

INTRODUCTION: 60075 is a very friable clastic breccia; it was removed from its documented bag as 13 small pieces. These pieces have been subsequently broken and powdered even more during processing and handling (Fig. 1). A few zap pits on the largest fragment were reported in the original catalog description but the extremely dusty and friable nature of the rock has now obscured all original surfaces. The rock was collected about 170 m south-southwest of the Lunar Module. It was disturbed prior to photographing, hence burial and orientation data were lost.



FIGURE 1. Part of 60075.
Smallest scale division in mm. S-75-33675.

PETROLOGY: Library thin sections are of a highly porous and fragmental breccia composed of abundant small (<2 mm) clasts in a fine-grained clastic matrix (Fig. 2). Lithic clasts include granoblastic anorthosites, troctolites, and norites, cataclastic anorthosite, spinel-bearing basaltic impact melt and vitric matrix breccia. Plagioclase, pyroxene and olivine clasts are also present as well as metal, troilite, oxide and devitrified brown glass fragments. Pyroxene and plagioclase clasts occasionally contain parallel rods and stringers of exsolved opaques.

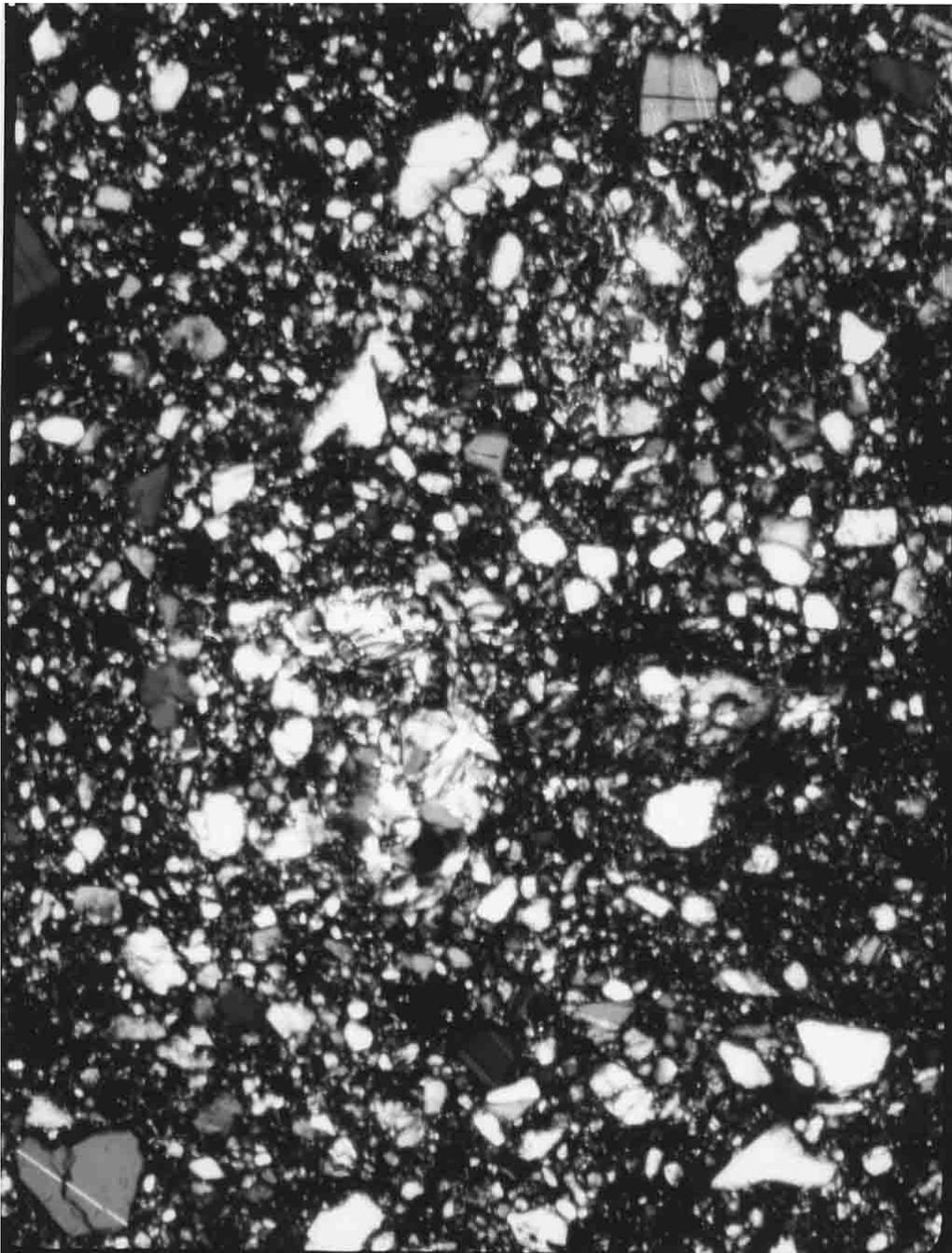


FIGURE 2. 60075,34. general view, xpl. width 2 mm.

CHEMISTRY: Rose et al. (1975), Cripe and Moore (1975) and Moore and Lewis (1976) provide major and trace element data for the bulk rock (Table 1). Its reported composition is very aluminous and quite unlike that of the local soil. Despite the abundant metal seen in thin section, the split analyzed by Rose et al. (1975) was low in Ni and Co. Incompatible elements are also low indicating a very small KREEP component.

PROCESSING AND SUBDIVISIONS: All of the allocated splits came from a single 21 g fragment (60075,4) which was one of the original 13 pieces of the rock. During processing 60075,4 broke into a 2 cm fragment, two 1 cm fragments and many smaller chips and fines. Processing notes indicate that the portions analyzed for chemistry were typical fragments and fines that included both dark and light clasts.

TABLE 1. Summary Chemistry of 60075.

SiO ₂	45.47
TiO ₂	0.20
Al ₂ O ₃	32.55
Cr ₂ O ₃	0.03
FeO	1.73
MnO	0.02
MgO	1.87
CaO	17.63
Na ₂ O	0.67
K ₂ O	0.05
P ₂ O ₅	0.02
Sr	174
La	<10
Lu	
Rb	1.0
Sc	5.1
Ni	50
Co	7.5
Ir ppb	
Au ppb	
C	4
N	66
S	630
Zn	<4
Cu	3.4

Oxides in wt %; others in ppm

except as noted.