

# Mineral Industry Surveys

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## **IRON ORE IN JULY 2008**

U.S. mine production of iron ore in July 2008, on a daily average basis, was slightly less than that for the prior month, according to the U.S. Geological Survey (USGS). Average daily production, at 160,000 metric tons (t), was 2,200 t less than that of June 2008.

Average daily shipments in July 2008, at 199,000 t, were 17,000 t more than those of June. Mine stocks at the end of July 2008 were 1.2 million metric tons (Mt) less than stocks held on June 30, a 13% decrease. U.S. net exports of iron ore in June 2008 were 45,000 t, with exports 6% greater than imports.

**Prices.**—In conjunction with the June 2008 establishment of a transportation premium by Australian miners, Credit Suisse and Deutsche Bank created over-the-counter financial instruments that had already assisted in the trade of almost 2 Mt of iron ore. These cash-settled trades were based on reference indices of spot iron ore contracts published by Metal Bulletin and Steel Business Briefing. One steelmaker doubted the ability of a reference index system to handle a variety of iron ore grades, while a trader indicated that such a system would enable hedging of risk and would better reflect market conditions (Metal Bulletin, 2008).

**Domestic Production.**—Cleveland-Cliffs Inc (Cleveland, OH) acquired United Mining Co. Ltd.'s interest in the United Taconite Mine and pelletizing plant near Eveleth, MN. United Mining, a subsidiary of Laiwu Steel Group (China), sold its 30% control in the joint venture to give Cliffs full ownership of the

operation. The purchase price included \$100 million in cash, more than 1.5 million shares of Cliffs' stock, and 1.2 Mt of iron ore pellets during the next 15 months. United Taconite was expected to produce 5.2 Mt of pellets during 2008 from proven reserves reported to be 133 Mt at the end of 2007 (Cleveland-Cliffs Inc, 2008).

Mergers and Acquisitions.—Sinosteel Corp. (China) acquired controlling interest of Midwest Corp. Midwest, an Australian iron ore company, produces about 1 million metric tons per year (Mt/yr) of direct shipping ore (DSO) from its Koolanooka Mine. In a joint venture with Sinosteel, Midwest expected to start up its Weld Range Mine in early 2011 and buildup to 15 Mt/yr at full production. Also in joint venture with Sinosteel, Midwest anticipated the development of the Koolanooka magnetite project, which was expected to produce 6 Mt/yr of iron ore (Li, 2008).

#### **References Cited**

Cleveland-Cliffs Inc, 2008, Cleveland-Cliffs acquires minority partner's interest in United Taconite: Cleveland, OH, Cleveland-Cliffs Inc, July 14, 2 p. (Accessed January 22, 2009, via http://www.cleveland-cliffs.com.)

Li, Hongmei, 2008, Sinosteel wins control of Midwest: Metal Bulletin, no. 9055,

July 14, p. 15.

Metal Bulletin, 2008, July 2008—MB iron ore index: Metal Bulletin supplement, no. 9054, July 7, 8 p.

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)

	Pro	Production		pments
Period	Monthly	Year to date	Monthly	Year to date
2007:				
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
October	4,820	43,400	5,130	41,700
November	4,280	47,700	4,830	46,600
December	4,320	52,000	4,960	51,500
2008:				
January	4,170	4,170	3,730	3,730
February	3,990	8,160	1,090	4,830
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

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

 ${\it TABLE~2} \\ {\it U.S. PRODUCTION, SHIPMENTS, AND STOCKS~OF~IRON~ORE~IN~JULY}^{1,\,2}$ 

## (Thousand metric tons)

	Produ	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
State	2008	2007	2008	2007	2008	2007	
Michigan	1,160	1,100	1,360	876	3,120	3,120	
Minnesota	3,800	3,580	4,800	4,340	5,050	6,230	
Total	4,960	4,690	6,160	5,210	8,170	9,340	

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

<sup>&</sup>lt;sup>2</sup>Excludes byproduct ores.

<sup>&</sup>lt;sup>2</sup>Excludes byproduct ore.

<sup>&</sup>lt;sup>3</sup>Includes rail and vessel.

<sup>&</sup>lt;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.

 $\label{eq:table 3} {\sf CANADA: \ SHIPMENTS \ OF \ IRON \ ORE}^{1,\,2}}$ 

#### (Thousand dry metric tons)

and Labrador			
	Quebec	Columbia	Total
1,650	1,310	7	2,960
2,070	1,340	7	3,420
2,150	1,150	6	3,310
1,410	1,400	6	2,820
1,860	1,600	6	3,460
2,110	1,470	7	3,590
1,180	1,450	5	2,640
17,900	14,900	75	32,800
1,210	816	6	2,030
1,120	833	4	1,950
1,140	855	4	2,000
1,680	984	4	2,670
2,670	1,330	7	4,010
1,580	1,380	8	2,970
	2,070 2,150 1,410 1,860 2,110 1,180 17,900	2,070 1,340 2,150 1,150 1,410 1,400 1,860 1,600 2,110 1,470 1,180 1,450 17,900 14,900	2,070 1,340 7 2,150 1,150 6 1,410 1,400 6 1,860 1,600 6 2,110 1,470 7 1,180 1,450 5 17,900 14,900 75

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

Source: Natural Resources Canada.

TABLE 4 PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF  ${\rm FURNACE}^1$ 

## (Thousand metric tons)

	Pig iron	production,	Raw steel production					
	blast	furnace	Basic oxygen furnace <sup>2</sup>		Electr	ic furnace		
Period	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date		
2007:								
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		
September	3,010	26,900	3,370	30,000	4,600	43,000		
October	3,200	30,100	3,540	33,500	4,940	48,000		
November	2,940	33,000	3,280	36,800	4,920	52,900		
December	3,160	36,200	3,550	40,400	4,900	57,800		
2008:								
January	2,900	2,900	3,550	3,550	5,100	5,100		
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		

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

Source: American Iron and Steel Institute.

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

<sup>&</sup>lt;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.

TABLE 5 U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND  $\mathsf{TYPE}^{\mathsf{I},\,2}$ 

# (Thousand metric tons)

Country of destination				2008		
and type of product	2007	1st quarter	April	May	June	2nd quarter
Algeria	570				28	28
Belgium		57	30	131		161
Canada	7,340	1,460	702	942	646	2,290
China	1,130	23	7			7
Colombia	7	1		1	2	3
Czech Republic				60	23	83
Germany			49	30		79
Japan	7					
Malaysia		24				
Mexico	148	66	55	45	1	101
Peru	5					
Romania	87				76	76
Slovakia					50	50
Spain			77			77
Sweden	2	1				
Other	8	3	1	5	3	9
Total	9,310	1,630	921	1,210	829	2,960
Pellets	9,170	1,570	910	1,180	819	2,910
Concentrates	51	21	10	26	3	39
Briquettes	1	16				
Sinter	22	(3)				
Direct shipping ores - coarse	6	3	1	7	6	14
Direct shipping ores - fines	51	28		3	(3)	3
Roasted pyrites	11					
Total	9,310	1,630	921	1,210	829	2,960
7000						

<sup>&</sup>lt;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.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE  $^{1,\,2}$  (Exclusive of ore containing 20% or more manganese)

			2008			2007
	Ju	ine		Year to date		January-June
	Thousand	Value <sup>3</sup>	Thousand	Value <sup>3</sup>	Value <sup>3</sup>	Thousand
Country of origin	metric	(thousand	metric	(thousand	(dollars	metric
and type of product	tons	dollars)	tons	dollars)	per ton)	tons
Brazil	308	25,800	1,250	94,600	75.49	1,380
Canada	448	47,900	2,610	251,000	96.38	2,070
Chile			129	7,710	59.95	183
China			(4)	21	59.18	
Finland			3	106	39.26	5
Greenland						(4)
Japan	(4)	7	(4)	7	793.89	
Mexico			25	1,650	65.94	28
Netherlands			1	22	18.00	
Norway						8
Peru	1	69	37	2,020	54.98	90
Sweden	3	59	44	1,910	43.43	57
United Kingdom						(4)
Venezuela	23	1,370	48	2,990	62.62	
Total	784	75,200	4,150	362,000	87.38	3,820
Concentrates	52	2,880	512	30,400	59.29	394
Coarse ores	(4)	7	37	1,800	48.08	82
Fine ores	313	25,800	806	55,000	68.19	705
Pellets	417	46,400	2,780	275,000	98.72	2,630
Briquettes						
Other agglomerates						9
Roasted pyrites	1	69	6	266	44.71	7
Total	784	75,200	4,150	362,000	87.38	3,820

<sup>--</sup> Zero.

<sup>&</sup>lt;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>&</sup>lt;sup>2</sup>Includes agglomerates.

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JUNE  $2008^{1,2}$  (Exclusive of ore containing 20% or more manganese)

#### (Thousand metric tons)

		Type of product						
				Briquettes				
		Coarse	Fine		and other	Roasted		
Country of origin	Concentrates	ores	ores	Pellets	agglomerates	pyrites	Total	
Brazil			308				308	
Canada	52		2	395			448	
Japan		(3)					(3)	
Peru						1	1	
Sweden			3				3	
Venezuela				23			23	
Total	52	(3)	313	417		1	784	

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 ${\bf TABLE~8}$  U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY  $^{\rm I}$ 

			2008			2007
	Ju	ne		Year to date	January-June	
	Thousand	Value <sup>2</sup>	Thousand	Value <sup>2</sup>	Value <sup>2</sup>	Thousand
Country	metric	(thousand	metric	(thousand	(dollars	metric
of origin	tons	dollars)	tons	dollars)	per ton)	tons
Brazil			385	36,300	94.23	791
Canada	395	45,000	2,330	235,000	100.63	1,780
Mexico						19
Peru			18	736	42.03	9
Sweden						24
Venezuela	23	1,370	48	2,990	62.62	
Total	417	46,400	2,780	275,000	98.72	2,630
7						

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Includes agglomerates.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

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

TABLE 9  $\mbox{U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,} \\ \mbox{BY CUSTOMS DISTRICT}^{1,\,2}$ 

(Exclusive of ore containing 20% or more manganese)

#### (Thousand metric tons)

	June	January-J	lune
Customs district (code no.)	2008	2008	2007
Baltimore, MD (13)	302	1,880	1,210
Charleston, SC (16)	4	6	2
Chicago, IL (39)	79	345	320
Cleveland, OH (41)	374	1,180	1,160
Detroit, MI(38)			(3)
Houston-Galveston, TX (53)		30	38
Mobile, AL (19)		50	33
New Orleans, LA (20)	23	646	1,020
New York City, NY (10)	(3)	1	
Nogales, AZ (26)			9
Ogdensburg, NY (07)	2	2	
Philadelphia, PA (11)		3	5
Port Arthur, TX (21)			24
Providence, RI (05)			8
Savannah, GA (17)			(3)
Total	784	4,150	3,820

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

TABLE 10  $\mbox{U.s. IMPORTS FOR CONSUMPTION OF PELLETS,} \\ \mbox{BY CUSTOMS DISTRICT}^1$ 

# (Thousand metric tons)

	June	January	-June
Customs district (code no.)	2008	2008	2007
Baltimore, MD (13)	21	1,030	540
Chicago, IL (39)		123	136
Cleveland, OH (41)	373	1,180	1,140
Detroit, MI (38)			(2)
Houston-Galveston, TX (53)		30	38
Mobile, AL (19)		18	
New Orleans, LA (20)	23	403	754
Port Arthur, TX (21)			24
Total	417	2,780	2,630

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Includes agglomerates.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

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

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.