Geologic map of the Peppersauce Wash 7 ½' Quadrangle and part of the Kielberg Canyon 7 ½' Quadrangle, Pinal and Pima Counties, Arizona

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Arizona Geological Survey

Digital Geologic Map 69 (DGM-69), version 2.0

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Map Unit Descriptions

River Deposits

- Qycr — **Active river channel deposits** - unconsolidated, very poorly sorted sandy to cobbly beds in active river channels
- Qyaf — **Flood channel and bar deposits** - unconsolidated sand, gravel, and silt deposits on bars, low terraces, and flood channels
- Qysf — **Historical inset river terrace deposits** - unconsolidated sand, gravel, and silt deposits on low terraces inset below the abandoned early historical floodplain
- Qyaf — **Latest Holocene to historical river deposits** - silt, clay, sand, and minor gravel deposits underlying the early historical floodplain
- Qyif — **Late to early Holocene terrace deposits** - silt, clay, sand, and minor gravel terrace deposits slightly above the early historical floodplain
- Qlyf — **Late Pleistocene river terrace deposits** - gravelly, sandy river terrace deposits from 5 to 20 m above the active river channel
  - Qlyfb — **Late Pleistocene river terrace deposits (younger member)**
  - Qlyfa — **Late Pleistocene river terrace deposits (older member)**
- Qlyf — **Middle to late Pleistocene river terrace deposits** - higher intermediate terraces composed of a mix of river gravel, sand, silt, and clay from 15 to 35 m above the active river channel
  - Qlyfa — **Middle to late Pleistocene river terrace deposits (older member)** -
  - Qlyfb — **Middle to late Pleistocene river terrace deposits (younger member)** -
- Qlyf — **Early to middle Pleistocene river terrace deposits** - isolated deposits covered with well-rounded river gravel from 30 to 60 m above the active river channel

Piedmont Deposits

- Qys — **Alluvium forming active channels, gravel bars, and low terraces** - Unconsolidated, very poorly cobbles, boulders, pebbles, sand and silt, in channels, bars, and low terraces
- Qy2 — **Young alluvium forming low terraces, bars, small channels, and active alluvial fans** - Unconsolidated, very poorly sorted silty to cobbly flood channel, low terrace and fan deposits with minimal soil development
- Qy1 — **Young alluvium forming low terraces and inactive fans** - Weakly consolidated sand, gravel and silt terrace and alluvial-fan deposits, with weak to moderate soil development
- Qys — **Young fine-grained deposits** - Unconsolidated fine grained alluvium derived from basin fill deposits
- Qtc — **Coro Marl** - Hard, white to gray, calcareous silty clay, massive to blocky, with thin olive green to brown clay layers, up to 4 m thick. Paleospring deposits, found in valley bottom upslope from bedrock on the west side of the San Pedro River. Dated between ~60-25 ka (Pigati et al., 2009).
- Qli — **Younger intermediate alluvial fan and terrace deposits** - Weakly consolidated sandy gravel deposits with moderately strong clay soil development
- Qli — **Intermediate alluvial fan and terrace deposits** - Weakly consolidated sandy gravel deposits with strong clay soil development
- Qli — **High Intermediate alluvial fan deposits** - High, moderately consolidated gravelly deposits with variable, but locally very strong clay soil development
- Qo — **High old alluvial fan deposits** - High, moderately to strongly consolidated gravelly deposits associated with high remnant alluvial fan surfaces. Soil development is variable, depending on preservation, but clay accumulation is moderate and petrocalcic soil horizons are common.
- QTa — **Fan gravel capping high ridges** - Coarse, moderately to well-consolidated gravelly deposits capping high rounded ridges. Original alluvial fan surfaces are not preserved. Typically indurated with calcium carbonate cementation.

Basin-Fill Deposits

- Tqc — **Quiburis Formation, alluvial fan facies** - Sandy to gravelly, moderately to strongly indurated alluvial fan deposits
- Tqs — **Quiburis Formation, fan toe and axial valley facies** - Sandy to clayey, moderately indurated axial valley and playa margin deposits
- Tql — **Quiburis Formation, playa-lacustrine facies** - Fine-grained, laminated playa and lacustrine deposits
- Tqd — **QuiburisFormation, diatomaceous facies** - Interbedded diatomite, mudstone, limestone, and green chert.

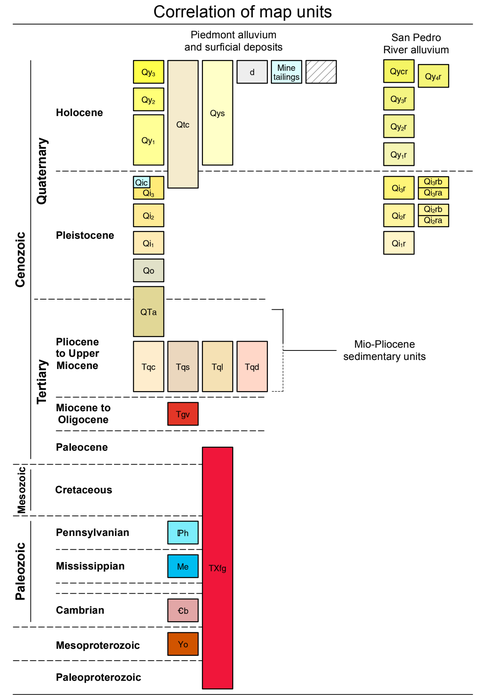
Bedrock Units

- Tgv — **Galiuro volcanics** - Tertiary volcanic rocks
- Ph — **Horquilla Limestone** - Light to medium gray limestone and interbedded silty limestone, in beds 30-60 cm thick (from Creasey, 1967).
- Me — **Escabrosa Limestone (Mississippian)** - Pale gray limestone, thick bedded to massive, commonly with sparse to abundant siliceous stringers and chert nodules. Limestone is generally a grainstone, composed of small fossil fragments, including locally abundant crinoid columnals and sparse columns composed of multiple columnals.
- Cb — **Bolsa Quartzite** - Strongly indurated, highly resistant, gray to purplish gray quartzite forms one isolated low hill east of the San Pedro River.
- TXfg — **Fine-grained granite (Proterozoic or Laramide [upper Cretaceous or lower Tertiary])** - Granitoid containing 40%, 1-3 mm white plagioclase and 4-8%, <1 mm biotite, and 1-2%, <1 mm quartz.
- Yo — **Middle Proterozoic Oracle-Ruin Granite** - **Middle Proterozoic Oracle-Ruin Granite**

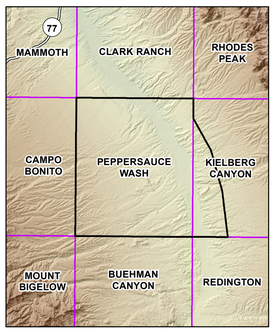
Other Deposits

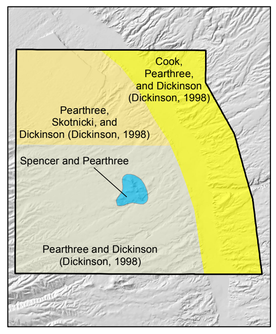
- d — **Disturbed ground** - Mines, tailings or ponds, urban areas, and paved roads
- Mine tailings — **Mine tailings** - Tailings derived from processing ore from the San Manuel mine.
- Qtc — **Hillslope colluvium and talus** - Locally-derived, very poorly sorted, angular to subangular,, weakly bedded, slope deposits associated with bedrock hills

Correlation of map units



Location of map area





Contacts and faults

- contact, accurate
- contact, approximate
- contact, gradational
- fault, accurate
- fault, approximate
- fault, concealed

Structure symbols

- ⊕ horizontal bedding
- ⊢ strike and dip of inclined bedding

SCALE 1:24,000

1 0.5 0 1 Miles

1 0.5 0 1 Kilometers

0 1000 2000 3000 4000 5000 Feet

CONTOUR INTERVAL 40 FEET

9.6° TRUE NORTH MAGNETIC NORTH

Approximate mean declination, 2018

Topographic base map derived from the Peppersauce Wash 7.5' USGS topographic quadrangle map originally with NAD27 datum. Reprojected to UTM NAD83 datum (zone 12) using iGage All Topo Maps V9. UTM NAD 83 grid and lat-lon markers produced using ESRI ArcMap v. 10.4.

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