U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES MAP MF–2327–B Version 1.0 Pamphlet accompanies map

MAP OF STEEP STRUCTURES IN PART OF THE SOUTHERN TOQUIMA RANGE AND ADJACENT AREAS, NYE COUNTY, NEVADA By Daniel R. Shawe 2001

SCALE 1:48,000

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This map was produced on request, directly from digital files, on an electronic plotter

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EXPLANATION Surficial deposits (Quaternary) Volcanic rocks (Tertiary) Granitic rocks (Cretaceous) Marine sedimentary rocks (Paleozoic)

Contact

High-angle fractures—Dips greater than 45° Fault—Dotted where concealed (mostly along range fronts and in alluviated interior valleys) or appearing as lineament on aerial photographs (mostly in alluvial-fill intermontane valleys) Joint Dike Vein

INDEX TO 7 1/2-MINUTE QUADRANGLES

INDEX TO MAJOR STRUCTURES EXPLANATION

- A–A' Greatest strain
- b–b' Northwest-striking slip faults
- c–c' Northeast-striking slip faults
- d–d' North-striking tension faults

Figure 1. Strain ellipse illustrating hypothetical strain system in the southern Toquima Range, Nevada.

Figure 2. Brecciated surface of frontal fault at east front of the Toquima Range, 1 km northeast of mouth of East Manhattan Wash; view southwest. Fault strikes N. 35° E.,

dips 75° SE.

Figure 3. North-striking, east-dipping normal fault at east end of Cretaceous Round Mountain pluton; view south. Fault drops schist of Cambrian Gold Hill Formation (left) against granite.

Figure 4. Joint set in granite of Cretaceous Round Mountain pluton. Joints strike N. 30° E., dip 70° SE.

Figure 5. Aplite dikes of the 80-Ma set in granite of Cretaceous Belmont pluton. Dikes are vertical, strike almost due north.

Figure 6. Andesite dike in ash-flow tuff of 25-Ma Round Rock Formation, south part of Manhattan caldera. Dike is 3 m wide, strikes N. 60° W., dips nearly vertical.

Figure 7. Quartz vein of the 80-Ma system cuts aplite dike in granite of Cretaceous

Round Mountain pluton. Quartz vein strikes N. 75° E., and is nearly vertical; aplite dike strikes N. 75° W., dips 80° N.

Structures mapped 1967–1995 Geology digitized by Geologic Data Systems Editing and digital cartography by Alessandro J. Donatich Manuscript approved for publication November 15, 1999