

78548**Soil Clod****15.95 g, 2.6 x 2.2 x 2.1 cm****INTRODUCTION**

Sample 78548 is a very friable soil breccia that was collected as part of a large rake sample at Station 8 (Fig. 1). It broke up into soil during processing (Fig. 2).

PETROGRAPHY

Butler (1973) described 78548 as very friable, medium grey, matrix-rich breccia with clasts generally of millimeter size composing less than 5%.

Keil et al. (1974) and Warner et al. (1978f) discussed this sample in their catalogs. They noted that it contains clasts of mare basalt and highland materials, and that there are fragments of pale green glass, or green glass vitrophyre, similar to 78526, as well as other glasses.

MINERAL CHEMISTRY

Warner et al. (1979) have studied the glass compositions in 78548.

WHOLE-ROCK CHEMISTRY

Laul and Schmitt (1975c) have reported the chemical composition of 78548 (Table 1 and Fig. 3). It has a chemical composition exactly like that of the rake soil (78501).



Figure 1: Photograph of 78548. Scale is 1 cm. S73-33400.

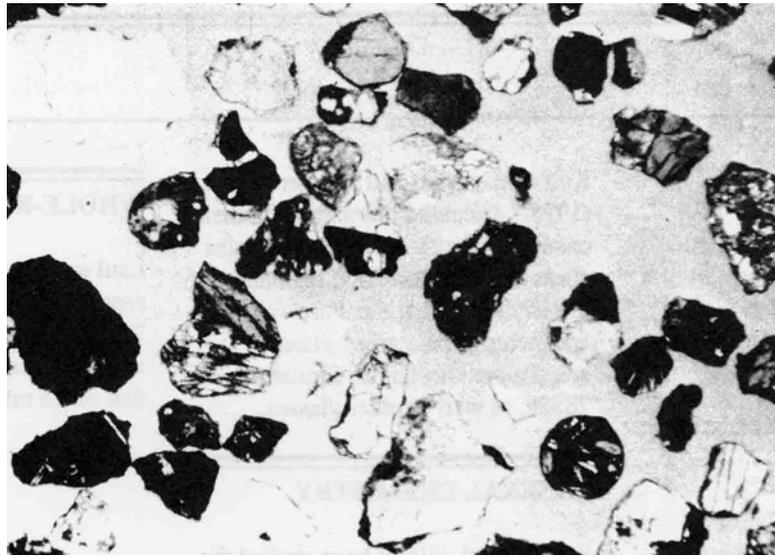


Figure 2: Photomicrograph of grains from 78548. From Warner et al. (1978f).

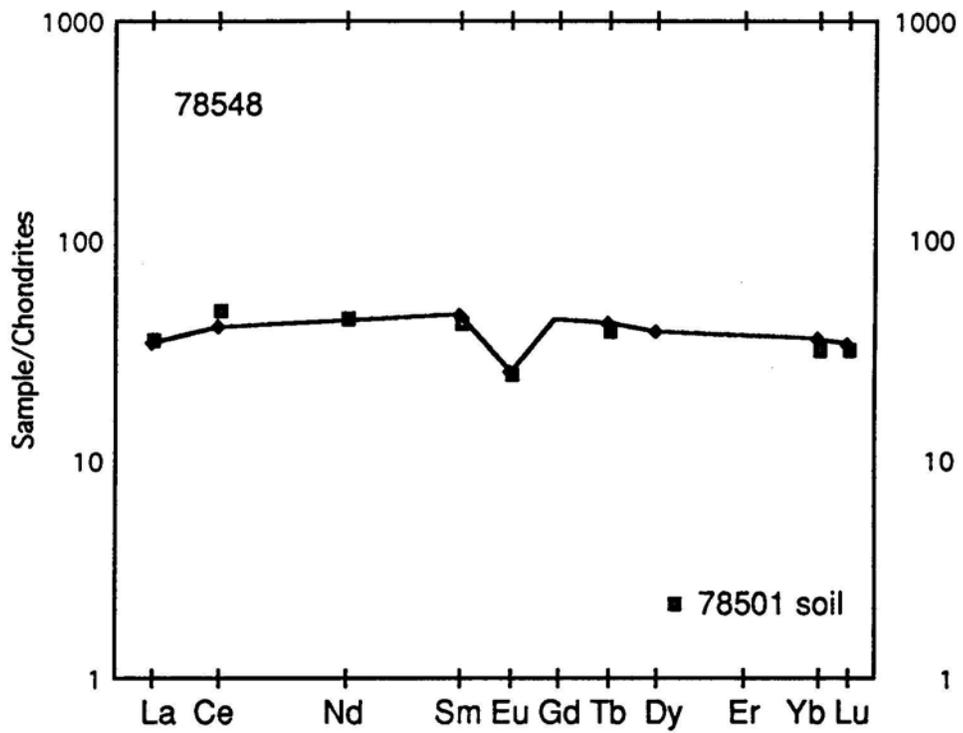


Figure 3: Normalized rare earth element diagram for 78548. Data from Laul and Schmitt (1975). Data for 78501 soil are for comparison.

Table 1: Whole-rock chemistry of 78548.
From Laul and Schmitt (1975c).

Split Technique	3 INAA
SiO ₂ (wt%)	–
TiO ₂	5.2
Al ₂ O ₃	16.0
Cr ₂ O ₃	0.34
FeO	13.2
MnO	0.167
MgO	10
CaO	11.3
Na ₂ O	0.41
K ₂ O	0.09
Nb (ppm)	
Hf	5
Ta	0.9
U	–
Th	0.8
Ni	120
Co	31.2
Sc	41
La	7.9
Ce	24
Nd	
Sm	6.6
Eu	1.4
Gd	
Tb	1.5
Dy	9.3
Er	
Yb	5.7
Lu	0.81
Ge (ppb)	
Ir	
Au	