good deal of light on the occurrence of gold." Minute descriptions are then given of the mode of occurrence of the gold and associated minerals, which deserve careful perusal. Gold, silver, copper and blende, galena and pyrite are treated at the silver mill on the south fork of the Lardeau Creek.

CASCADE AND COSTIGAN BASINS.

Mr. D. B. Dowling's report on these coal basins then follows. In it he describes the work done in the Bow River Valley and the geological investigations in the Cascade Basin. The report is accompanied by a map of the district showing the extent and distribution of the coal areas in question. Estimates of the amount of coal are given, also notes on the character of the coal and its relation to geological position, the older or lower coals being the best and richest in fixed carbon. The Costigan Coal Basin is then described and characteristics of the Costigan seam indicating other seams occurring there.

Analyses of the coals collected by Mr. Dowling and others are published, showing clearly the high grade and quality of the coal.

HEAD WATERS OF THE ALBANY RIVER BASIN.

In Mr. W. J. Wilson's report on that heretofore unexplored region lying east of Lake Nipigon along the head waters of the Little Current and Drowning Rivers, iron is reported in small quantities to the east of the Little Current River, below O'Sullivan Lake. A typical Huronian mineral bearing belt traverses this district.

THE GEOLOGY OF THE BRUCE MINES.

These mines, which have just been purchased by a British syndicate, were the subject of a special geological investigation and study last season by Mr. E. D. Ingall, Chief Engineer of the Mines section of the Geological Survey of Canada, and Mr. Theo. Denis. These two officers carried on surveys and traced out the outcrop of the various sedimentary intrusive formations, as well as roads and coast lines of lakes and rivers and prepared a final map covering "seventy square miles, which included the Bruce and Wellington group of mines." The estimated thickness of the Huronian rocks are given for this district as 18,000 feet and are represented as lying on the Laurentian, and as overlain by the Lower Silurian of the Palaeogoic. Basic intrusives whose economic importance cannot be estimated in studying such a mining region are described and were carefuly mapped and their limits defined; the limestone occurrences are also given, and the areas of diabase intrusives described. In sedimentary series, no economic deposits so far are known to occur, although, for local application, quartzites, limestones and even slates may prove to be of considerable economic value. The Wellington & Huron Copper Bay mines were exhaustively investigated,

The copper occurs in the form of different sulphides, chiefly chalcocite in a gangue of quartz. A careful description of the workings and their extent is given.

CORUNDUM IN ONTARIO-GEOLOGICAL SURVEYS IN TEMAGAMI REGION.

After completing his exhaustive "Report on the Nickel and Copper Deposits of Sudbury, Ontario," Dr. Barlow devoted part of his time to preparing a report on "The occurrence of corundum in Canada," with special reference to the economic importance of this mineral. It is a noteworthy fact that the bulk of the output of corundum in the world to-day comes from Canada. The corundum mineral belongs to an "intrusive complex, the products during crystallization of a highly alkaline and aluminous magma." This merely means that the constituents of the corundum were all mixed up in the old lava and igneous masses of the earth's crust in old Archaean times, and when this crust cooled and the true crust was tormed, each mineral crystallized by itself, and, to-day, the corundum crystals can be clearly seen embedded in the Syenites and gabbro of varying types. The various accessory minerals found along with corundum form a long list of species, many of which are rare, and some of economic value. Some of these may even be classed among gems or precious stones. The origin of corundum is given, showing clearly its development or a primary constituent. The chemical analyses so far prepared by Mr. M. F. Connor, prove the accuracy and application of "the law formulated by Morozewicz from his observations of the behaviour of the cooling of magnias artificially produced. The manner of production and uses of corundum are described in this report.

COBALT-SILVER DISTRICT—LAKE TEMISKAMING NORTHWARD.

Dr. Wm. A. Parks, of Toronto University, who was engaged on geological work during the summer season of 1904 in the region north of Lake Temiskaming, reports that he proceeded to Haileybury, and, inasmuch as Prof. W. G. Miller was investigating the cobalt-silver areas to the south and west, Dr. Parks made arrangements to examine the country northward to the height of land, paying particular attention to the extent of the silver-bearing series, but not neglecting the features usually dealt with in a general geological report. (As his report is of particular interest, at present, we shall present its main features in our next issue.)

Analyses of the ores show clearly the unprecedently high value of these Temiskaming ores in silver.

MINERALS OF THE OTTAWA VALLEY.

Mr. C. W. Arillinott has prepared a brief summary of some of the rarer occurrences of minerals in