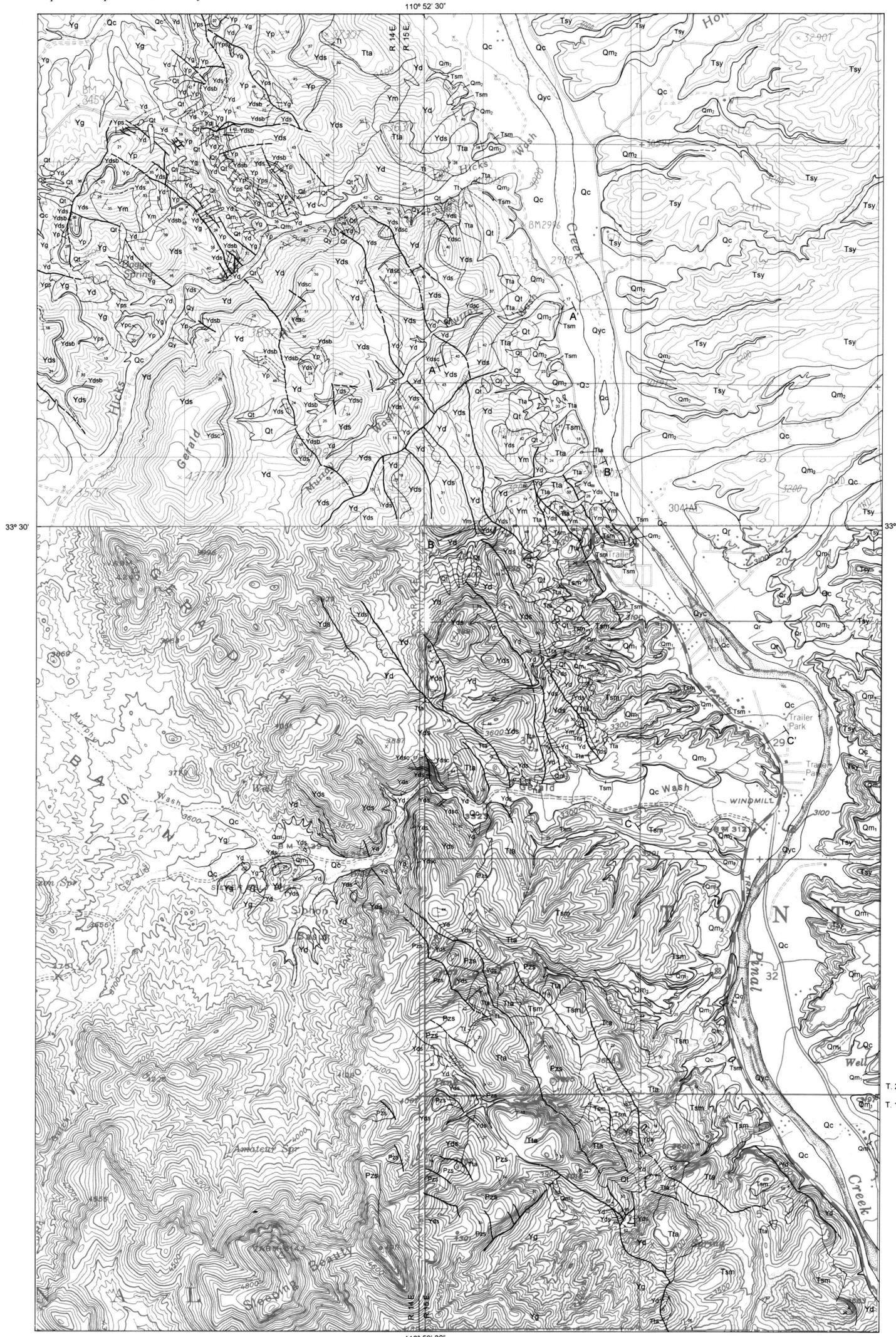


GEOLOGIC MAP OF THE GERALD HILLS AREA,
GLOBE-MIAMI AREA, GILA COUNTY ARIZONA

by
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August, 1995

ARIZONA GEOLOGICAL SURVEY
Open-File Report 95-14, sheet 1 of 1, with text



UNIT DESCRIPTIONS

Quaternary

- Qyc** Younger channel deposits—Unconsolidated sand and gravel in the modern channel of Pinal Creek.
- Qc** Older channel deposits—Unconsolidated silt, sand and gravel in flood plains just above modern channel.
- Qy** Holocene alluvial surfaces—Small, rather steep fans of unconsolidated material close to the bedrock.
- Qt** Talus—Locally derived, poorly sorted, unconsolidated debris.
- Qr** River terrace deposits—Subrounded sand pebbles and cobbles surrounded by sand and silt, and form low flat surfaces on the east side of Pinal Creek.
- Qm₂** Younger Pleistocene alluvial fan deposits—Unconsolidated to moderately consolidated deposits of thinly stratified, interbedded sandstone and conglomerate. No carbonate in matrix.
- Qm₁** Older Pleistocene alluvial fan deposits—moderately consolidated deposits of thinly stratified, interbedded sandstone and conglomerate. Similar to Qm₂; Forms surfaces on top of Tsy.

Tertiary

- Tsy** Younger basin-fill deposits—Light brown, relatively flat-lying moderately consolidated deposits of interbedded subangular to subrounded silt, sand, gravel and cobbles.
- Tsm** Older basin-fill deposits—Light tan, tilted, thinly to coarsely bedded, interbedded gravely sandstone and conglomerate. Matrix is rich in carbonate.
- Tta** Apache Leap Tuff—Tan-colored welded ash-flow tuff containing 1-4 mm wide phenocrysts of subhedral, rounded, partially resorbed clear quartz, subhedral and commonly broken clear to light grey feldspar, and fresh subhedral biotite.
- Tt** Bedded tuff—Light grey to white, nonwelded bedded tuff at the base of the Apache Leap Tuff. Contains the same phenocrysts as in the Apache Leap Tuff.

Paleozoic

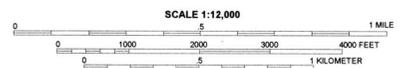
- Pzs** Carbonate, undivided—Light blue-grey to tan fossiliferous limestone locally interbedded with thin 1-2 meter-thick beds of purple shale and terra rosa. Probably equivalent to the Redwall/Escaobrosa and Martin Formations.

Late Proterozoic

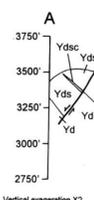
- Yd** Diabase—Dark grey green, fine- to coarse-grained intrusive rock containing interlocking 1-15 mm phenocrysts of pyroxene, plagioclase and opaques. Highly weathered and crumbly in most places and forms slopes and valleys.
- Ym** Mescal Limestone—Light grey thin-bedded limestone commonly containing large amounts of lenticular dark brown to black chert. Generally highly fractured. Forms ridge tops in the north of the study area.
- Ydsc** Conglomerate within Dripping Spring Quartzite—Light grey conglomerate containing moderately well sorted, well rounded pebble- to cobble-size clasts of quartz, quartzite, and jasper. Interbedded with Dripping Spring Quartzite.
- Yds** Dripping Spring Quartzite—Light tan, pink, and white thinly bedded arkosic sandstone, quartz sandstone, locally siltstone and rarely gravel-size conglomerate. Cross-beds are abundant. Forms resistant hills and ridges.
- Ydsb** Barnes Conglomerate member of Dripping Spring Quartzite—Contains moderately well sorted, well rounded, pebble- to cobble-size clasts of quartz, quartzite, and jasper in a sandy, arkosic matrix. Occurs at the base of the Dripping Spring Quartzite.
- Yp** Pioneer Shale—Thinly bedded purple shale and siltstone, locally interbedded with a 5-6 meter-thick bed of quartzite north of the highway. Mud cracks are abundant and ripple marks are visible locally.
- Ypc** Conglomerate within Pioneer Shale—Moderately well sorted, well rounded conglomerate containing pebble- to cobble-size clasts of quartz, quartzite, and jasper in a sandy, arkosic matrix. Locally interbedded with the Pioneer Shale south of Dagger Spring, and merges laterally with the Scanlan Conglomerate.
- Yps** Scanlan Conglomerate member of the Pioneer Shale—Moderately well sorted, well rounded, pebble- to cobble-size clasts of quartz, quartzite, and jasper in a sandy, arkosic matrix. Occurs at the base of the Pioneer Shale. Lower part is commonly rich in locally-derived granitic debris.
- Yg** Ruin Granite—Coarse-grained, K-spar porphyritic granite containing 1-10 mm wide phenocrysts of quartz, plagioclase, biotite, and 1-5 cm subhedral pink orthoclase megacrysts. Highly fractured and crumbles easily.

SYMBOLS

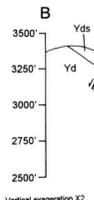
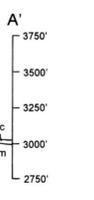
- Stratification
- Eutaxitic foliation in Apache Leap Tuff
- Joint set
- Granitic dike
- Mafic dike
- Contact, dashed where uncertain
- Marker bed
- Fault, with attitude, dashed where uncertain.



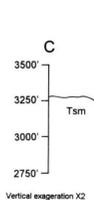
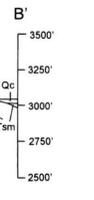
Funded by the Arizona Department of Transportation
Letter Agreement No. LA 95-41



Murray Wash



Beehive Wash



Gerald Wash

