

CORRELATION OF MAP UNITS

Qs	Quaternary	CENOZOIC
Ta	Tertiary	
TKg	Tertiary and (or) Cretaceous	
Km	Cretaceous	CENOZOIC AND (OR) MESOZOIC
Pzs	Cambrian and Devonian	PALEOZOIC
Ydb	Precambrian Y	PRECAMBRIAN
Yo	Precambrian Y	
Xp	Precambrian X	PRECAMBRIAN X

- DESCRIPTION OF MAP UNITS
- Qs** QUATERNARY SEDIMENTARY DEPOSITS—Unconsolidated gravel, sand, and silt in stream channels and on low-lying terraces, in intermontane valleys and colluvium. Weakly consolidated, locally caliche-cemented, unshaped gravel, conglomerate, and fanglomerate deposits near and locally on bedrock and pediments.
 - Ta** TERTIARY AGGLOMERATE—Brown, weacon to dusky-red, biotite-epidote agglomerate with abundant angular to rounded fragments, up to 30 cm in diameter, of equigrained, medium- to coarse-grained biotite-hornblende quartz monzonite (unit Km). Also included are clasts of fine-grained biotite schist of the Pinal Schist (unit Xp). Interbedded with agglomerate are isolated lenses of reddish brown, tuffaceous, medium- to coarse-grained sandstone.
 - TKg** GRANODIORITE PORPHYRY DIKES—Dark gray, biotite-hornblende granodiorite porphyry with quartz phenocrysts. Occurs in dikes that intrude unit Km.
 - Km** THREE PEAKS MONZONITE—Rocks of this composite, zoned pluton are subdivided into three facies (Salla, 1972) that in general become coarser grained and more quartz-rich toward the center of the pluton. The intrusive contact with unit Ta is sharp, and inclinations of Ta occur near the contact. The outer border facies is very fine grained, equigrained monzonite to monzonite. The inner border facies is fine-grained quartz monzonite. The intermediate and core facies are medium- to coarse-grained biotite-monzonite to biotite-quartz monzonite. K-Ar dates on biotite from the core facies yield an average age of 71.3 m.y. (Salla, 1972, p. 29).
 - Pzs** PALEOZOIC SEDIMENTARY ROCKS, UNDIVIDED—Cambrian Bolsa Quartzite(?) and Devonian Martin Formation(?) that occur as roof pendants in unit Km. The Bolsa Quartzite(?) includes iron-stained, locally crossbedded orthoquartzite and minor amounts of dark maroon shale and siltstone. The Martin Formation is mostly cherty limestone locally altered to marble and skarn.
 - Ydb** DIABASE DIKES—Fine-grained plagioclase-chlorite-olivine-magnetite diabase dikes that generally trend about 300° and intrude units Xp and Yo.
 - Yo** ORACLE GRANITE OF PETERSON (1936)—Porphyritic, coarse-grained, leucocratic, biotite quartz monzonite with pink orthoclase phenocrysts up to 15 mm in diameter and minor amounts of magnetite. Some small pendants of Pinal Schist (unit Xp) are included in this unit.
 - Xp** PINAL SCHIST—Dark-gray to dark-greenish-gray, fine-grained quartz-muscovite schist.

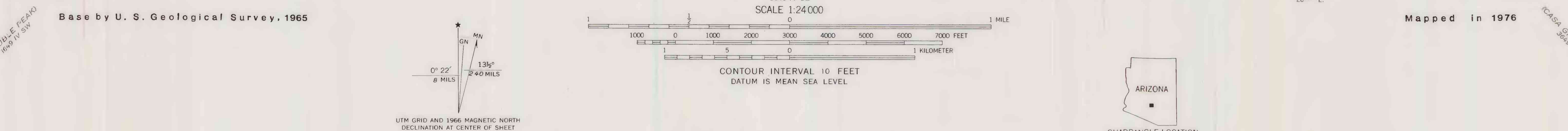
SELECTED REFERENCES

Salla, J. C., 1972, The relationship of Laramide stocks to regional structure in central Arizona: University of Arizona, Tucson, Ph. D. thesis, 132 p.

Peterson, H. P., 1936, Geology and ore deposits of the Mammoth mining camp area, Santa Catalina Mountains, Arizona: Arizona Bureau of Mines Bulletin 144, Geological Series 11, 63 p.

Wilson, E. D., 1969, Mineral deposits of the Gila River Indian reservation, Arizona: University of Arizona, Arizona Bureau of Mines Bulletin 179, 36 p.

- Legend for map symbols:
- Contact—Dashed where approximately located
 - - - - - Fault—Dashed where approximately located, dotted where concealed. Arrow in direction of dip; U, upthrown side; D, downthrown side
 - ↗ Strike and dip of beds
 - ↕ Vertical
 - ↗ Strike and dip of joints
 - ↕ Vertical
 - ↗ Strike and dip of foliation; bearing and plunge of lineation
 - ↕ Vertical
 - Vein with copper mineralization
 - X Prospect or small mine



PRELIMINARY RECONNAISSANCE BEDROCK GEOLOGIC MAP OF
THE CASA GRANDE WEST QUADRANGLE, PINAL COUNTY, ARIZONA

COMPILED BY JOEL R. BERGQUIST, GEOLOGIC MAPPING BY PHILIP M. BLACET

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.