

Rare Earth & Critical Minerals Week-in-Review: Hastings Rare Metals (+40.43%), Medallion Resources (+22.56%), Alkane Resources (+18.15%) & Arafura Resources (+10.53%)

Rare Earth & Critical Minerals Week-in-Review (for the week ending December 13, 2013): I've said it before and, unfortunately, I have to say it again – the sector was down overall last week, with the REE Leaders Index (Bloomberg Ticker: REEL) down -5.2% (289 to 274 points), while the InvestorIntel Rare Earth & Critical Minerals members' average fell -2.41%.

Interestingly, the REE Leaders hit its 52-week all-time low for the year on December 12th, at 273 points, versus its January 7th 52-week all-time high of 702 points; representing a -61% decline overall. So have we finally hit the bottom? Not necessarily. According to one of the most respected minds in the REE space, **Alkane Resources Ltd.'s** Managing Director **Ian Chalmers**, I may be asking that particular question for a little while longer. According to Chalmers, we may be waiting until approximately mid-2014 until we see a definitive market turnaround. The primary reason cited by Mr. Chalmers is that there were large (larger than previously realized) stockpiles of REEs accumulated by end users. Said end users are slowly using up their long-standing REE inventories. "2014 will be a much better year, and we look forward to that," Mr. Chalmers commented. (Be sure to watch InvestorIntel Publisher and

Editor-in-Chief, **Tracy Weslosky's** just-released video interview with the always-affable Ian Chalmers.) There is no doubt the sector will eventually recover. The fundamentals of rare earth elements (and related critical materials) hasn't changed. The need for REEs is serious and the future demand potential is significant. The Chinese paradigm is shifting – and all that bodes well for our beloved sector. And as **Eric Noyrez**, CEO and Managing Director of **Lynas Corp. Ltd.** (ASX: LYC | OTCQX: LYSDY), reminded me last week, the demand for REEs has increased at a rate of over 5% per annum over the past 30 years. Overall REE demand (lights as well as the heavies) is only expected to increase moving forward. (InvestorIntel will be publishing Tracy Weslosky's video interview with Eric Noyrez – one of her most highly anticipated interviews to date – later this week.)



Down to business... Australia's **Hastings Rare Metals Ltd.** (ASX: HAS) was the week's top performer (in all sectors), up a very impressive +40.43% on some important news. On December 10th, Hastings announced that it had restructured its Board of Directors and appointed **Charles Lew** as Hastings' new Chairman. Not surprisingly, Mr. Lew is also a (new) substantial HAS shareholder, with recent share acquisitions increasing his ownership stake to 15%. The following day, I wrote: Progressing to HREE production in Australia, Hastings Rare Metals' appoints new Chairman. Anthony Ho, former Hastings Chairman, will continue as a non-executive director and chair the audit committee. Guy Robertson and Vaz Hovanessian resigned from the board on December 10th, though Mr. Robertson continues to serve as Chief Financial Officer and Company Secretary. Hastings is currently investigating and advancing a low-cost production opportunity for its Hastings Heavy Rare Earths Project at Halls Creek in Western Australia, which could potentially fast track to commercial production. This involves an offshore location study, currently underway, as

well as evaluating and securing toll treatment partnerships for ore milling; extraction and separation; and final product refining. Taking these functions offshore will also de-risk Hastings' 100%-owned project by significantly reducing capital costs, allowing the company to access lower-cost funding and reducing overall processing operating expenses. The new Hastings directors and major shareholder – with strong ties to Asia – are anticipated to bode extremely well for the company as it advances through the next phases of development and eventually into production.

Shares in **Medallion Resources Ltd.** (TSXV: MDL | OTCQX: MLLOF) increased +22.56% and +17.07% on the American and Canadian exchanges respectively on no new news announcements. Last week, yours truly wrote a feature article on Medallion, entitled: Medallion's strategy to challenge rare earth industry status quo. Challenging the REE industry's status quo, Medallion is a propitious rare earth elements company with a decidedly different approach to REE production. Led by veteran geologist and preeminent REE industry expert, Chairman and CEO **Dr. William Bird**, Medallion is focused on straightforward, low-cost, near-term, rare earth production by processing monazite. Widely available as a byproduct from numerous mining and mineral-sands sources, monazite is a rare earth phosphate mineral – containing anywhere from 50% to 60% rare earths and one of only two minerals that have ever economically produced rare earth elements. Presently, Vancouver-based Medallion Resources is advancing its rare earths extraction project in Oman, with an ambitious early 2016 timeframe for the commissioning and start-up of the facility. In short, Medallion's production strategy is to capitalize on the copious supplies of monazite byproduct from heavy mineral-sands mines in the Indian Ocean basin in order to extract and produce significant quantities of rare earth products. President Don Lay is currently negotiating Medallion's initial long-term monazite acquisition agreement.

Multi-commodity play, **Alkane Resources Ltd.** (ASX: ALK | OTCQX: ANLKY) was up +18.15% for the week on the American exchange on news announcements; however, as most industry observers and investors are aware, Alkane is in the very final stages of its on-time and on-budget Tomingley Gold Project (which is anticipated to produce AUD\$20 million free cash flow annually for Alkane). In fact, Alkane will be producing gold in approximately two months. In Tracy's video interview with **Ian Chalmers**, entitled: Alkane Resources' Plant 95% built and ready to Gold produce in 2 months, Ian stated the plant is approximately 95% complete. "We will start commissioning in a few weeks' time; we'll commission through January, and then move to full production in February." Alkane will have revenue from gold production, while they continue to advance the Dubbo Zirconia Project (one of Australia's most valuable rare metal/rare earth projects). Located in New South Wales, Australia, the Dubbo Zirconia Project, with an estimated mine life of 100 years, is expected to process 1 million tonnes of ore annually – specifically, zirconium, yttrium, niobium, hafnium, niobium, tantalum and light/heavy rare earths. As Tracy noted in her interview, Alkane had released a number of announcements lately that caught her attention, including a recent update to shareholders regarding the increased percentages being achieved for rare earth recoveries. Ian confirmed that they have been working diligently for the last 6 to 8 months at ANSTO (Alkane's Demonstration Pilot Plant) on the process to improve them, and are "delighted that recovery rates are substantial; lights are up about 17% and heavies were up about 44%." Although the market seems to have missed this improvement, it has the potential to add another \$40-\$50m/year in projected revenue. Today, Alkane announced a very positive and robust corporate update on its Tomingley Gold Project and Dubbo Zirconia Project.

Arafura Resources Ltd. (ASX:ARU) was up +10.53% last week. On December 11th, Arafura announced a company update and outlook, which was quite promising. In it, Arafura's Managing Director,

Gavin Lockyer, discussed the company's optimization progress, as well as its flagship Nolans Project's CAPEX and OPEX reductions, and rare earth market projections. As most InvestorIntel readers are aware, Arafura Resources is an emerging Australian rare earths producer focusing on its world-class Nolans Rare Earths Project in the Northern Territory of Australia. The Nolans Project (containing 1.22 million tonnes of rare earths in a JORC-compliant Mineral Resource at 2.6% rare earth oxides) is well-advanced and Arafura is on track to be one of very few REE companies to enter the global supply chain this decade. For those investors who wish to learn more about Arafura, be on the lookout for Tracy Weslosky's video interview with Gavin Lockyer later this week.

Highlights:

One of the best resource writers walking the planet, InvestorIntel's own **Robin Bromby**, graced with us two great REE articles last week. The first was Robin's take on the fact that researchers are apparently nowhere near being able to replace rare earths with other materials in: Yale Study says we're a long way from finding substitutes for rare earth elements. Mr. Bromby's conclusion? "The REE (and other critical metal companies) should press on getting supplies to market. They will be needed." In his follow-up piece, Robin wrote an exceptional piece about arguably the biggest story in the REE sector last week with the December 12th announcement that two Swedish critical material companies and InvestorIntel members – **Tasman Metals Ltd.** (TSXV: TSM | NYSE MKT: TAS) and **Flinders Resources Ltd.** (TSXV: FDR) – announced that they have begun what they describe as preliminary negotiations for a merger. Tasman brings to the table the Norra Kärr project in southern Sweden, one of the world's largest known heavy rare earth deposits, and is now also looking at the recently acquired Yxsjöberg tungsten project. Flinders is developing the Woxna flake graphite deposit in central Sweden where

initial production is scheduled for the third quarter in 2014. Woxna is expected to produce flake graphite at the rate of 10,000 tonnes a year. The mine operated between 1996 and 2001, when it was forced into care and maintenance by falling graphite prices. Woxna is fully-permitted and will require limited capital to get back into production – and be able to supply Europe’s lithium-ion battery makers. Incidentally, Yxsjöberg is also a shuttered mine: it once produced 90% of Sweden’s tungsten needs. The two Canadian-listed companies are now setting a fascinating strategic new road-map for the rare earths and critical metals sector – the concept of building a diversified critical metals supplier, and therefore being less exposed to any market weakness in any one specific commodity.

InvestorIntel featured an excellent update on **Crossland Startegic Metals Ltd.** (ASX: CUX) last week, titled: Crossland and Pancontinental’s Joint Venture to tap the ‘very large tonnage potential for decades of rare earths production.’ Crossland initially focused its efforts on uranium exploration, but their work has evolved through exploration success with JV partner **Pancontinental Uranium Corporation**, so that rare earth elements, particularly at the Charley Creek Project in central Australia, now represent Crossland’s most important (and valuable) project. The Charley Creek Alluvial REE Project is described as “very large tonnage with potential for decades of REE production”. The deposit has a high proportion of critical heavy rare earths (17% HREEs by weight and 50% by value). Total CAPEX, including contingency, is estimated to be an impressively low AUD\$156 million, with a 2.5-year payback period.

InvestorIntel’s resident sustainability expert, strategic policy advisor and former US Presidential speechwriter, **Daniel McGroarty** wrote a compelling article yesterday with: Did Rare Earths kill North Korea’s Jang Sung-Taek? Sung-Taek was a DPRK General as well as Kim Jung-Un’s uncle and was executed for being a “traitor to the nation” on December 12th,

shortly after the announcement of a new venture to exploit North Korea's REE riches not with China or South Korea – but with an Australian company, privately-held SRE. Five days later, Jang was on trial; the following day, he was convicted, sentenced and executed. Total elapsed time: one week from the North Korean-Australia REE announcement. If you're not familiar with McGroarty's writing, you may wish to start with this particular article. Dan is one of the most interesting and entertaining writers in our industry.

Here are your numbers for the week:

