

# Mineral Industry Surveys

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#### **MANGANESE IN JUNE 2000**

In June, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was 37,300 metric tons, which was a decrease of about 3% compared with that for the previous month, according to the U.S. Geological Survey. This brought the year-to-date total to 229,000 tons. The figures for June increase to 39,700 tons and 253,000 tons when estimates for annual respondents are added on the basis of 1999 data. Corresponding industry stocks of ore at the end of the month were 192,000 tons, which includes an estimate for annual respondents on the basis of 1999 data. This was a decrease of about 2% compared with the corresponding figure for stocks at the end of May.

Data for domestic consumption and stocks of manganese ferroalloys and metal in 1999 will appear in a subsequent monthly report.

Foreign trade data for June will appear in a subsequent report. The data for May tabulated in this report indicate that the monthly quantity of manganese dioxide imported apparently was the greatest ever, and receipts of medium-carbon ferromanganese were up sharply. By contrast, the units of manganese exported were the least since January 1989 for ferromanganese and the least since September 1987 for ferroalloys plus metal. **Note:** For early availability, the trade data appearing in this report are being placed on MINES FaxBack in preliminary form. The data for May were placed on FaxBack as of August 3. The FaxBack document number for the June trade data will be 420206.

The Defense National Stockpile Center of the Defense Logistics Agency, U.S. Department of Defense, reported for June cash disposals of manganese materials from the National Defense Stockpile that consisted of 1,361 tons of chemical-grade ore, 13,608 tons of metallurgical-grade ore, and 45,359 tons of highcarbon ferromanganese. The disposal of chemical-grade ore resulted from modification of an existing contract and that of metallurgical-grade ore was all to Quantum Materials Corp., Johnstown, PA. The disposal of high-carbon ferromanganese was to Eramet Marietta Inc., Marietta, OH, under an agreement whereby Eramet Marietta was to purchase the remainder of the stockpile's "preferential" high-carbon ferromanganese, whose manganese content was less than 76% (Ryan's Notes, 2000).

In South Africa, a 50% expansion of capacity for production of electrolytic manganese dioxide at the Nelspruit plant of Delta EMD (Pty) Ltd. was announced. The increase of 11,000 tons per year is to become effective during the latter part of 2001. The expansion is to include installation of a dedicated facility for ore reduction as well as basic infrastructure sufficient to raise the plant's capacity to at least 50,000 tons per year (Metal Bulletin, 2000).

#### **References** Cited

Metal Bulletin, 2000, Delta to expand EMD production in South Africa: Metal Bulletin, no. 8483, June 12, p. 7.

Ryan's Notes, 2000, US bulk business tails off: Ryan's Notes, v. 6, no. 28, July 10, p. 1-2.

### TABLE 1 SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

#### (Metric tons, manganese content) 2/

	Impo	rts for consumption	Exports						
	Ore and	Ore and Ferroalloy			Ferroalloy				
	dioxide	and metal	Total	Ore	and metal	Total			
1999: 3/									
May	25,300	23,900	49,100	135	1,370	1,500			
January-May	107,000	193,000	300,000	341	7,130	7,470			
2000:									
January	17,200 4/	27,600 4/	44,800	144	926	1,070			
February	25,900 4/	38,100	64,000	202	1,380	1,580			
March	- 17,700 4/	56,300 4/	74,000	383 4/	1,000	1,390			
April	19,500 4/	38,600 4/	58,100	1,140 4/	937	2,080			
May	4,130 4/	42,700	46,800	310 4/	541	851			
Total	84,500	203,000	288,000	2,180	4,790	6,970			

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

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ Data may include revisions by the U.S. Census Bureau.

4/ All or part of these data have been referred to the U.S. Census Bureau.

Source: U.S. Census Bureau.

## TABLE 2 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN MAY 2000 1/

#### (Metric tons, unless otherwise specified)

					Year to date	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value	weight	content	value
Australia	5,310	3,510	\$2,630,000	22,200	14,700	\$10,800,000
Brazil				15	12	20,400
Bulgaria				2,450	1,590	1,030,000
France				1,350	918	636,000
India				19,200	12,600	8,120,000
Kazakhstan	7,570	5,160	3,420,000	27,900	18,900	13,100,000
Mexico	8,640	5,650	4,110,000	23,900	14,400	11,100,000
Norway				1,400	848	953,000
Romania				4,040	2,640	1,830,000
South Africa	2,900	1,930	1,450,000	35,200	22,400	15,900,000
Venezuela	4,200	2,860	1,930,000	10,800	7,290	4,890,000
Total	28,600	19,100	13,500,000	148,000	96,300	68,500,000
Total, general imports	28,600	19,100	13,500,000	148,000	96,300	68,500,000

-- Zero.

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

## TABLE 3 U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN MAY 2000 1/

#### (Metric tons)

					Year to date	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value	weight	content	value
Low carbon:						
China	350	315	\$350,000	959	872	\$1,030,000
Italy	1,240	1,040	1,060,000	3,500	2,980	3,510,000
Japan				4,250	3,550	3,420,000
Mexico	300	240	251,000	330	268	301,000
Norway	9	7	12,400	30	24	22,800
South Africa	200	186	315,000	670	630	1,080,000
Ukraine				240	228	275,000
Total, low carbon	2,100	1,790	1,990,000	9,980	8,550	9,640,000
Total, general imports						
of low carbon	2,100	1,790	1,990,000	9,980	8,550	9,640,000
Medium carbon, 1%-2% C:						
Korea, Republic of	2,850	2,280	1,610,000	2,850	2,280	1,610,000
Mexico	3,540	2,860	2,480,000	10,400	8,390	6,630,000
Norway	3,520	2,860	2,140,000	4,030	3,270	2,390,000
South Africa	2,000	1,620	1,150,000	6,460	5,260	3,770,000
Total, m.c., 1%-2% C	11,900	9,620	7,380,000	23,800	19,200	14,400,000
Total, general imports						
of m.c., 1%-2% C	11,900	9,620	7,380,000	23,800	19,200	14,400,000
Medium carbon, 2%-4% C:						
South Africa	6	5	3,550	30	24	16,800
Total, m.c., 2%-4% C	6	5	3,550	30	24	16,800
Total, general imports						
of m.c., 2%-4% C	6	5	3,550	30	24	16,800
High carbon:						
Australia	1,550	1,190	634,000	12,100	9,270	4,550,000
Brazil				2,810	2,160	1,200,000
Canada				36	28	26,200
France	2,500	1,950	1,060,000	26,400	21,000	11,700,000
South Africa	9,640	7,500	3,690,000	51,100	39,700	18,900,000
Total, high carbon	13,700	10,600	5,380,000	92,500	72,100	36,400,000
Total, general imports	,	·		*	,	
of high carbon	13,700	10,600	5,380,000	92,500	72,100	36,400,000
Grand total	27,700	22,100	14,700,000	126,000	99,900	60,400,000
Grand total, general imports	27,700	22,100	14,700,000	126,000	99,900	60,400,000

-- Zero.

 $1/\operatorname{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

#### TABLE 4

#### U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN MAY 2000 $1/\ 2/$

#### (Metric tons)

	20% - 47% Mn		47% or mor	re Mn	Total	
	Gross	Mn	Gross	Mn	Gross	Mn
Source	weight	content	weight	content	weight	content
India	18 3/	112 3/			18	112
Mexico	1,830	726			1,830	726
Total	1,840	837			1,840	837
Year to date:						
Australia			1,290	722	1,290	722
Belgium	18	6			18	6
Brazil	7,030	3,250			7,030	3,250
Gabon	25,400	11,200	106,000	52,700	131,000	63,900
India	53	335			53	335
Mexico	4,510	2,690			4,510	2,690
Morocco			20	11	20	11
Total	37,000	17,500	107,000	53,400	144,000	70,900

-- Zero.

1/ Quantities for general imports and imports for consumption are identical.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the U.S. Census Bureau.

Source: U.S. Census Bureau.

## TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN MAY 2000 1/

#### (Metric tons, gross weight, unless otherwise specified)

		Manganes	e dioxide			Manganes	e metal	e metal	
		-	Year t	o date	Unwi	ought	Ot	her	
		Customs		Customs					
Source	Quantity	value	Quantity	value	Quantity	Year to date	Quantity	Year to date	
Australia	3,520	\$5,430,000	12,700	\$18,400,000					
Belgium	54	78,800	293	471,000					
Brazil			9	18,200					
China			42	46,900	502	1,420	2	92	
France								42	
Germany	16	86,100	57	294,000	228	391	4	12	
Greece	244	314,000	392	509,000					
India								1	
Ireland	789	1,030,000	4,000	5,440,000					
Japan								5	
Netherlands						69		33	
South Africa	857	1,210,000	5,060	7,140,000	708	4,540			
Taiwan								18	
United Kingdom			111	164,000	57	324	2	2	
Venezuela								18	
Total	5,480	8,150,000	22,700	32,500,000	1,500	6,750	8	222	
Total, general imports	5,480	8,150,000	22,700	32,600,000	1,700	6,950	8	222	

-- Zero.

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

Note: No imports for consumption of metallic manganese waste and scrap were reported, keeping the year-to-date total at 73 tons.

## TABLE 6 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2000 1/

			Ferrom	anganese,				
	Mangar	nese ore	2% or less C		Silicomanganese		Manganese metal 2/	
	May	Year to date	May	Year to date	May	Year to date	May	Year to date
Australia	29	172						
Belgium								19
Brazil	45	67						
Canada	324	1,810	222	2,840	104	975	22	434
Chile								4
Colombia								8
Finland							12	37
France	82	82				4		
Germany		1,020						
Hong Kong								2
Italy	100	100						18
Japan	27	27					184	287
Korea, Republic of							3	6
Mexico	2 3/	1,070		76		314	23	85
Netherlands					9	9		18
Peru								1
Taiwan	11	11						30
United Kingdom								17
Total	620	4,360	222	2,920	113	1,300	245	967

#### (Metric tons, gross weight)

-- Zero.

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

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ All or part of these data have been referred to the U.S. Census Bureau.

Note: Exports of ferromanganese with more than 2% carbon totaled 59 tons, of which 32 tons went to Canada and 26 tons went to Mexico, to give a year-to-date total of 831 tons.

 TABLE 7

 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN MAY 2000, BY CLASS 1/

			Year to date					
			Principal sources and destinations:			Principal sources and destinations:		
	Gross weight	Value 2/	gross weight (metric tons);	Gross weight	Value 2/	gross weight (metric tons);		
Class	(metric tons)	(thousands)	value (thousands) 2/	(metric tons)	(thousands)	value (thousands) 2/		
Imports for consumption:	_							
Manganese oxides other than dioxide	148	\$297	South Africa 72; \$181	573	\$819	Mexico 240; \$78		
Sulfates, basket category,								
including manganese sulfate	1,890	1,600	Mexico 967; \$493	16,000	9,220	Mexico 7,780; \$3,780		
Potassium permanganate	129	260	Czech Republic 54; \$104	645	1,260	Czech Republic 296; \$572		
Manganites, manganates, and								
other permanganates	18	130	Germany 18; \$130	19	133	Germany 18; \$130		
Exports:								
Manganese dioxide	210	191	Canada 128; \$69	1,360	1,500	Canada 739; \$306		
Manganese oxides other than dioxide	695	761	United Kingdom 191; \$218	3,770	4,050	Canada 1,440; \$558		
Sulfates, basket category,								
including manganese sulfate	1,310	906	Canada 1,130; \$352	9,820	5,300	Canada 7,980; \$2,460		
Potassium permanganate	130	288	Germany 44; \$90	532	1,050	Germany 149; \$286		
Manganites, manganates, and								
other permanganates	3	22	United Kingdom 2; \$17	73	422	United Kingdom 26; \$171		
1/ Data are rounded to no more than three sig	gnificant digits.							

2/ For imports, Customs value; for exports, f.a.s. value.