TERRESTRIAL AGES OF SOME METEORITES FROM OMAN. A. J. T. Jull[1], J. Koblitz[2], B. Hofmann[3], I. A. Franchi[4], L. R. McHargue[1] and A. Shahab[1], [1]NSF Arizona AMS Laboratory, Univ. of Arizona, Tucson, AZ 85721, USA, [2]Im Neuen Felde 16, D-28870 Fischerhude, Germany, [3]Natural History Museum Bern, Bernastr. 15, CH-3012 Bern, Switzerland, [4]Planetary Sciences Research Institute, Open University, Milton Keynes MK7 6AA England.

Introduction: Franchi et al [1] discussed the potential of the Omani and Saudi desert regions for recovery of meteorites. Until 1999, only 7 meteorites had been recovered from the Jiddat al Harasis region of Oman. About 29 meteorites (of which 20 are stones) are known from Saudi Arabia, many of which were found in the Rub' al-Khali [1]. In the last few years, things have changed dramatically. During the period 1999-2001, at least 262 meteorites were recovered from Oman alone [2] by European and Russian field parties.

Franchi et al [1] reported on 6 terrestrial ages of meteorites from Oman and Saudi Arabia which were in the Natural History Museum collections. The terrestrial age of SaU 005, a shergottite, has been measured to have a ^{14}C-^{10}Be terrestrial age of ~13ka [3]. Recently, Nishiizumi et al [4] have reported terrestrial ages of 360∀30 for Dhofar 019 (a lunar meteorite) and an age approaching 500ka for Dhofar 025 (a shergottite), based on several radionuclides. These very long terrestrial residence times would be remarkable even in the cold and arid regions of Antarctica.

Here, we report new terrestrial ages for stony meteorites from this region based on ^{14}C and ^{10}Be measurements. All samples were prepared using published procedures [5] using the Arizona accelerator mass spectrometry laboratory.

Results: The age distribution of Oman meteorites we have measured so far is different from the exponential drop-off with age we observe in Algerian [6] and Western Australian meteorites [7]. Instead, there is a large peak at the 15-20ka range, and less than 25% of the meteorites have a terrestrial age of <5ka. This distribution is reminiscent of the Roosevelt County meteorites. The reason for the apparent lack of Holocene meteorite falls in the Omani collection is unclear. We hope to resolve this problem with measurements of terrestrial age from a wider area than the restricted area sampled so far. The terrestrial ages for most of the meteorites we measured from Oman are not noticeably older than Roosevelt County, so the mechanism of survival of the 2 achondrites discussed by [4] must also involve burial for a long period in protective sediments or some other effects.

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