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Mineral Industry Surveys

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IRON ORE IN NOVEMBER 2007

U.S. mine production of iron ore in November 2007, on a daily average basis, was 8% less than that for the prior month, according to the U.S. Geological Survey (USGS). Average daily production, at 143,000 metric tons (t), was 13,000 t less than that of October 2007.

Average daily shipments in November 2007, at 161,000 t, were 4,450 t less than those of October. Mine stocks at the end of November were 554,000 t less than stocks held on October 31, a 7% decrease. U.S. imports of iron ore in October 2007 were 38% greater than exports, with net imports at 274,000 t.

Prices.—ArcelorMittal SA announced that the company would be transferring a portion of the rising energy and raw materials costs for steel production to its customers in 2008. ArcelorMittal's steel price would increase by $40 per short ton in January 2008 in addition to the increase of $20 per ton on October 1, 2007 (Matthews, 2007).

The spot price for iron ore imported into China was reported to have fallen from a high of more than $200 per metric ton. About 50 small steel mills in Hebei Province ceased production owing to the high cost of iron ore. Prices for ore with 63.5% iron content were quoted at $190 per metric ton, following a relatively fast run-up from $103 per ton at the beginning of August (Li, 2007).

Exploration and Development.—A joint team of mineral resource specialists from the Afghanistan Geological Survey and the U.S. Geological Survey confirmed the presence of several sedimentary- and igneous-based iron ore deposits in Afghanistan. Haji Gak, a large iron oxide deposit, is hosted in sedimentary rocks and contains an estimated 2.2 billion metric tons (Gt), grading between 63% and 69% iron (Mining Journal, 2007; Peters and others, 2007, p. 348-354).

Fortescue Metals Group Ltd. reported a discovery of inferred resources exceeding 1.0 Gt with an average grade of 56% iron at its Solomon project in the Pilbara Region of Western Australia. The Solomon project is located 100 to 150 kilometers (km) west of Fortescue's main deposits at Cloud Break and Christmas Creek. A 100-km railway spur, estimated to cost A$300 million, would access Fortescue's existing rail and port facilities (Dixon, 2007). The 100-km spur, however, might not be needed if Australia's National Competition Council approves Fortescue's petition to transport ore on the nearby rail lines operated by BHP Billiton Limited and Rio Tinto plc (Barta, 2007).

Ferrexpo plc (Ukraine) announced the start of a $158 million project to expand mine production at its GPL Mine to 32 million metric tons per year (Mt/yr) by 2011 from the current 28 Mt/yr (Ferrexpo plc, 2007).

Mergers and Acquisitions.—BHP Billiton outlined the key elements and benefits of its November 1 proposal to combine with Rio Tinto to form one company. The offer was an exchange of three BHP Billiton shares for each share of Rio Tinto with continued participation for Rio Tinto shareholders through 41% ownership of the combined group. Benefits would result from the optimization of several mineral basin positions and infrastructure throughout the world, development of an enhanced platform for future growth through more efficient infrastructure development, and unique synergies derived from economies of scale and elimination of administrative overlap (BHP Billiton Limited, 2007). Rio Tinto countered that the offer was too low and that, based on port capacity, Rio Tinto was better positioned to take advantage of increases in Chinese demand than was BHP Billiton (Jones, 2007).

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TABLE 1

U.S. PRODUCTION AND SHIPMENTS OF IRON ORE[1, 2]

(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2006:				
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
October	4,820	43,400	5,130	41,700
November	4,280	47,700	4,830	46,600

[1]Data are rounded to no more than three significant digits.

[2]Excludes byproduct ores.

TABLE 2

U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN NOVEMBER[1, 2]

(Thousand metric tons)

State	Production		Shipments[3]		Stocks[4]	
	2007	2006	2007	2006	2007	2006
Michigan	789	856	1,070	1,050	3,090	1,860
Minnesota	3,490	3,060	3,760	3,380	4,020	5,730
Total	4,280	3,920	4,830	4,430	7,110	7,590

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Excludes byproduct ore.

[3]Includes rail and vessel.

[4]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[1, 2]

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2006:				
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
2007:				
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
September	1,410	1,400	6	2,820
October	1,860	1,600	6	3,460

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]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[1]

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
			Basic oxygen furnace[2]		Electric furnace	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
2006:						
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
2007:						
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
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

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]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[1, 2]

(Thousand metric tons)

Country of destination and type of product	2006	2007				
		1st quarter	2nd quarter	3rd quarter	September	October
Algeria	340	--	213	332	70	25
Canada	7,610	885	2,360	1,910	536	638
China	100	1	286	762	208	50
Colombia	--	1	6	--	--	--
Mexico	215	1	1	64	22	2
Peru	--	--	5	(3)	--	--
Romania	--	--	87	--	-- r	--
Sweden	--	--	--	2	2	--
Other	10	1	4	3	2	--
Total	8,270	889	2,960	3,070	839	716
Pellets	8,060	885	2,930	3,010	817	712
Concentrates	59	1	8	31	10	1
Briquettes	23	--	--	(3)	--	--
Sinter	77	(3)	(3)	(3)	(3)	--
Direct shipping ores - coarse	6	(3)	2	1	1	--
Direct shipping ores - fines	42	3	14	29	10	3
Roasted pyrites	1	(3)	(3)	(3)	(3)	--
Total	8,270	889	2,960	3,070	839	716

[r]Revised. -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes agglomerates.
[3]Less than ½ unit.

Source: U.S. Census Bureau.

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

Country of origin and type of product	2007 October Thousand metric tons	2007 October Value[3] (thousand dollars)	2007 Year to date Thousand metric tons	2007 Year to date Value[3] (thousand dollars)	2007 Year to date Value[3] (dollars per ton)	2006 January-October Thousand metric tons
Australia	--	--	--	--	--	8
Brazil	342	17,700	2,640	152,000	57.66	3,860
Canada	641	38,500	4,480	263,000	58.76	5,130
Chile	--	--	279	15,700	56.21	238
China	--	--	--	--	--	(4)
Finland	3	116	8	385	48.13	6
Greece	--	--	--	--	--	15
Greenland	--	--	(4)	3	197.65	--
India	--	--	(4)	6	5,690.00	(4)
Italy	--	--	--	--	--	(4)
Mexico	2	62	34	1,600	47.09	13
Norway	--	--	8	365	45.63	--
Peru	1	50	108	3,320	30.69	39
Sweden	--	--	94	6,800	72.31	(4)
Trinidad and Tobago	--	--	--	--	--	299
Ukraine	--	--	--	--	--	(4)
United Kingdom	--	--	(4)	25	213.64	(4)
Venezuela	--	--	34	1,640	48.35	23
Total	990	56,300	7,680	445,000	57.94	9,630
Concentrates	141	7,260	1,050	45,500	43.37	2,000
Coarse ores	--	--	119	7,530	63.28	--
Fine ores	268	12,600	1,510	70,700	46.77	2,210
Pellets	574	36,200	4,980	321,000	64.40	5,400
Other agglomerates	2	62	15	378	25.20	13
Roasted pyrites	4	166	11	511	46.45	7
Total	990	56,300	7,680	445,000	57.94	9,630

-- Zero.
[1]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.
[2]Includes agglomerates.
[3]Customs value. Excludes international freight and insurance charges.
[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN OCTOBER 2007[1, 2]
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product: Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	Total
Brazil	88	--	213	41	--	--	342
Canada	53	--	55	533	--	--	641
Finland	--	--	--	--	--	3	3
Mexico	--	--	--	--	2	--	2
Peru	--	--	--	--	--	1	1
Total	141	--	268	574	2	4	990

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes agglomerates.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY[1]

Country of origin	2007 October Thousand metric tons	2007 October Value[2] (thousand dollars)	2007 Year to date Thousand metric tons	2007 Year to date Value[2] (thousand dollars)	2007 Year to date Value[2] (dollars per ton)	2006 January-October Thousand metric tons
Brazil	41	2,620	1,140	77,900	68.45	1,390
Canada	533	33,600	3,760	238,000	63.27	3,970
Mexico	--	--	19	1,220	64.37	--
Peru	--	--	9	404	44.89	--
Sweden	--	--	24	1,870	77.75	--
Trinidad and Tobago	--	--	--	--	--	15
Venezuela	--	--	34	1,640	48.35	23
Total	574	36,200	4,980	321,000	64.40	5,400

-- Zero.
[1]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.
[2]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[1, 2]
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	October 2007	January-October 2007	January-October 2006
Baltimore, MD (13)	358	2,470	3,370
Buffalo, NY (09)	--	--	1
Charleston, SC (16)	1	3	1
Chicago, IL (39)	210	1,030	1,350
Cleveland, OH (41)	389	2,540	2,450
Detroit, MI (38)	--	(3)	102
Houston-Galveston, TX (53)	27	65	50
Mobile, AL (19)	--	33	5
New Orleans, LA (20)	--	1,470	2,270
Nogales, AZ (26)	2	15	20
Ogdensburg, NY (07)	--	--	(3)
Philadelphia, PA (11)	3	8	6
Port Arthur, TX (21)	--	24	--
Providence, RI (05)	--	8	--
Savannah, GA (17)	--	(3)	--
St. Louis, MO (45)	--	--	(3)
Tampa, FL (18)	--	13	--
Wilmington, NC (15)	--	--	(3)
Total	990	7,680	9,630

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes agglomerates.
[3]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,
BY CUSTOMS DISTRICT[1]

(Thousand metric tons)

Customs district (code no.)	October 2007	January-October 2007	January-October 2006
Baltimore, MD (13)	146	1,020	1,370
Chicago, IL (39)	43	309	184
Cleveland, OH (41)	359	2,490	2,450
Detroit, MI (38)	--	(2)	102
Houston - Galveston, TX (53)	27	65	35
New Orleans, LA (20)	--	1,070	1,250
Port Arthur, TX (21)	--	24	--
Total	574	4,980	5,400

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Less than ½ unit.

Source: U.S. Census Bureau.