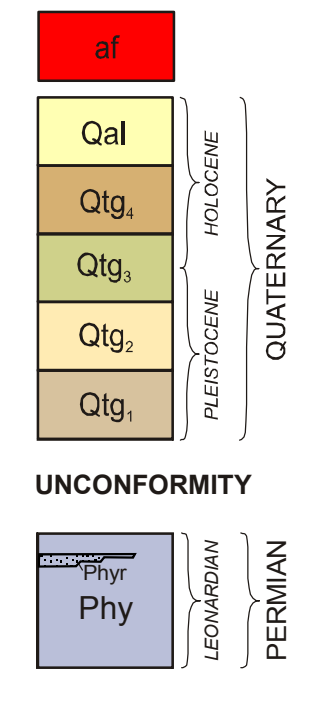


CORRELATION OF MAP UNITS

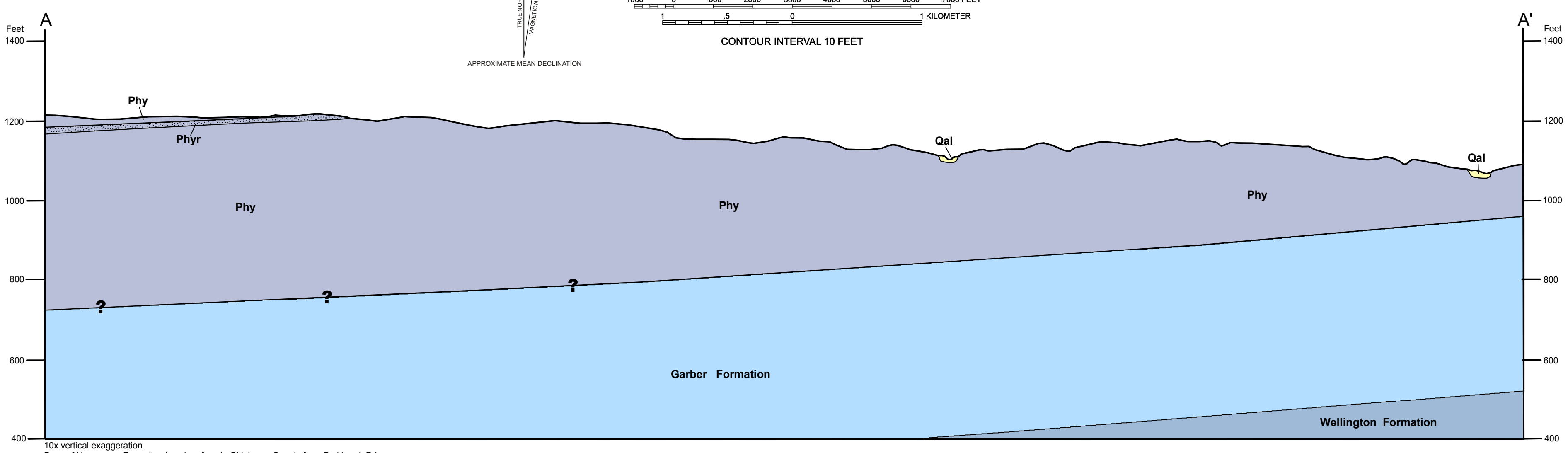
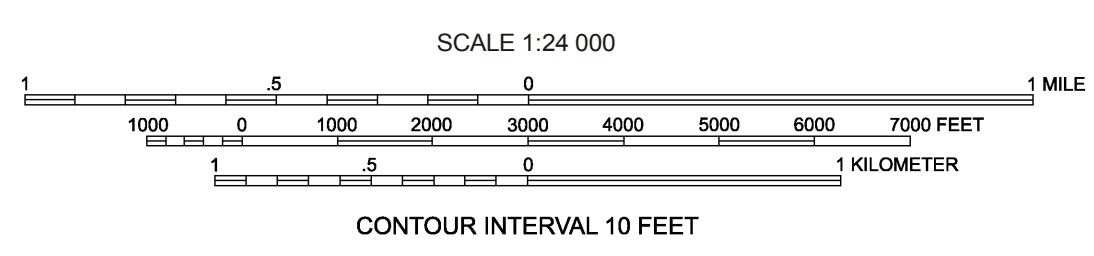
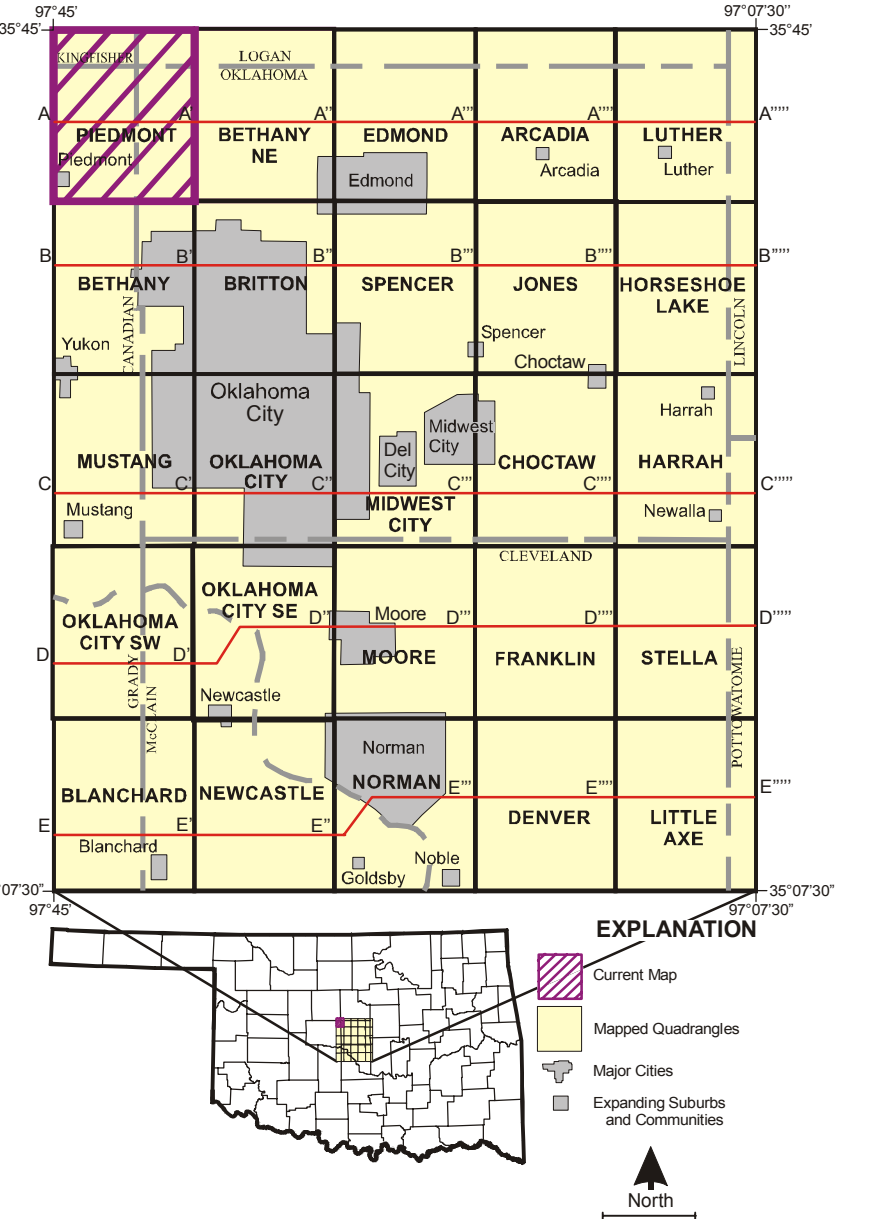


DESCRIPTION OF UNITS

- af** ARTIFICIAL FILL—Natural or artificial talus, slumps, and tailings covering formally exposed areas. Most deposits of this type found around man-made earthen dams and large-scale land-fills. Thickness variable.
- Qal** ALLUVIUM (Holocene)—Clay, silt, sand, and gravel in channels and on flood plains of modern streams
- Qtg₁** TERRACE DEPOSITS (Holocene)—Clay, silt, sand, and gravel on terraces immediately above and adjacent to modern flood plains. Consists entirely of locally derived sediment
- Qtg₂** TERRACE DEPOSITS (Holocene and/or Pleistocene)—Clay, silt, sand, and gravel on terraces immediately above and adjacent to modern flood plains. Contains a significant amount of distally derived sediment, mostly subrounded quartz and quartzite cobbles and pebbles
- Qtg₃** REMNANTS OF TERRACE DEPOSITS (Pleistocene)—Concentrations of distally derived sediment, mostly subrounded quartz and quartzite cobbles and pebbles, about 15 to 20 ft above flood plains. Probably represents part of former course of North Canadian River
- Qtg₄** REMNANTS OF TERRACE DEPOSITS (Pleistocene)—Concentrations of distally derived sediment, mostly subrounded quartz and quartzite cobbles and pebbles, more than 20 ft above modern flood plains. Probably represents part of former course of North Canadian River
- Phy** HENNESSEY FORMATION (Permian)—Mostly a silty claystone or clayshale depending on whether bedding is laminated (<=1cm thick: clayshale), or thin (>1cm thick: claystone), with local intervals of line- to very fine-grained sandstone and coarse siltstone. The Reedling Sandstone is the only mappable bed that can be traced with any certainty in the Hennessey Formation.
Shale, silty, moderate reddish brown (10R4/6) to dark reddish brown (10R3/4); minor siltstone, sandy, moderate reddish brown (10R4/6) to dark reddish brown (10R3/4), also banded with yellowish gray (5Y7/2) beds; and minor sandstone, very fine grained to rarely fine- to medium-fine-grained (near base), typically moderate reddish brown (10R4/6) to light brown (5YR5/6) to moderate reddish orange (10R6/6), rarely yellowish gray (5Y8/1). Silty shale mostly poorly stratified, weathers to small, angular fragments and more rarely to flakes. Contains common iron-reduction spots, light greenish gray (5GY6/1) to 5GY8/1), as large as 2 in. in diameter. Channel-form deposits rare. Commonly weathers to bare, rounded outcrops and/or "badlands"-type topography. Sandy siltstone generally stratified, less commonly unstratified, and contains rare trace fossils, cross bedding, ripple marks, and shale rip-up clasts. Beds commonly about 1 to 4 in. thick. Circular iron-reduction spots as large as 4 in. in diameter common, locally concentrated parallel to bedding planes. Siltstone commonly weathers to small chips, rarely spheroidal or angular blocks, in places has a "hackly" appearance. Calcite veinlets and vugs common. Interbedded siltstone and shale weather to "badlands"-type or bench-and-slope topography. Sandstone beds typically cross-bedded and contain ripple marks. Lenticular- and wavy-bedding, burrows, trace fossils, mudcracks, shale rip-up clasts, and soft-sediment deformation features uncommon. Some beds show evidence for scour and channel-form bases. Circular yellowish gray (5Y8/1) iron-reduction spots as large as 4 in. in diameter and thin, greenish gray beds common. Sandstone friable, weathers play to flaggy. Thickness: about 500 ft based on cross section, top and base of formation not exposed.
Reedling Sandstone Bed (Phyr): Sandstone, very fine grained, light brown (5YR5/6) to moderate reddish brown (10R4/6) to moderate reddish orange (10R6/6), and minor siltstone, moderate brown (10R4/6) and moderate reddish orange (10R6/6) and shale, dark reddish brown (10R3/4). Contains conspicuous light greenish gray (5GY6/1) to greenish gray (5GY6/1) circular iron-reduction spots that vary in size from very small to 5 in. in diameter and are locally concentrated in bands parallel to bedding planes. Generally well-stratified at base to unstratified at top; locally with low-angle cross-bedding. In places contains gray layers and streaks that may be diagenetic. Rare vertical burrows (?). Basal contact sharp and apparently conformable with underlying Hennessey Formation. Weathers to angular blocks. Thickness: about 2 to 35 ft

SYMBOLS

- Unit contact; dashed where approximate
- Mappable bed
- x Outcrop, geologic observation
- x→ Outcrop, bearing of paleocurrent direction
- x↗ Outcrop, azimuth of paleocurrent direction
- Exotic (quartz, quartzite) pebbles and cobbles
- Petroleum well. Includes oil, gas, oil and gas, dry, service (water supply or injection), junked and abandoned, unknown. Modified from Natural Resources Information System database
- ⊗ Quarry



GEOLOGIC MAP OF THE PIEDMONT 7.5' QUADRANGLE,
KINGFISHER, LOGAN, CANADIAN, AND OKLAHOMA COUNTIES, OKLAHOMA
Neil H. Suneson and LeRoy A. Hemish
1998

Base Map Credits
The base map was compiled by the U.S. Geological Survey, Topography by photographic methods from aerial photographs taken 1964. Field checked 1965. Revisions from aerial photographs taken 1981 and other sources. Map edited 1983. Universal Transverse Mercator (UTM) projection, 1927 North American Datum, 10,000-foot grid ticks based on Oklahoma coordinate system, north and south zones, 1,000-meter UTM grid, zone 14.
Geologic Map Credits
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