Avalon Rare Metals Inc: A Real Rare Earth Story

A Monday Morning Musing from Mickey the Mercenary Geologist

Contact@MercenaryGeologist.com

November 3, 2009

Man, I gotta tell ya (I'm using my best imitation of Al Korelin here), that band Rare Earth from Detroit was one white hot Motown group in the early '70's. The song that moved me most was, "*Born to Wander*"; it's been one of my career anthems for over 30 years as a Mercenary Geologist.

This summer I again wandered to the North Country; to the Northwest Territories; to see a *real* rare earth story; to visit with my geo-buddy Dave Trueman; to see the Nechalacho deposit at the Thor Lake project of Avalon Rare Metals Inc (AVL.T).

"I Just Want(ed) to Celebrate" my return to Yellowknife, always a fun time in the summer. I had the Best of Rare Earth Millennium Collection going on my iPod-Bose headphones-mirrored sunglasses system while flying from Edmonton into Yellowknife.

I travel incognito. I don't want to be seen, heard, spoken to, engaged, bothered, acknowledged, and/or molested while flying or while in an airport. So by donning the above garb, I let people know to let me be alone in my own little world. The tactics I employ have nothing to do with being an anti-social person. In fact some people would say I'm quite gregarious. It has everything to do with racking up well over 100,000 miles a year in the not always so friendly skies and the hustle and hassle of every airport concourse.

This was my second trip to Avalon's flagship project, located 100 km ESE of Yellowknife near the shore of the Hearne Channel of Great Slave Lake. I also visited last year on one of those quick and dirty one day analyst tours that really aren't worth much. You see the lay of the land and get a cursory understanding of the geological setting of the deposit and that's about it. I left last summer telling the Avalon geos, "I'm coming back to spend some time with you, Dave and Chris, to learn these rocks." And I did exactly that in early August.

Thor Lake Project, Northwest Territories

This musing is my third report on Avalon Rare Metals in little more than two years. I first evaluated the company and visited one of their other projects, Separation Rapids in northwest Ontario, in the early summer of 2007. My first report was a private affair for an investment fund and another newsletter writer so few have read it.

Late last summer, I wrote a technical report that is posted on my website and set a target price of $3.00 for AVL in 12 months (Mercenary Musing, September 1, 2008). Within a week the bottom fell out of the equity markets and Avalon eventually went as low as 30c in December. I was not looking so good on that take for a long while.

It took one year and two days for my target price to be met and exceeded; Avalon jumped from its all time high of $2.86 on September 3, 2009 to close at $3.48 on September 4. It went as high as $4.24 but has been hit hard by the recent major correction in the rare earth element sector. In addition, a load of stock issued at $2.30 with warrants exercisable at $3.00 became free-trading. No doubt some of those holders have sold their stock and taken profits and it shows with the recent weakness and volatility. Avalon closed as low as $2.35 last week but jumped today with the entire REE market sector to end at $2.90.

From the first of the year until late May, Avalon traded in a range of 50-80c. The brief spike to over 90c in early February coincided with publication of a new 43-101 resource estimate for the Lake Zone at Thor Lake (now called the Nechalacho deposit).

When Mr. Dines became the Original Rare Earth Element Bug on May 22, the five REE plays mentioned in his newsletter soared. Avalon went from a 70c stock to a double in only six trading days. The stock has

trended steadily upward on strong volume until the aforementioned recent sector-wide correction in rare earth element companies.

Since my last report on Avalon 14 months ago, the company has raised nearly $20 million in a small flow-thru placement, warrant exercises, and a large bought deal financing. There are 78.3 million shares outstanding and 87.0 million fully diluted with 3.3. million warrants currently out of the money at $3.00.

Working capital is $20 million which will be sufficient to take the company thru pre-feasibility and well into bulk sampling, permitting and toward a development decision in 2012.The share structure is as follows: 25.0% insiders, original investors, family, and friends; 25% spread amongst many institutions, and 50% public float. Liquidity is excellent with the company trading 2 to 5 million shares per week.

Okay, the prelims are out of the way. Let's go to the main card, the field trip.

I got into Yellowknife at midday on August 4, briefly met with Bill Mercer, Avalon's Vice President of Exploration who gave me an excellent and succinct summary of the metallurgical progress on the deposit. I was met by the local expediter, bought the requisite fishing license, worked for about three hours while waiting for the float plane to take off, and arrived at Thor Lake camp in the late afternoon.

I was met by specialty metals geologist extraordinaire Dave Trueman. Dave probably has *forgotten* more about the geology of alkalic intrusive rocks, rare earth elements, and even the metallurgical processes to crack them than the rest of the world's geologists *know*. Well, I exaggerate but you get the idea. Anyway it was good to see him again. I looked forward to Dave drinking Scotch at night and waxing poetic about the geology of Thor Lake and similar alkalic intrusions thru out the world.

And he certainly had good company for doing that. McGill University Professor Dr. A.E. Williams-Jones was in camp with a group of graduate students working on the project. "Willy" studies alkalic systems

and their magmatic and alteration processes based on field studies conducted worldwide and his experimental geochemistry lab at McGill.

I spent a memorable three days in the company of Dave, Willy, Angie Martin who is back for her third year at Thor Lake, the junior geologists, and the students working on unraveling the more esoteric science of Thor Lake. Missing were Project Manager and another rare earth expert Chris Pedersen and Martin Heligmann, a post-doctoral researcher working with Willy and now an Avalon consulting geologist. Both were on a well-deserved break.

Thor Lake Geologists, August 2009. Sitting: Dave Trueman, Mickey Fulp, Angie Martin, and Willy Jones. Standing: Yonggang Lin, Tom Hildahl, Joe Reinhardt, Sam Gilgen, Emma Sheard, and Kent McWilliams.

The ten geologists in this photo represent six nationalities (with a few too many Canadians here). That's just about the way it goes anywhere in the world (except for the number of Canadians). We geologists are all rolling stones that gather no moss.

I said the trip was memorable. Not all of the memory was good; I remember my face, neck, and bald pate were one big, red, swollen, coalescing mosquito bite by the time I got out of there. But besides the exciting geology which I will elaborate on below, this is a most excellent memory from the Hearne Channel:

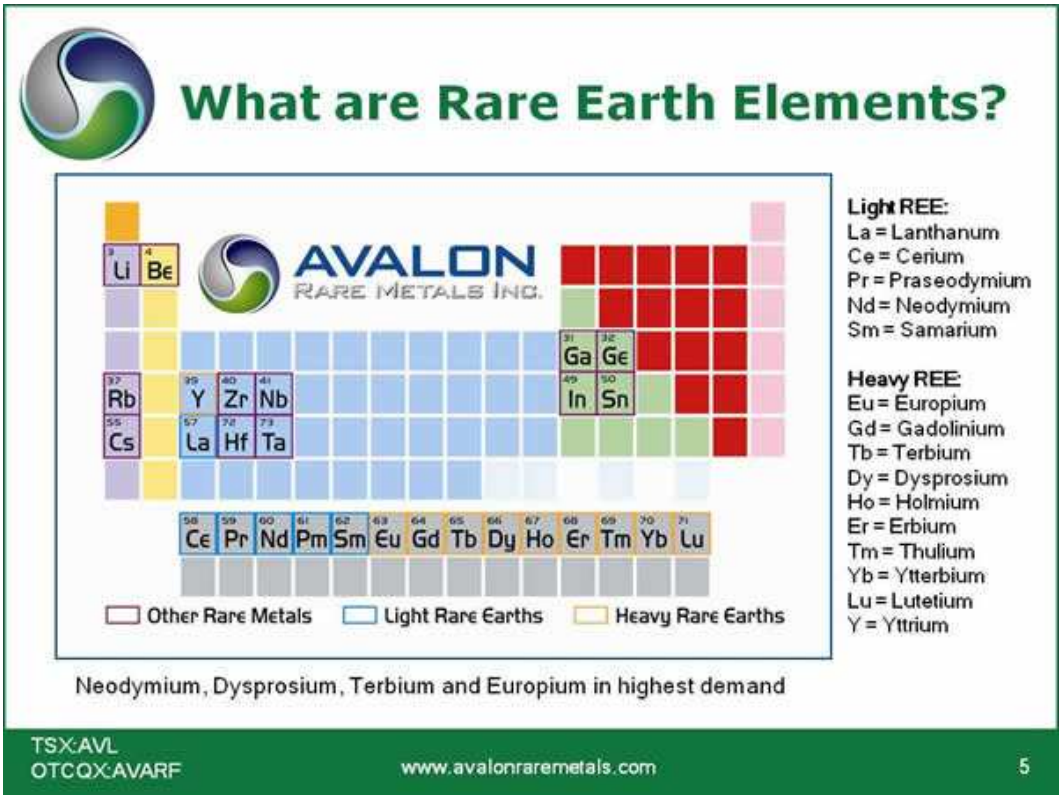
This 11 pound bad boy was caught on an ultra-light trout rod and reel spooled with four pound monofilament. I had a hoot landing him and the fish plus an eight pounder that Tom caught fed the entire camp the next night.

Eleven Pound Lake Trout, Hearne Channel, Great Slave Lake, August 5, 2009.

Enough play, let's go to work.

Rare earth elements (REEs) though not rare with respect to abundance in the Earth's crust, comprise 15 elements plus yttrium that occupy a separate row near the bottom of the periodic table. What is rare are mineral deposits where there are high enough contents to make them economically viable. The rare earths are often confused with the specialty metals, unfortunately sometimes called "rare" metals, which are distinctly different.

The REEs are rather arbitrarily subdivided into the light rare earths (LREEs) and the heavy rare earths (HREEs):



I will make a description of the geology brief and with a minimum of geology jargon so my non-technical but educated readership can understand.

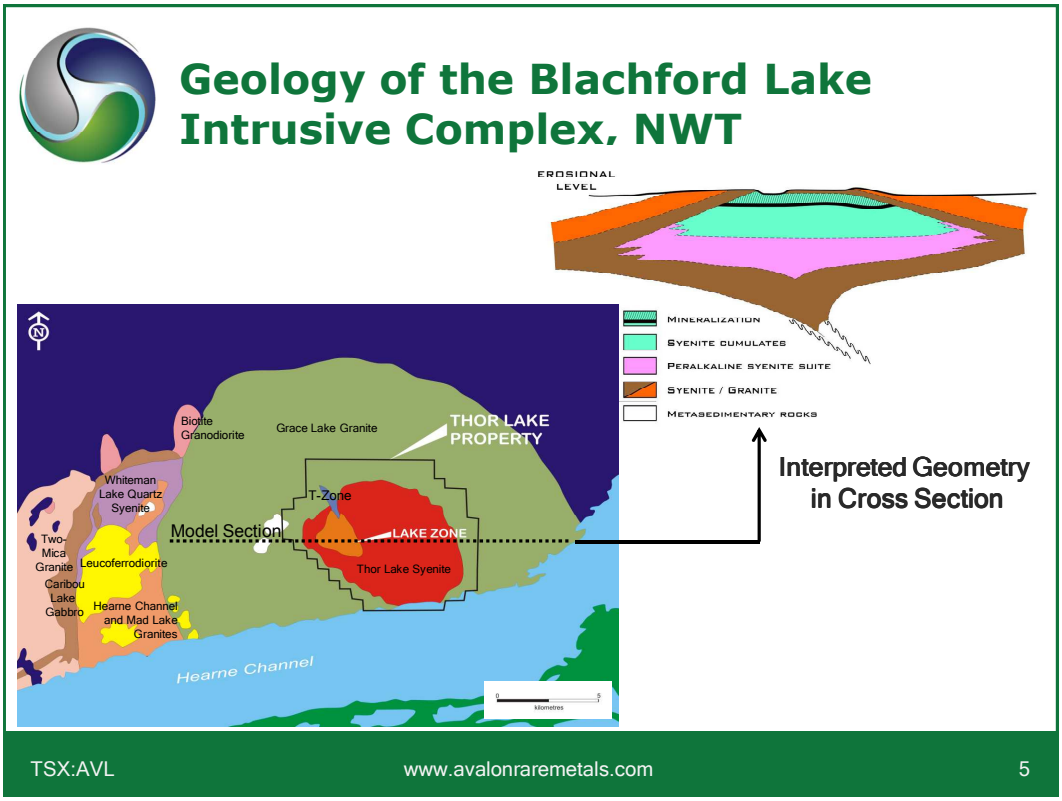
I reviewed the geology, alteration, mineralogy, and metallurgy of Thor Lake with Avalon's geological team, which in my opinion, is the best in the world at what they do: Study, explore and evaluate alkalic igneous complexes for economic occurrences of rare earth elements and specialty metals.

The geologic setting of these intrusive systems is well-known by geologists. Because they are rather unusual rock types, they have been studied extensively by iconoclastic geologists who are attracted by their novelty. Alkalic igneous intrusions follow well-defined geological concepts with respect to generation, evolution, and development of their magmas (molten igneous rock).

Alkalic igneous systems can be divided into carbonatite- and peralkaline-dominated complexes. As a rule of thumb, the relative concentrations of REEs depend on whether the host rocks are carbonatites which contain abundant LREEs or peralkaline intrusions which contain relatively abundant HREE's.

Thor Lake is a typical peralkaline intrusive complex. Professor Williams-Jones and Avalon's geologists recently have recognized that it is layered and very similar to the well-exposed Illimaussaq layered alkalic intrusion of southwestern Greenland, where Chris Pedersen worked earlier in his career.

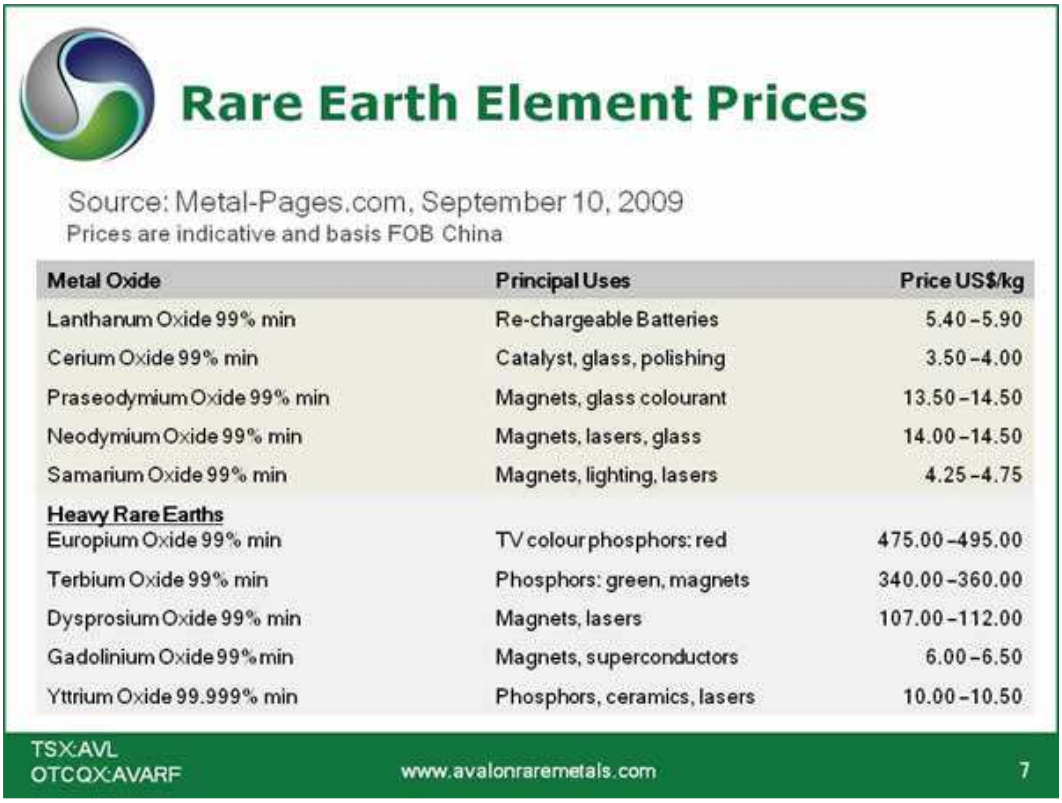
What makes Thor Lake different than other known occurrences is the intense hydrothermal alteration it has undergone compared to most alkalic systems and the very high proportion of heavy rare earth elements that it contains.



That is precisely why it may become an economically viable deposit: It has a very high content of HREEs, which is important because these elements are in short supply worldwide and command the highest prices. In addition, the alteration has produced secondary REE minerals fergusonite and zircon that are proving to be relatively easy to "crack" and recover compared to primary REE minerals such as eudialyte at other deposits:

Nechalacho fergusonite and zircon (brown) compared to Illimaussaq eudialyte (pink).

HREEs are essential for many high tech and green energy applications including europium in phosphors for flat screen televisions and dysprosium and terbium in super magnets for hybrid cars, wind generators, and commercial air conditioners.



Rare Earth Element Prices

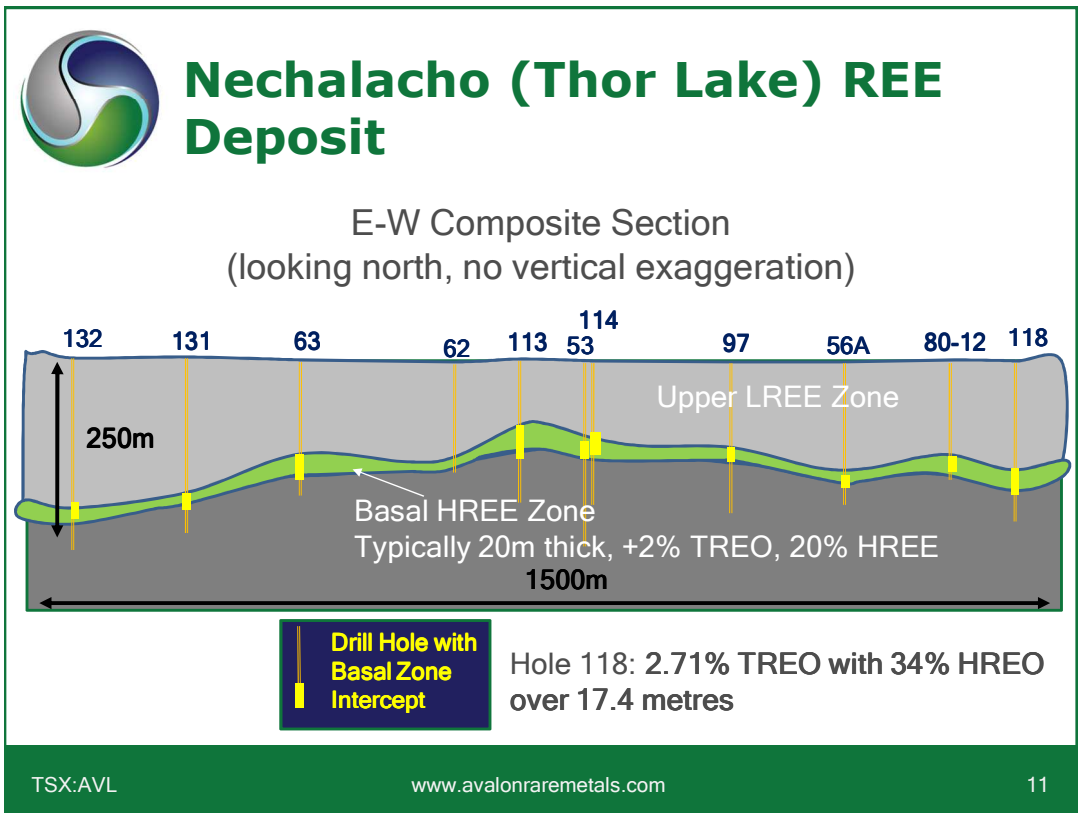
Source: Metal-Pages.com, September 10, 2009
Prices are indicative and basis FOB China

Metal Oxide	Principal Uses	Price US$/kg
Lantharum Oxide 99% min	Re-chargeable Batteries	5.40 – 5.90
Cerium Oxide 99% min	Catalyst, glass, polishing	3.50 – 4.00
Praseodymium Oxide 99% min	Magnets, glass colourant	13.50 – 14.50
Neodymium Oxide 99% min	Magnets, lasers, glass	14.00 – 14.50
Samarium Oxide 99% min	Magnets, lighting, lasers	4.25 – 4.75
Heavy Rare Earths		
Europium Oxide 99% min	TV colour phosphors: red	475.00 – 495.00
Terbium Oxide 99% min	Phosphors: green, magnets	340.00 – 360.00
Dysprosium Oxide 99% min	Magnets, lasers	107.00 – 112.00
Gadolinium Oxide 99% min	Magnets, superconductors	6.00 – 6.50
Yttrium Oxide 99.999% min	Phosphors, ceramics, lasers	10.00 – 10.50

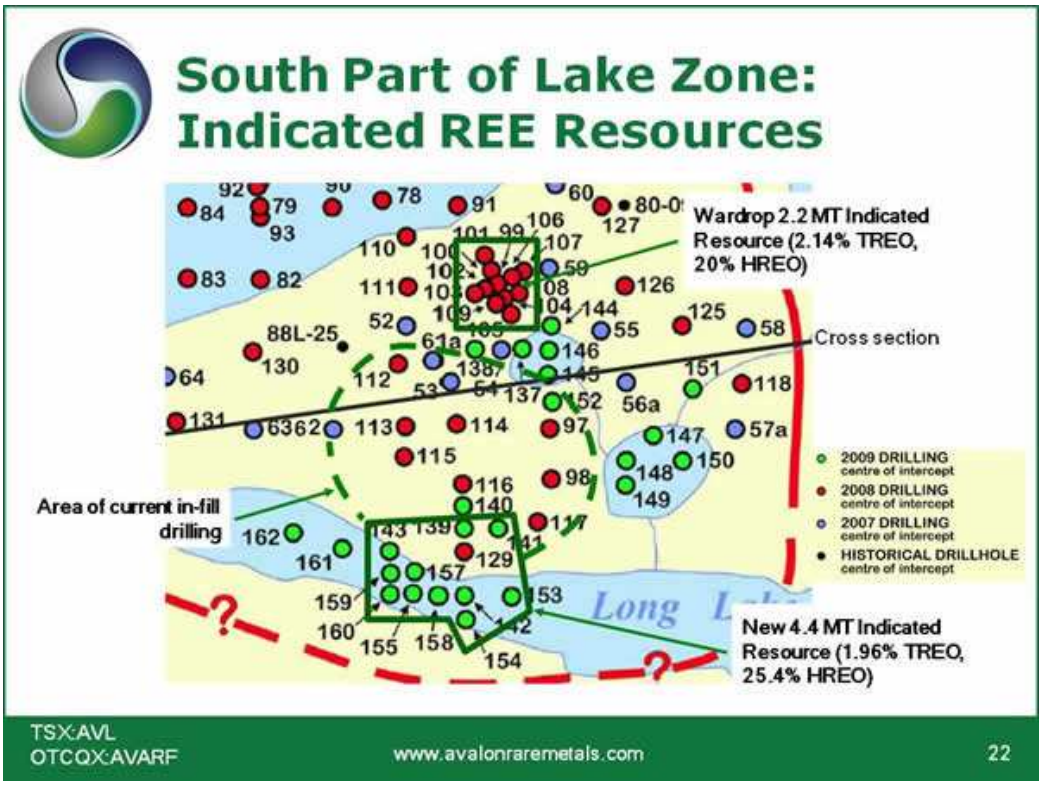
TSX:AVL
OTCQX:AVARF
www.avalonraremetals.com
7

Avalon Rare Metals has made considerable progress since my last report. They have an updated 43-101 resource estimate, are drilling another 10,000 m in 45 holes this year to delineate the deposit, have collected tonnes of HQ core for advanced metallurgical work including a process flow sheet, made very encouraging progress with the local communities including native bands who support the development and may eventually have an equity stake in the project, continued market studies for their heavy rare earth products and possible credits from other strategic metals, and progressed on environmental studies.

AVL's focus is on the Basal Zone layer of the Nechalacho deposit. This is a strongly altered cumulate zone that has a high content of total rare earth oxides (TREO) and a higher proportion of the valuable heavy rare earth oxides (HREO) than the upper zone:



Drilling is presently focused on the South Part of the Lake Zone with delineation of an area of inferred resources between two indicated resources:



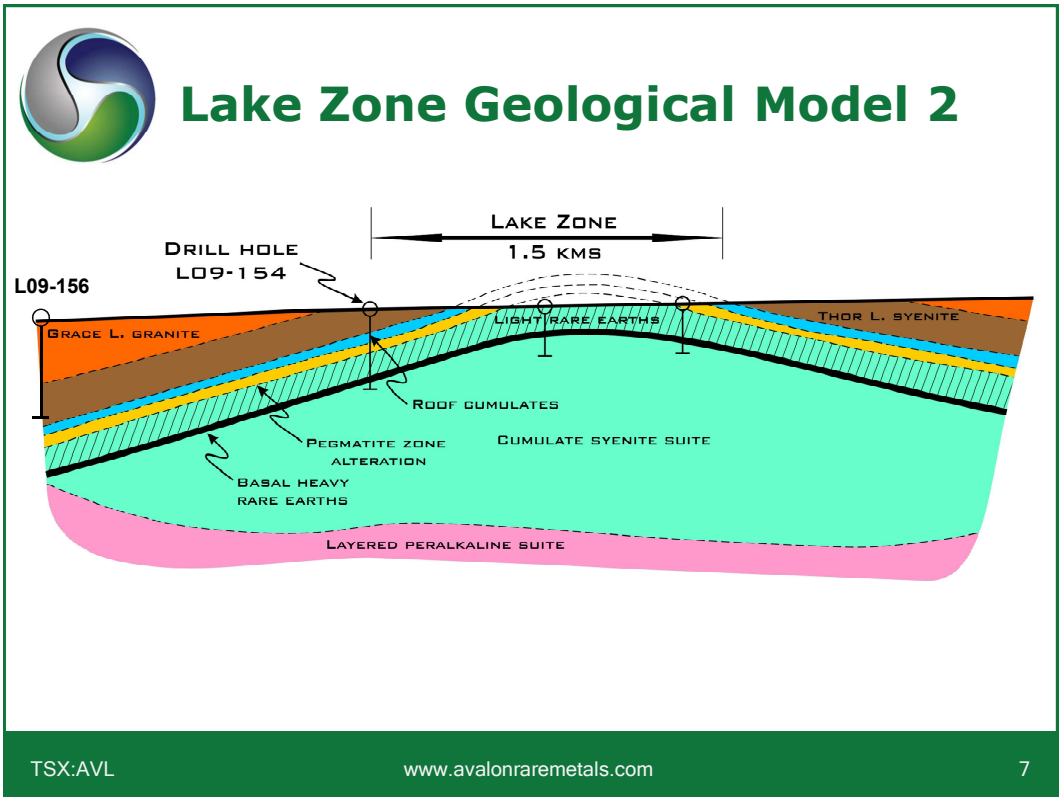
The company is rapidly advancing from an exploration company into a development company. A new resource estimate is expected by the end of the year, a prefeasibility study is scheduled for completion in spring 2010, and metallurgical testing is progressing from bench scale testing to a forthcoming pilot plant test of flotation concentrates. Conceptual engineering design, mine site layout, metallurgical process flow sheet, and economic modeling are in progress.

More information on Avalon's progress with these studies can be found on their website and in the Corporate Presentation.

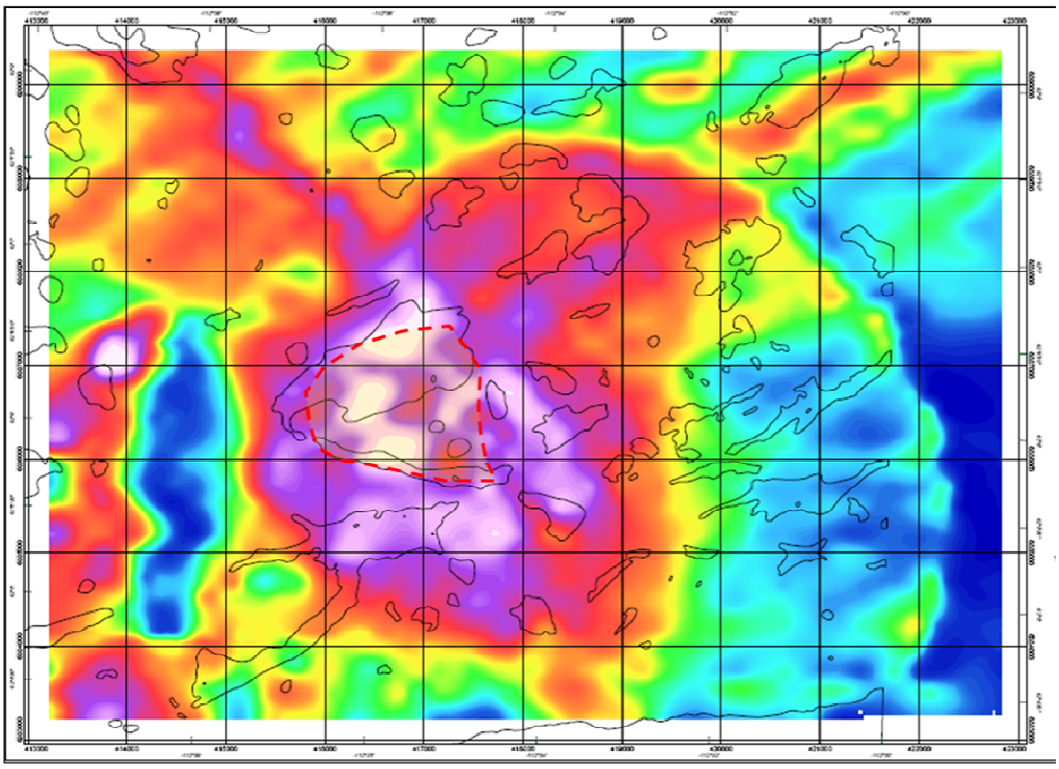
The understanding of the geological setting at Thor Lake has grown by leaps and bounds in the plus 13 months between my first visit and my second. When I was there briefly in June 2008, the Basal Zone was being recognized as an altered cumulate layer, drill results indicated the deposit was getting better to the south, and holes were being stopped in unaltered rock shortly below the basal layer.

However, with the new geological model developed by Willy Jones, Dave Trueman, and Chris Pedersen, it is permissive for the layered alkalic complex at Thor Lake to have multiple REE cumulate layers and potential at deeper levels. In fact, Chris Pedersen has recently identified eudialyte, a primary REE-bearing oxide mineral, below the Basal Zone in one of the few deeper historic holes on the property.

I personally observed this potential in hole #174 which was being completed during my visit, recognizing altered albite-potassium feldspar aplite near the bottom of the hole and well below the mineralized Basal Zone. This alteration indicates additional REE potential may exist in the deeper syenite cumulates and is shown in this schematic geological model:



The aeromagnetic map shows the outline of the currently known Nechalacho REE mineralization (dashed red line) and its strong correlation with a pronounced circular magnetic high.



Note how the anomaly extends south of the known mineralization indicating potential for extensions of the zone beneath barren syenite cover rocks. In addition, Avalon's drilling generally has indicated the Basal Zone deposit is thicker and higher grade towards the south and it remains open in that direction. This area is a target for new REE zones.

The 2010 drill campaign will include two deep drill holes on the south part of the deposit to test for continuation of the high grade Basal Zone and explore the layered cumulate intrusive sequence for lower zones of primary or altered REE mineralization.

Avalon Rare Metals has a low number of shares outstanding and a strong working capital position for a company that will soon have a development project. The management is experienced and unsurpassed for a rare earth company on the Toronto Stock Exchange. They have recently strengthened the technical team with hiring of mining engineer David Swisher as Operations VP with experience in mine permitting, development, and operation in the Northwest Territories.

Thor Lake is a project with arguably the highest heavy rare earth element content of any alkalic intrusive complex discovered so far in the world. Other high unit value rare metals such as zirconium, tantalum, niobium, and gallium are potential by-products from the Nechalacho deposit.

Although demand is increasing, the REE market will remain relatively small. Thor Lake is the most advanced HREE project in the Americas and would benefit by being the first to commence production and grab a significant market share outside of China.

Despite these extremely positive attributes, challenges remain for Avalon Rare Metals to develop a profitable mine. Thor Lake is remote and located in a harsh Arctic boreal forest environment and infrastructure and operating costs will be comparatively high. A 5.5% NSR is buyable down to 3% for about $1 mm and the company will attempt to buy out the remainder. Regardless, NSRs impact project economics.

Avalon and in particular, CEO Don Bubar is a leader in community relations and social responsibility with Canadian First Nations groups. The company has made concerted efforts to consult regularly with local communities and provide employment on the project. Avalon has not experienced any vocal opposition to the project and has established good relations with the local natives, business community, and federal regulators. However, there are several native bands with varied interests that compete with each other in the region. The dynamics of these interrelationships must continue to be well-managed to obtain a positive consensus and necessary agreements on project development and mining. The recent naming of the deposit as "Nechalacho" by the local First Nations organization is an indication of their support for the project.

Progress on the metallurgical process at Thor Lake continues to be positive. Costs for recovery of the key rare earths such as europium, dysprosium, and terbium and by-product specialty metals still are being investigated. Until those numbers can be better defined, the process metallurgy capital expenditures and operating costs remain a potential fatal flaw. Conversely, mining appears to be relatively straight forward with competent rocks and low-cost underground mining methods.

It is gratifying to see a company that I have covered for less than two and a half years make the successful transition from an explorer of an advanced project to delineation of a deposit and prefeasibility studies. I own a piece of the action at Avalon Rare Metals and have been accumulating on weakness. Logically that makes me biased. Avalon is also a sponsor of my website which makes me even more so.

In my opinion, this is a well-run company, the people are expert rare earth element geologists, engineers, and marketers, the share structure is well-managed for a development-stage company, and it is cashed-up for the next two years.

The rare earth element sector is at the beginning of a bubble. The TSX Venture Exchange soon will be littered with lots of juniors with lots of stories; there will be many pretenders and very few contenders. Most of the promotions are doomed from their beginnings to fail.

Avalon Rare Metals Inc is one of the main contenders.

If Avalon develops a cost-effective recovery process for the REE's and perhaps other elements, produces a positive pre-feasibility study on the Nechalacho deposit at Thor Lake, and secures an off-take agreement for its REE products, the share price could go much higher in the next year.

Take an in-depth look at Avalon Rare Metals as a rare earth element company with a real rare earth element story and see what *you* think.

Ciao for now,

Mickey Fulp
Mercenary Geologist

The **Mercenary Geologist Michael S. "Mickey" Fulp** is a Certified Professional Geologist with a B.Sc. Earth Sciences with honor from the University of Tulsa, and M.Sc. Geology from the University of New Mexico. Mickey has 30 years experience as an exploration geologist searching for economic deposits of base and precious metals, industrial minerals, uranium, coal, oil and gas, and water in North and South America, Europe, and Asia.

Mickey has worked for junior explorers, major mining companies, private companies, and investors as a consulting economic geologist for the past 22 years, specializing in geological mapping, property evaluation, and business development. In addition to Mickey's professional credentials and experience, he is high-altitude proficient, and is bilingual in English and Spanish. From 2003 to 2006, he made four outcrop ore discoveries in Peru, Nevada, Chile, and British Columbia.

Mickey is well-known throughout the mining and exploration community due to his ongoing work as an analyst, newsletter writer, and speaker.

Contact: **Contact@MercenaryGeologist.com**

Disclaimer: I am a shareholder of Avalon Rare Metals Inc and it is a sponsor of my website. I am not a certified financial analyst, broker, or professional qualified to offer investment advice. Nothing in a report, commentary, this website, interview, and other content constitutes or can be construed as investment advice or an offer or solicitation to buy or sell stock. Information is obtained from research of public documents and content available on the company's website, regulatory filings, various stock

exchange websites, and stock information services, through discussions with company representatives, agents, other professionals and investors, and field visits. While the information is believed to be accurate and reliable, it is not guaranteed or implied to be so. The information may not be complete or correct; it is provided in good faith but without any legal responsibility or obligation to provide future updates. I accept no responsibility, or assume any liability, whatsoever, for any direct, indirect or consequential loss arising from the use of the information. The information contained in a report, commentary, this website, interview, and other content is subject to change without notice, may become outdated, and will not be updated. A report, commentary, this website, interview, and other content reflect my personal opinions and views and nothing more. All content of this website is subject to international copyright protection and no part or portion of this website, report, commentary, interview, and other content may be altered, reproduced, copied, emailed, faxed, or distributed in any form without the express written consent of Michael S. (Mickey) Fulp, Mercenary Geologist.com LLC.