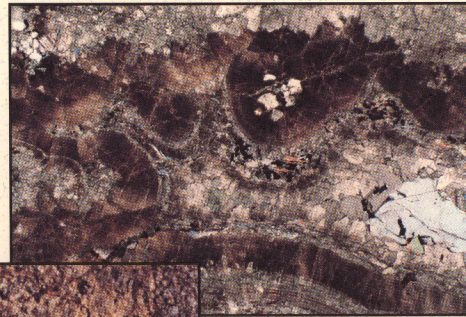


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Natural Resources

Honourable Kennie MacAskill
Minister

D.J. Graham
Deputy Minister

Halifax, Nova Scotia
1999

Cover photo

Photographs of carbonate rock associated with Zn-Pb-Cu mineralization at the 680 Ma Stirling massive sulphide deposit, Richmond County, Cape Breton Island. This rock fits the description of calcareous sinter or travertine deposits formed in hot spring environments (80-100°C), such as Yellowstone Park, U.S.A. In the lower right is a hand specimen of colloform-textured carbonate rock showing intricate compositional layering defined by alternating bands of magnesite (MgCO_3) and dolomite (Ca, Mg (CO_3)). The effects of weathering cause differential oxidation of Fe in the carbonate layers which enhances the texture. Sample is ca. 15 cm long. Centre photo is a close-up of the specimen illustrating the intricate nature of the texture and natural beauty of the features. Note that the textures indicate that the carbonate grew inwards and upwards into an open space or water-saturated environment, since growth must have proceeded unimpeded. Upper right is a photomicrograph of a thin section in crossed nicols, illustrating the colloform- and radial-texture of the carbonate with late infill of another carbonate phase and minor talc. Photomicrograph is ca. 2.5 mm wide.

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