

INTRODUCTION: 64477 is a coherent, medium gray breccia with abundant white clasts (Fig. 1). Several penetrating fractures cut the rock. It was collected from the rim of a subdued doublet crater, near several larger, similar-appearing rocks. Lunar orientation is unknown. Zap pits are abundant on three surfaces, absent from the other surfaces.

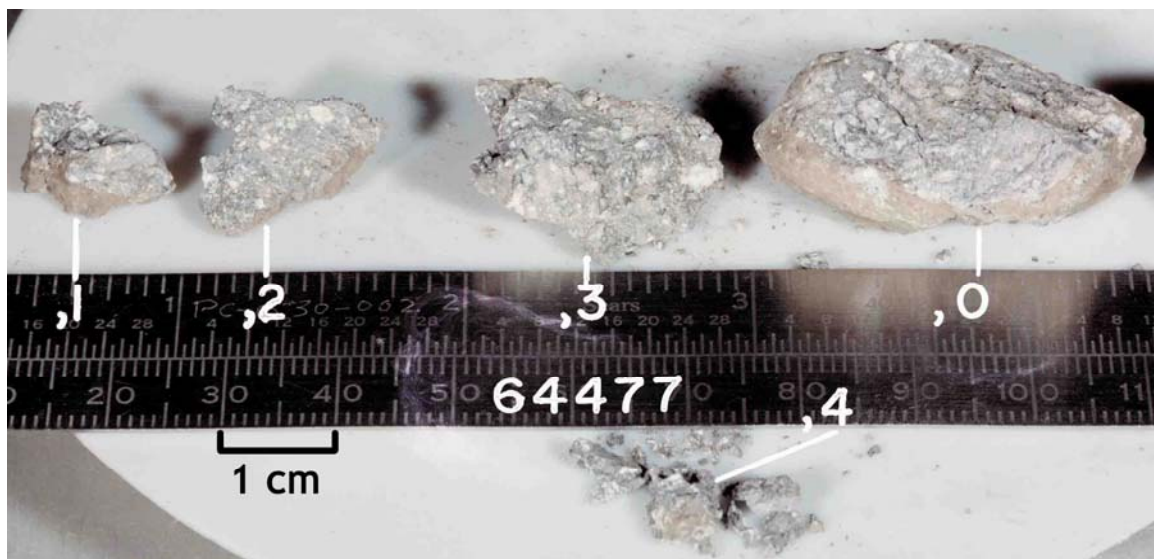


FIGURE 1. S-72-46771.

PETROLOGY: 64477 is a plagioclase-rich breccia with a continuous, but heterogeneously distributed glassy matrix (Fig. 2). Fragments of plagioclase are the most abundant clast-type. Several angular clasts of fine-grained poikilitic impact melt, a few clasts of glassy breccia, and rare mafic mineral fragments are also present. Troilite is unusually abundant, and is usually associated with the glassy matrix. Some Fe-metal is also present.

Portions of the rock are nearly devoid of the glassy matrix and, in these places, the rock approaches a cataclastic anorthosite. This rock may have been a dilithologic breccia (cataclastic anorthosite + poikilitic impact melt) that was shocked and invaded by glass.

PROCESSING AND SUBDIVISIONS: 64477 was removed from its documented bag as four pieces (,1-,3 and ,5) which were found to fit together, and some chips and fines (,4). ,1 was allocated for thin sections.



FIGURE 2. 64477,13, general view, ppl. Width 4 mm.