U.S. Department of the Interior • Bureau of Mines

MINERAL INDUSTRY SURVEYS

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Iron Ore, Monthly

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IRON ORE IN MAY 1991

U.S. mine production of iron ore in May was only slightly higher than that in April, according to the Bureau of Mines, U.S. Department of the Interior. Mine shipments, however, increased 8%. As a result, mine stocks declined from 10.91 million metric tons to 10.08 million during the month. Shipments from U.S. loading docks on the upper Great Lakes were 5.66 million tons, 8% less than the tonnage for May 1990. Vessel loadings for the first 5 months of 1991 amounted to 12.61 million tons, 3% less than the corresponding year-to-date total for 1990. By May 3, all seven loading ports on Lake Superior and Lake Michigan were in operation.

The domestic iron and steel industry remained in a slump and consumed only 5.08 million tons of ore and agglomerates in May. Year-to-date consumption stood at 24.98 million tons, down 16% from the corresponding 1990 figure. Production of hot metal and pig iron has been relatively stable since mid-March, but has been averaging less than 3.6 million tons per month. Several furnace operators continued to build up stocks of ores and agglomerates in spite of the slump. Furnace stocks rose 15% during the month, increasing from 8.75 million tons to 10.07 million. Concern about a further decline in steel orders was offset by the need to increase pellet stocks at several inland steelworks in the wake of the Michigan mine strike and the traditional shutdown of Great Lakes shipping for the winter. By the end of the month, furnace operators had enough ore in their yards to operate for 61 days. On May 31, 41 blast furnaces were in operation, 1 more than on April 30. The industry has 79 operable furnaces, down from 91 in May 1986 and from 128 in May 1982.

Update: Hanna Agrees to Sell Most of its Interest in IOC to Mitsubishi

The M. A. Hanna Co. of Cleveland, OH, has tentatively agreed to sell most of its 28.14% interest in the Iron Ore Company of Canada (IOC) to

Prepared in the Branch of Metals and Branch of Data Collection and Coordination, July 29, 1991.

Mitsubishi Corp. Under the agreement, Mitsubishi would acquire a 20% interest in the Labrador iron ore operation. Hanna currently serves as both managing agent and sales agent for IOC. Hanna would retain an 8.14% equity in IOC, 50% of the sales agency, and 100% of the management agency. The other shareholders in IOC are Bethlehem Steel International Corp. (34.51%), Dofasco Inc. (6.38%), Labrador Mining and Exploration Co. (11.01%), and National Steel Corp. (19.96%). The transaction, which still must be approved by several regulatory agencies, is scheduled to be completed in late summer or early fall and is expected to produce about \$66 million for Hanna. In 1988, Hanna began focusing more on its specialty chemical business and decided to divest itself of a variety of less productive assets. The IOC transaction is part of a long-term strategy aimed at broadening Hanna's involvement in formulated polymers, while reducing its dependence on the cyclical fortunes of natural resource businesses.

IOC's giant Carol Lake mining and pelletizing complex near Labrador City is capable of producing more than 8 million tons of saleable concentrates and almost 11 million tons of pellets on an annual basis. Mining began in 1962 with the development of the Smallwood ore body. Today, most of the ore comes from the 9-km long Humphrey Mine (3 pits) and the smaller Lorraine Mine. The pelletizing plant was commissioned in 1963 and expanded in 1967. The first stage has four traveling-grate furnaces and can produce 7.0 million tons of pellets per year. The second stage has only 2 traveling-grate furnaces, with a corresponding smaller capacity of 3.5 million tons per year. The pellets and concentrate are hauled on the company-owned railroad 428 kilometers (266 miles) to IOC's loading docks at Sept-Iles, Quebec. In 1990, the company shipped 5.40 million tons of concentrate, 6.24 million tons of standard/acid pellets, 2.43 million tons of fluxed pellets, and 0.15 million tons of pellet chips. IOC also shipped 38,000 tons of Schefferville direct-shipping ore in 1990. The 38,000-ton shipment depleted the stockpile of Schefferville material that had been maintained at the Sept-Iles yards since 1983.

The MINES-DATA System

The telephone number for the MINES-DATA computer bulletin board is $(202)\ 634-4637$; the computer settings are: 2400, N, 8, and 1. Anyone who needs technical assistance or a copy of the MINES-DATA instruction manual can leave a message with the answering machine by calling $(202)\ 634-9632$.

U.S. IRON ORE

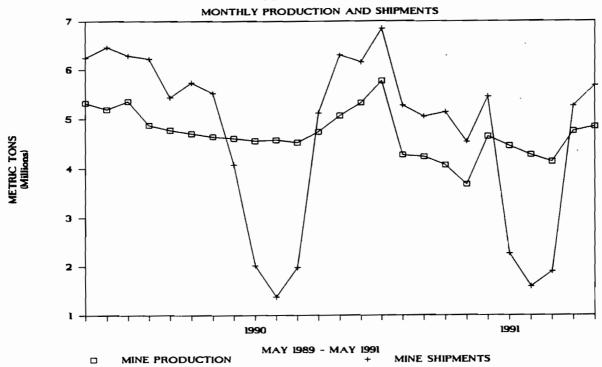


Table 1. - U.S. production and shipments of iron ore, by districts 1/
(Exclusive of ore containing 5% or more manganese)
(Thousand metric tons)

	Lake	Other	Total 2/		
Period	Superior	u.s.	1991	1990	
Production:					
1990 p/ 1991:	54,482	986		55,468	
1st Quarter	12,823	38	12,861	13,648	
April	4,736	18	4,754	4,741	
May	4,832	14	4,846	5,067	
Shipments:					
1990 p/ 1991:	54,295	971		55,266	
1st Quarter	5,715	36	5,751	5,375	
April	5,245	19	5,264	5,123	
May	5,662	16	5,678	6,299	

p/ Preliminary.

^{1/} Excludes byproduct ore, except where noted.

^{2/} Data may not add to totals shown because of independent rounding.

Table 2. - U.S. mine production, shipments and stocks of iron ore 1/
(Exclusive of ore containing 5% or more manganese)
(Thousand metric tons)

	Produ Ma	ction Y	Shiprr Ma		Mine Stocks May 31	
District	1991	1990	1991	1990	1991	1990
Lake Superior:						•
Michigan	1,133	1,149	1,169	1,509	2,155	2,585
Minnesota	3,699	3,843	4,493	4,702	7,782	8,494
Other U.S	14	76	16	89	141	127
Total 2/	4,846	5,067	5,678	6,299	10,078	11,206

^{1/} Excludes byproduct ore.

Table 3. - Canada: Shipments of iron ore (Thousand dry metric tons)

					Tota	nl 1/
Period	Newfound- land	Quebec	Ontario	British Columbia	1991	1990
1990 p/	19,572	14,826	1,150	103		35,652
1st Quarter	2,016	1,990	321	13	4,339	3,749
April	1,465	1,330	109	4	2,908	2,420
May	1,796	1,240	104	4	3,144	2,931

p/ Preliminary.

Source: Energy, Mines, and Resources Canada.

 $[\]ensuremath{\mathrm{2/}}$ Data may not add to totals shown because of independent rounding.

^{1/} Data may not add to totals shown because of independent rounding.

Table 4. - Consumption and stocks of iron ore and agglomerates at U.S. iron and steel plants

(Thousand metric tons)

Consumption o	f	Ores	and	Agg	omerates
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	Apr	il	Year to date		
Consumption by source	1991	1990	1991	1990	
United States ores	3,664	4,515	15,010	17,740	
Canadian ores	495	766	2,314	2,812	
Foreign ores	671	775	2,577	2,920	
Total 1/	4,830	6,056	19,900	23,472	
Consumption by process					
Blast furnaces	4,306	5,651	17,832	21,824	
Blast furnaces	4,306 3	5,651 6	17,832 14	21,824	
	•	•	•	•	
Steel furnaces	3	6	14	35	

Blast Furnace Production of Hot Metal

	April		Year to date	
	1991	1990	1991	1990
Hot metal and pig iron produced				
Hot metal and pig iron produced in blast furnaces No. of blast furnaces operating on	3,474	4,127	13,992	16,410

Stocks of Ores and Agglomerates

	Apri	il 30
Storage Point	1991	1990
eceiving/transfer docks	1,098	927
urnace yards	8,749	7,246
Total consumer	9,847	8,174

^{1/} Data may not add to totals shown because of independent rounding.

Source: American Iron Ore Association (consumption of iron ore).

American Iron and Steel Institute (production of hot metal and pig iron).

^{2/} Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

^{3/} Sold to nonreporting companies or used for purposes not listed.

^{4/} Less than one-half unit.

Table 5. - U.S. exports of iron ore and agglomerates, by country of destination (Thousand metric tons)

Period				Tota	ıl 1/
	Canada	Mexico	Other	1991	1990
1990	3,193	1	5	•-	3,199
1st Quarter	13		1	14	353
April	400	(2/)	1	401	565

^{1/} Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under heading 2601 of the export classification system (Schedule B).

Table 6. - U.S. exports of iron ore and agglomerates, by type (Thousand metric tons)

Period	Pellets	Concentrates	Direct shipping ores	Other	Total 1/
1990	3,018	11	16	155	3,199
1st Quarter	8	2	3	1	14
April	398	1	2	1	401

^{1/} Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under heading 2601 of the export classification system (Schedule B).

^{2/} Less than one-half unit.

Table 7. - U.S. imports for consumption of iron ore and agglomerates, by country (Exclusive of ore containing 20% or more manganese)

	April	April 1991		Year to date 1991			
Country of origin	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	1990 (thousand metric tons	
Australia	- ·					14	
Brazil	138	3,614	622	15,321	24.61	1,106	
Canada	488	17,939	952	36,651	38.48	1,460	
Chile	••		35	741	21.00		
China 2/			(3/)	23	641.58		
India			(3/)	2	850.00		
Mauritania			135	2,798	20.78	157	
Mexico	4/	4/					
Peru			21	635	30.69	18	
Spain			(3/)	15	203.97	(3/)	
U.S.S.R 2/			19	1,940	102.70		
United Kingdom	(3/)	6	(3/)	6	313.25	(3/)	
Venezuela	208	6,571	648	22,005	33.95	937	
Total 5/	834	28,131	2,433	80,138	6/32.94	3,692	

^{1/} Customs value. Excludes international freight, insurance, and other c.i.f. charges.

Source: Bureau of the Census data reported under heading 2601 of the Harmonized Tariff Schedules of the United States.

^{2/} All or part being questioned.

^{3/} Less than one-half unit.

^{4/} Excludes 19,150 kilograms of iron chlorides (2827.33.0000) that were misclassified as fine ores.

The misclassified material had a value of \$2,111 and entered through the Laredo, TX Customs

district [23]. The quantity originally reported was 39 tons.

^{5/} Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

^{6/} Weighted average calculated from unrounded data by dividing total value by total tonnage.

Table 8. - U.S. imports for consumption of iron ore and agglomerates, by type (Exclusive of ore containing 20% or more manganese)

	Apri	l 1991	Ye	Year to date		
Type of product	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	1990 (thousand metric tons)
Concentrates 2/	8	180	41	1,307	31.92	12
Coarse ores	20	584	20	584	29.12	134
Fine ores 2/	67	1,414	3/783	3/18,652	3/23.82	2,021
Pel lets	738	25,928	3/1,585	3/59,455	3/37.51	1,523
Briquettes Other			(4/)	31	86.01	1
agglomerates	1	25	1	25	19.96	•-
Roasted pyrites	••		2	84	48.01	••
Total 5/	834	28,131	2,433	80,138	6/32.94	3,692

^{1/} Customs value. Excludes international freight, insurance, and other c.i.f. charges.

Source: Bureau of the Census data reported under heading 2601 of the Harmonized Tariff Schedules of the United States.

^{2/} A 20-ton shipment of fine ores from the United Kingdom was erroneously classified as concentrates. The misclassified material had a value of \$6,265 and entered through the New York Customs district [10].

^{3/} All or part being questioned.

^{4/} Less than one-half unit.

^{5/} Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

^{6/} Weighted average calculated from unrounded data by dividing total value by total tonnage.

Table 9. - U.S. imports for consumption of iron ore and agglomerates in April 1991

(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

	Type of Product								
Country of origin	Concentrates	Coarse	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	Total 1/		
Brazil		20	67	50	1		138		
Canada	8			480	(2/)		488		
Mexico	`		3/						
United Kingdom			4/(2/)				(2/)		
Venezuela				208			208		
Total 1/	8	20	67	738	1		834		

^{1/} Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under heading 2601 of the Harmonized Tariff Schedules of the United States.

Table 10. - U.S. imports for consumption of pellets, by country

Country of origin	April 1991		Year to date 1991			Year to
	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	1990 (thousand metric tons)
Brazil	50	1,601	104	3,270	31.55	274
Canada	480	17,755	915	35,384	38.66	889
Peru			19	551	29.08	18
U.S.S.R 2/			19	1,940	102.70	
Venezuela	208	6,571	528	18,310	34.65	341
Total 3/	738	25,928	1,585	59,455	4/37.51	1,523

^{1/} Customs value. Excludes international freight, insurance, and other c.i.f. charges.

Source: Bureau of the Census data reported under item 2601.12.00.30 of the Harmonized Tariff Schedules of the United States.

^{2/} Less than one-half unit.

^{3/} Excluded 19,150 kilograms of iron chlorides (2827.33.0000) that were misclassified as fine ores. The misclassified material had a value of \$2,111 and entered through the Laredo, TX Customs district [23].

^{4/} A 20-ton shipment of fine ores from the United Kingdom was erroneously classified as concentrates. The misclassified material had a value of \$6,265 and entered through the New York Customs district [10].

^{2/} All or part being questioned.

^{3/} Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

^{4/} Weighted average calculated from unrounded data by dividing total value by total tonnage.

Table 11. - U.S. imports for consumption of iron ore and agglomerates,
by customs district
(Exclusive of ore containing 20% or more manganese)
(Thousand metric tons)

		Year to date	
Customs district	April 1991	1991	1990
Baltimore (13)	115	1/494	1,032
Charleston, SC (16)	89	1/193	196
Chicago (39)	106	106	108
Cleveland (41)	54	81	243
Detroit (38)	23	26	52
Houston - Galveston, TX (53).		6	(2/)
Laredo, TX (23)	3/	3/	10
Los Angeles (27)		1/2	
Minneapolis, MN (35)		(2/)	
Mobile (19)	120	476	565
New Orleans (20)	67	345	408
New York (10)	(2/)	(2/)	
Ogdensburg, NY (07)		••	1
Philadelphia (11)	258	681	1,075
San Juan, PR (49)	(2/)	(2/)	(2/)
Savannah, GA (17)		22	
Total 4/	834	2,433	3,692

^{1/} All or part being questioned.

Source: Bureau of the Census data reported under item 2601 of the Harmonized Tariff Schedules of the United States.

Table 12. - U.S. imports for consumption of pellets, by customs district (Thousand metric tons)

	Annil	Year to date		
Customs district	April 1991	1991	1990	
Baltimore (13)	107	162	193	
Charleston, SC (16)	69	155	172	
Chicago (39)	105	105	24	
Cleveland (41)	54	54	26	
Detroit (38)	23	23		
Laredo, TX (23)			10	
Mobile (19)	120	398	157	
New Orleans (20)	••	6		
Philadelphia (11)	258	681	941	
Total 1/	738	1,585	1,523	

^{1/} Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under item 2601.12.00.30 of the Harmonized Tariff Schedules of the United States.

^{2/} Less than one-half unit.

³/ Excludes 19,150 kilograms of iron chlorides (2827.33.0000) that were misclassified as fine ores. The misclassified material had a value of \$2,111.

^{4/} Data may not add to totals shown because of independent rounding.