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of chalcopyrite, with minor amounts of secondary copper sulphides, in a pyritic quartz-dolomite gangue. The secondary copper sulphides, notably chalcocite and covellite, have been observed in several prospects but are rarely of economic importance.

Pyrite is ubiquitous in the cupriferous quartz-dolomite and is also a common primary constituent of the carbonaceous sediments.

Magnetite is associated with the quartz-dolomite in at least two prospects but does not occur in quantities sufficient to produce magnetic anomalies.

Minor amounts of other sulphides, notably galena and sphalerite, are associated with the cupriferous sulphides, but are not of economic significance. Trace amounts of marcasite, tetrahedrite, pyrrhotite, arsenopyrite and pyrargyrite have been observed microscopically. Silver and gold values are negligible.

The cupriferous quartz-dolomite occurs as tabular bodies, generally conformable with the enclosing carbonaceous and chloritic sediments. At Murrays Reward Prospect a potentially economic cupriferous quartz-dolomite body has been formed by the introduction of remobilized cupriferous material into a fault which intersects the primary mineralized zone. The conformable nature of the mineralization and sulphur isotope studies indicate a sedimentary origin for the mineralization.

In the Specimen Hill area, wolframite, pyrite, arsenopyrite, cassiterite and chalcopyrite occur in thin quartz veins but this mineralization is not of economic significance.

GEOPHYSICS

An I.P. survey along a 12 kilometre baseline between the Pierpont