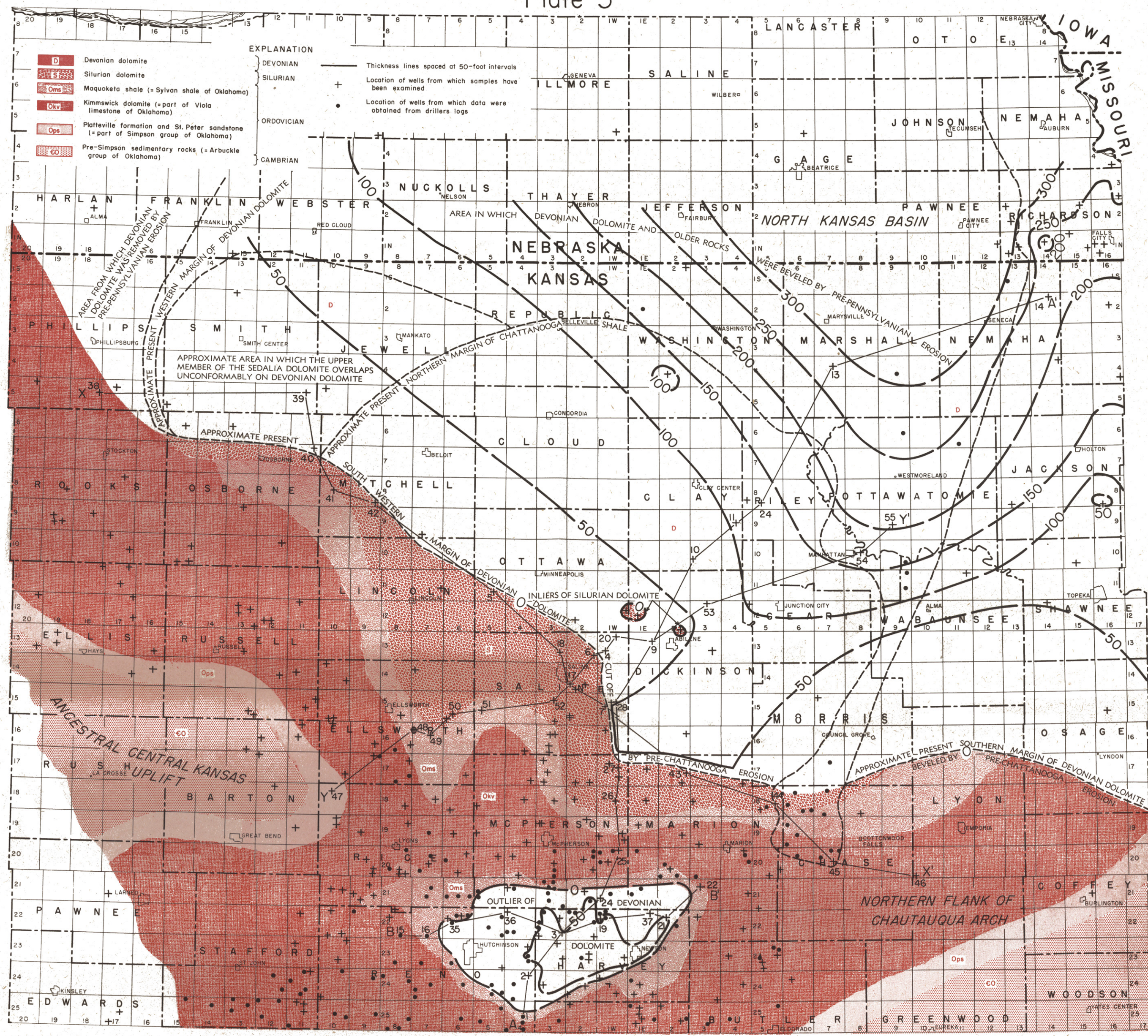


Plate 5



Map of the Salina basin area showing (1) the thickness of the Devonian dolomite where it lies beneath the Chautauqua shale and the pre-Chautauqua sand geology and (2) a stratigraphic cross section on the line A-A'. Cross section B-B' is shown in Figure 9. Cross sections C-C' and D-D' of Plate 13 and 14 show the present attitude of the Devonian rocks. The map shows the thickness of the Devonian dolomite in areas where the normally overlying Chautauqua shale has been removed by erosion. The contour of the Devonian with the Chautauqua shale formerly extended into Nebraska but pre-Pennsylvanian erosion removed the Chautauqua shale from local areas. The thickness of the Devonian dolomite thus exposed. The Salina basin is bounded to the north by the Chautauqua arch and to the south by the Chautauqua arch. The thickness of the Devonian dolomite is shown by the thickness of the Chautauqua shale in Plate 6. Pre-Devonian hills of Silurian dolomite were eroded in Dickinson County by pre-Chautauqua leveling. Similar hills are probably represented in Washington County by local thinning of the Devonian dolomite. The thickness map reveals continued subsidence of the North Kansas basin and a secondary trending anticline on the eastern margin of the map. This fold is more clearly indicated on the map of the Forest City basin, Lee, Galloway, Hervey, and Reed, 1946. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite.

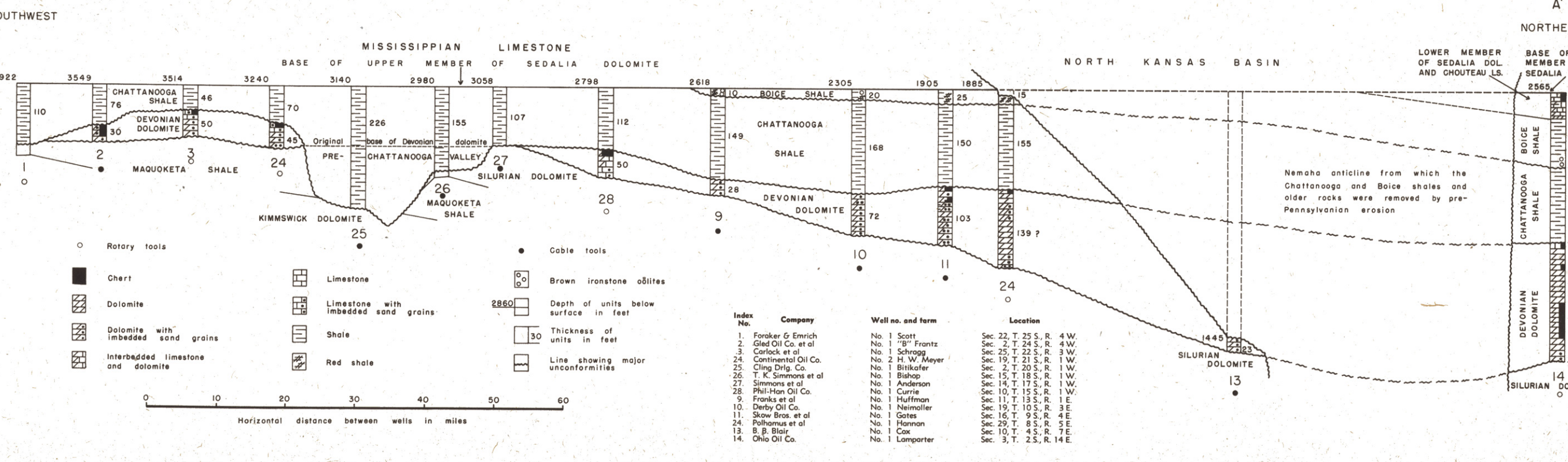
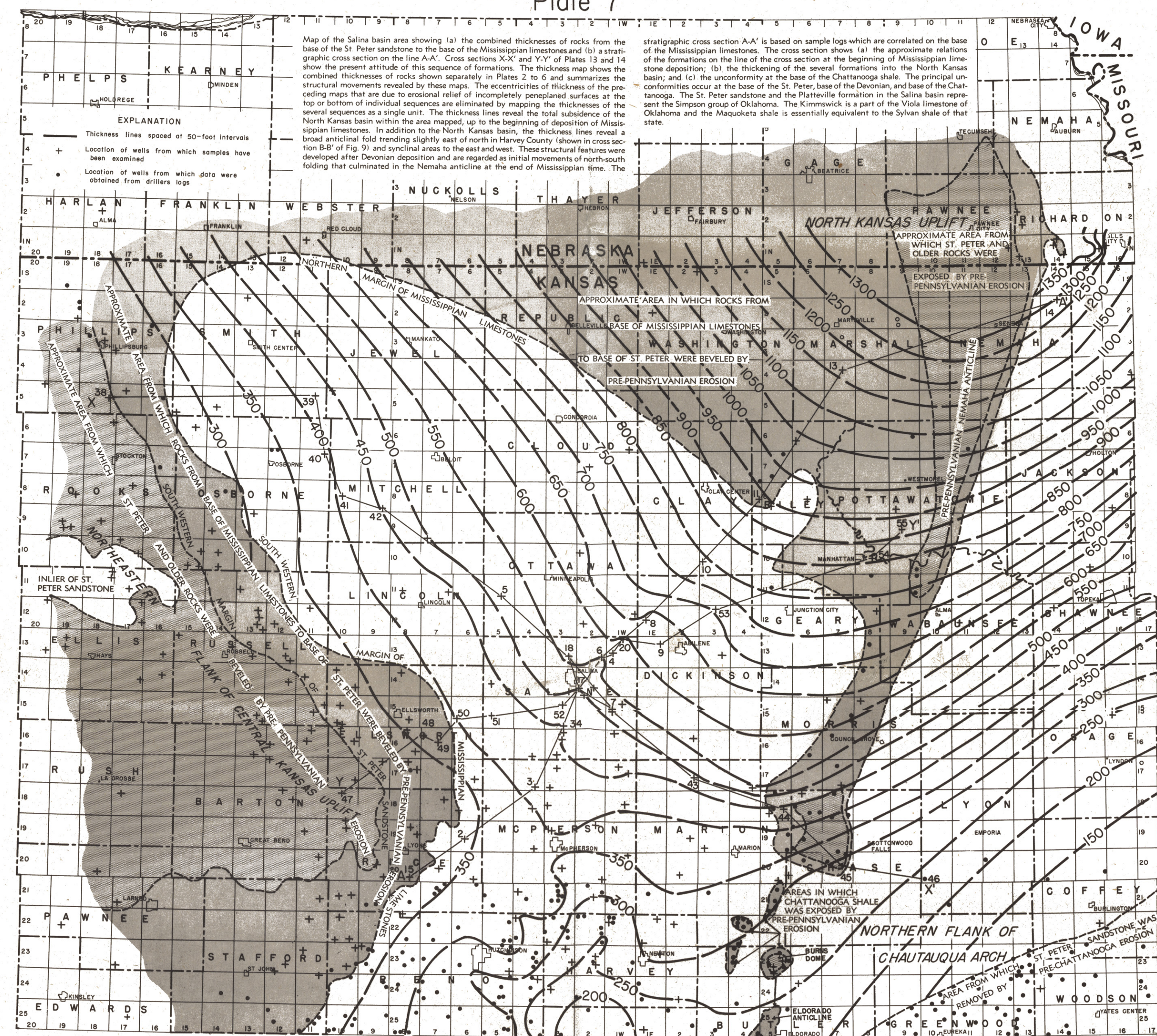


Plate 7



Map of the Salina basin area showing (1) the combined thickness of rocks from the base of the St. Peter sandstone to the base of the Mississippian limestone and (2) a stratigraphic cross section on the line A-A'. Cross sections X-X' and Y-Y' of Plates 13 and 14 show the present attitude of this sequence of formations. The thickness map shows the combined thickness of rocks shown separately in Plates 5, 6, and 7, and summarizes the structural movements revealed by these maps. The eccentricities of thickness of the preceding map that are due to regional relief of unconformably ponded surfaces at the top or bottom of individual sequences are eliminated by mapping the thickness of the several sequences as a single unit. The thickness lines reveal the total subsidence of the North Kansas basin within the area mapped, up to the beginning of deposition of Mississippian limestone. In addition to the North Kansas basin, the thickness lines reveal a broad anticline trending slightly east of north in Harvey County. Unconformities in cross section A-A' show the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite. The thickness lines reveal a broad anticline trending slightly east of north in Harvey County. Unconformities in cross section A-A' show the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite. The thickness lines reveal a broad anticline trending slightly east of north in Harvey County. Unconformities in cross section A-A' show the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite.

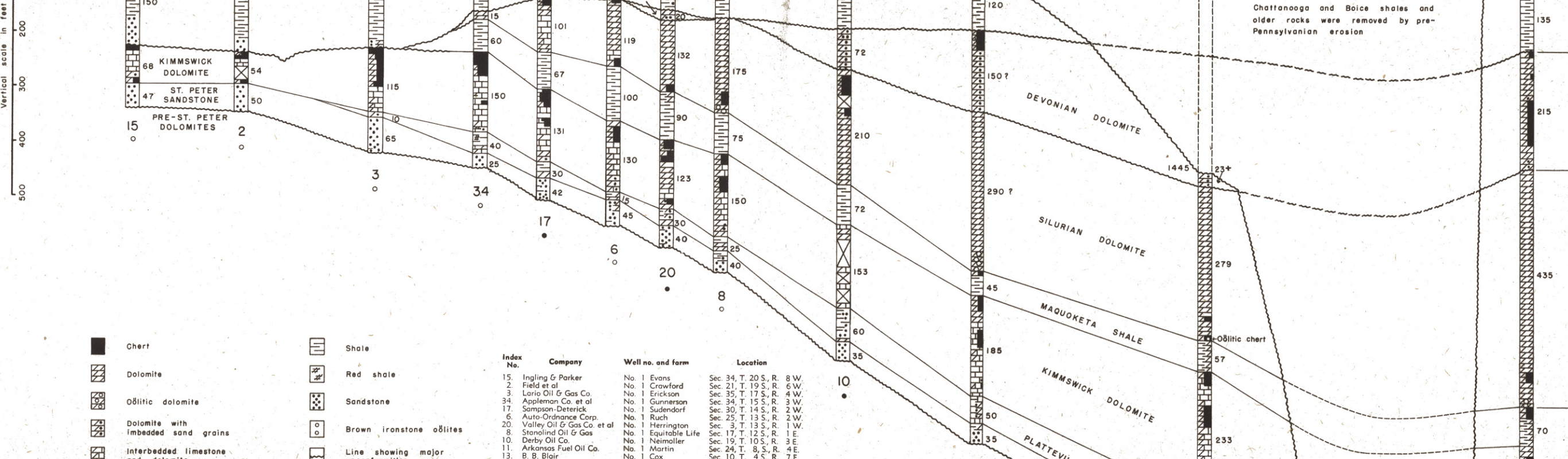
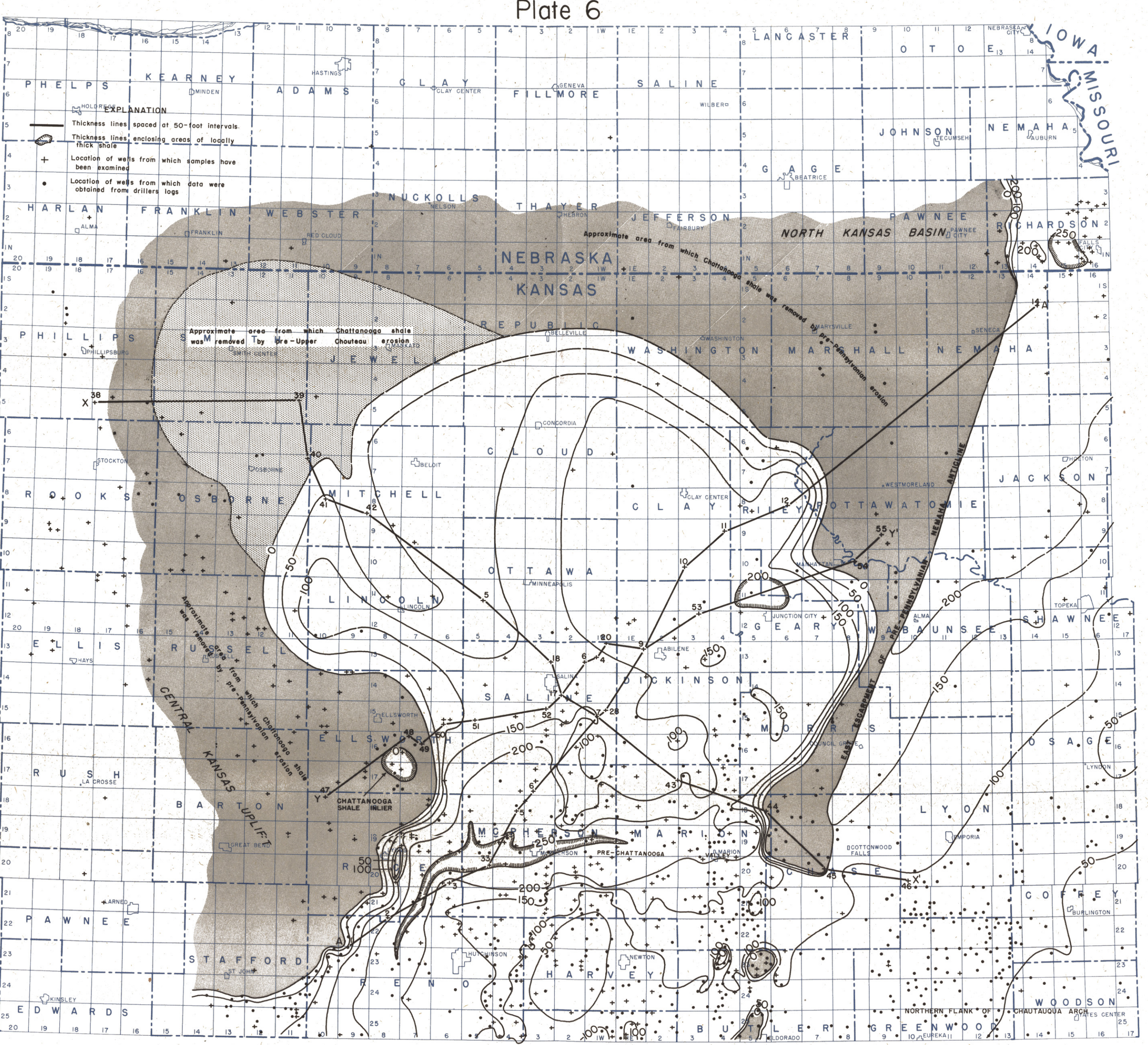


Plate 6



Map of the Salina basin area showing (1) the present thickness and distribution of the combined Chautauqua and Boice shales and (2) a stratigraphic cross section on the line A-A'. Cross sections X-X' and Y-Y' of Plates 13 and 14 show the present attitude of these formations. The thickness map indicates the thickness of the Chautauqua shale in areas where the normally overlying Boice shale has been removed by erosion. The contour of the Chautauqua shale is shown by the thickness of the Boice shale in Plate 7. Pre-Devonian hills of Silurian dolomite were eroded in Dickinson County by pre-Chautauqua leveling. Similar hills are probably represented in Washington County by local thinning of the Devonian dolomite. The thickness map reveals continued subsidence of the North Kansas basin and a secondary trending anticline on the eastern margin of the map. This fold is more clearly indicated on the map of the Forest City basin, Lee, Galloway, Hervey, and Reed, 1946. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite. The logs are correlated on the basis of the upper member of the Salina dolomite.

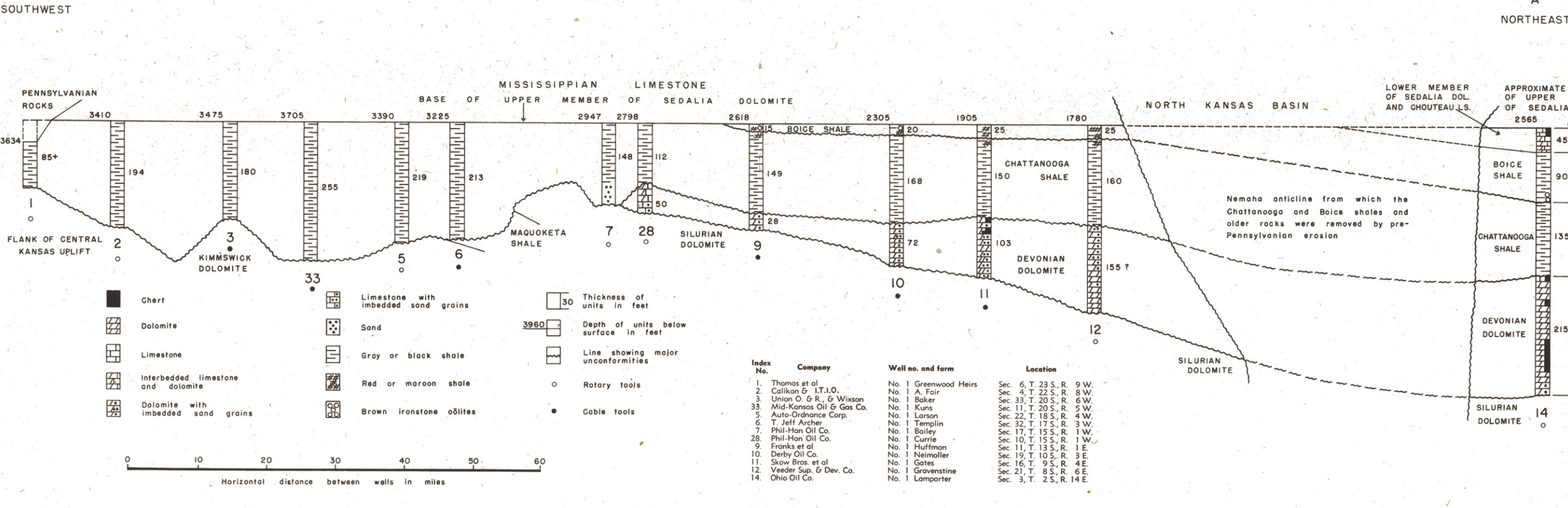
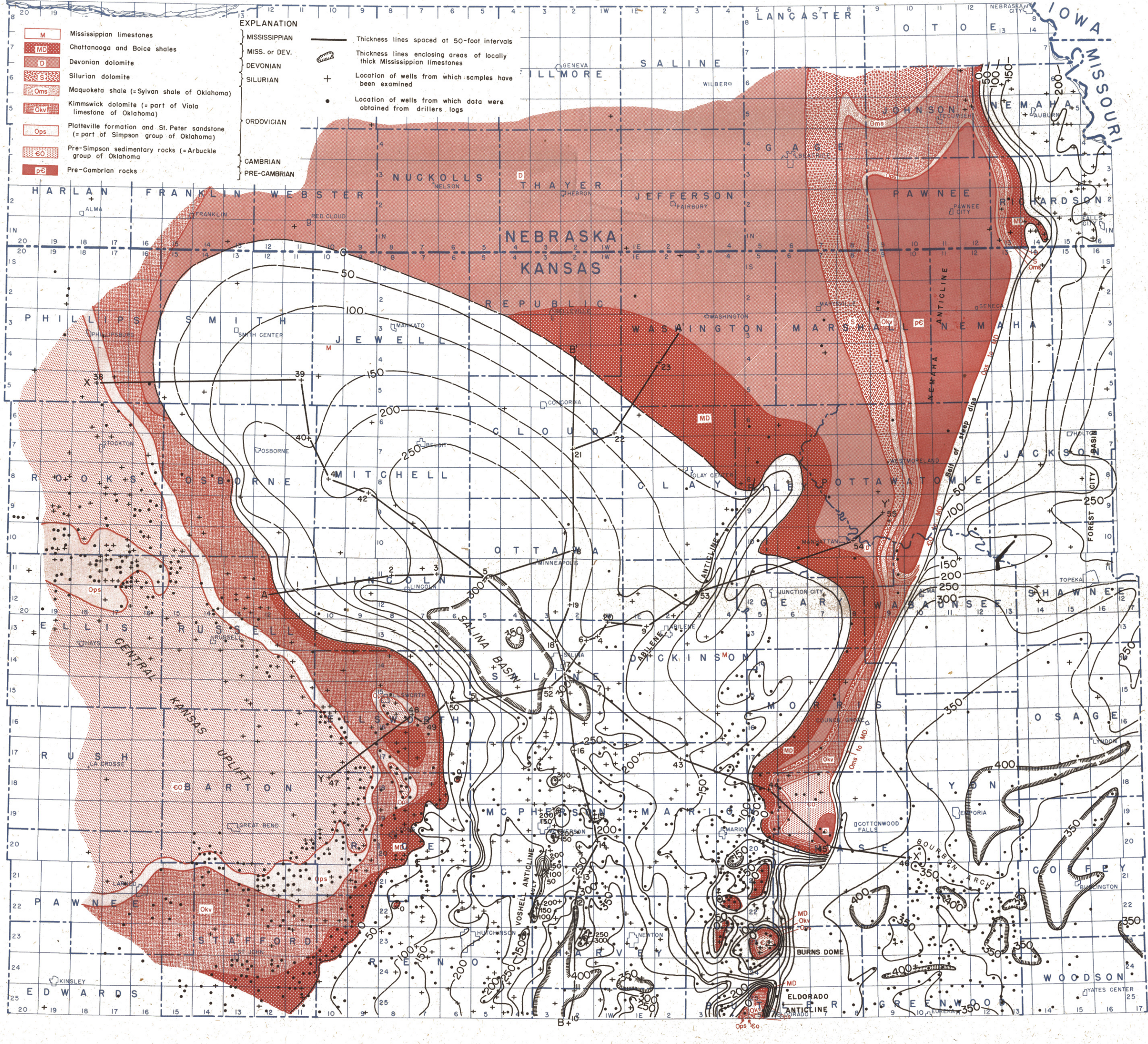


Plate 8



Map of the Salina basin area showing (1) the thickness of the Mississippian limestone and the Pennsylvanian basal conglomerate, (2) the pre-Pennsylvanian sand geology, and (3) a stratigraphic cross section on the line A-A'. Cross sections X-X' and Y-Y' of Plates 13 and 14 show the present attitude of this sequence of formations at the end of post-Mississippian denudation. Cross section B-B' is shown in Figure 9. Cross sections C-C' and D-D' of Plates 13 and 14 show the present attitude of the Mississippian limestone. The thickness map shows (1) the northeasterly trending Nemaha anticline, from whose crest the Nemaha and the Mississippian limestone were eroded; (2) the contemporaneously developed northeasterly trending Salina basin anticline which is recognized by the thickening of the Mississippian limestone beneath the Boice shale; and (3) the Central Kansas uplift which continued active. Secondary anticlines parallel to the Nemaha anticline were also developed. The stratigraphic cross section on line A-A' is based on sample logs which are correlated on the basis of Pennsylvanian rocks. Cross section A-A' shows the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite. The thickness lines reveal a broad anticline trending slightly east of north in Harvey County. Unconformities in cross section A-A' show the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite. The thickness lines reveal a broad anticline trending slightly east of north in Harvey County. Unconformities in cross section A-A' show the attitude and relations of the Mississippian limestone at the end of pre-Pennsylvanian erosion and the thickness of the Devonian dolomite.

