



Base from U.S. Geological Survey, 1952
 The Carter Coordinate System letters and numbers used to designate five-minute divisions of latitude and longitude are shown along the margins; tick marks indicate one-minute divisions

SCALE 1:24 000

QUADRANGLE LOCATION

Compilation based on drill-hole data available as of 1976, and on projection into subsurface of geologic data shown by Hansen and Smith (1978)

EXPLANATION

<p>Alluviated area Showing subcrop position of selected coal beds and limestone members of Sturgis Formation (Upper Pennsylvanian) and of No. 9 coal bed of Carbondale Formation (Middle Pennsylvanian). 15, subcrop of No. 15 coal bed n, subcrop of Madisonville Limestone Member 14, subcrop of No. 14 coal bed p, subcrop of Providence Limestone Member 9, subcrop of No. 9 coal bed Ticks show side of subcrop line from which unit has been removed by erosion</p>	<p>Non-alluviated area From map by Hansen and Smith (1978). Includes loss locally as much as 25 feet thick which conceals Pennsylvanian rocks over much of quadrangle</p>	<p>Ancient stream course Major streams and tributaries</p>
<p>The alluviated valleys are filled with as much as 106 feet of unconsolidated material. Alluvium and lacustrine deposits and the underlying Pennsylvanian rocks are described by Hansen and Smith (1978)</p>	<p>Buried fault From map by Hansen and Smith (1978). Bar and ball on downthrown side</p>	<p>Drill holes from which data used in map compilation were obtained. Subsurface data from logs and records of oil and gas tests, core holes, water wells, and other borings. Figures indicate bedrock elevation in feet above mean sea level; italicized where highly interpretive</p>
<p>Subcrop of Madisonville Limestone Member at south quadrangle border is at lower elevation than shown on adjoining Central City quadrangle (Palmer, 1969) due to data not available at time geologic map of Central City quadrangle was compiled</p>	<p>Topographic contours on buried bedrock surface Datum is mean sea level. Contours above 300 feet not shown. Arrow indicates slope direction. Contour interval 20 feet</p>	<p>REFERENCES CITED Hansen, D. E., and Smith, A. E., 1978, Geologic map of the Livermore quadrangle, western Kentucky: U.S. Geol. Survey Geol. Quad. Map GQ-1467 Palmer, J. E., 1969, Geologic map of the Central City West quadrangle, Muhlenberg and Ohio Counties, Kentucky: U.S. Geol. Survey Geol. Quad. Map GQ-851</p>

MAP SHOWING BEDROCK TOPOGRAPHY AND SUBCROP OF SELECTED BEDS BENEATH ALLUVIAL DEPOSITS OF THE LIVERMORE QUADRANGLE, WESTERN KENTUCKY

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 1978