



- EXPLANATION**
- WADI SAND, SILT, AND GRAVEL
  - FELSIC DIKES—Pink, coarse-grained
  - FELSIC DIKES—Gray, in diorite
  - GRANITE—Coarse-grained, peraluminous, post-orogenic; contains fluorite locality
  - DIORITE—Coarse-grained, locally hydrothermally altered
  - PLAGIOCLASE PORPHYRY—Felsic intrusive feldspars partially hydrothermally altered to kaolinite, contains disseminated pyrite
  - BASALT—Subvolcanic; in places fractured and hydrothermally altered to kaolinite, silicious, and carbonate minerals. Pyrite and pyrrhotite are disseminated over wide areas
  - MURDAMA GROUP METASEDIMENTARY ROCKS—Sandstone, siltstone, fine graywacke; generally calcareous; dark gray on weathered surfaces; layering not readily apparent. mb, Murdama group metabasalt; dark green. Pillow basalt and flows
  - CONTACT
  - FAULT—Dashed where approximately located; dotted where concealed
  - TREND LINES IN METASEDIMENTARY ROCKS—Visible on aerial photographs
  - AREA OF HYDROTHERMAL ALTERATION
  - STRIKE AND DIP OF BEDDING
  - AXIS OF ANTICLINAL FOLD AND DIRECTION OF PLUNGE
  - ANCIENT WORKINGS ON QUARTZ VEIN TRACE
  - SAMPLE LOCALITY—Shows last three digits of a six-digit number. Numbers 778 or higher are from the 147,000 series and 000 to 266 are from the 200,000 series
  - GEOPHYSICAL TRAVERSE—From Flanigan and Zablocki (1984)

This report has not been edited or reviewed for conformity with U.S. Geological Survey standards and nomenclature.

APPROXIMATE NORTH  
 0 1000 2000 m  
 SCALE 1:20,000 (APPROXIMATE)

**PRELIMINARY GEOLOGIC MAP OF THE MESHAAHEED AREA, KINGDOM OF SAUDI ARABIA**

by  
**C. W. Smith and R. M. Samater**  
 1985