Introduction
Station 5 was at the transition between Stone Mountain and the Cayley Plains. 65075 was collected from the inner wall of a 20 m subdued crater relatively close to rake samples 65500 and 65900 – see sections on 65501 and 65901. It is a greenish gray breccias with a black glass coating. It is highly fractured and broke in pieces during return (figures 1 and 3).

Petrography
Grieve and Plant (1973) studied 65075 is some detail and this has been critically summarized by Ryder and Norman (1980). It seems clear that the crystalline interior is an impact melt rock with highland composition (~ 30 % Al₂O₃). It has relict ophitic, subophitic and poikiolitic textures, but it has been highly shocked so that the clast matrix relationship is confused (figures 2 and 3). There is a great deal of glass. No pyroxene diagram has been published.

Hunter and Taylor (1981) reported lots of rust.

Mineralogical Mode
None reported
Figure 3: Photo of thin section of 65075 by C Meyer. 2 mm across
<table>
<thead>
<tr>
<th>Element</th>
<th>Morris 86</th>
<th>See 86</th>
<th>Rancitelli 73</th>
<th>Grieve 73</th>
<th>See 86</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiO2</td>
<td></td>
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<tr>
<td>TiO2</td>
<td>0.23</td>
<td>(a)</td>
<td>0.33</td>
<td>0.23</td>
<td>(d)</td>
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<tr>
<td>Al2O3</td>
<td>30</td>
<td>(c)</td>
<td>24.75</td>
<td>30.92</td>
<td>(d)</td>
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<td>FeO</td>
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<td>(a)</td>
<td>6.62</td>
<td>1.94</td>
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<td>MnO</td>
<td></td>
<td>(a)</td>
<td>0.06</td>
<td>0.04</td>
<td>(d)</td>
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<tr>
<td>MgO</td>
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<td>(c)</td>
<td>8.26</td>
<td>3.08</td>
<td>(d)</td>
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<td>CaO</td>
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<td>14.4</td>
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<td>0.83</td>
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<td>K2O</td>
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<td>(d)</td>
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<td>P2O5</td>
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</table>

S %

Sc ppm 6.47 (a)

V

Cr 901 (a)

Co 72 (a)

Ni 1278 (a)

Cu

Zn

Ge ppb

As

Se

Rb

Sr

Y

Zr

Nb

Mo

Ru

Rh

Pd ppb

Ag ppb

Cd ppb

In ppb

Sn ppb

Sb ppb

Te ppb

Cs ppm

Ba 197 (a)

La 11.7 (a)

Ce 28.3 (a)

Pr

Nd

Sm 4.95 (a)

Eu 1.05 (a)

Gd

Tb 1.03 (a)

Dy

Ho

Er

Tm

Yb 3.45 (a)

Lu 0.49 (a)

Hf 3.56 (a)

Ta 0.36 (a)

W ppb

Re ppb

Os ppb

Ir ppb

Pt ppb

Au ppb

Th ppm 2.5 (a) 2.89 (b)

U ppm 0.69 (a) 0.84 (b)

Technique: (a) INAA, (b) radiation count., (c) broad beam e probe, (d) averages of probe data
Mineralogy

Olivine: \( \text{Fo}_{75} \)

Plagioclase: \( \text{An}_{95} \)

Spinel: Pleonaste spinel has been reported

Chemistry

Rancitelli et al. (1973) provide a bulk analysis – but for only K, U, and Th. Grieve and Plant (1973) provide reliable major element analyses, but no trace element analyses. Morris et al. (1986) analyzed the glass coating for trace elements, but the glass may not be representative of the rock. So if someone wants to analyze something, please request a representative piece of the interior of this sample.

Cosmogenic isotopes and exposure ages

Rancitelli et al. (1973) determined the cosmic-ray-induced activity of \( ^{22}\text{Na} = 50 \text{ dpm/kg} \) and \( ^{26}\text{Al} = 136 \text{ dpm/kg} \).

Processing

There are 4 thin sections of 65075. More are needed from a piece from the interior.
References for 65075


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

