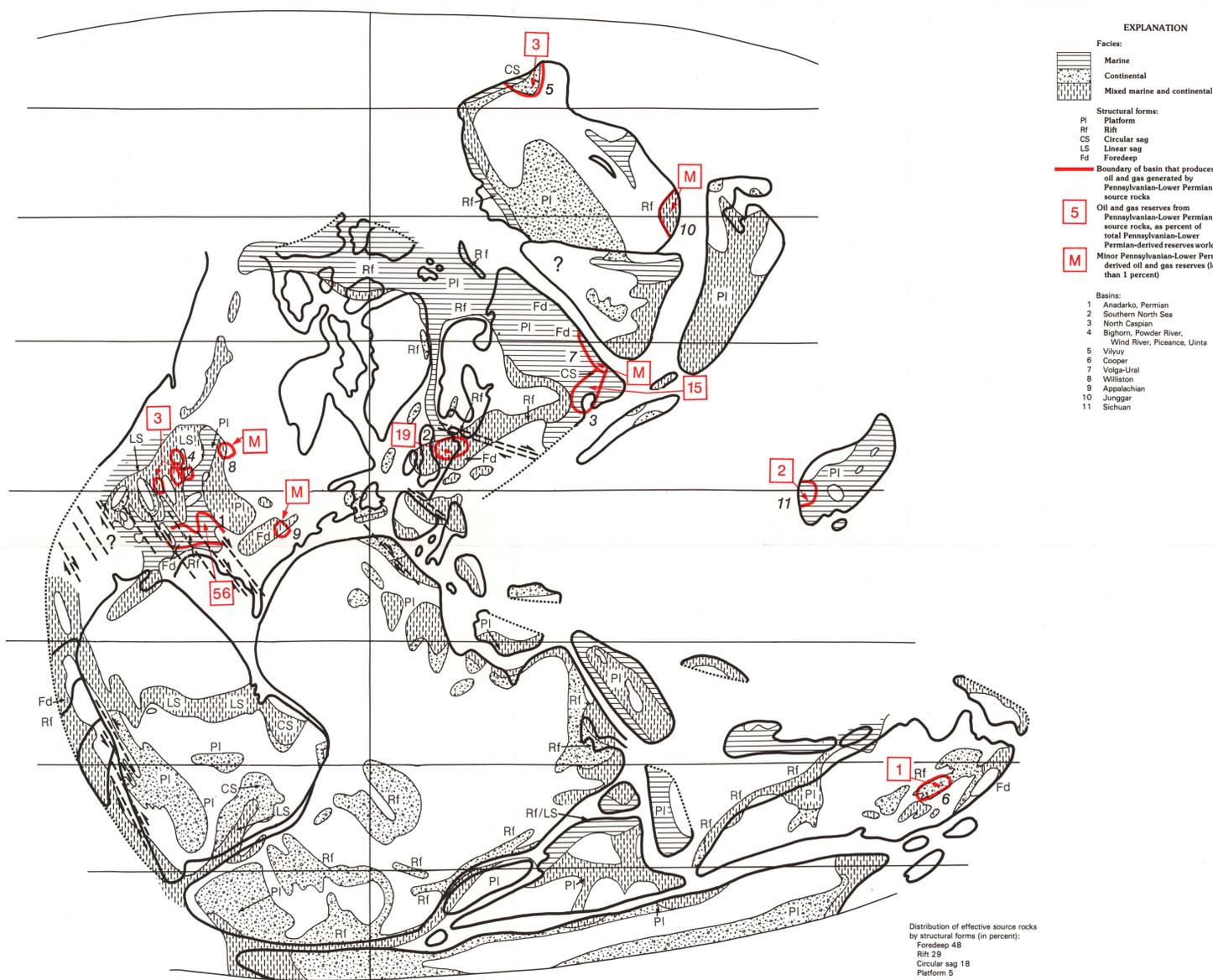


A. PLATE TECTONIC SETTING, PENNSYLVANIAN-EARLY PERMIAN TIME

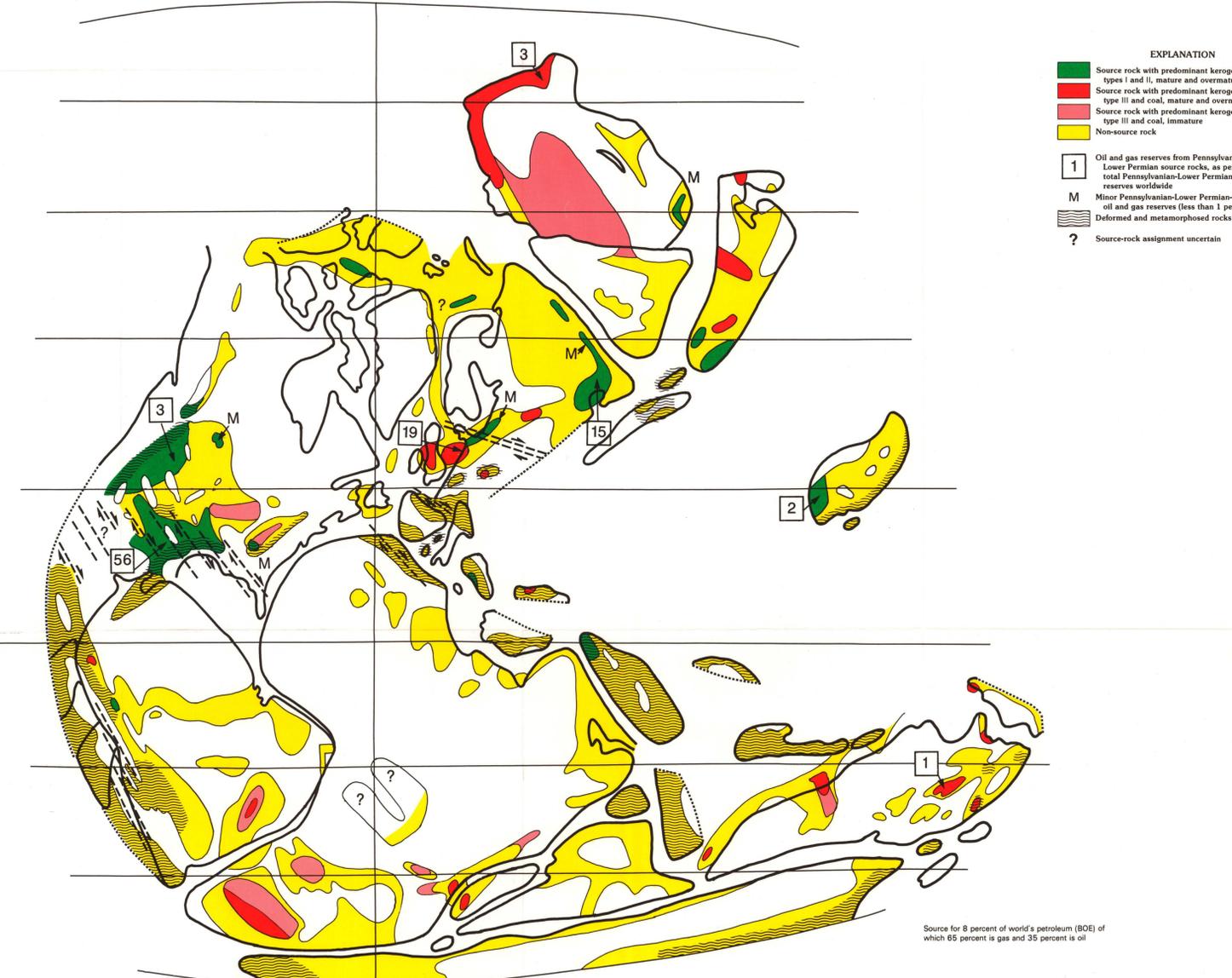
- EXPLANATION**
- Depositional area
  - Oceanic volcanic arc
  - Continental magmatic arc
  - Microplate docking
  - Continent-continent collision
  - Passive margin
  - Rift zone—Arrows, where present, indicate direction of motion
  - Tectonic regime uncertain
- Microcontinents:**
- 1 Scythian-Turanian
  - 2 Alay
  - 3 Pontian
  - 4 Taurus
  - 5 North Tibet
  - 6 Burma, Malay, Sumatra
  - 7 New Zealand
  - 8 West North America (Sonoma, Strikonia, Quasnelia, Wrangellia, etc.)
  - 9 Patagonia
  - 10 Desado-Falklandia
  - OMFB-Ouachita-Marathon fold belt



B. LITHOFACIES, STRUCTURAL FORMS, AND MAJOR PETROLEUM BASINS, PENNSYLVANIAN-LOWER PERMIAN INTERVAL

- EXPLANATION**
- Facies:**
- Marine
  - Continental
  - Mixed marine and continental
- Structural forms:**
- Pl Platform
  - Rf Rift
  - CS Circular sag
  - LS Linear sag
  - Fd Foredeep
- Boundary of basin that produces oil and gas generated by Pennsylvanian-Lower Permian source rocks
- Oil and gas reserves from Pennsylvanian-Lower Permian source rocks, as percent of total Pennsylvanian-Lower Permian-derived reserves worldwide
- Minor Pennsylvanian-Lower Permian-derived oil and gas reserves (less than 1 percent)
- Basins:**
- 1 Anadarko, Permian
  - 2 Southern North Sea
  - 3 North Caspian
  - 4 Bighorn, Powder River, Wind River, Piceance, Uinta
  - 5 Vilyuy
  - 6 Cooper
  - 7 Volga-Ural
  - 8 Williston
  - 9 Appalachian
  - 10 Junggar
  - 11 Sichuan

Distribution of effective source rocks by structural forms (in percent):  
Foredeep 48  
Rift 29  
Circular sag 18  
Platform 5



C. PETROLEUM SOURCE ROCKS, PENNSYLVANIAN-LOWER PERMIAN INTERVAL

- EXPLANATION**
- Source rock with predominant kerogen type I and II, mature and overmature
  - Source rock with predominant kerogen type III and coal, mature and overmature
  - Source rock with predominant kerogen type III and coal, immature
  - Non-source rock
- Oil and gas reserves from Pennsylvanian-Lower Permian source rocks, as percent of total Pennsylvanian-Lower Permian-derived reserves worldwide
- Minor Pennsylvanian-Lower Permian-derived oil and gas reserves (less than 1 percent)
- Deformed and metamorphosed rocks
- Source-rock assignment uncertain

Source for 8 percent of world's petroleum (BOE) of which 65 percent is gas and 35 percent is oil