

**INTRODUCTION:** 15322 is a glassy regolith breccia with mineral and lithic as well as glass debris. A pale-colored clast is prominent on one surface, and one area is coated with a vesicular glass (Fig. 1). The sample is moderately coherent, gray-brown, and blocky. It was collected as part of the rake sample from the north-east rim of Spur Crater.



Figure 1. Post-split view of 15322, with ,1 at far right. S-71-49615

**PETROLOGY:** 15322 is a regolith breccia containing abundant glass and mineral fragments (Fig. 2) and some lithic fragments which include KREEP basalts, anorthosites,

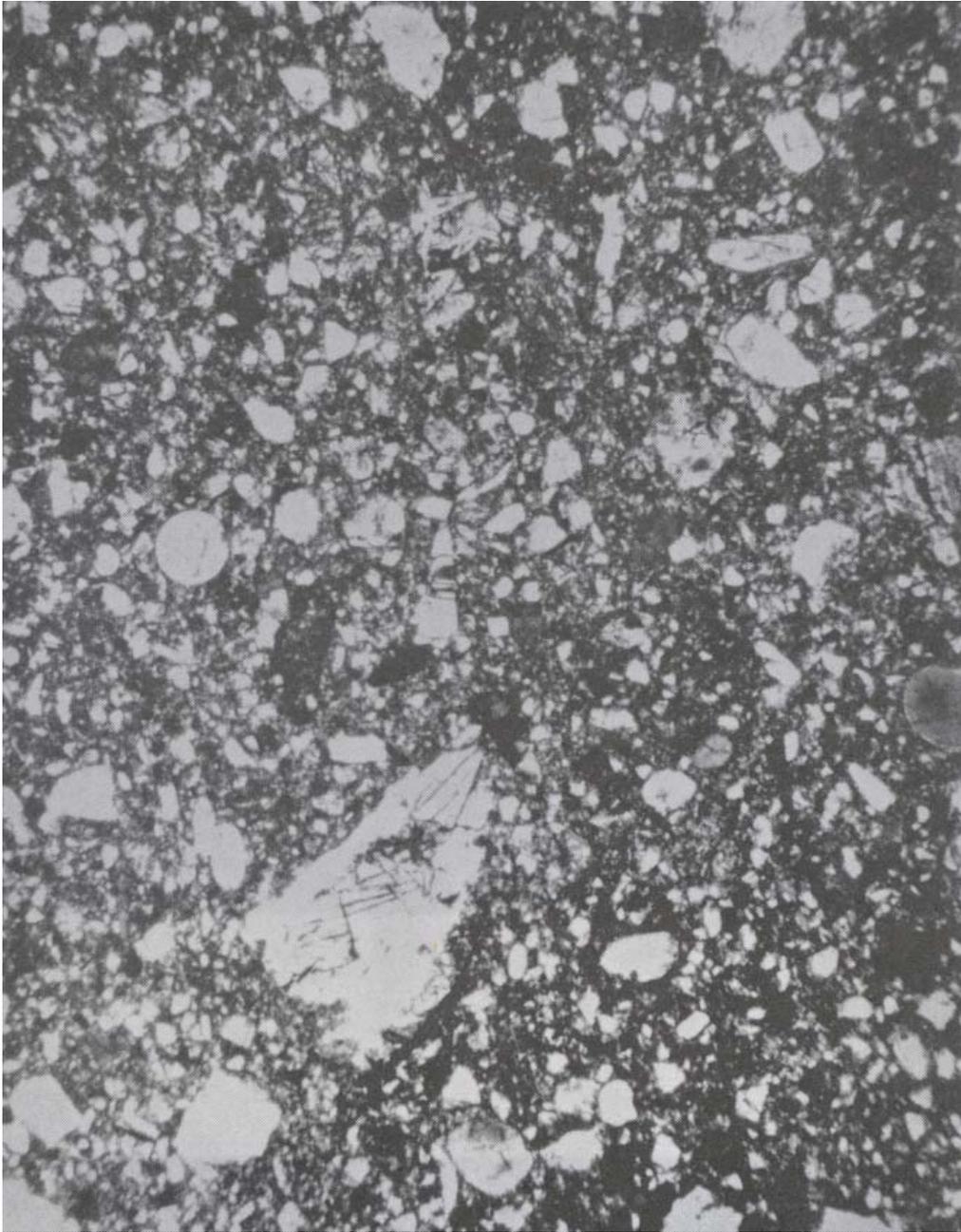


Figure 2. General view of 15322,6.  
Transmitted light. Width about 2 mm.

and highland breccias. The matrix is porous and brown-gray. The glasses include green, colorless, and yellow fragments and spheres, some of which are devitrified. Steele et al. (1977) found the sample to contain 30% glass, 5% lithic fragments, 30% mineral clasts, and 35% finer matrix. Pyroxene and olivine analyses (Fig. 3) have a wide range of compositions, and indicate mare basalt, KREEP basalt, and an ultrabasic (to explain  $Fo_{89}$  grains) components. Steele et al. (1977) reported brief mineral data for a KREEP basalt

clast, and for an exsolved pyroxene fragment. Steele et al. (1972b) reported a "gabbroic anorthosite ?" clast ( $\text{En}_{70-75}\text{Wo}_{3-6}$ ) and a "variolitic basalt ?" clast ( $\text{En}_{76}\text{Wo}_6$  and more iron- and calcium-rich compositions).

PROCESSING AND SUBDIVISIONS: Chips were taken from 15322 (Figs. 1, 4) and one (,1) was taken to make thin sections ,1 and ,6. The prominent clast (Fig. 1) is not in the thin sections. All pieces other than daughters of ,1 remain with ,0.

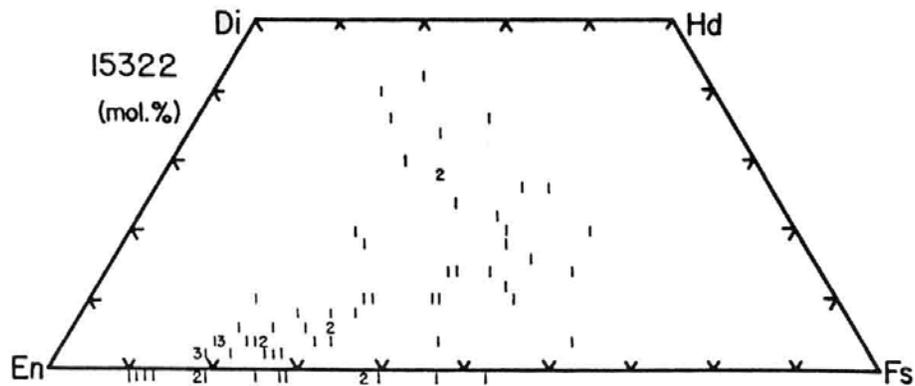


Figure 3. Compositions of pyroxenes and olivines in 15322,1 (Steele et al., 1977).

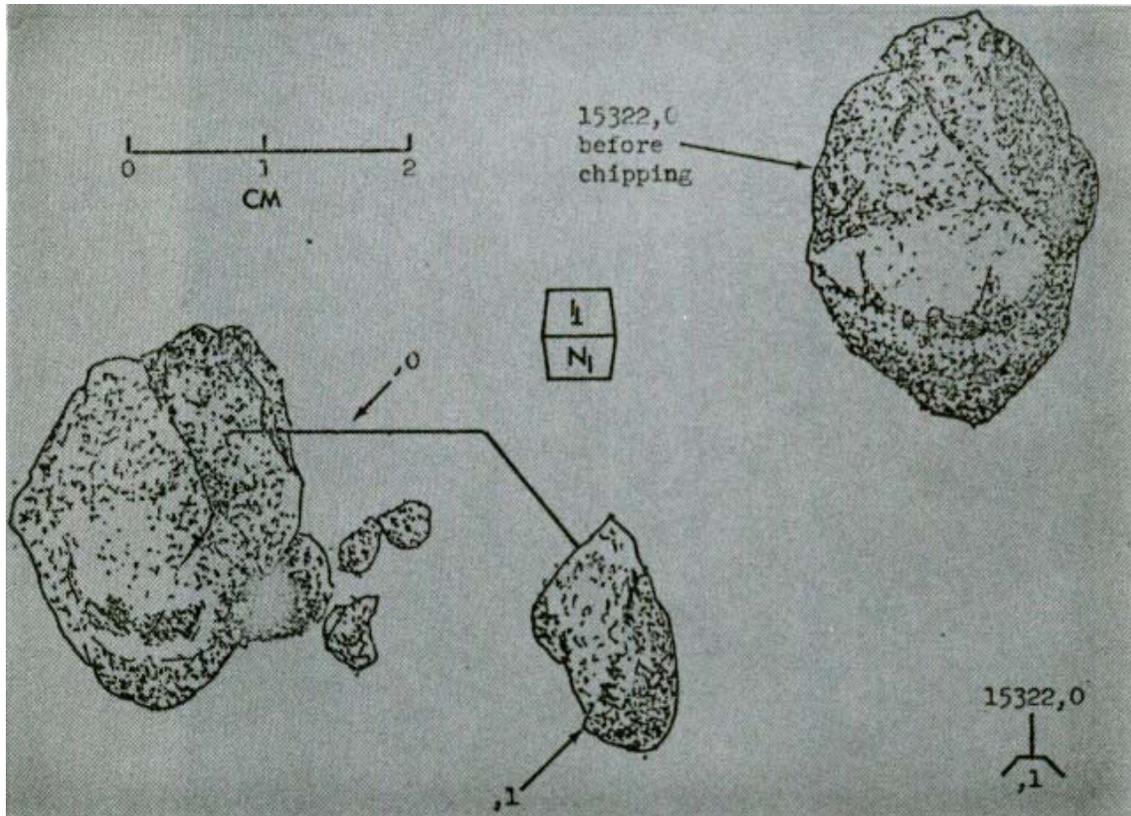


Fig. 4a



Fig. 4b

Figure 4. Chipping of 15322  
a) diagram; b) photograph S-71-57225