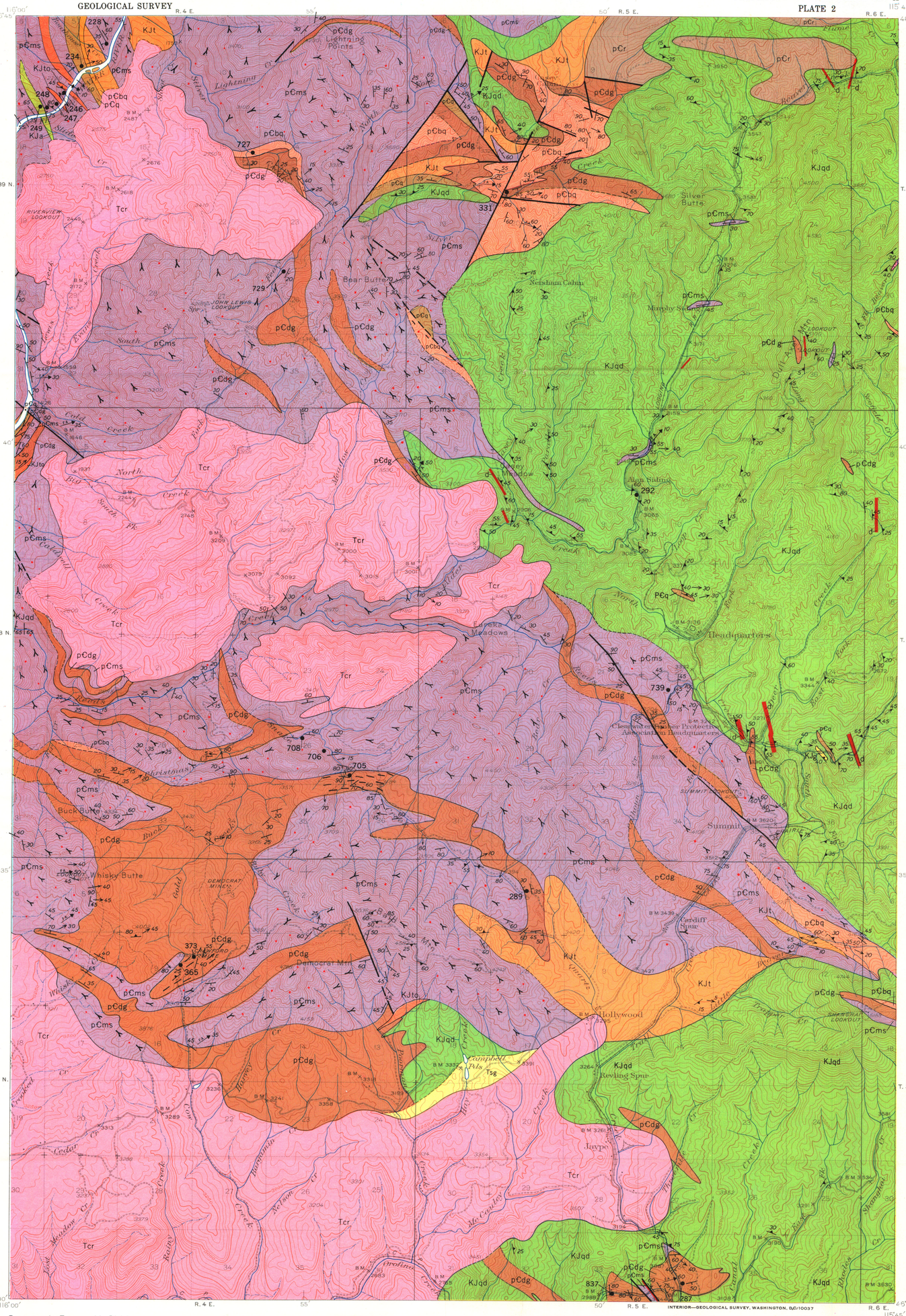

Base map by Topographic Division
U. S. Geological Survey, 1938

Geology by Anna Hietanen, 1950–53

GEOLOGIC MAP OF THE HEADQUARTERS QUADRANGLE, CLEARWATER COUNTY, IDAHO

Scale 1:48 000

1 0 1 2 3 Miles

1 0 1 2 3 4 5 Kilometers

20°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1961

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.-10037

EXPLANATION

TERTIARY (Miocene)

Tcr — Columbia River basalt

Tsg — Sand and gravel
With horizontal bedding

UNCONFORMITY

JURASSIC (?) TO TERTIARY (?)

d — Dikes
Mainly granite porphyry and lamprophyres

JURASSIC OR CRETACEOUS (Upper Jurassic or Lower Cretaceous; Intrusive and metasomatic rocks)

KJt — Tonalite
Satellitic intrusions near Idaho batholith

KJto — Tonalite
Gneissic with gradational contacts

KJqd — Quartz diorite
Border zone of the Idaho batholith (large areas in the eastern part) and satellitic intrusions

KJg — Gabbro
Medium- to coarse-grained rock with abundant hornblende

KJa — Amphibolite
Medium-grained schistose rock rich in hornblende

PRECAMBRIAN (Belt series)

St. Regis and Wallace formations

pCms — Mica schist
Coarse-grained schist with abundant biotite; lower part includes banded layers rich in plagioclase, middle part is rich in sillimanite and garnet

pCdg — Diopside-plagioclase gneiss and quartzite
Light-green medium-grained rock with layers rich in diopside and plagioclase and with local development of hornblende

pCbq — Biotite quartzite
Thin-bedded fine-grained gray quartzite with layers rich in plagioclase and/or in biotite

pCq — Quartzite
Includes beds of white granular quartzite and medium-grained quartzite with biotite

pCr — Revett quartzite
Coarse-grained thick-bedded quartzite with some biotite

Sillimanite

Garnet

Hornblende

Contact, showing dip
Dashed where approximately located

Fault
Dashed where approximately located

Plunge of fold axes

Strike and dip of beds

Strike of vertical beds

Strike and dip of foliation

Strike of vertical foliation

Bearing and plunge of lineation

Horizontal lineation

Dike, showing dip

837 Sample locality