions. In wet seasons these sloughs serve as a source of water for stock. The upper 30 to 40 feet of the glacial drift is composed of yellow clay in which are embedded irregular-shaped bodies of sand and gravel. Water is derived from these pockets of sand and gravel throughout the township. Many holes are generally sunk before an adequate supply of water is located and in times of drought the wells may become completely dry. The water supply is only sufficient for domestic purposes in many cases, the stock supply being obtained from a slough or small dugout.

A second water-bearing horizon is formed by a bed of sand, varying in thickness from a few feet to 55 feet, which occurs within blue clay at a depth of 60 to 100 feet. The wells increase in depth toward the southern part of the township or with the rise in surface elevation. The water is very hard and is quite objectionable for drinking. However, it is used for domestic purposes when other water is not obtainable. It also has a high iron content, which forms a scum over the water when it is exposed to the air. The hydrostatic pressure is sufficient to cause the water to rise to a point 10 to 40 feet below the surface, where it maintains a constant level. In some wells, however, the water comes in so slowly that only a few head of stock can be watered at one time.

Two wells located on the NE. $\frac{1}{4}$, and SW. $\frac{1}{4}$, of section 2, tap a water-bearing horizon at a depth of 265 and 310 feet, respectively. The aquifer is a fine quicksand that has a tendency to plug the wells unless sand screens are used. The water derived from this level will supply at least 200 head of stock when the wells are free from sand. The water is very hard and highly mineralized, and is not fit to be used for domestic purposes. It also contains a considerable amount of iron which settles as iron oxide on exposure to the air. The water will only rise to a point 150 feet below the surface, so that pumping is extremely difficult. This water-bearing horizon may extend throughout the township, but there is no data on hand to indicate that it does. The difficulties entailed in pumping the water, and the poor quality of the water obtained, do not warrant the expense of drilling to this depth.

This township has not a surplus water supply and in dry years many of the farms are inadequately supplied. It is not advisable to drill to any great depth because of the fact that the glacial drift is underlain by the Marine Shale which is considered to be non-water-bearing. The best method for the conservation of a water supply is by properly constructed dams or dugouts. It is possible that in dry years many of the sloughs could be deepened and cleaned out with little difficulty, so that a larger amount of run-off water could be conserved.

Township 14, Range 4

In the southwestern corner of this township there is an area that is overlain with glacial drift in the form of a terminal moraine. Bordering this area, and extending from the northwestern to the southeastern corner of the township, is a strip of glacial outwash sands and gravels, approximately 2 miles wide. In some parts of this area a few feet of yellow clay has been deposited over the sand and gravel. In the northeastern part of the township the glacial drift is in the form of boulder clay or till.

The first water-bearing horizon is formed by the glacial outwash sands and gravels, and by scattered pockets of sand and gravel that occur within the upper 30 feet of the glacial till and morainic deposits. An abundant supply of hard, clear water is obtained from the outwash deposits at almost any location, whereas in the areas where the gravel is in the form of pockets, numerous dry holes are dug before small supplies of water are obtained. The water is of an excellent quality and is used for domestic and stock purposes. In some wells the water flows in so quickly that the water-level cannot be lowered by pumping.

A second water-bearing horizon is located at a depth of 40 to 60 feet and is formed by a bed of sand. It is probable that it extends throughout the township, but due to the abundant supply derived from the first water-bearing horizon in the strip of outwash sands and gravels, few wells have penetrated this source of supply. The sand layer lies between beds of blue clay and as a consequence the water is extremely hard, and generally "alkaline". It is used for both humans and animals, however, and individual wells will supply 50 to 100 head of stock throughout the year. This water-bearing horizon is the main source of supply in the northeastern corner of the township.

A few other wells have penetrated a third water-bearing horizon at a depth of 110 to 190 feet. This aquifer is a bed of fine gravel that is overlain by a few feet of hardpan, above which is a 90- to 150-foot bed of blue clay. As soon as the hardpan is pierced the water rushes in and rises to within a few feet of the surface. In one well, on the SE. $\frac{1}{4}$, section 22, the water will rise 7 feet above the surface and will supply almost any number of stock. The water is used for both domestic and stock purposes. This horizon is an excellent source of supply, and it is probable that water could be obtained at this level throughout the township if it were necessary to drill to this depth.

On the SE. $\frac{1}{4}$, section 6, a well 290 feet in depth penetrates the whole thickness of the glacial drift and reached the Marine Shale bedrock at an elevation of 1,860 feet above sea-level. Water is derived from a sand bed that was deposited on the pre-Glacial land surface. There is not an abundant supply of water derived from this level and the quality is very poor. The water is very hard, "alkaline", and has a fairly high iron content. It can be used for human consumption, but it is not advisable to do so if other water can be obtained. The water is very unpalatable and has a strong laxative effect until one becomes accustomed to drinking it. There should be no necessity to drill to this depth for water, as water of superior quality and quantity can be obtained from the water-bearing horizons that occur at shallower depths.

Township 14, Range 5

The township is overlain with at least 290 feet of glacial drift. With the exception of an area in the south, and a small area in the northeastern corner, covered by till, the township is mantled by morainic deposits. The whole township is a rolling plain very suitable for cultivation, and as a consequence it is well settled. The upper 30 feet of the glacial drift is composed of yellow clay in which are located isolated pockets of sand and gravel. No large amounts of water are derived from these pockets, but there is generally a sufficient amount for domestic purposes. In dry years the wells tapping this horizon go completely dry, and water of poorer quality, which is obtained from deeper wells, is used for domestic purposes.

The main source of water in this township is obtained from a water-bearing horizon at a depth of 50 to 80 feet. This aquifer is a bed of coarse sand between beds of impervious, blue clay. The water derived from this level is exceptionally hard and "alkaline". It is used for domestic purposes in many instances, however, and is the main source of supply for stock. The individual

wells are little affected by periods of drought and will supply from 50 to 100 head of stock throughout the year. There is sufficient hydrostatic pressure to cause the water to rise to a point 20 to 40 feet below the surface, where it maintains a constant level.

Two wells located on the SW. $\frac{1}{4}$, section 8, and on the SE. $\frac{1}{4}$, section 3, penetrate a third water-bearing horizon at a depth of 140 feet. The aquifer is a bed of gravel lying between beds of blue clay. It yields a good supply of hard water that is usable for both humans and animals. The water rises to a point 30 feet below the surface and it is lowered only a few feet by pumping. This water-bearing horizon may be continuous, but it is improbable, as dry holes have been drilled to a depth of 150 to 290 feet in section 2, and, in the northern half of section 34, a dry hole was put down to a depth of 250 feet. However, if it were necessary to try to locate water at depths in other parts of the township it is possible that other beds of sand or gravel might be located at similar depths.

No water is obtained from the bedrock of this township. Drilled holes located in the SW. $\frac{1}{4}$, section 2, and the NE. $\frac{1}{4}$, section 34, penetrate the Marine Shale at depths of 290 and 260 feet, respectively. The second hole was drilled 100 feet farther into the Marine Shale and no water was encountered. It is generally considered that unless water is obtained from the upper 20 to 50 feet of the Marine Shale no water will be obtained from it.

Township 14, Range 6

Sections 1 and 12 of this township are overlain with glacial drift in the form of boulder clay. The remainder of the township lies within the morainic area that terminates in Moose mountain. The upper 20 to 30 feet of the glacial drift is composed of red and yellow clays in which are embedded isolated pockets of

sand and gravel. A few wells have located some of these bodies of sand and gravel and obtain a small supply of excellent water from them. The supply, however, is greatly affected by seasonal precipitation. Very few attempts are made to locate the water-bearing horizon that is formed by these pockets of sand and gravel, as a known horizon exists at a slightly greater depth.

This second water-bearing horizon extends throughout the township at a depth of 80 to 100 feet. The aquifer is a bed of sand that is overlain by 60 to 80 feet of impervious, blue clay. It is underlain by blue clay to an unknown depth. It yields an abundance of hard, highly mineralized water that is used for domestic purposes as well as for stock. The water is slightly "alkaline" and has a fairly high iron content as it becomes reddish after being exposed to the air. The water rises to a point 40 to 50 feet below the surface, where it maintains a constant level. The majority of wells will supply 100 to 200 head of stock with water even during long periods of drought. Due to the fact that water can be readily obtained from this horizon no attempts have been made to locate other water-bearing horizons at depth. In wet years an abundance of water is also obtained for stock from the numerous sloughs, but these become dry during long periods of drought.

Township 15, Range 4

The northeastern corner of this township is overlain by moraine deposits. Bordering this area, and extending toward the southeastern part of the township, is a strip of boulder clay, approximately 2 miles in width. The remainder of the township is mantled by outwash sands and gravels, which in a few places are overlain by a few feet of yellow clay. Many small ravines and valleys occur in this area of outwash sands and gravels. The largest and most abrupt valley is occupied by Pipestone creek which flows into Pipestone lake in section 1. The southern end of

Ekapo lake is located in sections 30 and 31. Due to the light sandy nature of the topsoil, and to its rough topographical features, this township is but sparsely settled. The main source of water in many instances is Pipestone creek. The glacial sands and gravels, however, form a water-bearing horizon and an abundant supply of hard water can be obtained from it within a few feet of the surface.

More difficulty is experienced in locating water in the areas that are mantled by boulder clay and morainic deposits. A fairly consistent bed of sand, from which water can be obtained, occurs at a depth of 50 to 115 feet below the surface, or at an average elevation of 1,950 feet. The wells increase in depth towards the northeastern corner of the township, the increase in depth corresponding to the increase in surface elevation. The amount of water derived varies with the individual well, but there is usually a sufficient amount to supply 50 to 60 head of stock. The water is very hard and highly mineralized, and in some cases cannot be used for domestic purposes. The water rises to a point 30 to 60 feet below the surface, depending on the elevation of the well site.

In the south half of section 14, a number of holes have been drilled in an effort to locate water at depth. Bedrock is penetrated at a depth of approximately 100 feet below the surface, or at an elevation of 1,900 feet above sea-level. In one well, a fissure in the Marine Shale series was encountered at a depth of 165 feet. At this point the drill dropped a distance of 25 feet and the water rushed in. This well yields an abundant supply of water, whereas holes that were put down to greater depths nearby, failed to encounter water.

A well located on the NW. $\frac{1}{4}$, section 32, possibly penetrates bedrock at a depth of 103 feet, or at an elevation of 1,937 feet above sea-level. A good supply of hard water is being obtained from

this well. It is under considerable hydrostatic pressure and rises to a point 18 feet below the surface, where it maintains a constant level. However, it is not considered advisable to drill into the Marine Shale series in an effort to locate water, as only small supplies of highly mineralized water are to be expected.

Township 15, Range 5

Pipestone creek divides this township into two separate areas. The area to the north is overlain with glacial outwash sands and gravels from which various quantities of water are obtained at depths of 15 to 30 feet. To the south of the creek is an area that is overlain by till or boulder clay. There is also a small area of moraine in the southwestern corner. A few small pockets of sand or gravel are found embedded in the yellow clay that comprises the upper 30 feet of the glacial drift in the area to the south of the creek. The first water-bearing horizon is formed by the scattered pockets of sand and gravel that occur in the drift to the south of the creek, and by the glacial gravels to the north of the creek. The water from this horizon is of excellent quality and is suitable for domestic purposes. The wells that tap the sand pockets are influenced to a much greater extent by drought conditions than those that tap the glacial outwash gravels. A second water-bearing horizon is encountered at a depth of 50 to 100 feet by a few wells in sections 1 and 5. Wells tapping this horizon yield a supply of hard, usable water that is sufficient for 100 head of stock. It is not probable that this water-bearing horizon is continuous, as a number of holes have been drilled in sections 2 and 3 to a depth of 100 feet without locating water. This township is not thickly settled due to the irregular topographical features and to the sandy nature of the topsoil in the area to the north of the creek.

Township 15, Range 6

The southern half of this township is mantled by morainic deposits. Glacial outwash gravels occur in the northwestern corner, and the northeastern part is covered by boulder clay or till. Pipestone creek begins in the north-central part of the township and flows south and eastward, crossing the eastern boundary at the northern border of section 24. It is fed by numerous, small springs that are located along the deep valley in which the creek flows.

The first water-bearing horizon is found in the uppermost 30 feet of the glacial drift. It is composed of isolated sand and gravel pockets located in the yellow clay, and the deposits of glacial outwash sands and gravels. The supply of water derived from these deposits of sand and gravel is controlled by seasonal rainfall, but the supply obtained from the glacial outwash gravels is generally more abundant. The water is medium hard and is excellent for domestic purposes.

A second water-bearing horizon is encountered throughout the township at a depth of 50 to 100 feet, or at an average elevation of 2,110 feet above sea-level. The wells tapping this horizon increase in depth with the rise in elevation toward the southwest. The aquifer is a bed of sand that is located between an overlying 40- to 70-foot bed of impervious, blue clay, and an underlying bed of blue clay of undetermined thickness. The water that is derived from this horizon is quite hard and highly mineralized, but is used for domestic purposes. There is a sufficient quantity to water from 50 to 100 head of stock. The water rises to a point a few feet below the surface in the lowlands, but maintains a level at about 50 feet below the surface in the deeper wells. In the northwestern corner of the township, where the glacial outwash deposits are fairly extensive, few wells have penetrated this horizon, as a sufficient supply can be obtained at shallower depths.

STATISTICAL SUMMARY OF WELL INFORMATION IN RURAL
MUNICIPALITY OF KINGSLEY, NO.124, SASKATCHEWAN

| Township | | 13 | 13 | 13 | 14 | 14 | 14 | 15 | 15 | 15 | Total No. |
|--------------------------------------|--|-----|----|-----|----|-----|-----|----|----|-----|----------------------|
| Range | | 4 | 5 | 6 | 4 | 5 | 6 | 4 | 5 | 6 | in muni- cipality |
| West of 2nd meridian | | | | | | | | | | | |
| Total No. of Wells in Township | | 110 | 95 | 112 | 69 | 120 | 125 | 68 | 47 | 109 | 855 |
| No. of wells in bedrock | | 1 | 0 | 0 | 1 | 7 | 0 | 11 | 0 | 0 | 20 |
| No. of wells in glacial drift | | 109 | 95 | 112 | 68 | 113 | 125 | 57 | 47 | 109 | 835 |
| No. of wells in alluvium | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Permanency of Water Supply | | | | | | | | | | | |
| No. with permanent supply | | 61 | 63 | 46 | 51 | 55 | 43 | 32 | 26 | 24 | 401 |
| No. with intermittent supply | | 3 | 5 | 2 | 2 | 8 | 6 | 3 | 6 | 8 | 43 |
| No. dry holes | | 46 | 27 | 64 | 16 | 57 | 76 | 33 | 15 | 77 | 411 |
| Types of Wells | | | | | | | | | | | |
| No. of flowing artesian wells | | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| No. of non-flowing artesian wells | | 31 | 22 | 20 | 23 | 43 | 30 | 20 | 13 | 8 | 210 |
| No. of non-artesian wells | | 32 | 40 | 28 | 30 | 20 | 19 | 15 | 19 | 24 | 227 |
| Quality of Water | | | | | | | | | | | |
| No. with hard water | | 60 | 65 | 41 | 52 | 58 | 46 | 32 | 30 | 30 | 414 |
| No. with soft water | | 4 | 3 | 7 | 1 | 5 | 3 | 3 | 2 | 2 | 30 |
| No. with salty water | | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 |
| No. with "alkaline" water | | 4 | 8 | 18 | 4 | 13 | 18 | 7 | 4 | 6 | 82 |
| Depths of Wells | | | | | | | | | | | |
| No. from 0 to 50 feet deep | | 38 | 39 | 68 | 37 | 38 | 65 | 21 | 39 | 81 | 426 |
| No. from 51 to 100 feet deep | | 46 | 42 | 36 | 19 | 67 | 53 | 25 | 7 | 22 | 317 |
| No. from 101 to 150 feet deep | | 20 | 6 | 5 | 10 | 7 | 7 | 12 | 1 | 6 | 74 |
| No. from 151 to 200 feet deep | | 2 | 5 | 0 | 1 | 2 | 0 | 6 | 0 | 0 | 16 |
| No. from 201 to 500 feet deep | | 4 | 3 | 3 | 2 | 6 | 0 | 4 | 0 | 0 | 22 |
| No. from 501 to 1,000 feet deep | | 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 |
| How the Water is Used | | | | | | | | | | | |
| No. usable for domestic purposes | | 62 | 59 | 40 | 48 | 59 | 49 | 32 | 31 | 29 | 398 |
| No. not usable for domestic purposes | | 12 | 10 | 8 | 5 | 4 | 0 | 3 | 1 | 3 | 46 |
| No. usable for stock | | 59 | 67 | 47 | 53 | 63 | 49 | 34 | 32 | 32 | 436 |
| No. not usable for stock | | 5 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| Sufficiency of Water Supply | | | | | | | | | | | |
| No. sufficient for domestic needs | | 62 | 65 | 48 | 53 | 63 | 49 | 35 | 32 | 32 | 439 |
| No. insufficient for domestic needs | | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| No. sufficient for stock needs | | 49 | 37 | 31 | 35 | 40 | 30 | 26 | 20 | 25 | 293 |
| No. insufficient for stock needs | | 15 | 31 | 17 | 18 | 23 | 19 | 9 | 12 | 7 | 151 |

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 hardness 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.

Analyses of Water Samples from the Municipality of Kingsley, No. 124, Saskatchewan.

| LOCATION | | | | | | Depth of Well, Ft. | Total dis'vd solids | HARDNESS | | | CONSTITUENTS AS ANALYSED | | | | | CONSTITUENTS AS CALCULATED IN ASSUMED COMBINATIONS | | | | | | | | | | Source of Water |
|----------|------|------|-----|------|------|--------------------------|---------------------------|----------|-------|-------|--------------------------|-----------------|-----|-----|-----------------|--|--------|-------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------------|------|-------------------|-----------------------|
| No. | Qtr. | Sec. | Tp. | Rge. | Mer. | | | Total | Perm. | Temp. | Cl. | Alka- linity | CaO | MgO | SO ₄ | Na ₂ O | Solids | CaCO ₃ | CaSO ₄ | MgCO ₃ | MgSO ₄ | Na ₂ CO ₃ | Na ₂ SO ₄ | NaCl | CaCl ₂ | |
| 1. | SW. | 20 | 13 | 4 | 2 | 60 | 1,480 | | | | | | | | | | 1,480 | (4) | (1) | | (2) | | (3) | | (5) | × 1 |
| 2. | SW. | 14 | 13 | 5 | 2 | 96 | 1,460 | 1,050 | 900 | 150 | 22 | 70 | 240 | 198 | 945 | 99 | 1,369 | 70 | 488 | | 590 | | 185 | 36 | | × 1 |

Water samples indicated thus, × 1, are from glacial drift.

Analyses are reported in parts per million; where numbers (1), (2), (3), (4), and (5) are used instead of parts per million, they represent the relative amounts in which the five main constituents are present in the water.

Hardness is the soap hardness expressed as calcium carbonate (CaCO₃).

Analysis No. 1, by Provincial Analyst, Regina.

For interpretation of this table read the section on Analyses and Quality of Water.

As only two samples of ground water were collected and analysed from this municipality, the following discussion of the character of the water derived from the unconsolidated deposits and the bedrock, is based on generalizations made from analyses of water collected in several adjoining municipalities.

Water from the Unconsolidated Deposits

Ground water that is derived from the extensive deposits of glacial outwash sand and gravel is usually medium hard to soft, having a total hardness of less than 300 parts per million. The total dissolved solid content of this water is low and it is suitable for domestic and irrigation purposes. Water that is derived from deeper water-bearing horizons, or from deposits that are overlain by thick layers of clay, has a higher total dissolved mineral salt content, the average being from 1,500 to 2,000 parts per million. This water would have no serious effects on people accustomed to its use, but it would probably act as a laxative on those who are not accustomed to the use of highly mineralized water. The two samples listed compare favourably with water that is obtained in the surrounding municipalities. In general the water from the drift contains the following salts: magnesium sulphate (Epsom salts), calcium sulphate, and sodium sulphate (Glauber's salt), calcium carbonate, and sodium chloride or common salt; their abundance as a rule decreasing in the order given, the last two being almost negligible. The total sulphate salt content is high, and the waters are sulphate waters, or using the term commonly employed in the Prairie Provinces, "alkaline waters". In every sample analysed the total sulphate salt content exceeded 1,000 parts per million. Magnesium sulphate, or Epsom salts, the most harmful of the salts occurring in the samples, exceeds 500 parts per million. This salt has a strong

laxative effect on humans and animals. Sodium sulphate is also laxative, but its content is low. The calcium sulphate content is quite high, but this mineral salt has no harmful effect upon the human system.

Water from the Bedrock

Water derived at depth in the Marino Shale is usually moderately soft to hard. It has, as a rule, a high sodium carbonate (black alkali) content which renders it unfit for irrigation purposes. The sodium chloride (common salt) content is invariably high, therefore, and the water is unfit for domestic purposes and in many instances for stock. The water from the well located on the SE. $\frac{1}{4}$, sec. 5, tp. 13, range 4, is of this type. The water obtained from the upper part of the shale is really seepage water from the overlying glacial drift and has the same characteristics as that derived from the glacial deposits.

WELL RECORDS—Rural Municipality of KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 1 | NW. | 1 | 13 | 4 | 2 | Bored | 45 | 2,190 | - 18 | 2,172 | | | Glacial sand | Hard, clear | | D, S | Sufficient for 100 head stock. |
| 2 | SE. | 2 | " | " | " | " | 66 | 2,195 | + 2 | 2,197 | | | " " | " , " | | D, S, I | " " local needs. |
| 3 | SE. | 4 | " | " | " | Dug | | 2,235 | | | | | " | Soft, " | | D, S | |
| 4 | SE. | 5 | " | " | " | Drilled | 317 | 2,400 | - 40 | 2,360 | 280 | 2,120 | Marine shale | " , " , salty | | S | " " " " . |
| 5 | SW. | 5 | " | " | " | Bored | 15 | 2,205 | 0 | 2,205 | 15 | 2,190 | Glacial sand | Hard, " | | D | " " domestic use only. |
| 6 | NE. | 6 | " | " | " | " | 60 | 2,230 | - 42 | 2,188 | 60 | 2,170 | " " | " , " , "alkaline" | | D, S | " " 25 head stock. |
| 7 | NE. | 7 | " | " | " | " | 72 | 2,211 | - 38 | 2,173 | 72 | 2,139 | " " | Hard, clear | | D, S | Supplies village of Bender. |
| 8 | NW. | 8 | " | " | " | " | 50 | 2,215 | - 40 | 2,175 | 50 | 2,165 | " " | " , cloudy | | D, S | Sufficient for 15 head stock. |
| 9 | SW. | 10 | " | " | " | " | 80 | 2,190 | - 10 | 2,180 | 80 | 2,110 | " gravel | " , red | | D, S | Oversufficient supply. |
| 10 | NW. | 10 | " | " | " | " | 135 | 2,170 | | | | | " | | | N | Dry hole. |
| 11 | NE. | 11 | " | " | " | " | 70 | 2,145 | | | | | " clay | " , clear | | D, S | Small supply. |
| 12 | SE. | 12 | " | " | " | " | 60 | 2,155 | - 20 | 2,135 | 60 | 2,095 | " sand | " , " , "alkaline" | | D, S | Sufficient for domestic use. |
| 13 | SE. | 13 | " | " | " | " | 70 | 2,140 | - 50 | 2,090 | | | " clay | Hard, clear | | N | |
| 14 | SW. | 13 | " | " | " | Dug | 30 | 2,145 | | | 26 | 2,119 | " sand | " , " | | D, S | Sufficient for local needs. |
| 15 | SE. | 14 | " | " | " | Bored | 90 | 2,155 | - 32 | 2,123 | | | " " | " , " | | D, S | Oversufficient for local needs. |
| 16 | SW. | 14 | " | " | " | Drilled | 132 | 2,165 | - 60 | 2,105 | 132 | 2,033 | " " | " , " | | D, S | |
| 17 | SE. | 15 | " | " | " | Bored | 60 | 2,166 | | | | | " | " , " | | D, S | Supplies village of Inchkeith. |
| 18 | NE. | 15 | " | " | " | Drilled | 135 | 2,155 | - 40 | 2,115 | 135 | 2,020 | " gravel | " , " | | D, S | Sufficient for local needs. |
| 19 | SE. | 16 | " | " | " | Bored | 70 | 2,185 | - 23 | 2,162 | | | " | " , " , iron | | S | " " " " . |
| 20 | NW. | 16 | " | " | " | Dug | 16 | 2,190 | - 3 | 2,187 | 16 | 2,174 | " sand | Hard, " | | D | " " domestic use only. |
| 21 | NW. | 16 | " | " | " | Bored | 80 | 2,190 | - 40 | 2,150 | | | " | " , " | | S | Oversufficient for local needs. |
| 22 | SE. | 18 | " | " | " | " | 48 | 2,200 | - 20 | 2,180 | | | " | " , " | | D, S | Sufficient for 10 head stock. |
| 23 | SE. | 18 | " | " | " | " | 35 | 2,220 | | | 35 | 2,185 | " sand | | | N | |
| 24 | SE. | 20 | " | " | " | Drilled | 210 | 2,185 | | | | | Marine shale | Soft, " | | N | |
| 25 | SE. | 20 | " | " | " | Bored | 56 | 2,190 | - 18 | 2,172 | 56 | 2,134 | Glacial gravel | Hard, " | | D, S | Oversufficient for local needs. |
| 26 | SW. | 20 | " | " | " | " | 60 | 2,195 | - 18 | 2,177 | 60 | 2,135 | " sand | " , cloudy | 45 | D, S | Sufficient for local needs; # . |
| 27 | NE. | 20 | " | " | " | " | 65 | 2,175 | - 25 | 2,150 | 61 | 2,114 | " " | " , clear | | D, S | Used only at times. |
| 28 | NE. | 20 | " | " | " | Drilled | 182 | 2,175 | - 20 | 2,155 | 182 | 1,993 | " gravel | " , 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 29 | NE. | 21 | 13 | 4 | 2 | Drilled | 131 | 2,160 | - 35 | 2,125 | 131 | 2,029 | Glacial sand | Hard, clear | | D, S | Sufficient for 20 head stock. |
| 30 | NE. | 22 | " | " | " | " | 130 | 2,135 | - 40 | 2,095 | | | " | " , " , "alkaline" | | S | Oversufficient for local needs. |
| 31 | SW. | 23 | " | " | " | " | 140 | 2,145 | | | 115 | 2,030 | " gravel | Hard, clear, iron | | D, S | " " " " |
| 32 | NE. | 23 | " | " | " | Bored | 15 | 2,125 | - 10 | 2,115 | 15 | 2,110 | " sand | | | N | |
| 33 | NE. | 23 | " | " | " | Drilled | 105 | 2,130 | | | 106 | 2,024 | " gravel | Hard, clear | | D, S | Sufficient for local needs. |
| 34 | SW. | 24 | " | " | " | Dug | 28 | 2,145 | | | | | " sand | " , " | | D, S | " " 22 head stock. |
| 35 | SE. | 24 | " | " | " | Bored | 100 | 2,125 | - 14 | 2,111 | 25 | 2,100 | " gravel | " , " | | D, S | " " 50 " " |
| 36 | SE. | 24 | " | " | " | Dug | 32 | 2,125 | - 32 | 2,093 | 24 | 2,101 | " " | " , " | 39 | D, S | " " 50 " " |
| 37 | NE. | 24 | " | " | " | " | 35 | 2,120 | - 30 | 2,090 | 33 | 2,087 | " " | " , " | | D, S | " " 20 " " |
| 38 | SE. | 26 | " | " | " | " | 36 | 2,120 | - 20 | 2,100 | 36 | 2,084 | " " | " , " | | N | |
| 39 | SE. | 26 | " | " | " | " | 57 | 2,120 | - 32 | 2,088 | 57 | 2,063 | " sand | " , " | | D, S, I | " " 100 " " |
| 40 | NE. | 27 | " | " | " | Drilled | 141 | 2,140 | - 36 | 2,104 | 141 | 1,999 | " " | " , " | | D, S | " " 10 " " |
| 41 | NW. | 27 | " | " | " | Bored | 90 | 2,150 | | | 90 | 2,060 | " " | " , " , clear | | D, S | " " 40 " " |
| 42 | SE. | 28 | " | " | " | Drilled | 255 | 2,180 | | | | | " " | Hard | | D, S | Very good supply if sand kept off. |
| 43 | SW. | 28 | " | " | " | Bored | 70 | 2,180 | - 50 | 2,130 | 96 | 2,084 | " gravel | " , clear | | D, S | Sufficient for 20 head stock. |
| 44 | NW. | 28 | " | " | " | Drilled | 170 | 2,155 | - 58 | 2,097 | 170 | 1,995 | " " | " , " , iron | | S | Unlimited supply. |
| 45 | NW. | 28 | " | " | " | Bored | 20 | 2,160 | | | 18 | 2,142 | " " | Soft, " | | D | Sufficient for domestic use only. |
| 46 | SE. | 29 | " | " | " | " | 96 | 2,165 | - 40 | 2,125 | | | " sand | Hard, " | | D, S | " " 15 head stock. |
| 47 | SW. | 29 | " | " | " | " | 75 | 2,180 | - 25 | 2,155 | 75 | 2,105 | " " | " , " | | D, S | " " 25 " " |
| 48 | SE. | 30 | " | " | " | " | 93 | 2,175 | - 16 | 2,159 | 93 | 2,082 | " gravel | " , " | | D, S | Oversufficient for local needs. |
| 49 | NW. | 31 | " | " | " | Dug | 19 | 2,155 | - 17 | 2,138 | | | " clay | " , " , "alkaline" | | D | Very poor supply. |
| 50 | SW. | 32 | " | " | " | Bored | 135 | 2,160 | - 55 | 2,095 | 135 | 2,025 | " sand | Hard, clear | | D, S | Sufficient for 70 head stock. |
| 51 | NE. | 32 | " | " | " | Drilled | 210 | 2,155 | - 70 | 2,085 | 20 | 2,135 | " drift | " , " , iron | | D, S | " " 35 " " |
| 52 | NE. | 33 | " | " | " | Bored | 80 | 2,125 | - 30 | 2,095 | | | " | Hard, " | | D, S | Yields 200 gallons at a pumping. |
| 53 | NE. | 34 | " | " | " | Drilled | 115 | 2,100 | -101 | 1,999 | 101 | 1,999 | " sand | " , " | | N | Plugged with sand. |
| 54 | SE. | 35 | " | " | " | Dug | 27 | 2,105 | - 13 | 2,092 | 0 | 2,105 | " drift | " , " | | D, S | Oversufficient for local needs |
| 55 | SE. | 35 | " | " | " | Spring | | 2,095 | + 5 | 2,100 | | | " sand | " , " | | | This is a slough fet by springs. |

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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 1 | SW. | 2 | 13 | 5 | 2 | Bored | 75 | 2,265 | | | 75 | 2,190 | Glacial | Hard, iron, "alkaline" | | S | Sufficient for 50 head stock. |
| 2 | SE. | 3 | " | " | " | " | 85 | 2,285 | - 50 | 2,235 | 85 | 2,200 | " sand | " , hard, clear | | S | " " stock; too laxative for man. |
| 3 | SW. | 3 | " | " | " | " | 60 | 2,280 | - 20 | 2,260 | 60 | 2,220 | " " | " , " | | D , S | " " 50 head stock. |
| 4 | NE. | 3 | " | " | " | " | 108 | 2,257 | - 50 | 2,207 | 108 | 2,149 | " gravel | " , " | | D , S | " " 50 " " . |
| 5 | NW. | 4 | " | " | " | " | 60 | 2,275 | - 40 | 2,235 | 60 | 2,215 | " | " , " | | D , S | |
| 6 | NE. | 4 | " | " | " | " | 85 | 2,270 | - 45 | 2,225 | 85 | 2,185 | " sand | Hard, iron, cloudy | | S | " " local needs. |
| 7 | NE. | 4 | " | " | " | " | 16 | 2,270 | 0 | 2,270 | | | " clay | Soft, clear | | D | Intermittent supply. |
| 8 | SE. | 5 | " | " | " | " | 50 | 2,280 | - 44 | 2,236 | 50 | 2,230 | " sand | Hard, " , "alkaline" | | S | Sufficient for 4 head stock only. |
| 9 | NE. | 5 | " | " | " | " | 100 | 2,270 | -100 | 2,170 | | | " clay | Hard, clear | | D , S | Small intermittent supply. |
| 10 | NW. | 6 | " | " | " | " | 80 | 2,265 | - 40 | 2,225 | 80 | 2,185 | " sand | " , " , "alkaline" | | D , S , I | Sufficient for 30 head stock at least; good quality. |
| 11 | NE. | 6 | " | " | " | Drilled | 210 | 2,265 | - 45 | 2,220 | 210 | 2,055 | " gravel | Hard, clear, iron | | S , I | Abundant supply. |
| 12 | SE. | 7 | " | " | " | Bored | 72 | 2,260 | - 30 | 2,230 | 72 | 2,188 | " sand | Hard, " | | D , S | Sufficient for 10 head stock. |
| 13 | SE. | 8 | " | " | " | " | 95 | 2,260 | | | | | " | | | N | Dry hole. |
| 14 | SW. | 8 | " | " | " | " | 35 | 2,260 | - 27 | 2,233 | 35 | 2,225 | " " | Hard, clear | | N | Well caved in but was usable for humans. |
| 15 | NW. | 9 | " | " | " | " | 60 | 2,240 | - 45 | 2,195 | 60 | 2,180 | " " | " , " , "alkaline" | | D , S | Sufficient for 10 head stock only. |
| 16 | NW. | 10 | " | " | " | " | 60 | 2,205 | - 15 | 2,190 | | | " | " , hard, clear | | S | " " 100 " " ; too alkaline for man. |
| 17 | NE. | 10 | " | " | " | " | | 2,205 | | | | | " | Hard | | N | |
| 18 | NW. | 12 | " | " | " | " | 42 | 2,195 | - 21 | 2,174 | 42 | 2,153 | " | " , clear, iron | | D , S , I | " " 50 " " . |
| 19 | SW. | 13 | " | " | " | " | 42 | 2,195 | 0 | 2,195 | 42 | 2,153 | " gravel | Hard, " | | D , S | Abundant supply of good quality water. |
| 20 | SE. | 14 | " | " | " | " | 40 | 2,150 | | | | | " drift | | | | Yields 24 barrels good quality water a day. |
| 21 | SW. | 14 | " | " | " | Bored | 96 | 2,195 | - 16 | 2,179 | 96 | 2,099 | " sand | Hard, " | | D , S | Sufficient for 200-300 head stock. |
| 22 | NW. | 15 | " | " | " | " | 65 | 2,170 | + 2 | 2,172 | 60 | 2,110 | " " | " , " | | D , S | Abundant supply but does not flow now as it is partly filled with sand |
| 23 | SW. | 16 | " | " | " | " | 35 | 2,185 | + 4 | 2,189 | 32 | 2,153 | " " | " , " | | D , S | C.N.R. well; yields 10 gallons a min. Contains too much salts for boilers. |
| 24 | NE. | 16 | " | " | " | " | 65 | 2,180 | + 10 | 2,190 | 65 | 2,115 | " " | " , " | | D , S | Abundant supply but not as strong flow as when first bored. |
| 25 | SE. | 17 | " | " | " | " | 50 | 2,210 | - 40 | 2,170 | 50 | 2,160 | " " | " , " | | D , S | Sufficient for domestic use and 10 head stock. |
| 26 | SE. | 18 | " | " | " | " | 90 | 2,210 | - 60 | 2,150 | 75 | 2,135 | " " | " , clear, iron | | D , S | " " 40-60 head stock. |
| 27 | NE. | 18 | " | " | " | " | 112 | 2,170 | - 20 | 2,150 | 112 | 2,058 | " " | Hard, " | | D | Intermittent 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

KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 28 | SE. | 19 | 13 | 5 | 2 | Bored | 25 | 2,170 | - 18 | 2,152 | 20 | 2,150 | Glacial sand | Hard, clear | | D, S | Sufficient for domestic use and 6 head stock. |
| 29 | SW. | 20 | " | " | " | Dug | 20 | 2,170 | - 16 | 2,154 | 4 | 2,166 | " " | " , " | | D, S, I | " " " "and 6 to 8 head stock. |
| 30 | NW. | 20 | " | " | " | " | 24 | 2,150 | - 20 | 2,130 | 18 | 2,138 | " " | " , " | | D, S, I | Abundant supply of good quality water. |
| 31 | NE. | 20 | " | " | " | Drilled | 180 | 2,155 | - 2 | 2,153 | 180 | 1,975 | " " | " , " | | D, S | Sufficient for 50 head stock. |
| 32 | SW. | 21 | " | " | " | Dug | 24 | 2,165 | - 22 | 2,143 | 4 | 2,161 | " " | " , " | | D, I | Used by owner and many neighbours. |
| 33 | N½ | 21 | " | " | " | Drilled | 200 | 2,160 | 0 | 2,160 | 200 | 1,960 | " " | " , " , "alkaline, iron | | D, S | Supplies town of Kipling; hard on boilers |
| 34 | SW. | 23 | " | " | " | " | 176 | 2,155 | 0 | 2,155 | 171 | 1,984 | " " | Hard, clear | | D, S | Yields 2 barrels an hour; water flows. |
| 35 | SW. | 24 | " | " | " | Dug | 14 | 2,180 | - 7 | 2,173 | 11 | 2,169 | " " | " , " , "alkaline" | | S | Sufficient for 25 head stock; another well used for domestic supply. |
| 36 | NW. | 24 | " | " | " | Bored | 105 | 2,165 | - 14 | 2,151 | 105 | 2,060 | " " | " , " | | D, S, I | Sufficient for 50 head " ; good drinking water. |
| 37 | NW. | 24 | " | " | " | Dug | 16 | 2,165 | - 13 | 2,152 | 10 | 2,155 | " " | " , " | | D | Sufficient for domestic use; good quality. |
| 38 | NW. | 25 | " | " | " | " | 12 | 2,155 | - 8 | 2,147 | 11 | 2,144 | " " | " , " | | D, S | " " 10 head stock; shortage in winter. |
| 39 | NE. | 25 | " | " | " | Bored | 19 | 2,160 | - 5 | 2,155 | 19 | 2,141 | " " | " , " | | D | Sufficient for domestic use only; similar well supplies stock. |
| 40 | SW. | 26 | " | " | " | Dug | 35 | 2,150 | - 32 | 2,118 | 24 | 2,126 | " " | " , " | | D, S | Sufficient for 6 to 8 head stock; another well adds to supply. |
| 41 | NE. | 26 | " | " | " | Bored | 100 | 2,145 | | | | | " clay | | | N | Dry hole; water shortage here. |
| 42 | SW. | 27 | " | " | " | Drilled | 240 | 2,150 | - 20 | 2,130 | 240 | 1,910 | " sand | " , " , iron | | D, S | Sufficient for 50 head stock. |
| 43 | SE. | 28 | " | " | " | Bored | 60 | 2,155 | - 20 | 2,135 | 0 | 2,155 | " gravel | Soft, " | | D, S | Oversufficient supply; will yield 8 inch stream for 8 hours. |
| 44 | NE. | 29 | " | " | " | Dug | 15 | 2,145 | - 10 | 2,135 | 3 | 2,142 | " " | Hard, " | | D, S | Sufficient for local needs. |
| 45 | SW. | 30 | " | " | " | Drilled | 140 | 2,157 | - 20 | 2,137 | 140 | 2,017 | " sand | " , " , iron | | D, S | Cannot be pumped dry. |
| 46 | NW | 30 | " | " | " | Dug | 46 | 2,150 | - 20 | 2,130 | | | " " | Hard, " , iron | | D, S, I | Yields large supply; C.N.R. well; sufficient. |
| 47 | NE. | 31 | " | " | " | Drilled | 182 | 2,145 | - 12 | 2,133 | 182 | 1,963 | " " | Hard, " , iron | | D, S, I | Sufficient supply. |
| 48 | NE. | 34 | " | " | " | | 109 | 2,150 | | | | | " " | | | N, | Dry hole; plugged with sand. |
| 49 | NW. | 35 | " | " | " | Bored | 65 | 2,157 | - 24 | 2,133 | 58 | 2,199 | " " | Hard, clear, iron | | D, S | Sufficient for 50 to 60 head stock. |
| 50 | SW. | 36 | " | " | " | Drilled | 295 | 2,150 | - 30 | 2,120 | 295 | 1,855 | " " | Hard, " , iron | | D, S | " " 50 head stock only; used to give larger supply but now plugged with sand. |
| 51 | NW. | 36 | " | " | " | Bored | 106 | 2,157 | - 40 | 2,117 | 100 | 2,057 | " gravel | Hard, " | | D, S | Abundant supply; good quality water. |
| 1 | SE. | 2 | 13 | 6 | 2 | Drilled | 110 | 2,255 | - 80 | 2,175 | 54 | 2,201 | " sand | " , cloudy, "alkaline" | | S | Sufficient for 33 head stock only. |
| 2 | NE. | 2 | " | " | " | " | 265 | 2,240 | | | | | " " | " , hard, iron, cloudy | | D, S, I | " " 15 " " ; two dry holes also. |
| 3 | SW. | 2 | " | " | " | " | 310 | 2,265 | -150 | 2,115 | 265 | 2,000 | " " | Hard, " , "alkaline" | | S, I | " " 34 " " ; shallow well for domestic use. |

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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 4 | SE. | 3 | 13 | 6 | 2 | | 240 | 2,250 | | | | | | | | N | Dry hole; Dam yields sufficient supply. |
| 5 | SW. | 4 | " | " | " | Dug | 28 | 2,260 | - 18 | 2,242 | 10 | 2,250 | Glacial sand | Hard, clear | | D, S | Sufficient but not abundant supply. |
| 6 | NW. | 4 | " | " | " | Bored | 50 | 2,260 | - 40 | 2,220 | | | " " | " , " , iron | | D, S | Insufficient for 21 head stock; water comes in slowly. |
| 7 | SE. | 6 | " | " | " | " | 35 | 2,260 | - 12 | 2,248 | | | " clay | Soft, " | 40 | D, S | Insufficient for local needs. Two other poor wells. |
| 8 | NW. | 6 | " | " | " | " | 37 | 2,240 | - 27 | 2,213 | 35 | 2,205 | " sand | Hard, " , "alkaline" | | D, S | Sufficient for 40 head stock; insufficient for needs. |
| 9 | NW. | 7 | " | " | " | " | 65 | 2,240 | - 61 | 2,179 | | | " | Hard, clear, "alkaline" | | D, S | Insufficient for 31 head stock; one 45 foot dry hole. |
| 10 | SW. | 9 | " | " | " | " | 34 | 2,260 | - 24 | 2,236 | 30 | 2,130 | " " | Hard, clear | | S | Insufficient for 30 " " ; five dry holes. |
| 11 | NW. | 9 | " | " | " | " | 31 | 2,240 | - 8 | 2,232 | 10 | 2,230 | " " | " , " , iron | | D | " " 16 " " ; " " " |
| 12 | NW. | 10 | " | " | " | " | 60 | 2,225 | - 30 | 2,185 | 59 | 2,156 | " | Hard, " , "alkaline" | | D, S | Sufficient for 24 head stock; Dam and other well supply. |
| 13 | NE. | 10 | " | " | " | " | 60 | 2,200 | - 52 | 2,148 | | | " | Hard, clear, iron | | D, S | Sufficient for 20 " " ; Dugout adds to supply. |
| 14 | SE. | 12 | " | " | " | " | 72 | 2,255 | - 52 | 2,203 | 70 | 2,185 | " sand | Hard, " , "alkaline" | | D, S | Insufficient for 20 head stock; shortage of water; 5 dry holes. |
| 15 | NE. | 12 | " | " | " | " | 70 | 2,230 | - 50 | 2,180 | 65 | 2,165 | " " | " , hard, clear | | D, S | Sufficient for 22 head stock; good supply. |
| 16 | NW. | 15 | " | " | " | Dug | 20 | 2,195 | - 4 | 2,191 | 0 | 2,195 | " " | " , " | | D, S | " " 22 " " ; several 22 foot dry holes. |
| 17 | SE. | 16 | " | " | " | Bored | 38 | 2,205 | - 23 | 2,182 | 35 | 2,170 | " " | " , " , "alkaline" | | D, S | Sufficient for 18 head stock; supply varies with rainfall. |
| 18 | NW. | 16 | " | " | " | Dug | 15 | 2,210 | - 5 | 2,205 | 6 | 2,204 | " " | Soft, clear | | D, S, I | Sufficient for local needs in wet years but not when dry; also trouble with sand. |
| 19 | SW. | 16 | " | " | " | Bored | 28 | 2,200 | - 13 | 2,187 | 27 | 2,173 | " gravel | Hard, " , "alkaline" | | D, S | Sufficient for 8 head stock; never a shortage. |
| 20 | SW. | 18 | " | " | " | " | 45 | 2,190 | | | | | " | Cloudy | | | " " local needs. |
| 21 | NW. | 19 | " | " | " | " | 87 | 2,190 | - 30 | 2,160 | | | " sand | Hard, iron, cloudy | | S | " " 9 head stock; 14 foot well for domestic use. |
| 22 | SW. | 20 | " | " | " | " | 40 | 2,210 | - 30 | 2,180 | | | " " | Hard, clear, "alkaline" iron | | D, S | Sufficient for 17 head stock. |
| 23 | SE. | 20 | " | " | " | " | 90 | 2,205 | - 60 | 2,145 | | | " gravel | " , hard, clear | | D, S | " " 18 " " ; abundant supply. |
| 24 | SW. | 21 | " | " | " | Dug | 16 | 2,195 | - 8 | 2,187 | 0 | 2,195 | " sand | " , soft | | D, S | " " 8 " " ; 2 dry holes. |
| 25 | SE. | 22 | " | " | " | Bored | 65 | 2,185 | - 10 | 2,175 | | | " " | " , " | | D, S | " " 20 " " . |
| 26 | SW. | 23 | " | " | " | Dug | 60 | 2,180 | - 40 | 2,140 | 54 | 2,126 | " " | " , " | | D, S, I | " " 26 " " ; abundant supply. |
| 27 | NW. | 23 | " | " | " | Bored | 40 | 2,180 | - 25 | 2,155 | | | " " | Hard, clear, iron | | D, S | " " 13 head stock. |
| 28 | NE. | 24 | " | " | " | Dug | 15 | 2,160 | 0 | 2,160 | | | " | Hard, " | | D, S | " " 5 " " ; other wells add to supply. |
| 29 | SW. | 25 | " | " | " | " | 10 | 2,150 | 0 | 2,150 | 0 | 2,150 | " gravel | " , " | | D, S | Sufficient for 12 head stock; another well adds to supply. |
| 30 | NE. | 26 | # | " | " | Bored | 48 | 2,160 | - 32 | 2,128 | 47 | 2,113 | " sand | " , " , "alkaline" | | D, S | Sufficient for 22 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 31 | SE. | 27 | 13 | 6 | 2 | Bored | 44 | 2,180 | - 20 | 2,160 | 42 | 2,138 | Glacial sand | Hard, clear, alkaline iron | | D, S | Sufficient for 15 head stock; many dry holes. |
| 32 | NE. | 28 | " | " | " | " | 47 | 2,180 | - 27 | 2,153 | | | " gravel | " , hard, clear, iron | | D, S | " " 30 " " ; abundant supply. |
| 33 | SW. | 28 | " | " | " | # | 38 | 2,190 | - 24 | 2,166 | | | " sand | " , hard, iron | | D, S | " " 36 " " ; only source of supply. |
| 34 | SW. | 29 | " | " | " | Dug | 14 | 2,190 | - 10 | 2,180 | 0 | 2,190 | " gravel | Soft, clear | | D, S | Oversufficient for local needs; abundant supply. |
| 35 | SW. | 30 | " | " | " | " | 14 | 2,210 | - 6 | 2,204 | 0 | 2,210 | " sand | Hard, " | | D, S | Sufficient for 10 head stock only. |
| 36 | NW. | 30 | " | " | " | " | 14 | 2,190 | 0 | 2,190 | 5 | 2,185 | " " | Soft, " | | S | " " 15 " " ; many dry holes. |
| 37 | SW. | 31 | " | " | " | Drilled | 120 | 2,210 | - 20 | 2,190 | 100 | 2,110 | " " | Hard, " , alkaline | | N | Plugged with sand; farmer tanks water. |
| 38 | NW. | 32 | " | " | " | Dug | 14 | 2,175 | - 10 | 2,165 | | | " " | Hard, clear | | S | Sufficient for 30 head stock; many dry holes. |
| 39 | SE. | 33 | " | " | " | Bored | 80 | 2,175 | - 30 | 2,145 | | | " gravel | " , alkaline iron, clear | | S | Oversufficient for 12 head stock; abundant. |
| 40 | NW. | 34 | " | " | " | " | 99 | 2,175 | - 30 | 2,145 | | | " sand | Hard, clear, alkaline | | D, S | Sufficient for 60 head stock; sand is filling well. |
| 41 | SW. | 36 | " | " | " | Dug | 60 | 2,160 | - 50 | 2,110 | 59 | 2,101 | " " | Hard, clear, iron | | D, S, I | Sufficient for 33 " " ; abundant supply. |
| 42 | SE. | 36 | " | " | " | Bored | 35 | 2,150 | - 29 | 2,121 | 32 | 2,118 | " " | Hard, clear, alkaline iron | | D, S | " " 13 " # ; only source of supply. |
| 1 | SW. | 1 | 14 | 4 | 2 | Dug | 24 | 2,090 | - 18 | 2,072 | 24 | 2,066 | " " | Hard, clear | | D, S | Sufficient for 25 head stock. |
| 2 | NE. | 2 | " | " | " | " | 19 | 2,080 | - 16 | 2,064 | 19 | 2,061 | " gravel | " , " | | D, S | " " 35 " " . |
| 3 | SW. | 4 | " | " | " | Bored | 62 | 2,150 | - 58 | 2,092 | 60 | 2,090 | " sand | " , " | | D, S | Very small supply. |
| 4 | NW. | 4 | " | " | " | " | 42 | 2,120 | - 31 | 2,089 | 40 | 2,080 | " gravel | " , " | | D, S | Sufficient for 25 head stock; another well not used. |
| 5 | NE. | 5 | " | " | " | Drilled | 78 | 2,145 | - 33 | 2,112 | 75 | 2,070 | " sand | " , " | | D, S | Abundant supply. |
| 6 | SE. | 6 | " | " | " | " | 290 | 2,160 | - 70 | 2,090 | 290 | 1,870 | " " | " , " | | D, S | " " ; 2 glacial dry holes. |
| 7 | SW. | 6 | " | " | " | " | 250 | 2,165 | - 50 | 2,115 | 250 | 1,915 | " " | " , yellow | | D, S | Sufficient for 100 head stock; 3 dry holes. |
| 8 | SE. | 8 | " | " | " | Bored | 55 | 2,070 | - 40 | 2,030 | 50 | 2,020 | " gravel | " , clear | | D, S | Yields large sufficient supply. |
| 9 | NW. | 9 | " | " | " | " | 50 | 2,100 | - 40 | 2,060 | 50 | 2,050 | " " | " , " | | D, S | Sufficient for local needs. |
| 10 | SE. | 9 | " | " | " | " | 65 | 2,075 | - 25 | 2,050 | 65 | 2,010 | " " | Soft, " | | D, S | Oversufficient for 50 head stock. |
| 11 | SE. | 9 | " | " | " | Dug | 25 | 2,075 | - 20 | 2,055 | 25 | 2,050 | " sand | Hard, " | | D, S | Small supply good quality water. |
| 12 | NE. | 10 | " | " | " | Bored | 29 | 2,055 | - 14 | 2,041 | 29 | 2,026 | " " | " , " | | D, S | Sufficient for 100 head stock. |
| 13 | SE. | 11 | " | " | " | Dug | 16 | 2,070 | - 10 | 2,060 | 15 | 2,055 | " " | " , " | | D, S | Oversufficient for 40 head stock. |
| 14 | SW. | 12 | " | " | " | " | 24 | 2,055 | - 5 | 2,050 | 24 | 2,031 | " " | " , " | | D, S | Oversufficient for 60 head stock. |
| 15 | SW. | 13 | " | " | " | " | 20 | 2,050 | - 10 | 2,040 | 20 | 2,030 | " gravel | " , " | | D, S | " " 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | |
| 16 | NE. | 14 | 14 | 4 | 2 | Bored | 40 | 2,040 | - 30 | 2,010 | 40 | 2,000 | Glacial gravel | Hard, clear | D, S | Sufficient for 10 head stock. |
| 17 | NE. | 14 | " | " | " | " | 30 | 2,045 | - 15 | 2,030 | 30 | 2,015 | " sand | " , salty | S | " " 15 " " . |
| 18 | SE. | 16 | " | " | " | Dug | 8 | 2,070 | - 4 | 2,066 | 4 | 2,066 | " " | " , clear, alkaline | D, S | Oversufficient for local needs. |
| 19 | SW. | 16 | " | " | " | Bored | 58 | 2,100 | - 30 | 2,070 | 58 | 2,142 | " gravel | Hard, " | D, S | Sufficient for local needs. |
| 20 | NE. | 16 | " | " | " | Dug | 30 | 2,050 | | | | | " sandy clay | Clear | D, S | Insufficient for local needs. |
| 21 | SW. | 17 | " | " | " | Bored | 45 | 2,120 | - 32 | 2,088 | 40 | 2,080 | " gravel | Hard, clear | D, S | Sufficient for 5 head stock. |
| 22 | NE. | 18 | " | " | " | " | 56 | 2,100 | - 21 | 2,079 | 56 | 2,044 | " sand | " , " | D, S | " " 35 " " . |
| 23 | SE. | 18 | " | " | " | " | 60 | 2,125 | - 35 | 2,090 | 60 | 2,065 | " " | " , " | D, S | Intermittent supply; 3 dry holes. |
| 24 | SW. | 18 | " | " | " | " | 58 | 2,140 | - 30 | 2,110 | 58 | 2,082 | " " | " , " | D, S | Sufficient for 20 head stock. |
| 25 | NW. | 18 | " | " | " | " | 62 | 2,110 | - 30 | 2,080 | 62 | 2,048 | " " | " , " | D, S | Intermittent supply. |
| 26 | NW. | 20 | " | " | " | " | 60 | 2,060 | - 41 | 2,119 | 60 | 2,000 | " " | " , " | D, S | Insufficient for 25 head stock. |
| 27 | SE. | 20 | " | " | " | " | 70 | 2,050 | - 30 | 2,020 | 70 | 1,980 | " clay | " , " | D, S | S " " 15 " " . |
| 28 | SE. | 20 | " | " | " | Dug | 12 | 2,030 | - 10 | 2,020 | 10 | 2,020 | " gravel | " , " | D, S | " ; another well adds to supply. |
| 29 | NE. | 20 | " | " | " | " | 8 | 2,055 | - 5 | 2,050 | 5 | 2,050 | " sand | " , " | S | Sufficient for 15 head stock. |
| 30 | SE. | 22 | " | " | " | Drilled | 192 | 2,040 | + 7 | 2,047 | 192 | 1,848 | " gravel | " , " | D, S | " " local needs. |
| 31 | NW. | 23 | " | " | " | Bored | 80 | 2,030 | - 30 | 2,000 | 80 | 1,950 | " sand | " , " , alkaline | D, S | " " 100 head stock; 30 foot dry hole. |
| 32 | NE. | 23 | " | " | " | Dug | 20 | 2,010 | - 16 | 1,994 | 20 | 1,990 | " gravel | Hard, clear | D, S | Oversufficient for local needs. |
| 33 | SE. | 24 | " | " | " | Bored | 75 | 2,000 | - 65 | 1,935 | 75 | 1,925 | " | " , " | D, S | Sufficient but not abundant supply. |
| 34 | SW. | 25 | " | " | " | Dug | 48 | 1,995 | - 40 | 1,955 | 45 | 1,950 | " sand | " , alkaline, iron, clear | D, S | " for 30 head stock; two springs near. |
| 35 | NE. | 28 | " | " | " | Bored | 30 | 2,015 | - 23 | 1,992 | 30 | 1,985 | " gravel | Hard, " | D, S | " " 35 " " . |
| 36 | SE. | 28 | " | " | " | " | 30 | 2,035 | - 23 | 2,012 | 30 | 2,005 | " " | " , " | D, S | " " local needs. |
| 37 | SW. | 28 | " | " | " | Dug | 32 | 2,040 | - 27 | 2,013 | 30 | 2,010 | " " | " , " | D, S | " " " " . |
| 38 | SE. | 29 | " | " | " | Bored | 28 | 2,045 | - 18 | 2,027 | 28 | 2,017 | " sand | " , " | D, S | " " 30 head stock. |
| 39 | NE. | 31 | " | " | " | " | 35 | 2,060 | - 16 | 2,044 | 35 | 2,025 | " clay | " , " | | Very poor supply; almost dry. |
| 40 | SW. | 32 | " | " | " | Drilled | 110 | 2,040 | - 10 | 2,030 | 110 | 2,930 | " sand | " , " | | Abundant supply if cleaned; several dry holes. |
| 41 | NE. | 32 | " | " | " | Dug | 8 | 2,000 | - 2 | 1,998 | 2 | 1,998 | " | " , " | S | Sufficient for 25 head stock. |
| 42 | NW. | 35 | " | " | " | Bored | 50 | 2,010 | - 35 | 1,975 | 50 | 1,960 | " gravel | " , " , alkaline, iron | D, S | " " 100 " " . |

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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | |
| 43 | SE. | 35 | 14 | 4 | 2 | Bored | 45 | 2,015 | - 43 | 1,972 | 45 | 1,970 | Glacial clay | | D, S | Sufficient for 17 head stock. |
| 44 | SW. | 36 | " | " | " | Drilled | 110 | 2,010 | - 18 | 1,992 | 110 | 1,900 | " gravel | | D, S | " " 40 " " . |
| 45 | SE. | 36 | " | " | " | Bored | 50 | 2,000 | - 45 | 1,955 | 50 | 1,950 | " " | | D, S | " " 45 " " ; abundant supply. |
| 1 | SE. | 1 | 14 | 5 | 2 | Drilled | 157 | 2,160 | -100 | 2,060 | 157 | 2,003 | " sand | | D, S | Intermittent supply. |
| 2 | SE. | 2 | " | " | " | | 86 | 2,160 | | | | | " | | N | Dry hole. |
| 3 | SW. | 2 | " | " | " | Drilled | 290 | 2,155 | | | | | Marine shale | | N | " " ; several other dry holes. |
| 4 | NE. | 2 | " | " | " | Bored | 150 | 2,160 | | | | | Glacial | | N | " " . |
| 5 | NE. | 3 | " | " | " | " | 60 | 2,160 | - 30 | 2,130 | 60 | 2,100 | " gravel | | D, S | Sufficient for local needs. |
| 6 | SE. | 3 | " | " | " | Drilled | 145 | 2,150 | - 22 | 2,128 | 145 | 2,005 | " " Hard, clear | | S | " " 200 head stock. |
| 7 | NE. | 4 | " | " | " | " | 80 | 2,160 | - 25 | 2,135 | 80 | 2,080 | " " | | D, S | " " 40 " " . |
| 8 | SE. | 4 | " | " | " | Dug | 65 | 2,160 | - 64 | 2,096 | 65 | 2,095 | " sand | | D, S | Insufficient for 20 " " . |
| 9 | SW. | 4 | " | " | " | Bored | 64 | 2,150 | - 60 | 2,090 | 64 | 2,086 | " " | | D, S | Sufficient for 30 head stock. |
| 10 | SW. | 6 | " | " | " | Dug | 40 | 2,160 | - 80 | 2,152 | 40 | 2,120 | " " Hard, clear | | D, S | Oversufficient for 50 head stock. |
| 11 | NE. | 7 | " | " | " | Bored | 80 | 2,160 | - 60 | 2,100 | 80 | 2,080 | " " | | D, S | Insufficient for 30 head stock; dugout used. |
| 12 | SW. | 8 | " | " | " | " | 140 | 2,155 | - 30 | 2,125 | 140 | 2,015 | " " " , hard, clear | | D, S | Sufficient for 40 head stock. |
| 13 | NW. | 9 | " | " | " | " | 60 | 2,160 | - 30 | 2,130 | 60 | 2,100 | " " | | D, S | " " 10 " " ; needs cleaning. |
| 14 | SE. | 9 | " | " | " | " | 82 | 2,160 | - 35 | 2,125 | 82 | 2,078 | " " iron Hard, clear | | D, S | " " 75 " " . |
| 15 | SW. | 10 | " | " | " | " | 80 | 2,170 | - 20 | 2,150 | 80 | 2,090 | " " | | D, S | " " 35 " " . |
| 16 | SE. | 10 | " | " | " | Dug | 20 | 2,160 | - 16 | 2,144 | | | " clay | | D, S | " " domestic use only; dugout used for stock. |
| 17 | SW. | 11 | " | " | " | " | 14 | 2,160 | - 11 | 2,149 | 14 | 2,146 | " gravel | | D | Sufficient for domestic use only; several dry holes. |
| 18 | SW. | 12 | " | " | " | Bored | 60 | 2,160 | - 40 | 2,120 | 60 | 2,100 | " sand | | D, S | Insufficient supply; dugout used. |
| 19 | NE. | 12 | " | " | " | " | 105 | 2,160 | - 55 | 2,105 | 105 | 2,055 | " gravel | | D, S | Sufficient for 50 head stock; another good well. |
| 20 | NW. | 13 | " | " | " | Dug | 20 | 2,160 | 0 | 2,160 | 20 | 2,140 | " " | | D, S | " " 50 " " ; dugout here also. |
| 21 | SW. | 13 | " | " | " | Bored | 55 | 2,160 | - 30 | 2,130 | 55 | 2,105 | " sand | | D, S | " " 50 " " . |
| 22 | NE. | 14 | " | " | " | " | 56 | 2,165 | - 25 | 2,140 | 56 | 2,109 | " gravel | | D, S | " " 20 " " . |
| 23 | SE. | 14 | " | " | " | " | 90 | 2,160 | - 35 | 2,125 | 90 | 2,070 | " sand | | D, S | " " 30 " " . |
| 24 | NW. | 14 | " | " | " | " | 75 | 2,160 | - 25 | 2,135 | 75 | 2,085 | " gravel | | D, S | " " 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 25 | SE. | 15 | 14 | 5 | 2 | Bored | 50 | 2,160 | - 38 | 2,122 | 50 | 2,110 | Glacial gravel | Hard, clear | | D, S | Insufficient supply; dugout used. |
| 26 | SE. | 15 | " | " | " | | 122 | | | | | | " | | | N | Dry hole. |
| 27 | SE. | 15 | " | " | " | Dug | 30 | 2,160 | - 24 | 2,136 | 30 | 2,130 | " sand | " , " | | D, S | Sufficient for domestic use only. |
| 28 | NW. | 15 | " | " | " | Bored | 50 | 2,170 | - 15 | 2,155 | 50 | 2,120 | " gravel | Soft, " | | D, S | Abundant supply. |
| 29 | SE. | 16 | " | " | " | Drilled | 48 | 2,160 | - 16 | 2,144 | 48 | 2,112 | " " | Hard, " | | D, S | Sufficient for 200 head stock; dugout also used. |
| 30 | SW. | 16 | " | " | " | Bored | 80 | 2,160 | - 25 | 2,135 | 80 | 2,080 | " " | " , " | | D, S | " " 40 " " . |
| 31 | NW. | 16 | " | " | " | Drilled | 70 | 2,170 | - 30 | 2,140 | 70 | 2,100 | " sand | "alkaline, iron, clear | | S | " " 25 " " ; partly filled with sand. |
| 32 | SW. | 17 | " | " | " | Bored | 100 | 2,160 | - 60 | 2,100 | 100 | 2,060 | " | Hard, " , "alkaline" | | D, S | Sufficient for domestic use and only horses. |
| 33 | SW. | 18 | " | " | " | " | 75 | 2,155 | - 50 | 2,105 | 75 | 2,080 | " | Hard, clear | | D, S | " " 75 head stock. |
| 34 | NE. | 19 | " | " | " | " | 78 | 2,170 | - 20 | 2,150 | 78 | 2,092 | " " | " , " | | D, S | " " 75 " " ; abundant supply. |
| 35 | NW. | 20 | " | " | " | " | 58 | 2,160 | - 32 | 2,128 | 58 | 2,102 | " gravel | " , " | | D, S | " " 75 " " . |
| 36 | SW. | 20 | " | " | " | " | 60 | 2,170 | - 30 | 2,140 | 60 | 2,110 | " sand | " , " | | D, S | " " 75 " " . |
| 37 | SW. | 21 | " | " | " | " | 75 | 2,175 | - 35 | 2,140 | 75 | 2,100 | " gravel | " , " , "alkaline" | | D, S | Oversufficient supply. |
| 38 | NW. | 22 | " | " | " | " | 75 | 2,165 | - 50 | 2,115 | 75 | 2,090 | " sand | Hard, clear | | D, S | Abundant supply. |
| 39 | SW. | 22 | " | " | " | " | 80 | 2,160 | - 60 | 2,100 | 80 | 2,080 | " gravel | " , " | | D, S | Sufficient for 15 head stock. |
| 40 | NW. | 23 | " | " | " | " | 75 | 2,155 | - 40 | 2,115 | 75 | 2,080 | " " | " , " | | D, S | " " 50 " " . |
| 41 | NE. | 23 | " | " | " | " | 80 | 2,160 | - 35 | 2,125 | 80 | 2,080 | " " | " , " | | S | " " 70 " " . |
| 42 | NE. | 23 | " | " | " | " | 40 | 2,150 | - 20 | 2,130 | 40 | 2,110 | " sand | " , " | | D, S | " " domestic use only. |
| 43 | NW. | 24 | " | " | " | " | 63 | 2,150 | | | | | " clay | " , " | | D, S | " " " " " . |
| 44 | SW. | 24 | " | " | " | " | 60 | 2,120 | | | | | " sand | " , " , "alkaline" | | S | " " 15 head stock only. |
| 45 | SE. | 24 | " | " | " | " | 60 | 2,125 | | | | | " | | | N | Dry hole. |
| 46 | NE. | 24 | " | " | " | " | 80 | 2,140 | - 40 | 2,100 | 80 | 2,060 | " gravel | | | D, S | Abundant supply. |
| 47 | SE. | 25 | " | " | " | " | 100 | 2,140 | - 50 | 2,090 | 100 | 2,040 | " " | Hard, clear | | D, S | Sufficient for 60 head stock. |
| 48 | NW. | 25 | " | " | " | " | 100 | 2,160 | | | | | " sand | " , " | | | Insufficient for local needs; owner believes shortage due to mechanical fault. |
| 49 | NE. | 26 | " | " | " | Dug | 10 | 2,155 | - 5 | 2,150 | 5 | 2,150 | " " | Soft, " | | D, S | Sufficient for local needs. |
| 50 | NE. | 27 | " | " | " | Bored | 30 | 2,160 | - 20 | 2,140 | 20 | 2,140 | " " | Hard, " | | D, S | Insufficient for local needs. |
| 51 | SE. | 27 | " | " | " | " | 75 | 2,160 | - 25 | 2,135 | 75 | 2,085 | " " | " , " , "alkaline" | | 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 52 | NW. | 27 | 14 | 5 | 2 | Bored | 75 | 2,160 | - 50 | 2,110 | 75 | 2,085 | Glacial sand | Hard, clear, alkaline | | D, S | Sufficient for 35 head stock. |
| 53 | SE. | 28 | " | " | " | " | 77 | 2,160 | | | 77 | 2,083 | " " | " , hard, clear | | D, S | Sufficient for domestic use and 5 head stock. |
| 54 | SW. | 28 | " | " | " | " | 75 | 2,170 | - 42 | 2,128 | 75 | 2,095 | " gravel | " , " | | D, S | " " 100 head stock. |
| 55 | NE. | 30 | " | " | " | " | 60 | 2,160 | - 18 | 2,142 | 60 | 2,100 | " " | " , " | | D, S | Oversufficient supply. |
| 56 | SE. | 30 | " | " | " | " | 80 | 2,165 | - 45 | 2,120 | 60 | 2,105 | " blue mud | " , " | | D, S | Sufficient for 100 head stock. |
| 57 | SW. | 30 | " | " | " | " | 83 | 2,170 | - 43 | 2,127 | 83 | 2,087 | " gravel | " , " | | D, S | " " 100 " " . |
| 58 | NW. | 32 | " | " | " | " | 28 | 2,180 | - 10 | 2,170 | 28 | 2,152 | " sand | Soft | | D, S | Oversufficient for 55 head stock. |
| 59 | SW. | 32 | " | " | " | Dug | 26 | 2,180 | - 20 | 2,160 | 26 | 2,154 | " gravel | " , clear | | D, S | Abundant supply. |
| 60 | SW. | 33 | " | " | " | Bored | 64 | 2,160 | - 44 | 2,116 | 64 | 2,096 | " " | Hard, " | | D, S | Sufficient for 30 head stock. |
| 61 | SW. | 34 | " | " | " | " | 54 | 2,145 | - 40 | 2,105 | 54 | 2,091 | " | " , " | | D, S | Insufficient for 20 head stock; 50 dry holes. |
| 62 | NE. | 34 | " | " | " | Drilled | 360 | 2,165 | | | | | Marine shale | | | N | Dry hole. |
| 63 | NW. | 35 | " | " | " | Bored | 80 | 2,180 | | | | | Glacial | | | N | " " . |
| 64 | SE. | 35 | " | " | " | Dug | 6 | 2,160 | - 2 | 2,158 | 0 | 2,160 | " gravel | Soft, clear | | D, S | Cannot be bailed dry; in gravel pit. |
| 65 | SW. | 36 | " | " | " | Bored | 100 | 2,170 | - 90 | 2,080 | 100 | 2,070 | " " | Hard, " | | D, S | Sufficient for 50 head stock; one dry hole. |
| 1 | SE. | 1 | 14 | 6 | 2 | " | 65 | 2,155 | - 12 | 2,143 | 65 | 2,090 | " sand | " , " , alkaline iron | | D, S | " " 17 " " . |
| 2 | NE. | 2 | " | " | " | Dug | 18 | 2,160 | - 15 | 2,145 | 2 | 2,158 | " " | Hard, clear | | D, S, I | " " 35 " " ; dugout also. |
| 3 | SE. | 3 | " | " | " | Bored | 98 | 2,165 | - 24 | 2,141 | 78 | 2,087 | " " | " , " | | D, S | " " 20 " " ; 15 dry holes. |
| 4 | SE. | 4 | " | " | " | " | 80 | 2,175 | - 30 | 2,145 | 80 | 2,095 | " " | " , alkaline , iron, clear | | D, S, | " " 20 " " ; many dry holes. |
| 5 | SE. | 5 | " | " | " | Dug | 10 | 2,185 | - 5 | 2,180 | 2 | 2,183 | " " | Soft, " | | D, S | " " 20 " " ; another well adds to supply. |
| 6 | NW. | 5 | " | " | " | " | 23 | 2,190 | - 15 | 2,175 | | | " " | " , " | | D, S, I | Sufficient for 30 " " ; also 3 dry holes. |
| 7 | NW. | 6 | " | " | " | " | 30 | 2,195 | - 25 | 2,169 | 22 | 2,173 | " " | Hard, " , alkaline | | D, S | " " 40 " " ; similar well adds to supply. |
| 8 | SE. | 9 | " | " | " | Bored | 106 | 2,175 | - 20 | 2,155 | 106 | 2,069 | " " | " , hard, clear | | D | " " 16 " " ; well partly filled with sand. |
| 9 | SW. | 10 | " | " | " | " | 60 | 2,180 | - 50 | 2,130 | 98 | 2,082 | " " | " , " , iron | | D, S, I | Insufficient for 20 head stock; sufficient if sand removed. |
| 10 | SE. | 10 | " | " | " | " | | 2,160 | | | | | " | | | N | Dry hole. |
| 11 | NW. | 12 | " | " | " | Bored | 40 | 2,160 | | | | | " " | Hard, clear, iron | | D, S | Abundant supply for 12 head stock; also dugout. |
| 12 | SE. | 12 | " | " | " | Dug | 62 | 2,155 | - 19 | 2,136 | 54 | 2,101 | " " | Hard, " , alkaline | | D, S | Sufficient for 15 head stock. |
| 13 | NE. | 13 | " | " | " | " | 42 | 2,175 | - 38 | 2,137 | 40 | 2,135 | " " | Hard, clear | | D | Sufficient for 12 head stock; 12 dry holes also. |

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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 14 | SE. | 14 | 14 | 6 | 2 | Bored | 97 | 2,150 | - 40 | 2,120 | 97 | 2,053 | Glacial sand | Hard, clear, iron | | D, S, I | Sufficient for 23 head stock; has decreased in recent years. |
| 15 | SW. | 17 | " | " | " | " | 75 | 2,200 | - 34 | 2,155 | 75 | 2,124 | " " | Hard, " , alkaline | | D, S | Sufficient for 45 " " ; abundant supply. |
| 16 | SE. | 18 | " | " | " | " | 97 | 2,205 | - 40 | 2,155 | 97 | 2,108 | " " | Hard, clear | | D, S, I | " " 74 " " ; 12 dry holes. |
| 17 | NE. | 18 | " | " | " | " | 90 | 2,200 | - 30 | 2,170 | 85 | 2,115 | " " | " , alkaline, clear, iron | | D, S, I | " " 45 " " ; another well gives soft water. |
| 18 | SW. | 18 | " | " | " | " | 138 | 2,200 | - 38 | 2,152 | 124 | 2,075 | " " | Hard, clear | | D, S | " " 22 " " ; 2 dry holes. |
| 19 | NW. | 18 | " | " | " | " | 90 | 2,205 | - 55 | 2,140 | 90 | 2,115 | " " | " , alkaline, iron, clear | | D, S, I | " " 32 " " . |
| 20 | SW. | 20 | " | " | " | " | 92 | 2,200 | - 42 | 2,158 | 91 | 2,109 | " " | Hard, clear, alkaline | | D, S, I | " " 30 " " ; some trouble with sand. |
| 21 | NW. | 20 | " | " | " | " | 90 | 2,205 | - 50 | 2,155 | 90 | 2,115 | " " | " , hard, iron, clear | | D, S | " " 40 " " . |
| 22 | SW. | 21 | " | " | " | " | 84 | 2,210 | - 49 | 2,151 | 83 | 2,127 | " " | Hard, " , alkaline | | D, S, I | " " 23 " " . |
| 23 | SW. | 22 | " | " | " | " | 90 | 2,185 | | | 87 | 2,098 | " " | Hard, iron, clear | | D | " " domestic use; no stock. |
| 24 | NE. | 22 | " | " | " | " | 80 | 2,195 | - 74 | 2,121 | 78 | 2,117 | " " | Hard, clear, iron, alkaline | | D, S | " " 22 head stock; dugout also. |
| 25 | SE. | 23 | " | " | " | " | 70 | 2,190 | - 49 | 2,141 | 70 | 2,120 | " " | " , " , hard, clear | | D, S | " " 38 " " ; partly filled with sand. |
| 26 | NE. | 23 | " | " | " | " | 110 | 2,190 | - 46 | 2,144 | 110 | 2,080 | " " | " , " , alkaline | | D, S | " " 40 " " ; abundant supply. |
| 27 | NW. | 24 | " | " | " | " | 90 | 2,190 | - 30 | 2,160 | | | " gravel | " , hard, clear, iron | | D, S, I | " " 18 " " ; 12 dry holes. |
| 28 | SW. | 25 | " | " | " | Dug | 25 | 2,195 | - 15 | 2,180 | | | " " | Hard, clear, iron | | D, S | Insufficient for 20 head stock; haul water. |
| 29 | SE. | 27 | " | " | " | " | 75 | 2,205 | - 48 | 2,157 | 75 | 2,130 | " sand | " , " , hard | | D, S | Sufficient " 75 " " ; also dugout. |
| 30 | SE. | 28 | " | " | " | Bored | 80 | 2,200 | - 70 | 2,130 | 80 | 2,120 | " " | " , alkaline, iron, clear | | D, S, | " supply for 12 head stock. |
| 31 | NE. | 28 | " | " | " | " | 80 | 2,200 | - 40 | 2,160 | 76 | 2,124 | " " | " , " , hard, | | D, S, I | Abundant " " local needs. |
| 32 | NE. | 30 | " | " | " | " | 90 | 2,210 | - 64 | 2,146 | 90 | 2,120 | " " | " , alkaline, iron, clear | | D, S | Sufficient for 24 head stock. |
| 33 | SW. | 30 | " | " | " | " | 85 | 2,220 | - 15 | 2,205 | 85 | 2,135 | " " | " , " , hard, alkaline | | D, S, I | " " 28 " " . |
| 34 | SW. | 32 | " | " | " | " | 90 | 2,200 | - 60 | 2,140 | 89 | 2,111 | " " | " , clear | | D, S, I | " " 16 " " . |
| 35 | NE. | 32 | " | " | " | " | 80 | 2,200 | - 70 | 2,130 | 80 | 2,120 | " " | " , " , iron | | D, S | " " 35 " " . |
| 36 | NW. | 34 | " | " | " | Dug | 20 | 2,210 | | | | | " " | | | N | Dry hole; several other similar dry holes. |
| 37 | SE. | 35 | " | " | " | " | 12 | 2,190 | - 10 | 2,180 | 0 | 2,190 | " " | Hard, clear | | D, S | Sufficient for 13 head stock; poor supply; one 100-foot dry hole also. |
| 38 | NW. | 36 | " | " | " | Bored | 65 | 2,190 | - 35 | 2,155 | | | " " | " , " , iron | | D, S, I | Insufficient for 30 head stock; also 6 dry holes. |
| 39 | SW. | 36 | " | " | " | " | 68 | 2,190 | - 12 | 2,178 | | | " " | Hard, " | | D, S | Sufficient for 34 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 KINGSLEY, NO. 124

| WELL No. | LOCATION | | | | | TYPE OF WELL | DEPTH OF WELL | ALTITUDE OF 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 | | | | |
| 1 | NW. | 1 | 15 | 4 | 2 | Dug | 15 | 1,975 | - 14 | 1,961 | 23 | 1,952 | Glacial gravel | Hard, clear | | D, S | Sufficient for 100 head stock. |
| 2 | SE. | 3 | " | " | " | Bored | 85 | 2,000 | - 65 | 1,935 | 85 | 1,915 | " gravel | " , " , "alkaline" | | D, S | " " 50 " " . |
| 3 | NE. | 4 | " | " | " | Spring | | 2,000 | 0 | 2,000 | 0 | 2,000 | " | Soft, clear | | D, S | " " local needs. Steady flow. |
| 4 | NW. | 4 | " | " | " | Dug | 4 | 2,000 | - 2 | 1,998 | 0 | 2,000 | " | " , " | | D, S | Abundant supply. |
| 5 | SW. | 5 | " | " | " | " | 6 | 2,050 | - 3 | 2,047 | 3 | 2,047 | " sand | " , " | | D, S | Sufficient for local needs. |
| 6 | SE. | 6 | " | " | " | Bored | 81 | 2,060 | - 30 | 2,030 | 80 | 1,980 | " " | " , " | | D, S | Insufficient for local needs. |
| 7 | SW. | 6 | " | " | " | " | 65 | 2,080 | - 40 | 2,040 | 65 | 2,015 | " gravel | Hard, " | | D, S | Sufficient for 30 head stock. |
| 8 | SE. | 10 | " | " | " | Dug | 5 | 2,070 | 0 | 2,070 | 2 | 2,068 | " " | " , " | | D, S | Oversufficient for local needs. |
| 9 | NW. | 11 | " | " | " | Bored | 87 | 2,050 | - 67 | 1,983 | 85 | 1,965 | " sand | " , " , "alkaline" | | D, S | Insufficient for 20 head stock. |
| 10 | SE. | 11 | " | " | " | Dug | 10 | 2,060 | - 5 | 2,055 | 10 | 2,050 | " gravel | Hard, clear | | D, S | Sufficient for large number. |
| 11 | SE. | 12 | " | " | " | " | 20 | 2,060 | - 15 | 2,045 | 20 | 2,040 | " " | " , " | | D, S | " " 15 head stock. |
| 12 | SW. | 13 | " | " | " | Bored | 90 | 2,050 | | | 90 | 1,960 | " | | | N | Not potable for humans or stock. |
| 13 | SE. | 14 | " | " | " | Drilled | 240 | 2,010 | | | | | Marine shale | | | N | Dry hole. |
| 14 | SE. | 14 | " | " | " | " | 178 | 2,010 | | | | | " " | | | N | Dry hole. |
| 15 | SE. | 14 | " | " | " | " | 180 | 2,010 | | | | | " " | | | | |
| 16 | SE. | 14 | " | " | " | " | 156 | 2,015 | - 56 | 1,959 | 155 | 1,860 | Crevice in Marine shale | Hard, clear | | D, S | Oversufficient supply; cannot lower it. |
| 17 | SW. | 14 | " | " | " | Dug | 56 | 2,000 | - 50 | 1,950 | 55 | 1,945 | Glacial gravel | " , " , "alkaline" | | D, S | Sufficient for 50 head stock. |
| 18 | NW. | 14 | " | " | " | Bored | 65 | 2,010 | - 30 | 1,980 | 65 | 1,945 | " sand | " , hard, clear | | S | " " 10 " " . |
| 19 | SE. | 15 | " | " | " | Dug | 6 | 1,950 | - 3 | 1,947 | 5 | 1,945 | " gravel | " , " | | D, S | " " 100 " " . |
| 20 | SE. | 15 | " | " | " | " | 5 | 1,950 | - 3 | 1,947 | 5 | 1,945 | " " | " , " | | D, S | " " 100 " " . |
| 21 | SW. | 16 | " | " | " | Bored | 60 | 1,950 | - 45 | 1,905 | 60 | 1,890 | " | " , " | | D, S | " " 50 " " . |
| 22 | NW. | 16 | " | " | " | Dug | 15 | 2,010 | - 10 | 2,000 | 5 | 2,005 | " sand | Soft, clear | | D, S | " " 100 " " . |
| 23 | NE. | 18 | " | " | " | " | 8 | 2,030 | - 4 | 2,026 | 3 | 2,027 | " " | Hard, " | | D, S | " " 50 " " . |
| 24 | NW. | 20 | " | " | " | " | 15 | 1,980 | - 10 | 1,970 | 15 | 1,965 | " " | Soft, " | | D, S | Abundant supply; also 1 dry hole. |
| 25 | NW. | 20 | " | " | " | Spring | | 1,970 | 0 | 1,970 | 0 | 1,970 | " | Hard, " | | D, S | Continuous flow; another spring here. |
| 26 | NE. | 22 | " | " | " | Bored | 50 | 2,000 | - 43 | 1,957 | 50 | 1,950 | " drift | " , " | | D, S | Abundant supply; cannot be lowered. |
| 27 | NW. | 24 | " | " | " | " | 115 | 2,040 | - 75 | 1,965 | 115 | 1,925 | " sand | " | | D, S | Sufficient for 30 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 KINGSLEY, NO. 124, SASKATCHEWAN.

| WELL No. | 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 | | | | |
| 28 | NE. | 24 | 15 | 4 | 2 | Bored | 60 | 2,045 | - 55 | 1,990 | 60 | 1,985 | Glacial | Hard, clear | | D | Sufficient for domestic use only; 1 dry hole in blue clay; hauls water. Sufficient for 85 head stock. |
| 29 | SW. | 27 | " | " | " | Dug | 40 | 2,005 | - 30 | 1,975 | 40 | 1,965 | " gravel | " , " | | D, S | |
| 30 | NE. | 28 | " | " | " | Bored | 90 | 1,990 | - 20 | 1,970 | 0 | 1,990 | " sand | Hard, "alk- aline" | | S | " " 35 " " ; another well for house. Insufficient for 60 head stock. |
| 31 | SE. | 28 | " | " | " | " | 50 | 1,990 | - 35 | 1,955 | 48 | 1,942 | " " | " , "alkaline" | | D, S | |
| 32 | NW. | 28 | " | " | " | " | 40 | 2,000 | - 36 | 1,964 | 40 | 1,960 | " " | " , " , clear | | D, S | " " 10 " " . |
| 33 | SW. | 30 | " | " | " | " | 60 | 1,980 | - 20 | 1,960 | 58 | 1,922 | " " | " , hard | | D, S | Sufficient for 75 " " . |
| 34 | NW. | 31 | " | " | " | " | 30 | 1,960 | - 26 | 1,934 | 30 | 1,930 | " " | " , " , alkaline" | | D, S | " " 18 " " . |
| 35 | NW. | 32 | " | " | " | " | 103 | 2,040 | - 18 | 2,022 | 103 | 1,937 | Marine shale | Hard, clear | | D, S | " " local needs. |
| 36 | SW. | 32 | " | " | " | " | 107 | 1,980 | | | | | Glacial | | | N | Dry hole; also 2 other dry holes. |
| 37 | NE. | 34 | " | " | " | " | 114 | 2,015 | | | | | " | | | D, S | Sufficient for local needs. |
| 38 | NE. | 36 | " | " | " | " | 115 | 2,050 | - 60 | 1,990 | 115 | 1,935 | " sand | Hard, clear, "alkaline" | | D, S | " " 200 head stock. |
| 1 | NE. | 1 | 15 | 5 | 2 | Bored | 105 | 2,075 | - 65 | 2,010 | 105 | 1,970 | " " | Hard, clear | | D, S | " " 100 " " . |
| 2 | NE. | 2 | " | " | " | " | 100 | 2,125 | | | | | " | | | N | Dry hole; also 3 other dry holes. |
| 3 | NW. | 2 | " | " | " | " | 50 | 2,150 | | | 50 | 2,100 | " | | | N | " " ; " 1 " " " . |
| 4 | SE. | 3 | " | " | " | " | 52 | 2,160 | | | 52 | 2,108 | " | | | N | " " ; " 4 " " " . |
| 5 | NE. | 5 | " | " | " | " | 52 | 2,160 | - 25 | 2,135 | 52 | 2,108 | " gravel | Hard, clear | | D, S | Sufficient for 100 head stock. |
| 6 | SE. | 5 | " | " | " | " | 48 | 2,170 | - 20 | 2,150 | 48 | 2,122 | " sand | " , " | | D, S | " " local needs; cannot be lowered. |
| 7 | SW. | 5 | " | " | " | " | 30 | 2,170 | - 28 | 2,142 | 30 | 2,140 | " gravel | " , " | | D, S | " " " " . |
| 8 | SW. | 6 | " | " | " | " | 37 | 2,170 | - 22 | 2,148 | 35 | 2,135 | " sand | " , " | | D, S | Oversufficient for 30 head stock. |
| 9 | NW. | 6 | " | " | " | Dug | 35 | 2,165 | - 33 | 2,132 | 35 | 2,130 | " " | " , " , "alkaline" | | D, S | Sufficient for domestic use only; use spring for stock. |
| 10 | NW. | 10 | " | " | " | Bored | 75 | 2,155 | | | 75 | 2,080 | " gravel | " , hard, clear | | S | Intermittent supply. |
| 11 | SE. | 11 | " | " | " | Dug | 20 | 2,120 | | | 20 | 2,100 | " " | Hard, clear | | D, S | Sufficient for local needs. |
| 12 | SE. | 16 | " | " | " | " | 10 | 2,010 | - 8 | 2,002 | 10 | 2,000 | " | " , " | | D, S | Intermittent supply. |
| 13 | SW. | 18 | " | " | " | Bored | 100 | 2,180 | | | | | " | " , " | | N | Dry hole; many other dry holes. |
| 14 | NW. | 20 | " | " | " | Dug | 14 | 2,040 | - 10 | 2,030 | 14 | 2,026 | " gravel | " , " | | D, S | Oversufficient for 75 head stock. |
| 15 | NW. | 22 | " | " | " | " | 16 | 2,150 | - 12 | 2,138 | 16 | 2,134 | " sand | " , " | | D, S | Abundant supply; also flowing spring. |

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 KINGSLEY, NO. 124, SASKATCHEWAN

| WELL No. | 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 | | | | |
| 16 | SE. | 24 | 15 | 5 | 2 | Dug | 18 | 2,030 | - 10 | 2,020 | 18 | 2,012 | Glacial gravel | Soft, clear | | D, S | Sufficient for 60 head stock. |
| 17 | SE. | 26 | " | " | " | Bored | 20 | 1,990 | - 19 | 1,971 | 20 | 1,970 | " sand | Hard, " , "alkaline" | | D, S | Intermittent supply; used to be much better. |
| 18 | SE. | 26 | " | " | " | Dug | 20 | 1,990 | - 7 | 1,983 | 20 | 1,970 | " gravel | " , hard, clear | | D, S | Oversufficient for 40 head stock; also spring. |
| 19 | SE. | 28 | " | " | " | " | 10 | 2,180 | - 8 | 2,172 | 10 | 2,170 | " " | Hard, clear | | D, S | Insufficient for local needs; two other similar wells. |
| 20 | SW. | 28 | " | " | " | " | 10 | 2,050 | - 8 | 2,042 | 10 | 2,040 | " sand | " , " | | D, S | Sufficient for 10 head stock; also small dugout. |
| 21 | SW. | 30 | " | " | " | " | 4 | 2,050 | 0 | 2,050 | 0 | 2,050 | " " , gravel | " , " | | D, S | " " local needs. |
| 22 | SW. | 31 | " | " | " | " | 16 | 2,155 | - 14 | 2,141 | 16 | 2,139 | " " | Soft, " | | D, S | " " domestic use only. |
| 23 | SE. | 31 | " | " | " | " | 4 | 2,160 | 0 | 2,160 | 0 | 2,160 | " " , gravel | Hard, " | | D, S | " " 30 head stock; used to flow. |
| 24 | NW. | 32 | " | " | " | " | 22 | 2,050 | - 18 | 2,032 | 22 | 2,028 | " gravel | " , " | | D, S | " " local needs; good supply. |
| 25 | SW. | 33 | " | " | " | Bored | 40 | 2,050 | - 20 | 2,030 | 40 | 2,010 | " " | " , " | | D, S | " " " " ; " " . |
| 26 | SE. | 33 | " | " | " | Dug | 16 | 2,050 | - 14 | 2,036 | 16 | 2,034 | " sand | " , " | | D, S | " " " " ; " " . |
| 27 | NW. | 34 | " | " | " | Bored | 38 | 1,990 | - 20 | 1,970 | 38 | 1,952 | " gravel | " , " | | D, S | Oversufficient supply; cannot be pumped dry. |
| 28 | SW. | 34 | " | " | " | " | 38 | 2,020 | - 20 | 2,000 | 38 | 1,982 | " " | " , " | | D, S | Sufficient for local needs. |
| 29 | NE. | 34 | " | " | " | Dug | 23 | 1,985 | - 19 | 1,965 | 23 | 1,962 | " " | " , " | | D, S | Oversufficient supply; also spring. |
| 30 | NE. | 35 | " | " | " | Bored | 40 | 1,970 | - 20 | 1,950 | 40 | 1,930 | " " | " , " | | D, S | Sufficient for local needs. |
| 31 | NW. | 36 | " | " | " | " | 31 | 1,960 | - 24 | 1,936 | 31 | 1,929 | " sand | " , " | | D, S | Insufficient for 6 head stock; 2 dry holes. |
| 32 | SW. | 36 | " | " | " | Dug | 21 | 1,970 | - 13 | 1,957 | 21 | 1,949 | " gravel | " , " | | D, S | Oversufficient for 30 head stock. |
| 33 | SW. | 36 | " | " | " | " | 32 | 1,970 | - 27 | 1,943 | 32 | 1,938 | " " | " | | D, S | Intermittent supply. |
| 1 | SE. | 2 | " | 6 | " | " | 8 | 2,190 | - 6 | 2,184 | 6 | 2,184 | " sand | Soft, clear | | D, S | Insufficient for 6 head stock; hauls water. |
| 2 | SW. | 2 | " | " | " | Bored | 85 | 2,190 | - 60 | 2,130 | 15 | 2,175 | " " | Hard, " | | D, S | Sufficient for 18 head stock; abundant supply. |
| 3 | SE. | 4 | " | " | " | " | 75 | 2,200 | - 7 | 2,193 | | | " " | " , " , "alkaline" | | D, S, I | " " 39 " " ; 30 dry holes. |
| 4 | SW. | 4 | " | " | " | Drilled | 84 | 2,200 | - 16 | 2,184 | 84 | 2,116 | " " | Hard, clear, iron | | D, S, I | " " 45 " " . |
| 5 | NW. | 6 | " | " | " | Bored | 100 | 2,210 | - 50 | 2,160 | 100 | 2,110 | " " | " , " , hard | | D, S, I | " " 40 " " ; abundant supply. |
| 6 | NE. | 10 | " | " | " | Dug | 24 | 2,180 | - 20 | 2,160 | 23 | 2,157 | " gravel | " , " , iron | | S | " " 26 " " ; 9 dry holes. |
| 7 | SW. | 12 | " | " | " | " | 35 | 2,170 | - 29 | 2,141 | 29 | 2,141 | " sand | Hard, " | | D, S | " " 16 " " ; other wells add to supply. |
| 8 | NW. | 12 | " | " | " | " | 30 | 2,165 | - 8 | 2,157 | 26 | 2,139 | " gravel | " , " , "alkaline" | | D, S | Sufficient for 17 head stock; 9 dry holes. |
| 9 | SE. | 12 | " | " | " | Bored | 12 | 2,170 | - 10 | 2,160 | 10 | 2,160 | " sand | Hard, clear | | D, S | " " 30 " " . |

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 KINGSLEY, NO. 124, SASKATCHEWAN

| WELL No. | 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 | | | | |
| 10 | SE. | 13 | 15 | 6 | 2 | Dug | 4 | 2,025 | 0 | 2,025 | 0 | 2,025 | Glacial gravel | Hard, clear | | D | Sufficient for 11 head stock; 10 dry holes. |
| 11 | SW. | 13 | " | " | " | " | 10 | 2,165 | 0 | 2,165 | | | " | "alkaline, iron, clear | | D, S | " " 5 " " . |
| 12 | NW. | 16 | " | " | " | Bored | 40 | 2,175 | - 25 | 2,150 | | | " sand | " , " , hard | | D, S, I | " " 30 " " ; abundant supply. |
| 13 | SE. | 18 | " | " | " | " | 67 | 2,195 | - 63 | 2,132 | 67 | 2,128 | " " | " , " | | D, S | " " 16 " " . |
| 14 | SW. | 18 | " | " | " | " | 40 | 2,200 | - 35 | 2,165 | 30 | 2,170 | " " | " , " , alkaline, iron | | D, S | " " 9 " " ; poor supply; one dry hole. |
| 15 | NW. | 18 | " | " | " | Dug | 16 | 2,195 | - 12 | 2,183 | 12 | 2,183 | " clay | Soft, clear | | D, S | Insufficient for 22 head stock; three other wells add to supply. |
| 16 | NE. | 20 | " | " | " | Bored | 40 | 2,170 | | | | | " sand | Hard, iron, clear | | D, S | Sufficient for 42 head stock; one other well adds to supply. |
| 17 | SW. | 21 | " | " | " | Dug | 4 | 2,020 | 0 | 2,020 | 0 | 2,020 | " gravel | Hard, clear | | D, S, I | Sufficient for 11 head stock. |
| 18 | NW. | 22 | " | " | " | " | 14 | 2,160 | - 10 | 2,150 | 7 | 2,153 | " " | " , " | | D, S | " " 75 " " . |
| 19 | SE. | 22 | " | " | " | " | 8 | 2,020 | - 2 | 2,018 | 5 | 2,015 | " " | " , " | | D, S, I | " " 9 " " ; abundant supply. |
| 20 | SE. | 25 | " | " | " | " | 2 | 2,030 | 0 | 2,030 | 0 | 2,030 | " | " , " | | D, S | " " 10 " " ; creek adds to supply. |
| 21 | NE. | 25 | " | " | " | " | 36 | 2,130 | - 32 | 2,098 | 32 | 2,098 | " sand | " , " , iron | | D, S | Sufficient for 20 " " . |
| 22 | NE. | 26 | " | " | " | " | 50 | 2,155 | | | | | " | | | N | Dry hole; hauls water for house. |
| 23 | NW. | 28 | " | " | " | Dug | 48 | 2,155 | - 46 | 2,109 | 44 | 2,111 | " " | Hard, iron, clear | | D, S | Sufficient for 80 head stock; abundant supply. |
| 24 | SE. | 32 | " | " | " | Bored | 40 | 2,160 | - 38 | 2,122 | | | " " | " , hard | | D, S | " " 12 " " ; spring used. |
| 25 | SW. | 36 | " | " | " | " | 25 | 2,140 | - 7 | 2,133 | | | " gravel | "alkaline hard, iron | | S | " " 36 " " ; house well also. |

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.