CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

1. The Metallurgical Research Institute (Fémipari Kutatóintézet) had no success thus far developing new methods in producing alumina from bauxite. Hungary continues to use the well known Bayer method in the production of bauxite.

2. However, the institute succeeded in finding use for the "red mud" which is a by-product in the production of alumina.

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a. Titanium is available in Hungary in two forms:

(1) It can be obtained from bauxite, which has a titanium-oxide content of 2-2.5 percent. If a conservative estimate would place Hungary's bauxite resources at 150,000,000 tons one could extract approximately 3,000,000 tons of TiO_2 from the raw material.

(2) Titanium can also be obtained from wehrlite, at Szarvaskö (4759 N 2020E), which has a TiO_2 content of 6-7 percent. Therefore the estimated supply of 200,000 tons of wehrlite would be good for only 14,000 tons of TiO_2.

b. In the course of processing alumina from bauxite, equal amounts of bauxite and red mud are produced. The latter contains Fe_2O_3, Al_2O_3, Na_2O, and TiO_2. With enrichment (dusitás) one can obtain from red mud a secondary product, called black mud, which contains 70—71 percent Fe_2O_3 and 7-9 percent TiO_2. The Al_2O_3 and the Na_2O to be found in red mud can also be utilized for producing alumina.

c. As a matter of fact, the black mud corresponds to good-quality iron ore which can be profitably forged. In the course of smelting, the slag becomes enriched up to a 20-27 percent TiO_2 content.

d. The slag can conveniently be chlorinated, and with relatively little loss of chlorine $TiCl_4$ can be produced from it. With the well known Kroll process one can obtain from $TiCl_4$, the metal Titanium.

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