

# Mineral Industry Surveys

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**For information, contact:**

Lisa A. Corathers, Manganese Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4973, Fax: (703) 648-7757  
E-mail: lcorathers@usgs.gov

Hodan A. Fatah (Data)  
Telephone: (703) 648-4971  
Fax: (703) 648-7975  
E-mail: hfatah@usgs.gov

**Internet:** <http://minerals.usgs.gov/minerals>

## MANGANESE IN APRIL 2014

Preliminary domestic data (gross weight) for April 2014 indicated that consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 25,900 metric tons (t). This was 28% less than the amount consumed in March 2014. Manganese ore consumption during the first 4 months of 2014 was 146,000 t, or 24% less than that consumed during the same period of 2013. This decrease in manganese ore consumption was primarily the result of continuing curtailment at Felman Production, LLC's silicomanganese production facility in Letart, WV. Industry stocks of ore at the end of April 2014 were estimated to be

192,000 t, which was a 14% increase from those at the end of March 2014.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in April 2014.

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TABLE 1  
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN APRIL 2014

		High	Low	Average	Average low, mid, and high
<b>Manganese ferroalloys:<sup>1</sup></b>					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,100.00	1,060.00	1,074.00	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	93.00	92.00	92.50	XX
Silicomanganese, 65% manganese	do.	62.00	59.50	60.75	XX
Manganese metal, 99.9% manganese flake <sup>2</sup>	cents per pound	130.00	128.00	XX	128.00–129.00–130.00
<b>Manganese ore:<sup>3,4</sup></b>					
36%–39% manganese	dollars per metric ton unit contained manganese	4.30	3.80	XX	3.89–3.94–3.99
44% manganese	do.	4.90	4.35	XX	4.60–4.66–4.72
46% manganese	do.	5.00	4.95	XX	4.95–4.98–5.00

do. Ditto. XX Not applicable.

<sup>1</sup>Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

<sup>2</sup>CRU Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.99% manganese, free-on-board producing point or Chicago/Pittsburgh warehouse; average prices reported for the price range.

<sup>3</sup>CRU Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>4</sup>To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 46 when the manganese content is 46%.

TABLE 2  
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
2013:						
April	1,020	63,400	64,400	13	1,530	1,550
January–April	80,500	187,000	268,000	69	4,000	4,060 <sup>r</sup>
2014:						
January	6,510	32,200	38,700	21	1,130	1,150
February	28,000	61,500	89,500	202	1,100	1,310
March	1,910	46,400	48,300	1	1,010	1,020
April	19,100	52,100	71,100	23	464	487
January–April	55,500	192,000	248,000	247	3,710	3,960

<sup>r</sup>Revised.

<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 3  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN APRIL 2014<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–April		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	7,510	4,970	\$8,680,000	25,500	17,100	\$25,500,000
Bahrain	999	649	1,120,000	999	649	1,120,000
Brazil	--	--	--	7,550	4,980	7,760,000
China	200	151	285,000	200	151	285,000
Georgia	14,800	9,860	15,200,000	47,800	33,000	46,900,000
Hong Kong	--	--	--	1	1	3,700
India	765	490	1,030,000	1,550	979	2,200,000
Indonesia	--	--	--	39	26	41,100
Mexico	3,200	2,080	3,320,000	9,400	6,120	9,700,000
Norway	4,910	3,130	7,240,000	11,600	7,550	14,300,000
South Africa	11,700	7,790	12,000,000	37,300	24,500	37,900,000
Spain	768	501	918,000	768	501	918,000
Total	44,900	29,600	49,800,000	143,000	95,600	147,000,000

--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 FERROMANGANESE IN APRIL 2014<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–April		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	93	82	\$234,000	3,650	3,370	\$8,400,000
France	--	--	--	19	15	48,300
Korea, Republic of	1,510	1,260	3,260,000	3,010	2,760	6,190,000
Norway	2,130	1,720	3,220,000	5,030	4,090	7,460,000
South Africa	512	483	1,210,000	1,350	1,280	3,180,000
Total	4,240	3,550	7,930,000	13,100	11,500	25,300,000
<b>Medium carbon, 1%–2% C:</b>						
India	--	--	--	1	1	3,250
Korea, Republic of	2,000	1,630	2,670,000	5,000	4,030	6,620,000
Mexico	217	163	439,000	496	379	1,070,000
Norway	1,880	1,530	2,320,000	3,600	2,920	4,430,000
South Africa	1,910	1,550	2,870,000	6,370	5,130	9,070,000
Total	6,000	4,870	8,290,000	15,500	12,500	21,200,000
Medium carbon, 2%–4% C, Brazil	--	--	--	135	100	123,000
<b>High carbon:</b>						
Australia	--	--	--	17,000	13,000	11,300,000
Brazil	297	210	241,000	782	568	661,000
Canada	47	30	65,400	77	50	109,000
France	--	--	--	662	503	609,000
Korea, Republic of	--	--	--	219	168	225,000
South Africa	11,900	8,920	11,100,000	59,700	45,400	53,200,000
Spain	48	37	49,300	48	37	49,300
Ukraine	60	43	69,900	151	103	189,000
Total	12,400	9,240	11,500,000	78,600	59,800	66,300,000
Grand total	22,600	17,700	27,700,000	107,000	83,900	113,000,000

-- 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 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN APRIL 2014<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	January–April		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
China	--	--	--	11	5	\$6,120
Gabon	3,000	1,290	\$392,000	31,600	12,700	5,520,000
Mexico	3,060	1,110	680,000	3,360	1,250	773,000
Total	6,060	2,400	1,070,000	34,900	13,900	6,300,000
<b>47% or more manganese:</b>						
Australia	--	--	--	12,600	6,220	4,450,000
Brazil	--	--	--	2,830	1,520	1,240,000
Gabon	29,400	15,200	7,580,000	58,400	29,300	13,200,000
Morocco	851	425	51,100	851	425	51,100
Netherlands	--	--	--	5	4	5,760
South Africa	--	--	--	1,400	1,080	1,320,000
Total	30,300	15,700	7,630,000	76,100	38,500	20,300,000
Grand total	36,300	18,100	8,710,000	111,000	52,400	26,600,000

-- 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 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE  
DIOXIDE IN APRIL 2014<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	January–April	
			Quantity	Customs value <sup>2</sup>
Belgium	--	--	164	\$98,600
China	60	\$48,900	62	56,800
Germany	6	10,100	14	23,200
Japan	648	1,510,000	2,060	4,740,000
Netherlands	--	--	80	34,000
Singapore	12	20,200	48	80,900
South Africa	980	2,460,000	2,260	5,000,000
Turkey	--	--	464	240,000
Total	1,710	4,050,000	5,150	10,300,000

-- 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, U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN APRIL 2014<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	January–April	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	1,520	\$2,920,000	2,420	\$4,890,000
Hong Kong	60	130,000	60	130,000
Japan	50	169,000	214	731,000
Mexico	22	80,700	123	400,000
South Africa	674	1,770,000	2,870	7,620,000
Total	2,330	5,070,000	5,690	13,800,000
<b>Unwrought powder:</b>				
China	--	--	20	45,200
South Africa	258	868,000	953	3,320,000
Total	258	868,000	973	3,360,000
<b>Unwrought, other:</b>				
China	2,010	4,530,000	5,460	12,400,000
Germany	8	20,100	16	39,400
Mexico	9	29,900	9	29,900
Netherlands	38	91,700	38	91,700
Poland	(3)	4,320	(3)	4,320
South Africa	57	161,000	193	582,000
Spain	--	--	1	2,400
Total	2,120	4,840,000	5,720	13,200,000
<b>Other manganese, wrought:</b>				
China	(3)	2,370	(3)	2,370
India	7	22,700	7	22,700
Japan	--	--	(3)	4,820
Malaysia	(3)	2,400	(3)	2,400
Poland	--	--	(3)	2,080
Total	7	27,500	7	34,400
Metallic waste and scrap, Canada	119	41,200	541	387,000
Grand total	4,830	10,800,000	12,900	30,700,000

-- 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 8  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,  
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN APRIL 2014<sup>1,2</sup>

Source	Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)	January–April	
			Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)
<b>Ore and concentrates with 20% or more manganese:</b>				
Canada	28	\$24	374	\$820
China	--	--	19	17
Malaysia	--	--	6	8
Mexico	--	--	4	12
Netherlands	18	62	71	295
United Kingdom	--	--	20	17
Total	46	86	493	1,170
<b>Ferromanganese:</b>				
<b>2% or less carbon:</b>				
Cameroon	--	--	3	8
Canada	36	65	2,890	4,210
Colombia	--	--	1	4
Japan	--	--	100	177
Korea, Republic of	--	--	10	23
Qatar	--	--	3	6
Spain	--	--	40	82
Taiwan	--	--	6	11
Total	36	65	3,050	4,520
<b>More than 2% carbon:</b>				
Brazil	3	8	3	8
Canada	52	83	89	146
Chile	--	--	48	134
Equatorial Guinea	--	--	25	76
Ireland	--	--	3	8
Mexico	20	7	20	7
Other (5 countries)	--	--	10	25
Total	75	99	196	405
<b>Silicomanganese:</b>				
Canada	86	107	234	306
Mexico	--	--	20	33
Total	86	107	254	339
<b>Metal, including alloys and waste and scrap:<sup>4</sup></b>				
Canada	--	--	23	63
China	12	177	27	350
India	--	--	20	13
Japan	20	65	20	65
Malaysia	241	213	683	412
Mexico	21	110	47	196
Norway	--	--	18	833
Philippines	--	--	36	19
United Kingdom	20	47	20	47
Vietnam	--	--	62	23
Other (6 countries)	7	28	22	237
Total	320	640	979	2,260
Grand total	562	997	4,970	8,690

-- Zero.

<sup>1</sup>Presentation of monthly data is based on the "January–April" quantities of the leading countries.

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

<sup>3</sup>Free alongside ship.

<sup>4</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN APRIL 2014, 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)	January–April		
				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	791	\$676	Korea, Republic of 510; \$319	2,550	\$2,250	Korea, Republic of 1,630; \$1,090
Manganites, manganates, and other permanganates	--	--	--	(3)	5	Canada (3); \$5
Potassium permanganate	147	423	India 147; \$423	615	1,760	India 614; \$1,760
Sodium permanganate	110	267	China 98; \$232	589	1,430	China 539; \$1,290
Sulfates, basket category, including manganese sulfate	5,370	3,880	Mexico 1,580; \$1,400	19,200	15,600	Mexico 7,030; \$6,010
<b>Exports:</b>						
Manganese dioxide	393	608	Canada 258; \$247	1,380	2,900	Canada 645; \$612
Manganese oxides other than dioxide	1,660	2,040	Netherlands 622; \$442	4,370	6,320	Netherlands 807; \$616
Manganites, manganates, and other permanganates	3	25	Canada 3; \$7	64	205	Mexico 39; \$139
Potassium permanganate	315	845	Belgium 180; \$458	1,470	3,900	Belgium 927; \$2,340
Sodium permanganate	91	312	Mexico 78; \$267	332	968	Mexico 134; \$452
Sulfates, basket category, including manganese sulfate	1,440	1,450	Canada 1,050; \$577	6,130	7,060	Canada 4,570; \$2,660

-- 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>Less than ½ unit.

Source: U.S. Census Bureau.