XXVI. NWA 1195 (ver. 2003)

Basalt
315 grams

Figure XXVI-1*: Photograph of NWA 1195 by Adam and Greg Hupé.*

Introduction

Irving *et al.* (2002) report that a 50 gram stone with a distinctive thin weathering rind was found in March 2002 near Safsaf, Morocco. Careful searching led to the discovery of a second, larger piece of this same rock (265 grams) (Russell *et al.* 2003).

Figure XXVI-1 shows that the two pieces fit together.

Petrography

Euhedral olivine megacrysts (up to 4 mm) are set in a groundmass of low-Ca pyroxene and maskelynite, with minor chromite, pyrrhotite and merrillite. This sample appears to have mineral compositions similar to that of the Dar al Gani shergottites.

Irving et al. noted that this appears to be the most primitive Martian lava yet!

Mineral Chemistry

Olivine: Olivine exhibits strong compositional zoning from Fo_{81} cores to Fo_{60} rims.

Pyroxenes: The pyroxenes are zoned from Wo_4En_{77} to $Wo_{12}En_{67}$

Maskelynite: Maskelynite is chemically zoned from An_{63} to An_{59}.

Whole-rock Composition

None reported

Alteration:

Some pyroxenes have patchy overgrowths of (?)chlorite-like minerals. Calcite occurs sparsely along grain boundaries.

Other Isotopes

None reported