

----- Original Message -----

From: [Anthony Irving](#)

To: [Philip Mani](#)

Sent: Thursday, August 19, 2004 10:10 AM

Subject: Re: NWA 3137 and NWA 3138

Dear Phil:

I submitted the attached descriptions for publication in Meteoritical Bulletin 89, and they should appear in the provisional web pdf in October. Since you have fulfilled the type sample requirements, you are free to trade material at your discretion.

Regards,

Tony

Northwest Africa 3137

Morocco

Purchased 2004 February

Basaltic eucrite (type 6)

A large, broken, very fresh stone (931 g; 145mm x 90mm x 43mm) about half coated with thin black fusion crust was purchased from a Moroccan dealer at the Tucson Gem and Mineral Show by P. Mani (*Mani*) in 2004 February. Classification and mineralogy (A. Irving and S. Kuehner, *UWS*): Metamorphic texture. Aggregate of exsolved low-Ca pyroxene, some exsolved augite and calcic plagioclase ($An_{89.1-90.7}Or_{0.1-0.2}$) with accessory silica polymorph (enclosing troilite, augite and rare merrillite), chromite, ilmenite and troilite (with rare included baddeleyite). Most pyroxene grains consist of fine lamellae of augite ($Fs_{26.4-28.7}Wo_{43.5-44.4}$, FeO/MnO = 30.7 - 33.7) within orthopyroxene ($Fs_{61.6-2.0}Wo_{1.4-1.7}$, FeO/MnO = 30.8 - 32.2), and originally were pigeonite. Although the pyroxene and plagioclase compositions in this specimen are almost identical to those in NWA 3138, the textures are quite different, and these two stones are not paired. Specimens: type specimens, 20.6 g, and two polished thin sections, *UWS*; main mass, *Mani*.

[*Mani* = Philip Mani, 901 Sonterra Blvd., Suite 316, San Antonio, TX 78258]

Northwest Africa 3138

Morocco

Purchased 2004 February

Basaltic eucrite (type 5)

A complete, very fresh stone (132 g; 63mm x 43mm x 40mm) with thin black fusion crust was purchased from a Moroccan dealer at the Tucson Gem and Mineral Show by P. Mani (*Mani*) in 2004 February. Classification and mineralogy (A. Irving and S. Kuehner, *UWS*): Ophitic texture. Mainly inverted pigeonite and calcic plagioclase ($An_{88.7-89.6}Or_{0.3-0.4}$) with accessory ilmenite, silica polymorph, Ti-Al-bearing chromite, orthopyroxene (as inclusions within plagioclase), and sparse troilite (mainly as blebs within silica) and altered Ni-poor iron metal. Pyroxene grains consist of coarse lamellae of augite ($Fs_{30.6}Wo_{37.2}$, FeO/MnO = 28.1) within orthopyroxene ($Fs_{62.7}Wo_{1.3}$, FeO/MnO = 33.0), and coarse lamellae of orthopyroxene ($Fs_{62.1}Wo_{1.7}$, FeO/MnO = 31.1) within augite ($Fs_{23.5}Wo_{42.1}$, FeO/MnO = 30.6). Minor secondary calcite laths occur around silica along a crack. Although the pyroxene and plagioclase compositions in this specimen are almost identical to those in NWA 3137, the textures are quite different, and these two stones are not paired. Specimens: type specimens, 20.7 g, and one polished thin section, *UWS*; main mass, *Mani*.

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