

15529    MEDIUM-GRAINED OLIVINE-NORMATIVE (?)    ST. 9    1531.0 g  
BASALT

INTRODUCTION: 15529 is a very vesicular basalt with an appearance similar to olivine-normative basalts 15016 and 15556. The sample is light olive gray, rounded, tough, and very vesicular (Fig. 1). It had a 3-cm high fillet, but has no zap pits.

15529 was collected about 60 m northeast of the rim of Hadley Rille, in an area in which rock fragments with sizes up to 20 cm are fairly abundant.

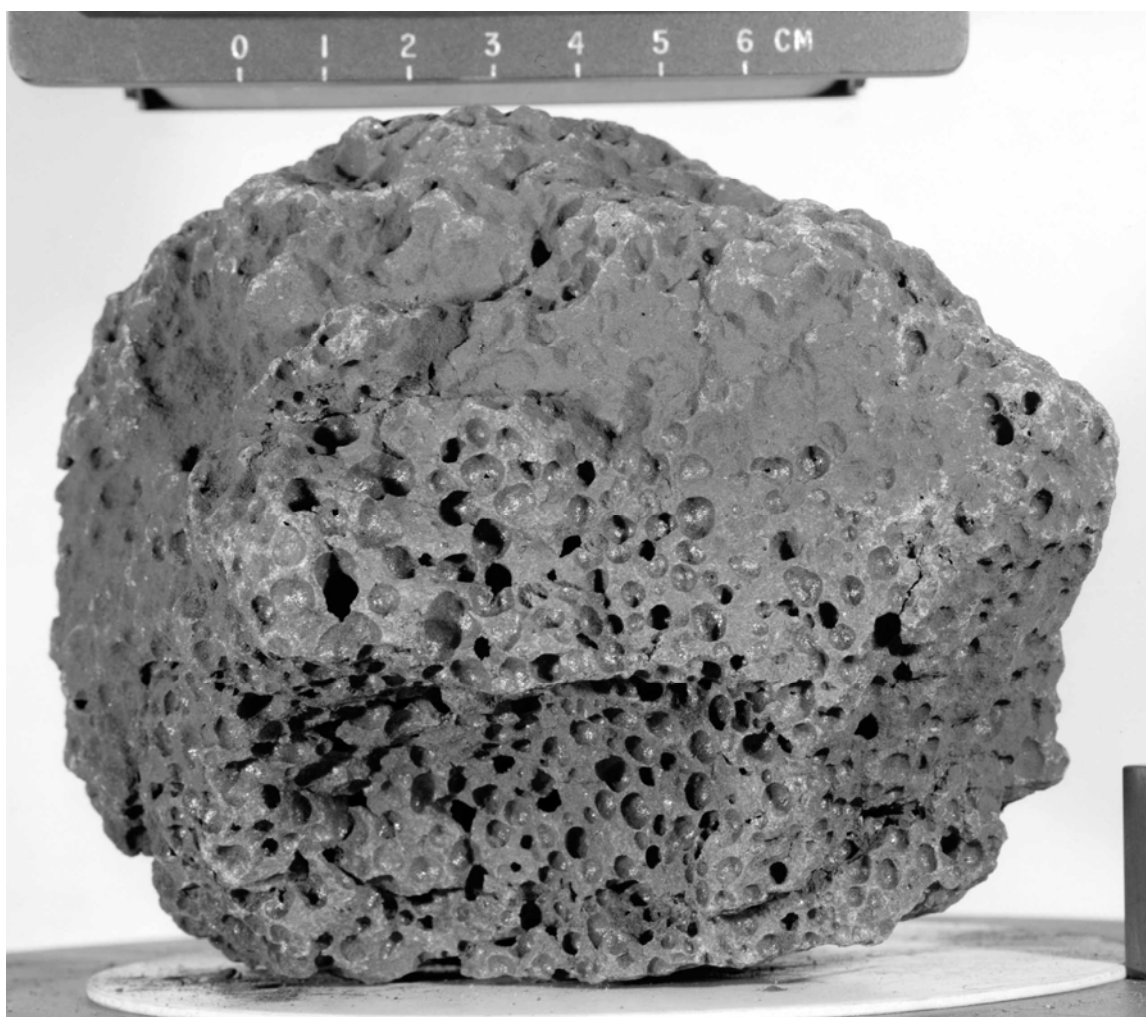


Figure 1. Sample 15529. S-71-45148

PETROLOGY: Macroscopically the sample is equigranular with conspicuous glass-lined vesicles lacking any preferred orientation (Fig. 1). In the absence of any thin sections, the only published study is that of Garvin et al. (1982) who studied vesicle size distributions. Vesicle diameters average 2.4 mm. Calculations indicate that the sizes and distribution of vesicles is consistent with a magma having 80 to 400 ppm dissolved CO ascending at 0.20 m/sec. This calculated amount depends not only on the ascent rate but also, to a lesser extent, on viscosity.

PROCESSING AND SUBDIVISIONS: Only a few chips have been removed, leaving ,0 at 1509.4 g. One split was allocated for chemical analysis.