Technology Metals Report (04.19.2024): Government Roles Escalate, Rinehart and the Market Go Bull on Copper

written by Tracy Weslosky | April 19, 2024

Welcome to the latest issue of the Technology Metals Report (TMR), brought to you by the Critical Minerals Institute (CMI). In this edition, we compile the most impactful stories shared by our CMI Directors over the past week, focusing on the significant shifts and investments in the critical minerals and technology metals industry. A notable development is the evolving dynamics of resource nationalism, particularly in Chile and Indonesia, where control over vital minerals like lithium and nickel is increasingly dominated by local governments. This shift challenges traditional Western dominance and marks a move towards a multipolar resource governance era. Adding to the market dynamics, Australia's wealthiest, Gina Rinehart, has made aggressive moves into the critical minerals sector with her $120 million investment in Ecuador's Linderos copper-gold project and significant stakes in rare earth companies, positioning her as a pivotal figure in global supply chains.

This week's TMR Report also highlights several significant developments aimed at enhancing the supply chain and infrastructure of critical minerals. The U.S. Department of Energy has released a pioneering roadmap to integrate clean energy projects more rapidly into the nation's electric grid, targeting a substantial reduction in project backlogs. In financial boosts, critical mineral projects in Queensland and South Australia have been pledged $585 million in government

loans, emphasizing the growing commitment to fostering local industries and reducing dependency on international suppliers. Additionally, the closure of the Cobre Panamá copper mine has sparked a surge in copper prices, underlining the critical role of stable mineral supplies in maintaining economic stability and supporting green energy transitions. Each story is presented in chronological order to provide a comprehensive view of the week's events, rather than by order of importance, ensuring readers receive a well-rounded perspective on the sector's latest developments.

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The Shifting Dynamics of Resource Nationalism as the Demand for Critical Minerals is Set to Soar: (April 18, 2024, Source) – As global demand for critical minerals like nickel, lithium, and rare earths surges, the dynamics of resource nationalism are evolving. Historically dominated by Western powers, control is shifting towards resource-rich countries asserting sovereignty over their natural assets. China's longstanding monopoly on rare earths exemplifies this trend, leveraging resources for economic and strategic autonomy—a strategy now mirrored by Chile and Indonesia in their respective lithium and nickel sectors. Chile's government, for instance, has moved to nationalize lithium extraction by partnering with SQM to form a national critical minerals company. Meanwhile, Indonesia mandates local processing for nickel, fostering a sustainable, self-sufficient industrial base. These strategic shifts are restructuring global supply chains, challenging traditional Western dominance and heralding a multipolar resource governance era. This realignment has profound implications for geopolitical dynamics and global power structures in resource management.

Billionaire Gina Rinehart Stakes Another Critical Minerals

Claim: (April 18, 2024, Source) – Gina Rinehart, Australia's richest person and head of Hancock Prospecting Pty Ltd., is diversifying her portfolio by targeting critical minerals, moving away from her traditional focus on iron ore. Her recent ventures include significant investments in South America and the rare earths market. Notably, she invested $120 million in Ecuador's Linderos copper-gold project through a deal with Titan Minerals Ltd. (ASX: TTM), aiming for up to an 80% ownership. Additionally, she acquired a 49% stake in an Ecuadorian state-owned mining company. Rinehart also increased her influence in the rare earths sector by purchasing stakes in Lynas Rare Earths Ltd. (ASX: LYC) and MP Materials Corp. (NYSE: MP). Furthermore, she supported Arafura Rare Earths Limited (ASX: ARU) in Australia, which received a substantial government backing of A$840 million in grants and loans last month. Rinehart's strategic investments mark her shift to a key player in the global market, enhancing supply chain security for technology and renewable energy resources.

DOE Releases First-Ever Roadmap to Accelerate Connecting More Clean Energy Projects to the Nation's Electric Grid: (April 17, 2024, Source) – The U.S. Department of Energy (DOE) has unveiled a roadmap aimed at speeding up the integration of clean energy sources like solar, wind, and batteries into the national transmission grid, addressing the existing backlog of nearly 12,000 projects. This comprehensive guide, developed by DOE's Interconnection Innovation e-Xchange (i2X), targets a variety of stakeholders, including transmission providers, state agencies, and equipment manufacturers. It proposes 35 solutions across four main areas: improving data access, enhancing the interconnection process, promoting economic efficiency, and ensuring grid reliability. The roadmap also sets forth ambitious goals for 2030 to facilitate the Biden-Harris Administration's objective of achieving 100% clean electricity by 2035. These

efforts are supported by DOE's Grid Deployment Office and various funding opportunities aimed at fostering grid resilience and interconnection efficiency.

Critical minerals projects in central Queensland and South Australia to receive $585 million in government loans: (April 16, 2024, Source) – Critical minerals projects in Queensland and South Australia are set to receive $585 million in federal government loans, marking a significant push by the Albanese government towards a "future made in Australia." A major portion, $400 million, will fund Australia's first high-purity alumina processing facility in Gladstone, central Queensland. This investment comes via the $4 billion Critical Minerals Facility, Northern Australia Infrastructure Facility, and Export Finance Australia. An additional $185 million is earmarked to accelerate Renascor Resources Limited's (ASX: RNU) Siviour Graphite Project in South Australia. These projects aim to bolster the production of minerals essential for lithium-ion batteries and renewable technologies. This initiative aligns with national strategies to enhance renewable technology capabilities and drive economic growth through local job creation and sustainable industrial development.

A $10 billion Panamanian copper mine has been sitting idle since November – and it's part of why the metal's price is surging: (April 16, 2024, Source) – The Cobre Panamá mine, a major $10 billion copper-producing site, has been inactive since November, significantly contributing to the global copper shortage. This closure has led to an 11% increase in copper prices this year, reaching a peak not seen in over a year. Operated by Canada-based First Quantum Minerals Ltd. (TSX: FM), the mine previously supplied 1.5% of the world's copper, enough to build five million electric vehicles annually. The shutdown resulted from a tax dispute with the Panamanian government, which sought more favorable terms. This has exacerbated a copper supply crisis,

with the Bank of America declaring that the lack of new mining projects is now severely impacting refined copper production. This shortage coincides with increased demand for copper in green energy projects, further driving up prices.

SRC Expects to Produce 400 Tonnes of Rare Earth Metals Per Year Beginning in 2025: (April 15, 2024, Source) – The Saskatchewan Research Council (SRC) has entered into a five-year agreement with Vietnam's Hung Thinh Group to import up to 3,000 tonnes of rare earth carbonate annually starting in June 2025. This will enable SRC's Rare Earth Processing Facility in Saskatchewan to produce about 400 tonnes of rare earth metals per year. These metals are crucial for manufacturing modern technologies such as cellphones, electric vehicles, and green technologies. The deal, which stems from Saskatchewan's diplomatic efforts in Vietnam, positions SRC as a pioneer in North America with a fully integrated commercial rare earth processing facility. The Saskatchewan Government's $71 million investment in the facility aims to boost the local and national resource sectors by enhancing mid-stream supply chain capabilities. SRC, a major Canadian research entity, expects this initiative to catalyze industry investment and growth.

U.S. Department of State Minerals Security Partnership (MSP) Aims to Support Biden Policies on Critical Minerals: (April 15, 2024, Source) – The U.S. Department of State's Minerals Security Partnership (MSP) was established to advance President Biden's policies on critical minerals and enhance supply chain security. Led by Under Secretary Jose Fernandez, the MSP collaborates with various countries and the European Union to foster sustainable mineral supply chains, prioritizing environmental, social, and governance (ESG) standards. The partnership focuses on diversifying supply chains, boosting investments, promoting high ESG standards in mining, and increasing recycling. Companies involved must meet stringent ESG criteria, including responsible

environmental practices and ethical community engagement. Despite challenges such as varying international ESG standards, the MSP remains dedicated to “greening” economic activities and addressing climate change through global cooperation.

Tesla supplier Piedmont Lithium gets key North Carolina mining permit: (April 15, 2024, Source) – Piedmont Lithium (Nasdaq: PLL | ASX: PLL), a supplier to Tesla, has secured a crucial mining permit from North Carolina regulators to develop a significant U.S. lithium source near Charlotte. Despite the permit’s conditional approval, requiring a $1 million reclamation bond, the company faces ongoing financial challenges and local regulatory hurdles. The project, which could be a major U.S. lithium producer, is opposed by local residents due to environmental concerns. Additionally, Piedmont must obtain local zoning approval and substantial funding, estimated over $1 billion, potentially through U.S. Department of Energy loans. The state has imposed stringent conditions, including regular environmental monitoring and a modified waste storage protocol. The project’s progress hinges on overcoming local opposition and securing necessary permits and funding.

Glencore-backed nickel miner fails to secure financing after rising costs: (April 15, 2024, Source) – Horizonte Minerals PLC (TSX: HZM | AIM: HZM), backed by Glencore PLC (LSE: GLEN), is facing financial difficulties with its Araguaia nickel mine project in Brazil due to a significant increase in estimated costs, now exceeding $1 billion, and concerns about market oversupply from Indonesia. As a result, the company is considering options such as selling the mine, liquidation, or securing subsidiary-level financing, though none are expected to benefit shareholders significantly. Following the news, the company’s shares plummeted by 84%. This setback reflects broader challenges for nickel projects outside Indonesia, given the country’s dominant market position. Horizonte’s struggles

highlight investor reluctance to finance high-capital, early-stage projects amid unfavorable market conditions dominated by Indonesian supply, affecting not only Horizonte but also other nickel producers worldwide.

United States and United Kingdom Take Action to Reduce Russian Revenue from Metals: (April 12, 2024, Source) – The United States and the United Kingdom have jointly announced new prohibitions aimed at reducing Russia's income from metal exports, specifically aluminum, copper, and nickel. The U.S. Department of the Treasury, in coordination with the UK, issued measures to prohibit the importation of these metals into the U.S. and restrict their use on global metal exchanges and in derivatives trading. These actions are intended to follow through on commitments made in the G7 Leaders' Statement to cut off revenue streams that support Russia's ongoing military activities in Ukraine. Treasury Secretary Janet L. Yellen emphasized that the measures are targeted to undermine Russian revenue while minimizing negative impacts on allies. UK Chancellor Jeremy Hunt highlighted the collaborative nature of these efforts, stressing their importance in impeding Russia's war capabilities. As a result, major metal exchanges like the London Metal Exchange and Chicago Mercantile Exchange will no longer accept newly produced Russian metals from April 13, 2024.

Investor.News Critical Minerals Media Coverage:

- April 18, 2024 – The Shifting Dynamics of Resource Nationalism as the Demand for Critical Minerals is Set to Soar https://bit.ly/3W63V28
- April 18, 2024 – Billionaire Gina Rinehart Stakes Another Critical Minerals Claim https://bit.ly/3U2G0xU

- April 17, 2024 – InvestorNews.com Offers Real Time Access through the Revolutionary IR Mobile App, Now Offered Through Stock Marketing Inc. https://bit.ly/3TYrwPz
- April 16, 2024 – Tuan Tran Joins the Critical Minerals Institute (CMI) as the Newest Board Member https://bit.ly/49DlucM
- April 15, 2024 – U.S. Department of State Minerals Security Partnership (MSP) Aims to Support Biden Policies on Critical Minerals https://bit.ly/3Ji332z

Investor.News Critical Minerals Videos:

- April 19, 2024 – Terry Lynch on Power Nickel's 'New Crown Jewel Discovered on its NISK Project' https://bit.ly/3JrQT7k
- April 17, 2024 – Critical Metals' Russell Fryer on the Rising Tide for Copper and Cobalt in Africa https://bit.ly/4aFoWFa

Critical Minerals IN8.Pro Member News Releases:

- April 17, 2024 – Gary Stanley, Former Director of the Office of Critical Minerals and Metals at the U.S. Department of Commerce, Joins the First Phosphate Advisory Board https://bit.ly/3UkxbAL
- April 17, 2024 – Successful completion of Institutional Placement to raise A$15M; Entitlement Offer to be undertaken https://bit.ly/3W2SKHl

- April 16, 2024 – Appia Files NI 43-101 Technical Report on Maiden Indicated and Inferred Mineral Resource Estimate for the PCH Ionic Adsorption Clay Project in Goias, Brazil https://bit.ly/3xAahwd
- April 16, 2024 – NEO Battery Materials Appoints Renowned Battery Industry Pioneer Mr. Ricky Lee as Lead Managerial Advisor https://bit.ly/3UikF4C
- April 16, 2024 – Fathom Intersects Rottenstone-Like Nickel Tenor in Drillhole AL24077 at the Albert Lake Project https://bit.ly/3JlIfY8
- April 16, 2024 – Appia Engages Generation IACP to Provide Market Making Services https://bit.ly/43XNEhv
- April 16, 2024 – F3 Intersects Radioactivity Across Multiple Zones https://bit.ly/442U0fv
- April 15, 2024 – Power Nickel Releases Initial Assay on New Crown Jewel Discovered on its NISK Project https://bit.ly/4bdvD1h

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Disruptive Shift to Rare Earth Processing as Aclara Moves into American Market

written by InvestorNews | April 19, 2024

In an update on the disruptive industry news that broke this morning, Jack Lifton, Co-chair of the Critical Minerals Institute (CMI), offered a detailed analysis of Aclara Resources Inc.'s (TSX: ARA) strategic move into the U.S. rare earths processing market. Aclara, backed by the Hochschild Mining

Group, has set its sights on exploiting ionic clay deposits from Chile and Brazil to secure heavy rare earth elements (HREEs) like Dysprosium and Terbium, pivotal for high-performance magnet manufacturing. This venture is marked by partnerships with the Saskatchewan Research Council and Hatch Ltd. for the development and engineering of a processing facility. However, Lifton expressed reservations about the ambitious timeline, stating, "The actual announcement says they've engaged with the Saskatchewan Research Council to develop a separation technology operation and with Hatch, of Toronto, to actually engineer whatever the plan that comes out of the Saskatchewan Research Council is into hardware, into an actual separation plant."

Lifton's insights illuminate the intricate challenges Aclara faces in pioneering rare earth separation technologies in North America, a domain where success has been limited. He juxtaposes Aclara's emerging efforts against established industry players like Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR), which has already made significant progress in light rare earth (LREE) separation and is now venturing into HREEs and alloys. This nuanced perspective raises doubts about Aclara's capability to swiftly navigate the complex technological and operational hurdles inherent in rare earth processing.

The interview further delves into the competitive dynamics of the rare earth market, highlighting Aclara's entry into a space occupied by Energy Fuels, and buildouts already in play from MP Materials (NYSE: MP) and Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF). Each company has its unique approach and strategic plans, indicating a fiercely competitive environment. Lifton's critique underscores a broader theme of Aclara's need for deeper industry integration and strategic partnerships, and suggested that this was perhaps a missed opportunity in which they should have engaged with Ucore.

Lifton’s comprehensive analysis provides a crucial viewpoint on Aclara’s bold yet fraught journey into the rare earths processing industry. While Aclara’s plans signify a positive stride towards diversifying the global rare earths supply chain and enhancing geopolitical supply chain independence, Lifton underscores the formidable challenges ahead. This initiative marks a significant moment in the rare earth industry, setting the stage for Aclara’s ambitious endeavor to navigate the technological, logistical, and competitive hurdles that lie in its path.

The Critical Minerals Institute’s Jack Lifton on Vital Metals, the SRC and Ionic Clays and Rare Earths

written by InvestorNews | April 19, 2024

In this InvestorIntel interview, Tracy Weslosky talks with Critical Minerals Institute’s (CMI) Co-Chairman Jack Lifton attempts to explain what Vital Metals Limited’s recent announcement about “pausing all construction-related activities at the Saskatoon processing facility” means. Clarifying and reinforcing what the Saskatoon Research Council (SRC) has stated online, we would like to redirect our audience to the SRC website where they state: “SRC wants to clarify that its Rare Earth Processing Facility currently under construction is on schedule and on budget and will be fully operational by the end of 2024.”

Critical Minerals Corner experts debate one of the most important minerals for sourcing rare earths

written by InvestorNews | April 19, 2024

In this episode of **Critical Minerals Corner**, InvestorIntel Editor-in-Chief & Publisher Jack Lifton and Geologist and Newsletter Writer Byron King take on monazite – one of the most important and desirable mineral ores for sourcing rare earths. With guest Frederick Kozak, President of Appia Rare Earths & Uranium Corp. (CSE: API | OTCQB: APAAF), Byron King explains that while it is very rare to find a monazite deposit, "it is extremely rare to find a really really good monazite deposit…"

"One of the hottest rare earth deposits you will ever see anywhere…" starts King, find out why Saskatchewan, Canada is critical to the production of rare earths in North America.

To access the complete episode of Critical Minerals Corner, click here

Canada’s entry point to a domestic North American rare earths products production center

written by Jack Lifton | April 19, 2024

Why is Appia Energy Corp.‘s (CSE: API | OTCQB: APAAF) Alces Lake discovery of an accessible extensive hard rock deposit of the rare earth bearing mineral, monazite, so very important to the non-Chinese world’s demand for magnet rare earths? It is because Appia’s monazite is, in fact, the neodymium rich variant, which is the most desirable for the production of rare earth permanent magnets. it is not only rich in neodymium (Nd) and praseodymium (Pr), but also contains 1% of xenotime, the best heavy rare earth bearing hard rock mineral.

Monazites are typically up to 50% higher in contained Nd and Pr than bastnaesite, the ore mined at Mountain Pass by MP Materials Corp. (NYSE: MP) and the residual mineral from China’s Baotou region iron mining, which up until recently was the world’s most-produced source mineral for light rare earths. Lynas Rare Earths Limited (ASX: LYC) is currently the world’s largest producer of rare earths derived from monazite deposits at Mt. Weld in a remote area of northern Australia.

Monazites are produced today as a byproduct of the processing of heavy mineral sands to recover zircon and ilmenite, respectively the ores of zirconium and titanium. Until recently processing monazite for rare earths was inhibited by the fact that monazites always contain radioactive thorium and sometimes uranium. The monazites were thus returned to the tailings from these operations and in the USA the environmental regulations

required that they be returned to the worked-out deposits and distributed so that the residual background radiation was equal to or less than it was before the deposit was worked.

In the last five years as Chinese bastnaesite deposit grades have declined and mining created pollution has become a big problem in China the Chinese rare earth industry has begun to import very large quantities of monazites from the USA, Madagascar, South Africa, Brazil, and Australia. All of this material was produced as a byproduct of heavy mineral sands processing for zircon and ilmenite.

In order to solve the thorium/uranium problem, China requires that all imports of monazite go first to China Nuclear Corporation, which removes the thorium and uranium, and then ships a clean mixed rare earth carbonate to the Chinese refiner that ordered the material. China nuclear is licensed to process up to 50,000 tons of monazite containing up to 30,000 tons of total rare earths a year.

In the USA the only licensed uranium mill, Energy Fuels Inc.'s (NYSE American: UUUU | TSX: EFR) White Mesa Utah facility, has replaced China as the destination for monazite produced from its heavy mineral sands operations in Georgia by US Chemical Group, Chemours. Energy Fuels removes the uranium, which is a payable for Energy Fuels, and is storing, legally, the thorium, which has been committed to a medical radioisotope group. The first clean mixed rare earth carbonate produced by Energy Fuels from the Chemours' monazite has already been sold to and shipped to Neo Performance Materials Inc.'s (TSX: NEO) European solvent extraction rare earth separation facility.

Appia is working with Canada's and the world's most attractive (Report's the Fraser Institute) mining investment jurisdiction, the Province of Saskatchewan. The Province's Saskatchewan

(Mining and Refining) Research Center, the SRC, has agreed to develop a hydrometallurgy for Appia's monazite and the SRC has already designed and begun the construction of a 3000 ton per annum rare earth solvent extraction separation facility, where the separation and purification of Appia's monazite will be proven and piloted in what will be Canada's anchor for a total rare earth permanent magnet supply chain. Saskatchewan is the home of Canada's uranium mining industry and so the sale of any recovered uranium and the storage (or use) of any recovered thorium is not a problem.

North America is well on its way to becoming a world center of monazite processing, and Appia is Canada's entry point to a domestic North American rare earth products production center.

Chinese Dominance of Rare Earths Sets off Alarm Bells in Washington

written by InvestorNews | April 19, 2024

In this episode of InvestorIntel's **Critical Minerals Corner with Jack Lifton**, Jack talks about geopolitical issues with China and how regionalism is going to affect not just the interest and demand for rare earths, but for all critical minerals.

In this InvestorIntel video, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Jack went on to say that the Chinese dominance of the rare earths space has set off alarm bells not just in the US but also in EU

and Canada. “I see the security of the supply of critical materials becoming a regional issue in this world,” he added. Jack highlighted that Canada is going ahead faster than the US in the critical materials space by developing several rare earths deposits for production and building the first full-scale rare earths separation plant in Saskatchewan.

To watch the full video, click here

Vital Metals’ Geoff Atkins on the race to produce rare earths in 2021

written by InvestorNews | April 19, 2024

In a recent InvestorIntel interview, Tracy Weslosky speaks with Geoff Atkins, Managing Director of Vital Metals Limited (ASX: VML), about the market interest in Vital Metals and signing a binding term sheet with the Saskatchewan Research Council (SRC) to negotiate a definitive agreements for the construction and operation of a rare earth extraction plant.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Geoff started, “We are moving full steam ahead towards getting into production at Nechalacho Project in 2021.” He continued by saying that Vital Metals is closest to production in the rare earths space which draws a lot of interest, he mentioned, only one rare earths project went into production in the last decade.

Geoff also commented on the Vital Metals’ binding term sheet

with the Saskatchewan Research Council (SRC). He said, “The Saskatchewan Research Council has a lot experience with rare earths and we have agreed with them that they will build and operate a rare earths extraction plant for us.”

To watch the full interview, click here

About Vital Metals Limited:

Vital Metals is an explorer and developer with highly prospective mineral projects, focusing on the world-class rare earth Nechalacho project in Canada. They plan to commence production at Nechalacho in 2021, and aims to produce a minimum 5,000 tonnes of contained REO by 2025. Vital Metals aims to become the lowest cost producer of mixed rare earth oxide outside of China by developing one of the highest grade rare earth deposits in the world and the only rare earth project capable of beneficiation solely by ore sorting. Vital’s other projects include the high-grade Wigu Hill rare earth resource in Tanzania.

To learn more about Vital Metals Limited, click here

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Search Minerals’ Greg Andrews on the electrification of

vehicles and the “push” for rare earth magnets

written by InvestorNews | April 19, 2024

In a recent InvestorIntel interview, Tracy Weslosky speaks with Greg Andrews, President, CEO, and Director of Search Minerals Inc. (TSXV: SMY), about the electrification of vehicles and their collaboration agreements with the Saskatchewan Research Council (SRC) and USA Rare Earth.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Greg started, “The recent Canadian government’s, the US government’s, the EU government’s rule on electrification and reducing internal combustion vehicles is a push in the right space for electrification which of course uses rare earth magnets.” He continued by saying that in the last year the OEMs have been investing a lot of capital in electrification of vehicles which again requires a secure supply chain of rare earths to make their business plans operable.

“The collaboration agreements with both SRC and USA Rare Earth is a critical next step for us to turn our product into oxides.” Greg said. He added that Search Minerals is exploring the proven Solvent Extraction Process with SRC and Continuous Ion Exchange process with USA Rare Earth to get their projects off the ground.

To watch the full interview, click here

About Search Minerals Inc.

Led by a proven management team and board of directors, Search is focused on finding and developing Critical Rare Earths

Elements (CREE), Zirconium (Zr) and Hafnium (Hf) resources within the emerging Port Hope Simpson – St. Lewis CREE District of South East Labrador. The Company controls a belt 63 km long and 2 km wide and is road accessible, on tidewater, and located within 3 local communities. Search has completed a preliminary economic assessment report for **FOXTROT**, and a resource estimate for **DEEP FOX**. Search is also working on three exploration prospects along the belt which include: **FOX MEADOW, SILVER FOX** and **AWESOME FOX**.

Search has continued to optimize our patented Direct Extraction Process technology with the generous support from the Department of Tourism, Culture, Industry and Innovation, Government of Newfoundland and Labrador, and from the Atlantic Canada Opportunity Agency. We have completed two pilot plant operations and produced highly purified mixed rare earth carbonate concentrate and mixed REO concentrate for separation and refining.

To learn more about Search Minerals Inc., click here

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MOU with the Saskatchewan Research Council signals another milestone for Search

Minerals on their quest to produce rare earths in NA

written by InvestorNews | April 19, 2024

A likely Biden victory in the USA is positive for all the rare earths miners. This is because one of Biden's key policies is a massive $2 trillion green infrastructure and jobs plan over his first term in office that aims to have a US carbon pollution-free power sector by 2035. This would be a huge tailwind for the US renewable energy sector (solar and wind) as well as supportive to the US electric vehicle (EV) industry. Any North American rare earths suppliers who can potentially supply the USA and/or Canada with rare earths would be likely to benefit as North America embraces the green revolution.

One rare earth miner worth considering is Search Minerals Inc. (TSXV: SMY) ("Search"). Search is focused on finding and developing critical rare earth element mineral assets in Labrador, Canada.

In some very exciting recent news Search has signed a Memorandum of Understanding (MOU) with the Saskatchewan Research Council (SRC). The MOU outlines a collaboration with SRC as they build their Rare Earth Processing Facility in Saskatchewan, Canada.

Search Minerals President and CEO, Greg Andrews, commented: "We anticipate using the (SRC) conventional solvent extraction process to enable Search to validate the ability to produce the individual rare earth oxides necessary to enter the rare earth supply chain.

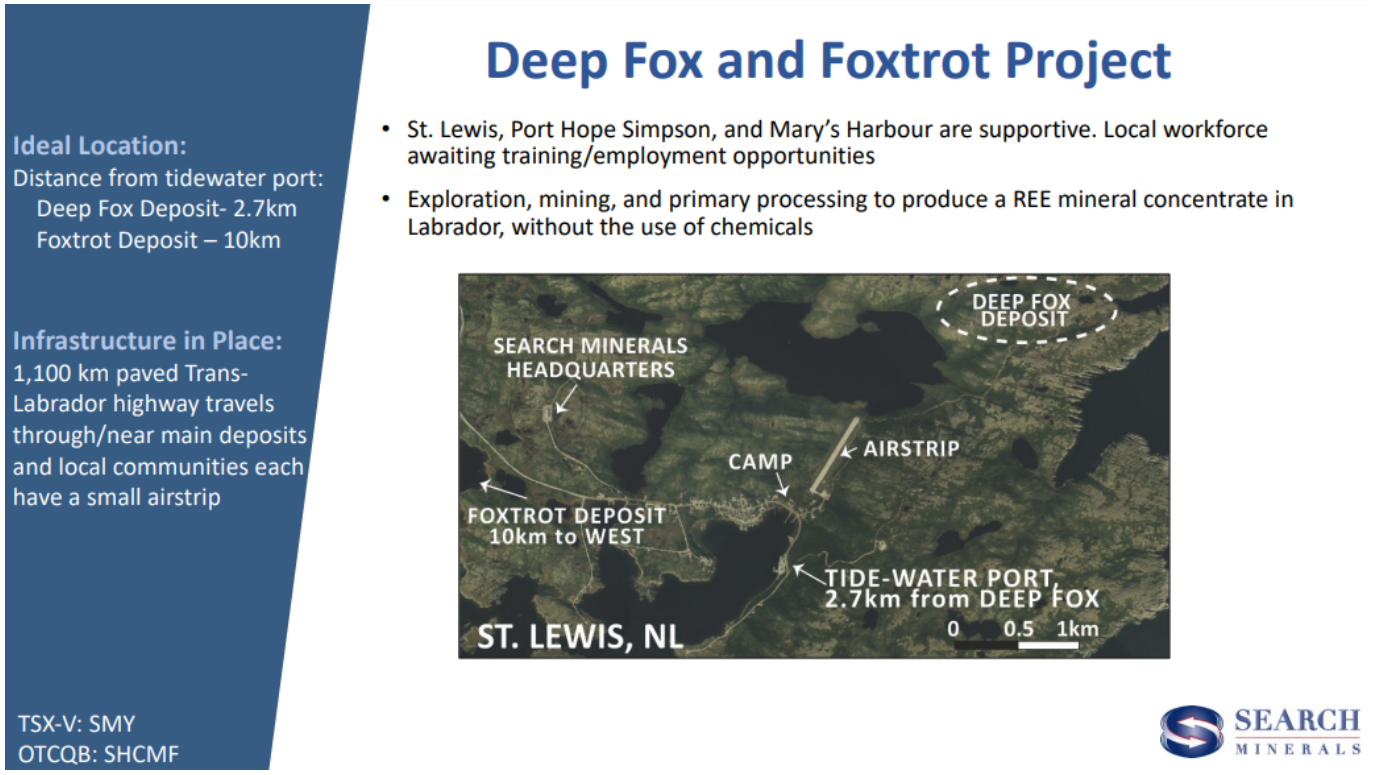
Recent announcements regarding building electric cars in Canada and other government led initiatives for clean and green technology provides the framework for industry access to a

secure rare earth supply chain in Canada. We believe Search is well positioned to capitalize on these opportunities."

Search controls properties in three areas of Labrador, Canada. These are:

- The Port Hope Simpson (PHS) Critical Rare Earth Element District in SE Labrador
- The Henley Harbour Area in Southern Labrador
- The Red Wine Complex located in Central Labrador

Search Minerals has nearby infrastructure in place at St. Lewis, Labrador, Canada



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Within the Port Hope Simpson District Search's main discoveries are the **Foxtrot Resource**, **Deep Fox**, **Fox Meadow**, **Silver Fox, and Awesome Fox deposits** which contain rare earths including dysprosium (Dy), neodymium (Nd), praseodymium (Pr), terbium

(Tb), yttrium (Y), zirconium (Zr), and hafnium (Hf).

The district covers a 63 km long and 2 km wide belt. At Foxtrot the total Indicated Resource is 7.392 million tonnes with grades of neodymium oxide (1,732ppm), neodymium (1,485ppm), praseodymium (397ppm), and dysprosium (191ppm). The 14 year Life of Mine (LOM) Foxtrot Project offers an IRR of 16.7% on an after tax Net Present Value (NPV) 10% of $48M, with a CapEx of only $152M. The NPV quoted above is only for the Foxtrot Project, so once the other projects are combined into a bigger project the NPV should improve.

At Fox Meadow, 2020 channel assay results outlined two mineralized zones on the surface: The NW zone is up to 175m wide and the SE zone is up to 116m wide. Combined, the mineralization is at least 790m long and contains similar grades of the REE magnet materials (Nd, Pr, Tb and Dy) as Foxtrot and Deep Fox. This is a good result as it means Search is continuing to find more REE mineralization to potentially further grow their resource.

At Silver Fox, Search has recently successfully expanded the Silver Fox high grade zirconium-hafnium (REE) mineralized zone. In the news release Search commented: “This surface expression is significantly longer, but thinner, than the surface expressions of the nearby and related Foxtrot and Deep Fox Resources. The mineralization is similarly hosted by peralkaline volcanic rocks and contains lower grades of the REE magnet materials (Nd, Pr, Tb and Dy) but significantly higher grades of Zr and Hf.”

At Awesome Fox, the 2020 channel program (7 new channels) along with previous channels has outlined a REE mineralized zone ranging from about 4-43m thick and 850m long.

Closing remarks

Earlier in 2020, rare earths expert Jack Lifton stated about Search Minerals: “I think it may well be Canada’s first commercial rare earth producer.” Given Search has completed a Resource estimate (Foxtrot, Deep Fox), a PEA (Foxtrot), has successfully produced 99% purity REO concentrate from their pilot plant and patented process, and now has a potential larger scale processing option with SRC; this all combines to suggest that Search Minerals is well on the way towards commercial production. Next steps would involve a BFS and potentially some trial production with SRC once their facility is built.

Search Mineral’s current market cap is only C$10.5M suggesting there may be plenty of upside potential ahead, especially if they continue to successfully advance towards production.

Jack Lifton with Tom Drivas on the Saskatchewan Research Council’s Rare Earths Processing Facility

written by InvestorNews | April 19, 2024

InvestorIntel’s Tracy Weslosky moderates a discussion with the Technology Metals Show host Jack Lifton and Appia Energy Corp.’s (CSE: API | OTCQB: APAAF) CEO, President and Director Tom Drivas on the Saskatchewan Research Council’s (SRC) plans to develop a “first-of-its-kind” Rare Earth Processing Facility in Saskatchewan, Canada.

In an InvestorIntel interview that can also be viewed on our InvestorIntel YouTube channel, Jack started, “This is the first time it has been done in North America,” he continued, “The Canadian companies that are associated with the SRC are going to be the leading companies in Canada in the rare earths space.”

Tom went on to say that Appia has a high-grade rare earths project in Saskatchewan. “Having a rare earths processing plant in Saskatchewan, in the same area where we are and in the same jurisdiction, is a game changer,” he added. Tom also explained how the processing facility is going to benefit Appia Energy and its shareholder.

To watch the full interview, click here

To learn more about Appia Energy Corp., click here

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