Cuba produces naphtha, heating oil, and diesel from domestically produced heavy fuel oil

The Hermanos Díaz Refinery in Santiago de Cuba (Source: Sierra Maestra/AI-scaled)

The Hermanos Díaz refinery in Santiago de Cuba, one of four oil processing facilities in Cuba, has reportedly produced naphtha, heating oil, and diesel from domestic heavy oil. Naphtha is a light solvent used in oil production. This was reported by the state-run daily newspaper *Granma* on April 26, 2026.

As Irene Barbado Lucio, general director of Hermanos Díaz, explained to the newspaper, facilities that previously processed imported heavy oil have been converted to process domestic crude oil.

Initial results in Santiago de Cuba

Cuban crude oil is said to be highly viscous, sulfur-rich, and contaminated with other pollutants. “Previously, we had managed to use a solvent to reduce imported heavy oil to 16 API gravity so it could be processed as medium-grade oil—since our industry was designed for light oil. But we hadn’t considered doing that with domestic crude oil,” said Víctor Manuel Díaz Despaigne, an engineer and head of the working group that implemented the technical adaptation.

According to Irenaldo Pérez Cardoso, deputy director of the state-owned oil company Cupet, the amount of naphtha obtained in an initial test run was sufficient for 15 days of production operations in the Varadero oil fields. While the diesel produced is not a special-purpose fuel, it is commercially viable and can replace some of the diesel used in drilling processes.

The heating oil produced is currently being tested to see if it can be used in power plants or the nickel industry. Another test run has been announced.

The work in Santiago de Cuba is proceeding in parallel with research by the state-run Center for Petroleum Research (Ceinpet), which has developed a technology called thermoconversion. This is a process in which heavy oil is broken down through controlled heating to reduce its viscosity—without having to mix it with naphtha.

Internationally, this process, also known as visbreaking or thermal cracking, has been in industrial use for decades.

Pilot plant planned in Sancti Spíritus

Cuba's President Miguel Díaz-Canel presented the results on April 25, 2026, at a meeting of the National Innovation Council as a historic step. "We have refuted a long-held belief: that our national crude oil cannot be refined, that it cannot be used for other purposes—and that we had practically condemned it to being burned directly in a series of thermal power plants," Díaz-Canel said, according to *Granma*.

A pilot plant for thermal conversion is now to be built at the Cabaiguán refinery (Sancti Spíritus province), as infrastructure such as water, steam, and electricity, as well as qualified personnel, are already available there. In a second phase of development, the sulfur content of Cuban crude oil is to be catalytically reduced using local laterite ore—an iron-bearing rock found in Cuba. Costs and a timeline were not specified.

These efforts are driven by an acute energy crisis: Cuba produces about 40,000 barrels of its own crude oil daily but requires between 90,000 and 110,000 barrels. Without the ability to refine domestic oil, the island is 100 percent dependent on imports for fuels such as diesel, gasoline, and kerosene. Venezuela, for years the most important supplier, halted its shipments in January 2026 following the ouster of Nicolás Maduro, under pressure from the U.S. Mexico stopped shipments on January 9. A U.S. presidential executive order dated January 29, 2026, imposes punitive tariffs on countries that supply oil to Cuba. Since then, only one major shipment from Russia has arrived in Cuba, where public transportation has largely ceased. (Cubaheute)