

# Mineral Industry Surveys

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## MANGANESE IN APRIL 2011

Preliminary reported data (gross weight) for April 2011 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 38,300 metric tons (t), according to the U.S. Geological Survey. This was a 3% decrease from the amount consumed in March 2011. Manganese ore consumption in the first 4 months of 2011 was 157,000 t, which was a 5% increase from the revised amount consumed during the first 4 months of 2010 (150,000 t). Industry stocks of ore at the end of April 2011 were 207,000 t, which was slightly less than that at the end of March 2011.

Data for U.S. manganese imports and exports for March 2011 are published in this issue. On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal imports for March 2011 were 456% higher and 127% higher, respectively, than those in February 2011. U.S. imports of

manganese ore plus dioxide and manganese ferroalloys plus metal during the first 3 months of 2011 were slightly less and 25% higher, respectively, than those during the same period in 2010 (table 1).

On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal exports for March 2011 were 59% higher and 40% higher, respectively, than those in February 2011. U.S. exports of manganese ore and manganese ferroalloys plus metal during the first 3 months of 2011 were 85% lower and 3% higher, respectively, than those during the same period in 2010 (table 1).

**Prices**

Prices for manganese materials in April 2011, manganese content, are listed below.

**Ferroalloys prices<sup>1</sup>**

	<u>Price Range</u>	<u>Average Price</u>
High-carbon ferromanganese <sup>2</sup>	1,250.00-1,330.00	1,298.13
Medium-carbon ferromanganese <sup>3</sup>	108.00-112.00	110.75
Silicomanganese <sup>3</sup>	59.00-63.00	61.00

**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>	178.00-185.00	178.00-181.50-185.00
36%-39% Manganese ore <sup>5</sup>	4.35-5.40	4.56-4.81-5.07
44% Manganese ore <sup>5</sup>	4.70-6.00	5.06-5.34-5.61
48% Manganese ore <sup>5</sup>	5.60-6.70	5.93-6.09-6.26

<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
2010:						
March	14,600	42,300	56,900	820	1,540	2,360
January-March	91,200	115,000	206,000	1,030	3,940	4,970
2011:						
January	28,900	44,500	73,400	36	1,080	1,120
February	9,160	30,400	39,600	46	1,240	1,290
March	50,900	68,900	120,000	73	1,740	1,810
Total	89,000	144,000	233,000	156	4,060	4,220

<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 MARCH 2011<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	3,160	2,070	\$3,000,000	5,260	3,480	\$4,980,000
Canada	--	--	--	19	7	8,550
Georgia	11,200	7,490	13,800,000	42,800	29,000	54,200,000
Greece	20	15	45,100	20	15	45,100
India	26	14	40,700	182	101	295,000
Korea, Republic of	300	174	600,000	300	174	600,000
Mexico	1,060	693	1,160,000	3,060	2,010	3,440,000
Norway	2,840	1,770	5,060,000	7,640	4,710	13,600,000
South Africa	26,100	17,100	29,800,000	41,400	27,200	46,400,000
Spain	--	--	--	1,610	990	3,240,000
Total	44,700	29,300	53,500,000	102,000	67,700	127,000,000

-- 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 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 MARCH 2011<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>
<b>Low carbon:</b>						
China	1,710	1,420	\$4,420,000	4,360	3,840	\$11,800,000
Mexico	800	646	1,510,000	2,520	2,050	5,030,000
Norway	1,340	1,080	2,580,000	1,660	1,340	3,280,000
Vietnam	174	164	565,000	608	571	1,880,000
Total	4,020	3,310	9,080,000	9,150	7,810	22,000,000
<b>Medium carbon, 1%-2% C:</b>						
China	40	32	99,900	40	32	99,900
Korea, Republic of	5,000	4,000	9,500,000	8,500	6,840	16,400,000
Mexico	801	644	1,520,000	2,360	1,890	4,630,000
Norway	3,500	2,840	6,190,000	4,420	3,560	7,880,000
South Africa	1,350	1,060	2,220,000	3,850	3,050	6,580,000
Total	10,700	8,570	19,500,000	19,200	15,400	35,600,000
Medium carbon, 2%-4% C, South Africa	--	--	--	18	17	48,100
<b>High carbon:</b>						
Bahrain	--	--	--	180	142	205,000
Norway	1,000	787	1,090,000	3,920	3,080	4,270,000
South Africa	32,000	24,500	36,600,000	53,700	41,200	60,700,000
Ukraine	--	--	--	261	210	522,000
Total	33,000	25,300	37,700,000	58,100	44,600	65,700,000
Grand total	47,700	37,200	66,300,000	86,400	67,800	123,000,000

-- 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 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 MARCH 2011<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:						
Australia	--	--	--	16,200	6,750	\$3,110,000
Brazil	--	--	--	3,210	1,480	1,140,000
Gabon	--	--	--	9,010	4,010	1,650,000
Mexico	1,430	514	\$335,000	1,430	514	335,000
Total	1,430	514	335,000	29,900	12,800	6,240,000
47% or more manganese:						
Australia	20,300	9,980	3,740,000	58,700	28,600	15,300,000
Gabon	75,900	39,100	23,300,000	84,400	43,500	26,200,000
Total	96,200	49,100	27,000,000	143,000	72,100	41,500,000
Grand total	97,700	49,600	27,300,000	173,000	84,900	47,700,000

-- 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 MARCH 2011<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Belgium	12	\$47,400	114	\$112,000
Brazil	--	--	35	39,900
Colombia	150	289,000	600	1,150,000
Germany	10	16,800	29	48,900
India	--	--	(3)	6,030
Japan	1,150	2,620,000	2,690	6,080,000
Netherlands	--	--	101	61,500
Singapore	11	19,400	61	77,500
South Africa	953	2,790,000	3,160	9,390,000
Total	2,290	5,780,000	6,780	17,000,000

-- 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 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.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN MARCH 2011<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	746	\$2,670,000	2,920	\$8,590,000
Japan	--	--	20	27,400
Mexico	13	54,600	42	167,000
South Africa	114	420,000	209	759,000
Total	872	3,150,000	3,200	9,550,000
<b>Unwrought powder:</b>				
China	21	42,600	61	177,000
Mexico	--	--	22	94,400
South Africa	480	1,880,000	1,040	3,950,000
United Kingdom	--	--	1	2,210
Total	501	1,920,000	1,120	4,220,000
<b>Unwrought, other:</b>				
China	845	2,670,000	3,440	11,100,000
Germany	4	13,700	154	578,000
Poland	--	--	(3)	3,010
South Africa	95	351,000	267	944,000
Total	944	3,030,000	3,860	12,600,000
<b>Other manganese, wrought:</b>				
China	50	156,000	79	252,000
Japan	(3)	3,460	(3)	3,460
Mexico	--	--	26	106,000
Total	50	159,000	105	362,000
Grand total	2,370	8,260,000	8,280	26,800,000

-- 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 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 72 metric tons, all of which was from Canada, to give a year-to-date total of 174 metric tons.

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 MARCH 2011<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>	
	March	Year to date	March	Year to date	March	Year to date	March	Year to date	March	Year to date		
Australia	--	--	--	--	40	40	--	--	--	--		
Bahamas, The	--	--	--	--	--	--	--	--	--	1		
Belgium	--	18	--	--	--	--	--	--	--	--		
Brazil	--	--	--	--	26	37	--	--	--	--		
Canada	79	138	4	12	264	522	1,010	2,150	57	233		
China	--	20	--	--	--	--	--	--	209	382		
Colombia	--	--	--	--	--	--	--	352	--	--		
Dominican Republic	--	--	--	--	--	(3)	--	--	--	--		
France	--	--	--	--	--	--	--	--	(3)	1		
Germany	--	--	--	--	--	--	--	--	19	22		
Guyana	--	--	--	--	--	--	--	--	3	3		
Hong Kong	--	--	--	--	--	--	--	--	--	3		
India	--	--	--	--	--	--	--	--	60	60		
Ireland	--	--	--	--	3	3	--	--	--	--		
Italy	--	--	--	--	--	--	--	--	5	5		
Japan	--	--	--	--	--	--	--	--	20	68		
Korea, Republic of	68	136	--	--	--	--	--	--	--	--		
Mexico	--	--	208	1,020	--	--	206	207	5	8		
Norway	--	--	--	--	1	1	--	--	--	--		
Peru	--	--	--	--	100	100	--	--	--	--		
Romania	--	--	--	--	--	4	--	--	--	--		
Saint Lucia	--	--	--	--	--	--	--	--	--	15		
Singapore	--	--	--	--	--	13	--	--	--	--		
Taiwan	--	--	--	--	--	--	--	--	43	75		
United Kingdom	--	--	--	--	--	--	--	--	--	10		
Venezuela	--	--	--	--	2	2	--	--	--	--		
Total	147	312	212	1,040	434	721	1,220	2,710	423	887		

-- 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.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN MARCH 2011, 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	277	\$378	Mexico 144; \$142	1,100	\$1,200	Mexico 465; \$439
Manganites, manganates, and other permanganates	--	--	--	--	--	--
Potassium permanganate	124	371	India 108; \$325	336	1,010	India 306; \$906
Sodium permanganate	53	137	China 53; \$137	158	388	China 158; \$388
Sulfates, basket category, including manganese sulfate	3,790	3,330	Mexico 2,260; \$1,820	10,900	10,200	Mexico 5,020; \$4,190
<b>Exports:</b>						
Manganese dioxide	646	1,180	Canada 341; \$318	1,820	2,770	Canada 1040; \$1,020
Manganese oxides other than dioxide	555	1,390	Netherlands 137; \$329	1,560	3,390	Canada 481; \$588
Manganites, manganates, and other permanganates	16	43	Canada 16; \$43	27	107	Canada 24; \$65
Potassium permanganate	448	908	Belgium 371; \$683	868	2,260	Belgium 683; \$1,690
Sodium permanganate	71	187	Taiwan 31; \$79	231	601	Singapore 80; \$217
Sulfates, basket category, including manganese sulfate	1,400	1,370	Canada 911; \$495	4,800	3,660	Canada 3,710; \$1,600

-- 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.