

INTRODUCTION: 63585 is a medium gray, coherent but fractured rock (Fig. 1) which is an impact melt with a texture ranging from subophitic and intergranular to poikilitic. It is a rake sample with many zap pits.

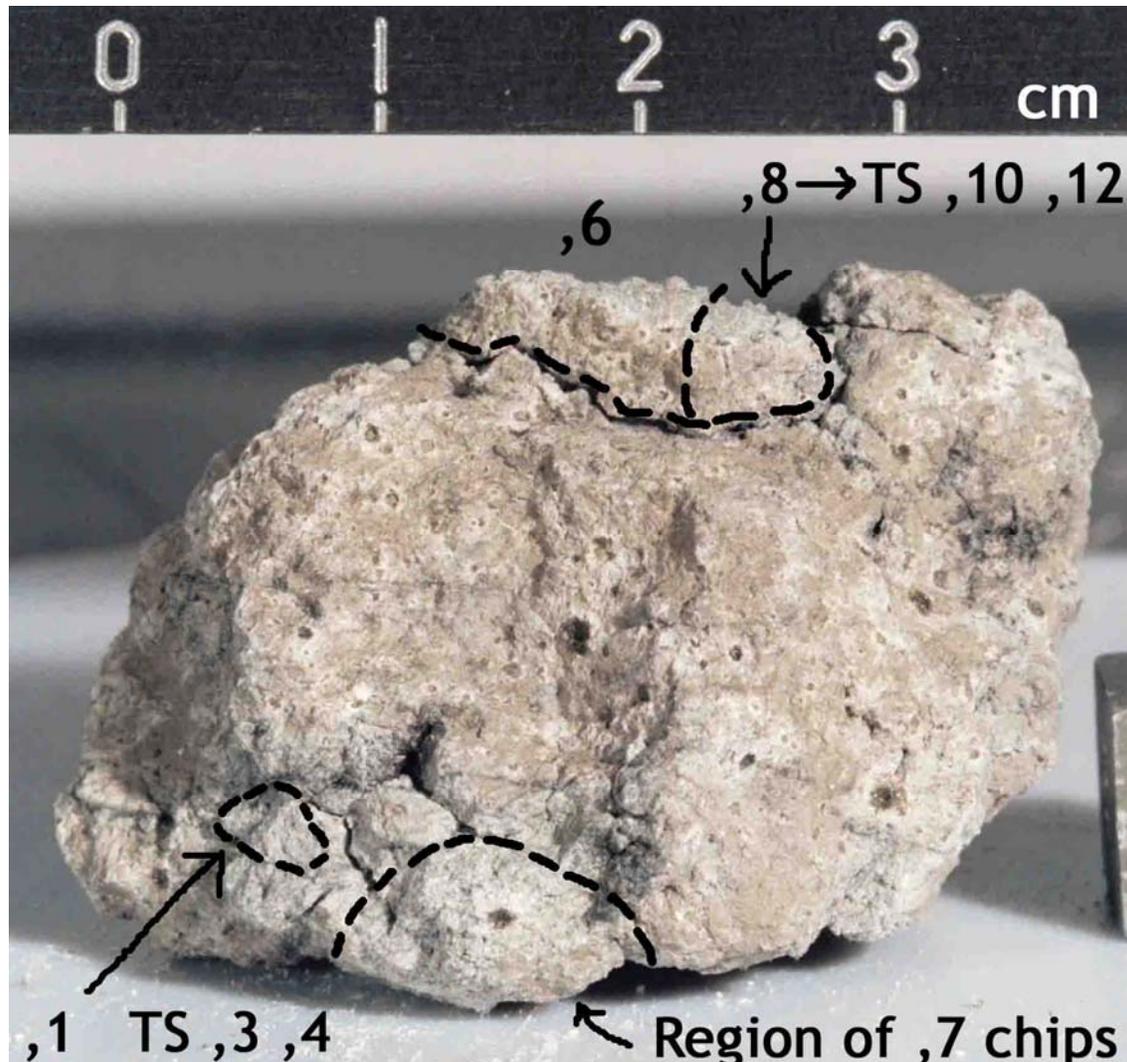


FIGURE 1. S-72-43490.

PETROLOGY: Warner et al. (1973) classify 63585 as a mesostasis-rich basalt and provide microprobe data. In contrast, Englehardt (1979) classifies 63585 as a poikilitic melt. Thin sections from opposite sides of the rock (Fig. 1) are both impact melts but contrast in texture.

The area of ,1 is a fine-grained subophitic to intergranular impact melt with plagioclase laths 100-200 μm long (Fig. 2). The plagioclases are embedded in olivine, with interstitial pyroxenes and some mesostasis glass, ilmenite and tridymite (?). Analyses of mafic minerals by Warner et al. (1973) are shown in Figure 3. Clasts of plagioclase, some shocked, are present. The melt is cut by glass-filled shear zones, along which plagioclase in the melt has been converted to maskelynite. In contrast, the area of ,8 is a fine-grained poikilitic impact melt (Fig. 2) with 50-100 μm oikocrysts of mafic minerals enclosing numerous plagioclase crystals. Interoikocryst areas contain ilmenite. The melt contains plagioclase clasts.

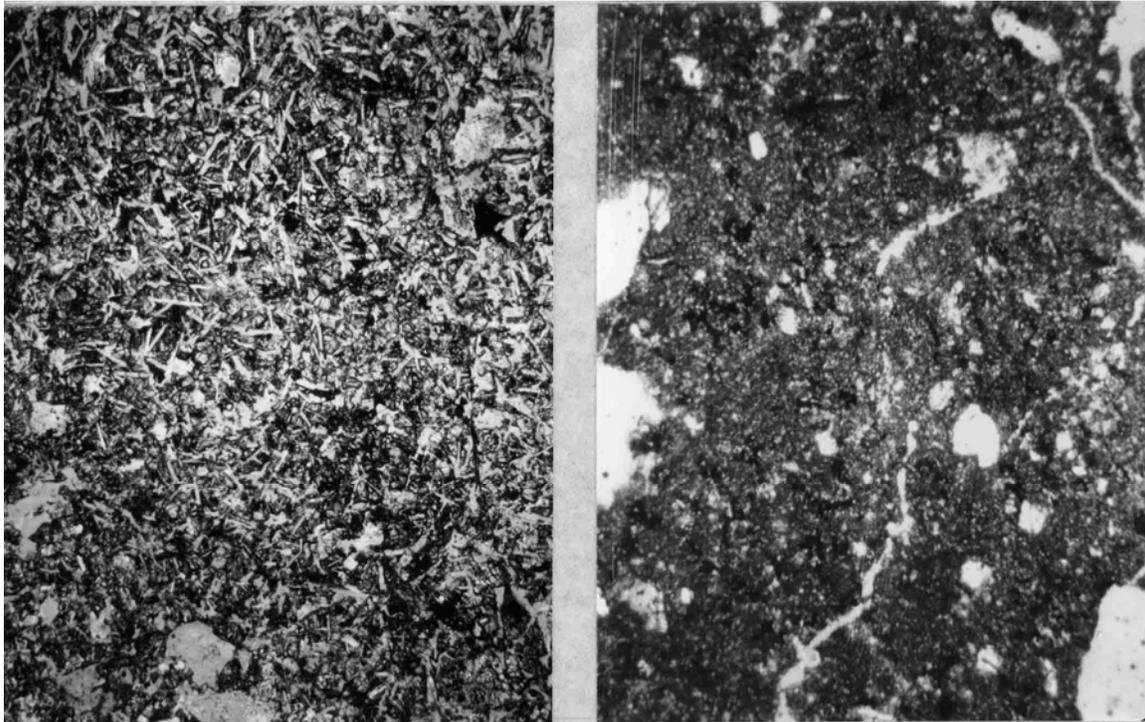


FIGURE 2. a) 63585,4, basaltic area, ppl. Width 2 mm.
b) 63585,10, poikilitic area, ppl. Width 2 mm.

PHYSICAL PROPERTIES: Pearce and Simonds (1974) report magnetic parameters for the potted butt of the basaltic portion (,1) of 63585. The ratio of saturation remanence/saturation magnetization is 0.0029. $\text{Fe}^0/\text{Fe}^{2+}$ is 0.0800 and total Fe^0 is 0.40 wt%.

PROCESSING AND SUBDIVISIONS: Several chips have been removed from 63585, mainly shown in Figure 1. Thin sections were made from ,1 (which was also used for magnetic measurements) and ,8. ,6 was allocated for rare gas studies and ,7 (numerous small chips) for chemical analysis.