

# Mineral Industry Surveys

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## IRON ORE IN SEPTEMBER 2007

U.S. mine production of iron ore in September 2007, on a daily average basis, was slightly greater than that for the prior month, according to the U.S. Geological Survey. Average daily production, at 145,000 metric tons (t), was 1,420 t greater than that of August 2007.

Average daily shipments in September 2007, at 170,000 t, were 3% greater than those of August. Mine stocks at the end of September were 747,000 t less than the stocks held on August 31, a 9% decrease. U.S. exports of iron ore in August 2007 were 18% greater than imports, with net exports at 157,000 t.

Production was 5% less than the corresponding 9 months of 2006. Shipments were 4% less, and iron ore held in finished producer stocks on September 30 was 3% less than the same date in the previous year.

**Prices.**—In anticipation of coming price negotiations, the chief executive of Rio Tinto plc (Australia) suggested that Australian iron ore producers should seek a premium for their product because Chinese steelmakers pay more for delivered Brazilian iron ore through higher transport charges. Even without this potential freight equalization, most analysts forecast a price increase of about 30% (Wilson, 2007).

**Domestic Production.**—Cleveland-Cliffs Inc (Cleveland, OH) announced production figures for the third quarter of 2007 for their North American operations. Mine production was as follows (United States, unless otherwise specified): Empire, 1.1 million metric tons (Mt); Hibbing Taconite, 2.0 Mt; Northshore, 1.3 Mt; Tilden, 2.0 Mt; United Taconite, 1.3 Mt; and Wabush (Canada), 1.2 Mt. Cliffs' share of the total production of 9.0 Mt was 5.7 Mt (Cleveland-Cliffs Inc, 2007).

Steel Dynamics, Inc. announced that it was going ahead with the Mesabi Nugget project in Hoyt Lakes, MN (See Iron Ore December 2005). The company planned to proceed with the \$235 million joint venture project with minority partner Kobe Steel, Ltd. (Japan) to develop a 500,000-metric-ton-per-year-capacity iron-making plant. The Governor of Minnesota announced that the State had approved \$26.5 in non-recourse financing for the project (Steel Dynamics, 2007).

**World Production.**—Rio Tinto announced third quarter production for 2007. Rio Tinto's share of saleable iron ore plus pellets worldwide for calendar year through September was 105.8 Mt—an 8% increase compared with that of the same

period in 2006. Rio Tinto's Yandicoogina Mine, in the Pilbara region of Western Australia, reached its rated capacity of 52 million metric tons per year with the completion of the Junction South East expansion. It is now the leading iron ore mine in terms of output in Australia (Rio Tinto plc, 2007, p. 2, 10).

BHP Billiton Limited (BHPB) announced third quarter production figures for 2007. BHPB's share of iron ore (wet) worldwide for calendar year through September was 75.0 Mt—an slight increase compared with that of the same period in 2006 (BHP Billiton Limited, 2007).

In calendar year 2007 through September, Brazil's Companhia Vale do Rio Doce (CVRD) reported record iron ore production of 223.1 Mt (includes CVRD's Samarco joint venture)—an increase of 11% compared with that of the same period in 2006. Production of iron ore in the third quarter was the highest quarterly production in the company's history.

CVRD pellet production for calendar year 2007 through September was 26.6 Mt—an increase of 10% compared with that of the same period in 2006. All pellet plants were operating at full capacity (Companhia Vale do Rio Doce, 2007, p. 1, 2, 9).

## References Cited

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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
2006:				
September	4,610	40,500	5,280	38,200
October	4,440	45,000	4,420	42,600
November	3,920	48,900	4,430	47,000
December	3,970	52,900	4,800	51,800
2007:				
January	4,260	4,260	2,810	2,810
February	3,350	7,620	574	3,390
March	3,800	11,400	2,110	5,490
April	4,330	15,700	5,150	10,600
May	4,740	20,500	5,450	16,100
June	4,610	25,100	5,120	21,200
July	4,690	29,800	5,210	26,400
August	4,450	34,200	5,090	31,500
September	4,350	38,600	5,100	36,600

<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 SEPTEMBER<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2007	2006	2007	2006	2007	2006
Michigan	995	1,020	1,010	1,020	3,300	2,040
Minnesota	3,350	3,600	4,090	4,260	4,650	6,050
Total	4,350	4,610	5,100	5,280	7,950	8,090

<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
<b>2006:</b>				
August	1,740	1,740	8	3,490
September	949	1,340	8	2,300
October	2,280	963	10	3,250
November	2,590	1,010	8	3,610
December	1,960	1,250	6	3,220
Year total	19,800	13,600	105	33,600
<b>2007:</b>				
January	609	616	5	1,230
February	874	571	6	1,450
March	1,030	867	8	1,910
April	1,210	1,450	5	2,660
May	1,720	1,650	8	3,380
June	1,650	1,310	7	2,960
July	2,070	1,340	7	3,420
August	2,150	1,150	6	3,310

<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	Monthly	Year to date
<b>2006:</b>						
August	3,200	26,200	3,620	29,400	4,840	38,200
September	3,220	29,400	3,670	33,100	4,750	43,000
October	3,090	32,500	3,460	36,500	4,640	47,600
November	2,780	35,300	3,080	39,600	4,330	51,900
December	2,640	37,900	2,860	42,500	4,180	56,100
<b>2007:</b>						
January	2,850	2,850	3,090	3,090	4,450	4,450
February	2,610	5,450	2,940	6,040	4,690	9,140
March	3,040	8,490	3,450	9,490	4,880	14,000
April	3,010	11,500	3,370	12,900	4,840	18,900
May	3,130	14,600	3,530	16,400	5,000	23,900
June	3,120	17,800	3,470	19,900	4,770	28,600
July	3,080	20,800	3,420	23,300	4,860	33,500
August	3,010	23,800	3,370	26,600	4,970	38,400

<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	2006	2007			
		1st quarter	2nd quarter	July	August
Algeria	340	--	213	138	124
Canada	7,610	885	2,360	719	653
China	100	1	286	342	212
Colombia	--	--	6	--	--
Mexico	215	1	1	12	30
Peru	--	--	5	(3)	--
Romania	--	--	87	--	--
Other	10	1	4	1	1
Total	8,270	889	2,960	1,210	1,020
Pellets	8,060	885	2,930	1,200	988
Concentrates	59	1	8	1	20
Briquettes	23	--	--	--	(3)
Sinter	77	(3)	(3)	(3)	--
Direct shipping ores - coarse	6	(3)	2	(3)	(3)
Direct shipping ores - fines	42	3	14	8	10
Roasted pyrites	1	(3)	(3)	--	(3)
Total	8,270	889	2,960	1,210	1,020

-- 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	2007					2006
	August		Year to date			January-August
	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)	Thousand metric tons
Australia	--	--	--	--	--	8
Brazil	194	12,600	1,810	108,000	60.00	2,980
Canada	643	34,800	3,310	192,000	57.96	4,060
Chile	--	--	232	12,900	55.69	238
Finland	--	--	5	269	53.80	6
Greece	--	--	--	--	--	15
Greenland	--	--	(4)	3	197.65	--
Mexico	1	35	30	1,510	50.30	9
Norway	--	--	8	365	45.63	--
Peru	--	--	90	2,740	30.40	38
Sweden	24	2,860	94	6,800	72.31	(4)
Trinidad and Tobago	--	--	--	--	--	284
United Kingdom	--	--	(4)	25	213.64	(4)
Venezuela	--	--	--	--	--	23
Total	862	50,300	5,580	325,000	58.26	7,650
Concentrates	235	8,080	798	32,400	40.59	1,600
Coarse ores	24	2,840	119	7,530	63.28	--
Fine ores	26	825	869	39,300	45.22	1,890
Pellets	576	38,500	3,780	245,000	64.92	4,150
Other agglomerates	1	35	11	286	26.00	9
Roasted pyrites	--	--	7	339	48.43	6
Total	862	50,300	5,580	325,000	58.26	7,650

-- 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.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN AUGUST 2007<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	
Brazil	27	--	--	167	--	--	194
Canada	208	--	26	409	--	--	643
Mexico	--	--	--	--	1	--	1
Sweden	(3)	24	--	--	--	--	24
Total	235	24	26	576	1	--	862

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

Country of origin	2007					2006
	August		Year to date			January-August
	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)	Thousand metric tons
Brazil	167	11,200	1,020	70,300	68.65	1,060
Canada	409	27,300	2,700	172,000	63.44	3,070
Mexico	--	--	19	1,220	64.37	--
Peru	--	--	9	404	44.89	--
Sweden	--	--	24	1,870	77.75	--
Venezuela	--	--	--	--	--	23
Total	576	38,500	3,780	245,000	64.92	4,150

-- 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.)	August	January-August	
	2007	2007	2006
Baltimore, MD (13)	208	1,630	2,780
Buffalo, NY (09)	--	--	(3)
Charleston, SC (16)	(3)	2	(3)
Chicago, IL (39)	261	730	906
Cleveland, OH (41)	223	1,790	1,850
Detroit, MI (38)	--	(3)	102
Houston-Galveston, TX (53)	--	38	50
Mobile, AL (19)	--	33	5
New Orleans, LA (20)	168	1,300	1,940
Nogales, AZ (26)	1	11	16
Ogdensburg, NY (07)	--	--	(3)
Philadelphia, PA (11)	--	5	6
Port Arthur, TX (21)	--	24	--
Providence, RI (05)	--	8	--
Savannah, GA (17)	--	(3)	--
St. Louis, MO (45)	--	--	(3)
Tampa, FL (18)	--	13	--
Total	862	5,580	7,650

-- 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.)	August	January-August	
	2007	2007	2006
Baltimore, MD (13)	138	751	1,140
Chicago, IL (39)	71	237	65
Cleveland, OH (41)	223	1,770	1,850
Detroit, MI (38)	--	( <sup>2</sup> )	102
Houston - Galveston, TX (53)	--	38	35
New Orleans, LA (20)	144	964	957
Port Arthur, TX (21)	--	24	--
Total	576	3,780	4,150

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.