

## SESSIONAL PAPER No. 26

districts where every transition occurs between these two lithological phases of apparently the same rock magma.

Overlying all the consolidated rock formations of the district are the Pleistocene and Recent accumulations which include mainly gravels, sands, clays, silts, soils, muck, volcanic ash, ground-ice, slide rock, and morainal materials. These accumulations not only deeply cover all the main valley bottoms of the district, but in addition extend over considerable portions of the upland as well as of the valley walls.

## MINERAL RESOURCES.

*General Statement.*

The mineral resources of Wheaton district embrace, mainly, ore deposits of different kinds, but also include coal. The ore deposits are of four principal types, viz:

- (a) Gold-silver veins.
- (b) Antimony-silver veins.
- (c) Silver-lead veins.
- (d) Contact-metamorphic deposits.

Of these varieties the gold-silver and the antimony-silver veins are of the most importance. The silver-lead veins are quite limited in extent, and the contact-metamorphic deposits, so far discovered, are too low grade, and are insufficient in size to be of any present economic importance. Coal has been found only in one locality, on Mt. Bush, and has been only slightly prospected. All these mineral deposits are described in the writer's report<sup>1</sup> on Wheaton district, and in most cases will not require to be more than briefly mentioned. Detailed descriptions are given of the antimony deposits, and of certain of the other deposits on which important development work has been performed since the previous examination in 1909.

*Gold-Silver Veins.*

*General Statement.* Veins of the gold-silver variety constitute the most widely distributed type of ore-deposit found in Wheaton district. The more important of these veins that have been so far discovered, occur on Mt. Anderson, Mt. Stevens, Wheaton mountain, Gold hill, and along the south side of Watson river to the north of Hodnett mountain. On the various deposits occurring on Gold hill, Hodnett mountain, and to the north of Hodnett mountain along the south side of Watson river, no development work has been performed, except possibly a slight amount of representation work, since they were visited by the writer in 1909.<sup>2</sup> On the south side of Gold hill, near the head of Dail creek, a vein occurs which is typical of the veins in this locality, and has not been before described. This vein occurs in a fissure in the Coast Range granitic rocks, strikes about 8 degrees south of east,<sup>3</sup> and dips at angles of from 75 to 85 degrees to the south; and where exposed in Dail creek has a width of from 8 to 20 inches, and is at an elevation of about 4,800 feet above sea-level, or 2,100 feet above the mouth of Dail creek. The vein consists mainly of white quartz which is somewhat iron-stained, and in most places contains disseminated galena, and occasional particles of a black telluride which appears to be sylvanite. Three samples were taken from the vein. Nos. 1 and 2 are averages across the vein where it has thicknesses of 14 and 20 inches respectively. No. 3 is an average of a number of particularly well mineralized specimens. These samples upon being assayed, were found to contain.<sup>4</sup>

<sup>1</sup> Cairnes, D. D., "Wheaton district, Yukon Territory"; Geol. Surv., Can., Memoir No. 31, 1912, pp. 85-146.

<sup>2</sup> Ibid., pp. 111-113.

<sup>3</sup> All bearings given in this report unless otherwise mentioned are astronomic or true. The magnetic declination throughout the district averages about 32° 30' east.

<sup>4</sup> All the assays quoted in this report were made at the Government assay office at Whitehorse.