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First Bauxite eyes production in Guyana



FIRST BAUXITE

A drilling rig at First Bauxite's Bonasika bauxite project site, 60 km from Guyana's capital Georgetown.

VANCOUVER — **First Bauxite** (FBX-V) has reached a key milestone in its path to becoming a producer with the release of a positive feasibility study for its Bonasika bauxite project in Guyana that comes complete with a proprietary process for washing, crushing and sintering bauxite.

Located 60 km from Guyana's capital, Georgetown, the Bonasika project is home to three deposits with defined re-

serves, known as Bonasika 1, 2 and 5. The plan is to mine the deposits sequentially and to feed all of the bauxite ore into a central wash plant able to process 1,148 tonnes daily. Washed bauxite concentrate would then be trucked 23 km to the sintering plant and load-out facilities at Sand Hills, on the coast.

The study predicted a capital cost of US\$112.8 million to build the operation. That estimate includes the cost of build-

ing the washing and sinter plants and a 23-km long unpaved road between those plants, plus mining equipment. Additional costs would be installing a 9.6-megawatt power plant at Sand Hills and a wharf facility, with a 7-metre draft to accommodate small ocean vessels with up to 6,500 tonnes of cargo capacity, and a 25-kilovolt power line along the road to provide power to the wash plant.

Once built, the operation should

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produce 100,000 tonnes of bauxite product annually, at an average cash operating cost of US\$182 per tonne. Based on a study of the refractory bauxite market, First Bauxite expects to sell its final product for US\$475 per tonne.

The project generates a pretax net present value of US\$41.2 million, using a 7.5% discount rate, and should produce a 16.2% internal rate of return. That allows payback of the capital investment in 6.4 years. Current reserves total 2.5 million tonnes of bauxite ore, enough to support a mine at Bonasika for 8.4 years.

One interesting aspect of the Bonasika plan is the process First Bauxite developed for the project's ore, in order to ensure a consistent, high-quality product. The main impurities in bauxite ore are kaolin (which bears silica) and various iron-bearing minerals. The company found that proper washing, desliming, crushing, dry magnetic separation, and sintering consistently produced a final product with Al_2O_3 grades of 85% or better and Fe_2O_3 and SiO_2 grades less than 2% and 6.2%, respectively.

Ore will first be crushed, then scrubbed to remove clays and sifted. After desliming, the ore solution is allowed to settle and the fine kaolins are removed before the concentrate is dewatered and trucked to the sinter plant.

At the sinter plant, the dried concentrate is passed under magnetic separators,

which pull iron-bearing material away. The material is then ground finely and pressed into briquettes, which are sintered at roughly 1,650 degrees Celsius to produce the high-density final product.

"The challenge facing a new supplier of refractory-grade bauxite is to convince the customer that he can be assured of a reliable supply of consistent-quality product," said First Bauxite's CEO Hilbert Shields in a statement. "First Bauxite has overcome this challenge. . . Guysin-90, First Bauxite's proprietary product, will boast superior chemical and density qualities since the natural inhomogeneities found in all raw bauxites is minimized. . .

"This project is exciting to develop since it moves refractory bauxite production out of the Stone Age and introduces new energy-efficient and environmentally-friendly technology and creates a new, value-added product to complement Guyana's traditional spectrum of quality refractory bauxites."

At present, Bonasika 1 hosts 1.5 million measured and indicated tonnes grading 55.69% Al_2O_3 . Bonasika 2 is home to 432,000 measured and indicated tonnes averaging 54.75% Al_2O_3 . And Bonasika 5 contains 645,000 indicated tonnes carrying 55.06% Al_2O_3 .

There is a good chance the reserve base at Bonasika will grow, and soon, because while First Bauxite was advancing the feasibility study it was also drilling out a

new deposit known as Upper Waratilla-Cartwright, or UWC.

Along with the study, First Bauxite released an initial resource estimate for UWC that pegged indicated resources at 4.9 million tonnes grading 58.9% Al_2O_3 . The company is now working through a preliminary economic assessment of UWC to convert the resources into reserves, which would allow it to include UWC as part of the Bonasika reserves.

In addition, First Bauxite recently discovered a new, outcropping bauxite zone in the same area. The Lower Waratilla prospect, as it is known, is now seeing a drilling campaign. The company says it "appears to be a deposit of comparable size with UWC, with similar bauxite quality but at considerably shallower depth." It plans to define reserves at the Lower Waratilla zone soon and assess the potential to include those reserves in the Bonasika plans.

First Bauxite expects to retain a financial advisor to prepare a financing plan, work through a market price and supply impact study, pursue offtake agreements with end users and distribution agents, and initiate detailed engineering of long lead time items.

First Bauxite gained 10¢ on Bonasika feasibility study news to close at \$1.04. The company has a 52-week trading range of 72¢-\$1.70 and 46 million shares outstanding.