UNIVERSITY OF ARIZONA
ARIZONA BUREAU OF MINES
J. D. FORRESTER, DIRECTOR

GEOLOGIC MAP
OF
COCONINO COUNTY, ARIZONA

PREPARED BY THE

ARIZONA BUREAU OF MINES
UNIVERSITY OF ARIZONA
TUCSON, ARIZONA

BY

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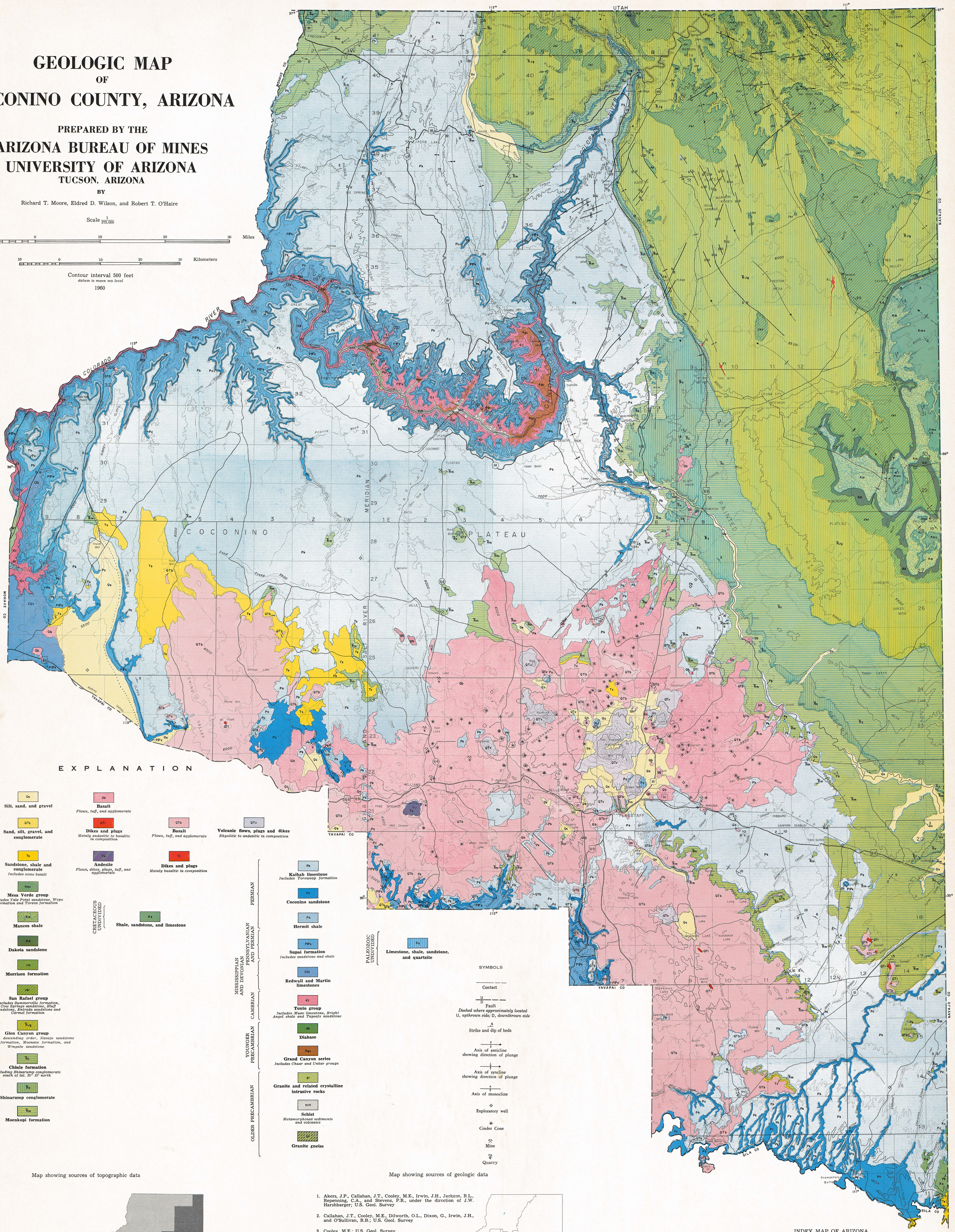
Scale $\frac{1}{375,000}$

10 0 10 20 30 Miles

10 0 10 20 30 Kilometers

Contour interval 500 feet
datum is mean sea level
1960



EXPLANATION

QUATERNARY

Qs — Silt, sand, and gravel

Qb — Basalt
Flows, tuff, and agglomerate

QUATERNARY AND TERTIARY

QTs — Sand, silt, gravel, and conglomerate

QTi — Dikes and plugs
Mainly andesitic to basaltic in composition

QTb — Basalt
Flows, tuff, and agglomerate

QTv — Volcanic flows, plugs and dikes
Rhyolitic to andesitic in composition

TERTIARY

Ts — Sandstone, shale and conglomerate
Includes some basalt

Ta — Andesite
Flows, dikes, plugs, tuff, and agglomerate

Ti — Dikes and plugs
Mainly basaltic in composition

CRETACEOUS

Kmv — Mesa Verde group
Includes Yale Point sandstone, Wepo formation and Toreva formation

Km — Mancos shale

Kd — Dakota sandstone

CRETACEOUS UNDIVIDED

Ks — Shale, sandstone, and limestone

JURASSIC

Jm — Morrison formation

Jsr — San Rafael group
Includes Summerville formation, Cow Springs sandstone, Bluff sandstone, Entrada sandstone and Carmel formation

TRJg — Glen Canyon group
Includes in descending order, Navajo sandstone Kayenta formation, Moenave formation, and Wingate sandstone

TRIASSIC

Rc — Chinle formation
Including Shinarump conglomerate south of lat. 35° 15' north

TRs — Shinarump conglomerate

TRm — Moenkopi formation

PERMIAN

Pk — Kaibab limestone
Includes Toroweap formation

Pc — Coconino sandstone

Ph — Hermit shale

MISSISSIPPIAN AND DEVONIAN / PENNSYLVANIAN AND PERMIAN

PPs — Supai formation
Includes sandstone and shale

CDl — Redwall and Martin limestones

CAMBRIAN

€t — Tonto group
Includes Muav limestone, Bright Angel shale and Tapeats sandstone

YOUNGER PRECAMBRIAN

db — Diabase

Agc — Grand Canyon series
Includes Chuar and Unkar groups

OLDER PRECAMBRIAN

gr — Granite and related crystalline intrusive rocks

sch — Schist
Metamorphosed sediments and volcanics

Gn — Granite gneiss

PALEOZOIC UNDIVIDED

Pu — Limestone, shale, sandstone, and quartzite

SYMBOLS

Contact

U / D — Fault
Dashed where approximately located
U, *upthrown side*; D, *downthrown side*

.5 — Strike and dip of beds

Axis of anticline showing direction of plunge

Axis of syncline showing direction of plunge

Axis of monocline

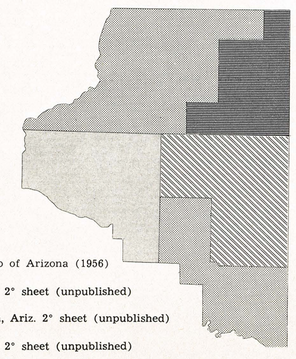
Exploratory well

Cinder Cone

Mine

Quarry

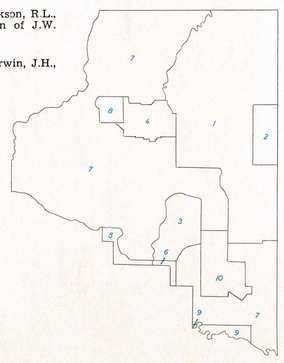
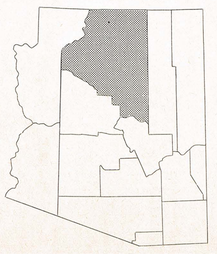
Map showing sources of topographic data



- U.S. Geol. Survey Topographic Map of Arizona (1956)
- Army Map Service, Flagstaff, Ariz. 2° sheet (unpublished)
- Army Map Service, Marble Canyon, Ariz. 2° sheet (unpublished)
- Army Map Service, Williams, Ariz. 2° sheet (unpublished)

Map showing sources of geologic data

1. Akers, J.P., Callahan, J.T., Cooley, M.E., Irwin, J.H., Jackson, R.L., Repenning, C.A., and Stevens, P.R., under the direction of J.W. Harshbarger; U.S. Geol. Survey
2. Callahan, J.T., Cooley, M.E., Dilworth, O.L., Dixon, G., Irwin, J.H., and O'Sullivan, R.B.; U.S. Geol. Survey
3. Cooley, M.E.; U.S. Geol. Survey
4. Darton, N.H.; U.S. Geol. Survey
5. Krieger, M.H.; U.S. Geol. Survey
6. Metzger, D.G., and Twenter, F.R.; U.S. Geol. Survey
7. Moore, R.T.; Ariz. Bur. Mines
8. Noble, L.F.; U.S. Geol. Survey
9. Wilson, E.D.; Ariz. Bur. Mines
10. Wilson, E.D., and Moore; R.T., Ariz. Bur. Mines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Showing Location of Coconino County, Arizona