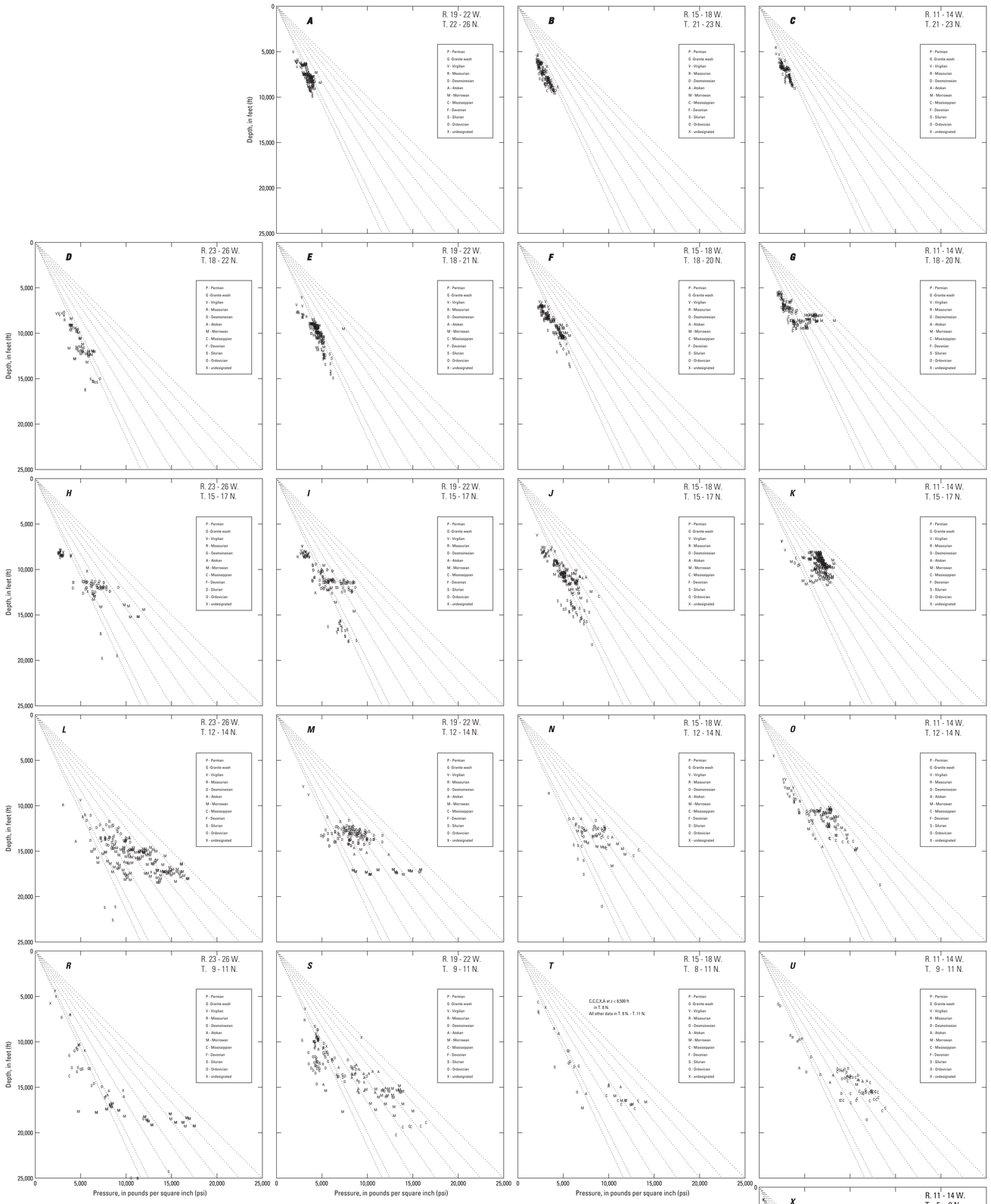

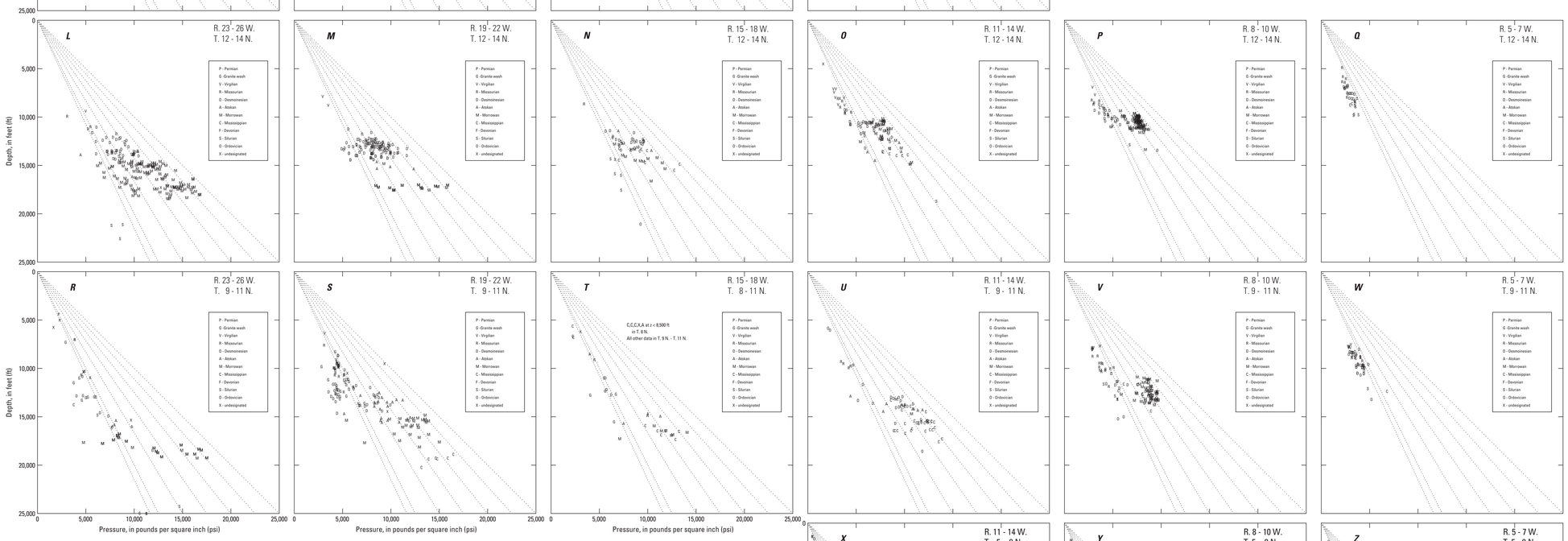

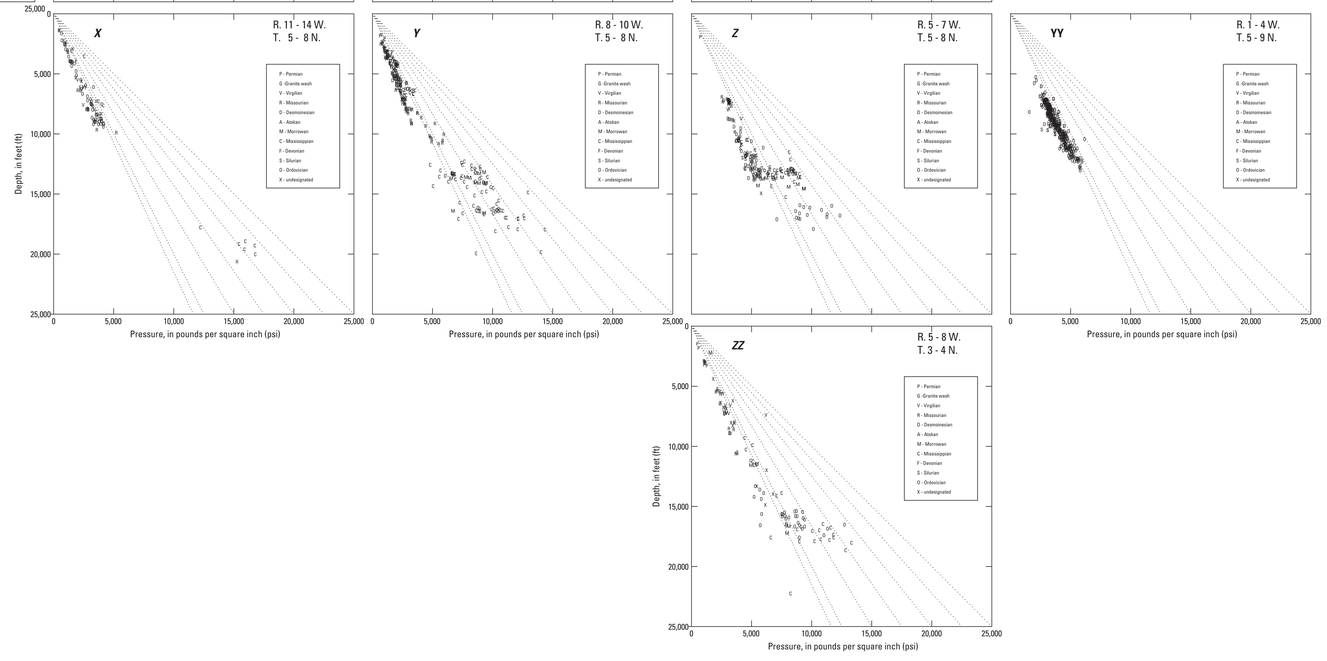

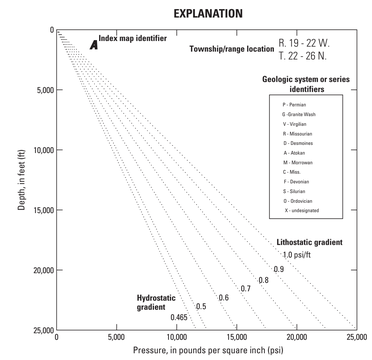

Pressure-depth plots for the Anadarko Basin

The pressure data shown here were the basis of two papers dealing with pressure compartments in the Anadarko Basin (Al-Shaieb and others, 1994a, b). The pressure data shown here are from Oklahoma only (3,637 points), although the original data also extend into the Texas Panhandle. Each pressure-depth plot includes data from a number of townships (12 in many cases), as shown by the colored blocks in the index map at lower left. The plots are arranged to correspond to their position on the map.

A formation or stage name is supplied for most of the pressure data, and is assigned to either a geologic system or series as shown by the key in each of the plots. An exception is made for points labelled "granite wash," a category that subtends several Pennsylvanian series. In some plots, a particular formation may plot shallower than a formation that is older. This apparent mixing of formation ages is caused by the north-south dip in the basin and the north-south extent (about 18 miles) of the blocks. Thickening of strata toward the southern part of the basin is reflected in the north-south change in vertical extents of the period and stage symbols.

On each plot, depth ranges from 0 to 25,000 feet (ft) and pressure ranges from 0 to 25,000 pounds per square inch (psi), as shown in the Explanation. The lithostatic gradient of 1.0 psi/ft forms the diagonal line. Other dotted lines show gradients ranging from 0.465 psi/ft, taken as the hydrostatic gradient, to 0.9 psi/ft. Points lying on or close to the hydrostatic gradient are considered to be normally pressured. Points lying to the left of the hydrostatic gradient are underpressured and points lying to the right are overpressured.

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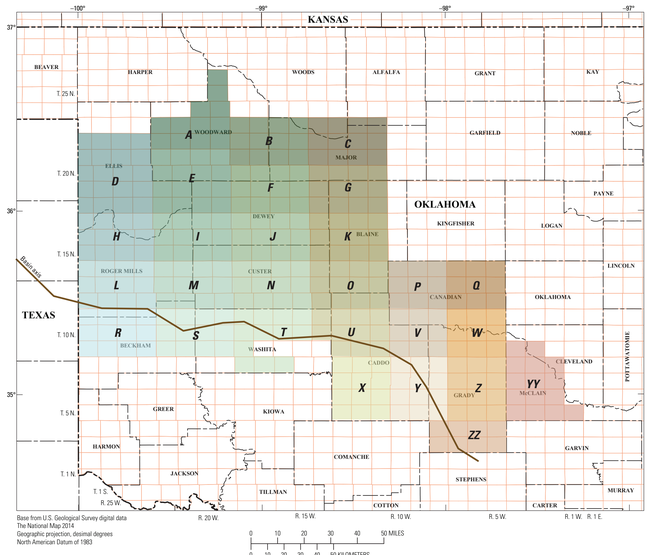
Al-Shaieb, Zuhair, Puckett, J.O., Abdalla, A.A., and Ely, P.B., 1994, Megacompartment complex in the Anadarko Basin: A completely sealed overpressured phenomenon, *in* Ortoleva, Peter J., ed., Basin compartments and seals: American Association of Petroleum Geologists Memoir 61, p. 55–68.

Al-Shaieb, Zuhair, Puckett, J.O., Abdalla, A.A., and Ely, P.B., 1994, Three levels of compartmentation within the overpressured interval of the Anadarko Basin, *in* Ortoleva, Peter J., ed., Basin compartments and seals: American Association of Petroleum Geologists Memoir 61, p. 69–83.



Pressure-Depth Plots for the Anadarko Basin in Oklahoma

By
Philip H. Nelson and Nicholas J. Gianoutsos
2014

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This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on plots of this map.

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This plate is available at http://dx.doi.org/10.3133/ds69EE.

Suggested citation: Nelson, P.H., and Gianoutsos, N.J., 2014, Present-day overpressure and paleopressure indicators in the greater Anadarko Basin, Oklahoma, Texas, Kansas, and Colorado, chap. 8, *in* Higley, D.K., compiler, Petroleum systems and assessment of undiscovered oil and gas in the Anadarko Basin Province, Colorado, Kansas, Oklahoma, and Texas—USGS Province 58: U.S. Geological Survey Digital Data Series 69–EE, 37 p., http://dx.doi.org/10.3133/ds69EE.

ISSN: 2327-638X (online); 2333-0481 CD/DVD