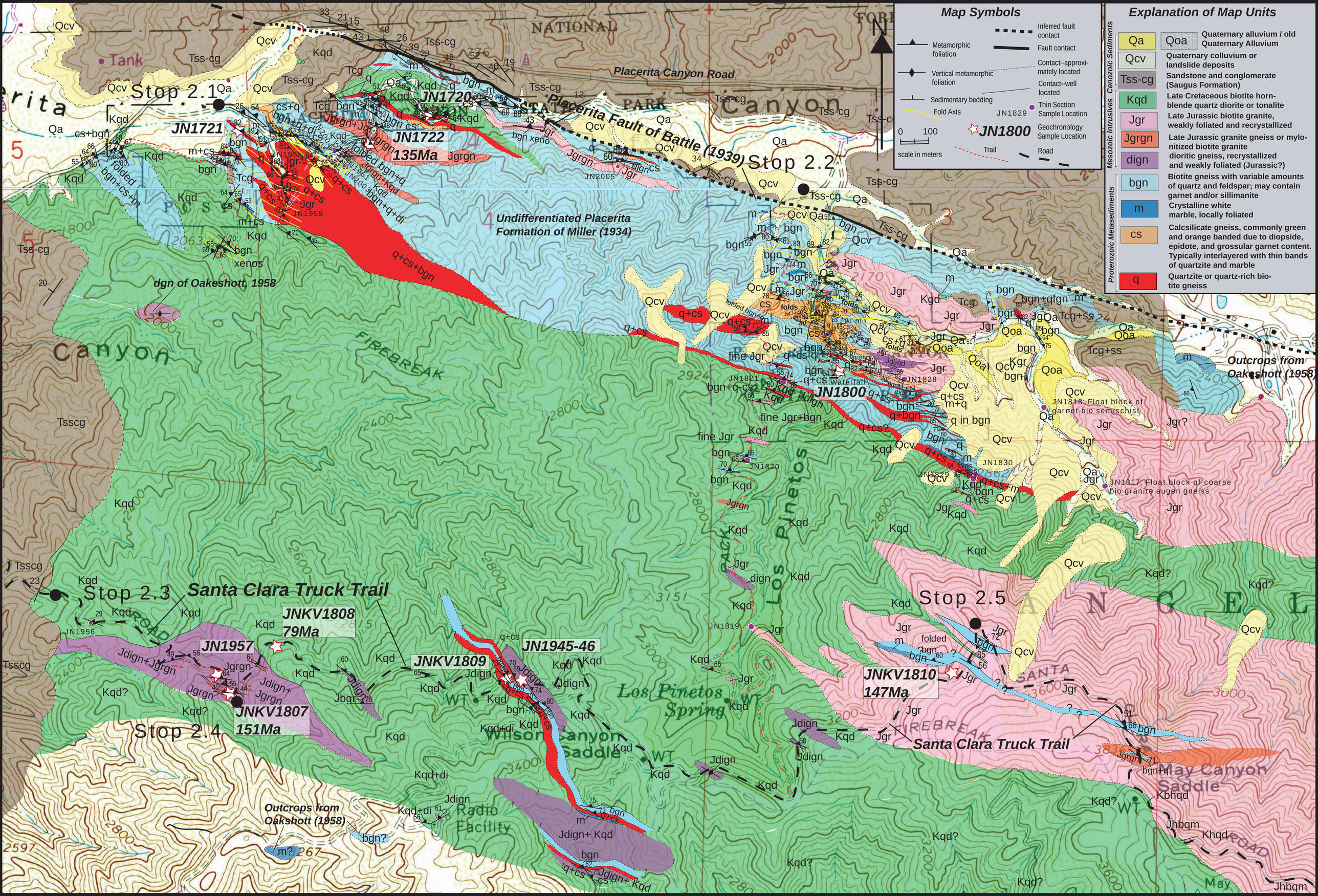
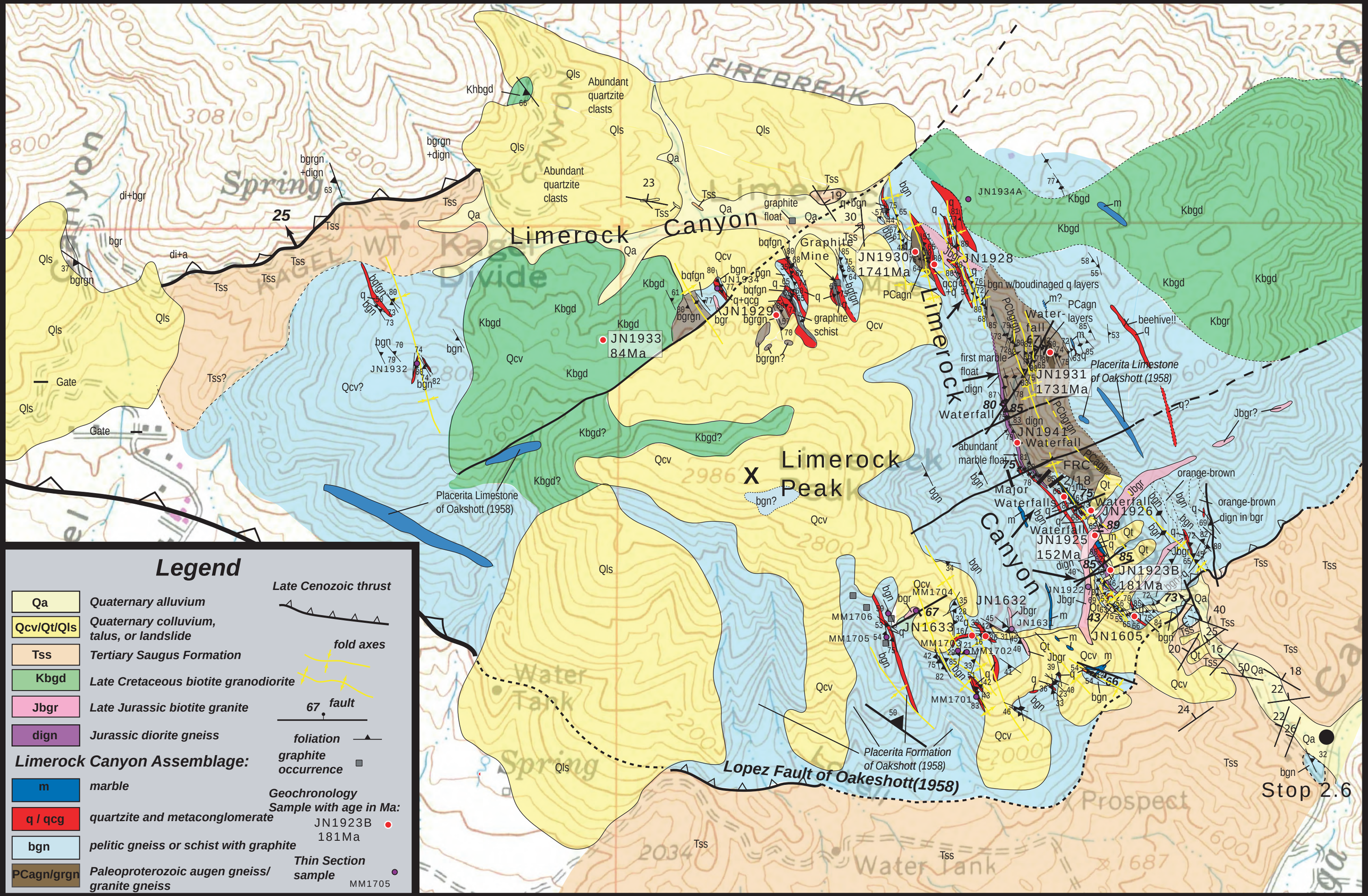
GSA Data Repository Item 2020177, full-size files for Figures 16 and 18.

Nourse, J.A., Swanson, B.J., Lusk, A., Barth, N.C., Schwartz, J.J., and Vermillion, K.B., 2020, Recent advancements in geochronology, geologic mapping, and landslide characterization in basement rocks of the San Gabriel Mountains block, *in* Heermance, R.V., and Schwartz, J.J., eds., From the Islands to the Mountains: A 2020 View of Geologic Excursions in Southern California: Geological Society of America Field Guide 59, p. 21–93, https://doi.org/10.1130/2020.0059(02).

Figure 16. Geologic map of the Placerita Canyon and vicinity, showing locations of field trip stops, geochronology samples, and thin sections described in the text. Crystallization ages of key intrusive rocks are indicated in Ma.

Figure 18. Geologic map of Limerock Canyon, showing locations of geochronology samples and thin sections described in the text. Crystallization ages of key intrusive rocks are indicated in Ma.


Map Symbols
Metamorphic foliation
Vertical metamorphic foliation
Sedimentary bedding
Fold Axis
Inferred fault contact
Fault contact
Contact--approximately located
Contact--well located
JN1829 Thin Section Sample Location
JN1800 Geochronology Sample Location
Trail
Road
0 100
scale in meters
Explanation of Map Units
Cenozoic Sediments
Qa Quaternary alluvium
Qoa Quaternary Alluvium
Qcv Quaternary colluvium or landslide deposits
Tss-cg Sandstone and conglomerate (Saugus Formation)
Mesozoic Intrusives
Kqd Late Cretaceous biotite hornblende quartz diorite or tonalite
Jgr Late Jurassic biotite granite, weakly foliated and recrystallized
Jgrgn Late Jurassic granite gneiss or mylonitized biotite granite
dign dioritic gneiss, recrystallized and weakly foliated (Jurassic?)
Proterozoic Metasediments
bgn Biotite gneiss with variable amounts of quartz and feldspar; may contain garnet and/or sillimanite
m Crystalline white marble, locally foliated
cs Calcsilicate gneiss, commonly green and orange banded due to diopside, epidote, and grossular garnet content. Typically interlayered with thin bands of quartzite and marble
q Quartzite or quartz-rich biotite gneiss
Stop 2.1
Stop 2.2
Stop 2.3
Stop 2.4
Stop 2.5
Placerita Canyon Road
Placerita Fault of Battle (1939)
Undifferentiated Placerita Formation of Miller (1934)
dgn of Oakeshott, 1958
Santa Clara Truck Trail
JN1720
JN1721
JN1722
135Ma
JN1957
JNKV1808
79Ma
JNKV1807
151Ma
JNKV1809
JN1945-46
JN1800
JNKV1810
147Ma
Outcrops from Oakshott (1958)
JN1818: Float block of garnet-bio semischist
JN1817: Float block of coarse bio granite augen gneiss
Los Pinetos Spring
Wilson Canyon Saddle
May Canyon Saddle
Radio Facility
Waterfall
FIREBREAK
Tank
Canyon


Limerock Canyon
Limerock Canyon
Limerock Peak
Graphite Mine
Waterfall
Major Waterfalls
Lopez Fault of Oakeshott(1958)
Placerita Formation of Oakshott (1958)
Placerita Limestone of Oakshott (1958)
Placerita Limestone of Oakshott (1958)
Stop 2.6
JN1933 84Ma
JN1930 1741Ma
JN1931 1731Ma
JN1925 152Ma
JN1923B 181Ma
Legend
Qa Quaternary alluvium
Qcv/Qt/Qls Quaternary colluvium, talus, or landslide
Tss Tertiary Saugus Formation
Kbgd Late Cretaceous biotite granodiorite
Jbgr Late Jurassic biotite granite
dign Jurassic diorite gneiss
Limerock Canyon Assemblage:
m marble
q / qcg quartzite and metaconglomerate
bgn pelitic gneiss or schist with graphite
PCagn/grgn Paleoproterozoic augen gneiss/ granite gneiss
Late Cenozoic thrust
fold axes
fault
foliation
graphite occurrence
Geochronology Sample with age in Ma:
JN1923B 181Ma
Thin Section sample
MM1705