



MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
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Iron Ore, Monthly

IRON ORE IN JUNE 1985

U.S. mine production of iron ore in June declined about 10% compared with that of the previous month, according to the Bureau of Mines, U.S. Department of the Interior. Mine shipments decreased slightly, and shipments from U.S. loading docks on the Great Lakes were 9% less than in May. Exports and imports increased, but consumption declined as output of pig iron was about 5% less than in May. At monthend, 53 blast furnaces were operating, 1 more than on May 31.

Data for the first 6 months of 1985 indicated declines in mine production (8.0%), mine shipments (6.3%), imports (7.3%), and consumption (8.4%), compared with those for the same period of 1984. Exports increased slightly. Total stocks of ore reported at mines, docks, and furnace yards on June 30, 1985 were essentially unchanged from the level 1 year earlier.

On the Mesabi Range, the Butler Taconite project at Nashwauk, Minnesota, was permanently closed on June 29 by M. A. Hanna Co. Approximately 450 employees were affected. With the closure of Butler Taconite, Hanna no longer has direct ownership in U.S. operating iron ore mines but continues to manage the National Steel Pellet project at Keewatin, Minnesota. The company is also operator and principal shareholder of the Iron Ore Co. of Canada and is a major investor in Mineracoes Brasileiras Reunidas, a large iron ore producer in Brazil.

In Michigan, the Tilden Mine was shut down June 15 and 800 employees were laid off, following extensive damage by fire to the No. 1 conveyor system. About 500 employees were to be recalled July 7, and pellet production was expected to resume by the end of July. A previously planned shutdown of the mine, originally scheduled for August, was cancelled.

On the Great Lakes, relatively high water levels in Lakes Michigan and Superior have permitted record loadings of iron ore pellets at two upper lake ports. At Escanaba, Michigan, 68,608 long tons were loaded on the vessel Burns Harbor on June 21 and 69,701 tons were loaded on the Louis W. Foy on July 26. On Lake Superior, a record cargo of 64,093 tons was loaded on the Columbia Star at Silver Bay, Minnesota, on July 26. Previous records were about 68,000 tons at Escanaba and 63,000 tons at Silver Bay, both set in 1983.

Price update: Pickands Mather & Co. (PM) lowered its price and changed its price basis for Minnesota iron ore pellets, effective August 1, 1985. The new price

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is 59.4 cents per long ton unit of iron, natural, delivered to hold of vessel at upper lake port. Changes in upper lake rail freight rates, dock storage charges, and Government levies with respect to transportation or sale of iron ore will be for the account of the buyer. PM's previous price was 80.5 cents, delivered to rail of vessel at lower lake port. Although not specified by the company, the net reduction in price appears to be about 12%, taking into account published lake freight rates and unloading charges. PM said that the price change was made to better meet competition in the iron ore market. The pellet price quoted by other producers in the Lake Superior district remains at 86.9 cents per natural iron unit, delivered rail-of-vessel at lower lake ports.

Most iron ore prices for fiscal 1985 have now been negotiated by Japanese buyers with foreign producers. Compared with prices for fiscal 1984, most prices for lump ore and fines were increased, while prices for pellets were reduced. Prices for fines and lump ore from Chile, and for fines from Canada and Peru are unchanged, while prices for Indian ores were increased after an earlier agreement to maintain them at 1984 levels. Prices for South African ores were reduced. Prices listed below are f.o.b., in U.S. cents per dry long ton unit of iron unless otherwise indicated:

Country and Producer	Ore type	Prices	
		FY 1984	FY 1985
Australia--Hamersley and Mt. Newman.....	lump ore	30.87	31.55
" " " "	fines	26.67	27.05
Robe River.....	fines	23.67	24.05
Savage River.....	pellets	38.30	37.10
Brazil--C.V.R.D. and M.B.R.....	lump ore	24.27	24.65
M.B.R.....	fines	24.94	25.33
Samarco.....	pellet fines	20.25	20.46
Nibrasco.....	pellets	37.31	36.25
Canada--I.O.C. (Carol).....	fines	23.37	23.37
Chile--C.M.P. (Algarrobo).....	pellets	38.80	37.60
India--M.M.T.C. (Bailadila).....	lump ore	30.06	30.73
" "	fines	25.86	26.23
Liberia--Lamco.....	fines	22.20	23.30
Peru--Hierro Peru.....	pellets	30.80	29.50
South Africa--ISCOR.....	lump ore	<u>1/27.19</u>	<u>1/25.86</u>
"	fines	<u>1/23.89</u>	<u>1/22.26</u>

1/ Price per dry metric ton unit.

Source: TEX Report (Tokyo), v. 17, Nos. 4009 and 4013, August 2 and 9, 1985.

Note: Selected tables of iron ore statistics, to be published in Volume I of the 1984 Minerals Yearbook, are included with this issue of Mineral Industry Surveys.

U.S. IRON ORE MONTHLY PRODUCTION AND SHIPMENTS

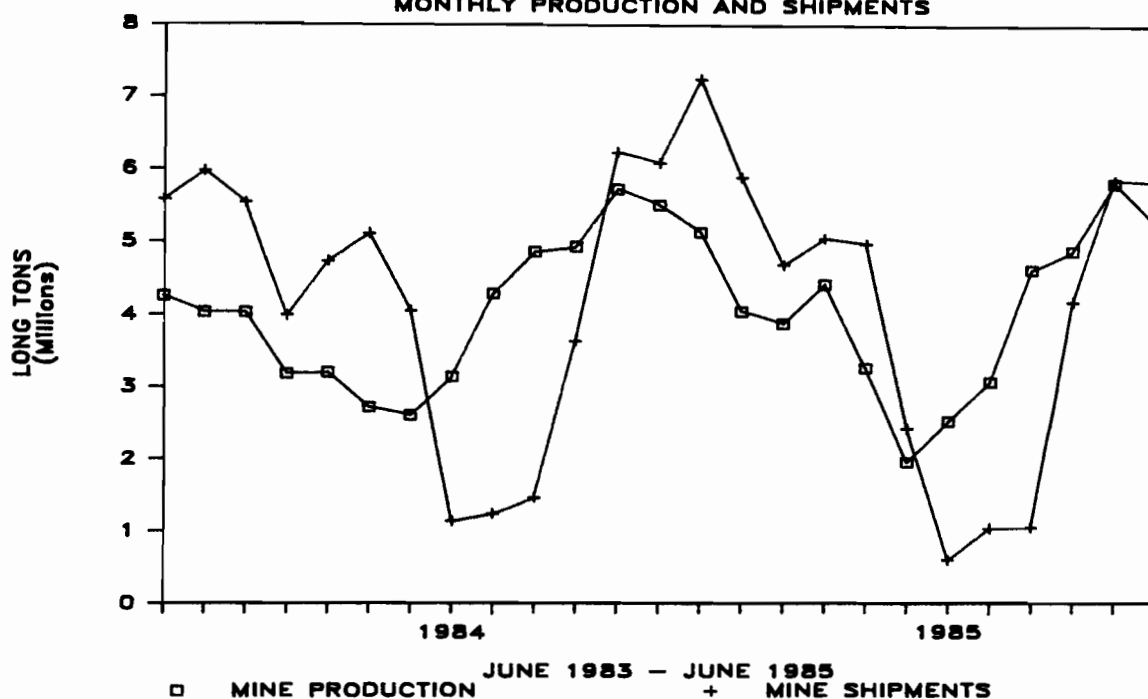


Table 1.--U.S. production and shipments of iron ore, by districts 1/
(Exclusive of ore containing 5% or more manganese)
(Thousand long tons)

	Lake Superior	Other U.S.	Total <u>2/</u>	
			1985	1984
Production:				
1984 p/-----	49,780	1,494	--	51,274
1985:				
1st Quarter-----	9,955	291	10,246	12,325
April-----	4,845	49	4,894	4,946
May-----	<u>r/5,790</u>	34	<u>r/5,824</u>	5,733
June-----	5,151	107	5,258	5,513
Shipments:				
1984 p/-----	48,648	1,574	--	50,222
1985:				
1st Quarter-----	2,457	263	2,718	3,870
April-----	4,180	18	4,197	3,655
May-----	<u>r/5,827</u>	42	<u>r/5,868</u>	6,248
June-----	5,706	122	5,828	6,095

p/ Preliminary. r/ Revised.

1/ Excludes byproduct ore.

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 long tons)

	Production June		Shipments June		Mine Stocks June 30	
	1985	1984	1985	1984	1985	1984
Lake Superior:						
Michigan-----	1,017	1,567	1,248	1,383	4,168	3,937
Minnesota-----	4,134	3,832	4,458	4,540	8,250	8,381
Wisconsin-----	--	--	--	--	--	--
Other U.S.-----	107	113	122	171	378	289
Total <u>2/</u> -----	5,258	5,513	5,828	6,095	12,796	12,608

1/ Excludes byproduct ore.

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

Table 3.--U.S. exports of iron ore
 (Thousand long tons)

	Canada	Other	Total <u>1/</u>	
			1985	1984
1984 ^{p/} -----	4,988	(<u>2/</u>)	--	4,989
1985:				
1st Quarter-----	276	(<u>2/</u>)	276	314
April-----	198	(<u>2/</u>)	198	169
May-----	545	--	545	701
June-----	669	--	669	345

^{p/} Preliminary.

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

2/ Less than one-half unit.

Source: U.S. Bureau of the Census.

Table 4.--Canada: Shipments of iron ore
(Thousand long tons)

	Newfound- land	Quebec	Ontario	British Columbia	1985 Total <u>1/</u>	1984 Total <u>1/</u>
1984-----	20,854	14,419	4,557	153	--	39,983
1985:						
1st Quarter---	1,602	3,157	1,230	--	5,988	5,079
April-----	1,644	1,379	350	2	3,375	2,718
May-----	2,715	1,493	373	3	4,585	4,237
June-----	NA	NA	NA	NA	NA	2,968

NA Not available.

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

Source: Energy, Mines, and Resources Canada.

Table 5.--U.S. imports for consumption of iron ore by countries
(Exclusive of ore containing 10% or more manganese)

	June 1985		Year to date 1985			Year to date 1984 (thousand long tons)
	Thousand long tons	Value <u>1/</u> (thousand dollars)	Thousand long tons	Value <u>1/</u> (thousand dollars)	Value <u>1/</u> (dollars per ton)	
Brazil-----	191	3,498	1,134	21,501	18.96	1,385
Canada-----	846	30,685	3,042	130,948	43.05	3,371
Chile-----	--	--	84	e/1,206	14.36	--
Liberia-----	--	--	823	11,690	14.20	691
Sweden-----	--	--	--	--	--	27
Venezuela <u>2/</u> ---	274	6,209	572	11,241	19.65	669
Other-----	(<u>3/</u>)	10	39	740	18.92	7
Total <u>4/</u> -----	1,311	40,402	5,696	177,330	31.13	6,151

e/ Part estimated.

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

2/ Excludes, where possible, shipments of direct-reduced iron reported as iron ore.

3/ Less than one-half unit.

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

Source: U.S. Bureau of the Census data reported under item 601.24 of the Tariff Schedules of the United States.

Table 8.--Salient iron ore statistics
(Thousand long tons and thousand dollars)

	1980	1981	1982	1983	1984
United States:					
Iron ore (usable, 1/ less than 5% manganese):					
Production-----	69,613	73,174	35,433	37,562	51,269
Shipments-----	69,594	72,181	35,756	44,596	50,883
Value-----	\$2,544,121	\$2,915,239	\$1,491,809	\$1,944,988	\$2,247,686
Average value at mines per ton-----	\$36.56	\$40.39	\$41.72	\$43.61	\$44.17
Exports-----	5,689	5,546	3,178	3,781	4,993
Value-----	\$230,568	\$244,685	\$150,522	\$182,744	\$239,257
Imports for consumption-----	25,058	28,328	14,501	13,246	17,187
Value-----	\$772,844	\$947,977	\$470,847	\$445,731	\$529,065
Consumption (iron ore and agglomerates)-----	98,879	104,385	63,916	70,629	72,514
Stocks, Dec. 31:					
At mines ^{2/} -----	11,725	12,734	12,129	3/π/4,122	3/5,265
At consuming plants-----	35,706	36,203	29,923	π/25,494	24,017
At U.S. docks-----	6,095	6,571	5,750	3,174	2,942
Manganiferous iron ore (5% to 35% manganese):					
Shipments-----	155	156	28	30	79
World: Production-----	π/877,152	π/843,152	767,491	π/723,893	e/790,302

π/ Revised. π/ Preliminary. e/ Estimated.

1/ Direct shipping ore, concentrates, agglomerates and byproduct ore.

2/ Excludes byproduct ore. See footnote 3.

3/ Stocks in 1983 and 1984 are not comparable to those of previous years owing to the reclassification of some stocks from the usable to the byproduct category.

PRELIMINARY

Table 9.--Crude iron ore 1/ mined in the United States in 1984,
by district, State, and mining method
(Thousand long tons and exclusive of ore containing 5% or more manganese)

District and State	Number of mines	Open pit	Underground	Total quantity
Lake Superior:				
Michigan-----	2	39,450	--	39,450
Minnesota-----	10	116,994	--	116,994
Total-----	12	156,444	--	156,444
Other States:				
Missouri-----	1	--	1,967	1,967
Other ^{2/} -----	7	647	--	647
Total-----	8	647	1,967	2,614
Grand total-----	20	157,091	1,967	159,058

1/ Excludes byproduct ore.

2/ Includes California, Montana, Nevada, and Texas.

PRELIMINARY

Table 10.--Usable iron ore produced in the United States in 1984,
by district, State, and type of product
(Thousand long tons and exclusive of ore containing 5% or more manganese)

District and State	Direct shipping ore	Concentrates	Agglomerates	Total quantity
Lake Superior:				
Michigan-----	--	--	12,982	12,982
Minnesota-----	--	853	35,844	36,697
Total or average-----	--	853	48,826	49,679
Other States:				
Missouri-----	--	67	1,257	1,324
Other ^{1/} -----	51	215	--	266
Total or average-----	51	282	1,257	1,590
Grand total or average-----	51	1,135	50,083	51,269

^{1/} Includes California, Montana, Nevada, and Texas.

PRELIMINARY

Table 11.--Shipments of usable iron ore 1/ from mines in the United States in 1984
(Exclusive of ore containing 5% or more manganese)

District and State	Gross weight of ore shipped (thousand long tons)				Average iron content (natural) percent	Total value (thousand dollars)
	Direct- shipping ore	Concen- trates	Agglom- erates	Total quantity		
Lake Superior:						
Michigan-----	37	--	13,226	13,263	64.1	W
Minnesota-----	--	1,193	34,409	35,602	63.8	1,561,516
Total reportable-	37	1,193	47,635	48,865	63.9	1,561,516
Other States:						
Missouri-----	--	65	1,305	1,370	65.7	W
Other ^{2/} -----	95	553	<u>3/</u>	648	54.8	13,191
Total reportable-	95	618	1,305	2,018	62.2	13,191
Total withheld---	--	--	--	--	--	672,979
Grand total-----	132	1,811	48,940	50,883	63.8	2,247,686

W Withheld to avoid disclosing company proprietary data; included in "Total withheld."

1/ Includes byproduct ore.

2/ Includes California, Colorado, Montana, Nevada, New Mexico, New York, and Texas.

3/ Included in concentrates.

PRELIMINARY

Table 12.--Consumption of iron ore and agglomerates in 1984, by State
(Thousand long tons and exclusive of ore containing 5% or more manganese)

State	Iron ore and concentrates <u>1/</u>		Agglomerates <u>2/</u>		Miscellaneous <u>3/</u>	Total reportable <u>4/</u>
	Blast furnaces	Steel furnaces	Blast furnaces	Steel furnaces		
Alabama, Kentucky, Texas, Utah----	578	W	6,840	W	W	7,418
Illinois, Indiana, Michigan-----	34	--	33,156	W	W	33,190
Maryland, New York, Pennsylvania--	1,353	W	13,586	W	W	14,939
Ohio and West Virginia-----	95	W	15,267	53	W	15,415
Undistributed-----	--	111	--	5/239	1,203	1,553
Total <u>5/</u> -----	2,059	111	68,849	5/292	1,203	72,514

W Withheld to avoid disclosing company proprietary data; included in "Undistributed."

1/ Excludes pellets or other agglomerated products.

2/ Includes approximately 43,236 units of pellets produced at U.S. mines and 9,013 units of foreign pellets and other agglomerates.

3/ Includes iron ore consumed in production of cement and iron ore shipped for use in manufacturing paint, ferrites, heavy media, cattle feed, refractory and weighting materials, and for use in lead smelting.

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

5/ Includes an estimated 176 units of ore and agglomerates used for production of direct-reduced iron for steelmaking.

PRELIMINARY

Table 13.--Iron ore consumed in production of sinter at iron and steel plants in the United States in 1984, by State (Thousand long tons)

State	Iron ore consumed <u>1/</u>	Sinter produced
Alabama, Kentucky, and Texas-----	W	W
California, Colorado, and Utah-----	W	W
Illinois, Indiana, and Michigan-----	3,679	7,146
Maryland, New York, and Pennsylvania-----	5,429	6,814
Ohio and West Virginia-----	1,159	2,139
Undistributed-----	496	826
Total <u>2/</u>-----	10,764	16,926

W Withheld to avoid disclosing company proprietary data.

1/ Includes domestic and foreign ores.

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

PRELIMINARY

Table 14.--Production of iron ore agglomerates ^{1/}
in the United States, by type
(Thousand long tons)

Type	Agglomerates produced	
	1983	1984
Sinter-----	2/15,859	3/16,926
Pellets-----	36,291	50,083
Total ^{4/} -----	52,151	67,009

- ^{1/} Production at mines and consuming plants.
^{2/} Includes 7,648 units of self-fluxing sinter.
^{3/} Includes 7,983 units of self-fluxing sinter.
^{4/} Data may not add to totals shown due to independent rounding.

PRELIMINARY

Table 15.--U.S. exports of iron ore, by country
(Thousand long tons and thousand dollars)

Country	1982		1983		1984	
	Quantity	Value	Quantity	Value	Quantity	Value
Canada	3,173	150,200	3,780	182,490	4,988	238,856
India	1	25	(1/)	12	(1/)	2
Iraq	--	--	(1/)	76	--	--
Mexico	1	67	(1/)	4	(1/)	24
Netherlands	--	--	--	--	3	262
Saudi Arabia	--	--	(1/)	34	--	--
United Kingdom	(1/)	21	(1/)	5	(1/)	32
Venezuela	(1/)	67	(1/)	10	(1/)	15
Other	3	142	1	113	1	66
Total 2/	3,178	150,522	3,781	182,744	4,993	239,257

1/ Less than one-half unit.

PRELIMINARY

Table 16.-- U.S. imports for consumption of iron ore, by country
(Thousand long tons and thousand dollars)

Country	1982		1983		1984	
	Quantity	Value	Quantity	Value	Quantity	Value
Australia	(1/)	4	--	--	--	--
Brazil	972	26,339	1,276	30,192	2,533	55,132
Canada	9,281	359,708	8,832	339,472	11,190	413,473
Chile	47	673	--	--	--	--
Liberia	2,399	43,036	1,732	31,487	1,745	25,270
Peru	35	1,057	(1/)	5	7	76
South Africa, Republic of	52	1,083	--	--	--	--
Sweden	71	2,171	68	1,540	84	1,659
Venezuela	2/1,643	2/36,768	3/1,333	3/42,934	4/1,524	4/31,377
Other	(1/)	7	5	102	104	2,078
Total 5/	14,501	470,847	13,246	445,731	17,187	529,065

1/ Less than one-half unit.

2/ Excludes approximately 175,000 long tons of direct-reduced iron valued at \$24,000,000, originally reported as iron ore.

3/ Excludes approximately 82,000 long tons of sponge iron valued at \$6,516,000 originally reported as iron ore.

4/ Excludes approximately 64,000 long tons of sponge iron valued at \$5,016,000, originally reported as iron ore.

5/ Data may not add to totals shown because of independent rounding.

Table 17.—U.S. imports for consumption of iron ore, by customs district
(Thousand long tons and thousand dollars)

Customs District	1982		1983		1984	
	Quantity	Value	Quantity	Value	Quantity	Value
Baltimore	3,451	118,425	3,062	63,216	4,668	133,448
Buffalo	299	5,791	195	8,862	(1/)	(1/)
Chicago	2,667	91,454	1,625	52,357	2,574	59,705
Cleveland	2,087	77,001	4,491	179,771	3,859	136,654
Detroit	228	4,873	182	4,480	393	12,927
Houston	376	14,654	37	1,169	133	2,758
Mobile	1,278	49,584	525	25,778	1,548	68,283
New Orleans	423	9,915	573	12,369	643	12,315
Philadelphia	3,497	92,002	2,463	93,963	3,250	98,777
Wilmington, N.C.	76	2,949	--	--	--	--
Other	118	4,198	91	3,768	119	4,198
Total 2/	14,501	470,847	13,246	445,731	17,187	529,065

1/ Less than one-half unit.

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

PRELIMINARY