

LANDS AND WORKS DEPARTMENT,
BRITISH COLUMBIA.

REPORTS OF EXPLORATION

OF A PORTION OF THE

NEW WESTMINSTER DISTRICT,

THE

EAST COAST OF VANCOUVER ISLAND,

FROM MENZIES BAY TO FORT RUPERT,

AND OF THE

CASSIAR DISTRICT.



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REPORT OF EXPLORATION.

NEW WESTMINSTER DISTRICT.

To the Honorable the Chief Commissioner of Lands and Works, British Columbia.

ALTHOUGH this Report is made from an exploration and actual observation of the country between the City of New Westminster and Fort Hope, embracing both sides of Fraser River, I have, from time to time, availed myself of valuable information received from practical and experienced farmers throughout the district, respecting the country in their immediate neighbourhood, the nature and value of the soil, and its adaptation to general agricultural purposes. Therefore, combining these together, I hope in this Report to lay before you such information as will enable the public to form correct conclusions respecting a district which now attracts so much attention; and by doing this to attain the object of the department under whose authority this exploration was undertaken.

On the accompanying sketch, the distances between the principal points along the river, and the direction from these points to the different tracts of land marked on the sketch, are as nearly correct as it was possible to make them with the appliances at hand.

Leaving Langley on the 18th of August, we commenced our exploration through that part of the New Westminster District lying between Boundary Bay and the Langley Settlement. In the general features of the country, very little change was observable. A few patches of swamp, grass land were met with; also two belts of alder land. (See sketch.) With the exception of these, the country is heavily timbered, with considerable fallen timber and thick undergrowth, the soil light and gravelly, and years of labour would have to be expended before even the most favourable parts could be made available for agricultural purposes. A few groves of excellent fir and cedars were passed through; one about three miles east of Hall's Prairie, and the other between the latter place and the Boundary Line. Hall's Prairie—a tract of fern and grass land—is situated west of the southern extremity of Langley Prairie, and about three miles from the Boundary Line. Soil, black loam, with clay and gravel subsoil.

In and about the Langley District, a number of excellent farms are worked with the greatest care and attention, as is apparent from the fine fields of grain, root crops, &c., the yield of the latter being in some instances very large.

The Langley Prairie, we are informed, and we have no reason to doubt, is all occupied; but a great part of it is uncultivated—a waste covered with fern and other weeds. This is much to be deplored, since, there is no doubt, that were this land in the hands of practical farmers, Langley would be one of the most flourishing settlements in the District.

Between Langley and Matsqui, is situated some of the best land met with during the exploration. Eastward from the southern extremity of Langley Prairie, say five miles, and southward towards the Boundary Line, extends a strip of country where the undergrowth is so thick as to make it very difficult to travel through, yet the soil here is of the best description (black loam) and in places very deep. The timber has been nearly all destroyed by fire, and fallen timber and matted undergrowth cover the whole face of the country, forming an almost impenetrable jungle, from which the intending settler would be apt to turn away. But a little reflection will show, and in fact actual experiments have proved, that the difficulties in the way of bringing this

land under cultivation, are not so formidable as at first sight would appear. A fire placed in here about the month of October, should the season be favourable, would sweep it comparatively clear. This plan might be adopted by the Government; for unless this be done, or trails cut along the exterior lines of townships, so that the intending settler may get through and satisfy himself as to the nature of the soil, it may be years before this fine tract of land will be brought into notice. For no settler, however earnestly he may be in search of a home, will be likely to penetrate this jungle of fallen timber and matted undergrowth. Between this tract and the river, the country is somewhat broken or hilly, and in places the soil light and gravelly. But eastward towards Matsqui, and reaching within one mile of the Matsqui Prairie, is situated one of the finest belts of alder land in the district. (See sketch.) It commences near the river and extends southward about seven miles, and is probably three miles wide. The timber is very uniform in size, and about six inches through. This tract of land is comparatively level and free from undergrowth, and is also far above high water mark. The soil, black loam, with clay subsoil. Upon the value of this description of land it will be unnecessary to enlarge. All through the district, wherever it has been tried, the most satisfactory results have followed.

Between this alder belt and Matsqui Prairie, the country is slightly rolling; the prairie itself being bounded on the west and south by maple and alder ridges, with here and there small openings covered with a heavy growth of fern. The timber is nearly all dead, and the obstacles in the way of clearing it off, and bringing the land to a state of cultivation, are light indeed compared with those which settlers have to contend in other countries. The fire, in fact, doing the most of the work; as the stumps and roots being in a state of decay, can be easily got rid of; the fern is the worst enemy to contend with, but this in time disappears. Some of these ridges are now under cultivation, and the result is really surprising. I was shown a field of wheat which was growing on one of them, and I have no hesitation in saying, that for yield and quality of grain, it will equal anything ever raised in the Province.

This wheat was raised on ground which had never been ploughed; the land had merely been burnt over, the stumps taken out, the seed sowed and harrowed in; and at the time I saw it (25th of August) was ready for reaping.

Matsqui Prairie is about four miles square, and is subject to overflow during extreme high water; but for the greater part of the year affords an excellent range for stock.

Nestling between the range of hills on the west, and Sumass Mountain on the east, it presents a very charming picture indeed; and viewed from one of those high ridges at its southern boundary, and at the time I saw it, the loveliness of the picture cannot be equalled on the Lower Fraser. The broad green prairie stretching away to the river, was dotted here and there with groups of cattle, partly hid in the luxuriant green grass through which they were roaming. To the left along the sides of the hills, their roofs just peeping above the dark green foliage of fruit and shade trees, were to be seen three or four farm houses, each with its field of yellow grain, or surrounded by carefully cultivated gardens rich with every necessary that the soil and climate can produce; while fruit of many descriptions were hanging in tempting clusters from out the foliage of sturdy and healthy looking trees.

I have no doubt but that most of the land bordering on the prairie is already occupied, and taking into consideration the ease with which this land can be cleared, it is somewhat surprising that more of it is not under cultivation. However, back and within easy access to the prairie, the settler who is really earnest with regard to seeking a home, will find his wants satisfied.

Between Matsqui Prairie and Sumass, with the exception of a strip of timbered land along the foot of the mountain, the Sumass Mountain fills the space.

Reaching Sumass we proceeded up the river, from which it takes its name, thence to the Boundary Line, along which we travelled and finished our exploration of the country south of Matsqui. Here and there small patches of open, fern land occur; but aside from these the country is heavily timbered, and where the fire has not crossed very fine groves of cedar and fir are found. Here again is met this immense growth of weeds, berry bushes, &c., which covers the whole country westward to Langley. The soil being of a rich loamy nature is formed, no doubt, by the constant decaying of this

mass of vegetable matter, which year after year springs up, and year after year rots away. Between Sumass and the Boundary Line the land is low and swampy.

Sumass Prairie contains an area of nearly 25,000 acres, but much of it is subject to overflow. Considerable high land is contained within its boundaries, part of which is under cultivation, and the results, so far, have been not only encouraging, but in some instances wonderful.

Root crops grow remarkably well here, thirty tons of turnips having been raised from one acre. Potatoes, carrots, onions, &c., do equally as well.

Now, to illustrate the small amount of trouble and expense attending the cultivation of this land, I will merely instance one field of wheat of eighty acres which was shown me by a farmer, giving nearly his own words. The cost of producing this wheat, that is breaking up the soil from its original state, sowing and including seed, did not amount to three hundred dollars. Now placing the average yield of this field at thirty bushels per acre (its appearance would warrant expectations above this average), the reader can form some idea as to the amount of profit on the labour and capital invested.

Yet it has been fairly proved, by practical tests, that the soil of the low land, that is the land subject to overflow, is the most productive. And it is a matter of no small regret, that some steps have not been taken, and some plan set on foot, by which the lands of this extensive valley might be reclaimed. Guarded on the east and west by the Chilliwack and Sumass Mountains, it presents a frontage to the river two and a half miles long, across which, and between the points of these two mountains (see sketch), it is contended a dyke, the average height of which would not exceed six feet, would effectually reclaim the whole valley. It is also claimed by practical minds that the actual cost of dyking would not exceed an average of one dollar per acre. Now ten times this amount per acre would scarcely leave the most favourable timbered land in the district ready for the plough. But dyking is something from which individual effort shrinks, and which individual labour cannot be expected to accomplish in such an instance as this. The dyking of Sumass Prairie would be a benefit, not only to the people of Sumass, but to the whole Province, for it would render available for settlement many thousands of acres of highly fertile land ready for the plough. It would seem then that the enterprise is one which should be undertaken by or under the direction of the Government. It is not for me to suggest the precise mode in which this should be done; my duty is simply to report, for the information of the department, that some twenty thousand acres of the most fertile land in the district is at present available only as a "run" for cattle; and that this land can by the building of such a dyke as I have described be rendered fit for cultivation. I must mention an objection raised by some to the feasibility of this undertaking, viz.—that the water from the river soaks through some of the lower strata of the river bank, which strata are tapped by the interior sloughs, and that therefore no dyke would exclude the water; but the correctness of this theory is denied by many who speak from actual observation; and it is a question which could easily be set at rest by practical test. I may mention that land not to be compared with the prairie, is held in other parts of the district at from \$7 to \$10 per acre.

Leaving Sumass, we proceeded direct to Chilliwack, thence across the country in a southerly direction, along the valley of the Choowallah River from which we strike the Boundary Line. This country, probably six miles in extent, is all timbered, with the exception of a few patches of open burnt land, the surface broken or hilly; the soil generally good, being light loam with clay subsoil; but on the hills sandy, mixed with gravel. The timber, which in places is valuable, consists of fir, cedar, and cottonwood, with thick undergrowth of vine-maple, hazel, and dogwood. In this stretch of land, and about three miles from the Sumass Settlement, is also situated a cranberry marsh of about five hundred acres.

Along the valley of the Choowallah River several flats were under cultivation by the Indians, and very good crops of wheat, timothy hay, potatoes, &c., were produced. In fact I found all along, from Sumass to Cheam, the Indians were fast following in the footsteps of the whites in the matter of farming; nearly every little settlement having its patches of cereals and root crops. Returning from this point we proceeded up the valley of the Chilliwack River to the base of the mountains; distant from Fraser River

about eight miles. The features of the Country here are more favourable than along the valley of the Choowallah, the surface being not so much broken, and the soil richer and deeper. The timber consists of cottonwood, vine-maple, and alder, with a few scattering fir and cedar, the latter very large but of a poor quality; the undergrowth, hazel, berry-bushes, and nettles. Coal has been discovered here at the foot of the mountains (see sketch); and a prospecting company formed by the settlers are engaged in testing the extent of the lead. At present it is only traceable through a sort of cement or conglomerate rock.

Chilliwack is perhaps the most substantial and best regulated farming district on the Mainland, if not in the Province; but it might not be considered in the nature of this report to proclaim facts which are already patent to even the casual observer, were it not for the purpose of adducing proof as to what can be attained in the matter of farming on the Lower Fraser by careful industry. Here are to be seen those signs which are the certain indications of prosperity; extensive and carefully cultivated fields, large and well filled barns, and neat and comfortable looking farm-houses, surrounded with their gardens of fruit and vegetables. These signs not only point to the great fertility of the soil, but have a tendency to inspire the new settler with hope and energy, and to this fact may be attributed the large increase of settlers in this neighbourhood during the last three months.* We found the harvest here to be a week earlier than at Sumass.

Leaving Chilliwack we proceeded along the eastern boundary of the settlement, in a southerly direction towards the mountains. Nature of country: burnt timber, with very thick undergrowth of hazel, berry, and rose-bushes, and considerable fallen timber. Soil dark loam with clay sub soil. At the base of the mountains, and probably three miles from the Chilliwack Settlement, we crossed a large prairie about six miles long and from two to four wide (see sketch), covered with blue joint grass, and in places peavine. Although at present perfectly dry, it might, in consequence of its natural drainage being obstructed by beaver dams, be at certain seasons wet, possibly partly submerged; but being much higher than high-water mark on the Fraser, there would be little difficulty in removing this objection. This prairie is about eight miles from the Chilliwack landing; and between it and Cheam, and approaching near the river, two smaller prairies are found, each of about one mile in extent.

Leaving the large prairie, and travelling east towards Cheam, we crossed a grove of very fine green timber (fir) situated about five miles from Chilliwack Settlement, and bordering on the Cheam Slough; and two miles further on we came upon another fine belt of alder land, something similar in extent to that west of Matsqui. The nature of the soil, black loam with clay bottom. The soil here is very deep. The surface of the country level and comparatively free from undergrowth.

Nearly all this country embraced within the following boundaries, viz: Chilliwack on the west and Cheam on the east, a distance of twelve miles, and Fraser River on the north (including Islands) to the mountains on the south, a distance of fifteen miles, (see sketch), may be safely set down as containing more rich agricultural land unoccupied than any other section of the same extent within the limits explored. Although nearly all timbered, it is of a nature requiring no great amount of labour in clearing, if I may except the fir timber (see sketch) which is always more or less hard to get rid of. But the settler must remember he has only the timber to contend with. Here he is free from floods; and no stones exist to cover his land with unsightly heaps after the labour of clearing away the timber is finished. Towards the mountains the timber becomes more scattering, and fern openings and thick undergrowth are met with.

Leaving the valley we commenced the ascent of "Discovery" Mountain, which is situated at the eastern extremity of the valley. (It will be understood here, that this plan was always adopted wherever the opportunity occurred; not only to obtain a correct idea of the country, but to satisfy ourselves that no prairie lands were being overlooked.) The ascent of this mountain occupied five hours, and was over a succession of benches, some of which were thickly timbered with fir. One of these benches deserves more than a passing notice. Here the trees grew so close together that it was with

* During the Months of August and September, over twenty-five Pre-emptions were made in the neighbourhood of Chilliwack.

difficulty we picked our way around them; their trunks towering upwards two hundred feet without knot or limb, while their green branches interlaced at the top, formed an impenetrable veil through which the sun's rays never penetrate, nor "shadows mark the flight of time." Within this grove the silence of death prevailed. Here was no undergrowth or fallen timber, and the ground was level and covered with a soft yielding moss, over which, as we trod, our footsteps gave back no sound. So closely huddled together were the trees, that it was almost impossible for the eye to penetrate a dozen yards in any direction; turn which way you would, their tall spectral trunks stood up like grim sentinels keeping watch and guard over the gloom beyond.

Leaving these benches behind, we cross others covered with low bushes and stunted pines, and at last scramble up to the bare peak. Perhaps the most extended view to be had on the Lower Fraser is from this point. From here the river can be traced, through all its windings, eighty miles to the Gulf; and looks still and motionless in the distance. New Westminster can be seen with the naked eye, and every settlement along the river can be readily distinguished. Sumass and Chilliwack, the former seventeen, the latter twelve miles away, appear almost at our feet. Here also can be seen, in the country between Chilliwack and Cheam, new openings made by recent settlers; looking upon which, as new signs of awakening prosperity, the imagination wanders into the future when these green plains shall be dotted with herds, and the tangled growth of forest which now covers the virgin soil of the uplands, shall yield to the hand of hardy industry, and fields of waving corn shall take its place; when the eye from this point will rest on many a hamlet; and the sound of human voices, and human industry, will fill the space where now is silence and solitude.

Fanciful as this picture may seem, and I have no doubt, those whose experience have never led them beyond the beaten lines of travel through this district, may think it very fanciful indeed. Yet it is not only possible for this state of things to come about, but the time is not so dimly marked in the future when this very picture will become a living reality. For it can scarcely be consistent with the natural course of events, that this beautiful valley will remain long as it is, a comparative wilderness, while so many of our fellow beings are struggling for a miserable existence in the crowded homes of the old world.

Turning to the south, and within one hour's walk from this peak, we came out upon an open country, miles in extent, of benches and rolling hills, covered with a species of fine bunch grass, and dotted here and there with groves of stunted pines. (See sketch.)

The existence of this country has been known to the Cheam Indians for years; and according to them no white man has ever been there. I have also the information from the Indians who accompanied me, that winter commences there in October, and ends in April. This country would be valuable as a summer range for stock, especially sheep. The best approach to it from the Fraser, would be up the valley of a creek which empties into the Fraser eight miles above Cheam; but I am of the opinion that this open stretch of country extends through to the valley of the Similkameen.

Returning to the river we explored round the Cheam Islands. (See sketch.) On two of these Islands, settlement has already commenced; but miles of unoccupied land still remain. These Islands are lightly timbered with fir, cedar, and white birch; with undergrowth of hazel, rose-bush, &c. The soil is the usual alluvial deposit, covered with vegetable mould, and has proved, so far, to be very productive; in fact we found here every thing in the shape of root crops, vegetables, &c., which are common to the climate of British Columbia, growing in great luxuriance.

Between Cheam and Hope no unoccupied land of any extent was found. Crossing the river at Hope, we commenced our explorations westward along the northern bank. Between Hope and Agassiz Landing, a distance of twenty-five miles, there is very little worthy of note in the shape of agricultural land. Bare and rugged mountains, with here and there small stretches of land mostly timbered with cottonwood, and subject to overflow, make up this portion of the country. At Agassiz Landing occurs the first break in the mountains. (See sketch.) This open stretch of country is partly occupied, and one of the best cultivated farms met with in the district is to be seen here. The country as far back as the mountains is lightly timbered, with here and there open patches of grass and fern land, and clumps of vine-maple and hazel bushes; and very

little difficulty would be experienced in clearing any portion it. Soil, dark loam, with clay subsoil.

At the northern extremity of this open country is found a valley, or pass in the mountains, about six miles long and three wide, leading to the foot of Harrison Lake. (See sketch). Some very good land is met with here. The valley is thinly timbered with fir and cedar (burnt). Near Harrison Lake the land is low and wet. Two Cranberry Marshes, the largest about 200 acres, are also found here.

From this point we proceeded down the Fraser to Harrisonmouth, thence up the Harrison River and Lake. Along this route the mountains hem in both rivers closely; and with the exception of a tract of wet grass land (400 acres), no unoccupied land was met with, although we ascended the mountains at different points to obtain a view of the surrounding country. At the foot of the lake, to the right, and about half a mile from its junction with the river, is situated a hot spring, the steam arising from which can be seen from some distance as we approach it. The existence of this spring has been known for years; but I am not aware that any particular attention has ever been turned towards it, or the medicinal properties of its waters determined. For ought we know, it may be as valuable as the hot springs of California, which constantly attract invalids from this country. The Indians have, for a long time, been in the habit of using it in certain cases of sickness, and the plan they adopt is this:—A piece of cedar bark is placed on the ground at the edge of the spring from where the steam is rising, and the invalid covered with a blanket, sits in a crouched position on this bark for hours at a time; and if they are to be believed, many cures have been effected. To test the temperature of the water, we threw in a salt salmon, which was cooked in a few minutes.

Leaving Harrison River we proceeded down the Fraser about three miles, and entered what is known as Harris' Slough. (See sketch). On the Island between this slough and the river, as also on the Mainland, a few stretches of high timbered land are met with; these being known by the description of timber (cedar and fir); the parts subject to overflow are covered with cottonwood. Prairie land is also met with both on the Islands and Mainland; this however is nearly all occupied. The slough is about ten miles long, and enters the Fraser at a point opposite Sumass Mountain. The best piece of unoccupied land bordering on the slough, was found near its head on the Mainland; its extent about six hundred acres, lightly timbered.

Leaving the slough we travelled westward to a lake; thence across the lake to a valley (marked Island Prairie on the sketch). The extent of this valley is about 1500 acres, is partly occupied as a range for stock, and is subject to overflow. No unoccupied high land, fit for argricultural purposes, was found bordering on this valley, the mountains almost closing it in on three sides. In the centre of the lake, at the foot of the valley, is an Island containing about five hundred acres of the best land met with on the trip down. The soil is the same met with on the Cheam Islands. This Island is lightly timbered with cedar and fir, but the undergrowth is something wonderful; nettles and berry-bushes are found growing here seven feet high. The timber has all been killed by fire, and very little difficulty would be experienced in clearing. The Island stands about four feet above high water mark. The lake abounds with fine trout, and, at the time we crossed, the surface of the water was covered with ducks and geese, which rose before us in great flocks. The waters of this lake empty into the Fraser, through a slough or small creek, at a point two miles above St. Mary's Mission; and the distance from the mouth of the creek to the lake is about one mile. Between this point and the Mission, the country is hilly and lightly timbered with fir; the soil light and gravelly.

Reaching the Mission we proceeded back to the foot of the mountains, a distance of about five miles. The features of the country here are somewhat different from any met with on the south side of the river. The land is rolling, and stretches of open fern land occur very often. I mean by fern land, land over which the fire has passed, destroying the timber and undergrowth, and upon which fern has sprung up. Here, also, is found the first noticeable difference in the soil from that met with on the south side, which is nearly all formed by alluvial deposits and decayed vegetable matter. The soil here is a sort of red clay, mixed with sand and gravel, and is formed, no doubt, by the decomposition of rocks, and, to judge from its lightness, would not long retain its strength. Between this fern land and the river, and about one mile from the latter, is situated a

belt of alder bottom three miles in extent, the surface of which is broken, and in places wet and swampy. Along the base of the mountain, down as far as Stave River, the country is heavily timbered with fir and cedar, and the soil gravelly.

Following Stave River up as far as the lake, we found very little in the shape of agricultural land. Some very fine timber (cedar and white-pine), was met with round the foot of the lake, but the difficulties in the way of bringing to market, would, I think, be considerable, as the river is little else than rapids all the way. Stave River empties into the Fraser about eight miles below the Mission.

Between Stave River and the Keatsy and Pitt Meadows, the country in its general features much resembles that met with between Stave River and the "Mission;" it is nearly all timbered, with here and there open stretches of fern land,* soil light and gravelly.

Crossing the Keatsy and Pitt Meadows, we proceeded up Pitt River and to the head of the lake, thence back, round the foot of the mountains, to Lillooet River. No unoccupied high land fit for agricultural purposes was found in this neighbourhood, if I except a small stretch of timbered land situated near the mouth of Lillooet River.

Pitt River Meadows contain an area of nearly 20,000 acres, which is subject to overflow from all sides. The whole plain is nearly surrounded by water so that dyking is, in my opinion, out of the question. A great many stretches of cranberry marsh are met with through this country to Keatsy, and perhaps the most profitable purpose to which these meadows could be turned would be for the cultivation of this fruit. Cranberries are now considered an article of commerce, and, if I mistake not, the fact has been established, that the profit accruing from their production is greater than from other branches of agriculture. A number of stretches of swamp land, which might be turned to account in this way, were met with on both sides of Fraser River.

Between Pitt River and Burrard Inlet no exploration was made.

It will be seen from this Report, that the greater amount of agricultural land lies on the south side of the river, and that the places most available for immediate settlement are in the vicinity of the Langley settlement, between Langley and Matsqui, in the neighbourhood of the latter place, and between Chilliwack and Cheam.

It may be said that I travelled through the district at a time when parts of it appeared to best advantage. This I will not attempt to deny. But I also travelled through it when other parts were viewed under the most unfavourable circumstances; portions which, later in the season could have been travelled through with ease, were almost impassable from undergrowth. But these considerations must all be kept in view in order to form a fair estimate of the country.

It is far from the intention of this Report to mislead, or to raise expectations not justified by facts. Go where he may, in the most favourable parts of the District, the settler will find difficulties to contend, but none of such a nature as not to be overcome by industry and perseverance. There are, however, to be found arriving in all new countries, immigrants possessing expectations of such a character that nothing short of a beautiful summer land of sunshine and flowers will satisfy their glowing ideas. It is not to these, but to that class who are prepared to grapple with difficulties and trials common to all new countries, that we say come; and no matter where in the district they elect to build their home, one thing we can assure them, they will meet with a people whose kindness and hospitality is only equalled by the genuine earnestness with which they welcome the stranger within their midst, and who will be found ever ready and willing to extend those little acts of help, which the new settler only knows how to appreciate.

JOHN FANNIN.

October 25th, 1873.

* It will be understood here, that I am speaking of the country lying between the maple ridges bordering on the river, and the base of the mountains, the ridges being nearly all occupied.

REPORT OF EXPLORATION.

EAST COAST OF VANCOUVER ISLAND.

To the Honorable the Chief Commissioner of Lands and Works, British Columbia.

SIR,—I have the honor to inform you that, in accordance with your instructions directing me to proceed to Fort Rupert, and from that point explore Vancouver Island as far as Menzies Bay, with the view of ascertaining whether there was any land suitable for settlement, and in what quantities, I have visited the following places, viz.: Sacquash, Malcolm Island, the Nimkish River, Lakes Karmutzeen, Alooza, and Oh-uck-stal, Beaver Cove, the Needgilgas or Karmutzeen, the Coquish, the Beaver or Ows-huck, the Adams or Hillatti, and the Salmon or Kusam Rivers, from the upper waters of which I came through to Menzies Bay.

I have already had the honor to report to you on the former of these explorations; but a recapitulation may, under the circumstances, be considered advisable.

Sacquash.

Between Fort Rupert and Clickseway, there are extensive ranges of open, grass swamps, running parallel to the coast, from which they are separated by a belt of timber, varying from one and a half to three-quarters of a mile in width, and consisting principally of cedar and hemlock, with some balsam fir; the underbrush is generally thick.

It is not considered that this portion of the country is well adapted for settlement; for although cattle might find good feed during the spring and summer, and a coarse hay might be cut for winter consumption, a very heavy outlay would be required for drainage, before any of this land could be brought under cultivation.

Malcolm Island.

Malcolm Island contains about thirteen thousand acres, and is not as rugged as most of the islands in this vicinity; there is no prairie land on it; the timber is open on the northern shore, and consists principally of spruce and hemlock; on the south side, the woods are not so open, and cedar and hemlock are the main products; the underbrush of sallal and berry bushes is, particularly in the interior, very thick,—in fact we had frequently to cut our way. The soil is generally of a very fair quality; but water appears to be scarce.

Nimkish River.

The Nimkish River is a large stream of about two hundred feet in width, flowing out of Lake Karmutzeen, and falling into Broughton Straits, opposite Alert Bay. Although rapid, the canoe navigation of this river is, with the exception of one riffle, far from bad. On the eastern bank, the ground does not rise in general for a considerable distance from the river; on the western side, the rise is more abrupt, and the bank higher. Adjoining the stream, the underbrush is dense; but a short distance back the

timber is open, and consists principally of hemlock and spruce, with occasional cedar and cottonwood on the low points. There is no open land on this stream; and the soil is of inferior quality. A trail might be easily constructed along its eastern bank.

Lake Karmutzeen.

Lake Karmutzeen is about fourteen miles long, with rocky and precipitous shores; which are timbered with hemlock and spruce. There is a small flat near its foot, of good soil, but wooded and partially flooded at high water.

Needgilgas or Karmutzeen River.

Into this lake, at its south-eastern extremity, the Needgilgas or Karmutzeen (falling water) River (and marked upon the chart as the *Kla-anch*, but not known among the Indians by any such name) falls. Ascending this river for about four miles and a half, the mountains narrow in, and form a series of small cañons for about three and a half miles; beyond this, the valley widens out again, and the banks are usually low, level, alluvial flats. The good land on this stream is estimated at about six thousand acres, most of which would not be expensive clearing. There is some fine Douglas pine in the valley, and the timber, which is generally large and open, consists of cedar, hemlock, alder, and spruce, with here and there a little maple. Unfortunately, the available land is cut up into detached blocks by the mountain spurs and gravel ridges which run down to the stream. These blocks are scattered on both sides of the river, from its mouth to the points to which I penetrated, a distance of thirty-three miles. The stream is a wide and rapid one, and not easily navigable, as the riffles are very numerous, and even occasionally dangerous.

Lake Alooza.

Between the mouth of the Karmutzeen River and Lake Alooza the majority of the land, though good, is subject to floods, and consists in great part of beaver swamps. That portion marked on the chart as good, is timbered with alder and cottonwood; and is not estimated to exceed two hundred and fifty acres.

Lake Oh-uck-stal.

From Lake Alooza to Lakes Oh-uck-stal and Atlucka the ground is broken and rocky, and the West Coast Range appears to begin in this neighbourhood. There is some fine Douglas pine on the dividing ridges between these lakes.

Beaver Cove.

The Cokish River, a small, rapid stream of about sixty feet in breadth, debouches into Beaver Cove; about half a mile from its mouth it is joined by a small tributary—Tsoultou Creek. Ascending the Cokish for about two miles, the mountains begin to narrow in, and from this point there is nothing but a series of cañons, the rocky and precipitous sides of which offer considerable obstacles to travelling. Having, from a mountain side, obtained a view of an apparently endless succession of peaks, without the slightest indication which would lead one to infer the existence of agricultural land beyond them, it was decided to retrace our steps and examine Tsoultou Creek, of which favorable Indian reports had been heard. This stream runs on the eastern side, and near the base of Mount Holdsworth; and I am happy to say we were fortunate enough to discover a beautiful little valley, well watered, and containing about fifteen hundred acres. Here there is a chain of grass prairies, varying from two or three to fifteen acres; and divided from each other by clumps of alder and patches of berry bushes. The whole of this valley might be easily cleared, while there is abundance of timber along its sides for all farming purposes. The soil is of first class quality. A trail has been blazed from the forks to the first prairie, after passing which, intending settlers could easily find their way up the valley. Near the coast, the timber is small and open, and consists almost entirely of hemlock.

A small stream falls into the northern bight of this harbour, and takes its rise in a lake to the westward. There is no indication of agricultural land in this vicinity.

Beaver River, or Ows-huck.

At the mouth of Beaver, or Ows-huck River, there is a gravelly flat, heavily timbered, and valueless for cultivation. Ascending the river, the mountains speedily narrow in; nor is it probable that any land fit for agricultural purposes will be found on this stream. A mountain in the distance was recognized as one which had been seen from the Karmutzeen River; and a monotonous succession of peaks to the southward indicated the hopelessness of seeking agricultural land in that direction.

It should, however, be mentioned, that miners or prospecting parties desirous of exploring the interior, will find an easy trail by keeping the eastern bank of the river.

Adams River, or Hilatti.

Adams River is a large stream of about two hundred feet in width, rapid, with numerous drift piles and riffles. At the mouth, there is an extensive flat of about eight thousand acres, of which, probably, four thousand are suitable for settlement; the soil is very good; the timber, which is open and easily cleared, consists principally of hemlock and spruce; the underbrush of berry bushes is occasionally thick. Ascending the river, detached flats, of from one to two hundred acres, divided from each other by mountain spurs, are passed; most of these are of good alluvial soil, the timber being alder, hemlock and spruce generally open, but with many thick patches of berry bushes. There is a trail, though but little travelled, which following a fork of this stream, crosses a low divide into the valley of Salmon River. At the head waters of Adams River there is a large wet meadow of about three hundred and fifty acres, in which a branch of Beaver River also takes its rise. This as well as several other smaller ones, requires drainage, which might be easily accomplished by cutting a few beaver dams, though it is feared that from its elevation above the sea the snow would probably lie for a considerable time. The best road to this point would be by way of Beaver River.

Salmon River or Kusam.

Last, but not least on the list, Salmon River claims attention. This is a large stream, the sources of which are believed to lie in the neighbourhood of Mount Washington and Alexandra Peak, while two considerable tributaries take their rise from Victoria Peak and Crown Mountain respectively, and add considerably to its volume in the lower portion of the river. The main stream itself is far from rapid, at all events at low water, and is easily navigable for canoes for some twenty miles from its mouth; the current, though strong, is not sufficiently so to render its ascent a matter of difficulty even to inexperienced canoeemen, the riffles being unimportant and nowhere dangerous. It is believed that at moderate stages of the water, light draught steamers would be able to ascend ten or twelve miles. The valley may be described as about twenty miles long, varying in width from one and a half to five miles. It is estimated to contain forty thousand acres of land, of which at least twenty-five thousand are eminently adapted for settlement. In these figures it has been my endeavour rather to under than over-estimate. The soil throughout from one mountain range to the other is of very superior quality. On the banks of the river there is usually a narrow belt of timber, cedar, hemlock, and a little red fir and spruce, beyond this one finds dry alder bottoms with the trees ten or fifteen feet apart, while grass sometimes and sometimes berry bushes represent the underbrush; small fern prairies, of from five to ten acres, and clumps of hemlock and spruce are scattered throughout the whole valley, and with the exception that towards the mouth the soil is inclined to be rather more swampy than above, this is its character for twenty miles. In many places there is excellent feed to be found on the base of the mountains. Still higher up the river there is a considerable quantity of white pine, of fair size. The next consideration which presents itself is as to the modes of reaching this valley, of which there are two. One may be dismissed in a very few words, and is the only one at present available, viz: by canoe from Salmon Bay.

The other is by trail from Menzies' Bay which presents the following advantages:—

Firstly,—Menzies Bay is a good harbour, and lies to the southward of the Seymour Narrows;

Secondly,—That it is directly on the line of the projected railway;

Thirdly,—That it is no great distance from the head of the proposed settlement; and

Lastly,—That the country is favourable for trail making.

The only obstacle appears to be a large lake, which extends from the Menzies Mountain many miles to the southward. Even this however, offers a convenient place for crossing, since two opposing points stretch far into the lake, and only leave a gap of some three hundred feet to bridge.

Omitting a bridge at the lake, it is estimated that a good pack-trail could be constructed for a sum not exceeding \$1,800, viz.: say

Twenty miles of trail, at \$60 per mile	\$1,200
Bridging and corduroying, say.....	600
	\$1,800

I can lay claim to no new discoveries of minerals; the only chance I have seen of employing capital, is in the development of some extensive marble quarries, of which a small mountain range, through which the Needgilgas River has cut a cañon, appears entirely to consist. I am indebted to Mr. Huson for the information in the first place; and, on a cursory examination, found that this ridge probably extends a distance of four or five miles, with a width of at least a mile. The marble is of good quality, and it is considered practicable to build a tramway from Beaver Cove to these quarries.

To Mr. Hunt, of Fort Rupert, and Mr. Huson, of Alert Bay, I am indebted for much valuable information and assistance, as well as for great personal kindness and hospitality.

I enclose a sketch map of our explorations.

I have the honour to be, Sir,

Your most obedient Servant,

EDWARD MOHUN, C. E.

Victoria, British Columbia,
29th October, 1873.

REPORT OF EXPLORATION.

CASSIAR DISTRICT.

To the Honorable the Chief Commissioner of Lands and Works, British Columbia.

SIR,—From Fort Wrangle to the mouth of the Stickeen River the distance is about five miles; from the mouth of the river to the Big Bend, distance about eighteen miles; and the average course east. From the Big Bend to the Great Glacier seven miles—average course north by east. From the Great Glacier to the Hudson Bay Company's post, distance about thirty-eight miles; average course north by east; portion of this part of the river is a great deal cut up by sloughs, snaggy and shallow in the fall of the year. From the Hudson Bay Company's post to Salmon Creek, six miles; average course west; also a portion of this part of the river is cut up by sloughs, snaggy and shallow. From Salmon Creek to the Little Cañon, about seventeen miles; average course north. From the Little Cañon to Klutchman's Cañon, nine miles; average course north by east. From Klutchman's Cañon to Clearwater River, about fourteen miles; average course north-east by north. From Clearwater River to Collins' Bar, eight miles; average course north by east. From Collins' Bar to Shakesville, about seven miles; the average course north-east by north. From Shakesville to Miller's Bar, about nine miles; average course north-east by north. Three and a half miles above Shakesville there is one riffle, not navigable for steamboats at low water; with high water it is good; and with middling stage can go through the slough, leaving the riffle to your right. From Miller's Bar to Telegraph Creek, foot of the Great Cañon, distance nine miles; average course north north-east.

The ice leaves the river from the 24th April to the 5th or 6th of May. From that time, suitable river steamers can run the river until the first or middle of October; some seasons they may run later, from Collins' Bar to the first North Fork.

Vegetables and good potatoes are raised to good advantage. From the Little Cañon up, the snow falls light, from two to four feet. From the cañon down, snow lies after it has settled, from five to nineteen feet deep in places on the river bottoms. On the Upper Stickeen, the spring opens early; the snow disappears in the latter part of March or the first of April. The weather, from the 1st May, and through the summer months, is at times excessively warm.

When my sons and I arrived at the foot of the Great Cañon, on the 22nd May, 1873, where we expected to get an Indian for a guide; after a day or two's delay, we started without a guide. As there were no Indians on the Stickeen at that time of the year we could gather very little information about the trail. The trail follows the Stickeen River for about twenty-five miles, along a bench country, cut up by numerous deep gulches, including the first and second North Forks. At the second North Fork, we were detained two days and a half building a bridge; then the country is tolerably level and dry for twenty miles; then travelling through swamps for twelve or fourteen miles further, we came to a mountain which we were obliged to climb; we travelled on these mountains for about fifteen miles, and found ourselves getting into a slate range, which we followed for ten miles or more. This ridge of mountains runs about north and south. The waters of these mountains, as you will perceive by the map, run into the second and third North Forks of the Stickeen River. Then coming to a large valley, running north-east by north; followed this valley for twelve or fourteen miles. There is a large creek running through the centre of this valley, with numerous small creeks and gulches emptying into it. I have since proved that this creek is the head waters of Dease's Creek. Not knowing the exact locality of the lake, we turned a little more to the eastward, and struck Dease's Lake about midway between Dease's Creek and the head of the lake, on the 13th June, with double packs to each man. A day or two before we got to the lake, we crossed a creek which I prospected, and found a few fine "colours;" cached our provisions; went up the lake, and started back to the Stickeen

through the valley; arrived at Miller's Bar on the 17th June. The first forty miles on the road to Dease's Lake, from Stickeen, the feed for animals is good and extensive; but the balance of the way the feed is not so good, and limited.

Left Miller's Bar on the 20th for the lake, with double packs each. Anxious to find out the best practical pack trail, I took the mountain trail, eastward of the third North Fork, which is the trail the Indians travel to Dease's Lake. To the Upper Stickeen, I found this part of the country much higher than what I anticipated; and also numerous swamps and deep moss. Patches of snow laying along the trail in the first part of July.

We arrived at the lake again on the 7th July. On the 8th, we started down the lake. On the afternoon of the 9th we arrived at the mouth of Thibert Creek. I went up a short distance and prospected a little; found a few fine colours, and came back to camp. Next morning I went up the creek again; found Mr. Thibert and his two partners, who were all the men who were on the creek; prospected some that day, and returned to camp. Next morning we started to pack our provisions up the creek, which took us several days. On the 15th July, we located our claims on Thibert Creek, and got ready to work. On the 25th, I and my son went prospecting on a creek which we call Delure Creek; it empties into Thibert Creek. I prospected there until the 30th; found a little gold, but not in paying quantities. I ran a cut in one place; found a little gold in the gravel, but none on the bed-rock, as the rock was smooth washed. In other places, I could not get to the bed-rock on account of water, as the creek was high.

Thibert Creek has turned out very good, but there is a great drawback on this creek—that is frost—in some places on the shady side of the creek the ground is frozen right down to the bed-rock.

The Rath Co., Collins Co., Reynolds Co., Discovery Co., and the Waldron Co., are considered the best claims on Thibert Creek. These companies have made from two to four ounces a day to the hand; all working with rockers, except the Waldron Co., who had sluices.

Not being well, and having a sore leg, I was unable to travel. On the 19th August, I sent my two eldest sons out prospecting. They arrived on Dease's Creek on the 20th, and on the 24th, staked off the Discovery Claim, and came back to Thibert Creek on the 27th, with a prospect of twenty cents to the pan, having prospected the creek about three miles, and found paying prospects all the time. But this did not start the miners from Thibert Creek; they said it was only a few spots of fine gold; but according to what my sons told me of the creek, I was satisfied there were good diggings on this creek, and sent them over again on the 29th. On the 2nd September, I sent my youngest son and an Indian with packs of provisions; when they came back again, I started over, and found my sons running up a drain and washing the gravel with a rocker, which paid them five ounces a day; they had been rocking then two days. I also went up the creek and prospected. Being satisfied that the creek was rich and extensive, I returned to Thibert Creek, and informed the miners the creek was good. Nearly all of them went over to Dease's Creek and located ground. All found big prospects, that will pay from ten to one hundred dollars a day with sluices.

On the 24th September, the weather turned cold, with a north-east wind, and continued so until the 29th; then it started to snow, with a north-east wind; all the miners leaving the creek. It continued cold, and snowing heavy, until the 1st October; we then packed up and left. Found Mr. Rath and brother at the mouth of the creek, and travelled out together; weather very cold, and blowing a heavy north wind, with snow. On the 3rd October, it moderated. By this time the snow was from twenty to thirty inches deep; the same day it commenced to rain. On the 7th, we arrived at Buck's Bar.

Dease's Lake opens from the 15th to 25th May.

Your's respectfully,

WILLIAM MOORE.

Victoria, British Columbia,
29th November, 1873.

PUBLIC ACCOUNTS

OF THE

PROVINCE OF BRITISH COLUMBIA,

1873.
