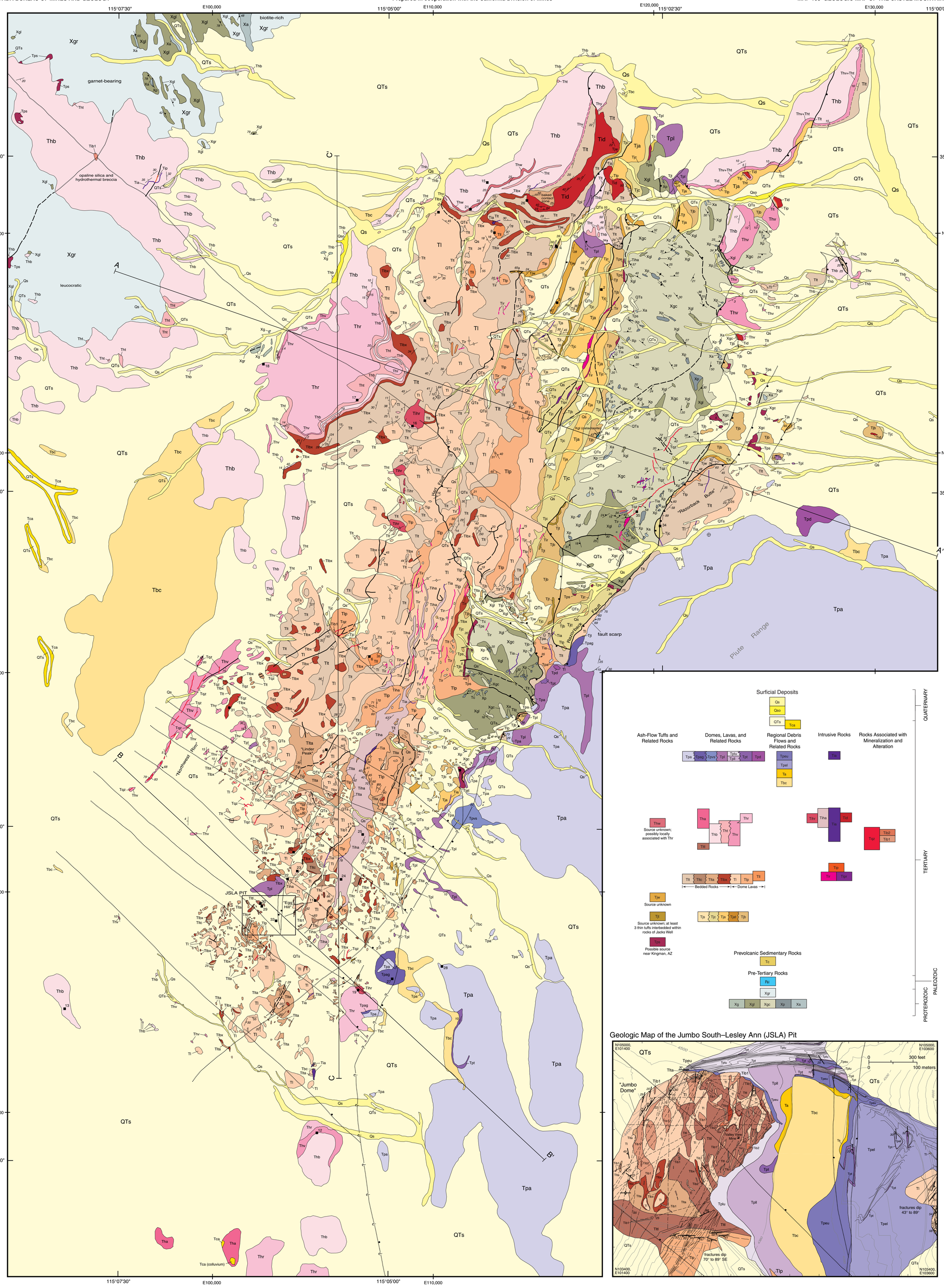
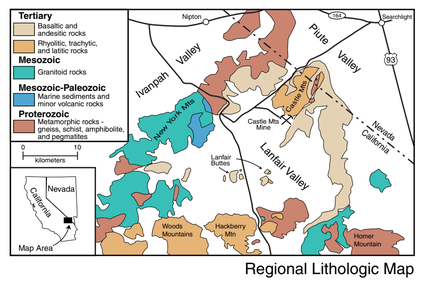




Regional Lithologic Map

QUATERNARY AND TERTIARY DEPOSITS

- Qs — Undifferentiated stream channel deposits
- Qso — Unconsolidated older stream sediment and flood deposits
- QTs — Undifferentiated unconsolidated and calichified pediment and elevated terrace sediments and colluvium
- Tca — Carbonate deposits

TERTIARY ROCKS ASSOCIATED WITH AREAS OF MINERALIZATION AND ALTERATION

- Tqz — Quartz veins

Hydrothermal Breccia

- Tib2 — Late
- Tib1 — Early

TERTIARY INTRUSIVE ROCKS

- Tid — Diorite sills and dikes
- Tia — Andesite and mafic dikes and plugs
- Tip — Pyroclastic dikes and sills
- Tir — Phenocryst-poor rhyolite dikes
- Tipr — Porphyritic rhyolite dikes

TERTIARY PIUTE RANGE VOLCANIC ROCKS (PRV)

- Tpa — Trachyandesite flows
- Tpag — Andesitic agglomerate and volcanic breccia
- Tpd — Dacite
- Tpvs — Volcaniclastic rocks
- Tpl — Lahars, debris flows, mudflows, and epiclastic rocks
- Tplu — Upper lahars (see JSLA pit map)
- Tpll — Lower lahars (see JSLA pit map)
- Tpeu — Upper Egg Hill debris flows (see JSLA pit map)
- Tpel — Lower Egg Hill debris flows (see JSLA pit map)
- Tpt — Rhyolite tuff

TERTIARY BOULDER CONGLOMERATE AND RELATED ROCKS

- Tbc — Boulder conglomerate
- Ta — Arkose (see JSLA pit map)

TERTIARY CASTLE MOUNTAINS VOLCANIC SEQUENCE (CMV)

Rocks of Hart Peak

- Tha — Trachyandesite and trachydacite flows and domes
- Tiha — Trachyandesite and trachydacite dikes and sills
- Thr — Rhyolite flows
- Tihr — Rhyolite intrusions
- Thw — Welded rhyolite ash-flow tuff
- Thb — Basalt and trachyandesite
- Tht — Poorly welded rhyolite tuff
- Thv — Volcaniclastic rocks

Rocks of Linder Peak

- Tlt — Rhyolite pyroclastic-surge tuff and volcaniclastic rocks
  - Tltc — Cognate-lithic dominant
  - Tlta — Accidental-lithic dominant
  - Tltl — Leached-clast bearing vent breccia
- Tlbx — Rhyolite autoclastic breccias, dome-related block and ash flows, and blocky pumice flows
- Tl — Phenocryst-poor rhyolite
- Tlp — Phenocryst-rich rhyolite
- Tll — Late phenocryst-poor rhyolite

Rocks of Jacks Well

- Tjw — Phenocryst-rich welded rhyolite ash-flow tuff
- Tjs — Arkose, mudstone, claystone, and gravel
- Tja — Trachyandesite and minor basalt flows
- Tjc — Epiclastic rocks, debris flows, lahars, mudflows, and minor andesitic flow rocks
- Tjt — Poorly welded rhyolite tuff
- Tjat — Andesitic lithic tuff breccia
- Tjb — Basalt and basaltic-andesite flows

PEACH SPRINGS TUFF

- Tps — Peach Springs Tuff

PREVOLCANIC SEDIMENTARY ROCKS

- Tc — Prevolcanic sedimentary rocks

PALEOZOIC ROCKS

- Pzl — Paleozoic limestone

PROTEROZOIC ROCKS

- Xgr — Granite
- Xa — Amphibolite
- Xp — Pegmatite and alaskite
- Xg — Gneiss
  - Xgl — Well developed schistosity
  - Xgc — Poorly developed schistosity

Contact Dashed where approximately located.

Normal fault Showing dip and lineations (defined by slickensides); ball on downthrown side; dashed where approximately located, dotted where concealed, queried where uncertain. On cross sections only, arrows show sense of displacement.

Fractures Showing dip; dashed where approximately located. See JSLA pit map.

Strike and dip of beds or compaction foliation in ash-flow tuff

Inclined Vertical Horizontal

Strike and dip of flow foliation in igneous rocks

Inclined Vertical

Strike and dip of foliation in Proterozoic metamorphic rocks

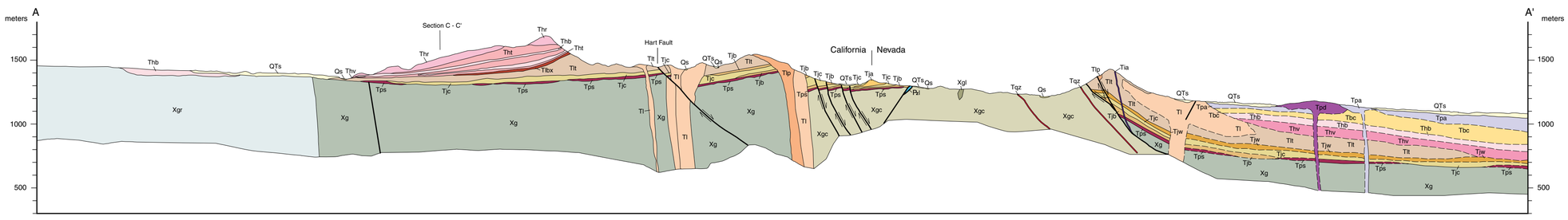
Inclined Vertical

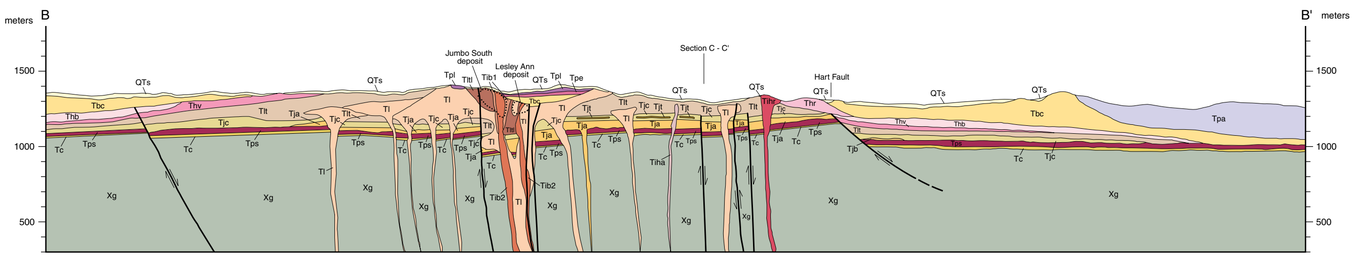
Strike and dip of joint

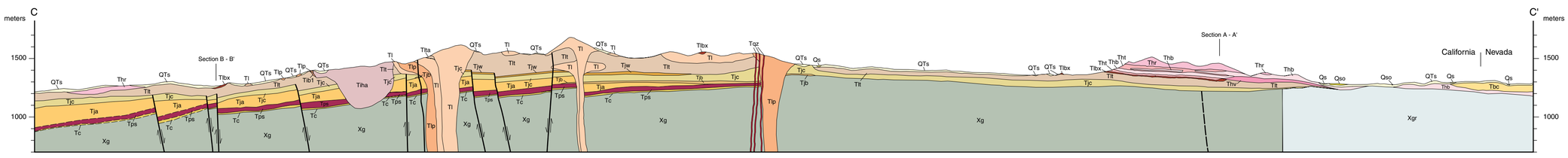
Inclined

Sample location for age analysis

Geologic Map of the Jumbo South–Lesley Ann (JSLA) Pit







Scale 1:24,000

0 0.5 1 kilometer

0 0.5 1 mile

0 1000 2000 3000 4000 5000 feet

CONTOUR INTERVAL 10 METERS

Base map: U.S. Geological Survey 7.5' Quadrangles, Crescent Peak, 1984, Hopps Well, 1984, Castle Peaks, 1984, Hart Peak,1984, Grotto Hills, 1984, and East of Grotto Hills, 1984.

See accompanying text for references and a discussion of the geology and gold mineralization of the Castle Mountains.

GEOLOGIC MAP OF THE CASTLE MOUNTAINS, SAN BERNARDINO COUNTY, CALIFORNIA AND CLARK COUNTY, NEVADA

Richard C. Capps

1997

Field work done from 1987 to 1994.

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