SUPPLEMENTARY DATA FIG.—Argon-release spectra from incremental heating of tuff sample 07PFDVDK-09-14.9. Sample returned an integrated age of 68.9 ± 0.4 Ma and a plateau age of 69.2 ± 0.5 Ma. Uncertainties in age are indicated by the vertical width of bars.

Supplementary Data
^{40}Ar/^{39}Ar analysis of a single tuff sample (07PFDVDK-09-14.9, Fig. 5 (PFDV-09: 14.8–15.0 m)) was conducted at the Geochronology Laboratory, University of Alaska Fairbanks. The sample was crushed, washed in deionized water, rinsed in acetic acid, and sieved to preserve the 250–500 micron size fraction. The remaining material was handpicked for glass-rich separates. The monitor mineral MMhb-1 (Samson and Alexander, 1987) with an age of 513.9 Ma (Lanphere and Dalrymple, 2000) was used to monitor the neutron flux and calculate the irradiation parameter J. The sample and standard were wrapped in aluminum foil and loaded into aluminum canisters. The sample was irradiated for 20 megawatt-hours in position 5c of the uranium-enriched research reactor at McMaster University in Hamilton, Ontario, Canada. After irradiation the sample and monitor were placed into a 2-mm-diameter hole in a copper tray and loaded into an ultrahigh-vacuum extraction line. The monitor was fused and the sample was heated using a 6-watt argon-ion laser following the technique described in York et al. (1981), Layer et al. (1987), and Layer (2000). Argon purification was achieved using a liquid nitrogen cold trap and a SAES Zr-Al getter at 400 °C. The sample was analyzed in a VG-3600 mass spectrometer at the Geophysical Institute, University of Alaska Fairbanks. Argon isotope measurements were corrected for system blank and mass discrimination as well as calcium, potassium, and chlorine interference reactions following the procedures outlined in McDougall and Harrison (1999). System blanks were measured at 2×10^{-16} mol ^{40}Ar and 2×10^{-18} mol ^{36}Ar which are 10–50 times smaller than fraction volumes. Mass discrimination was monitored by running both calibrated air shots and a zero-age glass sample. Measurements were made on a monthly basis to check for changes in mass discrimination. The age is quoted to the ±1 sigma level and is calculated using the constants of Steiger and Jaeger (1977). The integrated ^{40}Ar/^{39}Ar age is given by the total gas measured and is equivalent to a K-Ar age. The spectrum was deemed to provide a plateau age if (1) three or more consecutive gas fractions represented at least 50% of the total gas release and (2) those gas fractions were within two standard deviations of each other (Mean Square Weighted Deviation less than ~ 2.7).