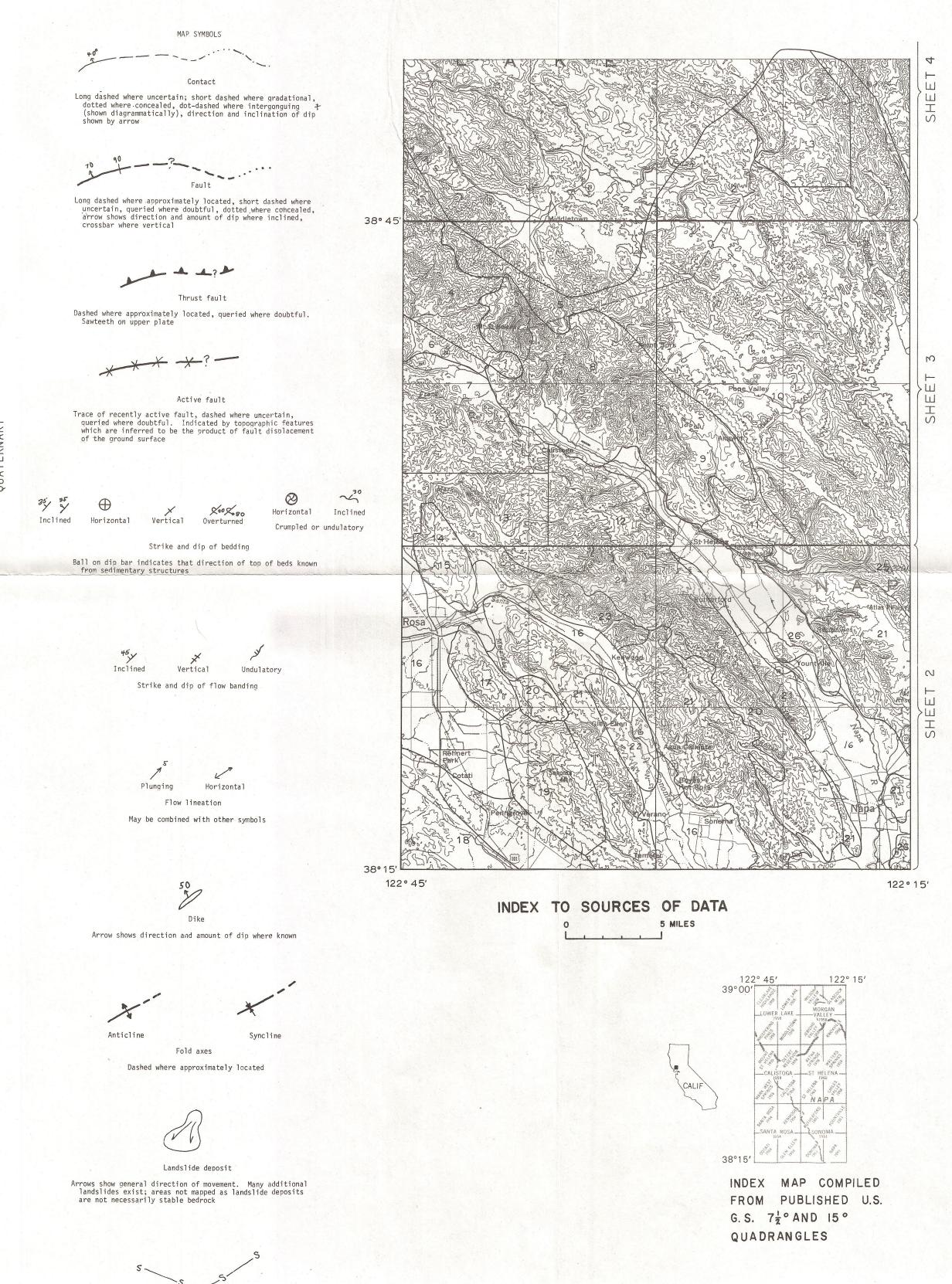
## PREPARED IN COOPERATION WITH THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



MISCELLANEOUS FIELD STUDIES MAP MF - 483SHEET 1 OF 4

SOURCES OF COMPILATION DATA

 E. F. Ciancanelli (unpub.) with additions from Conrey (1948), and minor additions and revisions from field reconnaissance and photogeology by J. D. Sims, 1970-71. 3. Averit (1945), as modified and reinterpreted by E. F. Ciancanelli (unpub.).

Bailey (1946), as modified by E. F. Ciancanelli (unpub.), with additions from field reconnaissance and photogeology by J. D. Sims, 1970-71.

5. Yates and Hilpert (1946), as modified by E. F. Ciancanelli (unpub.). 6. E. F. Ciancanelli (unpub.).

7. Hurlbut (1948), with additions from photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71. 8. Photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71, with numerous bedding attitudes added from Crutchfield (1953).

9. Photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71, with additions from N. L. Taliaferro (unpub.). 10. E. F. Ciancanelli (unpub.), and N. L. Taliaferro (unpub.), with modifications from field reconnaissance and photogeology by J. D. Sims, 1970-71, and additions from Shouldice (1947), Angel (1948), Clark (1948), and

11. N. L. Taliaferro (unpub.), with minor additions and modifications from field reconnaissance by K. F. Fox, Jr.,

12. Johnston (1948). Modifications and additions including differentiation of Tsa, Tst, and Tss from photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71. 13. Goss (1948). Differentiation of Tge, Tsa (in part), and Tst with other additions from photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71. Active faults from field mapping in 1970-71 by R. D. Brown, Jr. (written commun., 1972).

14. Huffman (1971). Active faults from field mapping in 1970-71 by R. D. Brown, Jr. (written commun., 1972). 15. C. W. Jennings (unpub.). Active faults from field mapping in 1970-71 by R. D. Brown, Jr. (written commun., 1972) Soil stratigraphy from photogeology and interpretation of soil distribution by E. J. Helley, 1971-72. Bay mud distribution in southern Napa Valley added from Nichols and Wright (1971).

17. Photogeology and field reconnaissance by K. F. Fox, Jr., and J. A. Bartow, 1970-71, with additions from C. W. Jennings (unpub.). Active faults from field mapping 1970-71 by R. D. Brown, Jr. (written commun., 1972). 18. Photogeology and field reconnaissance by J. A. Bartow, 1970-71, with additions from Weaver (1949) and Cardwell (1958). Soil stratigraphy from photogeology and interpretation of soil distribution by E. J. Helley, 1971-72.

19. Photogeology and field reconnaissance by K. F. Fox, Jr., and J. A. Bartow, 1970-71, with substantial additions from Huffman (1971), and Weaver (1949). Active faults from field mapping in 1970-71 by R. D. Brown, Jr. (written commun., 1972).

21. Photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71, with additions from Weaver (1949), Kunkel and Upson (1960), and Cardwell (1958).

22. J. O. Berkland (unpub.). with additions and revisions from field reconnaissance by J. A. Bartow and K. F. Fox, Jr., 1970-71. Soil stratigraphy from photogeology and interpretation of soil distribution by E. J. Helley, 1971-72. 23. Photogeology and field reconnaissance by K. F. Fox, Jr., 1970-71, with additions from Weaver (1949), Cardwell (1958), and R. L. Rose (unpub.). 24. Photogeology and field reconnaissance by J. D. Sims, 1970-71, with additions from R. L. Rose (unpub.).

25. A. N. Moiseyev (unpub.) with modifications from field reconnaissance and photogeology by J. D. Sims, 1970-71. 26. Weaver (1949), with minor additions and modifications from photogeology and field reconnaissance by K. F. Fox. Jr. 1970-71. Soil stratigraphy from photogeology and interpretation of soil distribution by E. J. Helley, 1971-72. Angel, L. H., 1948, Geology of a portion of the St. Helena quadrangle, California: California Univ., Berkeley,

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D. L. Jones of the U.S. Geological Survey. Unpublished K-Ar age

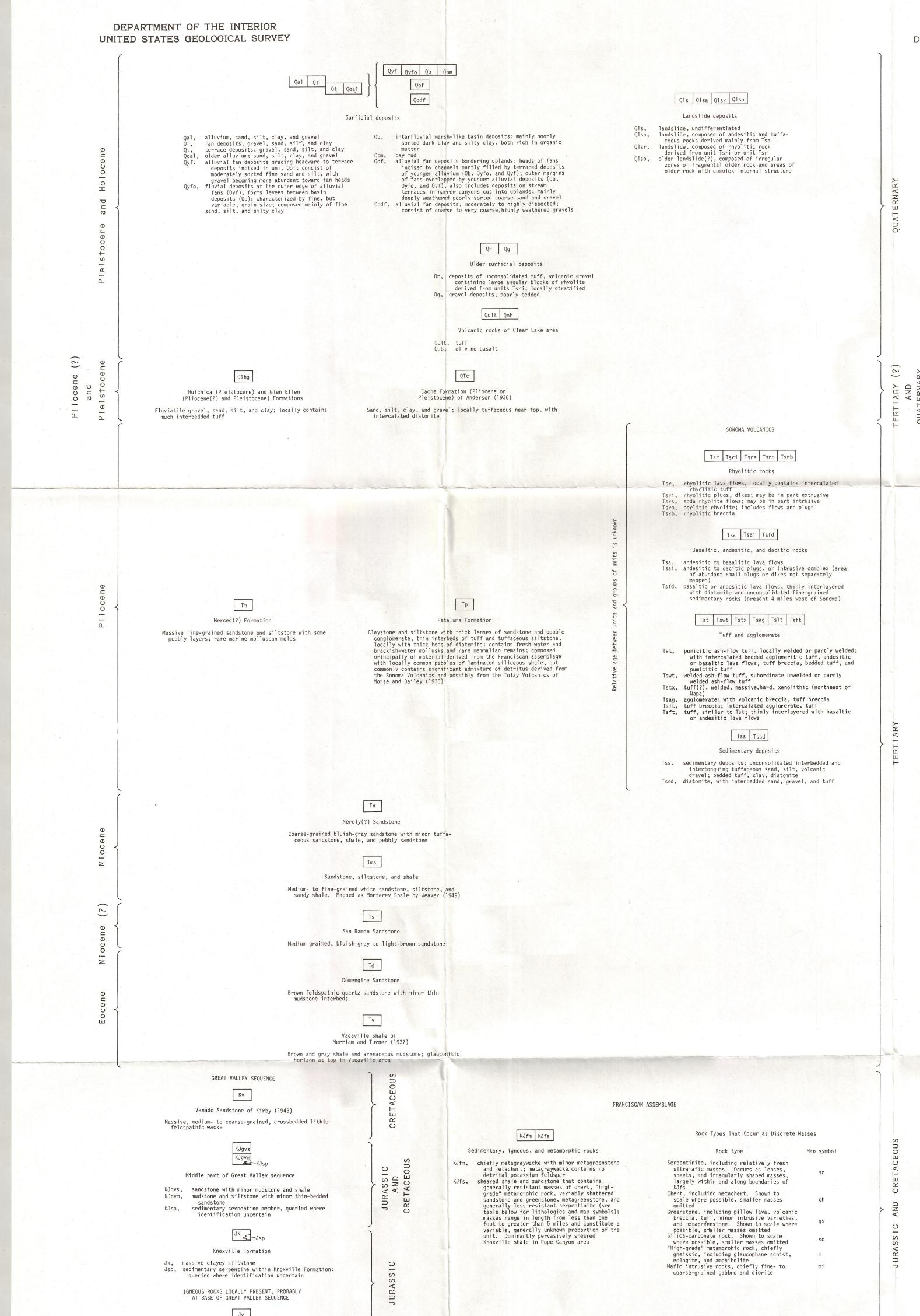
## PRELIMINARY GEOLOGIC MAP OF EASTERN SONOMA COUNTY AND WESTERN NAPA COUNTY, CALIFORNIA

Compiled by

K. F. Fox, Jr., J. D. Sims, J. A. Bartow, and E. J. Helley

Reprinted 1980

For sale by Branch of Distribution, U. S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225



Basaltic pillow lava and breccia

This map provides geologic data primarily for use by geologists, but may also be of interest to engineers, planners, and others concerned with the application of geologic information to land-use planning and development decisions. It is one of a series of geologic maps which form the first stage in a program to gather and interpret geologic information for regional planning and development. This program is part of the San Francisco Bay Region Environment and Resources Study being carried out by the U.S. Geological Survey in cooperation with the Department of Housing and Urban Development. The map is a progress report that has been compiled and modified from a variety of sources, and changes may be required as more information is obtained. Other maps and reports interpreting the significance of the geology for land-use planning and other practical purposes will be prepared as part of the study.

Northern limit of mapped area

PURPOSE OF MAP