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# ABSTRACTS

FROM

## REPORTS ON TOWNSHIPS WEST OF THE FOURTH MERIDIAN

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BETWEEN JULY 1, 1912, AND JULY 1, 1913

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# ABSTRACTS

FROM

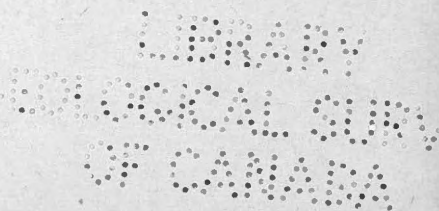
## REPORTS ON TOWNSHIPS WEST OF THE FOURTH MERIDIAN

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**NOTICE.**

The following descriptions of townships recently surveyed have been prepared from the field notes and reports of the surveyors.

The townships in this pamphlet are placed in ranges, the number of the range being at the top of the page and the number of the township in heavy figures on the left side.

**E. DEVILLE,**  
*Surveyor General.*



**LIST OF TOWNSHIPS, REPORTS OF WHICH ARE CONTAINED  
IN THIS PAMPHLET.**

**WEST OF THE FOURTH MERIDIAN.**

<i>Township</i>	<i>Range</i>
6, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115 . . . . .	1
6 . . . . .	2
17, 18, 19, 63, 64 . . . . .	3
17, 19, 63, 64 . . . . .	4
63, 64, 92 . . . . .	5
1, 2, 63, 64, 72, 92 . . . . .	6
63, 64, 72 . . . . .	7
63, 64, 88, 89 . . . . .	8
63, 64, 72, 88, 89, 90 . . . . .	9
63, 64, 69, 70, 72, 76, 88, 89 . . . . .	10
24, 38, 69, 70, 72, 76 . . . . .	11
24, 69, 70, 72, 76 . . . . .	12
70, 72, 76 . . . . .	13
2, 3, 26, 27, 43, 72, 76 . . . . .	14
2, 3, 26, 27, 72, 76 . . . . .	15
26, 27, 72, 76 . . . . .	16
5, 72, 76 . . . . .	17
5, 72, 76 . . . . .	18
2, 72, 76 . . . . .	19
72, 76 . . . . .	20
76 . . . . .	21
72, 76 . . . . .	22
60, 76 . . . . .	25
50 . . . . .	28
11 . . . . .	30





## TOWNSHIPS WEST OF THE FOURTH MERIDIAN

### RANGE 1.

This township lies south of the Cypress hills, and is most easily reached from **6.** Irvine, a station on the main line of the Canadian Pacific railway. The wagon trails are fairly well travelled and are generally in good condition. The soil varies from a shallow loam to a clay, mostly underlaid with clay. Over the greater part of the township the surface is stony. The soil for the most part is adapted to grass growing for ranching purposes. However, there is a suitable portion about the centre of the township which might be suitable for farming. The township is open prairie, the major portion being hilly. At present practically the whole of the township is used for ranching purposes. No timber nor hay are found in this township. Water is not abundant, being obtained from several small springs. Green lake, in sections 13 and 24, covers from 400 to 500 acres and has marshy shores on the western and northern sides. There is also another small lake in section 14. There are a few small streams most of which are dry during the summer. There are no water-powers. This township is somewhat lower than range 2, and is therefore not so subject to summer frosts. The climate is hot and dry in the summer and cold with much snow during the winter. There is no fuel procurable but lignite may be obtained at Thelma in township 7, range 3, and wood on the Cypress hills. There are no stone-quarries, minerals of economic value nor game in this township.—*E. S. Martindale, D.L.S., 1912.*

(*East outlines.*)—The country through these townships is in **106 to 109.** general much the same, consisting of rolling or undulating sand-hills covered with small jackpine and brulé and dotted with small lakes, some of which have outlets. A small proportion of the land is stony. The water in the lakes is in general good and many of the larger ones have sandy shores. The valley of the Old Fort river follows the line closely through these townships and it becomes deeper and narrower farther north. This river is but a large creek in township 105 but it is joined by the Beatty river which is of about equal volume in the middle of township 106 and is then, except at some rapids, too deep to wade. The narrow river flats are generally covered with grass and willows. In township 108 the Douglas river, a stream 100 feet wide and 3 feet deep with a rapid current, joins the Old Fort river, which from here down would be navigable for scows but for the rapids which are too numerous and too long. In this township the river turns west for about 10 miles and then north again. There are no tributaries of any size on the west bank of the river as a range of hills about 5 miles west of the river seems to form a watershed. These end to the north in Old Fort point. All timber is kept burned off or stunted by forest fires which appear to burn regularly and systematically. Back from the river and its tributaries the land is more level. In the centre of township 107 a large muskeg crosses the line and stretches away to the east. These muskegs are valuable in that they have kept the accumulation of soil from being destroyed by fire, and by draining may become fertile lands. The timber on these is stunted and of little value.—*J. B. McFarlane, D.L.S., 1912.*

(*East outlines.*)—From the middle of township 109 north, the **109 to 115.** surface of the country is quite different. Muskegs cover a large proportion of the land. The pack-trail to avoid these is about twice the length of the line. In the north of township 109 a shallow lake, one mile

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.—*Continued.*

by one and one-half miles, lies across the line; it has a muddy sandy bottom and the entire lake is dotted with water-lilies and weeds. A creek, 100 feet wide with variable current flowing in at the east end, resembles the lake in bottom, depth and vegetation, and like the lake has a stretch of muskeg and swamp on both sides. The outlet of the lake, Harrison river, flows through a swampy flat containing another small lake and then through a stretch of rolling country. Here it has some rapids. North of the shallow lake, the line continues in muskeg to section 25, township 110. Some of this muskeg had been burnt over and in places, thick grass 3 feet high, had grown on the brulée. It is my opinion that these lakes and this muskeg, which stretches away to the northeast, could be drained and would form a fertile flat containing about a township in area. North of this muskeg a range of rolling sand-hills about 2 miles wide crosses the line. Then a creek, flowing west to Harrison river, runs through a narrow meadow across the line, having its rise in innumerable lakes and wide stretches of muskeg to the east. North of this, the line crosses a rise covered with boulders and then about 2 miles of muskeg, while the pack-trail follows rocky ridges, probably a series of moraines, to the northeast. These ridges are cut off by small muskegs in all directions. From the middle of township 111 to the north of township 114, the country is a succession of stretches of muskeg from a few chains to a mile or more in width, held in by ridges of sand or sand and boulders or occasionally by some low, rolling sand-hills. Lakes are numerous and of all sizes up to several miles in length. The creeks are all small through the above stretch of country and meadows are scarce but some of the lakes have slough grass in bays and around the shores. A well-beaten Indian trail from Old Fort bay crosses township 112, crossing the meridian near the northeast corner of section 25; thence it goes on easterly among lakes and muskegs where it soon becomes indistinct. The only marked valley near Lake Athabaska is that of a large creek which crosses townships 113 and 114 in a northwesterly direction. Through these townships the valley is about 100 feet deep and from 1 to 2 miles wide. When this creek enters township 115, it flows west about 3 miles down a number of rapids in a narrow ravine, crosses the line, then turns north with only a range of sand-hills between it and the lake and crosses the line again at the northeast corner of section 1, township 115. It enters the lake proper about a quarter of a mile east of the line but crosses it again on the sandy beach which is three-quarters of a mile wide. In section 1, the creek flats are often 20 to 30 chains wide and a beautiful hay meadow lies along the creek. There are also several smaller meadows up the creek. It is about 80 feet wide, 2 feet deep and has a current of about one and a half miles per hour. The land to the northeast of this creek is fairly level and dry, covered mostly with jackpine. A fire burned over most of townships 114 and 115 early in the summer of 1912.—*J. B. McFarlane, D.L.S., 1912.*

## RANGE 2.

6. This township is easily reached from Medicine Hat or Irvine, stations on the main line of the Canadian Pacific railway, by means of surveyed roads which, running through partially settled country, are for the greater part of the year in very good condition. The soil, generally speaking, is a loam varying in depth from 2 to 8 or 10 inches underlaid for the most part by a stony clay subsoil. A great portion of the township is stony. The soil is suitable at present only for the growth of grass for grazing purposes as adverse climatic conditions preclude the successful growth of cereals. Several homesteads have been taken up but in the majority of cases have been abandoned and practically the whole of the township is used for horse ranching. The surface is open and varies from rolling in the northern portion of the township to very hilly and broken in the southern part. No timber nor

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## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.—*Continued.*

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## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 2.—*Continued.*

hay occur in this township. The supply of fresh water is not abundant, being obtained from several springs. There are a few small creeks, the majority of which are nearly or altogether dry during most of the summer. There are no waterfalls and no water-power could be developed. The climate in winter appears to be a severe one with a great depth of snow. In summer it is subject to the hot scorching winds in the day time. Summer frosts are also a frequent occurrence. There is apparently no fuel available in this township; however, lignite may be obtained near the post-office of Thelma in township 7, range 3 and wood may also be secured in township 8, ranges 2 and 3, on the bench of the Cypress hills. There are no stone-quarries, minerals of economic value nor game in the township.—*E. S. Martindale, D.L.S., 1912.*

## RANGE 3.

**17.** This township is reached by the main trail north from Medicine Hat on the east side of the South Saskatchewan river. This trail is very good and is much travelled. The soil is partly a sandy and partly a clay loam with a clay subsoil. It is excellently adapted to grazing purposes, and with a sufficient rainfall would produce good grain. The township is rolling prairie, destitute of timber and is badly cut up by the South Saskatchewan river and two deep coulees. The larger of these, Whiterock coulee, runs due west through sections 18, 17, 16 and 10. The other, Bull springs coulee, runs south from the Narrow Rapids and renders sections 5 and 6 useless. The river is about 10 chains wide with a very swift current. The banks are about 400 feet high and very rough. In places the banks run back a mile from the river. In section 7 the river takes a decided bend to the north, and here are situated the Narrow Rapids, which are about a quarter of a mile long and very swift. It would be possible to dam the river here and generate power, but the cost would be large. Upland hay of good quality and in fair quantity is found in the hollows, but there are no hay sloughs. The water in the sloughs is strongly alkaline, but there is a good spring at the head of Whiterock coulee in section 11 and another one in the southwest quarter of section 36. The climate is dry. White frost occurred on July 13th; this was the only one experienced. No fuel, coal seams nor stone-quarries are to be found in the township. A quantity of loose low-grade hematite is found along the river banks. A few antelopes and coyotes and a large number of rattlesnakes were seen in the township.—*G. C. Cowper, D.L.S., 1912.*

**18.** This township is reached by following the main trail north from Medicine Hat on the east side of the South Saskatchewan river. This trail passes through section 1 and is very good. The soil is mostly a sandy and clay loam with a clay subsoil. This will make good farming land, but at present is used only for grazing. The surface of the township, with the exception of the sections bordering on the river, is rolling prairie. There is no timber in the township. Upland hay of good quality is found in the hollows. The sloughs being strongly alkaline do not produce hay. The South Saskatchewan river traverses this township almost due north from section 5 to section 31. It averages 10 chains in width and has a very strong current. A number of small rapids occur but none of these are of use for power development. The banks of the river are about 400 feet high and very rough. In some places the valley is over a mile wide. The only fresh water within the township is contained in the river and in a few springs along its banks. There are no coal seams nor stone-quarries in the township. The only fuel available is coal which may be obtained in the winter about 25 miles down the river. Low-grade hematite in small quantities is found along the river. A few antelopes and coyotes, also a large number of rattlesnakes, were seen in the township.—*G. C. Cowper, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 3.—*Continued.*

This township is reached by following the surveyed trail from Medicine Hat to the forks of the Red Deer and South Saskatchewan rivers as far as Dog Springs in township 19, range 4 and turning east from there. The trail is very good. The South Saskatchewan river traverses this township northeasterly from section 6 to section 13. The river averages about 10 chains in width and has a very swift current. No rapids nor water-powers occur on the river in this township. The banks are about 300 feet high and very rough. The portion of the township north of the river is composed of drifting sand-hills, covered with poplar, willow and rose-bush scrub. Some of the poplar is as large as 8 inches in diameter but it is scattered and the supply limited. On the south side of the river the country is rolling prairie and the soil is sandy loam with a clay subsoil. This part of the township should be of value for mixed farming. No hay occurs. There are a couple of sloughs but these are alkaline. The only fresh water is contained in the river and a few springs along its banks. The only fuel available is the poplar and willow and rose-bush scrub. There are no coal veins, stone-quarries nor minerals of economic value in the township. A few antelopes and coyotes, also a large number of rattlesnakes, were seen.—*G. C. Cowper, D.L.S., 1912.*

(*Ranges 3 to 10.*)—The best route to these townships is to follow **63 & 64.** the Cold Lake trail from St. Paul de Metis as far as the west side of Chicken hill, and from that place there is a faint trail leading north, known as the Mosquito Lake trail; it crosses Beaver river in section 5, township 63, range 8, and continues straight north about 6 miles where it crosses the survey contractor's trail along the north boundary of township 63. The latter trail goes east to Cold lake and west to the Lac LaBiche trail. These townships are heavily timbered, except township 63, ranges 5 and 6; on these there are many fairly open sections. The soil is generally a clay loam, and in a few places there are large hay marshes. There is no doubt that ranching would be the most profitable occupation for a new settler. The St. Paul settlement does not extend farther north than Beaver river. There are prospects that a railway will soon cross this district, as the Canadian Northern Railway company has already started a road north from Edmonton; last November they had 69 miles graded.—*G. J. Lonergan, D.L.S., 1912.*

## RANGE 4.

This township is reached by following the main trail north on the east side of the South Saskatchewan river as far as Ashford's ranch and turning west from there. The soil is largely a sandy loam with a clay subsoil. This produces an excellent crop of grass, but is too light for farming purposes. The surface is rolling prairie with no timber, and is badly cut by the South Saskatchewan river, which traverses the township, dividing it equally. Upland hay of good quality is found in the hollows, but there are no hay sloughs. The only water in the township is the South Saskatchewan river. The river here averages 10 chains in width, and the current is very swift. A number of rapids occur, but none of them are valuable for power purposes. The banks of the river are from 200 to 400 feet high and very rough. In some places the valley is over a mile wide. The climate is dry. A light frost occurred on July 13th. No fuel, stone-quarries nor economic minerals are found in the township, but coal may be obtained at a mine about 10 miles down the river which is worked in the winter. Several small veins of lignite were discovered along the river, but they were too small to be of value. A few antelopes and coyotes, also a large number of rattlesnakes, were seen in the township.—*G. C. Cowper, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 4.—*Continued.*

**19.** The surveyed trail from Medicine Hat to the forks of the Red Deer and South Saskatchewan rivers passes through this township. With the exception of about 6 miles which is very sandy, this trail is very good and is much travelled. The soil is very sandy. A large part of it is pure sand, and the remainder is a light sandy loam. This produces good grazing land but is too sandy for farming purposes. The surface is rolling prairie with a little rose and willow scrub on the sections bordering the east outline. There is no timber in the township. Hay of a good quality, but in limited quantity, may be found in the hollows, but the sloughs being strongly alkaline do not produce hay. There are 3 fair-sized lakes in this township, namely in sections 6 and 7, in sections 18 and 19, and in section 29; there is also part of a lake in sections 33 and 34. The water of these lakes is strongly alkaline. The only fresh water within the township is contained in a spring in the northeast quarter of section 34. The land is not liable to be flooded. There are no water-powers. The climate is dry, and no summer frosts were experienced. The only fuel available is poplar and rose and willow scrub in township 19, range 3, but the supply of this is limited. No coal seams nor minerals of economic value are located in the township. There are no stone-quarries, but a large number of boulders and loose stones are on the surface. No game was seen in this township.—*G. C. Cowper, D.L.S., 1912.*

## RANGE 5.

**92.** (*North outlines; ranges 5 and 6.*)—Through ranges 5 and 6 the twenty-fourth base line lies in an undulating and rolling country of sandy ridges and hills with muskeg between them. A fire overran most of this country early in the summer of 1912 and killed most of the timber on the dry ground and burned through some of the muskegs. A patch of 12-inch poplar in section 33, township 92, range 5, and many 16-inch spruce scattered along ridges in sections 1, 2 and 3, township 93, range 5, were fire-killed. The creeks in these townships are small, having a good fall and draining in general to the southeast.—*J. B. McFarlane, D.L.S., 1912.*

## RANGE 6.

**1.** This township is reached from township 2 by a road which leads west into range 8 where the Milk river is crossed at Spencer's crossing. There is no bridge and the ford is sometimes rendered dangerous by the shifting quick-sands. The river banks here are not nearly as steep and rugged as in townships 1 and 2, range 6. Camp was located on Kennedy creek in the north half of section 9, and a supply of fair drinking water, although somewhat alkaline, was obtained from shallow wells near the creek. The main part of Kennedy creek flows south through sections 9 and 3 and the southwest quarter of section 2, while farther north in the township it divides into numerous small branches. In the summer these branches are usually dry, although some water flows in the main creek, which appears to be fed by hidden springs. The Milk River valley, with the accompanying bad lands, cuts off and renders practically valueless the northeastern part of the township. The bad lands in the eastern part of the township extend almost to the international boundary and consist of numberless clay buttes from 100 to 400 feet in height with steep hard sides. Absolutely no vegetation grows on them. A few cottonwood and poplar are found along the banks of Milk river and are used only for fence posts. Many seams of lignite are to be seen along the banks of the river, and are more fully described in the report on township 2, range 6. The soil is of a heavy and hard nature containing much alkali. The surface is more rolling than that of the town-

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 6.—*Continued.*

ship immediately to the north and does not appear to be nearly so well adapted to agricultural purposes. At present this township is held under lease as range land and should unquestionably be used only for that purpose. No buildings are to be found and there are very few sloughs. No water-powers, stone-quarries nor minerals of economic value, except coal, were found.—*C. M. Walker, D.L.S., 1912.*

2. This township was reached by road from Medicine Hat. The greater portion of it is gently rolling prairie and is quite suitable, as regards surface conditions and soil, for mixed farming. The land adjoining the Milk river is unsuitable; it consists of sections 7 and 6, the southwest quarter of section 17, sections 8, 5 and 4, the west half of section 9, part of the west half of section 3 and parts of the south half of sections 1 and 2. Sections 35 and 36 and the west half of sections 34, 26 and 25 are so badly cut up by deep coulées that they are of little value as farm land. Practically all of the available land suitable for farming has been located upon, either as homesteads or preemptions. Large areas of land are under cultivation, the principal grains being wheat, oats and flax, the latter appearing to be best adapted to local conditions. Corn cannot be grown even as green feed, but a considerable variety of small vegetables, particularly potatoes, are raised successfully. Owing to lack of transportation facilities these vegetables are grown solely for home use, but with the advent of a railroad, now proposed, market gardening should prove to be a lucrative business. Mixed farming is practised on a small scale, the stock being of an average quality. Horses, cattle and hogs are raised. Since all the range land in the vicinity is held under lease, the amount of stock the individual farmer can raise is limited by the grazing capacity of his homestead and preemption. Many hay sloughs are to be found throughout the township; these provide considerable hay and slough grass for winter feed. The soil varies considerably, but, in the main, seems to be a good variety of clay loam and is easily worked. The Milk river flows through the southwestern portion of the township about 400 or 500 feet below the level of the prairie, the descent being interrupted by many clay buttes on which there is no growth of any kind. These buttes with the accompanying coulées are classified as bad lands. Running horizontally along the face of these bad lands, seams of lignite are to be seen. These may be traced for miles, indicating an immense supply of coal in the district. The seams vary in thickness from 2 to 10 feet, and after the exposed portion of the seam has been removed, a good quality of coal may be obtained. This has been of great value to the settlers as no wood for fuel can be obtained. The weather during the latter part of May and the early part of June was unsettled, much rain falling. This was very welcome as the latter part of the summer is generally extremely hot and dry. No serious frosts occurred up to the time of our leaving the neighbourhood. The majority of the settlers are of Swedish-American extraction and for the most part have had similar experience in the United States. The buildings are slightly better than those usually seen on western homesteads. A number of wells have been sunk to a depth of from 50 to 60 feet and an abundant supply of excellent water has been obtained. Other settlers obtain water from sloughs, allowing the water to seep into a shallow well dug near the slough. The only wood in the township is found along the banks of Milk river and consists of small clumps of cottonwood, poplar and scrub willow. It is used for fence posts. A post-office has been established in the northwest quarter of section 10 and a school in the southeast of section 15. No water-powers, stone-quarries nor minerals of economic value, other than those referred to, are to be found in the township.—*C. M. Walker, D.L.S., 1912.*

72. (*North outline*).—The height of land between Athabaska river and Hudson bay drainage basins descends on its westerly slope in a series of ridges, broken by muskegs, and then drops in a well-defined escarpment, having a north and



## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 6.—*Continued.*

south course to a fairly level country covered principally by muskegs and burnt jack-pine ridges. The base line left the rolling country of the height of land near the northeast corner of section 35, range 6.—*G. H. Blanchet, D.L.S., 1912.*

- 92.** (*North outline*).—(See report for township 92, range 5, west of the fourth meridian).—*J. B. McFarlane, D.L.S., 1912.*

## RANGE 7.

**72.** (*North outline*).—In the eastern half of this range the line crossed a ridge of jackpine and poplar extending from the northerly side of Ipiatic lake and running in a southeasterly direction. This lake, lying in the westerly part of this range, is approached through a very wet tamarack muskeg. It is about two and a half miles across at its greatest width. The ridge forming the north shore of the lake swings off in a southwesterly direction along the course of the Ipiatic river. The winter dog-trail to McMurray crosses the lake, running in a northeasterly direction. This route would not be feasible for a summer road, but could easily be opened up into a sleigh road. The country north and northwest of Ipiatic lake, extending almost to the twentieth base line, is covered principally with muskegs, from which the drainage to the north flows into Christina river, and to the south principally into LaBiche river, and ultimately by both these channels flows into the Athabaska river. The piece of country has probably small agricultural value, but by conserving the water supply for the country north and south of it, it serves a useful purpose.—*G. H. Blanchet, D.L.S., 1912.*

## RANGE 8.

**88.** The soil is generally poor, the land being mostly muskeg which could, however, be drained. There is some good land in the northern sections of the township, especially in the flats and in the valley of Clearwater river. This valley is about 250 feet deep, and is heavily wooded. The water supply is fresh and permanent. No water-power can be developed. The climate is good, no summer frosts being noticed. Wood can be procured anywhere for fuel. There are no stone-quarries. Signs of petroleum were noticed. Moose and bears are to be found and some fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

**89.** There is no trail in this township, and it can only be reached by the Clearwater river. The whole township is mostly muskeg with a good clay bottom. If these muskegs were properly drained it would be first-class soil. The side-hills of the Clearwater river are covered with poplar from 6 to 18 inches in diameter, but the spruce in the muskegs is small and scrubby. There is timber of commercial value on the flats along the McMurray river. There is no hay. All the water is fresh and the supply is permanent. No land is liable to be flooded, and no water-power could be developed. The climate is good, and cereals could be grown. No summer frosts were experienced. Wood forms the only fuel supply. Tar sand was seen in great quantity. There are indications of petroleum. Moose and bears are found in limited number, also fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

## RANGE 9.

**72.** (*North outlines; ranges 9 to 11*).—In range 9, several small muskeg streams unite in the vicinity of the base line to form Clyde river, which, after making a detour to the north in ranges 10 and 11, crosses the base on the westerly side of range 11 where it is about 40 feet wide, 5 feet deep and flows through a willow

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 9.—*Continued.*

bottom in a wide valley about 100 feet deep in which there are good hay lands. It continues in a southerly direction, finally emptying into Lac LaBiche.—*G. H. Blanchet, D.L.S., 1912.*

**88.** This township was reached by the Athabaska river, thence by a good pack-trail from McMurray. The soil is fairly good, but half of the township is low land, mostly spruce and willow swamp. The surface is level but badly broken by the Horse creek and Hangingstone creek valleys, and other smaller gullies. Some spruce of commercial value was noticed in the valleys of Horse and Hangingstone creeks, but the timber on the level is mostly small and scrubby. There is no hay. All the water is fresh and the supply is permanent. There is no land liable to be flooded. There are no water-powers. The climate is good with no summer frosts. Wood forms the only supply of fuel. No stone-quarries were noticed. Tar sand in great quantity was found. Moose and bears are found in a limited number, also fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

**89.** This township is situated at the junction of the Athabaska and Clearwater rivers and can be reached by either stream. The soil is good on the flats along the rivers, but the whole township is traversed by numerous creeks with deep and wide coulées. The level lands are a quarter to half a mile away from the coulées and are mostly muskeg; if properly drained they would be suitable for farming. The spruce in the muskegs is small and scrubby, partly burned. The side-hills and the flats along the rivers are covered with poplar and spruce from 6 to 18 inches in diameter. Spruce of commercial value could be cut in the coulées of Horse creek and Hangingstone creek, also in the valley of Clearwater river, but it is not to be found in very large quantity; some trees would measure up to 30 inches in diameter. No hay meadows were seen. The water is all fresh and is sufficient and permanent. This township is traversed by the Athabaska river, the Clearwater river, Horse creek and Hangingstone creek, also numerous smaller streams which average from a foot to 15 inches in width. Water-power could be developed on the Athabaska river, also on Horse and Hangingstone creeks. Wood for fuel can be procured anywhere in the township. No coal nor lignite was found. There is a ledge of limestone about 10 feet thick along the Athabaska river a few feet above the water-level. This stone makes first-class lime and should be of great value in cement manufacturing. All the cut banks along the rivers and creeks are of solid tar sand which shows that the township is underlaid by this tar sand, the quantity of which must be enormous. Salt in great quantity has been found 200 feet below the level of the Athabaska river. Signs of petroleum are to be seen everywhere and extensive prospecting is being carried on at the mouth of Horse creek. Moose and bears are found in small numbers; partridges are plentiful; foxes, minks, martens, weasels and other fur-bearing animals are trapped by the Indians.—*A. J. Tremblay, D.L.S., 1912.*

**90.** There is no trail in this township, but it can be reached by the Athabaska river. Nearly the whole township is muskeg with a good clay bottom. If these muskegs were properly drained the soil would be first class. The side-hills of the Athabaska river are covered with poplar from 6 to 18 inches in diameter, but the spruce in the muskegs is small and scrubby. There is very little timber of commercial value. No hay was seen. All the water is fresh and the supply is permanent. No land is liable to be flooded. No water-power could be developed. The climate is good and cereals are being grown. There are no summer frosts. Wood forms the only source of fuel supply. Outcrops of limestone may be traced at the water-level

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 9.—*Continued.*

along the Athabaska river. Tar sand in great quantity was found. Indications of petroleum are seen everywhere. Moose and bears are found in a limited number, also fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

## RANGE 10.

The wagon trail from the Hudson Bay Company post at Lac LaBiche to  
**69.** Heart lake passes about three-quarters of a mile west of this township on the north boundary of section 24, township 69, range 11, and from there we cut out our own trails. The Heart Lake wagon trail runs through a hilly country, and has been usually very soft during the greater part of the spring and summer months for the last two years. The soil is composed of about 4 inches of black loam with a clay subsoil. The surface is generally heavily rolling. The western half of the township is covered mostly with poplar and brulée, while the eastern half has poplar and spruce from 4 to 30 inches in diameter. There is no hay. The water is fresh, but could not be considered permanent as the supply comes from lakes and small creeks. The land is not liable to be flooded. There is no water-power. The climate is much the same as in Alberta generally, and is subject to summer frosts. Wood forms the fuel supply and is available in any part of the township. There are no stone-quarries nor minerals. The game consists of moose, bears, deer, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

The route to this township is by the Heart Lake wagon trail from Lac  
**70.** LaBiche as far as the south end of Heart lake; from here our own trail leads through township 69, range 10. This route is hilly and for the greater part of the spring and summer is quite soft. The soil consists of 2 inches of black loam with a clay subsoil. The surface is rolling and covered with poplar, spruce, tamarack and willow bush, the timber measuring from 4 to 20 inches in diameter. Hay in very small quantities can be obtained along the marshy banks of what is called Heart river. The water is fresh, and the supply permanent. The land is not liable to be flooded. There is no water-power. The climate is similar to that of Alberta generally and is subject to summer frosts. Wood for fuel is obtainable in any part of the township. There are no stone-quarries nor minerals. The game consists of moose, deer, bears, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**72.** (*North outline*).—(See report for township 72, range 9, west of the fourth meridian).—*G. H. Blanchet, D.L.S., 1912.*

(*North outline*).—The route pursued to this district was by Fort Saskatchewan, Bruederheim, Star, Wostok, Pakan, Whitefish lake and the Beaver river to Lac LaBiche. Another route which might be taken thus far is by Athabaska Landing and thence east to Lac LaBiche, but the roads by this route during the spring season are said to be bad. From Lac LaBiche a pack-trail leading to McMurray was travelled as far as Sandy lake in township 74, range 11, thence by a hunters' trail to a cache situated near the centre of township 76, range 11, and thence by our own pack-trail to this township. This district may also be reached by the Athabaska river but none of these routes can be made use of during the entire year. In this range the surface is low and a considerable part of it has been overrun by fires so that much of the timber is fire-killed. The first appearance of grass was about the 1st of June in the valley of the May river near the east boundary. There are a few small meadows and blueberry patches. The timber is small and not of much value. For further information see the report on ranges 21 to 26.—*G. McMillan, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 10.—*Continued.*

**88.** This township was reached by the Athabaska river. The soil is good. The edge of a big muskeg is about a mile from the Athabaska river. The surface of this township is level but badly broken by the valleys of the river and Horse creek. Most of the timber is scrubby and fire-killed and of no commercial value. No hay was seen. All the water is fresh and the supply permanent. There is no land liable to be flooded. The climate is good, no summer frost being noticed. Tar sand in great quantity was found. Limestone was noticed. Moose and bears are found in a limited number, also fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

**89.** This township was reached by the Athabaska river. The soil is good. The edge of a big muskeg is about a mile or a mile and a half from the Athabaska river. The surface of this township is level but badly broken by the river valley and small creeks which flow into it. The valley of the Athabaska river and the creeks are heavily wooded with poplar and spruce of some commercial value; but most of the timber in the west of the township is scrubby. No hay was seen. All water is fresh and the supply is permanent. There is no land liable to be flooded. No water-power can be developed. The climate is good, no summer frosts being noticed. Wood forms the only fuel supply. No stone-quarries were noticed. Tar sand in great quantity was found. There were indications of petroleum. Moose and bears are found in a limited number, also fur-bearing animals.—*A. J. Tremblay, D.L.S., 1912.*

## RANGE 11.

**24.** This township is rolling prairie and very productive. No timber, minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**38.** The part of this township surveyed by me consisted of the partially dried up lake-bottom of Meadow lake. The rough meadow hay grew very abundantly, but in some parts was difficult to cut due to the unevenness of the ground and large cracks which opened up during dry times. No minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**69.** The wagon trail from Lac LaBiche to Heart lake passes through this township. The condition of the trail is hilly, and for the spring and summer months is generally soft. The soil is composed of about 3 inches of black loam with a clay subsoil. The surface is rolling and covered with poplar, spruce, tamarack, birch and willow bush. The diameter of the trees ranges from 4 to 20 inches. There is no hay. The water is fresh, but the supply might not be permanent as there are no creeks of any size in the township. The land is not liable to be flooded. There is no water-power. The climate is the same as that generally prevailing in Alberta and is subject to summer frosts. Wood for fuel is obtainable in any part of the township. There are no stone-quarries nor minerals. The game consists of moose, deer, bears, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**70.** The wagon trail from the Hudson Bay Company's post at Lac LaBiche leads into this township along the west side of Heart lake. It passes through hilly country and for the greater part of the spring and summer is in a very soft condition. The soil is composed of about 2 inches of black loam with a clay subsoil. The southwestern part of the township has a sandy soil. The surface is rolling and for the most part timbered with poplar, spruce, tamarack and willow bush. In sections 11 and 14 there are some large patches of open country with clumps

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 11.—*Continued.*

of small poplar and willow bush. The poplar, spruce and tamarack are from 4 to 18 inches in diameter. Hay in small quantities can be obtained in sections 11 and 14. The water is fresh and the supply permanent. The land is not liable to be flooded. There is no water-power. The climate is the same as that generally prevailing in Alberta and is subject to summer frosts. Wood forms the fuel supply, and is available in any part of the township. There are no stone-quarries nor minerals. The game consists of moose, bears, deer, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**72.** (*North outline*).—(See report for township 72, range 9, west of the fourth meridian).—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outlines; ranges 11 and 12.*)—The country in townships 75, 76 and 77, ranges 11 and 12, contains much muskeg, and the natural drainage is not good. The surface is timbered with small spruce, jackpine and tamarack, and the soil is almost valueless as a timber producer. Some good grass grows along the lakes and streams, but nowhere else. The surface of townships 78, ranges 11 and 12, is higher and timbered with small jackpine, poplar and spruce. The soil is light and sandy, and is not fit for agricultural purposes. For further information see the report on ranges 21 to 26. —*G. McMillan, D.L.S., 1912.*

## RANGE 12.

**24.** This township is good agricultural land and consists of rolling prairie. No minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**69.** To reach this township we followed the wagon trail from Lac LaBiche to within a few chains of the northeast corner of section 10, township 69, range 11, and then made our own trail into this township. This route is hilly, and for the greater part of spring and summer is in a bad condition. The soil is composed of about 2 inches of black loam with a clay subsoil. The surface is rolling and covered with spruce, tamarack, jackpine, poplar and willow. The timber measures from 2 to 18 inches in diameter. The hay supply is small but can be obtained around some of the sloughs. The water is fresh and the supply permanent. The Heart river, flowing through sections 35, 26, 22, 21, 28, 33, 32 and 31, has an average width of 1 chain, a depth of three and a half feet and a current of two and a half miles per hour. Gull river, which flows into Heart river in section 22, is about 25 feet wide, and 3 feet deep, with a current of 2 miles per hour. The land is not liable to be flooded. There is no water-power. The climate is similar to that prevailing in Alberta generally and is subject to summer frosts. Wood as fuel is obtainable in any part of the township. There are no stone-quarries nor minerals. Game consists of moose, deer, bears, foxes, muskrats, rabbits, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**70.** The route followed to reach this township was the Heart Lake wagon trail from Lac LaBiche for 2 miles into township 70, range 11, and then our own trail across range 11 into this township. The trail is hilly, and for the greater part of the spring and summer is in a soft condition. The soil is composed of about 2 inches of black loam with a clay subsoil. The surface is rolling and covered with spruce, tamarack, jackpine and poplar from 4 to 20 inches in diameter. Hay in small quantities may be obtained along the banks of the Owl river. The water is fresh and the supply permanent. The land is not liable to be flooded. There is

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 12.—*Continued.*

no water-power. The climate is the same as that generally prevailing in Alberta and is subject to summer frosts. Wood forms the fuel supply and is available in any part of the township. There are no stone-quarries nor minerals. Game consists of moose, deer, bears, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**72.** (*North outline*).—About the centre of this range, a large stream which rises in the high land to the northwest crosses the base line and joins Clyde river about 7 miles south of the line. A good pack-trail, running from Lac LaBiche settlement to McMurray, follows along this river, striking off in a northeasterly direction about 5 miles north of the line.—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outline*).—(See report for township 76, range 11, west of the fourth meridian).—*G. McMillan, D.L.S., 1912.*

## RANGE 13.

To reach this township we followed the wagon trail from the Hudson Bay Company's post at Lac LaBiche to Heart Lake for 2 miles into township 70, range 11, and then cut our own trail across ranges 11 and 12 into range 13. This trail from Lac LaBiche to Heart lake passes through a hilly country, and for the greater part of the spring and summer months it is in bad condition. The soil in this township is sand. The surface is rolling and covered with poplar, spruce, tamarack, jackpine, poplar and willow bush. There is no hay. The water is fresh and the supply permanent. The land is not liable to be flooded. There is no water-power. The climate is similar to that prevailing in Alberta and is subject to summer frosts. Wood forms the fuel supply and is available in any part of the township. There are no stone-quarries nor minerals. The game consists of moose, deer, bears, foxes, rabbits, muskrats, grouse and ducks.—*T. A. Davies, D.L.S., 1912.*

**72.** (*North outlines; ranges 13 to 18*).—In range 13 and most of 14 in the vicinity of the base line the country is principally muskeg, broken by brulé, jackpine and poplar ridges. To the north a rising sandy upland covered with small second-growth jackpine extends for about 10 miles where the country rises more sharply into a poplar covered highland. This extends west to Athabaska river. It reaches a maximum elevation in range 16; from where it becomes lower and broader as it approaches the river. Two large streams in range 14 flowing from the north unite in the vicinity of the base line to form Wandering river. It follows along the base line to the middle of range 16 where it swings off to the north, returning and recrossing in range 17. From there it strikes off in a southerly direction to LaBiche river. This river with its tributaries rising in the hills to the north and in the rolling poplar ridges to the south affords drainage to the country between Clyde and Athabaska rivers. The survey lines of the proposed Alberta and Great Waterways railway cross the base line in the western part of range 15 running in a northerly direction. Between Wandering river and the Athabaska river the country is principally muskeg extending as far as the hills to the north and south nearly to LaBiche river. Athabaska river crosses near the centre of range 18, having a general north and south course. The valley is about one mile in width and varies from 400 to 600 feet in depth. The river at that place flows at the rate of about three and a half miles per hour, and is navigable for boats of small draught for a considerable distance up and down stream as far as Grand Rapids.—*G. H. Blanchet, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 13.—*Continued.*

**76.** (*North outline.*)—The land in this range is rolling and timbered with spruce, jackpine, poplar, willow and alder, and contains much windfall. The low land is too wet and the high land too light and sandy for agricultural purposes. It is useful, however, for the production of timber. For further information see the report on ranges 21 to 26.—*G. McMillan, D.L.S., 1912.*

## RANGE 14.

**2.** This township is chiefly rolling prairie and contains some good agricultural land. Part of it is broken by a deep coulée, fit only for grazing. No minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**3.** This township is chiefly rolling prairie and contains some good agricultural land. The southwestern corner is broken by a very deep coulée, the sides of which make good grazing land. The bottom is not very productive but grows some grass. No minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**26 & 27.** (*Ranges 14 to 16.*)—These townships bordering on the correction line have good agricultural land and consist of rolling prairie. No minerals, water-powers nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**43.** This township is very productive and of a rolling nature. There are numerous poplar bluffs and many small sloughs. No minerals, water-power nor game were noted.—*F. V. Seibert, D.L.S., 1912.*

**72.** (*North outline.*)—(See report for township 72, range 13, west of the fourth meridian.)—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outlines; ranges 14 to 17.*)—There is a large percentage of good agricultural land in these ranges, also some good timber, of which some is suitable for milling purposes and pulp-wood. There is an abundance of bluejoint hay. The House river crosses the line in range 14, and it is the largest stream encountered during the summer, except the Athabaska river. The House river is about 1 chain wide, very swift in places, and varies in depth from 6 inches to 2 feet. The banks are low and the soil adjacent is loamy and rich, and supports a heavy growth of grass. This locality is suitable for farming and stock-raising, and plenty of hay can be procured, but, at present, fallen timber will not permit of the operation of farm machinery. It is, however, a good grazing ground, with a permanent supply of good water. The location survey of the Alberta and Great Waterways railway is intersected in section 32, range 15, also the sleigh road used by the company in forwarding their supplies. This road follows the muskegs and open swamps, and is adapted to winter use only. Small water-powers could be developed on the House river by the erection of dams. For information as to the climate, game, etc. see the report on ranges 21 and 26.—*G. McMillan, D.L.S., 1912.*

## RANGE 15.

**2.** This township is chiefly rolling prairie and contains some good agricultural land. Part of it is broken by a deep coulée fit only for grazing. There are no water-powers. No game was noted. No minerals were seen, but

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 15.—*Continued.*

it is possible that the coal seams in the mine in township 3, range 15, extend into this township.—*F. V. Seibert, D.L.S., 1912.*

This township is chiefly rolling prairie and contains some good agricultural  
**3.** land. Part of it is broken by a very deep coulée fit only for grazing. No water-powers nor game were noted. Coal is being mined on the southeast quarter of section 6 and used by the settlers.—*F. V. Seibert, D.L.S., 1912.*

**26 & 27.** (*Ranges 15 and 16.*)—(See report for townships 26 and 27, range 14, west of the fourth meridian.)—*F. V. Seibert, D.L.S., 1912.*

**72.** (*North outlines; ranges 15 and 16.*)—(See report for township 72, range 13, west of the fourth meridian.)—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outlines; ranges 15 and 16.*)—(See report for township 76, range 14, west of the fourth meridian.)—*G. McMillan, D.L.S., 1912.*

## RANGE 17.

This township is reached from either New Dayton or Warner, two stations on the Coutts branch of the Canadian Pacific railway, formerly the Alberta Railway and Irrigation Company's line. Good roads are found in any direction. The soil is loam or sandy loam and rather too light for farming, as the present settlers are finding out. There is no timber or brush of any kind in this township, and the only slough provides a useless variety of hay. Tyrrell lake, lying in sections 17, 18 and 19, affords the main supply of drinking water for the settlers, but the quality is poor. Very few settlers have sunk wells; and according to those who have, the water is usually alkaline. The climate is very dry and windy; and the rainfall usually comes when it is least needed. Summer frosts are common. No fuel, stone-quarries, minerals of any sort nor game were found in this township. The settlers, mostly Mormons, have up to date made little progress, as crops have never been a success and they have not sufficient capital to start stock-raising. It is to be regretted that a great deal of this district was not reserved for ranching purposes.—*P. B. Street, D.L.S., 1912.*

**72.** (*North outline.*)—(See report for township 72, range 13, west of the fourth meridian.)—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outline.*)—(See report for township 76, range 14, west of the fourth meridian.)—*G. McMillan, D.L.S., 1912.*

## RANGE 18.

(*Partial.*)—The Canadian Pacific railway runs through this township, and  
**5.** there are excellent wagon roads leading to the adjoining towns. A great deal of the land is taken up, and some of it is under cultivation, but the dry atmosphere which prevails in these parts renders farming operations very unsatisfactory. It would have been much better if this township had been reserved for ranching purposes. There is good pasture on most of the unbroken land, and hay can be cut in many places. The surface is rolling, and 2 small lakes afford water for



## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 18.—*Continued.*

stock. The water is alkaline, even from the deep wells. Summer frosts are quite common, and the incessant winds which prevail in this district hamper the settlers considerably. For fuel the settlers must depend upon the coal supply at the nearest town. There is no fuel in this township. No trees or brush, running streams nor water-powers exist. There are no minerals nor stone-quarries. No game was seen.—*P. B. Street, D.L.S., 1912.*

- 72.** (*North outline.*)—(See report for township 72, range 13, west of the fourth meridian).—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North Outline.*)—The Athabaska river is crossed in section 31, range 18; it is 27 chains wide and about 12 feet deep at low water with a valley 104 chains wide and 370 feet deep. Both slopes are densely timbered with second-growth poplar, large black poplar and some good-sized spruce. This river is navigable for flat-bottomed steamers as far as the Pelican rapids in township 80 or thereabouts. Scows laden with merchandise for the far north and others with settlers' effects were floating down almost every day while we were camped along the river. The soil is a clay loam and from it oozes numerous springs and small streams; these springs seem to be alkaline and they were the only impure water met with all season. For information as to climate, game, &c. see the report on ranges 21 to 26.—*G. McMillan, D.L.S., 1912.*

## RANGE 19.

(*Partial.*)—This township can be reached from Milk River, and also from **2.** Raymond, by good wagon roads. As this township is situated on the Milk River ridge, the altitude makes farming very uncertain; and the rough rolling surface of this township suggests stock-raising rather than farming. There is no timber or brush of any kind, and no coal deposits have yet been found. The settlers, if any come, will have to depend upon the fuel supply at the nearest town. The climate is much the same as the rest of southern Alberta, only the higher altitude of this township tends to more summer frosts. No game was seen.—*P. B. Street, D.L.S., 1912.*

**72.** (*North outlines; ranges 19 to 21.*)—West of the Athabaska river the country is high and slightly rolling, rising to the north towards the Pelican mountains while to the south it becomes lower and forms an immense muskeg extending to Calling river. Streams from the north are numerous. Those crossing in range 19 lose themselves in the muskeg but those farther west unite in 3 principal streams and empty into Calling lake. Some good hay sloughs and agricultural lands of excellent quality are found along these streams. Some areas of good spruce were found along the course of the Athabaska river.—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outlines; ranges 19 and 20.*)—For a mile west of the Athabaska river there is a rim of firm soil and from here to Pelican mountain, a distance of 12 miles, there is an uninterrupted muskeg. It was a very wet and troublesome muskeg to cross as almost the entire length of it had to be corduroyed or brushed so that it might bear the pack-horses. For further information see the report on townships 76, ranges 21 to 26.—*G. McMillan, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

## RANGE 21.

(*North outlines; ranges 21 to 26.*)—The line through these ranges follows the Pelican mountains. The surface is rolling and densely timbered with spruce, jackpine, poplar, balsam and birch of a fair size. There is some milling timber and also a great deal of smaller size suitable for pulp. The soil is cold, sticky and not suitable for agricultural purposes. There are numerous small streams all flowing to the north and converging before leaving the Pelican mountains. In range 26 these streams have valleys of about 100 feet in depth but they flatten out about 3 miles north after leaving the mountains. Both townships 75 and 76 throughout these ranges are better suited to the raising of timber than to farming, although much of the soil is too light and wet to grow anything but scrub. To the north of the Pelican mountains in ranges 24, 25 and 26 there is a flat of good land suitable for farming when cleared. At present it is timbered with spruce, jackpine and poplar of medium size. This area is well watered, has a good natural drainage and is adjacent to 2 lakes containing whitefish. The sleigh trail from the Athabaska river to Wabiskaw lakes passes through township 78, range 24. There are no water-powers of any value. Indications are that the climate will be suited to the raising of crops, although at present some light summer frosts occur. The rainfall is much like that of eastern Ontario. Wood fuel is readily available everywhere. No coal, lignite, stone-quarries nor other minerals were seen. Oil development is in progress in some places along the Athabaska river. The game consists of moose, deer, black bears, foxes, coyotes, lynx and rabbits, also partridges, ducks and geese; whitefish are caught in all the larger lakes.—*G. McMillan, D.L.S., 1912.*

## RANGE 22.

(*North outlines; ranges 22 to 24.*)—Calling lake, which has an area of 75 to 80 square miles, was crossed by the line near the northerly end, most of range 22 and part of 23 being in the lake; its length from northwest to southeast is about 15 miles and its maximum width about 7 miles. The country to the north and northeast drains through it into Calling river, which leaves it in its southeast corner and flows in a southerly direction into the Athabaska river. Abundance of good whitefish are taken from this lake every winter and shipped to outside points via Athabaska Landing. A well pronounced ridge, for the most part heavily timbered with spruce, poplar and birch up to 30 inches in diameter, extends along the south-westerly side of Calling lake, becoming high and rough in the vicinity of the base line to ranges 23 and 24.—*G. H. Blanchet, D.L.S., 1912.*

**76.** (*North outlines; ranges 22 to 24.*)—(See report for township 76, range 21, west of the fourth meridian.)—*G. McMillan, D.L.S., 1912.*

## RANGE 25.

This township is situated along the line of the Edmonton—Athabaska Landing branch of the Canadian Northern railway. It is slightly undulating and covered with bluffs of poplar, spruce and willow, partly burnt. Marsh hay is plentiful along its numerous sloughs and marshes and around its lakes. The soil is good and productive. No minerals, water-powers nor game were noted.—*R. C. Purser, D.L.S., 1912.*

**76.** (*North outlines; ranges 25 and 26.*)—(See report for township 76, range 21, west of the fourth meridian.)—*G. McMillan, D.L.S., 1912.*

## TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

## RANGE 28.

**50.** The Saskatchewan river flows through this township and at this point is a swiftly flowing stream with steep banks. The township is slightly rolling and covered with bluffs of poplar, and a very little spruce and willow, some burnt. The part south of the river is reached by road from Leduc and the northern part of the township from Stonyplain. This latter route is rather circuitous in summer owing to some large muskegs immediately north of the township. There is much wild hay in the sloughs and small lakes. No minerals nor game were noted.—*R. C. Purser, D.L.S., 1912.*

## RANGE 30.

**11.** (*Partial*).—A wagon road from Claresholm, partly graded along the Dominion Government road allowances and on the Alberta Government surveyed roads and partly a mere trail winding through the Porcupine hills, leads to the district. The surface is a series of coulées and ridges, especially adapted to ranching, although the soil is of excellent quality and may be very well used for cultivating. The chief obstacle is the shortness of the season in which night frosts are not prevalent. About one-third of the surface is covered with poplar and willow bush. The spring creeks are very numerous, some flowing in a stream of pure fresh water throughout the year. A few isolated fir and spruce up to 20 inches in diameter are scattered throughout. Open prairie producing large quantities of excellent grain is prevalent. As the streams are just commencing their course, they are very small. The largest is not any more than 2 feet wide and 3 inches deep. No water-powers could be developed, except perhaps on a very small scale for the use of a single house or ranch house. The cold is often very severe in winter and the snow reaches a considerable depth in the coulées. There are no signs of coal, but plenty of wood can be obtained for fuel almost anywhere near at hand. The ridges show outcrops of sandstone in many places, mostly deteriorated at the surface; but there is no evidence of any minerals. No game was seen except a few rabbits and prairie-chickens.—*L. F. Heuperman, D.L.S., 1912.*



