

Mineral Industry Surveys

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IRON ORE IN APRIL 2007

U.S. mine production of iron ore in April 2007, on a daily average basis, was 18% more than that for the prior month, according to the U.S. Geological Survey. Average daily production, at 144,000 metric tons per day (t/d), was 21,500 t/d greater than that of March 2007.

Average daily shipments in April 2007, at 172,000 t/d, were over 2.5 times those of March. Mine stocks at the end of April were 823,000 metric tons (t) less than stocks held on March 31, a 7% decrease.

U.S. imports of iron ore in March 2007 were 2.8 times those of exports, with net imports at 333,000 t.

Exploration and Development.—Consolidated Thompson Iron Mines Ltd. announced the completion of a final feasibility study for the Bloom Lake iron ore deposit. The mine planned would produce 7 million metric tons per year (Mt/yr) of iron ore concentrates and was targeted for startup in late 2008. The project's capital cost was estimated at \$333 million with a total operating cost of \$19.76 per metric ton of concentrate. Bloom Lake is in Quebec about 10 kilometers north of Quebec Cartier Mining Company's Mount Wright Mine (Skillings Mining Review, 2007).

Baffinland Iron Mines Corporation (See Iron Ore in October 2004.) planned to complete a definitive feasibility study of Deposit No. 1 of its Mary River project by yearend 2007. The Mary River project, located on Baffin Island, Nunavut Territory, Canada, is a direct shipping ore project. The definitive feasibility study and additional studies of satellite deposits will include—expanding the proposed annual output at Deposit No. 1 from 10 Mt/yr (dry basis) to 12.6 Mt/yr, making Steensby Inlet on the south coast of Baffin Island the principal deep-water port (thus increasing the shipping season from 9 months to year round), preparing a scoping study for Deposit No. 2, and completing a “Blue Sky” study for development of other deposits, which would increase annual output to 25 Mt/yr. Since 2004, Baffinland had spent about Can\$60 million on exploration drilling and preparation of a scoping study completed in May 2006 (Baffinland Iron Mines Corporation, 2007).

Mergers and Acquisitions.—India's Tata Steel Limited announced the completion of the takeover of Anglo-Dutch Corus Group plc (See Iron Ore in November 2006.). The \$12

billion acquisition created the fifth-leading steelmaker with a combined crude steel capacity of 27 Mt/yr (Ritchie, 2007).

India's Essar Global Limited reached an agreement to acquire Algoma Steel Inc. of Canada for \$1.64 billion. Three days later Essar announced its plan to acquire Minnesota Steel Industries, LLC (See Iron Ore in May 2006.). Essar planned to take advantage of synergies between Algoma, a manufacturer of rolled steel products, based in Sault Ste. Marie, Ontario, and Minnesota Steel, a company currently planning a mine, ore processing facility, direct reduction works, and steel slab-making facilities on Minnesota's Mesabi Iron Range. The proposed complex would cost about \$1.6 billion (Algoma Steel Inc., 2007; Robertson, 2007).

Mumbai-based Vedanta Resources plc agreed to buy a 51% share in Sesa Goa Ltd.—India's leading private iron ore producer and exporter—from Japan's Mitsui & Co. Ltd. for \$981 million. Vedanta planned to make an open offer to Sesa Goa shareholders to acquire an additional 20% of the company. Sesa Goa has 207 million metric tons of reserves and resources in India and exports over 95% of its 10-Mt/yr production to Chinese, European, and Japanese steel companies. Vedanta planned to increase production of iron ore to 15 Mt/yr within 2 years (Mining Journal, 2007). Since 1995, Sesa Goa has diversified into the production of pig iron and metallurgical coke.

References Cited

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- Skillings Mining Review, 2007, Consolidated Thompson expands Bloom Lake asset to 7 Mt per year: Skillings Mining Review, v. 96, no. 5, May, p. 23.

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:				
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
December	3,970	52,900	4,800	51,800
2007:				
January	4,260	4,260	2,810	2,810
February	3,350	7,610	574	3,380
March	3,800	11,400	2,110	5,490
April	4,330	15,700	5,150	10,600

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

²Excludes byproduct ores.

TABLE 2
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN APRIL^{1,2}

(Thousand metric tons)

State	Production		Shipments ³		Stocks ⁴	
	2007	2006	2007	2006	2007	2006
Michigan	1,210	1,010	1,010	1,110	2,710	2,720
Minnesota	3,120	3,200	4,130	3,910	8,280	8,350
Total	4,330	4,220	5,150	5,020	11,000	11,100

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

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes 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:				
March	1,210	730	7	1,950
April	1,840	1,170 ^r	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
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	6	1,230
February	874	571	6	1,450
March	1,030	867	9	1,900

^rRevised.

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

²Includes 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 FURNACE¹

(Thousand metric tons)

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

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

²Raw 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			
	4th quarter	Total	January	February	March	1st quarter
Algeria	88	340	--	--	--	--
Canada	1,830	7,610	580	123	182	885
China	--	100	1	(3)	--	1
Mexico	180	215	(3)	(3)	(3)	1
Other	3	10	--	1	(3)	1
Total	2,110	8,270	582	125	182	889
Pellets	2,080	8,060	581	123	181	885
Concentrates	2	59	(3)	1	(3)	1
Briquettes	6	23	--	--	--	--
Sinter	(3)	77	(3)	(3)	(3)	(3)
Direct shipping ores - coarse	5	6	(3)	(3)	(3)	(3)
Direct shipping ores - fines	12	42	1	1	1	3
Roasted pyrites	(3)	1	(3)	--	--	(3)
Total	2,110	8,270	582	125	182	889

-- Zero.

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

²Includes agglomerates.

³Less 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					2006
	March		Year to date			January-March
	Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)	Thousand metric tons
Australia	--	--	--	--	--	8
Brazil	398	24,100	689	42,900	62.27	1,080
Canada	26	1,430	346	18,200	52.68	657
Chile	49	2,630	133	7,080	53.23	96
Greece	--	--	--	--	--	15
Mexico	1	27	4	95	23.75	4
Norway	8	365	8	365	45.63	--
Peru	--	--	1	70	70.00	38
Sweden	33	528	57	2,400	42.02	--
Trinidad and Tobago	--	--	--	--	--	284
United Kingdom	(4)	7	(4)	22	216.75	--
Total	515	29,000	1,240	71,200	57.48	2,180
Concentrates	(4)	7	166	7,990	48.13	450
Course ores	82	3,160	82	3,160	38.54	--
Fine ores	147	6,730	220	10,200	46.45	850
Pellets	286	19,100	765	49,600	64.87	873
Other agglomerates	1	27	4	95	23.75	4
Roasted pyrites	--	--	1	70	70.00	--
Total	515	29,000	1,240	71,200	57.48	2,180

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN MARCH 2007^{1,2}
(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	--	--	139	260	--	--	398
Canada	--	--	--	26	--	--	26
Chile	--	49	--	--	--	--	49
Mexico	--	--	--	--	1	--	1
Norway	--	--	8	--	--	--	8
Sweden	--	33	--	--	--	--	33
United Kingdom	(3)	--	--	--	--	--	(3)
Total	(3)	82	147	286	1	--	515

-- Zero.

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

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY¹

Country of origin	2007					2006
	March		Year to date			January-March
	Thousand metric tons	Value ² (thousand dollars)	Thousand metric tons	Value ² (thousand dollars)	Value ² (dollars per ton)	Thousand metric tons
Brazil	260	17,700	477	33,100	69.30	491
Canada	26	1,430	264	14,700	55.72	381
Sweden	--	--	24	1,870	77.75	--
Total	286	19,100	765	49,600	64.87	873

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Customs 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.)	March	January-March	
	2007	2007	2006
Baltimore, MD (13)	139	282	996
Charleston, SC (16)	(3)	2	--
Chicago, IL (39)	--	109	--
Cleveland, OH (41)	26	166	--
Detroit, MI (38)	--	--	25
Houston-Galveston, TX (53)	38	38	15
Mobile, AL (19)	33	33	5
New Orleans, LA (20)	270	572	1,120
Nogales, AZ (26)	1	4	11
Port Arthur, TX (21)	--	24	--
Providence, RI (05)	8	8	--
St. Louis, MO (45)	--	--	(3)
Total	515	1,240	2,180

-- Zero.

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

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,
BY CUSTOMS DISTRICT¹

(Thousand metric tons)

Customs district (code no.)	March	January-March	
	2007	2007	2006
Baltimore, MD (13)	--	71	428
Chicago, IL (39)	--	28	--
Cleveland, OH (41)	26	166	--
Detroit, MI (38)	--	--	25
Houston - Galveston, TX (53)	38	38	--
New Orleans, LA (20)	221	439	420
Port Arthur, TX (21)	--	24	--
Total	286	765	873

-- Zero.

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

Source: U.S. Census Bureau.