representing the official policies, either expressed or implied, authors and should not be interpreted as necessarily supported by the USGS, National Cooperative Geologic map from USGS topographic map of the Shawnee OKLAHOMA GEOLOGICAL SURVEY Director Boise City Elk City map Map of Oklahoma showing the locations of the 30 X 60 Burkburnett Anadarko City South Sherman Bristow McAlester Eufaula Tulsa Antlers Fayetteville

OLDER ALLUVIUM—Clay, silt, sand, and some gravel composed of locally derived, The Stillwater Formation, as named and defined with type section by Patterson (1933), takes Unit formed at several levels along former courses of present-day rivers and streams. Midcontinent is placed at the top of the Glenrock Limestone of the Red Eagle Formation (Pre) stratigraphic preference over nearly the same lithologic interval named as the Oscar Group by *ad

STILLWATER FORMATION—A series of red to gray mudstones and claystones interbedded with argillaceous, fine-grained quartz arenites, with local interbeds of brown to red mudstones. *ww

VANOSS FORMATION—Mostly multicolored mudstones and mudshales, interbedded with sandstone beds common throughout map area. The Beil Limestone (Ada formation, and is a prominent, 2.2 to 4 meters thick, thin-bedded carbonate mudstone. *ch

HILLTOP FORMATION—Black to dark gray, well-laminated, slightly silty clayshales. Upper third reddish-brown to blue-gray weathering mudstone and a basal light brown to red weathering, thin-bedded carbonate mudstone. Where the underlying Belle City Limestone pinches out, the Hilltop interfingers with shales of Barnsdall erosion south of the North Canadian River. *bn

NELLIE BLY FORMATION—Consists mostly of clayshale and mudstone interbedded with some *cv

COFFEYVILLE FORMATION—Gray to light brown weathering, well-laminated to fissile, slightly more shale-rich Francis Formation. Shale intervals are said to be locally fossiliferous (Ries, *wge

WETUMKA SHALE—Poorly exposed in quad, mainly a grayish-yellow to yellow-brown coarse-grained quartz arenite may occur at the top and base of formation, but were unobserved in this becoming more of a mudstone rather than claystone. Locally, a thin-bedded, fine- to very fine-grained argillaceous, fine-grained, argillaceous quartz arenite. Minor red to reddish-brown claystones occur VANOSS FORMATION—Mostly multicolored mudstones and mudshales, interbedded with sandstone beds common throughout map area. The Beil Limestone (Ada formation, and is a prominent, 2.2 to 4 meters thick, thin-bedded carbonate mudstone. *ch

Belle City Limestone, up to ~10 meters in the southern part of the *ww

Base of formation normally mapped at the top of the underlying Hogshooter Limestone, except where the underlying Belle City Limestone pinches out, the Hilltop interfingers with shales of Barnsdall erosion south of the North Canadian River. *bn

DeNay Limestone bed, occurs prominent (10 meter thick) Boley Conglomerate occurs at the base of the formation throughout *ww

Barnsdall erosion south of the North Canadian River. *chn

Where the underlying Belle City Limestone pinches out, the Hilltop interfingers with shales of Barnsdall erosion south of the North Canadian River. *bn

To the north, the Belle City thins to about 0.5 meters thick, on average, and rapidly grades into *cv

Coffeyville Formation, above). *chn

In areas where either the Checkerboard or DeNay Limestones are absent, the top of the *ch

Figure 1

Heckel, P.H., 1991. Lost Branch Formation and revision of upper Desmoinesian *ww

4. Oakes, M.C; and Motts, W.S., 1963. Geology and mineral resources of *cv

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