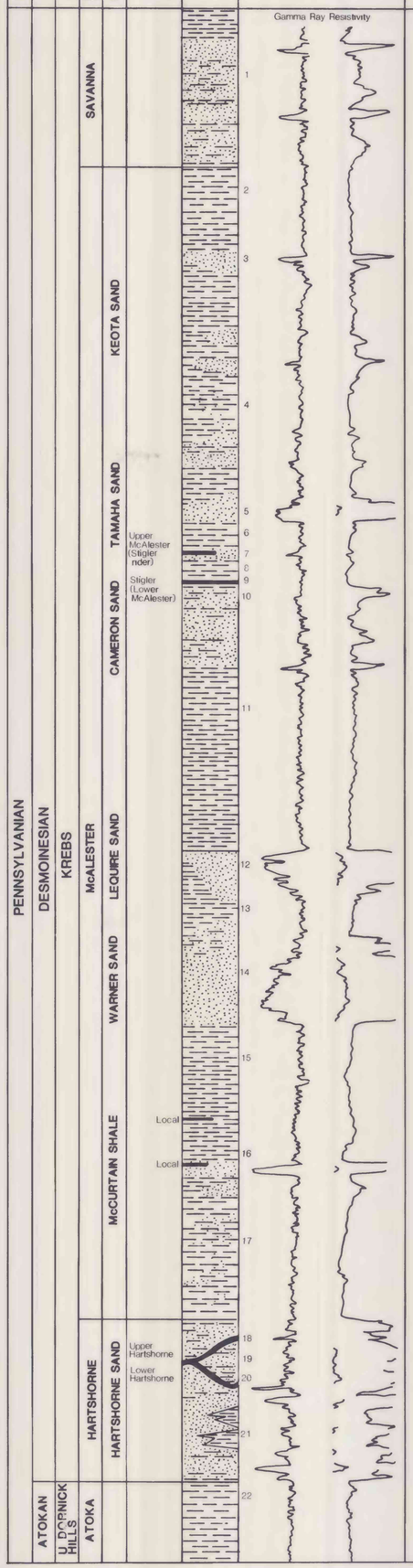
COMPOSITE COLUMNAR SECTION



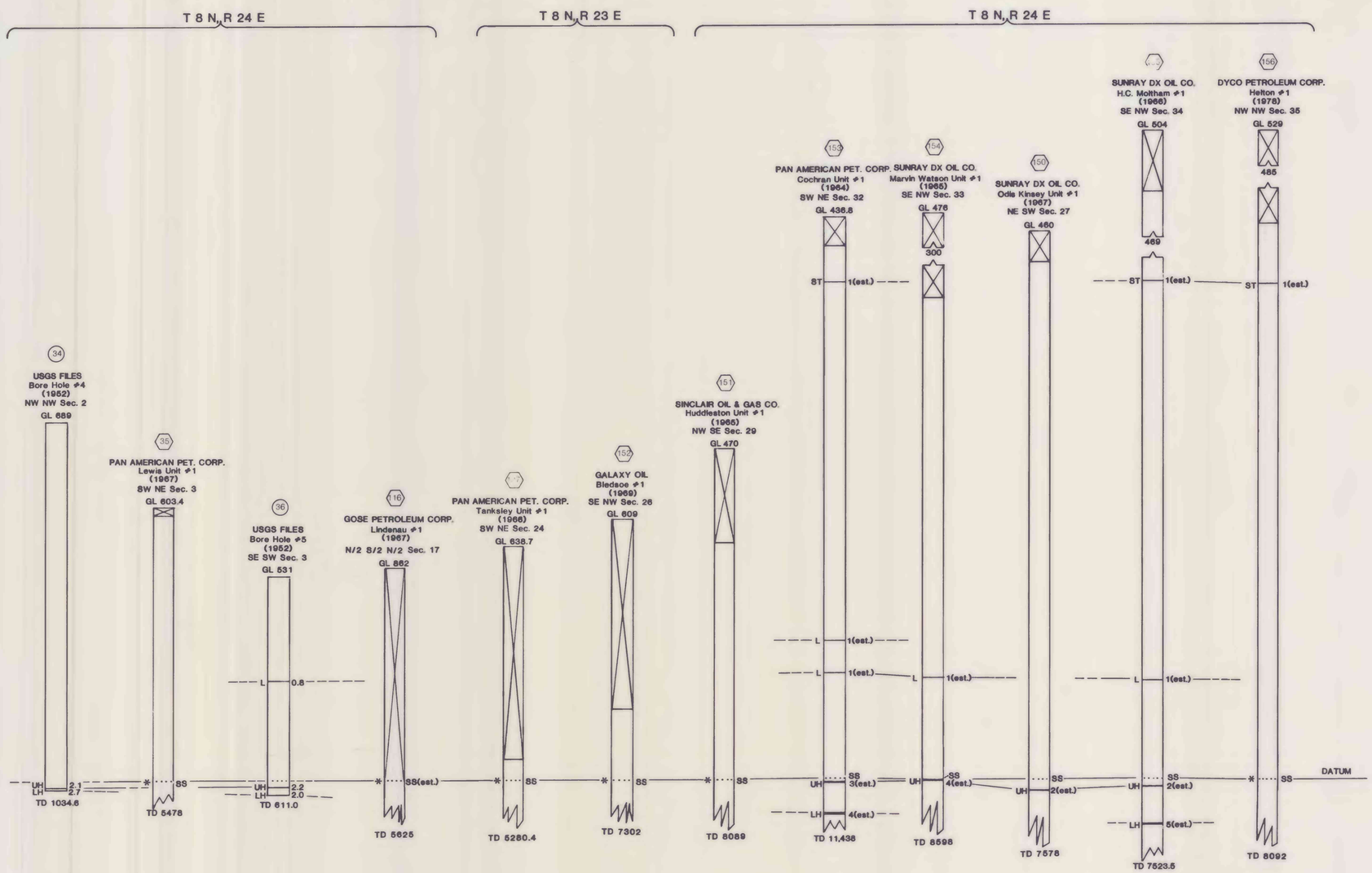
LITHOLOGIC DESCRIPTION

1. Sandstone, brown, grayish-brown, fine-grained, compact, generally thin interbedded shales.
2. Shale, dark brown to gray.
3. Sandstone, buff to tan, fine-grained, micaceous, ripple-marked, locally calcareous, beds ranging from thin to massive, variable amounts of shale and siltstone, locally occurring, laterally discontinuous, thin coals.
4. Shale, gray to brown, sandy, some sandstone bands; thin local coal often present near base.
5. Sandstone, buff to gray to olive-green-drab, fine to very fine-grained, well-sorted, micaceous, hard, ripple-marked flaggy, calcareous-cemented quartz arenite, unfossiliferous, finely divided carbonaceous material found throughout; commonly thin-bedded or interlaminated with shale.
6. Shale, dark gray.
7. Coal, 0.3 to 0.5 feet thick, commonly underlain by underclay.
8. Shale, green, brown; siderite concretions.
9. Coal, 0.4 to 1.7 feet thick, usually with a well-developed underclay.
10. Sandstone, buff to gray, generally fine-grained, ripple-marked, cross-bedded, unfossiliferous, thin-bedded, often laminated, with interbeds and lenses of shale and sandy shale.
11. Shale, light to dark gray, sandstone bands, zones of siderite nodules and lenses.
12. Sandstone, buff, fine-grained, well-sorted, micaceous, feldspar-rich quartz arenite, massive to thin-bedded, lense-shaped ripple-marked, interbeds of siltstone and shale
13. Shale, dark gray to black, silty, sandy, fissile, locally micaceous, some marine fauna present, siderite concretions common in lower 30 feet.
14. Sandstone, medium to dark gray, to brown to olive-green, fine to very fine-grained, upper part is argillaceous, soft and friable; lower part is ripple-marked, cross-bedded, feldspar-rich, with siderite concretions common.
15. Shale, medium greenish to bluish-gray, argillaceous, fissile, sparse siderite concretions, sparse sandstone laminae.
16. Sandstone, gray to brown to olive-green, fine-grained, massive to thin-bedded, locally ripple-marked, overlain by a locally persistent, thin coal with an underclay.
17. Shale, blue to dark gray to black, silty, generally unfossiliferous, sparse to numerous sandstone laminae; siderite concretions common.
18. Coal, thick to thin, vitrain with bedded fusain.
19. Sandstone, brown to light gray, clastic wedge, locally shaly, argillaceous toward top, increasingly carbonaceous toward base.
20. Coal, thin to moderately thick, sparse vitrain with fairly bright attritus and bedded fusain, contains irregular partings and lenses of coaly shale and shale.
21. Sandstone buff to brown, well-sorted, fine-grained, locally argillaceous, micaceous ; varying amounts of siltstone and shale.
22. Shale, blue to gray, silty, commonly contains beds and lenses of siderite concretions and siltstone.

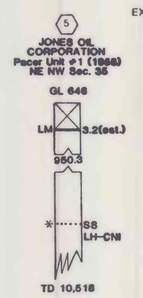
NOTE: The above lithologic descriptions were derived from core data and publications covering the area within the quadrangle. In the absence of detailed information, generalized regional descriptions were used.

SCALE
Meters 0 — 50 — 100 — 150
Feet 0 — 100 — 200 — 300 — 400 — 500

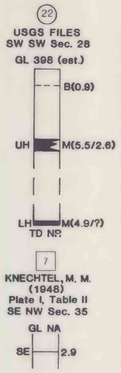
CORRELATION OF COAL BEDS IN DEEP WELL LOGS AND BORE HOLES



EXPLANATION



Index Number
Petroleum Company Name
Well name and number (date logged)
Well or measured section location
Altitude, in feet, to top of drill hole or measured section. When estimated - est.; when no altitude - NA
No record of lithology
Coal bed, showing estimated thickness in feet based on well log interpretation
Rock interval
Break in rock interval showing thickness in feet not plotted
SS - Hartshorne sandstone formation reference datum - Formation top selected because of proximity of Hartshorne Coals.
* - Indicates suite of well logs insufficient to verify coal occurrence.
CNI (Coal Not Indicated) - Formation Density log indicates absence of a particular Coal seam.
Column shown truncated to TD in deep oil and gas well.
Total depth from ground level in feet.
When TD not recorded - NR



Index number of composite mine section, coal test hole, or outcrop measured section. USGS files source indicates non-proprietary information from Tulsa USGS office.
Bone coal showing thickness in feet
NR - Coal thickness not recorded
Coal interbedded with rock, bone, or mixed rock and coal, total coal thickness/rock (including bone) thickness in feet.
Rock interval, thickness estimated (where lines dashed) as data not available. No record of lithology
Mixed coal and rock interval thickness (precise coal or rock thickness not reported)

Index number of line measured section
Reference source and date of publication

Column left open at ends when measured section continues into rock units
NOTE: Thickness reported to tenths of feet only when resolution of data permitted

NOTE: The explanation has been compiled to depict all possible combinations of data and does not intentionally represent any particular data points.

COAL BED SYMBOLS AND NAMES

L Local (unnamed) Coal bed
SE Secor Coal
UM Upper McAlester (Stigler rider) Coal
ST Stigley (Lower McAlester) Coal
UH Upper Hartshorne Coal
LH Lower Hartshorne Coal
H Hartshorne Coal

SCALE
Meters 0 — 50 — 100 — 150 — 200
Feet 0 — 200 — 400 — 600 — 800

FEDERAL COAL RESOURCE OCCURRENCE MAP OF THE BOKOSHE 7.5-MINUTE QUADRANGLE, HASKELL AND LEFLORE COUNTIES, OKLAHOMA

BY GEOLOGICAL SERVICES OF TULSA, INC., B. T. BRADY, USGS, AND J. L. QUERRY, BLM

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

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