## Sweden discovers major rare earth deposits in Arctic region

Gabriel Black 29 January 2023

A Swedish mining company reported earlier this month that it has discovered a large deposit of rare earth minerals in the far north of the country.

Rare earths are a series of 17 minerals commonly found together that are used in most high-tech electronics, military systems and batteries. While widely distributed throughout the world, they are hard to find in sufficient concentrations to be economic to extract.

The deposit was found by Luossavaara-Kiirunavaara Aktiebolag (LKAB), a state-owned mining company that operates two major iron mines in the far north of the country, just inside the Arctic Circle. The discovery was made at LKAB's Kiruna mine, which is about 130 kilometers from the Finnish border and 300 kilometers from the Russian border.

Like many critical minerals, rare earths are found in relatively lower quantities, often near or interspersed with other, more common metals, like copper or iron. In this case, the minerals were found interspersed with phosphorous in an iron-oxide apatite deposit a few kilometers from the Kiruna mine.

The discovery was heralded in the mainstream press throughout Europe and the US as a significant geopolitical development that would wrestle control over the rare earth supply chain away from China.

NPR's Paddy Hirsch described it as "a very big deal for the West." He continued, "We have seen in the last 10 years that the U.S. in particular has been very, very worried about the fact that China has such a lock hold on the production of rare earths. ... So this find in Sweden is a very big deal for the West and for Western nations and NATO..."

According to the *International Energy Agency* (IEA), about 60 percent of the world's rare earths come from China. The vast majority of that—more than a third of

the world's total production—comes from a single location, the Bayan Odo deposit in the Inner Mongolia region of Northern China.

The United States is the second largest producer of rare earths, accounting for a little more than 10 percent of the supply.

The new deposits in Sweden—within a global context—are less impressive than the media fanfare suggests. LKAB says it found roughly 1 million tons of rare earth oxides. However, there are already some 120 million tons of reserves globally. Forty-four million of those tons are located in China, with Vietnam, Brazil and Russia tied for second-place with about 20 million tons each.

Reserve estimates, however, can be deceptive. Not only are reserves educated guesses at a complex geologic formation buried beneath the earth, but they also do not account for how easy the reserves are to produce.

In a press conference announcing the find, LKAB CEO Jan Mostrom explained, "We don't actually know how big it is. We don't actually know how, in which way, we can utilize, develop this project. But what we can say today, with what we know today is that it's by far the largest deposit of REE's [Rare Earth Elements] in Europe."

Currently there are no large-scale mines in the European Union (EU), and only one relatively small processor of rare earths located in Estonia. China, in contrast, controls almost 90 percent of the processing of rare earths globally.

The main importance of the LKAB find is that it may create the possibility for the EU to develop, within its own borders, a rare earth supply chain. This could both allow European manufacturers to challenge their global competitors in rapidly expanding markets, like electric vehicle production, and enable the continent's major imperialist powers to supply modern weaponry to their militaries without relying on materials supplied by potential rivals.

As the *World Socialist Web Site* has previously explained, Russia is also a major holder of rare earth minerals and critical minerals more broadly. Both the Biden and Trump administrations have launched major, multi-billion-dollar initiatives to develop these critical mineral resources under the control of the US and its allies.

While the geographic discrepancies in rare earth production and processing are partially the result of geology, it has more to do with the globalization of production and the transformation of China into the sweatshop of the world.

China's rise as a central hub of electronics and industrial manufacturing has made it relatively convenient from the standpoint of globally mobile corporations to locate mineral processing there. It has the cheap labor force and the land. China's factories are also frequently the destination of these processed minerals.

Additionally, mining and processing ores of rare earths and other critical minerals is a toxic process that leaves long lasting damage to the environment. The major international corporations have, until recently, been content with letting this dirty process happen elsewhere.

The actual development of the Swedish mine will take between 10 to 15 years before production can begin.

LKAB has announced plans to become a significant processor, not only of rare earths, but all sorts of critical minerals. It recently purchased the Norwegian company REEtec, which specializes in more environmentally friendly forms of processing rare earths.

As David Hognelid, LKAB's chief strategy officer, told the *New York Times*, "We want to have the whole value chain." LKAB is currently planning an industrial park that will develop these processing capabilities in the north of Sweden.

The location of significant quantities of rare earths, oil and natural gas in the Arctic region is one reason why the high north is increasingly the subject of intense conflicts between the major and regional powers. Eight countries, including the United States, Canada,

Denmark, Finland, Iceland, Norway, Russia and Sweden, have territorial claims in the Arctic, with some of them contested. As sea ice melts, the possibility of securing control over these key resources, as well as newly open sea lanes for trade routes, has encouraged an increase in military activity in the region.

LKAB's rare earth discovery takes place during a massive escalation of the NATO-Russia war in Ukraine. This last week, the US announced it would be sending M1 Abrams tanks, widely considered the most advanced battle tanks in the world, to Ukrainian troops.

US imperialism and its European allies are intent on defeating and carving up Russia to seize control of the vast amounts of natural resources that lie beneath its landmass. These include rare earths and large quantities of oil and natural gas.

In this regard, the United States views the war as a stepping stone in a far deadlier conflict with China. US war strategists are actively preparing and plotting this war, largely behind the backs of the population. Securing supplies of critical minerals like rare earths is seen as an essential form of preparation, given their strategic significance and China's domination of the global market.



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