World Map Showing Surface and Subsurface Distribution and Lithologic Character of Middle and Late Neoproterozoic Rocks

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Carbonate and siliciclastic rocks (Middle and Late Neoproterozoic, includes some Cambrian rocks in Antarctica) Widely distributed fragmental continental margin rocks (circum-Madagascar, west Africa, Baltic, Siberia, south China, India, and adjacent Himalayas) include micaeous shelf deposits on continental margins as well as intracratonic deposits.

Diamictite-bearing unit (Middle and Late Neoproterozoic, mostly ca. 700 Ma, Sturtian, 635 Ma, and Gaskiers, 580 Ma) Consists of mixtures of small to large clasts in a mud and sand matrix (diamictite), commonly associated with carbonate rocks, including fine-grained constituents with large-sized clasts. Diamictite generally considered to be glaciogenic. Diamictite-bearing Unit shown within and outside of Carbonate and Siliciclastic Unit, where outside the Diamictite-Bearing Unit includes both units.

Evaporite-bearing unit (Middle and Late Neoproterozoic, may include Cambrian rocks locally) Widespread surface and subsurface extent in the Arabian Peninsula, Iran, and to a lesser extent in Pakistan and India. Consists mainly of evaporite rocks interstratified with dolomite, sandstone, shale, and local volcanic rocks.

Pan-African, Brasiliano, and related rocks (Middle and Late Neoproterozoic, mostly considered to be 870 to 550 Ma) Widespread in Gondwana continents (Africa, South America, Madagascar, Arabian Peninsula, India, and Sri Lanka) Predominantly medium to high-grade remobilized older Precambrian rocks including gneiss, metamorphic rocks, migmatites, and sparse granulites. Small circles indicate high-grade metamorphic rocks and granulite, x's indicate relatively small post- to synmetamorphic granitoids, and pink areas are relatively large post- to synmetamorphic granitoids. Major belts of metamorphic rocks, such as that of the Congo belt of West Africa are not shown here. Areas inferred to be underlain by cratons and shields of rocks older than Neoproterozoic.

Magmatic arc rocks (Middle and Late Neoproterozoic) Structurally complex assemblages of mafic and ultramafic rocks associated with interocean, back-arc, and continental margin settings. Commonly contain small slivers of mafic or ultramafic rock.

Mafic dike swarms (Middle and Late Neoproterozoic) Major dike swarms and associated intrusives. Includes 723 Ma Franklin swarm in Canada, 827 Ma Gairdner swarm in Australia, and lesser swarms along the southern margin of Siberia, in Norway, and the northwestern United States, and locally elsewhere.

Mafic and ultramafic rocks (Middle and Late Neoproterozoic) Extensive in central Asia, sparsely elsewhere except at continental margins.

Areas inferred to be underlain by cratons and shields of rocks older than Neoproterozoic.