ABBREVIATED EXPLANATION

Approximate stratigraphic relationships only; see pamphlet for more detailed information.
Radiometric age and corresponding map number in brackets; see Tables 1 and 2 in pamphlet.

QUATERNARY

HOLOCENE

Alluvium and related deposits; glacial deposits

- Qa — Recent alluvium
- Qc — Colluvium
- Ql — Lacustrine deposits
- Qsd — Sand dunes
- Qoa — Older alluvium
- Qc+d — Colluvium and glacial drift
- Qf — Fan deposits
- Qls — Landslide deposits
- Qt — Talus

PLEISTOCENE

Tioga glacial deposits:

- Qti — Qti - Till
- Qtio — Qtio - Outwash deposits
- Qtip — Qtip - Ponded deposits

Tahoe glacial deposits:

- Qta — Qta - Till
- Qtao — Qtao - Outwash deposits
- Qol — Older lacustrine deposits

Donner Lake glacial deposits (Birkeland, 1964):

- Qd — Qd - Drift
- Qdo — Qdo - Outwash deposits

CENOZOIC

TERTIARY

Truckee River Formation

- QTcc — Cinder cone deposits
- QTttt — Trachyandesite flows of Tahoe City [0.92 Ma]
- QTttb — Tahoe City basalt [0.92 Ma]
- QTtdc — Trachybasaltic andesite flow of Deer Creek
- QTtlf — Olivine basalt of Lake Forest
- QTtjf — Juniper Flat alluvium (Birkeland, 1963)
- QTtpc — Prosser Creek alluvium (Birkeland, 1963)
- QTth — Hirschdale basalt (Birkeland, 1963) [1.3 Ma, #102]

Trachyandesite and dacite flows and domes of Dry Lake (Birkeland, 1963):

- $QTtdl_4$ — $QTtdl_4$ - Unit 4, youngest
- $QTtdl_3$ — $QTtdl_3$ - Unit 3
- $QTtdl_2$ — $QTtdl_2$ - Unit 2 [1.35 Ma, #134]
- $QTtdl_1$ — $QTtdl_1$ - Unit 1, oldest
- QTtbm — Bald Mountain basalt (Birkeland, 1963) [1.41 Ma, #129]
- QTtob — Olivine basalt flows, undivided
- QTtpm — Olivine basalt flows of Page Meadow
- QTtp — Olivine basalt flows of Polaris [1.7 Ma, #103]
- QTtbc — Olivine basalt flows of Burton Creek

PLIOCENE

- QTtca — Fluvial sand and gravel of Cabin Creek
- QTtah — Olivine basalt of Alder Hill (Birkeland, 1963) [2.4 Ma, #106]
- QTtab — Trachyandesite flows of Agate Bay
- QTttr — Volcaniclastic rocks of Skylandia
- QTtcf — Trachyandesite flows of Cedar Flat
- QTtap — Trachyandesite plug
- QTtfc — Fir Crags gravel (Birkeland, 1963)

Mehrten Formation

Squaw Peak member

- Tsb — Basalt flows [4.0 Ma, #109]
- Tsba — Basaltic andesite flows
- Tsi — Andesitic intrusions, plugs, and dikes
- Tsd — Diabase intrusion
- Tsbhai — Biotite-hornblende andesite intrusions
- Tsbha — Biotite-hornblende andesite domes and flows [3.4 to 3.75 Ma, #135 and 136]
- Tsblt — Block and lapilli tuff breccia of Mt. Disney
- Tss — Stratified volcaniclastic deposits
- Tsp — Volcaniclastic deposits, undivided
- Tspa — Pyroxene andesite flows
- Tsha — Hornblende andesite flows

MIOCENE

Martis Peak member

- Tma — Aphyric or microporphyritic andesite lava flows
- Tmi — Andesitic intrusions, plugs, and dikes
- Tmp — Andesitic volcaniclastic deposits [6.36 Ma, #138]
- Tmba — Basaltic andesite flows
- Tmpa — Pyroxene andesite flows
- Tmha — Hornblende andesite flows
- Tmhai — Hornblende andesite intrusion [6.32 Ma, #137]

Mt. Lincoln member

- Tlb — Basalt lava flows [7.6 Ma, #115]
- Tlbc — Basaltic tephra
- Tlbi — Intrusive plugs and dikes [8.5 Ma, #140]
- Tla — Andesite lava flows, undivided
- Tlaa — Andesite lava flows, aphyric
- Tlha — Hornblende andesite lava flows
- Tlhai — Hornblende andesite intrusion [6.37 Ma, #139]
- Tlpa — Pyroxene andesite flows
- Tlba — Basaltic andesite flows
- Tld — Diabase intrusion

Fluvial strata intercalated with Tlp and Tllt:

- Tlf — Tlf - Undivided
- Tlf_3 — Tlf_3 - Youngest
- Tlf_2 — Tlf_2 - Intermediate
- Tlf_1 — Tlf_1 - Oldest
- Tlp — Volcaniclastic rocks, undivided
- Tllt — Lapilli tuff breccia

OLIGOCENE – EARLY MIOCENE

Valley Springs Formation

- Tvrt — Tvrt - Rhyolite tuff, undivided
- $Tvrt_7$ — $Tvrt_7$ - Nine Hill Tuff [25.18 Ma]
- $Tvrt_6$ — $Tvrt_6$ - Rhyolite tuff
- $Tvrt_5$ — $Tvrt_5$ - Mickey Pass Tuff [26.98 Ma]
- $Tvrt_4$ — $Tvrt_4$ - Tuff of Campbell Creek [28.79 Ma]
- $Tvrt_3$ — $Tvrt_3$ - Tuff E [29.02 Ma, #141]
- $Tvrt_2$ — $Tvrt_2$ - Rhyolite tuff
- $Tvrt_1$ — $Tvrt_1$ - Tuff of Sutcliffe [30.48 Ma, #142]
- $Tvrt_0$ — $Tvrt_0$ - Rhyolite tuff of Rattlesnake Canyon [31.01 Ma]

MESOZOIC

CRETACEOUS

Granitic Rocks

- Ks — Hornblende-biotite granodiorite of Summit Lake [117 Ma, #126]
- Ksp — Hornblende-biotite granodiorite with K-spar megacrysts
- Klm — Tonalite of Lake Mary [95 to 120 Ma, #127]
- Kg — Granodiorite
- hbg — Hornblende-biotite granodiorite, undivided
- qm — Quartz monzonite, undivided

JURASSIC

Lake Tahoe Sequence of Harwood (1992)

Ellis Peak Formation

- Jle — Quartz arenite

Blackwood Creek Formation

- Jlb — Sandy limestone and pelitic hornfels

PALEOZOIC

DEVONIAN – EARLY CARBONIFEROUS

MISSISSIPPIAN

Onion Creek Formation

- Mlo — Marble and calc-silicate hornfels

Serena Creek Formation

- Mls — Biotite schist

Picayune Valley Formation

- MDpv — Chert and quartz-rich conglomerate, quartzose sandstone, and pelitic hornfels.

- gn — Gneiss of unknown affinity

CALIFORNIA GEOLOGICAL SURVEY

CALIFORNIA CONSERVATION

Copyright © 2012 by the California Department of Conservation. All rights reserved. No part of this publication may be reproduced without written consent of the California Geological Survey.

The Department of Conservation makes no warranties as to the suitability of this product for any particular purpose.