

**INTRODUCTION:** 15360 is a brown-glassy matrix regolith breccia with a variety of small lithic clasts. It is coated on two opposing sides by vesicular glass and contains one larger white clast (Fig. 1). All depressions were originally dust-filled. Zap pits were not positively identified on the glass. 15360 was collected as part of the rake sample from the north-east rim of Spur Crater.



Figure 1. Macroscopic view of 15360, showing predominately the vesicular glass coat and the large white unsampled clast. S-71-49661

**PETROLOGY:** The dominant dark matrix of 15360 is a brown glassy regolith breccia, containing a variety of lithic clasts, mineral fragments, and glasses (Fig. 2). According to Steele et al. (1977), the sample consists of 20% glass, 5% lithic clasts, 30% mineral

clasts, and 45% matrix, without porosity. The fragments show many shock effects. The glasses include green, yellow, and reddish examples. Steele et al. (1977) described three lithic clasts, one KREEP, one mare, and one ultrabasic. The ultrabasic one is depicted in Figure 2c. It is nearly all shocked olivine, with some plagioclase, pyroxene, and chromite. The olivine ( $Fe_{0.1}$ , CaO 0.03%) is similar to that in the spinel-troctolite clast in 15445 but this clast lacks Mg-spinel and appears to be unique. The mare clast was identified by its high-Fe, high-Ca plagioclase and its pyroxene compositions, and the KREEP by its low-Fe, low-Ca plagioclase and its pyroxene compositions (pyroxene quadrilateral plots for both are shown in Steele et al., 1977). Few lithic clasts are larger than 500 microns, except the white one visible in Figures 1 and 3 which does not occur in the thin sections.

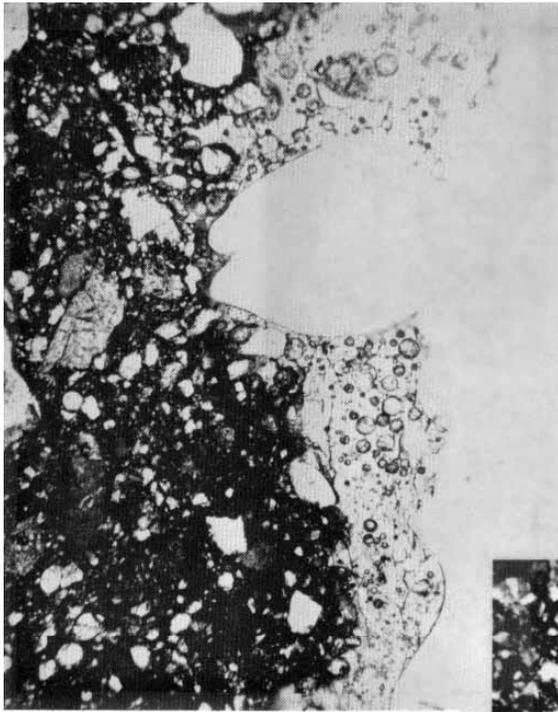


Fig. 2a

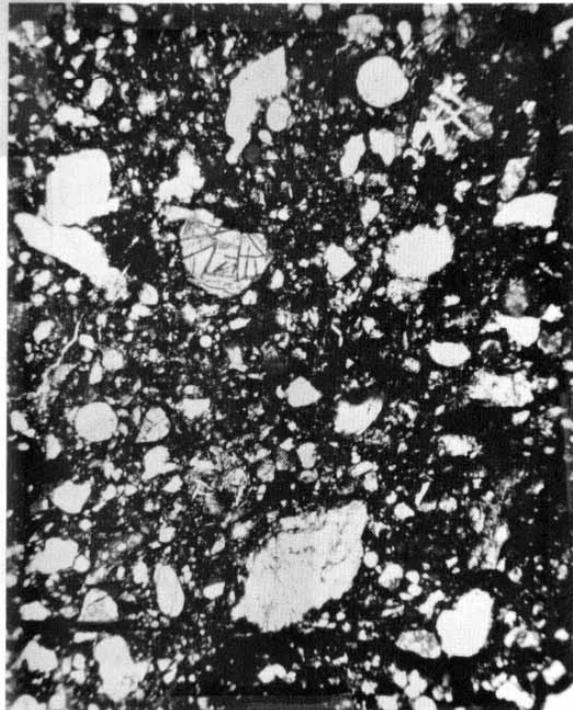


Fig. 2b



Fig. 2c

Figure 2. Photomicrographs of 15360.

- a) 15360,6, showing vesicular clear glass coat and interior opaque glassy breccia. Transmitted light. Width about 2 mm.
- b) 15360,2 showing opaque matrix, glass balls, and the ultrabasic clast (lower center). Transmitted light. Width about 2 mm.
- c) ultrabasic clast in 15360,2. Crossed polarized light.

PROCESSING AND SUBDIVISIONS: v15360 was chipped to produce ,0 (6.68 g), ,1 (1.87 g), and ,2 (Fig. 3). From ,2, the thin sections ,2 and ,6 were made (potted butts ,8 and ,9 remaining).

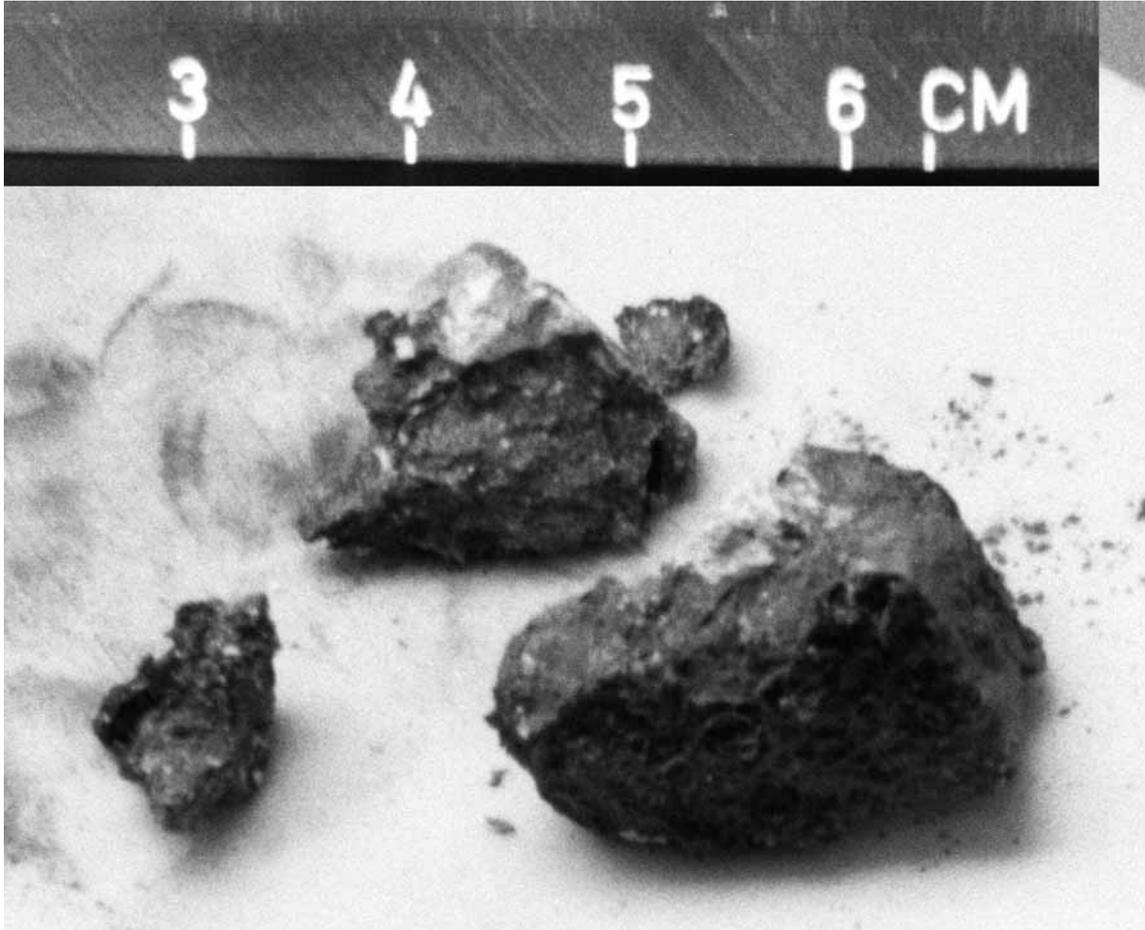


Figure 3. Chipping of 15360. Smallest chip is ,2, from which thin sections were made.  
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