67757 – 4.8 grams
67759 – 4.6 grams
Impact-melt Breccia

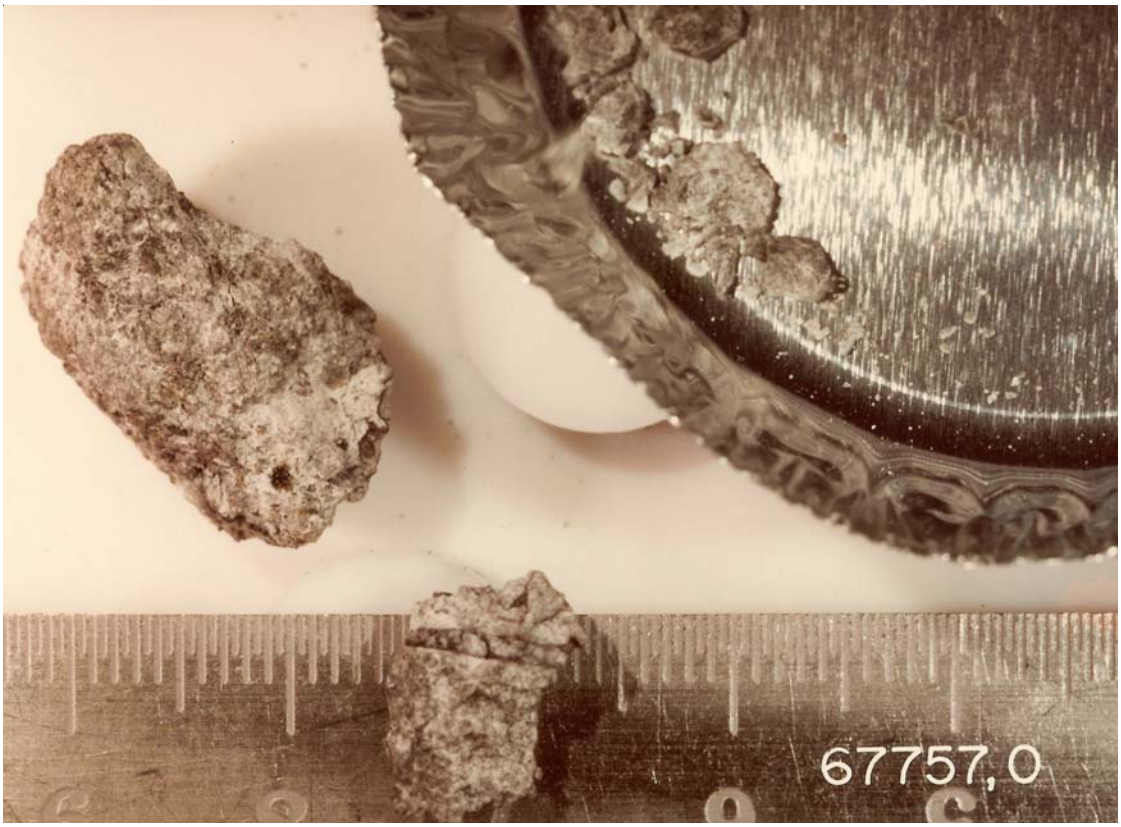


Figure 1: Photo of 67757. S81-32698

Introduction

67757 and 67759 are rake samples collected from the rim of North Ray Crater – see section on 67701. They are feldspathic breccias with micropoikilitic texture, probably formed by impact melting and recrystallization.

Petrography

67757 is an impact melt with fine-grained subophitic and poikilitic textures. According to Ryder and Norman (1980) the poikilitic areas have a greater proportion of mafic material than the subophitic areas. 67759 appears similar (Stoffler et al. 1985). Both have glass veins.

Chemistry

These two particles have the same chemical composition (Stoffler et al. 1985).

Figure 2: Photo of 67759. S72-49566

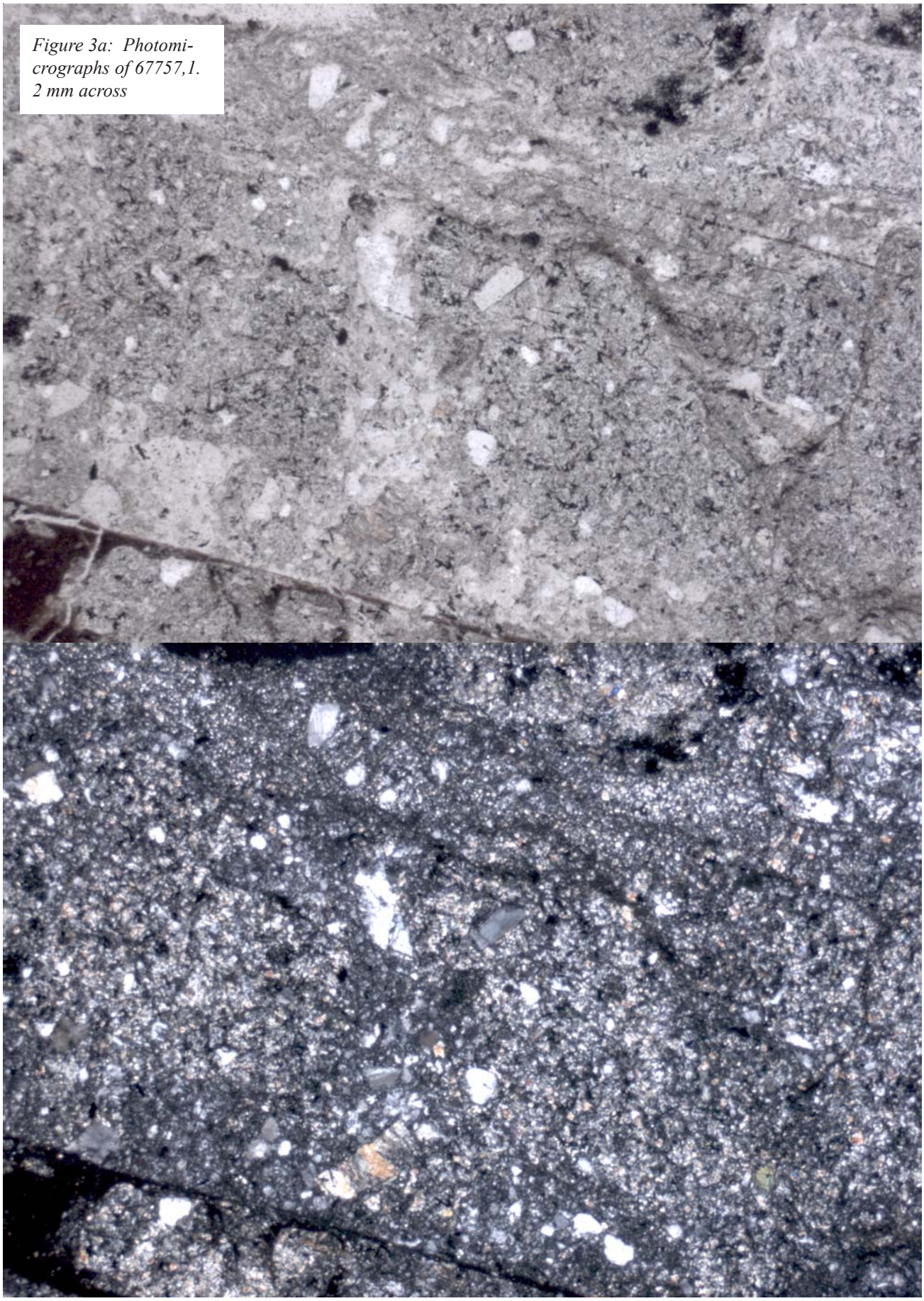


Figure 3a: Photomicrographs of 67757,1. 2 mm across

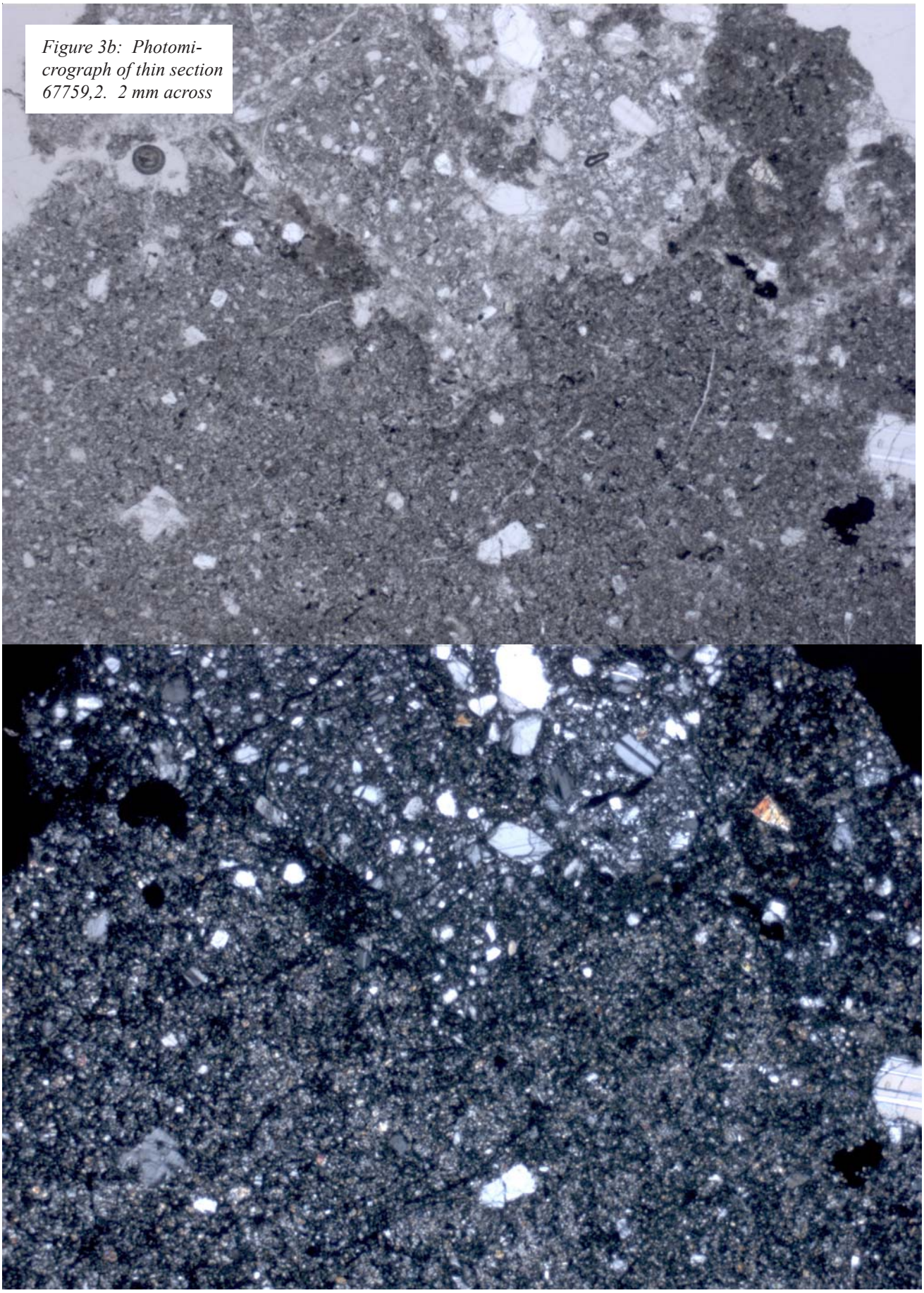
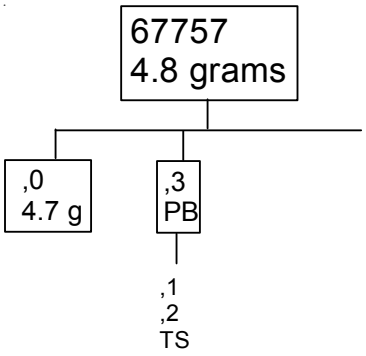


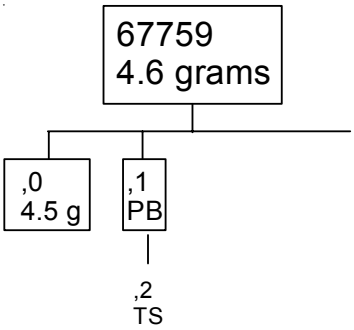
Figure 3b: Photomicrograph of thin section 67759,2. 2 mm across

Table 1. Chemical composition of 67757 and 59

	67757	67759	
reference	Stoffler85		
weight			
SiO2 %	45.6	45.8	(a)
TiO2	0.81	0.81	(a)
Al2O3	23	22.6	(a)
FeO	5.7	5.8	(a)
MnO	0.06	0.06	(a)
MgO	9.8	10.3	(a)
CaO	14	13.6	(a)
Na2O	0.48	0.51	(a)
K2O	0.15	0.16	(a)
P2O5	0.21	0.16	(a)
S %			
sum			

(a) DBA





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