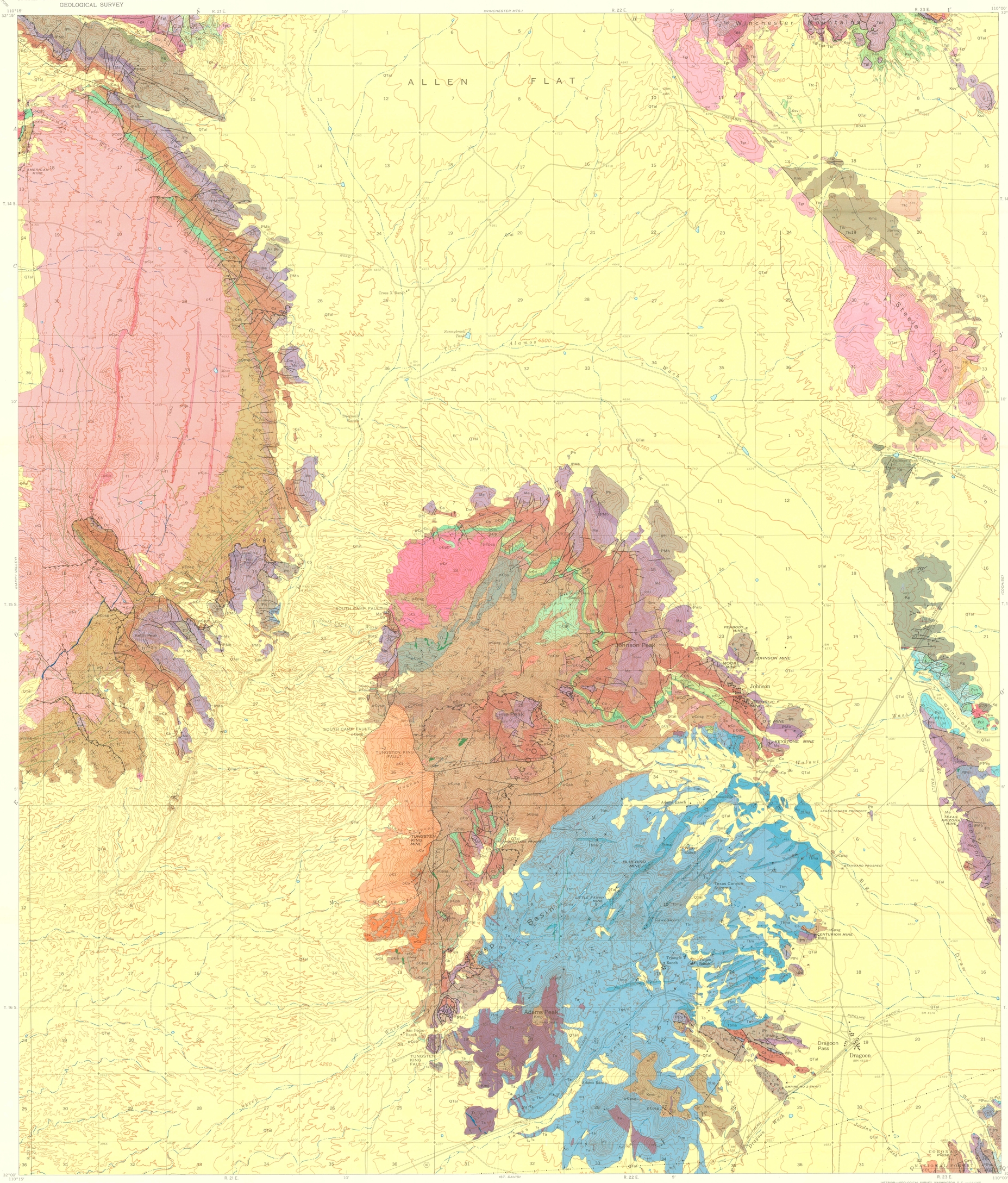

EXPLANATION

QUATERNARY

Pleistocene and Recent / *Pliocene*

QTal — Alluvium
Stream-laid conglomerate, sand, and silt with some lakebeds

UNCONFORMITY

TERTIARY

Middle Tertiary

Tgr, Tgc, Tgl, Tga — Galluro volcanics
Tgr, *rhyolite member.*
Tgc, *conglomerate member.*
Tgl, *latite member.*
Tga, *basaltic andesite member*

Tr — Rhyolite dikes, showing dip

Ttb, Tta — Threelinks conglomerate
Ttb, *basalt flows.*
Tta, *andesite flow*

UNCONFORMITY

TERTIARY(?)

Lower Tertiary(?)

Ta — Aplite
Includes some alaskite and pegmatite

Tl — Lamprophyre dikes and sills
Includes some dikes of earlier age

Ttma, Ttm — Texas Canyon quartz monzonite
Ttma, *altered phase*

UNCONFORMITY (OVERTHRUSTS)

CRETACEOUS(?)

Ksv — Undifferentiated sedimentary and volcanic rocks
Feldspathic sandstone, siltstone, and conglomerate grading upward into andesitic tuffs, breccias, and scarce lava flows

CRETACEOUS

Lower Cretaceous — Bisbee group

Kmc — Morita and Cintura formations undivided
Interbedded shale, sandstone, and a little impure limestone

Kg — Glance conglomerate
Coarse limestone conglomerate

UNCONFORMITY

TRIASSIC OR JURASSIC

JTw — Walnut Gap volcanics
Andesite and rhyolite conglomerates, pyroclastics, and subordinate flows

UNCONFORMITY

PERMIAN

Lower Permian — Naco group

Pcn — Concha limestone
Highly fossiliferous cherty limestone

Ps — Scherrer formation
Quartzitic sandstone with some limestone and red siltstone

Pe — Epitaph dolomite
Cliff-forming dolomite overlain by interbedded limestone and clastics

Pcl — Colina limestone
Black limestone

PENNSYLVANIAN

Upper Pennsylvanian — PPeu, PPel — Earp formation
Interbedded limestone, calcareous sandstone, and shale.
PPeu, *upper member.*
PPel, *lower member*

Middle Pennsylvanian — Ph — Horquilla limestone
Limestone with abundant thin beds of shale

MISSISSIPPIAN OR PENNSYLVANIAN

Upper Mississippian or Lower Pennsylvanian — PMb — Black Prince limestone
Limestone with thin shale member at base

MISSISSIPPIAN

Lower Mississippian — Me — Escabrosa limestone
Cliff-forming limestone and dolomite

DEVONIAN

Upper Devonian — Dm — Martin formation
Dolomite with some shale and sandstone

CAMBRIAN

Upper Cambrian — Ca — Abrigo formation
Shale, impure limestone, and sandy dolomite

Middle Cambrian — Cb — Bolsa quartzite
Red-brown to white quartzite

PRECAMBRIAN

UNCONFORMITY

Upper Precambrian — Apache group

pCdb — Diabase sills

pCd — Dripping Spring quartzite
Banded arkosic quartzite, including Barnes conglomerate at base

pCp — Pioneer shale
Banded purple shale on arkosic sandstone, including Scanlan conglomerate at base

UNCONFORMITY

Lower Precambrian

pCa — Aplite

pCt — Tungsten King granite
Includes granite of Precambrian age in Winchester Mountains

pCja, pCj — Johnny Lyon granodiorite
pCja, *altered phase*

pCr — Rhyolite stocks and intrusive sheets

pCps, pCpg, pCpb, pCpr, pCpsg — Pinal schist
pCps, *sericite schist.*
pCpg, *metagraywacke.*
pCpb, *metabasalt.*
pCpr, *metarhyolite flows.*
pCpsg, *interbedded sericite schist and metagraywacke, with subordinate undifferentiated rocks*

Contact, showing dip
Dashed where approximately located

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

Inferred fault

High-angle fault
U, *upthrown side;* D, *downthrown side*

Thrust fault
Sawteeth on side of upper plate

Landslide
Dashed where approximately located

Anticline
Dashed where approximately located; dotted where concealed

Syncline
Dashed where approximately located; dotted where concealed

Strike and dip of beds

Strike and dip of overturned beds

Strike and dip of flow layers

Strike and dip of schistosity

Strike and dip of schistosity and plunge of lineations

Strike of vertical schistosity and plunge of lineation

Plunge of lineation

Horizontal lineation

Strike and dip of joints carrying quartz

Strike of vertical joints carrying quartz

Strike and dip of joints carrying quartz
Showing plunge of striae

Quartz vein
Showing dip

Shaft

Portal of tunnel

Prospect pit or opencut

Base map by Topographic Division
U.S. Geological Survey, 1958

APPROXIMATE MEAN DECLINATION, 1964

GEOLOGIC MAP OF THE DRAGOON QUADRANGLE, COCHISE COUNTY, ARIZONA

SCALE 1:31 680

1 ½ 0 1 MILE

1 .5 0 1 2 KILOMETERS

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1961265

Geology by J. R. Cooper, L. T. Silver, T. W. Amsden, F. W. Farwell, A. E. Disbrow, C. T. Wrucke, J. A. Mackallor, and Kuo Wen Kuei 1944–53