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Mineral Industry Surveys

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MAGNESIUM IN THE SECOND QUARTER 2008

Total exports of magnesium through June 2008 were about 19% lower than those in the same period of 2007. Magnesium imports for consumption through June 2008 were about 25% higher than those through June 2007. Magnesium metal imports through June were 77% higher than those in the first half of 2007, but magnesium alloy imports in the first half of 2008 were 41% less than those in the first half of 2007. Israel (49%), China (38%), and Russia (10%) were the principal sources of imported magnesium metal. Israel (30%) and Canada (29%) were the principal sources of imported alloys.

Quoted magnesium prices are shown in the table at the bottom of the page. Magnesium prices continued to escalate to record-high levels, but did not increase as rapidly as they did in the first quarter. In China, the magnesium price range reached a high of $5,950 to $6,250 per metric ton at the end of May, but began falling rapidly after that. Consumption in China and in Europe had fallen, and consumers were working off some of their stocks rather than purchasing magnesium on the spot market at the high prices. By the end of July, the magnesium price range in China had decreased to $4,600 to $4,700 per metric ton.

Consumers were beginning to negotiate prices for 2009 purchases, but reportedly were not able to lock in contract pricing. Press reports indicated that initial 2009 offer levels were $3.50 to $4.00 per pound (McBeth, 2008b).

The U.S. Department of Commerce, International Trade Administration (ITA) published its final antidumping duties on magnesium alloy imported from Tianjin Magnesium International Co. Ltd. (Tianjin, China). The ITA determined that the weighted average dumping margin for the company for April 1, 2006, to March 31, 2007, was 0% (U.S. Department of Commerce, International Trade Administration, 2008).

In a final determination by the ITA, U.S. antidumping duty rates for imports of magnesium from Russia will rise to 15.77% for VSMPO-AVISMA Corp. and to 21.71% for Solikamsk Magnesium. The administrative review of the antidumping duty order covered pure and alloy magnesium imports for the period April 1, 2006, through March 31, 2007 (McBeth, 2008c).

On September 3, the U.S. Environmental Protection Agency (EPA) announced that it planned to include U.S. Magnesium LLC’s Rowley, UT, magnesium plant on its Superfund list. According to EPA, hazards at the site included heavy metals, acidic wastewater, polychlorinated biphenyls, dioxins and furans, hexachlorobenzene, and polycyclic aromatic hydrocarbons. These contaminants have both cancerous and noncancerous health risks to humans and wildlife and have been released into the air, soil, surface water, and groundwater and were largely uncontrolled. The public has until November 3 to provide comments on the inclusion of the site on the Superfund list (U.S. Environmental Protection Agency, 2008).

In June, Timminco Ltd. (Toronto, Ontario, Canada) announced that it would close its manufacturing facility in Haley, Ontario, Canada. The Haley facility supplied the cast magnesium billet used in Timminco’s magnesium extrusion operations in Aurora, CO. All of these supplies will be provided by outsource partners. The Haley plant also produced specialty

	Units	Beginning of quarter	End of quarter
Platts Metals Week U.S. spot Western	Dollars per pound	$3.05-$3.30	$3.40-$3.65
Platts Metals Week U.S. spot dealer import	do.	3.00-3.10	3.40-3.65
Platts Metals Week European free market	Dollars per metric ton	4,600-4,900	5,300-5,450
Platts Metals Week China	do.	4,700-4,850	5,400-5,600
Metal Bulletin European free market	do.	5,000-5,200	6,000-6,200
Metal Bulletin China free market	do.	5,200-5,300	6,000-6,100

magnesium granules and turnings, which will be produced at Timminco's Nuevo Laredo, Mexico, facility (Timminco Ltd., 2008).

SilMag Technology (Norway), a new company formed by former employees of Norsk Hydro ASA, announced that it would restart production at Norsk Hydro's shuttered magnesium plant in Porsgrunn. SilMag planned to produce primary and recycled magnesium using locally produced olivine as a raw material. (Norway is the world's leading olivine producer.) Coproduct silica also will be produced at the plant. SilMag was negotiating with Norsk Hydro to use the idle equipment at Porsgrunn, where the primary production plant has been closed since 2005, and the casthouse has been closed since 2006. SilMag planned to refurbish the recycling facilities by late 2008 or early 2009, with a capacity of 15,000 metric tons per year (t/yr). The primary magnesium plant was expected to take about 2 years to complete, and was projected to be completed by 2011, with a capacity of 35,000 t/yr, slightly less than the capacity at the plant when it closed (Blamey, 2008).

In June, MagMetals Inc. (a division of MagIndustries Corp., Toronto, Ontario, Canada) signed a technology license agreement with Norsk Hydro that grants MagMetals a nonexclusive license to use Norsk Hydro's technology to construct and operate a magnesium plant in Africa. In addition to this license agreement, MagMetals also purchased equipment from Hydro's recently closed magnesium plant in Becancour, Quebec; the equipment was auctioned off in early June. This equipment, together with plant engineering documents, operational data, and an extensive photo library, was expected to form the core of MagMetals newly established technology center in Quebec. The technology center was designed to support upcoming technical and economic studies for a final feasibility study of a proposed Kouilou, Congo (Brazzaville), magnesium plant (MagIndustries Corp., 2008).

Bahrain-based Capivest Investment Bank (formerly Khaleej Finance & Investment B.S.C., Manama, Bahrain) announced that it would establish a $1 billion company to construct magnesium smelters in the Middle East and North Africa region. Capivest signed an agreement with TRU Group to oversee the technical and engineering aspects of the company. Bankable feasibility studies have already been completed to construct and operate a magnesium plant in the region with an initial production capacity of 30,000 to 60,000 t/yr. Preliminary discussions also were underway with international partners that have been identified to subsidize the equipment for the plant. The company eventually planned to build multiple magnesium smelters in different locations in the region (Metal-Pages, 2008).

In China, companies continued to implement expansion plans for magnesium metal and alloy production. China Magnesium Industry & Market Bulletin (2008) reported more than 50 projects that were announced to add magnesium metal, alloy, and/or diecasting capacities in China. Some were upgrades of existing capacity that had been shut down, but most were new projects that could increase production capacity significantly. Additional proposed primary production capacity totaled more than 3 million metric tons, although many of these plants most likely will not be constructed.

Softness in the North American auto industry coupled with high magnesium prices has affected several magnesium diecasting companies. Intermet Corp. (Ft. Worth, TX) filed for Chapter 11 bankruptcy protection in August, citing low auto sales and high commodity prices as the reason for the filing. The company operated a magnesium diecasting facility in Palmyra, MO, in addition to aluminum and zinc diecasting facilities in the midwestern United States. Intermet had filed for Chapter 11 bankruptcy protection in 2004 and emerged as a private company in 2005 (Cowden, 2008b). Spartan Light Metal Products Inc. (St. Louis, MO) began laying off employees at its Mexico, MO, magnesium diecasting facility because of dramatically reduced orders for Ford Motor Co.'s F-150 pickup trucks. (Cowden, 2008a). In August, United Kingdom-based Dynacast International Ltd. (London) acquired Canadian magnesium and zinc diecaster FisherCast Global Corp. (Peterborough, Ontario), which had filed for protection under the under the Companies' Creditors Arrangement Act (CCAA) in June. Also in June, Meridian Technologies Inc. (Strathroy, Ontario, Canada) announced that it had reached a restructuring agreement with its lenders. Under the terms of the agreement, a newly reorganized company, Meridian Lightweight Technologies Inc. will be created. Meridian Technologies initiated a proceeding under the CCAA in Ontario. The application includes only Meridian's Canadian and United Kingdom operations. As part of the agreement, the company received new financing of up to $55 million consisting of a $30 million revolving credit facility and a $25 million term loan. In addition to the new financing, the company's secured lenders exchanged a significant portion of the existing debt for all of the equity in Meridian Lightweight Technologies. Meridian Lightweight Technologies has magnesium diecasting operations in Canada, China, the United Kingdom, and the United States (McBeth, 2008a).

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TABLE 1

U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM[1]

(Metric tons)

		2008				
	2007	January-March	April	May	June	January-June
Imports:						
Metal	27,200	11,200	3,640	2,720	3,910	21,500
Waste and scrap	21,200	6,160	2,150	1,950	2,370	12,600
Alloys (magnesium content)	21,900	3,180	1,380	1,080	1,140	6,770
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	1,490	345	143	194	198	880
Total	71,800	20,900	7,310	5,950	7,610	41,700
Exports:						
Metal	4,290	307	54	185	348	894
Waste and scrap	1,800	353	217	216	228	1,010
Alloys (gross weight)	7,570	1,070	422	502	375	2,360
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	1,170	408	173	176	173	930
Total	14,800	2,130	866	1,080	1,120	5,200

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.