

# Conclusions

Recognition of 12 lithofacies-petrofacies and 5 depositional environments: fluvial, marginal marine, marine shoreface, offshore shale, and subtidal carbonate.

Morrow Formation in Kansas consists of 5 sedimentary depositional sequences. Depositional trends are NW-SE.

Sediments from Sequence 1 infill incised Mississippian carbonates. From Sequence 2 to 5 deposition is more broadly distributed as incisement decreases.

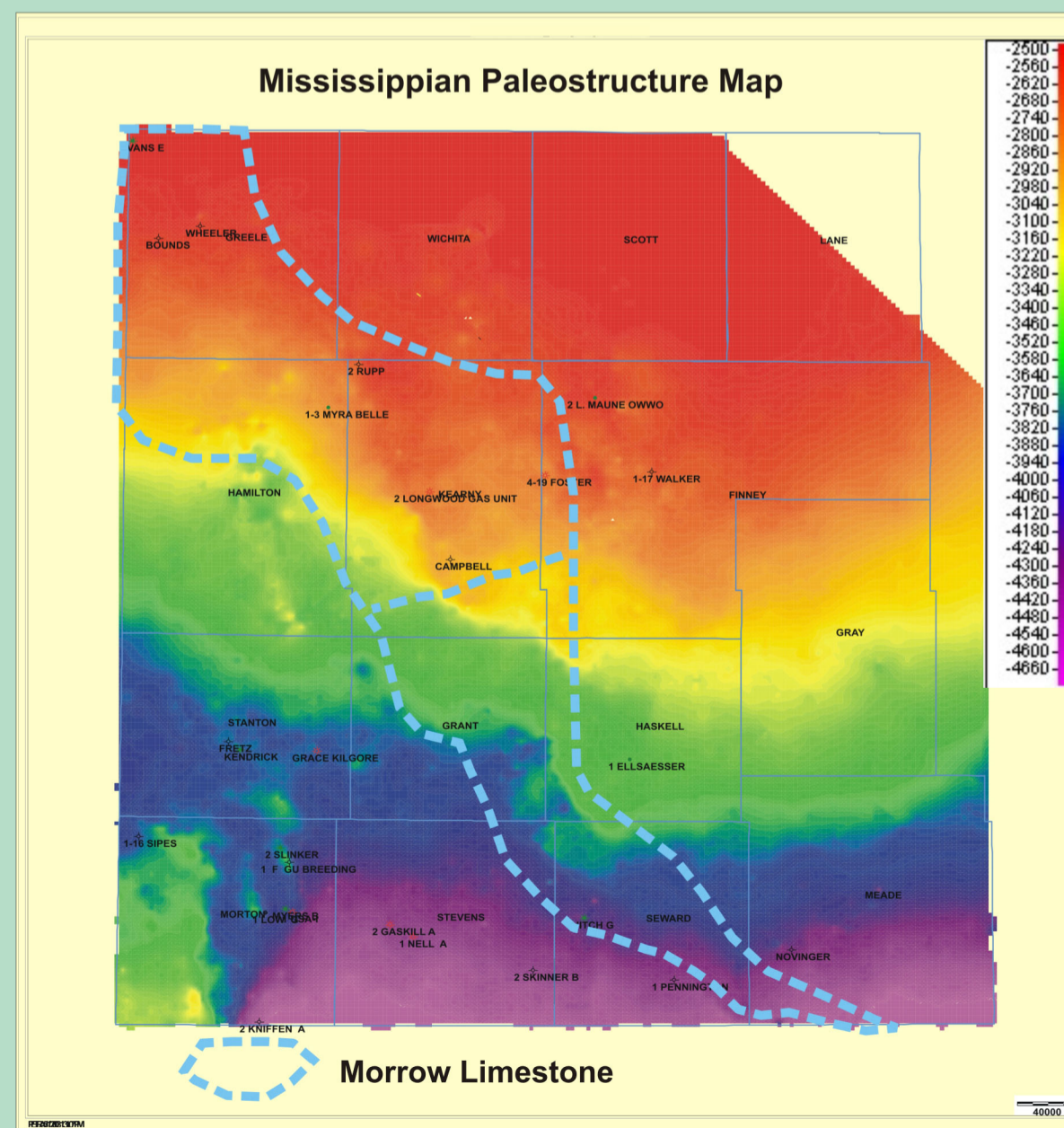
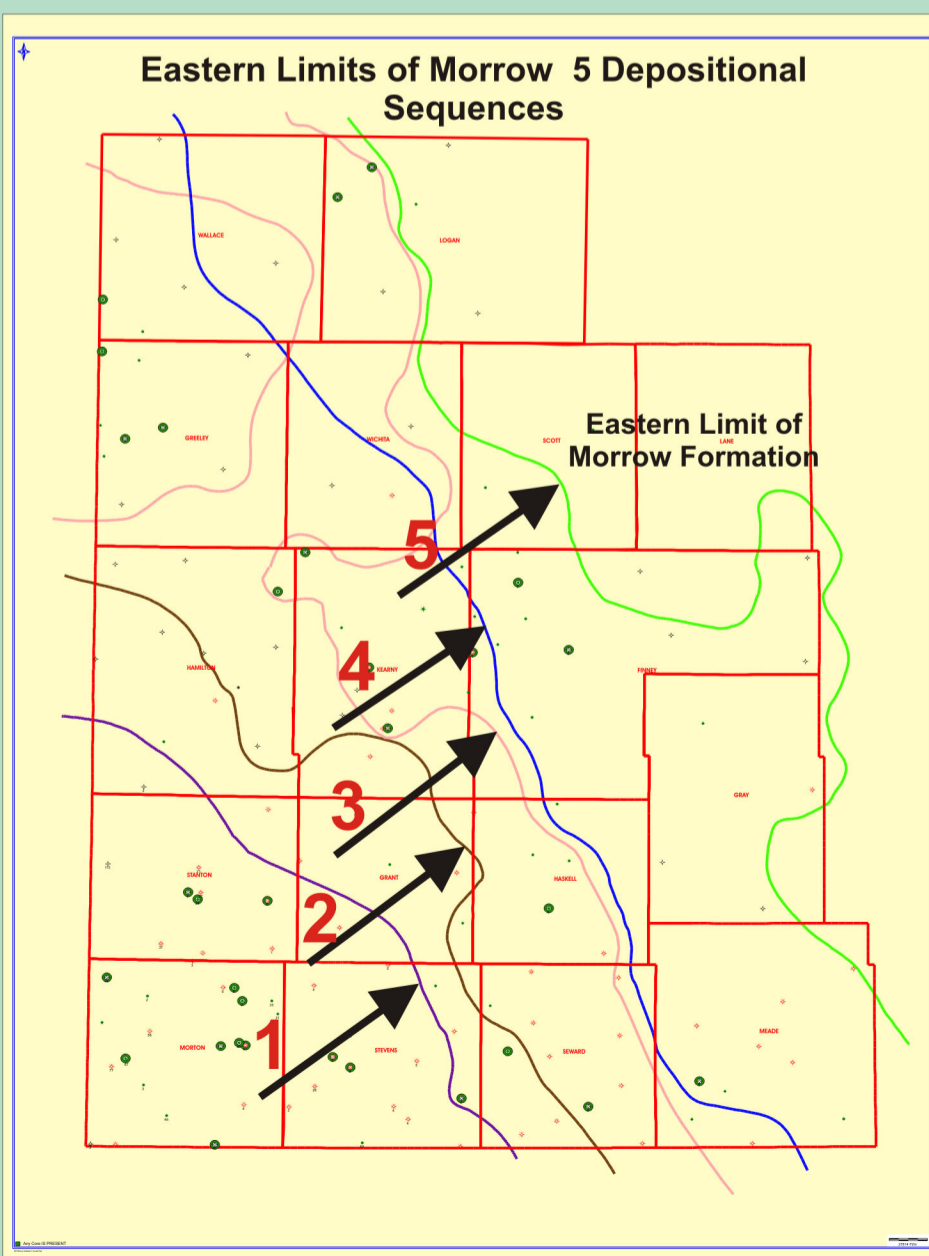
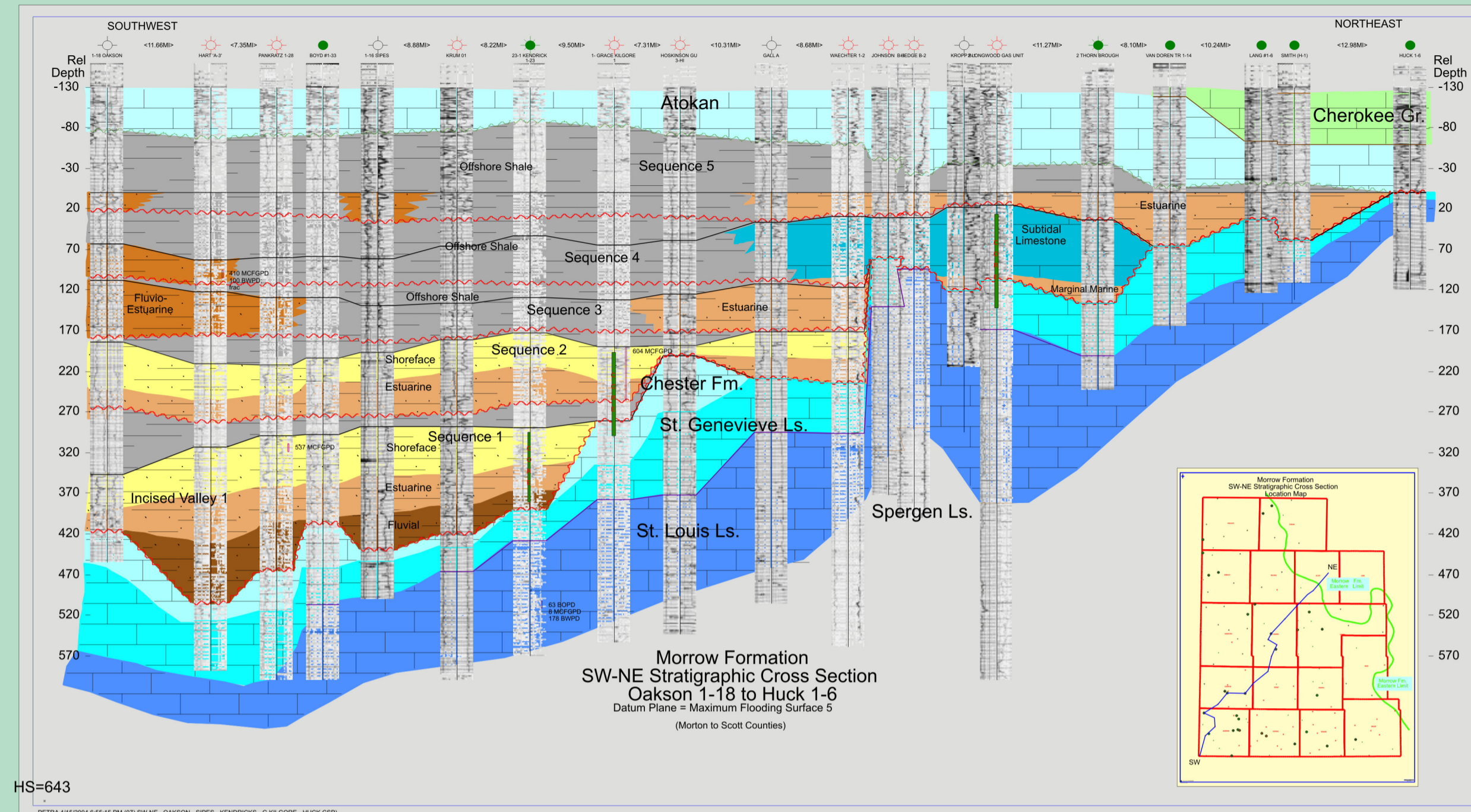
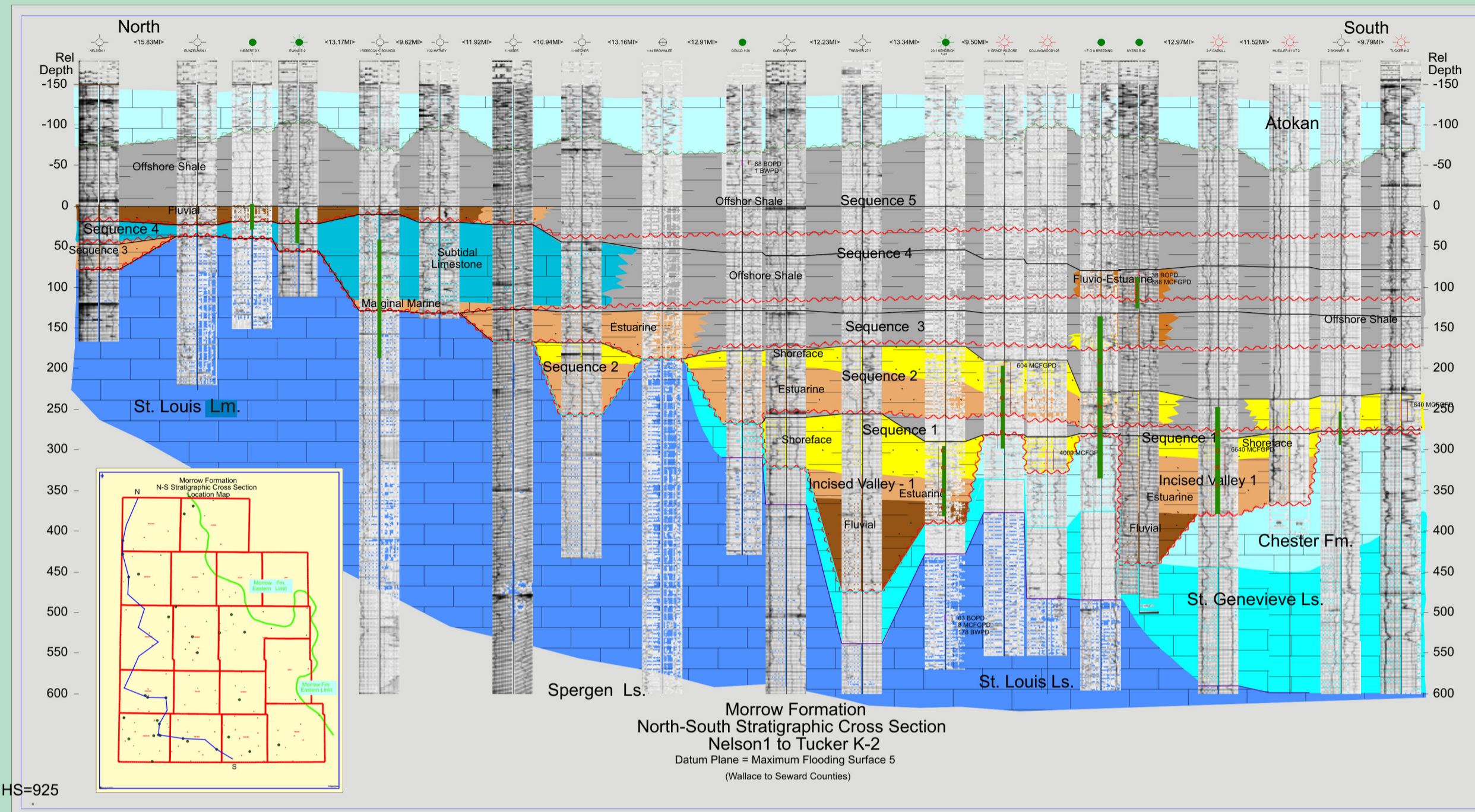
Inherited Mississippian structure strongly influenced the limits of Morrow Incisement and sequences (e.g. Sequence 1-3), and location of carbonate accumulation in Sequence 4.

Morrow depositional sequences (1-5) migrate eastward onlapping Mississippian carbonates of the Central Kansas Uplift.

The provenance of Morrow sediments is north and east, with a persistent source from the southwest.

## Acknowledgments

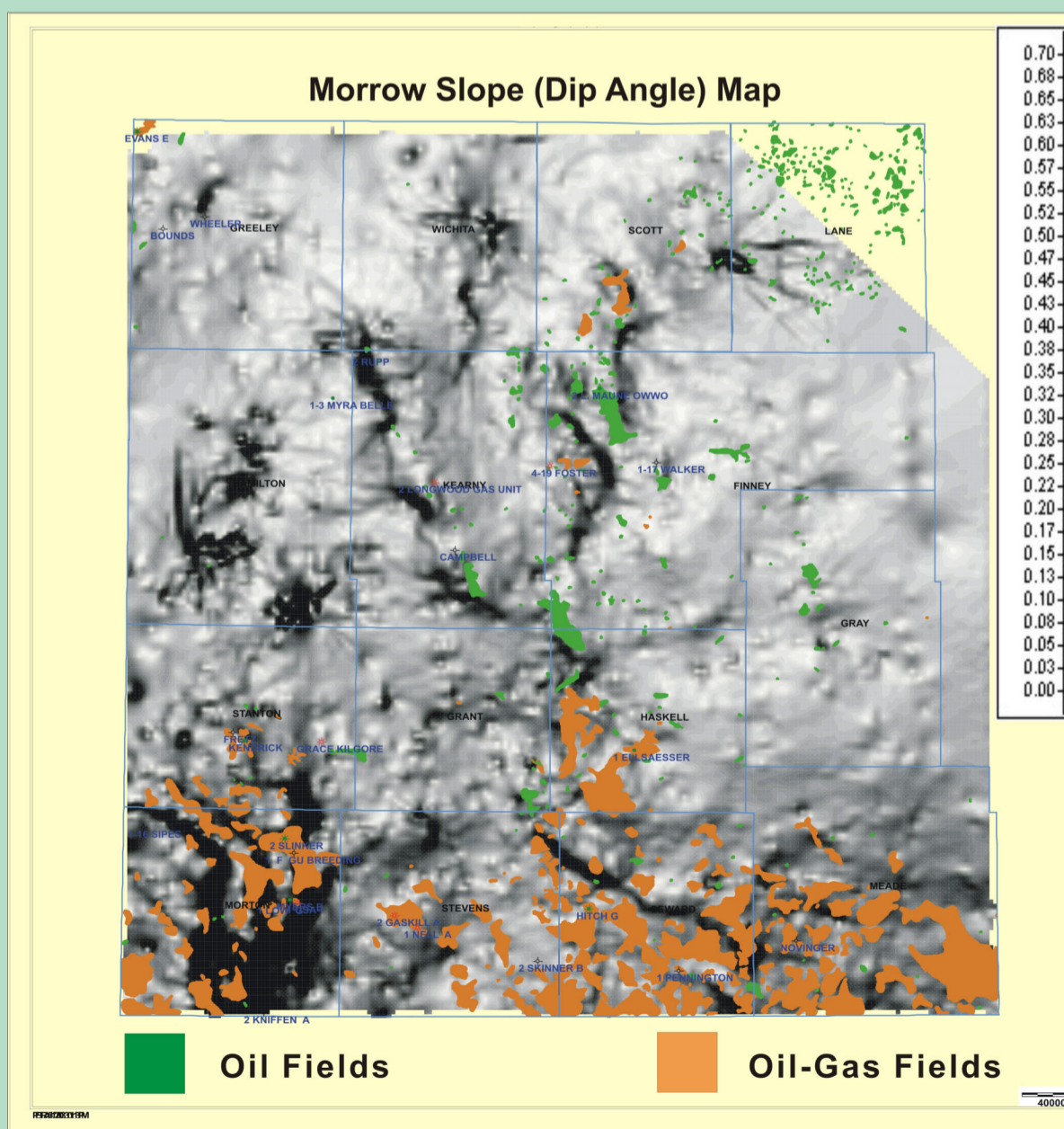
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Mississippian Paleostucture Map based on computer-processed data from 9,091 wells with top of Mississippian horizon.

Laramide structure removed by using the Permian Stone Corral Formation as a datum.

Accumulation of limestone in Sequence 4 is located at the apparent paleo shelf-edge margin.

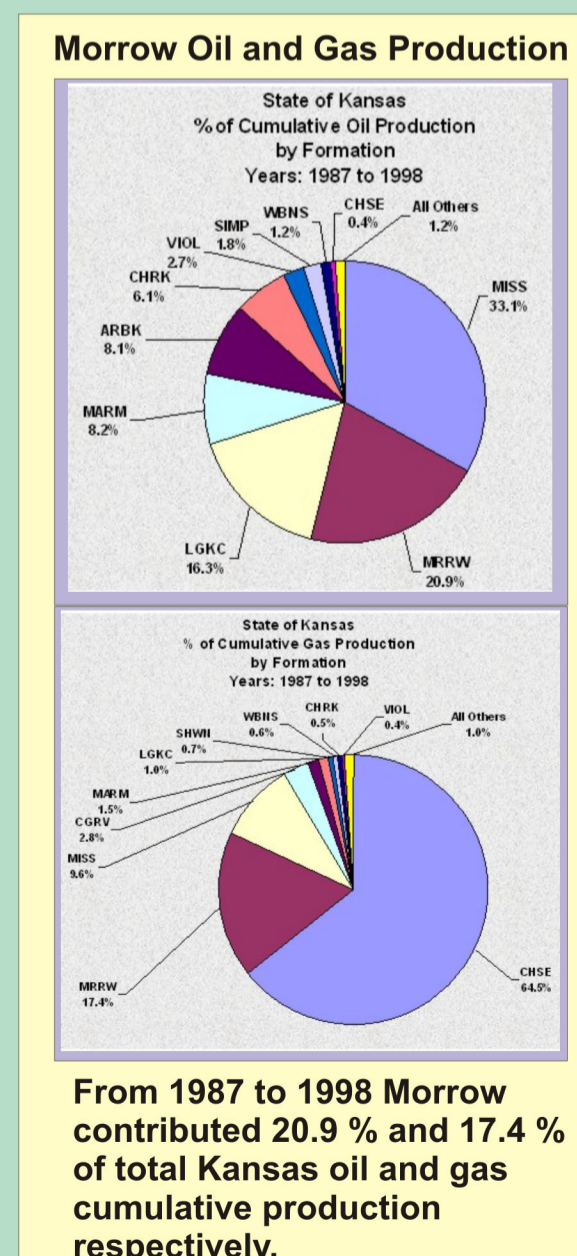


Map constructed with computed processed data from 14,574 wells with top of Morrow horizon.

Possible faulted areas in dark colors, indicated by linear features defined by anomalous rapid change in slope.

Oil and gas production appear to be related to apparent faulted areas.

Apparent fault trends also define the area of limestone accumulation in Sequence 4.



From 1987 to 1998 Morrow contributed 20.9% and 17.4% of total Kansas oil and gas cumulative production respectively.