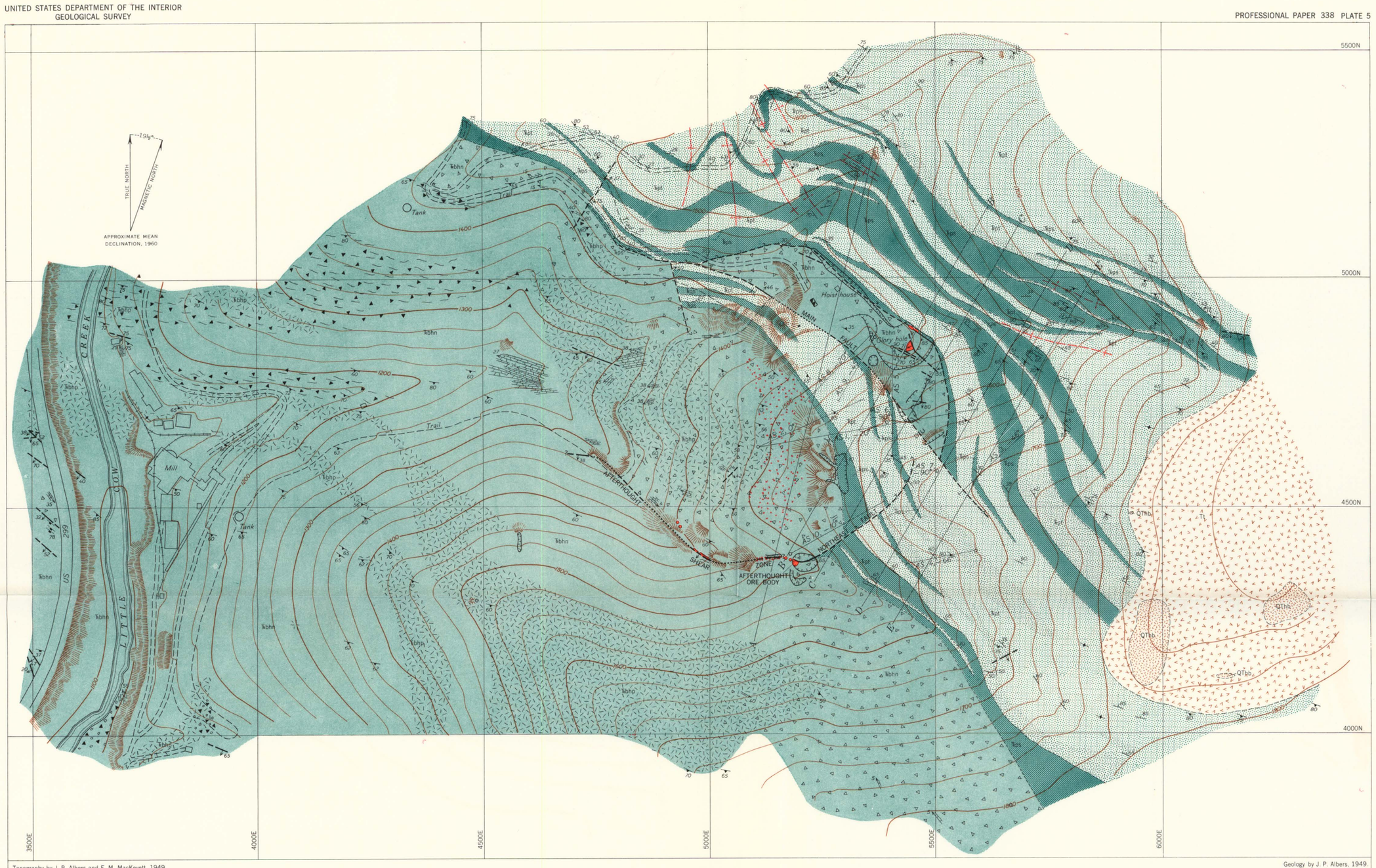
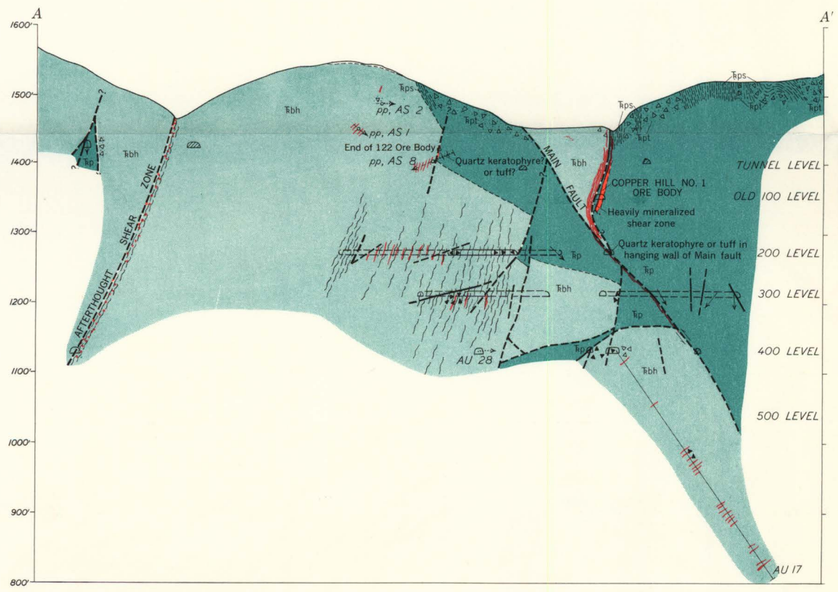
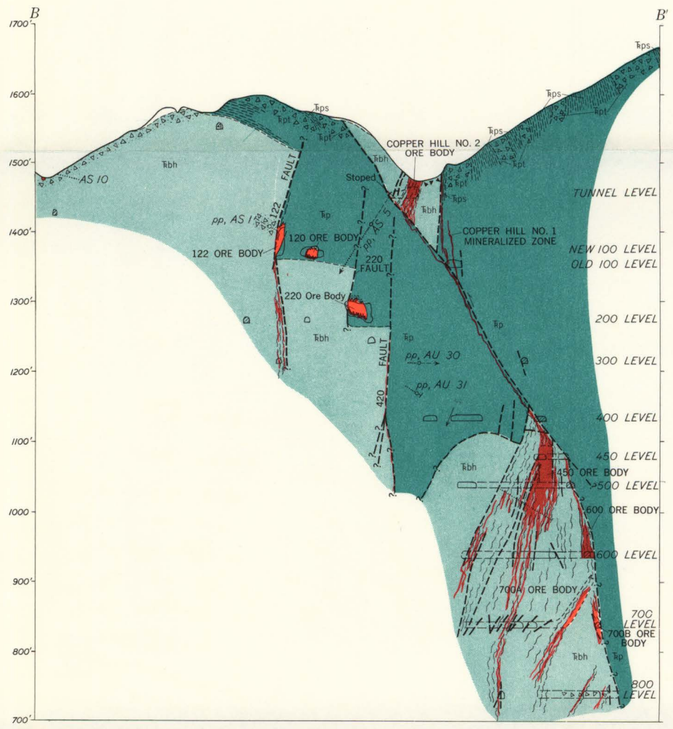
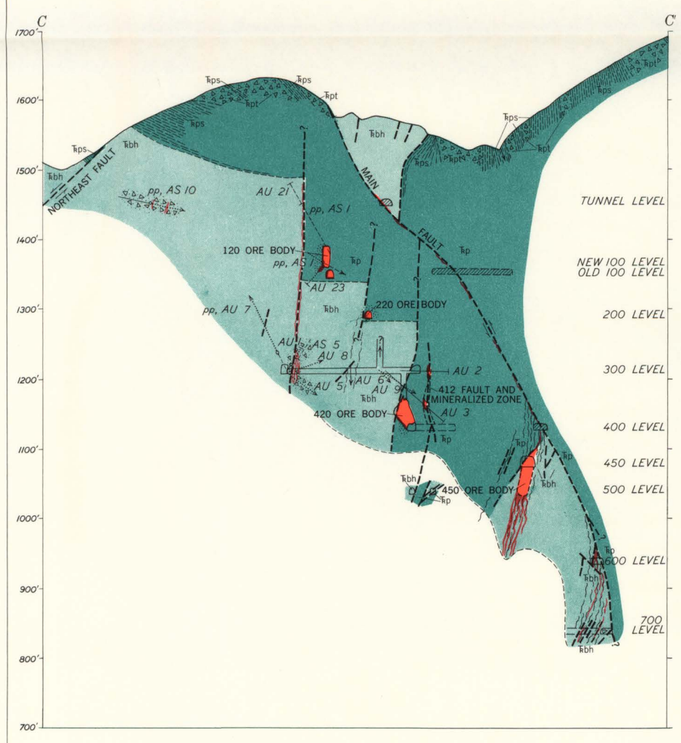


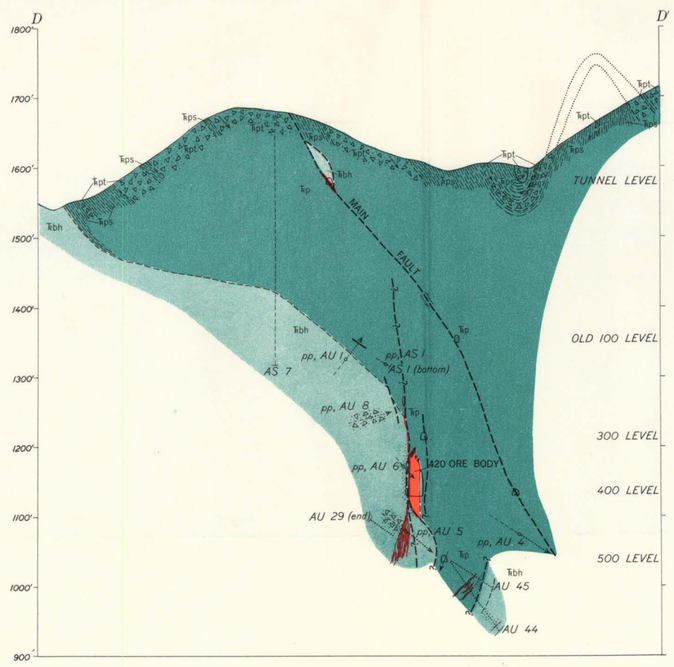
Topography by J. P. Albers and E. M. MacKevett, 1949. Coordinates are those used by the Coronado Copper and Zinc Company

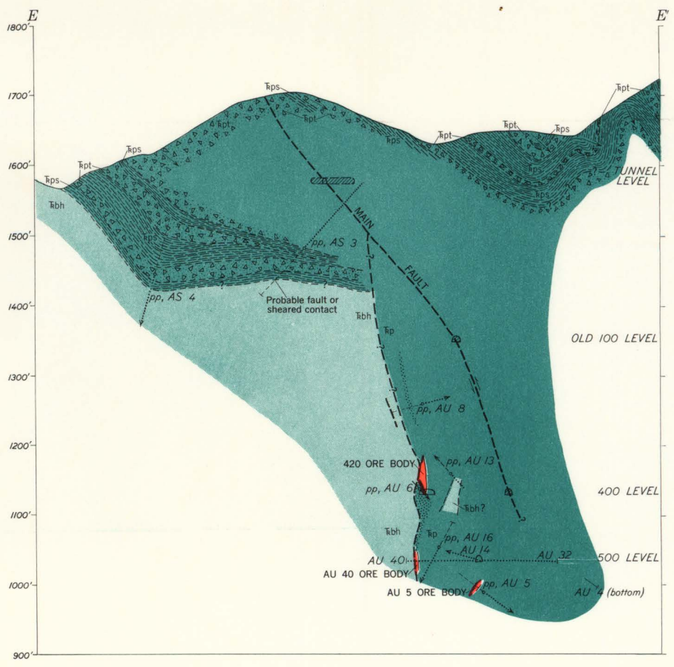
Geology by J. P. Albers, 1949.











EXPLANATION

QTbb — Hypersthene augite basalt (QUATERNARY OR TERTIARY)

UNCONFORMITY (?)

Tt — Tuscan formation: *Tuff breccia* (TERTIARY)

UNCONFORMITY

Tps, Tpt — Pit formation: Tps, *shale*, Tpt, *tuff* (TRIASSIC)

Tbhn, Tbhp — Bully Hill rhyolite: Tbhn, *nonporphyritic quartz keratophyre*; Tbhp, *porphyritic quartz keratophyre* (TRIASSIC)

STRUCTURAL VARIETIES OF BULLY HILL RHYOLITE

Applicable to porphyritic and nonporphyritic facies

- Quartz keratophyre with columnar structure
- Monolithologic breccia — *Probably derived by slight brecciation of rock with columnar structure*
- Volcanic breccia
- Tectonic shear breccia

PRODUCTS OF ALTERATION AND MINERALIZATION

- Gossan
- Disseminated pyrite or iron-stained rock
- Massive sulfide
- Calcitized rock — *Locally called lime rock*

Contact, showing dip — *Dashed where approximately located*

Indefinite or inferred contact

Concealed contact

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

Probable fault

Concealed fault

Anticline, showing crestline — *Approximately located*

Syncline, showing position of trough — *Approximately located*

Strike and dip of beds

Strike of vertical beds

Strike and dip of schistosity

Strike of vertical schistosity

Strike and dip of joints

Plunge of prismatic columns

Vertical shaft

Portal of adit

Trench or opencut

Dump

AS 4, −66° — Inclined diamond-drill hole — *Projected to horizontal*

AS 6, −90° — Vertical diamond-drill hole

SECTIONS

Pit formation — Tps, *shale*; Tpt, *tuff*; Tp, *undifferentiated*

Bully Hill rhyolite

STRUCTURAL VARIETIES OF BULLY HILL RHYOLITE

- Breccia — *Consisting of monolithologic quartz keratophyre*
- Breccia — *Consisting of quartz keratophyre fragments in a shaly matrix (puddinhead breccia)*

PRODUCTS OF ALTERATION AND MINERALIZATION

- Disseminated sulfides, mainly pyrite
- Heavily mineralized rock, but not massive sulfide
- Massive sulfide
- Calcitized rock (lime rock)

Contact — *Dashed where approximately located*

Inferred contact

Fault, showing relative movement — *Dashed where approximately located*

Probable fault

Dip of bedding

Strongly sheared or foliated rock

Mine workings cut by section

Caved or inaccessible workings

Stope — *Dashed where approximately located*

pp, AU 4 — Diamond-drill hole inclined to plane of section — *Circle indicates point at which hole pierces plane of section. Dotted line shows portion of hole in front of plane of section. Dashed line shows portion of hole behind plane of section*

Vertical diamond-drill hole — *Shown by solid line where on section, by dots where in front of plane of section, and by dashes where behind plane of section*

AU 3 — Diamond-drill hole shown by solid line in plane of section

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. M R-3311

Geology by J. P. Albers, 1951

GEOLOGIC MAP AND SECTIONS OF THE AFTERTHOUGHT MINE AREA, SHASTA COUNTY, CALIFORNIA

200 0 200 400 Feet

Contour interval 25 feet
Datum is mean sea level