

# Mineral Industry Surveys

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## MANGANESE IN MARCH 2010

Preliminary reported data (gross weight) for March 2010 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 37,100 metric tons (t), according to the U.S. Geological Survey. This was a slight increase from the revised amount consumed in February 2010. Manganese ore consumption in the first 3 months of 2010 was 111,000 t, which was a 4% increase from the revised amount consumed during the first 3 months of 2009 (107,000 t). It was a 7% increase from the revised amount consumed during the last quarter of 2009 (104,000 t). Industry stocks of ore at the end of March 2010 were 184,000 t, which was slightly more than that at the end of February 2010.

Data for U.S. manganese imports and exports for February 2010 are published in this issue. On a contained-weight basis, U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal were 97 times greater and 9% higher,

respectively, than those in January 2010. U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal during the first 2 months of 2010 were 193% higher and 45% higher, respectively, than those during the same period in 2009 (table 1).

On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal exports for February 2010 were 212% higher and 41% higher, respectively, than those in January 2010. U.S. exports of manganese ore and manganese ferroalloys plus metal during the first 2 months of 2010 were 28% less and 64% less, respectively, than those during the same period in 2009 (table 1).

### Prices

Prices for manganese materials in March 2010, manganese content, are listed below.

### Ferroalloys prices<sup>1</sup>

	<u>Price Range</u>	<u>Average Price</u>
High-carbon ferromanganese <sup>2</sup>	1,475.00-1,600.00	1,538.50
Medium-carbon ferromanganese <sup>3</sup>	130.00-175.00	151.50
Silicomanganese <sup>3</sup>	64.00-73.00	69.00

### Manganese metal and ore prices<sup>4</sup>

	<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
Manganese metal <sup>3</sup>	156.00-165.00	159.56-162.11-164.67
36%-39% Manganese ore <sup>5</sup>	6.20-7.00	6.26-6.57-6.89
44% Manganese ore <sup>5</sup>	6.90-7.50	6.94-7.22-7.50
48% Manganese ore <sup>5</sup>	7.10-8.10	7.06-7.49-7.92

<sup>1</sup>Source: Platts Metals Week, dealer import price; average prices reported for all transactions during the month.

<sup>2</sup>Dollars per gross ton.

<sup>3</sup>Cents per pound.

<sup>4</sup>Source: Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>5</sup>Dollars per metric ton unit, contained manganese. To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 48 when the manganese content is 48%.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2009:						
February	559	13,400	14,000	188	4,270	4,460
January-February	26,100	50,000	76,100	290	6,730	7,020
2010:						
January	782	34,600	35,400	51	992	1,040
February	75,800	37,800	114,000	159	1,400	1,560
Total	76,600	72,500	149,000	210	2,390	2,600

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

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

Source: U.S. Census Bureau.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN FEBRUARY 2010<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	879	585	\$869,000	3,640	2,510	\$3,840,000
Bahrain	390	258	507,000	1,140	760	1,480,000
Georgia	1,210	848	1,340,000	2,230	1,540	2,310,000
India	104	58	171,000	104	58	171,000
Mexico	--	--	--	2,000	1,320	2,130,000
Norway	1,510	903	1,900,000	6,590	3,810	9,990,000
Russia	403	265	335,000	403	265	335,000
Saudi Arabia	836	549	920,000	2,050	1,350	2,260,000
South Africa	13,000	8,650	14,500,000	23,200	15,500	25,500,000
Spain	1,590	954	2,810,000	1,590	954	2,810,000
Total	19,900	13,100	23,300,000	42,900	28,100	50,800,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN FEBRUARY 2010<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Low carbon:						
China	1,780	1,530	\$4,220,000	4,660	3,880	\$10,200,000
Mexico	--	--	--	2,850	2,290	5,270,000
Netherlands	--	--	--	220	178	429,000
Norway	182	147	310,000	676	562	1,180,000
South Africa	3	2	7,080	3	2	7,080
Total	1,960	1,680	4,540,000	8,410	6,900	17,100,000
Medium carbon, 1%-2% C:						
Korea, Republic of	--	--	--	1,700	1,360	2,860,000
Mexico	19	15	44,900	1,740	1,400	2,850,000
Norway	2,100	1,680	3,480,000	5,600	4,500	9,280,000
Russia	18	14	46,300	18	14	46,300
South Africa	5,080	4,040	8,280,000	5,800	4,600	9,500,000
Total	7,220	5,750	11,900,000	14,900	11,900	24,500,000
Medium carbon, 2%-4% C, South Africa	--	--	--	18	16	44,300
High carbon:						
Brazil	300	229	360,000	300	229	360,000
Mexico	1	1	2,450	1	1	2,450
Norway	684	550	721,000	704	565	746,000
South Africa	13,100	10,100	14,900,000	20,200	15,600	22,300,000
Ukraine	4,890	3,810	5,230,000	4,890	3,810	5,230,000
Total	19,000	14,700	21,200,000	26,100	20,200	28,700,000
Grand total	28,200	22,200	37,600,000	49,400	39,000	70,400,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN FEBRUARY 2010<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
More than 20%, but less than 47% manganese, South Africa	44,300	17,700	\$7,250,000	44,300	17,700	\$7,250,000
47% or more manganese:						
Australia	52,900	48,600	14,700,000	52,900	48,600	14,700,000
Brazil	3,960	2,020	1,230,000	3,960	2,020	1,230,000
Gabon	12,000	6,290	1,500,000	12,000	6,290	1,500,000
Morocco	--	--	--	7	7	11,500
Total	68,800	57,000	17,500,000	68,800	57,000	17,500,000
Grand total	113,000	74,700	24,700,000	113,000	74,700	24,700,000

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

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

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN FEBRUARY 2010<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Belgium	4	\$17,400	4	\$17,400
Germany	--	--	22	37,000
Japan	322	689,000	824	1,770,000
Netherlands	123	67,400	123	67,400
Singapore	--	--	11	18,200
South Africa	1,440	3,970,000	2,200	5,910,000
Spain	5	10,400	5	10,400
Total	1,900	4,750,000	3,190	7,830,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN FEBRUARY 2010<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
Unwrought flake:				
China	1,210	\$3,050,000	1,950	\$4,910,000
Hong Kong	--	--	444	1,150,000
South Africa	76	168,000	247	660,000
Vietnam	20	48,900	40	96,800
Total	1,310	3,260,000	2,680	6,820,000
Unwrought powder:				
China	--	--	60	141,000
South Africa	159	520,000	296	970,000
Total	159	520,000	356	1,110,000
Unwrought, other:				
China	978	2,070,000	1,900	4,060,000
Germany	73	201,000	122	334,000
South Africa	38	124,000	152	494,000
United Kingdom	--	--	14	52,900
Total	1,090	2,400,000	2,180	4,940,000
Other manganese, wrought:				
Canada	(3)	7,110	(3)	7,110
China	--	--	20	55,500
France	--	--	8	31,600
Mexico	2	6,800	13	47,600
United Kingdom	8	30,700	8	30,700
Total	10	44,600	49	172,000
Grand total	2,560	6,230,000	5,270	13,000,000

-- Zero.

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

<sup>2</sup>Customs value generally represent a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

<sup>3</sup>Less than ½ unit.

Note: Imports for consumption of metallic waste and scrap totaled 78 metric tons (t), of which 38 t was from Canada, 20 t from Mexico, and 20 t from the Netherlands, to give a year-to-date total of 134 t.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,  
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN FEBRUARY 2010<sup>1</sup>

(Metric tons, gross weight)

Country	Ferromanganese,											
	Manganese ore		2% or less C				More than 2% C		Silicomanganese		Manganese metal <sup>2</sup>	
	February	Year to date	February	Year to date	February	Year to date	February	Year to date	February	Year to date		
Australia	--	--	--	--	--	--	--	--	--	--	19	
Belgium	--	--	--	--	--	--	100	200	--	--	98	
Brazil	--	--	--	--	--	25	--	--	--	--	--	
Canada	280	280	43	100	808	1,140	383	706	--	--	2	
China	--	--	--	--	--	--	--	--	--	5	48	
Germany	21	21	--	--	--	--	--	--	--	--	14	
Hong Kong	--	--	--	--	--	--	--	--	--	130	199	
India	--	--	--	--	--	--	--	--	--	29	50	
Ireland	--	--	--	--	17	17	--	--	--	--	--	
Japan	--	--	--	--	--	--	--	--	--	18	53	
Korea, Republic of	17	17	--	--	--	--	--	--	--	--	--	
Luxembourg	--	--	--	--	--	--	--	--	--	3	3	
Malaysia	--	95	--	--	--	--	--	--	--	--	1	
Mexico	--	--	--	--	--	--	20	20	10	--	17	
Singapore	--	--	--	--	--	5	--	--	--	--	--	
Spain	--	8	--	--	--	--	--	20	--	--	--	
Turkey	--	--	--	--	--	--	200	280	--	--	--	
Vietnam	--	--	--	--	--	--	--	--	--	57	65	
Total	318	420	43	100	825	1,190	702	1,230	252	--	569	

-- Zero.

<sup>1</sup>Data rounded to no more than three significant digits; may not add to totals shown

<sup>2</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 2010, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	Year to date		
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	725	\$462	South Africa 304; \$144	1,820	\$1,310	South Africa 1,030; \$543
Manganites, manganates, and other permanganates	--	--	--	--	--	--
Potassium permanganate	50	164	India 36; \$122	216	699	India 144; \$477
Sodium permanganate	85	182	China 84; \$176	105	228	China 104; \$222
Sulfates, basket category, including manganese sulfate	2,950	2,460	Mexico 1,530; \$1,220	5,760	4,920	Mexico 2,680; \$2,210
<b>Exports:</b>						
Manganese dioxide	675	982	Canada 512; \$489	1,160	1,730	Canada 820; \$768
Manganese oxides other than dioxide	428	603	Canada 173; \$158	1,050	1,740	Canada 379; \$376
Manganites, manganates, and other permanganates	4	10	Canada 4; \$10	6	14	Canada 6; \$14
Potassium permanganate	112	380	Mexico 38; \$159	414	1,370	Belgium 183; \$557
Sodium permanganate	166	434	Singapore 116; \$311	253	626	Singapore 135; \$361
Sulfates, basket category, including manganese sulfate	1,590	1,180	Canada 1,230; \$599	3,520	2,510	Canada 2,990; \$1,400

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>For imports, Customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.