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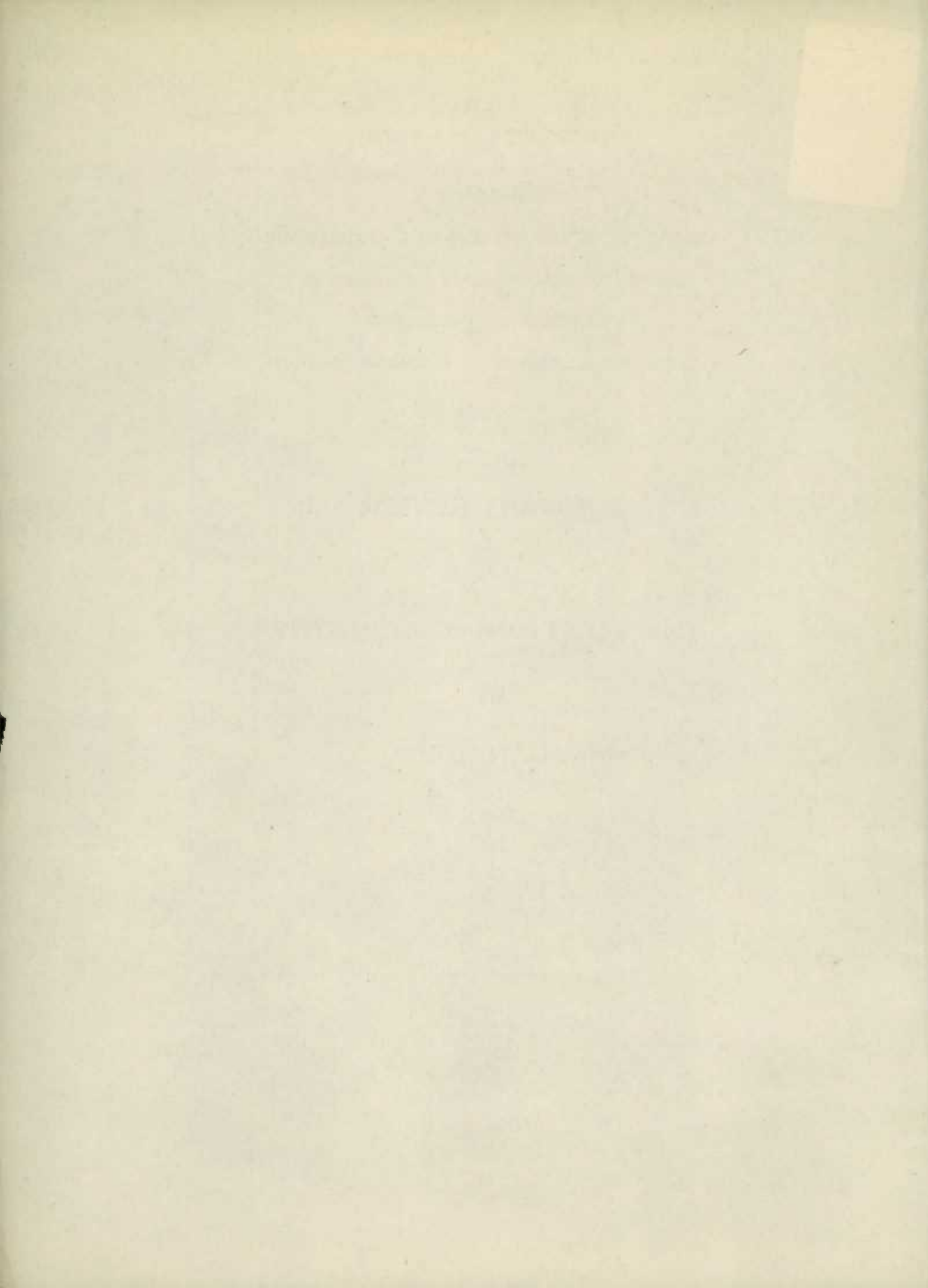
CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

SUMMARY REVIEW
OF
THE GOLD MINING INDUSTRY
IN
CANADA
1942



OTTAWA
1943

Price 50 cents



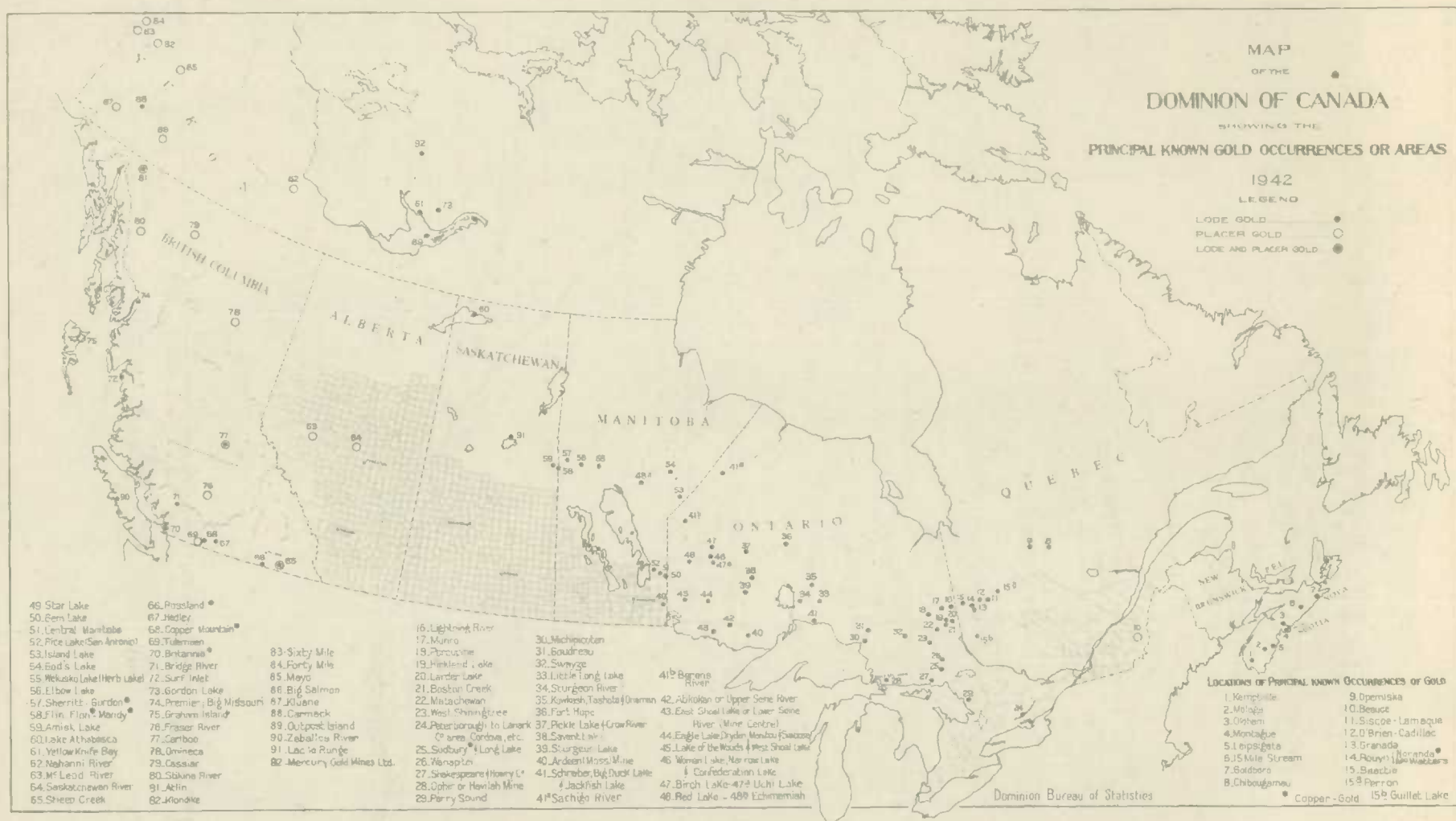
MAP OF THE DOMINION OF CANADA

SHOWING THE
PRINCIPAL KNOWN GOLD OCCURRENCES OR AREAS

1942

LEGEND

- LODE GOLD ●
- PLACER GOLD ○
- LODE AND PLACER GOLD ●



Dominion Bureau of Statistics

COST OF LIVING

FIRST WORLD WAR 1914-18

SECOND " " 1939-

CANADA

AUGUST 1914=100 ———

AUGUST 1939=100

UNITED KINGDOM

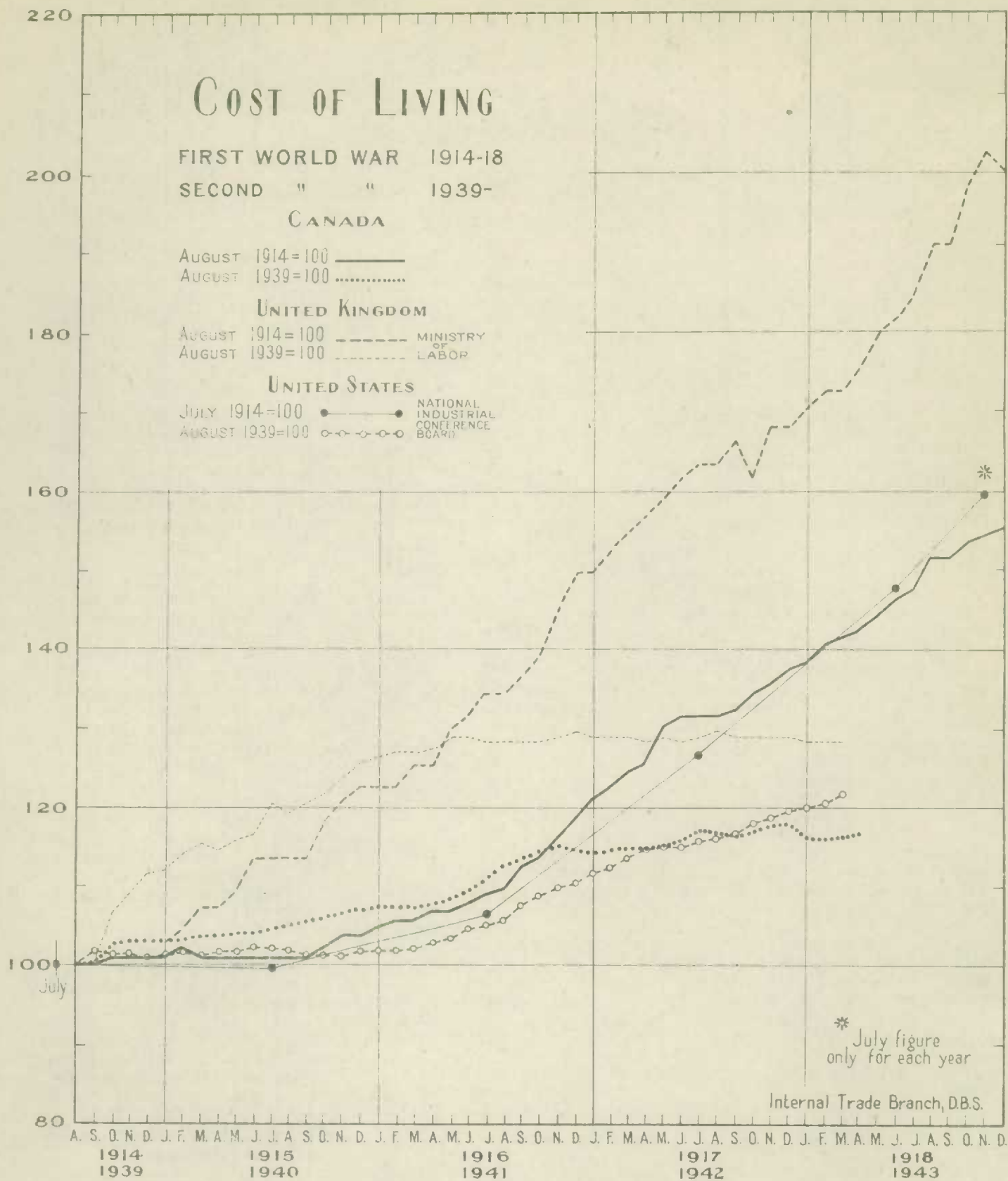
AUGUST 1914=100 - - - - - MINISTRY OF

AUGUST 1939=100 LABOR

UNITED STATES

JULY 1914=100 ● ——— NATIONAL INDUSTRIAL

AUGUST 1939=100 ○ ——— CONFERENCE BOARD



Dominion Statistician:
 Chief - Mining, Metallurgical and Chemical Branch:
 Mining Statistician:

S. A. Cudmore, M.A. (Oxon.), F.S.S., F.R.S.C.
 W. H. Lossee, B.Sc.
 R. J. McDowall, B.Sc.

THE GOLD MINING INDUSTRY IN CANADA, 1942

- Including - (a) The Alluvial Gold Mining Industry
 (b) The Auriferous Quartz Mining Industry
 (c) The Copper-Gold-Silver Mining Industry
 (d) Miscellaneous Data on Monetary Gold and World Gold
 Production, Prices, Exchange, etc.
 (e) Notes on Gold Mining in Other Countries.

Definition of the Industry - Gold mining in Canada is classified into three principal industries—(a) the recovery of gold from the gravels and sands of stream channels or beaches or what is defined as "The Alluvial Gold Mining Industry"; (b) the recovery of lode gold, which is designated "The Auriferous Quartz Mining Industry" and in which industry gold is usually the most important economic constituent of the ores mined and quartz the predominant gangue mineral; (c) gold is often found in various other mineral deposits, more particularly in those of copper, and for this reason the review of Canada's "Copper-Gold-Silver Mining Industry" is included here to complete a more comprehensive survey of the Canadian Gold Mining Industry.

Output in Canada of fine gold from all primary sources totalled 4,841,506 troy ounces valued at \$186,590,281 in 1942. This represents decreases of 505,875 troy ounces and \$19,399,111 or 9.5 per cent from the all-time high record of 5,345,179 troy ounces and \$205,789,392 in 1941. This decline in Canadian gold production represents the first break in a series of annual increases that had been realized by the Canadian mining industry since 1925 and largely reflects the curtailment in labour, equipment and essential supplies resulting from the increasing intensity of the second World War. Personnel of the auriferous quartz mining industry have entered in considerable numbers the various branches of the armed forces, others have transferred to the mining of base metals, while the manufacture of certain equipment or materials necessary for the development of new gold mines or expansion in the older mines has been considerably restricted or the products of such manufacture diverted to industries considered at the time to be of more vital importance in a total war effort.

The direct result of these war-time changes was reflected in the cessation of mining operations at most of ^{the} ~~new~~ properties under development, the closing down of producing mines operating on ore described as marginal in grade, and a decrease in production by some of the more important and long-established mining companies. Labour troubles continuing from 1941 adversely affected production in the Kirkland Lake camp during the early part of 1942, and gold recoveries at a few base metals mines fall off with a reduction in the shipments of copper-gold ores from these particular properties.

Production of gold in Canada in 1942, according to type of deposit or nature of recovery, included 80.8 per cent from crude gold bullion bars produced at auriferous quartz or "gold mines"; 12.1 per cent from blister or anode copper; 4.6 per cent from ores, slags, copper-nickel matte, etc., exported; 2.3 per cent from alluvial deposits, and 0.2 per cent from base bullion made chiefly from silver-lead ores.

Reliable data relating to world gold production have been increasingly difficult to obtain since the outbreak of war in 1939. From statistics made available, it is estimated that Canada, as a world gold producer, probably ranked second in 1942. The Union of South Africa ranked a definite first with approximately 14,120,000 troy ounces, while production of the United States, including receipts from the Philippine Islands, was estimated at 5,618,543 troy ounces. Accurate data pertaining to gold production in Russia are unobtainable, but a conjectural total output of 4,000,000 troy ounces was reported for this country in 1940.

Table 1 - PRODUCTION OF NEW GOLD IN CANADA, BY PROVINCES AND SOURCES, 1941 and 1942
(Gold at \$20,671.854 per fine ounce)

	1941		1942	
	Fine troy ounces	\$	Fine troy ounces	\$
NOVA SCOTIA -				
In gold bullion	19,170	396,279	12,969 ^x	268,506
Estimated exchange equalization on gold produced ....	...	541,766	...	251,570
Total Value - Canadian Funds .....	...	738,045	...	500,076
QUEBEC -				
In anode copper, in ores shipped and in gold bullion.	1,089,339	22,518,635	1,092,388	22,581,663
Estimated exchange equalization on gold produced ....	...	19,420,917	...	19,475,275
Total Value - Canadian Funds .....	...	41,939,552	...	42,056,938
ONTARIO -				
* Porcupine Area - In gold bullion	1,459,149	29,749,849	1,308,590	27,050,955
* Kirkland Lake - In gold bullion (a)	743,616	15,371,907	756,388	15,635,927
* Other gold mines - In gold bullion	953,318	19,295,395	627,646	12,974,594
Copper-nickel and other ores	78,225	1,617,054	71,195	1,471,731
Total	3,194,308	66,052,205	2,763,819	57,133,207
Estimated exchange equalization on gold produced ....	...	56,948,655	...	49,273,825
Total Value - Canadian Funds .....	...	122,980,858	...	106,407,032
MANITOBA -				
In gold bullion, ores shipped and in blister copper..	150,553	3,112,207	136,226	2,818,041
Estimated exchange equalization on gold produced ....	...	2,684,083	...	2,428,660
Total Value - Canadian Funds .....	...	5,796,290	...	5,246,701
SASKATCHEWAN -				
In ores shipped to Canadian smelters, crude placer gold and gold bullion	158,015	2,855,025	178,871	3,697,592
Estimated exchange equalization on gold produced ....	...	2,460,555	...	5,188,941
Total Value - Canadian Funds .....	...	5,315,578	...	6,886,533
ALBERTA -				
In alluvial gold	215	4,444	34	705
Estimated exchange equalization on gold produced ....	...	3,855	...	606
Total Value - Canadian Funds .....	...	8,277	...	1,309
BRITISH COLUMBIA -				
In alluvial gold	35,020	725,928	26,323	544,145
In gold bullion	351,974	7,275,948	275,178	5,688,434
In base bullion and in slag and ores exported	221,209	4,572,795	172,838	3,572,878
Total	608,203	12,572,671	474,339	9,805,457
Estimated exchange equalization on gold produced ....	...	10,843,145	...	8,456,595
Total Value - Canadian Funds .....	...	23,415,816	...	18,262,052
YUKON -				
In alluvial gold	70,847	1,464,537	83,198	1,719,855
In ores shipped	112	2,315	48	992
Total	70,959	1,466,852	83,246	1,720,847
Estimated exchange equalization on gold produced ....	...	1,265,070	...	1,484,124
Total Value - Canadian Funds .....	...	2,731,922	...	3,204,971
NORTHWEST TERRITORIES -				
In ores shipped	421(b)	8,703	723	14,946
In gold bullion produced	73,926	1,529,653	98,671	2,039,710
Total	74,417	1,538,356	99,394	2,054,656
Estimated exchange equalization on gold produced ....	...	1,326,718	...	1,772,013
Total Value - Canadian Funds .....	...	2,865,054	...	3,826,669
Total for Canada	5,345,179	110,494,653	4,841,306	100,078,674
Total estimated exchange equalization on gold produced	...	95,294,739	...	86,311,607
GRAND TOTAL VALUE, INCLUDING EXCHANGE .....	...	205,789,392	...	186,390,281

NOTE: The estimated average price of a troy ounce of fine gold in Canadian funds was \$58.50 in both 1941 and 1942.

* Includes relatively small amounts of gold contained in slags, and ore shipped.

(a) Includes production in Larder Lake area.

(b) Includes a relatively small amount of placer gold.

Table 2 - TOTAL (CUMULATIVE) RECORDED PRODUCTION IN CANADA OF SPECIFIED METALS TO DECEMBER 31st, 1940

			Quantity	Value
				\$
Gold	(a)	fine ounces	85,725,542	2,451,280,820(x)
Silver	(b)	fine ounces	849,948,250	480,857,059(x)
Copper	(c)	pounds	6,697,548,813	814,155,248
Nickel	(d)	pounds	2,806,377,739	797,454,597
Lead	(b)	pounds	6,574,120,797	289,504,432
Zinc	(f)	...	...	180,684,662
Cobalt	(e)	pounds	53,063,655	51,921,856

NOTE: The total value of production by the entire Canadian mining industry from 1887 to the end of 1941 totalled \$9,185,215,594.

(a) Since 1858. (b) since 1887. (c) since 1886. (d) since 1889. (e) since 1904. (f) since 1898.
(x) To the end of 1942.

NOTE: DATA RELATING TO PRODUCTION OF NON-FERROUS METALS NOT PUBLISHED SINCE 1940.

Table 3 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942

Property and Province	Ore	Material	Ore	Gold	Mill	See
	raised	sorted (discarded)	treated	production	capacity 24 hours	
	tons	tons	tons	fine oz.	tons	notes
NOVA SCOTIA -						
Avon Gold Mines Ltd.	8,530	...	8,530	3,015	100	(a)
Cons. Mining & Smelting Co. of Canada, Ltd. (Holman)	10,355	...	10,355	6,394	40	(a)(b)
Goldbrook Limited	10,000	(c)	(c)	286	(c)	
Guyborough Mines Ltd. ....	...	...	(c)	103	100	(d)
Queens Mines Limited	5,699	...	5,699	1,535	35	(a)
Other gold mines .....	...	...	...	1,656	(c)	
Total Nova Scotia .....	...	...	...	12,989	...	(e)

Footnotes -

- (a) Amalgamation.
(b) In addition, 36.2 tons of concentrates stored assaying 2.2 oz. gold per ton.
(c) Data not available.
(d) Clean-up operations only; closed down January 11.
(e) Receipts at Mint, Ottawa.

QUEBEC -

Arntfield Gold Mines Ltd.	23,809	...	23,809	2,509	350	(b)(c)
Beattie Gold Mines Ltd.	657,619	...	657,619	64,669	1,800	(c)(d)
Bellefleur Quebec Mines Ltd.	116,547	...	116,377	41,684	350	(c)
Canadian Malartic Gold Mines Ltd.	558,732	...	558,732	57,167	1,000	(c)
Central Cadillac Mines Ltd.	75,132	11,817	61,315	9,258	200	(c)(e)
Courmor Mining Co. Ltd.	45,000	...	30,000	6,959	200	(f)
East Malartic Mines Ltd.	448,691	...	449,016	69,971	1,500	(c)
Francoeur Gold Mines Ltd.	69,477	...	69,477	10,996	250	(c)
Lamaque Mining Co. Ltd.	376,561	...	376,551	112,416	1,000	(c)(e)
Lapa Cadillac Gold Mines Ltd.	72,480	...	72,553	12,195	300	(a)(c)
Malartic Gold Fields Ltd.	258,171	9,364	248,807	50,391	750	(c)
McWaters Gold Mines Ltd.	43,958	892	43,066	8,432	150	(c)(e)
McMac Mines Ltd.	75,544	...	74,266	9,240	650	(a)(g)
O'Brien Gold Mines Ltd.	69,406	...	69,406	27,362	200	(a)(c)(d)
Pandora Limited	52,297	...	52,297	5,306	150	(c)(h)
Parron Gold Mines Ltd.	208,175	65,853	141,638	45,882	360	(c)(e)
Pershing Maritau Gold Mines Ltd.	(i)	...	25	11	10	(a)(j)
Powell Rouyn Gold Mines Ltd.	307,062	...	301,194(k)	34,201	450	(c)(k)
Senator Rouyn Limited	107,157	...	107,351	23,597	300	(c)
Sigma Mines (Quebec) Limited	403,467	...	403,467	79,179	1,100	(c)(e)
Siscoe Gold Mines Ltd.	363,516	45,319	318,197	47,671	1,000	(a)(c)
Sladen Malartic Mines Ltd.	255,181	...	255,388	29,638	700	(c)

Table 5 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942 (Continued)

Property and Province	Ore raised tons	Material sorted (discarded) tons	Ore treated tons	Gold production fine oz.	Mill capacity 24 hours tons	See foot- notes
<u>QUEBEC</u> (Concluded) -						
Stadacona Rouyn Mines Ltd.	151,481	...	151,481	25,461	500	(e)
Sullivan Consolidated Mines Ltd.	200,010	51,801	168,209	43,568	500	(a) (c) (e)
West Malartic Mines Ltd.	55,955	...	55,055	6,955	500	(e)
Wood Cadillac Mines Ltd.	28,895	1,868	27,025	4,537	250	(a) (c) (1)
Val d'Or (Provincial Mine School)	1,415	...	1,415	554	10	(a) (c)
Copper-gold-silver and other ores ....	...	...	...	282,999	...	
Total Quebec .....	...	...	...	1,092,568	...	

Footnotes -

- (a) Amalgamation.
 (b) Closed down April 27.
 (c) Cyanide.
 (d) Also shipped arsenic.
 (e) Also shipped tungsten concentrates.
 (f) Closed down July 31.
 (g) Copper-gold concentrates shipped to smelter.
 (h) Closed down August 31.
 (i) Data not available.
 (j) Closed down in May.
 (k) Includes 283,785 tons crude ore shipped to smelter; milling ceased at mine March 31.
 (l) Closed down June 30.

ONTARIO -Porcupine District

Auror Gold Mines Ltd.	175,569	...	175,568	47,965	500	(c) (e)
Bonetal Gold Mines Ltd.	44,884	4,566	40,318	6,078	...	(d) (c)
Brouhan Porcupine Mines Ltd.	159,144	21,445	137,701	28,948	550	(c)
Buffalo Ankerite Gold Mines Ltd.	360,405	1,964	358,419	65,451	1,500	(c)
Conlaunum Mines Ltd.	162,590	...	162,590	45,144	600	(c)
Delnite Mines Ltd.	172,751	...	172,727	51,678	520	(c) (e)
De Santis Porcupine Mines Ltd.	58,910	...	58,910	6,651	150	(c) (b)
Dome Mines Ltd.	559,700	...	559,700	170,547	1,700	(a) (c) (e)
Paymar Porcupine Gold Mines Ltd.	12,889	...	12,889	5,370	200	(f)
Hallnor Mines Ltd.	128,973	...	128,973	59,921	400	(c)
Hollinger Cons. Gold Mines Ltd. (Timmins)	1,554,602	...	1,550,712	370,611	5,700	(c) (e)
Hollinger Cons. Gold Mines Ltd. (Ross) ..	101,829	...	101,409	20,785	500	(c)
Boyle Gold Mines Ltd.	207,297	19,677	187,620	19,890	600	(c)
McIntyre Porcupine Mines Ltd.	798,455	...	798,280	224,051	2,500	(c) (e)
Moneta Porcupine Mines Ltd.	57,105	...	57,105	24,815	175	(c)
Nakhodas Mining Co. Ltd.	16,278	...	16,278	2,175	...	(f)
Naybob Gold Mines Ltd.	58,908	...	58,870	8,975	200	(c)
Pamour Porcupine Mines Ltd.	574,655	...	574,655	60,825	1,500	(c)
Paymaster Cons. Mines Ltd.	202,590	...	207,566	44,169	600	(c)
Preston East Dome Mines Ltd.	522,467	15,780	506,687	72,445	1,000	(a) (c) (e)

Kirkland Lake District (f)

Bidgood Kirkland Gold Mines Ltd.	46,157	...	47,960	15,088	125	(c)
Golden Gate Mining Co. Ltd.	8,524	...	8,524	1,811	100	(a) (c) (g)
Kirkland Lake Gold Mining Co. Ltd.	100,854	...	100,854	37,846	400	(c)
Lake Shore Mines Ltd.	547,951	...	547,951	144,101(h)	2,500	(c)
Macassa Mines Ltd.	120,400	...	120,400	55,582	400	(c)
Sylvanite Gold Mines Ltd.	175,222	...	175,745	52,418	600	(c)
Teck-Hughes Gold Mines Ltd.	95,555	...	95,555	35,427	600	(c)
Toburn Gold Mines Ltd.	45,655	4,075	45,655	18,915	175	(c)
Upper Canada Mines Ltd.	86,525	...	86,525	55,127	225	(c)
Wright-Hargreaves Mines Ltd.	285,580	...	285,580	146,959	1,200	(c)

Table 3 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942 (Continued)

Property and Province	Ore raised tons	Material sorted (discarded) tons	Ore treated tons	Gold produc- tion fine oz.	Mill capacity 24 hours tons	See foot- notes
<u>ONTARIO (Concluded) -</u>						
<u>Larder Lake District</u>						
The Chesterville Larder Lake Gold Mining Co. Ltd.	241,815	...	241,815	29,988	700	(c)
Kerr-Addison Gold Mines Ltd.	756,578	...	756,455	161,811	2,000	(c)
Omega Gold Mines Ltd.	149,274	...	149,274	20,903	500	(c)
Yama Gold Mines Ltd.	20,817	2,754	18,667	2,049	65	(c)
<u>Matachewan District</u>						
Hollinger Cons. Gold Mines Ltd. (Young- Davidson)	296,728	...	296,942	55,875	1,050	(c)
Matachewan Consolidated Mines Ltd.	515,040	...	515,040	25,210	1,000	(c)
<u>Sudbury District</u>						
Jerome Gold Mines Ltd.	168,628	...	168,628	29,481	500	(c)
Tyrante Mines Ltd.	51,383	...	51,383	5,954	200	(c) (1)
<u>Algoma District</u>						
Gline Lake Gold Mines Ltd.	45,496	...	46,119	7,578	250	(c) (j)
Regener Metals	6,006	...	6,006	1,594	55	(a) (k)
<u>Thunder Bay District</u>						
Bankfield Cons. Mines Ltd.	28,045	...	27,652	2,859	150	(a) (c) (1)
Hard Rock Gold Mines Ltd.	191,998	57,876	154,122	52,174	450	(c)
Leitch Gold Mines Ltd.	39,222	9,146	30,076	25,506	75	(a) (c) (e)
Little Long Lac Gold Mines Ltd.	129,601	15,811	115,790	59,545	500	(a) (c)
McLeod-Cockshutt Gold Mines Ltd.	578,291	145,080	233,036	68,017	650	(c)
Magnet Cons. Mines Ltd.	51,052	439	50,615	22,448	175	(a) (c)
Northern Empire Mines Co. Ltd. (Sand River mine) ...	25,725	7,150	16,595	4,582	75	(c) (m)
Sturgeon River Gold Mines Ltd.	51,527	14,365	17,757	12,555	75	(a) (c) (n)
Tombill Gold Mines Ltd. - Tombill mine ...	33,248	...	33,248	11,141 (x)	125	(a) (c) (o)
Elmos mine	4,942	995	5,947	1,017	50	(a) (p)
<u>Kenora and Rainy River District</u>						
Kenwest Gold Mines Ltd.	6,524	...	6,524	489	125	(c)
J. D. Shannon (Goldwood) ....	...	...	5,000 (q)	254	75	(a) (k) (r)
Wendigo Gold Mines Ltd.	57,701	7,576	50,125	10,974	80	(a) (s)
<u>Patricia District</u>						
Berens River Mines Ltd.	86,850	...	86,850	30,005	225	(k) (t)
Cochesnut Willans Gold Mines Ltd.	70,384	10,144	60,240	52,515	250	(a) (c) (k)
Central Patricia Gold Mines Ltd.	158,790	...	158,790	44,650	400	(c)
Gold Frontier Mines Ltd.	956	...	(v)	...	...	(v)
Hassaga Gold Mines Ltd.	168,539	54,654	153,885	25,060	550	(c)
Jason Mines Ltd.	40,406	7,414	52,992	15,972	125	(c) (u)
Madsen Red Lake Gold Mines Ltd.	146,950	724	146,226	58,185	400	(a) (c)
McMannan Red Lake Gold Mines Ltd.	52,589	...	52,589	11,021	75	(c) (k)
McKenzie Red Lake Gold Mines Ltd.	105,861	18,514	85,547	28,926	250	(c) (e)
Pickle Crow Gold Mines Ltd.	126,997	18,881	107,951	51,235	400	(a) (c)
Sachigo River Exploration Co. Ltd. ....	...	...	(w)	418	...	...
Uchi Gold Mines Ltd.	165,498	2,871	162,627	22,270	750	(a) (c)
Nickel-copper ores (including lead, cobalt, and miscellaneous gold ores) .....	...	...	...	73,256	...	...
Total Ontario .....	...	...	...	2,765,819	...	...

For Footnotes see Page 6.

Table 3 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942 (Continued)

Property and Province	Ore raised tons	Material sorted (discarded) tons	Ore treated tons	Gold produc- tion fine oz.	Mill capacity 24 hours tons	See foot- notes
<u>Ontario - Footnotes -</u>						
(a) Amalgamation.			(o) Closed down November 30.			
(b) Closed down September 12.			(p) Closed down November 29.			
(c) Cyanidation.			(q) Tailings.			
(d) Milled by Broulan Porcupine Mines Ltd.			(r) Closed down May 1.			
(e) Also shipped tungsten concentrates.			(s) Copper-gold concentrates exported.			
(f) Subject to revision; closed down May 31.			(t) Also produces lead; does not include metal content concentrates in stock pile.			
(g) Closed down April 30.			(u) Closed down October 15.			
(h) Includes 1,902 ounces recovered from tailings.			(v) No milling; closed down August 20.			
(i) Closed down August 14.			(w) Final clean-up only.			
(j) Closed down October 14.			(x) Miners' strike in camp during latter part of year.			
(k) Concentrates smelted.			(x) Subject to revision.			
(l) Closed down August 31.						
(m) Closed down August 26.						
(n) Closed down October 25.						
<u>MANITOBA -</u>						
God's Lake Gold Mines Ltd.	72,850	...	72,850	16,353	200	(a) (c)
Gunnar Gold Mines Ltd.	15,472	918	12,554(x)	5,989	150	(c) (b)
Ogema-Rockland Gold Mines Ltd.	(d)	(d)	(d)	3,765	...	
San Antonio Gold Mines Ltd.	199,203	...	199,203	58,869	550	(a) (c)
Copper-gold and miscellaneous gold ores	...	...	...	51,250	...	
Total Manitoba .....	...	...	...	136,226	...	
<u>Footnotes -</u>						
(x) Subject to revision.						
(a) Amalgamation.						
(b) Closed down May 8.						
(c) Cyanidation.						
(d) Closed down July 31; data not recorded; milled by Gunnar Gold Mines Ltd.						
<u>SASKATCHEWAN -</u>						
Cons. Mining & Smelting Co. of Canada, Ltd. (Box)	291,787	...	291,787	(a)	1,200	(b)
Placer gold .....	...	...	...	9	...	
Copper-gold and miscellaneous gold ores	...	...	...	178,862	...	
Total Saskatchewan .....	...	...	...	178,871	...	
<u>Footnotes -</u>						
(a) Data not recorded or available for publication; closed down August 15.						
(b) Cyanidation.						
(c) Includes Box mine.						
<u>ALBERTA -</u>						
Placer gold	(x)	(x)	(x)	34	...	
<u>Footnote -</u>						
(x) No record.						
<u>BRITISH COLUMBIA -</u>						
Bayonne Cons. Mines Ltd.	11,976	452	11,524	4,599	50	(c) (b)
Buena Vista Mining Co. Ltd.	62,755	...	62,755	3,324	500	(c) (d)
Buccanier Mines Ltd.	3,001	(e)	(e)	(e)	(e)	(f)
Bralorne Mines Ltd.	171,095	...	171,095	90,817	500	(a) (g) (h)
Central Zeballos Gold Mines Ltd.	(e)	...	(e)	4,610(m)	45	(a) (i) (h)
Cariboo Gold Quartz Mining Co. Ltd. ...	94,162	...	93,885	38,016	350	(c) (h)
A. Enderaly (Reno mine)	1,128	...	1,128	883	...	(h)
Gold Belt Mining Co. Ltd.	(e)	...	55,299	19,619	150	(c)
Hedley Mascot Gold Mines Ltd.	(e)	...	66,068	22,477	175	(c) (h) (k)
Homeward Mines Ltd.	(e)	...	373	594	50	(a) (h) (j)

Table 5 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942 (Continued)

Property and Province	Ore raised tons	Material sorted (discarded) tons	Ore treated tons	Gold produc- tion fine oz.	Mill capacity 24 hours tons	See foot- notes
BRITISH COLUMBIA (Concluded) -						
Island Mountain Mines Co. Ltd.	47,916	...	47,916	21,097	150	(c)
Kootenay Belle Gold Mines Ltd.	26,016	...	26,016	8,310	150	(c)
Kelowna Exploration Co. Ltd.	99,485	...	99,219	32,425	275	(h)(k)
Livingstone Mining Co. Ltd.	1,138	...	1,138	874	30	(l)
Musketeer Mines Ltd.	7,084	2,014	5,070	1,846	25	(a)(h)(m)
Mount Zeballos Gold Mines Ltd.	8,464	2,776	5,686	2,665	60	(a)(h)(n)
R. O. Oscarson (Arlington)	561	...	561	776	...	(l)(o)
Privateer Mine Ltd.	48,280	23,207	25,075	22,360	90	(a)(c)
Pioneer Gold Mines Ltd.	89,717	10,093	79,624	40,563	300	(a)(c)(h)
Polaris Taku Mining Co. Ltd.	30,966	...	31,336	17,506	300	(h)(p)
Sheep Creek Gold Mines Ltd.	55,395	...	55,395	23,493	150	(c)
Surf Inlet Cons. Gold Mines Ltd. ...	27,744	1,628	26,116	8,683	100	(h)(q)
Silbak Premier Mines Ltd.	140,567	...	140,567	36,300	500	(h)(r)
Spud Valley Mines Ltd.	20,060	23,531	20,060	6,020	100	(a)(h)(s)
Vancouver Island Drilling & Explora- tion Co. Ltd.	1,119	...	1,119	228	...	(l)(t)
Velvet Gold Leasers (Velvet)	7,880	285	7,595	1,206	100	(h)(u)
White Star Mine Ltd.	100(x)	...	100	500	...	(l)(v)
Ymir Yankee Girl Gold Mines Ltd. ...	10,144	...	10,363	2,546	100	(h)(o)(w)
Y.Y. Girl Leasers	5,244	...	5,244	636	100	(h)(z)(o)
Placer gold ....	...	...	1,884,887(y)	26,323	...	
Copper-gold ores ....	...	...	...	19,892	...	
Silver-lead-zinc and other gold ores	...	...	...	15,151	...	
Total British Columbia .....	...	...	...	474,339	...	

Footnotes -

- | | |
|---|---|
| (x) Subject to revision. | (n) Closed (in liquidation) down April 30. |
| (a) Amalgamation. | (o) Also recovers lead and zinc. |
| (b) Closed down August 31. | (p) Closed down April 30. |
| (c) Cyanidation. | (q) Closed down November 30; also recovers copper. |
| (d) Closed down April 5. | (r) Ore also contains relatively large quantities of silver and lead. |
| (e) Not available for publication. | (s) Closed down June 30. |
| (f) Closed down August 11. | (t) Closed down October 15. |
| (g) Also shipped tungsten concentrates. | (u) Also recovers copper. |
| (h) Concentrates smelted. | (v) Closed down March 31. |
| (i) Closed down July 7. | (w) Milling ceased by company June 25. |
| (j) Closed down February 7. | (x) Salvage operations; closed March 31. |
| (k) Also produced arsenic. | (y) Cubic yards—partly estimated. |
| (l) Ore smelted. | (z) Salvage operations; closed October 31. |
| (m) Closed down July 23. | |

YUKON -

Placers .....	...	...	11,848,353(a)	85,198	...	
Silver-lead ores .....	...	...	...	48(b)	...	
Total Yukon .....	...	...	...	85,246	...	

Footnotes:-

- (a) Cubic yards—estimated.
(b) In ores exported.

NORTHWEST TERRITORIES -

Cons. Mining & Smelting Co. of Canada, Ltd. - Con mine	68,380	...	68,380	(x)	350	(a)(c)
Ruth mine	187	...	187	(x)	25	(a)(b)
Goodrock Gold Mines Ltd.	(x)	(x)	(x)	(x)	(x)	(d)
International Tungsten Mines Ltd. ..	7,368	...	7,368	3,895	50	(a)(b)(d)
Nagus Mines Ltd.	(x)	...	25,458	19,637	60	(a)(c)

Gold

- 8 -

Table 3 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1942 (Concluded)

Property and Province	Ore raised tons	Material sorted (discarded) tons	Ore treated tons	Gold production fine oz.	Mill capacity 24 hours tons	See foot- notes
NORTHWEST TERRITORIES (Con.)						
Ptarmigan Mines Ltd.	31,555	...	31,555	(x)	100	(a) (c) (e)
Rycon Mines Ltd.	3,824	...	3,824	(x)	...	(f)
Thompson Lundmark Gold Mines Ltd.	55,841	...	57,755	(x)	125	(a) (c)
Others	(x)	(x)	(x)	75,862(g)	(x)	
Total Northwest Territories .....	...	...	...	99,594	...	

Footnotes -

- (x) Not recorded or available for publication.
(a) Amalgamation.
(b) Operations ceased August 9.
(c) Cyanidation.
(d) Also produced tungsten concentrates.
(e) Closed down August 31.
(f) Ore milled at Con mine.
(g) Includes output of all mines marked (x) under production.

TOTAL CANADA 4,841,506 ...

Table 4 - PRODUCTION OF NEW GOLD(1) BY PROVINCES AND TERRITORIES, 1932-1942

Year	Nova Scotia		Quebec		Ontario		Manitoba	
	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$
1932	964	22,654	401,105	9,417,572	2,280,105	55,554,743	122,507	2,876,350
1933	1,382	39,525	562,886	10,950,559	2,155,519	61,647,843	125,310	3,585,866
1934	3,525	121,613	390,097	15,458,547	2,105,339	72,634,195	132,321	4,565,075
1935	9,376	329,942	470,552	16,558,725	2,220,356	78,133,624	142,613	5,018,551
1936	11,960	418,959	666,905	23,361,663	2,378,503	83,518,960	139,273	4,878,733
1937	19,918	696,951	711,480	24,894,685	2,587,095	90,522,454	157,949	5,526,636
1938	26,560	954,248	881,263	30,996,426	2,896,477	101,885,578	185,706	6,552,209
1939	29,943	1,082,170	953,377	34,455,998	3,086,076	111,553,873	180,875	6,537,003
1940	22,219	855,432	1,019,175	39,238,238	3,261,698	125,574,968	152,295	5,863,557
1941	19,170	738,045	1,069,359	41,939,552	3,194,308	122,980,858	150,553	5,798,290
1942	12,989	500,076	1,092,388	42,056,938	2,763,819	106,407,032	136,226	5,244,701
Total ...	158,006	5,739,575	9,058,567	287,330,703	26,929,275	1,008,172,148	1,625,628	56,422,771
Year	Saskatchewan		British Columbia		Yukon		Northwest Territories	
	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$
1932	11	253	199,004	4,672,429	40,808	953,438	...	...
1933	5,400	154,440	238,395	6,835,257	39,493	1,129,500	...	...
1934	5,405	186,474	296,196	10,218,762	38,798	1,358,531	...	...
1935	14,523	504,028	391,633	13,781,565	35,707	1,256,529	200	7,038
1936	48,991	1,715,805	451,938	15,831,398	50,353	1,764,041	1	35
1937	65,886	2,505,351	505,857	17,699,956	47,382	1,678,890	...	...
1938	50,021	1,759,439	605,617	21,302,578	72,368	2,545,544	6,800	239,190
1939	77,120	2,787,194	628,970	22,659,523	87,745	3,171,192	51,914	1,876,224
1940	102,925	3,962,613	617,011	25,754,924	80,458	3,097,635	55,159	2,123,621
1941	138,015	5,513,573	608,203	23,415,816	70,959	2,731,922	74,417	2,865,054
1942	178,871	6,886,533	474,339	18,262,052	85,246	3,204,971	99,394	3,626,669
Total ...	686,958	25,575,759	4,542,237	178,434,030	647,722	22,872,191	287,855	10,937,851

NOTE: The annual production in Alberta was less than 400 ounces for any of the years specified.

(1) From all sources.

Table 5 - SOURCE OF CANADIAN GOLD PRODUCTION, 1932-1942

Year	In alluvial gold	In crude gold bullion produced at mines (a)	In base bullion produced at lead smelters	In blister copper produced (b)	In ores, matte, slags, etc., exported	Total Gold Produced
	%	%	%	%	%	fine oz.
1932	1.8	79.5	1.0	15.1	2.8	3,044,587
1933	2.0	79.8	0.7	14.2	3.3	2,949,509
1934	2.0	78.7	1.1	13.4	4.8	2,972,074
1935	1.8	78.3	2.2	13.2	3.9	3,284,890
1936	2.2	77.4	1.6	13.8	5.0	3,743,028
1937	2.2	80.2	0.9	11.7	5.0	4,096,213
1938	2.5	80.8	0.9	11.2	4.5	4,725,117
1939	2.5	82.1	0.6	10.4	4.4	5,094,379
1940	2.1	82.7	0.6	10.0	4.6	5,311,145
1941	2.0	82.6	0.4	10.3	4.7	5,345,179
1942	2.3	80.8	0.2	12.1	4.6	4,841,506

(a) Includes a relatively small quantity of gold contained in interprovincial shipments of gold ores, slags, etc., to Canadian smelters.

(b) Some blister copper is refined in the United States; also contains a relatively small quantity of gold recovered from auriferous quartz ores.

Table 6 - PRODUCTION OF GOLD IN CANADA, BY MONTHS(x), 1940-1942

Month	1940	1941	1942	Month	1940	1941	1942
	Fine ounces				Fine ounces		
January	425,034	455,633	409,134	July	457,350	458,096	428,523
February	405,932	414,035	378,844	August	466,946	468,704	406,515
March	430,519	447,943	442,962	September ...	441,145	446,493	580,703
April	419,282	440,947	424,396	October	468,170	462,629	585,111
May	443,199	450,607	428,798	November	450,712	444,239	565,755
June	451,934	455,424	427,982	December	450,862	420,429	562,983

(x) Compiled from monthly reports received from principal operators and the totals were adjusted to agree with the 12 months' total as compiled from final annual reports.

Table 7 - PRECIOUS METALS CONSUMED BY THE JEWELLERY AND SILVERWARE INDUSTRY IN CANADA, 1940 and 1941

Materials	Cost at Works	
	1940	1941
Precious metals -		
Fine gold	1,595,899	2,345,880
Gold alloys	230,108	592,067
Fine silver	660,650	1,144,409
Silver alloys	765,067	646,528
Platinum	148,748	208,518
Old gold, jewellers' findings, waste and scrap for refining	1,064,156	1,508,882
Gold-filled wire and stock	213,534	510,646
Precious and semi-precious stones	761,410	752,748

NOTE: Complete data for 1942 not yet available.

Table 8 - WORLD GOLD PRODUCTION, 1941 and 1942 - "The Mining Journal" - London

	1941	1942
	(Fine troy ounces)	
Transvaal	14,388,361	14,120,617
Canada	5,345,179	4,841,306
U.S.S.R.	?	?
United States (continental)	4,750,865	5,478,215
Australia	1,570,000	1,180,000
Philippines	1,130,953	140,530
Chosen	?	?
Japan	?	?
Taiwan	?	?
Mexico	799,975	800,000(x)
Gold Coast	885,000	785,000(x)
Rhodesia	790,442	760,030
Colombia	658,028	605,000(x)
Congo	500,000	450,000(x)
India	287,000	257,000
Brazil	260,000	255,000(x)
Peru	255,000	250,000(x)
New Guinea	250,000	?
Sweden	200,000	?
Nicaragua	209,430	220,000(x)
New Zealand	180,000	170,000(x)
Rumania	?	?
China	?	?
Venezuela	145,000	140,000(x)
Tanganyika	140,000	130,000(x)
Fiji	115,000	105,000(x)
WORLD TOTAL (Estimated)	40,000,000	36,000,000 ?

(x) Estimated.

"Two major developments characterized the gold industry in 1942. These were: (1) a substantial reduction in the world's output—the first recorded for any year since 1928; and (2) a decline in the total U.S. monetary gold stocks. The suppression of gold output figures, at any rate in an official form, by all countries except South Africa, Canada and the United States, has added greatly to the uncertainty as to the total world output. It is doubtful if we shall ever know clearly what the total world figure was for 1942, and, indeed, for the rest of the war. The decline in output last year is due primarily to a reduction in the number of men engaged in the industry. Beginning in 1940, there was a general suspension of development and dead work due, in the first case, to embargoes on new capital issues in this country affecting particularly South Africa, but this was followed during the past year by positive measures to close down gold mines and transfer labour to the armed forces, to other forms of mining, and to some extent to munition production. These measures have been applied most drastically in Australia, but have also affected the United States and Canada and in the new year, West Africa. In those states which are not directly affected by the war it is reasonable to assume that no important change has taken place; in others such as New Guinea and the Philippines, production has probably fallen to very small amounts. As regards the U.S.S.R., gold producing territory has not been touched by the German invasion, but practically since the beginning of the last war Russian production has been to some extent a matter of individual estimation since no official statistics have been issued. The mobilisation of man-power, however, has probably had some restrictive effect on production, and in some quarters the past year's output is guessed at about 5,000,000 ounces. What has happened in Japan, with its control of Chosen, Taiwan and Manchuria, there is nothing available to show."

Table 9 - COMPARATIVE FIGURES OF GOLD PRODUCTION FOR THE WORLD SINCE THE DISCOVERY OF AMERICA, ALSO PRODUCTION FOR RUSSIA, TRANSVAAL, UNITED STATES AND CANADA

Year	Russia (a) fine ounces	Transvaal since the commencement of Fields(i) fine ounces	United States (c) (a) fine ounces	Canada since the recording of production in 1858 fine ounces	(a) World since the discovery of America fine ounces
1493-1600 .....	...	...	...	...	24,266,820
1601-1700 .....	...	...	...	...	29,330,445
1701-1800 .....	...	...	...	...	61,088,215
1801-1840 .....	...	...	...	...	20,486,552
1841-1850 .....	...	...	1,187,170(c)	...	17,605,018
1851-1860 .....	...	...	...	220,039	64,482,933
1861-1870 .....	...	...	58,279,778(d)	1,477,999	61,028,343
1871-1880 .....	...	...	15,281,264(e)	904,093	55,670,618
1881-1890 .....	...	11,070,651	15,808,339	584,102	51,280,184
1891-1895 .....	...	6,870,158	9,106,834	291,564	39,412,823
1896-1900 .....	...	12,578,869	15,728,572	3,469,791	62,234,698
1901-1905 .....	...	13,652,908	19,393,722	4,592,261	78,033,650
1906 .....	...	5,792,823	{	556,415	19,471,080
1907 .....	...	6,450,740	{	405,517	19,977,260
1908 .....	...	7,056,266	{ 22,993,218	476,112	21,422,244
1909 .....	...	7,295,108	{	453,865	21,965,111
1910 .....	...	7,527,108	{	493,707	22,022,180
1911 .....	...	8,249,461	4,687,053	473,159	22,397,136
1912	(g)	9,107,512	4,520,719	611,885	22,605,068
1913	1,583,677	8,798,336	4,299,784	802,973	22,556,347
1914	1,733,914	8,394,322	4,572,976	773,178	21,652,883
1915	1,382,450	9,093,902	4,887,604	918,056	22,846,608
1916	1,089,885	9,296,618	4,479,057	930,492	22,032,542
1917	871,265	9,018,084	4,051,440	738,831	20,346,043
1918	554,588	8,418,292	3,320,784	699,681	18,588,127
1919	173,610	8,331,294	2,918,628	766,764	17,339,679
1920	73,945	8,158,226	2,476,166	765,007	16,146,830
1921	65,907	8,128,681	2,422,006	926,329	15,997,692
1922	191,614	7,009,767	2,363,075	1,263,364	15,496,859
1923	305,425	9,148,771	2,502,632	1,233,341	17,845,349
1924	546,550	9,574,918	2,528,900	1,525,382	18,619,481
1925	632,390	9,597,573	2,411,987	1,735,735	18,673,178
1926	760,605	9,954,762	2,335,042	1,754,228	19,117,568
1927	688,492	10,122,459	2,197,125	1,852,785	19,058,736
1928	385,800	10,354,157	2,233,251	1,890,592	18,885,849
1929	707,300	10,412,326	2,208,386	1,928,308	19,207,452
1930	1,501,083	10,716,349	2,285,603	2,102,068	20,903,736
1931	1,655,725	10,877,708	2,395,878	2,693,892	22,284,290
1932	1,938,000	11,557,858	2,449,032	3,044,387	24,086,676
1933	2,700,000	11,012,340	2,556,246	2,949,309	25,400,295
1934	3,858,000	10,479,194	3,091,183	2,972,074	27,372,374
1935	4,784,030	10,773,041	3,609,283	3,284,890	29,999,245
1936	6,500,000(h)	11,355,092	4,357,394	3,748,028	32,930,554
1937	5,900,000(h)	11,734,553	4,804,540	4,096,213	35,118,298
1938	5,800,000(h)	12,161,375	5,089,811	4,725,117	37,703,334
1939	5,000,000(h)	12,821,061	5,611,171	5,094,379	39,534,430
1940	4,000,000(h)	14,037,741	6,003,105(j)	5,311,145	41,067,101
1941	(b)	14,386,361	5,976,419(l)	5,345,179	40,332,204(k)
1942	(b)	14,120,617	3,618,543(n)	4,841,308	36,000,000(m)(k)
TOTAL .....	...	395,451,192	271,043,720	80,723,542	1,452,008,138

(a) Supplied by United States Mint.

(b) Not available.

(c) 1792-1847.

(d) 1848-1872.

(e) 1873-1880.

(f) Including Philippine Islands production received in United States. Data represent receipts at United States Mint's refineries assay offices.

Footnotes to Table 9 (Con.) -

- (g) Data not available for preceding years. A revision by the United States Mint of estimated Russian gold production for the years 1913 to 1934 was made from United States consular reports, based principally on Soviet publications. While available data are quite indefinite and, in many instances, contradictory, it is believed that this revision more nearly represents actual production than data heretofore used. Figures for Russian production since 1937 supplied by American Bureau of Metal Statistics.
- (h) Subject to revision. American Bureau of Metal Statistics.
- (i) Annual Report - Department of Mines, Union of South Africa. 1941 and 1942 figures, Transvaal Chamber of Mines.
- (j) Includes 1,140,126 fine ounces received from Philippines.
- (k) Includes conjectural data for Russia.
- (l) Includes 1,144,332 fine ounces from Philippine Islands.
- (m) The Mining Journal, London—subject to revision.
- (n) United States Bureau of Mines—preliminary; includes 140,350 ounces from Philippine Islands.

Table 10 - ESTIMATED AVERAGE MONTHLY VALUE OF AN OUNCE OF FINE GOLD, EXPRESSED IN CANADIAN FUNDS, 1931-1942

Month	1931	1932	1933	1934	1935	1936	1937	1938	1939	(1940 1942)
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
January	20.71	24.24	23.64	33.05	34.95	35.06	35.01	34.99	35.50	38.50
February	20.67	23.67	24.74	35.29	35.05	35.18	35.01	35.00	35.19	38.50
March	20.67	23.11	24.78	35.08	35.40	35.11	34.98	35.05	35.13	38.50
April	20.68	22.98	25.33	34.93	35.18	35.15	34.95	35.15	35.15	38.50
May	20.68	23.38	27.75	34.94	34.95	35.00	34.94	35.22	35.13	38.50
June	20.73	23.83	28.24	34.73	35.05	35.08	35.02	35.36	35.07	38.50
July	20.74	23.73	30.58	34.59	35.08	34.91	35.05	35.24	35.08	38.50
August	20.73	23.81	30.09	34.19	35.09	35.00	35.00	35.12	35.01	38.50
September	21.55	22.88	31.79	34.18	35.28	34.99	35.00	35.12	37.21	38.50
October	23.22	22.65	31.48	34.27	35.49	34.99	34.99	35.32	38.43	38.50
November	23.22	23.73	32.68	34.16	35.37	34.95	34.98	35.25	38.50	38.50
December	25.01	23.55	32.14	34.57	35.35	34.98	34.93	35.28	38.50	38.50
YEARLY AVERAGE	21.55	23.47	28.60	34.50	35.19	35.03	34.99	35.17	36.14	38.50

NOTE: Procedure regarding the marketing of gold by the Department of Finance, Ottawa, is noted elsewhere in this report. At December 31, 1942, the price paid by the United States Treasury for gold purchased by the Mint continued at \$35 per troy ounce of fine gold, less $\frac{1}{4}$ of 1 per cent. Actual payment by the United States Treasury for gold in imported and domestic ore or concentrate was at 99.75 per cent of the price quoted by the Treasury, which, at the close of 1942, was equal to \$34.9125 per ounce.

TREND IN EMPLOYMENT, 1942

(Employment and Payroll Statistics Branch - D.B.S.)

General Summary

In continuing response to the stimulus provided by the industrial war effort, employment reached unprecedentedly high levels in Canada during 1942. The trend was generally favourable during nine of the twelve months, curtailment having been indicated only during the first quarter of the year; the contractions then were moderate. The extent of the general upswing, however, was not equal to that reported in the earlier phases of the expansive movement, which, dating from the outbreak of hostilities, had received great impetus from the events of the spring and early summer of 1940, climaxed by the collapse of France. This slowing down in the rate of acceleration during 1942 was an obvious development in view of the magnitude of the expansion since the beginning of the war, with its consequent depletion of the labour market, seriously affected also by the recruitment of some 600,000 persons by the armed forces. In the 1942 stage of the war, the distribution of the workers taken on differed from that indicated in preceding phases. As shortages of labour and materials became increasingly a problem in industrial organization, the shift of workers from the less-essential to the more-essential production and services assumed an ever-growing importance in the industrial pattern - a transfer which in general was facilitated by relatively high earnings in war plants and other essential industries.

Mining

Mining operations were adversely affected by labour shortages in 1942, in eight months of which employment was in smaller volume than in the same period of 1941. With only one exception, the trend in the group as a whole was unfavourable in each month of the year under review. The index declined from 177.8 at Jan. 1, to 162.7 at the beginning of December, averaging 171.3 in the twelve months; the 1941 mean had been 176.3.

The 80,056 employees reported, on the average, by the 428 co-operating mining operators were shown to have earned a weekly average of \$2,785,432 in 1942. This was a per capita average of \$34.81, which was higher than in any other of the main industrial groups included in the monthly surveys, although it was exceeded by the average in a few manufacturing industries. The index of payrolls rose from 100 at June 1, 1941 to a peak of 112.0 at Mar. 1, 1942, thence declining to 103.8 at Nov. 1. This falling off was accompanied by a loss of eight p.c. in employment in the period from June 1, 1941, to Nov. 1, 1942.

Coal mining, on the whole, showed little general change from 1941, the index averaging 94.7 in 1942, as compared with 94.9 in the preceding year. A working force of 26,020 persons was employed, on the average, by the 105 co-operating firms, who had had 26,056 employees in 1941. The reported payrolls in the year under review amounted to \$808,893 per week, a per capita average of \$31.09. At the end of 1942, payrolls in the coal-mining division had risen by 37.6 p.c. from June 1, 1941, while employment in the same period had advanced by only 1.1 p.c.

The labour stringency affected particularly metallic ore mining, notably gold. From the first quarter of the year, employment was quieter than in the same period of 1941, and as the year progressed, the comparison with earlier years since 1937 also became favourable. The index averaged 346.1, as compared with 366.2 in 1941 and 350.9 in 1940; these three are the highest in the record. Data were tabulated from 207 employers whose working forces aggregated 43,215, varying from 44,614 at Mar. 1, to 39,963 at the beginning of December. The reported weekly payrolls of persons employed by the co-operating metallic ore mines averaged \$1,668,080, a per capita average of \$38.60. This was exceeded only by the averages in certain iron and steel groups.

Non-metallic minerals, other than coal: This industry provided more employment than in 1941 or earlier years. The reported employees averaged 10,821, earning a weekly payroll of \$308,459. The per capita average was \$28.51. In 1941, the persons on the staffs of the co-operating firms numbered 10,119. The 1942 mean index of employment was 159.4, compared with 150.5 in 1941. Considerable activity was indicated in asbestos mining, quarrying and other divisions of the group.

Table 11 - PER CAPITA WEEKLY AVERAGE EARNINGS OF PERSONS ENGAGED IN MINING AT SPECIFIED DATES IN 1941 and 1942^a

Industries	Per Capita Averages						
	June 1	Sept. 1	Dec. 1	Mar. 1	June 1	Sept. 1	Dec. 1
	1941	1941	1941	1942	1942	1942	1942
	\$	\$	\$	\$	\$	\$	\$
Coal	24.90	28.49	32.62	32.41	29.84	32.27	33.89
Metallic ores	35.34	36.89	36.36	37.68	38.68	39.39	38.82
Non-metallic minerals (except coal) ...	25.72	26.58	26.73	29.00	28.05	29.28	29.37

^a From Annual Review of Employment and Payrolls in Canada, 1942 - D.B.S., Ottawa.

Table 12 - STRIKES AND LOCKOUTS IN CANADA, BY INDUSTRIES, 1941 and 1942 (Department of Labour)

	1 9 4 1					1 9 4 2				
	No. of strikes and lockouts	Workers involved		Time lost		No. of strikes and lockouts	Workers involved		Time lost	
		Number	Per cent of total	Man working days	Per cent of total		Number	Per cent of total	Man working days	Per cent of total
Agriculture .....	...	...	...	...	...	2	426	0.5	278	0.1
Logging	1	300	0.5	4,000	0.9	5	604	0.5	974	0.2
Fishing and trapping .....	...	...	...	...	...	1	5,260	2.9	10,000	2.2
Mining, etc. (x) ..	48	41,476	47.6	191,689	44.2	61	22,408	19.7	129,529	28.8
Coal mining	(45)	(38,136)	(43.8)	(109,069)	(25.1)	(55)	(19,670)	(17.3)	(66,318)	(14.7)
Manufacturing	127	56,750	42.2	205,845	47.4	219	80,037	70.3	296,135	65.8
Construction	27	5,889	6.0	15,997	3.2	31	3,889	3.4	4,266	1.0
Transportation and Public Utilities ..	13	1,566	1.8	4,224	1.0	15	2,233	2.0	5,459	1.2
Trade	4	195	0.2	760	0.2	4	61	0.0	74	0.0
Finance .....	...	...	...	...	...	1	224	0.2	1,100	0.2
Service	11	937	1.1	13,399	3.1	15	774	0.7	2,407	0.5
TOTAL	251	87,091	100.0	435,314	100.0	354	113,916	100.0	450,202	100.0

(x) Non-ferrous smelting is included with mining.

Of the total of 354 strikes and lockouts during 1942, 61 were in mining, involving 19.7 per cent of the workers in all strikes. The time loss was 28.8 per cent of the total. Fifty-three strikes were recorded in the coal mining industry and these caused 14.7 per cent of the total time loss in all strikes. Only two strikes were recorded during the year in gold mining but one of these involving 2,800 miners at Kirkland Lake caused a time loss of 58,000 man working days in 1942, and 78,000 days in 1941. About one-half of the time loss due to strikes in coal mining was caused by five disputes. In March a strike at Springhill, Nova Scotia resulted in a loss of 11,500 man working days; two strikes at Florence, Nova Scotia in April caused a total loss of about 12,000 days and two strikes in British Columbia in October, one at Nanaimo and the other at Cumberland caused a loss of 9,500 days.

Table 15 - CERTAIN STATISTICS RELATING TO SPECIFIED CANADIAN INDUSTRIES, 1923, 1928, 1934 and 1939-1942

Industry	Electricity purchased(c) \$	Employees Number	Salaries and Wages \$
<u>TOTAL MINING INDUSTRY (a) (f)</u>			
1923	5,861,740	66,952	91,354,877
1928	9,072,075	89,448	115,954,022
1934	11,510,481	73,505	88,126,186
1939	18,749,417	107,941	152,555,208
1940	21,066,754	108,886	164,489,686
1941	26,710,550	113,227	186,425,186
<u>AURIFEROUS QUARTZ MINING INDUSTRY</u>			
1923	922,258	5,524	8,961,454
1928	2,002,062	9,066	14,615,990
1934	3,091,147	17,762	27,156,887
1939	5,803,160	30,622	53,206,225
1940	5,893,562	31,405	55,205,096
1941	6,277,626	32,551	61,150,810
1942	5,856,971	26,030	54,588,872
<u>PULP AND PAPER INDUSTRY (f)</u>			
1923	4,270,911	29,234	38,562,845
1928	12,143,874	33,614	47,322,648
1934	15,229,289	26,993	53,307,043
1939	17,091,511	31,016	44,737,379
1940	17,345,301	34,719	56,075,812
1941	16,714,568	37,154	63,677,818
<u>AUTOMOBILE INDUSTRY (f)</u>			
1923	125,000	9,305	14,998,267
1928	244,807	16,749	29,548,114
1934	140,245	9,674	12,958,933
1939	264,989	14,427	20,575,714
1940	299,841	16,798	31,110,945
1941	306,572	22,401	44,783,064
<u>CHEMICAL INDUSTRY (a) (f)</u>			
1923	1,459,909	15,149	18,433,679
1928	2,043,930	16,130	20,290,417
1934	2,145,533	17,130	20,919,740
1939	3,185,329	22,595	31,567,558
1940	4,316,291	27,682	38,640,990
1941	6,877,004	54,014	75,634,741
<u>PRIMARY IRON AND STEEL INDUSTRY (d) (f)</u>			
1923	722,770	6,049	10,816,201
1928	1,251,820	9,057	15,470,856
1934	1,148,554	7,400	9,009,512
1939	1,932,377	13,827	20,410,517
1940	3,397,820	17,774	29,207,036
1941	5,251,057	23,735	45,037,095

Table 15 - CERTAIN STATISTICS RELATING TO SPECIFIED CANADIAN INDUSTRIES, 1925, 1928, 1934 and 1939-1942
(Concluded)

Industry	Electricity purchased (c)	Employees	Salaries and Wages
	\$	Number	\$
<u>TEXTILE INDUSTRIES (b) (✓)</u>			
1925	(data not available)	92,669	81,244,205
1928	2,188,544	115,724	103,451,525
1934	3,138,195	115,695	90,796,601
1939	3,724,916	121,022	107,117,035
1940	4,269,452	138,973	133,136,516
1941	4,278,307	156,892	159,539,028

- (a) Includes industries manufacturing coal tar, acids, alkalies and salts, compressed gases, explosives, and ammunition, fertilizers, pharmaceutical preparations, paints and varnishes, soaps and washing compounds, toilet preparations, inks, polishes, etc.
- (b) Includes industries manufacturing hosiery and knitted goods, cottons, men's and women's factory clothing, silk, woollen cloth, also the dyeing, cleaning and laundry industries prior to 1936.
- (c) 1925 figures partly estimated; also the values shown do not include the value of electricity generated by the specified industries, especially the pulp and paper industry.
- (d) Operations of plants engaged chiefly in the manufacture of pig iron, ferro-alloys, steel ingots and castings, rolled and drawn iron and steel products, such as, bars, plates, etc.
- (e) Includes non-ferrous smelters and refineries.
- (✓) Data for 1942 not yet complete.

GOLD EXPORTS

(Order-in-Council P.C. 11498 - December 22, 1942)

WHEREAS by Order in Council, P.C. 1150, dated May 17, 1932, regulations respecting the export of gold, whether in the form of coin or bullion, from the Dominion of Canada, were made under the authority of The Gold Export Act;

AND WHEREAS the said regulations were by Order in Council, P.C. 9131, dated November 26, 1941, continued in force until December 31, 1942;

AND WHEREAS in the opinion of the Minister of Finance it is expedient that the said regulations be continued in force beyond December 31, 1942;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Finance and under the provisions of the said "The Gold Export Act, is pleased to order that the provisions of the said Regulations be and they are hereby continued in force and effect until December 31, 1945, unless sooner rescinded by Order in Council.

NOTE: Order in Council P.C. 1150, reads, in part, as follows - "The export of gold, whether in the form of coin or bullion (including ore, etc.), from the Dominion of Canada, is hereby prohibited, except in such cases as may be deemed advisable by the Minister of Finance, and under license to be issued by him"

GOLD IN CANADIAN EXPORT TRADE

Exports of gold in Canadian trade statistics were distinguished in previous reports as between monetary and non-monetary. Monetary gold exports were described as those which entailed a reduction in the Dominion's monetary gold stocks. All other gold exported (classed as non-monetary) were shown as merchandise, and included with the total merchandise exports.

The fact that gold is a money metal gives it peculiar attributes which distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined almost exclusively by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and is normally assured a market at a relatively fixed price. For these reasons provision was made in previous trade reports for a supplementary table showing exports from Canada excluding all gold.

It is further to be noted gold does not move in international trade in any direct or normal relation to sales and purchases. It may be bought or sold abroad without moving in or out across the frontier, the sales or purchases in such cases being recognized by simply setting aside or "earmarking" the gold in the vaults of the central bank. Trade statistics deal only with physical movements, sales or purchases of gold which do not involve an actual movement being more properly regarded as an "invisible item" and taken care of in the "International Balance of Payments" statements. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

The publication of statistics showing the gross imports and exports of gold has been temporarily suspended as from September, 1939. Statistics for periods prior to this time have been accordingly revised to exclude all gold formerly included in the total of merchandise exports.

Statistics showing the net exports of non-monetary gold, including changes in stocks held under earmark, were published as a supplement to the trade figures until February, 1942 when their publication was discontinued by regulation.

CANADIAN GOLD METAL STOCKS

Data relating to Canadian gold stocks since 1939 were not published. For information pertaining to these stocks prior to 1940, see previous annual gold mining reports as issued by the Bureau of Statistics.

Table 14 - WORLD'S MONETARY STOCKS OF GOLD AT THE CLOSE OF 1939, 1940 and 1941 (Subject to revision)
(Compiled by the United States Mint from available data)
(Stated in United States money)

Country	Total Gold Stock Value, 1939(e)	Per capita	Total Gold Stock Value, 1940(e)	Per capita	Total Gold Stock Value, 1941(e)	Per capita
	\$	\$	\$	\$	\$	\$
United States (d)	17,643,577,000	153.17	21,991,102,000	165.98	22,736,557,000	167.62
Canada	206,223,000	18.55	7,251,000	0.65	5,000,000	0.44
Argentina	466,000,000	56.51	458,078,000	34.33	389,798,000	29.26
Belgium	607,140,000	72.85	736,000,000	88.03	734,000,000	87.42
Denmark	55,083,000	14.10	52,003,000	15.82	44,000,000	11.39
France	2,708,878,000	64.64	2,000,068,000	47.73	2,000,000,000	47.64
Germany	40,118,000	0.59	40,280,000	0.60	29,000,000	0.42
Great Britain	10,314,000	0.22	1,991,000	0.04	1,648,000	0.03
Italy	144,000,000	3.29	157,000,000	3.13	(a)	(a)
Netherlands	690,128,000	79.92	617,299,000	71.49	575,000,000	64.44
Norway	93,916,000	52.31	84,388,000	29.03	(a)	(a)
Poland	85,000,000	2.46	...	...	...	...
Portugal	68,900,000	9.47	92,284,000	12.69	59,000,000	7.66
Romania	151,606,000	7.72	157,400,000	8.01	182,000,000	13.49
Russia (Soviet Union) ..	(a)	(a)	(a)	(a)	(a)	(a)
Spain	525,000,000	21.13	(a)	(a)	(a)	(a)
Sweden	308,117,000	49.02	304,955,000	46.52	223,371,000	35.06
Switzerland	548,580,000	131.43	502,115,000	120.29	665,000,000	156.21
British India	274,472,000	0.81	274,480,000	0.81	274,592,000	0.71
Japan (including Chosen, Taiwan, Kwantung)	163,570,000	1.61	163,570,000	1.61	(a)	(a)
Netherlands East Indies.	89,930,000	1.40	189,659,000	2.17	235,000,000	3.31
Egypt	52,500,000	3.30	52,000,000	3.10	52,000,000	3.10
Australia	4,200,000	0.61	16,683,000	2.43	(a)	(a)
New Zealand	23,086,000	12.04	23,087,000	14.41	23,000,000	14.08
Union of South Africa ..	250,451,000	2.13	352,713,000	36.00	366,000,000	35.59
Other countries	724,292,000	...	902,251,000	...	(a)	(a)
TOTAL	25,933,081,000	(b)12.71	29,086,657,000	(b)14.28	(c)	(c)

(a) Data omitted because of indefiniteness or unavailability.

(b) Population figures are principally supplied by United States Department of Commerce, 1938-40.

(c) Totals omitted due to the great number of instances in which data are not available.

(d) Includes Alaska, Hawaii and Puerto Rico.

(e) 1 ounce fine gold = \$35.

NOTE: It is understood that material amounts of gold are not reported by several countries, such as, amounts held in secret funds for stabilizing currencies and those hoarded or held outside of regularly reported stocks.

Table 15 - AVERAGE COMMERCIAL RATIO OF SILVER TO GOLD FOR EACH SPECIFIED YEAR SINCE 1700
(Supplied by United States Mint)

Year		Year		Year	
1700	14.81	1900	33.33	1934	72.49
1750	14.55	1905	33.87	1935	54.19
1800	15.68	1910	38.22	1936	77.09
1850	15.70	1915	40.48	1937	77.44
1875	16.64	1920	20.28	1938	80.59
1880	18.05	1925	29.78	1939	88.84
1885	19.41	1930	53.74	1940	99.76
1890	19.75	1932	75.29	1941	99.75
1895	51.30	1933	59.06	1942	91.32(x)

(x) Estimate based on Canadian prices.

Table 16 - CIRCULATING MEDIA IN HANDS OF CANADIAN PUBLIC FOR YEARS SPECIFIED (Business Statistics Branch,
Dominion Bureau of Statistics)

Year	Dominion and Bank of Canada Notes (c)	Circulation of Bank Notes (c)	Total Notes in Hands of Public(a) (c)	Subsidiary Coin Out- standing	Subsidiary Coin in Hands of Public	Circulating Media in Hands of Public
(Millions of Dollars)						
1919 ...	508.0	218.9	217.0	28.77	22.97	239.97
1923 ...	240.9	170.4	160.1	30.23	24.43	184.53
1926 ...	190.0	168.9	180.3	30.04	24.24	204.54
1929 ...	204.4	178.3	191.5	32.26	26.46	217.96
1931 ...	153.1	142.0	156.7	32.83	27.03	185.73
1933 ...	179.2	130.4	149.8	33.27	27.47	177.27
1934 ...	190.3	135.5	155.7	33.70	27.90	183.60
1935 ...	127.3(b)	125.6	165.9	33.67	27.87	193.77
1936 ...	105.3	119.5	179.9	34.00	28.20	208.10
1937 ...	141.1	110.3	199.1	35.29	29.49	228.58
1938 ...	161.1	99.9	203.7	36.63	30.97	234.67
1939 ...	184.9	94.1	218.1	38.87	33.18	251.28
1940 ...	277.1	91.1	294.1	45.05	39.15	333.25
1941 ...	406.4	81.6	398.9	49.46	42.16	441.06
1942 ...	572.3	71.7	541.5	54.43	47.41	588.91

(a) Holdings of chartered banks and of Central Gold Reserves are deducted from the sum of the first and second columns to give total notes in hands of public.

(b) The Bank of Canada notes first appeared in the last ten months of 1935.

(c) Average of monthly data.

Table 17 - DEPOSITS IN CANADA, AVERAGE OF MONTHLY DATA FOR YEARS SPECIFIED (Millions of Dollars)

Year	Notes Deposits	Demand Deposits	Dominion Government Deposits	Provincial Government Deposits	Sum of Deposits
1919	1,125.2	621.7	181.8	22.0	1,950.7
1923	1,197.3	523.2	50.6	34.2	1,805.3
1926	1,340.6	553.3	51.3	21.6	1,946.8
1929	1,479.9	696.4	77.8	24.5	2,278.6
1931	1,438.0	578.6	49.0	24.4	2,089.9
1933	1,578.5	488.5	38.8	23.2	1,929.0
1934	1,372.8	514.0	35.1	30.8	1,952.6
1935	1,445.3	568.6	25.5	39.3	2,078.7
1936	1,518.2	618.3	37.8	39.3	2,213.7
1937	1,573.7	691.3	47.2	42.7	2,354.9
1938	1,630.5	690.5	49.2	44.9	2,415.1
1939	1,699.2	741.7	92.3	53.5	2,586.7
1940	1,646.9	875.1	163.4	63.6	2,749.0
1941	1,616.1	1,088.2	254.3	67.3	3,025.9
1942	1,644.8	1,341.5	267.2	79.4	3,333.0

NOTE: See Annual Report on Bank Debts and Equation of Exchange - Dominion Bureau of Statistics.

Table 18 - ANNUAL AVERAGE INDEXES OF FIVE CANADIAN ECONOMIC FACTORS, WITH SEASONAL ADJUSTMENT WHERE NECESSARY,
1934 - 1942
(1935-1939 = 100)

Year	Bank Debits	Physical Volume of Business	Employment in Manu- facturing	Wholesale Prices	Common Stocks
1934	99.3	82.2	85.8	95.0	78.7
1935	95.4	89.4	90.2	95.6	85.6
1936	109.1	98.0	95.7	96.9	108.9
1937	108.7	107.2	106.2	109.7	115.8
1938	95.5	98.6	105.5	102.1	94.9
1939	79.1	106.9	104.4	97.9	91.5
1940	104.2	124.3	121.9	107.7	77.4
1941	118.5	165.0	156.4	116.8	67.5
1942	137.6	202.2	191.8	124.3	64.2

RECENT TAX CHANGES OF INTEREST TO THE MINING INDUSTRY

(Department of Finance)

With a view to stimulating exploration and development of mineral resources in Canada, certain exemptions from income tax have been granted from time to time to new or re-opened mines coming into production. An amendment to the Income War Tax Act, made in May, 1936, provided that any metalliferous mine coming into production between May 1, 1936 and January 1, 1940 would be exempt from income tax for its first three fiscal periods following the commencement of production. The Minister of National Revenue, having regard to the production of ore in reasonable commercial quantities, determines which mines, whether new or old, qualify for this exemption, and a certificate is issued accordingly. In the 1939 session of Parliament an amendment to the Income Tax Act extended for a further three years the qualifying period for the above three-year exemption from January 1st, 1940 to January 1st, 1943.

In order to stimulate the production of wartime metals Parliament in the 1942 session provided a three-year exemption from the excess profits tax for the profits of any company derived from the operation of any base metal or strategic mineral mine coming into production in the three years following after January 1st, 1943. The Minister of National Revenue was given power to determine what mines, whether new or old, and what types of minerals would qualify for this exemption. Section 89 of the Income War Tax Act was not extended and will have application only to the period now mentioned in the statute.

Provision is made for an exemption from tax in respect of dividends paid to a company incorporated in Canada by a company which has never paid a tax by reason of the three-year exemption. It might be explained that under the Income Tax Act a corporation is exempt from tax on dividends received from another corporation if the paying corporation has already paid corporation income tax on its earnings. This is to avoid double taxation of corporate earnings. It is seen, therefore, that but for this provision a receiving corporation would automatically lose the exemption (which it would otherwise enjoy) through the fact that the paying corporation had received the three-year exemption accorded to new mines and thus the purpose of the Government in allowing the three-year exemption would be defeated.

In the 1943 amendment to the Income War Tax Act a substantial concession was extended to corporations whose chief business is that of mining or exploring for metalliferous and strategic minerals. Such companies were granted a deduction from their combined income and excess profits taxes equal to $26 \frac{2}{3}$ per cent of all prospecting, exploration and development expenses incurred in searching for base metals and strategic minerals during the period from January 1, 1943 to March 31, 1945, such deduction to be taken in the year of the expenditure. The deduction is contingent on provision by the company of certified statements of expenditures and submission of satisfactory evidence that the funds were expended in prospecting and exploring for base metals and strategic minerals by qualified persons.

As a companion measure to the above-mentioned exemption from excess profits tax, an amendment was made to the Income War Tax Act in 1942 designed to encourage prospecting for strategic minerals. It provided that a taxpayer contributing in 1942 to prospecting syndicates, associations or mining partnerships registered or otherwise recognized under the laws of any of the provinces, will be allowed a deduction from the income tax otherwise payable, equal to forty per cent of such contributions, provided that the tax credit will apply only in respect of contributions up to \$500 in the case of one syndicate, association or mining partnership, and only in respect of total contributions not exceeding \$5,000 in the case of any one taxpayer. In the 1943 amendment to the Income War Tax Act, this provision was extended for another year to apply to contributions made during 1943 (see Appendix for text of law).

General regulations covering depletion allowance to precious metal mines are unchanged from the previous year and remain on the basis of 55 1/3 per cent for mining companies, with allowance in the case of dividends received by shareholders standing at 20 per cent.

A copy of Bill 104 - The Excess Profits Tax Act 1940 - is contained in the Dominion Bureau of Statistics "Gold Mining Report for 1939". Bill 78, an act to amend Bill 104 referred to above, was passed by the House of Commons on May 26, 1941 and was reprinted in the 1940 report. A copy of Bill 122, the 1942 amendment to the Act, is shown at the end of the report for that year. No amendments to the Excess Profits Tax Act specifically relating to the mining industry were enacted in 1943, but the relevant sections of the amendment to the Income War Tax Act referring to mining company expenditures for base and strategic metals exploration and also to contributions to prospectors syndicates are reproduced in the Appendix.

A further amendment to the Income War Tax Act provided that taxes payable by mining companies to municipalities under certain sections of the Assessment Act in the Province of Ontario shall be allowed as a deduction from the income of such companies in calculating their income and excess profits taxes, provided that the Minister of National Revenue is satisfied that in calculating the taxes payable to the municipalities under the above-mentioned Act no deduction is allowed in respect of income and excess profits taxes payable to the Dominion. This amendment will effect a change in the amount of taxes payable respectively to the municipalities and to the Dominion but leaves unchanged the aggregate amount of taxes payable by a mining company. The text of this amendment is also given in the Appendix.

PROVINCIAL AGREEMENTS

The following is from the Budget Speech, House of Commons, Ottawa, of April 29, 1941, by the Hon. J. L. Flaherty, Minister of Finance, and relates to the vacating of the income and corporation tax fields by the Provincial Governments:

"After the most careful consideration of all the questions involved we have reached the conclusion that the rates of personal and corporation income taxes should be raised by the Dominion to the maximum levels which would be reasonable at this time, if the provinces were not in those fields. Our plans are drawn, therefore, on that basis, and in due course I shall outline proposals to increase the minimum rates of corporation income tax to 40 per cent; to increase the rates of personal income taxes very considerably and to increase the national defence tax.

"But these increases if taken together with the existing provincial rates would result in too heavy a burden and it is proposed, therefore, as a temporary expedient for the duration of the war only, to ask the provinces to vacate these two tax fields.

"I am writing to the provincial premiers informing them that the Dominion will offer to pay each year for the duration of the war, to any province which, together with its municipalities, will temporarily vacate the personal income tax and corporation tax fields either

- (a) The revenues which the province and its municipalities actually obtained from these sources during the fiscal year ending nearest to December 31, 1940, or
- (b) The cost of the net debt service actually paid by the province during the fiscal year ending nearest to December 31, 1940 (not including contributions to sinking funds), less the revenue obtained from succession duties during that period.

"Such payments will be augmented by appropriate fiscal-need subsidies where it can be shown that these are necessary. At the same time, it is proposed to discontinue the present special grants which are voted annually by parliament.

"I should like to emphasize that this is not an attempt to get the provinces out of these tax fields permanently. While it is proposed that the Dominion should increase the tax on corporation incomes this will be done by raising the minimum rates under the Excess Profits Tax Act which is not and never was intended to be a permanent fixture in our tax structure. Furthermore, it will be noticed that succession duties are specifically excluded from the proposal which is being made to the provinces.

"It is not intended that the Dominion should interfere in any way with the royalties or special taxes which the provinces now levy upon timber limits, oil wells, mining or other natural resources. It is obvious that in war time as well as peace time the provinces have a special interest in the development of their natural resources and that they must be left in a position to raise the necessary revenues for this purpose."

Agreements were subsequently arrived at with each of the nine provinces giving effect to the above proposal. The detailed provisions of any agreements may be obtained from the Provincial Government concerned.

ROYAL CANADIAN MINT

The Ottawa Mint, established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened up on January 2, 1908, was by 21-22 Geo. V, C.48, constituted a branch of the Department of Finance and since December 1, 1951, has operated as the Royal Canadian Mint. The great development of the gold mining industry in Canada has resulted in gold refining becoming one of the principal activities of the Mint. Gold coins have never been a popular medium of exchange in Canada and have not been struck since 1919; most of the fine gold produced from the rough shipments from the mines being delivered to the Department of Finance in the form of bars, the rest being sold in convenient form to manufacturers.

The domestic gold currency of Canada, as at present authorized by the Currency Act, consists of \$20, \$10, \$5 and \$2- $\frac{1}{2}$ gold pieces, 900 millesimal fineness (only \$10 and \$5 have been issued). Gold was used only to an insignificant extent as a circulating medium in Canada, its monetary use being practically confined to reserves; \$5 and \$10 gold pieces weighing respectively 129 and 258 grains, 9/10ths pure gold by weight, have been coined, the Canadian gold dollar thus containing 23.22 grains of pure gold. The \$5, \$10 and \$20 gold coins of the United States, which contain exactly the same weight of gold as Canadian gold coins of these denominations, are legal tender for their face value only, as are the British sovereigns, which are legal tender for \$4.86 $\frac{2}{5}$, their equivalent in Canadian gold dollars.

The regulations in part for the receipt of gold bullion at the Royal Canadian Mint, Ottawa, are as follows: Each parcel of bullion for which a separate assay is required shall be regarded as a separate deposit, and no ingot exceeding 1,500 ounces troy, gross weight, will be accepted. All deposits shall be dealt with in the order in which they are received. Deposits containing, by assay, less than 200 parts of gold in 1,000, or appearing, either before or after melting and assaying, to be unsuitable for treatment by the refining process in use, may be rejected. A deposit so rejected shall be returned to the depositor on payment by him of any costs incurred for melting and assaying.

The Mint charges, to be calculated on the gross weight of the deposit after melting, shall be as follows:

- (a) For melting and assaying - one dollar for the first four hundred ounces or part thereof and twenty-five cents for each additional one hundred ounces or part thereof.
- (b) For refining - when the deposit contains not more than 5 per cent base metal, 3 cents the ounce.
 - Over 5 per cent but not over 10 per cent base metal, 5 $\frac{1}{2}$ cents the ounce.
 - Over 10 per cent but not over 15 per cent base metal, 4 $\frac{1}{4}$ cents the ounce.
 - Over 15 per cent but not over 20 per cent base metal, 5 cents the ounce.
 - On deposits which contain over 20 per cent base metal, or which require other treatment, a charge not exceeding 10 cents the ounce, to be determined by the cost of the treatment.

The minimum charge for refining shall be two dollars for each deposit and the charge for refining shall apply to all deposits containing by assay less than 995 parts fine gold in 1,000.

An additional handling charge at the rate of 35 cents the ounce fine, to cover costs of realization in a market outside Canada, shall be made on all newly mined Canadian gold deposited with the Mint, and this charge shall be increased to \$1.00 the ounce fine on all other gold accepted as a deposit.

The gross value of gold deposited for sale with the Royal Canadian Mint or the Dominion of Canada Assay Office, Vancouver, shall be the market price of gold in the country to which the Government is at the time of the receipt of the deposit exporting gold, converted into Canadian funds at the average of the buying rates of exchange of that country reported to the Department of Finance by the Bank of Canada at 11 a.m. daily during the week in which the gold is deposited with the Mint or Assay Office.

In addition to newly-mined Canadian gold there may be accepted at the Mint, gold (over 1 ounce troy--fine) in the following forms: old jewellery and dental scrap, provided it has not been melted or otherwise treated in any way to prevent its origin being readily recognized; scrap from manufacturers and refiners the result of processes carried out by them in the ordinary course of their business; gold coin which, when of full weight and fineness, is not legal tender in Canada. Satisfactory evidence as to the origin of the gold shall be furnished by the depositor if required.

Delivery of deposits shall be accepted at the Mint counter only, free of all charges, and when bullion is forwarded by mail or express the original packages will not ordinarily be opened until an invoice of the description and weight of their several contents has been received. When there is a serious discrepancy between the actual and invoice weights of any deposit, further action in regard to it will be deferred pending communication with depositor.

The gross value of a deposit shall be calculated at a rate of one dollar for each 25.22 grains fine gold contained therein (equivalent to \$20.6718+ the ounce fine) and at a rate for all silver in excess of one per centum of the weight of the deposit after melting to be determined by the Minister of Finance. The rate to be paid, under Clause 4 of the regulations, for silver in excess of one per centum of the weight of deposits received in any week, shall be one cent below the average for that week of the daily New York quotation for fine silver, from Monday to Friday, inclusive, converted into the equivalent in Canadian funds at the average of the daily rate of exchange between Montreal and New York, calculated to the nearest one-eighth of a cent.

Table 19 - VALUE OF COIN ISSUED BY THE ROYAL CANADIAN MINT, OTTAWA, BY DENOMINATIONS, 1941 and 1942

Denomination	Coin Issued in			
	1 9 4 1		1 9 4 2	
	\$	cts.	\$	cts.
Silver coin -				
1 dollar	Nil		Nil	
50 cents	842,000.00		1,022,000.00	
25 cents	1,718,000.00		1,708,000.00	
10 cents	974,000.00		1,034,000.00	
Total Silver	3,534,000.00		3,764,000.00	
Nickel coin -				
5 cents	454,000.00		361,575.50	
Tomback coin -				
5 cents	Nil		169,424.50	
Bronze coin -				
1 cent	575,500.00		785,500.00	
TOTAL	4,563,500.00		5,078,500.00	
	Number of Pieces			
Representing	84,906,000		108,186,000	

Table 20 - DISTRIBUTION OF THE COIN ISSUED TO THE VARIOUS AGENCIES OF THE BANK OF CANADA IN 1942

	S i l v e r				Nickel	Tomback	Bronze
	Dollar	50 cents	25 cents	10 cents	5 cents	5 cents	1 cent
	\$	\$	\$	\$	\$ c	\$ c	\$
Calgary		52,000	128,000	82,000	34,500.00	13,000.00	51,000
Charlottetown	12,000	8,000	3,000.00	1,000.00	5,000
Halifax		66,000	140,000	118,000	33,000.00	21,000.00	63,200
Montreal		134,000	446,000	254,000	129,500.00	39,500.00	195,800
Ottawa		14,000	84,000	46,000	19,575.50	2,924.50	17,800
Regina		60,000	142,000	88,000	23,000.00	9,000.00	41,000
St. John		26,000	124,000	42,000	11,000.00	9,500.00	30,200
Toronto		462,000	314,000	220,000	70,500.00	44,000.00	274,000
Vancouver		158,000	100,000	100,000	21,500.00	18,500.00	85,500
Winnipeg		70,000	220,000	76,000	16,000.00	11,000.00	42,000
		1,022,000	1,708,000	1,034,000	361,575.50	169,424.50	785,500

In addition to the above coinages for domestic use, 2,587,973 pieces of 10 cents, 5 cents, and 1 cent denominations were executed for the Government of Newfoundland.

Table 21 - WORN AND MUTILATED COIN WITHDRAWN FROM CIRCULATION, 1942

	Withdrawn	Net Increase in Circulation
	\$ c	\$ c
Silver coin	92,185.55	5,671,816.65
Nickel coin (mutilated only)	1,442.00	360,135.50
Tombac coin (5 cents) .....	...	169,424.50
Bronze coin	9,955.94	775,584.08

GOLD BULLION

Six thousand three hundred and sixty-two deposits of gold bullion weighing 5,576,488 ounces were received at the Mint from Canadian Mining Companies and sundry persons, and 285 deposits weighing 184,557 ounces received from the Dominion of Canada Assay Office, Vancouver, B.C. The total gross weight of gold deposited, including mutilated gold coin, was 5,761,044 ounces, containing by assay 4,611,982 ounces fine gold and 652,827 ounces fine silver. This shows a decrease as compared with the year 1941 of 756 deposits, gross weight 683,010 ounces, fine gold 480,626 ounces fine and fine silver 94,094 ounces fine.

The average price paid per ounce of fine gold contained in deposits was \$38.47156 and per ounce fine silver 58.8709 cents.

The net amount paid by the Royal Canadian Mint to depositors by cheque was \$169,947,315.48. In addition, 7,294.180 ounces of fine gold with a statutory value of \$150,784.48 were issued to depositors.

Postage collected for the Postmaster General on deposits shipped to the Mint, postage collect, amounted to \$58,840.55.

There were 1,460 rough gold deposits received at Vancouver and 6,362 received at Ottawa.

Details as to origin are shown in the following table.

Table 22 -

Source	Gross Weight	Fine Gold	Fine Silver
	Ounces	Ounces	Ounces
From Canadian mines -			
Ontario	5,585,021.125	2,729,104.140	359,475.41
Quebec	1,479,841.175	1,204,733.578	154,156.67
British Columbia	450,910.730	321,977.106	74,885.01
Manitoba	156,807.225	125,630.223	12,689.24
Yukon	104,345.835	83,198.102	17,321.45
Nova Scotia	15,815.525	12,919.840	420.96
Northwest Territories	152,074.925	98,947.686	22,414.15
Alberta and Saskatchewan	50,564.250	19,438.116	7,793.96
Total from Mines	5,753,580.590	4,595,948.791	649,156.85
From jewellery and scrap	26,845.508	13,294.751	3,255.11
Mutilated gold coin	1.745	1.558	...
GRAND TOTAL	5,760,227.643	4,609,245.080	652,411.94

A detail of the fine gold issued in the form of trade bars to the Bank of Canada and granulated, sweep, proof plate and medals to sundry persons is shown hereunder:

	Ounces Fine
11,595 Trade Bars to Bank of Canada	4,543,250.214
Depositors	7,294.180
Sales to Manufacturers	55,404.343
Proof Plate	15.467
Medals	4.087
Sweep	7,925.958
	4,611,892.227

This total shows a decrease of 522,455.578 ounces fine as compared with the year 1941.

DOMINION OF CANADA ASSAY OFFICE, VANCOUVER, B.C.

The amount disbursed through this office in 1942 for the purchase of gold bullion was \$5,628,080.26, as against \$8,216,906.58 for the calendar year 1941, a decrease of \$588,826.32.

Particulars as to source, weights, etc., are as under:

Table 25 -

Source	Number of Deposits	Gross Weight Ounces	Fine Gold Ounces	Fine Silver Ounces
Yukon Territory	429	104,334.06	83,188.678	17,519.72
British Columbia	762	74,545.75	62,018.553	8,389.65
Alberta and Saskatchewan	13	54.75	42.484	3.88
Northwest Territories	1	4.25	3.538	.47
Jewellery and dental scrap	255	5,001.39	2,264.664	708.82
	1,460	185,738.18	147,517.917	26,422.54

THE NEW 5-CENT COIN

Experiments were carried on during the early part of the year at the Mint, Ottawa, to evolve a suitable substitute for the nickel 5-cent coin after it was learned of the desire of the Metals Controller to conserve nickel for war purposes.

The 5-cent pure nickel coinage was added to the Canadian Currency in May, 1922, to replace the small silver 5-cent piece. After twenty years of life the 5-cent nickel coin is now giving way to copper and zinc for the duration of the war.

The composition of the new coin which has been approved by The Minister of Finance is 88 per cent copper and 12 per cent zinc, an alloy of metals called "Tombac" from Malay "Tombaga", a popular alloy for jewellery in the East Indies.

From the Mint point of view, this composition is sound economy, as the metallic content is such that if and when the need arises for redemption of these coins, when nickel again takes its place in coinage, they can be converted into bronze coin by the addition of tin and copper in their proper proportions.

A coin having twelve sides was chosen to overcome the prevalent objection raised by the similarity of the current 5-cent nickel with the 25-cent piece, and to prevent confusion with any other denomination.

Originating as a distinctly dodecagonal coin of twelve sides and twelve angles, it was discovered by numerous tests in the automatic coin-operated machines that more efficient results were obtained with a piece of slightly rounded corners rather than the sharper angles. Arrangements were therefore made to have the dies and collars adapted to the most suitable shape to strike coin which would actuate the pay telephone successfully and eject the correct number of coins from change-making machines.

The diameter, weight and thickness of the new coin are exactly the same as the present 5-cent nickel coin.

There were 3,596,234 Tombac 5-cent coins produced in 1942.

PRICE ACTION OF CANADIAN GOLD SHARES IN 1942 AND THE FIRST FIVE MONTHS OF 1943

(By: T. A. Richardson, President, The Toronto Stock Exchange)

The sharply declining trend, and the severe fall-off of volume figures, that was so apparent in 1941, continued on during the first ten months of 1942. The November averages, Toronto Stock Exchange gold index, stood at 55.15 which is the lowest figure registered on the index since it was first started in 1934. Volume figures of only 229,615,975 shares in October 1942 also registered an ultra-low level. However, shortly after the end of October there was a marked change in the war news, which was immediately followed by an equally marked improvement in public psychology and a resultant, and somewhat startling, improvement in stock markets generally. This improvement has gained ground consistently since October and, at the end of May, 1943 the Toronto Stock Exchange gold averages were standing at 82.10, up nearly 29 points from the October lows. Volume figures for April 1943 stood at 400,799,180 shares—up 74 per cent from October figures.

There were quite a number of factors which affected price and volume figures during the period under review. These could be listed as follows—general war news; the condition of the gold mining industry as a whole; the Second and Third Victory Loan Campaigns; the entry of allied forces into Africa in late 1942 followed by a highly successful and speedy campaign in Tunisia; the Russian Winter campaign; and the participation, or lack therefore of American interest in Canadian stock markets.

During the first ten months of 1942 gold stocks continued in a severely declining trend caused mainly by the fact that the gold mining industry generally was on the decline—heavy losses in manpower and inability to obtain machinery forcing lower production, lower earnings and lower dividends. This decline continued all through 1942 and is still noticeable at the present time. This basic factor was accompanied by a complete lack of American interest in Canadian gold mining securities, and because in the past there has always been a big American interest in Canadian gold stocks, the absence of American trading interest helped to accentuate the severely declining volume figures.

As is usually the case, the two Victory Loan campaigns had a dulling effect. There was a 7.55 point price drop between January and February 1942, while trading volume dropped sharply during the same period. Similarly the October-November figures were affected by the Third Victory Loan campaign.

It so happened that the dates of the Third Loan and the successful invasion of Africa by allied forces came practically at the same time, and as a result the market saw its lowest level established in October and was followed by a marked improvement both in price and volume in December.

Prior to October-November Canadian public psychology had been definitely apathetic, but the African successes reawakened public enthusiasm and a better stock market resulted. Fuel was added to the fire of enthusiasm by the Russian successes during the winter campaign.

Coming right in on top of the improvement in Canadian psychology was a sudden and forceful reentry of American buying. This American buying has been "reaching" for Canadian gold stocks regardless of continuing declining tendencies in gold operations, production, dividends, etc. The adverse basic factors that surround gold mining during a war period have been completely disregarded in the rush of American buyers to "get long" of Canadian golds. It might be said, therefore, that the American investors have been buying "gold banks" and not "gold factories". They have definitely been more interested in ore in the ground than in current production or dividend rates.

While the reawakening of Canadian and American interest in gold mining has been due to different causes, the fact that they both came at about the same time has resulted in a very marked improvement since last October and although the gold averages show an improvement of only 55 per cent it must be remembered that these averages are weighted and it should also be pointed out that certain gold issues, that are better known to American investors, have more than doubled in price since last October.

TORONTO STOCK EXCHANGE

(Miss G. S. Lyle)

In the following table is given the aggregate number of outstanding shares of all gold mining companies (seniors, juniors and prospects) listed on the Toronto Stock Exchange, together with the total market valuation at the end of each month. Total number of listed gold mining companies is also given and also the total number and valuation of all companies listed.

Table 24 -

	Total gold shares issued	Quoted market values	Number of issues	Total value of all stocks	Total number of issues
		\$		\$	
1943 - April	517,684,904	586,535,710	111	4,308,691,772	549
March	514,321,614	400,799,160	110	4,517,151,627	549
February	514,516,614	381,251,228	110	4,155,558,212	549
January	519,142,111	566,609,344	111	4,148,378,369	549

Table 24 - (Concluded)

	Total gold shares issued	Quoted market values	Number of issues	Total value of all stocks	Total number of issues
		\$		\$	
1942 - December	324,262,420	351,828,088	112	3,709,609,406	549
November	324,262,420	301,941,487	112	3,500,521,825	536
October	324,262,420	229,613,975	112	3,320,007,272	533
September	321,346,942	258,203,185	111	3,303,673,824	532
August	321,346,942	261,015,565	111	3,233,292,237	532
July	320,271,842	271,116,150	111	3,239,966,063	532
June	320,265,842	289,368,804	111	3,263,133,509	541
May	320,265,842	290,379,736	111	3,289,061,890	532
April	320,256,842	268,022,536	111	3,226,499,977	532
March	324,566,842	278,904,220	112	3,281,323,082	528
February	324,432,642	315,057,770	112	3,369,025,432	527
January	329,955,115	345,746,073	114	3,350,054,948	530

ORDER-IN-COUNCIL P.C. 1238 - FEBRUARY 15, 1943

WHEREAS subsection one of section twenty-five of the Bank of Canada Act, Chapter forty-three of the Statutes of Canada, 1934, provides that the Bank shall sell gold to any person who makes demand therefor at the head office of the Bank and tenders the purchase price in legal tender, but only in the form of bars containing approximately four hundred ounces of fine gold;

AND WHEREAS by Order in Council P.C. 1397 dated February 23, 1942, passed under the provisions of sub-section two of said section twenty-five of the said Act, the operation of said subsection one of section twenty-five was suspended for a period of one year from and after March 10, 1942.

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Finance and under the provisions of said subsection two of section twenty-five of the Bank of Canada Act is pleased to order that the operation of said subsection one of section twenty-five be and it is hereby suspended for a further period of one year from and after the tenth day of March, 1943, unless sooner rescinded by Order in Council.

THE ALLUVIAL GOLD MINING INDUSTRY, 1942

In 1942, and for many years past, the greater part of the Canadian production of alluvial gold came from the Yukon Territory and British Columbia; relatively small quantities are also obtained in Alberta, Saskatchewan, and sometimes Quebec.

It is estimated that 157,296 troy ounces of crude gold were recovered from Canadian alluvial deposits in 1942. Of this production, 10 ounces came from Saskatchewan, 36 ounces from Alberta, 32,904 ounces from British Columbia and 104,346 ounces from Yukon. In addition to crude gold recovered, there were 40 ounces of platinum obtained from deposits in British Columbia; also a relatively small quantity of tungsten concentrates were produced from alluvial operations conducted in Yukon.

QUEBEC AND ONTARIO - No placer gold mining operations were reported in 1942 from either Quebec or Ontario.

SASKATCHEWAN AND ALBERTA - Placer gold has been mined along the North Saskatchewan River at various points between Rocky Mountain House, Alberta, and Prince Albert, Saskatchewan, from about 1860. Most activity has, however, been confined to the Alberta region, particularly in the vicinity of Edmonton.

The returns of gold from the river for a period of thirty-two years, from 1887 to 1918, are given by the Department of Mines as 15,036 fine ounces valued at \$510,814. These figures were compiled by the Department from reports of local bank managers as a basis. In 1887 the first dredge was built on the river and from that time dredges have worked with varying success, though most of the gold has been obtained by miners working with shovel and grizzly collecting the gold on blankets, after which the blankets are washed and the gold separated from the tailings by means of mercury.

The gold is irregularly distributed in the gravels of the river and under bench gravels and is recovered when conditions are convenient to work such bars which move from point to point according to the vagaries of the stream. No individual reports are received from prospectors and production as credited to placer mining is obtained from Government mint statements which show total recoveries of fine gold in 1942 of 9 ounces from Saskatchewan deposits and 34 ounces from Alberta.

The Department of Lands and Mines of Alberta reported that activity along the Athabaska River in townships 63 and 64, range 3, west of the 5th meridian, continued during the fiscal year ending March 31, 1942 and 18 grants were issued for staked claims. Eight other grants were issued, six along the McLeod river, one on the North Saskatchewan River, and one in the Grande Prairie District.

NORTHWEST TERRITORIES - No production of placer gold in the Territories was reported direct by miners in 1942; however, Liard-Nahanni Gold Placers Ltd. carried on prospecting during 1941 in the Flat River area from June to December 26. Relatively small quantities of gold received at the Vancouver Assay Office from the Northwest Territories represent metal obtained from alluvial deposits; particulars relating to these recoveries, totalling 39 fine ounces in 1941, are not available.

BRITISH COLUMBIA - It has been found impractical to obtain complete reports for each individual placer gold mining operation in British Columbia inasmuch as a considerable quantity of the crude placer gold is recovered annually by prospectors of no fixed abode who, in many instances, market their recoveries through local merchants and banks.

Recoveries in 1942 were made chiefly from deposits located in the Atlin, Cariboo, Omineca and Quasnel districts; other districts to report production included Nelson, Stikine, Vernon, Similkameen, Kamloops, Fort Steele, Revelstoke, Clinton and New Westminster.

In 1942 official returns were made to the Dominion Bureau of Statistics by approximately 72 operators who reported 155 employees and the distribution of \$275,485 in salaries and wages. Consumption of fuel and process supplies amounted to \$46,366. The value of crude gold production was \$1,004,230 compared with \$1,352,648 in 1941. The quantity of sands and gravels, including overburden or barren material, moved during the year under review was estimated at 1,884,887 cubic yards. Equipment employed in mining operations included hydraulic jets (Monitors-Giants), gas shovels, drag lines, tractors, derricks, pumps and dredges. Ground worked included bench gravels, river gravels and tailings. Work was conducted both on the surface and underground.

Bulletin No. 15, "Hydraulic Mining Methods"—issued by the British Columbia Department of Mines states: "When placer gold was first discovered in British Columbia much of the gravel was mined by methods other than hydraulicking. Subsequently, however, with the working out of rich shallow gravel, extensive yardages of lower grade gravels were left which, under favourable conditions, were mined by hydraulicking. This type of mining produces the largest proportion of placer gold at present.All the rich ground that is known has been, or is being worked. In the past, failure to sample and properly estimate the available yardage of placer deposits has resulted in a tremendous waste of money and effort.A placer deposit may be sampled by any one or a combination of methods; by panning gravel from natural exposures, by drifting, by test-pitting, by shaft sinking, or by Keystone-drilling. In every instance, in order to get reliable results, the work should be done carefully and systematically so that the information may be compiled to give as complete a picture of the deposit as it is possible or economical to obtain."

YUKON - The following is from the Annual Report of G. A. Jeckell, Controller of Yukon Territory, for the fiscal year ending March 31, 1943:

"The amount of placer gold mined during the year in the Territory, on which royalty export tax was paid, was 105,430.89 ounces, produced as follows: Dawson district, 102,570.61 ounces; Mayo district, 2,218.00 ounces; and Whitehorse district, 642.28 ounces. The royalty collected was \$39,556.79, as follows: Dawson, \$38,464.06; Mayo, \$831.77; and Whitehorse, \$240.96. The gold production was 17,988.09 ounces greater than for the previous year.

"In the Dawson district one hundred and fourteen new placer location grants, twenty-eight relocation grants, and two thousand, four hundred and sixteen renewal grants were issued, representing two thousand five hundred and fifty-eight claims in good standing. Three dredging leases were renewed covering twenty-three miles, and fees for the renewal of four hydraulic leases were paid.

"In the Mayo district eight new placer location grants and one hundred and twenty-eight renewal grants were issued, making one hundred and thirty-six placer claims in good standing.

"In the Whitehorse district one new location grant and twenty renewal grants were issued, making twenty-one placer claims in good standing. The total number of placer claims in good standing in the Territory was two thousand seven hundred and fifteen.

"A review in part of the operations of the Yukon Consolidated Gold Corp. Ltd. follows:

"The winter of 1941-42 was unusually mild. A cold spell of about ten days' duration occurred in early December, when the temperature fell to 50 degrees below zero, after which the weather was comparatively moderate until the middle of March, when again temperatures of below 40 degrees were reported.The first half of the summer season was unusually dry but, beginning about July 15, heavy intermittent rains, general in character, occurred and kept the streams at high stages throughout the remainder of the season. The ice in the Yukon River moved out on May 6 with only a slight rise in water. During the dry period, especially in the latter part of May and in June, many forest fires occurred and for a period of almost three weeks the creek valleys were filled with a blanket of smoke. The autumn was mild and excellent dredging conditions prevailed until the first of December. Throughout the entire season the company's operations were seriously affected by an acute labour shortage.It was found necessary to shut down several operations in order to bring other crews approximately up to requirements. In order to enlarge many of the scanty crews, full advantage was taken of all available Indian labour.The company's hydro-electric power plant, which is located on the north fork of the Klondike River, operated continuously during the year and generated a total of 35,867,400 k.w. Of this amount, 73 per cent or 24,625,400 k.w. were sold to the Dawson Electric Light & Power Company Limited for power and light in the city of Dawson.Stripping of muck overburden was carried on at seven places during the summer. The total amount of muck removed was 2,501,681 cubic yards at a cost of \$174,285 or 6.97 cents per cubic yard. Cold water thawing operations were carried on at seven localities during the 1942 season; a total of 4,529,117 cubic yards were thawed at an expenditure of \$202,648 or a cost of 4.474 cents per cubic yard. The average water temperature was 49.7 degrees and the thawing duty 7.25 cubic yards per M.I.D. of water.Ten dredges were operated during the 1942 season. Two dredges, however, Nos. 6 and 9, were shut down before the end of the normal operating season in order to transfer the men to other dredges where the crews had become too small for proper operation. Spring dredge repairs were started on March 16; dredge No. 5, which is located at Granville, commenced active operation on April 8, however, owing to the backward spring and the lack of sufficient power, the starting dates of the other dredges were drawn out to May 14. Operating conditions were favourable at all dredges throughout the season. The dredging period extended to December 1, when the last dredge was shut down. The total production for the year from dredging operations was 75,550 fine ounces of gold valued at \$2,850,907, with gold at \$38.50 per ounce. Canadian and 15,610 fine ounces of silver valued at \$6,295 from 10,401.151 cubic yards or 27.22 cents per cubic yard dredged.

"OTHER PLACER OPERATIONS - Clear Creek Placers Ltd. discontinued their drag line operations on the left fork of Clear Creek and erected a 5 cubic foot pontoon type steel construction dredge. This dredge started digging September 7. The Holbrook Dredging Company, operating under receivership, continued mining operations on the Upper Sixtymile River, commencing operations about March 22 and closing down on November 12. There were the usual summer mining operations by individual claim owners on the older placer creeks in the Klondike and Sixtymile Districts, but no new operations were commenced. In the Mayo district the most important placer operations were those of the Haggart Creek Mining Company on Haggart Creek, Swanson and Lunde on Dublin Gulch and Middleoff on Highet Creek. The operators on Dublin Gulch, in addition to gold, made a recovery of scheelite concentrate which was shipped to the Mines Branch, Ottawa. A greater effort is being made in 1943 to increase the recovery of scheelite on Dublin Gulch. In the Whitehorse district there was little mining activity during the year, the Alaskan Highway and associated projects proving more attractive. One hundred and eight miles of prospecting leases were issued during the year as against two hundred and thirty-six miles leased in this manner during the previous year.

"Five schools were maintained in Yukon during the year, namely, two at Dawson, and one each at Whitehorse, Carcross and Mayo. The number of pupils enrolled in June, 1942 was two hundred and seventy. The sum of \$1,449 was expended on maintenance and improvements to certain airports in the Territory.

"The total revenue collected in the Dawson office on account of mining lands was \$70,109.54. Of this amount, \$69,428.36 was from placer and \$681.18 from quartz. In the Mayo Mining Recorder's office the total collections on account of mining were \$5,880.61; of this amount, \$1,764 was from placer and \$2,116.61 from quartz. In the Whitehorse Mining Recorder's office the total collections on account of mining were \$1,022.92, of which \$462.97 was from placer, \$124.00 from quartz, \$86 from coal leases and \$369.95 from the sale of maps."

Table 25 - SUMMARY STATISTICS OF ALLUVIAL GOLD MINING IN CANADA, 1941 and 1942

	1 9 4 1			1 9 4 2		
	British Columbia (d)	Yukon (e)	(g) (f) Quebec Saskatchewan and Alberta	British Columbia (d)	Yukon (e)	(1) Saskat- chewan and Alberta
Number of firms and individual operators (f)	98	7	5	72	8	...
Capital employed \$	2,187,519	8,568,187	...	1,028,879	9,043,258	...
Number of employees	595	405	1	155	516	...
Salaries and wages paid \$	625,175	1,328,995	110	275,485	1,007,789	...
Electricity generated for own use K.W.H.	560,670	29,267,200	...	...	24,624,400	...
Electricity generated for sale .....	...	3,722,000	...	...	4,169,616	...
Crude gold recovered—crude ozs.	45,775	88,488	4	52,904	104,546	48
Platinum recovered ozs.	60	...	...	40	...	...
Value of platinum recovered... \$	2,295	...	...	1,528	...	...
Quantity of material handled (h) cu. yds.	4,587,105	8,792,220	...	1,884,887	11,875,855	...
Tungsten recovered .....	...	...	...	(see under Auriferous quartz)	...	...
Length of ditches ... miles(b)	140	56	...	56	52	...
Total gross value of alluvial products \$	1,554,941	2,766,951	124	1,005,758	5,514,217	1,655
Fuel and electricity used (purchased) \$	46,459	109,079	...	26,228	77,098	...
Process supplies used \$	54,972	15,517	...	20,140	17,808	...
Cost of freight and express on dust, nuggets, bullion, etc., shipped (c) \$	2,947	42,942	...	2,628	28,741	...
Cost of smelter, refinery and mint treatment on material shipped (c) \$	6,510	55,955	...	4,901	29,610	...
Total Net Value of Alluvial Products \$	1,244,073	2,545,458	124	951,775	5,161,565	1,655

(f) In addition to the number shown in the table, there were numerous small operators from whom returns were not obtainable; subject to revision.

(a) Recoveries for Alberta and Saskatchewan represent receipts of crude gold from Alberta and Saskatchewan at the Royal Canadian Mint, Ottawa, and the Dominion Assay Office, Vancouver, B.C. No other statistics available.

(b) Includes flume; in use.

(c) Information not completely available.

(d) Value of crude gold in Canadian funds in 1941 was estimated to be \$50.95 per crude ounce. In 1942 it was \$50.52.

(e) Value of crude gold in Canadian funds in 1941 was estimated to be \$51.27 per crude ounce. In 1942 it was \$51.78.

(f) Value of crude gold in Canadian funds in 1941 was estimated to be \$51.00 per crude ounce.

(g) Quebec only—data not available for Alberta and Saskatchewan.

(h) Includes some overburden or barren material.

(i) Only production data available in 1942.

Table 26 - ALLUVIAL GOLD RECOVERED AND QUANTITY OF MATERIAL HANDLED (A) 1925-1942

BRITISH COLUMBIA					Y U K O N				
Year	Material handled (x) cu.yd.	Gold recovered fine oz.	Ounces per cu.yd. fine oz.	Value per cu.yd. \$	Material handled (x) cu.yd.	Gold recovered fine oz.	Ounces per cu.yd. fine oz.	Value per cu.yd. \$	Average value gold per fine oz. \$
1925 ...	(a)	13,181	(a)	...	3,103,892	47,817	0.0154	0.318	20.67
1926 ...	1,237,090	16,730	0.0155	0.279	2,501,200	25,344	0.0101	0.208	20.67
1927 ...	2,470,552	7,353	0.0029	0.0599	2,421,489	30,778	0.0127	0.262	20.67
1928 ...	1,188,667	6,739	0.0057	0.1178	5,097,182	34,116	0.0067	0.1385	20.67
1929 ...	1,536,390	5,158	0.0039	0.0806	4,500,000	35,678	0.0079	0.1633	20.67
1930 ...	224,339	7,164	0.0319	0.6593	3,559,642	35,160	0.0099	0.2046	20.67
1931 ...	1,587,271	13,741	0.0086	0.1853	4,914,638	44,061	0.0090	0.1939	21.55
1932 ...	1,053,677	16,320	0.0155	0.3637	6,051,256	40,373	0.0067	0.1572	23.47
1933 ...	1,526,721	19,142	0.0144	0.4118	5,605,522	38,174	0.0070	0.2002	28.60
1934 ...	2,054,522	20,145	0.0099	0.3415	6,315,070	38,703	0.0061	0.2104	34.50
1935 ...	1,855,937	24,744	0.0133	0.4680	5,442,861	35,705	0.0066	0.2322	35.19
1936 ...	2,083,934	34,711	0.0166	0.5815	8,067,159	50,192	0.0062	0.2172	35.03
1937 ...	3,472,025	43,322	0.0125	0.4373	8,298,514	46,679	0.0056	0.1959	34.99
1938 ...	4,138,746	46,207	0.0112	0.3939	8,370,628	71,303	0.0080	0.2813	35.17
1939 ...	4,779,407	39,797	0.0083	0.2999	11,152,198	85,572	0.0077	0.2782	36.14
1940 ...	6,680,457	32,128	0.0048	0.1848	11,551,170	79,905	0.0069	0.2656	38.50
1941 ...	4,587,103	35,020	0.0076	0.2926	8,792,220	70,847	0.0081	0.3119	38.50
1942 ...	1,884,887	26,323	0.0139	0.5352	11,875,833	83,198(b)	0.0070	0.2695	38.50

(A) In addition, relatively small amounts of alluvial gold have been recovered in Quebec, Saskatchewan and Alberta, but complete data are not available; also, data relating to material handled, particularly those pertaining to small operations, are not complete and necessitate estimates in order to obtain totals.

(x) Data partly conjectural and includes some overburden and barren material.

(a) Not available.

(b) Fine gold received at Royal Canadian Mint; previous year's figures represent estimated fine gold in crude gold recovered.

Table 27 - FUEL AND ELECTRICITY USED BY THE ALLUVIAL GOLD MINING INDUSTRY DURING 1942

Kind	Unit of measure	Quantity	Cost at plant \$
Bituminous coal (a) From Canadian mines	short tons	1	26
(b) Imported	short tons	20	1,678
Anthracite coal from United States	short tons	...	...
Lignite coal	short tons	...	...
Coke (for fuel only)	short tons	3	313
Gasoline	Imp. gals.	30,041	27,111
Kerosene or coal oil	Imp. gals.	680	610
Fuel oil and diesel oil	Imp. gals.	77,518	38,645
Wood (cords of 128 cubic feet of piled wood)	cords	2,207	34,941
Other fuel .....	...	...	...
TOTAL .....	...	...	103,324
Electricity generated (a) For own use	K. W. H.	24,624,400	...
(b) For sale	K. W. H.	4,169,616	33,867

Table 28 - POWER EQUIPMENT INSTALLATION, 1942

Description	Ordinarily in Use		In Reserve or Idle	
	Number	Total	Number	Total
	of units	horse power	of units	horse power
Steam engines and steam turbines	2	160	...	...
Diesel engines	20	1,567	2	91
Gasoline, gas and oil engines, other than Diesel engines	23	589	9	137
Hydraulic turbines or water wheels	13	16,012	1	10
Electric motors - (a) Operated by purchased power .....	...	...	...	...
TOTAL	58	18,328	12	238
(b) Operated by power generated by the establishment	298	15,675	52	4,500
Stationary boilers	1	100	...	...

THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA

The great part of the gold of Canada comes from the Canadian Shield, an immense area of precambrian rocks extending from the Labrador Coast westward almost to the mouth of MacKenzie River. The area of the shield is roughly 1,825,000 square miles, almost half of Canada. The deposits of the shield are of two main types, namely, quartz veins, from which most of the gold, up to the present time, has been won, and sulphide deposits which produce a smaller but very considerable proportion. The second great source of gold in Canada has been the Western or Cordilleran section, comprising British Columbia and Yukon Territory—the gold production from this section includes relatively large quantities obtained from alluvial deposits. The third principal area in which gold deposits occur is the Acadian region of Eastern Canada, the metal occurring principally in Nova Scotia where it has been mined since 1862.

The number of Canadian gold mining firms reporting mining operations in 1942 totalled 223 compared with 338 in 1941 and 428 in 1940. During 1942 there were 227 properties in operation as against 357 in 1941; 184 mines reported production compared with 255 in the preceding year and 33 in 1925. From official returns received it was estimated that 42 Canadian gold mines suspended all operations in 1942. Of these, 4 were located in Quebec, 14 in Ontario, 6 in Manitoba and Saskatchewan, and 13 in British Columbia.

The gross value of output for the entire auriferous quartz mining industry, including the value of all recoverable metals, gold, silver, etc., totalled \$160,564,785 in 1942 compared with \$179,105,182 in 1941. Of the 1942 total, \$104,472,446 represented recoveries from Ontario ores, \$51,415,182 from Quebec ores and \$16,629,819 from the gold mines of British Columbia.

Employees in the lode gold mining industry totalled 28,050 compared with 32,551 in 1941 and 5,524 in 1925. Salaries and wages paid amounted to \$54,388,872 as against \$62,150,810 in 1941, and fuel and purchased electricity consumed by the industry in 1942 totalled \$7,615,766. The cost of explosives, drill steel and other process supplies used in 1942 amounted to \$17,922,522.

Dividends paid during 1942, as computed from actual returns made by the auriferous quartz mining industry, totalled \$34,571,576 compared with \$46,583,187 in 1941.

NOVA SCOTIA GOLD MINING INDUSTRY, 1942

(J. P. Messervey, Inspector of Metal Mines,
Nova Scotia Department of Mines)

The gold operations in the province produced 12,989 fine ounces of gold in 1942 as compared with 19,170 fine ounces in 1941.

The number of operators was reduced to three companies to carry on steady mining and milling operations. The needs of industry for other minerals caused a scarcity of experienced labour in this field, and it became increasingly difficult to obtain equipment and supplies for gold mining.

The work carried on during the year was by:

Consolidated Mining and Smelting Company of Canada Limited, Caribou, Halifax County, who in addition to the regular production deepened the Holman vertical shaft from the 500 to the 800 foot level and started a drift from the 800 foot station southeast to the ore zone.

Avon Gold Mines Limited, Oldham, N.S., carried on work steadily in the Dunbrack mine with success. A considerable footage of new development work was carried out during the first six months of the year but the number of available employees had dwindled to 50 per cent by the end of the year so that it became apparent that they would have to cease operations early in 1943 for the duration of the war.

Queens Mines Limited continued operations at Molega, Queens County, both with underground development and installation of a 25 ton ball mill plant.

The minimum work requirements on leases specified by the Mines Act have been waived for the duration of the war.

THE GOLD MINING INDUSTRY IN QUEBEC IN 1942

(A. O. Dufresne, Deputy Minister, Quebec Department of Mines)

During the twelve months of 1942, the gold output (shipments) of Quebec mines reached a new high record of 1,090,659 ounces, valued at \$41,990,572. While the output was slightly in excess of the figures for the previous year of 1941, it must be admitted that the peak of production was reached in the first half of the year, and there was a very noticeable falling-off in the gold output during the last six months of 1942. The scarcity of labour was largely responsible for these conditions, and it seems unlikely that there will be any improvement, insofar as the gold mining industry is concerned, until the war has been brought to a successful conclusion.

Practically all of the gold produced in the province of Quebec comes from the counties of Abitibi and Temiscamingue. Returns of production were received from 53 mining companies, and from several individual shippers of small quantities. The year 1942 saw three new mines come into production in western Quebec, namely, West Malartic, Mic Mac and Golden Manitou, the latter being essentially a zinc mine, where the gold occurs in association with the base metal ore. The Tetrauit lead-zinc mine, in Montauban township, was reopened during the year, and a small output of gold resulted from this operation.

For general statistical purposes, the gold mines of western Quebec have been classified into two groups, namely: the "straight gold" producers, where the gold occurs in association with other precious metals in a quartz or quartzose gangue, and the "sulphide" mines, where the gold is considered essentially as a by-product in the mining of complex sulphide ores of such metals as copper, zinc, and lead, and the mineral iron pyrites.

In 1942 approximately 75 per cent of the gold production of the province was derived from the "straight gold" ores, and the remaining 25 per cent was recovered from the treatment of base metal ores.

Prospecting activities were at a low ebb in 1942, the number of recorded claims amounting to only 4,367. In the peak year of 1937, 18,641 mining claims were recorded in the province.

In spite of the difficulties imposed by the war, the "straight gold" mines, as a whole, had a very good year. Tonnage was reduced at several properties, and the Arntfield, Cournoir, Pandora and Wood Cadillac mines were obliged to suspend operations, but the loss in gold output resulting from these factors was more than balanced by the production from the new mines, and by improvements in the grade of the ore at a number of older mines.

In the western part of the Abitibi-Temiscamingue region, the Francoeur mine was in continuous operation, with tonnage only slightly below the figures for the previous year. Production was continued at the Arntfield until April, 1942, when financial difficulties forced suspension of all operations. Tonnage and gold output were slightly reduced at the McWatters mine. At Senator Rouyn, both tonnage and grade improved, and the main shaft was deepened from the 875-foot level to the 1,450-foot horizon where four new levels were established. The Powell-Rouyn mill was shut down in April, 1942, and since that time all the mine output has been shipped by truck to the Noranda smelter where it is used as a siliceous flux; tonnage and gold output decreased somewhat below the figures for the previous year. At the Stadacona Rouyn mine, production was maintained at a very satisfactory level, and the main shaft was deepened to 2,525 feet from the surface. The Beattie mine and mill also operated continuously with little change in tonnage, but the grade of the ore was appreciably reduced owing to an inrush of clay and quicksand in the north workings. In Guillet township, operations at the Balleteur Quebec mine were continued at a steady rate, and the capacity of the Company's power plant on the Wilmewy river was doubled by the addition of a second 1,575 K.V.A. generator.

In the Bousquet-Cadillac area, the new Mic Mac mill was turned over in June, and it has demonstrated a capacity of 600 tons per day; due to labour shortage, however, the daily tonnage treated during the remainder of 1942 averaged only 580 tons. The O'Brien mine operated at a steady rate of close to 200 tons daily. Central Cadillac continued to operate at a slightly increased rate, shipping its output, by truck, to the Thompson Cadillac mill for treatment. Increased operating difficulties forced suspension, in June, 1942, of all operations at the Wood Cadillac mine. The Pandora mine was another war casualty which, owing to the lack of sufficient labour, closed down in August for the duration of the war. Tonnage at Lapa Cadillac was gradually reduced by 40 per cent from the rate in effect at the beginning of the year. At West Malartic production was commenced in May, 1942, and in spite of the serious operating difficulties resulting from the scarcity of labour, the mill was brought up to its rated capacity of 300 tons per day.

In the Fourniere-Malartic area, the average daily tonnage treated at the Canadian Malartic mine was increased to 985 tons, with little variation in grade from the figures for the previous year. At Sladen Malartic, tonnage was maintained at a steady rate of 700 tons per day, and gold recovery showed a substantial increase at \$4.49 per ton; No. 2 shaft was deepened during the year to the 1,750-foot horizon. At East Malartic, a slight reduction in tonnage treated, as compared with 1941, was almost wholly compensated by an

improvement in grade. Malartic Goldfields operated at an average daily rate of 682 tons, with mill heads averaging \$8.20 gold per ton; at the No. 2 mine, half a mile to the west of the main workings, a shaft was completed to a depth of 500 feet, and lateral work has indicated that the promising results attained in previous diamond drilling will be confirmed.

In the Bourlamaque-Dubuisson area, an output of 1,000 tons per day was maintained at the Siscoe mine, but the grade of the ore has been appreciably reduced. Sullivan Consolidated increased production to an average daily rate of 462 tons, with grade averaging \$10.36 per ton in gold. At Lamaqua, the severe shortage of labour resulted in a drastic curtailment of underground work, and, during the last six months of 1942, the daily tonnage was gradually reduced from 1,225 to 815 tons. Operations at the Sigma mine showed little change, the tonnage of ore treated amounting to 403,467 tons, with an average gold content of 3.926 dw. per ton.

In the Pascalis-Louvicoourt area, the Cournor mine and mill operated continuously throughout the first six months of 1942, but due to a fire which destroyed the mine office, the engineers' office and the warehouse, and the increasing wartime difficulties, the operations have been suspended for the duration of the war. Operations continued at a steady rate at the Perron mine, with production only slightly below the figures for the previous year; some shipments of sorted tungsten ore were made from this property.

Development and exploration work was continued on a number of new gold properties in Quebec during the first part of 1942, but as the difficulties resulting from the shortage of labour and materials increased rather sharply, most of this work has been suspended, and there appears to be little prospect of its resumption until after the war.

GOLD MINES OF ONTARIO, 1942

(Maurice Tremblay, Statistician,
Ontario Department of Mines)

East Kirkland and Larder Lake Areas - All development and stoping at the Bidgood Kirkland mine was done in the No. 2 shaft workings from the 250 foot level to 1,275 feet. There was no change in plant or equipment and an average of 131 tons of ore per day was milled during the year. No. 1 shaft at Upper Canada was sunk 250 feet during the year and levels were established at 1,125 and 1,250 feet. Stoping is being carried out on the 125, 250 and 375 foot levels of No. 2 shaft and on all levels of No. 1 shaft down to the 875 foot level. In 1942 the mill treated an average of 231 tons of ore per day, this being an increase of 30 tons over the previous year. At the Omega property No. 3 internal shaft, a winze was collared on the 1,550 level in the southern part of the property. It was sunk 186 feet in 1942 and a level established at 1,675 feet. Average daily tonnage milled in 1942, 409 tons, was 60 tons below the 1941 daily average. One of the most important developments at the Kerr Addison property was the finding of No. 6 ore body south of the fault. This section of the property had heretofore been considered barren. Average daily tonnage treated in 1942 was 2,072 or 170 tons above the average for 1941. The main shaft, No. 3, was sunk 716 feet to a total depth of 2,805 feet. New levels were established at 150 foot intervals from the 2,200 foot level to the 2,800 foot level. The lowest level to be developed in this block, therefore, will be at 2,650 feet and the main production to come from the 2,500 foot level. There were no changes to plant or equipment at the Chesterville property. The shaft was sunk 458 feet during the year under review to a total depth of 1,703 feet and the 10th, 11th, and 12th levels established. Average daily tonnage treated in 1942 was 663 against 687 in 1941. At the Yama property milling operations were sporadic throughout the year. An average of 63 tons of ore per day was milled. Late in the year an attempt was made to increase capacity from 75 to 100 tons per day. Most of the development was carried on the bottom or 500 foot level. O. L. Knutson succeeded H. G. Wray as Manager in November. The old Margaret shaft or No. 1 Queenston shaft on the Queenston Gold Mines property was deepened to 272 feet and a second level established at 250 feet. Development was carried out on the 125 and 250 foot levels. A shipment of 1,054 tons of ore was milled in the Upper Canada mill as a bulk test. All work was done by the latter company. Operations were suspended for the duration of the war on April 15, 1942. Some diamond drilling was done underground at the Laguerre mine early in January, but on March 10th it was decided to suspend all operations for the duration. Toburn Gold Mines Ltd. pumped out the workings of Kirkland Consolidated Mine (Keryan Lease), in April and May of 1942. The property was examined for scheelite.

Kirkland Lake Area - All operations were suspended on April 14, 1942, at both the Golden Gate and Crescent mines. They were allowed to flood. There was no further work done on the crosscuts into the Casakirk property from Macassa. The plant of the latter mine remained substantially the same. At the Kirkland Lake Gold Mining Company property development work and stoping was curtailed during the year. The major part of the development work was carried out in the block of ground from 4,600 to 5,450 feet. The most important work at this company was carried out on six veins of high grade ore on the 5,450 level. The mill treated an average of 276 tons per day. The mill of Teck-Hughes Gold Mines Limited treated an average of 256 tons of ore per day, all of which came from above the 15th level. It will probably take longer than expected before mining of this

upper block of levels is completed. Notwithstanding the strike, sinking of No. 6 shaft was carried on throughout the year at the Lake Shore mine. Footage sunk was 776 and new levels were established at 125 foot intervals from the 5,200 foot level. Development work was concentrated in the block of levels from 4,575 to 5,950. The mill treated an average of 950 tons per day. No new levels were opened up at the Wright-Hargreaves mine during the year and most of the development was done in the blocks from the 4,200 to the 5,400 and from the 200 to the 700 levels. Daily average tonnage treated for the year was 777 tons. At the Sylvanite mine the No. 5 winze was sunk 448 feet and levels were established at 3,900, 4,050 and 4,200 foot levels. Average daily tonnage was 480.

Porcupine District - Gold ore tonnage milled during 1942 dropped below that of the preceding year for the first time in 12 years. Tonnage milled dropped from 5,971,786 in 1941 to 5,624,679 tons in 1942, a decrease of 5.95 per cent. However, this figure is much less than 1 per cent of the tonnage milled in the district in 1940. A comparison of tonnage and production of the Porcupine district with that of the province indicates the decline in the Porcupine district was less than the general decline production from Porcupine amounting to 48.75 per cent of the total highest figure since 1930, while the tonnage exceeded that of all the other Ontario gold mines combined for the first time since 1938. Employment decreased over the year by 10.35 per cent, but this does not reflect the great exodus of men in the latter months of the year. The December employment figures show a decrease of 2,418 men from the 1941 average, or a 25 per cent decrease. During the year, operations were suspended at DeSantis Porcupine Gold Mines, Paymar Porcupine Gold Mines, and Nakhodas Mining Company. With the exception of hoisting ore from stopes, mining also was suspended at Naybob Gold Mines at the close of the year. From August to November, 1942, Wolfestevie Mining and Development Company operated on the former Credo Porcupine property. Production of 292 tons of ore from open pit operations was trucked to Buffalo Ankerite Gold Mines for testing purposes.

There was little expansion during the year at producing mines. Preston was the outstanding exception in this respect. Near completion of mill expansion at the end of 1941 enabled this company to step up average production from 534 tons daily in 1941 to 840 tons in 1942. The step-up took place during the first three months, just prior to the passing of new regulations restricting increases in gold tonnage beyond that of the first three months of the year. Construction work and installation of new equipment at the Porcupine mines was done on a very modest scale in 1942. Preston completed early in the year additions to the mill, shops and power plant which were well on the way at the end of 1941. Aunor completed installation of additional mill equipment ordered in 1941, and received near the end of the year a new hoist which was also ordered many months earlier. The Hollinger scheelite mill was completed and the additions to the Delnite mill for the recovery of the same mineral were both completed in 1942.

Matachewan and West Shiningtree Area - A considerable proportion of the ore milled at the Young-Davidson mine was extracted from pillars, and average daily mill tonnage dropped from 955 in 1941 to 816 in 1942. No additions were made to the plant. At the Matachewan Consolidated property the expansion program commenced in 1941 to bring mill capacity to 1,000 tons per day was completed in 1942. Shortage of labour prevented production of more than 900 tons per day. Mining from surface of the syenite ore body near the Young-Davidson line was started. The Tyrannite mine suspended operations for the duration of the war on July 31, 1942. During the period of operation, average daily tonnage treated was 148. It is likely that when the mine re-opens, considerable lower level development will be done before milling is resumed.

Sudbury and Nipissing District - Development work totalling 2,118 feet was done in 1942 at the Jerome property. The mill treated an average of 462 tons per day. At the Rundle mine operations were continued until the end of July. The shaft was deepened to 375 feet and a second level opened up at 300 feet. The Renable property was closed in May after development work, totalling 2,965 feet, had been done on the 125-250-foot levels during 1942. Lack of ore caused cessation of operations at the Gline Lake mine in November. The mill treated an average of 161 tons per day from January 1 to October 14. Regnery Metals handled an average of 35 tons per day from shallow underground work. Operations there lasted from April 16 to December 21.

Thunder Bay District - Little Long Lac Gold Mines, Limited, operated continuously during the year and the mill tonnage was held in the neighbourhood of 520 tons. Mining was done from the 10th level down. The winze from the 16th level, which is situated 1,680 feet west of No. 1 shaft was completed early in the year and four levels were established. A 15-ton scheelite concentrator was added to the mill and was in operation in January, 1943. MacLeod-Cockshutt was in continuous operation during 1942. It had been hoped to increase production. The mill building addition was completed and most of the mill units installed but the labour shortage became so acute that it was found difficult to maintain previous tonnage. At the end of the year approximately 600 tons daily were being milled. The possibility of producing arsenic from the roasting plant fumes was being investigated. Continuous production was also maintained at the Hard Rock Gold Mine. Most of the tonnage milled was taken from the large shrinkage stopes between the 4th level and surface. No. 2 shaft was deepened during the year to a total depth of 1,410 feet and six new levels established at 150-foot intervals below the 4th. Investigation of possible production of arsenic was also being made at this property. The mill of the Magnet Consolidated mine was in continuous operation throughout the year, treating an average of 140 tons per day. The ore supply was mostly taken out between the 5th and 9th levels. Production at the

Bankfield mine ceased on August 30. It was said that all commercial ore had been removed underground. There is, however, a possibility that the ore on the Magnet property to the east is raking toward the Bankfield at depth and for this reason the three levels from No. 1 shaft were bulkheaded off so that in future it would not be necessary to pump out the mine workings in the event of the reopening of the mine. The Tombill mine ceased operating on November 30 for the same reason as Bankfield. The Elmos operation of this company witnessed the installation of a mining and milling plant of 40 tons capacity. The mine was also closed on November 30 and the underground allowed to fill with water. In the Sturgeon River area, the Sturgeon River mine ceased operations in October owing to a lack of labour. At the Brengold property some sampling was done after the mine had been dewatered but owing to the difficult times, work was discontinued in March. In the Beardmore area the Leitch mine operated its plant during the year and established itself as the highest grade gold mine in Canada. Daily tonnage was about 110 tons hoisted and 80 tons milled. Development of five new levels was practically completed during the year. Ore developed on these levels was as good or better than the upper levels. The mill feed for the year came mostly from the section between the 5th and 9th levels. Some scheelite was produced at the property and two small shipments were made to Ottawa. Owing to the labour shortage the Sand River operation of the Northern Empire Mines, Limited, was closed on August 28. Some scheelite ore was shipped from this mine. The Bandolac Mining Company, Limited, in the Shebandowan Lake area moved prospecting equipment on its property which is situated in the vicinity of the Shebandowan Station on the C.N. Railway. The property will probably be dormant for the duration. Several of the larger mining companies have had scouts examining prospects in this area.

Rainy River District - Goldorel Mining Company, Limited, operated the old Olive Gold mine at about 20 tons daily till August 21 when a fire destroyed both the Diesel plant and mill. No further work has been done. This company was also interested in the old Golden Star property south of Mine Centre but no work was done there during the year.

Kenora District - The Berens River mill treated a daily average of 238 tons of ore during the year. Plans were being made to enlarge the mill building and to install equipment necessary for the extraction of zinc which formerly followed the tailings. Central Patricia was in continuous operation and the winze which had been collared on the 2,050-foot level during the latter part of 1941 was deepened 578 feet during 1942. Four new levels were established. Three new levels were opened up at the Pickle Crow mine. This followed deepening of the winze which had been collared on the 750-foot level in 1941. Mining operations ceased at the No. 5 shaft of the Uchi mine on November 30, 1942. At the end of the year only No. 2 and No. 4 shafts were producing. The mill treated an average of 454 tons of ore daily. Continuous operations were reported also from the McKenzie Red Lake and the McMarmac mines. The former mined an average of 235 tons of ore daily and the latter 90 tons. There was nothing new to report from the Cochenour Willans mine. The mill treated an average of 165 tons of ore per day. Production at the Hasaga mine averaged 367 tons per day during 1942 and Madsen Red Lake had an average daily run of 400 tons. Although the Wendigo mine operated throughout the year under review, discouraging results from diamond drilling on the 1,700-foot level in January of 1943 caused the company to begin salvage operations. Attempts to retreat the old mill tailings at the Goldwood property were unsuccessful. The tailings are covered by 35 feet of water. Some 5,000 tons of tailings were treated between February 20 and May 31, 1942. At the Gold Frontier mine development work was done from January to July 9. Some drifting was done from the No. 1 shaft and drifting and crosscutting from the No. 2 shaft. Mine buildings were erected at the No. 2 shaft. The mill equipment that was delivered to the landing during the latter part of 1941 is still there. The Jason mine was operated from January 1 to October 10, milling an average of 94 tons of ore per day. Equipment that could be damaged by water was brought to surface and the mine allowed to flood. It is planned to reopen the property after the war. Shortage of labour was mainly responsible for the closing down of the mine. Underground exploratory work was carried on at the Kenwest property from January 1 to February 15. At that time the mine was allowed to flood to the third level. Underground operations were resumed on October 9 and continued throughout the year. The Gurney mill purchased in 1941 was installed at the property and milling operations started on the 1st of September. By the end of the year a total of 3,015 tons of ore that had been stored on the surface dump and 3,509 tons of ore obtained from the underground workings had been treated. Owing to the war, plans to retreat the tailings from the old Micado mine, on Shoal Lake, had to be abandoned, but some trenching was completed during the year on the company's holdings at High Lake. Sandybeach Lake Syndicate took a 5½ ton sample from Claim K.9194 near Kirk Lake, south of the old Sakoose mine. The ore was trucked to the mill at Van Houten Gold Mines and was sampled there. Production of bullion from this ore amounted to \$83.66.

MANITOBA GOLD INDUSTRY, 1942
(Geo. E. Cole, Director of Mines)

The province of Manitoba continued its gold production in 1942 with 136,226 ounces as compared with 150,553 ounces in 1941. Gold was produced at four gold-quartz mines and was also obtained from the treatment of base metal ores of the Flin Flon and Sherritt Gordon mines.

Prospecting for gold was overshadowed in 1942 by the search for strategic minerals which resulted in the discovery of chromite in the Bird River area of southern Manitoba. Nevertheless, there was some interest shown in the development of a gold property at Snow Lake, The Pas Mining District, by the Howe Sound Exploration Company, Limited.

After an intensive campaign of diamond drilling at the Nor-Acme property located some 10 miles north-east of Herb Lake (Wekusko) settlement, results were reported so satisfactory as to warrant taking over the property and commencing mining operations when world conditions were more settled. Following on these reports there has been considerable prospecting in the area.

The Gunner Gold mine, which up to 1942 had for several years been producing at the rate of 150 tons a day, on \$11.00 ore, was forced to discontinue operations in June. The company acquired the Ogama-Rockland group of claims, located 6 miles northwest of the Gunner mine after some preliminary drilling. Preparations were made to develop and work two small ore shoots on the Ogama claim but owing to unsatisfactory conditions imposed on gold production during the war, mining could not be continued.

SASKATCHEWAN GOLD MINING INDUSTRY, 1942
(W. H. Hastings, Chief Inspector of Mines)

Saskatchewan's gold production for 1942 was 178,871 ounces valued at \$6,886,533 as against 158,015 ounces valued at \$5,313,578 in 1941, or an increase of 29.6 per cent. In January the surface buildings of Pamon Gold Mines Limited, Amisk Lake, burned down, and on August 15, 1942 Canadian Consolidated Mining and Smelting Company closed their Box property mine at Beaverlodge, Lake Athabaska, for the duration of the war. The closing of these two mines left the Flin Flon mine of Hudson Bay Mining and Smelting Co. as the only operating gold producer in Saskatchewan.

As the Flin Flon mine accounted for approximately 90 per cent of the total gold production of the province, the closing of the mines at Amisk and Athabaska Lakes will not greatly affect the production figures of future years. As long as the Hudson Bay Mining Company continues in its present healthy state of operation, Saskatchewan's gold production should remain in the neighbourhood of \$6,000,000 annually.

No new discoveries were reported during the year under review. Preview Mines Limited, a prospect in the Lac la Ronge area, operated a small pilot mill during the early part of the year but later discontinued operations indefinitely. Wampum Gold Mines Limited at Douglas Lake, six miles south-west of Flin Flon, an arsenical gold property, also failed to reach the production stage in their development operations.

BRITISH COLUMBIA GOLD MINING INDUSTRY, 1942
Submitted by H. Sargent, Chief Mining Engineer,
British Columbia Department of Mines
(Prepared by the Mining and Metallurgical Division,
Bureau of Economics and Statistics, Victoria)

In the Atlin Mining Division the Polaris-Taku Mining Company treated a total of 31,336 tons of ore, the concentrates being shipped to the Tacoma smelter. This operation was closed down, presumably for the duration, at the end of April.

The Portland Canal Division was credited with a tonnage output of 203,322, of which the Silbak Premier produced 140,567 tons containing 36,300 ounces of gold. The Big Missouri mill treated 62,755 tons, closing down in April, and finally, in October the operation ceased altogether. In the Skeena Mining Division, the Surf Inlet Consolidated Gold Mines Ltd., was credited with 26,116 tons treated, with gold production of 8,683 ounces. The company ceased operations at the end of November. The Government Sampling Plant at Prince Rupert, handled several small lots of ore and numerous testing lots. Settlement is made direct with the shipper, and accumulated stocks are shipped by the Department of Mines, to Tacoma or Trail, as the character of the ore determines.

The Cariboo Division had 141,801 tons credited, of which the Cariboo Gold Quartz treated 93,885 tons, with gold content of 38,016 ounces. The Island Mountain Mines Ltd., treated 47,916 tons, giving a content of 21,164 ounces of gold.

Clean-up operations, by leasers, continued at the Windpass in the Kamloops Division, and in the Vernon Division the Kalamalka mine is credited with 433 tons.

The Greenwood Division again disclosed that the Old Granby (Phoenix), Providence, and Union Mines were the main producers in the total of 2,113 ounces of gold. Leasing operations at the Dentonia continued, and production was made from the Yankee Boy.

The Osoyoos Division came close to the tonnage and production of 1941, and in 1942 tonnage was 165,643 and 55,011 ounces of gold produced. Hedley Mascot treated 66,088 tons which yielded 22,477 ounces of gold. The Kelowna Exploration, operating the old Nickel Plate mine, treated 99,219 tons. Smaller producers included the Empire, Grandoro, K.C.M. and Smuggler.

The Copper Mountain property of the Granby Consolidated Mining, Smelting and Power Co. Ltd., can be credited with several thousand ounces of gold.

The Nelson Mining Division was credited with a total of 183,384 tons treated, which yielded 65,663 ounces of gold. The leading producer was Sheep Creek Gold Mines Ltd., with 55,395 tons yielding 23,493 ounces of gold, followed by Gold Belt with 55,299 tons yielding 19,619 ounces of gold. Kootenay Belle treated 26,016 tons for a yield of 8,310 ounces of gold. Bayonne is credited with a yield of 4,599 ounces from 11,524 tons treated. Clean-up work was carried out at the Reno, and it is reported the property has been sold to Messrs. Endersby, who for some years worked the Nugget claim on a lease.

Other shippers in the Nelson Division included Alpine, Arizona, Arlington, California, Granite Poor-man, Wilcox, Yankee Girl, now being worked by leasers. In addition, shipments were made by the Bunker Hill, Clubine-Comstock, Durang, Goodenough, Ymir leasers, Trimetals (Golden Age), Gold Hill, Jessie Victoria, and Keystone.

Trail Creek had a total tonnage of 12,565 which yielded 4,135 ounces of gold. The Velvet was the largest producer with 7,595 tons treated, followed by Rossland leasers with 3,999 tons treated.

In the Alberni Division, the Thistle and Sherwood made aggregate shipments of 1,141 tons, which yielded 288 ounces.

The Clayoquot Division tonnage was 68,100 with a total yield of 41,136 ounces. Privateer again topped the list with 22,360 ounces of gold from 25,073 tons treated. Spud Valley came next with 6,020 ounces from 20,060 tons treated, followed by Central Zeballos with 4,610 ounces. Other producers were Buccaneer, Musketeer, White Star, Homeward and Mount Zeballos. The following mines are now closed down: Buccaneer, Mount Zeballos, Homeward, Musketeer, Central Zeballos, Spud Valley and White Star.

Lillooet Division, with two producing mines, is credited with 250,719 tons, of which Bralorne treated 171,095 yielding 90,817 ounces of gold. The Pioneer treated 79,624 tons with a yield of 40,563 ounces of gold.

Nanaimo and New Westminster Divisions added a few tons to the Provincial total, and Britannia Mine in the Vancouver Division also was responsible for some thousands of ounces, but same is tied in with copper-production data, and cannot be segregated.

GOLD MINING IN THE NORTHWEST TERRITORIES, 1942
(A. W. Jolliffe, Ph.D., Geological Survey - Ottawa)

Curtailment of all phases of the gold mining industry in Northwest Territories took place during 1942. Two of the six mines producing at the start of the year were closed, and one new mine operated for less than a month. The total daily tonnage milled at Northwest Territories gold mines dropped from about 450 at the start of the year to about 300 at the end. Prospecting was on a much reduced scale as compared with previous years and much of this was devoted towards the search for scheelite and other war minerals rather than for gold. Staking and development of gold claims practically ceased. Notwithstanding, gold was produced to a value of \$3,826,669, nearly one-quarter larger than the amount produced in 1941, and representing about 63 per cent of the value of all minerals produced in Northwest Territories in 1942. Since September, 1938, when continuous production started, gold valued at over ten and one-half million dollars has been produced.

Con and Rycon mines on Yellowknife Bay are operated from a common plant by Consolidated Mining and Smelting Company of Canada, Limited. In 1942 the property maintained its position as chief gold producer in Northwest Territories, treating an average of nearly 200 tons a day. No. 1 shaft was deepened from 1,011 to

Gold

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1,450 feet with stations cut at 1,100, 1,250, and 1,400 feet. About 6,600 feet of lateral work was done in the mines during the year, chiefly on the 950-, 650-, and 500-foot levels. Most ore treated to date has come from Con mine above the 650-foot level. The deepest ore known is on the 950-foot level. Extension of mill capacity to 550 tons daily, with installation of a Hadsell mill, roaster, and leaching plant, were completed in April, 1942, but shortage of labour prevented full use. An average of 286 men were employed during the year. Ore reserves are not available for publication.

Negus mine is situated immediately south of the Con-Rycon property and is the third largest gold producer in Northwest Territories, milling an average of 70 tons daily and recovering gold valued at over \$700,000 in 1942. No. 2 shaft was deepened from 734 to 800 feet during the year and lateral work therefrom amounted to about 2,910 feet, chiefly on levels at 300, 425, and 550 feet, and on a sub-level at 140 feet. About 87 men were employed. Ore reserves are reported to have increased during the year from 19,000 tons carrying 0.637 ounces of gold per ton to 27,500 tons carrying 0.82 ounces gold per ton.

Ptarmigan Mines Limited, controlled by Consolidated Mining and Smelting Company of Canada, Limited, and located about five miles northeast of Yellowknife, entered production in January, 1942. Up until the time the property closed down in September, 1942, due to labour shortage, about 125 tons were treated daily. The property was worked from a single shaft put down to a depth of 923 feet with levels at 150-foot intervals, and from about 5,760 feet of lateral workings, all completed prior to 1942. About 95 men were employed at the property. Ore reserves are not available for publication.

Ruth mine, owned and operated by Consolidated Mining and Smelting Company of Canada, Limited, lies about 60 miles east of Yellowknife and is connected by a winter road with Francois Bay on the east arm of Great Slave Lake. A 25-ton mill at the property operated from August 1st to 12th. Ore milled represents about 70 per cent of the tonnage mined, the remainder being wall rock which is removed on a picking belt. All ore stoped has come from above the 100-foot level. A second level at 200 feet has been established. About 26 men were employed at the property during the milling period. Ore reserves are not available for publication.

The property of Thompson Lundmark Gold Mines, Limited, lies about 50 miles east of Yellowknife by winter road, and is operated by Consolidated Mining and Smelting Company of Canada, Limited. During 1942 an average of about 105 tons were treated daily, averaging about 0.60 ounces gold a ton. No. 1 shaft on Kim vein was deepened from 325 to 650 feet while No. 2 shaft on Fraser vein remained at a depth of 834 feet. Both shafts are inclined at about 50 degrees and levels have been established at 150-foot intervals measured down the slope. About 1,470 feet of lateral underground work were completed, chiefly on the third and fourth levels. All ore mined in 1942 was taken from Fraser vein. About 95 men were employed on the average. Ore reserves were reported to be 63,659 tons averaging 0.59 ounces gold per ton, and 57,894 tons averaging 0.44 ounces at the beginning and end of 1942 respectively.

International Tungsten Mines, Limited (formerly Slave Lake Gold Mines, Limited) operating on Outpost Islands, Great Slave Lake, for the first eight months of 1942 recovered gold in bullion, copper concentrates, and tungsten concentrates. No. 1 shaft was deepened to include a new level at 525 feet; No. 2 shaft, situated about 2,000 feet to the west, was also extended. An average of 49 men were employed. Ore reserves are not available for publication.

YUKON

(G. A. Jeckell - Controller, Yukon)

In the Dawson District, eleven grants were issued for lode mining and one hundred and nine claims were renewed. No work other than necessary representation work was done. Only one claim was renewed under the exemption granted by Order in Council P.C. 7750, dated September 2, 1942.

In the Mayo District, three hundred and thirty-eight claims were kept in good standing, and one hundred and thirty-two claims were held under twenty-one year leases. No claims were renewed under exemption granted by Order in Council P.C. 7750. The Treadwell Yukon Corp. carried on no mining operations in 1942 and the equipment of the company was largely disposed of. There was no lode mining activity in the District, aside from that done by three laymen on the "Sadie", "Elsa" and "Calumet" mineral claims. Promising discoveries of scheelite ore were made late in the Fall of 1942 on Lynx Fork Creek, a tributary of Haggart Creek, and Cement and Scheelite Creeks in the Johnson Creek area, but no work was done on these prospects during the winter months.

Table 29 - PRINCIPAL STATISTICS OF THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, FOR YEARS SPECIFIED

	(c) No. of No. of opera- active ting opera- plants tors or mines		Capital employed	Number of em- ployees	Salaries and wages	Cost of fuel and electricity	(b) Cost of process supplies used	Value of freight paid on shipments of ore, slag, etc.	Smelter and re- finery treat- ment costs	Gross value of bullion, ore, concen- trates or residues shipped from mines(d)	Net value of bullion, ore, concentrates or residues shipped from mines(d)
			\$		\$	\$	\$	\$	\$	\$	\$
1923	65	65	77,574,976	5,524	8,961,434	1,497,197	Data not available			(a) 25,021,837	Data not available
1929	80	85	135,166,105	8,660	14,258,733	2,579,481	Data not available			(a) 37,275,986	Data not available
1941 -											
Nova Scotia	11	12	440,528	261	315,154	52,019	99,474	1,127	8,188	737,740	576,932
Quebec	88	93	42,741,363	6,386	11,502,849	1,854,389	3,877,009	87,177	474,890	31,386,312	25,092,847
Ontario	96	99	169,500,184	21,007	40,834,236	5,427,354	13,758,759	375,075	1,365,347	120,703,979	99,777,444
Manitoba	6	6	3,717,198	637	1,196,305	188,367	411,649	6,720	34,437	3,095,461	2,454,288
Saskatchewan ...	3	3	17,529	204	424,235	27,715	274,518	18,783	20,599	941,372	599,757
British Columbia	127	137	22,929,476	3,511	6,721,978	735,291	2,309,128	421,840	747,455	19,378,045	15,164,331
Northwest Terri- tories	7	7	3,792,596	545	1,156,053	177,483	336,363	5,601	27,592	2,860,273	2,313,234
Yukon .....	...	...	...	...	...	...	...	...	...	...	...
CANADA	338	357	243,138,864	32,551	62,150,810(e)	8,462,618	21,066,900	916,323	2,678,508	179,103,182	145,978,833
1942 -											
Nova Scotia (f) ..	6	6	318,438	104	158,602	34,857	37,921	1,782	4,166	370,225	291,499
Quebec	50	50	38,379,170	5,736	11,381,876	1,763,649	4,174,550	111,979	540,223	31,413,162	24,822,761
Ontario	73	75	175,289,245	16,576	35,079,849	4,833,382	11,143,741	192,431	1,159,252	104,472,446	87,143,640
Manitoba	8	8	6,011,285	483	1,060,211	173,162	323,867	6,306	31,933	3,284,248	2,748,980
Saskatchewan ...	3	3	17,100	113	231,088	12,303	170,050	1,785	5,720	533,768	343,910
British Columbia	77	78	17,901,610	2,439	5,058,944	549,696	1,524,526	402,705	564,992	16,629,819	13,587,900
Northwest Terri- tories	6	7	7,324,149	579	1,418,302	248,717	547,867	24,341	39,978	3,860,275	2,999,372
Yukon .....	...	...	...	...	...	...	...	...	...	840	840
CANADA	223	227	245,240,997	26,030	54,388,872	7,615,766	17,922,522	741,329	2,346,264	160,564,783	131,938,902

(a) Less freight and treatment charges.

(b) Explosives, chemicals, etc.

(c) Number of mines producing - 1923-33; 1929-38; 1937-189; 1938-226; 1939-232; 1940-278; 1941-255; 1942-184.

(d) Value of bullion produced plus value of ore, concentrates, etc. shipped.

(e) Includes \$7,415,094 in salaries in 1941 and \$6,979,330 in 1942.

(f) Does not include data for Queens Mines Ltd.

NOTE: Net Value represents the gross value less the cost of fuel and electricity, process supplies and freight.

Table 30 - PRINCIPAL STATISTICS RELATING TO PRODUCERS ONLY IN THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1942

	No. of produc- ing plants or mines	Capital employed	Number of em- ployees	Salaries and wages	Cost of fuel and elec- tricity	(a) Cost of process supplies used	Value of freight paid on shipments of ore, slag, etc.	(b) Smelter and re- finery treat- ment costs	Gross value of bullion, ore, concen- trates or residues shipped from mines(d)	Net value of bullion, ore, concentrates or residues shipped from mines(d)
		\$		\$	\$	\$	\$	\$	\$	\$
Nova Scotia (f).	4	515,865	102	158,249	50,558	56,469	1,782	4,166	570,225	297,250
Quebec	29	36,097,240	5,649	11,249,958	1,746,477	4,184,264	111,979	540,225	51,415,162	24,850,219
Ontario	67	174,524,959	16,511	54,944,578	4,814,256	11,122,650	192,451	1,159,252	104,472,446	87,183,897
Manitoba	7	6,011,285	485	1,060,211	175,162	525,867	6,506	51,955	5,284,248	2,748,980
Saskatchewan ...	5	17,100	115	251,088	12,505	170,050	1,785	5,720	555,768	343,910
British Columbia	67	17,679,569	2,577	4,971,227	545,205	1,515,120	402,705	564,992	16,629,819	13,601,799
Northwest Terri- tories	7	7,524,149	579	1,418,502	248,717	547,867	24,541	39,978	5,860,275	2,999,572
Yukon .....	...	...	...	...	...	...	...	...	840	840
TOTAL CANADA 1942	184	241,770,145	25,814	54,055,615	7,570,656	17,880,267	741,529	2,546,264	160,564,785	132,026,267
TOTAL CANADA 1941	255	251,635,875	51,850	61,065,055(e)	8,556,180	20,721,498	916,325	2,678,508	179,105,182	146,450,675
TOTAL CANADA 1940	278	250,719,541	50,555	55,560,958	7,955,195	20,590,784	691,649	2,486,587	178,794,078	147,289,865
TOTAL CANADA 1939	252	214,526,069	29,001	50,891,920(e)	7,701,026	19,001,782	694,165	2,249,512	160,014,172	130,367,887

(a) Explosives, etc.

(b) Includes handling charges.

(c) Not recorded separately - included with data relating to non-ferrous smelting industry in British Columbia.

(d) Value of bullion produced plus value of ore, concentrates, etc. shipped.

(e) Includes \$7,214,016 in salaries in 1941; \$6,794,255 in 1940, and \$6,878,890 in 1942.

(f) Does not include data for Queens Mines Ltd.

Table 51 - EMPLOYEES AND SALARIES AND WAGES PAID BY AURIFEROUS QUARTZ MINING INDUSTRY, 1925-1942

Year	Wage- earners	Salaried employees	Total employees	Wages paid	Salaries paid	Total salaries and wages
	No.	No.	No.	\$	\$	\$
1925	6,607	445	7,052	10,657,452	1,274,496	11,931,948
1926	7,159	504	7,663	10,941,722	1,598,901	12,540,623
1927	7,535	487	8,022	11,518,516	1,417,203	12,935,719
1928	8,458	608	9,066	12,978,628	1,657,562	14,615,990
1929	8,136	524	8,660	12,715,108	1,543,625	14,258,733
1930	7,935	466	8,401	12,490,362	1,544,268	14,034,620
1931	9,083	553	9,636	14,755,669	1,711,496	16,467,165
1932	9,809	633	10,442	15,803,139	1,883,445	17,686,584
1933	11,880	943	12,823	18,303,504	2,232,508	20,536,012
1934	16,139	1,623	17,762	24,017,667	3,139,220	27,156,887
1935	18,121	1,713	19,834	27,717,164	3,806,743	31,523,907
1936	22,662	2,435	25,097	35,049,354	4,777,588	39,826,742
1937	26,440	2,700	29,140	42,505,613	5,713,705	48,219,318
1938	26,938	2,709	29,647	44,302,484	6,159,608	50,462,092
1939	27,959	2,663	30,622	46,836,845	6,569,580	53,206,225
1940	28,747	2,658	31,405	48,410,841	6,794,255	55,205,096
1941	29,820	2,731	32,551	54,735,716	7,415,094	62,150,810
1942	23,517	2,513	26,030	47,409,542	6,979,330	54,388,872

Table 52 - SALARIES AND WAGES PAID, FUEL AND ELECTRICITY USED AND PROCESS SUPPLIES CONSUMED BY THE AURIFEROUS QUARTZ MINING INDUSTRY, BY PROVINCES, 1929-1942

Year	Nova Scotia		Quebec		Ontario		Manitoba	
	Producing	Non-producing	Producing	Non-producing	Producing	Non-producing	Producing	Non-producing
	\$	\$	\$	\$	\$	\$	\$	\$
1929	39,892	12,376	224,091	186,836	15,641,012	1,052,884	343,248	90,235
1930	16,644	...	403,848	...	14,106,811	286,813	231,474	62,300
1931	5,409	5,938	573,192	48,115	16,543,014	448,768	256,743	62,231
1932	4,500	51,861	924,375	328,091	17,712,693	162,763	496,049	...
1933	17,612	28,090	1,544,880	744,382	18,128,149	590,012	588,125	154,194
1934	206,729	32,940	2,007,574	1,418,530	20,763,904	1,419,484	826,625	512,586
1935	408,422	57,353	4,165,141	1,754,595	30,809,094	1,866,010	1,659,407	312,556
1936	779,767	40,304	6,448,220	2,317,382	35,829,753	3,789,527	1,896,053	217,017
1937	815,398	43,912	8,956,849	3,104,728	41,230,811	5,897,085	2,043,151	121,042
1938	808,872	8,834	11,396,444	1,396,019	46,899,149	2,473,232	1,914,962	15,627
1939	829,631	4,681	12,604,061	940,207	52,470,713	1,521,013	1,621,765	190,753
1940	596,592	158	14,090,722	770,280	54,745,840	895,822	1,642,103	2,558
1941	457,305	9,342	16,256,086	978,161	59,620,822	399,527	1,796,521	...
1942	225,276(x)	6,104	17,160,699	159,376	50,881,444	175,528	1,557,240	...
GRAND TOTAL	5,212,049	299,943	96,756,182	14,146,502	473,383,209	20,778,468	16,875,266	1,741,097

	SASKATCHEWAN		BRITISH COLUMBIA		NORTHWEST TERRITORIES		C A N A D A	
	Producing	Non-producing	Producing	Non-producing	Producing	Non-producing	Producing	Non-producing
	\$	\$	\$	\$	\$	\$	\$	\$
1929 .....	...	...	1,018,499	229,143	...	...	15,266,742	1,571,472
1930 .....	...	...	1,273,757	17,078	...	...	16,032,534	366,191
1931 .....	...	...	1,210,309	15,722	...	...	18,588,667	578,324
1932 .....	...	3,350	1,027,168	7,228	...	...	20,164,785	553,293
1933 .....	...	...	1,736,556	334,149	...	...	22,015,322	1,850,827
1934 .....	...	8,367	3,398,918	810,726	...	...	27,203,750	4,202,433
1935 .....	...	94,162	6,312,731	678,467	...	...	43,354,795	4,763,143
1936	118,651	79,963	7,287,019	863,104	...	42,766	52,359,463	7,350,063
1937	62,429	391,097	7,836,968	970,666	...	321,305	60,945,606	10,849,835
1938 .....	...	519,791	9,526,363	338,303	531,534	442,035	71,077,324	5,193,841
1939	490,633	4,291	8,963,013	425,451	614,912	162,551	77,594,728	3,048,947
1940	602,534	...	9,094,704	218,225	1,114,420	329,643	81,886,915	2,216,686
1941	726,468	...	9,613,778	152,619	1,649,933	19,966	90,120,713	1,559,615
1942	413,441	...	7,031,550	101,616	2,214,886	...	79,484,536	442,624
GRAND TOTAL	2,414,156	1,101,021	75,331,333	5,162,497	6,125,685	1,318,266	676,095,880	44,547,794

(x) Queens Mine not included.

Table 33 - FUEL AND ELECTRICITY USED BY ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, BY PROVINCES, 1942

Kind	Unit of measure	NOVA SCOTIA		QUEBEC	
		Quantity	Cost at plant	Quantity	Cost at plant
Bituminous coal (a) From Canadian mines...	short ton	205	\$ 1,716	3,523	\$ 41,458
(b) Imported	short ton	...	...	9,329	105,752
Anthracite coal (a) From United States ...	short ton	...	...	1,538	17,864
(b) Other	short ton	...	...	14	205
Lignite coal	short ton	...	...	...	...
Coke (for fuel only)	short ton	...	...	2	50
Gasoline	Imp. gal.	1,140	353	74,312	27,032
Kerosene or coal oil	Imp. gal.	...	...	1,792	411
Fuel oil and diesel oil	Imp. gal.	23,425	4,483	736,785	101,355
Wood (cords of 128 cu. ft. piled wood) ...	cords	7	38	21,621	104,602
Other fuel .....	...	...	...	...	...
Electricity purchased for power and lighting (including service charges)	K. W. H.	1,988,930	28,267	193,352,490	1,364,920
Electricity purchased for other purposes (including service charges)	K. W. H.	...	...	...	...
TOTAL .....	...	...	34,857	...	1,763,649
Electricity generated -					
(a) For own use	K. W. H.	1,950,000	...	9,113,965	...
(b) For sale	K. W. H.	...	...	...	...
		ONTARIO		MANITOBA	
Bituminous coal (a) From Canadian mines ..	short ton	18,859	187,801	80	727
(b) Imported	short ton	16,760	179,458	...	...
Anthracite coal (a) From United States ...	short ton	1,232	16,917	...	...
(b) Other	short ton	113	2,163	...	...
Lignite coal	short ton	136	2,444	...	...
Coke (for fuel only)	short ton	72	1,868	...	...
Gasoline	Imp. gal.	178,311	64,170	40,232	16,309
Kerosene or coal oil	Imp. gal.	11,580	2,995	688	270
Fuel oil and diesel oil	Imp. gal.	1,200,269	193,155	64,059	19,160
Wood (cords of 128 cu. ft. piled wood) ...	cords	30,640	158,242	4,251	27,491
Other fuel .....	...	...	...	...	...
Electricity purchased for power and lighting (including service charges)	K. W. H.	595,322,747	4,023,530	12,071,000	101,903
Electricity purchased for other purposes (including service charges)	K. W. H.	79,875	639	4,868,250	7,302
TOTAL .....	...	...	4,833,382	...	173,162
Electricity generated -					
(a) For own use	K. W. H.	9,624,592	...	8,249,290	...
(b) For sale	K. W. H.	...	...	...	...
		SASKATCHEWAN		BRITISH COLUMBIA	
Bituminous coal (a) From Canadian mines ..	short ton	...	...	955	9,323
(b) Imported	short ton	...	...	13	522
Anthracite coal (a) From United States ...	short ton	...	...	...	...
(b) Other	short ton	...	...	42	1,300
Lignite coal	short ton	...	...	189	947
Coke (for fuel only)	short ton	...	...	2	45
Gasoline	Imp. gal.	3,693	1,464	40,200	11,977
Kerosene or coal oil	Imp. gal.	225	70	947	293
Fuel oil and diesel oil	Imp. gal.	85,967	10,664	1,982,553	264,352
Wood (cords of 128 cu. ft. piled wood) ...	cords	15	105	5,038	32,897
Other fuel .....	...	...	...	...	390
Electricity purchased for power and lighting (including service charges)	K. W. H.	...	...	32,103,430	226,915
Electricity purchased for other purposes (including service charges)	K. W. H.	...	...	326,640	755
TOTAL .....	...	...	12,303	...	549,696
Electricity generated -					
(a) For own use	K. W. H.	11,072,800	...	36,332,967	...
(b) For sale	K. W. H.	...	...	523,760	8,812

Table 33 - FUEL AND ELECTRICITY USED BY ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, BY PROVINCES, 1942
(Concluded)

Kind	Unit of measure	NORTHWEST TERRITORIES		C A N A D A	
		Quantity	Cost at plant	Quantity	Cost at plant
Bituminous coal (a) From Canadian mines ..	short ton	6	489	25,628	241,614
(b) Imported	short ton	...	...	26,102	285,752
Anthracite coal (a) From United States ...	short ton	...	...	2,770	34,781
(b) Other	short ton	...	...	169	5,668
Lignite coal	short ton	...	...	525	5,591
Coke (for fuel only)	short ton	...	...	76	1,965
Gasoline	Imp. gal.	29,997	15,175	567,955	156,478
Kerosene or coal oil	Imp. gal.	201	110	15,435	4,149
Fuel oil and diesel oil	Imp. gal.	132,308	35,860	4,225,566	627,029
Wood (cords of 128 cu. ft. piled wood) ...	cords	8,077	96,325	69,649	419,700
Other fuel .....	...	...	...	...	590
Electricity purchased for power and lighting (including service charges)	K. W. H.	6,787,055	102,760	841,625,652	5,848,295
Electricity purchased for other purposes (including service charges)	K. W. H.	...	...	5,274,765	8,676
TOTAL .....	...	...	248,717	...	7,615,766
Electricity generated -					
(a) For own use	K. W. H.	12,834,460	...	89,178,074	...
(b) For sale	K. W. H.	6,919,378	104,154	7,443,158	112,946

Table 34 - POWER EQUIPMENT (including stand-by or emergency equipment) 1942

Description	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total horse power	Number of units	Total horse power
1. Steam engines and steam turbines	19	1,665	9	1,547
2. Diesel engines	72	14,251	43	6,802
3. Gasoline, gas and oil engines, other than Diesel engines	55	5,444	105	7,650
4. Hydraulic turbines or water wheels	24	25,680	1	780
5. Electric motors (Except those reported under item 7) -				
(a) Operated by purchased power	9,699	254,991	770	22,516
Total (1), (2), (3), (4) and (5a)	9,869	298,029	928	39,095
(b) Operated by power generated by 1, 2, 3 and 4	1,628	28,720	78	1,801
6. Stationary boilers	184	16,064	67	4,241
7. Motor generator sets	351	15,069	16	774

Table 35 - WAGE-EARNERS, BY MONTHS, IN THE ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY, 1931, 1939-1942

Month	1931	1939	1940	1941	1942
January	8,273	27,402	27,823	29,772	26,750
February	8,482	27,278	28,012	29,765	26,812
March	8,681	26,941	28,270	29,783	26,451
April	8,746	26,767	28,295	29,633	26,155
May	9,030	27,669	28,864	29,869	25,325
June	9,319	28,258	28,528	29,807	24,958
July	9,345	28,537	28,741	30,310	25,687
August	9,285	28,743	28,955	30,158	21,883
September	9,391	28,577	29,626	30,605	21,246
October	9,524	28,621	30,106	30,870	20,024
November	9,496	28,402	30,153	29,567	19,692
December	9,323	27,516	29,380	27,566	19,192

NOTE: For 1943 data see Table 65.

Table 36 - CLASSIFICATION OF WAGE-EARNERS EMPLOYED IN ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY, 1941 and 1942

Province	1 9 4 1			1 9 4 2		
	Number			Number		
	Mine		Mill	Mine		Mill
	Surface	Underground		Surface	Underground	
Nova Scotia (x)	58	139	31	22	62	8
Quebec	1,484	5,794	461	1,211	5,425	492
Ontario	4,880	15,159	1,475	5,811 (A)	10,206	1,241
Manitoba	262	261	37	193	189	31
Saskatchewan	49	84	30	25	40	16
British Columbia	697	2,100	347	469	1,536	257
Northwest Territories	230	199	43	203	221	59
Yukon .....	...	...	...	...	...	...
CANADA	7,660	19,736	2,424	5,934	15,479	2,104

(A) Includes 61 females; corresponding data for other provinces not available.

(x) Exclusive Queens mine.

Table 37 - NUMBER OF WAGE-EARNERS WHO WORKED THE NUMBER OF HOURS SPECIFIED, DURING ONE WEEK IN MONTH OF HIGHEST EMPLOYMENT (Includes overtime)

	30 hours or less	31-43 hours	44 hours	45-47 hours	48 hours	49-50 hours	51-54 hours	55 hours	56-64 hours	65 hours and over	Grand total	Total wages paid in that week (x)
Male	642	1,035	99	169	15,126	296	2,090	611	7,118	936	28,122	\$1,057,092
Female (A)	2	1	5	...	32	...	...	...	9	3	52	\$ 1,104

(x) This item includes the actual money wages paid, the value of room and board, where provided, deductions from employees for income tax and for social services, such as sickness, accident, insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. (Includes payments for overtime).

(A) Ontario only; corresponding data for other provinces included with male.

Table 38 - CERTAIN DATA RELATING TO THE PRODUCTION OF GOLD BY THE ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1928-1942

Year	Ounces of gold produced per wage-earner year	Cost of fuel and electricity per ounce of gold produced	Cost of wages per ounce of gold produced	Cost of ex- plosives and other process supplies used per ounce of gold produced	Cost of freight and smelter refin- ery treatment on ores and bullion shipped per ounce of gold produced	Total of specified costs
	Ounces	\$	\$	\$	\$	\$
1928	206	1.47	7.45	Information	Information	...
1929	218	1.46	7.18	not	not	...
1930	237	1.25	6.63	available	available	...
1931 (a)	250	1.19	6.50	1928	1928	...
1932	255	1.21	6.31	to	to	...
1933 (b)	207	1.36	7.45	1934	1934	...
1934 (c)	154	1.71	9.64			...
1935	146	1.89	10.48	4.38		16.75
1936	137	1.98	11.32	4.46		17.76
1937	132	2.10	12.18	4.65	0.35(d)	19.28
1938	150	1.85	10.95	4.53	0.56	17.89
1939	157	1.81	10.69	4.45	0.67	17.62
1940	161	1.76	10.48	4.49	0.69	17.42
1941	155	1.82	11.56	4.53	0.77	18.68
1942	176	1.84	11.47	4.34	0.75	18.40

(a) Equalization exchange premiums paid by the Dominion Government to gold miners (Great Britain goes off gold standard). (b) United States goes off gold standard. (c) United States gold dollar reduced in weight from 25.8 to 15 5/21 grains, 0.9 fine. (d) Not including Mint charges and marketing prior to 1938.

NOTE: The data contained in the foregoing table have been compiled from reports received from both producing and non-producing (exploring and developing) operators in the auriferous quartz mining industry. This fact should be noted if the information is to be construed or employed as possible criteria for technological or other statistical study. The trends revealed are not to be interpreted as entirely reflecting "Cause and effect" in the operation of producing mines only but rather as indices of change in the industry as a whole. For data relating to producers only, see Table 41.

Table 59 - ORES MINED AND MILLED, CRUDE BULLION RECOVERED AND CRUDE BULLION AND CONCENTRATES SHIPPED IN THE AURIFEROUS QUARTZ MINING INDUSTRY, 1942

	Nova Scotia	Quebec	Ontario	Manitoba	Saskat- chewan	British Columbia	Northwest Terra- tories	Yukon	CANADA
Number of producing mines	4	29	67	7	3	67	7 ...		184
Ore mined Tons	28,886	4,802,534	11,067,105	285,615	291,787	1,100,005	146,934 ...		17,722,866
Material discarded (sorted) ... Tons	7,248	166,914	419,242	918	...	64,117	... ..		658,439
Ore milled Tons	18,885	4,349,768	10,651,204	284,607	291,808	1,049,864	174,306 ...		16,820,442
Tailings retreated Tons	...	...	5,176	...	...	...	... ..		5,176
Concentrates produced Tons	...	5,212	75,917	...	...	34,979	52,587 ...		168,625
Gold content of ores, slags, residues and concentrates shipped -									
To Foreign smelters fine oz.	...	...	40,638	...	...	142,681	631 ...		183,950
Canadian smelters fine oz.	69	37,157	2,486	...	4	8,914	... ..		48,630
Bullion bars shipped -									
Gold content fine oz.	9,443	773,195	2,711,532	75,281	13,688	269,530	98,880 ...		3,951,549
Silver content fine oz.	298	152,332	470,177	11,487	5,745	70,906	22,442 ...		733,387
Bullion produced by amalga- mation crude oz.	10,047	59,897	323,133	17,549	...	118,160	55,651 ...		584,437
Bullion produced by cyanidation crude oz.	12	967,125	2,958,096	86,465	21,618	297,087	55,382 ...		4,225,725
Total Bullion Produced ... crude oz.	10,059	1,027,022	3,281,229	104,014	21,618	325,247	111,033 ...		4,880,222
Content of bullion bars pro- duced - Gold fine oz.	9,730	772,994	2,649,077	85,144	13,729	269,604	98,651 ...		3,898,999
Silver fine oz.	298	152,852	457,718	12,494	5,745	69,670	22,510 ...		(a) 721,287
Gold value (standard). \$	195,235	15,979,204	54,761,136	1,760,049	285,240	5,572,874	2,037,294 ...		80,591,022
Silver value \$	116	64,451	182,733	4,931	2,233	26,627	8,786 ...		289,277
Exchange premium on bullion bars produced \$	168,376	15,781,065	47,235,286	1,517,968	246,105	4,808,142	1,758,766 ...		69,515,708
Value of ores, concentrates, slags and residues sold (shipped) \$	(b) 6,498	1,588,442	2,293,291	1,300	190 (b)	6,222,176	55,429 840		10,168,166
TOTAL GROSS VALUE OF PRODUCTION \$	370,225	31,413,162	104,472,446	3,284,248	533,768	16,629,819	3,860,275 840 (A)		160,564,783
Value of fuel, electricity and process supplies used, also freight on shipments, market- ing, smelter and refining charges \$	78,726	6,590,401	17,328,806	535,268	189,858	3,041,919	860,903 ...		28,625,881
NET VALUE OF PRODUCTION ... \$	291,499	24,822,761	87,143,640	2,748,980	343,910	13,587,900	2,999,372 840 (A)		131,938,902

(A) Value of tungsten concentrates recovered from crude alluvial material treated at Ottawa by the Bureau of Mines (shipments from the Ottawa mill are recorded as production).

(a) In addition, there were 1,465,082 ounces of silver contained in concentrates, etc., shipped to smelters; see following table.

(b) Includes value of tungsten shipped from mines other than gold.

Table 40 - ORES, CONCENTRATES, SLAGS, ETC., SHIPPED TO SMELTERS FROM CANADIAN GOLD MINES, 1929-1942

	TO CANADIAN PLANTS						TO FOREIGN PLANTS					
	Ores		Concentrates		Slags, residues, precipitates		Ores		Concentrates		Slags, residues, precipitates	
	Tons	Gold content fine oz.	Tons	Gold content fine oz.	Tons	Gold content fine oz.	Tons	Gold content fine oz.	Tons	Gold content fine oz.	Tons	Gold content fine oz.
1929	27,278	14,327	268	305	1	24	90,871	82,996	2,370	3,638	6	304
1930	52,540	22,910	1,187	9,665	2	117	70,497	22,432	18,276	46,102	53	1,009
1931	51,579	21,756	3,120	16,805	12	1,505	24,244	11,870	20,271	48,743	47	1,306
1932	36,397	17,943	191	952	26	1,416	36,736	15,810	16,925	52,508	30	869
1933	30,096	14,882	490	1,349	55	6,279	3,292	2,203	29,111	76,601	34	1,392
1934	48,106	29,688	2,490	10,440	203	1,487	1,419	1,936	43,053	114,476	27	599
1935	18,239	7,008	7,045	35,958	58	6,231	1,242	2,840	46,050	90,167	25	11,310
1936	4,705	6,567	7,865	34,654	64	3,609	1,864	3,421	65,660	137,273	25	16,903
1937	37,126	9,649	6,981	21,865	130	2,060	2,516	8,108	62,987	163,781	74	912
1938	172,377	36,008	8,404	25,552	37	420	4,445	8,443	40,828	142,513	1,281	23,101
1939	271,666	47,114	7,747	24,184	797	4,507	3,853	8,930	39,530	112,126	235	26,631
1940	201,941	34,315	4,485	13,532	158	3,761	7,453	8,107	44,570	125,704	103	47,160
1941	202,943	38,380	1,628	7,492	369	4,444	7,453	11,222	43,855	122,619	115	56,183
1942	280,978	38,492	2,555	7,307	137	2,831	1,356	1,020	40,428	126,931	68	55,999
GRAND TOTAL	1,435,971	339,039	54,456	210,060	2,049	38,691	257,221	189,338	513,914	1,363,182	2,123	243,678

NOTE: In addition, other material contained in ores shipped by gold mines to Canadian plants in 1942 included: Silver, 56,358 fine ounces; copper, 394,087 pounds; lead, 98,404 pounds; zinc, 55,754 pounds; crude As_2O_3 , 5,291,796 pounds, and tungsten concentrates (data not published).

NOTE: In addition, other material contained in ore exported by gold mines in 1942 included: Silver, 1,408,724 fine ounces; copper, 939,333 pounds; lead, 3,142,701 pounds; tungsten concentrates, (data not published); 7,114,751 pounds arsenic in ore (not paid for) and 2,148,000 pounds crude As_2O_3 and 36,693 pounds cadmium.

Table 41 - CERTAIN DATA RELATING TO THE PRODUCTION OF GOLD BY PRODUCERS ONLY IN THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1931, 1939-1942

Year	Ounces of gold produced per wage-earner year	Cost of fuel and electricity per ounce of gold produced	Cost of wages per ounce of gold produced	Cost of explosives and other process supplies used per ounce of gold produced	Cost of freight and smelter-refinery treatment of ores and bullion shipped per ounce of gold produced	Total of specified costs
	Ounces	\$	\$	\$	\$	\$
1931	256	1.19	6.38	(x)	(x)	...
1939	164	1.76	10.25	4.33	0.67	17.01
1940	165	1.72	10.20	4.41	0.69	17.02
1941	158	1.79	11.37	4.46	0.77	18.39
1942	177	1.83	11.41	4.33	0.75	18.32

(x) Data not available.

Table 42 - PRINCIPAL STATISTICS RELATIVE TO ALL ONTARIO GOLD MINES BY AREAS (x), 1940-1942

Camp or district	Number of producers	Ore (x) treated	Total gold recovered	Average ounces per ton recovered	Employees	Salaries and wages paid	Cost of fuel, electricity and process supplies
		Tons	Fine oz.		No.	\$	\$
1940							
Porcupine	21	5,647,114	1,426,173	.25	9,107	16,101,444	8,021,747
Kirkland Lake	11	(c) 2,150,762	875,982	.41	4,719	8,665,327	4,072,510
Larder Lake	3	839,275	148,106	.18	872	1,589,845	1,403,020
Matachewan	2	550,280	60,501	.11	510	915,210	638,870
Sudbury	2	118,450	21,485	.18	290	505,040	197,197
Algoma	2	83,564	16,111	.19	205	308,748	151,042
Thunder Bay	12	825,012	266,946	.32	1,930	3,523,002	1,953,185
Rainy River and Kenora	8	50,113	14,970	.30	202	272,592	102,454
Patricia	14	(b) 1,477,078	337,175	.23	2,399	4,347,949	2,763,637
Eastern Ontario	1	26,526	3,108	.12	65	76,520	32,473
TOTAL	76	11,768,174	3,170,557	.27	20,299	36,305,677	19,335,985
1941							
Porcupine	21	5,974,447	1,439,148	.24	9,746	19,230,445	8,110,392
Kirkland Lake	12	(c) 1,900,481	743,123	.39	4,359	8,253,004	3,836,956
Larder Lake	4	1,124,221	205,766	.18	1,155	2,347,675	1,218,751
Matachewan	2	543,677	58,683	.11	521	999,239	662,812
Sudbury	4	148,119	23,420	.15	468	913,103	324,611
Algoma	3	89,432	11,565	.13	166	291,953	143,423
Thunder Bay	16	(a) 823,954	243,321	.29	1,883	3,611,904	1,930,980
Rainy River and Kenora	7	53,459	18,162	.34	231	381,904	157,196
Patricia	13	1,569,616	372,727	.24	2,490	4,799,957	2,797,612
Eastern Ontario	1	300	60	.20	8	5,052	3,400
TOTAL	83	12,227,706	3,115,975	.25	21,007	40,834,236	19,186,113
1942							
Porcupine	20	5,624,554	1,308,291	.23	8,499	18,209,637	7,501,441
Kirkland Lake	10	1,309,361	543,284	.41	2,946	6,028,485	2,812,489
Larder Lake	4	1,166,209	214,751	.18	1,057	2,119,060	1,033,205
Matachewan	2	611,982	59,085	.10	392	810,796	621,333
Sudbury	2	200,011	33,414	.17	339	687,691	269,285
Algoma	3	52,125	8,804	.16	98	197,350	94,896
Thunder Bay	10	662,816	218,430	.24	1,366	3,061,671	1,790,286
Rainy River and Kenora	5	36,449	12,039	.25	125	243,690	93,548
Patricia	11	987,697	294,103	.23	1,754	3,721,469	1,760,838
Eastern Ontario .....	..	...	...	...	...	...	...
TOTAL	67	10,651,204	2,692,201	.24	16,576	35,079,849	15,977,123

(a) In addition, 588 tons tailings were treated.

(b) In addition, 36,794 tons tailings were retreated.

(c) In addition, 143,168 tons tailings were retreated in 1940; 407,823 tons in 1941, and 5,176 tons in 1942.

(x) Includes data for all active properties.

(x) Does not include low-grade discarded by sorting, but includes ore milled or smelted.

Table 43 - MILLING CAPACITY OF PRODUCING CANADIAN GOLD MINES, 1935-1942 (Tons of 2,000 pounds per 24 hours)

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskat- chewan	British Columbia	Northwest Territories
1935	292	3,368	20,921	1,465	...	2,990	...
1936	713	4,514	22,639	1,000	...	4,120	...
1937	565	6,090	25,249	975	30	3,915	...
1938	542	8,217	30,097	875	1,000	4,590	...
1939	562	9,580	33,324	865	1,000	4,417	...
1940	450	11,215	35,030	690	1,200	4,255	275
1941	319	12,654	37,416	990	1,355	4,510	510
1942	247	14,330	36,135	903	1,202	4,303	710

Table 44 - ORES MINED AND TREATED BY AURIFEROUS QUARTZ MINING INDUSTRY, FOR YEARS SPECIFIED

Year	Ore hoisted tons	Ore milled(c) tons	Crude ore shipped to smelters(d) tons	Low grade sorted out tons	Tailings retreated tons	Gold re- covered as bullion(b) fine oz.	Gold in crude ore shipped fine oz.	Gold in concen- trates, slag, etc., shipped fine oz.
1925 ...	3,646,460	3,527,021	118,436 (f)	(a)	48,475	1,482,294	97,011	34,131
1930 ...	4,472,803	4,306,869	123,037	(a)	37,095	1,782,556	45,342	56,893
1935 ...	8,832,901	8,888,129	19,481	(a)	57,798	2,492,145	9,848	143,666
1936 ...	10,694,208	10,504,181	6,569	(a)	33,814	2,903,063	9,988	192,439
1937 ...	12,398,489	11,880,323	39,642	457,622	97,710	3,283,795	17,757	188,618
1938 ...	14,749,649	14,158,555	176,822	528,696	64,926	3,810,642	44,451	191,586
1939 ...	17,105,744	16,150,173	275,519	660,578	18,426	4,160,352	56,044	167,448
1940 ...	18,936,306	18,083,439	209,394	757,538	180,511	4,336,673	42,422	190,157
1941 ...	20,051,736	19,026,273	210,396	956,003	480,239	4,405,986	49,602	190,738(d)
1942 ...	17,722,966	16,820,442	282,334	658,439	5,176	3,898,999	39,512	193,068(d)

(a) Not available.

(b) Content of bullion shipped 1925-1935; 1936-1941 content of bullion produced.

(f) In addition, a relatively small tonnage of unclassified ores was shipped.

(c) + (d) = total crude ore treated (not including sorted material).

(d) Gold in material shipped by gold mines to other gold mines for treatment is included under bullion.

Table 45 - GOLD CONTENT OF BULLION, ORES, CONCENTRATES, ETC., SHIPPED AND ORE MILLED BY AURIFEROUS QUARTZ MINES IN CANADA, WITH AVERAGE PRICE OF GOLD IN CANADIAN FUNDS, 1929-1942

Year	Tonnage treated (x)	Gold content fine oz. (f)	Oz. of fine gold per ton	Average price of gold \$
1929	4,371,143	1,771,528	.41	20.67
1930	4,429,906	1,884,791	.43	20.67
1931	5,526,379	2,271,278	.41	21.55
1932	5,997,492	2,502,327	.42	23.47
1933	6,480,164	2,455,365	.33	28.60
1934	7,524,803	2,490,513	.33	34.50
1935	8,907,610	2,645,659	.30	35.19
1936	10,510,750	3,095,427	.29	35.03
1937	11,919,965(a)	3,490,170	.29	34.99
1938	14,335,377(a)	4,046,679	.28	35.17
1939	16,425,692(a)	4,383,844	.27	36.14
1940	18,292,833(a)	4,619,252	.25	38.50
1941	19,236,689(a)	4,646,326	.24	38.50
1942	17,102,776(a)	4,131,579	.24	38.50

(x) Does not include tailings retreated, but includes ore milled plus crude ore shipped to smelters.

(f) Relatively small quantity of gold contained in concentrates, slags, etc., shipped and in cyanide solution in circuit may have originated in ores treated during the previous year; from 1937 represents metal content of total bullion produced plus metal in ores or concentrates shipped to smelters.

(a) Material discarded by sorting not included.

Table 46 - SPECIFIED COSTS PER TON OF ORE MILLED AT CERTAIN OF THE PRINCIPAL AURIFEROUS QUARTZ MINES IN CANADA, 1942

Name of Mine	Development and exploration (a)	Mining	Milling	General (b)	Total Cost Per Ton (c)	
					1942	1941
	\$	\$	\$	\$	\$	\$
<u>QUEBEC</u>						
Beattie Gold Mines Ltd.	0.270	0.676	1.018	0.381	2.345	2.354
Belleterre Quebec Mines Ltd.	1.697	3.696	1.250	1.949	8.592	7.825
Central Cadillac Mines Ltd.	1.065	3.180	1.285	1.117	6.647	(h)
Courmor Mining Co. Limited	1.533	3.721	1.034	0.360	6.648	(h)
Francoeur Gold Mines Ltd.	0.24	2.15	1.42	1.03	4.84	3.886
Lamaque Mining Co. Ltd.	0.95	2.43	0.71	2.64	6.71	5.215
Lapa Cadillac Gold Mines Ltd.	0.702	2.762	1.216	0.733	5.413	4.266
Malartic Gold Fields Ltd.	1.056	2.862	0.773	0.743	5.434	4.545
McWatters Gold Mines Ltd.	0.41	3.03	1.46	0.93	5.83(d)	6.646
O'Brien Gold Mines Ltd.	1.71	4.27	1.49	1.40	8.87	7.07
Pandora Limited (e)	0.43	3.10	1.11	0.68	5.37	5.012
Perron Gold Mines Ltd.	2.015	3.512	1.012	0.974	7.513	7.347
Powell Rouyn Gold Mines Ltd. (f)	0.43	1.81	0.94	0.37	3.55	3.31(g)
Senator-Rouyn Ltd.	0.81	1.49	1.00	1.31	4.61	5.64
Sigma Mines (Quebec) Ltd.	0.595	2.291	0.566	0.242	3.694	4.428
Siscoe Gold Mines Ltd.	0.49	1.74	0.86	0.66	3.75	4.37
Sladen Malartic Mines Ltd.	0.63	1.33	0.68	0.69	3.33	2.71
<u>ONTARIO</u>						
<u>Porcupine District</u>						
Bonetat Gold Mines Ltd.	1.14	1.99	1.52	0.31(i)	4.96	...
Broulan Porcupine Mines Ltd.	0.37	2.39	0.75	0.37	3.87	3.78
Buffalo Ankerite Gold Mines Ltd.	0.66	2.88	0.74	0.96	5.24	(h)
Coniaurum Mines Ltd.	1.96	3.45	0.79	1.46	7.66	7.30
Dome Mines Ltd.	0.956	1.843	0.979	3.116	6.894	7.193
Faymar Porcupine Gold Mines Ltd. (j)	0.186	1.931	1.506	0.496	4.019	(h)
Hollinger Cons. Gold Mines Ltd. (Hollinger)	1.1049	3.0168	0.6622	1.8965	6.6824	6.5168
Hollinger Cons. Gold Mines Ltd. (Rosa)	0.1361	2.2763	1.7437	1.3290	5.4851	6.3125
Hoyle Gold Mines Ltd.	0.13	1.67	0.95	0.67	3.42	(h)
McIntyre Porcupine Mines Ltd.	0.669	4.062	0.970	1.887	7.488	7.375
Pamour Porcupine Mines Ltd.	0.43	1.05	0.57	0.30	2.35	2.80
Paymaster Cons. Mines Ltd.	1.15	3.17	1.14	0.50	5.96	6.62
Preston East Dome Mines Ltd.	1.1483	3.0622	0.7955	0.7911	5.7871	(h)
<u>Kirkland Lake District</u>						
Bidgood Kirkland Gold Mines Ltd.	1.61	4.79	1.53	1.16	9.09	10.48
Golden Gate Mining Co. Ltd. (k)	1.77	3.31	2.13	1.67	8.88	9.58
Kirkland Lake Gold Mining Co. Ltd.	1.43	4.61	1.31	3.08	10.43	8.40
Macassa Mines Ltd.	0.87	3.64	1.25	4.15	9.91	10.07
Teck-Hughes Gold Mines Ltd. ....	...	3.82(1)	1.35	2.36	7.53	7.53
Toburn Gold Mines Ltd.	2.26	4.09	2.87	(h)	(h)	9.70
Upper Canada Mines Ltd.	1.44	4.04	0.99	3.04	9.51	9.05
Wright Hargreaves Mines Ltd. ....	...	4.799	1.282	5.024	11.105	10.731
<u>Larder Lake District</u>						
Chesterville Larder Lake Gold Mining Co. Ltd.	0.451	1.434	0.841	0.467	3.193	3.36
Kerr Addison Gold Mines Ltd.	0.636	1.330	0.656	0.367	2.989	4.08
Omega Gold Mines Ltd.	0.679	2.716	1.258	0.126	4.779	4.291
Yama Gold Mines Ltd.	(h)	(h)	(h)	(h)	(h)	11.25
<u>Matachewan and Sudbury Districts</u>						
Hollinger Cons. Gold Mines Ltd. (Young-Davidson)	0.1142	1.2170	0.8112	1.0494	3.1918	3.0813
Jerome Gold Mines Ltd.	0.233	2.518	0.921	0.928	4.500	4.302
Matachewan Cons. Mines Ltd.	0.134	1.225	0.712	0.355	2.426	3.601

Table 46 - SPECIFIED COSTS PER TON OF ORE MILLED AT CERTAIN OF THE PRINCIPAL AURIFEROUS QUARTZ MINES IN CANADA, 1942 (Concluded)

Name of Mine	Development and exploration (a)	Mining	Milling	General (b)	Total Cost Per Ton (c)	
					1942	1941
	\$	\$	\$	\$	\$	\$
<u>ONTARIO (Concluded)</u>						
<u>Thunder Bay and Kenora Districts</u>						
Bankfield Consolidated Mines Ltd. (m)	0.0428	2.1760	1.4655	0.8563	4.5206	7.0192
Leitch Gold Mines Ltd.	3.77	7.08	2.44	(h)	(h)	18.73
MacLeod-Cockshutt Gold Mines Ltd.	1.0417	2.9323	1.6515	2.1211	7.7466	6.8268
Wendigo Gold Mines Ltd. (f)	1.37	4.36	2.39	1.29	9.41	9.34
<u>Patricia District</u>						
Central Patricia Gold Mines Ltd.	1.53	3.15	1.17	1.08	6.93	8.51
Hasaga Gold Mines Ltd.	0.38	1.4060	0.8321	1.2469	3.865	(h)
Jason Mines Ltd. (n)	1.874	4.941	1.682	1.636	10.133	9.389
McKenzie Red Lake Gold Mines Ltd.	0.99	3.38	1.21	1.00	6.58	6.77
McMarnac Red Lake Gold Mines Ltd.	1.760	2.700	1.780	1.684	7.924	(h)
Pickle Crow Gold Mines Ltd.	0.94	4.07	1.08	1.43	8.52	(h)
Uchi Gold Mines Ltd.	0.554	2.825	0.999	0.404	4.782	(h)
<u>MANITOBA AND SASKATCHEWAN</u>						
God's Lake Gold Mines Ltd.	1.85	2.43	1.56	1.80	7.64	9.21
Cons. Mining & Smelting Co. of Canada Ltd. (Box)	(h)	(h)	(h)	(h)	(h)	(h)
<u>NORTHWEST TERRITORIES</u>						
Con Mine						
Rycon Mines Ltd.						
Nagus Mines Ltd.	(h)	(h)	(h)	(h)	(h)	(h)
Thompson-Lundmark Gold Mines Ltd.						
Ruth Mine						
Ptarmigan Mines Ltd.						
<u>BRITISH COLUMBIA</u>						
Bayonne Cons. Mines Ltd.	1.89	5.72	3.25	1.88	12.74	12.27
Bralorne Mines Ltd. (f)	1.02	3.16	0.77	1.52	6.47	7.34
Buena Vista Mining Co. Ltd. (p)	0.03	0.87	1.08	...	1.98	2.28
Buccaneer Mines Ltd. (v)	(h)	(h)	(h)	(h)	(h)	(h)
Cariboo Gold Quartz Mining Co. Ltd.	1.51	6.94	1.62	0.84	10.91	9.551
Gold Belt Mining Co. Ltd.	0.75	2.16	1.49	0.84	5.24	8.30
Hedley Mascot Gold Mines Ltd. (f)	0.57	2.40	2.16	3.31	8.44	7.74
Island Mountain Mines Co. Ltd.	2.88	4.38	2.23	2.25	11.74	9.37
Kootenay Belle Gold Mines Ltd. (q)	0.18	4.03	1.46	2.08	7.75	11.89
Livingstone Mining Co. Ltd. ....	...	7.50	4.50(r)	3.00	15.00	19.50
Musketeer Mines Ltd. (s)	1.40	2.73	2.49	2.05	8.67	(h)
Mount Zeballos Gold Mines Ltd. (f)(t)	2.02	4.22	3.01	4.50	13.75	13.52
Privateer Mine Ltd.	3.25	3.45	1.48	5.35	13.51	19.17
Pioneer Gold Mines of B.C. Ltd.	1.000	4.358	1.300	3.516	10.174	10.817
Sheep Creek Gold Mines Ltd.	0.665	3.137	1.602	1.079	6.495	7.434
Spud Valley Gold Mines Ltd. (u) (f)	0.584	5.587	2.369	2.881	11.421	12.91
Surf Inlet Cons. Gold Mines Ltd. (w)	3.00	3.48	1.56	5.24	13.28	8.08

(a) Exclusive of outside exploration.

(b) Marketing, head office, taxes, etc.

(c) Depreciation not included.

(d) Exclusive taxes and head office.

(e) Closed down August 31.

(f) Produced bullion and also shipped ore or concentrates to smelter.

(g) Exclusive of taxes.

(h) Not available for publication.

(i) Milled at Broulan mine.

(j) Closed down May 31.

(k) Closed down April 30.

(l) Includes development

(m) Closed down August 31.

(n) Closed down October 15.

(o) Closed down August 31.

(p) Closed down April 5.

(q) Milling ceased November 28.

(r) Smelting and cartage—all crude ore smelted.

(s) Closed down July 23.

(t) Closed down April 30.

(u) Closed down June 30.

(v) Closed down August 11.

(w) Shipped to smelter.

THE COPPER-GOLD-SILVER MINING INDUSTRY, 1942

The mining of "copper-gold-silver" ores in Canada during 1942 was confined to the provinces of Quebec, Manitoba, Saskatchewan and British Columbia. It is to be noted that in addition to the copper recovered from ores of this type there is a very large and increasing quantity of the metal obtained in the smelting and refining of the copper-nickel ores mined in the Sudbury area of Ontario; increasing quantities of gold and silver are also being extracted from these copper-nickel ores. General statistics relating to labour, etc., in the nickel-copper industry are not included in this report.

The mining of copper-gold-silver ores, particularly in Western Canada, was adversely affected in 1942 by a shortage of skilled labour resulting largely from the enlistment of personnel in the armed forces.

Mining operations conducted on Canadian copper-gold-silver deposits during 1942 were reported by 26 firms compared with 21 in 1941. The gross value of crude ore, concentrates, etc., shipped in 1942 from the mines and mills to smelters was estimated at \$69,147,790; the cost of fuel, purchased electricity, process supplies, freight and smelter treatment totalled \$35,459,148 and the net value of shipments was estimated at \$33,688,642.

The gross value of ores shipped by firms which both mine and smelt their own ores is often not reported. This necessitates considerable estimating in determining gross and net values for mine shipments. However, errors or possible incongruities resulting from this are largely compensated for in determining the value added at the smelters and refineries. This added value is credited to the non-ferrous smelting and refining industry and is also included in the total net value of production of the entire Canadian mining industry. This fact should be noted in making any statistical study of the annual production values shown for shipments from copper-gold-silver mines.

The statistics as herein shown under the copper-gold-silver mining industry refer only to mines and mills and are not inclusive of data pertaining to the operation of smelters and refineries. Statistics relating to the reduction of non-ferrous ores are recorded under the non-ferrous smelting and refining industry.

QUEBEC - Noranda Mines Ltd. reported that production at the Horne mine in 1942 was at full capacity as permitted by sound and safe mining practice and limitations of the capacity of the smelter and of the customs refinery operated by its subsidiary Canadian Copper Refiners Limited. The estimated copper and gold content of the ore indicated above the 2,975 foot level, as of January 1, 1943, is sufficient to maintain production of those metals for fifteen years at the 1942 rate of production.

Waite Amulet Mines Ltd., in its annual report, stated that the concentrator has, for the second time, been increased by adding another 300 ton extension. This last increase became effective on February 1, 1943, raising the capacity of the concentrator to 1,800 tons per day. This additional capacity will be utilized principally for the production of zinc concentrate for shipment to smelters in the United States. Currently, approximately 1,200 tons of ore are being extracted from the Amulet Dufault lower "A" orebody owned by the company's subsidiary, Amulet Dufault Mines Ltd., 300 tons from the Waite mine and 300 tons from the "C" orebody in the Amulet section. Surface drilling at the Waite mine exhausted all known favourable possibilities of finding more ore in the immediate vicinity of the open pit and of the known orebodies. Further drilling will be necessary to trace the downward extension of the mineralized zone on the 12th level. Exploratory drilling of the "C" orebody was started underground in August to determine the limits of the ore for mining purposes. An estimated 15,000 tons of copper, high zinc ore was added to the ore reserves. There are indications that the "C" orebody will give an increased tonnage of zinc-bearing ore. In the Amulet Dufault section all of the 6,000 feet of exploratory diamond drilling completed during the year was used to check on irregularities in the Lower "A" orebody contact. A total of 212,038 tons was added to the Lower "A" orebody reserves. Two new stopes were brought into production during the year. One stope will supply high copper, low zinc ore and the other will supply low copper, high zinc ore.

Normetal Mining Corporation Limited, in its 1942 annual report, stated that the plant extension, on which construction was started in 1941, was put in operation, and as a result tonnage treated was the highest in the mine's history. The total production of copper and zinc concentrates was shipped, the copper to Noranda smelter, the zinc to smelters in the United States. Of the total tonnage of ore broken, 23.5 per cent was supplied by development and stope preparatory work, 37.5 per cent by sub-level stopes, and 39 per cent by fill stopes. Although no new levels were opened up during the year, ore reserves calculated to the 2,000 foot level declined by only 10 per cent as compared with the reserve at the end of 1941. Ore added during the year included that developed on levels partially opened up previously, zinc ore in No. 5 orebody now considered as mineable, and overbreak beyond previously estimated limits. The average grade of copper in the total reserve was substantially the same as that of the previous year, while grade of zinc increased by approximately 30 per cent. Operating cost at \$4.90 per ton milled was 78 cents per ton higher than in

1941. A shortage of men prevailed throughout the year, to an extent to interfere with required development work, and at times even responsible for a reduction in output.

Aldermac Copper Corp. Ltd., operated continuously throughout 1942. Copper concentrates were shipped to the Noranda smelter while the greater part of the iron pyrites output was exported to the United States. It was reported early in 1943 that ore reserves were very limited and that the company was now interested in the exploration and development of a recently discovered copper-bearing deposit located near Lennoxville in the south-eastern part of the province.

MANITOBA AND SASKATCHEWAN - The Hudson Bay Mining and Smelting Co. Ltd. reported that all the ore milled during 1942 was hoisted from underground, 56 per cent coming through the north main shaft, and 44 per cent through the south main shaft. Production of copper, zinc, gold and silver was the highest on record for any year. The tonnage of ore mined and hoisted from underground was the largest on record. Work in the open pit was confined to the mining of former railroad bermes or benches and floor pillars. The year's production of slab zinc was an all-time high. The capacity of the copper smelter was further increased during the year. Contracts for the sale of copper and zinc, at substantially pre-war prices, entered into originally in 1939 with the British Ministry of Supply, were extended without change for another year and a similar arrangement arrived at with the Canadian Government. Emergency Metals Limited, a wholly owned subsidiary, was formed to mine and mill, as a war measure, the remaining portion of an ore body developed through the old Mandy shaft, located approximately four miles southeast of the company's main operations and metallurgical plants. The average number of employees at Flin Flon during 1942 was 2,069; the labour shortage during part of the year was such that underground development work had to be drastically cut down; women are now being employed on various types of work in the metallurgical and other surface plants and over 200 farmers worked for the company during the winter.

Sherritt Gordon Mines, Limited, reported that although the tonnage treated in the mill during 1942 constituted a record, the output of copper was slightly below that of the preceding year, due to lower grade of mill feed. Costs per ton of ore milled (\$2.547 cost of concentrate at Sherridon) were practically the same as in the previous year but costs per pound of copper produced showed an increase, for the reason given above (5.750 cents per pound in concentrate—Sherridon). Production from the East mine was resumed in the spring and continued on an increased scale throughout the year, by which time a substantial proportion of the entire output was coming from this zinc reserve. Little new ore was found during the year, but in various parts of the mine stopes yielded considerably greater tonnage than was expected. Copper concentrates continued to be smelted at Flin Flon and zinc concentrates were shipped to the Metals Reserve Company in United States. In October the National Selective Service started sending in Saskatchewan farmers for winter work.

BRITISH COLUMBIA - At Mt. Sicker, in the Chemainus district of the Victoria Mining Division, development work was conducted on a copper-zinc bearing deposit by Twin "J" Mines Limited, a subsidiary of Jason Mines Limited. Operations included diamond drilling and construction of a mill.

Britannia Mining & Smelting Co. Limited carried on mining and milling operations at Britannia Beach throughout the entire year. Copper concentrates were exported to the United States and iron pyrites shipments went to both Canadian and United States firms. The company reported that a reduction of approximately 50 per cent in the scale of operations became necessary due to an acute labour shortage. Late in 1942, in cooperation with the Dominion Employment Service, a considerable number of men were obtained, making possible a slight increase in production. To meet the situation a contract was arranged with Wartime Metals Corporation, a company wholly owned by the Canadian Government, under the terms of which all Britannia products are sold for their account and the company guaranteed against loss and allowed a small profit. Exploratory work below the main haulage adit continued to producing encouraging results.

At Copper Mountain the mill and mine of the Granby Consolidated Mining, Smelting & Power Co. Ltd. were operated throughout the year. Copper concentrates were shipped to Tacoma, Wash., for smelting. Labour shortages were experienced and it was reported that the company completed an agreement with the Canadian Government to cooperate in increasing production.

Operations conducted at Anyox in 1942 by Anyox Metals Ltd., consisted solely of diamond drilling, experimental work and camp rehabilitation. The camp was completely razed by fire on July 1.

WARTIME MINE SHOP ASSOCIATION

Prepared by: Oliver Hall, Chairman,
Wartime Mine Shop Association

The work of the Wartime Mine Shop Association has gone steadily on throughout 1942. Orders at the end of 1941 totalled about two million dollars. These orders were largely for engines and pumps for the merchant ships and for units of gun contracts.

These orders were nearly all completed in 1942 and early 1945.

New orders have been taken and the war work in the mine shops is now on a steady basis and totals a large amount per year.

The war pressure on the base metal mines has increased the repair work in their shops and limited the amount of war manufacturing that they can do. The major gold camps, Porcupine and Kirkland Lake, have increased their shops, purchased new equipment and perfected their organization for war work.

Table 47 - PRINCIPAL STATISTICS(1) OF THE COPPER-GOLD-SILVER MINING INDUSTRY IN CANADA, FOR SPECIFIED YEARS

Year	No. of active opera- tors(x)	No. of operating plants or mines (x)	Capital employed (x) \$	(x) Number of em- ployees	Salaries and wages (x) \$	(x) Cost of fuel and electricity \$	Value of ores and concen- trates shipped by mines \$
1923	14	14	19,108,072	1,790	5,004,292	534,696	4,561,486
1929	144	152	52,548,697	5,243	8,498,755	1,055,133	21,859,907
1935	16	18	58,461,682	5,430	5,040,196	554,152	13,243,163
1936	19	21	40,752,717	5,738	5,475,325	495,843	15,619,897
1937	28	51	75,338,258	5,164	8,240,614	901,088	24,902,851
1938	37	59	65,416,729	5,577	8,921,465	1,100,284	28,795,492
1939	28	50	58,867,620	6,083	9,920,591	1,223,523	26,182,577
1940	25	26	60,446,948	6,115	10,777,827	1,297,454	25,804,419
1941	21	22	81,521,902	5,866	10,695,023	1,264,567	30,220,551
1942	26	26	84,776,243	5,646	11,097,412	1,358,737	35,688,642

(x) Not including data relating to Rossland properties leased by Consolidated Mining & Smelting Co. of Canada, Ltd.

(1) Data relating to idle mines and smelters not included.

NOTE: The cost of fuel, purchased electricity and process supplies was deducted beginning 1935; however, values for all years are less freight and estimated treatment charges. Also, value of ores and concentrates shipped from mines to smelters operated by the same companies are often of a nominal or conjectural nature.

Table 48 - DETAILS OF FUEL AND ELECTRICITY USED IN THE COPPER-GOLD-SILVER MINING INDUSTRY, 1941 and 1942

Kind	Unit of measure	1 9 4 1		1 9 4 2	
		Quantity	Cost at plant \$	Quantity	Cost at plant \$
Bituminous coal (a) From Canadian mines	short ton	13,275	123,399	16,779	113,462
(b) Imported	short ton	...	...	2,127	22,585
Anthracite coal (a) From United States	short ton	152	5,763	94	2,063
(b) Other	short ton	...	...	66	1,544
Lignite coal	short ton	82,445	176,155	82,109	204,058
Coke (for fuel only)	short ton	101	2,110	523	7,767
Gasoline	Imp. gal.	75,578	24,542	71,734	24,801
Kerosene or coal oil	Imp. gal.	7,141	1,799	7,643	1,951
Fuel oil and diesel oil	Imp. gal.	859,179	84,331	945,156	104,851
Wood (cords of 128 cu.ft. of piled wood) ...	cord	1,370	6,118	677	4,187
Other fuel .....	...	...	669	...	948
Electricity purchased, including service charges	K. W. H.	251,488,789	841,681	259,348,497	850,740
TOTAL .....	...	...	1,264,567	...	1,358,737
Electricity generated for own use	K. W. H.	115,245,642	...	86,704,181	...
Process supplies consumed (explosives, etc.)	...	...	5,505,955	...	5,703,455
GRAND TOTAL VALUE OF FUEL AND PROCESS SUPPLIES CONSUMED .....	...	...	6,770,522	...	7,042,192

Table 49 - POWER EQUIPMENT (Including stand-by or emergency equipment) IN THE COPPER-GOLD-SILVER MINING INDUSTRY IN CANADA, 1942

Description	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total horse power	Number of units	Total horse power
1. Steam engines and steam turbines	2	17,333	7	12,708
2. Diesel engines	12	3,585	2	450
3. Gasoline, gas and oil engines, other than Diesel engines	3	127	2	345
4. Hydraulic turbines or water wheels	8	11,200	4	7,950
5. Electric motors - (Except those reported under Item 7):				
(a) - Operated by purchased power	2,419	101,012	154	3,090
Total (1), (2), (3), (4) and (5a)	2,443	133,257	169	24,543
(b) Operated by power generated by 1, 2, 3 and 4	769	21,724	58	3,464
6. Stationary boilers	30	6,199	15	1,334
7. Motor generator sets	96	11,291	11	2,374

Table 50 - WAGE-EARNERS, BY MONTHS, IN THE COPPER-GOLD-SILVER MINING INDUSTRY IN CANADA, 1931, 1939-1942

Month	1931	1939	1940	1941	1942
January	3,198	5,279	5,681	5,280	5,320
February	3,098	5,307	5,639	5,307	5,268
March	3,142	5,290	5,537	5,311	5,058
April	3,063	5,489	5,616	5,348	4,957
May	3,089	5,652	5,742	5,468	4,895
June	3,139	5,625	5,808	5,375	4,946
July	3,099	5,727	5,825	5,352	4,917
August	3,139	5,683	5,633	5,266	4,745
September	3,094	5,711	5,605	5,300	4,689
October	3,123	5,744	5,536	5,303	4,870
November	3,139	5,805	5,460	5,369	5,169
December	3,106	5,679	5,355	5,353	5,310

Table 51 - CLASSIFICATION OF WAGE-EARNERS EMPLOYED IN THE COPPER-GOLD-SILVER MINING INDUSTRY(x), 1932-1942

Year	Surface	Underground	Mill	TOTAL
1932	773	1,719	441	2,933
1933	610	1,671	401	2,682
1934	747	1,874	344	2,965
1935	999	1,721	474	3,194
1936	1,323	1,735	354	3,412
1937	1,617	2,417	768	4,702
1938	1,543	2,891	710	5,144
1939	1,763	3,075	749	5,587
1940	1,773	3,111	739	5,623
1941	1,760	2,864	712	5,336
1942	1,613	2,676	727	5,016

(x) Smelter employees not included.

Table 52 - NUMBER OF WAGE-EARNERS WHO WORKED THE NUMBER OF HOURS SPECIFIED, DURING ONE WEEK IN MONTH OF HIGHEST EMPLOYMENT (Includes overtime)

30 hours or less	31-43 hours	44 hours	45-47 hours	48 hours	49-50 hours	51-54 hours	55 hours	56-64 hours	65 hours and over	Grand Total	Total wages paid in that week (x)
225	306	186	99	3,481	125	638	86	528	130	5,804	\$ 216,838

(x) Includes the actual money wages paid, the value of room and board, where provided, deductions from employees for income tax and for social services, such as, sickness, accident, insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. (Includes payments for overtime).

Table 53 - SHIPMENTS FROM COPPER-GOLD-SILVER MINES OF CANADA, 1941 and 1942

	Quantity	Value	Total Metal Content as determined by settlement assay				
	tons	\$	Gold fine oz.	Silver fine oz.	Copper pounds	Sulphur tons	Zinc pounds
<u>1 9 4 1</u>							
11 mines shipped to Canadian plants (a) -							
Ores	865,921	8,451,805	159,647	320,994	22,516,954	...	...
Copper concentrates	828,622	36,246,634	296,302	4,282,053	240,003,806	...	3,158,594
Zinc concentrates	135,582	3,611,904	6,263	212,115	1,246,645	...	125,006,638
Iron pyrites concentrates ..	94,818	184,020	...	...	...	45,446	...
Slags, residues and gold precipitates	189	1,158,147	28,893	113,299	162,553	...	68,337
10 mines shipped to foreign plants -							
Ores	21	234	5	72	865	...	...
Copper concentrates (✓)	145,549	9,564,563	49,802	430,563	68,313,890	...	...
Zinc concentrates	51,983	4,515,184	471	47,051	397,450	...	57,515,573
Iron pyrites concentrates ..	208,542	1,096,582	...	...	...	103,762	...
TOTAL	2,331,227	64,829,073(c)	541,383	5,406,147	332,642,163	149,208	185,729,142
Value of process supplies, etc. (b) .....	...	34,608,742	...	...	...	...	...
NET VALUE .....	...	30,220,331	...	...	...	...	...
<u>1 9 4 2</u>							
12 mines shipped to Canadian plants (a) -							
Ores	760,973	8,771,329	146,412	318,805		...	...
Copper concentrates	816,793	38,161,711	342,995	4,700,629		...	...
Zinc concentrates	172,519	4,613,158	11,424	293,259		...	...
Iron pyrites concentrates ..	69,014	132,063	...	...		32,580	...
Slags, residues, bullion, and gold precipitates	193	1,440,349	35,146	227,776	(d)	...	(d)
8 mines shipped to foreign plants -							
Ores .....	...	...	...	...		...	...
Copper concentrates (✓)	101,752	7,273,864	19,892	273,187		...	...
Zinc concentrates	92,135	7,453,208	...	...		...	...
Iron pyrites concentrates ..	310,479	1,302,108	...	...		150,199	...
TOTAL	2,323,858	69,147,790	555,869	5,813,666		182,779	...
Value of process supplies, etc. (b) .....	...	35,459,148	...	...		...	...
NET VALUE .....	...	33,688,642	...	...		...	...

(✓) Includes some copper precipitate.

(a) Certain mines operated in the Rossland area by leasers in 1941 and 1942 treated, statistically, as one mine.

(b) Includes freight on ore shipments, smelter charges and fuel and purchased electricity.

(c) Gross value (see Footnote to Table 47).

(d) Not shown for 1942.

Table 54 - SPECIFIED DATA RELATING TO THE COPPER-GOLD-SILVER MINING INDUSTRY, 1929-1940(x)

Year	Wage- earners No.	Wages paid \$	Salaried employees No.	Salaries paid \$	Total Salaries and wages \$
<u>Producing mines -</u>					
1929	3,036	5,465,871	174	462,268	5,928,139
1930	4,634	7,394,741	195	536,492	7,931,223
1931	2,901	4,140,890	160	465,603	4,606,493
1932	2,900	3,392,322	131	328,079	3,720,401
1933	2,590	3,550,417	123	275,650	3,826,067
1934	2,878	4,357,517	168	413,127	4,770,644
1935	2,946	4,144,095	207	473,988	4,618,083
1936	3,328	4,608,774	308	708,200	5,316,974
1937	4,618	7,019,595	436	1,058,082	8,077,677
1938	5,051	7,694,141	418	1,075,014	8,769,155
1939	5,401	8,498,360	470	1,126,561	9,624,921
1940	5,605	9,434,060	479	1,313,509	10,747,569
TOTAL .....	...	69,700,783	...	8,236,563	77,937,346
<u>Non-producing mines-</u>					
1929	1,777	2,132,279	256	438,337	2,570,616
1930	775	1,037,743	90	187,793	1,225,536
1931	224	256,204	66	95,620	351,824
1932	33	27,439	12	22,787	50,226
1933	92	81,998	36	30,713	112,711
1934	87	65,485	36	33,672	99,157
1935	248	367,685	29	54,428	422,113
1936	84	119,084	18	37,267	156,351
1937	84	126,155	26	36,782	162,937
1938	93	129,246	15	23,064	152,310
1939	186	256,999	26	38,671	295,670
1940	18	18,746	13	11,512	30,258
TOTAL .....	...	4,618,063	...	1,010,646	5,629,709

(x) Not including smelters or refineries.

Table 55 - CONTENT(%) OF ORES, CONCENTRATES, ETC., SHIPPED FROM COPPER-GOLD-SILVER MINES, 1929-1940

		Content (%)				
	Tons net	Gold fine oz.	Silver fine oz.	Copper pounds	Zinc pounds	Sulphur tons
<u>TO CANADIAN SMELTERS</u>						
1929 -						
Copper ore	570,791	67,008	432,951	57,063,264	...	...
Copper concentrates (x) ...	117,744	9,914	227,113	35,814,481	...	...
Zinc concentrates .....	...	...	...	...	...	...
Pyrites .....	...	...	...	...	...	...
1930 -						
Copper ore	724,966	109,043	437,034	70,487,335	1,748,920	...
Copper concentrates	172,772	39,583	659,875	46,921,698	...	...
Zinc concentrates	20,800	2,870	52,950	767,000	13,478,000	...
Pyrites .....	...	...	...	...	...	...
1931 -						
Copper ore	1,726,712	309,765	1,522,200	96,789,535	47,835,966	...
Copper concentrates	177,211	54,337	475,920	62,557,732	...	...
Zinc concentrates	63,828	5,808	126,379	1,928,000	35,056,199	...
Pyrites .....	...	...	...	...	...	...
1932 -						
Copper ore	850,451	314,784	564,983	51,905,534	...	...
Copper concentrates	451,063	117,783	1,288,360	110,256,022	...	...
Zinc concentrates	76,507	7,535	157,843	2,181,377	68,258,142	...
Pyrites	3,465	...	...	...	...	598
1933 -						
Copper ore	867,789	223,494	328,918	39,561,914	...	...
Copper concentrates	495,305	156,924	1,463,446	107,886,584	...	...
Zinc concentrates	80,780	...	...	...	55,938,867	...
Pyrites .....	...	...	...	...	...	...
1934 -						
Copper ore	868,467	162,797	282,391	33,173,070	...	...
Copper concentrates	553,515	194,664	1,918,638	120,185,486	...	...
Zinc concentrates	76,149	5,417	144,559	1,324,297	69,331,636	...
Pyrites	1,199	...	...	...	...	595
1935 -						
Copper ore	900,761	184,410	306,978	33,243,785	...	...
Copper concentrates	573,206	203,509	1,753,371	123,750,525	...	...
Zinc concentrates	93,195	6,482	168,298	1,591,969	84,283,903	...
Pyrites	1,149	...	...	...	...	580
1936 -						
Copper ore	965,370	247,293	354,006	32,678,904	...	...
Copper concentrates	458,065	215,183	1,586,085	85,709,434	27,715,850	...
Zinc concentrates	100,615	6,017	176,085	1,465,980	91,008,760	...
Pyrites	35,435	...	...	...	...	17,796
1937 -						
Copper ore	943,790	165,052	388,414	47,632,125	...	...
Copper concentrates	528,641	236,566	2,090,353	119,755,349	...	...
Zinc concentrates	106,074	8,135	184,248	1,593,711	95,941,609	...
Pyrites	1,037	...	...	...	...	523
1938 -						
Copper ore	924,236	167,179	470,745	55,558,860	...	...
Copper concentrates	606,255	271,099	2,565,893	138,288,971	1,668,410	...
Zinc concentrates	94,994	8,199	175,391	1,446,591	85,882,822	...
Pyrites	2,088	...	...	...	...	1,011

Table 55 - CONTENT (%) OF ORES, CONCENTRATES, ETC., SHIPPED FROM COPPER-GOLD-SILVER MINES, 1929-1940 (Continued)

	Tons net	Gold fine oz.	Silver fine oz.	Copper pounds	Zinc pounds	Sulphur tons
Content (%)						
<u>TO CANADIAN SMELTERS (Concluded)</u>						
1939 -						
Copper ore	868,328	173,019	440,393	60,333,576	...	...
Copper concentrates	616,071	237,742	2,637,965	145,937,499	1,683,442	...
Zinc concentrates	96,817	7,378	182,517	1,320,610	91,116,593	...
Pyrites	2,436	...	...	...	...	1,216
1940 -						
Copper ore	860,237	156,857	372,408	35,648,576	...	...
Copper concentrates	768,833	258,692	3,514,614	188,421,117	2,492,666	...
Zinc concentrates	108,328	5,250	185,406	954,803	102,169,600	...
Pyrites	36,308	...	...	...	...	17,619
TOTAL FOR 12 YEARS	17,596,783	4,339,788	27,637,230	1,914,135,239	875,611,385	39,936
<u>TO FOREIGN SMELTERS</u>						
1929 -						
Copper ore	3,352	192	5,876	333,719	...	...
Copper concentrates (x) ...	145,197	20,054	380,834	69,554,222	...	...
Zinc concentrates .....	...	...	...	...	...	...
Pyrites	76,581	...	...	...	...	38,203
1930 -						
Copper ore	391	31	456	26,023	...	...
Copper concentrates	125,505	16,877	335,134	64,966,645	...	...
Zinc concentrates	11,082	...	...	...	11,527,280	...
Pyrites	53,453	...	...	...	...	27,682
1931 -						
Copper ore	55	58	150	5,345	...	...
Copper concentrates	71,015	5,396	164,957	35,012,918	...	...
Zinc concentrates .....	...	...	...	...	...	...
Pyrites	63,293	...	...	...	...	31,771
1932 -						
Copper ore	54	157	28	...	...	...
Copper concentrates	57,558	8,868	87,346	18,625,044	...	...
Zinc concentrates .....	...	...	...	...	...	...
Pyrites	48,584	...	...	...	...	24,251
1933 -						
Copper ore	120	132	193	11,578	...	...
Copper concentrates	28,541	12,933	65,969	14,654,498	...	...
Zinc concentrates	8,929	...	...	...	9,374,675	...
Pyrites	58,604	...	...	...	...	28,178
1934 -						
Copper ore .....	...	...	...	...	...	...
Copper concentrates	31,866	11,261	79,358	15,348,073	...	...
Zinc concentrates	5,899	...	...	...	5,374,023	...
Pyrites	55,957	2,889	...	84,697	...	4,908
1935 -						
Copper ore .....	...	...	...	...	...	...
Copper concentrates	61,582	13,826	86,864	18,505,483	...	...
Zinc concentrates	3,191	49,696	...	...	3,606,436	...
Pyrites	28,056	...	...	...	...	13,942

Table 55 - CONTENT (A) OF ORES, CONCENTRATES, ETC., SHIPPED FROM COPPER-GOLD-SILVER MINES, 1929-1940 (Concluded)

Table 35 - CONTENT (A) OF ORE, CONCENTRATES, ETC., SHIPPED FROM COPPER-GOLD-SILVER PLANTS, 1926-1940 (Continued)						
	Tons net	Gold fine oz.	Silver fine oz.	Copper pounds	Zinc pounds	Sulphur tons
TO FOREIGN SMELTERS (Concluded)						
1926 -						
Zinc ore	645	...	...	...	727,598	...
Copper concentrates	58,114	13,039	100,192	25,514,161	...	...
Zinc concentrates .....	...	...	...	...	...	...
Pyrites	91,777	...	...	...	...	45,374
1937 -						
Copper ore	131	43	164	15,222	...	...
Copper concentrates	97,553	15,120	266,874	48,759,159	...	...
Zinc concentrates	5,871	...	...	...	6,041,690	...
Pyrites	118,420	...	...	...	...	59,657
1938 -						
Copper ore	850	479	3,191	80,245	...	...
Copper concentrates	152,955	23,759	476,207	79,978,954	...	...
Zinc concentrates	5,966	103	12,577	133,526	6,270,471	...
Pyrites	42,515	...	...	...	...	21,516
1939 -						
Copper ore	108	101	55	5,425	...	...
Copper concentrates	177,884	53,866	543,600	84,062,126	...	...
Zinc concentrates	30,693	...	...	203,969	33,669,569	...
Pyrites	225,200	...	...	...	...	113,251
1940 -						
Copper ore	11	11	949	2,234	...	...
Copper concentrates	159,316	39,952	492,352	78,778,442	...	...
Zinc concentrates	30,389	456	45,552	444,808	32,558,961	...
Pyrites	91,457	...	...	...	...	45,502
TOTAL FOR 12 YEARS	2,188,720	289,299	3,148,878	553,104,516	109,150,503	4,539,951

(A) As determined by settlement assay and not necessarily all recovered.

(x) Includes a relatively small quantity copper precipitate for some years.

NOTE: For total estimated values of annual shipments see following table.

Table 56 - ORES MINED, MILLED, AND CONCENTRATES PRODUCED BY THE COPPER-GOLD-SILVER MINING INDUSTRY, 1929-1939

Year	Ore mined	Ore milled	Copper concentrates produced (A)	Zinc concentrates produced	Iron pyrites concentrates produced	Net value of all mine shipments
	tons	tons	tons	tons	tons	\$
1929	5,134,824	4,512,806	262,941	...	76,581	21,859,907(a)
1930	5,768,664	4,926,431	298,085	72,112	53,453	15,629,564(a)
1931	6,002,865	5,243,382	469,059	63,828	63,293	15,951,103(a)
1932	5,453,173	4,607,659	518,609	76,507	71,945	11,143,759(a)
1933	5,448,690	4,521,301	521,399	88,645	59,354	7,707,270(a)
1934	6,065,692	5,127,189	587,045	81,811	80,684	8,265,071(a)
1935	5,650,665	4,693,387	614,942	96,466	66,700	16,676,447(a)
1936	5,052,222	4,091,570	503,650	101,303	105,669	19,271,965(a)
1937	6,749,809	5,802,031	630,664	116,698	201,494	30,655,784(b)
1938	7,929,434	6,961,188	756,065	123,887	173,444	34,739,439(b)
1939	8,474,855	7,760,725	828,963	105,842	161,238	32,991,716(b)
1940-1942.			not published			
TOTAL -						
11 YEARS.	67,730,893	58,247,669	5,991,422	927,099	1,113,855	214,892,025

(a) Value f.o.b. mine and presumed gross value less freight and treatment charges which were not reported separately by operators prior to 1937.

(b) Gross value reported by operators less only freight and treatment costs deducted by D.B.S.

(A) Includes a relatively small quantity of copper precipitates.

NOTE: Values reported for shipments made to smelters operated by the same company are often nominal in nature resulting in annual variations in the distribution of production values between the mining industry proper and the non-ferrous smelting and refining industry. This explains to a considerable extent the apparent incongruities as the value data for 1938-39.

Table 57 - SPECIFIED DATA RELATING TO THE COPPER-GOLD-SILVER MINING INDUSTRY, 1929-1940 (✓)

Year	Producing Mines						Non-Producing Mines			
	Electricity purchased	Total fuel and power used	Hydraulic turbines used	Process supplies used	Freight on ore, etc. shipped	Smelter treatment charges	Electricity purchased	Total fuel and power used	Hydraulic turbines used	Process supplies used
	k.w.h.	\$	h.p.	\$	\$	\$ (x)	k.w.h.	\$	h.p.	\$
1929 ...	91,622,530	785,395	9,300	(a)	(a)	(a)	3,155,653	249,738	1,275	(a)
1930 ...	124,395,046	1,173,447	9,300	(a)	(a)	(a)	751,964	98,815	690	(a)
1931 ...	225,088,928	709,614	9,300	(a)	(a)	(a)	311,800	16,888	1,159	(a)
1932 ...	127,351,868	446,736	9,300	(a)	(a)	(a)	1,584,700	16,727	609	(a)
1933 ...	68,188,303	387,312	9,300	(a)	(a)	(a)	453,000	17,313	609	(a)
1934 ...	90,097,659	526,941	9,300	(a)	(a)	(a)	1,108,500	15,729	...	(a)
1935 ...	91,828,181	520,724	9,300	2,892,443	(a)	(a)	1,108,500	13,428	...	6,689
1936 ...	71,134,263	441,132	9,300	3,127,527	(a)	(a)	2,253,803	54,711	...	28,698
1937 ...	199,045,597	871,002	9,300	4,808,504	344,818	9,735,199	...	30,086	...	43,341
1938 ...	214,930,438	1,049,325	9,300	4,746,830	960,791	13,639,953	5,501,100	50,959	609	96,833
1939 ...	247,180,650	1,203,878	8,900	5,539,545	1,582,350	16,587,402	2,119,520	19,645	1,250	46,071
1940 ...	270,601,445	1,297,454	8,900	5,812,178	882,633	17,378,092	...	...	...	...
TOTAL ..	1,821,444,908	9,412,960	...	26,927,027	3,770,592	57,340,646	18,328,540	584,039	...	221,632

(a) Not available.

(x) Partly conjectural.

(✓) Not including smelters or refineries.

Table 58 - AVERAGE ANNUAL METAL PRICES, IN CANADIAN DOLLARS, 1929-1942

Year	Gold	Silver	Copper	Lead	Zinc
	Troy oz. \$	Troy oz. \$	Pound \$	Pound(£) \$	Pound(£) \$
1929	20.67	0.530	0.180(x)	0.050	0.054
1930	20.67	0.381	0.130(x)	0.039	0.036
1931	21.55	0.298	0.0837(x)	0.027	0.025
1932	23.47	0.317	0.0638	0.021	0.024
1933	28.60	0.378	0.0745	0.024	0.032
1934	34.50	0.475	0.0742	0.024	0.030
1935	35.19	0.648	0.0780	0.031	0.031
1936	35.03	0.451	0.0948	0.039	0.033
1937	34.99	0.449	0.131	0.051	0.0490
1938	35.17	0.435	0.0397	0.034	0.031
1939	36.14	0.405	0.101(£)	0.032	0.031
1940	38.50	0.382	0.101	0.034	0.034
1941	38.50	0.3826	0.101	0.034	0.034
1942	38.50	0.4216	0.101	0.034	0.034

(x) Based on New York; 1932-1942 based on London.

(£) Based on London; prices controlled by Government since 1939 and subject to revision.

The agreement made in 1939 by the large base metal producers and the Imperial Government, by which the producers were to supply the Imperial Government with copper, lead and zinc at prices which prevailed shortly before the outbreak of the war, was continued with some adjustments or revisions for increases in prices due to the increased cost of labour and materials. Canada can now furnish large quantities of these metals in the refined state, whereas in 1914 no refined copper, nickel or zinc and only a comparatively small amount of refined lead were produced in this country.

Data relating to imports and exports of non-ferrous metals were not published since 1939; also, statistics in detail as relating to Canadian output and consumption of these metals have not been released since 1939.

Table 59 - PRODUCTION OF COPPER FROM CANADIAN ORES, 1927-1942

Year	Pounds	\$	Year	Pounds	\$
1927	140,147,440	17,195,487	1934	364,761,062	26,671,438
1928	202,696,046	28,598,249	1935	418,997,700	32,311,960
1929	248,120,760	43,415,251	1936	421,027,732	39,514,101
1930	303,478,356	37,948,359	1937	530,028,615	68,917,219
1931	292,304,390	24,114,065	1938	571,249,664	56,554,034
1932	247,679,070	15,294,058	1939	608,825,570	60,934,859
1933	299,882,448	21,634,853	1940 - 1942	(not published)	

Table 60 - PRODUCTION OF REFINED COPPER(x) IN CANADA, 1931-1942

Year	Short tons	Year	Short tons
1931	92,183	1936	191,595
1932	90,077	1937	215,080
1933	112,245	1938	227,240
1934	149,261	1939	231,684
1935	173,290	1940-1942	(not published)

(x) In all forms and from all sources.

Table 61 - NON-FERROUS SMELTING AND REFINING INDUSTRY (x), 1937-1942

Year	Employees	Salaries	Cost of ores	Value added
		and wages	fuel, process supplies, etc.	by treatment
	No.	\$	\$	\$
1937	11,570	17,990,947	216,470,386	101,807,865
1938	12,788	19,549,963	200,204,359	87,091,374
1939	12,449	19,372,119	182,544,662	80,057,833
1940	13,466	21,766,197	207,301,259	98,053,288
1941	16,014	27,432,639	259,535,976	119,736,294
1942	21,162	37,340,556	321,736,152	125,881,047

(x) Includes smelters and refiners of copper, nickel, silver, lead, zinc, cobalt, magnesium, radium and aluminium ores or metals.

Table 62 - OUTPUT OF COAL IN CANADA AND WAGE-EARNERS IN COAL MINES, 1933-1942

Year	Wage-earners			Wages	Output of Coal	
	Surface	Underground	Total		Tons	\$
					(2,000 lb.)	
1933	5,507	20,260	25,767	25,977,215	14,294,718	43,982,171
1939	5,339	19,861	25,200	28,184,519	15,692,698	48,676,990
1940	5,269	19,859	25,128	31,354,543	17,566,884	54,675,844
1941	5,372	19,608	24,980	35,305,549	18,225,921	58,059,630
1942 (x)	5,509	19,170	24,679	(not available)	18,860,630	62,901,718

(x) Subject to revision.

Table 63 - WAGE-EARNERS AND PRODUCTION IN GOLD AND COAL MINES IN CANADA, 1943 (x)

	Gold Mines (b)		Coal Mines		Base Metal Mines (a)
	Fine oz. gold	Wage-earners	Tons coal	Wage-earners	Fine oz. gold
January	289,271	19,238	1,558,991	25,513	45,239
February	273,417	19,167	1,578,620	25,011	53,987
March	284,995	18,878	1,687,998	24,935	62,688
April	269,936	18,240	1,380,983	23,532	53,137
May	270,157	17,596	1,500,619	22,972	43,239

(x) Subject to revision.

(a) Production from base metal mines only; corresponding output in May, 1942 was 47,891 fine ounces.

(b) Auriferous quartz mines only; corresponding output in May, 1942 was 380,907 fine ounces.

NOTE: Wage-earners shown for coal mines include a relatively few salaried employees.

Gold production from auriferous quartz mines (including placer gold) dropped 24.7 per cent during the first five months of 1943 as compared with the same period in 1942. Production of gold from base metal mines increased 6.7 per cent when the same periods are compared.

Employees in auriferous quartz mines, including both salaried employees and wage-earners, numbered 19,456 in May, 1943 as compared with 26,948 in May, 1942.

Table 64 - POPULATIONS OF SPECIFIED CANADIAN MINING AREAS, 1931 and 1941 (Census of Canada, D.B.S.)

(x) Not incorporated.

	1941	1931
<u>Quebec - Northwestern area -</u>		
Bouyn town	8,808	3,225
Noranda town	4,576	2,246
Val d'Or town	4,385	(x)
Malartic town	2,895	(x)
Bourlamaque town	1,545	(x)
Duparquet town	1,384	(x)
Cadillac village	989	(x)
Beauchastel twp.	2,444	172
Clericy twp.	2,193	79
Bouyn twp.	1,560	500
Malartic twp.	1,347	7

Table 64 - POPULATIONS OF SPECIFIED CANADIAN MINING AREAS, 1931 and 1941 (Census of Canada, D.B.S.) Continued
(x) Not incorporated.

	1941	1931
<u>Quebec - Northwestern area (Concluded) -</u>		
Dubuisson twp.	1,514	159
Pascalie twp.	1,059	1
Cadillac twp.	1,102	54
Varson twp.	900	65
Destor twp.	828	57
Desmeloizes twp.	3,617	2,710
Other townships in district	2,545	252
TOTAL	43,491	9,285
<u>Ontario- Cobalt District -</u>		
New Liskeard town	3,019	2,880
Cobalt town	2,376	3,885
Halleybury town	2,268	2,813
Bucke twp.	1,069	1,470
Coleman twp.	708	1,087
Other townships	1,615	1,435
TOTAL	11,055	15,568
<u>Red Lake Area -</u>	1,827	600
<u>Pickle Crow Area</u>	999	(x)
<u>Sudbury District -</u>		
Sudbury city	32,203	18,518
Copper Cliff town	3,732	3,173
McKim twp.	5,105	533
Garson twp.	1,968	1,218
Snider twp.	1,726	1,465
Coniston town	2,245	(x)
Falconbridge twp.	905	445
Other townships	3,548	4,474
TOTAL	51,432	29,826
<u>Little Long Lac Area -</u>		
Points on C.N.R. from Long Lac to		
Beardmore, exclusive of Geraldton and		
Beardmore	2,651)	
Geraldton town	2,979)	
Beardmore village	756)	568
TOTAL	6,386	
<u>Porcupine Area -</u>		
Mountjoy twp.	1,729	1,062
Ogden twp.	30	153
Deloro twp.	574	161
Tisdale twp.	9,461	5,761
Whitney twp.	1,487	369
Timmins city	28,790	14,200
TOTAL	42,071	21,706
<u>Kirkland Lake and Larder Lake areas -</u>		
Teck twp. (including Kirkland Lake town)	20,409	9,915
Labelle twp.	743	115
Gauthier twp.	258	22
McVittie twp.	180	61
McGarry twp.	1,372	85
Larder Lake town	1,464	(x)
TOTAL	24,426	10,196

Table 64 - POPULATIONS OF SPECIFIED CANADIAN MINING AREAS, 1931 and 1941 (Census of Canada, D.B.S.) Concluded
(x) Not incorporated.

	1 9 4 1	1 9 3 1
<u>Manitoba - Flin Flon and Sherridon area -</u>		
Flin Flon town	6,845)	
Townships 64 - 71	1,976)	3,589
TOTAL	8,821	3,589
God's Lake and district	449	7
<u>Northwest Territories -</u>		
Yellowknife area	1,410	(x)
<u>British Columbia -</u>		
<u>Zeballos area - (Census subdivision 5F)</u>		
Unorganized	4,124	2,517
Indian reserves	663	566
TOTAL	4,787	3,083
<u>Bridge River area -</u>		
(Census subdivision 6F) -		
Unorganized	3,055	1,828
Indian Reserves	1,052	966
TOTAL	4,107	2,794
<u>Barkerville area -</u>		
(Census subdivision 8D) -		
Unorganized	4,450	1,889
Indian Reserves	264	254
Quesnel village	653	446
Williams Lake	540	402
TOTAL	5,907	2,991
<u>Hedley area - (Census subdivision 3B)-</u>		
Pentiction District municipality	5,777	4,640
Unorganized	9,663	6,219
Indian Reserves	400	200
TOTAL	15,840	11,059
<u>Britannia area (Census subdivision 4B)</u>		
(Part) -		
Britannia mine	683)	1,437
Britannia Beach	546)	
TOTAL	1,229	1,497
<u>Nelson and Slocan areas -</u>		
(Census subdivision 2C)	18,761	17,659
<u>Cranbrook-Chapman and Kimberley areas-</u>		
(Census subdivision 1B)	11,280	10,855
<u>Tadanac area (Census subdivision 2B)..</u>	25,715	18,145
<u>Stewart area (Census subdivision 9C)..</u>	2,353	3,597

Table 65 - SUMMARY, BY NINE MAIN BRANCHES, OF THE NET VALUE OF COMMODITY PRODUCTION IN CANADA, 1939-1941 (x)

	1939	1940	1941	Percentage of Total	
				Net Value	
				1941	1940
Agriculture	826,390,000	835,115,000	951,025,000	20.14	23.15
Forestry	271,723,416	370,121,275	421,419,139	8.93	9.63
Fisheries	34,378,681	38,103,690	51,769,633	1.10	1.00
Trapping	7,919,412	11,207,930	15,138,040	0.32	0.23
Mining (Total)	393,232,044	446,080,729	497,904,632	10.55	11.67
Auriferous quartz	129,633,245	146,713,744	145,973,833	3.10	3.34
Other mining	263,598,799	299,366,985	351,925,799	7.45	7.93
Electric power	149,863,392	163,730,757	183,146,426	3.88	4.23
Construction	183,706,333	206,893,992	269,561,835	5.71	5.41
Custom and repair	96,652,396	110,745,900	135,237,000	2.87	2.90
Manufactures, n.e.s.	1,277,265,130	1,591,625,600	2,194,921,573	46.50	41.62
GRAND TOTAL (A)	3,241,131,299	3,823,676,973	4,720,073,333	100.00	100.00
Manufactures, Total (A) ...	1,531,351,991	1,914,412,391	2,605,119,738	55.19	50.07

(x) Business Statistics Branch, Dominion Bureau of Statistics (1941 Survey of Production Report).

(A) The difference between "manufactures, total" and "manufactures, n.e.s." is the amount of the duplication between primary and secondary industries. The sum of "manufactures, n.e.s." and the eight other main branches is regarded as the grand total.

Table 66 - PROVINCIAL DISTRIBUTION OF THE NET VALUE OF COMMODITY PRODUCTION IN CANADA, 1939-1941 (x)

Province	1939	1940	1941	Percentage of total	
				net value, 1941	
	\$	\$	\$	%	%
Prince Edward Island	12,554,392	13,826,491	13,200,776		0.23
Nova Scotia	109,739,925	132,038,545	136,956,241		2.90
New Brunswick	77,156,799	90,119,421	103,968,110		2.20
Quebec	841,474,236	1,011,051,952	1,279,353,703		27.10
Ontario	1,365,101,533	1,642,738,599	2,087,958,441		44.24
Manitoba	156,371,495	176,734,411	205,348,561		4.35
Saskatchewan	212,101,124	219,968,345	228,318,037		4.84
Alberta	209,850,313	234,338,768	276,898,177		5.87
British Columbia	256,781,477 (A)	302,762,441 (A)	379,925,005		8.05
Yukon and Northwest Territories	...	...	8,246,292		0.17
CANADA	3,241,131,299	3,823,676,973	4,720,073,333		100.00

(A) Includes Yukon.

(x) Business Statistics Branch, Dominion Bureau of Statistics (1941 Survey of Production Report).

Table 67 - PROPORTION CONTRIBUTED BY MINING TO TOTAL NET VALUE OF PRODUCTION IN EACH PROVINCE, 1939-1941

Province	1939		1940		1941		Percentage of	
	Mining		Mining		Mining		Net Value pro-	
	Net	of Net Value	Net	of Net Value	Net	of Net Value	vincial production	
	\$	%	\$	%	\$	%	All	Auriferous
							mines	quartz
								mines only
Prince Edward Island..	...	...	...	...	...	...	...	...
Nova Scotia	23,504,419	22.36	26,189,233	19.33	24,535,707	17.9	17.9	0.01
New Brunswick	3,600,454	4.74	3,024,317	3.36	3,231,658	3.1	3.1	...
Quebec	81,600,118	9.75	98,134,979	9.71	127,649,905	10.0	10.0	0.5
Ontario	188,867,969	13.69	209,277,055	12.74	219,459,936	10.5	10.5	2.1
Manitoba	12,401,404	8.29	14,065,270	7.96	11,898,109	5.8	5.8	0.05
Saskatchewan	6,391,404	2.82	8,652,006	3.93	9,336,756	4.1	4.1	0.01
Alberta	26,049,861	11.82	29,593,293	12.63	36,167,469	13.1	13.1	...
British Columbia	450,816,415	19.74	457,144,576	18.87	60,323,299	15.9	15.9	0.3
Yukon and Northwest Territories	...	...	...	...	5,301,743	64.3	64.3	0.05
CANADA	393,232,044	12.05	446,080,729	11.67	497,904,632	10.5	10.5	3.1

(A) Includes Yukon and Northwest Territories.

SOUTH AFRICATransvaal Chamber of Mines Annual Report 1942
(Abstracts)

"During the year your Committee decided to grant two scholarships annually to underground officials or their dependents and two scholarships annually to surface officials or their dependents, nominated by the Underground Officials Association. Scholars will be permitted to study for any degree at the University of Witwatersrand. The Committee also decided to grant six scholarships annually to students selected from among employees or the dependents of employees of gold mines, members of the Chamber, nominated by the mining unions. Joint committee scholars will be permitted to study for any degree at the University of Witwatersrand.

"In an appeal made by Field-Marshal Smuts for 7,000 men to replace losses suffered by the South African Forces at Tobruk, the mining industry was called upon to provide 1,200 men. In response to the appeal 1,257 European employees were released, including 56 mechanics in the metal trades for posting to tank recovery and tank repair units. The Mines Engineering Brigade continued with its training throughout 1942. The problems arising from the civil re-employment of men returning from military service have received consideration by your Committee.

"In March your Committee, in response to an urgent request from the Prime Minister, undertook to provide, as and when required, several hundred artisans for ship repair work at coastal towns (additional to the number required for other purposes of national importance from the mechanics "Pool".)

"Throughout the year the difficulties of procurement and shipment of supplies from overseas were intensified; accordingly, your Committee decided to appoint one of its members as Chairman of the Stores Subcommittee and to establish a separate department of the Chamber, known as the Mine Stores Department, to handle all matters pertaining to mining supplies. For this purpose, an agreement was entered into between all mines and your Committee for the pooling of mining supplies.In order to reduce the importation of supplies for the mines to a minimum and also to assist local manufacture, your Committee issued recommendations with the ultimate object of curtailing the numbers and sizes and types of articles used by the mines and of standardizing wherever practicable, the items most commonly used."

South Africa
Crown Mines Ltd.

Tabulation of results, year ended:

	31st December, 1941	31st December, 1942
Ore milled--tons	4,131,000	3,777,000
Yield per ton milled--dwt.	4.636	4.677
Revenue per ton milled	39s. 0d.	39s. 4d.
Working costs per ton milled	22s. 2d	22s. 4d
Working costs per ton milled, excluding incline shaft sinking	21s. 6d	21s. 11d
Working profit per ton milled	16s. 10d	17s. 0d
Working profit	£3,484,967	£3,211,910
Development footage	116,060	34,426
Available ore reserve--tons	19,518,500	17,191,300
Available ore reserve--value per ton, dwt.	4.8	4.8
Total ore reserve--tons	24,350,700	22,033,100

Mining operations were seriously restricted by a shortage of native labour, which was particularly severe during the latter portion of the year and resulted in a heavy drop in both tonnage and profits.

Development was curtailed, in conformity with the general policy for reducing the consumption of steel and other stores. The decreased footage is reflected in the greatly reduced tonnage of payable ore developed during the year, and the comparatively large decrease in the ore reserve.

Development was almost entirely confined to the Main Reef Leader; disclosures were satisfactory and showed no material change

The payable ore developed during the year amounted to 1,322,700 tons, valued at 5.9 dwt. per ton, made up as follows:--

Main Reef Leader	1,060,000 tons valued at 6.5 dwt. per ton
South Reef	262,700 " " " 3.1 " " "

Compared with the previous year's figures, the total ore developed shows a decrease of 1,806,100 tons, the value being 1.0 dwt. higher."

MINE PRODUCTION OF GOLD IN THE UNITED STATES, 1941-42, BY STATES, IN TERMS OF RECOVERABLE METAL
(United States Bureau of Mines)

State or Territory	Fine ounces		Increase or decrease in 1942	Value (at \$35 per ounce)	
	1941	1942(1)	Per cent	1941	1942(1)
				\$	\$
<u>Western States and Alaska -</u>					
Alaska	695,467	515,358	-26	24,341,345	18,037,550
Arizona	315,392	247,500	-22	11,038,720	8,662,500
California	1,408,793	851,000	-40	49,307,755	29,785,000
Colorado	380,029	274,212	-28	13,301,015	9,597,420
Idaho	149,816	91,000	-39	5,243,560	3,185,000
Montana	246,475	145,800	-41	8,626,625	5,105,000
Nevada	366,403	295,200	-19	12,824,105	10,332,000
New Mexico	27,845	12,797	-54	974,575	447,895
Oregon	96,565	47,500	-51	3,379,775	1,662,500
South Dakota	600,637	521,989	-13	21,022,295	18,269,615
Texas	306	277	-9	10,710	9,695
Utah	356,501	386,000	+8	12,477,535	13,510,000
Washington	84,176	74,600	-11	2,946,160	2,611,000
Wyoming	478	33	-93	16,730	1,155
	4,728,883	3,463,266	-27	165,510,905	121,214,510
<u>Eastern States -</u>					
Alabama	30	1	-97	1,050	35
Georgia	311	36	-88	10,885	1,260
North Carolina	3,244	4,080	+26	113,540	142,800
Pennsylvania	2,422	2,800	+16	84,770	98,000
South Carolina	15,508	7,760	-50	542,780	271,600
Tennessee	227	170	-25	7,945	5,950
Virginia	240	100	-58	8,400	3,500
	21,982	14,947	-32	769,370	523,145
Total continental United States	4,750,865	3,478,213	-27	166,280,275	121,737,455
Philippine Islands	(2) 1,130,933	(2) 140,330	-88	(2) 39,582,655	(2) 4,911,550
TOTAL	5,881,798	3,618,543	-38	205,862,930	126,649,005

(1) Preliminary figures.

(2) United States refinery and mint receipts.

4th Session, 19th Parliament, 7 George VI, 1943.

THE HOUSE OF COMMONS OF CANADA

BILL 72. (in part)

An Act to amend the Income War Tax Act.

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

Subsection five of section eight of the said Act, as enacted by section 10A of chapter twenty-eight of the statutes of 1942, is repealed and the following substituted therefor:--

"(5) A taxpayer shall be entitled to deduct from the sum total of the income tax payable by him under this Act and the tax payable under The Excess Profits Tax Act, 1940, an amount equal to forty per centum of the contributions made by him during 1943 to associations, syndicates or mining partnerships registered or otherwise recognized under the laws of any province of Canada and organized for the purpose of prospecting in Canada for base metals or strategic minerals, not exceeding five hundred dollars in the case of any one such association, syndicate or mining partnership, and not exceeding five thousand dollars in respect of the aggregate of the said contributions made by him to all such associations, syndicates or mining partnerships:

Provided, however, that in the case of a contribution by a corporation substantially all of whose income is subject to depletion calculated on a basis of a percentage of net profits, the deduction to be allowed hereunder shall be reduced by the same percentage:

Provided further that no such deduction shall be allowed unless the association, syndicate or mining partnership files certified statements of expenditures and satisfies the Minister that it has been actively engaged in prospecting in Canada for base metals or strategic minerals by means of qualified persons during the year one thousand nine hundred and forty-three and that it has carried out the purpose for which it was formed: and

Provided further that if the said contributions have not been expended within the said period the deduction to be taken hereunder shall be that proportion only of the contribution which is equal to the proportion which the moneys actually expended bears to the total contributions to such association, syndicate or mining partnership."

Subsection one of the said section five is further amended by adding thereto the following paragraphs:--

"(s) taxes payable and paid by a mining company to a municipality, pursuant to the provisions of subsections six, nine and eleven of section thirty-nine of the Assessment Act (Ontario) R.S.O. 1937, chapter 272, as amended and in force on the second day of March, 1943; provided that the Minister is satisfied that in assessing the said taxes the taxes payable by the said mining company under the Income War Tax Act and The Excess Profits Tax Act, 1940, are not allowed as deductions."

The said section eight is further amended by adding thereto the following subsections:--

"(9) A corporation whose chief business is that of mining or exploring for metalliferous and strategic minerals shall be entitled to deduct from the sum total of the income tax payable by it under this Act and the tax payable under The Excess Profits Tax Act, 1940, twenty-six and two-thirds per centum of all prospecting, exploration and development expenses incurred by it in searching for base metals and strategic minerals during the period from the first day of January, 1943, to the thirty-first day of March, 1945: Provided, however, that such deduction must be taken against the said taxes payable in respect of the year or fiscal period in which the said expenses were actually incurred:

Provided further that no such deduction shall be allowed unless the corporation files certified statements of expenditures and satisfies the Minister that it has been actively engaged in prospecting and exploring in Canada for base metals or strategic minerals by means of qualified persons and has incurred the said expenditures for such purposes."

NOTE: If information of a technical nature regarding Canadian gold mining is desired, please communicate with the Department of Mines and Resources, Ottawa, or the Departments of Mines of the various provincial governments.

Information utilized in the preparation of this bulletin, as supplied by the various Canadian mining companies, Provincial and Federal Departments of Mines, American Bureau of Metal Statistics, Royal Canadian Mint, the Bank of Canada, Department of Finance, Department of Labour, United States Bureau of Mines and Mint, the Technical Press, and various other contributors, is hereby gratefully acknowledged.

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