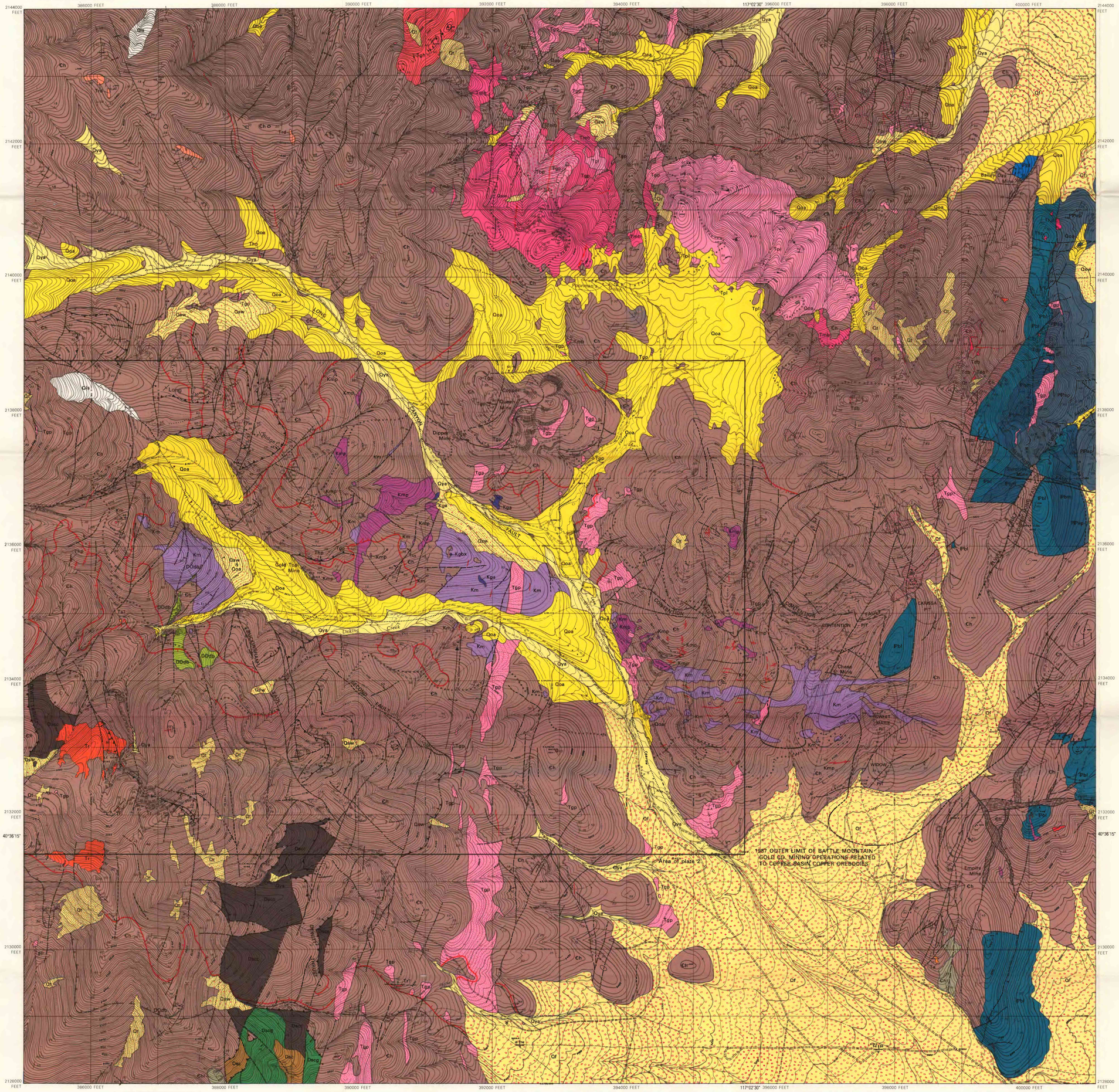
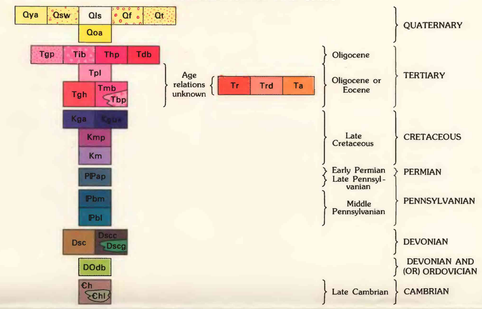
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PROFESSIONAL PAPER 798-D
PLATE 1



CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- **Qya** Younger alluvium (Quaternary)
- **Qsw** Slopewash deposits (Quaternary)
- **Qls** Landslide deposits (Quaternary)
- **Qf** Fanglomerate deposits (Quaternary)
- **Qt** Talus (Quaternary)
- **Qoa** Older alluvium (Quaternary)
- **Tgp** Granodiorite porphyry (Oligocene)
- **Tib** Intrusion breccia (Oligocene)
- **Thp** Altered hornblende porphyry (Oligocene)
- **Tdb** Diabase (Oligocene)
- **Tpl** Porphyritic leucogranite (Oligocene or Eocene)
- **Tgh** Granodiorite of Hill 6010 (Oligocene)
- **Tmb** Biotite-hornblende monzogranite of Bluff area (Oligocene or Eocene)
- **Tbp** Breccia pipe of Bluff area (Oligocene or Eocene)
- **Tr** Rhyolite (Oligocene or Eocene)
- **Trd** Rhyodacite (Oligocene or Eocene)
- **Ta** Andesite (Oligocene or Eocene)
- **Kga** Aplite (Late Cretaceous)
- **Kgbx** Granite breccia pipe (Late Cretaceous)
- **Kmp** Megacryst porphyry (Late Cretaceous)
- **Km** Monzogranite porphyry (Late Cretaceous)
- **PPap** Antler Peak Limestone (Early Permian and Late Pennsylvanian)
- **PPbm** Battle Formation (Middle Pennsylvanian) Middle member
- **PPbl** Lower member
- **Dsc** Scott Canyon Formation (Devonian)—Greenstone, chert, argillite, limestone, and shale. Locally divided into:
  - **Dscc** Chert and argillite—Also includes minor greenstone
  - **Dscg** Greenstone—Also includes minor chert and argillite
- **DOdb** Diabase (Devonian and (or) Ordovician)
- **Ch** Harmony Formation (Cambrian)—Mostly feldspathic sandstone and quartz arenite; marker beds of pebbly quartzite shown as series of dots. Locally includes:
  - **Chl** Limestone

Contact—Queried where uncertain

Faults—Showing dip. Long dashed where approximately located; short dashed where inferred; queried where uncertain; dotted where concealed
- Normal—Bar and ball on downdropped block
- Thrust—Sawteeth on upper plate
- Glide—Sawteeth on upper plate
- Fault breccia

Dikes
- Porphyritic leucogranite (Tpl)
- Granodiorite porphyry (Tgp)
- Intrusive hornblende porphyry (Thp)
- Biotite hornblende monzogranite of Bluff area (Tmb)
- Intrusive aplite (Kga)
- Megacryst porphyry (Kmp)
- Granodiorite of Hill 6010 (Tgh)
- Diabase (Tdb)
- Monzogranite porphyry (Km) of granitic complex of the Buckingham Camp area

Quartz vein

Approximate location of outer limit of epigenetic alteration shown by recrystallization of feldspathic sandstone and quartz arenite of the Harmony Formation to biotite hornfels—Hachures on side of altered rock; queried where uncertain

Approximate location of outer limit of pyritic alteration visible in outcrop—Hachured in direction of alteration

Outer limit of abundant quartz stockworks—Queried where concealed

Skarn

Strike and dip of bedding
- Inclined, facing generally not known
- Vertical
- Overturned
- Horizontal

Joints
- Inclined
- Vertical

Folds—Showing trace of axial plane and plunge of axis. Long dashed where approximately located; short dashed where inferred; queried where uncertain
- Anticline
- Syncline
- Overturned anticline
- Overturned syncline
- Minor anticline
- Minor small fold
- Minor overturned fold, showing trend and plunge

Strike and dip of dominant set of quartz veins
- Inclined
- Vertical

Open cut

Mine dump

Pit boundary

Base from Aerial Mapping Co., Boise, Idaho, for Duval Corporation, 1962
1,000-foot Universal Transverse Mercator grid from 10,000-foot state grid ticks, Nevada central zone

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1992

APPROXIMATE MEAN DECLINATION, 1992

0 1000 2000 3000 FEET
0 250 500 750 METERS
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

NEVADA
AREA OF MAP

Geology by T.G. Theodore, 1978-81; modified from Tippett (1967) in area of mining operations related to Copper Basin orebodies; modified from Kirk Schmidt (written commun., 1986) in area of Surprise Mine

GEOLOGY OF THE BUCKINGHAM STOCKWORK MOLYBDENUM DEPOSIT AND SURROUNDING AREA, LANDER COUNTY, NEVADA

By
Ted G. Theodore

1992

Theodore, T.G., Blake, D.W., Loucks, T.A., and Johnson, C.A., 1992, Geology of the Buckingham stockwork molybdenum deposit and surrounding area, Lander County, Nevada
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