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

PREPARED IN COOPERATION WITH THE
TEXAS BUREAU OF ECONOMIC GEOLOGY
AND THE
OKLAHOMA GEOLOGICAL SURVEY

LIST OF MAP UNITS

HOLOCENE AND LATE WISCONSIN

- asa — ALLUVIAL SAND, SILT CLAY, AND GRAVEL
- ale — ALLUVIAL SILT AND CLAY
- afa — ALLUVIAL-FAN DEPOSIT
- es — EOLIAN SHEET SAND
- ed — DUNE SAND

HOLOCENE TO ILLINOIAN

- asi — ALLUVIAL, LACUSTRINE, AND EOLIAN DEPOSIT
- oc — PLAYA CLAY
- cga — CALCRETE-CLAST LOAM TO SANDY LOAM COLLUVIUM
- cbf — BOULDERY SANDY COLLUVIUM
- cbm — LIMESTONE-CLAST LOAMY COLLUVIUM
- cbo — LIMESTONE-CLAST SILTY CLAY COLLUVIUM
- cse — RED SILTSTONE- AND SHALE-CLAST LOCALLY GYPSIFEROUS LOAMY COLLUVIUM
- csf — PEBBLY SANDY CLAY LOAM COLLUVIUM
- csi — QUARTZ SANDSTONE-CLAST SANDY COLLUVIUM
- csj — LIMESTONE-, SHALE-, SANDSTONE-, AND CALCRETE-CLAST LOAMY COLLUVIUM
- cla — SANDSTONE- AND SHALE-CLAST COLLUVIUM
- clf — ACID SHALE-CHIP CLAY-LOAM COLLUVIUM
- cll — SHALE- AND SLABBY LIMESTONE-CLAST COLLUVIUM
- clm — SHALE- AND SILTSTONE-CLAST LOAMY COLLUVIUM
- clq — SANDSTONE- AND SHALE-CLAST LOAMY COLLUVIUM
- clt — SHALE-CLAST CLAYEY COLLUVIUM
- ccj — LIMESTONE- AND SANDSTONE-CLAST LOAMY COLLUVIUM
- xba — SHALE- AND LIMESTONE-CLAST DISINTEGRATION RESIDUUM
- xsb — QUARTZ SAND DISINTEGRATION RESIDUUM
- xlc — RED SILTY CLAY DISINTEGRATION RESIDUUM
- xld — RED SILTY CLAY DISINTEGRATION RESIDUUM AND GYPSUM SOLUTION RESIDUUM
- xle — FINE SANDY LOAM DISINTEGRATION RESIDUUM
- xlg — CALCAREOUS SANDY LOAM DISINTEGRATION RESIDUUM
- xcb — CALCAREOUS CLAY DISINTEGRATION RESIDUUM
- xcc — STONY SELENITIC SILTY CLAY LOAM DISINTEGRATION RESIDUUM
- xcd — SANDSTONE AND MUDSTONE CLAY LOAM DISINTEGRATION RESIDUUM

LATE PLEISTOCENE

- oca — LACUSTRINE CLAY, SILT, AND SAND

LATE PLEISTOCENE TO MIDDLE PLEISTOCENE

- afc — ALLUVIAL- AND SHEETWASH-FAN FINE SAND AND SILT
- aso — CEMENTED ALLUVIAL GRAVELLY SAND
- afb — ALLUVIAL-FAN GRAVELLY TO SANDY LOAM

LATE PLEISTOCENE TO EARLY PLEISTOCENE

- asg — ALLUVIAL GRAVEL, SAND, SILT, AND CLAY
- esa — EOLIAN SHEET SAND
- cab — CEMENTED COLLUVIUM AND SHEETWASH ALLUVIUM

MIDDLE PLEISTOCENE AND EARLY PLEISTOCENE

- ago — ALLUVIAL GRAVEL AND SAND
- ocb — EOLIAN AND ALLUVIAL SAND, SILT, AND CLAY

PLIOCENE

- occ — LACUSTRINE SAND, CLAY, AND LIMESTONE

QUATERNARY AND TERTIARY

- zsa — LIMONITIC SANDY DECOMPOSITION RESIDUUM
- zsb — QUARTZ SAND DECOMPOSITION RESIDUUM
- zsd — SANDY DECOMPOSITION RESIDUUM
- zse — CLAYEY SAND AND SANDY CLAY DECOMPOSITION RESIDUUM
- zsp — FINE SANDY, SILTY CLAY DECOMPOSITION RESIDUUM
- zld — CLAYEY SILT TO SILTY CLAY DECOMPOSITION RESIDUUM
- zlq — FINE SANDY LOAM DECOMPOSITION RESIDUUM
- zlr — CLAY LOAM AND FINE SANDY LOAM DECOMPOSITION RESIDUUM
- zls — SANDY CLAY LOAM DECOMPOSITION RESIDUUM
- zlt — RED CLAY LOAM DECOMPOSITION RESIDUUM WITH LOCAL GYPSUM RUBBLE
- zcb — SMECTITIC CLAY DECOMPOSITION RESIDUUM
- zcc — SILTY CLAY DECOMPOSITION RESIDUUM
- zcg — SAND, GRAVEL, SILT, AND CLAY DECOMPOSITION RESIDUUM
- zcj — CLAY AND SILTY CLAY DECOMPOSITION RESIDUUM
- zcn — SANDY CLAY LOAM DECOMPOSITION RESIDUUM
- zri — SILTY CLAY DECOMPOSITION RESIDUUM AND CHERTY CLAY SOLUTION RESIDUUM
- zrj — CLAY LOAM AND CHANNERY LOAM DECOMPOSITION RESIDUUM AND SOLUTION RESIDUUM
- rcn — CHERTY CALCAREOUS CLAY SOLUTION RESIDUUM
- rcv — STONY CALCAREOUS CLAY SOLUTION RESIDUUM
- usa — FELDSPATHIC SANDY FINE GRUS

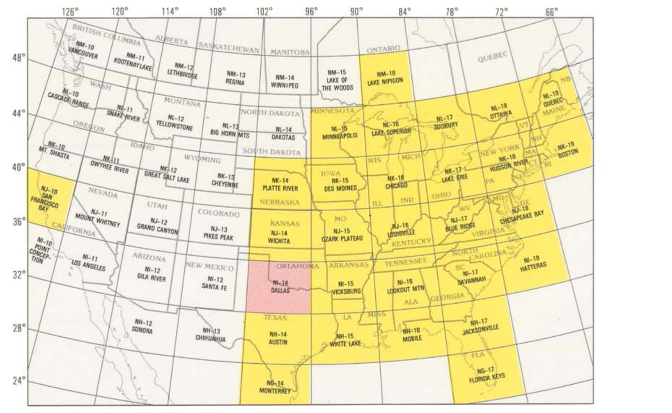
CONTACT

FAULT WITH QUATERNARY DISPLACEMENT—Bar and ball on downthrown side

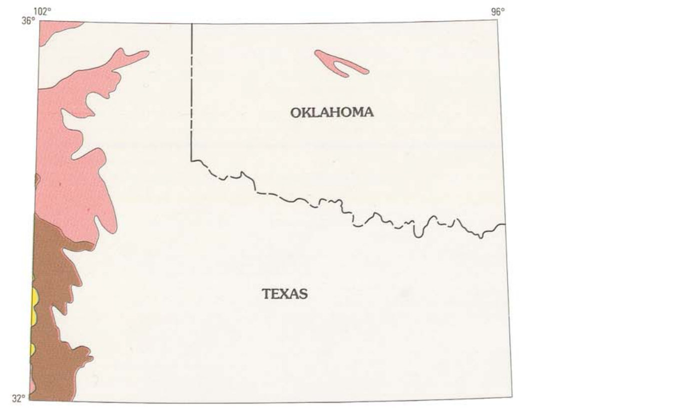
VOLCANIC ASH BEDS

- Lava Creek B ash bed (Pearlette type O)
- Huckleberry Ridge ash bed (Pearlette type B)
- Pearlette family of ash beds not individually identified
- Pleistocene, possibly belonging to Pearlette family of ash beds
- Cerro Toledo ash bed (upper?)
- Guaje ash bed in Blackwater Draw Formation
- Mount Blanco ash bed in Blanco Formation

NOTE: This map is the product of collaboration of the Oklahoma Geological Survey, the Texas Bureau of Economic Geology, and the U.S. Geological Survey, and is designed for both scientific and practical purposes. It was prepared in two stages. First, separate maps and map explanations of that part of each State included in the quadrangle were prepared by the State compilers. Second, these maps were integrated and locally supplemented by …

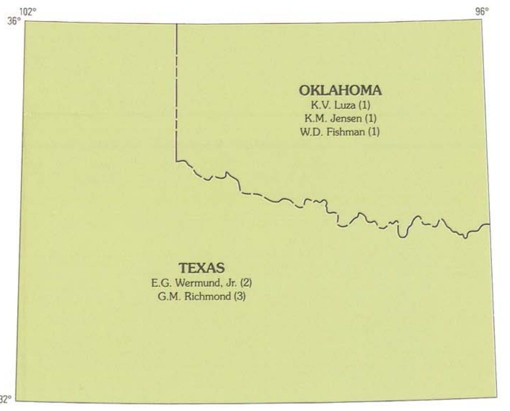


INDEX TO INTERNATIONAL MAP OF THE WORLD 1:1,000,000 TOPOGRAPHIC SERIES



EOLIAN SAND AND LOESS DISTRIBUTION

0.5-2.5 m loess on loamy subsoil
0.5-3.0 m sheet sand on sandy or loamy subsoil



RESPONSIBILITY FOR STATE COMPILATION

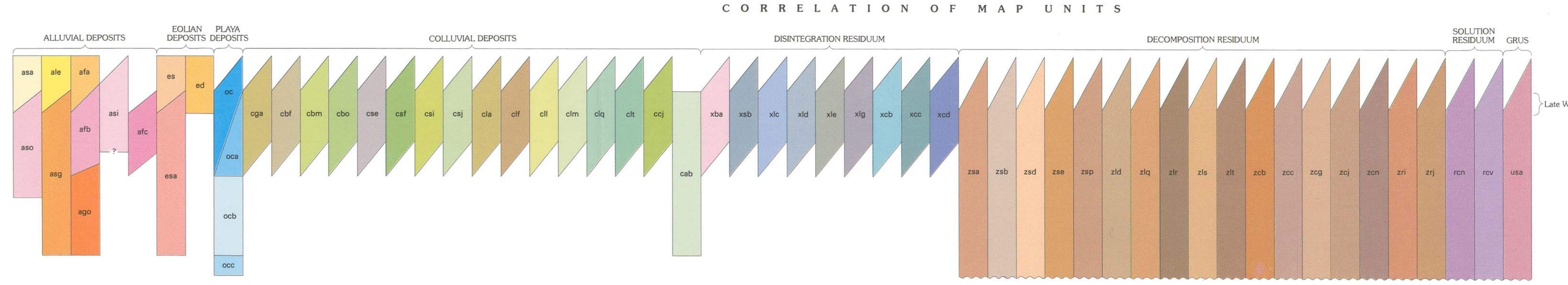
QUATERNARY GEOLOGIC MAP OF THE DALLAS 4° × 6° QUADRANGLE, UNITED STATES

State compilations by
Kenneth V. Luza, Katheryn M. Jensen, William D. Fishman
E.G. Wermund, Jr., and Gerald M. Richmond
Edited and integrated by
Gerald M. Richmond and Ann Coe Christiansen

1994

QUATERNARY GEOLOGIC ATLAS OF THE UNITED STATES

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

HOLOCENE AND LATE WISCONSIN

HOLOCENE TO ILLINOIAN

LATE PLEISTOCENE

MIDDLE PLEISTOCENE AND EARLY PLEISTOCENE

PLIOCENE

QUATERNARY AND TERTIARY

SOURCES OF INFORMATION

OKLAHOMA

TEXAS