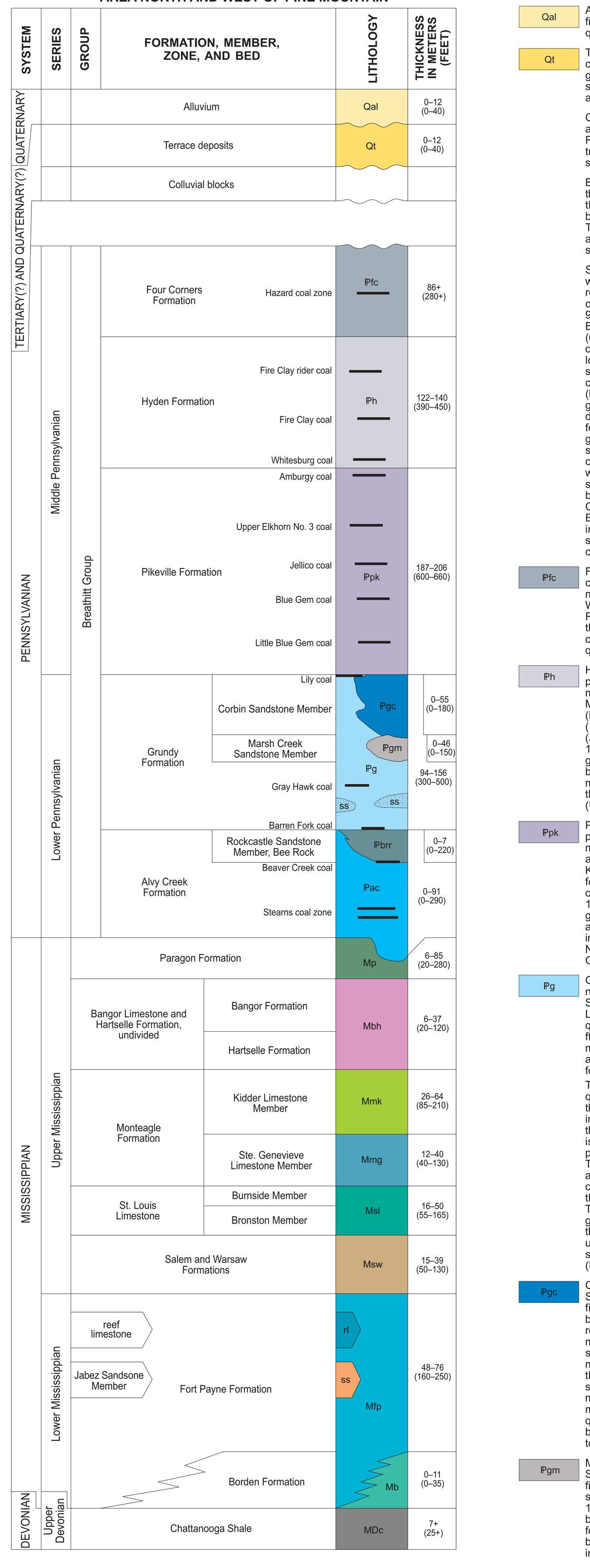
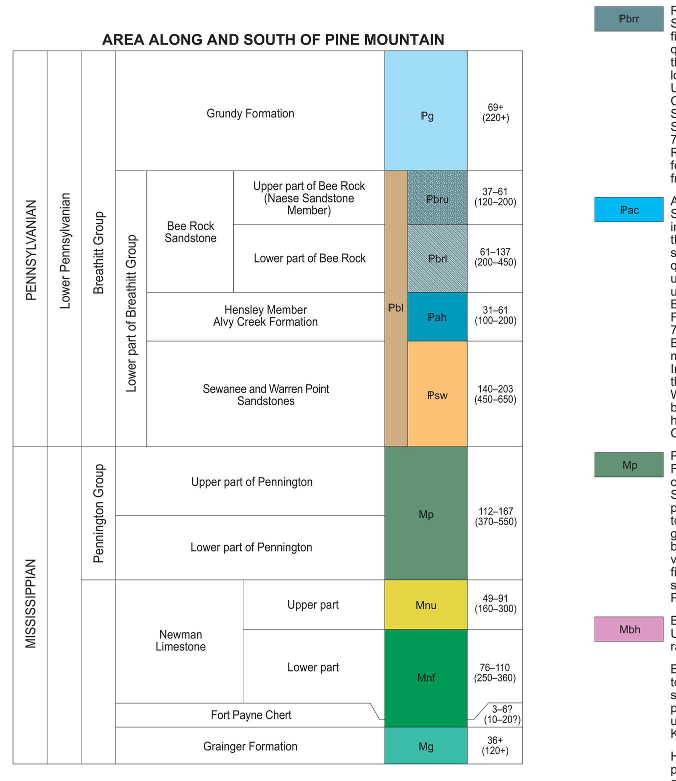
AREA NORTH AND WEST OF PINE MOUNTAIN



AREA ALONG AND SOUTH OF PINE MOUNTAIN



DESCRIPTION OF MAPPED UNITS

AREA NORTH AND WEST OF PINE MOUNTAIN

GEOLOGIC MAP OF THE CORBIN 30 x 60 MINUTE QUADRANGLE, SOUTH-CENTRAL KENTUCKY

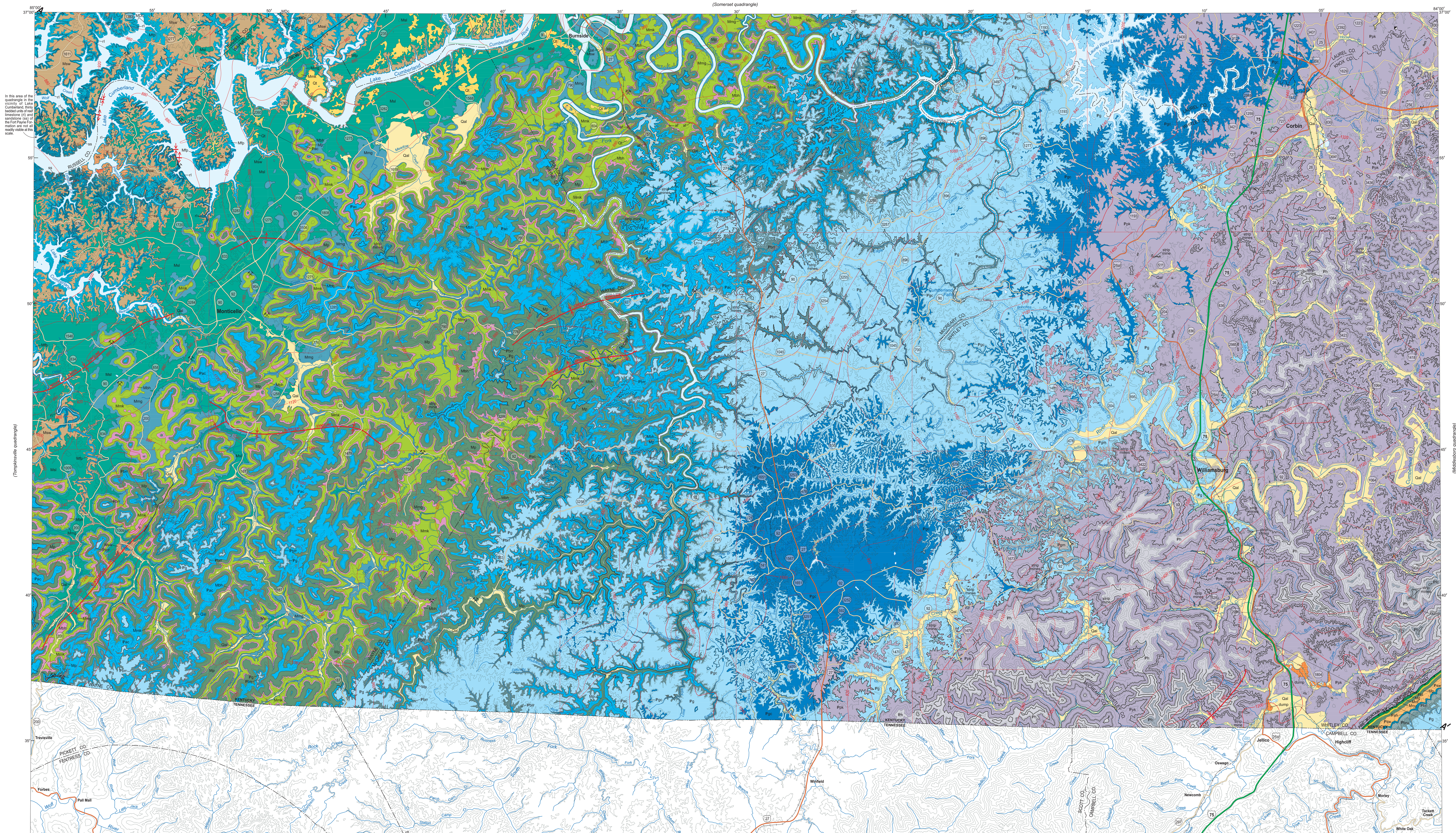
Thomas N. Sparks, Warren H. Anderson, and Xin-Yue Yang

Cartography by Terry D. Hounshell

SCALE 1:100 000

universal transverse Mercator projection, zone 16: 1927 North American datum

TOPOGRAPHIC CONTOUR INTERVAL 50 METERS



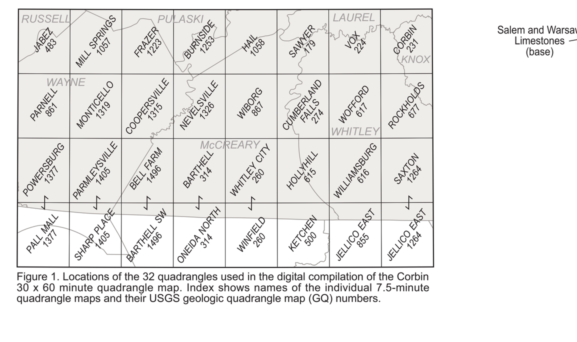
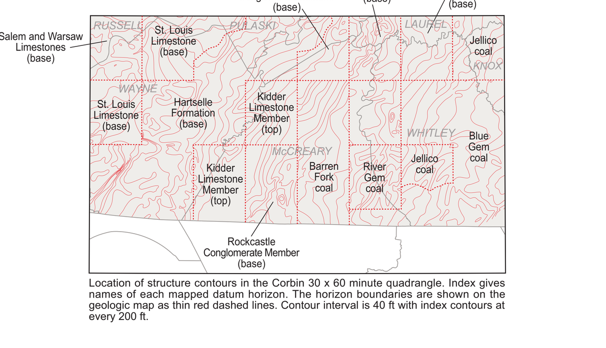
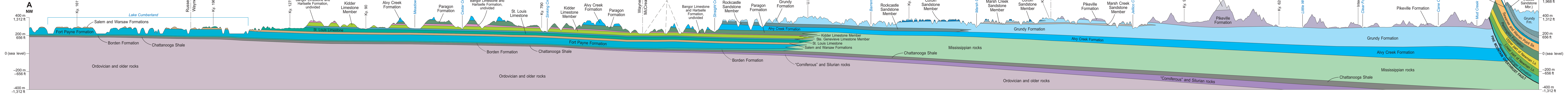


Figure 1. Locations of the 32 quadrangles used in the digital compilation of the Corbin 30 x 60 minute quadrangle map.





Coal production and reserves

The Corbin quadrangle encompasses the southern margin of the Southwestern Coal Reserve District. Coal has been mined in that area since the early 1800's by surface and underground methods. The most prolific coal resources in Whitley County are the Manchester (known locally as Lily or River Gem), Blue Gem (Lower Elkhorn) zone, and Jellico. Elsewhere in the quadrangle, coals have been mined below the Corbin Sandstone; the Barren Fork is the most important coal bed in McCreary County, whereas the Stearns zone (Stearns No. 2) has been mined in Wayne County. Total coal production from the three counties in the quadrangle is summarized in Table 1.

Table 1. Cumulative coal production (million tons) by county and mining method (1827–2008).

County	Undifferentiated	Underground	Surface	Total
McCreary	6.972	41.960	6.410	55.341
Wayne	0.107	0.751	5.312	6.170
Whitley	22.570	28.496	41.025	92.091
TOTAL	29.649	71.207	52.747	153.602

Source: Kentucky Geological Survey coal production database, kgs.uky.edu/kgsweb/DataSearching/Coal/Production/prodsearch.asp [accessed 12/02/09].

Resource studies by Brant (1983) calculated total remaining resources of more than 6.85 billion tons for the district, of which the three counties in the Corbin quadrangle made up about one-third of the total area. Remaining coal reserves for the coal-producing counties in the Corbin quadrangle have been tabulated in Table 2.

Table 2. Coal production and remaining resource reserves for major counties in the Corbin quadrangle (million tons), Southwestern District.

County	Original	Mined and Lost	Remaining Reserves
McCreary	445	111	334
Wayne	27	12	15
Whitley	976	157	819
Estimated remaining reserves			1,168

Source: Keystone Coal Industry Manual (2003)

Industrial minerals and associated rocks

Traces of barite and strontianite were identified in the St. Louis Limestone in the western part of the quadrangle in Wayne County. Some cores have been drilled into the Knox Dolomite in parts of Wayne County in the search for lead and zinc. Several large zinc bodies were discovered in the Knox Dolomite in Clinton and Cumberland Counties (west of the quadrangle) and in northern Tennessee (Anderson and others, 1982).

Petroleum and natural gas

Several oil and gas fields are in the Corbin quadrangle (Wilson and Sutton, 1973; Nuttall, 1999; Kentucky Geological Survey oil and gas map service, kgs.uky.edu/kgsmap/KGSGeology/viewer.asp [accessed 01/08/10]). Production data by field are not available, but cumulative hydrocarbon production since 1919 totals 3.99 million barrels of oil and