

# Mineral Industry Surveys

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## IRON ORE IN APRIL 2009

U.S. mine production of iron ore in April 2009, on a daily average basis, was 22% less than that for the prior month, and was 59% less than that of April 2008, according to the U.S. Geological Survey (USGS). Average daily production, at 56,600 metric tons (t), was 15,600 t less than that of March 2009.

Average daily shipments in April 2009, at 64,300 t, were 3 times those of the prior month but 109,700 t less than those of April 2008. Mine stocks at the end of April 2009 were 230,000 t less than the stocks held on March 31, a slight decrease. U.S. net exports of iron ore in March 2009 were 106,000 t, with exports more than 8 times imports.

**Price.**—As the annual contract date, April 1, passed, contract negotiations continued between the leading iron ore producers and steelmakers. BHP Billiton Ltd. (Melbourne, Australia) indicated that it would like to eliminate the 12-month contract system using either the spot market or some type of index price. Both Companhia Vale do Rio Doce (Rio de Janeiro, Brazil) and Rio Tinto plc (London, United Kingdom) favored continuing with a contract price because they felt it was more stable. China reportedly was expected to reduce iron ore imports in 2009 by 20% compared with 2008 import levels. A price reduction of upwards of 30% was expected to be negotiated for contract year 2009–10 (Matthews, 2009).

**World Production.**—China's National Development and Reform Commission approved the purchase of 260 million shares of Australia's Fortescue Metals Group Ltd. (FMG) by Hunan Valin Iron and Steel Group Co. Ltd. (China) for \$A644.8 million (US\$445 million). The share purchase agreement, giving Valin 17.3% of FMG capital ownership, had been signed on February 25 and was subsequently approved by the Australian Federal Treasurer. FMG is the third largest producer of iron ore in Australia with 1.6 billion metric tons of iron ore reserves in Western Australia's Pilbara Region (Fortescue Metals Group Ltd., 2009).

**World Exploration and Development.**—Atlas Iron Ltd. (Australia) secured additional berthing facilities at Port Hedland

Point facilities were under construction and were expected to begin exports of Atlas iron ore in April 2010. Atlas began mining iron ore from its 100%-owned Pardoo Mine in 2008, and shipped its first direct shipping ore in December 2008 (Atlas Iron Ltd., 2009).

MMX Mineração e Metálicos S.A. (Rio de Janeiro, Brazil) announced that resources at its Serra Azul Mine had been increased five-fold to 515 million metric tons (Mt). Measured and indicated resources now totaled 381 Mt at the mine (MMX Mineração e Metálicos S.A., 2009).

**Transportation.**—Shipments of iron ore on the Great Lakes totaled 1.8 Mt for the month of April, a decrease of 66% compared with that of April 2008. With steel mills operating at a little more than 40% of capacity, iron ore shipments were 3.1 Mt for the year to date through April, a decrease of 70% from those of the same period in 2008 and the same as the decrease when compared with the average January through April timeframe for the past 5 years (Lake Carriers' Association, 2009).

## References Cited

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to bring its capacity to 6 million metric tons per year. The Utah

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:				
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
April	1,700	9,590	1,930	3,910

<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 APRIL<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2009	2008	2009	2008	2009	2008
Michigan	680	1,100	433	948	3,720	3,140
Minnesota	1,020	3,020	1,500	4,270	8,530	8,180
Total	1,700	4,130	1,930	5,220	12,300	11,300

<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.

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

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2008:				
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
March	662	1,450	1	2,120

<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.

Source: Natural Resources Canada.

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:						
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
March	1,630	4,580	1,430	3,930	2,330	7,400

<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			
	4th quarter	Total	January	February	March	1st quarter
Algeria	--	80	--	--	--	--
Belgium	(3)	218	(3)	--	--	(3)
Canada	2,120	9,030	206	106	113	425
China	54	91	2	(3)	2	4
Colombia	5	11	1	2	5	8
Czech Republic	--	83	--	--	--	--
France	156	210	(3)	--	--	(3)
Germany	76	156	--	--	--	--
Malaysia	--	25	1	--	--	1
Mexico	68	328	(3)	11	(3)	12
Peru	(3)	103	--	--	--	--
Romania	--	128	--	--	--	--
Serbia	--	51	--	--	--	--
Slovakia	455	505	--	--	--	--
Spain	--	102	--	--	--	--
Sweden	1	4	--	--	--	--
Other	2	14	(3)	(3)	--	1
<b>Total</b>	<b>2,940</b>	<b>11,100</b>	<b>211</b>	<b>119</b>	<b>120</b>	<b>450</b>
Concentrates	59	142	2	2	5	9
Coarse ores	25	46	(3)	(3)	--	(3)
Fine ores	21	136	2	6	2	10
Pellets	2,840	10,800	207	111	113	431
Briquettes	(3)	(3)	--	--	--	--
Other agglomerates	(3)	20	--	--	--	--
Roasted pyrites	(3)	(3)	--	--	--	--
<b>Total</b>	<b>2,940</b>	<b>11,100</b>	<b>211</b>	<b>119</b>	<b>120</b>	<b>450</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
	March		Year to date			January-March 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	--	--	--	--	--	493
Canada	1	12	149	20,000	134.63	417
Chile	--	--	47	5,020	105.88	89
Finland	--	--	3	180	64.49	3
Mexico	--	--	24	2,310	94.60	25
Norway	--	--	1	22	18.00	--
Peru	5	283	5	283	57.11	18
Sweden	--	--	4	66	18.00	2
United Kingdom	8	1,630	8	1,630	197.51	--
Venezuela	--	--	--	--	--	25
Total	14	1,930	241	29,500	122.32	1,070
Concentrates	--	--	72 <sup>r</sup>	7,320	102.05	114
Coarse ores	8	1,630	8	1,630	197.51	--
Fine ores	1	12	8	141	17.99	279
Pellets	5	283	151	20,200	134.36	675
Briquettes	--	--	--	--	--	--
Other agglomerates	--	--	--	--	--	--
Roasted pyrites	--	--	3	180	64.49	4
Total	14	1,930	241	29,500	122.32	1,070

<sup>r</sup>Revised. -- 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 MARCH 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
Peru	--	--	--	5	--	--	5
United Kingdom	--	8	--	--	--	--	8
Total	--	8	1	5	--	--	14

-- 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
	March		Year to date			January-March 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	--	--	--	--	--	215
Canada	--	--	146	20,000	136.99	417
Peru	5	283	5	283	57.11	18
Venezuela	--	--	--	--	--	25
Total	5	283	151	20,200	134.36	675

-- 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.)	March	January-March	
	2009	2009	2008
Baltimore, MD (13)	--	130	598
Charleston, SC (16)	--	4	1
Chicago, IL (39)	--	15	45
Cleveland, OH (41)	--	1	53
Mobile, AL (19)	5	5	18
New Orleans, LA (20)	--	72	354
New York, NY (10)	--	--	1
Ogdensburg, NY (07)	1	3	(3)
Philadelphia, PA (11)	--	3	3
Port Arthur, TX (21)	8	8	--
Total	14	241	1,070

-- 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.)	March	January-March	
	2009	2009	2008
Baltimore, MD (13)	--	130	320
Chicago, IL (39)	--	15	45
Cleveland, OH (41)	--	--	53
Mobile, AL (19)	5	5	18
New Orleans, LA (20)	--	--	240
Total	5	151	675

-- 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.