

**PRELIMINARY REPORT ON
THE KLONDIKE
GOLD FIELDS, YUKON
DISTRICT, CANADA**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649267699

Preliminary Report on the Klondike Gold Fields, Yukon District, Canada by R. G. McConnell

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

R. G. MCCONNELL

**PRELIMINARY REPORT ON
THE KLONDIKE
GOLD FIELDS, YUKON
DISTRICT, CANADA**

GEOLOGICAL SURVEY OF CANADA
G. M. DAWSON, C.M.G., LL.D., F.R.S., DIRECTOR.

PRELIMINARY REPORT

ON THE

KLONDIKE GOLD FIELDS

YUKON DISTRICT, CANADA

BY

R. G. McCONNELL, B.A.



OTTAWA
GOVERNMENT PRINTING BUREAU
1900

No. 687

The annexed report by Mr. R. G. McConnell is based almost entirely on field-work carried out by him in the summer of 1899, during which his whole time was devoted to an examination of the Klondike region. It is essentially the report prepared by him for inclusion in the annual Summary Report of the Geological Survey Department; but in order to promptly meet the demand for information and to ensure it an extended circulation, it is now printed separately somewhat in advance of the issue of the Summary Report.

Some account of the geology and conditions in the Klondike gold fields has been given in the Summary for 1898, but the present report may be regarded as the first result of a systematic and moderately detailed scientific examination of the district.

The map accompanying this report is a preliminary one, compiled by Mr. J. F. E. Johnston, largely from surveys made by himself while assisting Mr. McConnell in the field.

GEORGE M. DAWSON.

GEOLOGICAL SURVEY OF CANADA,
March 10, 1900.

10

11

12

13

PRELIMINARY REPORT

ON THE

KLONDIKE GOLD FIELDS

Prospectors have been at work in the Yukon Region since about 1878, but mining can scarcely be said to have begun till some years later, and then, at first, only on a very small scale. River-bar mining began on the Lewes and Salmon in 1881 and 82, on the Stewart in 1882 or 1883. This was followed by the discovery of (coarse) gold on Forty-mile River in the autumn of 1886. The tributaries of this stream yielded the next discoveries, and the producing field was gradually extended across the watershed to streams flowing into Sixty-mile River. In 1896 the Klondike discovery was announced and the extreme richness of the new field speedily attracted, in 1897 and 1898, a host of adventurers from all parts of the world. The route followed by the majority was by steamer from Vancouver, Victoria and United States coast towns further south to Skagway or Dyea across the Coast Range by the Chilcoot or White passes to the head of the Lewes, and down the latter stream and the Yukon, in canoes or boats, to Dawson at the mouth of the Klondike River. This route, which entailed considerable hardship and some danger, is still followed, but under very different conditions. The pack-trail of the pioneer across the White Pass has been replaced by a well built and equipped railway, and the canoes and small boats on the rivers have given way to a fleet of steamers. The journey from Vancouver to Dawson can now be made in comfort in about a week, and is well worth taking as a pleasure trip alone. A telegraph line has been built by the Canadian Government from Skagway to Dawson, and although this remains at present separated from the telegraphic system of the world, work is already in progress by which it will soon be connected with this system at Quesnel, in British Columbia.

The discoveries above briefly alluded to brought about rapid changes of various kinds besides those relating to means of communication. Previous to the discovery of (coarse) gold on Forty-mile River the centre of such limited trade as existed in the country was at the mouth of the Stewart River. In 1887 this was removed to the vicinity of Forty-mile River, and this continued to be the chief place until the Klondike discoveries occurred in 1896, when the town of

Dawson was established on the bank of the Yukon just below the confluence of the Klondike River. This rapidly became and has since remained the chief commercial centre.

When a small force of the North-west Mounted Police was first sent into the Yukon District in 1895, in the interests of law and order, it was quartered near Forty-mile River. Later on, this force increased and the circumstances led to the removal of most of the men to Dawson. This place has since become the seat of government for the entire Yukon District. A local administration, with courts of justice and other organizations necessary for the government of the Yukon district have been established, and the city is now not unprovided with most of the requirements of a civilized and progressive community.

This report relates almost exclusively to the Klondike gold fields proper. For information relating to the geology and geography of the Yukon district generally, reference may be made to the Report on an Exploration in the Yukon District (Reprint, 1898) and to the Summary Report of the Geological Department for 1898.

Extent of Klondike Gold Fields.

The Klondike gold fields are situated east of the Yukon River in latitude 64° north. They are bounded in a general way by the Yukon River on the west, by the Klondike River on the north, by Flat Creek a tributary of the Klondike, and Dominion Creek, a tributary of Indian River, on the east, and by Indian River on the south. The area included between these boundaries measures about 800 square miles. The streams flowing through the area described are all gold-bearing to some extent, but only a limited number have proved remunerative. The most important gold-bearing streams are Bonanza Creek, with its famous tributary Eldorado Creek, Bear Creek and Hunker Creek flowing into the Klondike, and Quartz Creek and Dominion Creek, with Gold Run and Sulphur Creek two tributaries of the latter, flowing into Indian River. A good deal of prospecting has been done outside the area described, but with the exception of a few claims on Eureka Creek, a tributary of the Indian River from the south, no pay-gravels have so far been discovered, although good prospects are reported from many places.

Topography.

The Klondike region may be described as a high plateau cut in all directions by numerous deep and wide branching valleys. The general aspect viewed from one of the higher elevations is rough and hilly but

fairly regular. The outlines are rounded, the slopes even, and sharp peaks are notably absent. The region is really formed of a system of long, branching, round-backed ridges, separated by deep, wide, flat-bottomed valleys. Most of the ridges, speaking broadly, centre in the Dome, the highest eminence in the district.

The ridges have an average elevation above the valley-bottoms of 1500 feet. They are deeply gashed on both sides by steep gulches and are surmounted by numerous bare rounded prominences separated by wide depressions. They radiate out in irregular curved lines from the Dome and descend gradually, throwing off branches at intervals, towards the main water courses.

The elevation of the ridges and surmounting hills is fairly uniform. The Dome has an elevation of about 4250 feet above the sea, 3050 above the Yukon at Dawson and about 500 feet above the ridges at its base. It is not conspicuously higher than other hills in the neighbourhood, and the gradual decrease in elevation outwards along the ridges is scarcely noticeable to the eye.

The valleys are wide and flat-bottomed in their lower parts, but gradually narrow towards their heads into steep-sided narrow gulches, which terminate abruptly in steep, rounded, cirque-like depressions cut into the sides of the ridges. The valley-flats are marshy, partly wooded, and are wider on the Indian River than on the Klondike slope. The flats bordering the lower parts of Dominion Creek have a width in places of nearly half a mile.

The streams are small, seldom exceeding 15 feet in width, even at their mouths, and along the productive portions of the valleys are much less. They fall rapidly near their heads, but in descending the valleys the grade soon diminishes, and in the case of Dominion and other Indian River creeks does not exceed, in the lower parts of the valleys, 25 feet to the mile. The Klondike streams are somewhat steeper, the grade averaging in the lower parts of the valleys about 40 feet to the mile.

The Klondike River is a large rapid stream averaging about 150 feet in width. It is interrupted by frequent bars, and has a fall of from 12 to 15 feet to the mile. Indian River, which forms the southern boundary of the district, is a much smaller stream. It has a width of from 20 to 40 yards, but is very shallow, the water on the bars seldom exceeding a few inches in depth. The channel is filled, for long stretches, below Quartz Creek, with large angular boulders and the navigation of the stream, even with small lightly loaded boats, is very difficult. The fall of the valley from Australia Creek to the mouth averages about 18 feet to the mile.

Forest.

The forest trees consist of the white and black spruces, the aspen and balsam poplars and a species of birch. No pine or fir trees were noticed. The lower ridges and the slopes of the higher ones up to a height of 3500 feet above the sea, are generally wooded, and stunted spruces occur sparingly on the highest points in the district. The valley-flats are only partly wooded. Groves of spruce and poplar occur at intervals, but alternate with bare swamps and marshes too soft to support a forest growth.

The white spruce is the most important tree for general purposes in the district. It is usually small on the ridges, seldom exceeding a foot in diameter, but in the valley-flats occasional specimens attain a diameter of over two feet and a large proportion of the logs cut for lumber, measure from nine to fifteen inches across. The supply for the mills at Dawson is obtained mostly from the flats and islands along the upper Yukon, and from the Klondike valley and is ample for all purposes for many years to come. The Klondike is bordered at intervals all the way from its mouth to the mountains by groves and small tracts of spruce forest of surprising size and quality considering the latitude, and supplies of well grown spruce timber are also available from all the larger tributaries of the Upper Yukon as well as from the main valley, and can be easily and cheaply floated down to Dawson.

The supply of large timber on the producing creeks themselves is limited, but the bordering ridges are nearly everywhere, except on the higher points, clothed with an open forest of small spruce, birch and poplar ranging from a few inches to a foot or more in diameter. A portion has been destroyed by forest fires, but sufficient remains to furnish all the fire-wood and most of the lumber required for mining purposes for a considerable time.

GEOLOGY.

The geology of the gold region is complicated and need only be briefly described here. The rocks are separable into the following divisions, none of which can, as yet, be exactly correlated with formations described in previous reports on British Columbia, the Yukon District or Alaska. The order is ascending, so far as known.

Stratified and foliated rocks, mostly Palaeozoic	}	Indian River series.
		Hunker series.
		Klondike series.
		Moose Hide group (in part.)