

CENTRAL VOLCANIC PILE

SEDIMENTARY BASIN

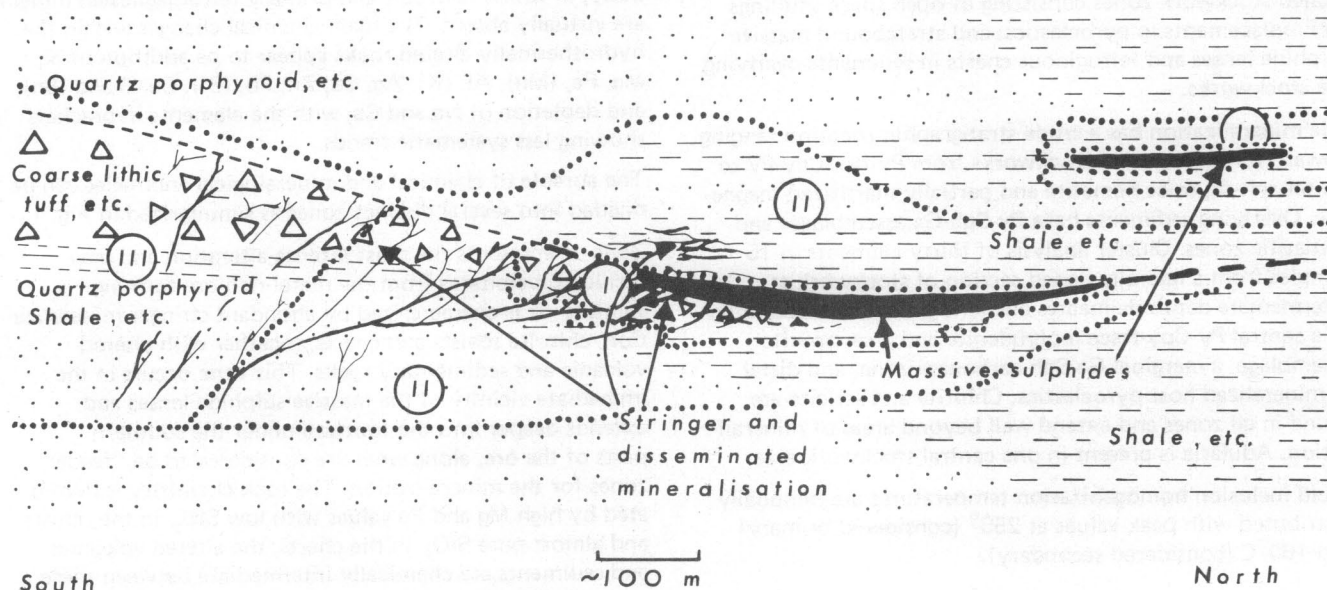


FIGURE 1
Schematic section showing zones of alteration around the Woodlawn ore body prior to folding. The features of the zones are explained in the text.

offers a feasible means of "tapping" the metalliferous solution and enabling rapid ascent of the resultant mixed solution which carried adequate metals to form the mineralization at and near the submarine surface.

The Woodlawn deposit appears to be similar to the much younger Kuroko deposits of Japan, in terms of ore mineralogy, host rocks and alteration zones.

COLO CREEK — A BARITE ZINC-RICH SETTING IN THE HILL END TROUGH

D.C. Hughes

*International Nickel Australia Ltd.
1205 Hay Street, West Perth, WA 6005*

B. Stevens

*Geological Survey of NSW,
State Office Block, Phillip Street, Sydney, NSW 2000*

Published with permission of the Under-Secretary,
NSW Department of Mines

The Colo Creek setting, some 66 km south of Bathurst, is situated on the very western margin of the Hill End Trough. Zinc-rich sulphides have been deposited rapidly, in a high energy depositional environment close to a zone of active submarine acid volcanism.

Host lithologies belong to the Colo Creek Formation, considered to be of Middle to Late Silurian age. Two major cycles of deposition are recognized: a lower cycle, character-

ized by predominantly pyroclastic-rich rocks and volcanic slurries, and an upper cycle, comprising graded, bedded, tuffaceous sediments.

Mineralization is found in both cycles. The principal sulphide is sphalerite, the iron content of which exhibits both a vertical and lateral gradient. Barite is ubiquitous in the pyroclastic-rich facies. In the overlying sedimentary series, stratiform barite occurs at the top of the mineralized sequence. Sphalerite, galena and pyrite show a sympathetic grain size relationship with the host sediment.

The depositional environment is considered to be part of a volcanic rift complex.

THE MINERALIZATION OF THE KANGIARA MINE, NEW SOUTH WALES

F.I. Roberts

*Geology Department,
University of Wollongong,
PO Box 1144, Wollongong, NSW 2500*

The Kangiara deposit is located 32 km north-west of Yass in the Cowra-Yass Synclinal Zone of the Lachlan Fold Belt. The mine occurs within the Middle to Upper Silurian Hawkins Volcanics of the Douro Group.

The ore minerals comprise pyrite, sphalerite, galena and