

15055

Sample 14055 was collected at Station E on the second EVA. The sample was collected along with 14056-14061 near a 40 to 50 m crater. The rocks are very friable and fall apart. It is possible that 14056-14061 may all be pieces of 14055 (Swann et al., 1977).

Sample 14055 was returned in documented bag 15N in ALSRC1006. Because the rocks were very friable 27.50 gm or residue were generated (14062).

PHYSICAL CHARACTERISTICS

Mass	Dimensions
111 g	2.0 x 5.0 x 4.5 cm

The sample is a blocky subangular to subrounded rock lightly covered with glass-lined zap pits. The sample is a very friable fine-grained clastic rocks with 5 to 15% of the sample consisting of subrounded light-colored clasts in brownish-gray matrix.

SURFACE FEATURES

Approximately one-third of the sample is glass-coated. This coating is 1 - 5 mm thick and exhibits fluidal and vesicular texture. Pits are glass lined and range in size from 0.1 to 0.75 mm. Pits cover 25% of one side of the rock. There is a low pit density in the glass coating. The only cavities present in the glass spatter are collapsed vesicles which range from 0.1 mm to 1.5 mm and are hemispherical in shape with a homogeneous distribution. Glass covers 30% of sample 14055.

There are two sets of non-planar fractures. The first has an orientation of 40° to the long axis. The second set includes many randomly oriented member with spalled surfaces. These irregular fractures are adjacent to the glass spatter. One surface of 14055 is a fracture surface.

PETROGRAPHIC DESCRIPTION

14055 is a medium gray clastic rock with 5% clasts larger than 1 mm and 95% matrix. The matrix contains milky white feldspar, cinnamon brown to reddish pyroxene, and several other mafic minerals.

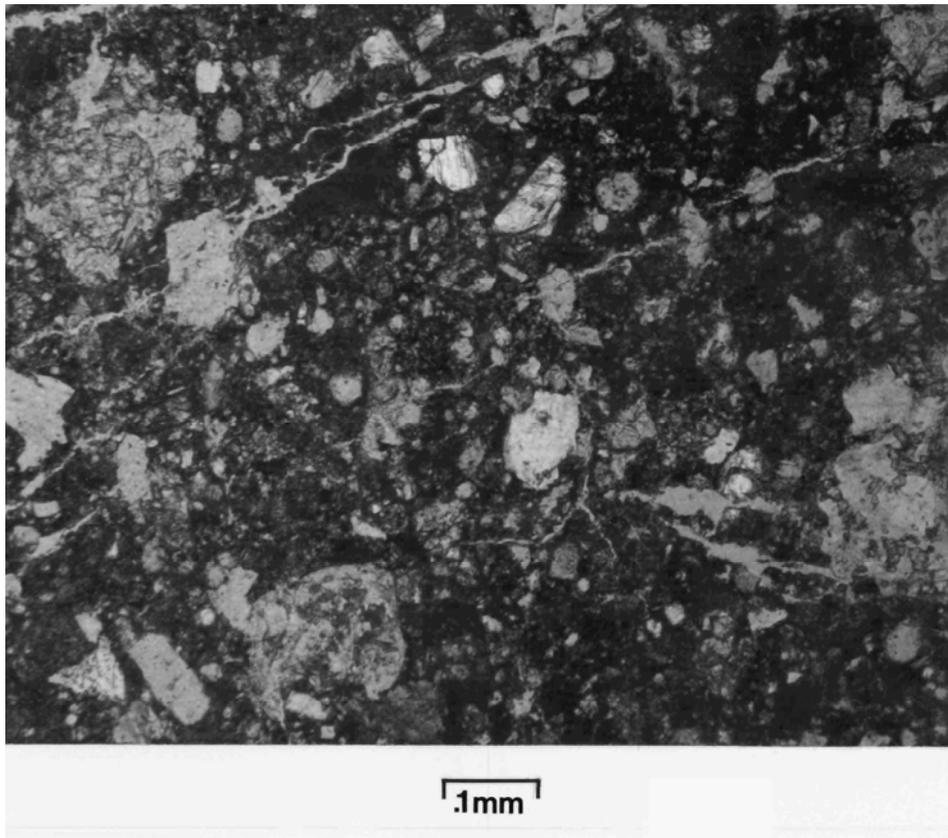
Thin section 14055,11 shows that the rock is inhomogeneous in that there are two distinct textures in the matrix as in 14049,40. There are abundant glass fragments, both shards and spheres, many of which have undergone some devitrification. There is approximately 20% glass in the matrix. There are no clasts, but numerous mineral fragments. Most of the mineral fragments are pyroxene. Clasts are all lithic leucocratic crystalline rocks. Most clasts have associated traces of glass. There are no dark lithic clasts. The average grain size is less than 0.1 mm.

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S-77-23605



14055, 11

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DISCUSSION

Only limited work has been done on this sample. Wilshire and Jackson (1972) describe sample 14055 as an F₁ breccia (friable with light clasts). It was placed in Warner's (1972) group 1 (low grade metamorphic) and classified as a porous unshocked regolith microbreccia by Chao et al. (1972), and as a glass rich regolith with breccia (von Engelhardt et al., 1972) and a vitric matrix breccia (VMB) by Simonds et al. (1977). This is one of the samples mapped by Twedell et al. (1978).