

Financial Times - REE's

Wednesday, June 3, 2009 China Corners Over 90% of Market for Rare-Earth Metals China has cornered 97% of the world market for rare earth metals, according to Byron King (the Times Online puts the number at 95%, and the Financial Times puts the number at "over 90%"). What are rare earth metals? Most people define them as including the following 17 metals:

Cerium Dysprosium Erbium Europium Gadolinium Holmium Lanthanum Lutetium Neodymium Praseodymium Promethium Samarium Scandium Terbium Thulium Ytterbium Yttrium (Some people also include some or all of the Actinide Series elements as rare earths. The Actinides include:

Actinium Americium Berkelium Californium Curium Einsteinium Fermium Lawrencium Mendelevium Neptunium Nobelium Plutonium Protactinium Thorium Uranium) As the Times Online notes: The weight and magnetic properties of rare-earth metals have made them important for wind turbines, essential to hybrid cars and indispensable if the world ever hopes to convert to fully electric vehicles... Don Burbar, the chief executive of Avalon Rare Metals, said: "The crux of the matter is that there are now a lot of technologies that can't work without rare earths, and China is currently in effective control of the global supply. China has positioned itself to retain control, and meanwhile politicians around the world do not appreciate how the supply side of green technology works." As mining analyst John Kaiser writes: In the case of rare earth oxides, we're looking at a situation where the Obama Administration would like to see clean energy replace gasoline-based energy in transportation fuel. The Chinese are thinking along similar lines because they don't want to be dependent on foreign oil supplies any more than the United States does. Rare earth oxides go into these super magnets that are a key part of these hybrid and electric cars. The Japanese, the Europeans, and North American carmakers would like to commercialize the production of hybrid cars, but they are afraid to do so because all the rare earths right now come out of China. And China has said "we would like all the manufacturing to be done in China and we'll sell it to the rest of the world." Well, that puts everybody at the mercy of China. So now there's a scramble afoot to look for these deposits outside of China and never mind that China could flood the market with their rare earth oxides. The end users are thinking we need to have security of supply for these rare earth oxides so we're not at the mercy of political machinations by a country like China. And see this article from the New York Times on China's buying spree in Australia.

Is There A rare Earths' Renaissance?

By Jack Lifton 18 Sep 2008 at 02:49 PM GMT-04:00

Has Goldman-Sachs redefined precious metals? Should we?

FARMINGTON HILLS, Mich. (ResourceInvestor.com) — The Renaissance was an historical period during which the culture of the ancient world was reborn and reintroduced into medieval Europe and the steady march began towards our modern world of science and technology.

Why is Goldman-Sachs investing in the renaissance of rare earths mining?

It is for the same reason that Goldman-Sachs is already the only independent investment bank to survive the Wall Street meltdown of 2008. Goldman-Sachs has long-term strategic vision that forms its investments. In other words Goldman-Sachs' bankers, like the Medicis of old, are a lot smarter than their rapidly disappearing competitors. Goldman-Sachs' investment analysts and bankers see the future of rare-earth metal-based (lanthanum) NiMH batteries for broadly useful and increasingly popular hybrid vehicles based on the technology pioneered by the Toyota Prius. They also recognize that the very limited usefulness of overhyped gimmicks such as the Chevrolet Volt were forced upon formerly great companies such as General Motors because it failed to secure the supplies of rare earth metals critical to the building of NiMH batteries in mass production-a mistake that Toyota did not make.

Goldman-Sachs' analysts and bankers also have analyzed why the dynamic and growing permanent magnet industry has vanished from the U.S. The former magnet industry's leaders failed to recognize the need to secure long term supplies of the rare earth materials, neodymium, praseodymium, and samarium when in 1984 the modern, rare earth-based magnets were invented by Magnaquench and Sumitomo. Magnaquench was then a wholly owned subsidiary of Delco Electronics, itself then a wholly owned subsidiary of General Motors. Today all but a small percentage of all such magnets are made in China; the remainder come from outside of China, but only with Chinese

rare-earth-based alloys.

Goldman-Sachs has also analyzed the long-term strategic needs for rare earths for the fluid catalytic-cracking (f.c.c.) industry. Growing in importance daily, it's used in the manufacture petroleum products from heavy (sour crudes, tar sands, and shales). Those f.c.c. catalysts based on the rare earth metals, lanthanum, must now use only Chinese produced starting materials. This is a growing and potentially huge market. In fact Lynas's speaker in Hong Kong admitted that Lynas has already sold an off-take of its future rare earths production to a western producer of f.c.c.s that is very far sighted. I wonder if Goldman-Sachs arranged that off-take agreement in order to strengthen the balance sheet of Lynas?

I believe that Goldman-Sachs is now continuously engaged in adding to its portfolio of rare earth properties, and did I mention that a very sharp young Goldman-Sachs's analyst was the only person to whom I have spoken about the future of rare earth associated thorium who already knew as much about that future as I did? It took the Medicis almost a century to go from banking to the papacy and to become Dukes of Tuscany and Queens of France. In the last 16 years Goldman-Sachs's executive alumni have served three times as Secretaries of the U.S. Treasury-including the present one—Henry Paulson, and as U.S. Senators, governors of New Jersey, and presidents of Harvard. These are very smart people who are very good at long range planning, a skill sorely lacking in most American executive suites. I think I would take Goldman-Sachs's word, as evidenced by its recent aggressive actions, that there is a renaissance underway in the evaluation of rare earths and of thorium. Aren't these metals, in fact, among the most precious metals of the 21st century? Goldman-Sachs and I certainly think so.

By the way I am not affiliated with, nor have I ever been paid for any reason by, Goldman-Sachs, nor do I or have I ever owned stock in it or in any of the companies mentioned in this article.