

D-22 USGS PETROLEUM ASSESSMENT OF THE WORLD – HOW DO THE RIFT BASINS OF THE MEDITERRANEAN RANK?

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Abstract

The USGS recently completed an assessment of the conventionally recoverable undiscovered oil and gas resources of the world. Of the 246 assessment units in the world, 88 were identified as being, at least in part, in extensional tectonic or rift areas. An additional 21 assessment units were identified as *being in* solely extensional areas.

In the world, 128 provinces had units assessed. In the Circum-Mediterranean area, four provinces contained 11 assessment units were identified as being in extensional or rift areas. These provinces are the Sirte Basin, Yemen, Red Sea Basin, and the Provence Basin; together they have a total petroleum endowment of 104.9 billion barrels of oil equivalent (BBOE). Total petroleum endowment is defined here as the sum of cumulative production, remaining reserves, and mean undiscovered resources as estimated by the USGS. The individual petroleum endowments (in BBOE) for these provinces and their relative world rankings (in parentheses) are:

Sirte Basin	53.5	(18th)
Red Sea Basin (includes the Gulf of Suez Basin)	30.3	(29th)
Yemen	9.9	(56th)
Provence Basin	11.2	(53rd)

In terms of mean undiscovered resource potential for conventional oil (in billion barrels) and relative world rankings, the provinces are:

Sirte Basin	6.9	(21st)
Red Sea Basin	5.2	(27th)
Yemen	2.7	(40th)
Provence Basin	.4	(100th)

For mean estimates of undiscovered conventional natural gas (in trillion cubic feet), the rankings are:

Sirte Basin	15 (57th)
Red Sea Basin	60 (20th)
Yemen	17 (54th)
Provence Basin	51.2 (26th)

Based on these estimates, the rift basins of the Circum-Mediterranean will remain a major source of petroleum well into this century. Estimates in the offshore Sirte Basin and the entire Provence Basin of the western Mediterranean Sea carry geologic risk in the reported estimates. Additional rift basins that were not appraised are known in the Circum-Mediterranean and their inclusion would increase the petroleum resource potential of the rift basins in this region.
