

15638

15638    MEDIUM-GRAINED OLIVINE-NORMATIVE    ST. 9A    3.60 g  
MARE BASALT

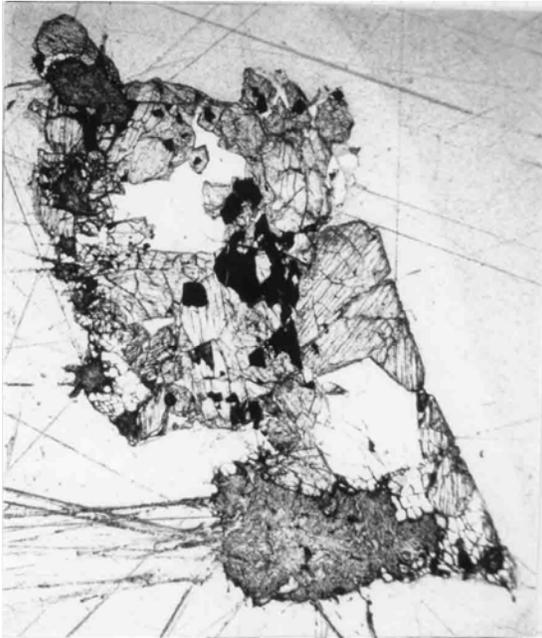
INTRODUCTION: 15638 is a medium-grained, olivine-bearing mare basalt which contains some rags but is not vesicular (Fig. 1). Yellow-green olivines are conspicuous macroscopically. The sample is tough and was collected as part of the rake sample at Station 9A.



Figure 1. Pre-saw view of 15638. S-71-49559

**PETROLOGY:** 15638 is a medium-grained mare basalt (Fig. 2). Mg-olivine appears to be absent from the tiny thin sections although it is visible macroscopically; fayalite is present with cristobalite, troilite, glass, ulvospinel and ilmenite as a residual phase. Steele et al. (1972) noted the absence of olivine. The dominant phase is pigeonite, up to 2 mm and zoned to augite. Plagioclase forms an interstitial phase.

**PROCESSING AND SUBDIVISIONS:** A small piece was sawn off the "E" end (left tip in Figure 1) and entirely used up in making the two tiny thin sections ,9 and ,10. Five very tiny chips (,2) were taken in the same processing. ,0 is now 3.45 g.



**Fig. 2a**



**Fig. 2b**

Figure 2. Photomicrographs of entire thin section 15638,10 (about 1x2 mm).  
a) transmitted light; b) crossed polarizers.