east and west (astr.). At Londonderry copper-pyrites is found in the iron veins in small quantity, and also at Five Islands, associated with heavy spar.

On the Salmon River, near Truro, very pure carbonate and grey sulphuret of copper are found, probably, however, owing to organic matter. On the head-waters of the Middle River are veins of specular ore and limonite; continuing to the east a few miles, a vein of specular ore is met running east and west, and 20 feet wide in places. This vein has been traced for about three miles, and, although no fossils have yet been found in its vicinity, is generally considered to be in strata of the same age as the Londonderry ore.

Following the line to the eastward, the iron ores are now chiefly spathic and micaceous, forming the gangue for copper-pyrites. About five miles eastward of the large vein of micaceous ore above referred to, the first traces of copper-pyrites are met, which are repeated in a small vein on the east branch of the St. Mary river.

The copper deposits now attain their greatest development near Lochaber and Polson's Lakes; and the traces continue to be found for miles to the eastward. On the Salmon River the Primrose property shows a small vein, which was tested to some extent a few years ago, and contains very rich copper-ore. From analyses made by Dr. Hayes, State Analyst, Boston, U. S., the ore contained from 37 t^ 39 per cent. of copper, and was composed of copper-pyrites and embescite.

Finally, near Guysboro, specular ore of very fine quality occurs, but is not yet proved to be of economic value. Specimens of native copper in diorite (?) have been brought to me from this district; but I have no detailed information respecting it.

At Lochaber Lake, where a great deal of work has been done, the deposits appear to be of unusual value, and are being propared for mining-operations.

The deposits form a series of veins, eutting at oblique angles black and red shales and quartzites, and thrown for a short distance 30° out of an east-and-west course by a dyke, apparently a diorite containing tale and serpentine.

The first vein met going east is about 2 feet wide. I have no details of its contents. The second vein, 80 feet distant, has been proved to a depth of 85 feet; it varies in width from 5 feet 6 inches to 6 feet 3 inches, and holds about 20 per cent. of copper-pyrites evenly distributed in taleose slate, greenstone and quartz, and micaceous iron-ore.

The third vein, 216 feet distant, is from 1 foot 6 inches to 2 feet wide, and holds copper-pyrites, with embescite in bands, with quartz and talcose greenstone.

The fourth vein, 130 feet distant, is about 5 feet wide, and carries about 10 per cent. of rich G: with much quartz.

The fifth and sixth veins are respectively 50 and 150 feet further east; they are each 3 feet wide. These leads also contain large percentages of ore, but have not yet been examined. In these last