MATAMEC

PRESS RELEASE

TSX Venture: MAT

Matamec Evaluates its Potential Rare Earths-Yttrium and Zirconium Markets and Investigates the Possibility to Be a Potential Supplier of Strategic and Green Metals

Montreal, June 17th 2010 – Matamec Explorations Inc. ("Matamec") (TSX-V: MAT) is proud to announce that it has decided to investigate the possibility to be a potential source of low-production cost and environmentally friendly strategic and green metals, such as rare earths-yttrium and zirconium. In this context, Matamec continues exploration of its Kipawa deposit to demonstrate that the Company could supply industrial users of rare earth-yttrium oxides ("TREO") and zirconium.

In an international environment which favours green mining and clean technologies, Matamec could demonstrate that the Kipawa deposit could be the first North American producer of a combination of rare earths-yttrium ("HREO/Yttrium") and zirconium, with sustainable development as the objective of its exploitation.

PRESS RELEASE HIGHLIGHTS
• According to Les Heymann (P.Eng.) and A. Mariano (Ph.D), the Kipawa deposit is a potential source of HREO/Yttrium which could compete with the South China clays deposits;
• A scoping study is scheduled for fall 2010 on the Kipawa deposit considering a future drilling campaign, an easily separable physically and chemically TREO / Yttrium mineralization, promising metallurgical tests currently underway, and current resources announced recently in rare earth elements, yttrium and zirconium;
• With current resources of 15,800,000 kg indicated TREO and 31,200,000 kg inferred TREO with a TREO cut-off grade of 0.50% with a HREO+Y_2O_3 ratio of 30-33%, the Kipawa deposit represent a potential supply of heavy rare earths and yttrium which can compete with the Chinese market;
• With current resources of 208,100,000 kg indicated ZrO_2 and 182,200,000 kg inferred ZrO_2 with a ZrO_2 cut-off grade of 0.50%, the Kipawa deposit currently represents a potential supply of ZrO_2 or zirconia. The metallurgical tests should establish that it is possible to extract ZrO_2 from eudialyte and vlasovite.
• A possible exploitation of the Kipawa deposit's zirconium would be less environmentally damaging than the current exploitation of heavy mineral sands;
• These resources represent a potential supply of TREO-Zirconium from a deposit that can allow a sustainable mining development on small area.

Sustainable Development and Matamec

Sustainable development is readily described as a way of thinking and behaving that meets the needs of the present without compromising the ability of future generations to meet their own needs. Although this large definition does not refer to any specific approach for the achievement of this goal, energy is presently one of the most important features of this search for sustainability.

One of the reasons the U.S. Department of Energy (DOE)'s David Sandalow claims the government ought to look into the development of a rare earths chain is that many of the technologies that are presently proposed to replace fossil fuels and foster a global clean energy economy almost all contain rare earths. For example, wind turbines, electric cars and solar panels all use rare earth elements, … and the list goes on. According to experts in the field, rare earths are difficult to replace with other materials; in specialized products, they are irreplaceable.

As for the Canadian Government, although it did not propose new laws pertaining to rare earths per se, is interested in ensuring a greater integration of sustainable development into departmental policies and advancing Canada's sustainable development interests is clear in their 2009 Sustainable Development Agenda. The Canadian "Green Mining Initiative" also provides, amongst other things, a framework from which development of a clean energy industry can come about. For example, CANMET-Mining and Minerals Science Labs, a federal-level organization, is currently doing R & D in order to find solutions to a range of environmental challenges. This R & D includes research on zirconium, yttrium and rare earths.

Alternative energy research and development is underway in other areas of the world as well. For example, in Asian countries, the demand for nuclear-grade zirconium alloy is expected to grow to by more 60% between 2010 and 2020 because of the increase of nuclear power plants, whereas the world demand only increases by approximately 25-30%. India recently launched the National Solar Mission, which has a goal of reaching 20 gigawatts of installed solar capacity by 2020. This clearly indicates that reliance on fossil fuels for their energy consumption is unviable.

Unless the world's governments radically change their policies as regards to environmentally-friendly and a more sustainable type of economy, rare earths and zirconium are resources that may help these bodies to achieve part their goals. At least for the G20 countries, there is presently a political will to achieve an understanding about sustainability and climate change.

Potential North American Supply of Rare Earths and Yttrium Oxides*

In 2008 world demand was about 131,000 m.t. of TREO in various forms, such as carbonates, chlorides, oxides and occasionally individual metals for a total of U.S. $ 1.25 billion. Demand has grown from 8 to 10% per year between 2000 and 2007. The major consumers are China (60%), Japan and north-east Asia (20%), United States (13%) and the rest of the world (7%).

Over the past 12 years, new technologies using TREO, most notably in magnets and electronics, have experienced the strongest growth in the rare earth market. In 2008, TREO was used in magnets (21%), metal alloys (18%) and phosphorus (7%). However, these three applications respectively represented in value (in U.S. $) 37%, 14% and 31% of world demand, making magnets and phosphors the most valued applications.

The 2008 global supply of TREO was 124,000 m.t. with more than 95% of it coming from China. According to Chinese official sources, 66,000 m.t. came from the Bayan Obo mine (its LREO/MREO reserves are estimated to be more than 56 m.t.). Another 36,000 m.t. came from the Longnan/Jianxi South China clays. For these clays, experts estimate that production will continue at most for the next 15-20 years. Allegedly, another 10 to 15 m.t. of TREO is illegally produced from Sichuan's bastanaesites and from South China's clays. Finally, the remainder of the TREO global supply comes from the Russian Loparite Lovozersky deposit (2,500 m.t.) and from the American Mountain Pass stockpile (2,000 m.t.)

Matamec does not intend to compete with the three major LREO-MREO deposits. The table below summarizes the state of affairs for the main world producer, Bayan Obo. The table also sums up the situation for the two other main projects outside of China, Mt. Weld and Mountain Pass:

Main Producers or Potential Producers of LREO/MREO in the World						
Deposits	**Type of Mineral**	**Localisation**	**Resources**	**TREO (tonnes)**	**Cut-off Grade**	**Status**
Bayan Obo	Bastnaesite	China	1 460 Mt @ 3.9% TREO	56 Mt	Unavai-lable	In production
Mt Weld	Monazite altérée	Australia	12 Mt @ 9.7% TREO	1.2 Mt	2,5% TREO	Production planned for 2011
Mountain Pass	Bastnaesite	USA	20 Mt @ 9.3% TREO	1.8 Mt	5% TREO	Production planned for 2011

Instead, Matamec intends to compete with the HREO/Yttrium deposits, such as the South China lateritic Clays and Australia's TREO-Zr Dubbo deposit, both described below:

Main Advanced Producers of TREO of HREO-Y and HREO-Y-Zr in the World						
Deposit	**Type of mineral**	**Localisation**	**Resources**	**TREO (tonnes)**	**Cut-off Grade**	**Status**
Provinces of Xunwu/ Lognan-Jiangxi	Lateritic clays	China	Estimated for another 15-20 years	Unavailable at 0.03% TREO	Unavai-lable	In production
Dubbo Zirconia	Ancylite, Y silicate	Australia	73 Mt @ 0.9% TREO	0.7 Mt	In Zirconium	Pilot Plant

According to Les Heymann (P.Eng.) and A. Mariano (Ph.D), the Kipawa deposit is a potential source of HREO/Yttrium which could compete with the South China clays deposits. Both deposits contain HREO/Yttrium which is at the high value end of the rare earth market. The Kipawa deposit is now thought to contain a grade of 0.63% indicated TREO and 0.66% inferred TREO , while the South China Clays average about 0.03% TREO. It should be noted, however, that the recovery of values from the two types of deposits have totally different cost structures.

In the process of mineral processing of rare earths-yttrium, a TREO concentrate is first produced. The price of such a TREO concentrate varies depending on where it is produced in China:

Price of rare earths oxides concentrates ("REO") in $US/kg					
Chinese Production Location	**Bayan Obo**	**Sichuan**	**Unknown origin**	**Guangdong**	**Jiangxi**
Type REO concentrate	REO concentrate > 0.50%	REO concentrate > 0.70%	REO concentrate > 0.92%	REO concentrate > 0.92%	Intermediary Y/Eu-rich concentrate > 0.92%
4^{e} trimestre 2006-$US/kg	0.95	1.20	-	11.10	10.75
May 28^{th}, 2010-$US/kg	-	-	5.22	-	-

Subsequently, a separation of each individual rare earth element is done. The table below shows the current price of each individual rare earths-yttrium:

Price of TREO Oxides (99%) in US$/kg (May 28^{th}, 2010)										
Type of REO	**LREO**				**MREO**			**HREO/Yttrium***		
Year	**Ce_2O_3**	**La_2O_3**	**Nd_2O_3**	**Pr_2O_3**	**Sm_2O_3**	**Eu_2O_3**	**Gd_2O_3**	**Tb_2O_3**	**Dy_2O_3**	**Y_2O_3**
Oct.2009	4.20	5.95	14.40	14.35	4.50	460.00	6.60	350.00	100.00	14.00
May2010	**5.50**	**7.00**	**31.50**	**31.50**	**4.25**	**530.00**	**7.40**	**490.00**	**185.00**	**22.00**
* Prices are not available for the other HREO oxides, namely: Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3 et Lu_2O_3.										

It is forecasted that the demand for TREO will increase to 205,000 m.t. by 2014 (22% for the magnets, 25% for metal alloys and 7% for phosphorus). However, the supply is predicted to be of 203,500 m.t. Therefore, although it depends on market developments, the experts are predicting a shortage of 1,500 m.t. of TREO by 2014. This deficit would supposedly be in HREO/Yttrium (yttrium 500 m.t., dysprosium 209 m.t. and terbium 40 m.t.).

Be that as it may, there are other factors to consider when evaluating the rare earths market. In 2009, the Chinese government announced changes to its policy with respect to strategic minerals. More specifically, the Chinese government reduced its export quotas and plans to completely stop the exportation of certain rare earths in order to ensure the future supply of rare earths for Chinese industries. Also, the world production of HREO/Yttrium comes from the Chinese lateritic clays in the province of Longnan/Jiangxi in Southern China. For these clays, experts estimate that the production will continue at the most for another 15-20 years.

Due to these factors, prices of some rare earth oxides have increased since Fall 2009. The Chinese government announced on May 21^{st}, 2010 that it intends to crack down on the illegal production of rare earths in southern China (which mainly produces HREO) because the recent TREO price increase has intensified the illegal production. These measures not only intend to protect the resources of the country, but also suggest an environmental protection work plan for 2010.

The Chinese government intends to implement a long-term surveillance system to monitor the TREO production. The environmental work plan for 2010 will put an end to illegal logging and put in place environmentally-friendly production methods. With these measures, the Chinese government hopes to stop the overproduction of TREO caused by the current uncontrolled domestic production by illegal means. The consolidation of the number of producers in this sector will help stabilize the prices on the international market by offering a more controlled production and by ensuring a more sustainable production of the TREO.

In addition, other factors could affect the price of TREO:

- The announcements from the Chinese and Japanese governments that they intend to build up their strategic stockpiles of several thousand tons;

- To secure their access to supplies, industrial users also want to obtain their TREO concentrates outside of China. For example, the American Senate is presently reviewing acts pertaining to the establishment of a rare earths exploitation to manufacturing chain in the U.S. because of their strategic importance like neodymium, but the implementation of these acts would undoubtedly also increase the rare earths market. Indeed, the rare earths deposits usually contain more than one of the rare earth elements;

- Thirdly, an increase of future demand could be generated by increased use of applications using TREO and / or the emergence of new applications;

A future drilling campaign, promising metallurgical tests indicating easy physical and chemical separation of the TREO/yttrium mineralization, and a 15,800,000 kg indicated and 31,200,000 kg inferred current resource calculation at a cut-off grade of 0.50% TREO with a ratio of 30-33% HREO+Y_2O_3/TREO announcement for the Kipawa Deposit allows us to envision a scoping study for Fall 2010. Moreover, these resources could contribute to sustainable mining development and source of TREO on a small area.

(* Main references : IMCOA, Industrial Minerals, Metal-Pages, Roskill and Science)

Other Potential North American Supply of Zirconium Oxides**

Zirconium (Zr) is the 20th element present in the Earth's crust. In nature, it combines with silica and oxygen to form the mineral zircon ($ZrSiO_4$). This mineral is usually obtained as a by-product or *under-product* of the exploitation of heavy mineral sands of titanium, ilmenite and rutile, or tin minerals. The known reserves of zircon are estimated at 56 million tonnes. Excluding the U.S., the 2009 world production of zircon was 1.38 million tons with a value of over U.S. $ 1.1 billion. Australia and South Africa respectively produced 37% and 29%, and China consumes 30% of world production. Zircon is currently sold between U.S. $ 800 - 1000 m.t.

In 2006, 791 000 t. of zircon was used in the production of different grades of powder and opacifiers, 57 000 t. of zirconia, 130 000 t. in chemical compound of zirconium and 70 000 t. in zirconium metal and alloys. In 2009, approximately 53% of the consumption of zircon is used in ceramics (tiles for walls and floors, sanitary products and table wares), 25% in refractory and various uses in foundries and 16% for "fused Zirconia" and zirconium chemical compound in the nuclear industry (zirconium alloy tubes, etc..), in desalination plants and in electronics.

Especially for zirconium, it is used for its physico-chemical properties: corrosion resistance, resistance to radiation, high penetration of slow neutrons and property retention at high temperature. Currently, zircon is the main ore of zirconium. However, about 7000 tpy of zirconium comes from the mineral baddeleyite, a natural form of ZrO_2, called zirconia or zirconia. Another mineral regarded by some as a potential source of zirconium is eudialyte. Furthermore, Matamec also believes that the mineral vlasovite ($NaZrSi_4O_{11}$) is an even more important source of zirconium than eudialyte in the Kipawa deposit.

The main potential market for Matamec is that of zirconia. Global consumption of zirconia is about 40,000 tpy of which 48% as resistant, 39% as ceramic pigments, 11% as abrasive and 2% in electronics. More specifically, the advanced ceramic and the electronics market is growing rapidly. Another potential market for Matamec would be as input in the transformation of zirconium metal. World consumption is about 7000 tpy, of which 85% is intended to produce nuclear energy and the rest mainly for alloys.

In the following table, the current prices for various zirconium compounds are presented:

Prices of Various Zirconium Compounds (April-June 2010) in US$/kg							
Fused zirconia – Monoclinic – Ceramic pigment grade	Fused zirconia – Monoclinic – Structural Ceramic/ electronic grade	Fused zirconia – Stabilized – Refractory grade	Fused zirconia – Monoclinic – Technical ceramic grade	Fused zirconia – Stabilized – Technical ceramic grade	Un-wrought Zirconium	Nuclear-Grade zirconium sponge	Nuclear-Grade zirconium alloy
3.40-4.20	**4.00-5.30**	**5.10-5.70**	**15.90-21.00**	**50.00-100.00**	**58.00**	**20.00-30.00**	**60.00-80.00**

Regarding green mining, the exploitation of heavy mineral sands are seen as harmful to the environment. For example, Australia imposes restrictions on their operations in certain regions, if not a ban on their exploration or the initiation of new operations.

YSZ (yttria-stabilised zirconia) is also a key component of solid oxide fuel cells, a source under development for electricity considered "clean". This is one of the most effective technological solutions to pollution control caused by dependence on fossil fuels. This battery produces electricity, does not pollute the atmosphere, does not make noise and releases only water and heat. For example, since 2002 Siemens and the DOE entered into an agreement to develop low-cost solid oxide fuel cell power systems for residential, automotive and military applications which should be ready for 2012.

With current resource containing indicated 208.1 million kg of ZrO_2 and Inferred 182.2 million kg of ZrO_2 at a cut-off grade of 0.50% ZrO_2, the Kipawa deposit now represents a potential source of ZrO_2. The metallurgical tests currently underway should help to establish that it is possible to extract ZrO_2 from the minerals eudialyte and vlasovite. Also, a possible exploitation of the Kipawa Deposit could represent an environmentally-friendlier alternative to the exploitation of heavy mineral sands.

(**Main references: DOE, Industrial Minerals, Metal-Pages, Mining Engineering, Natural Resources Canada, Roskill, UxC and Z-Tech)

The geological data in this press release was prepared by Aline Leclerc, geologist and Matamec's Vice-President Exploration, a Qualified Person as defined by NI 43-101. Please note that a feasibity study has not been completed and there is no certainty the project will be economically viable.

About Matamec

Matamec explores for significant gold deposits in the Timmins mining camp in Ontario of which the Matheson Property (with Goldcorp as partner) is the main target. In Quebec, the Company explores for precious and base metals on its Sakami, Valmont and Vulcain Properties. As well, Matamec is exploring for gold together with Northern Superior Resources Inc. on its Lespérance/Wachigabau Property.

Concurrently with the above mentioned exploration programs, Matamec's Quebec Tansim Property is also being explored for rare metals such as tantalum and lithium.

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