

INTRODUCTION: 63557 is a medium dark gray, fine-grained impact melt (Fig. 1). It is a rake sample and has zap pits.



FIGURE 1. Smallest scale division in mm. S-72-55382.

PETROLOGY: Warner et al. (1973) classify 63557 as a meta-norite. Floran et al. (1976) define it as a polymict dark matrix breccia. It is a fine-grained impact melt (Fig. 2) with a matrix containing tiny ilmenite needles. The melt forms a mortar for a clast population which has a seriate size distribution down to very tiny. Several 300-400 μm fragments of mafic minerals, as well as a 700 μm plagioclase clast, are present in thin section ,4.

CHEMISTRY: Floran et al. (1976) and Blanchard (unpublished) analyzed chip ,6 for major and trace elements respectively. These are summarized in Table 1 and Figure 3.

The fragment is feldspathic, with low rare earth abundances. While it is contaminated with meteoritic material, the level of contamination is not great.

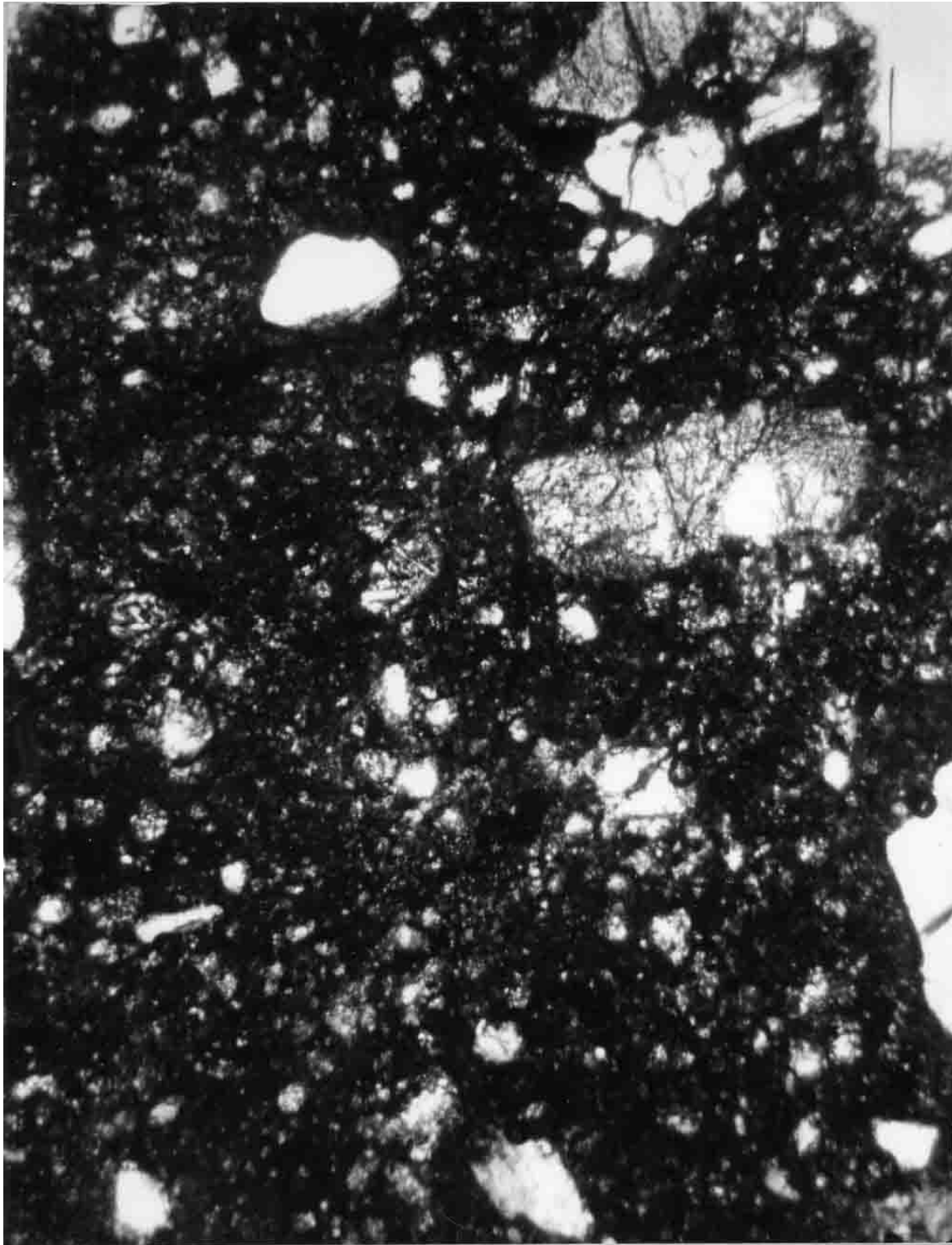


FIGURE 2. 63557,4, general view, ppl. Width 2 mm.

PROCESSING AND SUBDIVISIONS: A chip (,1; the smallest in Fig. 1) was made into thin sections ,3 and ,4. The intermediate chip in Figure 1 was split into chips ,6 and ,7, of which the former was allocated for chemical analysis.

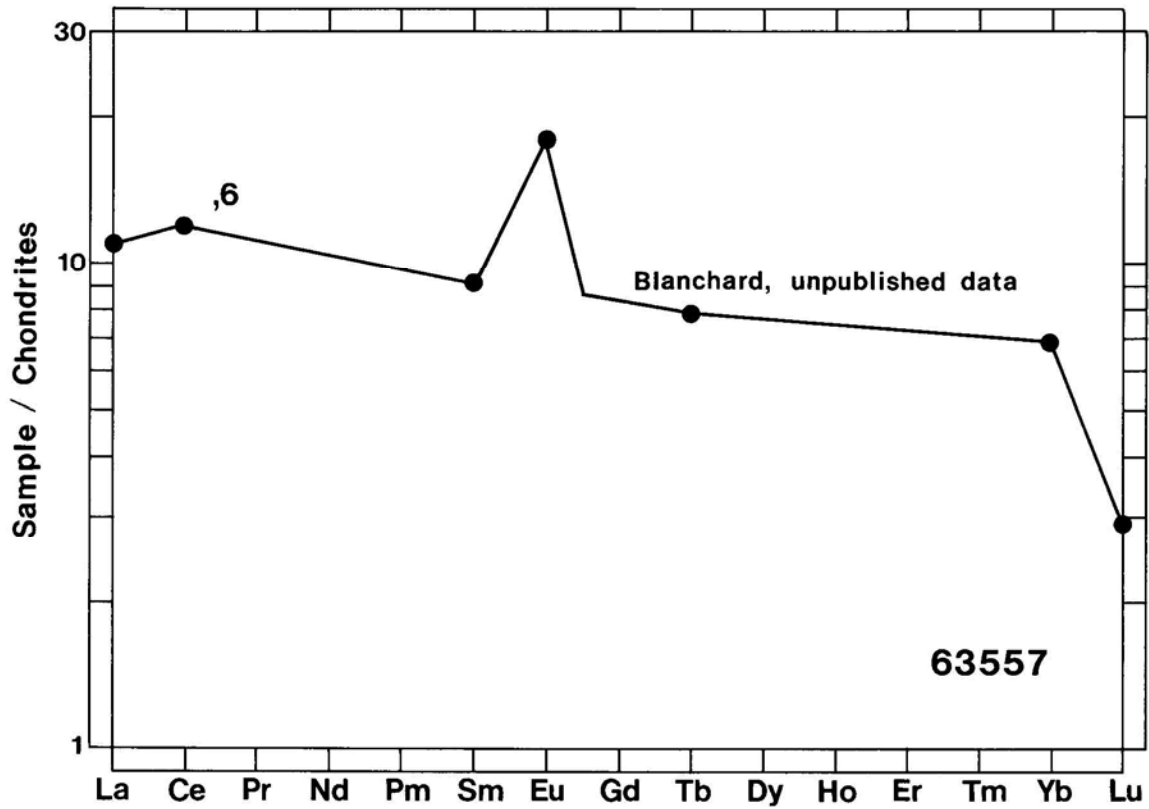


FIGURE 3. Rare earths.

TABLE 1. Summary chemistry of 63557.

SiO ₂	44.7
TiO ₂	0.38
Al ₂ O ₃	29.8
Cr ₂ O ₃	~0.05
FeO	3.5
MnO	
MgO	3.2
CaO	17.0
Na ₂ O	0.62
K ₂ O	0.08
P ₂ O ₅	
Sr	
La	3.62
Lu	0.01
Rb	
Sc	6.2
Ni	44
Co	7.2
Ir ppb	
Au ppb	
C	
N	
S	
Zn	9
Cu	

Oxides in wt%; others in ppm except as noted