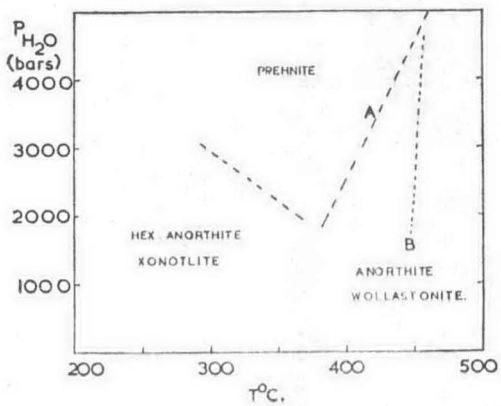

Fig. 13. Phases formed by crystallization of a glass of prehnite composition. Line *A* represents the upper limit of strong prehnite growth. Small amounts of prehnite persist up to line *B*. Boundary lines represent limits of major fields and changes in assemblage are transitional.

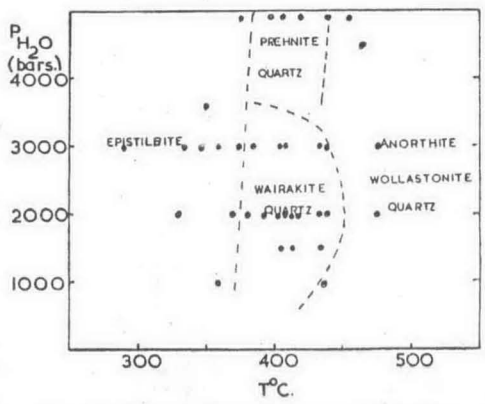

Fig. 14. Phases formed by crystallization of a glass of composition: prehnite + 4 silica.

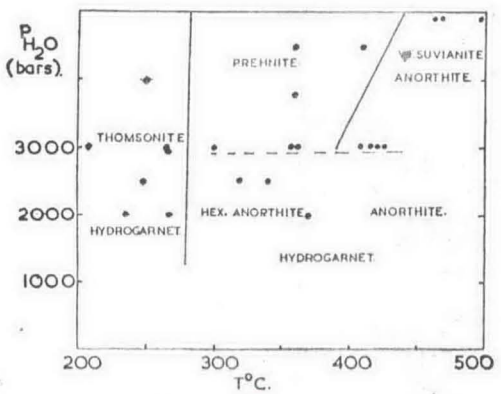

Fig. 15. Phases formed by crystallization of a glass of epidote composition.

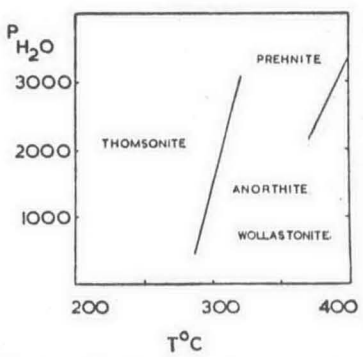

Fig. 16. Phases formed on crystallization of a glass of prehnite composition after Fyfe (1955b) (cf. Fig. 13).

This will tend to diminish the field of mordenite with respect to that determined experimentally. Also, the conditions at these shallow depths may be to some extent osmotic as discussed above, and finally it is possible that the thermal gradient has been steeper in the past.

In the large scale regional zeolitization of sediments, a process consequent upon increasing temperature and pressure caused by depth of burial, a different succession of zeolites occurs. Heulandite, analcime and laumontite are dominant. In the Taringatura section described earlier the transition analcime + quartz → albite + water, occurs about half-way down the section. Assuming a thermal gradient no steeper than average it is unlikely that the temperature at this depth could exceed 240°C and a lower value is more likely. Data from Wairakei and Yellowstone are also compatible with an analcime + quartz → albite transition in