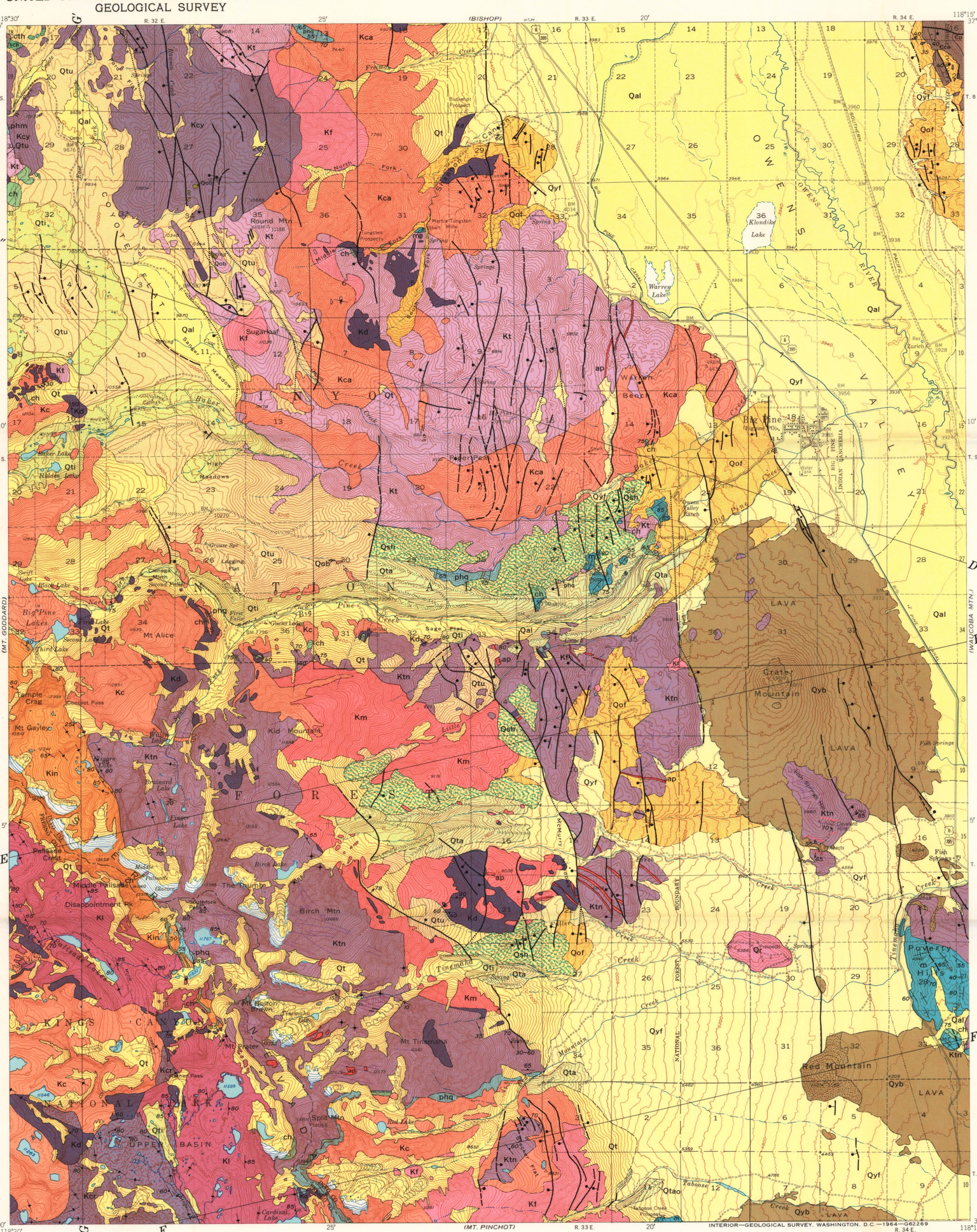

GEOLOGIC MAP OF THE BIG PINE 15-MINUTE QUADRANGLE, CALIFORNIA

SCALE 1:62 500

1 ½ 0 1 2 3 4 5 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

TRUE NORTH
MAGNETIC NORTH
16½°
APPROXIMATE MEAN DECLINATION, 1964

EXPLANATION

QUATERNARY

Recent

Qal — Alluvial fill
May be, in part, of Pleistocene age

Qt — Talus
Includes rock glaciers and Recent moraines; ridge crests shown semidiagrammatically

Qyf — Younger alluvial fan deposits
May be, in part, of Pleistocene age

Pleistocene

VOLCANIC DEPOSITS

Qyb — Basalt flows and cinder cones
Cinders shown by strippled pattern. Probably of late Pleistocene age

Qr — Rhyolite south of Big Pine
Stratigraphic position uncertain; may be of same age as Bishop tuff

Qob — Basalt dikes, necks, and dissected flows
May be of late Tertiary age

GLACIAL DEPOSITS

Qtu — Undifferentiated till
Crests of moraines and other glacial ridges shown by dotted lines

Qof — Older dissected alluvial fan and lakebed deposits
Some beds may be of late Tertiary age

Qti — Tioga till
Crests of moraines and other glacial ridges shown by dotted lines

Qta / Qtao — Tahoe till
Qtao, *deposits of older advance, delineated locally. Crests of moraines and other glacial ridges shown by dotted lines*

Qsh — Sherwin and older tills
Crests of probable morainal ridges shown by dotted lines

UNCONFORMITY

CRETACEOUS

GRANITIC ROCKS

Kcr — Granodiorite of Cartridge Pass
Concentrically zoned from quartz diorite in the margins to granodiorite in the interior

ap — Felsic dikes and masses
Chiefly aplite, pegmatite, and alaskite

Mafic dikes
Pre-Cathedral Peak; precise age uncertain

Km — Granodiorite of McMurry Meadows
Concentrically zoned from quartz diorite in the margins to quartz monzonite in the interior

Ktn — Tinemaha granodiorite

Kin — Inconsolable granodiorite

Kd — Diorite, quartz diorite, and hornblende gabbro
Includes some hybrid rocks of granodiorite composition

Kcy — Granodiorite of Coyote Flat

Kf — Finer grained quartz monzonites

Kc Kca — Rocks similar to the Cathedral Peak granite
Kc, *quartz monzonite*
Kca, *alaskite*

Kt — Tungsten Hills quartz monzonite

Kl — Lamarck granodiorite

METAMORPHIC ROCKS

METAMORPHIC ROCKS IN SMALLER MASSES

PALEOZOIC AND MESOZOIC

m — Marble

ch — Calc-hornfels

phq — Pelitic hornfels, micaceous quartzite, and schist

BISHOP CREEK PENDANT

LOWER PALEOZOIC(?)

sch — Siliceous calc-hornfels

cth — Metachert and andalusite-bearing pelitic hornfels

phm — Pelitic hornfels with interbeds of marble

MISSING INTERVAL

CAMBRIAN

SEDIMENTARY ROCKS OF THE WHITE MOUNTAINS

Lower Cambrian

Ꞓp — Poleta formation

Ꞓca — Campito formation
Andrews Mountain member

Quartz veins
Showing dip

Contact
Dashed where approximately located

High-angle fault with scarp, showing dip
Dashed where approximately located; dotted where concealed. Includes a few low-angle normal faults. Bar and ball on downthrown side

Strike and dip of beds

Strike of vertical beds

Strike and dip of primary foliation in granitic rocks

Strike of vertical primary foliation in granitic rocks

Horizontal primary foliation in granitic rocks