U.S DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

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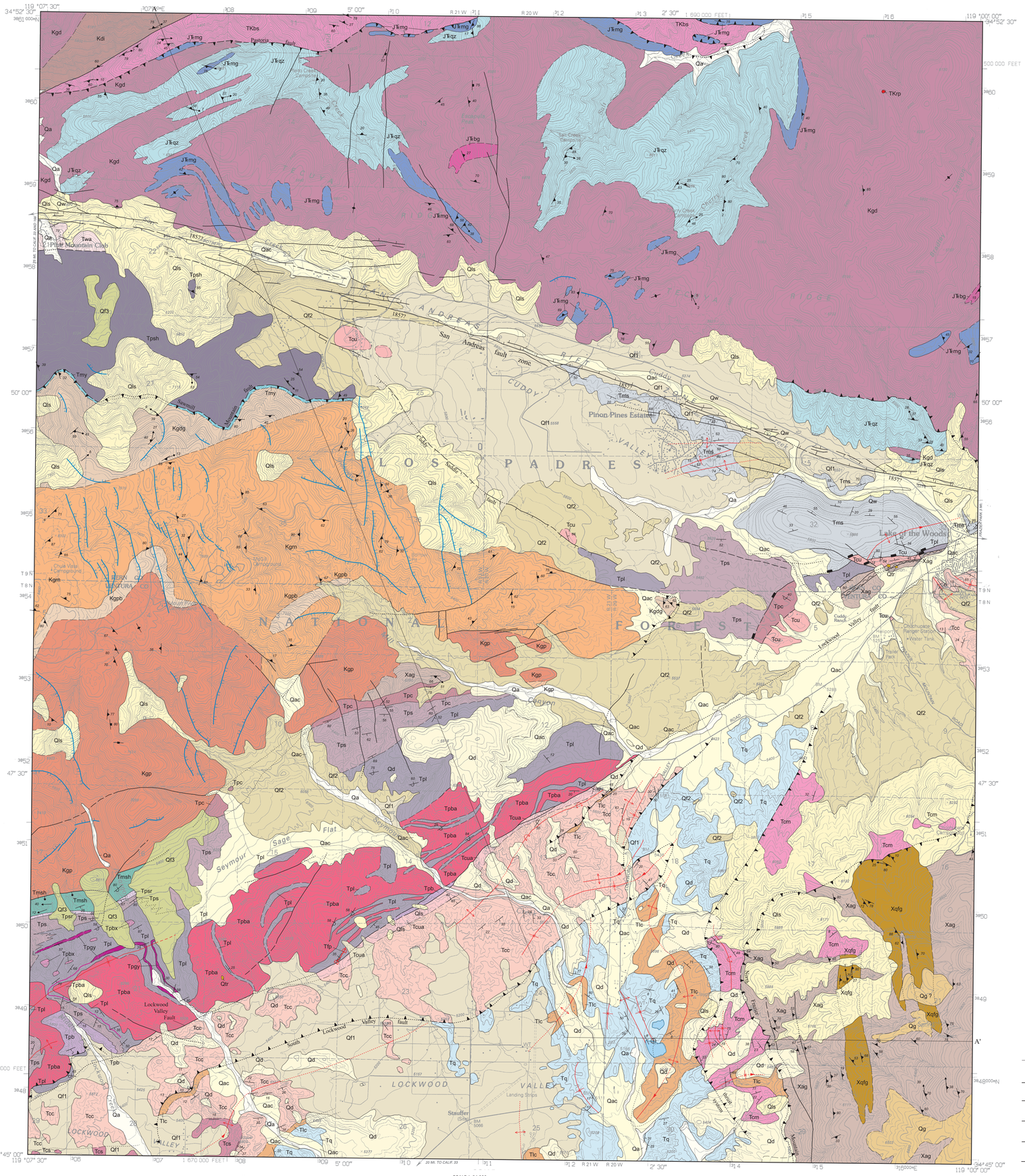
Pamphlet accompanies map



Base from U.S. Geological Survey, 1991.
Lambert Conformal Conic projection,
1927 North American Datum.

1991 MAGNETIC DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

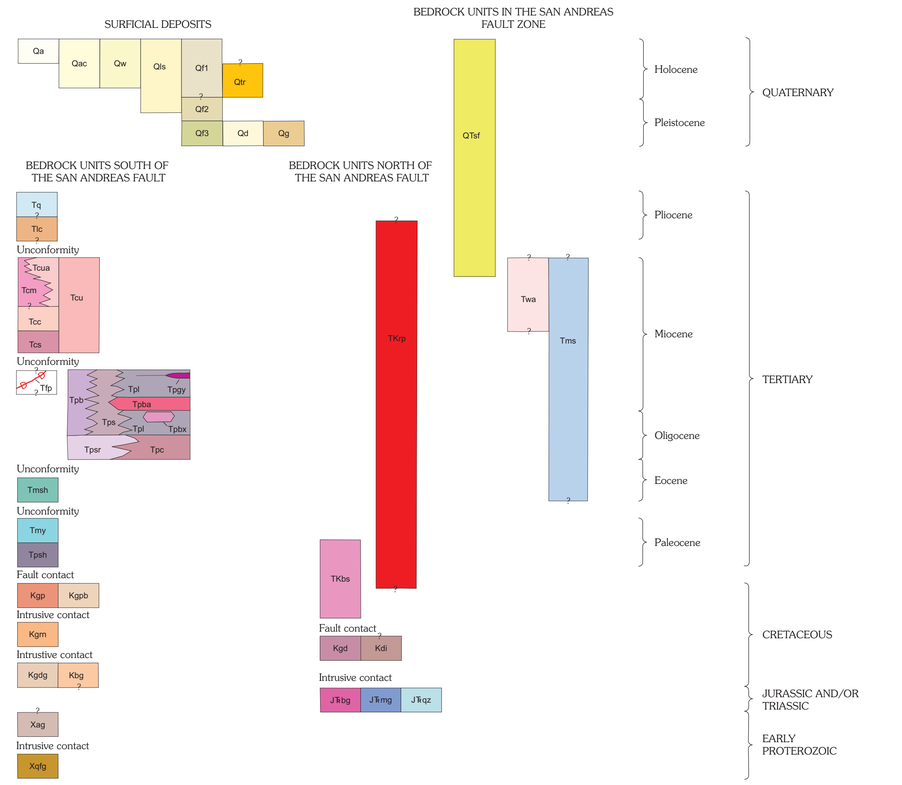
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

Geology was mapped 1999-2000.
Digital assistance by Kenzie J. Turner.
This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic code.

This map was produced on request, directly from digital files, on an electronic plotter. It is also available as a PDF file at http://pubs.usgs.gov/

CORRELATION OF MAP UNITS



LIST OF MAP UNITS

SURFICIAL DEPOSITS

- Qa — **Alluvium (Holocene)**
- Qac — **Alluvium and colluvium, undivided (Holocene)**
- Qw — **Wetland deposits (Holocene)**
- Qls — **Landslide deposits (Holocene and/or Pleistocene)**
- Qf1 — **Younger fan deposits (Holocene and upper Pleistocene)**
- Qtr — **Travertine (Holocene? and upper Pleistocene)**
- Qf2 — **Older fan deposits (Holocene? and upper Pleistocene)**
- Qf3 — **Highly dissected fan deposits (middle? Pleistocene)**
- Qd — **Diamicton (middle? Pleistocene)**
- Qg — **High-level gravel (Pleistocene)**

BEDROCK UNITS SOUTH OF THE SAN ANDREAS FAULT

Quatal Formation (Pliocene)

- Tq — **Brown member**
- Tlc — **Lockwood Clay (Pliocene?)**

Caliente Formation (Miocene)

- Tcm — **Metamorphic-clast member**
- Tcua — **Upper arkosic member**
- Tcc — **Volcanic-clast conglomerate member**
- Tcs — **Green claystone and sandstone member**
- Tcu — **Caliente Formation, undifferentiated**
- Tfp — **Felsite porphyry sill (lower Miocene?)**

Plush Ranch Formation (lower Miocene and upper Oligocene)

- Tpb — **Granite- and gneiss-breccia member**
- Tps — **Sandstone member**
- Tpl — **Lacustrine member**
- Tpgy — **Gypsum bed**
- Tpbx — **Granite-megabreccia**
- Tpba — **Basalt member**
- Tpsr — **Red-bed member**
- Tpc — **Basal conglomerate**
- Tmsh — **Marine shale (lower Eocene)**
- Tmy — **Sawmill Mountain mylonite (Paleocene?)**
- Tpsh — **Pelona Schist (lower Paleocene)**
- Kgp — **Granite of Mt. Pinos (Cretaceous)**
- Kgpb — **Border phase**
- Kgrn — **Granite of Cerro Noroeste (Cretaceous)**
- Kgdg — **Granodiorite gneiss (Cretaceous)**
- Kbg — **Biotite gneiss (Cretaceous?)**
- Xag — **Frazier Mountain augen gneiss? (Early Proterozoic?)**
- Xqfg — **Quartzofeldspathic gneiss (Early Proterozoic)**

BEDROCK UNITS NORTH OF THE SAN ANDREAS FAULT

- TKrp — **Felsite porphyry (Pliocene? to Cretaceous)**
- TKbs — **Biotite schist (Paleocene or Cretaceous)**
- Kgd — **Quartz diorite and granodiorite (Cretaceous)**
- Kdi — **Diorite (Cretaceous)**

Metamorphic rocks in roof pendants and inliers in granitic rocks (Jurassic, Triassic and/or Paleozoic)

- JTRbg — **Biotite gneiss**
- JTRmg — **Gray marble**
- JTRqz — **Quartzite**

BECROCK UNITS IN THE SAN ANDREAS FAULT ZONE

- QTsf — **Pervasively sheared, comminuted, and fractured rocks (Holocene to Miocene)--shown on cross section only**
- Twa — **White arkosic sandstone and conglomerate (Miocene?)**
- Tms — **Marine shale and sandstone (Miocene? to Eocene?)**

Contact--Dashed where approximately located, dotted where concealed; showing dip, where known

Fault--Dashed where approximately located; dotted where concealed

Normal fault--Dashed where approximately located; dotted where concealed; bar and ball on downthrown side

Thrust fault--Dashed where approximately located; dotted where concealed; sawteeth on upper plate

Reverse fault--dashed where approximately located; dotted where concealed; rectangles in upper plate

1857? **Fault trace in San Andreas fault zone**--Hachures toward downthrown side, where known; suspected trace of the 1857 Ft. Tejon earthquake scarp indicated (Davis and Duebendorfer, 1987)

Fracture trace--Hachures on downthrown side, where known. Inferred to be caused by gravitational settling in granitic or gneissic rocks; some may be incipient landslide scarps

Anticline--Trace of axial plane; dotted where concealed; showing direction of plunge of fold axis

Syncline--Trace of axial plane; dotted where concealed; showing direction of plunge of fold axis

Overturned anticline--Trace of axial plane; dotted where concealed

Sheared rock--oriented in direction of shearing

Strike and dip of beds

- Inclined
- Vertical
- Overturned
- Horizontal

Approximate strike and dip of beds

- Inclined

Strike and dip of jointing

- Inclined
- Vertical

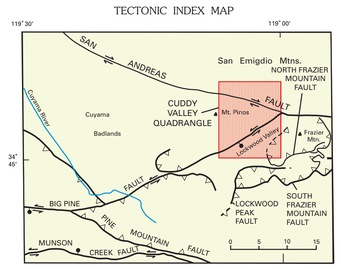
Strike and dip of foliation

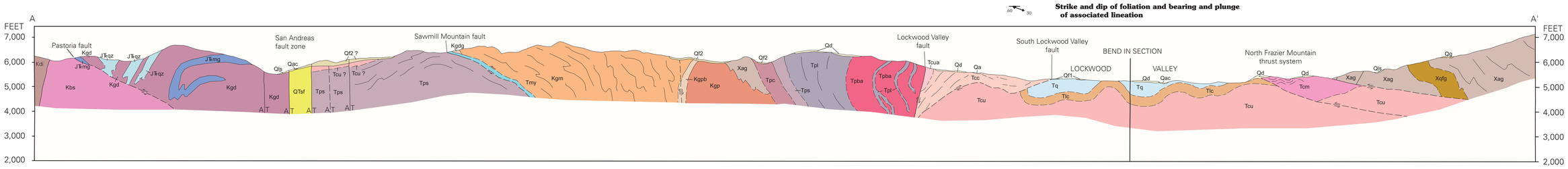
- Inclined
- Vertical

Bearing and plunge of lineation

Strike and dip of foliation and bearing and plunge of associated lineation

TECTONIC INDEX MAP



GEOLOGIC MAP OF THE CUDDY VALLEY QUADRANGLE, KERN AND VENTURA COUNTIES, CALIFORNIA

By
Karl S. Kellogg
2003