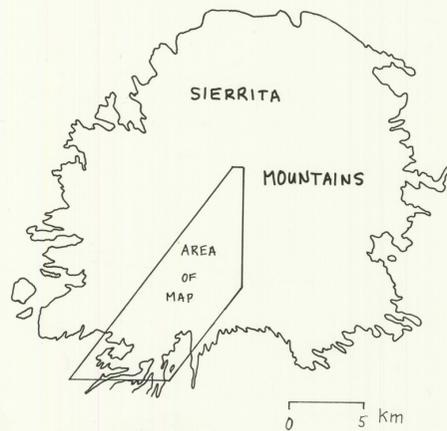
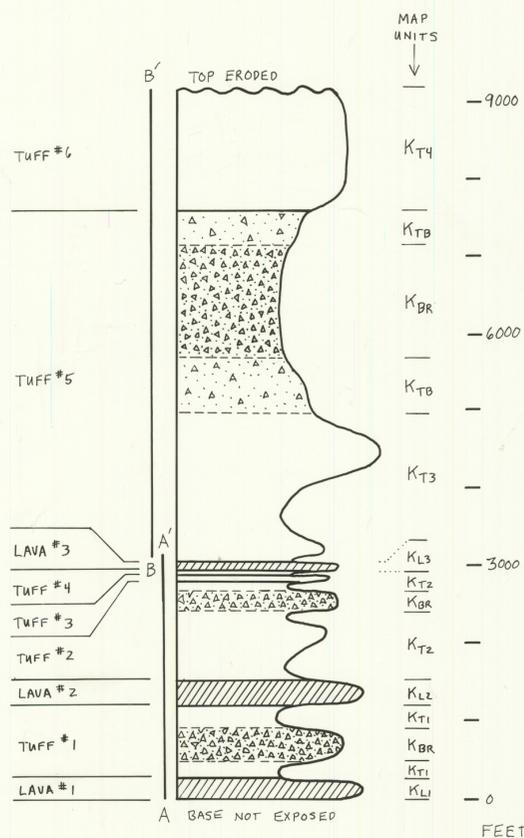


EXPLANATION

- Contact =
 - Fault =
 - Reverse Fault =
 - Caldera Margin Fault =
- Strike-and-Dip Symbols:
- Metamorphic or Flow Foliation
 - Compactional Foliation
 - Bedding

- Qal = Alluvial gravel, sand, and silt.
- T_{VS} = Tinaja Peak Formation: Light purple to white rhyodacite tuffs and lavas, black trachyandesite lavas, and interbedded sediments. ~ 24 Ma.
- T_{RS} = Ruby Star Granodiorite and related intrusive rocks. Main phase is medium-grained, sphe-ne-rich biotite granodiorite, locally bearing hornblende; other phases include hornblende diorite and quartz monzonite porphyry. ~ 62 Ma.
- K_{RB} = Red Boy Rhyolite, undivided: Rhyolite to dacite tuffs and lavas, with minor interbedded tuffaceous sandstones, and including associated intrusive rhyolite porphyry, caldera-collapse breccias and tectonic breccias related to the caldera margin fault. ~ 72 Ma.
The unit is undivided in the area where the caldera margin fault and Ox Frame Canyon reverse fault are close together, resulting in extensive structural disruption. The Red Boy Rhyolite is metamorphosed in this area alone; it is sheared and has a weak slaty cleavage at the south and grades into a fine-grained schist to the north. In all areas, the Red Boy Rhyolite is hydrothermally altered and all phenocrysts are pseudomorphs except quartz and zircon.
- K_{T4} = Tuff #6: Light tan-gray high-silica rhyolite ash-flow tuff, nonwelded to moderately welded, with ~20% phenocrysts of quartz, feldspar, and lesser biotite.
- K_{T3} = Tuff #5: Medium tan to light rusty colored, rhyodacite ash-flow tuff, nonwelded to densely welded, commonly lithic rich, with ~10% phenocrysts of feldspar and lesser biotite, with or without minor quartz.
- K_{L3} = Lava #3: Pink-tan or light gray biotite rhyolite porphyry with ~10% phenocrysts of quartz, feldspar, and lesser biotite.
- K_{T2} = Tuffs #2, 3, and 4: Locally includes some intervening airfall tuffs and tuffaceous sediments.
Tuff #4 is medium gray, predominantly densely welded dacite ash-flow tuff with ~10% phenocrysts of lathy plagioclase and lesser biotite, lithic poor.
Tuff #3 is medium red, densely welded high-silica rhyolite, ~2% phenocrysts of feldspar with rare biotite and quartz, and very small and sparse distinguishable fiamme, very lithic poor.
Tuff #2 is white to tan, nonwelded to moderately welded, rhyodacite ash-flow tuff, with a moderate abundance of lithics, and ~10% phenocrysts of feldspar and lesser quartz and biotite.
- K_{L2} = Lava #2: Medium gray, aphyric dacite lava.
- K_{T1} = Tuff #1: White, nonwelded rhyodacite ash-flow tuff and lesser bedded tuffs locally bearing petrified wood. A very thin dacitic tuff similar to Tuff #4 is locally present between Tuff #1 and Lava #2, and is mapped here as part of Tuff #1.
- K_{L1} = Lava #1: Virtually indistinguishable from Lava #2.
- K_{BR} = Caldera-collapse breccia with little or no tuff matrix. Composed predominantly of clasts of the Demetrie Andesite, but generally including clasts from the lower part of the Red Boy Rhyolite.
- K_{TB} = As above, but with conspicuous tuff matrix.
- K_{MB} = Tectonic breccia occurring along the caldera margin fault, composed predominantly of clasts from the Demetrie Andesite. Commonly intruded by dikes of rhyolite porphyry.
- K_{TS} = Red Boy Rhyolite tuffs, lavas and tuffaceous sediments, undivided in the area dominated by the intrusive rhyolite porphyry, K_i, where structural disruption and alteration make further division difficult.
- K_i = Intrusive rhyolite porphyry. Virtually indistinguishable from Lava #3.
- K_D = Demetrie Andesite: Flow breccias, flows, and tuffs of pyroxene-hornblende andesite and biotite dacite, with rare tuffs of rhyodacite. Grades laterally into fanglomerates derived from the volcanics.
- PLgr = Pre-Laramide granites: Includes Jurassic granites (Harris Ranch Monzonite and Sierrita granite of Lacy) and Precambrian granite (Continental granite).
- eMz = Early Mesozoic volcanics, mostly the early Jurassic Ox Frame volcanics.

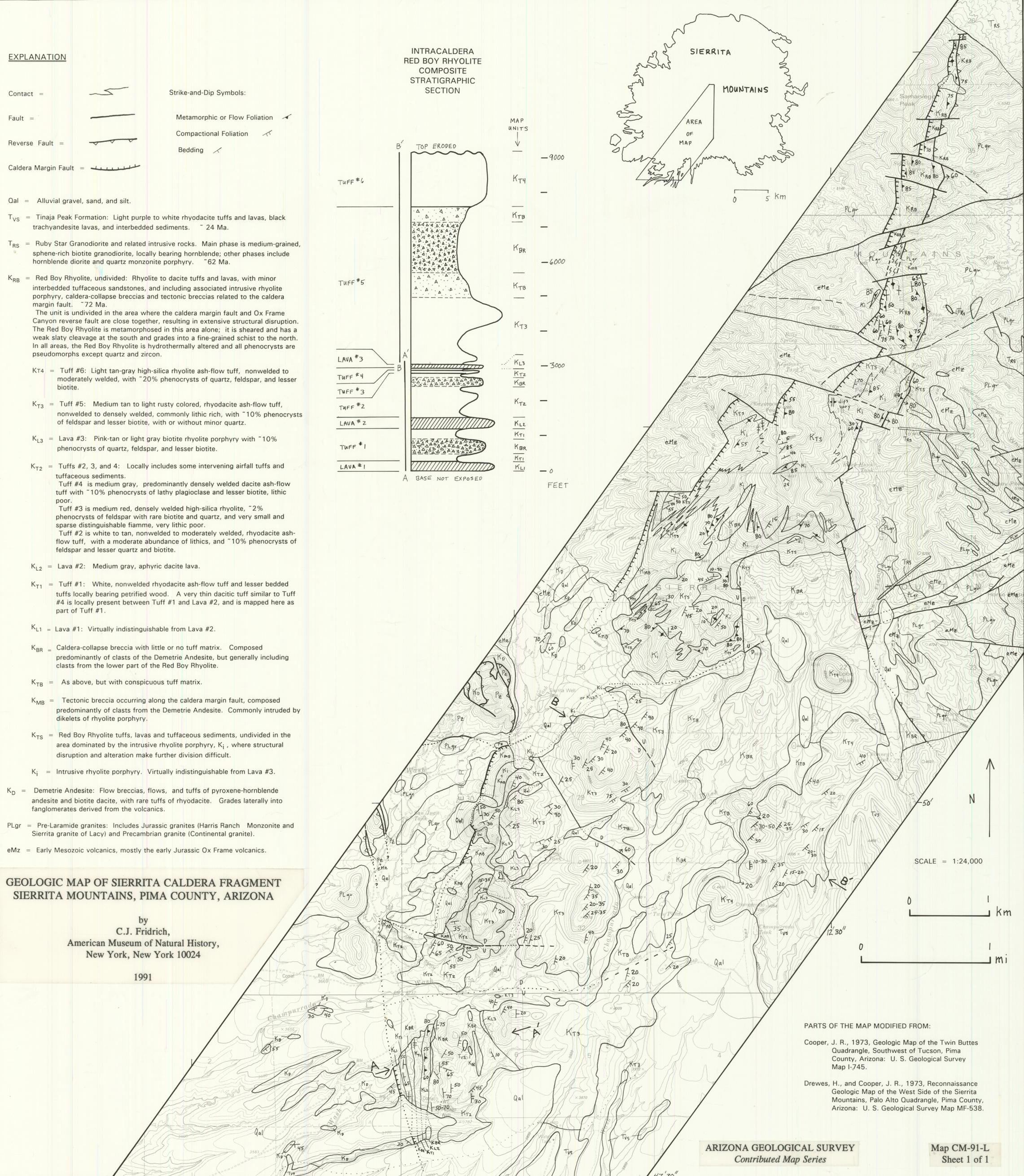
**INTRACALDERA
RED BOY RHYOLITE
COMPOSITE
STRATIGRAPHIC
SECTION**



**GEOLOGIC MAP OF SIERRITA CALDERA FRAGMENT
SIERRITA MOUNTAINS, PIMA COUNTY, ARIZONA**

by
C.J. Fridrich,
American Museum of Natural History,
New York, New York 10024

1991



PARTS OF THE MAP MODIFIED FROM:

Cooper, J. R., 1973, Geologic Map of the Twin Buttes Quadrangle, Southwest of Tucson, Pima County, Arizona: U. S. Geological Survey Map I-745.

Drewes, H., and Cooper, J. R., 1973, Reconnaissance Geologic Map of the West Side of the Sierrita Mountains, Palo Alto Quadrangle, Pima County, Arizona: U. S. Geological Survey Map MF-538.

ARIZONA GEOLOGICAL SURVEY
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Map CM-91-L
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