



NDTNEWS RELEASE

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SEARCH MINERALS ANNOUNCES METALLURGICAL BREAKTHROUGH FOR RARE EARTH RECOVERY

Toronto, Ontario, July 23, 2014 – Search Minerals Inc. (“**Search**” or the “**Company**”) (TSXV: SMY) and its wholly-owned subsidiary, Alterra Resources Inc., are pleased to announce the development of a simplified metallurgical process tested on a bulk sample from the Company’s Foxtrot Project (“**Foxtrot**” or the “**Project**”), located in the Port Hope Simpson Rare Earth Element District in SE Labrador, to produce a high grade rare earth elements (“**REE**”) product for refining. A patent application has been lodged with the United States Patent Office to protect the Company’s ownership of this technology. Support was received from the Research & Development Corporation (“**RDC**”) of Newfoundland and Labrador and from the Atlantic Canada Opportunities Agency (“**ACOA**”) for this development. Testing was completed by SGS Canada Inc. (“**SGS**”).

HIGHLIGHTS

- **A simple metallurgical treatment of coarse-crushed Foxtrot ore has been demonstrated to give high overall extractions of rare earths (73.1 to 78.9% for La-Er). There is no longer any need for grinding, flotation, gravity or magnetic separation to treat the Foxtrot ore.**
- **A crushed sample of Foxtrot ore (6 mesh, 3.35 mm) was treated by acid (200 °C) and water leaching to extract rare earths. Extraction from the ore ranged from 73.8 to 80% for La-Er and 55.9 to 69.9% for Tm-Lu.**
- **The leachate was purified by pH adjustment, and then precipitated to give a mixed carbonate precipitate.**
- **The mixed carbonate was further refined by acid leaching, oxalate re-precipitation and calcination to produce a high grade rare earth oxide (“**REO**”) containing low levels of key impurities (including thorium) for refining to separate rare earth products.**
- **A larger demonstration test of the Company’s technology is scheduled for Q3 2014 at SGS.**
- **Search is expected to enter into discussions with interested parties for the refining of the high grade rare earth oxide product starting in Q3 2014.**
- **A United States Provisional Patent has been filed to protect the new rare earth recovery process.**

Stephen Keith, President and CEO of Search, commented on the findings, “We are very pleased with these developments, as they are expected to significantly lower the Foxtrot operating and capital costs. This innovative technology should also allow the Company to move the Foxtrot Project more quickly to development, resulting in long-term value growth for the Company.”

A metallurgical sample of the Foxtrot ore (channel sample) was subjected to a simple process of crushing and treatment with concentrated sulfuric acid. The acid treated ore was water leached to extract REEs into the solution. The leached solids were filtered and washed. The leachate containing REEs was purified by a series of steps to produce a purified REO. The key steps included purification by pH adjustment with magnesium carbonate, precipitation of REEs with

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sodium carbonate, selective re-extraction of the REEs with hydrochloric acid, re-precipitation of REEs with oxalic acid and, finally, calcination of the rare earth oxalate to produce a REO for refining.

The results of the acid treatment/water leach are shown in Table 1. A sample of Foxtrot ore was crushed to 6 mesh (approximately 3 mm in size) and treated with 100 kg of H₂SO₄ per tonne of ore at 200 °C for two hours. The acid treated ore was then leached with water at 90 °C for 24 hours, followed by filtration and washing to recover a filtrate. The extraction of impurity elements like iron (Fe) and aluminum (Al) were controlled to 5.5 and 4.6% respectfully.

La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Y	Er	Tm	Yb	Lu
76.7	78.1	79.6	80.0	79.6	79.1	78.4	79.3	77.5	76.0	77.0	73.8	69.9	64.9	55.9

Table 1. REE Extractions (%) from Foxtrot Ore using Search's Simplified Process

The water leachate was treated with magnesium carbonate to precipitate impurities as a solid residue. The purified solution was then treated with sodium carbonate to precipitate a mixed rare earth carbonate. The loss of REEs in the purification process was low and the precipitation efficiency was high. Table 2 summarizes the overall recoveries of REEs using the simplified process.

La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Y	Er	Tm	Yb	Lu
75.9	77.3	78.9	79.3	78.9	78.4	77.6	78.4	78.7	75.3	76.3	73.1	69.2	64.3	55.4

Table 2. Overall REE Recovery (%) from Foxtrot Ore to Mixed Carbonate Precipitate using Search's Simplified Process

The rare earth carbonate precipitate was purified by selective releaching in hydrochloric acid, precipitation with oxalic acid and calcination (to convert the precipitate to a REO). The provisional analysis for the mixed REO is shown in Table 3 (Chemical Analysis) and Table 4 (Impurity Analysis).

REO	Analysis (%)
La ₂ O ₃	14.66
CeO ₂	34.89
Pr ₆ O ₁₁	3.90
Nd ₂ O ₃	15.28
Sm ₂ O ₃	2.19
Eu ₂ O ₃	0.12
Gd ₂ O ₃	2.11
Tb ₄ O ₇	0.33
Dy ₂ O ₃	1.85
Ho ₂ O ₃	0.36
Y ₂ O ₃	10.02
Er ₂ O ₃	0.98
Tm ₂ O ₃	0.12
Yb ₂ O ₃	0.61
Lu ₂ O ₃	0.07
TREO*	87.5
LREO**	68.7
HREO***	18.8

Table 3. Chemical Analysis (%) of the REO using ICP and XRF (Inductively Coupled Plasma and X-Ray Fluorescence)



*TREO refers to the sum of all REs and Y as oxides

**LREO refers to the sum of La, Ce, Pr, Nd oxides

***HREO refers to the sum of Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu and Y oxides

Element	Analysis (g/t)
Th	6.5
U	48.5
Si	<5
Al	<2000
Fe	744
Mg	316
Ca	<2000
Na	<1000
K	<1000
Ti	<40
P	<40
Mn	64
Zn	1490
F (%)	0.15
C (%)	0.02

Table 4. Impurity Analysis of the REO

Note that fluoride (F) and carbon (C) are reported as (%)

This process is a significant improvement over the earlier Foxtrot work reported on May 9, 2012 (see “*Search Minerals Announces Successful Metallurgical Testing of Foxtrot Project Sample to Recover a 55.48% TREO + Y₂O₃ Product (46.99% TREE+Y) with Overall Average Recovery of 78.8%*”). The steps of grinding, flotation, gravity and magnetic separation to produce an ore concentrate are no longer required to process the Foxtrot ore. The coarse crushed ore is directly treated with small amounts of acid in a heated pug mill, a conventional mixing device, prior to water leaching.

A larger scale demonstration test will be performed at SGS in the Q3 2014. The test will provide data for engineering scale-up, optimization of process parameters and production of a multi-kilogram REO product for sampling to potential refining partners for evaluation. Search is now engaging with potential refining partners to assess the technical and commercial requirements for refining the high grade REO product from the Foxtrot ore. Following completion of the demonstration of the Search’s process, it is expected that the revised economics of the Project will be developed by an independent engineering contractor.

Search Minerals would like to recognize the support, totalling C\$225,000, made available equally from RDC and ACOA to assist in the development of innovative technologies for the recovery and refining of REEs from ore mined at the Project.

Qualified Person

Dr. David Dreisinger, Ph.D., P.Eng., is the Company's Vice President, Metallurgy and Qualified Person for the purposes of NI 43-101. Dr. Dreisinger has reviewed and approved the technical disclosure contained in this news release as applicable. The company will endeavour to meet high standards of integrity, transparency, and consistency in reporting technical content, including geological and assay (e.g., REE) data.

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About The Foxtrot Project

The Foxtrot Project in the Port Hope Simpson Rare Earth Element District in southeastern Labrador has a positive Preliminary Economic Assessment indicating a Life-of-Mine plan with indicated mineral resources of 5.3 Mt, at an average grade of 0.89% Total Rare Earth Elements (“**TREE**”), could be mined over 10 years, including open pit mining TREE for the first 3.5 years and underground mining thereafter. Production at the Project is anticipated to total 38 million kg of payable rare earth material. Indicated mineral resources are estimated to total 9.23 Mt at 0.88% TREE (or 1.07% Total Rare Earth Oxides (“**TREO**”)), and inferred mineral resources are estimated to total 5.17 Mt at 0.77% TREE (or 0.93% TREO).

Pending successful completion of a financing, Search is planning an exploration program to further map and sample Foxtrot-like mineralization throughout the Fox Harbour volcanic belt (see *"Search Minerals Announces Ten New Foxtrot-like REE Prospects in 64 km-long Mineralized Belt in SE Labrador"*, October, 30, 2013) and to prioritize targets for a small exploration drilling program. The aim of this program is to discover/document additional Foxtrot-like deposits in close proximity to the Foxtrot Deposit, and to add to the Foxtrot resource (currently 9.3 million tonnes Indicated at 189 ppm Dy, and 5.2 million tonnes Inferred at 176 ppm Dy (see *"Search Minerals Phase III Drilling Increases Foxtrot REE Project Resource Estimate by 55% of Similar Grade," November 1, 2012*).

About Search Minerals

Search Minerals Inc. (TSXV: SMY) is a TSX Venture Exchange listed company focused on creating value through finding and developing mineral assets with growing demand and constrained or restricted supply, and with increasing use in innovative technologies. The Company is actively pursuing opportunities and partnerships in critical metals, including, but not limited to, tin, tungsten, dysprosium and neodymium, prioritizing projects that can be partnered, funded and developed in a relatively short period of time, in strategic, friendly jurisdictions.

Search is the discoverer of the Port Hope Simpson REE District, a highly prospective light and heavy REE belt located in southeast Labrador, where the Company controls a dominant land position in a belt 70 km long and up to 8 km wide. In addition, Search holds a number of additional mineral prospects in Newfoundland and Labrador in its portfolio, including claims in the Strange Lake Complex (where Quest Rare Minerals has a Joint Venture with Search); and at the Red Wine Complex (where Great Western Minerals Group has a Joint Venture with Search).

All material information on the Company may be found on its website at www.searchminerals.ca and on SEDAR at sedar.com.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility of the adequacy or accuracy of this release.

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Cautionary Statement Regarding Forward-Looking Information:

This news release includes certain “forward-looking statements” under applicable Canadian securities legislation that are not historical facts. Forward-looking statements involve risks, uncertainties, and other factors that could cause actual results, performance, prospects, and opportunities to differ materially from those expressed or implied by such forward-looking statements. The preliminary economic assessment is preliminary in nature, it includes inferred mineral resources that are

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considered too speculative geologically to have the economic considerations applied to them that would 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 demonstrated economic viability. Forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties and other factors which may cause actual results and future events to differ materially from those expressed or implied by such forward-looking statements. Such factors include, but are not limited to: general business, economic and social uncertainties; litigation, legislative, environmental and other judicial, regulatory, political and competitive developments; and those additional risks set out in Search's public documents filed on SEDAR at www.sedar.com. Although Search believes that the assumptions and factors used in preparing the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date this news release and no assurance can be given that such events will occur in the disclosed time frames or at all. Except where required by law, Search disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise.

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