

## 14051

Sample 14051 was collected at station C' which was located 1.29 km ENE of LM and approximately 95 m SE of the rim of Cone Crater. The sample was collected on a gentle southward slope and was partly buried. The area was characterized by abundant fragments ranging from the limit of resolution up to 1.5 m blocks. The sample was returned in documented bag 7N in ALSRC 1006.

The general area where the sample was collected is characterized by abundant 5 to 70 cm craters. Most are moderately subdued and have abundant ejecta around several of the 50 - 70 cm craters.

### PHYSICAL CHARACTERISTICS

Mass	Dimensions
191.3 g	3 x 3.5 x 6 cm

The sample is a pale brown, blocky to subrounded, fragmental rock.

### SURFACE FEATURES

Approximately 1% of the rock surface is covered with 0.5 to 2.0 mm pits. They are irregular, elongate, hemispherical and circular. Few pits are rectangular and these appear to be holes which originated when feldspar cleavage fragments fell out. Pit density is about equal over the entire surface of the rock. Pits are spaced about 5 to 20 mm apart. Seventy-five percent of the S<sub>1</sub> surface contains vugs up to 3 mm in size (Twedell et al., 1978).

There are no apparent fractures and there are no obvious shock features. The rock is moderately coherent with a softer surface. Since the orientation of the pits seem appears random, the rock cannot oriented.

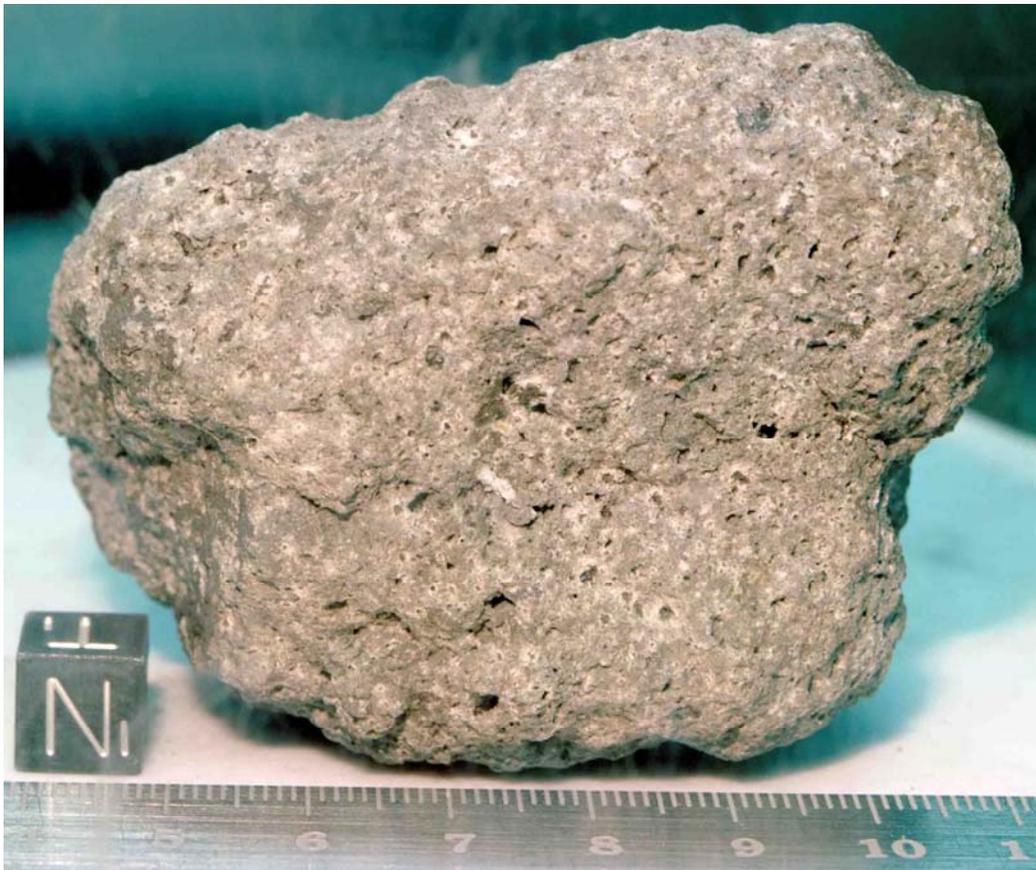
The grain size is predominately smaller than 1 mm and the texture and mineralogy are homogeneous (except for scattered clasts).

### PETROGRAPHIC DESCRIPTION

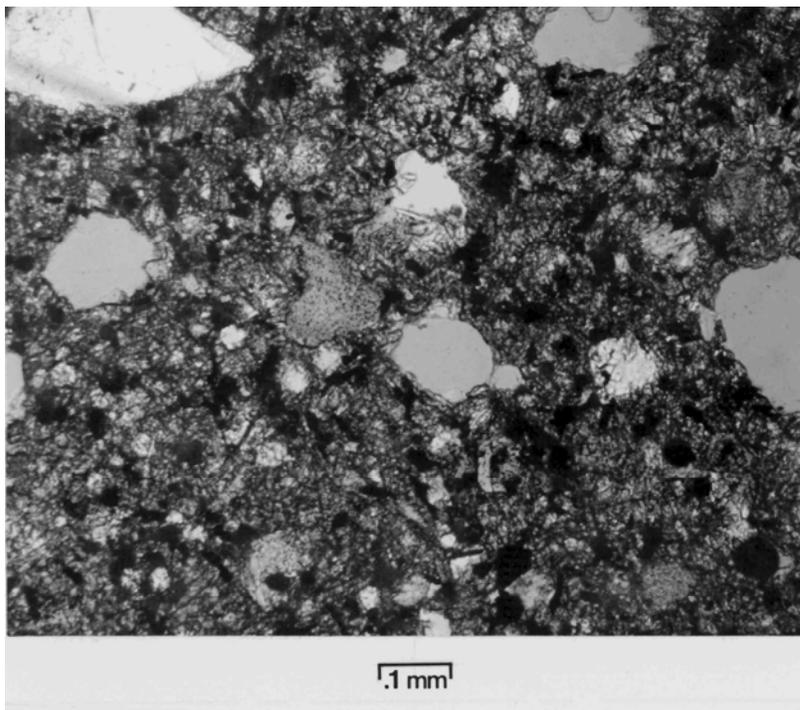
14051 is a pale brown to tan, very fine grained, clastic rock with scattered clasts. The rock is polymict, with fragments larger than 0.5 mm in size making up less than 1% of the rock. The matrix is composed almost entirely of leucocratic, very fine grained, crystalline fragments. This represents a typical crystalline matrix breccia (CMB) (Simonds et al., 1977).

Clasts larger than 0.5 mm are white and appear to have been derived from a fine grained, feldspar-rich rock. Matrix grains are mostly clear and very pale brown. Some clear grains have good cleavage up to 0.5 mm in size.

In thin section the rock appears nearly holocrystalline with small scattered clasts. The rock is rather vuggy with 1 - 2 mm vugs. The mineral clasts consist primarily of single crystals of pyroxene and plagioclase with some devitrified material. Some secondary growth is present on many of the plagioclase crystals. Some free glass is present as spherules.



S-77-23487



14051, 6

## DISCUSSION

Swann et al. (1977) feel that this rock represents an ejecta fragment from Cone Crater. They also feel that the rock was not as deeply buried as other rocks in the same area because of its heavily pitted and rounded nature.

Wilshire and Jackson (1972) tentatively grouped 14051 in their F2 classification.

Sample 14051 has been mapped by Twedell et al. (1978).