



NEWS RELEASE
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EMC Receives Initial Report on Laboratory Test Program for the Direct Production of Scandium-Aluminum Master Alloy

Vancouver, British Columbia – February 10, 2011 – EMC Metals Corp. (the “Company” or “EMC”) (TSX: EMC) is pleased to announce that it has received an independent laboratory test work report, titled, “Production of Sc-Al Alloys” (the “Report”), outlining the results of a series of laboratory-scale tests investigating the production of scandium-aluminum (“Sc-Al”) alloys directly from aluminum oxide and scandium oxide feed materials. The Report, commissioned by EMC, was independently prepared by the Commonwealth Scientific and Industrial Research Organization (the “CSIRO”), Australia’s national science agency, and is the first of several programs EMC intends to complete in scandium product development for its Mine-to-Market approach.

Highlights of this Report by the CSIRO, and recommendations for additional work programs are as follows:

- (i) **Highlights:**
- Scandium oxide (Sc_2O_3) can be reduced to scandium metal, forming a Sc-Al master alloy,
 - Different routes have been identified that can explain the positive outcomes achieved, and
 - Further small scale test work is needed to improve our understanding of our initial positive results, and is planned to begin shortly.
- (ii) **Recommendations:**
- Next steps will investigate the production of high scandium content master alloys, using a mixed alloy approach,
 - Further test work will require larger scale facilities, higher temperature tests and larger current capabilities than were able to be applied in this initial program phase, and
 - EMC’s objective is to operate a chemical-electrolytic-thermal cell system with 10 amperes for at least 10 hours and with 100 amperes for 100 hours. Discussions with



development companies/agencies are underway to achieve that objective within the next 12 months.

Discussion of Report Results:

EMC engaged the CSIRO in August 2010 to conduct a literature review and experimental program to investigate the production of Sc-Al master alloys. The research consisted of:

1. A literature survey to identify routes and approaches previously undertaken,
2. A brief thermodynamics analysis of expected chemical reactions,
3. Assembly of a lab-scale set up,
4. Multiple experiments to establish products, scandium content and efficiency, and
5. Documenting findings in a formal report, to support subsequent research work.

The results of the CSIRO work confirmed earlier experimental work done and concluded there were no findings that suggested Sc-Al alloys could not be produced through chemical, electrolytic, and/or thermal means. The progression of the experimental work was somewhat hampered by the size of the laboratory equipment on hand, suggesting a larger scale capability is required to pursue the most promising variations on test parameters. These capacity and parameter limitations will be addressed in future test work.

The overall objective of this research is to demonstrate and commercialize the production of Sc-Al master alloy using impure scandium oxide as the scandium source, rather than pure scandium metal. The conventional process for the production of pure scandium metal is both complex and expensive, and involves:

- Fluoridation of high purity scandium oxide with HF (at 600 deg C),
- Reduction of scandium fluoride by calcium metal (at 1600 deg C), and
- Refining by vacuum distillation (at about 1800 deg C), or electro-refining at 600 deg C with a hydro-treatment finish.

It is the pure metal form that is used today to manufacture Sc-Al master alloys, so this development effort offers the potential to significantly improve the economics of master alloy production.

Note that EMC considers this scandium product test and development work underway as proprietary knowledge. The Company does not intend to publish the full laboratory reports or disclose more than general details and purpose of the research, findings, and confirmation of progress towards the stated goals of the work.

Mr. Willem Duyvesteyn, CTO of EMC commented as follows:

“This initial work program completed by the CSIRO represents a very good baseline for our research into demonstrating the large scale production of Sc-Al master alloy. We are encouraged by the scientific outcomes, albeit early and limited scale results. This initial test program has also given us an



opportunity to expand our vision to become a Mine-to-Market producer of scandium alloys for the transportation industry and applications for aircraft manufacturing in particular.”

About EMC Metals

EMC Metals is focused on application of its in-house and patented mineral recovery technologies to deliver value in specialty metal and rare earth projects. EMC's high priority development opportunity is the Nyngan Scandium Joint Venture with Jervois Mining Limited of Melbourne, Australia. The Nyngan Scandium Project has a National Instrument (“NI”) 43-101 measured and indicated resource estimate of 12 million tonnes, grading 261ppm Sc, based on a cut-off grade of 100ppm Sc (“NI 43-101 Technical Report on Nyngan Scandium, Jervois Mining Limited, Nyngan, New South Wales, Australia”, March 25, 2010). In July 2010, EMC released highlights of an independent engineering study prepared by Roberts & Schaefer Co. (now owned by KBR), estimating capital costs for a processing facility of US\$56M, and estimating unit processing costs under US\$300/kg for Sc₂O₃. The Company is currently doing metallurgical test work on the Nyngan resource material, to define and refine flow sheet studies, recovery estimates and capital cost estimates for the project.

EMC also holds two tungsten assets; the Springer Tungsten property in Nevada, USA and the Fostung Tungsten project in Ontario, Canada. Both tungsten assets have NI 43-101 compliant resource estimates, and the full reports are available on the Company website and on SEDAR. The Springer tungsten asset is a fully permitted, established underground mine and milling facility with a 1,200tpd throughput capability to produce a high grade scheelite (WO₃) concentrate product. The Springer mine and mill are not currently in operation, although recent tungsten price increases have made the asset both economic and attractive to re-start. The Company also holds the Carlin Vanadium property, near Carlin, Nevada, with a recently released NI 43-101 inferred resource estimate of 25.4 million tonnes, grading 0.5% V₂O₅, based on a cut-off grade of 0.30%, or 289 million lbs of total contained V₂O₅ (“NI 43-101 Technical Report on Resources, EMC Metals Corp., Carlin Vanadium Project, Carlin, Nevada”, April 30, 2010).

Technical information in this news release has been reviewed by Gilles R. Dessureau, M.Sc. P.Geo a Qualified Person for the purposes of NI 43-101. Mr Dessureau is a Professional Geologist employed by EMC Metals.

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