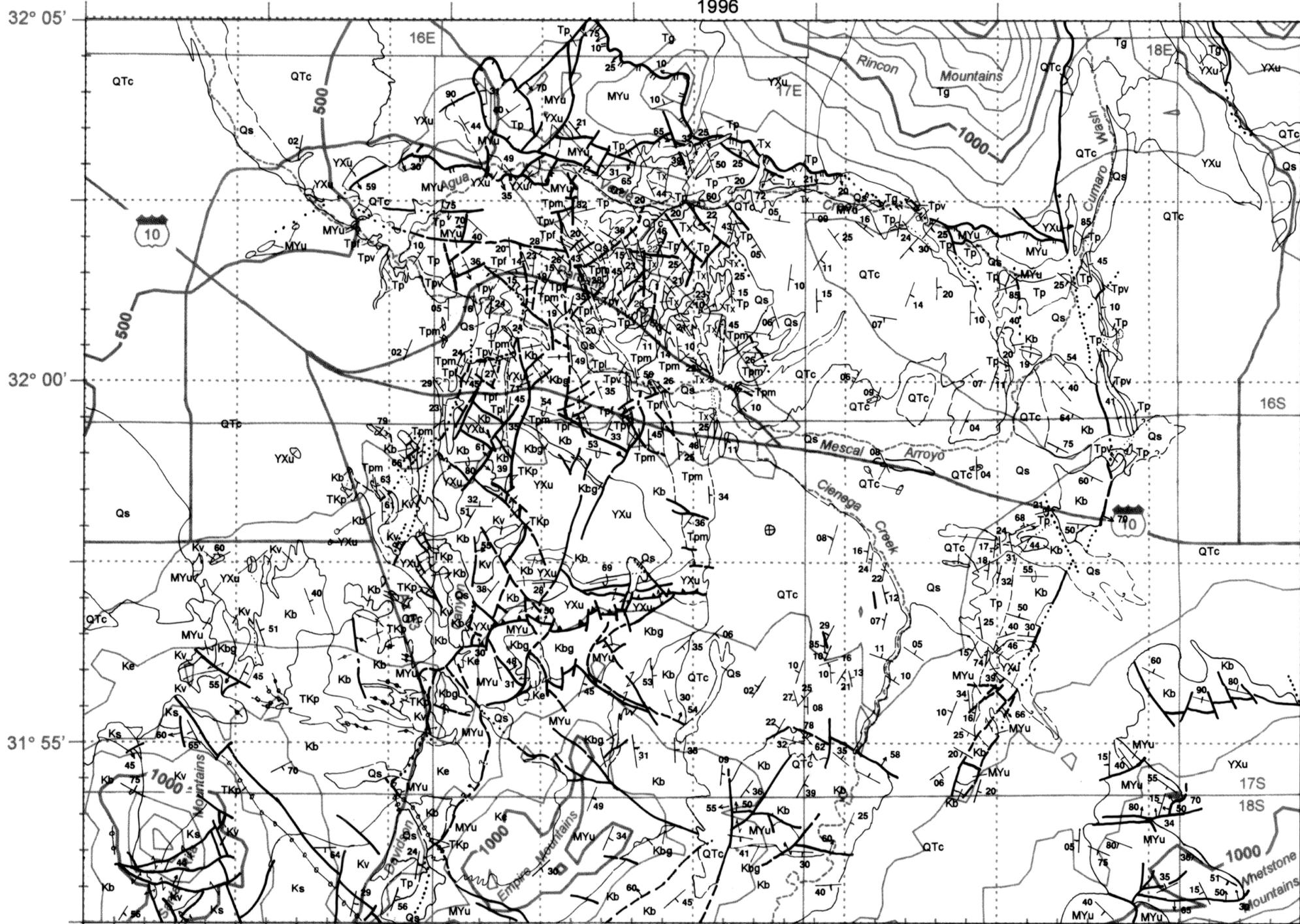


Geologic Map of the Lower Cienega Basin area, Pima and Cochise Counties, Arizona

Compiled by S. M. Richard and R. C. Harris
1996



Map Units

- Quaternary*
Qs Undivided Surficial Deposits
- Quaternary and Tertiary*
QTc conglomerate
- Miocene and Oligocene*
Tx sedimentary breccia
Tp Pantano Formation, undivided
Tpm mudstone member
Tpv volcanic member
Tpf lower fanglomerate member
Tpl limestone and lacustrine sediment member
- Early Tertiary*
Tg Wrong Mountain granite
- Early Tertiary or Latest Cretaceous*
TKp quartz latite porphyry
- Cretaceous*
Ke quartz monzonite of Empire Mountains
Ks syn-orogenic clastic rocks; sandstone and conglomerate
Kv Salero Formation; andesitic to rhyolitic volcanic rocks, and associated sediments; includes sandstone and conglomerate of Ft. Crittenden Formation.
Kb Bisbee group, undivided; sandstone, shale, conglomerate and sparse limestone
Kbg Glance Conglomerate member; basal conglomerate of Bisbee group
- Middle Proterozoic, Paleozoic and Lower Mesozoic*
MYu Apache Group, Bolsa, Abrigo, Martin, Escabrosa, Horquilla, Earp, Colina, Concha, Sherrer, Epitaph, Rainvalley and Gardner Canyon formations, undivided; quartzite, limestone, dolomite, sandstone and shale
- Proterozoic*
YXu granitic and metamorphic rocks undifferentiated

SYMBOLS

BEDDING

- |— upright
—+— vertical
—/— overturned
—⊕— horizontal

CONTACTS

- Solid lines indicate precise location, dashed lines approximate location, dashed with queries very approximate, and dotted inferred location where concealed by younger rock units
- |— intrusive or depositional contact

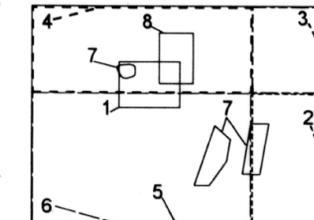
FAULTS

- ▲— HIGH ANGLE (ball on down-thrown side, arrow indicates dip, box arrow indicates orientation of slickenside striations)
- |— LOW ANGLE (barbs on hanging wall)
—|— thrust fault
—|— minor low-angle normal fault
—|— major low-angle normal fault

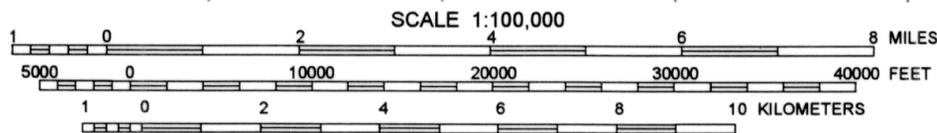
MISCELLANEOUS

- |— Tie line joining regions underlain by same map unit

Sources of Data:

- 
1. Balcer, 1984
 2. Creasey, 1967
 3. Drewes, 1975
 4. Drewes, 1977
 5. Drewes, 1980
 6. Finnell, 1971
 7. S. M. Richard and R. C. Harris, unpublished, 1996
 8. T. Finnell, unpublished, no date.

110° 45' N
MN
12 1/2°



110° 30'

Cultural base prepared from Arc/Info coverages, based on data in the Arizona State Land Information System (ALRIS) and USGS Tiger files. Topographic base generalized from USGS 1:250,000-scale DEM data. Contour interval 100 m. Dotted grid lines are spaced at 2.5 minutes. Solid grid lines are PLS Township and Range lines. Map projection UTM, zone 12.