

# Jack Lifton interviews Search Minerals' Dr. David Dreisinger who says "the time for rare earths is now"

In a recent InvestorIntel interview, Jack Lifton spoke with Dr. David Dreisinger, Director and Vice President Metallurgy at Search Minerals Inc. (TSXV: SMY) about Search's results around magnetic separation testing for producing rare earth concentrates from in the Port Hope Simpson Critical Materials District in SE Labrador.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Dr. Dreisinger went on to say that Search Minerals' Silver Fox rare earths deposit hosts a very high occurrence of zirconium and hafnium. With a plan to extract these critical materials as co-products with the rare earths, Dr. Dreisinger describes this as a "big breakthrough" for reducing overall cost in the extraction processes. He also discusses how the world is moving towards a non-Chinese supply chain of many critical materials and that "the time is now for rare earths".

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. The Company has completed two pilot plant operations and produced highly purified mixed rare earth carbonate concentrate and mixed REO concentrate for separation and refining.

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

**Disclaimer:** Search Minerals Inc. is an advertorial member of InvestorIntel Corp.

This interview, which was produced by InvestorIntel Corp. (IIC) does not contain, nor does it purport to contain, a summary of all the material information concerning the "Company" being interviewed. IIC offers no representations or warranties that any of the information contained in this interview is accurate or complete.

This presentation may contain "forward-looking statements" within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company's business or any investment therein.

Any projections given are principally intended for use as

objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company's financial condition or results of operations may negatively impact the value of its securities. Prospective investors are urged to review the Company's profile on [www.Sedar.com](http://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](mailto:info@investorintel.com).

---

## **Search Minerals are setting themselves apart in the critical materials pack**

As industrial nations continue to shift towards a greener future and explosive demand for EVs and the associated demand for magnetic materials shows no signs of abating it's time to take another look at Search Minerals Inc. (TSXV: SMY). Search holds a 100% interest in a rare earths deposit within the Port Hope Simpson – St. Lewis District of South East Labrador that is road accessible and on tidewater, which is a leg up on a lot of their North American counterparts. The company already has a favourable Preliminary Economic Assessment (PEA) for their FOXTROT deposit, a resource estimate for Deep Fox and a third discovery has been identified at Fox Meadow. There are also more than 20 additional exploration prospects identified along the 70 km long and 8 km wide region controlled by Search including Silver Fox and Awesome Fox.

The PEA highlights a 14 year mine lifespan on Foxtrot (8 years open pit, 6 years underground) that would recover approximately 7.4 million tonnes of Indicated and 2.0 million tonnes of Inferred Resources. Mineralized zones typically show high concentrations of many of the magnetic materials in demand (Nd, Pr), and some of the most revered critical materials including but not limited to: Dysprosium (Dy) Neodymium (Nd), Praseodymium (Pr), Terbium (Tb) and Yttrium (Y). However, the newest prospect at Silver Fox hosts significantly higher grades of Zirconium (Zr) and Hafnium (Hf).

But this is only the start of the story. What makes Search different from most other critical materials' explorers is the development of its breakthrough Patented Direct Extraction Metallurgical Process. With the mining of many commodities, it's not as simple as taking the rock from the ground, crushing it up and sending it to market. Think back to Imperial Metals Mount Polly tailings pond breach in 2014. Mining rare earths are no exception and can have their own environmental nightmare lurking if not addressed properly, just ask China. Fortunately, Search has found an elegant answer for an environmentally conscientious solution for managing waste residue that also significantly reduces CAPEX and operational costs. Without getting into the details (you can read more about it [here](#)), this is a big deal.

To further the development of this proprietary process, Search signed an MOU with the Saskatchewan Research Council (SRC) on Oct 29, 2020. The MOU outlines a collaboration with SRC as they build their Rare Earths Processing Facility in Saskatchewan, Canada. It is anticipated that using the SRC conventional solvent extraction process will enable Search to validate the ability to produce the individual rare earth oxides necessary to enter the rare earths supply chain.

Another intriguing development in progressing this patented process is the Nov 10, 2020 entry into a Technical

Collaboration Framework Agreement with USA Rare Earth, LLC. This will involve technical assistance through joint technical meetings, sharing of data, site visits and reviews and collaboration around the engineering and development of Critical Material projects. Subsequent to this agreement on March 11, 2021 USA Rare Earth participated in a Search Minerals private placement with a strategic investment of C\$630,000.

Search Minerals is a company that has identified an optimally located, economic resource in a commodity that is likely to continue to see increasing demand, has exploration upside and a proprietary process to get its product cost-effectively to market in an environmentally conscious way. This has obviously attracted the interest of others in the industry. That's how you set yourself apart from the rest of the pack.

---

## **MOU with the Saskatchewan Research Council signals another milestone for Search Minerals on their quest to produce rare earths in NA**

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**

## Community of St. Lewis

- Diesel power plant (expandable)
- Ice-free deep sea port: reagents & other supplies
- 12km from Foxtrot
- 2km from Deep Fox
- Small aircraft airstrip
- Fox Harbour House: housing, office, core shack, workshop

## Trans-Labrador Highway

- All season paved highway – transport REE Concentrate



Source

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.



## Why Invest in Search Minerals?

SMY: TSX-V

- ✓ Lowest CAPEX project in North America - \$ 152M (\$Cdn), 1000 tonnes per day scalable processing technology to align production rate with CAPEX
- ✓ Patented Processing Technology – produced 99% high purity mixed REO concentrate during \$1.9M pilot plant operation
- ✓ 100% owned Foxtrot and Deep Fox Resources: Fox Meadow and Silver Fox Advanced Prospects; Multigenerational opportunity
- ✓ Strong support from Federal/Provincial governments, NunatuKavut Community Council (Indigenous) and Local Communities
- ✓ Macro Developments – US/China trade war, Defense Production Act Title III – Create North American rare earth supply chain, Possible future supply constraints
- ✓ Led by a proven management and Board of Directors. Insider ownership greater than 38%

Source

### 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.

---

# North American rare earths race heats up with patent advantage

Greg Andrews, President and CEO of Search Minerals Inc. (TSXV: SMY), in an interview with InvestorIntel's CEO Tracy Weslosky discuss Search Minerals progress towards becoming the next producer of rare earths and sustainability challenges in North America (NA). With a technology advantage, Greg discusses Search Minerals' metallurgy patent which increases recovery rates and reduces the cost of production for rare earths. Specifically, Search is taking their 99% pure rare earth oxide to refineries, which will obviously increase the NA supply. Greg will be presenting at InvestorIntel's 6th Annual Cleantech and Technology Metals Summit on Monday and Tuesday, May 15th and 16th in Toronto, Canada at the Omni King Edward Hotel.

**Tracy Weslosky:** Greg, it's so exciting to have what is unquestionably the next producer of rare earths in North America.

**Greg Andrews:** We want to be that next rare earth producer for North America. We just released our metallurgy report, which was very exciting and exceeded our expectations.

**Tracy Weslosky:** We were just talking to Dr. David Dreisinger about your pilot plant operation and your rare earth oxide. Can you tell us more about this?

**Greg Andrews:** We're really excited because we've been able to prove the metallurgy from our ore sample at Foxtrot right to the end product, which is a high purity 99% mixed rare earth

oxide. The next step for us now is taking it to the refineries. It opens up a whole new audience to us for strategic investors, investors, offtake agreement partners. It's fantastic news for us...to access the full interview, [click here](#)

Disclaimer: Search Minerals Inc. is an advertorial member of InvestorIntel Corp.

---

## **Dr Dreisinger on extraction technologies for Rare Earths**

David Dreisinger, Director and VP of Metallurgy for Search Minerals Inc. (TSXV: SMY), in an interview with InvestorIntel's CEO Tracy Weslosky discuss the company's rare earth extraction patent. The rare-earth-carrying minerals found in their deposits in Newfoundland and Labrador (Allanite and Fergusonite) are highly reactive to acid. This feature greatly simplifies the extraction process by cutting out the labor and facility demanding technique of flotation, gravity, and magnetic separation. Additionally, this ease of extraction means that they can scale to the right size and meet market demands.

**Tracy Weslosky:** David, I understand that you are considered one of the top rare earth experts in the world. To confirm you have 21 patents?

**David Dreisinger:** Yes, I have 21 U.S. patents in different areas, including the Search Minerals patent.

**Tracy Weslosky:** Could you please share a little bit more about the Search Minerals' patent with our InvestorIntel audience.

**David Dreisinger:** What we figured out Tracy is that our Foxtrot Deposit in Labrador has 2 types of minerals, Allanite and Fergusonite, that carry our rare earths, which are quite reactive with acid. We have figured out a way to directly extract our rare earths from our minerals without having to go through the usual steps of grinding, flotation, gravity and magnetic separation. We directly treat the mineral, cover the rare earths in the solution and we come out with a rare earth product that goes directly to the refinery.

**Tracy Weslosky:** David, could you clarify this for me and for our InvestorIntel audience members that don't fully understand this patent. Obviously this is a competitive advantage for Search Minerals, yes?

**David Dreisinger:** It's a huge advantage for us because we have the ability to scale to the right size to meet the market. We are planning 1,000 tons a day of ore treatment. We don't have to build a huge mineral processing facility. We can directly treat the ore, and go directly through to this mix rare earth oxide. We are located on tidewater in Labrador and have good infrastructure around us. We have a low capital cost and a reasonable operating cost. We are well positioned to hit the rare earth market as it matures and grows in the years ahead.

**Tracy Weslosky:** For everyone out there in InvestorIntel that may not be familiar with Search Minerals, this is a company that anyone interested in sustainability is going to love...to access the complete interview, [click here](#)

**Disclaimer:** Search Minerals Inc. is an advertorial member of InvestorIntel.