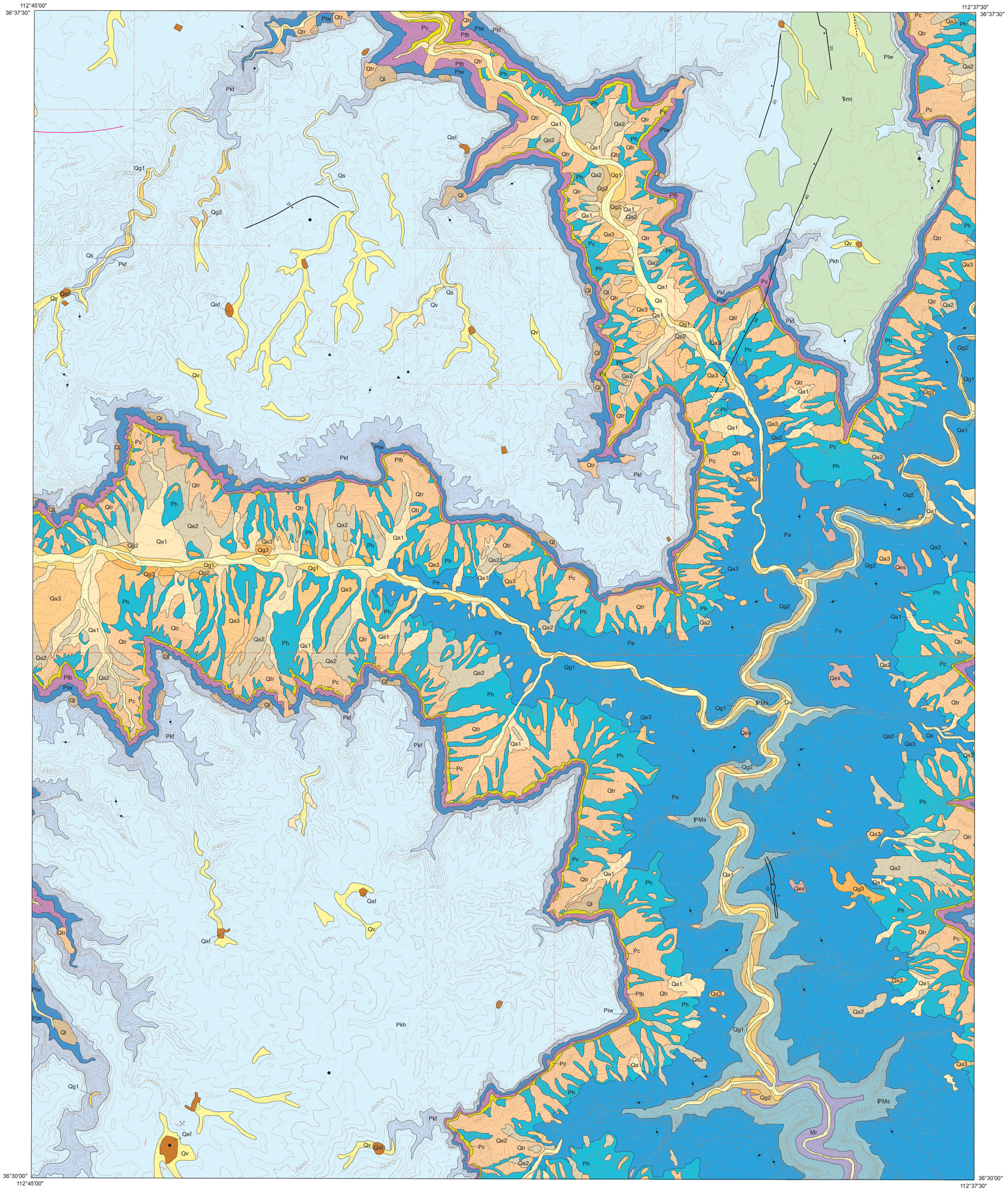
U.S. Department of the Interior
U.S. Geological Survey

Scientific Investigations Map 3035



LIST OF MAP UNITS

SURFICIAL DEPOSITS

- Qaf Artificial fill and quarries
- Qs Stream-channel deposits
- Qf Flood-plain deposits
- Qes Eolian sand sheet deposits
- Qv Valley-fill deposits
- Qtr Talus and rock fall deposits
- Qg1 Young terrace-gravel deposits
- Qa1 Young alluvial fan deposits
- Qg2 Intermediate terrace-gravel deposits
- Qa2 Intermediate alluvial fan deposits
- Ql Landslide deposits
- Qg3 Old terrace-gravel deposits
- Qa3 Old alluvial fan deposits
- QTg Terrace-gravel deposits

VOLCANIC ROCKS

SEDIMENTARY ROCKS

- Ŧmt Moenkopi Formation, Timpoweap Member
- Pkh Kaibab Formation, Harrisburg Member
- Pkf Kaibab Formation, Fossil Mountain Member
- Ptw Toroweap Formation, Woods Ranch Member
- Ptb Toroweap Formation, Brady Canyon Member
- Pts Toroweap Formation, Seligman Member
- Pc Coconino Sandstone
- Ph Hermit Formation
- Pe Supai Group, Esplanade Sandstone
- ℙMs Supai Group, Wescogame, Manakacha, and Watahomigi Formations, undivided
- Mr Redwall Limestone

EXPLANATION

- Contact certain
- Fault certain; number is estimated offset in feet
- Fault concealed
- Syncline; dotted where concealed; arrows where plunging
- Monocline; dotted where concealed
- Implied bedding
- Strike of vertical and subvertical joints
- Collapse structure
- Sinkhole
- Mine; CU-copper, U-uranium

12°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 2005

SCALE 1:24,000
1 0.5 0 1 Miles
1 0.5 0 1 Kilometers

Derived from USGS SIM 3035, 2008
Geologic Map of the Fredonia 30' x 60' Quadrangle, Mohave and Coconino Counties, Northern Arizona
by George H. Billingsley, Susan S. Priest, and Tracey J. Felger
Legend may include map units or features outside quadrangle boundary

Grama Spring