

Mineral Occurrences of the Stewart District

E. E. Campbell, Mine Superintendent, Anyox, B.C.

Paper Read Before Meeting of Canadian Mining Institute
Held in Vancouver, November 26th to 28th.

For the past year no part of British Columbia has demanded more interest from a prospective mineral producing standpoint, than that tributary to Stewart. About ten years ago this place was the centre of a noted mining boom, and although at that time several properties of decided merit were found, the district was more or less discredited by the foolish exploitation of a few properties of questionable value.

The interest now being taken in mine development in the Stewart District is based on many valuable discoveries of high grade ore, and these cover such a wide area that the district as a whole cannot fail to be one of first importance.

Only that portion of the Stewart mineral area situated on the Salmon River will be discussed in this paper, as it is in this part that many of the recent finds of rich ore have been made.

It has always been the opinion of geologists and engineers that the successful future of the mining industry in northern British Columbia must depend upon the development of primary ores of comparatively low metal tenure.

Due to heavy glaciation most of the oxidized portions of the outcropping ore bodies have been removed; the same can be said of the surface enriched zones, as few ore bodies on the north coast, on development, show definite evidences of surface enrichment.

The recent discovery of extensive ore bodies carrying minerals that are unquestionably of secondary origin, establishes a reversal of the conditions thought to exist,

as well as a change in the opinion of mining engineers regarding the types of ore to be encountered in the district.

Prospecting for minerals in northern latitudes has never been carried on as enthusiastically as in the districts further south, such as in California, Arizona and Mexico, due to the lack of rich surface ores. In these southern climates no glacial erosion occurred at the time the northern portion of the hemisphere was enveloped in ice, which left that area free to the processes of oxidation and subsequent enrichment. This produced many rich surface ores which were eagerly sought for by the prospector, and when found, could easily be turned to his credit.

The northern prospector generally had low grade ore to deal with, the development of which usually entailed much capital, unless specially favored by location or other physical advantages.

The discovery of rich surface ores in the Stewart District, has so stimulated prospecting, that the final results to the prospector, mine operator and the Province, should be manifold, and such discoveries should be an incentive to the further examination of other districts and the uncovering of new ore bodies.

A large part of the coast range of British Columbia and the adjacent portion of Southeastern Alaska, is made up of granitoid rocks. These vast bodies of granite enclose, or are adjacent to, many scattered areas of sedimentary and numerous types of igneous rocks, and it is these areas flanking the granite mass that afford the greatest promise of reward to systematic prospecting. The Stewart mineral showings occur in one of these areas adjacent to the granite.

For the first five miles up the Salmon River from where it empties into the Portland Canal, the country rock con-

(Continued on Page 20.)

PROVINCE OF BRITISH COLUMBIA

Capital Assets exceed Capital Liabilities by \$16,821,989.

Current Liabilities exceed Current Assets by \$3,062,984.

For the year ending March 31st, 1918, net revenue of \$8,882,846 exceeded net expenditure of \$8,399,649 by an amount of \$493,201.

THE PROVINCE HAS UNPLEDGED ASSETS OF

| | |
|---|-----------------------------|
| Agricultural Lands Suitable for Settlement..... | 50,000,000 Acres. |
| Timber Lands of Saw Material..... | 349,568,000,000 Board Feet. |
| Coal Lands..... | 83,828,523,000 Tons. |

PRODUCTION FOR YEAR ENDING DECEMBER 31ST, 1918.

| | | Inc. Over 1917. |
|---|--------------|-----------------|
| Agricultural | \$49,543,008 | 31.55% |
| Mining | \$41,083,093 | 11.00% |
| Lumbering | \$54,162,523 | 12.00% |
| Fishing | \$21,518,495 | 40.50% |
| General Manufacturing and Other Industrial, Approximately | \$50,000,000 | 37.50% |

The Minister of Finance will be pleased to answer any enquiries of a financial nature, and where the enquiry does not directly concern his department he will be pleased to see that it is referred to the proper department and receives prompt attention.

JOHN HART,

Parliament Buildings, Victoria, B.C.

Minister of Finance for the Province of British Columbia.