

PART IV. MINERAL RESOURCES.

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METALS.

INTRODUCTION AND SUMMARY BY METALS.

Extent of examination.—Only the mineral deposits that were examined during the reconnaissance are here described. For lack of time or lack of ready accessibility many reported mineral deposits could not be examined, and some reports and rumors to which attention was given proved to be without foundation. Many of these reports were made by country people or were based on their observations. To them any unusual or striking mineral occurrence may be called a “mine,” and, unfortunately, the frequency of such reports tends to discourage their careful consideration by competent investigators.

No mining is now in progress in the country, and although there are numerous prospects, none of them were being worked at the time of this reconnaissance, owing either to lack of capital or to lack of commercial quantities of ore. It is quite possible that the country may contain valuable mineral deposits and that such deposits may be discovered by intelligent exploration. Moreover, many of the known low-grade deposits that are now valueless may become valuable through the general economic development of the country, improvements in methods of ore extraction and treatment, or enhancement in the value of metals, or a combination of these factors.

Iron.—No iron deposits of commercial value are known. Deposits of magnetic iron ore near Limonade were examined, but the quantity of iron in them is small. (See pp. 468-470.) Some iron is found in contact-metamorphic copper deposits in limestone in the Terre-Neuve district. (See pp. 438, 447). Residual iron deposits are reported to occur at a number of places in the western part of the Southern Peninsula. Those at Anse d'Hainault and in Section Plymouth were visited. (See pp. 479-480.) These deposits are of low grade and have no commercial value. Residual concretionary masses of iron and manganese minerals were noted on igneous rocks at several places in the northern part of the Republic. The deposits are very thin and are of low grade.

Copper.—Copper deposits are found at several places, the most valuable being the contact-metamorphic deposits and veins of the Terre-Neuve district. (See pp. 425-459.) Although these deposits are not now being

mined, they have been considerably prospected and some ore has been shipped from them to New York. Copper-bearing veins are found at many other places in the northern part of the Republic, but few if any of them contain sufficient copper to be profitably mined. (See pp. 459-468.) The deposits at Grande-Rivière du Nord have received considerable attention from prospectors. Traces of copper have been reported from the areas of basaltic rock in the Southern Peninsula, some of them in the Commune of Anse d'Hainault, but none of these areas was visited.

Manganese.—During the reconnaissance deposits of manganese ore were discovered in the Commune of Gros-Morne. (See p. 470.) These deposits have not been prospected, nor have they ever before been reported. The known ore is not of commercial grade in the present manganese market. Manganese is also said to occur at several places in the Commune of Jacmel, but only one small deposit was examined during the reconnaissance. (See p. 475.) Negligible amounts of manganese and iron form residual concretions on igneous rocks at several places in the northern part of the Republic. (See pp. 477-478.)

Lead and zinc.—No commercial deposits of lead and zinc are known, although some zinc blende and some galena are found in the copper veins at Terre-Neuve. Veins near Grande-Rivière du Nord are also reported to contain some galena. (See pp. 453, 460.)

Silver.—Silver is found in many of the copper veins of the Republic, but usually in small quantities. Some small enriched copper veins in the Terre-Neuve district contain a considerable proportion of silver. A small amount of silver is found also in the veins at Grande-Rivière du Nord.

Gold.—No deposits have been much exploited for gold, although the quartz veins at some places in the northern part of the Republic are said to contain native gold. (See p. 460.) Assays of ore taken from the copper deposits at Terre-Neuve yielded small quantities of gold, and traces of gold are found in most of the copper veins of the Republic. Gold is reported to occur in the sands of some of the rivers, such as the Grande Rivière du Nord, and in rivers in the vicinity of Limonade and near Plaisance, in the north, and Rivière Gosseline, in the south. Such occurrences were not confirmed, although traces of gold may probably be found in some of the northern streams.

Platinum.—Platinum and iridosmium are reported to occur in some quartz veins in the northern part of the country, but the report has apparently not been confirmed, nor has an attempt been made to exploit the deposits. Time was not available for visiting the localities or confirming these reports. (See pp. 460, 467.)

Mercury.—Native mercury is reported to have been found in the vicinity of Môle St.-Nicolas.¹ The geology of the region around Môle St.-Nicolas does not encourage a search for the source of the mercury, even

¹ Moreau de St. Méry, vol. 1, p. 104. Ferguson, E. G. W., The mineral resources of Haiti, West Indies: Mining World, vol. 31, pp. 133-135, 1909.

if its occurrence was natural. Cinnabar is reported to have been found at several places in the Republic, but detailed and accurate accounts are not available.

Chrome.—There is said to be a small deposit of sand containing chromite in the central part of Ile-à-Vache, off the southern coast near Les Cayes. This island was not visited. Analyses of chromite from this deposit have been published in French technical journals.¹

MINERAL DEPOSITS OF THE TERRE-NEUVE DISTRICT.

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INTRODUCTION.

The mineral deposits and geology of the Terre-Neuve district were examined during a two weeks' reconnaissance in January, 1921. The conclusions recorded are based on this field work supplemented by a laboratory study of the minerals and rocks. Previously published accounts of the geology are meager and were found to be inaccurate in important details.

LOCATION AND ACCESS.

The Terre-Neuve district is in the central part of the Montagnes de Terre-Neuve, in the Communes of Terre-Neuve and Gros-Morne. Its name is derived from its principal town, Terre-Neuve, which lies about 22 kilometers in a straight line northwest of Gonaïves. The location of the district with reference to other places and the main trails giving access to it are shown in Figure 26.

The principal mineral deposits are in an area about 10 kilometers long and 3 kilometers wide, which extends southeastward from Terre-Neuve. The mineralized area lies in the drainage basins of Rivière Colombier, which flows northwestward past Terre-Neuve, and of Rivière Bassin, which flows southeastward past Memé and Bassin. In this report the mineralized area drained by Rivière Colombier is called the Terre-Neuve Valley, and the area drained by Rivière Bassin is called the Memé Valley.

The mountain summits in the Terre-Neuve district rise 700 to 1,000 meters above sea level and the relief is 300 to 500 meters. The average trend of the mountain ranges and of the intervening valleys is about N. 50° W. The mountain slopes are steep and rugged, particularly in the areas underlain by limestone, where cliffs are common. (See pp. 367-368.)

Most of the drainage of the mineralized area is carried by Rivière Colombier and Rivière Bassin, which are small streams that probably reach the sea only during great floods. Underground drainage is developed at

¹ Berthier, M. P., Analyse de deux variétés de fer chromé; suivie d'une note sur les allages du chrome avec le fer et avec l'acier: *Annales des Mines*, 1st sér., vol. 6, pp. 573-584, 1821. Boussingault, M., Sur la production, la constitution et les propriétés des aciers chromés: *Annales de Chimie et de Physique*, 5th sér., vol. 15, pp. 91-126, 1878. Translated in *Jour. Iron and Steel Inst.*, no. 2, pp. 807-830, 1886.