

Former Secretary of State Mike Pompeo Joins USA Rare Earth to Bolster Rare Earths Supply Chain Goals

written by Jack Lifton | February 10, 2023

In a dramatic affirmation/recognition of the interest of the US Federal Government in the creation of a domestic American total rare earth permanent magnet supply chain, [USA Rare Earth LLC](#), a private company, [announced](#) yesterday that former Secretary of State and, before that, CIA Director, Mike Pompeo has joined the company as a “strategic advisor.” USA Rare Earth is developing a total rare earth permanent magnet supply chain, anchored on a mineral deposit in Texas, over which it has acquired control from Texas Mineral Resources Corp. (OTCQB: TMRC).

After graduating from the United States Military Academy (West Point) in 1986 and serving in the active military for 5 years, Mr. Pompeo left the army, as a captain, and enrolled in Harvard Law School, from which he graduated and then went to work as a lawyer in Washington, D.C. After that role, he created first an aerospace components manufacturing group and then one to supply the oilfield industry. A successful sale of those ventures was followed by his entry into politics. He was elected to the U.S. House of Representatives from Kansas from 2011 to 2017. He was first appointed to head the CIA by President Trump, and then to the post of Secretary of State.

I don't think that there is an American better qualified to lead a critical minerals company through the labyrinths of the US Federal Government, the Department of Defense, and the industrial rare-earth-enabled components industry than Mr.

Pompeo, who, in traditional Washington-speak, is referred to as “Secretary Pompeo” and is well known and well regarded among all three of the above-mentioned groups.

USA Rare Earth has the only fully equipped rare earth permanent magnet manufacturing site in America today in Stillwater, Oklahoma. It is not yet operational or staffed. The company’s challenge will be to first produce or obtain the rare earth metals, alloys, and magnetic powder feedstocks to supply that plant.

If those hurdles are overcome then USA Rare Earth will be the first, or among the first, rare earth permanent magnet manufacturers in the US in a generation.

Even, if operationally successful, the Company will still need to obtain purchase orders for the magnets.

I doubt that USA Rare Earth could have found a better door opener to both the military and civilian rare earth permanent magnet markets than Secretary Pompeo.

The Navajo Nation shows the mining industry how ‘Hozro’ is the only path forward.

written by Melissa (Mel) Sanderson | February 10, 2023

There is a word in the Navajo language, in English written as: “hozro.” This one word encapsulates an important philosophy for the Navajo people, as it translates to mean putting oneself in

harmony with one's surroundings. "Hozro" has helped the Navajo, one of the largest Tribes in the US, to coexist more harmoniously than many other Tribes with the dominant White culture. The Navajo reservation is the largest in the US and hosts many natural resources essential to the economic development of the country.

These resources have not always been developed either harmoniously, respectfully or conscientiously by companies. Uranium mining on the Navajo reservation remains a disgraceful episode in US history, with radioactive contamination of essential water sources and soil and associated human sickness and death still a reality, not a memory, for many Navajo families. As a consequence, many Navajo are adamantly opposed to new uranium mining anywhere on or near the reservation.

Despite this, coal mining has a much more successful history with the Navajo. Until 2019, when the Navajo Generating Plant closed, many Navajo worked both at the coal mine feeding the Plant and in the Plant itself for 45 years. The Navajo Nation initially attempted to purchase just the coal mine, but then pivoted to a much more ambitious vision, establishing the Navajo Transitional Energy Company (NTEC). NTEC's website states its mission is: to be a reliable, safe producer of coal, while diversifying the Navajo Nation's energy resources to create economic sustainability for the Nation and the Navajo People.

One visible effort by the company is the large solar panel array near Kayenta on the reservation.

Less visible efforts include building a mining portfolio, until recently heavily focused on coal. NTEC owns and operates the Antelope and Cordero Rojo coal mines in Wyoming, Spring Creek in Montana, and Navajo Mine in New Mexico (the latter located on the reservation). Utilizing its multi-generational mining expertise, NTEC has built a sound operational foundation and

increasingly is being recognized for its efforts. In November of this year, the National Mining Association, in conjunction with the Department of the Interior's Office of Surface Mining Reclamation and Enforcement recognized NTEC with two awards, for Mine Safety and for Stewardship of National Resources through Reclamation.

But while building on its strengths NTEC also kept an eye on its mission to develop sustainable energy sources. In 2019 NTEC took an investment position in both [Texas Mineral Resources Corp.](#) (OTCQB: TMRC) and its USA Rare Earth project in Round Top Texas. More recently, NTEC has entered a more active partnership with Arizona Lithium Limited (ASX: AZL | OTCQB: AZLAF) to develop the Big Sandy lithium project near Wikieup, Arizona. This latest agreement may pose potential difficulties for NTEC, however.

NTEC's December 5 [announcement](#) of the strategic alliance states that "NTEC has committed to lead the operational development of Big Sandy, which will include everything from Bureau of Land Management (BLM) project permitting, mine design, drilling environmental assessments, and construction and contract mining operations. The agreement provides for AZL and NTEC to commence work towards development of the Big Sandy project while at the same time continuing due diligence and negotiation of a definitive agreement."

The announcement goes on to say that when NTEC meets certain mining development milestones with respect to Big Sandy, it (NTEC) will receive remuneration in cash or AZL shares and options to purchase additional ordinary shares. Importantly, the announcement notes that "NTEC understands the cultural significance of the land near the mining site. The company plans to work with the Navajo Nation and other Indian Nations to ensure the development at Big Sandy prioritizes appropriate cultural and environmental safeguards throughout the process."

This latter statement appears to be a reference to the opposition of the Hualapai Nation to the Big Sandy project, which abuts the Hualapai lands in one area but does not lie within the Hualapai reservation. A December 15 interview on KNAU News Talk noted that “In April of 2021, the Hualapai Tribal Council passed a resolution strongly objecting to the proposed mining claim area, citing devastating impacts to significant cultural and spiritual resources.” Likewise, the Environmental Justice Atlas registers the Hualapai opposition, with the Hualapai claiming that exploratory drilling has affected a sacred spring on their land. According to the Atlas, the project also faces opposition from some residents of nearby Wikieup, Arizona.

It would appear that the Navajo, as part of the strategic agreement with AZL, may be about to become entangled in trying to resolve a pre-existing conflict between AZL and the Hualapai. If so, this could pose problems for not only the two Tribes but also BLM and the broader Department of the Interior, whose permitting processes require it to take into account objections from Native peoples to mining projects. BLM also is supposed to give priority to critical materials projects, including lithium, which is essential to the development of the electric vehicle industry, a growing component of the Arizona economy.

Kudos to the Navajo Nation for focusing on cooperation instead of conflict, and for taking the standard model of indigenous involvement in mining to new and more lucrative levels. In this particular case, let us see if “hozro” can prevail.

Search Minerals is coming off a great 2021 but 2022 promises to be even better

written by InvestorNews | February 10, 2023

[Search Minerals Inc.](#) (TSXV: SMY | OTCQB: SHCMF) (Search) stock price rose an impressive [223%](#) in 2021 and looks set for another strong year in 2022.

Search Minerals 2021 in review

There were several reasons for the rise including positive sentiment towards the rare earths miners, particularly those with projects containing the valuable magnet metals Neodymium (Nd), Praseodymium (Pr) and Dysprosium (Dy) used in powerful electric motors. All three rare earth metals prices have been rising strongly the past year on the back of surging demand from electric vehicle manufacturers as we saw EV sales rise about 100% in 2021. Search's flagship Port Hope Simpson ("PHS") property has many key rare earth elements including Nd, Pr, Dy, and Tb (Terbium).

Another key factor for Search's success in 2021 was that management delivered strong progress. This included a [non-binding MOU](#) with USA Rare Earth LLC for the future delivery of a rare earth mineral concentrate supply containing 500 tpa of NdPr. The MOU is part of a joint development plan to expand the collaboration to include discussions regarding separation, marketing and offtake of a portion of the future production at Search's Deep Fox and Foxtrot deposits. During 2021 Search was able [to purchase back a 2.5% Net Smelter Royalty \(NSR\)](#) from B&A Minerals Limited in return for 15 million common shares of Search Minerals, leaving just an outstanding royalty now of

0.5%. Other progress in 2021 included a successful 7,000m drilling program completed at Deep Fox as well as several successful capital raises including the most recent [C\\$15 million](#) and [C\\$5.3 million](#) equity raises. This leaves Search very well-funded to advance its plans in 2022.

Search Minerals has district scale rare earth deposits at Port Hope Simpson (PHS) property (flagship) (includes Foxtrot, Deep Fox, Silver Fox, Awesome Fox, and Fox Meadow deposits)



Source: [Search Minerals company presentation](#)

Search Minerals in 2022 and beyond

Q1 2022 should see Search deliver an updated Preliminary Economic Assessment (“PEA”) for the combined Deep Fox and Foxtrot deposits at their PHS Property. It is anticipated that this will potentially be a very significant improvement of the [2016 PEA](#), which only included the Foxtrot deposit. It resulted in a post-tax [NPV10% of C\\$48 million](#) and post-tax IRR of 16.7% over a 14 year mine life. The initial CapEx was [C\\$152 million](#), and a further C\$57 million in year 8 for the underground stage of the Project.

Search [quotes](#) some of the reasons why the 2022 PEA should be better:

- Increase production rate from 1000 tonnes per day to 2000 tonnes per day
- Increase recoveries from optimized pilot plant process
- Increase revenue from higher grades at Deep Fox
- Extend mine life with material from both Deep Fox and Foxtrot for a central processing facility
- Decrease costs with reduced capital and operating costs

- Upward trending price escalations for permanent magnet material.

In Q2, 2022, Search plans to submit an updated Environmental Impact statement based on the updated PEA.

In Q3 and Q4, 2022 Search will continue to drill Deep Fox to potentially further grow the Resource as well as drill Fox Meadow and Silver Fox and commence a Bankable Feasibility Study (BFS).

All going well Search hopes to make a Final Investment Decision (FID) in 2023 and commence production in 2025.

Search Minerals 2022 catalysts



Source: [Search Minerals company presentation](#)

More about Search Minerals

Search Minerals Inc. is an emerging rare earths developer with three properties in Labrador, Canada. The three are:

- The Port Hope Simpson (“PHS”) property (flagship) – Includes Foxtrot, Deep Fox, Silver Fox, Awesome Fox, and Fox Meadow deposits. PEA due in Q1 2022.
- The Henley Harbour Area in Southern Labrador.
- The Red Wine Complex located in Central Labrador.

Closing remarks

Search Minerals is coming off a great 2021 but 2022 promises to be even better. Certainly, it looks like Search can deliver an impressive 2022 PEA at PHS, given that the project economics will have potentially improved significantly. The PHS Project also has significant exploration upside and potential to further

grow the Resource in 2022.

Search Minerals trades on a market cap of [C\\$74 million](#). The next 3-4 years could be game changing for Search Minerals, if they can make it to production in 2025, or 2026.

Greg Andrews on Search Minerals 'sprint' towards rare earth production

written by InvestorNews | February 10, 2023

In a recent InvestorIntel interview, Tracy Weslosky spoke with Greg Andrews, President, CEO, and Director of [Search Minerals Inc.](#) (TSXV: SMY | OTCQB: SHCMF) about Search Minerals' 'sprint' towards production as they work towards strengthening the North American rare earths supply chain.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Greg Andrews said that Search Minerals recently signed an MoU for an [offtake agreement](#) with USA Rare Earth, thus ensuring that it has sales and revenues when production begins. He went on to say that Search Minerals is progressing towards announcing an updated PEA and explained why the updated PEA is expected to be robust and economic at the current pricing of rare earths. With a loyal shareholder base and strong federal, provincial, local government and indigenous support, Greg told InvestorIntel that Search Minerals is progressing well towards its goal of going further down the rare earths supply chain to produce magnet

metals and alloys.

To watch the full interview, [click here](#).

About Search Minerals Inc.

Led by a proven management team and board of directors, Search Minerals is focused on finding and developing deposits of the Critical Rare Earths Elements (CREE), and of 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 that is road accessible, on tidewater, and has access to 3 local communities. Search has completed a preliminary economic assessment report for its **FOXTROT site**, and a resource estimate for its **DEEP FOX site**. Search is also working on three exploration prospects along its part of the St. Lewis District, which are named, and include: **FOX MEADOW**, **SILVER FOX** and **AWESOME FOX**.

Greg Andrews went on to emphasize that Search has continued to optimize its patented Direct Extraction Process technology with generous support from the Department of Tourism, Culture, Industry and Innovation, Government of Newfoundland and Labrador (“**InnovateNL**”), and from the Atlantic Canada Opportunity Agency (“**ACOA**”). He said that Search has completed two pilot plant operations and produced a highly purified mixed rare earth carbonate concentrate and a mixed REO concentrate for use in testing individual rare earth separation and refining.

To know more about Search Minerals Inc., [click here](#)

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Greg Andrews with Jack Lifton on Advancing Search Minerals Towards a Total Domestic Rare Earth Supply Chain

written by InvestorNews | February 10, 2023

In a recent InvestorIntel interview, Jack Lifton spoke with Greg Andrews, President, CEO, and Director of [Search Minerals Inc.](#) (TSXV: SMY | OTCQB: SHCMF) about how its recent MoU for an [offtake agreement](#) with USA Rare Earth puts Search Minerals in the top tier of North American rare earth ventures.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Jack started by complementing Search as “Canada’s first rare earths company to be involved in a domestic North American total rare earths enabled product supply chain.” Greg Andrews then said that Search already has rare earth resources with excellent infrastructure, and has a patented selective extraction process. Greg also explained that Search is progressing towards its end goal of entering the high value add section of the rare earths supply chain, the production of metals and alloys.

To watch the full interview, [click here](#).

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controls a belt 63 km long and 2 km wide and is road accessible, on tidewater, and located with access to 3 local communities. Search has completed a preliminary economic assessment report for its **FOXTROT site**, and a resource estimate for its **DEEP FOX site**. Search is also working on three exploration prospects along its part of the St. Lewis District, which are named, and include: **FOX MEADOW**, **SILVER FOX** and **AWESOME FOX**.

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Search Minerals' MOU with USA Rare Earth Advances Canada's Participation in a non-Chinese Rare Earths' Supply Chain

written by InvestorNews | February 10, 2023

Canadian rare earth junior miners are starting to see increasing interest in their projects with off-take [agreements and MOUs](#)

signed recently. The pieces of a future European and USA vertically integrated 'rare earths to magnets' total supply chain are being put in place.

Last week it was [announced](#) that [Search Minerals Inc.](#) (TSXV: SMY | OTCQB: SHCMF) ("Search") has entered into a [non-binding MOU](#) with [USA Rare Earth LLC](#) for the future delivery of a rare earth mineral concentrate supply containing 500 tpa of the "magnet" rare earths product, neodymium/praseodymium (NdPr). The 500 tonnes/year of contained NdPr is to come from future production at Search's Deep Fox or Foxtrot deposits, located in Labrador, Canada.

Just the week before that Australia's [Vital Metals Limited](#) (ASX: VML) [announced](#) a similar off-take deal from future production at Vital's Nechalacho mine-site, in Canada's Northwest Territory, with Ucore Rare Metals Inc. which followed on from Vital's off-take deal with Norwegian rare earth metals/alloys start-up, REEtec, as you can read [here](#).

Search Minerals Inc. MOU for rare earths concentrate off-take supply to USA Rare Earth

The announcement [stated](#):

"This MOU is part of Search's and USA Rare Earth's development plans to expand the collaboration to include discussions regarding separation, marketing and offtake of a portion of the future production at Deep Fox and Foxtrot. **These discussions are in line with Search's ambition to be an important contributor to the development of a North American Critical Material supply chain and USA Rare Earth's strategy of Mine-to-Magnet production, and the development of a complete and sustainable North American rare earth supply chain.**"

Search Minerals and USA Rare Earth to collaborate further

USA Rare Earth is supporting Search's efforts as it helps it to achieve its place in a North American total supply chain. Once operational, USA Rare Earth's NdFeB magnet plant has an initial target production of 2,000 tonnes annually of high-performance, neodymium-iron-boron type rare earth magnets, with the ability to scale production further based on growing market demand.

About Search Minerals

[Search Minerals Inc.](#) is an emerging rare earths miner with three properties in Labrador, Canada. The three are:

- The Port Hope Simpson (PHS) property (flagship) – Includes Foxtrot, Deep Fox, Silver Fox, Awesome Fox, and Fox Meadow deposits.
- The Henley Harbour Area in Southern Labrador.
- The Red Wine Complex located in Central Labrador, plus some newer [acquisitions](#).

Search Minerals' resources contain the permanent magnet rare earth elements (neodymium, praseodymium, dysprosium and terbium). Search is currently working on advancing the testing of its proprietary Direct Extraction Process, developed with noted rare earth processing expert, Professor (UBC) David Dreisinger. The company also is advancing work on a resource upgrade, and on a Preliminary Economic Assessment ("PEA"), which work is fully funded.

Search's strategy

Search aims to deliver added shareholder value by leveraging the Foxtrot PEA (and soon the combined Deep Fox and Foxtrot PEA), using its proprietary, lower cost, hydrometallurgical process, and continuing to explore its highly accessible district-scale opportunity, as foundations with which to forge strategic partnerships and additional offtake agreements. The aim is to

facilitate early monetization and more rapid delineation of additional resources intended to strengthen the Company's position as a reliable, strategically located, low-cost producer.

Next steps

The next steps for Search include:

- A Q1 2022 PEA based on the combined Deep Fox and Foxtrot deposits. Search is already [fully funded](#) to achieve the PEA. More details [here](#).
- Continued environmental baseline studies.
- Raising an 80 tonne bulk sample of deposit material for testing the magnetic separation [demonstration plant](#) due to be operational (subject to funding) in 2022.
- A full-scale rare earths hydrometallurgical processing plant to be under construction by the end of 2023 (subject to funding).

Demand for magnet rare earths is forecast to boom

Adamas Intelligence [forecasts](#):

- "The value of global magnet rare earth oxide consumption will rise five-fold by 2030, from US\$2.98 billion this year to US\$15.65 billion at end of the decade (2030)."
- "Global shortage of neodymium, praseodymium, and didymium oxide will collectively rise to 16,000 tonnes in 2030, an amount equal to roughly three-times Lynas Corporation's annual output, or three-times MP Material's annual output of neodymium and praseodymium oxide."

Search Minerals now has a resource, a proprietary extraction process, a MOU for separation, and an MOU for off-take



Source: [Search Minerals company presentation](#)

Closing remarks

Search Minerals continues to make positive steps towards a production start-up, albeit still at the early stages. Search has achieved a resource, a PEA, has a propriety extraction technique, a separation technology MOU, and now an MOU for an off-take (not yet a binding agreement). The most recent MOU, for mined product, with USA Rare Earth, is a strong endorsement of Search Minerals' Port Hope Simpson Project, notably the Deep Fox and Foxtrot deposits.

Search Minerals trades on a market cap of C\$66 million. One to follow closely given that it is now moving at a good pace in the right direction.

North American Rare Earth Juniors Consolidate Capabilities to Advance Towards a Total Domestic Supply Chain

written by Jack Lifton | February 10, 2023

There were otherwise unrelated announcements last week, but, with a common purpose, by separate pairs of rare earth juniors: The common purpose was **the advancing of the creation of a domestic American rare earth enabled product(s) total supply**

chain.

In one case the Canadian rare earth Junior miner, **Search Minerals Inc. (TSXV: SMY | OTCQB: SHCMF)**, entered into a [non-binding MOU](#) for the future delivery of a rare earth mineral concentrate supply, containing 500 tpa of Neodymium/Praseodymium, with one of its investors, privately owned, **USA Rare Earth LLC**, which has committed itself to producing commercial tonnages of rare earth permanent magnets in the United States as early as 2022-23. Another [announcement](#) was made by the Canadian rare earth junior critical metals' processor, **Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF | FSE: U9U)**, which announced that it had entered into an MOU with Australia's **Vital Metals Ltd. (ASX: VML | OTCMKTS: VTMXF)**: for a supply of rare earth ore concentrates from Vitals' already underway mining operations in Canada's Northwest Territory, to be first processed into a mixed rare earth carbonate in a facility funded by Canada's Saskatchewan Research Council in Saskatoon, Saskatchewan, and then shipped to Ucore's proposed Strategic Metals (processing) Center in Ketchikan, Alaska, USA, for separation into individual rare earths.

These announcements are indicative of a sea-change in the thinking of an increasing number of non-Chinese junior rare earth companies. In the last rare earth boom from 2007-2012 hundreds of juniors had the same goal, the production and sale of a "mixed con" of rare earths, in other words, of an ore concentrate or a concentrate of mixed rare earth solids prepared by hydrometallurgical treatment of ore concentrates. It was commonly believed at that time that Chinese rare earth separation companies, then the only customers, would pay 65% of the "basket value," defined as the market price of separated versions of the rare earths contained in the mixed concentrate. This was magical thinking based on a complete misunderstanding of the value of, and the markets for, either ore concentrates or

mixed rare earth concentrates. Even today some juniors still insist that their ore concentrates have a basket value based on the values of finished goods. Chinese separators typically have offered 40% of the basket value, delivered into China for high grade ore concentrates free of elements that interfere with solvent extraction separation of mixed rare earths.

The "[supply chain crisis](#)" has clarified the thinking of many juniors. They realize that their product must have an immediate determinable-price demand and that this demand must be by processors who add enough value, so that they can afford to buy the junior's product at a price that allows the junior to make a profit. This may seem trivially obvious, but it was blithely overlooked in the 2007-12 rare earth boom.

A new factor has entered the calculus for determining the price of mixed rare earth ore concentrates or of mixed rare earth solids free of both radioactive and of SX interfering contaminants. That factor is any added value governments and industries are willing to pay for non-Chinese, or domestic, materials of these descriptions.

So far, only one non-Chinese vendor has entered the market with mixed rare earth carbonate (solids) free of radioactive and SX interferents. That is America's **Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR)**, which is processing non-Chinese monazite ore at its White Mesa, Utah, uranium processing mill. The mixed rare earth carbonate solids are being sold, at a profit to Energy Fuels, to Canada's **Neo Performance Materials Inc. (TSX: NEO | OTCMKTS: NOPMF)**, which has them delivered to its rare earth separation facility in Estonia, where the material is separated into individual rare earths for further processing by Neo or its customers into rare earth permanent magnets, phosphors, ceramic additives, and other fine chemicals. The European Union is already well ahead of the USA in

organizing a financial facility to underwrite the creation of a European domestic rare earth enabled products total supply chain without Chinese participation at any level.

In the United States and Canada the supply chain issue is downstream of mining, and is manifested in the total lack of commercial facilities for rare earth separation, metal and alloy making, magnet making, and end use manufacturing.

Europe has existing facilities for up to 12,000 tpa of rare earths separation, a thousand tpa of rare earth metals and alloys, and substantial capacity and existing expertise to make rare earth permanent magnets of the most widely used, sintered, type. Further, both the UK and the EU governments have already begun to support the expansion of existing rare earth processors financially.

The United States and Canada should take a lesson from the UK and the EU: Get industrial end users involved from the very beginning. The UK and the EU speak with industrial experts as well as academics and bureaucrats. The difference is really beginning to show.

What was really said on the rare earths market in our last Critical Minerals Corner

written by Tracy Weslosky | February 10, 2023

Friday, June 18, 2021. In a Zoom room of more than a dozen rare earths industry leaders, we had the pleasure of hosting:

Critical Minerals Corner, hosted by [Jack Lifton](#) with guests Pini Althaus from [USA Rare Earth, LLC](#) and Geoff Atkins from [Vital Metals Ltd.](#) (ASX: VML) – it has taken me over a month to publish my notes.

Reviewing Pini's LinkedIn post today, he starts: "Yesterday, President Biden reiterated the need for a stronger, more resilient domestic supply chains for components used in semiconductors and advanced batteries..." I am committed to regular geopolitical coverage on InvestorIntel.com for all of us investors' trying to understand how these positions may impact our portfolios.

Numerous people wrote me asking how our 1st Critical Minerals Corner went, here you go as we are planning our 2nd one on August 27th....

There was initially muted discussion after presentations by Pini Althaus, Geoff Atkins and notable rare earths expert Jack Lifton, but as the hour transpired, the discussion became more lively, interesting and informative.

What did we learn?

USA Rare Earth, LLC as a private company has looked at the opportunity of becoming a publicly-traded company and has pondered the possibility of use of a Special Purpose Acquisition Company (SPAC).

Similarly, Vital Metals Ltd. (ASX: VML) is only traded "down under" and was asked about where and when they are going to trade elsewhere (US or Canada). "Considering and examining all options" was the reply...patience is a virtue and virtue is its own punishment....

And we also learned that patience is required when it comes to

Canada's next producing rare earths mine. According to Geoff Atkins of Vital Metals, while the Nechalacho project is proceeding, the key to the output will be consistent measurable product output specifications. We should note that Geoff is the only rare earths company executive who has actually seen an exploration project become a mine and a rare earths producer (through his executive role at Lynas and now leading Vital).

There was much discussion around actual demand for rare earths. Of note is that it appears that China is or is on the verge of becoming a net importer, so to Jack Lifton's point "This time it really is different" for the rare earths, unlike the past rare earths bull market 10+ years ago.

As the world looks to remove China from the global supply chain, there was also discussion around what is the cost of building a rare earths processing facility. The answer? "It depends" and we have seen in the market facilities costs that range from tens of millions to nearly a billion dollars.

The burning question on people's minds was related to pricing. Would buyers accept a higher-than-market price to source rare earths (or metals and magnets) that were not from China? Well, we know that the US Department of Defense will, but historically (and currently) the profit-oriented users of rare earths metals and magnets are not likely to do that. We were reminded that initially, Tesla said they would only use motors source from the USA. And where do they come from now...? Of course, the world's primary supplier.

However, it was pointed out that the industry is going to change. The world knows what an ecological and environmental disaster China has perpetrated through their industrial processes in the rare earths processing chain. And while it may not be important now, think about blood diamonds. Eventually,

the world said no more and that was a watershed moment. How long will it be before the manufacturing world and, more importantly, consumers, also say “no more” to China for their distressing lack of environmental considerations? At a slightly higher cost for clean, ethical rare earths that could already be happening. And like it or not ESG (environmental, social and governance) really is a “thing”, even in the world of rare earths.

There’s a lot more to be said on this and the other topics that were discussed in the hour, so don’t miss the next one on Friday, August 27! This is the best information from knowledgeable rare earths experts from around the world.

As Market Focus on Rare Earths Intensifies, Search Minerals Proceeds on Path to Production

written by InvestorNews | February 10, 2023

Rare earth’s producing miners in the West are very rare as China dominates most of the rare earths production. Two exceptions are both trading with US billion-dollar market caps – They are [MP Materials Corp.](#) (NYSE: MP) (US\$6.24 billion) and [Lynas Rare Earths Limited](#) (ASX: LYC) (US\$3.92 billion), with Today’s company trades on a market cap of just US\$55 million.

[Note from the Publisher: The breaking news yesterday [Energy Fuels and Neo Performance Materials Announce Contract Signing and Launch of Commercial Shipments of Rare Earth Product to Europe in Emerging U.S.-Based Rare Earth Supply Chain](#) confirms

these 2 companies as players in the rare earths supply chain. And Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) market cap is roughly CAD\$1B and Neo Performance Materials Inc. (TSX: NEO) is CAD\$615M according to Yahoo Finance at 945 AM EST.)

The Company has a plan to be ready to build their full-scale rare earths processing plant by the end of 2023 and once complete become a North American rare earths producer (potentially by about 2025 provided all goes well). Prior to reaching full scale production, the Company plans to operate a [demonstration plant](#) in 2022.

The Company is [Search Minerals Inc.](#) (TSXV: SMY | OTCQB: SHCMF) ("Search"). Search controls properties with rare earths in three areas of Labrador, Canada. These are:

- The Port Hope Simpson (PHS) property (flagship)
- The Henley Harbour Area in Southern Labrador
- The Red Wine Complex located in Central Labrador, plus some [recently agreed acquisitions](#)

Search Minerals flagship Port Hope Simpson (PHS) property includes Foxtrot, Deep Fox, Silver Fox, Awesome Fox, and Fox Meadow



Next steps (2021) at Port Hope Simpson – Foxtrot/Deep Fox updated PEA by Dec. 2021

The [Preliminary Economic Assessment \(PEA\) of the Foxtrot Resource](#) showed an estimated after-tax NPV10% of C\$48 million and an after-tax IRR of 16.7% over a 14-year mine life. Start-up CapEx was estimated at C\$152 million representing an after-tax payback of 4.4 years.

Search plans to do an updated PEA by December 2021 to include

both Foxtrot and Deep Fox. Deep Fox will add to the existing PEA due to increasing the resource size and it has up to 15% higher grades than Foxtrot. The updated Foxtrot/Deep Fox PEA will double the past PEA production rate (increase production rate to 2,000 tonnes per day), increase recoveries from the optimized pilot plant process, increase revenue from higher grades at Deep Fox, extend mine life with material from Deep Fox and Foxtrot to a central processing facility, and decrease costs with reduced re-agents. The impact of all of this is expected to potentially improve the PHS (Foxtrot/Deep Fox) Project economics significantly.

Beyond this, there is plenty of potential to further grow the Resource estimate and economics in the Feasibility Study, as Search also has 3 more advanced prospects (Silver Fox, Awesome Fox, and Fox Meadow) and 20+ potential prospects at PHS. Silver Fox has had some exciting “[very high occurrence of zirconium and hafnium](#)”. Project CapEx and OpEx should also be attractive as there is existing infrastructure, a scalable processing plan, technical simplicity, and open pit mining. A local workforce and Search’s patented mining process (lowers environmental and reagents costs) should also help reduce costs.

Search has already achieved a dedicated pilot plant, proving an ability to generate [high](#) purity, refinement-ready product at a low scale. Added to this there are MOUs signed with [Saskatchewan Research Council](#) and USA Rare Earth for further refining collaboration.

Next steps (2022, 2023) – Demonstration plant in 2022 and full-scale production plant construction ready to begin in late 2023

Search’s master plan includes building a demonstration plant in St Lewis in 2022 as well as an Environmental Impact Statement (EIS) for Foxtrot/Deep Fox.

In 2023 Search intends to complete their permitting, a BFS, and commence raising capital to build a full-scale processing plant commencing by the end of 2023. All going very well that can potentially lead to Search commencing rare earth production in 2025 or shortly thereafter.

It should be noted that in the mining industry, unless governments act to support and speed up the process, permitting and funding can drag on for some years. The good news here is [the Canadian and US governments finally appear motivated to support](#) (perhaps via faster permitting and low rate loans) a local rare earths supply chain.

In news [announced](#) on June 24, 2021, Search was selected to participate in the Government of Canada Accelerated Growth Service Initiative. This provides Search with “coordinated access to Government of Canada resources” as Search continues to move quickly to production.

Search Minerals Strategic Plan – 2021 to 2023



Source: [Company presentation](#)

Closing remarks

Search Minerals has big plans in the rare earths sector. The road to production for junior miners carries plenty of risks and usually involves stock dilution increasing the market cap, especially when raising initial project CapEx. One plus for Search Minerals is their Canadian location, as US and Canadian governments are showing increasing interest to help support rare earth projects.

If successful Search Minerals (US\$55 million market cap) can begin to follow in the giant footsteps of Western rare earth

majors MP Materials (US\$6.24 billion) and Lynas Rare Earths (US\$3.92 billion). As you can see successful Western rare earths miners command very significant size market caps.

Investors will need to 'search' for their patience cap and be prepared for a long ride, but the potential rewards for success can be excellent. Stay tuned.

Pini Althaus on USA Rare Earth's \$50M Series C Funding to acquire rare earths and lithium project in Texas

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In a recent InvestorIntel interview, Jack Lifton speaks with Pini Althaus, CEO and Director of [USA Rare Earth, LLC](#) about USA Rare Earth's progress towards production at its Round Top heavy rare earths, lithium and critical minerals project in Texas.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Jack pointed out that the markets for lithium and rare earths are entering a bull market because of the lack of supply to satisfy demand. Pini went on to say that with the ever-increasing demand for rare earths in the US, "USA Rare Earths is in discussion with a number of companies around the world to source feedstock to separate rare earths and then provide those materials into the US supply chain." USA Rare Earth recently

exercised options to acquire 80% of Round Top Project and completed [Series C Funding round of \\$50 million](#) making it fully funded through the completion of the Definitive Feasibility Study. The company expects to produce separated materials at the demonstration plant at its Round Top Project later this year leading to full-scale commercial production in 2023.

To watch the full interview, [click here](#)

About USA Rare Earth, LLC

USA Rare Earth, LLC owns an 80% operating joint venture interest in the Round Top Heavy Rare Earth and Critical Minerals Project located in Hudspeth County, West Texas. Round Top hosts a wide range of critical heavy rare earth elements, high-tech metals, including lithium, gallium, zirconium, hafnium and beryllium. Based on the Preliminary Economic Assessment (dated August 16, 2019) projects a pre-tax net present value using a 10% discount rate of \$1.56 billion based on a 20-year mine plan that is only 13% of the identified measured, indicated and inferred resources. The PEA estimates an internal rate of return of 70% and average annual net revenues of \$395 million a year after average royalties of \$26 million a year payable to the State of Texas. Based on the cost estimates set forth in the PEA, Round Top would be one of the lowest-cost rare earth producers, and one of the lowest cost lithium producers in the world. The Round Top Deposit hosts 16 of the 17 rare earth elements, plus other high-value tech minerals (including lithium), including 13 of the 35 minerals deemed “critical” by the Department of the Interior and contains critical elements required by the United States, both for national defense and industry. Round Top is well located to serve the US internal demand. In excess of 60% of materials at Round Top are expected to be used directly in green or renewable energy technologies. In 2020 USA Rare Earth opened a rare earth and critical minerals processing facility in

Wheat Ridge, Colorado and in April 2020 USA Rare Earth acquired the neodymium iron boron (NdFeB) permanent magnet manufacturing system formerly owned and operated in North Carolina by Hitachi Metals America, Ltd.

To know more about USA Rare Earth, LLC [click here](#)

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Company's profile on www.Sedar.com and to carry out independent investigations in order to determine their interest in investing in the Company.

If you have any questions surrounding the content of this interview, please email info@investorintel.com.