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GEOCHEMISTRY AND MINERAGRAPHY
OF THE NAIRNE PYRITE DEPOSIT,
BRUKUNGA, SOUTH AUSTRALIA.

by

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A B S T R A C T

A mineralogical study of the mineralogy of tension gash veins at the Nairne Pyrite Deposit, has revealed the existence of boulangerite, stannite, ullmannite, freibergite, pyrargyrite and cubanite. Larger amounts of pyrite, pyrrhotite, galena, arsenopyrite, sphalerite and chalcopyrite were also observed.

Sulphur, iron and trace element geochemistry of the deposit has been studied in relation to the ore beds, waste beds and enclosing meta-shales. A statistical interpretation of the geochemical data was made using correlation coefficients and cluster analyses. Elemental ratios (Co/Ni, Cu/Zn, S/Se) were calculated. The results of carbon analyses add weight to the proposed theory of a sedimentary origin for the Nairne Pyrite Deposit.