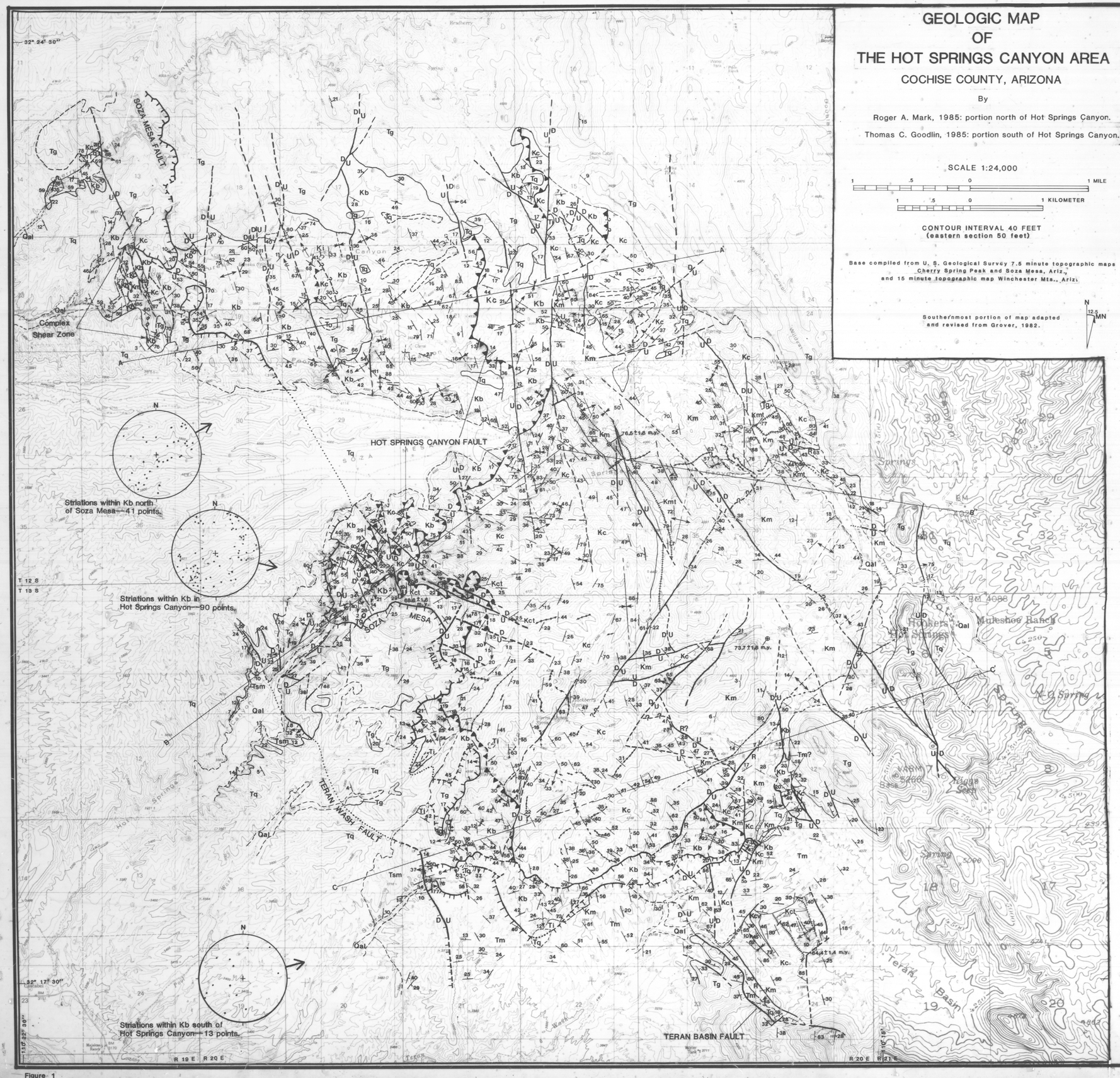

Figure 1

GEOLOGIC MAP OF THE HOT SPRINGS CANYON AREA

COCHISE COUNTY, ARIZONA

By

Roger A. Mark, 1985: portion north of Hot Springs Canyon.

Thomas C. Goodlin, 1985: portion south of Hot Springs Canyon.

SCALE 1:24,000

1 .5 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
(eastern section 50 feet)

Base compiled from U. S. Geological Survey 7.5 minute topographic maps Cherry Spring Peak and Soza Mesa, Ariz., and 15 minute topographic map Winchester Mts., Ariz.

Southernmost portion of map adapted and revised from Grover, 1982.

N 12.5 MN

EXPLANATION

QUATERNARY

Qal
Alluvium

Unconformity

TERTIARY

Tq
Quiburis Formation
Pebble to cobble conglomerate

Unconformity

Tsm
San Manuel Formation
Pebble to boulder conglomerate

Unconformity

Tg
Galiuro Volcanics
Basaltic andesite, latite, conglomerate, rhyolite, and tuff.

Ti
Tertiary Intrusive
Basaltic andesite, rhyolite, and "turkey track" type andesite porphyry.

Tm
Mineta Formation
Pebble to cobble conglomerate, mudstone, siltstone, and limestone.

Unconformity

CRETACEOUS

Kc | Kct | Kcv
Cascabel Formation
Kc, Pebble to boulder conglomerate, sandstone, siltstone, and mudstone.
Kct, Ignimbrite flows dated at 64.4 ± 1.4 (Grover, 1982) and 68.6 ± 1.6 m.y. b.p.
Kcv, Andesite lava flow.

Km | Kmt
Muleshoe Volcanics
Km, Andesite breccia, tuff, lava, and conglomerate. Dated flow at 73.7 ± 1.8 m.y.b.p. (Shafiqullah et. al, 1980)
Kmt, Ignimbrite flows. Dated at 76.5 ± 1.8 m.y. b.p.

Unconformity

Ki
Cretaceous Intrusive
Diorite and andesite porphyry.

Kb
Willow Canyon Formation, Bisbee Group
Quartzose sandstone, mudstone, and conglomerate.

Contact, dashed where approximately located.

Fault, showing dip and trend and plunge of striation. Dashed where approximately located, querried where uncertain, dotted where covered.
D, downthrown side; U, upthrown side.
Reverse fault, R on upthrown side.

Axial trace of anticline (top) and syncline, showing trend and plunge of axis; dashed where located approximately.

Thrust fault, sawteeth on upper plate.

Overturned anticline (top) and syncline, showing trend and plunge of axis.

Low angle normal fault, hachures on downthrown side.

Axial trend and plunge of small folds, showing general shapes.

Strike and dip of bedding.

Strike and dip of overturned bedding.

K/Ar radiometric dates.

Strike and dip of foliation.

Location of cross section.

Trend and plunge of pencil cleavage; pencil cleavage with strike and dip of bedding.

The striation diagrams for the Bisbee Group are lower hemisphere projections on equal area stereonets.