

**EXPLANATION**

— 1000H —  
— 800 —  
STRUCTURE CONTOURS—Drawn on top of the Hartshorne coal bed. Solid where vertical accuracy within 50 feet; long dashed where vertical accuracy possibly not within 50 feet; Hachures indicate closed contours of basin. Contour interval is 200 ft. (61.0m.) Datum is mean sea level.

— 1000UH —  
— 800 —  
STRUCTURE CONTOURS—Drawn on top of the Upper Hartshorne split of the Hartshorne coal bed. Contour interval 200 ft. (61.0m.) Datum is mean sea level.

— 1000LH —  
— 800 —  
STRUCTURE CONTOURS—Drawn on top of the Lower Hartshorne split of the Hartshorne coal bed. Contour interval 200 ft. (61.0m.) Datum is mean sea level.

○ 696H  
○ 714LH  
○ 498(SH)

COAL TEST MEASUREMENT—Showing altitude of top of coal beds, in feet. Drill holes which did not intersect the coal bed or mine measured sections from which bed altitude could not be determined, are not shown.

○ 498(SH)

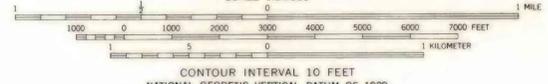
OIL AND GAS TEST HOLE—Showing altitude of top of the Hartshorne Sandstone Formation selected because of its close proximity to the Upper Hartshorne - Hartshorne coal zone in wells where the suite of logs was insufficient to verify coal occurrence. Wells for which logs of the first 3,000 foot interval were not available or wells whose log interval began below the base of the Hartshorne Sandstone Formation are not shown. Appendix II structural map information which could not be verified is similarly not shown.

— H —  
TRACE OF COAL BED OUTCROP—Showing symbol of name of coal bed. Arrow points toward coal-bearing area. Dashed where inferred by present authors.

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NORMAL FAULT—Bar and ball on downthrown side; dashed where approximately located.

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SPLIT LINE—Line along which the Hartshorne Coal bed splits into the Upper and Lower Hartshorne coal beds. This line corresponds to the 1 foot interburden isopach.

NOTE: Altitudes rounded to the nearest foot.  
To convert feet to meters, multiply feet by 0.3048.



This report was prepared under contract to the U.S. Geological Survey, and has not been edited for conformity with Geological Survey editorial standards or stratigraphic nomenclature. Opinions expressed herein do not necessarily represent those of the Geological Survey.

COMPILED IN 1980  
This map intended for land-use planning purposes only

**FEDERAL COAL RESOURCE OCCURRENCE MAP OF THE SPIRO 7.5-MINUTE QUADRANGLE, LEFLORE COUNTY, OKLAHOMA**  
BY GEOLOGICAL SERVICES OF TULSA, INC., B. T. BRADY, USGS, AND J. L. QUERRY, BLM