DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT
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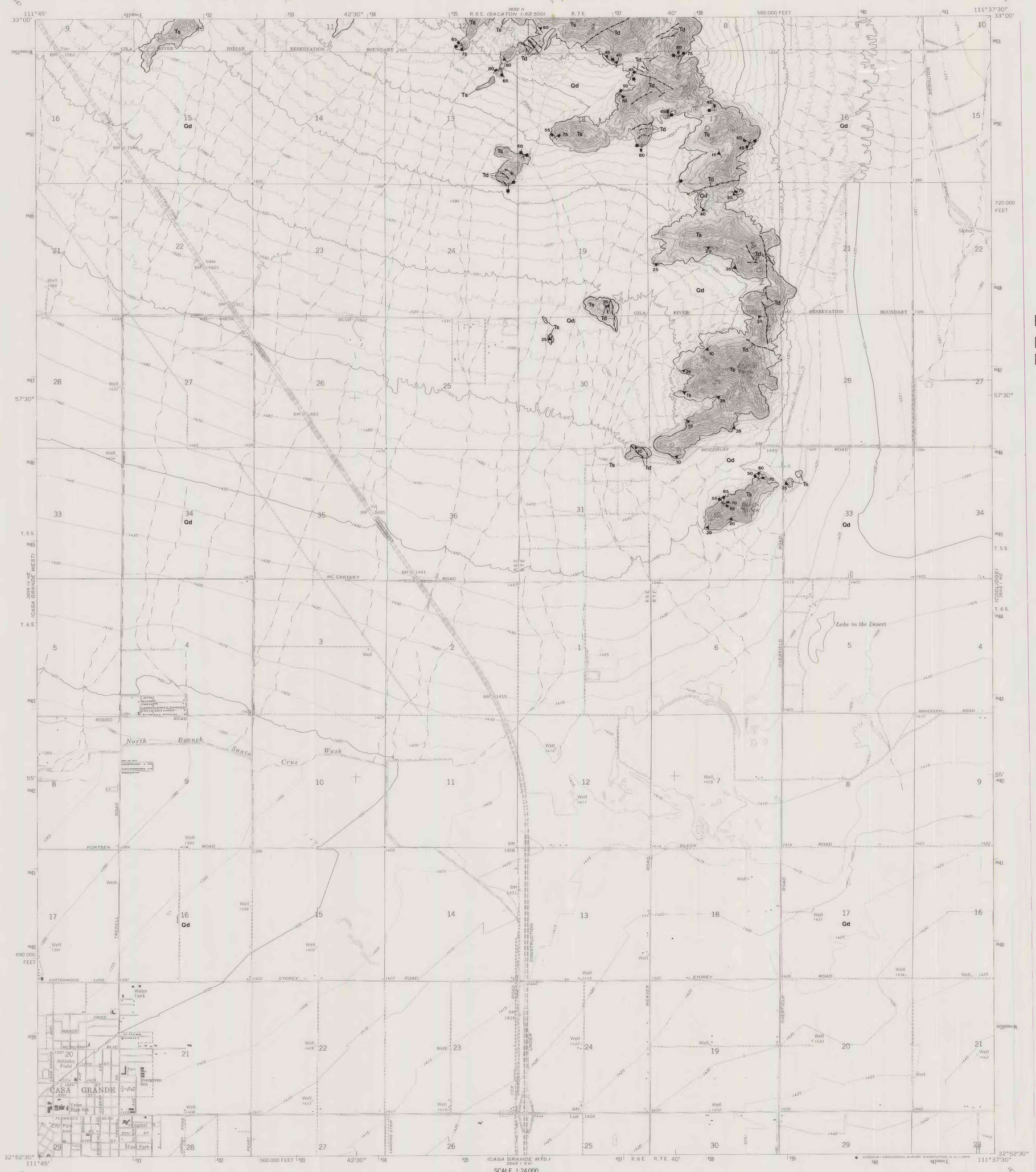

Base by U. S. Geological Survey, 1965

Mapped Spring 1976

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

UTM GRID AND 1966 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

CORRELATION OF MAP UNITS

Unit	Period	Era
Qd	Quaternary	CENOZOIC
UNCONFORMITY		
Td	Paleocene	Tertiary
Ts		

DESCRIPTION OF MAP UNITS

Qd QUATERNARY SEDIMENTARY DEPOSITS—Unconsolidated gravel, sand, and silt in stream channels and low-lying terraces, in intermontane valleys, and as colluvium. Weakly consolidated, locally caliche-cemented undeformed gravel, conglomerate and fanglomerate deposits near, and locally on, bedrock and pediments

Td DIKES, UNDIVIDED—Aplite and planar, quartz-orthoclase pegmatite dikes generally less than 15 cm thick. These dikes are probably late stage magmatic differentiates (Balla, 1972) of unit Ts

Ts SACATON PEAK GRANITE—Leucocratic, jointed, biotite quartz monzonite forming a composite, zoned stock subdivided by Balla (1972) into border, intermediate and core facies with gradational contacts. The border facies is medium grained, equigranular, gneissic biotite quartz monzonite with common porphyroblasts of pinkish microcline. Foliation is most prominent at the south end of the Sacaton Mountains near Black Butte, and decreases in intensity northward toward the center of the stock. The intermediate facies is characterized by poorly foliated to unfoliated fabric, decreasing amounts of biotite, and larger mean grain size. This facies yielded a K-Ar date of 61.2 m.y. (Balla, 1972, p. 31). The core facies is unfoliated, medium to coarse grained, sparsely porphyritic to seriate, biotite quartz monzonite to granite, which is characterized by relatively abundant euhedral poikilitic phenocrysts of orthoclase up to 4 cm by 1.5 cm.

SELECTED REFERENCES

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

Wilson, E. D., 1969, Mineral deposits of the Gila River Indian reservation, Arizona: University of Arizona, Arizona Bureau of Mines Bulletin 179, 34 p.

Contact

Strike and dip of joints

50 Inclined

Vertical

Strike and dip of foliation

40 Inclined

Vertical

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

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

1979

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