

Mineral Industry Surveys

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MANGANESE IN OCTOBER 2012

Preliminary domestic data (gross weight) for October 2012 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 45,100 metric tons (t). This was an 11% increase from the amount consumed in September 2012. Manganese ore consumption during the first 10 months of 2012 was 439,000 t (includes revisions to previously published data), which was slightly less than the revised amount that was consumed during

the same period in 2011 (444,000 t). Industry stocks of ore at the end of October 2012 were 214,000 t, which was an 8% decrease from those at the end of September 2012.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in October 2012.

TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN OCTOBER 2012

					Average low,
		High	Low	Average	mid, and high
Manganese ferroalloys: ¹					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,210.00	1,190.00	1,200.00	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	88.00	85.00	86.50	XX
Silicomanganese, 65% manganese	do.	60.00	58.00	59.00	XX
Manganese metal, 99.9% manganese flake ²	cents per pound	140.00	135.00	XX	136.11-137.39-138.67
Manganese ore: ^{3, 4}					
36%–39% manganese	dollars per metric ton unit contained manganese	4.55	4.45	XX	4.45-4.50-4.55
44% manganese	do.	5.10	4.85	XX	4.85-4.98-5.10
46% manganese	do.	5.15	4.90	XX	4.90-5.03-5.15

do. Ditto. XX Not applicable.

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

²Ryan'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.

³Ryan's Notes, cost and freight, China; average prices reported for the price range.

⁴To 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%.

 $\label{eq:table 2} \textbf{TABLE 2}$ SELECTED U.S. FOREIGN TRADE IN MANGANESE 1

(Metric tons, manganese content)²

	Imports	for consumpti		Exports		
	Ore and	Ferroalloy	_		Ferroalloy	
	dioxide	and metal	Total	Ore	and metal	Total
2011:						
January-December	283,000	541,000	824,000	681	12,500	13,200
January-October	231,000	477,000	709,000	540 ^r	10,400	11,000
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
April	1,720	27,800	29,500	61	1,150	1,210
May	21,100	51,000	72,100	33	1,800	1,830
June	26,800	68,700	95,500	59	519	578
July	11,500	57,400	69,000	82	669	750
August	25,500	50,600	76,100	65	902	967
September	38,800	55,800	94,600		611	611
October	16,900	22,300	39,200	84	708	792
2012:						
January	11,800	53,000	64,800	36	603	639
February	12,400	34,900	47,300	158	616	775
March	24,500	54,000	78,400	352	848	1,200
April	3,960	59,500	63,400	106	816	922
May	15,500	49,500	65,000	42	620	662
June	30,100	21,000	51,100	19	576	595
July	19,900	77,300	97,300	57	687	744
August	8,020	59,900	67,900	12	1,360	1,370
September	44,600	59,100	104,000	27	1,490	1,510
October	17,800	32,500	50,300	12	1,030	1,040
January-October	189,000	501,000	689,000	821	8,640	9,460

^rRevised. -- Zero.

 $^{^{1}\}mbox{Data}$ rounded to no more than three significant digits; may not add to totals shown.

²As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

TABLE 3 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN OCTOBER $2012^1\,$

	·			January-October		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ²	weight	content	value ²
Australia				9,570	6,490	\$9,880,000
Azerbaijan				1,500	984	1,700,000
Canada				50	34	39,000
China	10	5	\$10,600	10	5	10,600
Georgia	3,830	2,540	4,120,000	102,000	69,000	109,000,000
Germany				216	95	281,000
India	104	58	160,000	2,670	1,520	4,210,000
Indonesia				602	393	786,000
Italy				1,270	843	1,740,000
Korea, Republic of				1,120	697	1,620,000
Macedonia				6,110	3,970	8,530,000
Mexico	2,500	1,630	3,020,000	20,800	13,500	24,600,000
Norway				25,900	16,100	44,600,000
Russia				6,200	4,210	8,380,000
South Africa	2,000	1,310	2,400,000	93,200	62,100	112,000,000
Spain	4,500	2,960	4,760,000	18,800	12,300	23,800,000
Vietnam				592	370	674,000
Total	12,900	8,510	14,500,000	290,000	193,000	351,000,000

⁻⁻ Zero.

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

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.

 ${\it TABLE~4} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~FERROMANGANESE~IN~OCTOBER~2012}^1$

					January-October		
	Gross	Mn	Customs	Gross	Mn	Customs	
Source	weight	content	value ²	weight	content	value ²	
Low carbon:							
China	217	205	\$510,000	5,970	5,580	\$16,400,000	
India	272	217	435,000	6,450	5,220	10,800,000	
Korea, Republic of				2,040	1,850	5,440,000	
Mexico	850	689	1,450,000	7,190	5,800	12,400,000	
Norway	636	515	1,000,000	7,970	6,450	12,900,000	
South Africa				120	110	330,000	
Vietnam				1,040	899	2,040,000	
Total	1,980	1,630	3,390,000	30,800	25,900	60,400,000	
Medium carbon, 1%–2% C:							
China	20	15	46,200	60	46	144,000	
India	4	3	5,360	4	3	5,360	
Korea, Republic of				20,400	16,500	30,100,000	
Mexico	120	92	254,000	1,900	1,440	3,890,000	
Norway	400	326	508,000	15,000	12,200	20,600,000	
South Africa	1,940	1,540	2,750,000	25,200	20,200	37,600,000	
Turkey				19	14	63,300	
Total	2,480	1,980	3,570,000	62,600	50,400	92,400,000	
Medium carbon, 2%–4% C:							
Germany				11	9	31,100	
South Africa				129	109	303,000	
Total				141 ^r	117 ^r	334,000	
High carbon:							
Australia				26,800	20,900	26,300,000	
Bahrain				102	81	145,000	
Brazil				219	163	228,000	
Canada	5	3	7,290	18	13	33,300	
China				481	379	547,000	
France				2,500	1,910	3,000,000	
India				513	387	496,000	
Korea, Republic of				3,430	2,650	3,300,000	
Norway	1,400	1,130	1,600,000	13,100	10,200	13,400,000	
Saudi Arabia				1,400	1,010	1,180,000	
South Africa	20,400	15,700	21,300,000	164,000	126,000	174,000,000	
Spain		·		125	95	141,000	
Ukraine		12	20,600	37,600	28,700	42,300,000	
Total	21,900	16,900	23,000,000	250,000	193,000	265,000,000	
Grand total	26,300	20,500	29,900,000	344,000	269,000	418,000,000	

Revised. -- Zero

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

²Customs 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.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN OCTOBER $2012^{1,\,2}$

				Jar	uary-Octob	er ³
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ⁴	weight	content	value ⁴
More than 20%, but less than 47% manganese:						
Brazil				2,580	682	\$669,000
Colombia				18	5	4,170
Gabon				26,500	11,400	3,380,000
Mexico				4,580	1,650	904,000
South Africa				71,700	28,300	10,300,000
Total				105,000	42,000	15,300,000
47% or more manganese:						
Australia				20,700	10,300	3,120,000
Belgium				5,600	2,820	446,000
Brazil				2,900	1,550	1,040,000
Canada				1	1	4,760
China				19	18	88,800
Gabon	31,100	15,400	\$7,230,000	228,000	117,000	53,100,000
Japan				(5)	(5)	14,800
Korea, Republic of				20	(5)	137,000
Morocco				4,430	2,240	487,000
Poland				7	4	5,760
South Africa	32,900	1,230	5,610,000	33,000	1,290	5,660,000
Turkey				52	24	16,900
United Kingdom				1	(5)	2,990
Total	64,000	16,600	12,800,000	295,000	135,000	64,100,000
Grand total	64,000	16,600	12,800,000	400,000	177,000	79,400,000

⁻⁻ Zero.

¹Quantities for general imports and imports for consumption are identical.

 $^{^2\}mbox{Data}$ rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Customs 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.

⁵Less than ½ unit.

 ${\it TABLE~6}$ U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN OCTOBER 2012^1

(Metric tons, gross weight)

			January-	-October
		Customs		Customs
Source	Quantity	value ²	Quantity	value ²
Belgium	63	\$36,100	733	\$422,000
Brazil			19	21,800
Germany			83	141,000
India			25	20,500
Japan	752	1,640,000	6,900	16,300,000
Korea, Republic of			13	25,200
Mexico			40	35,100
Norway			260	197,000
Singapore	11	19,400	125	213,000
South Africa	1,170	2,690,000	10,500	24,400,000
Turkey			810	425,000
United Kingdom			(3)	3,840
Total	2,000	4,390,000	19,600	42,200,000

⁻⁻ Zero.

 $^{^{1}\}mbox{Data}$ rounded to no more than three significant digits; may not add to totals shown.

²Customs 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.

³Less than ½ unit.

 ${\it TABLE~7} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~METAL~IN~OCTOBER~2012}^1$

Source Gross weight Customs value² Gross weight Customs value² Unwrought flake: The stail Stail	-			January	-October
Unwrought flake: Brazil 21 \$61,400 China 1,480 \$3,620,000 11,900 32,200,000 Hong Kong 60 160,000 Japan 8 28,500 14 46,300 Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 307 867,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: China 1,010 2,6		Gross	Customs	Gross	Customs
Unwrought flake: Brazil 21 \$61,400 China 1,480 \$3,620,000 11,900 32,200,000 Hong Kong 60 160,000 Japan 8 28,500 14 46,300 Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 307 867,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: China 1,010 2,6	Source	weight	value ²	weight	value ²
China 1,480 \$3,620,000 11,900 32,200,000 Hong Kong 60 160,000 Japan 8 28,500 14 46,300 Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Umwrought powder: 307 867,000 Unwrought powder: 307 867,000 Mexico 53 252,00,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Unwrought, other: 1 2,220 China 1,010 2,610,000 16,100 43,100,000 Germany 1 3,690 <	Unwrought flake:				
Hong Kong 60 160,000 Japan 8 28,500 14 46,300 Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Umrought powder: 307 867,000 Umwrought powder: 307 867,000 Mexico 53 252,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Unwrought, other: 1 2,220 Total 1,010 2,610,000 16,100 43,100,000 Germany - 1 3,690 Poland - 1 3,	Brazil			21	\$61,400
Japan 8 28,500 14 46,300 Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,220 Total 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 3 7,200 <	China	1,480	\$3,620,000	11,900	32,200,000
Mexico 143 619,000 South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Umwrought, other: China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 33 7,200 South Africa 38 153,000 515 1,970,000 <td>Hong Kong</td> <td></td> <td></td> <td>60</td> <td>160,000</td>	Hong Kong			60	160,000
South Africa 743 2,440,000 6,320 21,100,000 Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,220 Total 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland - 1 3,720 South Africa 38 153,000 515 1,970,000 <td>Japan</td> <td>8</td> <td>28,500</td> <td>14</td> <td>46,300</td>	Japan	8	28,500	14	46,300
Taiwan 60 160,000 Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,220 China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 3 7,200 Spain 75 240,000 831 2,930,000 <t< td=""><td>Mexico</td><td></td><td></td><td>143</td><td>619,000</td></t<>	Mexico			143	619,000
Vietnam 307 867,000 Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,220 China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 1 3,690 Spain 75 240,000 831 2,930,000 Vietnam <	South Africa	743	2,440,000	6,320	21,100,000
Total 2,230 6,090,000 18,900 55,200,000 Unwrought powder: — — — 258 741,000 Mexico — — — 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain — — 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: — — 1 2,220 China 1,010 2,610,000 16,100 43,100,000 Germany — — 24 79,500 Netherlands — — 1 3,690 Poland — — — 1 3,700 Spain 75 240,000 831 <td>Taiwan</td> <td></td> <td></td> <td>60</td> <td>160,000</td>	Taiwan			60	160,000
Unwrought powder: China 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,220 China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 1 3,690 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total </td <td>Vietnam</td> <td></td> <td></td> <td>307</td> <td>867,000</td>	Vietnam			307	867,000
China 258 741,000 Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,620 China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 3 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 </td <td>Total</td> <td>2,230</td> <td>6,090,000</td> <td>18,900</td> <td>55,200,000</td>	Total	2,230	6,090,000	18,900	55,200,000
Mexico 53 252,000 South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 1 3,690 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 <td>Unwrought powder:</td> <td></td> <td></td> <td></td> <td></td>	Unwrought powder:				
South Africa 85 405,000 1,810 7,500,000 Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 3,690 Poland 1 3,690 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 3	China			258	741,000
Spain 1 2,220 Total 85 405,000 2,120 8,490,000 Unwrought, other: 24 79,500 China 1,010 2,610,000 16,100 43,100,000 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland (3) 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 31 141,000 Germany 3) 10,800 1 82,700 Japan (3) 80,30	Mexico			53	252,000
Total 85 405,000 2,120 8,490,000 Unwrought, other: China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland (3) 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 31 141,000 Finland 3 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 <td>South Africa</td> <td>85</td> <td>405,000</td> <td>1,810</td> <td>7,500,000</td>	South Africa	85	405,000	1,810	7,500,000
Total 85 405,000 2,120 8,490,000 Unwrought, other: China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland (3) 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 31 141,000 Finland 3 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 <td>Spain</td> <td></td> <td></td> <td>1</td> <td>2,220</td>	Spain			1	2,220
China 1,010 2,610,000 16,100 43,100,000 Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 1 1,970,000 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 31 141,000 Finland 3 20,100 Germany 3 10,800 1 82,700 Japan - 3 80,300 Mexico 11 52,300 21 98,100 Total <td></td> <td>85</td> <td>405,000</td> <td>2,120</td> <td>8,490,000</td>		85	405,000	2,120	8,490,000
Germany 24 79,500 Netherlands 1 3,690 Poland 1 3,690 Poland 13 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland 31 141,000 Finland 3 20,100 Germany 3 10,800 1 82,700 Japan - 3 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Unwrought, other:				
Netherlands 1 3,690 Poland (3) 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	China	1,010	2,610,000	16,100	43,100,000
Poland (3) 7,200 South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Germany			24	79,500
South Africa 38 153,000 515 1,970,000 Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Netherlands			1	3,690
Spain 75 240,000 831 2,930,000 Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Poland			(3)	7,200
Vietnam 100 286,000 Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	South Africa	38	153,000	515	1,970,000
Total 1,130 3,010,000 17,500 48,400,000 Other manganese, wrought: — — 31 141,000 Finland — — — 3) 20,100 Germany (3) 10,800 1 82,700 Japan — — — (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Spain	75	240,000	831	2,930,000
Other manganese, wrought: China 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Vietnam			100	286,000
China 31 141,000 Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Total	1,130	3,010,000	17,500	48,400,000
Finland (3) 20,100 Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Other manganese, wrought:				
Germany (3) 10,800 1 82,700 Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	China			31	141,000
Japan (3) 80,300 Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Finland			(3)	20,100
Mexico 11 52,300 21 98,100 Total 11 63,000 54 423,000	Germany	(3)	10,800	1	82,700
Total 11 63,000 54 423,000	Japan			(3)	80,300
, , , , , , , , , , , , , , , , , , , ,	Mexico	11	52,300	21	98,100
Grand total 3,460 9,570,000 38,600 113,000,000	Total	11	63,000	54	423,000
	Grand total	3,460	9,570,000	38,600	113,000,000

⁻⁻ Zero.

Note: Imports for consumption of metallic waste and scrap totaled 54 metric tons (t), all of which was from Canada, to give a January–October total of $730\,t$.

 $^{^{1}\}mathrm{Data}$ rounded to no more than three significant digits; may not add to totals shown.

²Customs 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.

³Less than ½ unit.

TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN OCTOBER $2012^{1,\ 2}$

			January-October		
		F.a.s. ³		F.a.s. ³	
	Gross weight	value	Gross weight	value	
Source	(metric tons)	(thousands)	(metric tons)	(thousands)	
Ore and concentrates with 20% or more manganese:	_		70	#20	
Aruba		 ¢.4	78	\$20	
Canada	_ 5	\$4	309	348	
China			51	66	
Denmark			77	32	
Hong Kong	_		11	39	
Indonesia			3	3	
Korea, Republic of			272	351	
Latvia			19	11	
Netherlands	18	61	793	950	
United Kingdom	_		21	28	
Other (3 countries)			5	18	
Total	23	65	1,640	1,870	
Ferromanganese:	_				
2% or less carbon:	_				
Canada	22	30	957	1,350	
Guatemala			23	43	
Hungary			3	5	
Japan		41	200	460	
Mexico			108	195	
Saudi Arabia			25	55	
Spain			20	48	
Turkey		135	179	437	
Total	101	206	1,520	2,600	
More than 2% carbon:			,	7	
Brazil	-		33	93	
Cameroon	-		8	26	
Canada		25	681	857	
Chile			33	93	
China		41	139	78	
Malaysia	- 591	287	1,610	909	
Mexico		207	66	94	
Norway			7	22	
Saudi Arabia			11	31	
Singapore	6	17	36	100	
Other (5 countries)	_	17	14	36	
· · · · · · · · · · · · · · · · · · ·					
Total Silicomon general	696	370	2,640	2,340	
Silicomanganese:		40	202	710	
Brazil	_ 19	48	293	712	
Canada	503	652	4,240	5,720	
Dominican Republic			9	21	
Indonesia	_		10	16	
Mexico			362	514	
Total	522	700	4,910	6,990	
Metal, including alloys and waste and scrap: ⁴	_				
Brazil			57	180	
Canada	12	25	143	368	
China	64	138	829	2,460	
France			128	576	
Germany			136	295	
India			178	405	
Japan			98	266	
Mexico		25	251	716	
Norway			128	576	
Taiwan			59	125	
Other (12 countries)		127	197	426	
Total	144	315	2,200	6,400	
Grand total	1,490	1,660	12,900	20,200	
See footnotes at end of table.	-,	-,0	-,	,_ 50	

See footnotes at end of table.

TABLE 8—Continued

U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN OCTOBER $2012^{1,2}$

Source: U.S. Census Bureau.

 ${\it TABLE~9}$ U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2012, BY CLASS 1

				January-October			
			Principal sources and destinations:			Principal sources and destinations:	
	Gross weight	Value ²	gross weight (metric tons);	Gross weight	Value ²	gross weight (metric tons);	
Class	(metric tons)	(thousands)	value ² (thousands)	(metric tons)	(thousands)	value ² (thousands)	
Imports for consumption:							
Manganese oxides other than dioxide	313	\$279	Mexico 160; \$141	4,520	\$4,400	South Africa 1,670; \$1,410	
Manganites, manganates, and							
other permanganates			XX	79	482	China 53; \$134	
Potassium permanganate	36	108	India 36; \$108	1,210	3,830	India 1,150; \$3,620	
Sodium permanganate	20	48	China 20; \$48	340	811	China 339; \$799	
Sulfates, basket category,							
including manganese sulfate	3,060	4,170	Mexico 1,570; \$1,350	43,600	44,800	Mexico 15,300; \$13,400	
Exports:							
Manganese dioxide	647	1,480	Canada 278; \$287	7,700	14,100	Canada 4,224; \$3,600	
Manganese oxides other than dioxide	554	974	Canada 200; \$220	7,630	11,900	Canada 2,000; \$2,340	
Manganites, manganates, and							
other permanganates	4	24	Mexico 2; \$17	172	518	Canada 147; \$385	
Potassium permanganate	154	425	Belgium 72; \$175	2,580	6,820	Belgium 1,714; \$4,018	
Sodium permanganate	58	132	Taiwan 19; \$55	864	2,020	Belgium 356; \$684	
Sulfates, basket category,			·	·		·	
including manganese sulfate	1,620	1,210	Canada 1,427; \$811	13,700	11,500	Canada 11,263; \$6,335	

XX Not applicable. -- Zero.

⁻⁻ Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the leading countries.

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

³Free alongside ship.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

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

²For imports, Customs value; for exports, free alongside ship value.