

The gold occurs as thin leaflets in the free state in fine fractures in quartz of the quartz veins cutting the dolomite. The gold is of later age than the quartz and the pyrite and it is stated that absolutely no connection exists between the concentration of pyrite, the only sulphide in the rock, and the gold content.

Reports appeared during the year on other areas in Ontario where gold has been discovered and development work done. Among these are reports on the Goudreau area^{1, 3} by E. Thomson and A. G. Burrows, on the Schreiber area³ by P. E. Hopkins, on the Boston-Skead area³ by A. G. Burrows and P. E. Hopkins, on the Wanapitei area¹ by T. T. Quirke, and on the Black River area³ by D. G. H. Wright. There were reports also by B. R. MacKay on the placers of the Chaudière River basin, Quebec¹, and by H. C. Cooke on the Rice Lake area, Manitoba¹.

Investigations made by W. A. Johnston in the Cariboo district, British Columbia,^{1, 5} show that there is still a large amount of gold in this district that is recoverable by dredging. The placers of Cedar creek, which have yielded considerable gold during the last year, are described by W. A. Johnston⁴, the gold-quartz veins of the Bridge River area, British Columbia¹, by W. S. McCann, the quartz veins of the Barkerville area by W. L. Uglow⁵, and the Surf Inlet mine by V. Dolmage¹.

Nickel.—A concise description of the Shebandowan, Ontario, nickel-copper deposits is given by J. G. Cross⁴. The ore occurs in lenses 2 to 20 feet wide and carries nickel, copper, and cobalt, and quite an appreciable amount of rare metals of the platinum group. The nickel-copper deposits of the Oiseau River area, Manitoba, consist, according to H. C. Cooke¹, of pyrrhotite carrying more or less pentlandite and chalcopyrite. The deposits are found as irregularly shaped accumulations, or segregations, within a gabbro sill near what was originally its base.

Oil-shale.—Oil-shales are shales carrying organic matter from which oil can be obtained by retorting. They arouse increasing interest as the possible exhaustion of the world's petroleum resources forces itself upon public attention. The oil-shales of Canada that have attracted greatest attention are those of southeastern New Brunswick. A report on a detailed investigation made by W. J. Wright on a deposit at Albert Mines¹ contains descriptions of the geological formations and their structural features, the results of analyses of many samples, and suggestions as to how to test further the commercial possibilities of the deposit. There are other deposits in New Brunswick and Nova Scotia, but no detailed work was done on them. The results of experimental work in retorting the shales of the Rosevale area are presented by W. S. McCann¹.

Petroleum.—Considerable information was published¹ during 1922 on the geology of Mackenzie River basin, more particularly in its relation to the petroleum possibilities of that part of Canada. A detailed description is given by A. E. Cameron of the sedimentary formations underlying the area to the southwest of Great Slave lake, an area drained by Hay and Buffalo rivers. E. J. Whittaker reports on geological observations made between Great Slave lake and Simpson, M. Y. Williams on the geology east of Mackenzie river between Simpson and Wrigley and G. S. Hume on the geology of North Nahanni and Root rivers west of the Mackenzie. General structural features of Mackenzie basin are described by D. B. Dowling.

A consideration of the utilization of the bituminous sands of Athabaska river is presented by S. C. Ells in the summary report of the Mines Branch, Department of Mines, Ottawa, and by K. A. Clark in the second annual report of the Scientific and Industrial Research Council of Alberta.