

**64818**  
Breccia  
14 grams

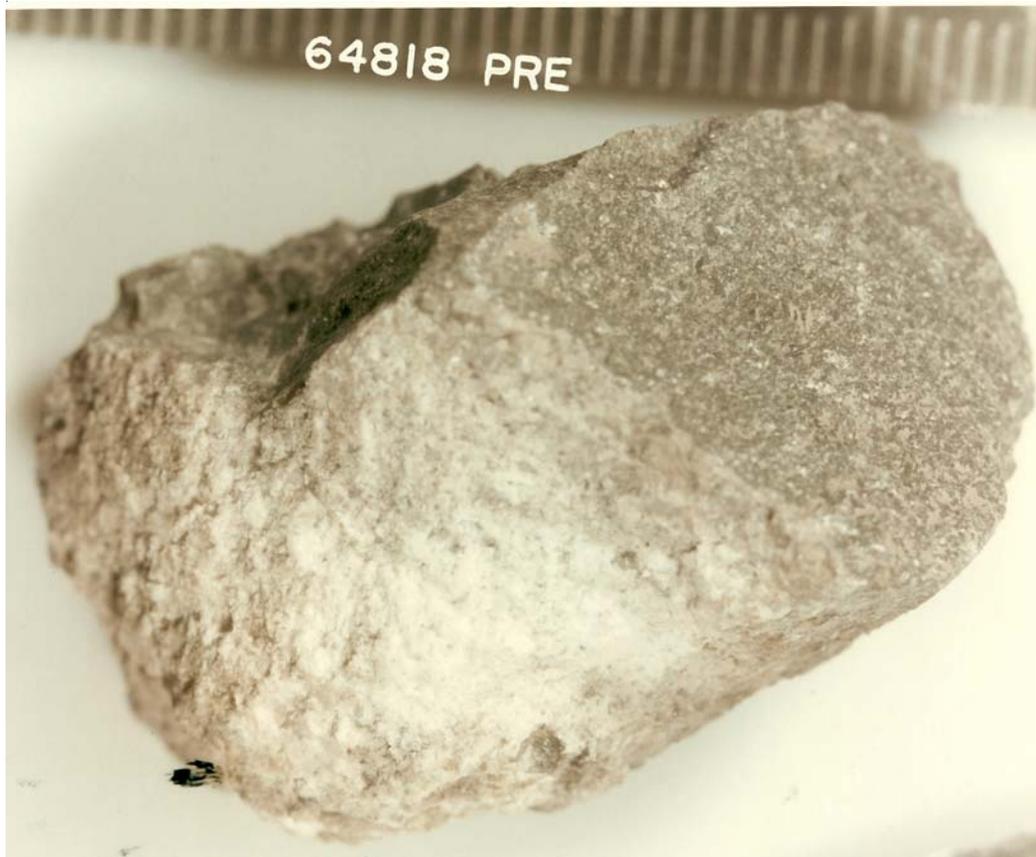


Figure 1: Photo of 64818. Scale is marked in mm. S72-55338

### **Introduction**

64818 is a rake sample collected from the rim of a small crater at station 4 on Stone Mountain – see section on 64801.

### **Petrography**

Phinney et al. (1976) refer to 64818 as a “tough crystalline breccia” with 5% vugs and vesicles, while Warner et al. (1973) called it a “meta-norite”. Ryder and Norman (1980) called it a “dilithologic breccia” (?) so I will just call it a breccia, until a proper petrologic description shows up.

A single 3 mm clast of “cataclastic anorthosite” is reported by Ryder and Norman (1980). There is also a glassy portion!

### **Chemistry**

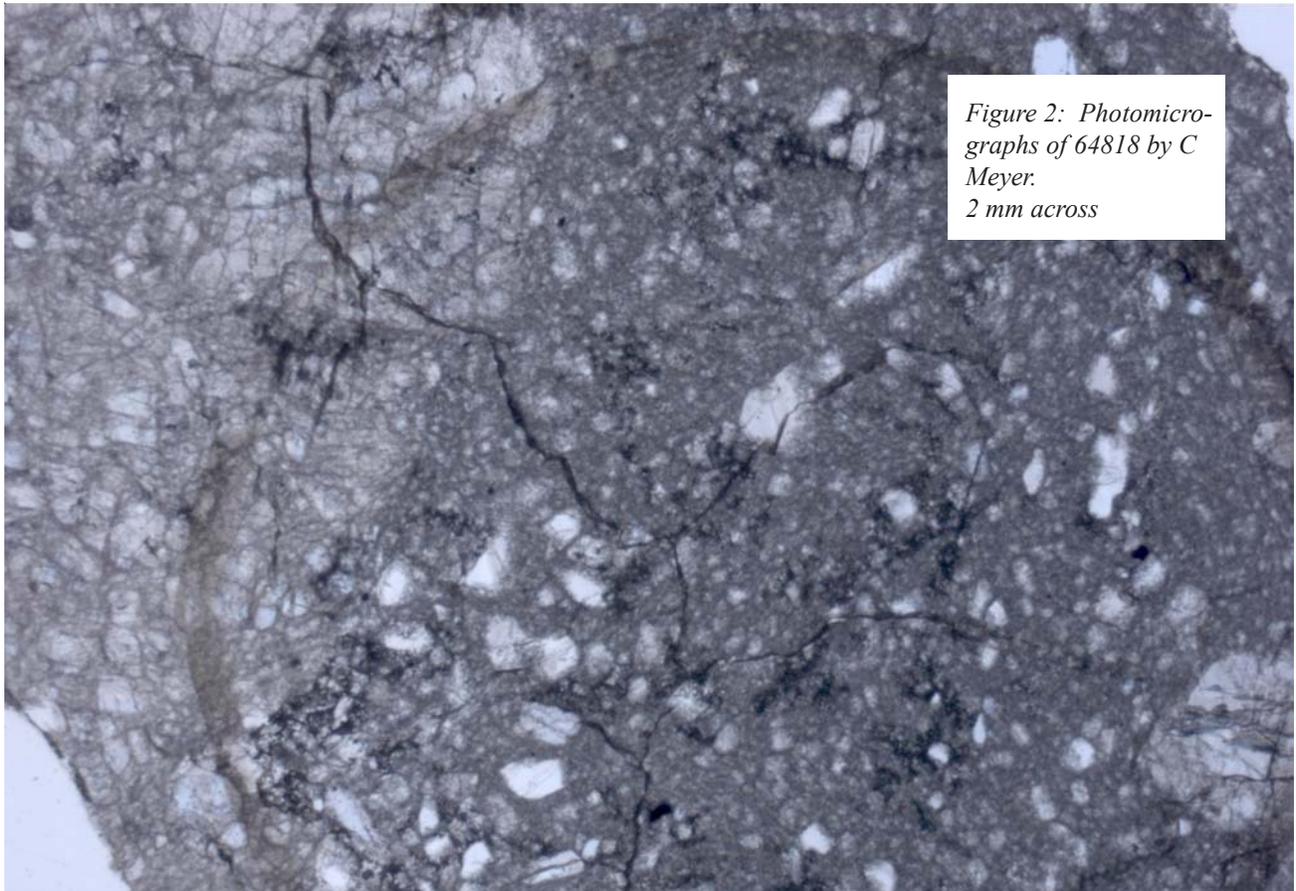
None

### **Radiogenic age dating**

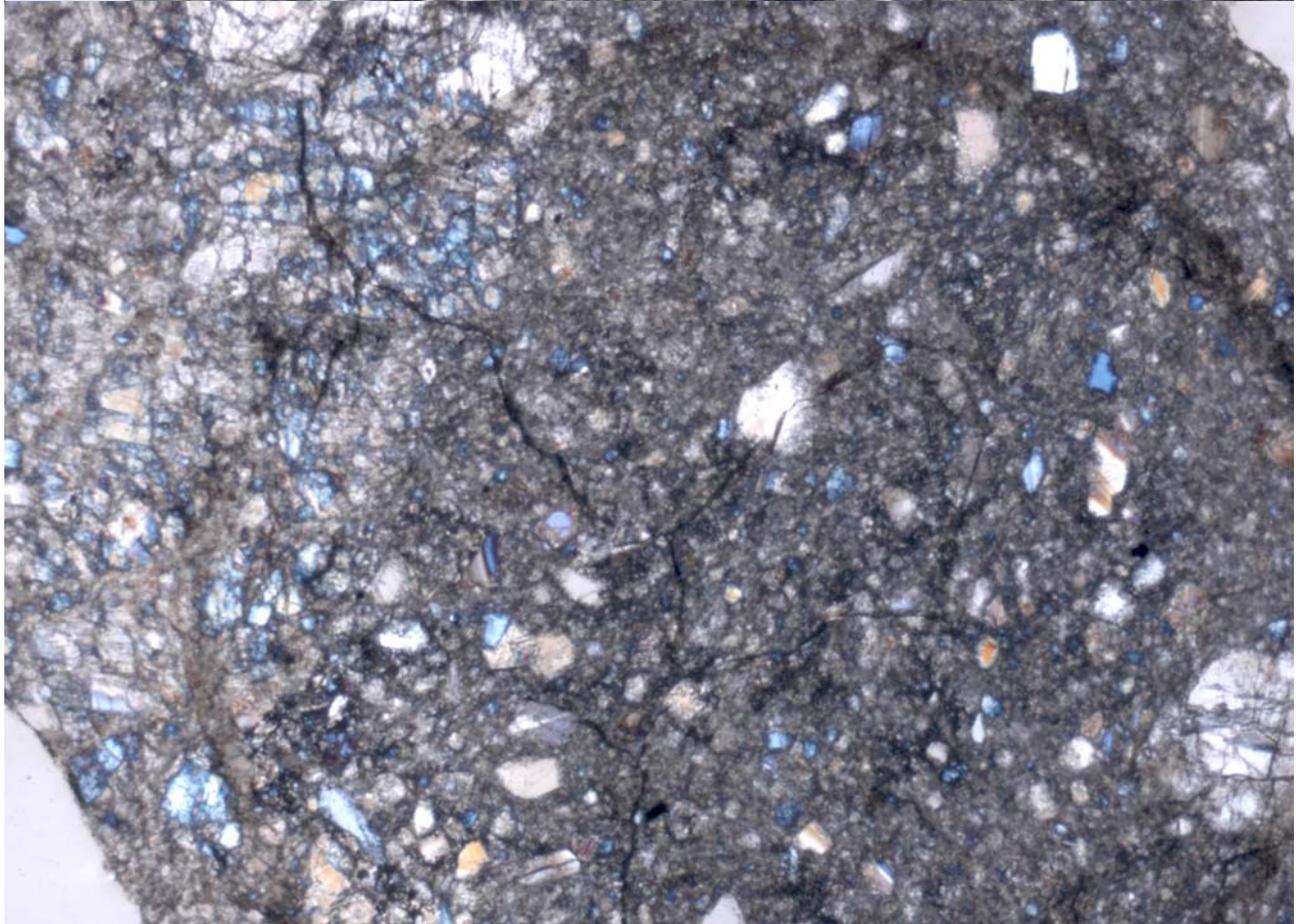
None

### **Processing**

There are two thin sections.



*Figure 2: Photomicrographs of 64818 by C Meyer.  
2 mm across*



## References for 64818

Butler P. (1972a) Lunar Sample Information Catalog Apollo 16. Lunar Receiving Laboratory. MSC 03210 Curator's Catalog. pp. 370.

Hunter R.H. and Taylor L.A. (1981) Rust and schreibersite in Apollo 16 highland rocks: Manifestations of volatile-element mobility. *Proc. 12<sup>th</sup> Lunar Planet. Sci. Conf.* 253-259.

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LSPET (1972c) Preliminary examination of lunar samples. In Apollo 16 Preliminary Science Report. NASA SP-315, 7-1—7-58.

Phinney W.C., McKay D.S., Simonds C.H. and Warner J.L. (1976a) Lithification of vitric- and clastic-matrix breccias: SEM photography. *Proc. 7<sup>th</sup> Lunar Sci. Conf.* 2469-2492.

Phinney W. and Lofgren G. (1973) Description, classification and inventory of Apollo 16 rake samples from stations 1, 4 and 13. Curators Office.

Ryder G. and Norman M.D. (1980) Catalog of Apollo 16 rocks (3 vol.). Curator's Office pub. #52, JSC #16904

Sutton R.L. (1981) Documentation of Apollo 16 samples. In Geology of the Apollo 16 area, central lunar highlands. (Ulrich et al. ) U.S.G.S. Prof. Paper 1048.

Warner J.L., Simonds C.H. and Phinney W.C. (1973b) Apollo 16 rocks: Classification and petrogenetic model. *Proc. 4<sup>th</sup> Lunar Sci. Conf.* 481-504.