

US Rare Earths closer to offering alternative heavy rare earth (HREE) supply to China



Last week U.S. Rare Earths, Inc. ('USRE', OTCBB: UREE), a US based earths exploration company with mining claims in Idaho, Montana, and Colorado, announced that it has raised some USD\$3.1 million since December 2013. The Company plans to use the funds to continue exploration, drilling, mineralogy,

metallurgy, preliminary engineering work and plans for a processing facility related to its properties in Idaho and Montana. These include exploration programs at the Last Chance mine – featuring pre-existing adits – at the Lemhi Pass property, where USRE has received permission to remove and use a large stockpile of pre-mined material. Kevin Cassidy told InvestorIntel that USRE's stockpile, according to official documents from the U.S. Department of Energy's Critical Materials Strategy, contain significant amounts of heavy rare earth elements especially dysprosium, Europium, Neodymium, Terbium and Yttrium. The U.S. Forest Service has approved USRE's plans to access an REE stockpile located on its Last Chance prospect last August; the Company can get a head start on processing with minimal CAPEX and OPEX costs relative to the sector.

It is no secret that China remains, by far, the dominant producer of rare earths (REE), especially the critical heavy rare earths such as dysprosium and europium, needed to make

cell phones and computers. China retains 90% of world supply and 70% of global consumption of these precious elements. Earlier this year, the World Trade Organization (WTO) ruled that Chinese quotas for rare earths violated the rules of international trade but nothing has actually changed. China has adapted to the ruling, adjusting the price differential resulting from the lifting of quotas to the enforcement of added taxes on exports of rare earths, increasing from 15% to 20%. The new tax regime will force the importers of rare earths from China to raise prices for foreign customers. However, the most significant change that United States legislators should consider, is that China will no longer have direct control over exports as it did in 2010; it will have, rather, direct control over the production, with the aim to contain it.

The goal will be to consolidate the industry, which is currently made up of small operators and unproductive mines. In doing so the country could solve the longstanding problem of overcapacity but also raise the risks of insufficient availability for major REE end users such as the USA, the EU and Japan among others. The search for the high demand heavy rare earths outside of China, therefore, should intensify. Compared to other mining projects, say gold for instance, rare earth analysis is highly complex. The first question therefore is always: what kinds of rare earths does a property contain? Such rare earths as praseodymium (Pr) and neodymium (Nd) have high magnetic properties: a coin sized magnet containing either one of these metals would be very difficult to remove from a metal surface, like a common refrigerator door, using bare hands. It is this kind of magnetic property that is needed to produce 'smartphones', iPods or wind turbines. Europium (Eu) happens to be an especially in-demand rare earth and it is most used to make computer screens. The Lemhi Pass property and its ready to process adits happen to contain important quantities of europium as well as dysprosium. USRE, moreover, has the advantage of being able to start mining and

producing rare earths from the historic adits (tunnel work), speeding up the production process by at least three years which is literally at least two years ahead of the closest competitor.

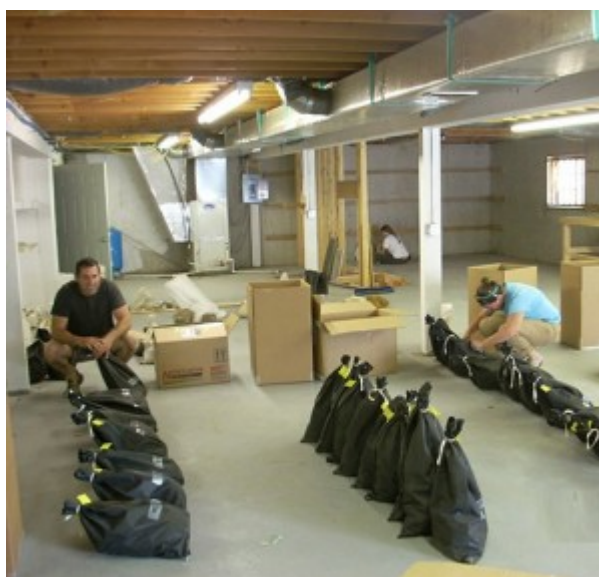
The adits extend underground more than 400 meters and they present mineralized veins of critical rare earths, as much as 2,500 tons of metallurgical samples, which should also save USRE some USD\$ 6 million in CAPEX alone while the stockpile itself may produce some 10-12 tons of highly concentrated rare earths enriched material at costs that compete with China head to head. Indeed, USRE can skip many costly phases, moving directly to processing its existing and readily available stockpile. Idaho Energy and Resources Co. extracted the material as part of rare earths exploration and its published data suggests that the stockpile presents a high percentage of heavy and critical rare earth elements. USRE expects to begin processing by December 2016 or early 2017 in the United States. The exploration record at Lemhi Pass suggests that it may hold the highest concentrations of rare earths elements in the U.S. USRE intends to revisit existing horizontal mines extending underground more than 400 meters, which have already proven to contain mineralized veins of critical rare earths.

US based Molycorp and Australia's Lynas Corp are processing outside of China (California and Malaysia respectively) but, so far, this activity has been limited to light rare earths (LREE). So while China continues to consolidate its rare earths industry, shutting down or absorbing small and illegal operators, trying to resolve the problem of overcapacity, USRE, a domestic North American rare earth company can start to work an inexpensive solution to address the expected contraction in China's rare earth supplies. It may not be long before Japan, which is the largest rare earth importer in the world, starts signing REE import deals with the United States. Ever since 2010, when tensions exacerbated with China over control of the Senkaku (Diayou as the Chinese call them)

Islands, Japan has constantly been looking for alternatives. Its quest for new suppliers has included visits to Mongolia and Vietnam – which likely serves as one for the preferred routes for Chinese rare earth smugglers. USRE is well positioned to offer an alternative REE supply source; indeed, it is set to compete with China, as it applies its own trade restrictions.

U.S. Rare Earths approved to start rare earths production immediately!

As of today, U.S. Rare Earths, Inc. ('USRE', OTCBB: UREE) can start mining and producing rare earths at its Last Chance Project in the Lemhi Pass region of Idaho and Montana. USRE announced that it has received approval to re-open its historic tunnel work, speeding up the production process by at least three years, which is literally at least two years ahead of the closest competitor. USRE had expected to start processing by 2017 but thanks to the permission to revisit the existing adits (extending underground more than 400 meters, which have already proven to contain mineralized veins of critical rare earths), it can proceed much earlier; it can proceed now!



USRE said this accelerated development will enable it to save

some USD\$ 6 million in CAPEX while having being approved to handle 2,500 tons of metallurgical sampling starting now; it also has the rights to apply for the removal of an additional 7,500 tons of material for metallurgical sampling under Montana state exploration guidelines. The horizontal adits, tunnels, lead underground and giving access to subsurface mineral deposits, intersecting the Last Chance Vein. The historical record shows that these have known and high rare earth mineralization occurrences. Moreover, as a result of USRE having been approved by the U.S. Forest Service to access an REE stockpile located on its Last Chance prospect last August, the Company can get a head start on processing with zero CAPEX and OPEX costs.

The stockpile lends itself to prompt metallurgical sampling and USRE suggests the "stockpile contains at least 10 to 12 tons of highly concentrated rare earths enriched material". This would make USRE "the first company to proceed with rare earth underground exploration and sampling in the continental United States" at far lower cost than anyone could have envisaged. "U.S. Rare Earths is very excited with the achievement of this milestone with the prospect of being the first underground mine since the 1960's in the US to remove rare earth material," said Kevin Cassidy, CEO of U.S. Rare Earths.

USRE has the luxury of being able to concentrate on the processing and metallurgy, rather than the exploration thanks to its readily available stockpile. Idaho Energy and Resources Co. extracted the material as part of rare earths exploration and its published data suggests that the stockpile presents a high percentage of heavy and critical rare earth elements. The rare-earth deposits were first explored by the U.S. Geological Survey as well as the Idaho Bureau of Mines and Geology and IERCO among others. USRE can rely on a very experienced management and exploration team with many and successful years of experience in the sector and their determination to create

an wholly American complete supply-chain solution, which will include a separation mill for the critical and heavy rare earth elements in the continental United States.

Rare earths and other minerals are essential to the American defense industry and their supply, most of which comes from China, is wrought with uncertainties due to opaque political regulations and an ongoing reform of the mining industry system. Japan, for example, was deprived of rare earth elements in its maritime dispute with China in 2010, and has since feared further disruptions, leading to plans to source these important minerals elsewhere. The United States wish to prevent this risk, given the dire consequences that could result from the sudden imposition of crackdown. The Armed Services Committee of the House representatives has issued various reports since last year, presenting the risks of rare earth shortages in severe terms and scenarios. One of these is a Chinese embargo on exports of key rare earth elements and notes that in the current situation the United States would be paralyzed. The current and deepening dispute between NATO and Russia, evoking the gloomy relations of the Cold War, has added more tension to relations between NATO and China. Advocates of increased American self-reliance in the supply of critical materials suggest that it is not always safe to rely on our neighbors for the supply. Currently, the world rare earths market has become extremely asymmetric because China provides more than 90% of these minerals. Japan has already decided to secure a minimum of 60% of its rare earths supply from countries other than China within the next four years. Possible sources include India and Australia; however, it can now consider the United States as well, given USRE's accelerated development.

US Rare Earths secures 'fast track' to processing rare earth minerals

US Rare Earths ('USRE', OTCBB: UREE) has one of the best chances of developing a successful rare earths mining and processing facility in the United States thanks to its rare earths property at Lemhi Pass (western Montana and eastern Idaho), for which it has already completed a NI- 43-101 compliant preliminary exploration and assessment showing high concentrations of critical rare earths.



USRE expects to begin processing by 2017 in the United States. The exploration record at Lemhi Pass suggests that it may hold the highest concentrations of rare earths elements in the U.S. USRE intends to revisit existing horizontal mines extending underground more than

400 meters, which have already proven to contain mineralized veins of critical rare earths. At the moment there is virtually no place where the critical and heavy rare earths are being processed into something useful except for China. Molycorp and Lynas Corp are processing outside of China (California and Malaysia respectively) but, so far, this activity has been limited to light rare earths (LREE). USRE has already reported very aggressive drilling results thanks to the strategic use of historical data and the application of new technology.

Very favorable exploration results led the company to expand its land claims to around 25,000 acres in several states including two Central Park-sized properties in accordance to

data indicating the presence of very high percentages of critical rare earths. Moreover, USRE has the opportunity to divert much of its attention to processing because it has access to a sizeable stockpile of extracted rare earths ore on site and ready for processing. On August 11, USRE announced having gotten U.S. Forest Service approval to access an REE stockpile located on its Last Chance prospect claims in the Lemhi Pass region of Idaho and Montana. The stockpile lends itself to prompt metallurgical sampling and USRE suggests the “stockpile contains at least 10 to 12 tons of highly concentrated rare earths enriched material”. This would make USRE “the first company to proceed with rare earth underground exploration and sampling in the continental United States” at far lower cost than anyone could have envisaged.



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data suggests that the stockpile presents a high percentage of heavy and critical rare earth elements. The rare-earth deposits were first explored by the U.S. Geological Survey as well as the Idaho Bureau of Mines and Geology and IERCO among others. USRE can rely on a very experienced management and exploration team with many and successful years of experience in the sector and their determination to create an wholly American complete supply-chain solution, which will include a separation mill for the critical and heavy rare earth elements in the continental United States.

Mining companies in the ‘West’ have been looking for ways to compete with China’s rare earths industry. But actual success

remains elusive, at least until the next few years when some miners in Australia, Canada and the United States are expected to come on line. Nevertheless, it is not sufficient in itself to discover a valuable resource, rich in heavy rare earths (HREE) at high grades; it is perhaps more important to develop the right processing or metallurgical technology in order to extract the desired metals in a cost effective and environmentally safe manner. At the moment there is virtually no place in the world where the ore can be further processed into useful rare earths except for China. Yes, Lynas Corp and Molycorp have built processing facilities, which are now operational, but they are not producing the kinds of products that are most in demand now. Metallurgy and rare earths processing has often proven to be complex and polluting, which has left China as the dominant force in the industry for the kind of magnets that are needed to make components used in anything from solar panels and wind turbines to laser guided missiles.

China's rare earths export policy remains contentious even if the World Trade Organization has deemed it illegal for China to restrict exports of these ever more important materials. China has already adopted countermeasures; however, by doing so, it has threatened the national security of the United States and its allies. So much of modern weapon systems (not to mention cell phones or computers) require the kind of sophisticated electronics, nanotechnology and optics that are only possible through the use of rare earths and related critical metals. Chinese restrictions risk being tighter in periods of confrontation such as the one the world is experiencing now with a virtual resumption of Cold War attitudes between the West, Russia and China. Even if the geopolitics improves, China has adopted its own internal mining restrictions in order to control pollution, which has become a crucial political issue.

The demand for political freedom in China might be trumped by

the demand for clean air as a trigger for widespread social revolt. After the ore has been extracted from the ground, unnecessary components are removed and a concentrate is treated with acid and chemicals to achieve separation of the individual metals. Many of the 17 rare earths are so similar that the separation of individual elements is extremely difficult in their physical structure. It can take several months and require more than 1,000 chemical treatments. This is costly and polluting; it is also the most important step that a rare earths company must consider in order to have a shot at commercial success. Therefore, the Chinese Government has very valid reasons to reduce and rationalize rare earth production beyond issues of nationalism and 'realpolitik'. There is no doubt that the West must act quickly to address the potential rare earth supply chain threat posed by China's concerns. China itself would appreciate the emergence of other heavy rare earth mining and, especially, processing resources. China's share of global production will certainly fall in the next few years even as it shall continue to dominate the industry, especially the processing of the raw mineral into commercially ready products.

U.S. Rare Earths determined to establish a full rare earth supply chain in the continental USA

U.S. Rare Earths, Inc. ('USRE', OTCBB: UREE), which has mining claims in Idaho, Montana and Colorado, announced that it has completed its NI- 43-101 preliminary exploration and assessment in sections of its Lemhi Pass property (western Montana and eastern Idaho)



showing high concentrations of critical rare earths. USRE expects to begin processing by 2017 and the Company expects to do so in the United States. The exploration record at Lemhi Pass suggests that it may hold the highest concentrations of rare earths elements in the U.S. USRE intends to revisit existing horizontal mines extending underground more than 400 meters, which have already proven to contain mineralized veins of critical rare earths.

USRE has split its claims into five distinct exploration projects: Last Chance, Diamond Creek, North Fork, Sheep Creek and Lemhi Pass. USRE had already performed NI 43-101 compliant exploration in the first three of these projects. However, the real prize based on the record is Lemhi Pass, which, the Company says "generally recognized as having some of the highest concentrations of rare earth elements in North America". USRE has confirmed that a preliminary and NI 43-101 survey of the Lemhi Pass has shown high concentration of both critical and heavy rare earths, which has encouraged the Company to continue exploration and testing.

At the moment there is virtually no place where the critical and heavy rare earths are being processed into something useful except for China. Molycorp and Lynas Corp are processing outside of China (California and Malaysia respectively) but, so far, this activity has been limited to light rare earths (LREE).

In the U.S. and in the rest of the world there is high

pressure to develop new deposits and new processing facilities as China's production share has started to drop in response to some new capacity and – mostly – to internal restrictions related to intensifying environmental controls.

China's export policy is an ongoing point of contention between Beijing, Washington and others before the World Trade Organization, which recently confirmed that Chinese export restrictions on rare earths, are illegal. Yet, nobody has offered any alternative to the processing of rare earths even while China's share of the global production is expected to drop significantly if the government continues to enforce tougher environmental regulations affecting both the extraction of the raw materials and their transformation into marketable products.

USRE is one of the companies outside of China presenting itself as a comprehensive critical rare earth supplier from mining to processing. In 2013, the Company reported very aggressive drilling results thanks to the strategic use of historical data and the application of new technology. Very favorable exploration results led the company to expand its land claims to around 25,000 acres in several states including two Central Park-sized properties in accordance to data indicating the presence of very high percentages of critical rare earths. The very fact that USRE would undertake property expansion in the middle of a difficult market – as 2013 was – suggests that there is a very good reason for doing so. Indeed, in late 2013, USRE also completed a successful USD\$4 million private placement even as several other companies were competing for far smaller sums. USRE can rely on a very experienced management and exploration team with many and successful years of experience in the sector and their determination to create an wholly American complete supply-chain solution, which will include a separation mill for the critical and heavy rare earth elements in the continental United States.