STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
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Geology and Mineral Resources Map of the Cleveland Ridge Quadrangle, Jackson County, Oregon

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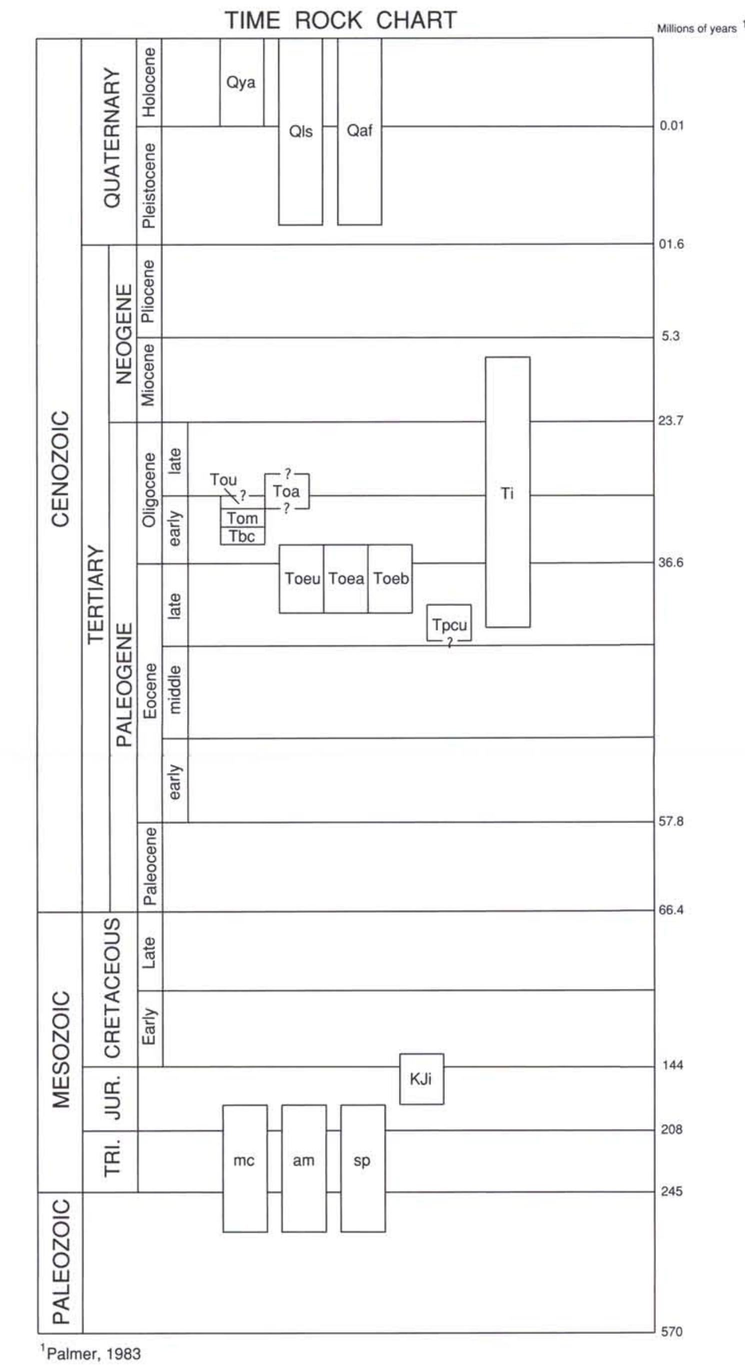
By Thomas J. Wiley

Plate 1

TIME ROCK CHART



[1]Palmer, 1983

EXPLANATION

QUATERNARY DEPOSITS

- **Qya** Young alluvium (Holocene)
- **Qaf** Alluvial fan (Holocene and Pleistocene)
- **Qls** Landslide deposits (Holocene and Pleistocene)

ANGULAR UNCONFORMITY

TERTIARY (PALEOGENE) SEDIMENTARY AND VOLCANIC ROCKS

- **Tou** Volcanic and volcanogenic rocks, undivided (lower Oligocene)
- **Toa** Andesite
- **Tom** Tuff of Mosser Mountain of Hladky (1992) (lower Oligocene)
- **Tbc** Tuff of Bond Creek of Smith and others (1982) (lower Oligocene)
- **Toeu** Volcanic and volcanogenic rocks, undivided (lower Oligocene to upper Eocene?)
- **Toeb** Basalt (lower Oligocene to upper Eocene?)
- **Toea** Andesite (lower Oligocene to upper Eocene?)
- **Tpcu** Payne Cliffs Formation of McKnight (1984, 1971), upper part (upper Eocene)

ANGULAR UNCONFORMITY

JURASSIC OR OLDER METAMORPHIC ROCKS

- **mc** May Creek Schist of Donato (1991) (Jurassic or older)
- **am** Amphibolite (Jurassic or older)
- **sp** Serpentinite (Jurassic or older)

INTRUSIVE ROCKS

- **Ti** Dikes and intrusive bodies (Tertiary)
- **KJi** Intrusive rocks (Cretaceous and Jurassic)

MAP SYMBOLS

- Contact—Approximately located; bar indicates dip
- Fault—Dashed where approximately located; dotted where inferred; ball and bar on downthrown side.
- 25 Strike and dip of beds
- 25 Strike and dip of beds (approximate)
- ⊕ Horizontal bed
- 44 Strike and dip of foliation
- 25 Strike and dip of foliation and plunge of lineation
- 25 Strike and dip of joints
- Strike of vertical joints
- Syncline—Dashed where approximately located
- 25 Minor folds—Direction of plunge of hinge line
- Altered zone—Contains exotic limonite or silica or exhibits argillic alteration. Located adjacent to intrusions and basaltic dikes, along brecciated or slickensided shear zones, and along pre-Tertiary unconformity
- ▲19 Geochemical analysis, sample location, and map number (Tables 1 and 2, Plate 2)
- ⚒H Mine or prospect site, map letter, (Table 3, Plate 2)
- q Vein quartz
- j Jasperoid
- s Sulfide mineralization
- c Chlorite
- e Epidote
- xxx Basal vitrophyre

Geologic cross section patterns

- Amphibolite foliation, unit **am**
- Mica-quartz schist foliation, unit **mc**
- Sedimentary bedding, unit **Tpcu**

Base map by U.S. Geological Survey

COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1976
FIELD CHECKED .... 1977 MAP EDITED 1983
PROJECTION .... LAMBERT CONFORMAL CONIC
GRID: 1000-METER UNIVERSAL TRANSVERSE MERCATOR .... ZONE 10
10,000-FOOT STATE GRID TICKS .... OREGON, SOUTH ZONE
UTM GRID DECLINATION .... 0°03' EAST
1980 MAGNETIC NORTH DECLINATION .... 18°30' EAST
VERTICAL DATUM .. NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM .... 1927 NORTH AMERICAN DATUM

To place on the predicted North American Datum of 1983, move the projection lines as shown by dashed corner ticks (21 meters north / 95 meters east)

There may be private inholdings within the boundaries of any Federal and State Reservations shown on this map

NORTH

SCALE 1:24 000

KILOMETERS 1 .5 0 1 2
METERS 1000 0 1000 2000
MILES 1 .5 0 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000

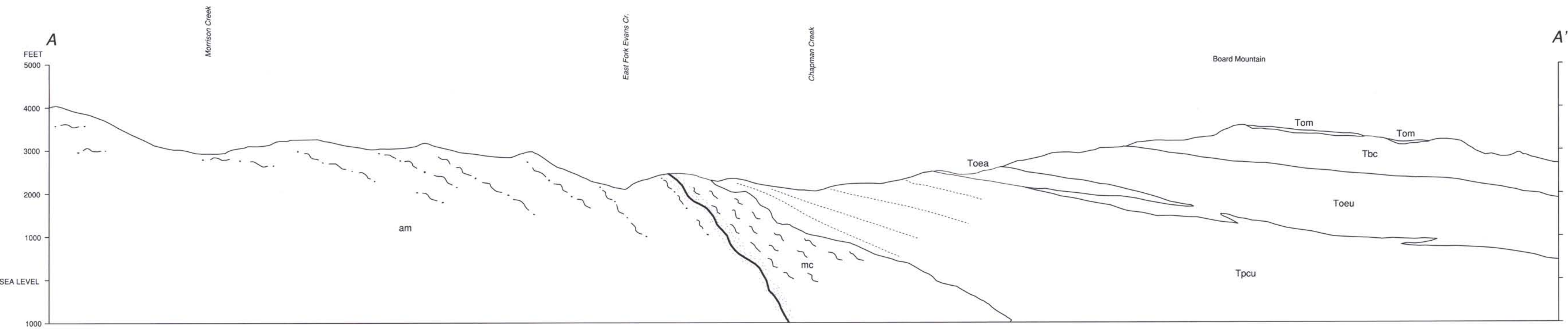
CONTOUR INTERVAL 40 FEET

OREGON
QUADRANGLE LOCATION

Geology by Thomas J. Wiley, Oregon Department of Geology and Mineral Industries

Fieldwork completed in 1991

Reviewed by Mary M. Donato, U.S. Geological Survey

Cartography by Paul E. Staub

GEOLOGIC CROSS SECTION