

# Development of a World Class Critical Rare Earth Element District



**SEARCH**  
MINERALS

**GCFF – Vancouver  
January 2020**

# Cautionary Statement

SMY: TSX-V

The following presentation may include certain “forward-looking statements” within the meaning of the United States Private Litigation Reform Act of 1995 and applicable Canadian Securities Laws. All statements other than statements of historical fact, included in the presentation, including without limitation, statements regarding potential mineralization and reserves, exploration results, and future plans and objectives of Search Minerals, are forward-looking statements. Words such as “expect”, “anticipate”, “estimate”, “may”, “will”, “should”, “intend”, “believe” and other similar expressions are forward-looking statements. Forward-looking statements are not guarantees of future results and conditions but rather reflect our current views with respect to future events and are subject to risks, uncertainties, assumption and other factors, and actual results and future events could differ materially from those anticipated in such statements. There can be no assurance that such forward-looking statements will prove to be accurate. We base our forward-looking statements on information currently available to us and we do not assume any obligation to update them, except as required by law.

An additional Cautionary Note to Investors: In the event that we use certain terms in this presentation such as “resource”, “measured resource”, “indicated resource” and “inferred resource,” US investors are cautioned that, while such terms are recognized and required by Canadian Securities Laws, the United States Securities and Exchange Commission does not recognize them. Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination has been made. U.S. investors should not assume that all or any part of measured or indicated resources will ever be converted into reserves. In addition, “inferred resources” have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Accordingly, information concerning descriptions of mineralization in the presentation may not be comparable to information made public by companies that are subject to the SEC’s Industry Guide 7.

All of the scientific and technical information contained herein has been reviewed and/or prepared by either Dr. Randy Miller, P.Geo. or Dr. David Dreisinger, both being a “Qualified Person” within the meaning of National Instrument 43-101-Standards of Disclosure for Minerals Projects. For further details of the Company’s procedures and policies for data verification, the reader is referred to the Company’s news releases and other material information available on the Company’s website at [www.searchminerals.ca](http://www.searchminerals.ca) or on SEDAR at [www.sedar.com](http://www.sedar.com)

# About Search Minerals Inc.

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- Focused on developing and continued exploration within the emerging Critical Rare Earth Element (CREE) District of SE Labrador.
- Primary objective: Develop multigenerational REE mining operation based on the Foxtrot and Deep Fox resources. To seek competitive low-cost production of REE in SE Labrador.
- In 2017, pilot plant testing produced a high purity mixed rare earth oxide (REO) concentrate. Completed pilot optimization in November 2019.
- October 2017, InCoR Holdings make strategic investment into Search and appoints 2 members to the Board.
- Search has strong working relationships with government partners at all levels including Atlantic Canada Opportunities Agency, InnovateNL, Department of Natural Resources, NunatukaVut Community Council

# Why Invest in Search Minerals?

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- ✓ 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 and optimization
- ✓ 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 – 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%

# Upcoming Catalysts

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Month	Catalyst
November	Commence Demonstration Plant cost/funding options
December	Optimization of Pilot Plant Completed – Final Report
February	Assays from 2019 exploration work – Fox Meadow and Silver Fox
May	Begin 2020 REE exploration program in District

## Macro developments

- Ongoing discussion with stakeholders to develop North American Rare Earth supply chain
- Upward trending rare earth market and developments

# *Rare Earth Industry – in the news*

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## Canada and U.S. Finalize Joint Action Plan on Critical Minerals Collaboration

From: [Natural Resources Canada](#)

News release

January 9, 2020

Ontario

Ottawa,

Natural Resources Canada



INDUSTRIAL POLICY  
DEPARTMENT OF DEFENSE

Search Industrial Policy



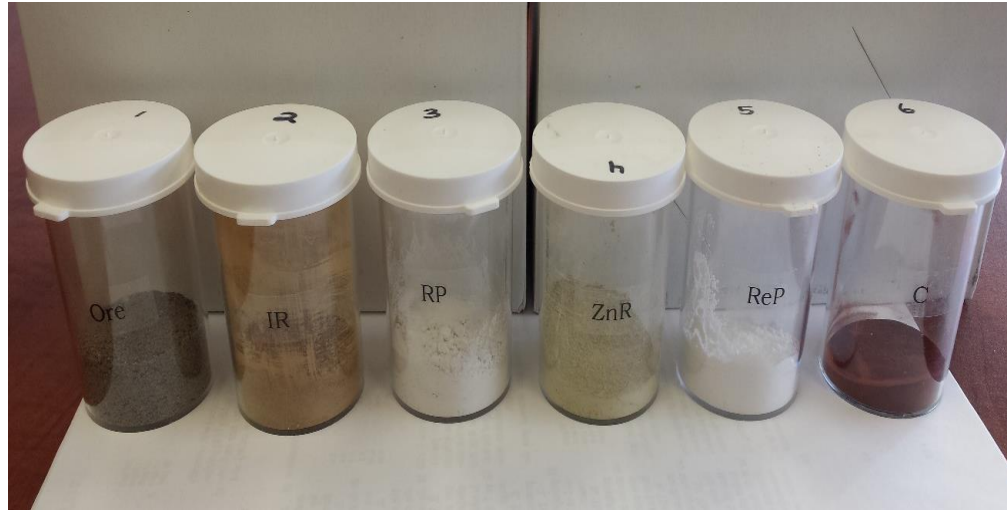
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## Defense Production Act Title III Presidential Determinations to Strengthen the Domestic Industrial Base and Supply Chain for Rare Earth Elements

# Foxtrot Material at Different Processing Stages

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Vial #1 - Finely crushed material at start of metallurgical process

Vial #2 - Orange stained “dry stackable” residue containing an iron precipitate

Vial #3 - 35% mixed rare earth carbonate precipitate after uranium ion exchange

Vial #4 - 60% zinc sulfide precipitate after removal of thorium, iron, aluminum and silica

Vial #5 - High purity rare earth oxalate

Vial #6 - Reddish final rare earth oxide made by heating the high purity oxalate



# Search Minerals – in the supply chain

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Raw  
Materials

Processing

Separation  
Refining

Engineered  
Rare Earth  
Materials

Magnet  
Producers

OEM

## SEARCH MINERALS

## SALES CHANNEL

- **District Scale Multi Generational Raw material supply (70km x 10km)**
  - 1 Resource, 1 Resource pending, many projects
- **Patented Proprietary Processing**
  - Low capital / operating costs
  - Produced 99% high purity mixed REO Concentrate
- **Separation/Refining**
  - Sample delivered and tested at existing refineries and new technology process



# ***Exploring for REE in Labrador since 2009***

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*Community of St. Lewis 12 km from Foxtrot and 2 km from Deep Fox*



# About REEs: Industry Drivers

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## Green Energy

- Hybrid and Electric Vehicles
- Wind Energy
- Energy Efficient Lighting



## Military and Defense

- Communications
- Aeronautical engineering and Jet Engines
- Guidance, Lasers, Sonar, Optics, and Electronic Counter Measures



## Modern Technologies

- Cell Phones and Digital Cameras
- LCD and Plasma Televisions
- MRI machines, X-Ray, and PET Medical imaging

# ***REEs: Automakers committed to EV Future*** SMY: TSX-V

- **Volkswagen** US\$84 billion: goal of bringing 300 EV models to market by 2030
- **Ford** investing \$4.5 billion over 5 years: on 13 new models for 2023
- **GM** to phase out ICE vehicles; 20 EV models by 2023
- **Volvo**: all new cars produced after 2019 will be electric or hybrid
- **BMW** to mass produce EVs by 2020: 12 different models available by 2025
- **Mercedes-Benz**: electrifying its entire lineup by 2022
- **Canada's Magna and Linamar**: investments in EV supply chains



# Location and existing infrastructure

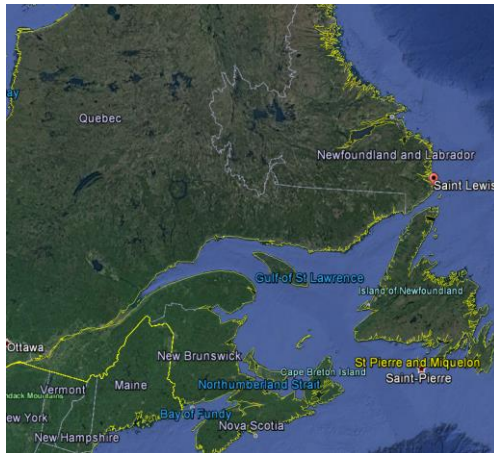
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## Community of St. Lewis

- 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

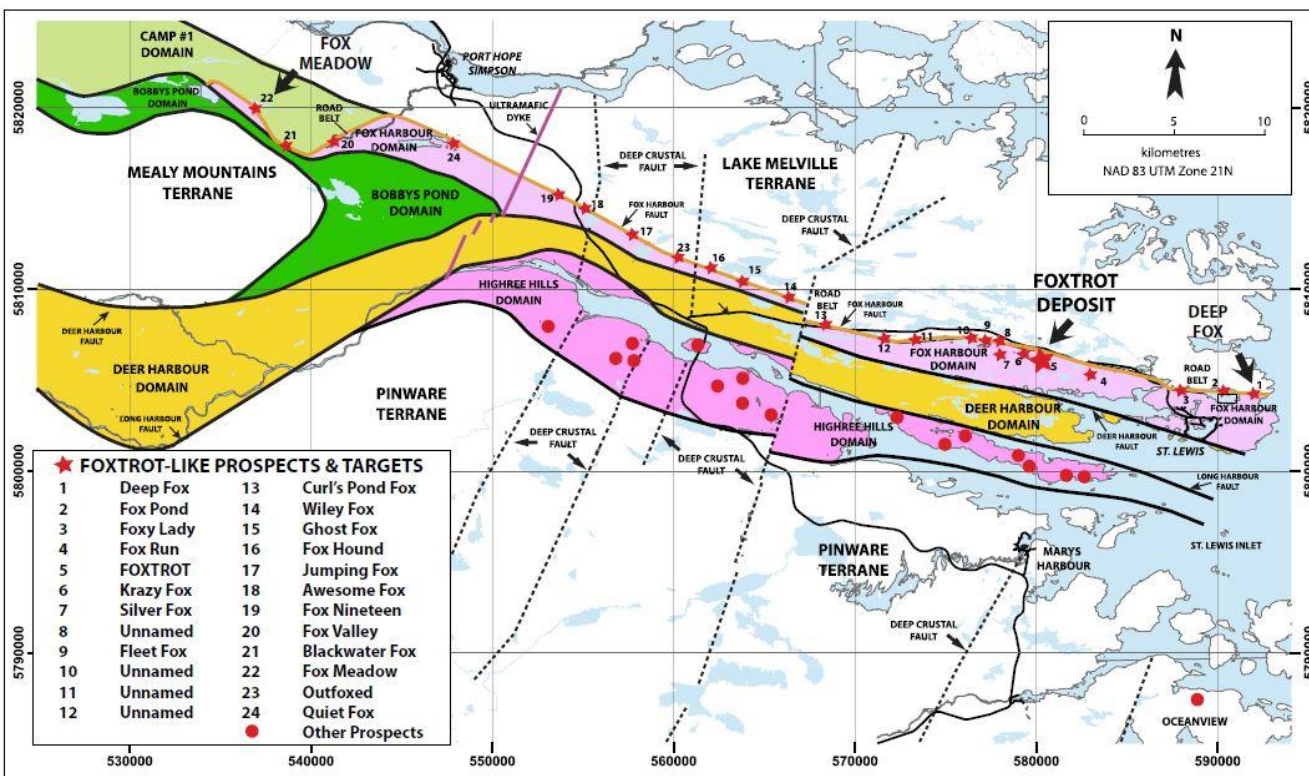
## Trans-Labrador Highway

- All season paved highway – transport REE Concentrate



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- Search controls CREE District on Labrador Sea



## Key Points

Over 24 prospects.

## Four major discoveries

- Foxtrot Deposit
- Deep Fox Deposit
- Fox Meadow
- Silver Fox

Excellent geological and geophysical control.

April 2016 PEA is based on the Foxtrot deposit only.



# Foxtrot Preliminary Economic Assessment (2016) SMY: TSX-V

## FOXTROT PEA FINANCIALS (\$CDN)

Plant Capacity	1,000 tpd production rate / 4.9 Mt over 14 years
Pre-Tax NPV <sub>10%</sub> and IRR	\$93 million and 22%
After-Tax NPV <sub>10%</sub> and IRR	\$48 million and 16.7%
Payback Period	Pre-tax 3.5 years , After- tax 4.4 years
Gross Revenue LOM	\$1.7 billion
CAPEX	\$152 million for startup with a \$33M contingency

## Rare Earth Element Production Rates

Data from PEA – April 2016 – Deep Fox Production not included – 1,000 t/d production rate – produce 3211 T of Mixed Rare Earth Oxide Per Year

	Magnet Making Rare Earths			
	Pr	Nd	Tb	Dy
Distribution (% of Total REE)	4.4%	15.9%	0.3%	1.9%
Yearly Production (t)	142	511	10	60

	Others Rare Earth Elements										
	Y	La	Ce	Sm	Eu	Gd	Ho	Er	Tm	Yb	Lu
Distribution (% of Total REE)	11.6%	18.7%	39.8%	2.8%	0.1%	2.1%	0.3%	0.9%	0.3%	0.7%	0.1%
Yearly Production (t)	373	602	1,277	90	4	68	11	30	9	22	3

**Cautionary Note:** The preliminary economic assessment is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to enable them to be categorized as mineral reserves and there is no certainty that the preliminary economic assessment will be realized. Mineral resources that are not mineral reserves do not have a demonstrated economic viability.





Description	How can economics improve
Grade, Recovery and Price parameters	<b>INCREASE REVENUE</b> <ul style="list-style-type: none"><li>➤ Increase resource – extend Life of Mine</li><li>➤ Increase grade through discovery</li><li>➤ Increase recovery through optimized processing</li></ul>
Capital and operating costs	<b>DECREASE COSTS</b> <ul style="list-style-type: none"><li>➤ Improved efficiencies in processing</li><li>➤ Lower REE separation costs</li></ul>



# *Direct Extraction Metallurgy*

## *Patent Pending*



***A breakthrough in SIMPLICITY, LOW COST AND EFFICIENCY!***

# Processing – from Concept to Reality

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## Funding Partners



Atlantic Canada  
Opportunities  
Agency

Agence de  
promotion économique  
du Canada atlantique



Tourism, Culture, Industry and Innovation

Bench Scale 2014-2015  
\$300,000

Pilot Plant  
Optimization  
2018-2019  
\$800,000

Pilot Plant 2016-  
2017 \$1,900,000

Increased Recoveries from Bench Scale to Optimized  
Pilot Plant

# Business Strategy – Timeline to Production SMY: TSX-V

Description	2019	2020	2021	2022
<b>RESOURCE</b>	<ul style="list-style-type: none"> <li>✓ Resource for Deep Fox</li> <li>✓ Advance prospects in District</li> </ul>	<ul style="list-style-type: none"> <li>➤ Advance prospects in District</li> <li>➤ Deep Fox - Phase 3 drill program</li> <li>➤ Update PEA for the District</li> </ul>	Bankable feasibility Study <ul style="list-style-type: none"> <li>➤ Infill drilling – Foxtrot</li> <li>➤ Infill drilling – Deep Fox</li> <li>➤ Permitting</li> </ul>	<ul style="list-style-type: none"> <li>➤ Measured Resources for Foxtrot and Deep Fox</li> <li>➤ Development permits approved</li> </ul>
<b>ENVIRONMENTAL AND PERMITTING</b>	<ul style="list-style-type: none"> <li>➤ Continue baseline studies</li> </ul>	<ul style="list-style-type: none"> <li>➤ Advance Environmental Impact Statement</li> </ul>	<ul style="list-style-type: none"> <li>➤ Continued stakeholder engagement</li> <li>➤ Initiate Permitting process</li> </ul>	<ul style="list-style-type: none"> <li>➤ Continued stakeholder engagement</li> <li>➤ Permits to build</li> </ul>
<b>PROCESSING AND REFINING</b>	<ul style="list-style-type: none"> <li>✓ Complete pilot plant work with assistance of government programs</li> <li>➤ Prepare application for Demonstration plant funding</li> </ul>	<ul style="list-style-type: none"> <li>➤ Build/operate demonstration plant in St. Lewis</li> <li>➤ Evaluate / test various refining options</li> </ul>	<ul style="list-style-type: none"> <li>➤ Demonstration plant operating in St. Lewis</li> <li>➤ Engineering plans</li> <li>➤ Evaluate / test / determine refining options</li> </ul>	<ul style="list-style-type: none"> <li>➤ Engineering complete – Ready to build</li> <li>➤ Confirm refining process</li> </ul>
<b>STRATEGIC PARTNERS</b>	<ul style="list-style-type: none"> <li>➤ Secure funding for demonstration plant</li> </ul>	<ul style="list-style-type: none"> <li>➤ Secure funding for bankable feasibility studies</li> </ul>	<ul style="list-style-type: none"> <li>➤ Continued funding for bankable feasibility studies</li> </ul>	<ul style="list-style-type: none"> <li>➤ Secure funding – Decision to build</li> </ul>

Cautionary Note: The Company has not prepared a feasibility study in relation to this project and therefore, the time line to production decision is subject to increased risk and uncertainty



# Corporate Information

SMY: TSX-V

## Shareholder Information

December 31, 20`9

Listed:	TSX:V:SMY
Shares O/S	228,775,848
Warrants:	40,864,434
Options:	17,775,000
Fully Diluted O/S	287,415,282

Insiders Participation	Issued Shares	% ownership
InCoR Holdings	76,507,201	33.44%
Mgmt and Directors	11,573,863	5.06%
Totals	88,081,064	38.50%

## MANAGEMENT:

Greg Andrews, President & CEO  
Dr. David Dreisinger, VP Metallurgy  
Dr. Randy Miller, VP Exploration  
Matthew Anderson, CFO

## CONSULTANT:

Kaz Machida – Rare earth specialist

## LEGAL:

DuMoulin Black

## FUNDING PARTNERS:

ACOA  
InnovateNL  
Dept of Mines – Newfoundland and Labrador  
Saskatchewan Research Council  
NRCAN  
NunatuKavut Community Council

## DIRECTORS:

Greg Andrews  
Dr. David Dreisinger  
George Molyviatis  
Jocelyn Bennett  
Leo Power

## AUDITORS:

Mao & Ying

InCoR has \$ 1,000,000 Debenture with conversion at \$ 0.05 per unit.

Each unit consist of one share and one warrant for 5 years at \$ 0.05 (November 29, 2020)

19 | Corporate Presentation | SMY: TSX-V | searchminerals.ca | GCFF January 2020



# *Thank you*

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## CONTACT

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