UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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PLATE 1

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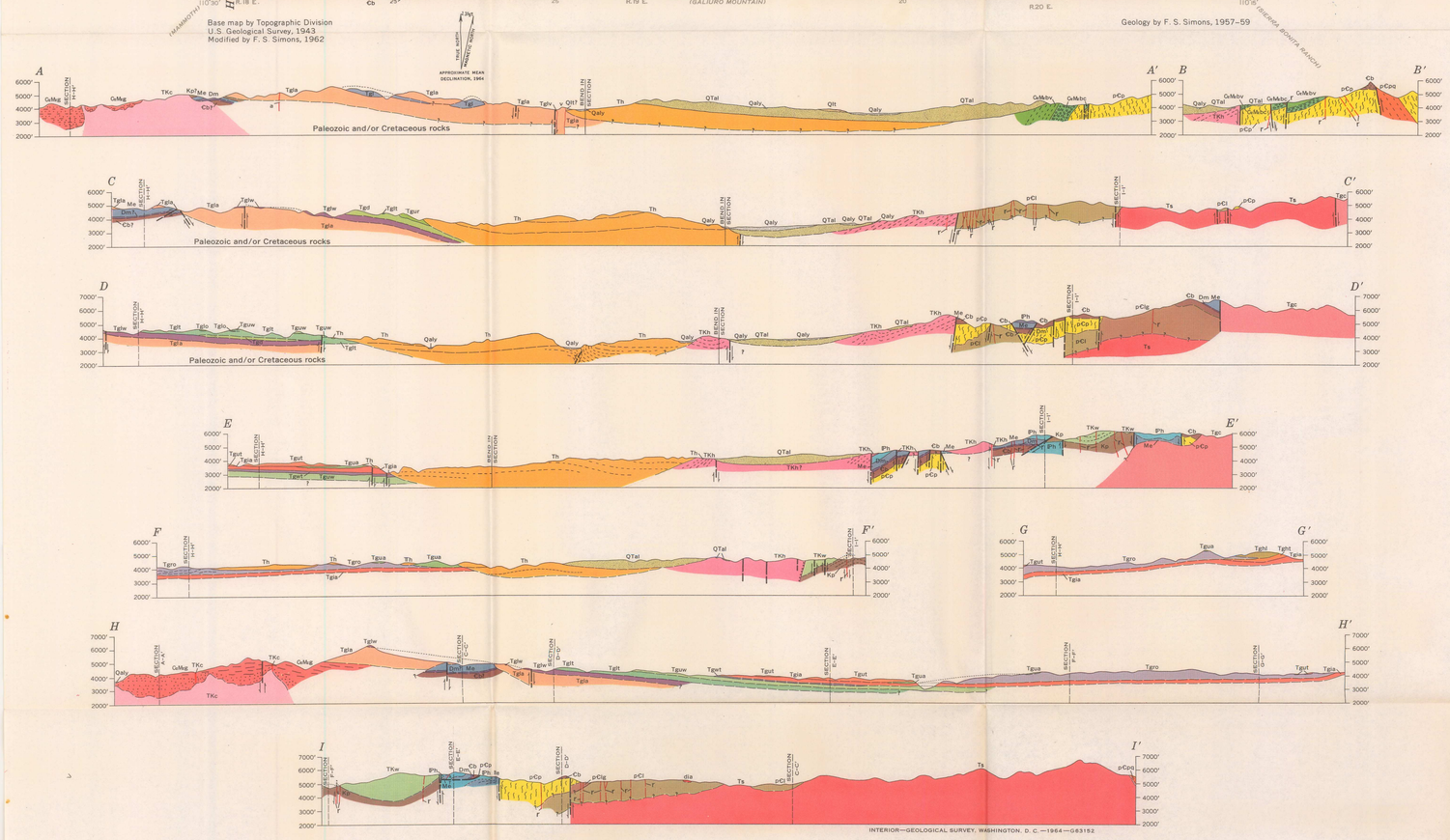
PLEASE REPLACE IN POCKET
IN BACK OF BOUND VOLUME



EXPLANATION

ENTIRE QUADRANGLE

Qaly — Younger alluvium
Alluvium along present stream courses in Aravaipa, Fourmile, Long Hollow, Rattlesnake, and other canyons

Recent

Qlt — Lakebeds and terrace deposits
Mainly along Aravaipa Valley

Pleistocene or Recent

UNCONFORMITY

QTal — Older alluvium
Alluvium along the southwest flank of the Turnbull and Santa Teresa Mountains and the northeast flank of the Galiuro Mountains. May include some weathered Hell Hole Conglomerate

Pliocene or Pleistocene

UNCONFORMITY

Th — Hell Hole Conglomerate
Well-indurated conglomerate and breccia, mostly along the east flank of the Galiuro Mountains

UNCONFORMITY

GALIURO MOUNTAINS

Tgut, Tgua, Tghl, Tgro, Tght, Tgia, Tgwt, Tguw, Tgur, Tglo, Tgit, Tgib, Tgd, Tglw, Tglv, Tgl, Tgla, Tglp

Galiuro Volcanics
Tgut, *upper tuff unit.*
Tgua, *upper andesite unit.*
Tghl, *quartz latite unit of Hawk Canyon.*
Tgro, *rhyolite-obsidian unit.*
Tght, *tuff unit of Hawk Canyon.*
Tgia, *intermediate andesite unit.*
Tgwt, *white tuff unit.*
Tguw, *upper welded tuff unit.*
Tgur, *rhyolite of Black Butte.*
Tglo, *olivine andesite, locally at or near top of Tgit.*
Tgit, *lower tuff unit.*
Tgib, *hornblende andesite of Parsons Canyon.*
Tgd, *biotite dacite unit.*
Tglw, *lower welded tuff unit.*
Tglv, *heterogeneous silicic volcanics of Fourmile Canyon.*
Tgl, *latite subunit.*
Tgla, *lower andesite unit.*
Tglp, *pyroclastic cones.*
v, *volcanic necks and vent breccia.*
r, *dikes of rhyolite, quartz porphyry, and dacite.*
a, *dikes of andesite and olivine basalt*

Breccia pipes of Copper Creek

Age relationship and relative stratigraphic position of some units unknown

TKc — Copper Creek Granodiorite
Medium-grained porphyritic biotite granodiorite and granodiorite dike

Upper(?) Cretaceous or younger

GcMg — Glory Hole Volcanics
Silicic to intermediate volcanic rocks. Stippled area is hornfels along contact with Copper Creek Granodiorite

UNCONFORMITY (?)

Kp — Pinkard(?) Formation
Greenish-gray sandstone, shale, and conglomerate; some tuffaceous sandstone, tuff, quartzite, arkosic sandstone

UNCONFORMITY

Upper Cretaceous

Middle Pennsylvanian

Cb — Bolsa(?) Quartzite
Light-colored orthoquartzite, sparse shale. Base not exposed in Klondyke quadrangle

UNCONFORMITY

Middle Cambrian

Upper Precambrian

pCp — Pinal(?) Schist
Light-colored siltstone with rude cleavage, near Tew Ranch

Lower Precambrian

TURNBULL AND SANTA TERESA MOUNTAINS

Age relationship and relative stratigraphic position of some units unknown

Dikes and small intrusive bodies of rhyolite, quartz latite, latite, or dacite, showing dip
a, andesite or lamprophyre dikes

Ts — Santa Teresa Granite
Light-colored equigranular granite, aplitic granite, and granite dikes of the Santa Teresa Mountains

Tgc — Goodwin Canyon Quartz Monzonite
Light-colored equigranular to porphyritic quartz monzonite; some granite, granodiorite, and diorite

TKh / TKht — Horse Mountain Volcanics
TKht, *coarse-grained tuff and agglomerate near the Tenstrike mine.*
TKh, *dominantly silicic lava, tuff, and welded tuff, some andesitic lava and agglomerate. Conglomerate locally at base.*
v, *volcanic necks and vent breccia*

UNCONFORMITY

TKw — Williamson Canyon Volcanics
Massive green or gray agglomerate, tuff, and lava, dominantly andesite, of upper Williamson Canyon and Old Deer Creek

DISCONFORMITY

GcMbv / GcMbc — Buford Canyon Formation
GcMbv, *volcanic member; andesite or basalt flows and flow breccia.*
GcMbc, *conglomerate member*

UNCONFORMITY

Kp — Pinkard Formation
Gray, olive-gray, or brown graywacke, sandstone, siltstone, and shale; some quartzitic sandstone. Stippled area, tactite of Old Deer Creek and Middle Fork of Goodwin Canyon

UNCONFORMITY

IPh — Horquilla Limestone
Gray thin- to thick-bedded fine-grained fossiliferous limestone. Stippled area, tactite of Landsman Camp and Middle Fork of Goodwin Canyon

DISCONFORMITY

Me — Escabrosa Limestone
Gray thick- to thin-bedded medium- to fine-grained limestone, coarse-grained crinoidal limestone, and oolitic limestone. Stippled area, tactite of Landsman Camp

DISCONFORMITY

Dm — Martin Formation
Variegated marl, limestone, dolomite, shale, and sandstone

DISCONFORMITY

Upper Devonian

Cb — Bolsa Quartzite
Light-colored orthoquartzite and grit; basal conglomerate

UNCONFORMITY

Middle Cambrian

dia — Diabase
Dikes, sheets, and irregular masses intruding Precambrian rocks

pCgr / pCl / pCig — Laurel Canyon Granodiorite
pCgr, *siliceous granite of Laurel Canyon.*
pCl, *coarse-grained porphyritic granodiorite with large phenocrysts of pink perthite.*
pCig, *red granophyre facies*

pCpq / pCp — Pinal Schist
pCpq, *massive quartzite.*
pCp, *schistose graywacke, quartz-muscovite-chlorite schist, metavolcanic rocks, hornfels*

Upper Precambrian

Lower Precambrian

QUATERNARY
TERTIARY
CRETACEOUS OR TERTIARY
MESOZOIC AND CENOZOIC
CRETACEOUS
PENNSYLVANIAN
MISSISSIPPIAN
CARBONIFEROUS
DEVONIAN
CAMBRIAN
PRECAMBRIAN

Contact, showing dip
Dashed where approximately located; dotted where concealed

Fault, showing dip
Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side

Vertical fault

Thrust fault
In plan: T, upper plate. In section: A, relative movement away from observer; T, toward observer

Anticline
Showing trace of axial plane. Dashed where approximately located

Syncline
Showing trace of axial plane. Dashed where approximately located

Strike and dip of beds

Strike and dip of overturned beds

Strike of vertical beds

Horizontal beds

Strike and dip of flow layering in lavas and intrusive igneous rocks

Strike of vertical flow layering

Horizontal flow layering

Strike and dip of foliation in metamorphic rocks

Strike of vertical foliation

Strike and dip of joints

Strike of vertical joints

Vein showing dip

Mine

Prospect

Portal of adit

GEOLOGIC MAP AND SECTIONS OF THE KLONDYKE QUADRANGLE, GRAHAM AND PINAL COUNTIES, ARIZONA

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

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