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GEOLOGIC MAP OF THE O'NEILL 1° X 2° QUADRANGLE, NEBRASKA, WITH CONFIGURATION MAPS OF SURFACES OF FORMATIONS

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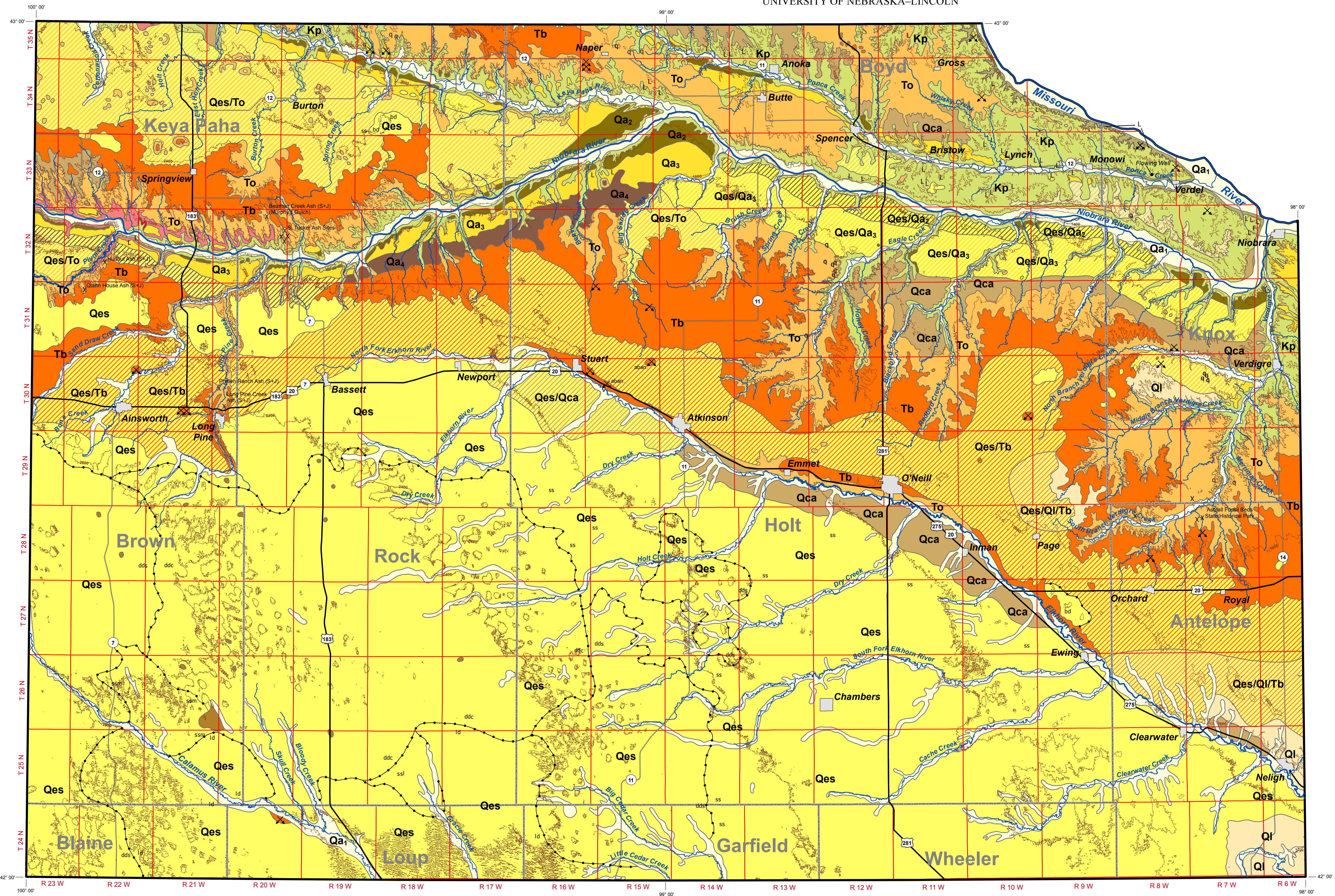
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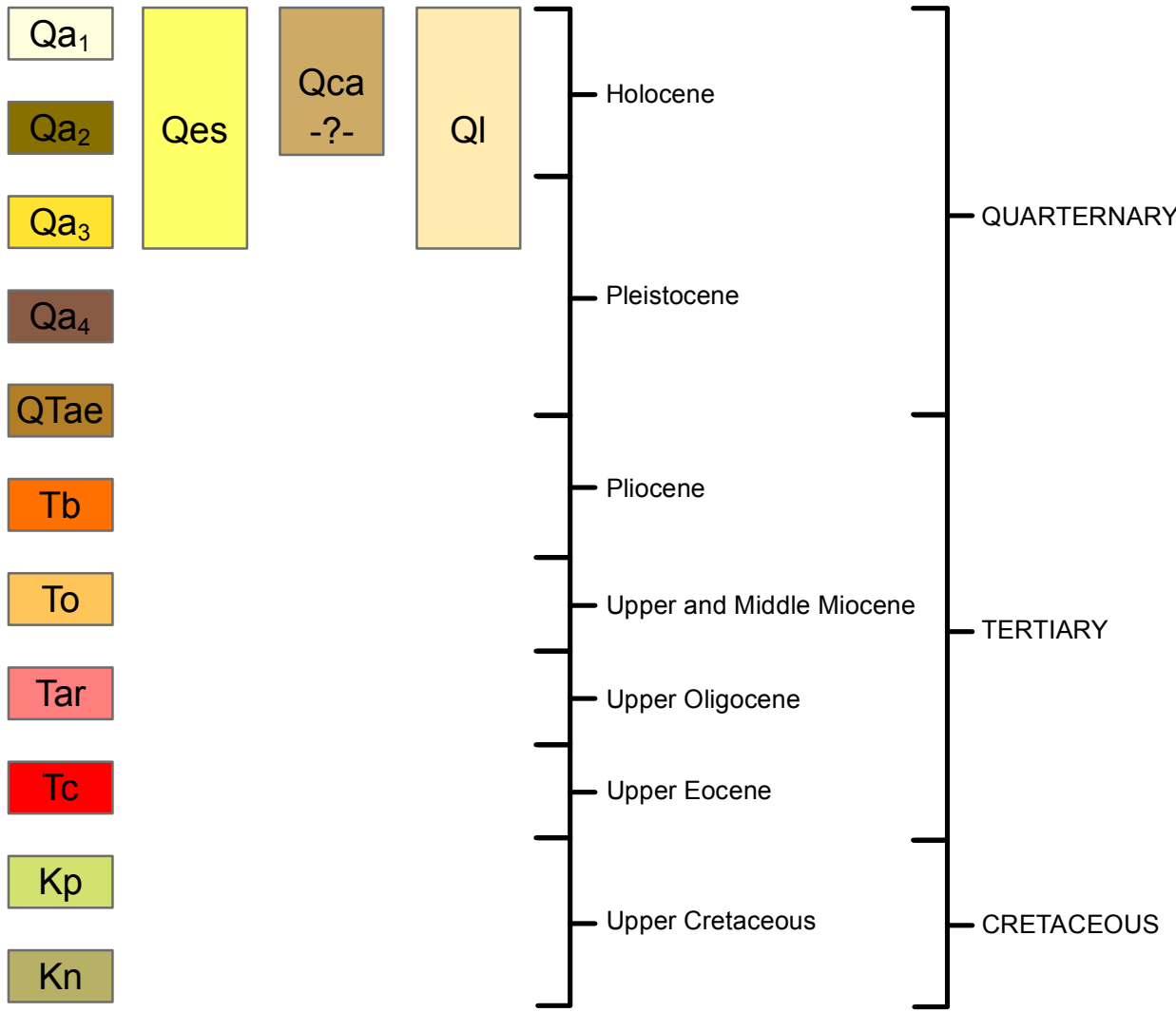
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CORRELATION OF MAP UNITS



LIST OF MAP UNITS

SURFICIAL DEPOSITS

- Qa₁ Younger Alluvium (Holocene)
- Qes Eolian Sand (Holocene and upper? Pleistocene)
- Ql Loess (Holocene and middle? Pleistocene)
- Qca Colluvium and Alluvium (Holocene and upper? Pleistocene)
- Qa₂ Older Alluvium 1 (Holocene)
- Qa₃ Older Alluvium 2 (upper Pleistocene)
- Qa₄ Older Alluvium 3 (upper to mid?-Pleistocene)
- Qtae Unnamed Formation (Plio-Pleistocene)

STACKED UNITS

(See pamphlet, p. 20 for explanation of use)

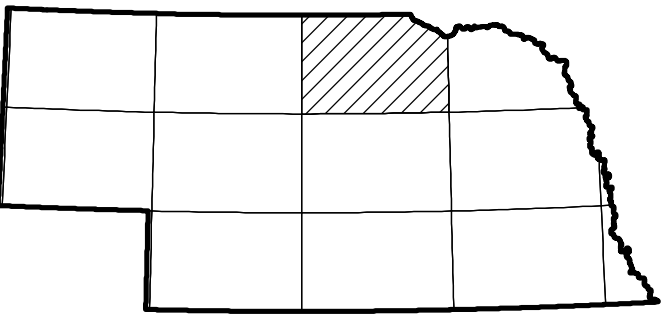
- Qes/Kp
- Qes/Qa₂
- Qes/Qa₃
- Qes/Qa₄
- Qes/Qca
- Qes/Ql/Tb
- Qes/Tb
- Qes/To
- Ql/Kp

OLDER UNCONSOLIDATED DEPOSITS AND BEDROCK UNITS

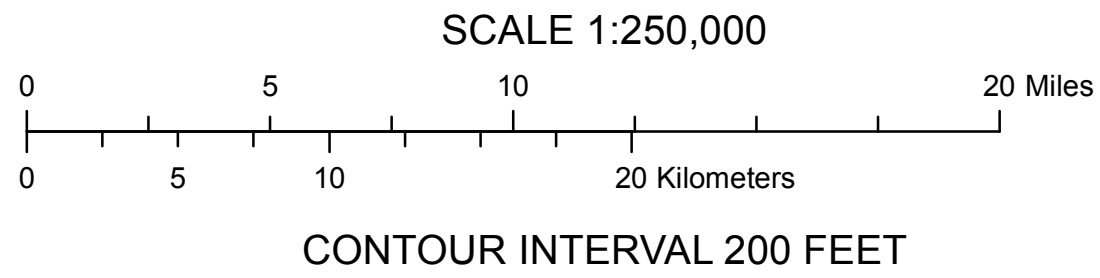
- Tb Broadwater Formation (Pliocene)
- To Ogallala Group, undivided (upper and middle Miocene)
- Tar Arikaree Group, Rosebud Formation (upper Oligocene)
- Tc White River Group, Chamberlain Pass Formation (upper Eocene)
- Kp Pierre Shale (Upper Cretaceous)
- Kn Niobrara Formation (Upper Cretaceous)

EXPLANATION OF SYMBOLS

- F Probable fault in Cretaceous Pierre Shale Formation
- q Green, silica cemented sub-arkosic sandstone in Valentine Formation, Ogallala Group
- L Landslide area--Active during field mapping
- X Volcanic ash in Ogallala Group
- X Pit
- Boundary between Qes dune types; ddc--Dome-like dunes, compound; dds--Dome-like dunes, simple and complex; ld--Linear dunes; ss--Sand sheet; bd--Barchan dunes (after Swinehart, 1990)



Index map showing location of the O'Neill Quadrangle



Geology mapped principally from 1991-2000 by R.F.D., M.R.V., E.J.V., H. LG, and C.L.T.
Editing and layout by R.F. Diffendal, Jr. and D. Ebbeka
Map production by J. Nothwehr and L. Howard
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