

14268

PHYSICAL CHARACTERISTICS

Mass

23.12 g

Dimensions

4.5 x 1.5 x 3.0 cm

Sample 14268 is described by Phinney et al. (1975) as a blocky, medium dark gray, vitric [matrix] breccia.

SURFACE FEATURES

There is a vesicular glass coating over 30% of the sample surface. Few zap pits are present, occurring up to 0.2 mm in size on the glass coating. Approximately 50% of the glass coating is made up of rounded vesicles less than 1 mm across. Many penetrative fractures are present, with glass intruded into some of them.

PETROGRAPHIC DESCRIPTION

The rock is seriate in texture. The sample contains approximately 70% medium gray aphanitic material with a dark resinous luster (glass?). Twenty per cent of the sample is composed of very light gray, subangular to subrounded, lithic fragments which range from less than 0.2 to 7.0 mm in size. Plagioclase is 60 - 90% of these lithic fragments and the rest is unidentifiable light gray material. There are two other types of lithic fragments visible in the sample, both of which are round and composed of aphanitic material. One is medium gray and ranges up to 0.5 mm in size and the other is medium dark gray and ranges up to 0.8 mm in size. Each makes up 5% of the sample. Two types of mineral fragments can be seen, one white, subrounded fragment composed of plagioclase, and the other light yellow brown, subrounded pyroxene (?). Both are less than 1 mm in size and make up less than 1% of the sample.

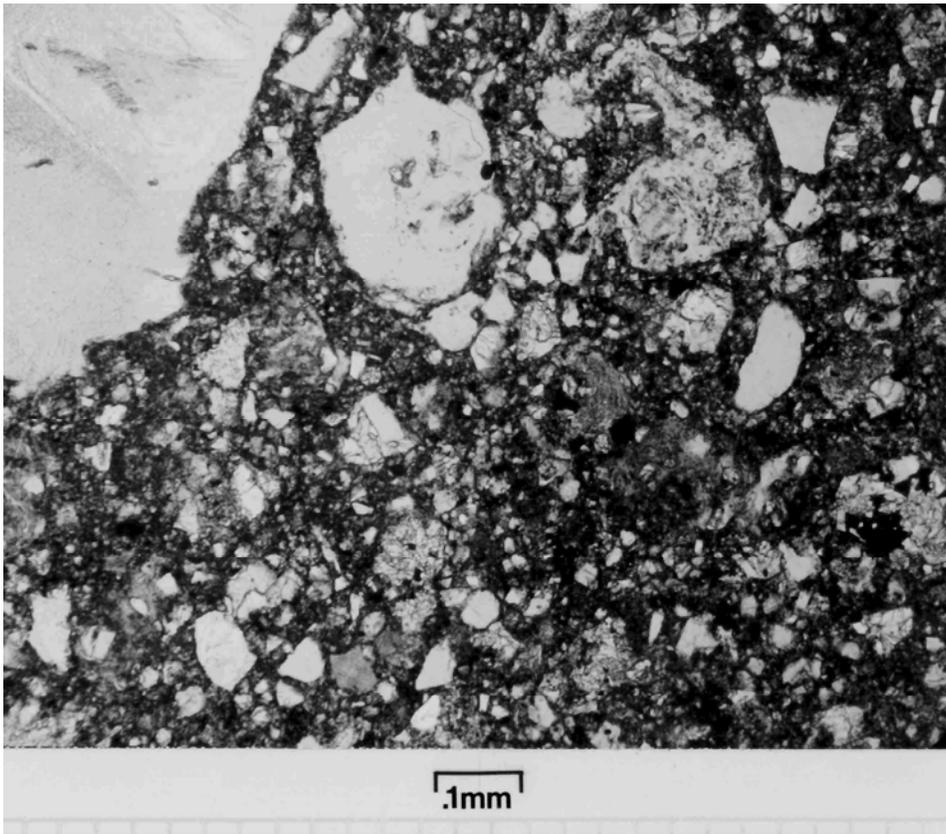
Thin section 14268,3 contains brownish "glass" in the matrix (< 1 mm). The "glass" is fairly evenly distributed and forms approximately 50% of the total matrix. There are numerous masses of clear glass which are hemispherical to ovoid in shape. A fracture which occurs in the section is glass-lined and the glass extends to the outer surface.

There are only three clasts present in the section. Two of the clasts (> 1 mm) consist of a devitrified glass in which the crystallites are so small their exact identification could not be made. A few residual eroded crystals of plagioclase are included in the masses. One of the clasts contains crystallites that are much more dendritic in habit than in the other clast. The third clast consists of a large, shocked pyroxene in a matrix of pyroxene, plagioclase and glass. The crystal is highly deformed and shows some reaction with the matrix.

The matrix (< 1 mm) has a seriate mixture of mineral and lithic fragments. Most of the lithic fragments are composed of devitrified glass, many showing dendritic crystals. There are a few small basalt-like masses which have maskelynite pseudomorphic after plagioclase. This gives the grain a nearly "barred" appearance under cross-nichols. The mineral fragments are approximately 2/3 pyroxene and 1/3 plagioclase.



Width of image is approximately 7.5 cm, S-71-29172



14268,3