A second occurrence of perite

PERITE, PbBiO₂Cl, first described by Gillberg (1960) from Långban, Sweden, has been found near Glen Florrie Station (22° 56' S., 115° 59' E.), 1000 km north of Perth.

The perite was identified in 1964 by L. C. Hodge among samples submitted to the Western Australian Government Chemical Laboratories from a poorly defined locality by a prospector, E. Munns (Payne, 1964, 1965). In 1968 A. Bell and S. Dale donated perite samples from 1.2 km at 67° from the Glen Florrie homestead (Payne, 1968). In late 1969 P. J. Bridge and A. Saar examined the occurrence and collected further samples. Subsequent re-examination of the Government Chemical Laboratories' mineral collection disclosed a specimen of perite catalogued under bismuthinite and bismutite which was submitted in 1952 by A. E. Iverson. This was from 1.2 km east of Glen Florrie homestead. The occurrence is at the end of the station airstrip.

The perite is fine-grained, soft and close to Ridgway straw-yellow 21' O-YY and Barium yellow 23' yellow. The colour is slightly darker when iron oxides are present. It occurs in masses up to 1.5 cm by 0.5 cm in size, associated with galena, cerussite, plattnerite, kaolin, muscovite, and tourmaline in a quartz vein intruding metasomatized metasediments probably of the Lower Proterozoic Wyloo Group.

The X-ray powder pattern of the Western Australian perite is close to that of Gillberg (1960). Careful examination shows no evidence of departure from tetragonal symmetry; for similar reasons, authentic perite from Långban is under investigation by R. J. Davis at the British Museum (Nat. Hist.) (pers. comm.). The powder data have accordingly been refined on a tetragonal cell, giving a 5.579(3), c 12.45(1) Å.

Insufficient material was available for a complete analysis. As well as the major elements, Pb and Bi, spectrographic examination showed small amounts of Sb, Cu, Fe, and Ag and traces of Al, B, Cd, Mg, Si, Ti, V, and Te.

Specimens are preserved in the collections of the Government Chemical Laboratories as MDC 1110 and MDC 4683.

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