

# Mineral Industry Surveys

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## MANGANESE IN NOVEMBER 2001

In November, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was estimated as 31,500 metric tons (t), which was a decrease of about 11% compared with that for the previous month, according to the U.S. Geological Survey. This brought the year-to-date total to 335,000 t. The figures for November increase to 33,900 t and 364,000 t, respectively, when estimates for annual respondents are added on the basis of 2000 data. Corresponding industry stocks of ore at the end of the month were estimated as 131,000 t, which includes an estimate for annual respondents on the basis of 2000 data. This was a decrease of about 13% compared with the corresponding figure for stocks at the end of October, and brought stocks down to a level not much greater than one-half that at the end of July.

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

Foreign trade data for November will appear in a subsequent report. The data for October tabulated in this report indicate that imports of manganese dioxide were the greatest since May 2000, and exports of manganese as ferromanganese were the greatest since December 1997.

Data on stockpile disposals in November from the Defense National Stockpile Center (DNSC) of the Defense Logistics Agency, U.S. Department of Defense, were not available at the time this report was prepared, and will be given in a later report.

On November 7, the DNSC issued amendment number 8 to Solicitation of Offers DLA-FERROMANGANESE-001 (originally issued August 28, 1996) and amendment number 2 to Solicitation of Offers DLA-MANGANESE-001 (for ore, originally issued February 10, 1999) so as to specify the requirements to be met by any purchaser intending to export material obtained via these solicitations and to restate when title to material would pass to a purchaser. **Later action:** On December 20, 2001, the DNSC issued amendment number 3

further modifying DLA-MANGANESE-001 by changing, beginning the next day, the frequency of offering manganese ore for sale to a daily basis. This amendment also deleted the clause giving preference to domestic ferroalloy upgraders and updated the shopping list for metallurgical- and chemical-grade ore. The largest quantities being offered for sale were at Large, PA, south of Pittsburgh, for metallurgical-grade ore and at Belle Mead, NJ, north of Princeton, for chemical-grade ore.

### Update

A number of revisions to the 2000 manganese trade statistics have been received from the U.S. Census Bureau that alter significantly several of the figures already published in the manganese annual review for 2000. These revisions, as listed below, will be reflected in the trade tables to be published in the manganese annual review for 2001, and, beginning with this report, in table 1.

### Imports

**Ore from Gabon containing 47% or more manganese:** Quantity and content are revised from 325,000 t and 180,000 t to 342,000 t and 172,000 t, respectively.

**Total ore, all grades:** Quantity and content are revised from 430,000 t and 227,000 t to 447,000 t and 220,000 t, respectively. With this change, average manganese content becomes 49.0% rather than 52.8% as published.

**Ferromanganese from Brazil:** 5,411 t reported as low-carbon becomes 901 t of medium-carbon plus 4,510 t of high-carbon.

**Silicomanganese:** 3,395 t reported as coming from the United Kingdom actually came from Georgia.

### Exports

**Ore:** 3,800 t reported as ore was actually 317 t of manganese dioxide; the United Kingdom as destination remained unchanged.

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

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2000:						
October	4,290 3/	28,200	32,500	336 3/	625	961
January-October	211,000 3/	445,000	656,000	2,770 3/	8,440	11,200
2001:						
January	23,400 4/	35,100	58,400	185	1,830	2,020
February	11,900	25,400	37,300	723 4/	383	1,110
March	24,600 4/	24,300 4/	48,900	425	645	1,070
April	23,100	34,800	57,900	138	630	768
May	28,600 4/	45,700	74,300	267	967	1,230
June	11,100	32,000	43,100	200	655	855
July	30,600	35,600 4/	66,200	349	635	984
August	22,300 4/	45,800	68,100	1,040	713	1,750
September	2,520	38,900	41,400	215	740	954
October	3,120 4/	37,400 4/	40,500	360	1,770	2,130
Total	181,000	355,000	536,000	3,900	8,970	12,900

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/ Revised by the U.S. Census Bureau.

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

Source: U.S. Census Bureau.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN OCTOBER 2001 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	3,260	2,160	\$1,470,000	41,600	27,600	\$16,900,000
Canada	66	43	16,400	363	240	89,300
Georgia	4,920	3,200	2,070,000	4,920	3,200	2,070,000
Germany	--	--	--	7	4	2,320
India	770	424	450,000	39,400	25,200	15,800,000
Japan	--	--	--	10	46	23,800
Kazakhstan	--	--	--	32,300	22,100	13,700,000
Lithuania	--	--	--	4,000	2,710	1,720,000
Mexico	2,300	1,500	1,110,000	12,500	8,160	5,940,000
Norway	--	--	--	8,400	5,100	4,850,000
Romania	--	--	--	6,820	4,470	3,250,000
South Africa	8,360	5,620	3,560,000	77,300	52,500	31,100,000
Spain	--	--	--	3,400	2,210	1,700,000
Venezuela	--	--	--	1,500	960	615,000
Total	19,700	13,000	8,680,000	233,000	155,000	97,700,000
Total, general imports	19,700	13,000	8,680,000	233,000	155,000	97,700,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN OCTOBER 2001 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
<b>Low carbon:</b>						
Canada	20	16	\$18,200	56	45	\$37,600
China	--	--	--	1,310	1,360	1,380,000
Italy	228	192	224,000	1,850	1,590	1,670,000
Japan	--	--	--	1	31	22,100
Mexico	--	--	--	2,010	1,610	1,490,000
Netherlands	--	--	--	21	17	18,700
Norway	59	47	46,900	1,350	1,090	1,130,000
South Africa	280	260	344,000	5,680	4,960	5,340,000
Total, low carbon	587	515	633,000	12,300	10,700	11,100,000
Total, general imports of low carbon	587	515	633,000	12,300	10,700	11,100,000
<b>Medium carbon, 1%-2% C:</b>						
Brazil	--	--	--	20	15	20,700
China	--	--	--	3,800	3,040	2,260,000
France	5	4	5,520	44	35	28,200
Germany	--	--	--	11	8	6,090
Mexico	2,000	1,600	1,250,000	15,500	12,500	10,400,000
Norway	--	--	--	2,110	1,730	1,110,000
South Africa	2,770	2,220	1,460,000	25,700	20,700	15,400,000
Spain	--	--	--	700	568	536,000
Total, m.c., 1%-2% C	4,770	3,820	2,710,000	47,900	38,600	29,700,000
Total, general imports of m.c., 1%-2% C	4,770	3,820	2,710,000	47,900	38,600	29,700,000
<b>Medium carbon, 1%-2% C:</b>						
Ukraine	--	--	--	1,360	1,020	538,000
<b>High carbon:</b>						
Australia	--	--	--	22,000	16,900	7,950,000
Brazil	--	--	--	4,050	3,120	1,500,000
Canada	--	--	--	99	75	54,800
France	10,600 2/	10,600 2/	2,220,000 2/	50,100	41,800	18,000,000
Germany	--	--	--	9	7	3,060
India	--	--	--	3,480	2,640	1,320,000
South Africa	10,200	7,870	3,550,000	86,200	66,800	30,700,000
Spain	--	--	--	1,470	1,110	573,000
Total, high carbon	20,800	18,500	5,770,000	167,000	132,000	60,100,000
Total, general imports of high carbon	20,800	18,500	5,770,000	167,000	132,000	60,100,000
Grand total	26,100	22,800	9,120,000	229,000	183,000	101,000,000
Grand total, general imports	26,100	22,800	9,120,000	229,000	183,000	101,000,000

-- Zero.

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

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

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN OCTOBER 2001 1/ 2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Brazil	--	--	17	17	17	17
Canada	--	--	1	(3/)	1	(3/)
China	--	--	54 4/	54 4/	54	54
Total	--	--	71	71	71	71
Year to date:						
Australia	--	--	18,000	9,440	18,000	9,440
Brazil	7,700	3,460	17	17	7,720	3,480
Canada	--	--	1	(3/)	1	(3/)
China	--	--	74	74	74	74
Gabon	14,300	6,310	204,000	124,000	219,000	130,000
Mexico	4,520	1,720	--	--	4,520	1,720
Morocco	--	--	40	21	40	21
South Africa	11,600	4,160	27,900	13,200	39,500	17,400
Total	38,100	15,700	250,000	147,000	288,000	162,000

-- 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/ Less than 1/2 unit.

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

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN OCTOBER 2001 1/

(Metric tons, gross weight, unless otherwise specified)

Source	Manganese dioxide				Manganese metal			
	Quantity	Customs value	Year to date		Unwrought		Other	
			Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	2,690	\$3,850,000	17,200	\$25,700,000	--	--	--	15
Belgium	54	99,600	455	734,000	--	--	--	--
Canada	--	--	--	--	--	--	--	2
China	319	333,000	1,350	1,350,000	198	3,460	2	88
France	--	--	(2/)	7,120	--	--	6	47
Germany	16	88,500	64	276,000	216	1,880	--	26
Greece	--	--	563	728,000	--	--	--	--
India	--	--	1	3,130	--	--	--	282
Ireland	861	1,280,000	6,240	8,600,000	--	--	--	--
Japan	--	--	297	672,000	--	--	4	10
Malaysia	--	--	--	--	--	--	--	5
Mexico	--	--	--	--	--	--	--	83
Morocco	--	--	1	2,530	--	--	--	--
Netherlands	--	--	--	--	--	--	19	60
Russia	--	--	--	--	--	--	--	385
South Africa	1,140	1,690,000	5,410	7,660,000	1,150	10,300	--	--
Spain	--	--	--	--	38	589	--	--
United Kingdom	(2/)	2,480	6	13,500	--	149	--	(2/)
Total	5,090	7,340,000	31,600	45,800,000	1,600	16,300	30	1,000
Total, general imports	5,110	7,370,000	31,600	45,800,000	1,600	16,300	30	1,040

-- Zero.

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

2/ Less than 1/2 unit.

Note: No imports for consumption of metallic manganese waste and scrap were reported, to give a year-to-date total of 663 tons.

Source: U.S. Census Bureau.

TABLE 6  
 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
 SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2001 1/

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal 2/	
	October	Year to date	October	Year to date	October	Year to date	October	Year to date
Australia	--	89	--	--	--	21	--	2
Barbados	--	21	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	38	94
Brazil	187	256	--	--	--	15	--	--
Canada	338	3,730	278	2,130	185	723	38	83
Chad	--	--	--	--	--	--	--	1
Chile	--	3	--	--	--	--	--	6
Finland	--	--	--	--	--	--	--	36
France	--	--	--	--	4	12	--	29
Germany	19	473	--	--	--	--	3	63
Hong Kong	--	21	--	--	--	--	--	1
Indonesia	--	--	--	--	--	--	--	--
Ireland	--	137	--	--	--	2	--	--
Israel	38	271	--	--	--	--	--	--
Italy	--	486	--	--	--	--	--	8
Japan	19	19	12	33	--	--	134	594
Korea, Republic of	8	8	--	--	--	--	1	13
Mexico	--	76	--	150	61	2,480	7	193
Netherlands	--	86	--	--	--	37	--	199
Norway	--	319	--	--	--	--	--	--
Poland	19	19	--	--	--	--	--	--
Saudi Arabia	--	21	--	--	--	--	--	--
Singapore	--	--	--	4	--	--	--	--
Spain	--	--	--	--	--	8	--	--
Sweden	--	262	--	--	--	--	--	71
Switzerland	90	138	--	--	--	--	--	--
Taiwan	--	80	--	--	--	--	--	16
United Kingdom	--	1,270	--	--	--	--	--	--
Venezuela	--	16	845	848	--	--	5	5
Total	720	7,800	1,140	3,170	250	3,300	224	1,420

-- 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.

Note: Exports of ferromanganese with more than 2% carbon totaled 616 tons, all of which went to Canada, to give a year-to-date total of 3,650 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2001, BY CLASS 1/

Class	Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)	Year to date		Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)
				Gross weight (metric tons)	Value 2/ (thousands)	
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	221	\$124	Mexico 201; \$55	1,340	\$1,280	Mexico 773; \$220
Sulfates, basket category, including manganese sulfate	2,060	1,410	Mexico 1,080; \$533	27,100	16,000	Mexico 11,100; \$5,780
Potassium permanganate	77	134	Czech Republic 61; \$116	1,370	2,650	Czech Republic 747; \$1,470
Manganites, manganates, and other permanganates	(3/)	3	Canada (3/); \$3	69	283	China 34; \$35
<b>Exports:</b>						
Manganese dioxide	360	472	Canada 129; \$40	3,690	5,640	Canada 1,450; \$552
Manganese oxides other than dioxide	453	326	Canada 208; \$84	5,400	5,990	Canada 2,130; \$845
Sulfates, basket category, including manganese sulfate	1,880	806	Canada 1,570; \$417	22,700	14,900	Canada 18,200; \$4,550
Potassium permanganate	52	119	Canada 25; \$49	949	2,130	Spain 365; \$668
Manganites, manganates, and other permanganates	6	42	Taiwan 6; \$42	362	2,220	Japan 87; \$608

-- Zero.

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

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

3/ Less than 1/2 unit.

Source: U.S. Census Bureau.