

# Mineral Industry Surveys

## For information, contact:

John D. Jorgenson, Iron Ore Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4912, Fax: (703) 648-7757  
E-mail: [jjorgenson@usgs.gov](mailto:jjorgenson@usgs.gov)

Michelle B. Blackwell (Data)  
Telephone: (703) 648-7943  
Fax: (703) 648-7975  
E-mail: [mblackwell@usgs.gov](mailto:mblackwell@usgs.gov)

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

## IRON ORE IN MARCH 2009

U.S. mine production of iron ore in March 2009, on a daily average basis, was 24% less than that for the prior month, and was 53% less than that of March 2008, according to the U.S. Geological Survey (USGS). Average daily production, at 72,300 metric tons (t), was 22,700 t less than that of February 2009.

Average daily shipments in March 2009, at 21,400 t, were 5,700 t more than those of the prior month, but 49,200 t less than those of March 2008. Mine stocks at the end of March 2009 were 1.6 million metric tons (Mt) greater than the revised stocks held on February 28, a 14% increase. U.S. net exports of iron ore in February 2009 were 39,000 t, with exports 49% greater than imports.

**Domestic Production.**—Magnetation, Inc. (Nashwauk, MN) began production of iron concentrate from its Mesabi Chief plant near Keewatin, MN. Magnetation invested \$9.6 million to bring its plant online. The plant was expected to produce low-cost iron concentrates at a rate of 300,000 metric tons per year (t/yr) from lean ore stockpiles of hematite and natural ore tailings. Plans for expansion to 750,000 t/yr of concentrate were being made to help feed the 500,000 t/yr (96% to 98% iron) Mesabi Nugget facility (See Iron Ore in December 2007.) being constructed at nearby Hoyt Lakes, MN, by Indiana-based Steel Dynamics, Inc. (Metal Bulletin, 2009; Redmon, 2009).

**World Production.**—Australia's Rio Tinto plc announced that its HIs melt pig iron plant (Kwinana, Western Australia) would be placed on care and maintenance for 1 year at the end of the month. The Kwinana plant, with design capacity of 800,000 t/yr, used proprietary, direct-smelting technology to produce pig iron from high-phosphorus iron ore fines and non-coking coal. Rio Tinto (60%), United States' Nucor Corp. (25%), Japan's Mitsubishi Corp. (10%), and China's Shougang Corp. (5%) jointly own the plant (The TEX Report, 2009).

**World Exploration and Development.**—The Ministry of

Hajigak iron deposit. The deposit was estimated to contain about 1.8 billion metric tons of iron ore resources at a grade of 62% iron content within 16 ore bodies along a strike length of 32 kilometers (km). The deposit is located about 130 km west of Kabul. Successful applicants were expected to be notified by the Ministry of Mines on or before May 20, 2009, and would receive a bid package for the Hajigak deposit (Mining Journal, 2009).

Consolidated Thompson Iron Mines Ltd. (Toronto, Canada) signed a letter of agreement with China's Wuhan Iron and Steel (Group) Corp. (WISCO) for the investment of \$240 million by WISCO in return for 19.9% of the shares of Consolidated Thompson. WISCO will also receive a 25% interest in the company incorporated to operate the future Bloom Lake iron ore mine in Quebec. Bloom Lake planned to produce 8 million metric tons per year (Mt/yr) of iron ore, with expansion potential to 16 Mt/yr and initial startup planned for late 2009 (Consolidated Thompson Iron Mines Ltd., 2009).

## References Cited

- Consolidated Thompson Iron Mines Ltd., 2009, Consolidated Thompson announces US\$240 million strategic investment from Wuhan Iron and Steel Group: Consolidated Thompson Iron Mines Ltd. news release, March 30, 2 p. (Accessed June 12, 2009, via <http://www.consolidatedthompson.com>.)  
Metal Bulletin, 2009, North America—Magnetation: Metal Bulletin, no. 9088, March 9, p. 17.  
Mining Journal, 2009, Request for expression of interest—Hajigak iron deposit: Mining Journal, March 27, p. 23.  
Redmon, Chris, 2009, The next iron rush: Fortune, v. 159, no. 11, May 25, p. 84-90.  
The TEX Report, 2009, Australian HIs melt plant placed on care, maintenance program: The TEX Report, v. 41, no. 9696, March 27, p. 4.

Mines of Afghanistan requested expressions of interest for the

TABLE 1  
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE<sup>1,2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2008:				
March	4,780	12,900	2,190	7,020
April	4,130	17,100	5,220	12,200
May	4,860	21,900	6,230	18,500
June	4,870	26,800	5,450	23,900
July	4,960	31,800	6,160	30,100
August	4,840	36,600	6,100	36,200
September	4,310	40,900	5,500	41,700
October	4,540	45,400	4,860	46,500
November	3,940	49,400	3,910	50,400
December	3,570	53,000	2,820	53,300
2009:				
January	2,990	2,990	874	874
February	2,660	5,650	440	1,310
March	2,240	7,890	663	1,980

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

<sup>2</sup>Excludes byproduct ores.

TABLE 2  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN MARCH<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2009	2008	2009	2008	2009	2008
Michigan	544	1,100	499	692	3,470	2,990
Minnesota	1,700	3,680	164	1,500	9,010	9,430
Total	2,240	4,780	663	2,190	12,500	12,400

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

<sup>2</sup>Excludes byproduct ore.

<sup>3</sup>Includes rail and vessel.

<sup>4</sup>Includes usable (marketable) material at mines, concentrators, pelletizing plants, and loading docks. Excludes stocks of crude ore at mine and concentrates at agglomerating complexes.

Note: Stocks at end of February 2009 for Minnesota have been revised to 7,480 thousand metric tons.

TABLE 3  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2008:				
February	1,120	833	4	1,950
March	1,140	855	4	2,000
April	1,680	984	4	2,670
May	2,670	1,330	7	4,010
June	1,580	1,380	9	2,970
July	1,820	1,370	8	3,200
August	2,270	1,200	9	3,470
September	1,310	1,050	9	2,370
October	1,760	984	8	2,750
November	1,370	687	6	2,060
December	749	618	3	1,370
Year total	18,700	12,100	76	30,800
2009:				
January	1,030	600	3	1,640
February	793	823	2	1,620

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

<sup>2</sup>Includes production from steel plant waste oxides.

TABLE 4  
PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF  
FURNACE<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace <sup>2</sup>		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2008:						
February	3,110	6,010	3,470	7,020	4,750	9,850
March	3,280	9,290	3,700	10,700	4,900	14,800
April	3,240	12,500	3,560	14,300	4,820	19,600
May	3,210	15,700	3,650	17,900	5,080	24,700
June	3,020	18,800	3,450	21,400	4,930	29,600
July	3,090	21,800	3,460	24,800	5,060	34,600
August	3,290	25,100	3,680	28,500	4,990	39,600
September	2,900	28,000	3,290	31,800	4,560	44,200
October	2,770	30,800	2,330	34,100	3,990	48,200
November	2,040	32,800	1,980	36,100	2,660	50,800
December	1,690	34,500	1,390	37,500	2,220	53,100
2009:						
January	1,450	1,450	1,320	1,320	2,630	2,630
February	1,510	2,960	1,180	2,500	2,440	5,070

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

<sup>2</sup>Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

Source: American Iron and Steel Institute.

TABLE 5  
U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE<sup>1,2</sup>

(Thousand metric tons)

Country of destination and type of product	2008				2009	
	3rd quarter	4th quarter	December	Total	January	February
Algeria	52	--	--	80	--	--
Belgium	(3)	(3)	(3)	218	(3)	--
Canada	3,160	2,120	566	9,030	206	106
China	5	54	--	91	2	(3)
Colombia	2	5	1	11	1	2
Czech Republic	--	--	--	83	--	--
France	54	156	105	210	(3)	--
Germany	(3)	76	--	156	--	--
Japan	--	--	--	--	--	--
Malaysia	--	--	--	25	1	--
Mexico	93	68	(3)	328	(3)	11
Peru	103	(3)	--	103	--	--
Romania	52	--	--	128	--	--
Serbia	51	--	--	51	--	--
Slovakia	--	455	135	505	--	--
Spain	25	--	--	102	--	--
Sweden	2	1	--	4	--	--
Other	4	2	(3)	14	(3)	(3)
<b>Total</b>	<b>3,610</b>	<b>2,940</b>	<b>809</b>	<b>11,100</b>	<b>211</b>	<b>119</b>
Concentrates	23	59	2	142	2	2
Coarse ores	14	25	--	46	(3)	(3)
Fine ores	78	21	(3)	136	2	6
Pellets	3,490	2,840	807	10,800	207	111
Briquettes	--	(3)	--	(3)	--	--
Other agglomerates	1	(3)	(3)	20	--	--
Roasted pyrites	(3)	(3)	--	(3)	--	--
<b>Total</b>	<b>3,610</b>	<b>2,940</b>	<b>809</b>	<b>11,100</b>	<b>211</b>	<b>119</b>

-- Zero.

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

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	2009					2008
	February		Year to date			January-February Thousand metric tons
	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)	
Brazil	--	--	--	--	--	351
Canada	1	18	148	20,000	135.14	391
Chile	47	5,020	47	5,020	105.88	44
Finland	3	180	3	180	64.49	3
Mexico	24	2,310	24	2,310	94.60	--
Norway	1	22	1	22	18.00	--
Peru	--	--	--	--	--	18
Sweden	4	66	4	66	18.00	1
Total	80	7,610	227	27,600	121.31	809
Concentrates	72	7,320	71	7,320	102.05	44
Coarse ores	--	--	--	--	--	--
Fine ores	6	106	7	130	18.00	206
Pellets	--	--	146	20,000	136.99	555
Briquettes	--	--	--	--	--	--
Other agglomerates	--	--	--	--	--	--
Roasted pyrites	3	180	3	180	64.49	4
Total	80	7,610	227	27,600	121.31	809

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN FEBRUARY 2009<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Canada	--	--	1	--	--	--	1
Chile	47	--	--	--	--	--	47
Finland	--	--	--	--	--	3	3
Mexico	24	--	--	--	--	--	24
Norway	--	--	1	--	--	--	1
Sweden	--	--	4	--	--	--	4
Total	72	--	6	--	--	3	80

-- Zero.

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

<sup>2</sup>Includes agglomerates.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2009					2008
	February		Year to date			January-February Thousand metric tons
	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)	
Brazil	--	--	--	--	--	147
Canada	--	--	146	20,000	136.99	391
Peru	--	--	--	--	--	18
Total	--	--	146	20,000	136.99	555

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 9  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,  
BY CUSTOMS DISTRICT<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	February	January-February	
	2009	2009	2008
Baltimore, MD (13)	--	130	525
Charleston, SC (16)	4	4	1
Chicago, IL (39)	--	15	45
Cleveland, OH (41)	1	1	26
Mobile, AL (19)	--	--	18
New Orleans, LA (20)	72	72	191
New York, NY (10)	--	--	1
Ogdensburg, NY (07)	1	2	(3)
Philadelphia, PA (11)	3	3	3
Total	80	227	809

-- Zero.

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

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,  
BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	February	January-February	
	2009	2009	2008
Baltimore, MD (13)	--	130	320
Chicago, IL (39)	--	15	45
Cleveland, OH (41)	--	--	26
Mobile, AL (19)	--	--	18
New Orleans, LA (20)	--	--	147
Total	--	146	555

-- Zero.

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

Source: U.S. Census Bureau.