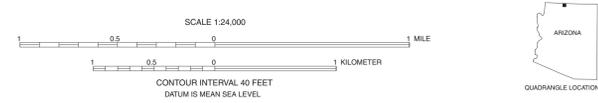


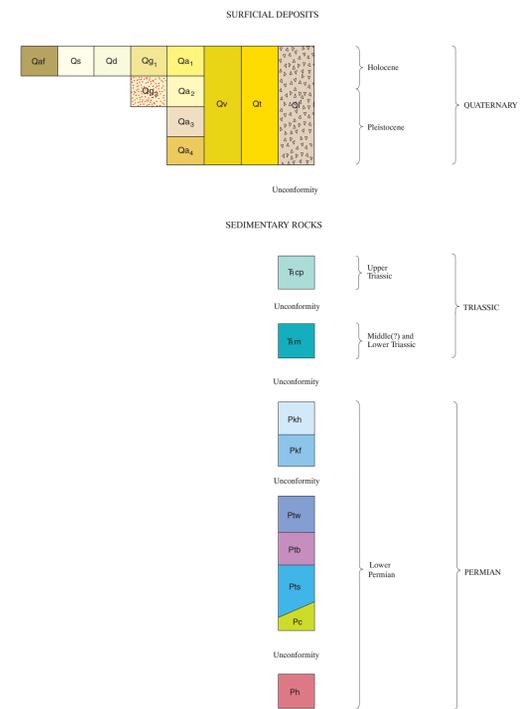
Base from U.S. Geological Survey, 1:24,000, House Rock Quadrangle, 1988
Universal Transverse Mercator Projection
1927 North American Datum
Clark 1866 Ellipsoid, Zone 12

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1997



Geology mapped in 1999 by G.H. Billingsley
Digital database by J.L. Wellmeyer and D.L. Block
Edited by Jan L. Ziegler
Manuscript approved for publication April 23, 2001

CORRELATION OF MAP UNITS



LIST OF MAP UNITS

SURFICIAL DEPOSITS		SEDIMENTARY ROCKS	
Qaf	Artificial fill and quarries (Holocene)	Tcp	Chino Formation, undivided (Upper Triassic) and Petrified Forest and Shinarump Members, undivided
Qs	Stream-channel alluvium (Holocene)	Tm	Moenkopi Formation, undivided (Middle and Lower Triassic)
Qd	Sand-sheet and dune deposits (Holocene)	Ka	Kaibab Formation (Lower Permian)
Qg ₁	Young terrace-gravel deposits (Holocene)	Pkh	Harrisburg Member
Qa ₁	Young alluvial fan deposits (Holocene)	Pxl	Fossil Mountain Member
Qv	Valley-fill deposits (Holocene and Pleistocene)	Tow	Toroweap Formation (Lower Permian)
Qt	Talus deposits (Holocene and Pleistocene)	Ptw	Woods Ranch Member
Ql	Landslide deposits (Holocene and Pleistocene)	Pib	Brady Canyon Member
Qg ₂	Old terrace-gravel deposits (Holocene and Pleistocene)	Pts	Selgman Member
Qa ₂	Young intermediate alluvial fan deposits (Holocene and Pleistocene)	Pc	Coconino Sandstone (Lower Permian)
Qa ₃	Old intermediate alluvial fan deposits (Pleistocene)	Ph	Hermit Formation (Lower Permian)
Qa ₄	Old alluvial fan deposits (Pleistocene)		

- Contact—(Approximate contact for surficial units and between the Harrisburg and Fossil Mountain Members of the Kaibab Formation)
- Fault—Dashed where inferred or approximately located; dotted where concealed; bar and ball on downthrown side. Number is estimated fault separation in feet
- Folds—Showing trace of axial surface and direction of plunge; dashed where approximately located; dotted where concealed
- Monocline—Axial trace drawn approximately along steepest part of fold
- Syncline
- Anticline
- Strike and dip of beds
Inclined—As indicated on aerial photos
- Inclined—Measured in the field
- Strike of vertical and subvertical joints
- ▲ Sinkhole
- Collapse Structure (breccia pipe?)
- ⊕ Dome

**GEOLOGIC MAP OF THE HOUSE ROCK QUADRANGLE,
COCONINO COUNTY, NORTHERN ARIZONA**

By
George H. Billingsley, Jessica L. Wellmeyer and Debra L. Block

2001