Sumitomo Metal Mining Co., Ltd.

## **SMM** to Construct Scandium Recovery Pilot Plant

Sumitomo Metal Mining Co., Ltd. (SMM) has decided to construct a scandium recovery pilot plant at Coral Bay Nickel Corporation (CBNC), its majority owned subsidiary located on Palawan Island in the Philippines.

Scandium (Sc) is a rare earth element discovered in 1879. A silvery-white metal with a density of 2.99, it is used in a variety of applications including: as an additive to enhance the strength, heat resistance and corrosion resistance of aluminum; as an electrolyte used in solid oxide fuel cells; and as an electrode used in metal halide lamps and alkaline batteries.

Small quantities of scandium are contained in the ore used at CBNC in the production of nickel-cobalt mixed sulfide applying SMM's high-pressure acid leach (HPAL) technology. For some time SMM has been working to develop a scandium recovery method at its Niihama Research Laboratories in Ehime Prefecture. This effort has now led to the attainment of technology enabling efficient recovery of scandium from the nickel-cobalt mixed sulfide production process.

Plans call for a scandium oxide pilot plant to be constructed at CBNC by the end of 2013 and for trial production to get under way at a level of 10 kilograms (kg) per month in 2014. Based on the results of test operation of the pilot plant, the company will aim for construction of a scandium oxide production line of commercial scale and the launch of related business in 2015.

Currently, global production of scandium is estimated at 10 tons per year. The major producers of this rare earth element are the United States, Ukraine, Russia and China. Owing to its modest volume of production and high cost, to date demand for scandium has been limited; but as supplies stabilize, growth is anticipated particularly in conjunction with its

main applications as an aluminum additive and as an electrolyte used in solid oxide fuel cells.

Leveraging its progress in developing scandium recovery technology, going forward SMM aims to strive for efficient recovery of other useful metals.

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