<u>INTRODUCTION</u>: 15642 is a medium-grained, olivine-bearing basalt which is vuggy but not vesicular (Fig. 1). The yellow-green olivines are conspicuous macroscopically. 15642 was collected as part of the rake sample at Station 9A.

<u>PETROLOGY</u>: 15642 is a medium-grained, olivine-bearing mare basalt in which the pyroxenes are up to 2 mm long, zoned, and twinned (Fig. 2). Olivines are anhedral and most are less than 1 mm across. Larger ones contain crystallized silicate-liquid inclusions. Plagioclases include some with hollow, square sections. There is some residual glass, but fayalite and cristobalite appear to be rare.

<u>PROCESSING AND SUBDIVISIONS</u>: ,1 was chipped off and largely used to make thin sections ,1 and ,6. ,0 is now 1.60 g.



Figure 1. Pre-chip view of 15642. S-71-49575

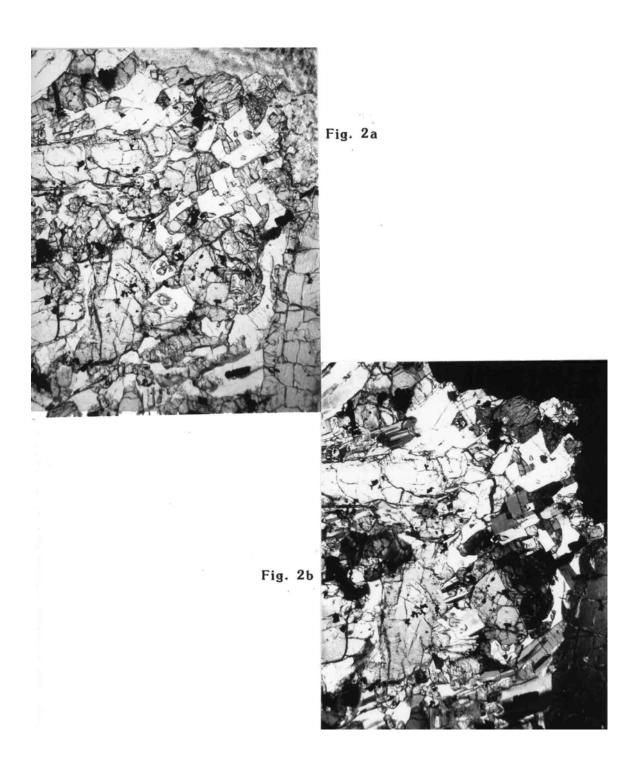


Figure 2. Photomicrographs of 15642,1. Widths about 3 mm. a) transmitted light; b) crossed polarizers.