which carry high gold values.

Stibnite is an ore of a light colour; has a brilliant lustre. It belongs to the non-metallic class. Its specific gravity 5.524.62, symbol S 52 S 3. It is the chief ore of antimony. It is used in safety matches and fireworks, in the manufacture of rubber goods and in refining gold. Since ancient times it has been used in Eastern countries as a cosmetic.

The follow assay shows the value of this ore.

	From Pay Streak	From low grade ore
Antimony	45.75 per cent.	18.21 per cent.
Gold	2.48 oz. per ton	.23 oz. per ton
Silver	.10 oz. per ton	.13 oz. per ton

GRAPHITE.

It is probable that the occurences of Graphite in different localities was discovered more by accident than by search. Prospectors in going round the country in search for some other mineral have run against a deposit here and there, but beyond making the fact of the discovery known, no exploration, in the majority of cases followed, chiefly for the reason that there was no market near at hand. The time may come when there may be a demand and then, no doubt, the mineral will attract attention. The following in reference to the mineral is from a report of the Geological Survey, and gives all information procurable up till the present:—

"While the occurence of graphite in certain rock-formations in Nova Scotia has been known for many years, up to the present time but little has been done in the way of economic production. Several attempts have, however, been made, more especially in the eastern portion of the province, to exploit deposits of this material, but so far these do not appear to have been attended with much success.

The principal occurrences of graphite in the provinces are described as belonging to the island of Cape Breton. Here the mineral is found chiefly in rocks which have been assigned to the pre-Cambrian age, consisting of crystalline limestones with slates and shales which are associated with granite intrusions. In places, as at Glendale, River Inhabitants, Inverness county, it is found in a coarse red syenite full of graphite specks. At Dallas Brook the rocks are felsites, limestones and slates with which the syenites are associated, and the limestones are graphitic, while beds of graphitic shale also occur. These black shaly beds were at one time mistaken for coal strata. The graphitic limestone is sometimes burned for lime; the horizon of these rocks is that known as the George River limestones, a portion of the Archaen.

One of the graphitic shale localities is found half a mile south of Guthro Lake near the French Vale road. The band at this place is said to have a breadth of two to three feet and ca nbe traced for some distance on the strike. An Analysis of this shale was made in the laboratory of the Geological Survey and gave graphite 38.387 per cent. Report of Progress Geol. Surv. Can. 1879-80 p. 1-2. The purified graphite from this place, when completely separated is of fair quality, and appears to be well adapted for lead pencils, electrotyping, and for most of the numerous uses for which graphite is available. Its value as an economic product would appear therefore, to depend largely upon the cost of its extraction and preparation for the market, necessary to ensure the requisite amount of purity.

The percentage of graphite in the Glendale shales appears to vary considerably in different parts. Thus, samples, collected in 1878 by Mr. Hugh Fletcher and assayed in the Geological Survey laboratory, gave of graphite only 13.965 per cent, but a more recent assay by Dr. Hoffmann, of material from the same deposit, made for Mr. Jan McIntosh, yielded graphite 31.8 per cent. A later assay is given in the report of the Mines Department for Nova Scotia, of the shales from Christmas Island which is practically the same deposit, in which the percentage of graphite is given as 50.23, with rock matter 43.37 and water 6.50. These shales apparently belong to the Cambrian rocks of Cape Breton.

On Cameron and Dundas Brooks the gneiss, hornblends schists and dark slates of pre-Cambrian age are blackened with the contained graphite, but no definite information as to the actual graphite contents are available.

In the county of Guysborough, near the Tor Bay road, several pits have been opened along the Salmon River in a black slate which is probably of Devonian age, and near the contact of the gold-bearing slates. These slates apparently contain a fair percentage of graphite.

The occurrence of graphite has also been report from West Bay, Grand Narrows, East Bay and Hunters Island, and in addition, Mr. Gilpin, in his Report of the Mines of Nova Scotia 1880, mentions its presence, mostly in the form of plumbaginous shales, at Parrsborough, Salmon River, Musquodoboit, Hammonds Plains, Fifteen-mile Stream, Boularderie Island, Gregwa Brook and Gillis Brook, the last three being in Cape Breton. Concerning the extent of these deposits, no particulars are available, and but little attempt at mining has been done for some years; so that the actual economic value has apparently never been ascertained. The above mentioned localities appear to include the principal deposits as yet known to exist in this province."

MAGNESITE.

This mineral has not heretofore been given a place in any publication descriptive of the economic minerals of Nova Scotia. Some attention was given to it in 1917, for the first time in Nova Scotia in all probability, due to its discovery, and production to a limited extent by the Nova Scotia Steel and Coal Co., who found the mineral suitable for certain purposes of the company. The discovery was made at River Denys, Cape Breton. The deposit was not an extensive one and soon became exhausted. Its discovery and usefulness has inspired the hope that the mineral may be met with in other districts, and this hope is strengthened by the thought that if a mineral not sought after has been encountered, a systematic search may result in revealing many other hiding places. Indeed its discovery has led old prospectors to imagine, if not really believe, that just such a mineral, or one closely resembling, had been met with in the course of prospecting in several localities but that no attention had been paid