

The sources of the ore appear to be the Beaverdell batholith. The mineralization is of three distinct generations.

Sodium Carbonate.—A deposit of sodium carbonate at Soap lake, south of Spence's Bridge, B.C., is described by L. H. Cole². The lake is over one mile long and 1,300 ft. wide at its widest point, but in dry seasons is rather a chain of lakes separated by alkali-covered mud flats. From analysis it is determined that the brine of Soap lake is very similar in composition to that of the soda lakes situated on the line of the Pacific Great Eastern railway to the north of Clinton. It is doubtful whether the salts are commercially recoverable from this lake on account of the present difficulty of transportation.

Lead-Zinc.—The Stirling mine, a promising zinc-lead-copper deposit in Richmond Co., Cape Breton island, Nova Scotia, was examined by S. C. Miffin⁴. Replacement lenses of ore occur in shear zones in highly altered Precambrian greenstones. Sphalerite, galena, chalcopyrite and pyrite, with small amounts of gold and silver, are found laminated and agreeing with the planes of shearing. The period of mineralization is thought to be Devonian. F. J. Alcock⁴ outlines mining development in the zinc-lead area in Gaspé peninsula. The deposits are in the form of veins and breccia zones in limestone and argillaceous sediments of Lower Devonian age. The ore minerals are sphalerite and galena in a gangue of quartz and carbonate showing low values in silver and gold. The area is heavily wooded, has a thick overburden of rocks and outcrops are few. Prospecting is carried on by tracing float and trenching. J. D. Galloway, in a report of the British Columbia Bureau of Mines, compiles available information upon the Snowflake and Waverly-Tangier mineral properties, Revelstoke mining division, British Columbia. The country rocks consist mainly of Precambrian black carbonaceous slates and argillites, but some of the bands are siliceous and some slightly calcareous. Several quartz veins, conforming to the general strike of the strata, are sparingly mineralized with galena, pyrite and zinc blende. The Waverly-Tangier properties are situated at the head of the north fork of Downie creek. Limestone and metamorphosed calcareous rocks form the country rocks. The veins are mineralized with carbonates, quartz, galena and sometimes zinc blende and grey copper. In the Mining and Industrial Record E. A. Haggan outlines the geology, mining operations and milling practice at the Whitewater mine, Slocan, B.C. The rocks at the Whitewater consist of graphitic schist, slate, quartzite and magnesian limestone of Carboniferous age, intruded by quartz porphyry and lamprophyric dykes. Lead-zinc ore carrying high values in silver occurs in strong shoots. The silver is associated with the lead and not with zinc. E. A. Haggan also reports on the Hyland Basin mine at the head of Cronin creek, Babine district, British Columbia, in the Mining and Industrial Record. Carboniferous rocks interbedded with tuffs are intruded by stocks and plugs of volcanic vents and cut by dykes of diorite, quartz porphyry, feldspar porphyry, andesite, rhyolite and lamprophyr. There is much shearing, faulting, folding and schistosity of the country rocks. The mineral veins occur in the contacts between the rhyolite and andesite or sedimentary rocks which they intersect. The ore consists of zinc, lead and chalcopyrite carrying high gold and silver values. Hugh C. McKinstry⁶ describes the silver-lead-zinc veins at Atlin, B.C. Granite country rock is traversed by basic dykes. Well-defined fissure veins parallel these dykes. The ore occurs in the fissures, bordered in places by replacement both of dykes and granite. The