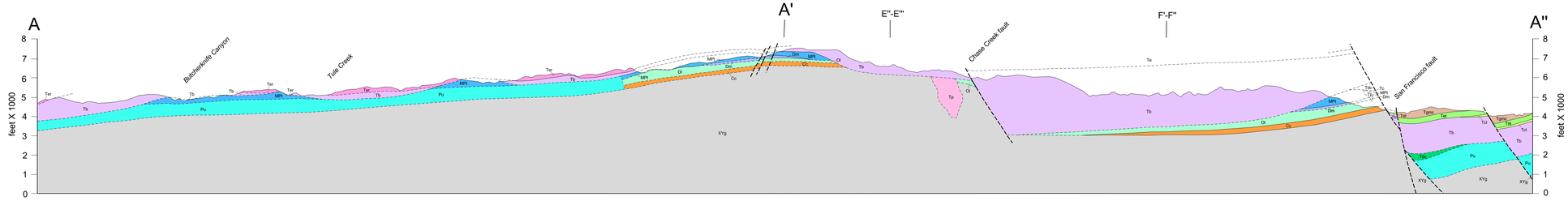

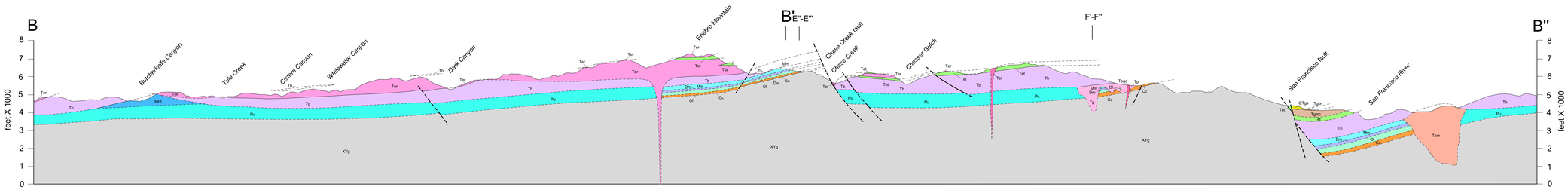

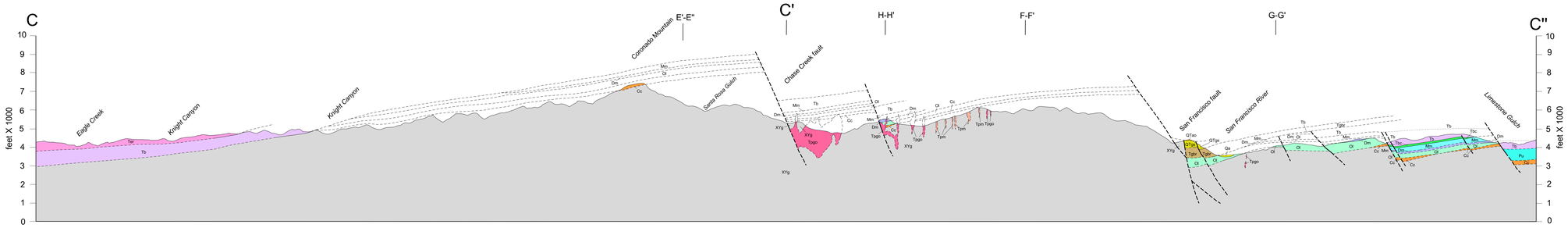

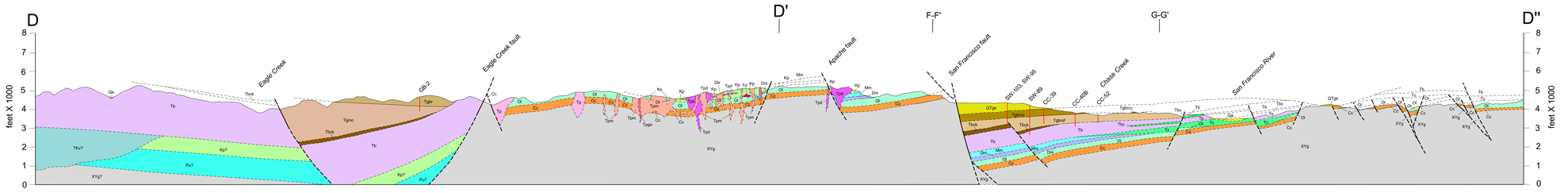

Geologic map and cross sections of the Clifton-Morenci area, Greenlee County, Arizona

Cross sections A-A'', B-B'', C-C'', and D-D''

compiled by
Charles A. Ferguson[1], and M. Stephen Enders[2]
August, 2000

Arizona Geological Survey Digital Geologic Map 1

digital cartography by
Charles A. Ferguson[1] and Tim R. Orr[1]

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2 Phelps Dodge Morenci, Inc., 4521 Highway 191, Morenci, Arizona 85540

Geologic Map Units

QUATERNARY
- Qa — Alluvium

QUATERNARY AND TERTIARY
- QTao — Older alluvial deposits

QUATERNARY AND TERTIARY GILA GROUP
- QTgs — Unit of Smuggler Canyon (Gila Group)
- Tgbr — Unit of Buzzard Roost Canyon (Gila Group)
- Tgbrcc — Unit of Buzzard Roost Canyon, Chase Creek facies (Gila Group)
- Tgbrsf — Unit of Buzzard Roost Canyon, San Francisco facies (Gila Group)
- Tgmc — Conglomerate of Midnight Canyon (Gila Group)

TERTIARY UNITS OLDER THAN THE GILA GROUP
- Tbck — Conglomerate of Bonita Creek
- Te — Enebro Mountain Formation
- Tet — Enebro Mountain Formation, nonwelded tuff
- Ter — Enebro Mountain Formation, lava
- Tei — Enebro Mountain Formation, intrusive
- Tb — Basaltic andesite, undivided
- Tbc — Bloodgood Canyon Tuff
- Tcs — Crystal-poor ash-flow tuff
- Tcl — Lower conglomerate
- Tc — Clifton Tuff

PALEOCENE AND EOCENE INTRUSIVE ROCKS
- Tp — Porphyry, undivided
- Tpgo — Older granite porphyry, undivided
- Td — Diabase
- Tpm — Monzonite porphyry
- Tpd — Diorite porphyry

MESOZOIC AND TERTIARY
- TKv — Volcanic and hypabyssal rocks, undivided

MESOZOIC
- Kp — Pinkard Formation

PALEOZOIC
- Pu — Paleozoic, undivided
- MPt — Tule Springs Formation
- Mm — Modoc Formation
- Dm — Morenci Formation
- Ol — Longfellow Formation
- Cc — Coronado Quartzite

EARLY OR MIDDLE PROTEROZOIC
- XYg — Granite

Geologic Map Symbols

- Contact; dashed where location approximate or projected
- High angle fault; dashed where location approximate or projected, dotted where concealed
- Boundary between changes in stratigraphic nomenclature
- Intraformational contact
- Tbx — Geologic unit label with text lead-in line
- SW-73 — Drill hole profile with ID
- B-B' — Location of intersecting cross section with label

1 0 1 Miles
1000 0 1000 2000 3000 4000 5000 6000 7000 Feet
1 0 1 Kilometers

Arizona Geological Survey
Digital Geologic Map 1 (DGM-01), plate 2 of 3