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Gossan Receives Positive Magnesium Thermodynamic Study

September 25, 2007 – Gossan Resources Limited (GSS-TSX.V & GSR-Frankfurt/ Freiverkehr) has received favourable results in a chemical thermodynamic study of the Zuliani Process to extract magnesium metal from dolomite. Dr. Arthur Pelton, of THERMFACT Ltd. and a Professor at Ecole Polytechnique in Montreal completed the study. THERMFACT is a co-developer of the world leading FactSage integrated thermodynamic databank system which calculates the conditions for multiphase, multi-component equilibria in complex gas-slag-metal systems. Gossan holds a large high-purity dolomite property at Inwood, Manitoba and is investigating extraction processes for producing magnesium metal.

The FactSage study has confirmed the process thermodynamics for the Zuliani technology including the vapour pressure of magnesium as a function of process temperature and operating conditions, the slag – metal reactions and the formation of by-products. Pelton’s Report (the “Report”) recommends proceeding to Phase 2 – Bench Scale Testing, which is now in the planning stage.

Study Highlights

1. The main conclusion from the Report confirms that the Zuliani Process (the “Process”) is capable of producing magnesium vapour at atmospheric pressure in the desired temperature range of 1550-1650°C. As such the Process will not require the use of a vacuum.
2. Assuming a properly designed liquid phase condenser, the Report confirms that molten magnesium condensation is feasible with the Process. The FactSage thermodynamic model was used to assess the composition of the magnesium vapour phase. Based on this assessment, provided the dolomite is of sufficient purity, the Report concludes that the Process is capable of producing 99.8% commercial grade magnesium metal. Valuable thermodynamic data pertaining to the condensation of molten magnesium metal was provided in the Report to assist in the design of the Process’ liquid phase condenser used to recover molten magnesium.
3. Based on the FactSage thermodynamic analysis, the Report develops an optimum process route to produce magnesium at high vapour pressure with minimized raw material consumption. The Report indicates that under these conditions the Process operates at a high thermodynamic efficiency. Although the study focused principally on Process thermodynamics, the Report also indicates that it is expected that the Process will demonstrate excellent kinetics for producing magnesium compared to other thermal magnesium processes using dolomite and ferrosilicon.
4. The optimum composition of the Process slag to maintain acceptable physical properties, fluidity and reactivity is identified in the Report. The recommended principle slag constituents are widely

available for commercial use. The Process temperature at which the slag becomes fully molten is confirmed at 1550C which is inline with the aim Process temperature range for magnesium production at atmospheric pressure.

5. The Report confirms that for the optimum process route, the Process has the capability of producing potentially attractive commercial by-products. However, under certain conditions there is a risk that the by-products may contain some impurities that may limit commercial pricing and sales. The extent of this by-product contamination risk is unknown at present due to uncertainties in the FactSage thermodynamic data base used in these by-product calculations. The Report indicates that these impurities are already present in the commercial specifications of the specified by-product material. As such, they are of limited concern provided the impurity levels are maintained within commercially acceptable limits. To mitigate the potential risk, FactSage analysis was used to develop three by-product process options that would limit the percentage of these potential impurities in the by-product material. The Report identifies these by-product process options and recommends that the Phase 2 bench-scale testing be conducted to clarify these uncertainties.

Dr. Pelton is a co-founder of the FactSage system, which is among the world's largest database computing systems in chemical thermodynamics. FactSage has more than 200 industrial and 200 academic users worldwide. Dr. Pelton recently received a \$600,000 NSERC-CRD grant in collaboration with General Motors to develop databases for the thermodynamic and volumetric properties of magnesium alloys for purposes of evaluating the potential for new magnesium alloys. He also recently developed software dedicated to simulate the phase transformations during casting of magnesium alloys.

Dr. Pelton attended the University of Toronto where he earned three degrees culminating with a Doctorate in Metallurgy in 1970. Professor Pelton has received 22 awards for his work, including the Falconbridge Innovation Award (CIMM) in 1999. Dr. Pelton has been published in 218 scientific journals and has authored or co-authored over 95 engineering reports and contributed to thirteen books.

Over the past decade, magnesium metal markets have grown annually at double digit rates and prospects for continued growth are significant. A recently released report, "Magnesium Vision 2020" prepared by the United States Automotive Materials Partnership (USAMP) in cooperation with 61 members of the North American automotive magnesium industry including USCAR (a consortium composed of DaimlerChrysler AG, Ford Motor Company and General Motors Corporation) points to substantial future growth opportunities for magnesium in the automotive sector. While North American vehicles currently average 10-12 lbs of magnesium with select vehicles containing up to 35 lbs, Magnesium Vision 2020 indicates that with the proper market infrastructure, the average magnesium content could increase to as much as 350 lbs by 2020 by replacing heavier components. At these magnesium levels, the report concludes that vehicle weight would be reduced by 500 lbs thereby significantly improving fuel efficiency and reducing emissions. To put this into perspective, the average North American vehicle currently contains about 260 lbs of plastics, 280 lbs of aluminum and 2150 lbs of steel/cast iron. A major conclusion of the study is that the magnesium industry requires a North American based champion to promote magnesium within the auto sector as is the case with other more established materials. For further information refer to www.gossan.ca/magvison.pdf

Gossan holds a large high-purity dolomite property at Inwood, Manitoba and is investigating opportunities for producing magnesium metal. The Company recently signed a Memorandum of Understanding defining the terms of a licensing arrangement for the Zuliani Process, a new, high efficiency magnesium production process projected to significantly reduce the direct operating cost of

magnesium metal production by as much as 25% compared to a typical Chinese plant. Chinese companies are strong competitors and currently produce approximately 80% of the world's magnesium metal. For further information refer to NR-07-02 dated March 16, 2007.

The US Geological Survey estimated world primary production of magnesium at 650,000 tonnes in 2006. Over the past 15 years, China has become the predominant supplier with production of 526,000 tonnes in 2006. Magnesium can be produced using a number of different processes and inputs. It is primarily used as an alloy with aluminum and as a structural metal with die casting for the auto industry being the fastest growing component. Magnesium is also used to remove sulfur in the production of iron and steel. Magnesium is the lightest of all the commonly used metals and may be substituted to some extent for aluminum and zinc in castings and wrought products. The price of magnesium has increased considerably in 2006 and 2007. During the current year, free market prices in Canada and Europe have increased sharply from US \$ 2,050 to US \$ 2,750 per metric tonne or about US \$1.25 per pound. Corresponding prices in the USA are significantly higher due to varying tariff protection against certain Chinese and Russian producers. Demand for magnesium is expected to remain strong particularly from the auto industry where high gasoline prices are leading to the design of lighter more fuel efficient vehicles.

Gossan Resources Limited is engaged in mineral exploration in Manitoba and northwestern Ontario. It has a well-diversified portfolio of properties hosting gold, platinum group and base metals, as well as the specialty and minor metals, tantalum, lithium, chromium, titanium and vanadium. The Company also has a large deposit of magnesium-rich dolomite and a silica sand prospect. Marathon PGM has recently optioned Gossan's nickel-PGM property on the Bird River Sill. Gossan trades on the TSX Venture and the Frankfurt/Freiverkehr & Xetra Exchanges and has 28,920,900 common shares outstanding.

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The TSX Venture Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this news release.