

## optical density optical separator orange Orange River Oranjemund

Contributed by Administrator  
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optical density. See optically dense, re- I RACTIVE INDEX. optical separator. A device developed by the Diamond Research Laboratory, Johannesburg, Republic of South Africa, for the recovery of diamonds from worthless material. It is based on the difference between the light-reflecting properties of diamonds and other gravel constituents. See DIAMOND RESEARCH LABORATORY. orange diamond. A diamond of a distinct orange tint. It does not refer to a diamond from the Orange River Valley, although most stones of this color are found in the Republic of South Africa. Many of them are red-dish orange-brown, somewhat similar to the color of some zircons. Others are a more vivid reddish-orange color, reminiscent of flame spinel. Some vivid deep-orange diamonds have been found in the Westelton Mine. Few of these diamonds reach the North American trade. They are properly called fancies. Orange Free State. A province in the Republic of South Africa, south of the Transvaal, that was formerly a virtually independent colony of Boers. Some important diamond mines, such as Jagersfontein and Koffiefontein, are located in the province. Alluvial production from the Orange Free State has practically ceased, however. Orange River. The principal river in the Republic of South Africa along

which, together with its main tributary, the Vaal, are located many of the country's alluvial diamond deposits. It forms the boundary between South-West Africa and the Republic of South Africa, and rises in Lesotho (formerly Basutoland). The first large white rough diamond, the 83.50 carat Star of South Africa or Dudley Diamond, found in the Orange River, was fashioned into a 47.75-carat oval brilliant. Orange Tiffany Diamond. See tiffany DIAMOND. Oranjemund. A town about five miles north of the mouth of the Orange River that is maintained by Consolidated Diamond Mines of South-West Africa, Ltd., for its employees. Important mining activity is carried out not far to the north. See SOUTH-WEST AFRICA. Orapa pipe. The world's second largest known kimberlite pipe, designated 2125 AK/1. It is part of the Letlhakane group of kimberlites, located in the area of Orapa on the eastern edge of the Kalahari desert, about 210 miles north of Gaborone, the capital of Botswana. The Orapa pipe was discovered by the De Beers prospecting team, in 1967, under the sands and gravels of the Kalahari desert. Officially opened on May 26, 1971, it came into production July 1, 1971. It is oval in plan view, 1.2 km. x 1.61 km., with a surface area of 113 hectares (280 acres), and reported to be about 5,000 feet deep. The preliminary assessments indicate a ratio of gemstones to industrial diamonds of 10 to 90, respectively. Ore reserves have been proven to 37 meters depth (about 120 feet) which