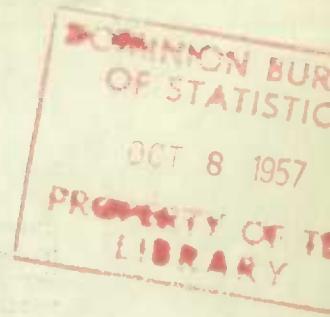
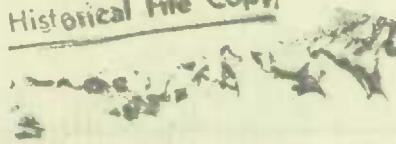


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# THE IRON MINING INDUSTRY

## 1956

*Published by Authority of*  
The Honourable Gordon Churchill, Minister of Trade and Commerce

**DOMINION BUREAU OF STATISTICS**  
Industry and Merchandising Division  
Mineral Statistics Section

## NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 3 volumes, as follows: **Volume I** — The Primary Industries, including mining, forestry and fisheries; **Volume II** — Manufacturing; **Volume III** — Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries which they comprise.

Volume I consists of the following parts:

- Part I — Mineral Statistics
- Part II — Forestry Statistics — Operations in the Woods
- Part III — Fisheries Statistics

Part I includes the following reports which constitute the complete series on Mineral Statistics of Canada. Individual reports are issued as the information becomes available; they are arranged in a form suitable for binding.

- A — General Review of the Mining Industry, 50¢
- B — The Gold Mining Industry, 50¢
- C — The Silver-Lead-Zinc Mining Industry, 25¢
- D — The Nickel-Copper Mining, Smelting and Refining Industry, 25¢
- E — The Iron Mining Industry, 25¢
- F — The Miscellaneous Metal Mining Industry, 25¢
- G — The Smelting and Refining Industry, 25¢
- H — The Coal Mining Industry, \$1.00
- I — The Crude Petroleum and Natural Gas Industry, 25¢
- J — The Asbestos Mining Industry, 25¢
- K — The Feldspar and Quartz Mining Industry, 25¢
- L — The Gypsum Industry, 25¢
- M — The Peat Industry, 25¢
- N — The Salt Industry, 25¢
- O — The Talc and Soapstone Industry, 25¢
- P — The Miscellaneous Non-metal Mining Industry, 25¢
- Q — The Cement Manufacturing Industry, 25¢
- R — The Clay and Clay Products Industry, 25¢
- S — The Lime Industry, 25¢
- T — The Sand and Gravel Industry, 25¢
- U — The Stone Industry, 25¢
- V — Contract Drilling in the Mining Industry, 25¢

## THE IRON MINING INDUSTRY, 1956

Statistics on the iron mining industry have been previously included in the Miscellaneous Metal Mining Industry. The economic stature of this industry and the interest in the data thereon seems to warrant a separate publication.

During 1956 the producers of iron ore shipped 22,348,278 short tons valued at \$160,362,118 compared with 16,283,177 short tons valued at \$110,435,850 at the shipping ports in 1955. Included in the total are direct shipping ore, lump ore, sinter and magnetic concentrates. By-products from treating pyrite are excluded to avoid duplication, as pyrite is measured at the mine before treatment. Statistics on the products of pyrite treatment are included in the manufacturing industries.

In Newfoundland part of the output of Wabana Mines was beneficiated in the new heavy-media separation plant, but a large portion was direct shipping ore. The production from four mines, French, Gagnon,

Ruth and Gill in the Labrador Quebec area increased notably during the year. More pelletized magnetite was shipped from Maroraton Mines to Buffalo, New York via of Picton. In northwestern Ontario the Steep Rock Mines produced direct-shipping ore from the Hogarth open pit and from the Errington underground mine. In the same area Caland Ore Co. Ltd., did extensive dredging to develop a leased deposit. Algoma Ore Properties Limited mined sederite which was sintered before shipping to the steel plant at Sault Ste. Marie and exported to the United States. In British Columbia two mines exported magnetite concentrates. At the Hilton Mines, Bristol, Quebec a new plant was under construction.

Detailed technical information on the mining and development of the iron ore industry may be found in the annual report of the Department of Mines and Technical Surveys, Ottawa. Mineral Resources Information Circular M.R. 22.

**TABLE 1. Principal Statistics for the Iron Ore Mining Industry, Significant Years, 1921-1956**

Year	Establishments	Employees	Earnings	Cost of fuel and electricity	Cost of process supplies and containers	Gross value of production	Net value <sup>1</sup> of production
	No.	No.	\$	\$	\$	\$	\$
1921 .....							
1929 .....							
1931 .....							
1933 .....							
1937 .....							
	No iron ores, known as such, were mined in Canada for some years prior to 1939						
1939 .....	2	216	334,215	81,435	63,450	341,594	196,709
1941 .....	4	272	475,741	267,167	103,161	1,426,057	825,357
1944 .....	8	679	1,462,453	642,761	200,438	1,909,608	789,756
1946 .....	11	823	1,944,436	687,011	604,081	6,822,947	3,466,760
1949 .....	13	3,257	8,851,746	1,160,183	1,284,198	21,203,907	15,430,743
1951 .....	20	3,638	11,357,690	1,806,356	2,920,993	31,141,112	21,870,765
1952 .....	27	4,473	15,955,201	2,240,932	3,850,499	33,744,311	23,005,559
1953 .....	25	5,242	21,073,712	2,875,190	6,214,680	44,102,944	30,066,883
1954 .....	32	4,981	18,907,608	2,802,280	8,681,805	49,666,507	32,051,077
1955 .....	30	4,892	18,740,274	2,694,357	6,466,556	110,435,850	71,788,935
1956 .....	40	6,469	29,249,650	5,950,687	8,412,065	160,362,118	99,606,720

1. Gross value of production, less value of fuel, electricity, process supplies and freight.

TABLE 2. Production of Iron Ore<sup>1</sup>, 1947-1956

Year	Short tons	Value	Year	Short tons	Value
		\$			\$
1947 .....	1,919,366	9,313,201	1952 .....	5,271,849	33,744,311
1948 .....	1,337,244	7,487,611	1953 .....	6,509,818	44,102,944
1949 <sup>2</sup> .....	3,675,096	21,203,907	1954 .....	7,361,598	49,666,507
1950 .....	3,605,261	23,413,547	1955 .....	16,283,177	110,435,850
1951 .....	4,680,510	31,141,112	1956 .....	22,348,278	160,362,118

1. Exclusive of titanium-bearing ores.

2. Newfoundland iron ore included for first time in Canadian production.

TABLE 3. Producers' Shipments of Iron Ore, by Provinces, 1947-1956

Year	Newfoundland			Quebec		
	Quantity		Value	Quantity		Value
	tons	\$	tons	\$		
1947 .....			Joined Confederation in 1949			
1948 .....	1,657,888	7,947,914				
1949 .....	1,169,545	5,851,488				
1950 .....	1,724,991	9,145,980				
1951 .....	1,653,878	8,668,192				
1952 .....	2,686,481	14,201,842				
1953 .....	3,758,526	21,749,304				
1954 .....	7,208,883	45,701,801		650,415	3,818,309	
1955 .....	8,463,572	55,620,755		4,103,173	27,164,396	
1956 .....				7,956,549	58,373,270	
	Ontario		British Columbia		Canada	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1947 .....	1,919,366	9,313,201	—	—	1,919,366	9,313,201
1948 .....	1,336,565	7,482,960	679	4,751	1,337,244	7,487,611
1949 .....	2,011,736	13,192,781	5,472	63,212	3,675,096	21,203,907
1950 .....	2,435,716	17,562,059	—	—	3,605,261	23,413,547
1951 .....	2,841,984	21,205,152	113,535	790,000	4,680,510	31,141,112
1952 .....	2,717,490	19,632,551	900,481	5,443,568	5,271,849	33,744,311
1953 .....	2,832,090	23,137,997	991,247	6,763,105	6,509,818	44,102,944
1954 .....	2,416,911	20,365,003	535,746	3,733,891	7,361,598	49,666,507
1955 .....	4,362,191	34,340,897	610,930	3,228,756	16,283,177	110,435,850
1956 .....	5,558,203	44,177,246	369,954	2,190,847	22,348,278	160,362,118

TABLE 4. Producers' Shipments of Iron Ore, by Months, 1954-1956

Month	1954	1955	1956	Month	1954	1955	1956
Short tons (2,000 pounds)				Short tons (2,000 pounds)			
January .....	237,105	109,021	376,350	August .....	992,271	2,675,718	3,720,055
February .....	115,184	83,704	139,131	September .....	1,410,216	2,457,511	3,356,448
March .....	64,045	93,099	63,718	October .....	1,337,961	2,474,759	3,164,042
April .....	132,950	199,478	461,176	November .....	851,382	1,890,095	2,630,303
May .....	552,589	1,474,369	2,429,943	December .....	183,622	257,219	240,037
June .....	654,174	2,129,963	2,873,610	Year .....	7,361,598	16,283,177	22,348,278
July .....	830,099	2,438,241	2,893,465				

TABLE 5. Producers' Shipments<sup>1</sup> of By-product Iron Sinter, 1954-1956

By-product	1954	1955	1956
Short tons (2,000 pounds)			
Sinter, pellets, from roasted pyrite and pyrrhotite .....	311	27,987	125,689

1. Data are not included in iron ore shipped directly from iron mines.

TABLE 6. Imports and Exports of Iron Ore, 1947-1956

Year	Imports			Exports
	From United States	From Newfoundland	Total <sup>1</sup>	
Tons of 2,000 pounds				
1947 .....	3,126,307	755,612	3,944,550	1,749,976
1948 .....	3,392,063	820,692	4,300,163	1,070,277
1949 .....	2,350,149	42,285	2,517,235	2,550,299
1950 .....	2,975,659	—	3,070,557	2,227,475
1951 .....	3,690,269	—	3,831,418	3,225,767
1952 .....	4,106,737	—	4,267,658	3,846,998
1953 .....	4,008,810	—	4,167,571	4,819,975
1954 .....	2,935,237	—	3,035,191	6,126,938
1955 .....	4,449,741	—	4,538,789	14,568,960
1956 .....	4,885,518	—	5,068,861	20,265,370

1. Includes some ore from other countries, principally Brazil, Sweden and Liberia.

TABLE 7. Iron Ore Charged to Iron Blast Furnaces, 1947-1956

Year	Canadian	Imported		Total
		Tons of 2,000 pounds		
1947 .....	252,085	3,420,890	—	3,672,975
1948 .....	193,935	3,716,683	—	3,910,618
1949 .....	1,107,250	2,738,816	—	3,846,066
1950 .....	1,398,712	2,774,801	—	4,173,513
1951 .....	1,476,440	3,168,581	—	4,645,021
1952 .....	1,404,797	3,477,356	—	4,882,153
1953 .....	1,269,815	3,965,835	—	5,235,650
1954 .....	787,827	2,981,282	—	3,749,109
1955 .....	1,474,081	3,837,301	—	5,311,382
1956 (estimate) .....	1,790,000	3,906,000	—	5,696,000

Note: Newfoundland ore, classified as Canadian in 1949 and thereafter, was included in imported ore in previous years.

**TABLE 8. World Production of Iron Ore, by Countries**  
 (Taken from "Minerals Yearbook" published by the United States Bureau of Mines)

Country <sup>1</sup>	1951	1952	1953	1954	1955
Thousands of long tons <sup>2</sup>					
North America:					
Canada .....	4,179	4,707	5,813	6,573	15,515
Cuba .....	17	99	197	205	44 <sup>3</sup>
Dominican Republic.....	—	19	91	105	98
Mexico .....	453	515	538	514	705
United States .....	116,505	97,918	117,995	78,094	102,999
Total .....	121,200	103,300	124,600	85,500	119,400
South America:					
Argentina .....	54	66	72	60	69
Brazil .....	2,369	3,112	3,560	3,023	4,084
Chile <sup>4</sup> .....	3,201	2,174	2,131	1,958	1,685
Colombia .....	—	—	—	82	344
Peru .....	—	—	985	2,188	1,702
Venezuela .....	1,250	1,939	2,260	5,335	8,306
Total .....	6,900	7,300	9,000	12,600	16,200
Europe:					
Austria .....	2,333	2,611	2,713	2,678	2,793
Belgium .....	78	133	97	80	104
Bulgaria <sup>4</sup> .....	42	59	66	76	100
Czechoslovakia .....	1,770	2,070	2,260	2,260	2,560
Finland .....	—	—	17	130	181
France .....	34,647	40,158	41,777	43,132	49,525
Germany: East <sup>3</sup> .....	481	761	1,278	1,382	1,575
West .....	12,719	15,161	14,388	12,830	15,436
Greece .....	52	135	85	76	189
Hungary .....	306	311	353	421	347
Italy .....	544	778	975	1,048	1,328
Luxembourg .....	5,536	7,131	7,057	5,794	7,091
Norway .....	327	757	1,167	1,077	1,237
Poland .....	890	1,010	1,325	1,600	1,875
Portugal .....	21	88	120	81	138
Rumania <sup>4</sup> .....	470	645	680	685	690
Spain .....	2,351	2,818	2,976	2,869	3,825
Sweden .....	15,140	16,681	16,715	15,083	16,851
Switzerland .....	85	105	103	100	127
U.S.S.R. <sup>4,5</sup> .....	47,200	49,200	59,000	63,300	70,800
United Kingdom .....	14,777	16,233	15,817	15,557	16,175
Yugoslavia .....	573	665	782	1,093	1,376
Total <sup>4</sup> .....	140,300	157,500	169,800	171,400	194,300
Asia:					
China <sup>4</sup> .....	3,400	4,300	5,600	7,200	8,600
Hong Kong .....	160	128	123	91	115
India .....	3,657	3,926	3,845	4,308	4,567
Iran <sup>6</sup> .....	14	10	10	10 <sup>4</sup>	10 <sup>4</sup>
Japan <sup>7</sup> .....	1,150	1,372	1,517	1,605	1,492
Korea, Republic of .....	49	21	19	31	29
Korea, North .....	8	8	8	8	8

TABLE 8. World Production of Iron Ore, by Countries — Concluded

Country <sup>1</sup>	1951	1952	1953	1954	1955
Thousands of long tons <sup>2</sup>					
Asia — Concluded:					
Lebanon .....	—	7	30	49	30
Malaya .....	846	1,055	1,063	1,213	1,466
Philippines .....	889	1,152	1,199	1,402	1,410
Portuguese India .....	429	478	929	1,359	1,424 <sup>3</sup>
Thailand (Siam) .....	6	3	8	3	7
Turkey .....	222	474	489	577	860
Total <sup>4,5</sup> .....	10,900	13,000	14,900	18,300	21,000
Africa:					
Algeria .....	2,778	3,043	3,335	2,881	3,539
Belgian Congo .....	—	—	—	4	12
French Guiana .....	—	—	393	583	640
French Morocco .....	536	645	501	330	305
Liberia .....	168	890	1,264	1,190 <sup>3</sup>	1,840
Northern Rhodesia .....	—	6	2	1	2
Sierra Leone .....	1,141	1,184	1,368	817	1,332 <sup>3</sup>
Southern Rhodesia .....	51	64	62	63	83
Spanish Morocco .....	922	919	970	916	1,017
Tunisia .....	908	962	1,040	935	1,122
Union of South Africa .....	1,399	1,731	1,940	1,863	1,967
Total .....	7,900	9,400	10,900	9,600	11,900
Oceania:					
Australia .....	2,436	2,684	3,299	3,519	3,573
New Caledonia .....	—	—	—	—	—
Total .....	2,400	2,700	3,300	3,500	3,600
World Total (estimate) <sup>1</sup> .....	289,600	293,200	332,500	300,900	366,400

1. In addition to countries listed Burma, Egypt and Madagascar report production in past years, but quantity produced is believed insufficient to affect estimate of world total.

2. This table incorporates a number of revisions of data published in previous iron ore chapters.

3. Exports.

4. Estimate.

5. U.S.S.R. in Asia included with U.S.S.R. in Europe.

6. Year ending March 31 of year following that stated.

7. Includes iron sand production as follows: 1951, 251,942 tons; 1952, 316,923 tons; 1953, 430,954 tons; 1954, 501,439 tons; and 1955, 541,890 tons.

8. Data not available; estimate included in total.

TABLE 9. Estimated Capital and Repair Expenditures, 1952-1956

Year	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Construction	Machinery	Total	Construction	Machinery	Total	Construction	Machinery	Total
Thousands of dollars									
1952 .....	18,034	12,102	30,136	1,073	2,507	3,580	19,107	14,609	33,716
1953 .....	19,067	29,073	48,140	825	4,148	4,973	19,892	33,221	53,113
1954 .....	28,850	15,039	43,889	592	4,264	4,856	29,442	19,303	48,745
1955 .....	16,606	9,353	25,959	417	4,142	4,559	17,023	13,495	30,518
1956 <sup>1</sup> .....	11,500	17,366	28,866	803	6,874	7,677	12,303	24,240	36,543

1. Preliminary estimates.

TABLE 10. Employees and Their Earnings in the Iron Ore Mining Industry, 1951-1956

Year	Number of employees					Number of man-hours worked (all employees)	Earnings			
	Office and administrative		Workmen		Total		Office and administrative	Workmen	Total	
	Male	Female	Male	Female			\$	\$		
1951 .....	273	29	3,298	38	3,636	7,382,442	1,141,375	10,216,315	11,357,690	
1952 .....	446	40	3,942	45	4,473	12,224,191	1,921,935	14,033,266	15,955,201	
1953 .....	504	67	4,631	40	5,242	12,000,682	2,701,636	18,372,076	21,073,712	
1954 .....	402	72	4,464	43	4,981	10,063,564	1,903,869	17,003,739	18,907,608	
1955 .....	543	84	4,238	27	4,892	9,987,875	2,809,482	15,930,792	18,740,274	
1956 .....	863	80	5,508	98	6,469	14,149,274	4,311,060	24,938,590	29,249,650	

TABLE 11. Workmen in the Iron Ore Mining Industry, by Months, 1955 and 1956

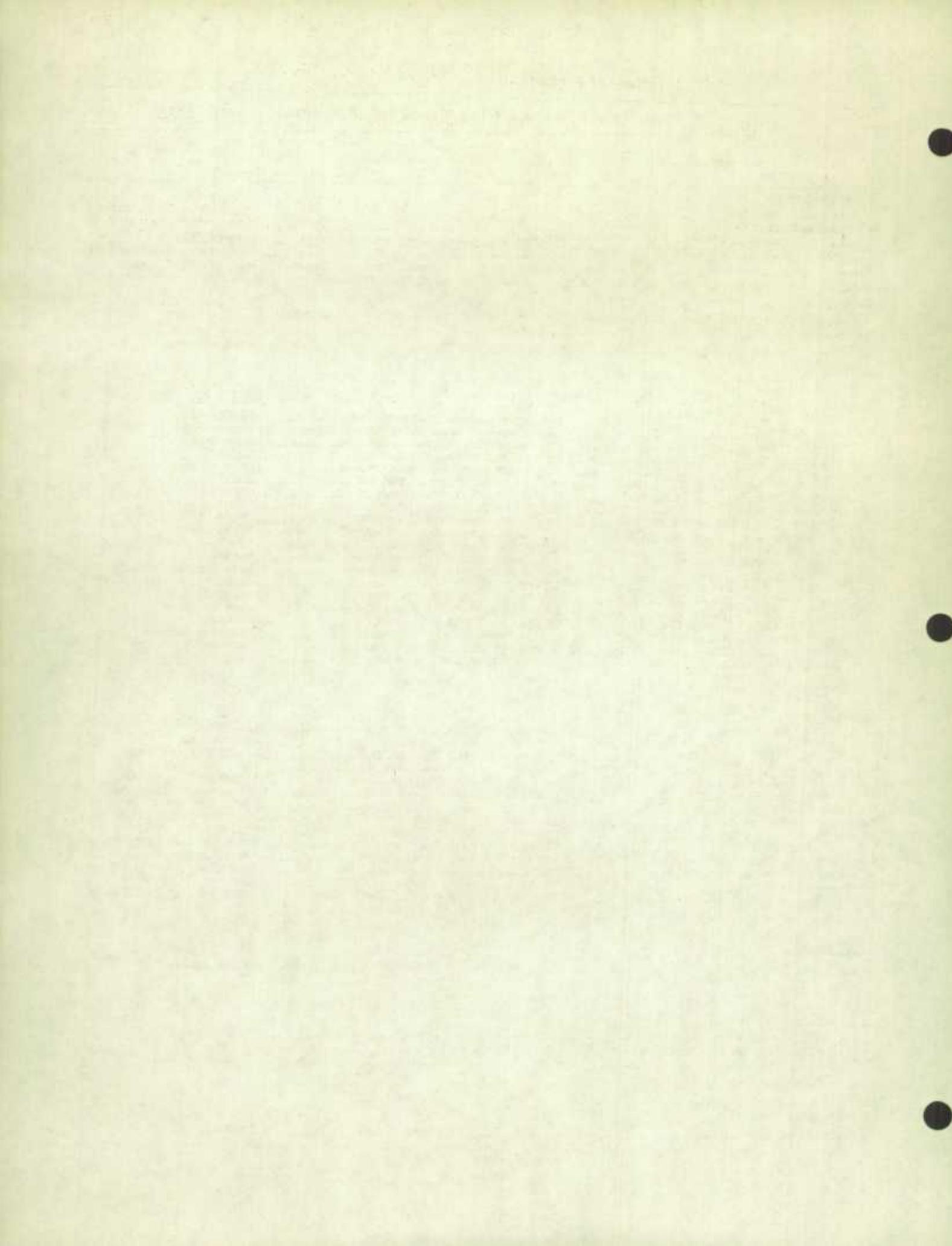
Month	1955		1956					
	Total	Number	Mine			Mill or plant		Total
			Surface		Underground	Male	Female	
			Male	Female	Male			
January .....	3,405	3,020	16	1,639	222	3	4,900	
February .....	3,428	3,066	17	1,658	222	3	4,966	
March .....	3,622	3,090	12	1,617	236	3	4,958	
April .....	4,170	3,284	12	1,622	312	3	5,233	
May .....	4,442	3,601	12	1,545	347	3	5,508	
June .....	4,580	3,768	15	1,567	405	3	5,758	
July .....	4,797	3,768	15	1,625	536	3	5,947	
August .....	4,763	3,860	17	1,577	535	3	5,992	
September .....	4,675	3,831	17	1,609	487	3	5,947	
October .....	4,665	3,703	15	1,618	537	3	5,878	
November .....	4,347	3,628	17	1,726	445	3	5,819	
December .....	4,283	3,359	14	1,660	354	3	5,390	
Average .....	4,265	3,498	15	1,623	387	3	5,526	
Man-hours worked .....	8,726,135						12,301,181	

TABLE 12. Fuel and Electricity used in the Iron Mining Industry, 1956

Kind	Unit of measure	Quantity	Cost at plant
	\$		
Bituminous coal (a) From Canadian mines .....	short ton	2,553	36,791
(b) Imported .....	"	650	9,771
Sub-bituminous coal (from Alberta mines only) .....	"	—	—
Anthracite coal .....	"	3,874	45,312
Lignite coal .....	"	1	14
Coke (for fuel only) .....	"	15,782	457,663
Gasoline, (includes gasoline used in cars and trucks) .....	Imp. gal.	824,268	340,391
Kerosene or coal oil .....	"	18,859	4,974
Fuel oil .....	"	8,611,767	1,536,385
Wood (cords of 128 cubic feet of piled wood) .....	cord	6	36
Gas (a) Liquefied petroleum gases (propane, etc.) .....	Imp. gal.	14,883	5,603
(b) Other manufactured gas .....	M cu. ft.	—	—
(c) Natural gas .....	"	—	—
Other fuel .....	"	—	—
Electricity purchased for power and lighting .....	k.w.h.	526,758,069	3,513,747
Electricity purchased for other purposes .....	"	—	—
Total .....	"	—	5,950,687
Electricity generated (a) For own use .....	k.w.h.	46,352,700	—
(b) For sale .....	"	—	—

## Directory of Firms in the Iron Mining Industry, 1956

Name of firm	Head office address	Location of mine or plant
<b>Newfoundland:</b>		
Canadian Javelin Ltd. <sup>1</sup> .....	1010 Ste. Catherine St. W., Montreal, P.Q. ....	Wabush Lake
Dominion Wabana Ore Ltd. ....	Wabana, Newfoundland .....	Bell Island, Newfoundland
Iron Ore Company of Canada .....	810 Cote de Liesse Road, Montreal, Quebec .....	New Quebec, Labrador
Labrador Mining & Exploration Co. Ltd. ....	360 St. James St. West, Montreal, Quebec .....	Labrador
<b>Nova Scotia:</b>		
Torbrook Iron Ore Mines Ltd. <sup>1</sup> .....	50 Sackville St., Halifax .....	Annapolis-Kings
<b>Quebec:</b>		
Aconic Mining Corp. <sup>1</sup> .....	455 Craig St. West, Montreal, Quebec .....	Natashquan
Atlantic Iron Ores Ltd. <sup>1</sup> .....	326 Bonaventure St., Three Rivers, Quebec .....	Ungava Bay
Bellechasse Mining Corp. Ltd. <sup>1</sup> .....	620 Cathcart St., Montreal, Quebec .....	Saguenay
Cartier Mining Co. Ltd. ....	603 Sterling Tower, Toronto, Ontario .....	Saguenay
Canadian Cliffs Ltd. <sup>1</sup> .....	202 Dominion Bank Bldg., Port Arthur, Ontario .....	Lake Albanel
Consolidated Fenmore Iron Mines Ltd. ....	66 King St. W., Toronto, Ontario .....	Ungava
Consolidated Premium Iron Ores Ltd. <sup>1</sup> .....	80 King St. W., Toronto, Ontario .....	Ungava
Gravimetric Surveys Ltd. <sup>1</sup> .....	53 Queen St., Ottawa, Ontario .....	Swan Lake
Hilton Mines, Pickands Mather & Co. <sup>1</sup> .....	2000 Union Commerce Bldg., Cleveland .....	Bristol Twp.
Hollinger North Shore Exploration Co. Ltd. ....	721 Royal Bank Building, Montreal, Quebec .....	New Quebec
Holannah Mines Ltd. <sup>1</sup> .....	360 St. James St. W., Montreal, Quebec .....	New Quebec
International Iron Ores Ltd. <sup>1</sup> .....	326 Bonaventure St., Three Rivers, Quebec .....	Ungava Bay
Iron Ore Company of Canada .....	810 Cote de Liesse Road, Montreal .....	New Quebec, Labrador
Jalore Mining Co. Ltd. <sup>1</sup> .....	68 Yonge St., Toronto .....	Saguenay, Wakefield Twp.
Moore, W.S. <sup>1</sup> .....	400 Tarrey, Bldg., Duluth, Minnesota .....	Saguenay
New Athona Mines Ltd. ....	25 Adelaide St. W., Toronto, Ontario .....	Ungava
Oceanic Iron Ore of Canada Ltd. <sup>1</sup> .....	44 King St. W., Toronto, Ontario .....	Labrador
Quebec Labrador Development Co. Ltd. <sup>1</sup> .....	100 Adelaide St. W., Toronto, Ontario .....	Duverney Twp.
Quebore Iron Mines Ltd. ....	44 King St. West, Toronto, Ontario .....	Estrees Twp.
St. Joseph Iron Ore Co. <sup>1</sup> .....	79 St. Cyrille St. E., Quebec .....	Mingan
<b>Ontario:</b>		
Algoma Ore Properties Ltd. ....	Cornwall Building, Sault Ste. Marie, Ontario .....	Algoma district, Ontario
Bamboo Lake Mines Ltd. <sup>1</sup> .....	20 Temperance St., Toronto, Ontario .....	Port Arthur
Caland Ore Company <sup>1</sup> .....	38 S. Deaborn St., Chicago, U.S.A. ....	Rainy River, Ontario
Caral Mining Co. Ltd. <sup>1</sup> .....	7 King St. W., Toronto, Ontario .....	Thunder Bay
Clarken Development Ltd. ....	49 Wellington St. E., Toronto, Ontario .....	Hastings Co., Ontario
Calmar Mines Ltd. <sup>1</sup> .....	Haileybury, Ontario .....	Hastings Co., Ontario
Fatima Mining Co. Ltd. <sup>1</sup> .....	25 Adelaide St. W., Toronto .....	Sault Ste. Marie
Head-of-the Lakes Iron Ltd. ....	85 Richmond St. W., Toronto, Ontario .....	Quetico Park, Ontario
Iron Bay Mines Ltd. <sup>1</sup> .....	Haileybury, Ontario .....	Bruce Lake
Jalore Mining Co. Ltd. <sup>1</sup> .....	68 Yonge St., Toronto, Ontario .....	Michipicoten, Ontario
Lake Superior Iron Ltd. <sup>1</sup> .....	159 Craig St., Montreal, Quebec .....	Muriel River
Marmoraton Mining Co. Ltd. ....	701 East Third St., Bethlehem, Pa., U.S.A. ....	Marmora
Multi-Minerals Ltd. <sup>1</sup> .....	25 Adelaide St. W., Toronto .....	Sudbury
Steep Rock Iron Mines Ltd. ....	25 King St. W., Toronto, Ontario .....	Rainy River District, Ontario
<b>Saskatchewan:</b>		
Triana Exploration Ltd. <sup>1</sup> .....	44 King St. W., Toronto, Ontario .....	Stony Rapids
<b>British Columbia:</b>		
Empire Development Co. Ltd. <sup>1</sup> .....	546 Howe St., Vancouver .....	Elk River
Utah Co. of the Americas (Argonaut Division) .....	Box 1000, Campbell River .....	Comox
Texada Mines Ltd. ....	Box 35, Vananda .....	Texada Island
<b>Northwest Territories:</b>		
Belcher Mining Corp. Ltd. <sup>1</sup> .....	80 King St. W., Toronto, Ontario .....	Belcher Islands, N.W.T.



and the underlying mechanism of action. Many of the drugs used in the treatment of hypertension have been shown to exert their effects by influencing the sympathetic nervous system. In addition, some drugs have been shown to exert their effects by influencing the renin-angiotensin-aldosterone system.

The following section will discuss the pharmacology of the various classes of antihypertensive drugs and their mechanisms of action.

**1. Diuretics:** Diuretics are drugs that increase the excretion of water and salt from the body. They are used in the treatment of hypertension because they reduce the volume of blood in the body, which reduces the workload of the heart.

**2. Beta-blockers:** Beta-blockers are drugs that block the action of the hormone epinephrine on the heart and blood vessels. They are used in the treatment of hypertension because they reduce the workload of the heart.

**3. ACE inhibitors:** ACE inhibitors are drugs that inhibit the enzyme angiotensin-converting enzyme. They are used in the treatment of hypertension because they reduce the production of the hormone angiotensin II, which causes vasoconstriction.

**4. Calcium channel blockers:** Calcium channel blockers are drugs that block the entry of calcium ions into the smooth muscle cells of the blood vessels. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**5. Angiotensin II receptor antagonists:** Angiotensin II receptor antagonists are drugs that block the action of the hormone angiotensin II on the blood vessels. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**6. Alpha-blockers:** Alpha-blockers are drugs that block the action of the hormone norepinephrine on the smooth muscle cells of the blood vessels. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**7. Nitrates:** Nitrates are drugs that dilate the blood vessels by causing the release of nitric oxide. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**8. Vasodilators:** Vasodilators are drugs that relax the smooth muscle cells of the blood vessels. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**9. Central nervous system drugs:** Central nervous system drugs are drugs that act on the central nervous system to reduce blood pressure. They are used in the treatment of hypertension because they relax the blood vessels, which reduces the workload of the heart.

**10. Other drugs:** Other drugs that are used in the treatment of hypertension include alpha-agonists, adrenergic antagonists, and adrenergic agonists.

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