

# Mineral Industry Surveys

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## MANGANESE IN APRIL 2005

On a gross-weight basis, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 33,800 metric tons (t) in April 2005, which was an 8% increase from the revised estimate of 31,400 t for March 2005, according to the U.S. Geological Survey. This figure increases to 36,200 t when estimates for annual respondents are added on the basis of 2003 data. Corresponding industry stocks of ore at the end of the month were 158,000 t, which includes an estimate for annual respondents on the basis of 2003 data. (Data for the most recent 13 months are plotted in the graph on page 2.)

Foreign trade data for April will appear in a subsequent report. The following comparisons of trade data were made on the basis of manganese content. The data for March 2005 tabulated in this report indicate that the total exports of 1,360 t increased by 6% from those of the prior month, owing to increases in manganese ore and ferromanganese exports. Manganese imports were 64,300 t, which was a decrease of 8% compared with those of February. The decrease in manganese imports was based on decreases in ferromanganese, and manganese dioxide, metal, and ore imports.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
April 7	675.00-710.00	67.00-68.00	32.00-34.00	94.00-98.00
April 14	645.00-700.00	67.00-68.00	32.00-34.00	94.00-98.00
April 21	645.00-680.00	67.00-68.00	32.00-34.00	94.00-98.00
April 28	610.00-650.00	67.00-68.00	32.00-34.00	94.00-98.00

### Ore Prices, dollar per metric ton unit, manganese content<sup>3</sup>

	<u>44% Manganese Ore<sup>2</sup></u>	<u>48% Manganese Ore<sup>2</sup></u>
April 7	3.15-3.50	4.00-4.20
April 14	3.15-3.40	4.00-4.95
April 21	3.15-3.40	4.00-4.05
April 28	3.15-3.40	4.00-4.05

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, North American transaction price.

<sup>3</sup>To determine dollars per metric ton multiply the manganese content percentage by the price.

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
2004:						
March	34,800	29,300	64,100	12,400	559	13,000
January-March	68,500	99,900	168,000	15,000	2,100	17,100
2005:						
January	7,650	45,000	52,600	162	955	1,120
February	40,700	29,000	69,700	111	1,170	1,280
March	22,300	42,000	64,300	206	1,160	1,360
Total	70,700	116,000	187,000	479	3,280	3,760

<sup>1</sup>Data are 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.

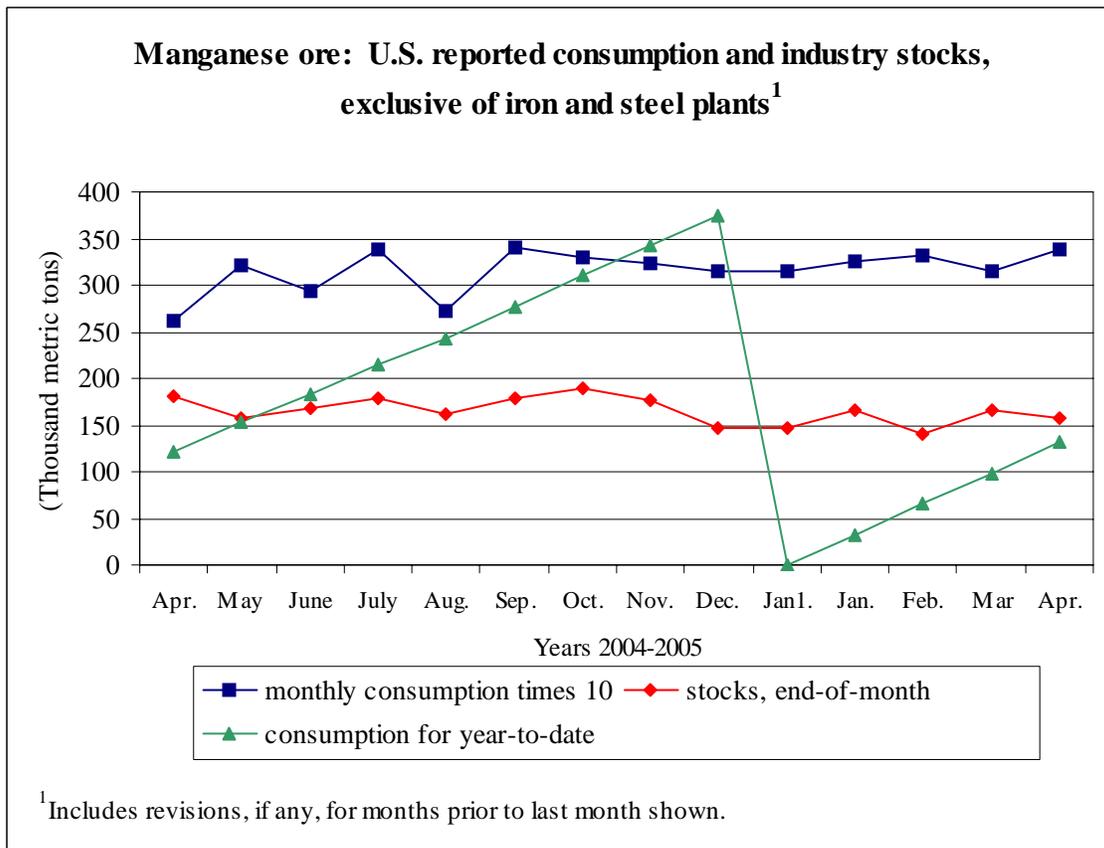


TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN MARCH 2005<sup>1</sup>

(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	5,700	3,830	\$3,670,000	8,710	5,830	\$6,690,000
Kazakhstan	--	--	--	20	13	17,500
Korea, Republic of	--	--	--	216	156	305,000
Mexico	1,200	781	1,080,000	3,700	2,510	3,010,000
Norway	6,900	4,350	6,590,000	15,300	9,720	15,200,000
Romania	8,320	5,820	6,910,000	8,320	5,820	6,910,000
Russia	--	--	--	11,400	7,750	9,250,000
South Africa	15,500	10,200	9,470,000	31,000	20,500	22,100,000
Total	37,600	25,000	27,700,000	78,600	52,400	63,400,000
Total, general imports	37,600	25,000	27,700,000	78,600	52,400	63,400,000

-- Zero.

<sup>1</sup>Data are 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 2005<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	1,870	1,620	\$3,130,000	5,580	4,750	\$9,470,000
Mexico	341	274	454,000	861	693	1,030,000
Netherlands	17	14	29,800	17	14	29,800
Norway	17	14	29,300	221	181	369,000
South Africa	160	148	316,000	579	536	1,100,000
Spain	36	28	41,800	36	28	41,800
Total, low carbon	2,440	2,100	4,000,000	7,290	6,200	12,000,000
Total, general imports of low carbon	2,440	2,100	4,000,000	7,290	6,200	12,000,000
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	1,850	1,450	2,600,000
Mexico	1,360	1,080	1,620,000	4,280	3,290	4,730,000
Norway	1,810	1,480	2,610,000	1,810	1,480	2,610,000
South Africa	1,270	1,040	1,670,000	7,280	5,910	10,100,000
Total, m.c., 1%-2% C	4,450	3,600	5,900,000	15,200	12,100	20,000,000
Total, general imports of m.c., 1%-2% C	4,450	3,600	5,900,000	15,200	12,100	20,000,000
<b>High carbon:</b>						
Australia	--	--	--	1,000	774	897,000
Brazil	--	--	--	6,210	5,020	5,630,000
Canada	18	13	17,000	18	13	17,000
China	4,000	3,050	2,230,000	5,500	4,200	3,850,000
France	--	--	--	2,600	2,030	2,000,000
Hong Kong	--	--	--	300	228	213,000
Mexico	--	--	--	763	596	705,000
South Africa	7,710	6,050	5,270,000	31,300	24,300	24,400,000
Total, high carbon	11,700	9,110	7,520,000	47,700	37,200	37,700,000
Total, general imports of high carbon	11,700	9,110	7,520,000	47,700	37,200	37,700,000
Grand total	18,600	14,800	17,400,000	70,200	55,500	69,800,000
Grand total, general imports	18,600	14,800	17,400,000	70,200	55,500	69,800,000

-- Zero.

<sup>1</sup>Data are 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 2005<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>
<b>More than 20%, but less than 47% manganese:</b>						
China	30	12	\$11,600	30	12	\$11,600
Mexico	--	--	--	2,910	2,150	320,000
Namibia	26,000	10,400	1,950,000	26,000	10,400	1,950,000
Total	26,000	10,400	1,960,000	29,000	12,600	2,280,000
<b>47% or more manganese:</b>						
Australia	14,300	7,530	1,670,000	22,500	11,800	2,810,000
Belgium	19	13	15,600	19	13	15,600
Brazil	--	--	--	6,940	3,470	416,000
China	5,410	2,700	527,000	8,230	4,110	696,000
France	--	--	--	60	56	6,670
Gabon	--	--	--	66,900	33,400	4,010,000
Ghana	--	--	--	72	50	4,320
India	6	3	4,230	6	3	4,230
Total	19,800	10,200	2,220,000	105,000	53,000	7,960,000
Grand total	45,800	20,700	4,180,000	134,000	65,600	10,200,000

-- Zero.

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

<sup>2</sup>Data are 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 2005<sup>1</sup>

(Metric tons, gross weight)

Source	Manganese dioxide			
	Customs		Year to date	
	Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>
Australia	1,600	\$2,100,000	4,910	\$6,440,000
Belgium	1	5,100	37	70,400
Brazil	69	118,000	127	167,000
China	810	826,000	2,740	2,790,000
Germany	2	8,620	32	81,700
Japan	268	350,000	668	903,000
Total	2,750	3,410,000	8,510	10,400,000
Total, general imports	2,750	3,410,000	8,510	10,400,000

<sup>1</sup>Data are 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 MARCH 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>3</sup>	Year to date	
			Gross weight	Customs value <sup>3</sup>
<b>Unwrought flake:</b>				
China	741	\$1,260,000	2,920	\$4,750,000
Germany	7	28,200	7	28,200
South Africa	229	410,000	1,420	2,330,000
<b>Total</b>	<b>977</b>	<b>1,700,000</b>	<b>4,350</b>	<b>7,100,000</b>
<b>Unwrought powder:</b>				
China	--	--	16	28,700
South Africa	277	570,000	1,030	1,880,000
<b>Total</b>	<b>277</b>	<b>570,000</b>	<b>1,040</b>	<b>1,910,000</b>
<b>Unwrought, other:</b>				
China	40	81,900	100	204,000
Germany	332	584,000	718	1,390,000
Spain	319	662,000	994	2,180,000
South Africa	140	279,000	577	1,070,000
<b>Total</b>	<b>831</b>	<b>1,610,000</b>	<b>2,390</b>	<b>4,840,000</b>
<b>Other manganese, wrought:</b>				
Austria	1	53,300	1	53,300
China	59	93,600	80	135,000
France	7	70,500	13	132,000
Germany	--	--	4	42,300
Spain	--	--	37	77,600
United Kingdom	--	--	(2)	7,070
<b>Total</b>	<b>67</b>	<b>217,000</b>	<b>135</b>	<b>447,000</b>
<b>Grand total</b>	<b>2,150</b>	<b>4,090,000</b>	<b>7,910</b>	<b>14,300,000</b>

-- Zero.

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

<sup>2</sup>Less than 1/2 unit.

<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.

Note: Imports for consumption of metallic manganese waste and scrap totaled 91 tons, all of which was from Canada, to give a year-to-date total of 249 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 2005<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	March	Year to date	March	Year to date	March	Year to date	March	Year to date
Australia	--	--	--	--	--	--	--	3
Belgium	--	--	--	--	--	--	--	80
Brazil	--	--	--	--	--	--	18	18
Canada	265	658	992	2,320	--	25	35	169
Chile	--	--	--	1	--	--	--	--
China	99	209	--	--	--	--	--	--
Colombia	--	6	--	--	--	--	--	--
Denmark	17	17	--	--	--	--	--	--
France	--	--	--	--	--	60	--	--
Germany	--	19	--	--	--	--	65	82
Hong Kong	--	--	--	--	--	--	--	1
Indonesia	--	--	--	--	--	--	(3)	(3)
Japan	--	--	--	--	--	--	77	138
Korea, Republic of	--	--	--	--	--	--	--	3
Mexico	11	11	--	292	2	229	7	95
Netherlands	--	--	2	2	--	20	--	--
Sweden	19	38	--	--	--	--	--	31
Taiwan	--	--	--	--	--	--	(3)	(3)
Total	411	957	993	2,620	2	334	203	620

-- Zero.

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

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

<sup>3</sup>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 214 tons, of which 192 tons went to Canada and 22 tons went to Mexico, to give a year-to-date total of 473 tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN MARCH 2005, 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		Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	671	\$240	South Africa 401; \$66	1,890	\$765	South Africa 753; \$226
Manganites, manganates, and other permanganates	--	--	--	--	--	--
Potassium permanganate	71	160	Czech Republic 60; \$122	262	539	Czech Republic 161; \$322
Sodium permanganate <sup>3</sup>	--	--	--	--	--	--
Sulfates, basket category, including manganese sulfate	5,250	2,820	China 2,700; \$1,260	14,200	7,980	Mexico 7,560; \$3,810
<b>Exports:</b>						
Manganese dioxide	363	297	Canada 206; \$85	1,110	859	Canada 718; \$332
Manganese oxides other than dioxide	1,110	720	Canada 795; \$312	2,650	1,750	Canada 1,810; \$701
Manganites, manganates, and other permanganates	8	17	Canada 8; \$17	23	58	Japan 15; \$37
Potassium permanganate	584	706	Australia 166; \$52	1,170	1,670	Spain 552; \$881
Sodium permanganate <sup>3</sup>	31	80	Japan 25; \$63	83	277	Japan 69; \$221
Sulfates, basket category, including manganese sulfate	2,220	1,160	Canada 1,920; \$769	6,050	3,950	Canada 5,010; \$2,180

-- 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.

<sup>3</sup>In December 2004, the U.S. Harmonized Tariff Schedule was changed for manganites, manganates and permanganates to implement the United States-Australia Free Trade Agreement. Starting in 2005, sodium permanganate is tracked separately from the "manganites, manganates, and other permanganates" trade category.

Source: U.S. Census Bureau.