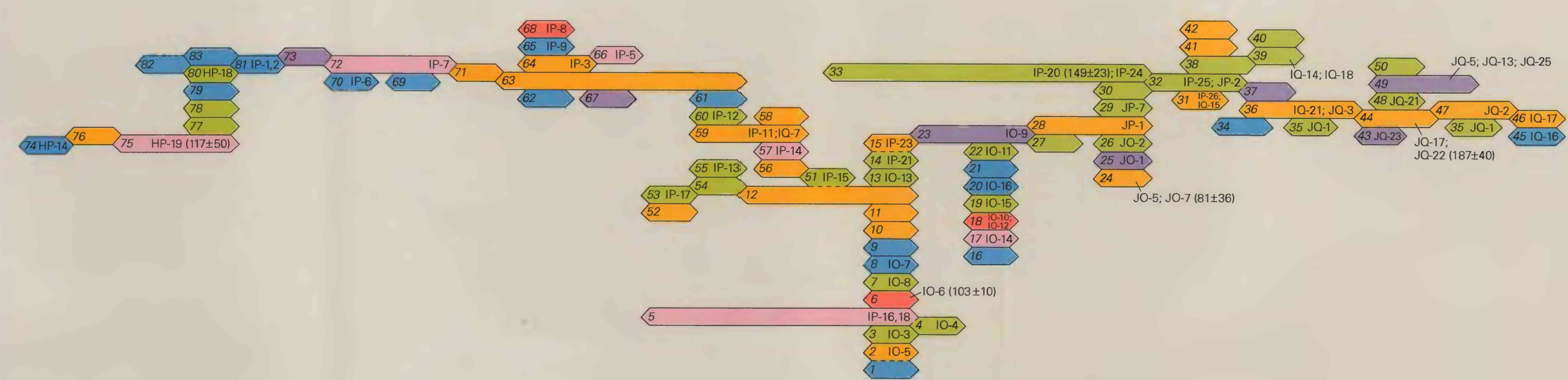




CORRELATION OF LAVAS OF THE HAMAKUA VOLCANICS

[Boxes represent actual lava flows. Boxes (both touching and nontouching) in any vertical sequence, as well as laterally touching boxes, represent true stratigraphic relation of flows; however, equivalent horizontal position of nontouching boxes does not imply age correlation. Box size does not represent true thickness or lateral extent of flow; horizontally lengthened box shows multiple stratigraphic relations. Contacts between boxes are dashed where stratigraphic relations are inferred. Box numbers (in *italic*) refer to numbered flows on map. Flow 35 is shown twice to portray its stratigraphic relation to both flow 36 and flow 47. Sample numbers refer to localities plotted on plate 4; chemical analyses are given in table 1. Newly reported radiometric ages (in *ka*) shown in parentheses; analytical data given in table 4]

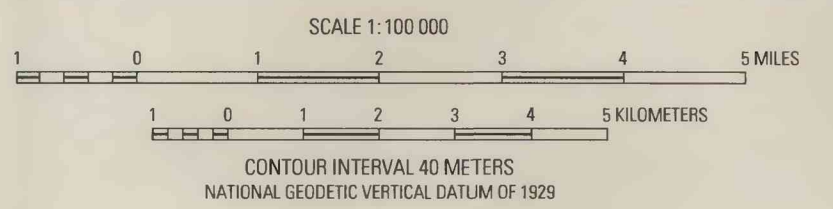
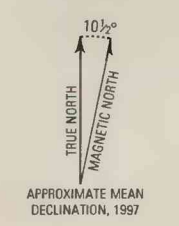


EXPLANATION

[Darker colors, cinder cones; lighter colors, lava flows; internal contacts distinguish individual flow units. Flow numbers (in *italic*) refer to diagram entitled "Correlation of Lavas of the Hamakua Volcanics"; unnumbered flows and cones lack field evidence for relative age and, therefore, are omitted from correlation diagram. See table 2 for description of basalts of the Hamakua Volcanics]

- a Alluvium
- ed Eolian deposits
- ld Littoral deposits
- Hawaiian lava flows and cinder cones of the Laupahoehoe Volcanics, undivided
- Lava flows and cinder cones of the Hamakua Volcanics
- Basalt
- Olivine basalt
- Plagioclase basalt
- Porphyritic basalt
- Ankarinite
- High-titanium basalt
- Lava flows and cinder cones of neighboring volcanoes, undivided
- Contact
- Fissure vent of the Laupahoehoe Volcanics

Base from U.S. Geological Survey, Hawaii County, Hawaii, Sheet 1 of 3, 1980
Universal Transverse Mercator projection



Geology mapped by W.S. Wise in 1981-87; geology based in part on work of M.A. Kuntz (unpub. mapping, 1967) in vicinity of Puu Ulaula to Puu Io

GEOLOGIC MAP OF THE LOWER NORTHWEST FLANK OF MAUNA KEA VOLCANO, HAWAII

By
William S. Wise
1997