

Geologic Map of the San Pedro River, Babocomari River and Aravaipa Creek Corridors, Southeastern Arizona

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Digital Map DM-RM-1A

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USGS 24k quadrangle series topographic base maps,
North American Datum of 1983. Projection and 1000-meter
grid ticks (blue). Universal Transverse Mercator, zone 12.

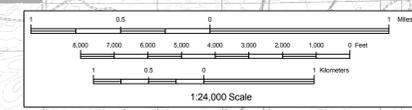


Figure 1

Figure 2

Boundaries of Holocene River Alluvium

Thin, Solid Line
Clearly defined, accurately located contacts between Holocene river alluvium and bounding geologic units such as bedrock hillslopes, abruptly incised channels or alluvial terraces, and distinct edges of small, steep alluvial fans and talus slopes. Line location accurate to within 50 feet.

Thin, Dashed Line
Subtle or gradational contacts between Holocene river alluvium and bounding geologic units. These boundaries are often associated with very low relief distal alluvial fan onlap onto Holocene river alluvium and are often located in historically plowed fields. Line location accurate to within 100 feet.

Thin, Dotted Line
Approximately located boundary between Holocene river alluvium and bounding geologic units. Dotted line boundaries are reserved for areas which are significantly disturbed by anthropogenic activity. Placement of dotted line boundaries is based on a combination of field verification and historical aerial photo and topographic data interpretation. Line location accurate to within 500 feet depending on level of disturbance (plowed vs. paved, original topography maintained/disturbed etc.).

Waypoint Location, showing station identification

Other Geologic Lines

- Thin, Solid Line**
Accurate contact
- Thin, Dashed Line**
Approximate contact
- Thin, Dotted Line**
Concealed contact
- Hashed Line**
Gradational Contact
- Solid, Bold Line**
Accurate Fault
- Dashed, Bold Line**
Approximate Fault
- Dotted, Bold Line**
Concealed Fault

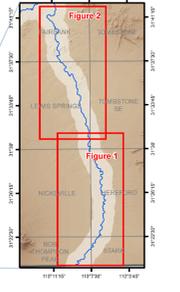
Statewide Location Map

Location of each sheet shown in black



Figures on this Sheet

Figure locations shown in red



Map Unit Descriptions

Other units	Tertiary basin fill alluvium
d Disturbed ground - heavily disturbed ground due to agriculture, extensive excavation, or construction of earth dams	QTsd Pliocene to early Pleistocene Saint David Formation - fine-grained, highly eroded basin-fill deposits
Pl Plowed areas - historically or actively plowed fields, irrigated pastures, and other lightly disturbed ground	Tg Conglomerate (Cenozoic) - Tan, thin- to medium-bedded, pebble-cobble, sandy matrix conglomerate and pebbly sandstone
Qtc Quaternary hillslope talus and colluvium - weakly bedded hillslope deposits mantling the middle and lower slopes of bedrock hills	Kf Fine-grained andesite dikes (Cretaceous) - Andesite dikes containing <math>< 10\%</math> fine-grained andesite phenocrysts in very fine-grained matrix
Qya Active river channel deposits - unconsolidated, very poorly sorted sandy to cobbly beds in active river channels	Kq Quartz monzonite of Bronco Hill (Upper Cretaceous) - Medium-grained, slightly plagioclase porphyritic, 10% biotite-hornblende, quartz monzonite to quartz monzodiorite
Qyf Flood channel and low terrace deposits - unconsolidated sand, gravel and silt deposits on bars, low terraces and flood channels	Kp Porphyry of Fairbank (Upper Cretaceous) - Phenocryst-rich porphyry
Qyh Historical river terrace deposits - unconsolidated sand, gravel and silt deposits on low terraces inset below the abandoned early Holocene floodplain	Kqz Quartz monzonite of Government Draw (Upper Cretaceous) - Medium-grained, slightly plagioclase porphyritic, 10% biotite-hornblende, quartz monzonite
Qyl Latest Holocene to historical river terrace deposits - silt, clay, sand and minor gravel terrace deposits signal above the early Holocene floodplain	Ks Uncle Sam Tuff (Upper Cretaceous) - Phenocryst-rich ash-flow tuff
Qym Late to early Holocene river terrace deposits - silt, clay, sand and minor gravel terrace deposits signal above the early Holocene floodplain	Ksc Coarse-grained andesite (Cretaceous) - volcanic complex dominated by coarse-grained, phenocryst-rich andesitic lava and probable hyaloclastite bodies containing 15-30% 1-4 mm plagioclase phenocrysts
Qyn Late Pleistocene river terrace deposits - gravely, sandy river terrace deposits up to 25 m above the active river channel	Krh Rhyolite (Cretaceous) - Rhyolite containing 5-10% 1-2.5 mm quartz and feldspar phenocrysts
Qyo Middle to late Pleistocene river terrace deposits - older, higher gravely, sandy river terrace deposits	Krn Nonwelded ash-flow tuff (Cretaceous) - Felsic, nonwelded, thin- to thick-bedded tuff lapilli-rich ash-flow tuff and ash-fall tuff
Qy1 Early to middle Pleistocene river terrace deposits - oldest, highest preserved gravely, sandy river terrace deposits	Kmd Medium-grained andesite dikes (Cretaceous) - North to northwest striking, generally steeply dipping andesite dikes
Piedmont alluvium and surficial deposits	Kt Tuff of Charleston (Cretaceous) - Rhyolite ash-flow tuff
Qy2 Modern stream channel deposits - active channel deposits composed of very poorly-sorted sand, pebbles, and cobbles with some boulders to moderately-sorted sand and pebbles	Kx Tuff of Charleston megabreccia (Cretaceous) - Zones of the tuff of Charleston containing greater than 20% thin blocks ranging in size from 10 cm to greater than 50 m
Qy3 Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and overflow channel deposits	Kya Aphyric rhyolite (Cretaceous) - Aphyric to very phenocryst-poor rhyolite lava with probable zones of hyaloclastite rock, and tuff breccia
Qy4 Late Holocene alluvium, active fan deposits - active portions of young fan deposits exhibiting distributary drainage patterns	Kz Andesite porphyry (Cretaceous) - distinctive, hyaloclastite andesite porphyry containing 10-20% 1-3 mm, euhedral plagioclase phenocrysts in a fine-grained crystalline matrix
Qy5 Late Holocene alluvium - planar terrace deposits located along incised drainages, broad low-relief distal fan deposits onlapping onto Holocene river alluvium, and infrequently active tributary drainage deposits	Am Andesite (Cretaceous) - Amalgamated, andesite lava flows intruded by a myriad of dikes
Qy6 Older Holocene alluvium - broad, low relief, undulating fan deposits exhibiting widespread, shallow braided drainage patterns	Bg Bisbee Group (Lower Cretaceous) - Complexly intertonguing sequences of thin- to thick-bedded, cross-stratified and plane-bedded, quartz sandstone, feldspathic quartz sandstone, and siltstone/finest quartz sandstone, gray-green to red siltstone, mudstone, silt mudstone and shale
Qy7 Holocene fine-grained deposits - unconsolidated fine grained alluvium derived from basin fill deposits	
Qy8 Holocene alluvial deposits, undifferentiated	
Qy9 Holocene and Pleistocene alluvium - mixed fine-grained Holocene (Qy) and Pleistocene (Q2 or Q3) alluvium	
Q10 Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with moderate soil development	
Q11 Middle to late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with strong soil development	
Q12 Early to middle Pleistocene alluvial fan and terrace deposits - high, moderately consolidated gravely deposits with strong soil development	
Q13 Pleistocene alluvial deposits, undifferentiated	
Q14 Early Pleistocene alluvial fan deposits - highest standing Pleistocene alluvial surface in the landscape composed of moderately consolidated gravely deposits with variable soil development	
Q15 Early Pleistocene cobble conglomerate - cobble conglomerate cemented by calcium carbonate	