

# Mineral Industry Surveys

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## MANGANESE IN MAY 2015

Preliminary data for May 2015 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 57,200 metric tons (t) (gross weight). This was a slight decrease compared with the revised amount consumed in April 2015 (57,900 t). Manganese ore consumption during the first 5 months of 2015 was about 262,000 t, 43% more than the amount consumed during the same period of 2014 (183,000 t). This year-over-year increase was primarily the result of resumed production at Felman Production, LLC's silicomanganese production facility in Letart, WV, in July 2014. Industry stocks

of ore at the end of May 2015 were estimated to be 198,000 t, which was 5% lower than the amount at the end of April 2015 (209,000 t).

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TABLE 1  
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN MAY 2015

		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	960.00	925.00	942.50	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	98.00	97.00	97.50	XX
Silicomanganese, 65% manganese	do.	55.00	52.50	53.75	XX
Manganese metal, 99.9% manganese flake <sup>2</sup>	cents per pound	121.00	115.00	XX	118.33–119.17–120.00
<b>Manganese ore:<sup>3,4</sup></b>					
36%–39% manganese	dollars per metric ton unit contained manganese	2.75	2.60	XX	2.63–2.68–2.73
44% manganese	do.	3.10	2.80	XX	2.91–2.99–3.07
46% manganese	do.	3.38	3.25	XX	3.29–3.33–3.37

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
2014:						
May	27,500	74,700	102,000	31	749	780
January–May	83,100	267,000	350,000	278	4,460	4,740
2015:						
January	25,200	53,800	78,900	9	894	903
February	24,600	44,300	69,000	27	378	405
March	24,600	32,800	57,300	56	292	348
April	40,700	40,900	81,500	9	582	591
May	745	67,900	68,600	25	235	260
January–May	116,000	240,000	355,000	125	2,380	2,510

<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 MAY 2015<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–May		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	7,520	4,890	\$7,850,000	31,900	20,900	\$34,700,000
Georgia	14,400	10,400	14,900,000	46,600	33,800	48,500,000
India	54	32	66,600	2,300	1,410	3,720,000
Indonesia	--	--	--	23	15	24,800
Mexico	8,690	5,670	8,520,000	15,000	9,750	15,000,000
Norway	3	2	4,210	6,910	4,320	9,630,000
South Africa	9,110	5,940	9,450,000	45,600	29,600	48,100,000
Spain	1,840	1,200	1,790,000	8,200	5,350	7,990,000
Zambia	1,550	1,010	1,520,000	1,550	1,010	1,520,000
Total	43,200	29,200	44,100,000	158,000	106,000	169,000,000

-- 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 MAY 2015<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–May		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	1,030	886	\$2,040,000	7,260	6,720	\$16,000,000
Germany	24	23	67,400	74	68	198,000
Korea, Republic of	--	--	--	1,510	1,260	3,230,000
Mexico	200	157	316,000	400	315	631,000
Norway	1,740	1,400	2,760,000	10,400	8,440	17,000,000
South Africa	25	24	65,600	102	96	263,000
<b>Total</b>	<b>3,010</b>	<b>2,490</b>	<b>5,250,000</b>	<b>19,800</b>	<b>16,900</b>	<b>37,400,000</b>
<b>Medium carbon, 1%–2% C:</b>						
China	--	--	--	80	61	177,000
Egypt	--	--	--	298	242	444,000
Korea, Republic of	4,280	3,430	8,030,000	12,600	10,100	21,000,000
Mexico	63	49	115,000	1,080	831	1,900,000
Norway	1,100	897	1,510,000	4,780	3,890	6,870,000
South Africa	1,910	1,530	3,170,000	9,160	7,340	14,800,000
<b>Total</b>	<b>7,350</b>	<b>5,910</b>	<b>12,800,000</b>	<b>28,000</b>	<b>22,500</b>	<b>45,200,000</b>
<b>Medium carbon, 2%–4% C:</b>						
China	--	--	--	13	10	28,500
Norway	--	--	--	36	29	64,000
South Africa	40	31	37,200	424	333	1,200,000
Vietnam	--	--	--	54	42	76,100
<b>Total</b>	<b>40</b>	<b>31</b>	<b>37,200</b>	<b>527</b>	<b>415</b>	<b>1,360,000</b>
<b>High carbon:</b>						
Australia	--	--	--	14,400	10,700	12,300,000
Brazil	162	116	126,000	324	241	258,000
Canada	--	--	--	20	13	25,700
France	--	--	--	49	37	40,700
Korea, Republic of	1,730	1,320	1,470,000	1,730	1,320	1,470,000
Norway	--	--	--	2,000	1,570	1,680,000
South Africa	21,800	16,700	19,600,000	68,300	51,700	63,400,000
Spain	96	73	84,800	96	73	84,800
Ukraine	12,300	9,520	9,820,000	16,600	12,900	13,800,000
Zambia	--	--	--	20	13	29,600
<b>Total</b>	<b>36,000</b>	<b>27,800</b>	<b>31,100,000</b>	<b>104,000</b>	<b>78,500</b>	<b>93,100,000</b>
<b>Grand total</b>	<b>46,400</b>	<b>36,200</b>	<b>49,200,000</b>	<b>152,000</b>	<b>118,000</b>	<b>177,000,000</b>

-- 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 MAY 2015<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–May		
				Gross weight	Mn content	Customs value <sup>2</sup>
More than 20%, but less than 47% manganese:						
Gabon	72	10 <sup>3</sup>	\$11,700	34,700	16,100	\$5,970,000
South Africa	--	--	--	40,000	14,700	4,290,000
Total	72	10 <sup>3</sup>	11,700	74,700	30,800	10,300,000
47% or more manganese:						
Australia	--	--	--	19,800	9,830	5,840,000
Brazil	53	25	21,400	3,510	1,820	1,140,000
Canada	--	--	--	38	20	8,220
China	4	2	3,920	8	4	7,840
France	15	8	19,600	15	8	19,600
Gabon	305	164	3,540,000	137,000	70,800	34,200,000
Ivory Coast	--	--	--	18	8	19,400
Morocco	--	--	--	39	34	51,100
Netherlands	--	--	--	(4)	(4)	23,900
South Africa	436	218	122,000	836	418	228,000
Total	813	417	3,700,000	161,000	82,900	41,500,000
Grand total	885	427	3,710,000	236,000	114,000	51,800,000

-- 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.

<sup>3</sup>Referred to the U.S. Census Bureau for verification.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN MAY 2015<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	January–May	
			Quantity	Customs value <sup>2</sup>
Belgium	--	--	39	\$179,000
China	3	\$7,200	77	117,000
Germany	--	--	9	29,300
India	--	--	(3)	8,640
Japan	455	1,090,000	2,660	6,120,000
Korea, Republic of	--	--	(3)	3,880
Mexico	--	--	(3)	4,220
Netherlands	60	24,900	75	49,800
Poland	--	--	(3)	4,320
Singapore	12	20,200	71	121,000
South Africa	--	--	275	468,000
Spain	--	--	4	13,600
Turkey	--	--	156	266,000
Total	530	1,140,000	3,370	7,380,000

-- 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 7  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN MAY 2015<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	January–May	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	213	\$410,000	5,000	\$9,800,000
Japan	43	146,000	204	694,000
Mexico	2	5,810	5	16,700
South Africa	1,230	3,140,000	4,380	11,400,000
Total	1,490	3,700,000	9,590	21,900,000
<b>Unwrought powder:</b>				
China	50	135,000	225	554,000
Mexico	4	10,900	123	380,000
South Africa	235	736,000	748	2,430,000
Total	289	882,000	1,100	3,360,000
<b>Unwrought, other:</b>				
China	593	1,370,000	3,440	7,750,000
Germany	24	58,100	98	223,000
Russia	--	--	12	12,200
South Africa	19	49,000	116	289,000
Spain	24	57,700	24	57,700
United Kingdom	--	--	(3)	2,790
Total	660	1,530,000	3,690	8,330,000
<b>Other manganese, wrought:</b>				
France	1	19,200	2	29,500
Germany	-3	6,680	120	1,280,000
India	--	--	4	14,400
Japan	--	--	(3)	13,800
Korea, Republic of	--	--	515	1,170,000
Mexico	--	--	86	298,000
Sweden	--	--	(3)	4,500
Total	1	25,900	728	2,810,000
Metallic waste and scrap, Canada	162	33,100	233	57,400
Grand total	2,600	6,170,000	15,300	36,500,000

-- 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 MAY 2015<sup>1,2</sup>

Source	Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)	January–May	
			Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)
<b>Ore and concentrates with 20% or more manganese:</b>				
Israel	1	\$8	1	\$8
Mexico	2	6	5	17
Netherlands	32	135	96	381
Poland	15	10	15	10
United Kingdom	--	--	133	104
<b>Total</b>	<b>50</b>	<b>159</b>	<b>250</b>	<b>521</b>
<b>Ferromanganese:</b>				
<b>2% or less carbon:</b>				
Canada	83	110	787	1,200
France	8	15	8	15
Mexico	--	--	3	9
United Kingdom	--	--	5	9
<b>Total</b>	<b>90</b>	<b>125</b>	<b>802</b>	<b>1,230</b>
<b>More than 2% carbon:</b>				
Angola	--	--	2	3
Canada	38	38	294	303
Congo	2	4	7	14
Equatorial Guinea	--	--	9	20
Germany	--	--	4	11
Ghana	--	--	(4)	5
Italy	--	--	22	38
Venezuela	--	--	1	3
<b>Total</b>	<b>39</b>	<b>43</b>	<b>340</b>	<b>396</b>
<b>Silicomanganese:</b>				
Canada	35	38	315	383
India	--	--	20	18
Mexico	--	--	142	201
<b>Total</b>	<b>35</b>	<b>38</b>	<b>477</b>	<b>603</b>
<b>Metal, including alloys and waste and scrap:<sup>5</sup></b>				
Canada	11	26	24	64
China	--	--	14	210
Germany	13	51	26	108
India	4	61	15	240
Japan	20	64	91	322
Malaysia	14	56	736	477
Netherlands	--	--	81	325
Norway	--	--	19	855
Pakistan	20	10	80	35
Taiwan	--	--	40	21
Other (6 countries)	29	168	39	353
<b>Total</b>	<b>110</b>	<b>437</b>	<b>1,170</b>	<b>3,010</b>
<b>Grand total</b>	<b>324</b>	<b>801</b>	<b>3,030</b>	<b>5,760</b>

-- Zero.

<sup>1</sup>Presentation of monthly data is based on the "January–May" 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>Less than ½ unit.

<sup>5</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 MAY 2015, 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–May		
				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	1,370	\$909	South Africa, Republic of 432; \$216	4,720	\$3,660	Korea, Republic of 1,800; \$1,420
Manganites, manganates, and other permanganates	1	13	Korea, Republic of 1; \$13	99	291	China 95; \$248
Potassium permanganate	45	116	India 36; \$99	537	1,400	India 528; \$1,390
Sodium permanganate	265	634	China 265; \$634	950	2,100	China 949; \$2,090
Sulfates, basket category, including manganese sulfate	5,870	5,180	Mexico 2,130; \$1,860	32,000	26,900	China 9,690; \$7,990
<b>Exports:</b>						
Manganese dioxide	152	490	United Kingdom 44; \$53	1,030	2,730	Canada 362; \$372
Manganese oxides other than dioxide	600	1,140	United Arab Emirates 153; \$189	3,620	6,080	United Arab Emirates 599; \$725
Manganites, manganates, and other permanganates	15	149	Canada 13; \$28	61	280	Canada 56; \$118
Potassium permanganate	377	1,030	Belgium 243; \$571	1,660	4,170	Belgium 1,140; \$2,590
Sodium permanganate	88	198	Belgium 67; \$146	378	1,230	Mexico 230; \$889
Sulfates, basket category, including manganese sulfate	2,060	1,720	Canada 1,750; \$852	12,000	8,080	Canada 10,400; \$4,140

<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.