

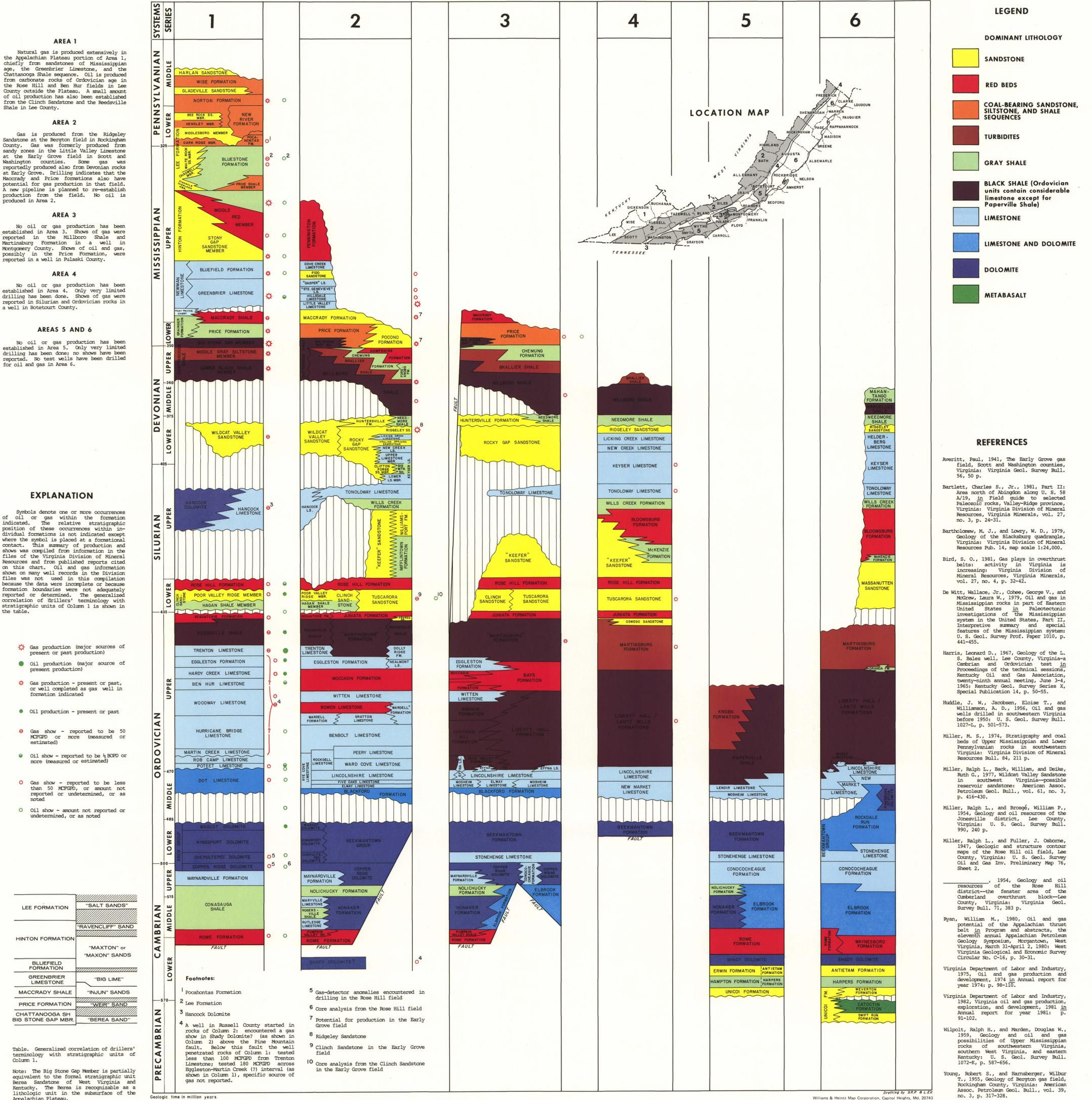
RELATIONSHIP OF STRATIGRAPHY TO OCCURRENCES OF OIL AND GAS IN WESTERN VIRGINIA

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A. Oil and gas data
B. Stratigraphic chart



AREA 1
Natural gas is produced extensively in the Appalachian Plateau portion of Area 1, chiefly from sandstones of Mississippian age, the Greenbrier Limestone, and the Chattanooga Shale sequence. Oil is produced from carbonate rocks of Ordovician age in the Rose Hill and Ben Hur fields in Lee County outside the Plateau. A small amount of oil production has also been established from the Clinch Sandstone and the Needmore Shale in Lee County.

AREA 2
Gas is produced from the Ridgeley Sandstone at the Beryton field in Rockingham County. Gas was formerly produced from sandy coarses in the Little Valley Limestone at the Early Grove field in Scott and Washington counties. Some gas was reportedly produced also from Devonian rocks at Early Grove. Drilling indicates that the Maccrady and Price formations also have potential for gas production in that field. A new pipeline is planned to re-establish production from the field. No oil is produced in Area 2.

AREA 3
No oil or gas production has been established in Area 3. Shows of gas were reported in the Millboro Shale and Martinsburg Formation in a well in Montgomery County. Shows of oil and gas, possibly in the Price Formation, were reported in a well in Pulaski County.

AREA 4
No oil or gas production has been established in Area 4. Only very limited drilling has been done. Shows of gas were reported in Silurian and Ordovician rocks in a well in Botetourt County.

AREAS 5 AND 6
No oil or gas production has been established in Area 5. Only very limited drilling has been done; no shows have been reported. No test wells have been drilled for oil and gas in Area 6.

EXPLANATION

Symbols denote one or more occurrences of oil or gas within the formation indicated. The relative stratigraphic position of these occurrences within individual formations is not indicated except where the symbol is placed at a faulted contact. This summary of production and shows was compiled from information in the files of the Virginia Division of Mineral Resources and from published reports cited on this chart. Oil and gas information shown on many well records in the Division files was not used in this compilation because the data were incomplete or because formation boundaries were not adequately reported or determined. The generalized correlation of drillers' terminology with stratigraphic units of Column 1 is shown in the table.

- ★ Gas production (major sources of present or past production)
- Oil production (major source of present production)
- ☆ Gas production - present or past, or well completed as gas well in formation indicated
- Oil production - present or past
- Gas show - reported to be 50 MCFGD or more (measured or estimated)
- Oil show - reported to be 1/2 BOPD or more (measured or estimated)
- Gas show - reported to be less than 50 MCFGD, or amount not reported or undetermined, or as noted
- Oil show - amount not reported or undetermined, or as noted

LEE FORMATION	"SALT SANDS"
HINTON FORMATION	"RAVENCLIFF SAND"
BLUEFIELD FORMATION	"MAXTON" or "MAXON" SANDS
GREENBRIER LIMESTONE	"BIG LIME"
MACCRADY SHALE	"INJUN" SANDS
PRICE FORMATION	"WEIR" SAND
CHATTANOOGA SH. BIG STONE GAP MBR.	"BEREA SAND"

Table. Generalized correlation of drillers' terminology with stratigraphic units of Column 1.

Note: The Big Stone Gap Member is partially equivalent to the formal stratigraphic unit Berea Sandstone of West Virginia and Kentucky. The Berea is recognizable as a lithologic unit in the subsurface of the Appalachian Plateau.

Geologic time in million years

Drilling by S.R.R. & L.E.C. Williams & Heintz Map Corporation, Capitol Heights, Md. 20743