

# Mineral Industry Surveys

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## IRON ORE IN NOVEMBER 2006

U.S. mine production of iron ore in November 2006, on a daily average basis, was 9% less than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 131,000 metric tons per day (t/d), was 13,000 t/d less than that of October 2006.

Average daily shipments in November 2006, at 148,000 t/d, were 4% more than those of October. Mine stocks at the end of November were 525,000 metric tons (t) less than the stocks held on October 31, a 6% decrease.

U.S. imports of iron ore in October 2006 were 14% greater than exports, with imports exceeding exports by 111,000 t.

**Price.**—Prominent iron ore industry analysts have predicted a 5% to 10% increase in iron ore prices for 2007. Strong Chinese demand in recent months combined with strong spot prices indicated that an increase was most likely (Metal Bulletin, 2006b).

**Mergers and Acquisitions.**—While Australia's Mount Gibson Iron (MGI) Limited (See Iron Ore in May 2005) prepared a takeover bid for Aztec Resource Limited, Chinese and Russian investors had increased their holdings in MGI. By mid-November, Shanghai Merchant Holdings had a 10% interest in MGI and a 7% interest in Aztec, while Russian-based METALLOINVEST Management Company LLC owned 20% of MGI (Prior, 2006§<sup>1</sup>). By month-end, MGI controlled more than 50% of Aztec and had convinced Aztec's board to recommend that shareholders accept MGI's offer (Mining Journal, 2006). MGI's Talling Peak Mine in Western Australia (WA) produced 1.1 million metric tons of iron ore in the quarter ending September 30. MGI sold its 75% interest in Asia Iron Holdings Limited (ultimate owner of the Extension Hill prospect in WA), but now owned the Koolan Island Development Project in WA (Mount Gibson Iron Limited, 2007§).

India's Tata Steel Limited and Brazil's Companhia Siderúrgica Nacional (CSN) were both attempting to buy Anglo-Dutch Corus Group plc. CSN claimed to be a better fit than Tata, warning that the India Government was considering

imposing export controls on domestic iron ore (Metal Bulletin, 2006a).

**Domestic Development.**—Cleveland-Cliffs Inc announced that the participants in the Mesabi Nugget project (See Iron Ore in December 2005.) were unable to agree on terms for development of a reduced iron plant in Hoyt Lakes, MN, and the project was suspended. Cliffs and Kobe Steel Ltd. (Japan), however, plan to proceed with a reduced iron plant based on Kobe's proprietary technology at Cliffs' Northshore facilities in Silver Bay, MN.

Cliffs also planned to restart idle pellet capacity at the Northshore facility (Skillings Mining Review, 2006). This restart plan followed an earlier announcement that two new long-term supply agreements had been signed with AK Steel Corporation (OH) and Republic Engineered Products, Inc. (OH). The contracts replaced prior spot sales agreements. AK Steel agreed to purchase 0.9 million metric tons per year (Mt/yr) to 1.4 Mt/yr of pellets for 7 years. Republic agreed to a five-plus-year purchase contract, which was estimated to be between 0.4 Mt/yr and 0.8 Mt/yr, that would meet a significant part of the steelmaker's pellet needs (Cleveland-Cliffs Inc, 2006§).

## References Cited

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Metal Bulletin, 2006b, Too slow a slowdown for ore consumers: Metal Bulletin, no. 8972, November 27, p. 8-11.  
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Skillings Mining Review, 2006, Hoyt Lakes Mesabi Nugget plan on hold; Cliffs/Kobe to construct plant at Northshore: Skillings Mining Review, v. 95, no. 12, December, p. 17.

## Internet References Cited

- Cleveland-Cliffs Inc, 2006 (November 15), Cleveland-Cliffs announces two new long-term supply agreements, accessed December 7, 2006, via URL <http://www.cleveland-cliffs.com>.  
Mount Gibson Iron Limited, 2007, Quarterly report for the period ended 31 December 2006, accessed February 14, 2007, via URL <http://www.mtgibsoniron.com.au>.  
Prior, Neale, 2006 (November 14), Tsar deals into WA iron, accessed November 14, 2006, via URL <http://www.thewest.com.au>.

<sup>1</sup>References that include a section mark (§) are found in the Internet References Cited section.

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
2005:				
November	4,740	50,200	4,330	46,900
December	4,380	54,500	4,880	51,800
2006:				
January	4,600	4,600	3,600	3,600
February	3,820	8,420	953	4,550
March	4,600	13,000	2,330	6,880
April	4,220	17,200	5,020	11,900
May	4,750	22,000	5,020	16,900
June	4,450	26,400	5,120	22,000
July	4,710	31,100	5,490	27,500
August	4,780	35,900	5,370	32,900
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

<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 NOVEMBER<sup>1, 2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2006	2005	2006	2005	2006	2005
Michigan	856	1,020	1,050	856	1,860	1,790
Minnesota	3,060	3,720	3,380	3,470	5,730 <sup>5</sup>	4,460
Total	3,920	4,740	4,430	4,330	7,590	6,250

<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.

<sup>5</sup>An imbalance of production and shipments compared with stock changes indicates an inventory adjustment at the mines.

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

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
<b>2005:</b>				
October	2,000	927	10	2,930
November	1,920	1,320	10	3,250
December	1,900	1,130	9	3,040
Year total	19,100	10,900	106	30,100
<b>2006:</b>				
January	1,010	705	10	1,720
February	951	730	10	1,690
March	1,210	730	7	1,950
April	1,840	1,170	8	3,030
May	1,670	1,610	12	3,280
June	1,550	1,180	10	2,740
July	2,040	1,220	8	3,270
August	1,740	1,740	8	3,490
September	949	1,340	8	2,300
October	2,280	963	10	3,250

<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
<b>2005:</b>						
October	2,940	30,500	3,470	34,500	4,810	43,200
November	3,000	33,500	3,170	37,700	4,660	47,800
December	2,840	36,300	3,380	41,000	4,420	52,300
<b>2006:</b>						
January	3,190	3,190	3,560	3,560	4,530	4,530
February	3,100	6,300	3,470	7,030	4,250	8,780
March	3,420	9,710	3,800	10,800	5,070	13,900
April	3,280	13,000	3,640	14,500	4,870	18,700
May	3,460	16,500	3,850	18,300	5,060	23,800
June	3,330	19,800	3,790	22,100	4,790	28,600
July	3,210	23,000	3,660	25,800	4,800	33,400
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

<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	2005	2006				
		1st quarter	2nd quarter	3rd quarter	September	October
Algeria	--	--	--	252	50	44
Canada	11,200	998	2,370	2,410	706	628
China	282	--	100	--	--	--
Mexico	30	13	11	10	10	129
Slovakia	237	--	--	--	--	--
United Kingdom	78	--	--	--	--	--
Other	8	1	5	2	1	(3)
<b>Total</b>	<b>11,800</b>	<b>1,010</b>	<b>2,480</b>	<b>2,670</b>	<b>767</b>	<b>801</b>
Pellets	11,600	925	2,420	2,640	754	790
Concentrates	89	2	53	2	1	1
Direct shipping ores	60	2	8	20	10	7
Other	11	83	6	7	3	4
<b>Total</b>	<b>11,800</b>	<b>1,010</b>	<b>2,480</b>	<b>2,670</b>	<b>767</b>	<b>801</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	2006					2005
	October		Year to date			January-October
	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
Bahamas, The	--	--	--	--	--	140
Brazil	424	20,800	3,860	194,000	50.29	3,550
Canada	486	27,700	5,130	296,000	57.76	5,740
Chile	--	--	238	11,500	48.30	270
Greece	--	--	15	386	25.00	23
Mexico	2	52	13	327	25.38	38
Peru	--	--	39	1,230	31.68	32
Russia	--	--	--	--	--	99
Sweden	--	--	(4)	6	342.88	82
Trinidad and Tobago	--	--	299	6,870	22.97	375
Venezuela	--	--	23	439	19.50	148
Other	(4)	26	14	398	28.47	18
<b>Total</b>	<b>912</b>	<b>48,600</b>	<b>9,630</b>	<b>511,000</b>	<b>53.12</b>	<b>10,500</b>
Concentrates	264	11,400	2,000	79,700	39.95	1,000
Coarse ores	--	--	--	--	--	56
Fine ores	144	6,840	2,210	95,500	43.16	3,950
Pellets	502	30,200	5,400	336,000	62.15	5,420
Other agglomerates	2	52	13	327	25.38	72
Roasted pyrites	(4)	13	7	272	38.09	7
<b>Total</b>	<b>912</b>	<b>48,600</b>	<b>9,630</b>	<b>511,000</b>	<b>53.12</b>	<b>10,500</b>

-- 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 OCTOBER 2006<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	179	--	144	101	--	--	424
Canada	85	--	--	400	--	--	486
Italy	--	--	--	--	--	(3)	(3)
Mexico	--	--	--	--	2	--	2
Ukraine	(3)	--	--	--	--	--	(3)
United Kingdom	(3)	--	--	--	--	--	(3)
Total	264	--	144	502	2	(3)	912

-- 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	2006					2005
	October		Year to date			January-October
	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	101	6,180	1,390	90,300	65.00	1,650
Canada	400	24,000	3,970	244,000	61.39	3,670
Russia	--	--	--	--	--	99
Trinidad and Tobago	--	--	15	965	63.50	--
Venezuela	--	--	23	439	19.50	--
Total	502	30,200	5,400	336,000	62.15	5,420

-- 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.)	October	January-October	
	2006	2006	2005
Baltimore, MD (13)	360	3,370	2,880
Buffalo, NY (09)	(3)	1	6
Charleston, SC (16)	(3)	1	1
Chicago, IL (39)	220	1,350	1,140
Cleveland, OH (41)	256	2,450	2,380
Detroit, MI (38)	--	102	180
Great Falls, MT (33)	--	--	(3)
Houston-Galveston, TX (53)	--	50	46
Los Angeles, CA (27)	--	(3)	(3)
Mobile, AL (19)	--	5	63
New Orleans, LA (20)	74	2,270	3,760
New York City, NY (10)	--	--	1
Nogales, AZ (26)	2	20	15
Ogdensburg, NY (07)	--	(3)	(3)
Philadelphia, PA (11)	--	6	22
San Francisco, CA (28)	--	--	4
San Juan, PR (49)	--	--	6
St. Louis, MO (45)	--	(3)	--
Wilmington, NC (15)	(3)	(3)	--
Total	912	9,630	10,500

-- 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.)	October	January-October	
	2006	2006	2005
Baltimore, MD (13)	144	1,370	1,160
Chicago, IL (39)	27	184	53
Cleveland, OH (41)	256	2,450	2,380
Detroit, MI (38)	--	102	180
Houston-Galveston, TX (53)	--	35	36
Mobile, AL (19)	--	--	61
New Orleans, LA (20)	74	1,250	1,560
Total	502	5,400	5,420

-- 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.