

Mineral Industry Surveys

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IRON ORE IN FEBRUARY 2005

U.S. mine production of iron ore in February 2005, on a daily average basis, was more than 3% lower than that of the prior month, according to the U.S. Geological Survey. Average daily production was 138,000 metric tons per day (t/d), 4,600 t/d less than that of January 2005.

Shipments in February 2005, on a daily basis, were 62% lower compared with those of January 2005, owing to the seasonal shutdown of shipping on the Upper Great Lakes for the entire month. Mine stocks at the end of February were 2.7 million metric tons (Mt) greater than stock on January 31.

U.S. imports of iron ore in January 2005 were 25% greater than exports, with imports exceeding exports by 199,000 metric tons (t).

Note: Former Table 4—"Consumption and Stocks of Iron Ore and Blast Furnace Production of Hot Metal at U.S. Iron and Steel Plants" has been revised owing to lack of industry information. It is now titled "Production of Pig Iron and Raw Steel in the United States, By Type of Furnace."

Prices.—Reported world iron ore prices increased by 71.5% for fines and in the mid-80% range for pellets and lump. Companhia Vale do Rio Doce (CVRD) and Rio Tinto Limited were among the first producers to sign contracts with consumers. Canadian, Swedish, and other producers followed soon after and received similar price increases (Metal Bulletin, 2005b, d; Mining Journal, 2005c).

However, BHP Billiton Limited (BHPB) continued to hold out for a \$7.50 to \$10 per metric ton (\$/t) increase above the 71.5% increase received by Rio Tinto and CVRD (Clarke, 2005a). A group of sixteen Chinese steel producers banded together to have BHPB reconsider the shipping surcharge for the \$16/t shipping differential between Brazilian and Australian ores to Asian ports (Mining Journal, 2005f).

U.S. prices, as indicated by Cleveland-Cliffs Inc, have also increased relative to 2004 realized prices. The estimated effect of international pellet pricing was anticipated to increase revenues by almost 18% per metric ton. An additional \$1.56/t will be realized based on known contractual base pricing, lag year adjustments, and capped pricing, while the effect of

additional price adjustment factors still is not known (Cleveland-Cliffs Inc, 2005a§¹).

Exploration and Development.—China Metallurgical Construction Group (CMCG) announced that it was not prepared to finance Fortescue Metals Group's (FMG) Pilbara iron ore project in Western Australia (Mining Journal, 2005a). Earlier announcements by FMG (see Iron Ore in October 2004) indicated that binding agreements had been signed with China Harbour Engineering Group and CMCG. FMG claimed that CMCG was now requiring an equity interest to become involved in the financing. Subsequent to CMCG's decision, FMG requested Citigroup to open negotiations through a tender for joint venture in the Christmas Creek iron ore project in Western Australia's Pilbara region (Clarke, 2005b).

In Camarines Norte in the Philippines, a \$20 million mine site project to pulverize iron ore into iron sands for shipment to China was expected to be completed in April (Kirk, 2005).

Kumba Resources Ltd announced an agreement with Hancock Prospecting Pty Ltd to sell Hancock its share of the Hope Downs project. Under the agreement, Kumba will sell its 50% share of the project for A\$241.7 million with discounts for early payment (Mining Journal, 2005e).

In December 2004, Rio Tinto and Mittal Steel Corporation submitted expressions of interest in the Western Areas of Liberia. Liminco, a Liberian state concern, holds the concession with unexploited deposits at Mt. Beeton, Mt. Bele, Mt. Mlenton, and Buluton (Metal Bulletin, 2005c).

Domestic Update.—On March 22, Cleveland-Cliffs Inc announced that it had gained control of greater than 50% of Portman Limited's outstanding shares (Portman Limited, 2005§). This announcement was followed on April 11 by a news release from Cliffs stating they controlled 80% of the shares of Portman (Cleveland-Cliffs Inc, 2005b§). Portman operates two mines—the Koolyanobbing iron ore mine near Southern Cross in Western Australia and the Cockatoo Island Mine off the coast of northern Western Australia.

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

Ispat Inland Mining Company, a subsidiary of Mittal Steel, announced plans to open at least two new iron ore pits near Biwabik and McKinley in northern Minnesota. Without development of the new pits, Ispat Inland's reserves are expected to be exhausted in 8 years. If the new pits are approved, mining could begin as early as January 2007 (Wcco.com, 2005§).

Additional demand for iron ore pellets can be expected when United States Steel Corporation finishes rebuilding its No. 13 blast furnace at the company's steelworks in Gary, IN. The rebuild will raise the blast furnace capacity by 30% and increase availability to 97.5%. The rebuild is expected to be completed by the end of October (United States Steel Corporation, 2005§).

Tennessee Minerals, LLC announced that about 15 Mt of iron ore fines grading greater than 65% iron will be available from Copperhill, TN. Tennessee Minerals expected to rehabilitate a 43-mile rail line to provide access to the 53-acre site with its mountain of calcined fines and begin shipment in the second quarter of 2005. They expect to haul 1.5 to 2 Mt of fines annually and complete the removal of the fines within five to seven years (Tennessee Minerals, LLC, 2005§).

World Production Update.—Rio Tinto planned to spend A\$1 billion on brownfield expansions at Tom Price, Marandoo, and Nammuldi along with a new mine under consideration—all in the Pilbara region of Western Australia. Several options exist for the greenfield operation—Marra Mamba deposits at Silvergrass and Homestead, the West Turner Syncline near Tom Price, or the Western Ranges deposit. Any of these new developments would likely be joint ventures with a major Asian steelmaker (Clarke, 2005c).

In Brazil, Companhia Siderúrgica Nacional (CSN) signed a contract with CVRD to supply 54.7 Mt of iron ore over the next 10.25 years from the Casa de Pedra Mine. The contract, worth \$2 billion, gives CSN the incentive to spend an additional \$520 million to expand the mine from 15 million metric tons per year (Mt/yr) of capacity to 40 Mt/yr and make the necessary additions to port facilities at Septiba (Smith, 2005§; Mining Journal, 2005b).

In India, the State of Goa iron ore industry may have to close up to 50% of their mines if the Supreme Court rules against mines lacking environmental clearances. This ruling planned for April 15 could drastically reduce production from the current level of 23 Mt/yr (Metal Bulletin, 2005a).

In South Africa, Kumba Resources approved the 10 Mt/yr Sishen Expansion Project, which will expand production from 28 Mt/yr to 38 Mt/yr by 2009 at the Sishen iron ore mine in Northern Cape Province. The expansion decision followed agreement with the government-run Transnet to expand rail and port capacity and revise rail tariffs to a Rand-base rather than a U.S. dollar-base (Mining Journal, 2005d).

Transportation.—Traffic through the Soo Locks, at Sault Ste. Marie, MI, recommenced, as planned, on March 25, 2005 (BusinessNorth.com, 2005§).

Expansion plans for Panama Canal lock capacity to handle Capesize vessels was expected to be put to a popular referendum in November 2005. The project, which would probably not be completed before 2010, would allow Brazil to ship iron ore to Asian ports by a more direct route and reduce

voyage times by about 15 days (Poole, 2005). The expansion project is expected to cost between \$7 billion and \$12 billion (Vasquez, 2005§).

Shipping costs for bulk commodities, which rose 500% in the past 2 years, are expected to drop slightly in the second quarter of 2005 from an average of \$70,000 per day in the previous quarter. Port congestion in China and Australia continues to represent a major factor in the lack of vessel availability (Kennedy, 2005§).

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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
2004:				
February	4,230	8,500	1,190	5,100
March	4,130	12,600	2,710	7,810
April	4,630	17,300	5,260	13,100
May	4,800	22,100	5,300	18,400
June	4,470	26,500	5,880	24,200
July	4,950	31,500	5,550	29,800
August	4,500	36,000	5,670	35,500
September	4,420	40,400	5,420	40,900
October	5,110	45,500	4,780	45,700
November	4,730	50,200	5,110	50,800
December	4,450	54,700	5,150	55,900
2005:				
January	4,420	4,420	3,350	3,350
February	3,870	8,290	1,150	4,500

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 FEBRUARY^{1,2}

(Thousand metric tons)

State	Production		Shipments ³		Stocks ⁴	
	2005	2004	2005	2004	2005	2004
Michigan	796	1,080	350	305	1,860	1,920
Minnesota	3,070	3,150	800	882	4,910	5,340
Total	3,870	4,230	1,150	1,190	6,770	7,260

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

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes mines, plants, and loading docks.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE¹

(Thousand dry metric tons)

Period	Newfoundland	Quebec	British Columbia	
			Total	
2004:				
January	1,150	839	5	1,990
February	1,070	589	7	1,660
March	1,250	1,030	6	2,290
April	1,650	858	5	2,520
May	1,920	1,740	7	3,660
June	1,970	981	8	2,960
July	1,710	1,380	10	3,110
August	698	1,120	8	1,830
September	124	1,220	5	1,350
October	635	1,570	7	2,210
November	1,390	958	10	2,360
December	1,370	944	9	2,330
Year total	14,900	13,200	87	28,300
2005:				
January	1,300	1,070	8	2,380

¹Data 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 FURNACE^{1, 2}

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace ³		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2004:						
January	3,340	3,340	3,960	3,960	3,900	3,900
February	3,200	6,540	3,630	7,390	4,000	8,020
March	3,650	10,200	4,120	11,500	4,290	12,300
April	3,400	13,600	3,840	15,300	4,230	16,500
May	3,330	17,000	3,750	19,100	4,560	21,100
June	3,300	20,400	3,680	22,900	4,500	25,400
July	3,260	23,700	3,680	26,700	4,640	30,400
August	3,480	27,200	3,830	30,500	4,620	35,100
September	3,460	30,600	3,790	33,500	4,580	40,400
October	3,570	34,200	3,810	36,600	4,850	46,100
November	3,330	36,300	3,690	42,100	4,470	48,600
December	3,080	40,600	3,810	45,900	4,310	53,000
2005:						
January	3,420	3,420	3,890	3,890	4,390	4,390

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

²Inconsistencies in 2004 year-to-date figures for pig iron and raw steel production reflect consolidated revisions for previous months.

³Raw steel production figures for the basic oxygen process is 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	2005						
	1st quarter	2nd quarter	3rd quarter	4th quarter	October	November	December
Canada	958	2,860	2,300	1,710	534	710	464
China	59	83	129	26	--	--	26
Mexico	1	(3)	1	2	1	1	(3)
Slovakia	--	53	134	--	--	--	--
Trinidad and Tobago	--	--	29	--	--	--	--
Yugoslavia	--	52	--	--	--	--	--
Other	1	1	1	1	(3)	(3)	(3)
Total	1,020	3,050	2,590	1,740	535	711	491
Pellets	1,020	2,960	2,420	1,700	531	707	464
Concentrates	2	19	2	2	1	(3)	(3)
Direct shipping ores	(3)	65	169	30	1	3	26
Other	1	2	(3)	3	2	(3)	1
Total	1,020	3,050	2,590	1,740	535	711	491

-- Zero.

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

²Includes agglomerates.

³Less than 1/2 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	2005					2004
	January		Year to date			January
	Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)	Thousand metric tons
Brazil	278	8,930	278	8,930	32.17	421
Canada	235	9,170	235	9,170	38.94	320
Chile	45	1,170	45	1,170	26.04	--
Greece	13	243	13	243	18.80	--
Mexico	--	--	--	--	--	26
Paraguay	3	34	3	34	10.04	--
Russia	50	4,080	50	4,080	82.00 ⁴	--
Spain	--	--	--	--	--	(5)
Trinidad and Tobago	368	10,700	368	10,700	29.09	--
Venezuela	14	499	14	499	36.00	--
Total	1,010	34,800	1,010	34,800	34.62	768
Concentrates	45	1,170	45	1,170	26.04	--
Coarse ores	17	533	17	533	30.85	--
Fine ores	523	15,000	523	15,000	28.69	241
Pellets	421	18,100	421	18,100	43.05	526
Briquettes	--	--	--	--	--	--
Other agglomerates	--	--	--	--	--	(5)
Roasted pyrites	--	--	--	--	--	--
Total	1,010	34,800	1,010	34,800	34.62	768

-- 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.

⁴May include hot-briquetted iron, direct-reduced iron, or other specialty product.

⁵Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JANUARY 2005^{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	--	--	68	209	--	--	278
Canada	--	--	73	162	--	--	235
Chile	45	--	--	--	--	--	45
Greece	--	--	13	--	--	--	13
Paraguay	--	3	--	--	--	--	3
Russia	--	--	--	50	--	--	50
Trinidad and Tobago	--	--	368	--	--	--	368
Venezuela	--	14	--	--	--	--	14
Total	45	17	523	421	--	--	1,010

-- Zero.

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

²Includes agglomerates.

Source: U.S. Census Bureau.

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

Country of origin	2005					2004
	January		Year to date			January
	Thousand metric tons	Value ² (thousand dollars)	Thousand metric tons	Value ² (thousand dollars)	Value ² (dollars per ton)	Thousand metric tons
Brazil	209	7,580	209	7,580	36.20	207
Canada	162	6,490	162	6,490	39.96	320
Russia	50	4,080	50	4,080	82.00	--
Total	421	18,100	421	18,100	43.05	526

-- 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.)	January	
	2005	2004
Baltimore, MD (13)	254	389
Buffalo, NY (09)	1	1
Chicago, IL (39)	26	--
New Orleans, LA (20)	722	378
San Francisco, CA (28)	3	--
Total	1,010	768

-- Zero.

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

²Includes agglomerates.

Source: U.S. Census Bureau.

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

(Thousand metric tons)

Customs district (code no.)	January	
	2005	2004
Baltimore, MD (13)	185	175
Chicago, IL (39)	26	--
New Orleans, LA (20)	209	352
Total	421	526

-- Zero.

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

Source: U.S. Census Bureau.