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## DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

MINING, METALLURGICAL AND CHEMICAL BRANCH  
OTTAWA - CANADADOMINION BUREAU  
OF STATISTICS

DEC 30

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## PRELIMINARY ESTIMATE OF CANADA'S MINERAL PRODUCTION FOR THE CALENDAR YEAR 1944

(FOR RELEASE TUESDAY, JANUARY 2, 1945)

Canada's mineral production was valued at \$482,260,463 in 1944 according to a preliminary estimate just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa; this is a decrease of \$45,686,000 or 8.6 per cent from the previous year and the lowest since 1939.

The reduction was principally in the metals group. The total value of all metals produced was \$307,336,217, a decrease of 14 per cent or \$49,476,000. On the other hand, the total value of the fuels group increased 10 per cent to \$99,375,445, mainly accounted for by the increased price for coal. The industrial minerals total was down 12 per cent to \$34,201,000. Many of these minerals showed an increase over the previous year, but not large enough to offset the drop in asbestos production. Structural materials showed little overall change, the estimated value being \$41,348,000 as compared with \$42,010,000 in 1943.

Production by provinces was as follows (with 1943 figures in brackets): Ontario, \$209,349,689 (\$231,603,170); Quebec, \$87,416,810 (\$101,610,678); British Columbia, \$56,355,308 (\$68,442,386); Alberta, \$51,376,959 (\$48,179,495); Nova Scotia, \$35,313,438 (\$29,979,837); Saskatchewan, \$22,224,032 (\$26,735,984); Manitoba, \$13,728,126 (\$13,412,266); New Brunswick, \$3,428,966 (\$3,676,834); Yukon Territory, \$954,850 (\$1,625,819); and the Northwest Territories, \$2,112,285 (\$2,679,993), which figures exclude production of pitch-blende products.

## VALUES OF MINERAL PRODUCTION OF CANADA, BY CLASSES, 1933-1944

Year	Metallics	Coal, natural gas, peat and crude petroleum	Other non- metallics	Clay products and other structural materials	TOTAL
		\$		\$	
1933 ...	147,015,593	47,778,436	10,004,537	16,696,687	221,495,253
1934 ...	194,110,968	54,262,099	10,501,762	19,286,761	278,161,590
1935 ...	221,800,849	54,824,200	12,504,008	23,215,400	312,344,457
1936 ...	259,425,194	59,983,320	16,740,117	25,770,741	361,919,372
1937 ...	334,165,243	65,828,879	22,495,271	34,869,699	457,359,092
1938 ...	323,075,154	64,803,294	20,066,123	33,878,666	441,823,237
1939 ...	343,506,123	70,671,328	25,061,849	35,562,759	474,602,059
1940 ...	382,503,012	78,837,874	26,011,498	42,472,651	522,825,035
1941 ...	395,346,581	85,141,997	34,379,440	45,373,272	560,241,290
1942 ...	392,192,452	92,169,291	36,677,122	45,729,807	566,768,672
1943 ...	356,812,760	90,406,880	38,716,568	42,010,254	527,946,462
1944 (x)	307,336,217	99,375,445	34,201,090	41,347,711	482,260,463

(x) Estimated.

## MINERAL PRODUCTION OF CANADA, 1943 and 1944

		1 9 4 3 Quantity	Value	1 9 4 4 (x) Quantity	Value
<u>METALS</u>					
Antimony .....	lb.	1,114,166	189,408	1,937,900	280,996
Arsenic (As <sub>2</sub> O <sub>3</sub> ) .....	lb.	3,153,538	254,009	2,543,000	170,560
Bismuth .....	lb.	407,597	562,484	123,800	154,750
Cadmium .....	lb.	786,611	904,602	547,944	602,738
Chromite .....	ton	29,595	919,878	27,720	761,229
Cobalt .....	lb.	175,961	191,407	38,452	37,990
Copper .....	lb.	575,190,132	67,170,601	547,943,586	65,357,050
Gold .....	Fine oz.	3,651,301	140,575,088	2,885,474	111,090,749
Iron ore .....	ton	641,294	2,032,240	549,922	1,910,716
Lead .....	lb.	444,060,769	16,670,041	301,073,919	13,548,527
Magnesium .....	lb.	7,153,974	2,074,652	10,659,335	2,597,321
Manganese ore .....	ton	48	985	...	...
Mercury .....	lb.	1,690,240	4,559,200	735,856	1,333,516
Molybdenite concentrates..	lb.	784,715	549,515	2,062,700	821,750
Nickel .....	lb.	288,018,615	71,675,322	275,213,106	69,279,061
Palladium, rhodium, iridium, etc. ....	fine oz.	126,004	5,233,068	45,100	2,314,252
Platinum .....	fine oz.	219,713	8,458,951	155,700	5,994,450
Pitchblende products .....	...	(x)	(x)	(x)	(x)
Selenium .....	lb.	374,013	654,523	345,000	621,000
Silver .....	Fine oz.	17,344,569	7,849,111	13,586,502	5,842,196
Tellurium .....	lb.	8,600	15,050	56,900	99,575
Thallium .....	lb.	...	...	128	1,690
Tin .....	lb.	776,937	450,623	516,600	299,628
Titanium ore .....	ton	69,437	308,290	53,963	84,154
Tungsten concentrates ...	lb.	1,508,621	1,063,538	63,152	6,000
Zinc .....	lb.	610,754,354	24,430,174	561,072,538	24,126,119
<b>TOTAL</b> .....	\$	...	<b>356,812,760</b>	...	<b>307,536,217</b>

FUELS

Coal .....	ton	17,859,057	62,877,549	17,118,008	71,214,303
Natural gas .....	M cu.ft.	44,198,005	11,813,629	45,956,800	11,905,600
Peat for fuel .....	ton	782	7,000	624	5,242
Petroleum, crude .....	bbl.	9,601,934	15,708,702	10,071,100	16,250,300
<b>TOTAL</b> .....	\$	...	<b>90,406,880</b>	...	<b>99,375,445</b>

NON-METALS OTHER THAN FUELS

Asbestos .....	ton	467,196	23,169,505	372,973	18,172,302
Barite .....	ton	24,474	279,253	114,387	1,052,045
Corundum .....	ton	...	...	160	16,000
Diatomite .....	ton	98	3,531	87	2,590
Feldspar .....	ton	23,858	237,771	20,494	204,807
Fluorspar .....	ton	11,210	518,424	6,336	129,120
Graphite .....	ton	1,903	197,431	1,565	178,821
Grindstones (includes pulpstones) .....	ton	164	6,225	225	9,675
Gypsum .....	ton	446,848	1,381,468	510,224	1,383,082
Iron oxides (ochre) .....	ton	8,401	135,893	10,335	172,223
Magnesitic dolomite and brucite .....	...	...	1,260,056	...	1,125,433
Mica (all grades) .....	lb.	8,051,692	553,856	6,087,627	738,166
Mineral water .....	Imp.gal.	139,611	67,541	139,000	65,700
Nepheline syenite .....	...	...	292,010	...	273,701
Peat moss .....	ton	64,360	1,461,422	63,149	1,554,606
Phosphate .....	ton	1,451	18,385	589	5,819
Quartz .....	ton	1,776,749	1,608,443	1,637,876	1,756,690
Salt .....	ton	687,686	4,379,378	716,875	3,921,050
Silica brick .....	M	4,165	295,505	3,750	297,031
Soapstone and talc .....	ton	...	266,685	...	336,261
Sodium carbonate .....	ton	468	5,148	44	484
Sodium sulphate .....	ton	107,121	1,025,151	98,183	1,004,054
Sulphur .....	ton	257,515	1,753,425	248,465	1,745,430
Volcanic dust .....	ton	50	257	...	...
<b>TOTAL</b> .....	...	...	<b>38,716,568</b>	...	<b>34,201,090</b>

## MINERAL PRODUCTION OF CANADA, 1943 and 1944

(Concluded)

		1 9 4 3		1 9 4 4 (x)	
		Quantity	Value	Quantity	Value
<u>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</u>					
Clay products .....	...	6,608,193	\$ 6,915,475	...	
Cement .....	bbl.	11,599,033	11,517,035	7,182,462	
Lime .....	ton	6,832,992	6,760,262	893,120	
Sand and gravel .....	ton	9,005,857	9,375,388	24,921,950	
Stone .....	ton	7,964,179	6,779,551	6,360,775	
TOTAL .....	...	42,010,254		...	.41,347,711
GRAND TOTAL .....	...	527,946,462		...	432,260,463

(x) Preliminary; subject to revision.

Gold is still Canada's most important mine product from point of value, though production of the yellow metal was seriously affected by the labour situation in 1944. Output was recorded at 2,385,474 fine ounces, a decrease of 21 per cent from the previous year and the lowest since 1931. Average monthly employment in Canadian gold mines during 1943 was 19,021, and during the first 9 months of 1944 it averaged 17,000. Quebec mines produced 20 per cent less gold than in the previous year; Ontario mines were down 20 per cent; Manitoba and Saskatchewan mines were minus 26 per cent; British Columbia had a reduction of 21 per cent; the Northwest Territories produced 65 per cent less, and gold recovered from the placers of the Yukon was lower by 41 per cent.

Notwithstanding this reduction in output, considerable prospecting activity was evidenced in Ontario, Quebec, and in the Northwest Territories. Much new ground was staked; diamond drilling was very active, and when hostilities cease Canada can look forward to a wider range and increased production of gold.

During the years leading up to 1939 Canada had developed a large base metal mining, smelting and refining industry. These mines were located in various provinces of Canada and were equipped with the latest mechanical devices for production, and with a technical personnel, mainly the product of her own universities to direct operations. The mine owners and men threw themselves wholeheartedly into what they felt they could best do in the war effort, with most gratifying results.

Production of nickel and zinc increased each year from 1939 to 1943; copper reached its peak in 1940 and lead in 1942, but shortage of labour is reflected in the outputs for the year under review. The average number employed in Canadian base metal mining, smelting and refining in 1943 was 31,443, and during the first nine months of 1944 the average stood at 29,624.

Production of the principal base metals, which includes the smelter output plus the recoverable metal in ores exported, decreased as follows: copper 5 per cent; lead 32 per cent; nickel 5 per cent, and zinc 8 per cent.

There was very little change in the production of refined copper and nickel; refined zinc decreased approximately 20 per cent but zinc in ores exported showed an increase.

## PRODUCTION OF GOLD IN CANADA, 1943 and 1944

	1 9 4 3 Fine ounces	\$	1 9 4 4 (x) Fine ounces	\$
<u>NOVA SCOTIA</u> -				
Gold mines .....	4,123	158,967	. 5,859	225,571
<u>QUEBEC</u> -				
Gold mines .....	637,975	24,562,037	522,404	20,112,554
Base metal mines .....	284,558	10,955,484	218,340	8,406,090
Total Quebec .....	922,533	35,517,521	740,744	28,518,644
<u>ONTARIO</u> -				
Gold mines -				
Porcupine District .....	1,020,977	39,307,615	849,455	32,704,013
Kirkland Lake District..	466,112	17,945,312	398,324	15,335,474
Larder Lake District ...	169,281	6,517,318	98,307	3,784,820
Matachewan District ....	38,722	1,490,797	28,263	1,088,125
Sudbury District .....	18,646	717,871	...	...
Algoma District .....	425	16,363	...	...
Thunder Bay District ...	141,666	5,454,141	99,551	3,831,944
Kenora and Rainy River Districts .....	1,545	59,482	...	...
Patricia District .....	203,962	7,352,537	174,004	6,699,154
Other mines .....	55,879	2,151,341	56,573	2,178,060
Total Ontario .....	2,117,215	81,512,777	1,704,457	65,621,595
<u>MANITOBA</u> -				
Gold mines .....	62,264	2,596,779	41,200	1,536,200
Other mines .....	29,521	1,136,558	37,465	1,288,402
Total Manitoba .....	91,775	3,533,337	74,665	2,824,602
<u>SASKATCHEWAN</u> -				
Gold mines .....	174,090	6,702,465	123,230	4,744,355
Other mines .....	174,090	6,702,465	123,230	4,744,355
Total Saskatchewan ...				
<u>ALBERTA</u> (Placer) .....	21	808	51	1,964
<u>BRITISH COLUMBIA</u> -				
Gold mines (lode) .....	204,387	7,868,900	165,517	6,372,405
Gold mines (placer) ....	11,680	449,680	8,362	321,937
Other mines .....	25,279	973,241	17,544	675,444
Total British Columbia ..	241,346	9,291,821	191,423	7,369,786
<u>NORTHWEST TERRITORIES</u> -				
Gold mines .....	59,032	2,272,732	20,739	798,451
<u>YUKON</u> (Chiefly placer) ....	41,160	1,584,660	24,306	935,781
TOTAL CANADA .....	3,651,301	140,575,088	2,885,474	111,090,749

(x) Preliminary estimate; subject to revision.

After two years of war, and when it became apparent that there might be shortages in metals that had been formerly imported, or were in great demand for war purposes, efforts were made to locate and develop properties containing them. As a result, Canada was soon able to report a production of such metals as tungsten, mercury, molybdenum, chromite and magnesium. In 1944 chrome concentrates production declined slightly, and with the improved supply position the Chromeraine property in Quebec, which had been operated for the Crown by Wartime Metals, closed down in September. Owing to the fact that a sufficient stock of concentrates for Canadian requirements had been built up, operations at the Indian Molybdenum property were discontinued in April. The La Corne Project, operated by Wartime Metals Corporation is now the only producer. The molybdenite concentrate is shipped to U.S.A. for roasting and the oxide is returned to Canada. Consumption

in the steel plants remains at a high rate. All production of scheelite concentrates ceased in the latter part of 1943. A small tonnage of tungsten concentrates was shipped by the Hollinger gold mine during the year under review. Stocks of tungsten are considered adequate to meet domestic requirements for some time.

The 1944 production of magnesium shows an increase of 50 per cent over 1943. This is an outstanding war-time development. Magnesium is extracted from dolomite rock near Haley's Station, Renfrew county, Ontario, by a process developed by Dr. L. M. Pidgeon at the National Research Laboratories. The plant is presently producing 15 tons of magnesium per day.

Due to a world over-supply of mercury, production at the two properties in British Columbia ceased during the year.

Silver is recovered as a by-product in the treatment of Canada's base metal and gold ores; production decreased 22 per cent due to the reduction in output from these ores.

Tin is recovered as a by product in the treatment of the silver-lead-zinc ores of the Sullivan mine in British Columbia. Production in 1944 totalled 516,600 pounds as compared with 776,937 pounds in the previous year.

Shipments of iron ore, beneficiated siderite, by the Algoma Ore Properties Ltd., a subsidiary of the Algoma Steel Corporation Ltd., continued in 1944. Also, one of the most outstanding mining events of the year under review was the commencement of shipments of iron ore by Steep Rock Iron Mines Ltd. near Atikokan, Ontario. Here it was necessary to divert the flow of the Seine River by an elaborate engineering project and to pump the lake down to a level that would expose the orebody which underlies it.

Of particular interest, we are able to record the first output of thallium in Canada. This was produced by the Hudson Bay Mining and Smelting Co. Ltd. at Flin Flon, Manitoba. Experimental shipments of ore containing tantalum were made from the Northwest Territories in 1944.

Arsenic was produced from arsenical gold ores of Quebec; antimony and bismuth in the refinery of the Consolidated Mining and Smelting Company at Trail, British Columbia; cadmium at Trail, British Columbia, and Flin Flon, Manitoba, and selenium and tellurium in the copper refineries of Ontario and Quebec.

FUELS - The coal situation in Canada in 1944 was marked by a further drop in production and by a decrease in the number of plants. Coal mine labour continued to be the determining factor in production and the wastage due to age and mortality was not made up by young men entering the industry. The assistance given the industry by the release of some 2,000 soldier coal miners on leave has been the only factor that has enabled the mines to hold production at present levels.

Though production decreased, the total value of the output was higher. This was due to the O'Connor wage award in Western Canada and a subsequent award by the National War Labour Board in Eastern Canada. Coal miners received an additional wage of \$1.00 per day plus paid holidays as from November 1, 1944. To enable the mine owners to recover this increase in costs, the Wartime Prices and Trade Board, under direction of Government, directed increases in the price of coal. The price of coal imported for use as "consumers' goods" was protected by subsidy payments where necessary.

As the year ends, the Ontario market is being re-opened for a restricted movement of Alberta domestic coals in the smaller sizes.

## COAL PRODUCTION, BY PROVINCES, 1943 and 1944

Province	1 9 4 3		1 9 4 4 (x)	
	Output	\$	Output	\$
Nova Scotia .....	6,103,085	27,121,861	5,808,792	31,271,704
New Brunswick .....	372,873	1,641,069	347,032	1,862,828
Manitoba .....	989	2,964	...	...
Saskatchewan .....	1,665,972	2,432,249	1,390,155	2,037,212
Alberta -				
Bituminous .....	3,469,893	10,942,203	3,548,419	13,344,238
Sub-bituminous .....	792,252	2,399,289	729,207	2,552,535
Lignite .....	3,414,581	10,689,194	3,160,155	11,136,348
Total Alberta ....	7,676,726	24,030,686	7,437,781	27,033,121
British Columbia .....	2,039,402	7,648,720	2,134,248	9,009,438
CANADA .....	17,859,057	62,877,549	17,118,008	71,214,303

(x) Subject to revision.

Natural gas, which is produced principally in Ontario and Alberta, increased 4 per cent over 1943. Crude petroleum was higher also by 5 per cent. The increase at the Fort Norman wells in the Northwest Territories more than made up for the drop in the Alberta output. Production from New Brunswick and Ontario showed little change from 1943. Considerable drilling and exploratory work was carried on in various parts of Canada in the search for new sources of oil.

INDUSTRIAL MINERALS - Asbestos is by far the most important industrial mineral produced in Canada. Though the output was 20 per cent less than in 1943, the value of asbestos production was more than half the total value of all other non-metallic minerals, excluding those in the fuels group.

Barite production increased from 24,474 tons in 1943 to 114,387 tons in 1944. Although a small output was reported from British Columbia, this large increase is the result of a development of a few years ago in Nova Scotia. A large market for barite has been opened up in countries doing extensive oil drilling. Because of its heavy specific gravity, it is used in mud form in drilling operations.

Gypsum production was up 14 per cent. The value of mica production showed considerable increase, due no doubt to the large sizes which were taken from the Purdy Mica Mine near Mattawa, Ontario. The brucite mine, near Wakefield, Quebec, operated continuously throughout the year. The main use of this mineral at the present time is in the manufacture of refractory bricks.

The Black Donald Mine near Calabogie, Ontario, continued production of graphite. Fluorspar production, principally from the Madoc area, was less, and there was also a slight reduction in the output of feldspar. Salt production was 4 per cent higher than last year and constituted a record; more than half the Canadian salt production is used in the manufacture of certain heavy chemicals. Peat moss production was recorded at 63,149 tons valued at \$1,554,606. Peat moss is used in metallurgical operations, as a packing material, and as litter. It may also be used in surgical dressings.

Other non-metallic minerals whose production was valued at more than a million dollars included quartz, sodium sulphate and sulphur. An interesting development also took place near Craigmont, Ontario, where formerly a mill for the production of corundum was in operation. Tailings from this mill are being re-run and some 160 tons have already been shipped.

The value of production of the structural materials group declined very slightly from 1943. The value of clay products was about \$300,000 higher, cement and lime outputs were each down about 1.6 per cent, and the output of sand and gravel and stone combined was about 5 per cent less than last year.

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	CANADA	
<b>METALLICS</b>												
Antimony .....	lb.	...	...	...	...	...	...	...	...	...	1,937,900	
Arsenic (As <sub>2</sub> O <sub>3</sub> ) .....	lb.	...	...	...	...	...	...	...	280,996	...	...	
Bismuth .....	lb.	...	...	...	...	...	...	...	...	...	280,996	
Cadmium .....	lb.	...	...	...	...	...	...	...	...	...	2,543,000	
Chromite .....	ton	...	...	27,720	...	20,647	118,297	...	...	...	170,560	
Cobalt .....	lb.	...	...	...	...	22,711	150,127	...	...	...	123,800	
Copper .....	lb.	...	...	...	...	...	...	...	...	...	154,750	
Gold .....	fine oz.	5,859	225,571	110,588,297	283,722,873	43,608,400	73,858,164	...	36,165,852	...	547,945,586	
Iron ore .....	ton	...	...	...	...	...	...	...	...	...	65,557,050	
Lead .....	lb.	...	...	9,796,441	1,080,679	...	...	...	290,085,849	110,950	2,885,474	
Magnesium .....	lb.	...	...	440,840	48,631	...	...	...	15,053,863	4,995	111,090,749	
Mercury .....	lb.	...	...	...	10,659,335	...	...	...	...	...	549,922	
Molybdenite concentrates .....	lb.	...	...	...	2,597,921	...	...	...	...	...	1,910,716	
Nickel .....	lb.	...	...	...	...	...	...	...	...	...	501,073,919	
Palladium, rhodium, etc. ....	fine oz.	...	...	...	...	...	...	...	...	...	15,548,327	
Platinum .....	fine oz.	...	...	...	...	...	...	...	...	...	10,659,335	
Radium and uranium products .....	...	...	...	...	...	...	...	...	...	...	2,597,921	
Selenium .....	lb.	...	...	2,059,778	2,922	...	...	...	...	...	755,856	
Silver .....	lb.	...	...	820,558	1,192	...	...	...	...	...	1,535,516	
Tellurium .....	lb.	...	...	...	275,215,106	...	...	...	...	...	2,062,700	
Thallium .....	lb.	...	...	...	69,279,061	...	...	...	...	...	821,750	
Tin .....	lb.	...	...	...	45,100	...	...	...	...	...	275,215,106	
Titanium ore .....	ton	...	...	...	2,314,252	...	...	...	...	...	69,279,061	
Tungsten concentrates .....	lb.	...	...	...	155,700	...	...	...	...	...	45,100	
Zinc .....	lb.	...	...	...	5,994,450	...	...	...	...	...	2,314,252	
<b>TOTAL METALLICS .....</b>	<b>lb.</b>	<b>225,653</b>	<b>...</b>	<b>51,490,951</b>	<b>182,998,773</b>	<b>10,379,677</b>	<b>18,316,558</b>	<b>1,964</b>	<b>42,167,006</b>	<b>954,850</b>	<b>800,785</b>	<b>307,356,217</b>

(x) Not available for publication.

## NON-METALS

## Fuels

Coal .....	ton	5,808,792	547,032	...	...	...	1,390,155	7,437,781	2,134,248	...	...	17,118,008
Natural gas .....	\$ cu.ft.	51,271,704	1,862,828	...	...	...	2,037,212	27,033,121	9,009,458	...	...	71,214,505
Peat .....	ton	652,000	...	7,800,000	...	...	112,800	37,592,000	...	...	...	45,956,800
Petroleum .....	bbl.	515,000	...	5,148,000	...	...	44,000	6,400,600	...	...	...	11,905,600
		...	...	424	200	...	...	...	...	...	...	624
		...	...	5,442	1,800	...	...	...	...	...	...	5,242
		22,000	...	132,800	...	...	8,952,000	...	...	...	964,500	10,071,100
		30,800	...	316,000	...	...	14,592,000	...	...	...	1,511,500	16,250,500
TOTAL FUELS .....		51,271,704	2,206,628	3,442	5,465,800	...	2,081,212	48,025,721	9,009,458	...	...	...

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Northwest Territories	Iukon	CANAD	
<b>METALLICS</b>												
Antimony .....	lb.	...	...	...	...	...	...	...	1,114,166	...	1,114,166	
Arsenic (As <sub>2</sub> O <sub>3</sub> ) (x) .....	\$	...	...	2,744,921	408,617	...	...	189,408	...	...	189,408	
Bismuth .....	lb.	...	...	221,085	32,924	...	...	(c)	...	...	3,153,538	
Cadmium .....	lb.	...	...	...	...	...	...	(c)	...	...	254,009	
Chromite .....	ton	...	...	29,595	...	20,985	166,955	562,484	...	...	407,597	
Cobalt .....	\$	...	...	919,878	...	24,130	191,998	598,673	...	...	562,484	
Copper .....	lb.	...	...	...	175,961(a)	...	...	688,474	...	...	786,611	
Gold .....	fine Troy oz.	4,129	...	151,163,776	277,840,560	38,014,872	85,948,719	42,222,205	...	...	191,407	
Iron ore .....	ton	158,967	...	15,411,744	52,232,027	4,466,747	10,098,974	4,961,109	...	...	575,190,132	
Lead .....	\$	...	...	922,533	2,117,215	91,775	174,090	21	241,546	...	67,170,801	
Magnesium .....	lb.	...	...	35,517,521	81,512,777	5,533,537	6,702,465	808	9,291,821	59,032	41,160	
Manganese ore .....	ton	...	145,062	...	498,252	...	...	2,272,732	2,272,732	1,584,660	5,651,501	
Mercury .....	lb.	...	579,990	...	1,452,250	...	...	...	...	...	641,294	
Molybdenite (concentrates) .....	lb.	...	...	2,435,523	2,273,896	...	...	439,155,655	...	...	2,052,240	
Nickel .....	\$	...	...	91,430	85,562	...	...	16,485,902	...	195,715	444,080,769	
Palladium, rhodium, iridium, etc. ....	fine oz.	...	...	7,153,974	2,074,652	...	...	...	...	7,347	16,670,041	
Platinum .....	fine oz.	...	...	48	...	...	...	...	...	...	7,153,974	
Pitchblende products .....	\$	...	...	985	...	...	...	...	...	...	2,074,652	
Selenium .....	lb.	...	...	...	...	...	...	1,690,240	...	...	985	
Silver .....	fine Troy oz.	144	...	784,715	...	...	...	4,559,200	...	...	1,690,240	
Tellurium .....	\$	...	...	549,515	288,018,615	...	...	...	...	...	549,515	
Tin .....	lb.	...	...	...	71,675,322	...	...	...	...	...	288,018,615	
Titanium ore .....	ton	...	...	...	126,004	...	...	...	...	...	71,675,322	
Tungsten concentrates .....	lb.	...	...	...	5,235,068	...	...	...	...	...	126,004	
Zinc .....	\$	...	...	...	219,706	...	...	...	...	...	5,235,068	
					8,458,681	...	...	...	...	...	219,715	
					216,498	82,000	5,239	70,276	...	(b)	8,458,951	
					378,872	143,500	9,168	122,983	...	...	574,015	
					2,212,115	2,671,520	587,279	2,812,624	1	8,995,488	654,525	
					1,001,071	1,208,879	265,767	1,272,825	...	13,250	17,544,569	
					...	8,600	...	...	4,070,818	5,996	25,690	
					...	15,050	...	...	...	...	7,849,111	
					...	...	...	...	...	...	8,600	
					...	...	...	...	...	...	15,050	
					...	...	...	...	776,957	...	776,957	
					69,457	...	...	...	450,625	...	450,625	
					308,290	...	...	...	...	...	69,457	
					5,401	494,405	16	...	...	...	308,290	
					5,369	356,478	16	...	976,622	720	1,508,621	
					128,169,810	5,299,812	46,783,873	96,350,404	692,260	729	12,083	
					5,126,792	131,995	1,871,355	5,854,016	336,150,455	10,122	1,085,558	
					...	...	...	...	13,446,018	...	610,754,354	
TOTAL .....	\$	177,596	580,975	59,531,567	204,804,370	10,170,520	22,243,261	808	55,598,387	2,279,457	1,625,819	24,450,174

(x) Refined arsenic produced in Canada plus As<sub>2</sub>O<sub>3</sub> content of crude arsenic exported.

(a) Exclusive of metal in ore placed on Government stock pile at Deloro, Ontario.  
(b) Not available for publication.

(b) Not available for publication  
(c) Considerable unpaid for space

(c) Considerable unpaid for arsenic is contained in auriferous quartz ores exported; however, data relating to its possible recovery are unobtainable.

## NON-METALS

## Fuels

Non-Metals (Concluded)Other Non-Metallic and Industrial Minerals

		Scotia	Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon	Canada
Asbestos .....	ton	...	...	467,126	...	...	...	...	...	...	...	467,196
Barite .....	ton	...	22,500	23,169,505	...	...	...	...	1,924	...	...	23,169,505
Matomite .....	ton	265,419	...	...	...	...	...	...	15,834	...	...	24,474
	ton	82	...	...	...	...	...	...	16	...	...	279,255
Talcspar .....	ton	2,465	...	...	...	...	...	...	866	...	...	98
	ton	...	...	17,199	6,659	...	...	...	...	...	...	3,551
Fluorspar .....	ton	825	...	176,222	61,549	...	...	...	...	...	...	23,858
	ton	...	...	...	10,385	...	...	...	...	...	...	237,771
Graphite .....	ton	17,000	...	...	501,424	...	...	...	...	...	...	11,210
	ton	...	...	...	1,905	...	...	...	...	...	...	518,424
Grindstones (includes pulpstones, etc.) .....	ton	...	164	...	197,451	...	...	...	...	...	...	1,905
Gypsum .....	ton	255,756	36,263	...	92,448	57,989	...	...	24,412	...	...	164
	ton	568,639	148,315	...	355,637	580,529	...	...	148,348	...	...	6,225
Iron oxides (ochre) .....	ton	...	...	7,998	...	...	...	...	403	...	...	446,848
	ton	...	...	151,057	...	...	...	...	4,836	...	...	8,401
Magnesitic dolomite and brucite..	ton	...	...	1,260,056	...	...	...	...	...	...	...	155,893
Magnesium sulphate .....	ton	...	...	...	...	...	...	...	...	...	...	1,260,056
Mica (all grades) .....	lb.	...	...	3,086,673	4,254,019	...	...	...	710,000	...	...	...
Mineral waters .....	Imp. gal.	...	...	245,846	296,189	...	...	...	11,821	...	...	8,050,692
Nepheline syenite .....	ton	...	...	125,605	14,006	...	...	...	...	...	...	553,856
Peat moss .....	ton	...	...	61,793	5,748	...	...	...	...	...	...	159,611
	ton	990	...	14,398	11,120	2,042	...	55	35,755	...	...	67,541
Phosphate .....	ton	...	27,000	298,307	136,595	72,687	...	1,425	925,408	...	...	292,010
	ton	...	...	1,050	401	...	...	...	...	...	...	64,360
Quartz .....	ton	9,486	...	14,272	4,113	...	...	...	...	...	...	1,451
	ton	16,126	...	214,959	1,350,640	...	163,102	...	58,562	...	...	18,385
Salt .....	ton	47,775	...	605,916	852,196	...	57,086	...	77,124	...	...	1,776,749
	ton	245,157	...	...	594,889	27,523	...	17,499	...	...	...	1,608,448
Silica brick .....	M	3,113	...	...	3,356,870	497,227	...	280,124	...	...	...	687,686
	ton	169,783	...	...	1,052	...	...	...	...	...	...	4,579,578
Soapstone (including talc) .....	ton	...	...	125,722	...	...	...	...	...	...	...	4,165
	ton	...	14,204	...	...	...	...	...	...	...	...	295,505
Sodium carbonate .....	ton	...	...	135,469	...	...	...	...	...	...	...	14,204
	ton	...	...	...	...	...	...	...	...	...	...	155,469
Sodium sulphate .....	ton	...	...	...	...	...	...	...	468	...	...	468
	ton	...	...	...	...	...	107,121	...	5,148	...	...	5,148
Sulphur .....	ton	...	...	156,007	18,907	...	1,025,151	...	...	...	...	107,121
	ton	545,229	...	169,070	...	...	...	...	104,601	...	...	1,025,151
Talc .....	ton	...	...	...	11,959	...	...	...	1,039,126	...	...	257,515
	ton	...	...	...	131,216	...	...	50	...	...	...	1,753,425
Volcanic dust .....	ton	...	...	...	...	...	...	257	...	...	...	11,959
	ton	...	...	...	...	...	...	...	...	...	...	131,216
Total Other Non-Metals .....	\$	1,082,589	181,540	26,643,672	6,265,770	950,443	1,082,494	281,549	2,228,511	...	...	257

CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS

		Scotia	Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon	Canada
Clay products, brick, tile, etc.	\$	478,571	216,446	1,504,428	2,453,829	132,382	348,725	978,649	495,163	...	...	6,608,195
Cement .....	brl.	...	...	3,594,895	1,972,009	793,913	...	606,703	534,769	...	...	7,302,289
Lime .....	ton	9,735	17,582	4,899,578	2,872,732	1,503,416	...	1,176,442	1,146,865	...	...	11,599,033
Sand and gravel .....	ton	113,544	174,368	382,432	411,921	30,038	...	18,215	38,047	...	...	907,768
Stone .....	ton	917,576	719,551	10,601,376	8,285,309	1,048,673	1,288,263	626,157	305,421	...	...	6,832,992
	ton	585,007	372,936	2,362,635	3,620,852	293,958	583,687	309,389	877,413	...	...	25,744,469
TOTAL CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS .....	\$	247,868	53,583	3,427,325	3,206,027	37,974	...	13,961	236,212	...	...	9,005,857
	ton	420,869	147,371	3,996,967	2,958,383	50,784	...	47,899	341,906	...	...	7,222,950
GRAND TOTAL 1945 .....	\$	1,597,791	911,121	15,430,999	15,020,990	2,288,359	932,412	2,661,834	3,166,768	...	...	42,010,254
GRAND TOTAL 1942 .....	\$	29,979,837	3,676,834	101,610,678	231,603,170	13,412,266	26,735,984	48,179,495	68,442,386	8,679,993	1,693,816	527,946,462

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
<b>NON-METALS (Con.)</b>											
<b>Other Non-Metallics and Industrial Minerals</b>											
Asbestos .....	ton	1010780708	...	372,973	...	...	...	...	...	...	372,973
\$			...	18,172,302	...	...	...	...	...	...	18,172,302
Barite .....	ton	114,147	...	...	...	...	...	240	...	...	114,387
\$		1,047,130	...	...	...	...	...	4,915	...	...	1,052,045
Corundum .....	ton	...	...	160	...	...	...	...	...	...	160
\$		...	...	16,000	...	...	...	...	...	...	16,000
Diatomite .....	ton	80	...	...	...	...	...	7	...	...	87
\$		2,400	...	...	...	...	...	190	...	...	2,590
Feldspar .....	ton	...	...	16,647	3,847	...	...	...	...	...	20,494
\$		...	...	165,746	39,061	...	...	...	...	...	204,807
Fluorspar .....	ton	...	...	20	6,316	...	...	...	...	...	6,336
\$		...	...	500	128,620	...	...	...	...	...	129,120
Graphite .....	ton	...	...	...	178,821	...	...	...	...	...	178,821
Grindstones, etc. ....	ton	...	225	...	...	...	...	...	...	...	225
\$		9,675	...	...	...	...	...	...	...	...	9,675
Gypsum .....	ton	327,084	41,000	...	86,678	37,768	...	17,693	...	...	510,224
\$		401,954	173,000	...	325,831	378,965	...	103,332	...	...	1,383,082
Iron oxides .....	ton	...	...	9,855	...	...	...	480	...	...	10,355
\$		...	...	164,023	...	...	...	8,200	...	...	172,223
Magnesitic dolomite and brucite ..	ton	...	...	1,125,433	...	...	...	...	...	...	1,125,433
Mica .....	lb.	...	...	1,532,319	3,495,308	...	...	1,060,000	...	...	6,087,627
\$		...	...	159,545	618,021	...	...	10,600	...	...	788,166
Mineral waters .....	gal.	...	...	125,000	14,000	...	...	...	...	...	159,000
\$		...	...	60,000	5,790	...	...	...	...	...	65,700
Nepheline syenite .....	ton	...	...	...	279,701	...	...	...	...	...	279,701
Peat moss .....	ton	1,870	14,078	9,899	1,461	...	...	35,940	...	...	65,149
\$		60,500	513,301	166,000	62,000	...	...	952,805	...	...	1,554,606
Phosphate .....	ton	...	...	389	...	...	...	...	...	...	589
\$		...	...	5,819	...	...	...	...	...	...	5,819
Quartz .....	ton	9,500	...	187,261	1,275,026	...	142,000	...	24,039	...	1,637,876
\$		23,750	...	555,332	1,055,641	...	49,700	...	72,267	...	1,756,690
Salt .....	ton	38,680	...	...	625,894	28,150	...	24,151	...	...	716,875
\$		263,066	...	...	2,918,351	387,500	...	352,133	...	...	3,921,050
Silica brick .....	m	2,684	...	...	1,066	...	...	...	...	...	5,750
\$		160,755	...	...	136,276	...	...	...	...	...	297,031
Soapstone (including talc) .....	ton	...	...	186,261	...	...	...	...	...	...	186,261
Sodium carbonate .....	ton	...	...	...	...	...	...	44	...	...	44
\$		...	...	...	...	...	...	484	...	...	484
Sodium sulphate .....	ton	...	...	...	...	...	98,188	...	...	...	98,188
\$		...	...	...	...	...	1,004,054	...	...	...	1,004,054
Sulphur .....	ton	...	...	118,000	18,093	...	...	...	112,372	...	248,465
\$		...	...	447,700	180,930	...	...	...	1,116,800	...	1,745,450
Talc .....	ton	...	...	...	14,000	...	...	...	...	...	14,000
\$		...	...	...	150,000	...	...	...	...	...	150,000
<b>TOTAL OTHER NON-METALLICS AND INDUSTRIAL MINERALS .....</b>	\$	1,899,055	243,175	21,355,962	6,198,953	828,465	1,053,754	352,133	2,269,593	...	34,201,090

**CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS**

Clay products (brick, tile, etc.).	\$	405,307	209,500	1,855,140	2,376,597	189,115	290,732	1,118,349	472,735	...	6,915,475	
Cement .....	bbl.	...	...	3,247,478	1,849,811	866,186	...	706,393	512,594	...	7,182,462	
\$		...	...	4,732,456	2,731,089	1,697,277	...	1,382,284	973,929	...	11,517,635	
Lime .....	ton	3,582	18,346	365,778	414,067	28,844	...	17,480	45,223	...	393,120	
\$		42,810	198,411	2,538,564	3,168,784	289,578	...	157,999	364,116	...	6,780,262	
Sand and gravel .....	ton	1,654,136	670,256	9,818,406	8,175,400	945,073	1,101,165	590,634	1,966,880	...	24,921,950	
\$		1,162,850	374,506	2,283,699	3,739,011	292,550	481,776	291,409	749,587	...	9,375,388	
Stone .....	ton	158,453	70,175	2,484,297	3,379,463	33,796	...	12,755	221,836	...	6,360,775	
\$		308,059	196,746	3,156,596	2,670,682	51,464	...	47,100	348,904	...	6,779,551	
<b>TOTAL CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS .....</b>	\$	1,917,026	979,163	14,566,455	14,686,163	2,519,984	772,508	2,997,141	2,909,271	...	41,347,711	
<b>GRAND TOTAL .....</b>	\$	35,313,438	3,428,966	87,416,810	209,349,689	13,728,126	22,224,032	51,376,959	56,355,508	954,850	2,112,285	482,260,463