PRELIMINARY GEOLOGIC MAP OF THE OCHOCO RESERVOIR 7 ½' QUADRANGLE, CROOK COUNTY, OREGON

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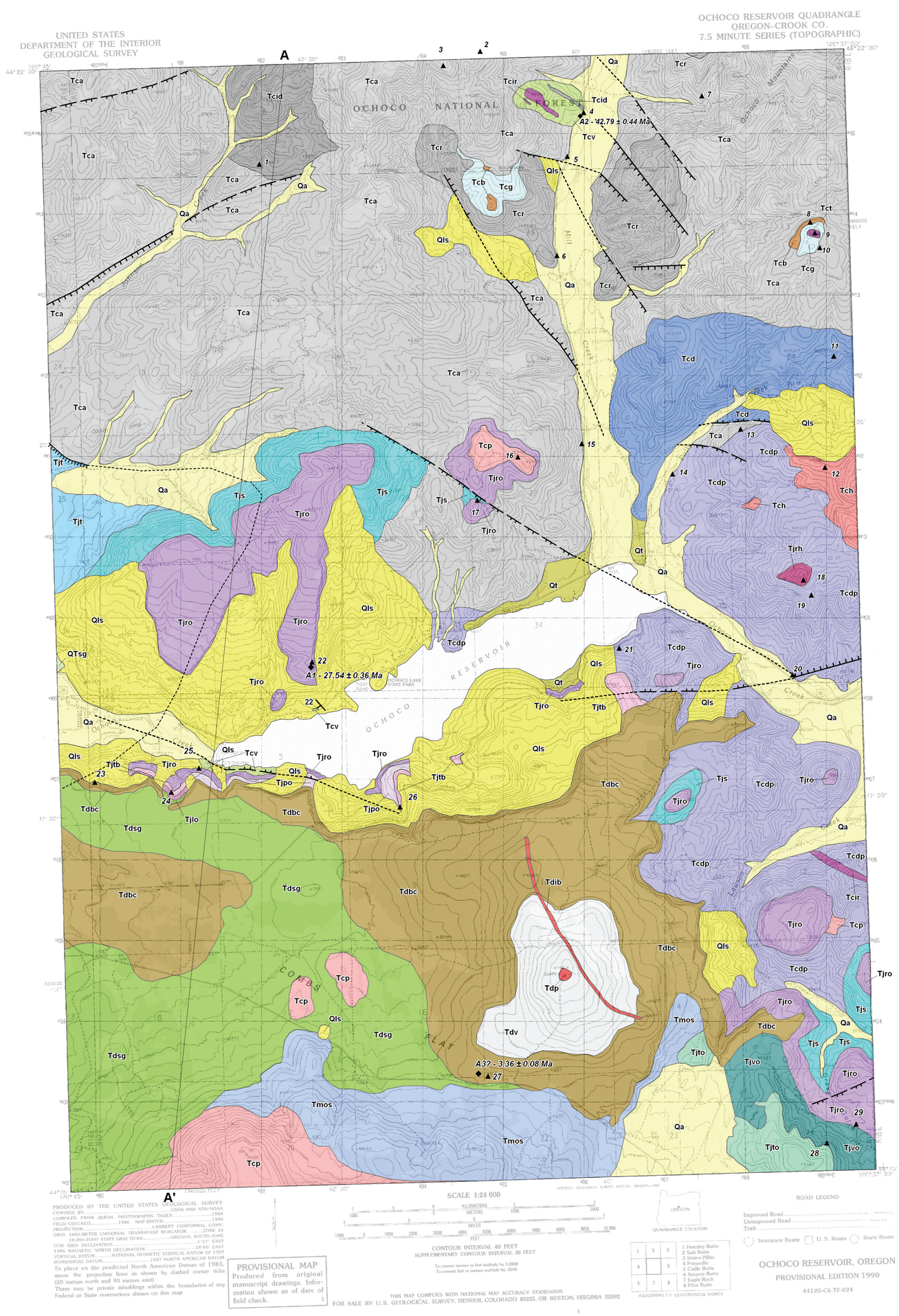
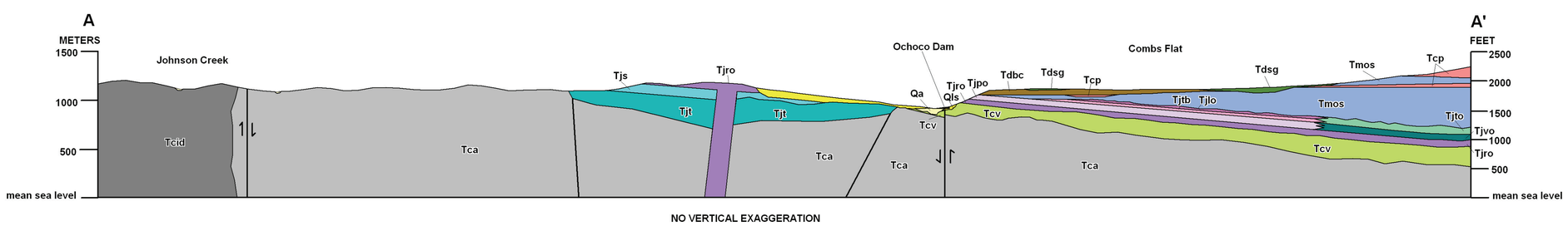
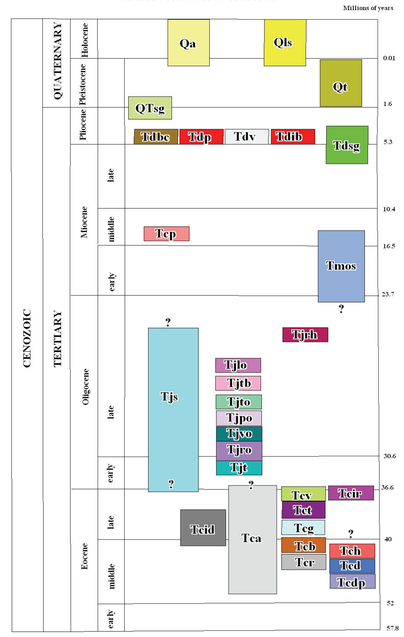
DRAFT





TIME ROCK CHART



After Berggren and others, 1985 and Kent and Gradstein, 1985

EXPLANATION OF MAP UNITS

(full descriptions of units in accompanying text)

Surficial Deposits

- Qa — Stream alluvium (Holocene and Pleistocene)
- Qls — Landslide deposits (Holocene and Pleistocene)
- Qt — Terrace deposits (Pleistocene)

Tertiary volcanics and sedimentary rocks

- QTsg — Stratified sedimentary rocks (Pleistocene? to Pliocene)

Deschutes Formation (Pliocene and late Miocene), Td - subdivided into:

- Tdsg — Sand and gravel (Pliocene or late Miocene?)
- Tdbc — Basalt of Combs Flat (Pliocene)
- Tdp — Pyroclastic rocks (Pliocene)
- Tdib — Basalt feeder dike (Pliocene)
- Tdv — Basalt vent (Pliocene)
- Tcp — Prineville Basalt (middle Miocene)
- Tmos — Tuffaceous sedimentary rocks (middle Miocene to late Oligocene?)

John Day Formation (early Miocene? and Oligocene), Tj - subdivided into:

- Tjrh — Rhyolite of Hi-Tor Butte (late Oligocene)
- Tjlo — Pumice-lapilli tuff (late Oligocene)
- Tjtb — Welded ash-tuff of Barnes Butte (late Oligocene)
- Tjto — Welded ash tuff (late Oligocene)
- Tjpo — Pumice-ash tuff (late Oligocene)
- Tjvo — Vitric tuff and pumice-lapilli tuff (late Oligocene)
- Tjro — Rhyolite of Ochoco Reservoir (late Oligocene)
- Tjs — Tuffaceous sedimentary rocks and tuff (late Oligocene)
- Tjt — Pumice-lapilli tuff (late Oligocene)

Clarno Formation (Eocene), Tc - subdivided into:

- Tct — White ash-tuff (Eocene to early Oligocene?)
- Tcg — Conglomerate (Eocene to early Oligocene?)
- Tcb — Basalt of Mahogany Butte (Eocene to early Oligocene?)
- Tcv — Volcaniclastic rocks (Eocene)
- Tch — Hornblende-phyric dacite (Eocene)
- Tcid — Aphyric dacite (Eocene)
- Tcdp — Dacite porphyry (Eocene)
- Tcr — Rhyolite (Eocene)
- Tca — Dacite and andesite lava flows (Eocene)
- Tcrd — Dacite intrusions (Eocene)
- Tcrp — Rhyolite intrusions (Eocene)

EXPLANATION OF MAP SYMBOLS

- Geologic contact – approximately located
- Inclined bedding – showing measured strike and dip
- Fault, approximately located; dashed where inferred, dotted where concealed. Hachures indicate downdropped side
- Caldera margin, approximately located; dotted where concealed by younger deposits
- ▲ 4 — Geochemical sample locality – see Table 1.1 in accompanying text
- ◆ A1 - 27.54 ± 0.36 Ma — Radiometric age-date sample locality – see Table 1.2 in accompanying text