SUPPLEMENT TO THE REPORT OF THE CHIEF COMMISSIONER OF LANDS AND WORKS, 1897.

:o:

To W. S. Gore, Esq.,
Deputy Commissioner Lands and Works,
Victoria, B. C.

SIR,—In compliance with instructions from the Department, dated 27th July, 1897, I have made a thorough and careful examination of the Hootalinqua River, taken accurate soundings and notes thereof, and also made a complete inspection of the water-way from the south end of Teslin Lake to Dawson City, on the Yukon River, an approximate distance of 569 miles. This distance was measured by time and carefully recorded, the result of which shows Teslin Lake to be 112 miles in length, Hootalinqua River, 118 miles, the Lewes and Yukon Rivers to Dawson City, 339 miles—a total distance of 569 miles. Upon this fine stretch of navigable water I have the honour to submit the following report:—

Having already submitted a short report on the trail from Telegraph Creek to Teslin Lake, shall confine this report chiefly to the water stretch, more especially that portion covered by the Hootalinqua River.

Teslin Lake is a beautiful sheet of water. Commencing at the south end of what is now designated the South Arm, the width of the lake varies from 450 feet to half a mile for a distance of 12 miles. From this point the width varies from 2 to 7½ miles until it reaches the north end, from which the Hootalinqua River flows. The lake is generally deep, in many places there is a great depth of water. The lands at the shores are flat, level table lands, broken hills and mountains, which latter at some points extend nearly to the edge of the water, more especially at the northern end of the lake. But there the mountains are not of high altitude, 1,000 to 1,500 feet, and clay bluffs of irregular formation usually intervene between the water edge and mountains. A rough sketch of the lake is annexed to this report.

The Hootalinqua is a noble river. The general trend of the river is north-westerly. For many miles the upper end of the river has a very regular course, with many long, straight reaches; the lower end has a more irregular course.

The width of the river varies from 260 to 1,000 feet, as taken by observation, and the depth varies from 5 to over 18 feet, as recorded by the soundings.

The current of the river is usually slow, from 1¾ to 4½ miles per hour, excepting at two points where 5½ miles, and one point where 6½, are recorded, but the distances are very short. There is nothing throughout its length which can be properly classified as a rapid.

The bed of the river at the Teslin Lake end is hard clay for a short distance, but it is generally composed of small boulders and gravel.

The banks of the river are river flats, hills, broken ridge hills, level table lands 8 to 20 feet above the water, clay and gravel, sand and silt banks. These several formations, in alternate succession, form the character of the banks of the river throughout its whole length. River flats frequently occur on both sides. At many points the clay and gravel, sand and silt banks have perfectly regular slopes of beautiful form, and are frequently castellated similar to those along the Thompson River, between Spence's Bridge and Kamloops Lake. They have an attractive appearance.

The timber is chiefly small spruce, poplar, birch and black pine. The hills and mountains are very often bare of trees, but bunch-grass is abundant.

The channel of the river has numerous islands. At some points, by including these, the width is largely increased. This generally results in a decrease of the depth of water. The deep channel is in many places irregular, crossing and re-crossing from bank to bank.

At 43 miles, where a depth of only 5 feet is recorded, undoubtedly a deeper channel does exist. At this point islands are numerous, but every effort that time would admit of was made to sound deeper water. Should a greater depth be required it can easily be obtained by constructing wing-dams, or putting a dam across one of the channels between the islands. At 73½ miles, where a similar depth of 5 feet occurs, a deeper channel shows on the west side of the river.

At 6½ miles down stream from Teslin Lake, rock crops out on the west bank of the river close to the water's edge.

The river does not indicate that any great and damaging freshets occur. There are no log-jams, and no signs of ice-jams. The greatest rise of water appears to be about 5 feet.

Many small streams empty into the river, and they may be considered gold-bearing. Colours were found at a few points which were examined.

Mountain ranges show in the distance on both sides of the river.

As the notes taken are very copious, sufficient to fill a very lengthy document, it is considered advisable to annex to the report a rough sketch of the river, with abridged notes, and the distances, widths and soundings in a tabular form. This will furnish a clear and comprehensive knowledge, such as may be required.

At 118 miles intersect the Lewes River. Islands and flats characterize the junction. There appears to be a gravel bar, but the lowest depth of water shows 7 feet.

From the foregoing statements, in conjunction with annexed sketch and notes, it must be inferred that the Hootalinqua is a magnificent stretch of water, suitable for navigation by light draught, powerful river steamers.

From the confluence of the Hootalinqua and Lewes Rivers, general notes were carefully recorded, along the latter as far as Dawson City, a distance of 339 miles. As the soundings taken for a few miles were very satisfactory, and the channel of the river showing a depth of water sufficient for the purpose of navigation, it was not considered necessary to incur the delay required to continue taking soundings.

The course of the river is almost due north from the mouth of the Hootalinqua to the Big Salmon River, a distance of 31 miles. From thence it flows in a north-westerly direction.

The width of the river varies from 600 to 1,500 feet. At some points, where numerous islands occur, the valley has a width of from half to one mile.

The current varies from 3 to 5 miles, excepting at the Five Finger Rapids, where the speed is about 14 miles.

The bed of the river is chiefly boulders and gravel.

The river banks maintain a sameness of character throughout, flats, steep gravel, clay and sand banks, broken ridges, hills and mountains; rock crops out occasionally. These formations are generally in alternate succession, but at some points the flats are on both sides. The timber is chiefly small spruce, poplar and birch.

The trend of the river is very irregular, full of islands and gravel bars. The water is much clearer than that of the Hootalinqua, and has a bluish tint. The climatic indications assume a more northerly aspect than the valley of the Hootalinqua.

At 31 miles from the mouth of the Hootalinqua, pass the Big Salmon River, which flows in on the east side. The Little Salmon River joins the Lewes at 65 miles on the east side. At 72 miles, pass the Eagle's Nest Rock. At 118 miles coal prospecting is being carried on in rocky mountain on the east bank of the river.

At 120 miles meet the Five Finger Rapids. The passage was made through the most easterly channel. The rapids are rough and foam up furiously, but the distance is very short and the depth of water good. There is every possibility of a steamer with powerful engines being able to make it, the distance is so short. In any case there is an excellent surrounding to enable a steamer to be lined over the difficulty. These rapids can be very much improved by the removal of some of the rocks. The blasting required should be done during the winter season at as early a date as possible. The rapid at some distance farther down stream is not of much importance.

At the distance of 175 miles from the Hootalinqua River, pass Fort Selkirk on the west bank of the river, and the great Pelly River, which enters on the east side. From this confluence the Lewes River becomes the Yukon.

At 244 miles meet the mouth of the White River, which enters the Yukon on the west side. In this river the ice was running in large quantities.

At 258 miles the Stewart River, said to be so rich in gold, joins the Yukon on the east side; 282 miles reach 60-Mile Post. There is a store and some cultivated land at this point. The 60-Mile Creek joins the main river on the west, opposite to the store, which is located on the east side.

At 339 miles strike Dawson City. The city is a long straggling place, composed of log cabins and tents, located on the eastern bank of the river. The town extends over two miles along the river front, is in two divisions, divided by the Klondike River. The south division bears the dignified name of Louse Town, and the north division is called Dawson City. The population of the town and mines will be at present about 7,000. An immense number of the fortune hunters are frozen in along the different trails. The only buildings with any pretension to size are three stores, opera house, hospital, two or three saloons and the police barracks. Saloons and restaurants are innumerable. Whiskey is largely consumed at these places, and costs 50 cents to $1 per glass. A famine in food is likely to occur during the early spring. There is a great shortage, the stores have nothing to sell, such as flour, rice, beans and bacon. Flour is now fetching $100 per bag, 50 pounds. Rice, beans and bacon, $1.00 per pound. Beef, $1.25 per pound by the quarter, and everything else in proportion. Many hundreds of the miners are obliged to go out, which is a serious and dangerous undertaking.

Gold has been and is being taken out of the creek beds which empty into the Klondike River in marvellous quantities, especially on the Bonanza and Eldorado; $800,000 was refused recently for seven claims.

Before closing this report it is desirable to draw your attention to the immense importance of establishing the route from Fort Wrangel *via* Teslin Lake and the Hootalinqua River. It is a grand project, commanding over 2,500 miles of river navigation with only one portage of 100 or 120 miles, over which a railway can be constructed without any difficulty. The opening of this route would result in enormous benefit to the coast towns of British Columbia. It would not only open up this vast gold region, but also the District of Cassiar, which is so rich in mineral wealth. Therefore the construction of this short line of railway is worthy of an active move on the part of the Government of B. C. The Dominion Government must see the importance of making the necessary river improvements at an early date.

Trusting the foregoing statements are placed before you in a sufficiently clear and satisfactory manner,

I have, &c.,
(Signed) L. B. HAMLIN,
C. E. & D. L. S.

Dawson City, N.W.T., 1st November, 1897.

NOTE.—Received at Victoria 9th March, 1898. Plans referred to have not yet been received.
W. S. G.

VICTORIA, B. C.:
Printed by RICHARD WOLFENDEN, Printer to the Queen's Most Excellent Majesty.
1898.

SKETCH MAP
OF THE SOUTHERN PORTION OF
BRITISH COLUMBIA
indicating
CHIEF MEANS OF COMMUNICATION
DEPARTMENT OF LANDS AND WORKS
VICTORIA 1897.
SCALE OF STATUTE MILES.
SURVEYOR GENERAL.
ROADS
TRAILS
ALASKA
PRINCE OF WALES I.
REVILLA GIGEDO I.
DIXON ENTRANCE
HECATE STRAIT
QUEEN CHARLOTTE ISLANDS
GRAHAM I.
MORESBY I.
BANKS I.
PRINCESS ROYAL I.
KING I.
CASSIAR DISTRICT
COAST MOUNTAINS
WESTERN MINISTER
LILLOOET DISTRICT
CARIBOO DISTRICT
YALE DISTRICT
COMOX DISTRICT
NANAIMO DISTRICT
COWICHAN DISTRICT
ESQUIMALT DISTRICT
KOOTENAY DISTRICT
EAST KOOTENAY
WEST KOOTENAY
NORTH WEST TERRITORY
PACIFIC OCEAN
UNITED STATES
PEACE RIVER
PEACE RIVER ROUTE FROM EDMONTON
TRAIL TO THE STIKINE RIVER
OCEAN ROUTE TO STIKINE
LYNN CANAL
QUEEN CHARLOTTE SD.
PORT SIMPSON
PORT ESSINGTON
HAZELTON
MANSON
TACLA L.
BABINE LAKE
FT. MC LEOD
STUART L.
FT. ST. JAMES
FT. FRASER
FT. GEORGE
G. PORTAGE
QUESNELLE
BARKERVILLE
TETE JAUNE CACHE
SODA CREEK
CHILCOTEN
150 M. HOUSE
CHILCOH L.
CLINTON
CACHE CR.
LILLOOET
ASHCROFT
KAMLOOPS
SPENCES BR.
COTTON
NICOLA
SALMON ARM
ENDERBY
GRIFFIN L.
SICCAMOOSE
REVELSTOKE
GLACIER
ILLECILLIWAET
DONALD
GOLDEN
BANFF
CALGARY
LARDEAU
ARROWHEAD
UPPER ARROW LAKE
NAKUSP
NELSON
KASLO
SLOCAN
ROSSLAND
TRAIL
NORTHPORT
GRANBROOK
FT. STEELE
KOOTENAY
CROWS NEST PASS
TOBACOD PLAINS
BONNERS FERRY
RECLAMATION WORKS
BEVINGTON
MISSION VAL.
OKANAGAN LAKE
PENTICTON
PRINCETON
GRANITE CK.
KEREMEOS
FAIRVIEW
OSOYOOS
GREENWOOD
GRAND FORKS
MIDWAY
KILLARNEY
ABBOTSFORD
CHILLIWACK
AGASSIZ
HOPE
YALE
VANCOUVER
NEW WESTMINSTER
HAZELMERE
BLAINE
WHATCOM
COMOX
UNION
NANAIMO
CHEMAINUS
DUNCAN
CARMANAH
ESQUIMALT
VICTORIA
SOOKE
Cape Scott
Cape Cook
Cape St. James
Cape Flattery
Rivers Inlet
Smith Sd.
Sarcee
Bow River
Red Deer R.
Athabasca
Pembina River
Peace River
Fraser River
Columbia River
Kootenay L.
Okanagan L.
Shuswap L.
Quesnelle L.
Stuart L.
Babine L.
Tatlatch L.
Cheslatta L.
Nechako R.
Nation R.
Parsnip River
Omineca R.
Skeena R.
Kitimat R.
Kitsumkalum R.
Bella Coola R.
Chilcotin River
Chilanko R.
Bridge River
Lillooet R.
Thompson River
North Thompson
Nicola R.
Similkameen R.
Okanagan R.
Kettle River
McKinney
Columbia River
Kootenay River
Elk River
Smoky River
Little Smoky R.
Athabasca River
Baptiste River
Mc Leod River
Pembina River
Little Slave Lake
Athabasca Landing
Saskatchewan R.
Battle River
Red Deer R.
Bow River
Upper Kootenay L.
Columbia Lakes
Lower Arrow Lake
Kootenay Lake
Trout L.
Lac des Français
Cheslatta L.
Intahtah L.
Ootsabumeen L.
Blackwater R.
Quesnelle Lake
Horsefly L.
Horse L.
Green L.
Big Creek
Bridge River
Anderson L.
Seton L.
Lillooet L.
Cayoosh Cr.
Harrison Lake
Pitt L.
Howe Sound
Burrard Inlet
Salmon R.
Stellaco R.
Tatla L.
Chilanko R.
Tatlahcoh L.
Knight Inlet
Loughborough Inlet
Bute Inlet
Toba Inlet
Powell Lake
Jervis Inlet
Sechelt
Knight Inlet
Kingcombe Inlet
Sarcee Inlet
Queen Sd.
Millbank Sound
Deans Ch.
Gardner Ch.
Douglas Ch.
Skidegate Inlet
Browning Ent.
Portland Canal
Hastings Arm
Observatory Inlet
Nass River
Skeena River
Kitimat R.
Lynn Canal
Cape Chacon
Cape Scott
Quatsino Sd.
Kyuquot Sd.
Esperanza Inlet
Nootka Sound
Clayoquot Sd.
Barclay Sd.
C. Beale
Juan de Fuca Strait
Strait of Georgia
Saanich Inlet
Sooke Inlet
Chehalis L.
Skagit River
Chelan L.
Okanagan R.
Kettle River
Columbia River
Kootenay River
Elk River
Smoky River
Little Smoky R.
Athabasca River
Baptiste River
Mc Leod River
Pembina River