

67549 – 43.1 grams

67546 – 1.5 grams

Polymict Breccia

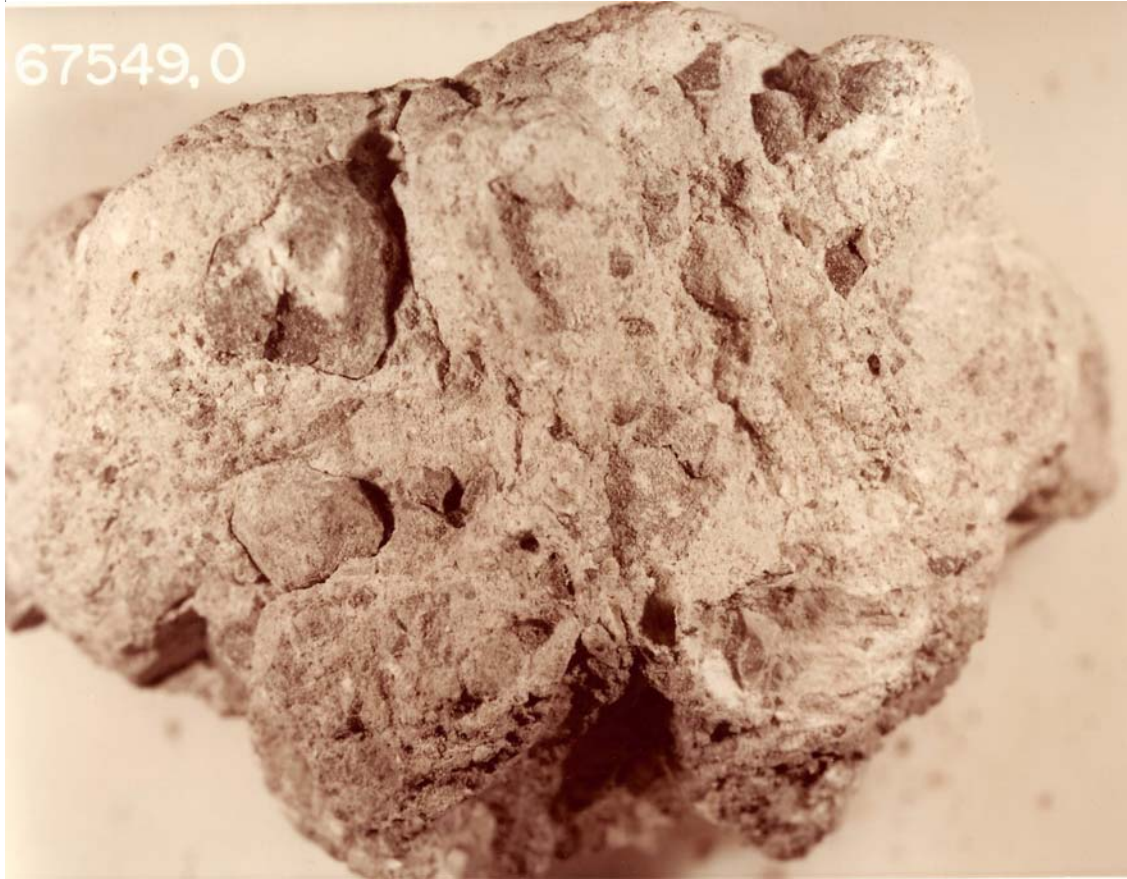


Figure 1: Photo of 67549. Sample is 4 cm across S80-34088

Introduction

67549 and 67546 are rake samples from the rim of North Ray Crater – see section on 67481. They are porous and rounded with a light matrix and both light and dark clasts.

Petrography

67549 has about 35 % low-Ca pyroxene; the rest is plagioclase (Ryder and Norman 1980). It also has some clasts with light-brown melt (devitrified?)(figure 4).

Chemistry

Stoffler et al. (1985) have reported the bulk composition (table) and referred to the samples as “microporphyrific melt breccias”.

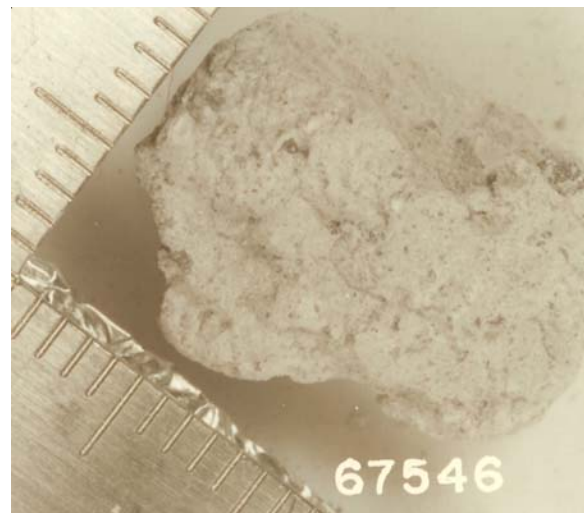
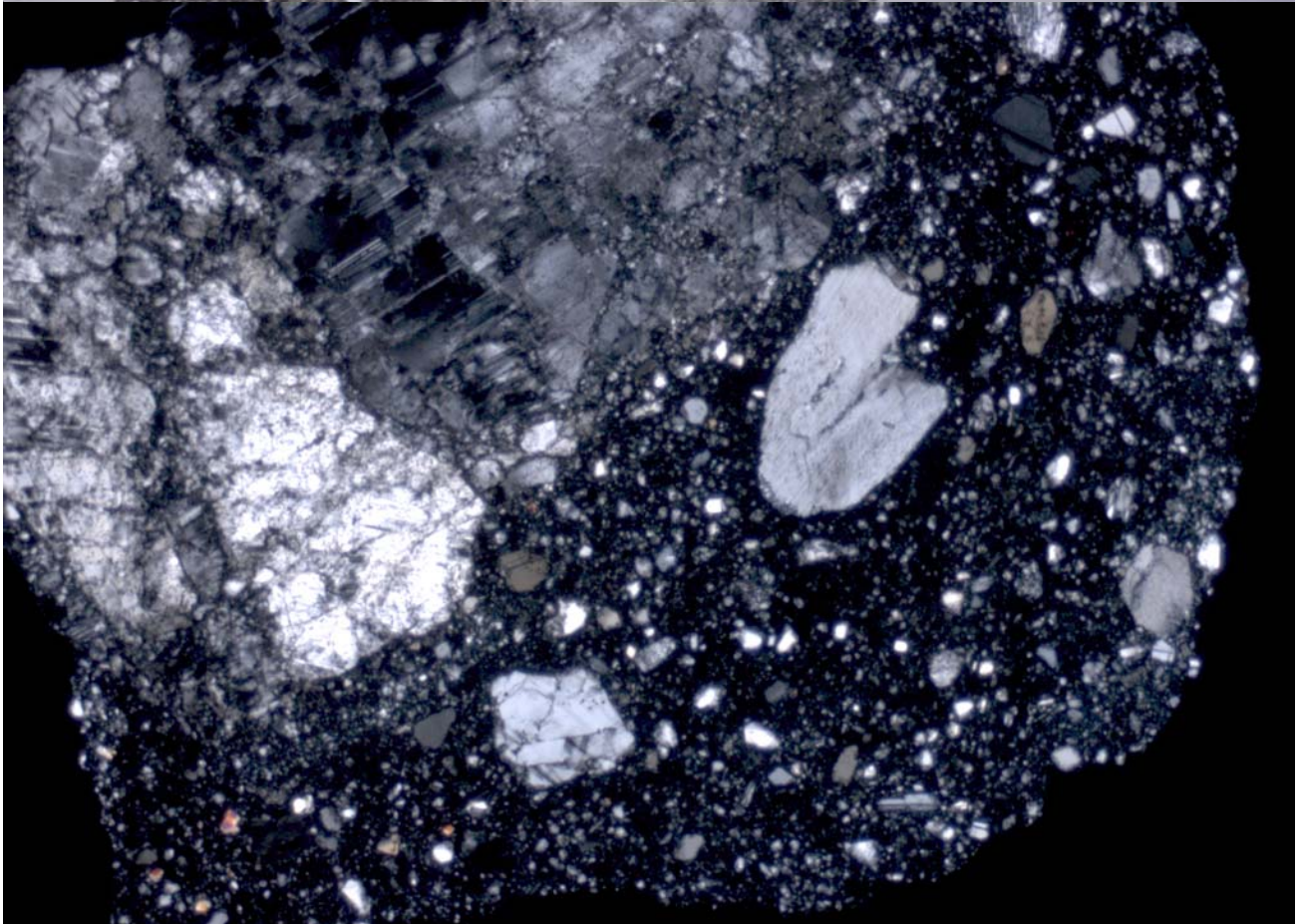
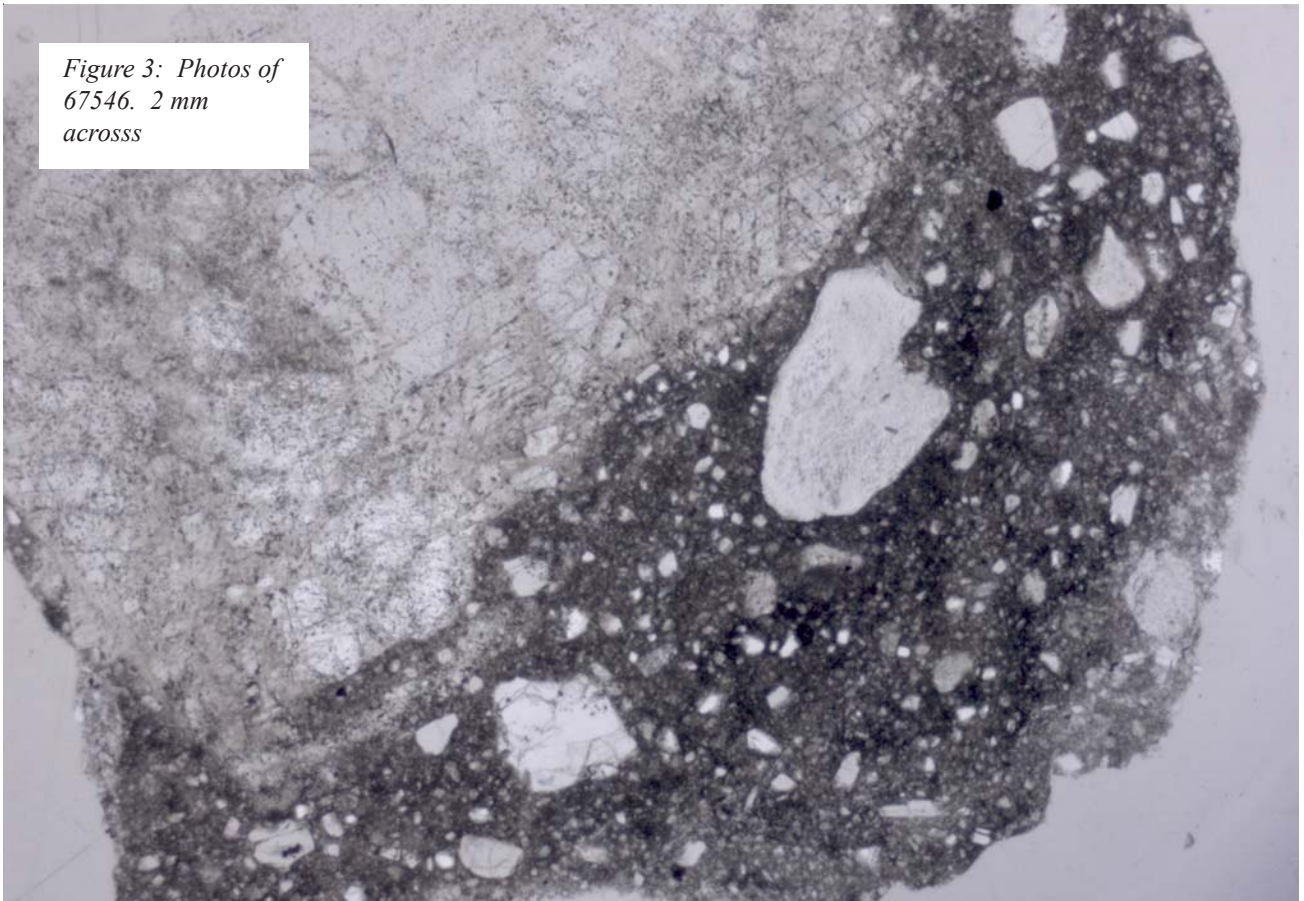


Figure 2: Photo of 67546. Ticks are in mm. S72-51284

*Figure 3: Photos of
67546. 2 mm
across*



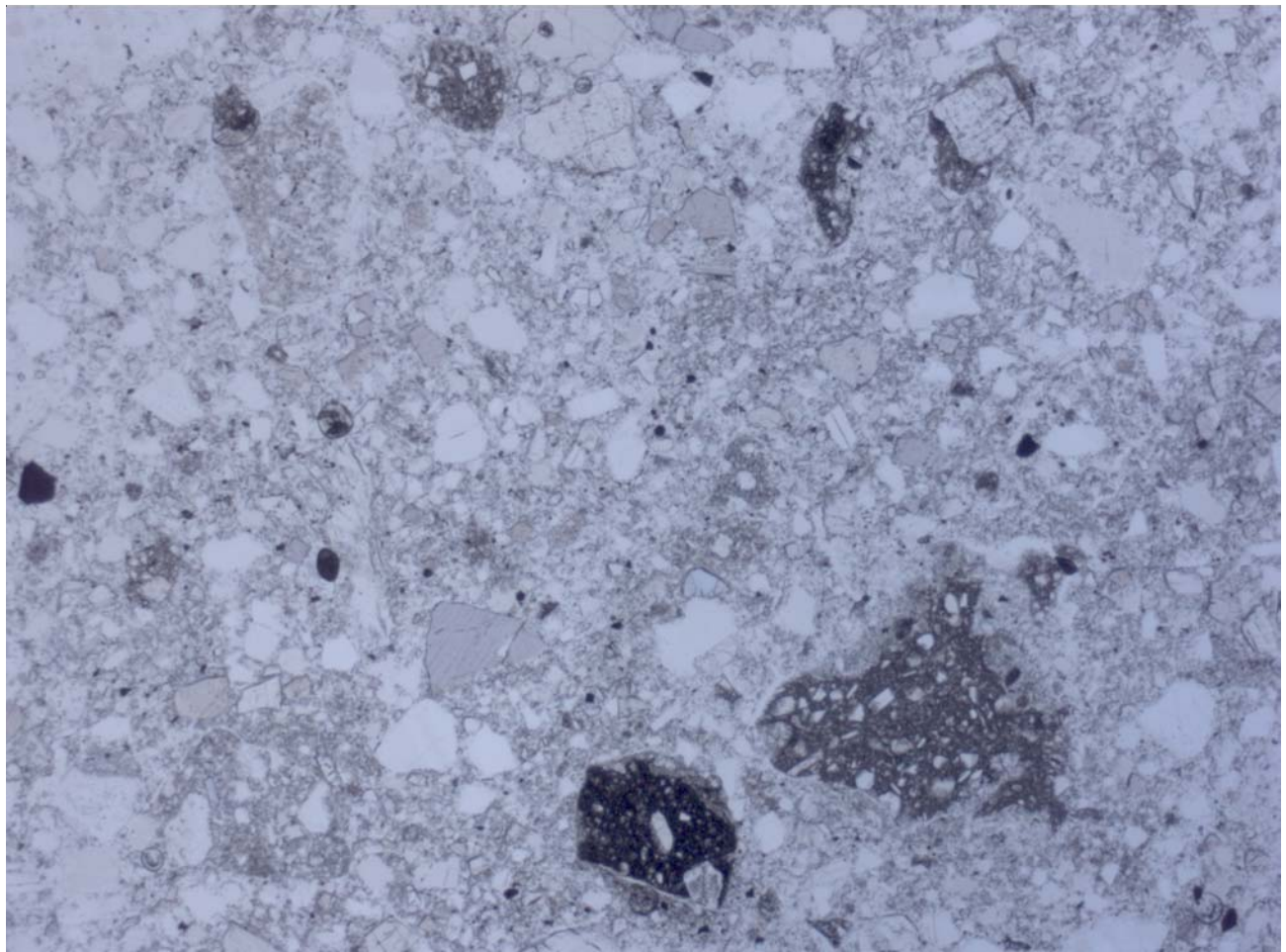


Figure 4: Photomicrograph of thin section 67549,5 showing dark clast in fragmental matrix (mostly plagioclase).

Radiogenic age dating

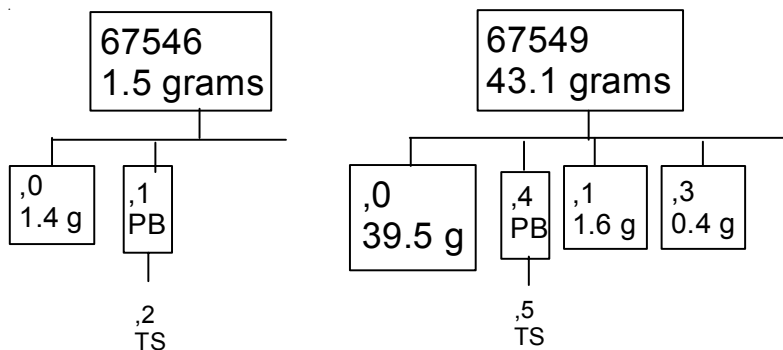
None

Processing

These is one thin section of each.

Table 1. Chemical composition of 67549

		67549	67546	
<i>reference</i>	Stoffler86			
<i>weight</i>				
SiO2 %	44.5	47.2	(a) 45.7	(a)
TiO2	2.54	1.54	(a) 0.32	(a)
Al2O3	26.4	22.8	(a) 30.9	(a)
FeO	5.1	6.2	(a) 2.68	(a)
MnO	0.03	0.11	(a) 0.02	(a)
MgO	4.9	6.1	(a) 2.52	(a)
CaO	14.7	14.5	(a) 17.1	(a)
Na2O	1	0.88	(a) 0.71	(a)
K2O	0.09	0.16	(a) 0.06	(a)



References for 67546 and 67549

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