

1957/76

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15th May, 1957

MEMORANDUMPERLITE

A specimen of black glassy material, thought to be Perlite, collected by Mr. R.C. Cunningham of Derby, has been examined.

The specimen is cracked and shattered in all directions, indicating rapid cooling from a melt. It has a density of about 2.7. In thin section, under the microscope the material is seen to consist of a brown glass containing a few small crystals of ferro-magnesian minerals and opaque iron ore minerals in stellate arrangement. The glass has a refractive index of about 1.582, and this taken together with the brown colour indicates a basic glass containing less than 50% silica. The cracks in the material are of linear character and some are filled with zeolite material in very fine crystals. There is no perlitic texture.

Small pieces of the material were placed in a nickel crucible heated to a dull red heat; they remained unaltered. A small chip was held in a flame with steel forceps, until it was red hot; the chip fused on thin edges but was otherwise unaltered.

Perlite, it should be remembered, is not a definite mineral but is recognised by its physical properties. It is also of a highly siliceous composition. It is concluded, therefore, that the specimen is not Perlite, but a basalt glass.

Perlite is known to occur with glassy basalts in the U.S.A., however the two substances are quite distinct.



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