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ABSTRACTS

FROM

REPORTS ON TOWNSHIPS WEST OF THE FOURTH MERIDIAN

RECEIVED FROM SURVEYORS

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BETWEEN JULY 1, 1913, AND JULY 1, 1914

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Minister of the Interior.

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ABSTRACTS

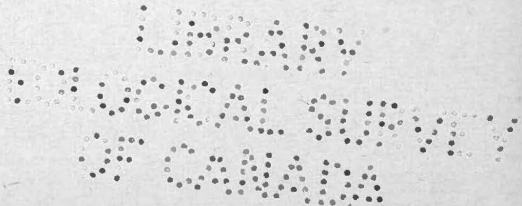
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NOTICE.

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 ON WHICH ARE CONTAINED IN THIS
PAMPHLET.**

WEST OF THE FOURTH MERIDIAN.

<i>Township.</i>	<i>Range.</i>
80, 96..	1
80, 96..	2
6, 80, 96..	3
6, 80, 96..	4
6, 80, 96..	5
80, 96	6
80, 92, 96..	7
80, 92, 96..	8
2, 80, 92, 96..	9
2, 18, 19, 21, 80, 92, 96..	10
80, 92, 96..	11
80, 96..	12
70, 71, 72, 73, 74, 75, 76, 77, 80..	18
70, 71, 72, 73, 75, 76, 77, 80..	19
74, 80..	20
72, 80..	23
71, 72, 80..	24
69, 70, 71, 72, 80..	25
69, 70, 71, 72, 73, 80..	26
69, 70..	27
3..	30

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.

(*North outline, ranges 1 to 26.*)—Large areas of muskeg exist in the country traversed by the 21st base line between the Fourth meridian and the Athabaska river, nearly all of which can be easily drained. The river valleys have in most cases good land. Beginning at the Fourth meridian and going west good land is found along Landels and Winefred rivers as well as around Cowpar lake where a few Indian families make their permanent home. The Christina river has a low valley where it crosses the line. This extends to the correction line on both sides of the line; in some places it is low and wet, but it could be easily drained. The land close to the river is of the best, but becomes lighter as it gets farther away. The strip of land between the Little Rocky mountains and the Christina river contains much good land. The Little Rocky mountains in ranges 6 and 7 make a distinct break in the country. They rise rather abruptly from the rolling country which borders the Christina river to a plateau composed chiefly of muskeg, sandy and rocky ridges. These hills are more pronounced to the north and run off into low hills to the south. The same formation appears in ranges 12 and 13 with the drop towards the west instead of the east as in ranges 6 and 7. Here they are also more pronounced to the north and barely noticeable to the south. Ranges 13, 14 and 15 contain large areas of muskeg with ridges running northerly which prevent the drainage to a large extent from taking its natural course westward. These ridges are very little higher than the muskegs which border them on the east, but they have a decided slope to the west and give the country the appearance of being composed of a series of plateaus with a general fall to the west. House river, in range 15, has a valley of from 300 to 350 feet deep and can be navigated with canoes the greater part of its length. Considerable large spruce is still preserved in the valley, but a much larger area has been destroyed by fire. The strip of land between the House and Athabaska rivers is mostly muskeg which could be very easily drained to the deep valleys on either side. The Athabaska river, which crosses the line in range 17, has a valley which is, from 2 to 3 miles wide and about 400 feet deep. Here, too, much large spruce has been destroyed by fire, but much still remains. A fire ranger with headquarters at Pelican Portage patrols the river, working in conjunction with the fire patrol boat which has its headquarters at Athabaska, so that, no doubt, much of the waste by fire will be prevented. Drilling has been done at Pelican Portage and gas has been found in each of the four wells drilled. The country from the banks of the Athabaska river to the east boundary of section 32, range 23, a distance of 34 miles, is mostly muskeg. To the south this muskeg extends to the Pelican river which follows roughly the correction line. To the north it extends beyond the correction line. Muskeg creek, in range 20, is too small to be used by canoes, and the only way to get over this country is when it is frozen. The timber is small. In some places in the muskeg the tamarack is large enough for railway ties, and some small islands of sandy land exist on which the jackpine is large enough for ties. Ninety per cent of this area, however, is covered with timber too small for use. West of the east boundary of section 32, range 23, the character of the country changes entirely. It is here rolling. The land is good. Very little muskeg exists and some good spruce and poplar is still preserved. There is not enough timber in any one place for a timber berth, but there is sufficient for the needs of the settlers. North Wabiskaw lake, in ranges 25 and 26, South Wabiskaw lake, about 4 miles to the southeast, and Sandy lake, in township 79, range 23, all contain whitefish. The settlement of Wabiskaw lies at the southeast corner of North Wabiskaw lake. No minerals were noted.—*F. V. Seibert, D.L.S., 1913.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.—Continued.

96. (*North outline.*)—This line runs mostly through sand hills, and the two townships to the north are much the same. This district was overrun by a fire in 1912, killing all the trees which were mostly jackpine. The Firebag river crosses the line in section 34, flowing northwesterly, and then recrosses in section 33. It then takes a sweep to the south and winds through a large muskeg. This stream is about 70 feet wide, 3 feet deep and flows at the rate of one mile per hour. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 2.

96. (*North outline.*)—Both townships 96 and 97 in this range are crossed in an east and west direction by ridges of sand hills. A wide stretch of muskeg with long stretches of tamarack swamp lies between these hills. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 3.

6. This township is conveniently reached from Dunmore by following a good road which runs in a southerly direction past Eagle Butte through the Lodge coulée. The average soil is about fourth class, being very stony and composed of about 6 inches of loam with a sandy subsoil. There is a small amount of first-class soil in sections 35 and 36, but these sections are badly broken by coulées. Ranching would appear to be the best pursuit in this township. There is some small poplar and willow scrub along Willow creek but it is not of much use. There is an abundance of good, fresh water, but no streams are available for water-power. The rainfall appears to be sufficient. Summer frosts are not unusual on the higher land in the northern portion of the township. Coal is easily obtained about one and a half miles north at Thelma, and wood may be had from the Cypress hills, which lie about 10 miles to the north. No stone-quarries exist nor have any minerals of economic value been found. A few antelopes were seen and a great number of ducks gather on Lodge creek.—*A. M. Narraway, D.L.S., 1913.*

96. (*North outline.*)—The country along this line is muskeg with sand hills to the north and also along the Firebag river to the south. This river flows across the township in a northwesterly direction, and is joined a few miles south of the base line by a large tributary from the south. For information as to game, climate and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 4.

6. This township is conveniently reached from Dunmore by a good road leading through Eagle Butte and along Lodge creek. The average soil is composed of about 6 inches of loam with a clay subsoil and ranges from second to fourth class; in places it is very stony. The surface is too rough for farming, but is well adapted to ranching. There is no timber or scrub. This township has many very good sloughs and creeks with excellent fresh water. There are no streams available for water-power. There seems to be a fair amount of rainfall and summer frosts are unusual. Coal may be obtained from Thelma, which is situated about

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 4.—*Continued.*

10 miles to the east, and fire-wood and building material can be procured from the Cypress Hills, which lie about 15 miles to the north. No stone-quarries nor minerals of economic value were found. A few antelopes were seen and a great number of ducks are to be found on the sloughs.—*A. M. Narraway, D.L.S., 1913.*

(*North outline, ranges 4, 5 and 6.*)—The Firebag river flows in a north-westerly direction and crosses the line in section 33, range 4. This stream is about 140 feet wide, 2 feet deep and flows at the rate of 1 mile and a half per hour. The land to the east of this river is muskeg, while that to the west is rolling and sandy with small muskegs sloping off to a large muskeg basin to the southwest. The muskeg includes the central and western parts of township 96, range 4, all of township 96, range 5, and the northeast half of township 96, range 6, and is drained to the north by creeks running into the Firebag river. For information as to climate, game, water-powers and minerals, see the report of township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 5.

The best route at present for reaching this township is by a road from Seven-
6. persons, a station on the Canadian Pacific railway, by way of Thompson. The road is in good condition and heavy loads can be handled with ease. The average soil throughout the township is almost first-class and is composed of about 6 inches of loam with a gumbo subsoil. It is largely suitable for farming purposes. The northeast sections are a little rough for farming and would be more suitable for ranching. The surface is generally gently rolling prairie with no timber or scrub. A small amount of hay is found along Manyberries creek. There is an abundance of good fresh water but no streams on which water-power could be developed. The climate is inclined to be dry and there are no summer frosts. Coal is readily obtained about 2 miles to the south at the coal mines, while wood may be procured from the Cypress hills, which lie about 20 miles to the northeast. No stone-quarries nor minerals of economic value were found. There are a few deer in the northern sections of the township. This township is now nearly all settled and the settlers are making very good progress with good crops.—*A. M. Narraway, D.L.S., 1913.*

RANGE 6.

96. (See the report on township 96, range 4, west of the Fourth meridian.)—*J. B. McFarlane, D.L.S., 1913.*

RANGE 7.

(*North outline, ranges 7 and 8.*)—This country is, as a rule, flat with a few sandy and gravelly ridges, none of which are of any great height. Those running north and south have a fall to the west and others scarcely rise out of the muskeg. In the summer of 1912 a fire completely overran the northeastern part of this country. As the summer was very dry that year the moss in the muskegs burnt well and all trees, except those in the very wet tamarack swamps, were killed. The timber throughout this stretch of country before the fires was small and stunted except on the scattered ridges, where there were patches of good spruce, jackpine and poplar timber. Immediately following the fires grass sprang up in the burnt muskeg and it is very likely that if the country were overrun with fires often enough to keep the

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 7.—*Continued.*

moss and trees from growing a good ranching country would be formed. In range 8, township 93 and almost all of township 92 are drained north away from Steepbank river, and the many creeks which rise in this district flow north or northwest to the Muskeg river. Throughout this district the timber, which is mostly spruce, is generally thick and small, but it is probably large enough for pulp-wood. Larger timber is found in narrow bands along some short slopes or along creeks which have ravines so that the banks have sufficient drainage and the timber therefore does not become stunted. Old patches of brulée testify that grass would grow luxuriantly on the burnt muskegs until smothered out again by the growing scrub. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

(*North outline.*)—The larger part of this country is dry. A range of rolling hills covers the eastern part of the township. These hills become higher and rougher north of the line and widen out into range 6 and to the west side of this range. A great portion of these hills has been overrun by fire about 3 years ago, and a large quantity of good spruce timber has been killed. The soil on the hills to the north is mostly sand, but in the vicinity of the line there is a fair coating of loam, and in many places, throughout the fire-killed timber, grass stood as high as 3 feet. The grass springs up very quickly in the burnt muskegs, and in my opinion a large proportion of this land could easily be turned into a good ranching country. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 8.

92. (See the report on township 92, range 7, west of the Fourth meridian.)—*J. B. McFarlane, D.L.S., 1913.*

(*North outline.*)—The main branch of the Muskeg river flows out of Muskeg lake, which is about 3 miles long and 1 mile wide and is located near the northeast corner of township 95, range 8. This lake is fed by a large creek which flows into it from the east. The Muskeg river is very pretty and flows in a northeasterly direction through a rolling country until it approaches the base line. It then flows northwest amidst the beginning of the large stretch of muskeg from which it derives its name. It crosses the base line in section 35 where it is about 20 feet wide and about 8 feet deep. North of the base line it is joined by another branch and then flows southwest, recrossing the base line in section 31, where it is about 33 feet wide and 8 feet deep. The depth is probably held by innumerable beaver dams. It has a very slight current and is almost dead water except when flooded by rains when it fills its low banks which are all muskeg and show nothing but vegetable formation. The water in the Muskeg river is always dark and is rather stagnant in winter as is also that of the lakes. All of the running creeks contain good water. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 9.

This township is conveniently reached by a good road running due east from Milk river. The soil in places is good, but the country itself is so rough that, with the exception of the river flat which in places is nearly 1 mile wide, farming is out of the question. The surface to the south of the river

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 9.—*Continued.*

is broken badly by numerous coulées with steep, barren banks. Sections 1, 2, 11 and 12 are nearly level, being broken by only one coulée, and would be suitable for farming. Ranching, provided the ranches have access to Milk river, would seem to be the best purpose to which this township could be put. The coulées themselves do not as a rule carry any more than oozing water. Along the river there are some poplar trees of fair dimensions, but not of much use other than shade for the cattle. Where the high-level prairie is found, the feed is good, although not in very extensive quantities. The water is all alkaline. There are no water-powers. Summer frosts occur occasionally, according to some of the settlers residing just north of this township. Coal is used for fuel and may be obtained near Lucky Strike. There are no stone-quarries or minerals of economic value. No game was seen. Rattlesnakes are plentiful.—*A. M. Narraway, D.L.S., 1913.*

(*North outline.*)—This township is broken by the deep valley of Steepbank river which flows in a northwesterly direction, almost touching the base line in the western portion of the range. The river valley is generally from a half to three-quarters of a mile in width and has high banks and steep slopes. It is much the same from its mouth to the forks of the north and east branches, only its depth and width gradually decreases and the timber becomes more broken with patches of small poplar and jackpine. The more level portions of the valley are generally well timbered. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

(*North outline, ranges 9 and 10.*)—A range of rolling hills stretches along 96. the line from section 35, range 9, to section 32, range 10. These are covered with thick jackpine, poplar, spruce and birch averaging about 10 inches in diameter. In 1912 the weather was very dry and most of these hills in range 9 were overrun by a fire which came from the northwest and burnt across the muskeg at the Muskeg river and then ran off to the southeast. These hills drop to a lower level about 3 miles north of the base line and a low stretch of land drains towards the north branch of the Muskeg river. For information as to climate, game, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 10.

2. This township is conveniently reached by an excellent road running due east from the town of Milk River. The soil would be classed as second or third and is on the whole composed of sandy loam with gumbo subsoil. The surface is rolling and hilly prairie. To the south of the Milk river the township is cut up by many coulées and is too rough for farming purposes. In sections 31, 32, 33 and 34 there are some good quarter-sections suitable for farming. This township would appear to be best suited to ranching. There is no timber and only a little scrub along Milk river and Halfbreed creek, both of which flow through this township. There is good grass on the prairie away from the river. Most of the water seems to be alkaline. No water-powers are available. There is a fair amount of rainfall, as the Sweet Grass hills, a short distance south, seem to attract many storms. Summer frosts are unusual. Coal may be obtained at Lucky Strike. There are no stone-quarries or minerals of economic value. A number of antelopes were seen. At present this township is used for ranching purposes only. Halfbreed creek which flows into the Milk river in sec-

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 10.—*Continued.*

tion 28 is most of the time just an oozing stream with small pools here and there along its course, but for a short time after a storm it is over 7 feet deep and has a very swift current.—*A. M. Narraway, D.L.S., 1913.*

(*Partial.*)—The work in these townships consisted of the subdivision of **18 & 19**, the dried-up bed of Tide lake. This locality is conveniently reached by an excellent wagon road which runs due north from Carlstadt, a station on the main line of the Canadian Pacific railway. The soil in the lake-bed is of a gumbo nature and there is no surface loam. This area is practically worthless and during a wet season could not be worked as it is much lower than the surrounding country and would receive a large amount of surface water. There is no timber or scrub. The surface is quite level. There is no hay to be found. The water, even in a wet season, is alkaline. No water-powers are available. Summer frosts are rare. Coal may be obtained in township 19. There are no stone-quarries nor minerals of economic value. A few antelopes are found in this vicinity. Surrounding the lake there is some good farming land, but there seems to be, however, a scarcity of rain except during a generally wet season.—*A. M. Narraway, D.L.S., 1913.*

21. At present the portion of the township south of Red Deer river is most conveniently reached from Carlstadt and Brooks. Both of these towns are on the main line of the Canadian Pacific railway, and there are excellent wagon roads in this part of the country. The northern part of the township is reached from Brooks by way of Steville. However, a ferry is now in operation in section 2 of the township to the west which shortens the connection to the surrounding towns. The Canadian Pacific Railway branch line from Bassano through Empress will pass through the middle of township 20, range 10, and this will give the settlers a ready outlet for their produce. The soil in this township is largely a sandy loam with a gumbo subsoil. Mixed farming would be suitable for a large part of the township. The river valley is about 2 miles wide and about 500 feet deep, with steep and barren cut banks. To the northwest of this river valley the country is gently rolling prairie. The country to the southeast is rolling prairie, while sections 24, 25, 26, 35 and 36 are composed of hilly prairie. There is only a small amount of timber and it is not of much use except as shelter for the cattle. This timber and some scrub is scattered along the river's edge and on two large islands; most of it is cottonwood with willow scrub. There is some good grass east of sections 27 and 34. The water south of the river is a little alkaline but to the north there has been some difficulty met with in obtaining any at all and most of it has to be hauled. The township seems to be free from summer frosts. During the last few years there has not been as much rain as the crops seem to need. Coal is used for fuel and is now obtained in township 19, range 10. There are no stone-quarries nor minerals of economic value. A number of antelopes were seen in this township.—*A. M. Narraway, D.L.S., 1913.*

(*North outline, ranges 10 and 11.*)—The Athabaska river, which crosses **92.** range 10 in section 35, averages about half a mile in width, and is always navigable for steamboats at this point. Its flow at high and low water varies a great deal. The channel is always well defined and scarcely ever is any land flooded. Patches of spruce timber up to 3 feet in diameter are scattered along the river, and a small but valuable limit with easy access could be had on the flats just north of the mouth of the Steepbank river. The river flats are generally about a mile wide with the river sometimes to one side of the valley and other times to the other. Many of these flats have large lagoons or lakes with marsh or swamp around

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 10.—*Continued.*

them and only a narrow neck of dry land separating them from the river. At LaSaline, about 3 miles north of the line, a very large hay meadow adjoins a small lake, and at several other places there are smaller meadows, but last summer (1912) was so wet that very little hay could be put up as most of the meadows in the north country were flooded. The banks of the river valley are about 200 feet high and in some places are steep while others have a gradual slope with some steep pitches. There are quite a number of projections of limestone along the valley and in the river bank in the vicinity of the base line. Above the hill on the west side of the river, there is an area of wet tamarack muskeg stretching a considerable distance to the south and 3 or 4 miles to the north. Its width at the line was 90 chains. There is a small jackpine ridge in the middle of this swamp. A trail was not made across this muskeg, but the line was finished, as far as instructions called for, from a flying camp in range 11. A small river, locally known as Beaver river, flows almost due north along the east boundary of range 11, having its source northwest of McMurray and emptying into the Athabaska river about a mile below the Muskeg river. The valley is about 30 feet deep and less than a quarter of a mile wide with a few chains of flats. Across the remainder of this range the line followed close to a creek and the timber was poplar and spruce averaging 10 inches in diameter. Back from the creeks which drain the land only for a short distance on either side, there is a large amount of muskeg covered with stunted spruce or, if wetter country, tamarack. An old Indian trail for pack-horses crosses the line just west of the Beaver river. It runs from McKay to McMurray, following the Beaver river nearly to its source and thence southeast to McMurray. For information as to game, climate, water-powers and minerals, see the report on township 96, range 11, west of the Fourth meridian.—*J. B. McFarlane, D.L.S., 1913.*

- 96.** (See the report on township 96, range 9, west of the Fourth meridian).—*J. B. McFarlane, D.L.S., 1913.*

RANGES 11 AND 12.

(*North outline.*)—The Athabaska river crosses this base line in section 36, range 11, running almost due north. Through the greater part of townships 95 and 96 jackpine and poplar hills are found along the east bank of the river. These gradually drop into muskeg about 1 mile south of the line. The river banks are about 100 feet high, steep and usually close to the channel. In these ranges the line ran through an undulating country covered with thick timber, consisting of jackpine, poplar, spruce and tamarack averaging about 8 inches in diameter. The country, back from the rivers, is intersected by muskegs, and the creeks, in some places, spread out into large willow flats. The Calumet river drains the township north of the line, and the Tar river flows immediately south of it. Both are short rivers rising in the Birch mountains which run in a northeasterly direction and cross the base line a few miles to the west. A strip of good spruce which is about 20 chains wide and contains timber averaging from 14 to 20 inches in diameter, extends along the narrow valley of the Tar river across these ranges. A sleigh trail was cut from the Athabaska river to section 35, range 12. This crosses several muskegs, but probably a good pack-trail could be made following the Tar river, which crosses the line in section 31, range 12. Scarcely any of this country would be suitable for agriculture on account of summer frosts as well as the difficulty of draining and clearing it. Rainfall was plentiful throughout the whole season and the snow was about 15 inches deep on the 15th of January. No land is flooded by the creeks but the muskegs are well filled by heavy rains. Salt and tar

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGES 11 AND 12.—*Continued.*

sand or asphalt claims are numerous and there has been considerable drilling for oil along the Athabaska river. Wood for fuel is everywhere plentiful. Both large and small game are plentiful. An industrious and capable trapper can make from \$1,000 to \$2,500 in the season. No valuable water-powers were found.—*J. B. McFarlane, D.L.S., 1913.*

RANGE 18.

(*Southwest portion.*)—We left Athabaska, proceeding by the Athabaska river to the mouth of the LaBiche river. From the latter place we moved along an old pack-trail as far as the southwest quarter of section 11 of this township. This district is also accessible by an old disused wagon road from Lac LaBiche. A great part of the surveyed portion of this township is muskeg where tamarack is found. The soil consists of sandy and clay loam. It is generally fairly level except where occasional creeks cross the country; these form valleys of considerable depth where they approach the LaBiche river. The timber generally is not very thick; some isolated poplar were cut down on the line that measured over 2 feet in diameter. There are no hay meadows of any extent. No water-power sites or suitable locations for dams occur. No traces of minerals of any economic value were noticed. The earliest frost occurred on the 23rd of September and was quite severe. There is an abundant supply of water in this township. The Athabaska river flows through the southwestern corner, while the LaBiche river, quite a rapid and deep stream, crosses this township in a southwesterly direction. The latter stream is navigable for canoes, except where one or two rapids occur, as far as the east outline.—*C. F. Miles, D.L.S., 1913.*

70. The route for reaching this township is the Athabaska river as far as the township to the south, and thence by a pack-trail along the south side of LaBiche river. The soil along the valley of the LaBiche river is black loam with a clay subsoil; the remainder of the township is mostly a moss swamp with a clay subsoil. The surface is covered with spruce, tamarack, poplar, willow and alder bush, and excepting along the valley of the river, is level. The poplar, willow and alder grow in and along the valley of the river and measure up to 12 inches in diameter; the remainder of the township is covered with spruce and tamarack up to 10 inches in diameter. Hay may be obtained from a marsh in sections 29, 30, 31 and 32, and also in very small quantities along a creek in sections 20 and 17. The water is fresh and the supply is permanent and sufficient. The LaBiche river, which averages about 80 feet in width, probably not more than 4 feet in depth, and has a valley approximately half a mile wide, flows across the south and east parts of the township. The Athabaska river flows through section 6. It is from 12 to 15 chains wide, about 15 feet deep, and has a current of about 3 miles per hour. The valley is from three-quarters of a mile to one mile wide. There are no falls or rapids of any account, the rapids of the LaBiche river being short with a small volume of water. The climate generally is similar to that of northern Alberta with winter temperatures slightly lower. Summer frosts occur. Wood is most readily available as fuel and may be obtained in any part of the township. There are no coal or lignite veins. No stone-quarries nor minerals were found. The game consists of moose, deer, caribou, black bears, wolves, coyotes, minks, muskrats, ducks and partridges.—*T. A. Davies, D.L.S., 1913.*

71. The route followed to this township was down the Athabaska river as far as section 3, township 71, range 19. From here we followed along a telegraph line, which is being built from Athabaska to McMurray, for 2 miles and then along our pack-trail into this township. Almost all of this township is a spruce and

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 18.—*Continued.*

tamarack moss swamp having a clay subsoil. The east third has mostly a clay soil. The surface is level and is timbered with spruce, tamarack, poplar and jackpine from 4 to 20 inches in diameter. No hay was seen. The water used was obtained from the swamps which are the only supply, except a small lake in sections 5, 6, 7 and 8. No land is liable to be flooded and there are no water-powers. The climate generally is similar to that of northern Alberta, with the winter temperature possibly slightly lower. Summer frosts occur. Wood is the only fuel available, and can be procured in any part of the township. No stone-quarries nor minerals were found. The game consists of moose, caribou, deer, bears, wolves, coyotes, muskrats and partridges.—*T. A. Davies, D.L.S., 1913.*

72. This township was reached by floating down the Athabaska river in scows from the town of Athabaska. The soil along and in the valley of the river is black loam with a clay and sand subsoil; the remainder of the township is mostly a moss swamp with a few ridges of clay and sand. The surface is mostly level, excepting the northwest quarter of the township, and is covered with spruce, tamarack, poplar and a small quantity of birch up to 10 inches in diameter; the timber in the river valley measures from 4 to 20 inches. There is a small quantity of hay to be obtained along the creek in section 27. The water is fresh and the supply is permanent and sufficient. The Athabaska river, which is from 10 to 12 chains in width, more than 15 feet deep in the main channel and has a current of about 3 miles per hour, flows in a valley about 1 mile wide through the northwest quarter of the township. The land is not liable to be flooded. There are no falls or rapids. The climate is similar to that of northern Alberta with winter temperatures somewhat lower. Summer frosts occur. Wood is the only fuel and may be obtained in any part of the township. There are no coal or lignite veins. No stone-quarries nor minerals were found. The game consists of moose, deer, caribou, wolves, lynxes, muskrats, black bears, coyotes, rabbits, ducks and partridges.—*T. A. Davies, D.L.S., 1913.*

73. This township is reached by the Athabaska river from the town of Athabaska by boat in summer and by sleigh in winter. The soil is generally good. When the country is drained and cleared this township will be suitable for mixed farming. The surface is timbered, and partly broken by the valley of the Athabaska river which passes through the northwest corner. Timber of commercial value is located mostly in the Athabaska valley where spruce grows to a diameter of 32 inches. There is also some scattered spruce throughout the remainder of the township, as well as poplar, tamarack and some birch. Hay is scarce. The water supply is sufficient and permanent, and is obtained from the Athabaska river and several small tributaries. The river averages 15 chains in width and varies in depth from 3 to 15 feet, the rate of flow being about 4 miles per hour. No land is liable to be flooded. There are no water-powers. The climate is temperate. Fuel is plentiful, wood being obtainable everywhere. There are no stone-quarries nor minerals. Moose and caribou, as well as partridges and rabbits, are plentiful.—*H. S. Day, D.L.S., 1913.*

74. This township is reached by the Athabaska river from the town of Athabaska by boat in summer and by sleigh in winter. The soil is generally good. When the country is cleared and drained this township will be suitable for mixed farming. The surface is timbered and partly broken by the valley of the Athabaska river and Lake McMillan. Timber of commercial value is located mostly in the valley of the Athabaska river where spruce grows up to 32 inches in diameter. There is also spruce scattered over the remainder of the township, as well as poplar, tamarack and some birch. Some wild hay was seen at Lake McMillan. The water supply is sufficient

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 18.—*Continued.*

and permanent and is obtained from the Athabaska river. This river averages 13 chains in width and varies in depth from 3 to 15 feet, the current being about 4 miles per hour. The land is not liable to be flooded. There are no water-powers. The climate is temperate. Fuel is plentiful, wood being obtainable everywhere. There are no stone-quarries nor minerals. Moose and caribou, as well as partridges and rabbits, are plentiful. In connection with this township it may be noted that Lake McMillan is formed by a double row of beaver dams from 4 to 8 feet in height. If these were broken there is no doubt that the lake, which is swampy and of no use except to the muskrats which it protects, would drain into the Athabaska river through a small creek. In this way a considerable area of land could be reclaimed, the only loss resulting being that of a few muskrats and beavers. From an agricultural standpoint, the country would be well rid of the latter.—*H. S. Day, D.L.S., 1913.*

75. This township is reached by the Athabaska river from the town of Athabaska by boat in summer and by sleigh in winter. The soil is generally good. When the country is cleared and drained this township will be suitable for mixed farming. The surface is timbered, and partly broken by the valley of the Athabaska river and also by Lake McMillan. Timber of commercial value is located mostly in the valley of the Athabaska river where spruce grows to a diameter of 32 inches. There is also scattered spruce throughout the remainder of the township, as well as poplar, tamarack and some birch. Some wild hay was seen along the north shore of Lake McMillan. The water supply is sufficient and permanent, and is obtained from the Athabaska river. This river averages 12 chains in width and varies from 3 to 15 feet in depth with a rate of flow of about 4 miles per hour. The land is not liable to be flooded. There are no water-powers. The climate is temperate. Fuel is plentiful, wood being obtainable everywhere. There are no stone-quarries or minerals. Moose and caribou, as well as partridges and rabbits, are plentiful.—*H. S. Day, D.L.S., 1913.*

76. This township is reached by the Athabaska river from the town of Athabaska by boat in summer and by sleigh in winter. The soil is generally good. When the country is cleared and drained this township will be suitable for mixed farming. The surface is timbered and partly broken by the valley of the Athabaska river. Timber of commercial value is located mostly in the valley of the Athabaska river where spruce grows to a diameter of 32 inches. There is also some spruce scattered throughout the remainder of the township, as well as poplar, tamarack and some birch. There is some wild hay of fair quality in small sloughs. The water supply is sufficient and permanent, and is obtained from the Athabaska river. This river averages 13 chains in width and varies in depth from 3 to 15 feet. The rate of flow is about 4 miles per hour. The land is not liable to be flooded. There are no water-powers. The climate is temperate. Fuel is plentiful, wood being obtainable everywhere. There are no stone-quarries nor minerals. Moose and caribou, as well as partridges and rabbits, are plentiful.—*H. S. Day, D.L.S., 1913.*

77. This township may be reached from the town of Athabaska during the season of navigation by steamboat or small boats. The distance from Athabaska to this township by water is about 100 miles. It may also be reached by a pack-trail which follows the telegraph line along the west bank of the Athabaska river. This trail crosses the Calling river, runs through this township and is reported to extend as far as Pelican rapids. The soil in this township is generally a sandy loam intermixed with clay, and in time parts will be suitable for agricul-

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 18.—*Continued.*

ture. The southeastern part of this township contains several sections practically level and covered with timber. The Athabaska river passes through sections 6, 7, 8, 17, 16, 20, 21, 28, 22, 27, 23, 26, 25 and 36, and on both sides of the river the hills extend back nearly a mile and are between 300 and 400 feet in height above the surface of the river. The northwest portion is mostly covered with small tamarack and spruce and, as a rule, is wet but could be drained. Most of this township is covered with woods, consisting of poplar and spruce, a little tamarack, birch, willow and alder. The largest timber is in the sections near the river and consists of spruce from 3 to 20 inches in diameter and poplar from 3 to 15 inches in diameter. There is sufficient for the use of settlers, but it is not of much commercial value. There are some indications of minerals along the banks of the river, water filtering through the banks being discoloured with iron. Game is plentiful and consists of moose, bears, elks, caribou, foxes, wolves, rabbits, minks, muskrats, weasels, partridges and fish. Fresh water is plentiful. The climate is a fair average for this part of the country. Summer frosts were experienced.—*A. Fawcett, D.L.S., 1913.*

RANGE 19.

70. This township was reached by floating down the Athabaska river in scows from the town of Athabaska. The soil is composed of 4 inches of black loam with a clay and sand subsoil excepting sections 13, 14, 23, 24, 25, 26, 35 and 36 which are occupied by moss swamp over which fire has run. The surface away from the valley of the Athabaska river is level and covered with poplar, spruce, tamarack, a small quantity of birch, willow and alder bush; the timber is from 4 to 12 inches in diameter. There are hay meadows in the northeast quarter of section 17, section 20, the west half of section 21 and the north half of section 30. The water is fresh and the supply is both sufficient and permanent. The Athabaska river, which is from 12 to 15 chains wide and more than 15 feet deep in the main channel, flows through a valley from three-quarters of a mile to one mile in width, stretching first from the east to the west and then from the south to the north of the township. In section 30 the Calling river, averaging a chain in width, from 2 to 10 feet deep and having rapids and swift water, flows into the Athabaska river. The land is not liable to be flooded nor are there falls or rapids on the Athabaska river in this township. The rapids on the Calling river are not very large and the volume of water is small when considering the possibility of water-power. The climate is in general much the same as that of northern Alberta with the winter temperature slightly lower than that in the vicinity of Edmonton; Wood is the only fuel and it can be procured in any part of the township. There were no coal or lignite veins found in the township. No stone-quarries nor minerals were seen. Bears, moose, caribou, deer, wolves, coyotes, lynxes, muskrats, minks, ducks and partridges are the varieties of game found in this district.—*T. A. Davies, D.L.S., 1913.*

71. This township was reached by floating down the Athabaska river in scows from the town of Athabaska. The soil is black loam with a clay subsoil. The surface is covered with poplar, spruce, tamarack, birch, willow and alder bush; the spruce and poplar measure up to 20 inches, the tamarack up to 12 and the birch up to 8 inches in diameter. Hay may be obtained in small quantities along the creeks. The water is fresh and the supply is both permanent and sufficient. The Athabaska river flows approximately through the centre of the township from south to north; it is from 12 to 15 chains wide, about 15 feet deep in the main channel and flows at the rate of about 3 miles per hour. The valley of the

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 19.—*Continued.*

river is from three-quarters to one mile wide and from 200 to 250 feet in depth. The land is not liable to be flooded and there are no falls nor rapids. The climate, generally, is similar to that of northern Alberta with slightly lower winter temperatures. Summer frosts occur. Wood is readily available for fuel in any part of the township. No coal, lignite, stone-quarries nor minerals were found. The game consists of moose, deer, caribou, bears, lynxes, wolves, coyotes, rabbits, foxes, muskrats, ducks and partridges.—*T. A. Davies, D.L.S., 1913.*

72. This township was reached by the Athabaska river. The soil is generally 4 inches of black loam with a clay and sand subsoil. The surface of the east half of the township is rolling and broken while that of the west half is generally level, the whole being covered with poplar, spruce, tamarack, birch, willow and alder bush. The timber along the river valley and in sections 29 and 30 is from 4 to 20 inches in diameter; in the remainder of the township it is from 4 to 12 inches in diameter. Hay is found in very small quantities and only around the small sloughs. The water is fresh and the supply is permanent. The Athabaska river, which is from 12 to 15 chains wide and about 15 feet deep in the main channel with a current of 3 miles per hour, flows through a valley from three-quarters of a mile to one mile in width. It runs from south to north through the east part of the township. The land is not liable to be flooded. There are no falls or rapids. In the northwest quarter of section 13, the water flows swiftly for about 20 chains. The climate is much the same as that of northern Alberta with winter temperatures slightly lower. Summer frosts occur. Wood is the only fuel and can be obtained in any part of the township. No coal, lignite veins, stone-quarries nor minerals were found. Game consists of moose, deer, caribou, bears, wolves, lynxes, coyotes, ducks, partridges and rabbits.—*T. A. Davies, D.L.S., 1913.*

73. LaBiche river was left on the 30th of September and we arrived at the nineteenth base line the following day, utilizing the Athabaska river as a highway. From the river we packed into this township along the base line pack-trail which, up to near the central meridian, was very fair excepting a long climb up to the plateau; we made use of this trail and an old Indian trail in the western portion of the township, supplementing them by pack-trails of our own. At the time of survey these trails were in fair condition, but were impassable in the early part of the fall owing to the muskegs and floating bogs. The predominant soil is a clay loam and it is suitable for any kind of farming. At least half the area comprising this township is muskeg, in some places being of the very worst tamarack and floating bog variety, while in others it is comparatively dry. The surface of the country, as a rule, is nearly level; in the northeastern portion the ground is more rolling and some hills occur. Nearly the whole township is covered with a fair growth of timber with the exceptions of the southern central area. The prevailing timber is poplar and spruce up to 30 inches in diameter; birch, tamarack and balsam also occur up to 24 inches, while nearly all the jackpine is of second growth. The heavier growth of timber occurs in the eastern portion of the township. Sections 25 and 26 should be set aside as a reserve from which settlers may draw their supply of timber. These sections contain a large amount of good spruce up to 25 inches in diameter, though the trees are not very numerous. There is no hay in this township, and feed for cattle and horses is scarce. The water in the streams and lakes is fresh; two lakes occur, one, Touchwood lake, being fairly large. Throughout the township there are numerous small creeks which dry up before the frost sets in. No water-powers nor minerals of economic value were found. To judge by the tracks in the snow large game is fairly plentiful, such as moose, caribou and smaller deer. Wolves were heard and their tracks were seen in the

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 19.—*Continued.*

snow. Foxes must be very numerous. The autumn and early winter were very mild. The only present means of access to the township is by the Athabaska river from Athabaska.—*C. F. Miles, D.L.S., 1913.*

This township can be reached by steamers or small boats during the season of navigation or with pack-horses, following a wagon road from Athabaska to Calling river and from here by a pack-trail which follows along the Athabaska river not far from its bank. It was reported that this pack-trail extends as far as the Pelican rapids. The eastern boundary of this township crosses a bend of the river, the distance from Athabaska being about 100 miles. The soil is in general a sandy loam, but in some parts it is mixed with clay. The surface is covered with timber ranging up to 18 inches in diameter, principally spruce and tamarack with some jackpine, birch, poplar and willow along the small streams. In section 28 there is jackpine and spruce up to 12 inches; in section 36, tamarack, spruce and jackpine up to 15 inches; in section 25, poplar and spruce up to 12 inches; in section 5, tamarack, spruce and birch up to 18 inches; in section 15, heavy windfall, spruce, tamarack and jackpine up to 20 inches; in section 6, tamarack and spruce up to 12 inches, and along the boundary of sections 1, 12 and 20, tamarack, spruce and birch are found up to 30 inches in diameter. The remaining sections are covered with small timber, principally spruce and tamarack. The timber is of little commercial value but there is an abundance for the needs of the settlers. At the present time a large percentage of this township is too wet for settlement. There is a fresh-water lake in sections 2 and 11, and also a small lake in section 20. A small creek flows across sections 7, 8, 16 and 10 into the former lake. A tributary of this stream flows through sections 34, 27, 28, 21 and 16, and contains good fresh water. Game is plentiful and consists of bears, moose, elks, caribou, wolves, foxes, minks, skunks, weasels and rabbits. No traces of minerals were seen.—*A. Fawcett, D.L.S., 1913.*

This township can be reached very easily during the summer by steamboat, small boats or pack-horses. A wagon road extends from Athabaska to Calling river, and from here there is a pack-trail following down the Athabaska river. The river passes through section 31 of the township to the east a little more than half a mile from the northeast corner of section 36 of this township. The distance from Athabaska is about 100 miles. The soil varies; in some parts there is sandy loam and in others loam mixed with clay. The surface is covered with timber ranging up to 18 inches in diameter and consisting principally of spruce and tamarack with an occasional ridge of jackpine, poplar and birch. Some alder and willow are found along the small streams in sections 36, 25, 24, 17, 9, 8, 10, 14, 18, 4 and 12, ranging up to 12 inches. The remainder of the sections in the township are covered with small scrub timber, mostly spruce and tamarack. At the time of survey most of this township was wet, and will not be suitable for farming until drained. The timber is not of much commercial value; but there is an abundance for the needs of the settlers. There are two small creeks which vary from 10 to 25 feet in width and from 8 inches to 4 feet in depth, the currents being about 1 mile per hour. One flows southeasterly out of a lake in the western portion of section 18 through sections 7, 6, 5 and 4, thence northerly through sections 9, 16, 21 and 28 to the east boundary of section 27 where it joins the other stream flowing northerly from section 3, through sections 2, 11, 14, 23, 26, 27, 34 and 33. Water can be obtained anywhere by digging. Game is plentiful and consists of bears, moose, elks, caribou, jumping deer, wolves, foxes, lynxes, skunks, partridges and rabbits. Summer frosts are experienced in this district.—*A. Fawcett, D.L.S., 1913.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 19.—*Continued.*

This township may be reached from Athabaska either with pack-horses or
77. by steamboat during the season of navigation. The distance from Athabaska to this township by water is about 100 miles. The river passes through the township to the east, a little more than half a mile east of the southeast corner of this township. There is a wagon road from Athabaska to Calling river along the telegraph line. From this point there is a pack-trail along the telegraph line which extends probably as far down stream as Pelican rapids. With the exception of a few small ridges, this township is nearly flat. The soil is a sandy loam which is mixed with a sticky clay in some parts. It will not be suitable for farming until drained. At the present time the greater part is wet and covered with moss, in some parts to a depth of 18 inches. Two small creeks flow across the township. One crosses the base line near the west outline of the township and extends in a northeasterly direction, passing through sections 6, 7, 18, 17, 20, 21, 22, 28, 27, 34 and 35; the other crosses the south boundary in section 2 and flows in a northerly direction through sections 2, 11, 14, 23 and 26, joining the former stream in section 35. These streams vary from about 12 inches to 4 feet in depth and from 15 to 25 feet in width. The surface is covered with timber, principally small spruce and tamarack with an occasional ridge of poplar and jackpine up to 15 inches in diameter. There is very little timber of commercial value; where the ground is dry the fire has burned or killed most of it, but there is a new growth of young timber coming up. Good fresh water can be obtained anywhere by digging. Game is plentiful and consists of moose, elks, bears, caribou, jumping deer, foxes, wolves, muskrats, weasels, minks, rabbits, partridges and fish. No trace of minerals nor outcrops of rock were seen.—*A. Fawcett, D.L.S., 1913.*

RANGE 20.

(*East outline.*)—Along this line the country is heavily wooded with spruce,
74. balsam, poplar and jackpine ranging up to 20 inches in diameter, and the surface is rolling. To the west of the line bare hills are noticed where the timber has been killed in patches by fire. The soil is good and varies from dark loam to clay loam.—*A. Fawcett, D.L.S., 1913.*

RANGE 23.

This township can be reached by the Athabaska-Mirror Landing road to Fish
72. Camp and thence by the Fish Camp-Calling Lake road. The soil may be rated as third-class, being for the most part sandy and stony clay with some low and swampy land in the southern part of the township. The surface is covered with poplar and scattered spruce of good size with patches of burned and fire-killed timber. The township is generally undulating or gently rolling. The timber would be valuable for local use. There are some good hay meadows along the lakes in sections 18, 17 and 16. The supply of fresh water is unlimited. No water-power could be developed. The climate is good, no summer frosts being noted. Wood for fuel is very abundant but no coal nor lignite was seen. No stone of any value nor minerals of any kind were noticed. A few moose and bears were seen, and partridges and rabbits are very plentiful. Foxes, minks and muskrats were also noticed. Whitefish are found in great quantity in Calling lake.—*A. J. Tremblay, D.L.S., 1913.*

RANGE 24.

The Athabaska-Mirror Landing road passes through this township. The
71. soil may be rated as third-class, being sandy or stony clay. If the swamps were properly drained, the value of the township would be increased consider-

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 24.—*Continued.*

ably. The surface is undulating and covered with poplar and spruce, about half of which has been fire-killed. Poplar of some value is found in quantity, and patches of good spruce up to 20 inches in diameter were noticed. There are no hay meadows. The supply of fresh water is unlimited. The Athabaska river crosses the township in a southeasterly direction. No land is liable to be flooded. No water-power could be developed. The climate is good, no summer frosts being noticed. Wood in great quantity for fuel occurs but no coal nor lignite was seen. No stone-quarries nor minerals of any kind were noticed. A few moose and bears are found while partridges and rabbits are very plentiful. Foxes, minks and muskrats were also observed.—*A. J. Tremblay, D.L.S., 1918.*

72. This township can be reached by the road from Athabaska to Mirror Landing which passes through the township. There is also a winter road from the Athabaska river in section 3 to Calling lake; this road crosses the east boundary of the township at the northeast corner of section 12. The soil may be rated as third-class and is for the most part sandy and stony clay. If the swamps were properly drained, the value of the township would be increased considerably. The surface is covered with poplar, spruce and some jackpine, about half of which has been fire-killed. The surface is undulating and in some places gently rolling. In the Athabaska river valley there are patches of spruce of good commercial value, and further development of the country might increase the value of the poplar and scattered spruce in the other parts of the township. No hay meadows were noted. The supply of fresh water is unlimited. The Athabaska river crosses sections 19, 20, 17, 16, 8, 5 and 4. No land is liable to be flooded. No water-power could be developed. The climate is good, no summer frosts being noted. Wood for fuel occurs in great quantity but no coal nor lignite was noticed. No stone-quarries nor minerals of any kind were seen. A few moose and bears were found, while partridges and rabbits are very plentiful. Foxes, minks and muskrats were also seen.—*A. J. Tremblay, D.L.S., 1918.*

RANGE 25.

69. This township is reached by a wagon road from Athabaska by way of Grosmont, entering the township in the southeast quarter of section 25 and running northwesterly through sections 25, 36 and 35; this road is in good condition as far as the north end of Long lake in section 32, township 68, range 24. At this point a wagon trail branches off to the southeast end of Lawrence lake in section 7, township 69, range 24, and continues as a pack-trail along the south side of the lake. The trails from Long lake are very rough and wet. The soil varies from a sandy loam to a clay loam over a clay subsoil and is suitable for mixed farming. The southwest half of the township is comparatively level while the northeast half, around the lake, is rolling. The whole surface is covered with timber and windfall, but the timber is mostly all fire-killed with the exception of that in sections 14, 15, 16, 22, 34, the south half of section 28 and a few small patches scattered over the township. The green timber consists mostly of poplar from 8 to 14 inches in diameter with some scattered spruce from 10 to 18 inches in diameter, but not in sufficient quantity to advise setting it apart as a timber berth. A high ridge runs from section 1 to section 32, parallel to the lake shore, the green timber being along the northeast slope of this ridge. No hay was seen. There is a sufficient and permanent supply of fresh water in the lakes and numerous small streams. The climate this summer has been wet and cold, but no summer frosts were experienced. There is plenty of wood for fuel in every section. No coal or lignite seams, water-powers, stone-quarries, nor minerals were seen. The game consists of bears, moose, partridges and rabbits in abundance.—*H. McGrandle, D.L.S., 1918.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 25.—*Continued.*

70. The route to this township is by a wagon road from Athabaska as far as Gros-mont in township 67, range 24, and thence by a wagon trail which enters this township in section 2 and runs through sections 2, 10, 9, 17, 7 and 18 to Mirror Landing. This trail was reopened through this township in November, 1913, and is very rough. There is also another wagon trail running in a northerly direction through sections 10, 15, 22, 21, 28 and 33. Both of these trails are fit for wagons only during a very dry season or when the ground is frozen. In the districts which have been burnt over, the soil varies from sand to sandy clay overlying a clay subsoil with numerous gravel and stony ridges. The soil in the remainder of the township varies from clay loam to clay, and it is suitable for either mixed farming or grazing. The surface is generally very rolling and is covered with green timber, brulée and windfall. The green timber, consisting of white and black poplar, spruce and birch from 8 to 15 inches in diameter, is found in sections 1, 12, 13, 14, 16, 20, 21, 22, 23, 29, 30 and 32, but the quantity is not sufficient to advise the setting apart of these sections as a timber berth, the spruce of commercial value being very scattered. The remaining sections comprising about two-thirds of the township is covered with fire-killed timber and windfall, and contains numerous swamps. There is a large quantity of slough hay of good quality around the lakes and ponds in sections 2, 15, 17, 18, 21, 24, 26, 33 and 34. A sufficient and permanent supply of fresh water is provided by the numerous small lakes and creeks. The largest stream which flows in a northwesterly direction through sections 26 and 34 has a width of about 8 feet, a depth of from 1 to 2 feet and a slow current. There is no land likely to be flooded, except a small area around the lakes at time of high-water. No water-powers or locations for dams were seen. The weather has been wet and cold this season, but no summer frosts were experienced. Plenty of wood for fuel may be obtained in every section. No coal or lignite veins, stone-quarries nor minerals of economic value were seen. The game consists of bears, moose, rabbits and partridges.—*H. McGrandle, D.L.S., 1913.*

This township can be reached by an old trail from Baptiste lake. The soil **71.** may be rated as third class, being sandy and stony clay. The central part of the township is swampy. The surface is generally undulating and covered with poplar, jackpine and spruce, most of it being second growth, up to 8 inches in diameter. There is no timber of any value. A fair quantity of good hay was noticed along the creek in sections 16 and 21. The supply of fresh water is unlimited. A creek, averaging 10 feet wide and 3 feet deep, flows in a northerly direction through the township. No land is liable to be flooded. No water-power could be developed. The climate is good, no summer frosts being noticed. Wood in great quantity for fuel occurs, but no coal nor lignite was noticed. No stone-quarries nor minerals of any kind were seen. A few moose, bears and deer are found, while partridges and rabbits are very plentiful. Signs of fur-bearing animals were also noted.—*A. J. Tremblay, D.L.S., 1913.*

This township can be reached by the road from Athabaska to Mirror Land- **72.** ing which passes through the township. The soil is mostly third class, being sandy and stony clay, but in the southwestern part, sections 4, 5, 6, 7, 8, 9, 16, 15 and 18, the soil although sandy is much better. The surface is undulating and covered with burned poplar, spruce and jackpine, except in sections 22, 23, 24, 25, 26 and 27, where there is some good spruce and poplar. No hay meadows were seen. The supply of fresh water is unlimited. The Athabaska river flows through the township in a northeasterly direction. No water-power could be developed. The climate is good, no summer frosts being noticed. Wood in great quantity for fuel occurs but no coal or lignite was noticed. No stone-quarries nor minerals of any kind

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 25.—*Continued.*

were seen. A few moose, bears and deer are found while prairie-chickens, partridges and rabbits are plentiful. Foxes and other fur-bearing animals were also noticed.—*A. J. Tremblay, D.L.S., 1913.*

RANGE 26.

69. This township is reached by a wagon road from Athabaska to Grosmont, thence by a wagon trail to section 14, township 70, range 26, and thence south by a poorly defined trail to the north part of this township; the wagon trail is passable for loads only when the ground is very dry or frozen. It may also be reached either by Parson's pack-trail along the base line from section 5, township 69, range 24, or by our trail around the south end of a lake in township 69, range 25, which is much longer but possibly the best route. After this season the best trail will be from Mirror Landing or from the new railway, running through range 1, west of the Fifth meridian. The soil varies from a sandy to a clay loam over clay and gravel with some surface stones, and is suitable for mixed farming. The surface is level or slightly undulating with numerous swamps and is covered with fire-killed timber, except a few small patches of green poplar which are found mostly in the west half of the township. The swamps are all burnt over. The timber is small, being from 4 to 8 inches with some scattered spruce from 12 to 15 inches in diameter. There are some open jackpine ridges in sections 10, 11 and 12 where most of the timber is burnt; there is an area of about 200 acres of open country in the northeast of section 34 and the northwest of section 35, the timber being all burnt. This area is now growing up with small willows and poplar scrub. The only hay seen in this township is a narrow strip around the lake in sections 20, 21, 28 and 29; but through the poplar timber where the fire has run there is a rank growth of red-top grass, which is good feed for stock in summer. The township is fairly well supplied with fresh water by lakes and small streams. A stream, increasing in width from 4 to 12 feet and from 3 to 4 feet deep with low banks and a swift current, enters the township in the southeast quarter of section 24 and flows south-westerly through sections 13, 14, 11, 10 and 3 into a lake in sections 4 and 9. There is also a stream from 50 to 65 feet wide and from 3 to 4 feet deep with a swift current flowing in a northwesterly direction from the lake in section 4, through sections 4, 5, 6 and 7. The banks increase in height from 3 feet in sections 4 and 5 to 50 feet in section 6. In sections 6 and 7 the current is very rapid. Water-power might be developed by the construction of a dam in section 6 or 7, but the water in this stream would probably be very low in a dry season. The climate has been cold and wet this summer, but no summer frosts were experienced this season. There is plenty of wood for fuel in every section. No coal, lignite veins, stone-quarries nor minerals of economic value were found. The game consists of bears, moose, deer, partridges and rabbits in abundance.—*H. McGrandle, D.L.S., 1913.*

70. This township is reached by a wagon road which runs from Athabaska by way of Grosmont, in township 67, range 24, to the southeast quarter of section 13 of this township, and thence in a northwesterly direction through sections 13, 14, 23, 27, 28, 33 and the northeast quarter of section 32. This road is in fair condition as far as the north end of Long lake in section 32, township 68, range 24; from here on, it is very rough and passable for loads only in dry seasons or when the ground is frozen. The soil varies from sand and gravel to a clay loam, the best soil being in the south tier of sections. The south one-third of the township is suitable for mixed farming, while the remainder is suitable only for grazing purposes. Hay is scarce in this township. There are small patches of slough grass around the lakes and creeks in

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 26.—*Continued.*

sections 7, 16, 17, 20, 22, 23, 26, 27 and 29. These areas could be enlarged by the use of fire and a little drainage. The surface in the south one-third is gently rolling; the remainder is very rolling and, with the exception of a few wet muskegs, has been burnt over more than once and is now covered with dead timber and windfall. A strip running from section 1 to section 31 looks at a distance like patches of prairie, but the ground is covered with fallen timber and roots hidden by grass and willows. In the low places a good deal of the timber is still standing. In sections 24, 25, 26, 34, 35, 36 and the northeast of sections 13, 23, 27 and 33 there is considerable green timber, consisting of birch, pine, poplar and spruce from 6 to 10 inches in diameter. There is considerable windfall in the above-named sections. This township is well supplied with fresh water by numerous small lakes and streams. They all have a good current and afford good drainage. The principal stream, which is from 3 to 8 feet wide, from 1 to 2 feet deep, and has a swift current and good banks, runs in a northwesterly direction through sections 13, 14, 23, 27, 33 and 34, but it is too small to develop much power. The climate has been cold and wet this summer, but no summer frosts were experienced. There is plenty of wood for fuel in every section at present, but another fire or two would almost clear the township of timber. No coal or lignite veins, stone-quarries nor minerals of economic value were seen. The game consists of bears, moose, deer, partridges and rabbits in abundance.—*H. McGrandle, D.L.S., 1913.*

71. The wagon trail from Athabaska to Mirror Landing passes through this township. The soil generally is light and sandy, and in the southerly part there are patches of muskeg or swamp; with clearing, this land should be suitable for mixed farming. The surface, apart from the river valley, is gently rolling and timbered with spruce, poplar and ridges of jackpine, large portions of which are burned. Some good spruce was found in the river valley on the south side between the central meridian and the east boundary of the township, but apart from this the rest of the timber has no commercial value. No hay meadows were seen. There is an abundant supply of fresh water throughout the whole township. No water-power can be developed. The climate is suitable for mixed farming, there being no summer frosts observed. Wood for fuel is obtainable everywhere. No stone-quarries, lignite veins nor minerals were found. Moose, bears and small game appeared to be plentiful.—*H. E. Pearson, D.L.S., 1913.*

72. The wagon trail from Athabaska to Lesser Slave lake passes through the southerly part of this township and affords ready access to it. In summer, it may also be reached by steamers plying on the Athabaska river. The soil, as a rule, consists of from 3 to 6 inches of black loam with a clay subsoil; while in the southeast corner of the township there is considerable sand. It would be suitable for the cultivation of grain and hay if the bush were cleared. The surface is gently rolling and uniform, and is covered with spruce, poplar and jackpine with willow brush in places. Patches of spruce and tamarack muskeg or swamp occur throughout the township, but on account of the proximity of the Athabaska river valley all of these could be easily drained, and should make first-class agricultural land. The jackpine is found mostly in the southeast corner of the township along the river valley and has been partly burnt. Some of this is suitable for railway ties and building purposes, but the bulk of it is more suitable for fire-wood. There are about 20 acres of good spruce up to 24 inches in diameter in section 5, and about 30 acres in sections 3 and 10 which is suitable for lumber, but apart from this, the balance of the timber has no commercial value, except as fuel. With a little brushing some good hay meadows can be formed in sections 3, 2, 11 and 12. On part of this area hay is being cut at present by settlers, but in a wet season, such as 1913, a great

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 26.—*Continued.*

deal of it is under water. In section 3 there would be approximately 10 acres, in section 2 about 30 acres, in section 11 about 10 acres and in section 12 about 40 acres. There is an abundant supply of fresh water from the small creeks, springs, muskegs and lakes. There are no water-powers. The climate is good and suitable for farming. No summer frosts were noticed. Wood for fuel is obtainable everywhere. No stone-quarries, lignite nor minerals were seen. Moose, bears, rabbits, partridges and ducks were very plentiful.—*H. E. Pearson, D.L.S., 1913.*

(*South half.*)—This township is reached by a good winter trail from Moose portage, but in the summer it is suitable only for light rigs. The soil consists usually of from 4 to 6 inches of black loam with a clay subsoil, and if the ground were cleared it would be suitable for mixed farming. The surface is fairly regular and slopes to Fawcett lake. Along the south shore of the lake there is a lot of good spruce and poplar bush which is well suited to lumbering purposes if it could be taken to some market. The north shore is wood principally with poplar. There are no hay meadows. An abundant supply of fresh water is furnished by Fawcett lake and some small springs. No water-power can be developed. The climate is suitable for mixed farming, there being no signs of summer frosts. Wood for fuel can be obtained everywhere. No stone-quarries, lignite nor minerals of economic value were found. Moose, bears, deer and small game were seen, while ducks, geese and partridges were found in abundance.—*H. E. Pearson, D.L.S., 1913.*

80. (See the report on township 80, range 1, west of the Fourth meridian.)—*F. V. Seibert, D.L.S., 1913.*

RANGE 27.

This township is reached by pack-trail from Mirror Landing or by the new railway running through range 1, west of the Fifth meridian. The soil is a sandy loam over clay and is suitable for mixed farming. The surface, with the exception of a deep ravine running northwesterly through section 12, the southwest corner of section 13 and the south of section 14, is level or gently undulating and is covered with fire-killed timber of small diameter consisting of spruce, tamarack, poplar, pine and some birch with a few small patches of green timber scattered throughout the township. The timber is fit only for settlers' use. No hay meadows were seen, but there is a heavy growth of grass where the fire has run through the poplar bush, making excellent feed for stock in the summer, but it cannot be cut on account of there being so much fallen timber. The township is well supplied with small streams of fresh water. A large stream of from 30 to 40 feet in width and from 2 to 3 feet in depth with a very rapid current enters the township in the southeast quarter of section 12, and flows in a northwesterly direction in a deep ravine through section 12, the southwest corner of section 13 and the south of section 14. The streams have all swift currents and no land is liable to be flooded. It is possible that power might be developed by the construction of a dam on the stream flowing through section 12, but the water would probably be very low in a dry season. The climate was very wet and cold this summer, but there were no frosts. There is plenty of wood for fuel in every section. No coal or lignite veins, stone-quarries nor minerals of economic value were found. The game consists of bears, moose, partridges and rabbits in abundance.—*H. McGrandle, D.L.S., 1913.*

(*East outline.*)—There is no trail to this township at present but it can be reached from the wagon road along the Edmonton, Dunvegan and British Columbia railway. Most of the land along this line is swamp or muskeg and is unfit for agriculture. The timber has no commercial value. The surface is almost

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 27.—*Continued.*

level. There are no hay meadows. There is an abundant supply of fresh water. No water-powers can be developed. The climate appeared to be suitable for mixed farming, there being no indications of summer frosts. Wood for fuel is plentiful. No stone-quarries, lignite nor minerals were found. Moose and small game seem to be plentiful.—*H. E. Pearson, D.L.S., 1913.*

(*Subdivision.*)—This township is reached by a pack-trail from Mirror Landing, which is situated on the new railway running through range 1, west of the Fifth meridian. The soil is a light sandy loam over clay and is suitable for mixed farming or grazing. The surface varies from undulating to rolling with numerous swamps and is covered with fire-killed timber of small diameter consisting of spruce, tamarack, pine and poplar. The only hay seen in this township is around the lake and creek in sections 35 and 36 where a large quantity of slough grass could be cut. This township is well supplied with fresh water by the small lakes and streams. The largest stream, which is from 15 to 50 feet wide, from 1 to 3 feet deep, and has a slow current and low banks, flows southwesterly from a lake in the north of section 36 through sections 36 and 35. Considerable hay land along this creek is liable to be flooded during freshets but to no great depth. No falls, water-powers nor locations for dams were seen. The climate this summer has been wet and cold but no frosts were experienced. There is plenty of wood for fuel in every section. No coal or lignite veins, stone-quarries nor minerals of economic value were found. The game consists of bears, moose, partridges and rabbits in abundance.—*H. McGrandle, D.L.S., 1913.*

RANGE 30.

3. (*Partial.*)—This township can be readily reached by a good wagon road leading from the town of Pincher Creek. The soil ranges from black to sandy loam and should be highly productive, but summer frosts are quite prevalent and have prevented many agricultural experiments from being made. There are a few settlers in the northeast part of the township who have successfully grown green feed and timothy. Ranching is the only industry which should be undertaken here. The surface varies from rolling to hilly and is more or less covered with poplar and willow brush and some spruce. There is a considerable amount of good rich grass but no hay was seen. The water supply is fresh, permanent and plentiful, there being many small streams varying from 2 to 5 feet in width and from 3 inches to 2 feet in depth, with currents of about 1 mile per hour. The township is traversed by Yarrow creek, a stream averaging about 25 feet in width and 1 foot in depth, with a current of about 2 miles per hour. No water-powers were available and no land is liable to be flooded. Dry wood for fuel is plentiful. No coal, minerals nor stone-quarries were noticed. Deer, partridges, prairie-chickens and fish are plentiful.—*W. J. Boulton, D.L.S., 1913.*

