GEOLOGIC MAP OF THE EASTERN PLOMOSA PASS AREA

NORTHERN PLOMOSA MOUNTAINS
LA PAZ COUNTY, ARIZONA

by

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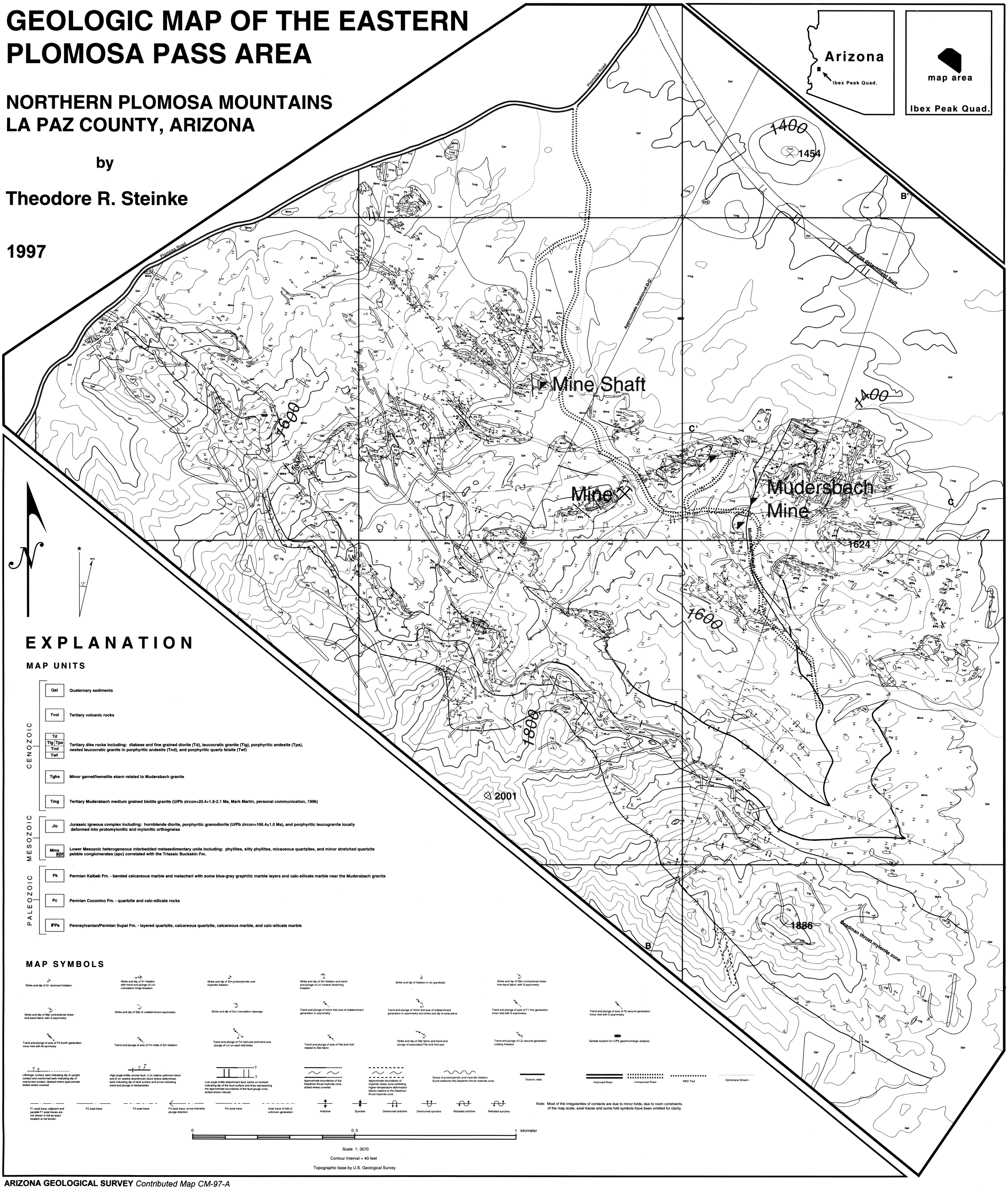

EXPLANATION

MAP UNITS

CENOZOIC

- **Qal** — Quaternary sediments
- **Tvol** — Tertiary volcanic rocks
- **Td / Tlg / Tpa / Tnd / Twf** — Tertiary dike rocks including: diabase and fine grained diorite (Td), leucocratic granite (Tlg), porphyritic andesite (Tpa), nested leucocratic granite in porphyritic andesite (Tnd), and porphyritic quartz felsite (Twf)
- **Tghs** — Minor garnet/hematite skarn related to Mudersbach granite
- **Tmg** — Tertiary Mudersbach medium grained biotite granite (U/Pb zircon=20.4+1.8-2.1 Ma, Mark Martin, personal communication, 1996)

MESOZOIC

- **Jic** — Jurassic igneous complex including: hornblende diorite, porphyritic granodiorite (U/Pb zircon=166.4±1.0 Ma), and porphyritic leucogranite locally deformed into protomylonitic and mylonitic orthogneiss
- **Mms / spc** — Lower Mesozoic heterogeneous interbedded metasedimentary units including: phyllites, silty phyllites, micaceous quartzites, and minor stretched quartzite pebble conglomerates (spc) correlated with the Triassic Buckskin Fm.

PALEOZOIC

- **Pk** — Permian Kaibab Fm. - banded calcareous marble and metachert with some blue-gray graphitic marble layers and calc-silicate marble near the Mudersbach granite
- **Pc** — Permian Coconino Fm. - quartzite and calc-silicate rocks
- **PPs** — Pennsylvanian/Permian Supai Fm. - layered quartzite, calcareous quartzite, calcareous marble, and calc-silicate marble

MAP SYMBOLS

Strike and dip of S1 dominant foliation
Strike and dip of S1 foliation with trend and plunge of Lch crenulation hinge lineation
Strike and dip of Sm protomylonitic and mylonitic foliation
Strike and dip of Sm foliation and trend and plunge of Lm mineral stretching lineation
Strike and dip of foliation in Jic granitoids
Strike and dip of Skb contractional shear kink-band fabric with S-asymmetry
Strike and dip of Skb contractional shear kink-band fabric with Z-asymmetry
Strike and dip of Skb of undeterminant asymmetry
Strike and dip of Scc crenulation cleavage
Trend and plunge of minor fold axis of indeterminant generation or asymmetry
Trend and plunge of minor fold axis of indeterminant generation or asymmetry and strike and dip of axial plane
Trend and plunge of axis of F1 first generation minor fold with S-asymmetry
Trend and plunge of axis of F2 second generation minor fold with Z-asymmetry
Trend and plunge of axis of F4 fourth generation minor fold with M-symmetry
Trend and plunge of axis of Fm folds of Sm foliation
Trend and plunge of Fm fold axis and trend and plunge of Lm on each fold limbs
Trend and plunge of axis of Fkb kink-fold related to Skb fabric
Strike and dip of Skb fabric and trend and plunge of associated Fkb kink-fold axis
Trend and plunge of L2r second generation rodding lineation
Sample location for U/Pb geochronologic analysis
Lithologic contact, barb indicating dip of upright contact and overturned barb indicating dip of overturned contact, dashed where approximate dotted where covered
High angle brittle normal fault, U on relative upthrown block and D on relative downthrown block where determined, barb indicating dip of fault surface and arrow indicating trend and plunge of slickensides
Low angle brittle detachment fault, barbs on footwall indicating dip of the fault surface and lines representing the approximate boundaries of the fault gouge zone, dotted where inferred
Approximate boundaries of the Deadman thrust mylonite zone, dotted where covered
Approximate boundaries of mylonitic shear zone exhibiting higher-temperature deformation fabrics relative to the Deadman thrust mylonite zone
Zones of protomylonitic and mylonitic foliation found exteriorto the Deadman thrust mylonite zone
Tectonic slide
Improved Road
Unimproved Road
4WD Trail
Ephemeral Stream
F1 axial trace, adjacent and parallel F1 axial traces are not shown in full as exact location is not known
F2 axial trace
F3 axial trace
F4 axial trace, arrow indicates plunge direction
Fm axial trace
Axial trace of fold of unknown generation
Anticline
Syncline
Overturned anticline
Overturned syncline
Refolded anticline
Refolded syncline

Note: Most of the irregularities of contacts are due to minor folds; due to room constraints of the map scale, axial traces and some fold symbols have been omitted for clarity.

0 — 0.5 — 1 kilometer

Scale 1: 3570

Contour Interval = 40 feet

Topographic base by U.S. Geological Survey