GEOLOGIC MAP OF THE MOUNT FAGAN 7.5' QUADRANGLE, EASTERN PIMA COUNTY, ARIZONA

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Arizona Geological Survey Digital Geologic Map 11

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GEOLOGIC MAP UNITS

Quaternary Piedmont Alluvium

- Qy — Holocene alluvium (< 10 ka), undifferentiated
- Qy_2 — Late Holocene alluvium (< 2 ka)
- Qy_1 — Holocene alluvium (~2 to 10 ka)
- Qly — Holocene to Late Pleistocene alluvium (0 to 130 ka)
- Ql — Late Pleistocene alluvium (~10 to 130 ka)
  - Ql_2 — Latest Pleistocene member (~10 to 20 ka)
  - Ql_1 — Late Pleistocene member (~75 to 130 ka)
- Ql_b — Late Pleistocene alluvium over dissected pediment (~10 to 130 ka)
- Qml — Middle to Late Pleistocene alluvium (~10 to 500 ka)
- Qm — Middle Pleistocene alluvium (~130 to 500 ka)
- Qm_b — Middle Pleistocene alluvium over dissected pediment (~130 to 500 ka)
- Qmo — Middle to early Pleistocene alluvium (~500 ka to 2 Ma)
- Qo — Early Pleistocene alluvium (~1 to 2 Ma)
- QTs — Early Pleistocene to Miocene alluvium (~1 to 10 Ma)

Quaternary Axial Stream Deposits

- Qyc_c — Modern river channel deposits (< 100 years)
- Qy_{ar} — Late Holocene river alluvium (< 2 ka)
- Qy_{1r} — Holocene river terrace deposits (~2 to 10 ka)
- Ql_r — Late Pleistocene river terrace deposits (~10 to 130 ka)
- Qm_r — Middle Pleistocene river terrace deposits (~130 to 500 ka)

Quaternary Hillslope Deposits

- Qc — Holocene and Pleistocene hillslope colluvium

Tertiary Deposits

- Tdu_u — Upper unit of Davidson Canyon, Pantano Formation
- Tms — Mafic volcaniclastic sequence
- Ta — Porphyritic andesite lava
- Tdl — Lower unit of Davidson Canyon, Pantano Formation
  - Tdlf — Fine-grained facies of the lower unit of Davidson Canyon, Pantano Formation
- Tr — Rhyolite ash-flow tuff
- Ti — Dacitic lava dome
- Tq — Quartz porphyry

Tertiary - Cretaceous Plutonic Rocks

- TKm — Fine-grained mafic dikes and intrusive bodies

Cretaceous Plutonic Rocks

- Ke — Empire Mountains stock
- Kgdy — Corona de Tucson stock, younger phase
- Kgd — Corona de Tucson stock

Mesozoic Sedimentary and Volcanic Rocks

- Kr — Rhyolite of Mt. Fagan
  - Krz — Heterolithic mesobreccia, rhyolite of Mount Fagan
  - Krg — Heterolithic megabreccia, rhyolite of Mount Fagan
  - Krd — Crystal-rich dacite tuff megabreccia, rhyolite of Mount Fagan
  - Kra — Andesite megabreccia, rhyolite of Mount Fagan
  - Krc — Well-rounded conglomerate megabreccia (Fort Crittenden), rhyolite of Mount Fagan
  - Krq — Quartz sandstone megabreccia (Turney Ranch), rhyolite of Mount Fagan
  - Krw — Bisbee Group megabreccia (Willow Spring - Apache Canyon - Shellenberger Canyon), rhyolite of Mount Fagan
  - Krl — Limestone megabreccia, rhyolite of Mount Fagan
- Kd — Crystal-rich dacite ash-flow tuff
- Kdl — Dacitic lava
- Ka — Andesitic lava
- Kfcv — Heterolithic breccia - conglomerate
- Kfc — Fort Crittenden Formation
- Kfcf — Fine-grained facies, Fort Crittenden Formation
- Kq — Turney Ranch lithofacies, Bisbee Group
- Kw — Willow Spring - Apache Canyon - Shellenberger Canyon lithofacies, Bisbee Group
- Kwl — Limestone, Willow Spring - Apache Canyon lithofacies, Bisbee Group
- Kba — Basaltic andesite lava, Bisbee Group
- KJg — Glance Conglomerate, Bisbee Group
  - KJgg — Monolithic granitoid-clast Glance Conglomerate
  - KJgq — Monolithic quartzite-clast Glance Conglomerate
  - KJgl — Monolithic limestone-clast Glance Conglomerate

Early Mesozoic Rocks

- JTg — Gardner Canyon Formation
  - JTgm — Mudstone, Gardner Canyon Formation
  - JTgd — Crystal-rich dacitic ash-flow tuff, Gardner Canyon Formation

Paleozoic Sedimentary Rocks

- Rl — Paleozoic limestone, undifferentiated
- Prv — Rain Valley Formation
- Pc — Concha Formation
- Ps — Scherrer Formation
  - Psu — Upper Scherrer Formation
  - Psm — Middle Scherrer Formation
  - Psl — Lower Scherrer Formation
- Pe — Epitaph Formation
  - Peu — Upper Epitaph Formation
  - Pem — Middle Epitaph Formation
  - Pel — Lower Epitaph Formation
- Pcl — Colina Formation
- PPe — Earp Formation
- Ph — Horquilla Formation
- Mek — Karst-fill and red mudstone marker unit near the top of Escabrosa Formation
- Me — Escabrosa Formation
- Dm — Martin Formation
- Ca — Abrigo Formation
- Cb — Bolsa Formation

Mesoproterozoic Rocks

- Yg — Megacrystic granite

Paleoproterozoic Rocks

- Xgd — Medium-grained equigranular granodiorite
- Xp — Pinal Schist

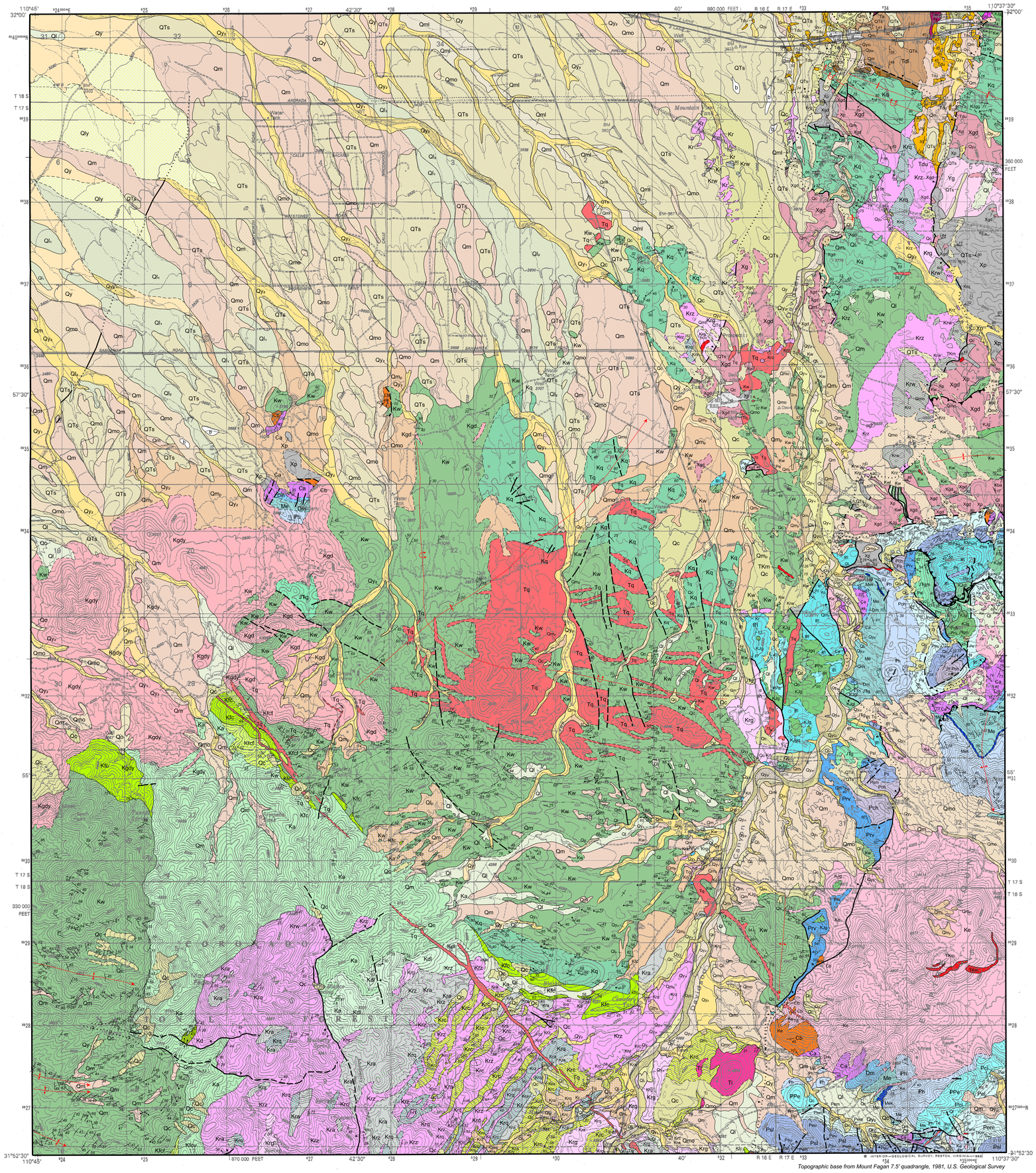
Miscellaneous Deposits

- d — Disturbed ground
- b — Unidentified bedrock

GEOLOGIC MAP SYMBOLS

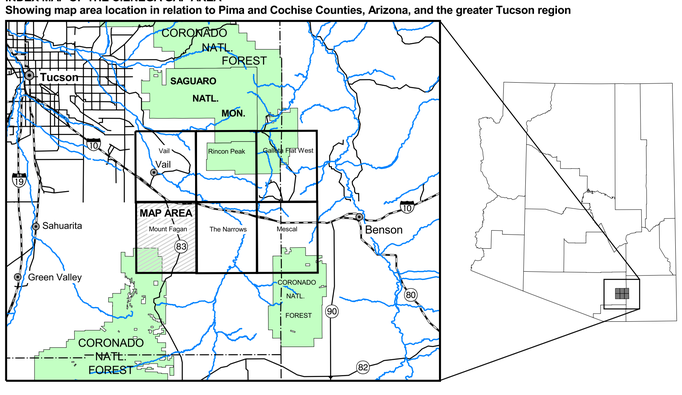
- Contact (dashed where approximate)
- Marker bed
- Normal fault showing attitude of fault surface (dashed where approximate; dotted where concealed; queried where location guessed; ball and bar symbol on downdropped side)
- Thrust fault (dashed where approximate; dotted where concealed)
- Syncline (dashed where approximate; dotted where concealed)
- Anticline (dashed where approximate; dotted where concealed)
- Overturned anticline (dashed where approximate; dotted where concealed)
- Inclined planar bedding
- Vertical planar bedding
- Overturned planar bedding
- Inclined planar bedding with stratigraphic top direction indicated
- Overturned planar bedding with stratigraphic top direction indicated
- Inclined indistinct bedding
- Inclined variable bedding
- Slatey cleavage
- Crenulation cleavage
- Inclined tectonic foliation, showing lineation
- Inclined eutaxitic foliation
- Inclined flow foliation
- Gneissic foliation
- Mylonitic foliation
- Lineation at intersection of bedding and cleavage

STRATIGRAPHIC CORRELATION DIAGRAM

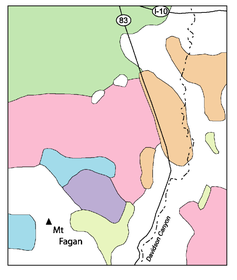


INDEX MAP OF THE CIENEGA GAP AREA

Showing map area location in relation to Pima and Cochise Counties, Arizona, and the greater Tucson region



MAPPING RESPONSIBILITY KEY



Mapping sources (see text)

- Ferguson, 2000-2001
- Youberg, 2001 (including other areas of surficial geology)
- Finnell, 1971
- Gilbert, 2001
- Orr, 2001
- Richard, 2000-2001
- Spencer, 2000-2001

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LAYOUT SCALE 1:24,000

1 0 1 Miles
1000 0 1000 2000 3000 4000 5000 6000 7000 Feet
1 0 1 Kilometers