

# 14271

## PHYSICAL CHARACTERISTICS

Mass

97.41 g

Dimensions

5.0 x 4.7 x 3.0 cm

Sample 14271 is a blocky, dark medium vitric [matrix] breccia with light gray clasts.

## SURFACE FEATURES

Sample 14271 has one rounded side with many pits as large as 2 mm in diameter, with very few pits on the angular surfaces. Some penetrative and some non-penetrative fractures are present.

## PETROGRAPHIC DESCRIPTION

Sample 14271 has a coarse texture and is coherent. It is composed of 40% dark medium gray vitreous or glassy-appearing matrix and 60% clasts. Thirty-five percent of the lithic fragments 47 x 40 mm and 30 x 25 mm respectively, in size. These two clasts appear to be the same petrologically.

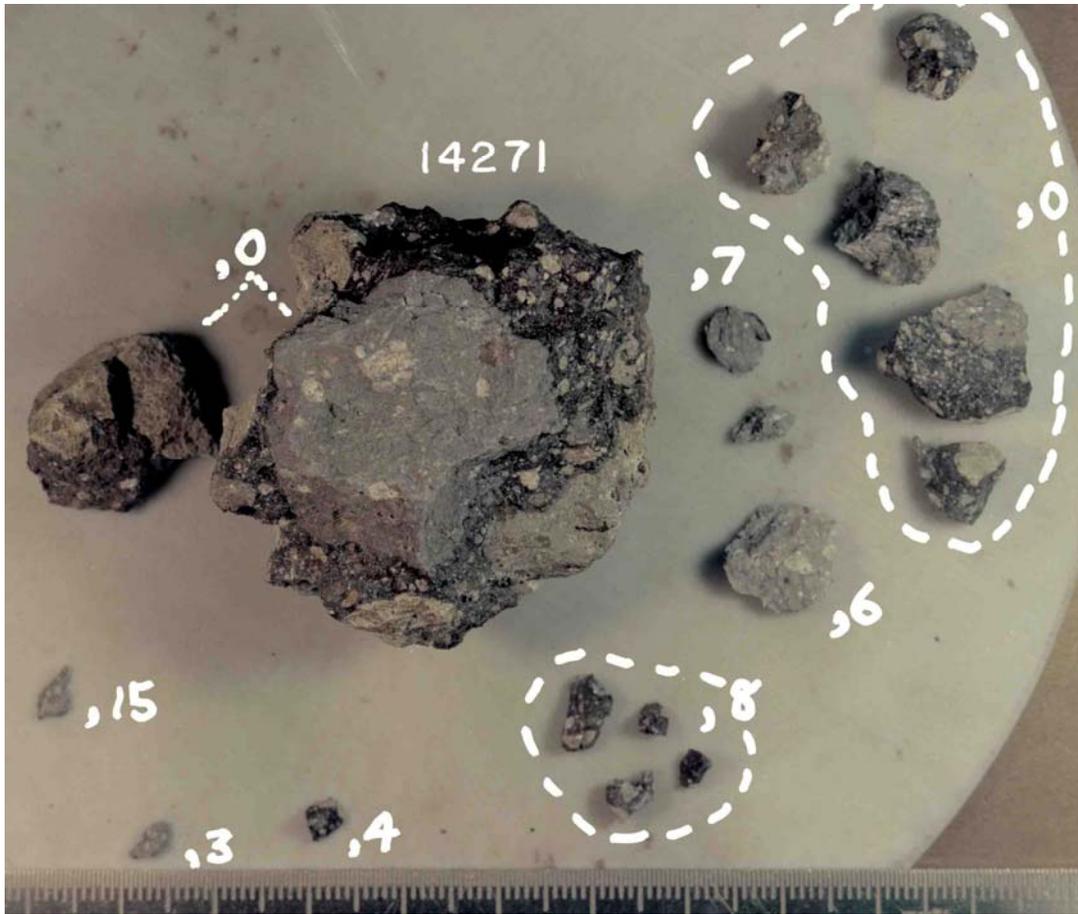
Both are breccias with 90% light gray matrix with sugary texture that is a mixture of 0.1 mm white and gray grains. Fifteen percent of the sample is represented by light gray lithic clasts as large as 5 mm. These are angular to rounded in shape and consist of a finely brecciated mixture of white and brownish gray material. A third type of lithic clast is subrounded and light gray. These are large as 30 x 10 mm in size and consist of crushed zones of plagioclase and mafic minerals. Zones are approximately 1.0 mm across and have a sugary texture. A fourth type of lithic clast is represented by 1 subrounded clast 2 mm in size composed of reddish brown spinels and plagioclase in a 50:50 mixture. Veins of matrix partially penetrate the large clasts.

Thin section 14271,10 must be a section of one of the clast types described as the matrix appears to be holocrystalline and there are no clasts present in the section. Very few large fragments are found in the matrix. Those present are shocked pyroxene crystals and what appears to be devitrified plagioclase-rich glass. The later fragments are poorly formed but contain abundant plagioclase crystallites.

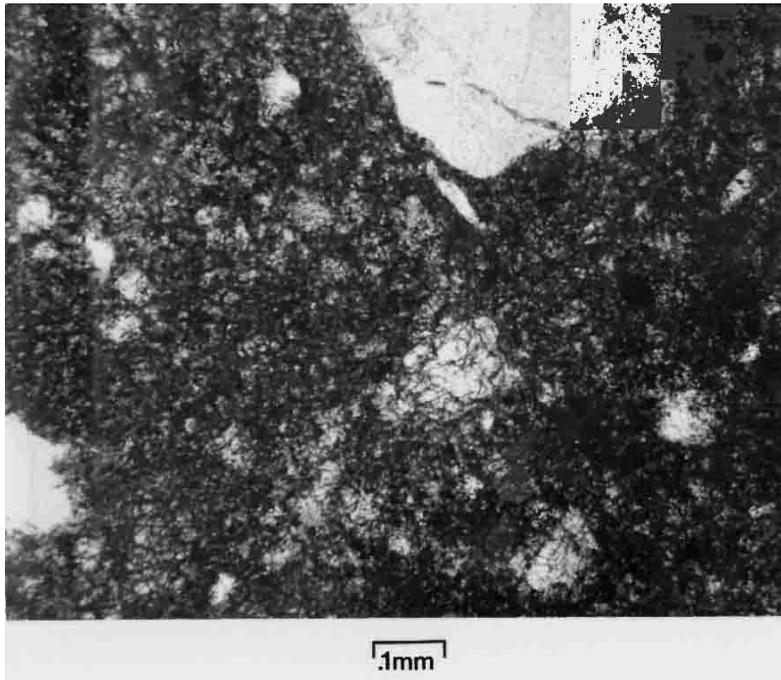
## DISCUSSION

Sample 14271 was described as being coherent with light clasts by Wilshire and Jackson (1972) and placed in their F2 category. More recently, Simonds et al. (1977) list it as a vitric matrix breccia (VMB).

This was one of the samples analyzed by Eldridge et al. (1972) for K, Th, U, <sup>26</sup>Al, and <sup>22</sup>Na.



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