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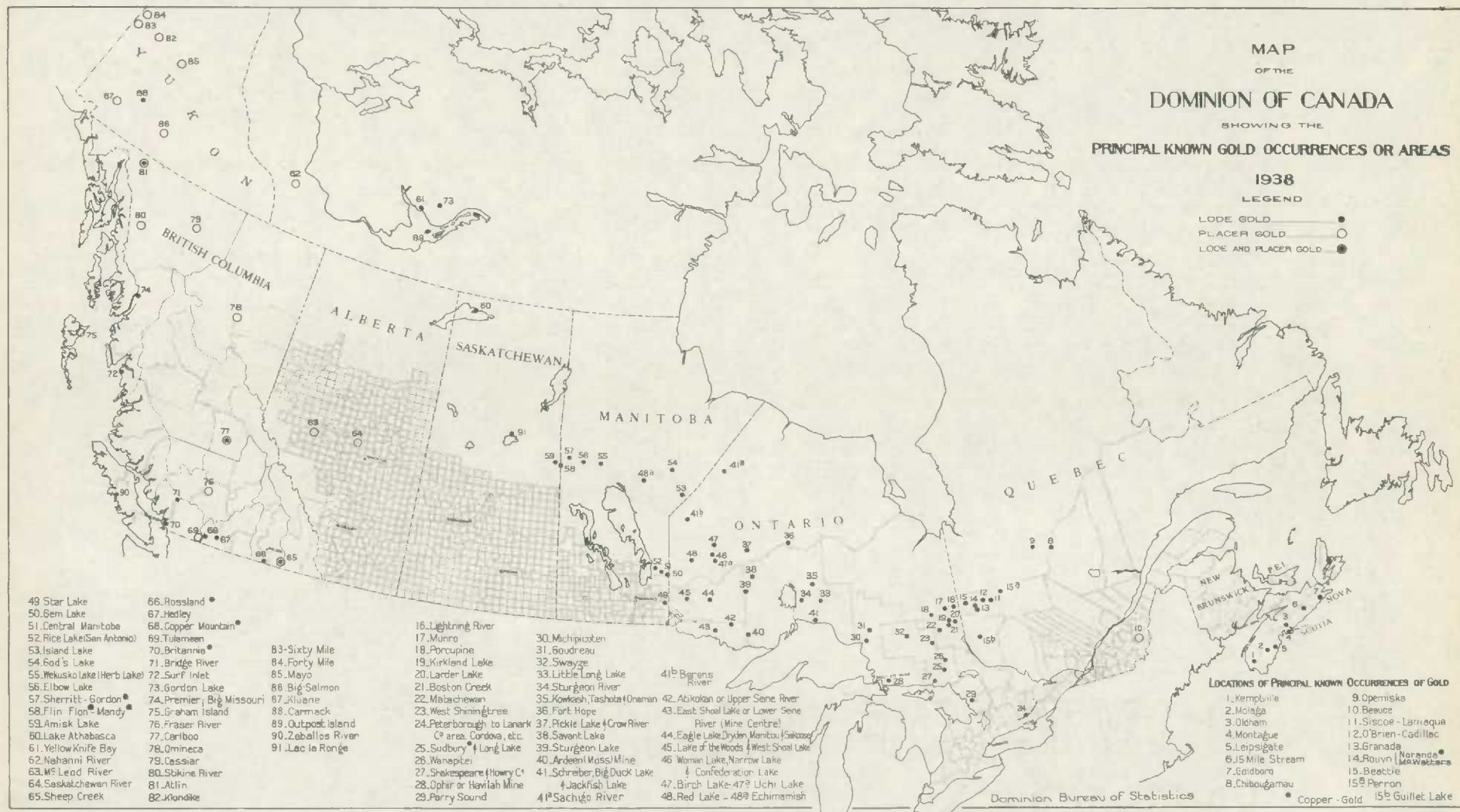
CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

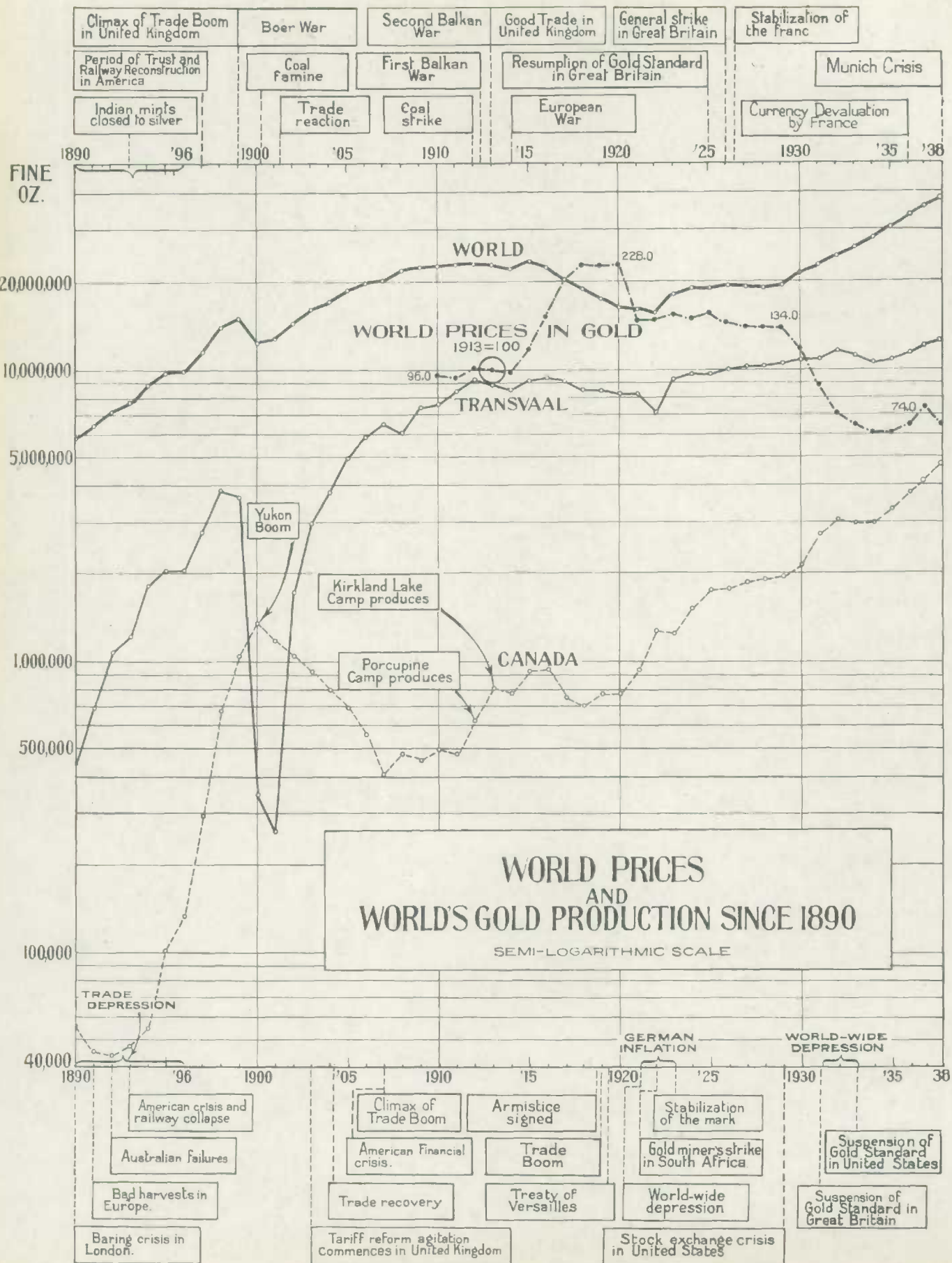
SUMMARY REVIEW
OF
THE GOLD MINING INDUSTRY
IN
CANADA
1938



OTTAWA
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Price 25 cents





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OTTAWA - CANADA

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THE GOLD MINING INDUSTRY IN CANADA, 1958.

- 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.

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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 named "The Auriferous Quartz Mining Industry" and in which industry the 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.

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Production of new gold in Canada from all primary sources totalled 4,725,117 fine troy ounces in 1958 compared with 4,096,215 fine troy ounces in 1957. The gross value of output in 1958 amounted to \$166,205,990 or an increase of 15.96 per cent over the corresponding value for the preceding year. Of the total output in 1958 the mines of Ontario contributed 2,896,477 fine ounces; Quebec, 881,265 fine ounces; British Columbia, 605,617 fine ounces, and Manitoba, 185,706 fine ounces; lesser quantities were recovered in the Yukon, Saskatchewan, Nova Scotia, the Northwest Territories, and Alberta. Production according to type of deposit or nature of recovery included 80.80 per cent in crude gold bullion bars produced at "gold mines"; 2.50 per cent from alluvial deposits; 11.24 per cent in blister or anode copper; 0.92 per cent in base lead bullion made chiefly from silver-lead ores and 4.54 per cent in ores, copper-nickel matte, slags, etc., exported. The quantity and value of gold produced in Canada in 1958 were the greatest ever recorded in the history of the Canadian mining industry.

According to preliminary statistics of world production, Canada ranked third as a gold producing country in 1958, being surpassed in output by only the Union of South Africa and Russia; the mine output of recoverable gold in the United States in 1958, and not inclusive of the Philippine production, was reported by the United States Bureau of Mines, in a preliminary statement, at 4,245,712 fine ounces.

The total production of gold in the world since the discovery of America has been estimated at 1,294,955,511 fine ounces; production in the United States since 1792 at 249,850,780 fine ounces; production in the Transvaal since 1884, the commencement of the fields, 540,091,604 fine ounces, and 65,151,553 fine ounces valued at \$1,850,506,115 in Canada since the first recording of gold statistics in 1858.

The estimated average price per ounce of fine gold, expressed in Canadian currency, was \$55.17 in 1958 compared with a price of \$54.99 in 1957. Practically all of Canada's newly-mined gold bullion is sold to the Dominion Government through the Royal Canadian Mint at Ottawa or the Assay Office at Vancouver. This gold is refined, converted into fine gold bars weighing approximately 400 ounces each, and is disposed of in world markets wherever the most advantageous net price can be obtained.

Table 1 - SUMMARY, BY NINE MAIN BRANCHES, OF THE NET VALUE OF PRODUCTION IN CANADA FOR 1936 and 1937 (A).

	1 9 3 6	1 9 3 7	Percentage of total net value, 1937.
	\$	\$	%
Agriculture	679,341,000	678,953,000	22.86
Forestry	231,937,561	284,504,031	9.58
Fisheries	34,234,063	34,439,481	1.16
Trapping	9,214,325	10,477,096	0.35
Mining (Total)	291,972,359	372,796,027	12.55
Auriferous quartz	88,210,233	97,961,278	3.30
Other mining	203,762,126	274,834,749	9.25
Electric Power	133,561,387	140,963,914	4.75
Construction	135,851,162	176,029,679	5.92
Custom and Repair	70,930,000	79,055,000	2.66
Manufactures, n.e.s.	1,041,378,120	1,193,399,282	40.17
GRAND TOTAL (a)	2,628,419,977	2,970,617,510	100.00
Manufactures, Total (a)	1,289,592,672	1,506,624,867	50.72

(A) General Statistics Branch, Dominion Bureau of Statistics (1937 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 2 - PROVINCIAL DISTRIBUTION OF THE NET VALUE OF PRODUCTION IN CANADA, 1936 and 1937. (A)

Province	1 9 3 6	1 9 3 7	Percentage of total net value, 1937
	\$	\$	%
Prince Edward Island	12,372,654	9,361,792	0.32
Nova Scotia	89,318,776	102,321,783	3.44
New Brunswick	62,758,002	70,738,543	2.38
Quebec	648,790,860	759,264,651	25.56
Ontario	1,158,885,508	1,519,991,840	44.44
Manitoba	123,128,621	175,355,562	5.90
Saskatchewan	154,936,876	74,894,069	2.52
Alberta	161,864,956	205,891,931	6.93
British Columbia - Yukon	216,363,724	252,797,339	8.51
CANADA	2,628,419,977	2,970,617,510	100.00

(A) General Statistics Branch, Dominion Bureau of Statistics. (1937 Survey of Production Report).

Table 3 - PROPORTION CONTRIBUTED BY MINING TO TOTAL NET VALUE OF PRODUCTION IN EACH PROVINCE, 1936 - 1937.

Province	1 9 3 6	1 9 3 7
	Mining Net \$	Mining Net \$
	Percentage of Net Value provincial production %	Percentage of Net Value provincial production %
Prince Edward Island	27,663	...
Nova Scotia	19,108,641	22,597,547
New Brunswick	2,324,747	2,442,101
Quebec	44,823,567	60,872,828
Ontario	151,874,462	190,447,576
Manitoba	9,366,496	13,415,841
Saskatchewan	5,720,747	8,226,326
Alberta	20,104,417	20,988,638
British Columbia - Yukon ...	38,621,619	53,805,170
CANADA	291,972,359	372,796,027

Table 4 - CERTAIN STATISTICS RELATING TO SPECIFIED CANADIAN INDUSTRIES, 1923, 1928, 1934, 1937 and 1938.

Industry	Electricity purchased	Employees	Salaries and Wages
	\$	Number	\$
<u>TOTAL MINING INDUSTRY</u>			
1923	5,861,740	66,952	91,534,877
1928	9,072,075	89,448	115,954,022
1934	11,510,481	73,505	88,126,186
1937	16,135,702	105,414	144,292,384
1938	DATA NOT AVAILABLE		
<u>AURIFEROUS QUARTZ MINING INDUSTRY</u>			
1923	922,258	5,524	8,961,434
1928	2,002,062	9,066	14,615,990
1934	3,091,147	17,762	27,156,887
1937	5,031,691	29,140	48,219,318
1938	5,553,427	29,647	50,462,092
<u>PULP AND PAPER INDUSTRY</u>			
1923	4,270,911	29,234	58,382,845
1928	12,145,874	33,614	47,322,648
1934	15,229,289	26,993	33,307,043
1937	18,607,852	33,205	48,757,795
1938	16,763,639	30,943	42,619,311
<u>AUTOMOBILE INDUSTRY</u>			
1923	125,000	9,305	14,998,267
1928	244,807	16,749	29,548,114
1934	140,245	9,674	12,938,933
1937	231,424	14,946	22,138,991
1938	261,583	14,872	20,993,362
<u>CHEMICAL INDUSTRY(a)</u>			
1923	1,439,909	15,149	18,433,679
1928	2,043,930	16,130	20,290,417
1934	2,145,533	17,130	20,919,740
1937	3,106,557	21,968	28,612,719
1938 .....(1)	...	21,829	29,338,144
<u>PRIMARY IRON AND STEEL INDUSTRY(d)</u>			
1923	722,770	6,049	10,816,201
1928	1,251,820	9,057	15,470,836
1934	1,148,554	7,400	9,009,512
1937	2,287,761	14,054	19,926,498
1938	DATA NOT COMPLETE		
<u>TEXTILE INDUSTRY(b)</u>			
1923	(data not available)	92,669	81,244,205
1928	2,188,544	113,724	103,451,325
1934	3,138,195	115,695	90,796,601
1937	3,291,639	121,677	105,056,051
1938	DATA NOT COMPLETE		

- (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) 1923 figures partially 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..
- (1) Preliminary figures.

Table 5 - PRODUCTION OF NEW GOLD IN CANADA, BY PROVINCES AND SOURCES, 1937 and 1938.
(Gold at \$20.671834 per fine ounce)

	1937		1938	
	Fine troy ounces	\$	Fine troy ounces	\$
NOVA SCOTIA -				
In gold bullion shipped and ores exported	19,918	411,742	26,560	549,044
Estimated exchange equalization on gold produced .....	...	285,189	...	385,204
Total Value - Canadian Funds .....	...	696,931	...	934,248
QUEBEC -				
In blister copper, in ores shipped and in gold bullion produced	711,480	14,707,596	881,263	18,217,322
Estimated exchange equalization on gold produced .....	...	10,187,089	...	12,781,104
TOTAL Value - Canadian funds .....	...	24,894,685	...	30,998,426
ONTARIO -				
✓ Porcupine Area - In gold bullion produced	1,120,525	23,163,306	1,258,671	26,019,038
✓ Kirkland Lake - In gold bullion produced (a)	999,446	20,660,382	1,030,829	21,309,126
✓ Other gold mines - In gold bullion produced	391,674	8,096,620	526,750	10,888,889
Copper-nickel and other ores	75,450	1,559,690	80,227	1,658,439
Total	2,587,095	53,479,998	2,896,477	59,875,492
Estimated exchange equalization on gold produced .....	...	37,042,456	...	42,008,086
Total Value - Canadian funds .....	...	90,522,454	...	101,883,578
MANITOBA -				
In gold bullion produced, ores shipped and in blister copper	157,949	3,265,096	185,706	3,838,884
Estimated exchange equalization on gold produced .....	...	2,261,540	...	2,693,325
Total Value - Canadian funds .....	...	5,526,636	...	6,532,209
SASKATCHEWAN -				
In ores shipped to Canadian smelters and crude gold shipped	65,886	1,361,984	50,021	1,034,026
Estimated exchange equalization on gold produced .....	...	943,367	...	725,463
Total Value - Canadian Funds .....	...	2,305,351	...	1,759,489
ALBERTA -				
In alluvial gold	46	951	305	6,305
Estimated exchange equalization on gold produced .....	...	659	...	4,423
Total Value - Canadian Funds .....	...	1,610	...	10,728
BRITISH COLUMBIA -				
In alluvial gold	43,322	895,545	46,207	955,183
In gold bullion produced	254,996	5,271,235	324,031	6,698,315
In base bullion and in matte and ores exported	207,539	4,290,212	235,379	4,865,716
Total	505,857	10,456,992	605,617	12,519,214
Estimated exchange equalization on gold produced .....	...	7,242,944	...	8,783,364
Total Value - Canadian Funds .....	...	17,699,936	...	21,302,578
YUKON -				
In alluvial gold	46,679	964,941	71,303	1,473,964
In ores shipped	1,303	26,935	1,065	22,015
Total	47,982	991,876	72,368	1,495,979
Estimated exchange equalization on gold produced .....	...	687,014	...	1,049,565
Total Value - Canadian Funds .....	...	1,678,890	...	2,545,544
NORTHWEST TERRITORIES -				
In ores shipped .....	...	...	6	124
In gold bullion produced .....	...	...	6,794	140,444
Total .....	...	...	6,800	140,568
Estimated exchange equalization on gold produced .....	...	...	...	98,622
Total Value - Canadian Funds .....	...	...	...	239,190
TOTAL FOR CANADA	4,096,213	84,676,235	4,725,117	97,676,834
TOTAL ESTIMATED EXCHANGE EQUALIZATION ON GOLD PRODUCED ...	...	58,650,258	...	68,529,156
GRAND TOTAL GROSS VALUE INCLUDING EXCHANGE .....	...	143,326,493	...	166,205,990

Footnotes - see next page.

Footnotes to Table 5 -

In 1938 the estimated average price of a troy ounce of fine gold, in Canadian funds, was \$35.175; in 1937 the corresponding price was \$34.99

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

(a) Includes production in Larder Lake area.

Table 5(a) - TOTAL (CUMULATIVE) RECORDED PRODUCTION IN CANADA OF SPECIFIED METALS TO DECEMBER 31st, 1938.

		Quantity	Value \$
Gold	(a) fine ounces	65,131,533	1,850,508,113
Silver	(b) fine ounces	760,501,360	445,312,647
Copper	(c) pounds	6,088,723,243	753,220,387
Nickel	(d) pounds	2,580,271,874	746,514,292
Lead	(b) pounds	5,985,551,247	277,190,664
Zinc	(f) -	-	188,576,418
Cobalt	(e) pounds	32,331,094	30,708,382

NOTE - The total value of production by the entire Canadian mining industry from 1887 to the end of 1937 totalled \$7,178,721,973.

(a) since 1858 - (b) since 1887 - (c) since 1886 - (d) since 1889 - (e) since 1904 - (f) since 1896.

Table 6 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1938.

Property and Province	Material		Ore raised	Gold produc- tion	Mill capacity 24 hours	See foot- notes
	Ore sorted	(discarded)				
	Tons	Tons	Tons	Fine oz.	Tons	
<u>NOVA SCOTIA</u>						
Avon Gold Mines, Ltd.	11,500	5,793	5,707	1,185	40	(a)
Aulenback Mine	13	40	13	12	8	(a)
Consolidated Mining & Smelting Co. of Canada, Ltd..	8,312	8,995	8,296	3,918	40	(a)
Culode Mine	200	1,000	100	30	20	(a)
Guysborough Mines, Ltd.	38,938	7,809	31,129	6,999	100	(a)
Horne Gold Mines, Ltd.	180	...	180	27	15	(a)
Montague Gold Mines Ltd.	42,222	9,902	32,305	6,165	95	(a) (c)
Nugold Mining Corp. Ltd.	640	...	745	86	24	(a) (b)
Seal Harbour Gold Mines Ltd.	83,595	...	83,595	7,590	200	(a) (c)
Other mines, including exports .....	...	...	...	550	...	...
TOTAL - NOVA SCOTIA .....	...	...	...	26,560(d)	...	...

Footnotes -

(a) Amalgamation

(b) In addition, 14 tons of concentrates were made and stored.

(c) Cyanidation.

(d) Receipts at Royal Canadian Mint plus gold in ores exported.

QUEBEC

Amm Gold Mines (Quebec) Ltd.	100	...	Test.	35	2	(a)
Arntfield Gold Mines Ltd.	97,982	...	95,259	9,961	400	(c)
Beattie Gold Mines (Quebec) Ltd.	606,040	...	606,040	67,213	1,500	(c)
Belleterre Quebec Mines Ltd.	28,395	1,517	28,878	5,773	175	(c)
Canadian Malartic Gold Mines Ltd.	243,640	...	243,640	32,122	700	(c)
Courmor Mining Co. Ltd.	74,000	11,917	61,788	8,147	190	(c)
East Malartic Mines Ltd.	44,334	...	44,334	5,568	750	(c)
Francoeur Gold Mines Ltd.	22,299	...	22,299	3,466	150	(b)
Halliwell Gold Mines Ltd.	2,718	1,000	2,718	1,165	(d)	(d)
Lake Rose (Quebec) Mines Ltd.	4,500	622	3,806	2,199	25	(a) (c)
Lamaque Mining Co. Ltd.	393,715	...	393,715	129,357	1,000	(c)
Lapa Cadillac Gold Mines Ltd.	21,338	...	21,338	1,474	250	(a)
McWatters Gold Mines Ltd.	36,145	2,101	37,558	11,282	150	(a) (c) (e)
O'Brien Gold Mines Ltd.	55,795	...	55,628	40,938	150	(a) (c)
Pan-Canadian Gold Mines Ltd.	8,837	3,000	5,837	1,072	50	(a)
Payore Holdings Ltd.	4,812	...	4,812	466	35	(a) (f)
Perron Gold Mines Ltd.	186,410	62,163	124,247	35,614	340	(c)
Powell Rouyn Gold Mines Ltd.	(x)	(x)	159,450	25,567	...	(g)

Table 6 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1938. (continued).

Property and Province	Ore	Material	Ore	Gold	Mill	See
	raised	sorted (discarded)	treated	produc- tion	capacity 24 hours	
	Tons	Tons	Tons	Fine oz.	Tons	foot- notes
<u>QUEBEC (concluded)</u>						
Shawkey Gold Mines Ltd.	49,574	7,813	41,761	7,702	200	(a) (c)
Sigma Mines (Quebec) Ltd.	201,176	...	224,861	51,385	300	(c)
Siscoe Gold Mines Ltd.	215,174	28,228	187,767	66,783	600	(a) (c)
Sladen-Malartic Mines Ltd.	103,709	...	103,709	16,925	250	(c)
Stadacona Rouyn Mines, Ltd.	157,497	...	157,497	22,589	500	(c)
Sullivan Consolidated Mines Ltd.	65,174	...	65,174	22,453	300	(a) (c)
Thompson Cadillac Mining Corp.	71,711	...	78,247	6,556	200	(a) (h)
Other gold mines .....	...	...	...	217	...	...
Copper-gold-silver ores .....	...	...	...	305,234	...	...
TOTAL - QUEBEC .....	...	...	...	881,263	...	...

Footnotes -

- | | |
|---|---|
| (x) Not recorded. | (a) Includes 3,514 tons tailings retreated. |
| (a) Amalgamation. | (f) 80 tons concentrates stored; concentrates also smelted. |
| (b) In concentrates shipped to smelter. | (g) Crude ore shipped to smelter. |
| (c) Cyanidation. | (h) Concentrates shipped to smelter. |
| (d) Milled by Arntfield Gold Mines Ltd. | |

ONTARIOPorcupine District -

Buffalo Ankerite Gold Mines Ltd.	378,840	16,002	362,838	84,363	1,000	(c)
Coniaurum Mines Ltd.	188,975	...	188,975	47,517	600	(c)
Delnite Mines Ltd.	86,346	...	85,816	18,812	275	(c)
Dome Mines Ltd.	601,700	...	601,700	206,957	1,500	(a) (c)
Hallnor Mines Ltd.	76,025	...	60,979	38,960	400	(c)
Hollinger Consolidated Gold Mines Ltd. (Ross)	44,558	...	44,399	13,170	150	(c)
Hollinger Consolidated Gold Mines Ltd. (Timmins)	1,737,331	...	1,734,647	439,194	6,000	(c)
Mace Gold Mines Ltd.	61,980	...	62,070	6,506	300	(c)
McIntyre Porcupine Mines Ltd.	872,740	...	872,740	234,737	2,500	(c)
Moneta Porcupine Mines Ltd.	53,070	...	54,577	28,823	200	(c)
Naybob Gold Mines Ltd.	7,832	...	10,339	1,179	150	(c)
Pamour Porcupine Mines Ltd.	515,843	...	515,193	94,012	1,500	(c)
Paymaster Consolidated Mines Ltd.	193,117	...	190,107	39,722	550	(c)
Porcupine Lake Gold Mining Co. Ltd.	4,856	16	4,714	624	20	(a)
Preston East Dome Mines, Ltd.	6,129	...	(x)	3,933	...	(b)

Kirkland Lake District -

Bidgood Kirkland Gold Mines, Ltd.	52,886	...	52,636	17,412	125	(c)
Golden Gate Mining Co. Ltd.	11,090	...	11,090	4,757	150	(a) (c)
Kirkland Lake Gold Mining Co. Ltd.	92,665	...	92,665	42,103	225	(c)
Lake Shore Mines Ltd.	921,837	...	921,837	429,182	2,300	(c)
Macassa Mines Ltd.	111,525	...	110,718	50,213	400	(c)
Mesabi Gold Mines Ltd.	1,485	84	1,193	130	100	(x)
Morris Kirkland Gold Mines Ltd.	22,519	...	22,929	3,187	100	(c)
Sylvanite Gold Mines Ltd.	185,681	...	190,714	68,623	525	(c)
Teck-Hughes Gold Mines Ltd.	380,215	...	380,215	102,816	1,000	(c)
Toburn Gold Mines Ltd.	62,952	10,518	52,434	31,553	150	(c)
Upper Canada Mines Ltd.	6,424	...	6,270	1,510	...	(d)
Wright-Hargreaves Mines Ltd.	434,650	...	434,650	221,204	1,200	(c)

Larder Lake District -

Kerr-Addison Gold Mines Ltd.	148,642	...	148,642	27,805	650	(c)
Omega Gold Mines Ltd.	176,852	...	176,852	24,565	500	(c)
Raven River Mines, Ltd.	25,101	1,137	23,964	5,688	75	(c)

Matachewan District -

Hollinger Consolidated Gold Mines, Ltd. (Young- Davidson)	359,819	...	359,266	35,389	1,000	(c)
Matachewan Consolidated Mines Ltd.	154,409	...	154,409	23,310	300	(c)

Table 6 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1958. (continued)

Property and Province	Ore raised Tons	Material sorted (discarded) Tons	Ore treated Tons	Gold produc- tion Fine oz.	Mill Ca- pacity 24 hours tons	See foot- notes
<u>ONTARIO (concluded)</u>						
<u>Sudbury District -</u>						
Lebel Oro Mines Ltd.	34,472	...	34,827	6,421	75	(c)
Consolidated Mining & Smelting Co. of Canada, Ltd. (Golden Rose)	40,181	...	40,161	15,959	100	(c)
Tionaga Gold Mines Ltd.	(x)	150	2,122	629	50	(a)
<u>Algoma District -</u>						
Algold Mines Ltd.	8,542	...	8,542	706	100	(a)
Algoma Summit Gold Mines Ltd.	67,121	451	66,670	5,821	500	(a)(e)
Cline Lake Gold Mines Ltd.	37,284	...	32,344	7,274	200	(c)
Deep Lake Gold Mines Ltd. ....	...	...	(x)	15	25	(f)(a)
Minto Gold Mines Ltd.	7,851	...	7,851	2,114	100	(e)
<u>Thunder Bay District -</u>						
Bankfield Cons. Mines Ltd.	47,632	...	47,500	18,593	150	(a)(c)
Hard Rock Gold Mines Ltd.	88,286	12,212	76,074	18,578	300	(c)(g)
Leitch Gold Mines Ltd.	35,715	5,131	30,584	20,160	75	(a)(c)
Little Long Lac Gold Mines Ltd.	128,130	30,810	97,320	43,849	280	(a)(c)(h)
McLeod-Cockshutt Gold Mines Ltd.	139,410	12,419	126,291	25,518	500	(c)
Magnet Cons. Mines Ltd.	3,446	...	2,946	1,752	...	(1)
Northern Empire Mines Co. Ltd.	59,688	...	59,332	22,823	180	(c)
St. Anthony Gold Mines Ltd.	33,383	4,879	28,945	6,226	125	(c)
Sand River Gold Mining Co. Ltd.	45,250	9,560	35,670	12,898	75	(c)
Sturgeon River Gold Mines Ltd.	45,697	17,540	28,157	14,432	75	(a)(c)
Theresa Gold Mines Ltd.	(x)	...	190	15	12	
Tombill Gold Mines Ltd.	23,750	...	26,486	11,001	100	(a)(c)
<u>Kenora and Rainy River Areas -</u>						
Orelia Mines Ltd. ....	...	...	500	23	25	(a)(f)
Straw Lake Beach Gold Mines Ltd.	2,395	...	2,475	526	60	(a)
Wendigo Gold Mines Ltd.	35,141	5,100	30,041	10,160	80	(a)(e)(k)
<u>Patricia District -</u>						
Argosy Gold Mines Ltd.	1,700	50	1,636	1,014	125	(a)(c)
Central Patricia Gold Mines Ltd.	102,852	1,476	101,376	45,596	200	(c)
Gold Eagle Gold Mines Ltd.	56,394	12,583	43,811	10,270	125	(c)
Hasaga Gold Mines Ltd.	8,052	287	3,206	699	125	(c)
Howey Gold Mines Ltd.	538,444	90,329	448,115	34,244	1,250	(c)
J. M. Consolidated Gold Mines Ltd.	18,280	1,275	17,005	3,983	100	(c)
Madsen Red Lake Gold Mines Ltd.	44,663	...	44,663	9,269	360	(a)(c)
McKenzie Red Lake Gold Mines Ltd.	79,783	16,462	63,321	25,285	150	(c)
Pickle Crow Gold Mines Ltd.	135,808	20,461	136,378	78,565	400	(a)(c)
Red Lake Gold Shore Mines Ltd.	34,173	5,779	23,865	4,481	125	(c)(1)
Sachigo River Exploration Co. Ltd.	8,837	2,660	6,084	10,683	25	(a)(c)
Other gold mines	(x)	(x)	(x)	1,114	...	
Nickel-copper ores ....	...	...	...	80,227	...	
TOTAL - ONTARIO ....	...	...	...	2,896,477	...	

(x) Not recorded.

(e) Amalgamation.

(b) High grade and ore shipped for smelting.

(c) Cyanidation

(d) Milled by Morris Kirkland Gold Mines.

(e) Also in ore or concentrates shipped for smelting.

(f) Clean-up operations.

(g) 397 tons concentrates stored.

(h) 3,100 tons tailings also retreated.

(i) Milled and cyanided at other mines.

(j) Tailings only treated.

(k) 22 tons copper-gold concentrates stored.

(1) Property taken over by Hasaga Gold Mines.

Table 6 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1938. (continued)

Property and Province	Ore raised Tons	Material sorted (discarded) Tons	Ore treated Tons	Gold produc- tion Fine oz.	Mill Ca- pacity 24 hours Tons	See foot- notes
<u>MANITOBA</u>						
God's Lake Gold Mines Ltd.	70,727	...	70,727	22,183	200	(a)(c)
Gunnar Gold Mines Ltd.	54,815	3,335	51,480	17,565	150	(c)
Gurney Gold Mines Ltd.	63,198	15,463	47,735	13,867	125	(c)
Laguna Gold Mines Ltd.	41,136	8,829	32,307	16,390	50	(a)(c)
San Antonio Gold Mines Ltd.	117,408	...	117,373	31,244	300	(a)(c)
Shannon, V. D. (Oro Grande)	5,345	...	5,345	2,006	50	(a)(b)
Other gold mines .....	...	...	...	64	...	...
Copper-gold-silver ores .....	...	...	...	82,387	...	...
TOTAL - MANITOBA .....	...	...	...	185,706	...	...

(a) Amalgamation.

(b) In addition, 450 tons tailings were retreated and 110 tons of concentrates stored.

(c) Cyanidation.

SASKATCHEWAN

Consolidated Mining & Smelting Co. of Canada, Limited (Box)	17,640	...	...	...	1,000	(a)
Alluvial deposits	(x)	(x)	(x)	81	...	...
Gold mines .....	...	...	...	12	...	(b)
Copper-gold-silver ores .....	...	...	...	49,928	...	...
TOTAL - SASKATCHEWAN .....	...	...	...	50,021	...	...

(a) Development and construction only.

(b) In small shipments of ore to smelter.

(x) No record.

ALBERTA

Placer gold	(x)	(x)	(x)	305
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(x) No record.

BRITISH COLUMBIA

Ashloo Gold Mines Ltd.	5,012	...	5,012	2,318	25	(b)
Bayonne Consolidated Mines Ltd.	19,298	...	19,298	10,288	50	(a)(c)
B. R. X. Cons. Mines Ltd.	4,787	...	4,787	15	110	(c)
Bralorne Mines Ltd.	180,526	...	180,526	103,867	475	(a)(b)
Buena Vista Mining Co. Ltd. (Big Missouri) ...	154,387	...	154,387	12,540	500	(c)
Cariboo Gold Quartz Mining Co. Ltd.	102,541	...	102,539	42,906	300	(c)
Cariboo-Hudson Gold Mines Ltd.	(x)	...	2,438	732	100	(c)
Central Zeballos Gold Mines Ltd.	(x)	...	31	152	...	(b)
Clubine Comstock Gold Mines Ltd.	(x)	(x)	851	649	...	(b)
Danzig Mines Inc.	(x)	(x)	43	42	...	(b)
Dentonia Mine	(x)	(x)	1,873	557	...	(b)
Dufferin Golds Ltd.	85	...	85	55	...	(b)
Endersly, A. (Motherlode and Nugget)	350	...	350	232	...	(b)
Fairview Amalgamated Gold Mines Ltd.	46,810	750	46,060	3,921	150	(b)
Gold Belt Mining Co. Ltd.	9,844	...	9,844	4,437	150	(c)
Greenbridge Gold Mines Ltd.	(x)	(x)	220	22	...	(b)
Hedley Mascot Gold Mines Ltd.	(x)	...	63,868	23,003	175	(b)(d)
Inland Empire Mine Syndicate	598	...	598	131	...	(b)
Island Mountain Mines Co. Ltd.	44,916	...	44,916	18,467	110	(c)
I.X.L. Leasors Ltd.	150	...	150	393	...	(b)
Kalamalka Gold Mines Ltd.	938	...	938	267	...	(b)
Kelowna Exploration Co. Ltd.	88,697	...	88,636	30,591	250	(c)(b)
Kootenay Belle Gold Mines Ltd.	48,238	...	48,238	19,421	100	(c)
Livingstone Mining Co. Ltd.	1,351	2,702	1,511	448	30	(a)(b)
McArthur, W. E. (Brooklyn)	12,887	...	12,887	2,611	50	(b)
McArthur, W. E. (No. 7 Boundary Falls)	2,453	...	2,453	288	...	(b)
McArthur, W. E. (Athelstan)	353	...	353	172	...	(b)
Midnight Mining Co.	1,324	1,059	285	991	...	(b)

Table 6 - PRODUCTION OF GOLD IN CANADA, BY PRINCIPAL MINES, 1958. (continued)

Property and Province	Ore raised Tons	Material sorted (discarded) Tons	Ore treated Tons	Gold produc- tion Fine oz.	Mill Ca- pacity 24 hours Tons	See foot- notes
<u>BRITISH COLUMBIA (concluded)</u>						
Molly Gibson Mines Ltd.	50	...	22	52	...	(b)
Oscarson, Roger (Arlington)	978	...	972	1,545	...	(b)
Osoyoos Mines of Canada, Ltd.	20,639	...	20,639	4,297	75	(c) (b) (f)
Pioneer Gold Mines of B.C. Ltd.	142,775	19,871	123,304	58,271	300	(a) (c)
Polaris-Taku Mining Co. Ltd.	52,679	...	58,759	12,765	150	(b) (e)
Privateer Mine Ltd.	45,389	...	9,214	16,023	75	(c) (b) (e)
Relief Arlington Mines Ltd.	45,918	15,951	29,367	12,344	75	(c)
Reno Gold Mines Ltd.	48,858	...	49,158	19,897	120	(a) (c)
Reward Mining Co. Ltd.	11,520	8,009	3,511	1,867	20	(b)
Rey Oro Gold Mining Co. Ltd.	(x)	2,250	446	1,102	10	(a) (b)
Riegel Mines Ltd. (Providence)	143	...	143	89	...	(b)
Riegel Mines Ltd. (Yankee Boy)	404	...	404	239	...	(b)
Sheep Creek Gold Mines Ltd.	53,728	...	53,728	25,897	150	(c)
Silbak Premier Mines Ltd.	184,606	...	184,606	45,073	500	(b)
Spud Valley Gold Mines Ltd.	(x)	215	1,702	152	50	(a) (b)
Surf Inlet Cons. Gold Mines Ltd.	20,281	2,853	17,428	6,842	50	(b)
Vidette Gold Mines Ltd.	6,683	...	6,732	3,288	60	(b)
Wesko Mines Ltd.	15,096	...	15,096	2,930	100	(c)
Wilcox Mining Syndicate	1,395	...	1,395	349	20	(a) (b)
Windpass Gold Mining Co. Ltd.	18,055	7,284	19,059	5,790	60	(b)
Ymir Consolidated Gold Mines Ltd.	(x)	2,416	13,978	5,481	100	(b) (e)
Ymir Yankee Girl Gold Mines Ltd.	42,565	...	42,717	12,025	100	(c) (b)
Placer gold .....	...	...	4,063,746(1)	46,207	...	
Copper-gold and silver-lead ores and other gold mines .....	...	...	...	43,796	...	
TOTAL - BRITISH COLUMBIA .....	...	...	...	605,617	...	
(x) Not recorded.						
(a) Amalgamation.						
(b) Ore or concentrates shipped for smelting.						
(c) Cyanidation.						
(d) Not including gold content of 69 tons of concen- trate.						
(e) Concentrates were also stock piled.						
(f) 41,209 tons tailings also retreated.						
(1) Partly estimated.						
<u>YUKON</u>						
Placers .....	...	...	8,870,628(1)	71,303	...	...
La Forme (quartz)	(x)...	(x)	(x)	(216)	10	...
Silver-lead ores .....	...	...	...	1,065	...	...
TOTAL - YUKON .....	...	...	...	72,368	...	...
(x) No record; production conjectural.						
(1) Cubic yards, partly estimated.						
<u>NORTHWEST TERRITORIES</u>						
Consolidated Mining and Smelting Co. of Canada, Limited .....(Con)	14,052	...	13,832	6,794	100	(a) (c)
Silver ores .....	...	...	...	6	...	(b)
TOTAL - NORTHWEST TERRITORIES .....	...	...	...	6,800	...	...
(a) Amalgamation.						
(b) In ores smelted.						
(c) Cyanidation.						
GRAND TOTAL - CANADA .....	...	...	...	4,725,117	...	...

Table 7 - PRODUCTION OF GOLD IN CANADA, BY MONTHS(x), 1937, 1938 and 1939.

Month	1937	1938	1939		1937	1938
	Fine ounces				Fine ounces	
January	328,545	361,086	411,328	July	347,474	420,778
February	310,074	340,838	390,963	August	348,451	412,135
March	326,275	376,023	414,217	September	348,109	409,612
April	323,337	368,439	406,795	October	358,836	411,263
May	340,125	381,089	432,359	November	352,929	410,023
June	344,895	390,693		December	361,671	433,877

(x) Compiled from monthly reports received from principal operators and the totals, therefore, will not necessarily agree with those shown elsewhere in this report.

Table 8 - FINE GOLD and FINE SILVER CONTENT OF SHIPMENTS TO THE ROYAL CANADIAN MINT, OTTAWA, CANADA, BY SOURCES, 1938.

	Gold	Silver
	Fine ounces	Fine ounces
Northwest Territories	4,455.32	776.10
British Columbia	309,947.11	71,670.67
Alberta sundries	32.05	3.30
Saskatchewan sundries .....	...	...
Manitoba	99,715.19	47,503.37
Ontario	2,840,980.67	398,898.01
Quebec	944,161.06	124,512.04
Nova Scotia	26,399.29	974.10
Vancouver Assay Office(x)	157,663.06	23,382.72
Total Primary	4,383,353.75	667,720.31
Other -		
Foreign Gold Coin	11.11	...
Jewellery and scrap	14,489.84	4,011.35
TOTAL - ALL RECEIPTS	4,397,854.70	671,731.66

(x) Largely from Yukon.

Table 9 - PRECIOUS METALS CONSUMED BY THE JEWELLERY AND SILVERWARE INDUSTRY IN CANADA, 1935, 1936 and 1937.

	Cost at works		
	1935	1936	1937
	\$	\$	\$
Fine gold	820,453	774,385	955,362
Gold alloys	27,231	49,062	78,773
Fine silver	290,270	296,222	480,215
Silver alloys	73,457	47,175	414,474
Platinum	45,627	101,129	112,295
Old gold for refining	844,902	1,047,715	1,489,474
Jewellers' findings, waste and scrap for refining ...	265,656	422,837	388,146
Gold-filled wire and stock	132,174	121,517	137,964

Table 10 - GOLD PRODUCTION OF THE WORLD(a), 1952, 1957 and 1958. (Taken from the Year Book of the American Bureau of Metal Statistics).

(In fine ounces)

Country	1952	1957	1958
NORTH AMERICA:			
United States	2,449,052	4,755,104	5,008,178
Canada	5,044,587	4,096,215	4,715,480
Mexico	584,487	846,581	925,000
Newfoundland	17,661	22,500	26,000
Total North America	8,095,567	9,718,198	10,672,658
CENTRAL AMERICA AND WEST INDIES			
	82,258	140,000	160,000(x)
SOUTH AMERICA:			
Brazil	119,868	145,771	145,000
Chile	57,778	272,698	295,995
Colombia	248,249	442,222	519,000
Ecuador	65,629	59,500	55,000
Peru	86,101	213,990	250,000
Guiana - British	15,926	55,995	56,000(x)
Dutch	7,200	10,600	12,000
French	45,010	45,585	40,605
Venezuela	77,087	116,514	125,000
Other South America	13,245	55,000	60,000(x)
Total South America	714,093	1,597,871	1,556,600
EUROPE:			
Czechoslovakia	2,285	10,051	10,000
France	92,013	72,757	75,000(x)
Yugoslavia	(d)	87,584	78,501
Rumania	102,591	166,540	172,453
Russia and Siberia	1,990,000	5,900,000(x)	5,800,000(x)
Sweden	152,458	195,222	230,000
Other Europe	55,530	35,000	45,000
Total Europe	2,574,875	6,465,114	6,410,754
OCEANIA:			
New South Wales	27,941	68,607	88,708
Queensland	25,265	127,281	151,452
Victoria	47,745	145,799	144,245
Western Australia	605,561	1,000,642	1,167,792
Tasmania	5,937	20,277	22,200
New Guinea	(c)	217,149	241,700
New Zealand	166,354	168,487	151,062
Other Oceania	121,071	65,000	138,000
Total Oceania	997,872	1,815,242	2,105,157
ASIA:			
British India	529,682	551,748	522,000
China, including Manchuria	96,750	210,000	188,000
Chosen (Korea)	276,002	754,580	950,000
Netherland India	78,186	55,618	75,000(x)
Formosa	25,045	50,000(x)	60,000(x)
Japan	401,779	725,575	760,000(x)
Other Asia	36,526	95,000	100,000
Total Asia	1,243,970	2,200,521	2,455,000
AFRICA:			
Belgian Congo	242,691	452,521	460,000
French West Africa	(e)	128,217	127,153
Kenya	(e)	54,774	70,000
Madagascar	11,358	13,471	15,000
Rhodesia	580,505	808,447	815,191
British West Africa (b)	292,510	621,395	725,000
Tanganyika	(e)	74,676	89,800
Transvaal, Cape Colony and Natal .	11,558,532	11,734,575	12,160,392
Other Africa	111,494	150,000	160,000
Total Africa	12,797,068	13,997,876	14,622,556
TOTALS FOR WORLD	24,505,685	35,752,622	37,942,685

FOOTNOTES - see next page.

Footnotes to Table 10 -

- (a) In compiling this table free use has been made of the reports of the Director of the Mint, especially for early years. The 1938 compilation contains some preliminary data and conjectural figures(x) have been inserted where necessary. Production of the Philippine Islands is included with the United States. (b) Comprising Gold Coast, Sierra Leone and Nigeria. (c) Included in "Other Oceania". (d) Included in "Other Europe". (e) Included in "Other Africa".

The accountings for gold production in the Soviet Union, especially for recent years, are estimates derived from uncertain data, but they have to be made in order to arrive at world's totals, even if some error be introduced.

Table 11 - 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 (f) (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 .....	...	...	...	...	20,488,552
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	61,098,343
1871 - 1880 .....	...	...	15,281,264(e)	904,093	55,670,618
1881 - 1890 .....	...	1,070,651	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 .....	...	13,632,908	19,393,722	4,592,261	78,033,650
1906 .....	...	5,792,823	(	566,415	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	2,478,166	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	306,425	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	9,954,782	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	585,800	10,354,157	2,233,251	1,890,592	18,885,849
1929	707,500	10,412,326	2,208,386	1,928,308	19,207,452
1930	1,501,085	10,716,349	2,285,603	2,102,068	20,903,736
1931	1,855,725	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	24,098,676
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	4,784,050	10,773,041	3,609,283	3,284,890	29,999,245
1936	6,500,000(h)	11,335,094	4,357,394	3,748,028	32,930,554
1937	5,900,000(h)	11,734,553	4,804,540	4,096,213	34,740,055
1938	5,800,000(h)	12,161,575	5,106,109(b)	4,725,117	37,942,685(h)
TOTAL .....	...	340,091,604	249,850,780	85,131,533	1,294,935,611

Footnotes to Table 11 -

- (a) Supplied by United States Mint.
- (b) Preliminary estimate by United States Bureau of Mines and includes 862,597 fine ounces produced (refinery receipts) in the Philippines.
- (c) 1792-1847.
- (d) 1848-1872.
- (e) 1873-1880.
- (f) Including Philippine Islands production received in United States.
- (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.

Table 12 - ESTIMATED AVERAGE MONTHLY VALUE OF AN OUNCE OF FINE GOLD, EXPRESSED IN CANADIAN FUNDS, 1931-1938.

Month	1931	1932	1933	1934	1935	1936	1937	1938
	\$	\$	\$	\$	\$	\$	\$	\$
January	20.71	24.24	23.64	33.05	34.95	35.06	35.01	34.99
February	20.67	23.67	24.74	35.29	35.05	35.18	35.01	35.00
March	20.67	23.11	24.78	35.08	35.40	35.11	34.98	35.05
April	20.68	22.98	25.33	34.93	35.18	35.15	34.95	35.15
May	20.68	23.38	27.75	34.94	34.95	35.00	34.94	35.22
June	20.73	23.83	28.24	34.73	35.05	35.09	35.02	35.36
July	20.74	23.73	30.58	34.59	35.08	34.91	35.05	35.24
August	20.73	23.61	30.09	34.19	35.09	35.00	35.00	35.12
September	21.55	22.88	31.79	34.18	35.28	34.99	35.00	35.12
October	23.22	22.65	31.48	34.27	35.49	34.99	34.99	35.32
November	23.22	23.73	32.68	34.16	35.37	34.95	34.98	35.25
December	25.01	23.85	32.14	34.57	35.33	34.98	34.93	35.28
Yearly Average	21.55	23.47	28.60	34.50	35.19	35.03	34.99	35.17

NOTE - Procedure regarding the marketing of gold by the Department of Finance, Ottawa, is shown elsewhere in this report. At December 29th, 1938, 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 1938, was equal to \$34.9125 per ounce.

FOREIGN EXCHANGE, 1938.
(Internal, Trade Branch)

Fluctuations in foreign exchanges were of unusual magnitude in 1938. Due to domestic unsettlement and other adverse factors, French francs were repeatedly under pressure. Following several political crises the franc was formally devalued on May 5 and a minimum rate of 179 francs to the £ sterling was established. This move resulted in considerable repatriation of French capital which placed a strain on other European currencies, notably the pound sterling. Pressure on sterling, however, did not assume serious proportions until July when the Sudetan situation became more critical. The pound was also affected by the increasingly unfavourable British trade balance at this time. It had been steady around \$5.00 during the first six months of the year, but subsequently dropped rapidly to a low of \$4.7995 on September 27. The signing of the Munich Accord was followed by some recovery and sterling rates ruled firmer for the next six weeks. Another relapse in November brought them to a 1938 low of \$4.6564 on the 26th, which resulted in official intervention by the British Equalization fund and a secondary rise in sterling rates to \$4.710. The flow of capital from London to New York during the autumn crisis was very heavy, averaging about 375 million dollars a month. Bar gold at London touched an all-time high of 150s. on November 26 coinciding with the low point in sterling quotations. At the height of the September crisis the United States dollar was quoted at a premium of 2 per cent in contrast to a small discount which ruled during the opening months of the year. This premium had been reduced to 1 per cent by the end of December. Mexican currency was one of the few units to show sharp depreciation during the early part of the year. The peso dropped approximately 5 cents to 22 cents in the final week of March following the announcement that the United States would cancel Mexican silver purchases on April 1. The unfavourable position of Chinese currency was reflected in the value of the Shanghai dollar, rates for which were cut practically in half between January and December. They dropped from 29.50 cents in January to 15.95 cents at the year end. Further devaluation of the Argentine peso was officially announced during the early part of November. The rate was lowered from 16

to 17 pesos to the £ sterling. The Belgian belga and Netherlands florin were comparatively the firmest European currencies in 1938. These units formerly moved in close alignment with sterling but took independent courses prior to the September crisis and maintained them thereafter.

Table 13 - EXCHANGE QUOTATIONS AT MONTREAL, 1938.

NOTE - The noon rates in Canadian funds upon which these averages are based have been supplied by the Bank of Canada.

	New York Funds	London Sterling	France Franc	Italy Lira	Australia (Pound)	Germany Reichs- mark	Japan Yen	Union of South Africa (Pound)
	\$	\$	\$	\$	\$	\$	\$	\$
January	1.0001	5.0003	.0334	.0526	4.0002	.4029	.2906	4.9941
February .....	.9997	5.0165	.0329	.0526	4.0128	.4041	.2903	5.0103
March	1.0028	4.9984	.0313	.0528	3.9984	.4035	.2896	4.9923
April	1.0054	5.0061	.0312	.0529	4.0049	.4041	.2916	5.0004
May	1.0082	5.0081	.0284	.0530	4.0058	.4049	.2918	5.0018
June	1.0107	5.0116	.0281	.0532	4.0093	.4070	.2920	5.0053
July	1.0054	4.9562	.0278	.0529	3.9638	.4040	.2887	4.9500
August	1.0034	4.8970	.0274	.0528	3.9176	.4023	.2854	4.8909
September	1.0062	4.8335	.0271	.0529	3.8670	.4021	.2818	4.8275
October	1.0093	4.8120	.0269	.0531	3.8509	.4042	.2806	4.8076
November	1.0072	4.7413	.0265	.0530	3.7931	.4033	.2762	4.7333
December	1.0092	4.7133	.0266	.0531	3.7707	.4045	.2747	4.7075

GOLD EXPORTS

(Order-in-Council P.C. 3189 - December 20th, 1938)

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. 3124, dated December 18, 1937, continued in force until December 31, 1938;

AND WHEREAS in the opinion of the Minister of Finance it is expedient that the said regulations be continued in force beyond December 31, 1938;

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 31st, 1939, 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"

Table 14 - IMPORTS INTO CANADA and EXPORTS OF GOLD, Calendar Year 1938.

IMPORTS -

Coin and bullion -

Gold coins	\$	389,650
Coins, n.o.p.	\$	1,530,345
Gold in bars, blocks, ingots, drops, sheets or plates, unmanufactured	\$	57,391,376

Gold, other -

Bullion fringe or gold fringe	\$	3,582
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Manufactures of gold and silver -

Leaf	\$	61,269
Sweepings	\$	104
Manufactures, n.o.p.	\$	28,606
Electroplated ware	\$	1,141,374
Gold, unmanufactured, for commercial purposes	\$	71,402

Table 14 - IMPORTS INTO CANADA and EXPORTS OF GOLD, Calendar year 1938. (concluded)

EXPORTS -

Gold-bearing quartz, dust, nuggets and crude bullion obtained direct from mining operations	\$	8,192,591
Jewellers' sweepings (gold, silver and platinum)	\$	1,211,204
Coin and bullion -		
Gold bullion other than monetary	\$	67,659,295
Canadian gold bullion - monetary .....		...
Canadian gold coin - monetary .....		...
Foreign gold bullion - monetary .....		...
Foreign gold coin - monetary	\$	28,412,977
Foreign gold coin - other than monetary	\$	32,190,056

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

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. 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. Additions to the stock from imports are taken account of when the gold in question enters Canada, not when it is added to earmark. Similarly, domestic gold added to earmark stock, although sold abroad, does not appear in export statistics because it remains in Canada. In view, however, of the relation to external trade, certain statistics respecting holdings of earmark gold are given by the External Trade Branch of the Dominion Bureau of Statistics in the following table.

Table 15 - CHANGES IN HOLDINGS OF EARMARKED GOLD BY THE BANK OF CANADA, FEBRUARY, 1936, to MAY, 1939.
Net increase (+) or decrease (-).

Month	1936	1937	1938	1939
	Fine oz.	Fine oz.	Fine oz.	Fine oz.
January .....	...	+ 130,660	...	+ 13,332
February	+ 172,227	...	...	+ 59,963
March	+ 89,813	+ 72,679	+ 265,269	+ 244,956
April .....	...	...	+ 131,616	+ 233,000
May	+ 147,622	...	+ 1,011,218	+ 4,721,000
June	+ 292,781	...	+ 11,283	...
July	+ 237,938	+ 95,561	+ 4,115	...
August .....	...	...	+ 600	...
September	+ 148,796	...	- 570,955	...
October	+ 69,381	+ 53,457	+ 942,020	...
November .....	...	+ 151,278	+ 230,525	...
December	+ 193,939	+ 76,212	+ 193,930	...

Net increase, twelve months ended December, 1936	1,352,497 fine ounces.
Net increase, twelve months ended December, 1937	579,847 fine ounces.
Net increase, twelve months ended December, 1938	2,219,621 fine ounces.

The present procedure in dealing with gold in trade statistics is perhaps not yet thoroughly understood by the general public, and it is felt that the publication of an annual statement dealing with the disposition of our new gold in recent years may operate to clarify the situation and supply needed information. In a world that is so disturbed as the present, both imports and exports of gold may take place for various reasons, financial or economic, and it is not remarkable under present conditions that gold belonging to outsiders should be brought to Canada for safe keeping, or that new Canadian gold should be purchased by outsiders and left here for safe keeping.

The clearest possible picture of the disposition of our new gold in 1936, 1937 and 1938 will, it is felt, be supplied by the following table. That table shows in the first line our production of new gold in each of the three years, and attempts to account, as nearly as may be, for its disposition. It proceeds on the principle, which is generally recognized in statistics of such durable commodities as gold,

that exports minus imports plus addition to stocks should approximately equal production. In the case of gold, the figure of exports less imports may be described as net exports. Additions to stocks may be made either through "ear-marking" for outside institutions or through additions to the Bank of Canada's own reserves. Some allowance is also made for the "consumption" of gold in industry, dentistry, etc..

Table 16 - ESTIMATED DISPOSITION OF CANADA'S NEW GOLD, Calendar Years 1936 - 1938.
(General Statistics Branch - D.B.S.)

	1 9 3 6		1 9 3 7		1 9 3 8 (x)	
	Quantity	Value	Quantity	Value	Quantity	Value
	Fine oz.	\$	Fine oz.	\$	Fine oz.	\$
1. Production of new gold	5,748,028	131,293,421 (\$35.08)	4,096,213	143,326,493 (\$34.99)	4,725,117	166,205,990 (\$35.175)
2. Gold exported -						
Merchandise (domestic and foreign)	2,211,413	77,392,702	3,241,401	112,838,232	...	108,041,922
Jewellers' sweepings .....	...	825,251	...	1,338,358	...	1,211,204
Monetary gold (domestic and foreign) .....	...	4,746,207	...	12,030,499	...	28,412,977
3. Gold imported .....	...	(a) 977,952	...	194,172	...	57,852,428
4. Net gold exports, (2)-(3) .....	...	81,986,208	...	126,012,917	...	79,313,675
5. Net increase in gold under earmark	1,352,497	47,337,395	579,847	20,294,645	2,172,295	76,030,325
6. Net change in Bank of Canada's reserves .....	...	- 1,137,933	...	/ 392,352	...	/ 6,148,255
7. Estimated consumption of gold in the jewellery and silverware industry .....	...	774,385	...	955,362	...	900,000
8. Disposition accounted for, (4)/(5)/(6)/(7) .....	...	128,960,055	...	147,655,276	...	162,892,255

(a) Includes subsidiary coin prior to April 1, 1936.

(b) Both new gold and gold recovered from scrap, etc. - no separate data.

(x) Subject to revision.

Table 17 - IMPORTS OF GOLD INTO THE UNITED STATES, 1934 - 1939. (United States Department of Commerce).

Year	Month	Ore and base bullion		Bullion, refined		U.S. coin	Foreign coin	TOTAL
		Ounces	\$	Ounces	\$	\$	\$	\$
1939	May	193,050	6,724,491	12,082,665	422,616,789	...	99,877	429,440,157
	April ..	194,616	6,753,082	17,122,334	599,267,471	27	6,847	606,027,427
	March ..	237,730	8,194,743	10,191,281	356,393,906	119	847,669	365,436,437
	February	182,921	5,680,864	6,169,983	215,807,907	...	1,827,612	223,296,383
	January.	214,082	7,455,011	4,268,221	148,970,130	400	1,180	156,426,721
(000's omitted)								
1938		2,240	77,628	53,920	1,885,628	...	16,201	1,979,458
1937		2,150	74,215	44,469	1,554,667	2	2,640	1,631,523
1936		2,133	73,705	30,519	1,067,680	2	2,730	1,144,117
1935		2,103	72,718	45,103	1,578,635	5,375	84,250	1,740,979
1934		1,119	36,274	32,678	1,140,764	7,179	2,454	1,186,671

ESTIMATED CANADIAN BALANCE OF INTERNATIONAL PAYMENTS

Preliminary Statement for 1938

(Internal Trade Branch - D.B.S.)

The preliminary statement of the Canadian Balance of International Payments for 1938 presents provisional estimates of the current items of goods, gold and services and the principal capital items in Canada's international accounts for the year. While complete and final information will not be available until later in the year, sufficient data are now available to permit the presentation of the salient features of last year's transactions.

A substantial credit balance on current account, revealing a net outflow of capital from Canada, continued to be the outstanding feature of the Canadian balance of international payments statement for 1938. Thus, changes appearing in the statement for 1938 do not alter the fundamental features characteristic of statements for a period of at least five years. Developments revealed in the statement for 1938, as in other recent years, alter the emphasis and significance of individual groups of transactions rather than point to any transformation in the essential nature of Canada's commercial and financial transactions with other countries.

Statements of the Canadian balance of payments in each of the five years from 1934 to 1938 display many common characteristics as is illustrated in the accompanying summary table. It is noteworthy that each of the principal items or groups of transactions, with the single exception of "other security transactions" in 1937, have given rise to balances of a similar kind in each year throughout the period. For example, a balance of credits in the current account pointing to outward movements of capital, is found in each statement. The principal sources of the credit balances on current account have invariably been the merchandise trade, gold, and the tourist trade, credit balances ruling for each of the three in every year. While debit balances from international payments on account of interest and dividends, freight and miscellaneous services are found in each of the annual statements, they have always been much less than the credit balances from the three items already mentioned. In other words, the income of the Dominion from external sources of revenue has exceeded all the current disbursements in other countries made by Canadians by substantial surpluses in every year from 1934 to 1938. These substantial surpluses or credit balances on current account have been employed by Canada for transactions on capital account and the summary of capital movements in the capital account discloses the general nature of the movements of capital.

Capital movements likewise display many parallel tendencies throughout the five-year period. In each year the outward movements of capital for the redemption of Canadian securities owned abroad have exceeded inward movements of capital from the flotation of new issues of Canadian securities in capital markets abroad. Canadian liabilities abroad have accordingly been reduced by such retirement operations. Other security transactions (international trade in outstanding securities) with the exception of 1937 have given rise to inward movements of capital on balance, offsetting in part the reduction in Canadian securities owned abroad resulting from retirements. Other capital movements arising mostly from the international operations of companies and institutions have been outwards on balance and in increasing volume. These, too, have the general effect of either reducing Canadian indebtedness abroad or increasing Canadian assets outside of Canada.

As the summary table below shows, the changes in the balance of payments in 1938 were more evident in individual items than in the character of the statement as a whole. The credit balance on current account declined from \$218.2 millions in 1937 to \$184.8 millions in 1938. This item is the extent by which receipts from the sale of goods, gold and services to other countries exceeded payments abroad for goods and services. Considering the generally lower level of prices of foodstuffs and raw materials and of incomes throughout the world in 1938, and the wide fluctuations in the merchandise balance of other nations under these circumstances, this change appears moderate. Such international developments directly influenced the merchandise trade in particular, and most of the other items directly or indirectly as well. For instance, lower prices and reduced demand for merchandise had its effect upon the Canadian merchandise trade, both exports and imports declining. The international tourist trade likewise no doubt reflected reduced incomes, while lower corporate incomes are reflected in the principal changes in the dividends item. Reduced international movements of merchandise and lower ocean freight rates contributed to a decline in net debits on freight account while miscellaneous services also effected reduced debits on balance, the consequence of more diverse causes. The outstanding exception to the changes already pointed out was the gold item. The expansion in net credits from the sale of gold continued, the result of increasing production and rigid price. In brief, the principal changes in the current account in 1938 were the consequence of reduced credit balances from the merchandise and tourist trades, being partly offset by increased credits from the sale of gold and declines in net debits on account of interest and dividends, freight and miscellaneous services with the result that the reduction in the credit balance on current account was only moderate.

Table 18 - CANADIAN BALANCE OF INTERNATIONAL PAYMENTS, 1934 - 1938. (Net Receipts or Credits (+); Net Payments or Debits (-).

(In millions of dollars)					
	1934	1935	1936	1937	1938(x)
<u>Current Account of Goods, Gold and Services</u>					
1. Merchandise	\$148.1	\$192.7	\$322.2	\$213.3	\$180.5
2. Gold	\$109.6	\$116.7	\$151.0	\$145.0	\$156.5
3. Tourist Trade	\$ 82.4	\$119.2	\$140.9	\$170.3	\$145.0
4. Interest and Dividends	-211.6	-208.6	-233.8	-246.2	-242.0
5. Freight	- 27.9	- 14.1	- 17.8	- 25.5	- 20.0
6. Miscellaneous Services	- 25.8	- 29.0	- 34.0	- 38.7	- 35.2
7. Net Receipts or Credits on Current Account ..	\$ 74.8	\$176.9	\$308.5	\$218.2	\$184.8

Table 18 - CANADIAN BALANCE OF INTERNATIONAL PAYMENTS, 1934 - 1938. (Net Receipts or Credits (+); Net Payments or Debits (-).
(concluded)
(In millions of dollars)

	1934	1935	1936	1937	1938(x)
<u>Capital Account</u>					
8. New Issues and Retirements of Securities	- 58.0	-154.4	-163.9	- 88.4	- 60.1
9. Other Security Transactions	/ 8.9	/ 51.0	/ 7.8	- 4.8	/ 27.0
10. Other Capital Movements	- 66.7	- 70.1	- 97.6	-105.6	-127.0
11. Net Outward Capital Movement	-115.8	-173.5	-253.7	-198.8	-160.1
12. Residual Item	41.0	3.4	54.8	19.4	24.7

(x) Preliminary.

Notes on the Principal Items of the Current Account

Merchandise Trade (Exclusive of Gold) -

Statistics shown under this item exclude all gold and have also been altered for balance of payments purposes by the elimination of non-commercial items and other adjustments.

Gold Exports and Imports (Including Earmarked Gold) -

Amounts shown in this item have been selected to reflect the transactions in gold with direct effects upon the Canadian balance of payments. Accordingly, imports of gold for deposit in Canada under earmarked account and exports of gold from earmarked account have been deducted, while sales of gold to earmarked account have been included.

Table 19 - REVISED ESTIMATES OF BRITISH AND FOREIGN CAPITAL INVESTED IN THE CANADIAN MINING INDUSTRY TOGETHER WITH GRAND TOTAL OF ALL BRITISH AND FOREIGN CAPITAL INVESTED IN CANADA, 1927 - 1938.

(Internal Trade Branch)					
(Millions of Dollars)					
Year	British	United States	Other Countries	Total British and Foreign Mining Capital	Total all British and Foreign Capital
1927	99.0	197.0	3.0	299.0	6,184.3
1928	117.0	234.0	4.0	355.0	6,498.9
1929	120.0	239.0	4.0	363.0	6,835.7
1930	98.0	270.0	8.0	376.0	7,195.9
1931	93.0	254.0	8.0	355.0	7,067.8
1932	87.0	239.0	7.0	333.0	6,954.2
1933	87.0	241.0	7.0	335.0	6,913.9
1934	91.0	252.0	7.0	350.0	6,965.1
1935	85.0	234.0	7.0	326.0	6,897.5
1936	89.0	244.0	7.0	340.0	6,822.6
1937	90.0	257.0	10.0	357.0	6,765.0
1938				Data not yet complete	

Separate data for gold mining not available.

NOTE - For entire capital employed in the auriferous quartz mining industry, see Table 30.

Table 20 - AVERAGE COMMERCIAL RATIO OF SILVER TO GOLD FOR EACH SPECIFIED YEAR SINCE 1700.
(Supplied by United States Mint)

Year		Year		Year	
1700	14.81	1895	51.60	1931	71.25
1750	14.55	1900	53.33	1932	73.29
1800	15.68	1905	53.87	1933	59.06
1850	15.70	1910	58.22	1934	72.49
1875	16.64	1915	40.48	1935	54.19
1880	18.05	1920	20.28	1936	77.09
1885	19.41	1925	29.78	1937	77.44
1890	19.75	1930	53.74	1938(x)	80.90

(x) Estimate based on Canadian prices.

Table 21 - WORLD'S MONETARY STOCKS OF GOLD AT THE CLOSE OF 1936 and 1937. (Subject to revision).

(Compiled by the United States Mint from available data)

(Stated in United States money)

Country	Total	Per	Total	Per
	Gold Stock Value, 1936(f)	capita	Gold Stock Value, 1937(f)	capita
United States (e)	11,257,626,000	87.66	12,760,151,000	99.04
Canada	187,557,000	16.91	185,805,000	16.51
Argentina	501,375,000	40.27	469,421,000	36.78
Belgium	631,907,000	76.13	597,070,000	71.67
Denmark	55,510,000	14.37	55,451,000	14.26
France	2,995,285,000	71.47	2,566,425,000	61.18
Germany	26,802,000	0.59	28,491,000	0.42
Great Britain	5,003,857,000	65.78	5,141,485,000	66.45
Italy	208,559,000	4.86	210,253,000	4.87
Netherlands	489,707,000	57.22	928,542,000	107.45
Norway	97,600,000	55.71	81,764,000	28.12
Poland	74,636,000	2.18	82,611,000	2.59
Portugal	68,284,000	9.45	68,653,000	9.40
Roumania	114,251,000	5.88	120,780,000	6.15
Russia (Soviet Union)	(b)	(b)	(b)	(b)
Spain	(a) 718,000,000	28.89	525,000,000	21.13
Sweden	240,370,000	58.35	244,685,000	58.93
Switzerland	655,401,000	157.45	648,205,000	154.96
British India	274,975,000	0.74	275,014,000	0.74
Japan (including Chosen, Taiwan, Kwantung)..	462,657,000	4.65	261,590,000	2.56
Netherlands East Indies	60,274,000	0.92	(d) 79,538,000	1.20
Egypt	52,228,000	3.56	54,781,000	5.45
Australia	3,710,000	0.55	3,435,000	0.50
New Zealand	23,097,000	14.68	23,086,000	14.55
Union of South Africa	209,430,000	21.84	194,860,000	19.09
Other countries	(b) 736,561,000	...	(b) 718,611,000	...
TOTAL	23,147,255,000	(c) 12.27	24,522,103,000	(c) 11.75

(a) On August 1st, 1936.

(b) Russian data omitted because of indefiniteness or unavailability.

(c) Population figures are principally from Yearbook of the League of Nations, 1936-37-38.

(d) January 1st, 1938.

(e) Includes Alaska, Hawaii and Puerto Rico.

(f) 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 22 - CANADIAN GOLD STOCKS, 1925 - 1938.

(Thousands of fine ounces)

December 31	Dominion Notes on Statutory Reserve	Chartered Bank Gold in Canada (1)	Postal Savings Bank Reserve	Free Gold Balance of Minister of Finance	TOTAL GOLD STOCK
1925	6,506	3,014	154	9	9,683
1926	6,187	3,115	150	9	9,461
1927	6,059	3,067	147	138	9,391
1928	4,152	2,961	141	221	7,475
1929	2,841	2,675	124	82	5,722
1930	4,398	2,612	117	140	7,267
1931	2,944	2,467	113	153	5,707
1932	3,395	2,056	109	29	5,589
1933	3,526	1,814	111	44	5,295
1934	3,183	1,822	107	235	5,397
	Bank of Canada Gold Reserve				
1935	5,158	1	105	156	5,400
1936	5,159	2	104	119	5,384
1937	5,160	2	106	55	5,323
1938	5,283	2	109	93	5,487

FOOTNOTES -, See next page

Footnotes to Table 22 -

(1) Including gold coin deposited in the Central Gold Reserves.

NOTE - The amounts of gold held by chartered banks in Canada in 1925 - 1934 exclude an estimated figure of subsidiary coin holdings in 1925-1928 and an actual figure reported by the banks for 1929-1934. (Supplied by Bank of Canada).

Table 23 - CIRCULATING MEDIA IN HANDS OF CANADIAN PUBLIC FOR YEARS SPECIFIED. (General Statistics Branch)

Year	(Millions of Dollars)					
	Dominion and Bank of Canada Notes /3	Circulation of Bank Notes /3	Total Notes in Hands of Public /1 /3	Subsidiary Coin Out- standing	Subsidiary Coin in Hands of Public	Circulating Media in Hands of Public
1919	308.0	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	32.28	26.46	217.96
1931	153.1	142.0	156.7	32.83	27.03	183.73
1933	179.2	130.4	149.8	33.27	27.47	177.27
1934	190.5	135.5	155.7	33.70	27.90	183.60
1935	127.3 /2	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

/1 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.

/2 The Bank of Canada notes first appeared in the last ten months of 1935.

/3 Average of monthly data.

Table 24 - DEPOSITS IN CANADA, AVERAGE OF MONTHLY DATA FOR YEARS SPECIFIED.

Year	(Millions of dollars)				
	Notice 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	31.3	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	1,378.5	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

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

Table 25 - ANNUAL AVERAGE INDEXES OF FIVE CANADIAN ECONOMIC FACTORS, WITH SEASONAL ADJUSTMENT WHERE NECESSARY, 1934 - 1938.

Year	(1928 = 100)				
	Bank Debts	Physical Volume of Business	Employment in Manufacturing	Wholesale Prices	Common Stock
1934	108.1	94.2	90.2	71.6	85.7
1935	103.9	102.4	97.1	72.1	93.7
1936	118.7	112.2	103.7	74.6	119.2
1937	117.5	122.7	114.3	84.5	127.0
1938	101.8	112.9	111.1	78.6	104.1

PRICE MOVEMENTS, 1938

INTERNATIONAL TENDENCIES

(Internal Trade Branch)

The sharp decline in international price levels dating from the spring months of 1937 continued unabated through the first six months of 1938. Increases in world stocks of such commodities as wheat, cotton, rubber and tin played a considerable part in this movement. In July, however, an industrial rally of considerable proportions commenced in the United States, and this gave support to prices of several classes of basic commodities. More intensive rearmament, following the September European crisis, also contributed to higher prices which prevailed latterly in such commodities as copper, tin and rubber. Generally, however, wholesale prices did not parallel the advances in non-ferrous and iron and steel products, and closing 1938 wholesale indexes were practically at bottom levels for the year. The following table shows losses in national indexes outnumbering gains two to one. They ranged from 3.8 per cent for New Zealand to 11.4 for Canada, and appeared in sharp contrast to records for last year when only two countries indicated decreases. Increases in at least three of the five countries to show gains were due to special circumstances, i.e., currency depreciation in France and Japan, and a system of price control in Germany. Living costs, as usual, showed narrower fluctuations than wholesale prices but finished generally lower than December 1937 levels. Notable exceptions were the retail indexes for France and Japan which paralleled the rise of wholesale indexes in those countries.

PERCENTAGE CHANGES IN WHOLESALE PRICE LEVELS, DECEMBER, 1936-1938.

<u>Country</u>	<u>December 1936 to end of 1938(x)</u>	<u>December, 1937 to end of 1938(x)</u>
Australia	/ 4.3	/ 6.2
Belgium	- 3.1	- 6.4
Canada	- 7.7	- 11.4
Czechoslovakia	/ 2.1	/ 0.7
France	/ 29.9	/ 6.8
Germany	/ 0.7	/ 0.2
Japan	/ 17.5	/ 4.7
Netherlands	- 0.1	- 6.2
New Zealand	/ 3.9	- 3.8
Norway	/ 7.1	- 5.7
Poland	- 3.7	- 5.7
Sweden	/ 1.6	- 5.9
Switzerland	- 0.9	- 3.5
United Kingdom	- 2.4	- 8.6
United States	- 6.4	- 5.6

(x) Latest month available.

CANADA

WHOLESALE PRICES, 1938.

Wholesale price levels in Canada during 1938 were reduced materially. The Dominion Bureau of Statistics weekly index of 567 commodity prices receded almost steadily from a level of 84.3 in the first week of January to 74.0 for the week of September 9. At this point the index stiffened and remained comparatively firm through the last quarter, closing the year at 73.2. Between December, 1937, and December, 1938, the monthly general index of wholesale prices dropped from 82.7 to 73.3, a loss of 11.4 per cent.

Primary commodity indexes showed considerable recessions compared with manufactured goods indexes during 1938. The position occupied by Producers' Goods, Raw and Partly Manufactured Materials and Canadian Farm Products relative to manufactured materials was approximately on a par with December, 1935, or about 10 per cent below corresponding levels of a year ago. An interesting point to be noted was the pronounced stability of the Building Materials index which showed greater resistance to decline than either primary or fully manufactured product indexes.

Declines of unusual magnitude were noted in the prices of Canada's leading exports during 1938. The Bureau's index of export wholesale prices dropped continuously from 82.3 in January to 61.9 in September, where it levelled off to close the year at 60.8. This was down 22.9 per cent from December, 1937.

SECURITY PRICES

International events appeared to be the dominating force behind major security price movements in 1938 and, as successive crises were weathered, swift declines were followed by equally sharp rallies. There were two outstanding political crises in 1938 and these were both clearly reflected in security price indexes, the first occurring prior to the union of Germany and Austria on April 1, and the second during the Sudetan dispute in September. Except for these two periods Canadian stock exchange prices pursued a much steadier course than in 1937. The Bureau's general index of 95 common stocks entered 1938 on a rising tide, continuing the advance inaugurated in the third week of October, 1937. It was not until October of 1938, however, that the general index moved above corresponding 1937 levels. At the end of the year it was 6.5 per cent higher than the 1937 close.

Table 26 - SECURITY PRICE INDEX NUMBERS, 1930 - 1938.
(1926 = 100)

Month	Canadian Stocks						Dominion of Canada Long Term Bond Yields
	(a) Industrials and Utilities (Common)			(b) Mines			
	Common Stocks	Industrials	Utilities	Mines	Gold	Base Metals	
	Total			Total			
1930 - December	103.1	120.3	104.7	59.2	57.8	...	93.9
1931 - December	64.8	74.3	59.3	59.0	59.0	...	111.7
1932 - December	52.2	58.9	45.7	63.1	62.7	...	99.4
1933 - December	75.3	111.4	47.8	105.1	100.4	127.1	95.1
1934 - December	86.2	125.6	47.5	124.9	124.7	129.6	71.3
1935 - December	107.4	178.2	50.1	133.6	116.9	201.7	75.5
1936 - December	129.2	212.8	62.8	167.7	131.5	317.2	64.1
1937 - January	137.4	222.0	68.5	174.6	137.5	329.6	64.6
July	133.0	217.8	63.9	141.8	109.2	278.9	69.0
December	103.7	167.7	49.5	134.3	115.5	213.1	67.4
1938 - January	107.7	177.0	48.4	144.1	121.0	241.7	66.3
February	107.1	177.7	46.8	147.7	124.3	246.9	65.4
March	99.2	164.0	43.1	134.9	111.4	225.3	64.7
April	97.9	160.5	43.7	133.9	110.5	229.5	63.7
May	99.7	163.5	44.5	139.5	114.1	243.0	61.7
June	100.0	163.5	45.1	145.8	119.2	259.5	61.8
July	106.9	175.1	48.6	151.1	119.8	282.1	62.7
August	105.2	172.8	47.1	156.0	123.8	289.2	62.7
September(x) ..	98.6	162.2	42.7	144.0	113.6	269.8	65.3
October	109.7	182.7	46.9	157.4	121.3	308.2	63.2
November	110.4	184.9	46.2	159.6	121.1	319.3	61.5
December	106.8	179.4	44.0	159.0	121.6	313.0	61.8

(x) Munich crisis.

MARKET TREND OF GOLD STOCKS DURING 1938 AND THE FIRST SIX MONTHS OF 1939.

(By Frederick J. Crawford, President, The Toronto Stock Exchange)

Symptomatic of world conditions, Canadian gold mining shares in 1938 and the first six months of 1939 made little or no progress. Overhanging the market for all types of securities was always the depressing effect of international affairs, an influence against which even the usually buoyant golds could make no headway.

Repeatedly, in response to favourable news developments from the field, the golds made attempts to press through to higher levels only to have each advance killed by a general market decline brought about by some political crisis which forced them back to the starting point. But on each attempt at recovery the golds carried the lead and although the net gain on the period was slight, it was better than that of other sections of the market.

As a result, the trend for the eighteen months' period was confined to a comparatively narrow range, the Toronto Stock Exchange index of 20 golds fluctuating only some 27 points as compared with 72 in 1937, 51 in 1936, 34 in 1935 and 37 in 1934.

Yet as far as the progress of mining itself is concerned, the eighteen months under review witnessed a period of development unequalled by any other industry. New records were made in practically all phases of the industry which could be seen particularly in production sheets, the number of new mines enter-

ing production, ore blocked out, reduced milling costs, employment rolls, and in aggregate dividends paid to shareholders.

Detailing the period by months, the price trend of Canadian gold shares on the Toronto Stock Exchange moved forward in January, 1938, on increased volume when inflationary conjectures arose on the proposal for a billion dollar armament program in the United States and further weakness of the French franc. Demand for senior gold stocks was indicated at this time from American sources, apparently in part as a hedge against further depression of industrial activity. Consequently several of the big golds touched new peaks above their 1937 highs.

Junior and secondary issues also got under way to higher levels on fairly good volume and in February the golds continued to show relatively good stability in face of faltering prices of other issues. The buoyancy was attributed to the London gold price which touched \$35.19 coincidental with weakness in the American dollar, as well as Washington's announcement that up to 100 million dollars quarterly would go into the Federal Reserve instead of the sterilization fund. The optimism engendered by these events, however, was dissipated on March 9th by Hitler's march into Austria, the resultant market decline lasting well on into mid-month.

A slow rally got under way in April, the gold index figure advancing to 113.42 as compared with a low of 102.06 in March and an opening for the year of 121.12. In May the golds received a momentary benefit from devaluation of the French franc but were unable to make much headway in view of the depressing general business sentiment then prevailing augmented by the Sudeten minority question.

In June, fears of dollar devaluation with the London bullion price hitting a new high for fourteen months together with progressive development news from various properties brought a market response in which gains were general for the first two weeks. The Exchange's gold index opened at 113.58, touched a high of 123.16 on the 20th and closed at 117.43.

July's activity was fairly widespread, a number of issues breaking through to new highs for the year. At the same time the London bullion price rose to a further high, although weakness of European currencies seemed to belie an absence of European tension in the daily news. The market edged into higher ground as an additional weakness in the pound Sterling was accompanied by a further uplift in the price of bullion. This strength lasted through August with the index figure touching what later proved to be the high for the year at 127.19.

September brought a slight decline which gradually worked into sharply receding prices as large bullion shipments weakened European currencies. International tension became comparable to 1914 and a precipitous drop forced the entire list to its lowest levels of the year with the gold index breaking to 101.86 on the 26th. The Munich agreement and the acceptance of German demands by Czechoslovakia temporarily clarified the situation to the extent that the market recovered all of its losses in four days. At the lows, however, the average yield on the gold shares reached approximately 9 per cent, the highest since 1933.

October found the gold shares turning selective with some individual issues making new highs. Senior golds continued strong, helped by a lower Canadian dollar lifting the American equivalent in bullion to above \$35.25.

In November, while other types of stock turned downwards, the golds showed relative stability which was attributed to hedging demands against the disruption of world trade following the September crisis. Also, new properties entering the production and dividend paying ranks over the previous five years had the cumulative effect of increasing equities and providing a wider basis for investment purposes.

December witnessed a mixed trend for the first three weeks, the index figure holding around the 122.00 level and then a year-end rally to just over 125.00. At this level the figure was about four points above the opening for the year and also only a few points above 1934, although the widescale development since that time had resulted in dividends rising from \$29.3 millions to \$39.6 millions, while the number of companies making disbursements had been increased from 16 to 39.

Beginning of a new year saw prices of the gold stocks advancing smartly for the first week or so, only to succumb to the news of British and French rearmament. The index figure reacted from a high of 118.95 to a low of 114.33, followed by a recovery to around the 125.00 level in early February, around which it held for the remainder of that month. Apprehension over the future course of European events at this time had a marked effect in deterring activity, with the gold stocks suffering as much as other divisions.

In an early March rally prices failed, by a narrow margin, to break through the highs made in the previous January. On light volume the trend turned downwards, broken by a rally in the third week, after which new low levels for the year were made as another "war scare" market developed, this time with the disintegration of Czechoslovakia, the German acquisition of Memel and the fall of Madrid. The nervousness continued into April with the Italian invasion of Albania, the peace plea of President Roosevelt and the

reply by Hitler. Improvement then got under way after prices had been depressed to new low levels since the Munich agreement of the previous September.

In May, gold shares pressed forward to higher levels, making more rapid recovery than the industrials or base metals, the index closing the month nearly 15 points above the April low of 109.85. Volume of trading showed little indication of picking up, however, until June when Porcupine stocks moved into the foreground.

TORONTO STOCK EXCHANGE

(J. Scott Rattray - Statistician)

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 quoted 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 27 - (Subject to revision).

	Total gold shares issued	Quoted market value	Number of issues	Total value of all stocks	Total number of all issues
		\$		\$	
1939 -					
April	340,852,507	565,778,286	119	4,546,884,637	516
March	343,521,706	556,291,792	119	4,556,375,750	514
February	343,352,001	632,864,509	119	4,926,828,763	512
January	346,969,175	630,607,011	120	4,853,516,773	513
1938 -					
December	345,009,617	645,833,880	119	5,044,323,086	516
November	349,290,094	629,236,733	120	4,983,921,763	516
October	347,562,027	613,904,171	120	5,068,918,839	513
September	343,885,675	612,725,444	119	4,852,224,975	511
August	341,660,432	623,837,599	119	4,782,062,243	510
July	338,425,167	640,531,980	117	4,959,744,855	509
June	335,363,219	589,524,534	116	4,734,265,343	509
May	335,245,485	569,432,540	116	4,398,996,672	508
April	339,852,942	575,579,241	117	4,518,856,711	507
March	340,593,121	523,352,755	115	4,085,803,642	504
February	339,457,499	627,931,515	115	4,964,093,094	505
January	336,356,240	626,437,749	114	4,649,492,541	507

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 \$2-1/2 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 2/3, 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, 3-1/2 cents the ounce.
Over 10 per cent but not over 15 per cent base metal, 4-1/4 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 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 23.22 grains fine gold contained therein (equivalent to \$20.67184 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 for silver in any week shall be one cent below the average for that week of the daily London quotation for standard silver from Monday to Friday, inclusive, converted into the equivalent for fine silver in Canadian funds at the average of the daily rate of exchange between Montreal and London, calculated to the nearest one-eighth of a cent.

GOLD CLAUSES ACT, 1939.

A new Gold Clauses Act was passed during the 1939 session repealing the 1937 Act and re-enacting its main provisions with certain additions giving greater certainty to the principles embodied in the 1937 legislation. A copy of the new Act (Bill 87) follows:-

1. This Act may be cited as THE GOLD CLAUSES ACT, 1939.
2. The expression "gold clause obligation" in this Act means any obligation heretofore or hereafter incurred (including any such obligation which has, at any time heretofore or hereafter, matured or been repudiated) which purports to give to the creditor a right to require payment in gold or in gold coin or

in an amount of money measured thereby, and includes any such obligation of the Government of Canada or of any province.

5. The provisions of this Act shall have full force and effect notwithstanding anything contained in any other statute or law.

4. In an action in Canada upon a gold clause obligation,

(i) tender in currency which is legal tender in the country in the money of which the obligation is or becomes payable, of the nominal or face amount of the obligation, or,

(ii) tender in currency which is legal tender where the tender is made of an amount which is equivalent to the nominal or face amount of the obligation,

shall be a legal tender if such tender was made at the place at which the obligation was payable by the terms of the contract whether such tender was made before or after the commencement of such action, and the debtor shall, if he has made payment in accordance with such tender, be entitled to a discharge of the obligation of any liability for damages by reason of repudiation of liability upon such obligation.

5. In an action in Canada upon a foreign judgment rendered in an action commenced after the date of the commencement of this Act upon a gold clause obligation,

(i) tender in currency which is legal tender in the country in the money of which such obligation is or becomes payable, of the nominal or face amount of such obligation, or

(ii) tender in currency which is legal tender where the tender is made of an amount which is equivalent to the nominal or face amount of such obligation,

shall be a legal tender if such tender was made at the place at which the obligation was payable by the terms of the contract and before the foreign action was commenced, and the debtor shall, if he has made payment in accordance with such tender, be entitled to a discharge of such judgment.

6. Any payment in respect of a gold clause obligation made before the commencement of this Act, which, if made hereafter, would entitle the debtor to a discharge, shall be deemed to have discharged the obligation.

7. Every provision in any obligation heretofore or hereafter incurred, which purports to give to the creditor a right to require payment in gold or in gold coin, or in an amount of money measured thereby, is hereby declared to be contrary to public policy, and every obligation containing such a provision shall have effect as if such provision were not contained therein, and as if it contained a covenant to pay its nominal or face amount in currency which is legal tender in the country in the money of which the obligation is payable, or its equivalent in Canadian currency.

8. Every gold clause obligation secured on or enforceable against any work or undertaking subject to the legislative authority of the Parliament of Canada shall be construed as if it contained no reference to gold or gold coin and as if the only amount stipulated to be paid thereunder were its nominal or face amount in currency which is legal tender in the country in the money of which the obligation is payable or its equivalent in Canadian currency.

9. In respect of any gold clause obligation, the Exchequer Court of Canada shall not pronounce or enforce any judgment, order or decree wherein the amount of the liability is fixed for any purpose whatsoever at more than the nominal or face value of such obligation in currency which is legal tender in the country in the money of which such obligation is payable or its equivalent in Canadian currency.

10. Sections four and five, section seven, section eight, and section nine, shall have effect as though contained in separate statutes and shall apply to all obligations wherever payable.

11. THE GOLD CLAUSES ACT, 1937, chapter thirty-three of the statutes of 1937, is hereby repealed.

Order in Council P.C. 476 - March 3rd, 1939.

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. 428, dated March 1st, 1938, passed under the provisions of subsection 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, 1938.

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, 1939, unless sooner rescinded by Order in Council.

INCOME TAX EXEMPTION TO NEW MINES

With a view to stimulating exploration and development of mineral resources in Canada, certain exemptions from income tax are granted to new or re-opened mines coming into production. An amendment to the Income Tax Act, made in May, 1936, provides that any metalliferous mine coming into production between May 1, 1936, and January 1, 1940, shall 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, shall determine which mines, whether new or old, qualify for this exemption, and a certificate will be issued accordingly. General regulations covering depletion allowance to precious metal mines are unchanged from the previous year and remain on the basis of 33 1/3% for mining companies, with the allowance in the case of dividends received by shareholders standing at 20%.

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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. Provision was also 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 above 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 the exempting amendment here mentioned 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.

The above mentioned three-year exemption from income tax has been and is available only to new or reopened mines. The 1939 income tax amendments, however, now offer an important and far reaching tax credit to the mining industry as a whole under provisions which are applicable generally to all taxpayers. Briefly stated the new provisions offer a credit against income tax up to 10% of any capital expenditure undertaken by the taxpayer in the period May 1st, 1939 to April 30th, 1940, the credit to be taken in three equal annual instalments. Following is the full text of the tax credit amendment:

BILL 142.

An Act to amend the Income War Tax Act as passed by the House of Commons, 25th of May, 1939.

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

1. Paragraph (k) of section two of the INCOME TAX ACT, chapter ninety-seven of the Revised Statutes of Canada, 1927, is repealed and the following substituted therefor:-

"(k) 'taxpayer' includes any individual, corporation or any other 'person' whether or not liable to pay tax;"

2. Section two of the said Act is further amended by adding thereto the following paragraph:-

"(r) 'personal and living expenses' shall include inter alia -

(i) the expenses of properties maintained by any person for the use or benefit of any taxpayer or any person connected with him by blood relationship, marriage or adoption, and not maintained in connection with a business carried on bona fide for a profit and not maintained with a reasonable expectation of a profit.

(ii) the expenses, premiums or other costs of any policy of insurance, annuity contract or other like contract if the proceeds of such policy or contract are payable to or for the benefit of the taxpayer or any person connected with him by blood relationship, marriage or adoption."

The provisions of this paragraph (r) shall extend to expenses of properties and establishments maintained by a personal corporation, estate or trust for the benefit of any of its shareholders or beneficiaries.

3. Paragraph (e) of subsection one of section three of the said Act is repealed and the following is substituted therefor:-

"(e) personal and living expenses when such form part of the profit, gain or remuneration of the taxpayer or the payment of such constitutes part of the gain, benefit or advantage accruing to the

taxpayer under any estate, trust, contract, arrangement or power of appointment, irrespective of when created."

4. Section four of the said Act is amended by adding thereto the following paragraph:-

"(s) Dividends paid to a company incorporated in Canada by a company which has never paid a tax by reason of sections eighty-nine and ninety of this Act."

5. Paragraph (d) of subsection one of section five of the Act, as enacted by section four of chapter forty-one of the statutes of 1933, is repealed and the following substituted therefor:-

"(d) One thousand dollars in the case of all other persons, except corporation, associations, estates and trusts; and".

6. Paragraph (1) of subsection one of section five of the said Act, as enacted by section four of chapter fifty-five of the statutes of 1934, is repealed and the following is substituted therefor:-

"(1) Annual interest accruing within the taxation period in respect of succession duties or inheritance taxes;"

7. Subsection one of section six of the said Act is amended by adding thereto the following paragraph:-

"(m) the salary, bonus, director's fee or other like remuneration in excess of fourteen thousand dollars paid by a company incorporated in Canada to a non-resident, unless such non-resident pays tax thereon under this Act."

8. Section six of the said Act is further amended by adding thereto the following subsection:-

"(5) Expenses incurred by a corporation to earn non-taxable income shall not be allowed as a deduction in computing the income to be assessed. Where general expenses are incurred to earn both taxable and non-taxable income the Minister shall have power to apportion the said expenses."

9. Subsection two of section eight of the said Act is repealed and the following substituted therefor:-

"(2) Such deduction shall not exceed the same proportion of the tax otherwise payable under this Act as that which the taxpayer's net income from sources within such country bears to his entire net income from all sources, without taking into account the exemptions provided by paragraphs (c), (d), (e) and (i) of subsection one and by subsections 2, 3 and 4 of section five of this Act."

10. Subparagraph (ii) of paragraph (e) of subsection two of section 9B of the said Act, as enacted by section eight of chapter thirty-eight of the statutes of 1936, is repealed and the following is substituted therefor:-

"(ii) any rights in and to the use of any work, whether copyrighted or not, subsequently produced or reproduced in Canada, by way of the spoken word, print, or mechanical sound on or from paper, composition, films or mechanical devices of any description."

11. Paragraph (e) of subsection two of section 9B of the said Act, as enacted by section eight of chapter thirty-eight of the statutes of 1936, is further amended by adding thereto the following:-

"No tax shall be payable by virtue of this paragraph in respect of any portion of any payment disallowed to the Canadian debtor under section 23B of this Act."

12. Subsection six of section twenty-one of the said Act is amended by adding thereto the following:-

"When the total income earned by a personal corporation since its incorporation has been taxed against and received by its shareholders, any further dividends declared and paid by such a corporation out of capital shall not be liable to taxation in the hands of the shareholders."

13. The said Act is amended by adding thereto the following section:-

"23B. Where any person carrying on business in Canada pays to a non-resident as price, rental, royalty or other payment for the use of any property or reproduction thereof, or for any right, an amount which is not in conformity with similar payments made by other persons in the same kind of business, then such payment may, for the purposes of determining the income of such person, be adjusted by the Minister accordingly, unless he is satisfied that the payor and the recipient are not associated, controlled one by the other, or controlled by the same interests."

14. Section thirty-two of the said Act is amended by adding thereto the following subsection:-

"(4) Where a person has transferred the right to income to any person connected with him by blood relationship, marriage or adoption, or to a trust for his or their benefit, without transferring the ownership of the property producing such income, he shall nevertheless be taxed on the said income as if the transfer had not been made."

15. Subsection three of section thirty-five of the said Act, as enacted by section thirteen of chapter forty of the statutes of 1935, is amended by adding thereto the following:-

"Should a company revoke any such election it shall not be entitled to make a second election hereunder for a period of five years from the date of such revocation."

16. Subsection one of section eighty-nine of the said Act, as enacted by section twenty of chapter thirty-eight of the statutes of 1936, is repealed and the following substituted therefor:-

"89. (1) Subject to the provisions of this section the income of a company derived from the operation of any metalliferous mine which comes into production after the first day of May, 1936, and prior to the first day of January, 1943, shall be exempt from the corporation tax hereunder for its first three fiscal periods established by the Minister hereunder following the commencement of such production.

17. The said Act is amended by adding thereto the following Part:-

"PART XIV

"Capital Expenditure Allowance

"90. (1) A taxpayer shall be entitled to deduct from the taxes otherwise payable under this Act an amount up to ten per centum of the capital costs hereinafter in this section (Senate amendment) mentioned in the manner provided.

One-third of the said ten per centum must be taken in each of the first three taxable fiscal periods occurring within the first six fiscal periods of twelve months each ending on or after the 30th April, 1940, provided however that should the said one-third exceed the tax otherwise payable in any one taxable period, the excess may be offset against taxes otherwise payable in the remaining period or periods of the said taxable periods.

Further provided, in any event, that no deductions shall be allowed against any tax payable for periods ending after 29th April, 1946.

(2) The capital costs on which the ten per centum shall be calculated are those costs incurred and paid by the taxpayer in the period beginning the first day of May, 1939, and ending the thirtieth day of April, 1940, in respect of work actually done in Canada during the said period, on the construction, manufacture, installation, betterment, replacement, or extension of buildings, machinery or equipment in the said period from the first day of May, 1939, to the thirtieth day of April, 1940, provided such buildings, machinery or equipment are to be used in the earning of the income of the taxpayer.

(5) All costs and expenditures for labour, wages, salaries, fees, administration or other like expenses and for purchase of material and equipment shall be considered as a cost herein in such amount as the Minister may determine having regard to the prevailing rates and fair market price and any excess over such determination shall not be allowed.

(4) For the purposes of this section "capital costs" shall not include:-

- (i) the cost of land;
- (ii) the cost of leases of or licences to work oil or mineral lands or other mining lands;
- (iii) the cost of, or rentals under, leases of any buildings, machinery or equipment;
- (iv) the cost of any patent, goodwill, intangible right or incorporeal hereditament, whether or not an integral part of the price of any property;
- (v) the cost of any buildings, machinery or equipment used and situated outside of Canada;
- (vi) the cost of any building constructed prior to the first day of May, 1939, or the cost of any building which has already been used by any other person;
- (vii) the cost of any machinery or equipment which has been used at any time prior to the date of acquisition by the taxpayer;
- (viii) the cost of any office equipment or furnishings;
- (ix) the cost of a house, including a duplex and an apartment house;
- (x) undue or excessive costs incurred in connection with the purchase, manufacture or construction of any building, machinery or equipment. The Minister shall have power to determine the costs which are undue or excessive in any case;
- (xi) all costs incurred in the continuation of capital works or projects commenced prior to the first day of May, 1939;
- (xii) all costs incurred by a company the income of which is exempt under the provisions of section eighty-nine of this Act;
- (xiii) all costs incurred by any bank, insurance company, trust company, or any company primarily engaged in lending money (with or without security), making investments, dealing in securities or any other like financial business;
- (xiv) interest paid by the taxpayer on borrowed capital.

(5) For the purposes of this section the Minister shall have power to determine whether capital costs fall within the provisions of subsection two or within the types of capital costs excluded by subsection four of this section and they shall be dealt with accordingly.

(6) (a) The Minister may make such regulations and prescribe such information forms as may be required for carrying this section into effect.

(b) Any person failing to file an interim information form within the prescribed time shall lose not more than fifty dollars of the benefit of the first annual deduction herein, or to the extent thereof, provided in any case the penalty shall be not less than ten dollars, which may be assessed against the taxpayer.

(c) No deduction shall be allowed unless the taxpayer files the final form as prescribed on or before the thirtieth day of June, 1940.

(d) In addition to any other penalty provided in this or in any other Act, any false statement made in any form prescribed or in any information required hereunder shall disentitle the taxpayer to any deductions or benefits of this section."

18. All sections of this Act, except sections sixteen and seventeen, shall be applicable to the income of the year 1938 and fiscal periods ending therein and to all subsequent periods, with the further exception of section ten, which shall be deemed to have come into force on the twenty-sixth day of April, 1939.

TREND IN EMPLOYMENT

The trend in mining as a whole was upward in five months of 1938, when employment was in slightly greater volume than in 1937, the previous maximum for this record; the index averaged 155.9, compared with 153.2 in the preceding year, and 136.5 in 1936. (1926 = 100). While mining is one of the few industries showing improvement in 1938 over 1937, the gain was not equal to that reported in the preceding year over 1936.

In coal-mining, the index averaged 90.4, the same as in 1937. The labour force of the 104 co-operating operators included 24,580 workers in 1938. The working time lost in industrial disputes in this industry was decidedly less in 1938 than in 1937, but apart from this, (which does not ordinarily affect the indexes) there was little general change in the situation.

Employment in the extraction of metallic ores generally was brisker than in 1937, or any other year for which statistics are available; the annual index, at 317.8, was 14½ points above the average of 303.3 in the preceding twelve months. The index varied from 303.6 at Jan. 1, to 335.5 at Nov. 1, showing almost uninterrupted improvement during this period. The staffs of the 218 reporting firms averaged 38,905 during the year under review, compared with 37,071 in 219 mines during 1937. World monetary conditions continued to exert a stimulating effect on activity in the metallic ore division.

Non-metallic minerals, (other than coal), afforded less employment in 1938 than in 1937, although the situation continued better than in 1936 and immediately preceding years. The index averaged 126.3, or 5½ p.c. lower than the 1937 figure of 133.6. An average payroll of 8,548 persons was employed during 1938 by the 101 co-operating firms, while those reporting in the preceding year had a mean of 9,214. Quarries and other divisions coming under this heading recorded rather lowered activity.

Table 28 - STRIKES AND LOCKOUTS IN CANADA, BY INDUSTRIES, 1937 and 1938. (Department of Labour)

Department of Labor						Department of Labor				
1907						1908				
Workers involved Time lost						Workers involved Time lost				
No. of dis-putes	Number	Per cent of total	Man working days	Per cent of total	No. of dis-putes	Number	Per cent of total	Man working days	Per cent of total	
Agriculture	2	78	0.1	58	0.0	1	10	0.1	85	0.1
Logging	7	5,010	4.2	28,575	3.0	4	870	4.3	1,750	1.2
Fishing and trapping ..	1	800	1.1	1,800	0.2	8	1,848	9.1	22,744	15.3
Mining, etc. (1)	49(a)	17,537	24.4	159,346	15.7	26	5,066	24.8	21,402	14.4
Coal mining	(44)	(15,477)	21.5	(112,826)	12.7	(25)	(5,054)	(24.7)	(21,366)	(14.3)
Manufacturing	145	46,344	64.4	687,510	77.6	73	7,460	36.6	81,339	54.7
Construction	25	1,286	1.8	7,376	0.8	15	879	4.3	1,328	0.9
Transportation and Public Utilities	16	1,441	2.0	14,458	1.6	9	2,519	12.3	9,517	6.4
Trade	7	188	0.3	4,156	0.6	5	1,489	7.5	3,459	2.3
Service	26	1,221	1.7	5,514	0.6	6	254	1.2	7,074	4.7
TOTAL	278	71,905	100.0	886,593	100.0	147	20,395	100.0	148,678	100.0

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

All of the labour disputes in the mining industry in 1938 concerned coal mines, except a strike of mercury miners at Bridge River, British Columbia. The most important strike involved coal mines at Minto, New Brunswick, on strike from October, 1937, until January, 1938, when the dispute as to union recognition and wage rates was referred to a board of conciliation under the Industrial Disputes Investigation Act. Three disputes in Saskatchewan during October arose out of the organization of two unions in the district and were referred to a board under the Industrial Disputes Investigation Act. The other disputes in the mining industry were with reference to working conditions, adjustments of wages, dismissal of employees, alleged discrimination, etc.. None were of great duration.

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THE ALLUVIAL GOLD MINING INDUSTRY, 1938.

At the present time the greater part of the Canadian production of alluvial gold comes from the Yukon Territory and British Columbia; relatively small quantities are also obtained in Alberta, Saskatchewan and Quebec.

It was estimated that 147,405 ounces of crude gold were recovered from Canadian alluvial deposits in 1938. Of this production, 110 ounces came from Saskatchewan, 407 ounces from Alberta, 57,759 ounces from British Columbia, and 89,129 ounces from the Yukon.

QUEBEC - In Quebec a little prospecting for alluvial gold was carried out in Beauce county on the Famine river, and also in Compton county on the Salmon river. A very small production was reported but no sales or shipments of crude gold were recorded. On the southeast slope of Stoke Mountains the East Angus Placer Mining Society moved over 8,500 cubic feet of material in trenching and sluicing and constructed a dirt dam on Willard Brook. On the Famine river, 520 feet of flume and dam were completed by Beauce Gold Mines Ltd..

No particulars relating to the exact source of placer gold recovered in Saskatchewan and Alberta during 1938 are available and statistical data pertaining to actual production have been compiled from receipt statements supplied by the Royal Canadian Mint, Ottawa, and the Dominion Assay Office, Vancouver, B.C.. The placer gold recovered in Saskatchewan came from the North Saskatchewan river in the western central part of the province.

BRITISH COLUMBIA - It has been found impractical to obtain complete reports for each individual placer gold mining operation in British Columbia in as much 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. In 1938 official returns were made by 103 operators who reported 588 employees and the distribution of \$857,229 in salaries and wages. Consumption of fuel and process supplies amounted to \$118,336 and the value of crude gold^{gold} was estimated at \$1,661,149.

While a decrease in the production of placer gold in British Columbia during 1938 had been anticipated, principally through the flooding of one section of Consolidated gold alluvials at Wingdam, this was more than compensated for by increased production in the Atlin section and Omineca district, also from numerous small operations in other districts. Considerably more interest is being taken in placer mining in the province through the activities of outside interests, many of whom have previously been operating in California.

YUKON - The following information is from the annual report of the Controller of the Yukon Territory for the fiscal year ending March 31, 1939 -

"The amount of placer gold mined during the year on which royalty export tax was paid was 90,594.55 ounces, produced as follows: Dawson district, 89,130.31 ounces; Mayo district, 733.35 ounces; Whitehorse district, 730.89 ounces. The royalty collected was \$33,973.46. The gold production was 32,054.09 ounces more than for the previous year.

"The Yukon Consolidated Gold Corp. Ltd. conducted hydraulic stripping operations for the entire season at all plants which were operated during the preceding year except in the Arlington area; a total of \$201,600.00 was expended on stripping operations during the year. Cold water thawing operations were continued at all plants formerly operated and new plants installed and operated on Upper Sulphur and Quartz Creeks. A total of \$275,000.00 was expended on thawing operations during the year. Dredging operations were conducted in 1938 at Upper Dominion, Klondike River, Lower Bonanza, Arlington, Granville Flats, Lower Sulphur, Quartz, Middle Sulphur and Upper Sulphur; 8,550,652 cubic yards of ground was dredged and 60,055.768 fine ounces of gold and 14,411.98 fine ounces of silver recovered. Construction of Dredge No. 8, an all new 7 cubic feet Yuba designed dredge was completed and placed in operation on Middle Sulphur Creek on May 28th. During the summer Dredge No. 9 was constructed on Upper Sulphur Creek; after completing Dredge No. 9 work was immediately started on construction of Dredge No. 10 for Middle

Dominion Creek. During 1939 No. 11 dredge will be constructed on Middle Hunker Creek. The 16 cubic foot dredges Nos. 2 and 4 which were operating in the Klondike valley were shut down on December 24th and 25th, respectively, which are the latest dates that two dredges have ever been able to operate in the district. Expenditures for equipment and supplies not purchased locally totalled \$521,425.00."

The Dredge operated by the Holbrook Dredging Company on the Upper Sixtymile river commenced operations on May 26th and was closed down on November 19th; during this period 5,027.29 crude ounces of gold were recovered.

"Individual mining operations, chiefly during the summer season were confined to old placer creeks such as Bonanza, Eldorado, Quartz, Hunker, Gold Bottom, Dominion, Gold Run and Sulphur Creeks in the Dawson area; Miller and Glacier creeks in the Sixtymile area; Haggart and Highest creeks in the Mayo district; Livingston creek and tributaries, and on scattered creeks in the region west of Whitehorse. Prospecting for placer has been on the increase throughout the whole Territory."

NORTHWEST TERRITORIES - Very little activity in placer mining developed in the Northwest Territories during 1938. In the Nahanni river district there were 15 renewals and 10 new placer grants issued.

Table 29 - SUMMARY STATISTICS OF ALLUVIAL GOLD MINING IN CANADA, 1937 and 1938.

	1	9	3	7	:	1	9	3	8
	(d) British Columbia		Yukon (e)	Quebec and (f) : Alberta :	(d) British Columbia	(e) Yukon		(f) Quebec, Saskatchewan and Alberta	
Number of firms and individual operators (A)	100		3	3	103	4		5	
Capital employed	4,552,173		7,363,027	4,737	5,045,001	7,781,435		20,537	
Number of employees	618		420	31	588	471		12	
Salaries and wages paid	861,644		811,310	16,957	857,229	1,194,046		5,661	
Electricity generated for own use	2,070,630		21,190,912	...	1,579,119	29,949,900		...	
Electricity generated for sale	16,795		3,358,618	...	59,221	3,506,028		...	
Crude gold recovered - crude ounces ..	54,153		58,349	72	57,759	89,129		517	
Platinum recovered - ounces	22		...	...	23	...		...
Value of platinum recovered	1,066		...	...	812	...		...
Quantity of material handled - cu. yards.	3,472,025		8,298,514	(c)	4,138,746	8,870,628		(c)	
Length of ditches miles (b)	147		71	...	139	48		...	
Total gross value of alluvial products	1,560,672		1,680,451	2,073	1,661,961	2,364,592		14,869	
Fuel and electricity used (purchased)	61,926		36,279	867	57,414	77,252		407	
Process supplies used	75,635		781	1,072	60,922	52,037		590	
Cost of freight and express on dust, nuggets, bullion, etc., shipped	(c)		(c)	(c)	3,549	8,537		...	
Cost of smelter, refinery and mint treatment on material shipped	(c)		(c)	(c)	10,589	17,073		...	
Total Net Value of Alluvial Products	1,423,111		1,643,391	134	1,529,487	2,209,693		13,872	

- (A) 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 available.
- (d) Value of crude gold in Canadian funds in 1937 was estimated to be \$28.50 per crude ounce. In 1938 it was \$28.76.
- (e) Value of crude gold in Canadian funds in 1937 was estimated to be \$26.15 per crude ounce. In 1938 it was \$26.53.
- (f) Value of crude gold in Canadian funds in 1937 was estimated to be \$28.80 per crude ounce. In 1938 it was \$28.76.

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 Territories; 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 1938 totalled 535 compared with 631 in 1937; 80 in 1929 and 65 in 1923. During the year under review there were 550 properties in operation compared with 659 in 1937; in 1938, 226 mines reported production as against 189 in 1937 and 33 in 1923.

The gross value of output for the entire industry and including the value of all recoverable metals, including gold, silver, etc., totalled \$143,146,911 in 1938 compared with \$122,676,105 in 1937. Of the 1938 total, \$99,364,867 were contributed by mines in Ontario, \$20,515,407 by mines in Quebec, and \$18,635,187 by the gold mines of British Columbia.

Employees in the lode gold mining industry totalled 29,647 compared with 29,140 in 1937 and 5,524 in 1923. Salaries and wages paid increased from a total of \$48,219,318 in 1937 to \$50,462,092 in 1938 and fuel and purchased electricity consumed by the industry during 1938 amounted to \$7,494,573 while the cost of explosives, drill steel and other process supplies used in the same period amounted to \$18,314,500.

Canadian gold mining companies paid over 40 millions of dollars in 1937 for consumable stores, equipment, electric power, fuel, freight, and insurance, according to a special survey recently completed by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. This is an increase of 40 per cent when compared with the figure for 1935, the last year in which a similar survey was made. Corresponding data for 1938 are not available. Included in the total for 1937 are \$4,705,128 for explosives, \$1,129,665 for rock drills and parts, \$935,807 for drill steel, \$2,848,090 for lumber and timber, \$1,595,835 for electrical equipment, \$6,589,724 for various types of machinery, \$1,458,666 for cyanide plant chemicals, and \$2,155,769 for incoming freight.

Dividends paid during 1938, as computed from actual returns made by the lode gold mining industry, totalled \$38,677,287

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NOVA SCOTIA GOLD MINING INDUSTRY, 1938.

(J. P. Messervey, Inspector of Metal Mines and Quarries - N. S. Department of Mines)

The gold mining of the province which had its inception in 1862 became a major factor in its mineral industry. It reached its peak of production in the year 1898 when the output was over 31,000 ounces. Following this a general decline set in, due to high power costs and poor management. The industry then fluctuated on a low level until 1932 when a definite revival was noticed. This was no doubt due to the increased price of gold, the influx of outside capital, the improved machinery and methods of mining, the policy of the government in its efforts to aid the industry and the recent power developments in the province. From 1932 to 1938 the gold output increased from 941 ounces to 28,545 ounces. The value of the production in 1938 exceeded that of its peak year in 1898 by over \$400,000 and at the rate of production during the first four months of this year the output for 1939 will show a considerable increase over that of 1938 and exceed the highest peak in its history. The value of the production in 1938 was approximately \$1,000,000.

There are today seventeen gold mining enterprises in Nova Scotia of which ten are contributing to the production of gold. Several other properties are under investigation and two retreatment plants are operating upon old tailings beds.

Development of the larger operations is progressing very rapidly and the Seal Harbor mine at Goldboro is now milling an average of 260 tons per day and they plan to increase their milling capacity to 350 tons per day sometime this year. Their total cost per ton of ore milled is among the lowest of the Canadian gold mining operations.

The Government of Nova Scotia, in co-operating with the Youth Employment Commission of the Department of Labour, Ottawa, was the first to establish an apprenticeship system to train unemployed youth in the various branches of hard rock mining. At the present time about one hundred men are employed at the Lacey Mine, Chester Basin. The young men included in the project are selected initially from those who are unemployed and residing in the colliery towns. The apprentices receive free board, free instruction and equipment and are paid at a rate beginning with fifty cents per day. The age limit is from nineteen to twenty-five years. These men are being given an intensive training for one year designed to qualify them to take a semi-skilled position in hard rock mines.

The Lacey Mine which was taken over for the Project is equipped with a mill and the necessary mine equipment for regular operation. This mine has been operating under a programme of development work which includes shaft sinking, drifting, stoping, milling and all the associated work connected with regular gold mining.

An Act to amend Chapter 22 of the revised Statutes 1923, "The Mines Act", Nova Scotia, provides that there shall be no royalty payable on gold or silver mined in Nova Scotia under licence or lease, between the 31st day of March, 1939, and the 31st day of March, 1940.

GOLD MINING INDUSTRY OF QUEBEC IN 1938.

(A. O. Dufresne - Director, Bureau of Mines, Quebec)

The weight of the gold shipped from the mines of the Province of Quebec in 1938 reached a new high record of 875,285 ounces valued at \$30,788,150. These figures bring up the province to the second place among the provinces of the Dominion as a producer of gold; it now ranks immediately after Ontario. It may be recalled that in 1925, the year before the O'Brien mine in Cadillac township made the first shipment of gold from Western Quebec deposits (some 58 oz. valued at \$1170.45), the Province of Quebec ranked sixth as a gold producer. Practically the whole of Quebec gold is extracted from mines in the Rouyn-Harricana field, which up to twelve years ago had not contributed any to our production. Since 1926 each year has seen a new record established in our annual production of gold. The development of this mining field may be followed year by year in the Annual reports of the Quebec Bureau of Mines, of the Federal Department of Mines and of the Dominion Bureau of Statistics.

Returns of production of gold in 1938 were received from thirty operating companies; of these eight mines poured their first gold brick during the year; these new producers were: East Malartic, Francoeur, Halliwell, Lapa Cadillac, Lake Rose, Pan-Canadian, Payore, Sladen-Malartic; all but one of these mines are situated in the Rouyn-Harricana area of Western Quebec.

The Western Quebec mines which produce gold and silver exclusively, mostly from gold-quartz ores, were very active in 1938. These deposits are mainly of the fissure vein type, quartz being the predominant gangue material. At the Francoeur mine a 150-ton mill was erected and production started in the summer. The Arntfield mine and mill were operated continuously. A small body of high-grade ore was mined at the Halliwell after which operations were suspended. The Powell Rouyn Gold Mines' production was increased to 700 tons a day; this is shipped by truck to the Noranda smelter. At the Stadacona Rouyn the grade of the mill-heads was improved and the tonnage increased. At the Beattie mine the roasting plant gave complete satisfaction and the mill, rated at 1500 tons a day, steadily treated 1700 tons and frequently exceeded this figure. Production was increased at the O'Brien; the main shaft deepened to 2,000 feet and lateral work started on four new levels. The Thompson-Cadillac mine produced steadily. At the Lapa-Cadillac mine a 200-ton mill was constructed and put into operation. Construction of a 100-ton mill at the Amm mine was begun late in the year. At the Sladen-Malartic mine a 250-ton mill was started in January, it has treated 300 tons, and later in the year preparations to double the capacity were under way. The East Malartic mill of 1000-ton capacity started to produce in November. Canadian-Malartic continued to operate on a basis of 700 tons a day and plans were made to sink a new shaft in the east section of the property.

In the Bourlamaque-Dubuisson area, the Sigma mill, originally designed for 300 tons a day, gradually worked up to 500 tons a day in 1937 and to over 600 tons in 1938 without important addition of machinery. The Lamaque mill, rated at 1000 tons treated an average in excess of 1100 tons a day in October. At the Sullivan mine a new crushing plant has been set up, raising the capacity of treatment to 300 tons a day; the No. 1 shaft has been deepened to 1200 feet, and a large headframe and skips have been installed. At the Payore mine a 50-ton mill was erected and put into operation. Siscoe maintained a steady production. The Gale mine was acquired by the Provincial government and converted into a miners' training school. At the Perron mine the sinking of a new main shaft was carried out; the mine production increased as compared with previous years. The Cournor maintained a steady output.

In Guillet township a new shaft was sunk at the Belletère mine. This mine acquired a water-power site on the Winneway river, 13 miles distant, developed it and the mine is now supplied with an additional 1500 h.p. from its hydro-electric power plant. In the spring of 1938, buildings to house a 25-ton milling plant were erected at the Lake Rose mine, 75 miles north of Senneterre; the equipment was transported by aeroplane and milling operations were commenced in June.

Two important events took place in 1938 in the Rouyn-Harricana region:- a vocational mine-school was organized in Abitibi by the Quebec Bureau of Mines and the Quebec Youth Aid, with the assistance of the Federal authorities; and a branch of the Canadian National Railways from Senneterre to Rouyn, in Abitibi and Temiscamingue counties, was completed and opened to traffic.

For the mine-school, the property of the Gale Gold Mines Limited was acquired by the Provincial Government, situated four miles west of the town of Val d'Or. Work had been suspended at this mine since 1936. A mining plant had been installed, a shaft had been sunk to a depth of 275 feet, and two levels had been established at 125 feet and at 250 feet, with 3810 feet of lateral workings, by the former owners. This mining property, after it was purchased in February, 1938, for a mine-school, was unwatered, the mining plant was repaired and put in good order, additional machinery was set up, the old buildings were repaired and new ones erected, among which a bunkhouse to lodge 100 miner apprentices.

The apprentices carry out working, drilling, blasting, timbering, and other underground work under the guidance of expert miners, and after a six months course they are prepared to work in operating mines at the regular current wages.

In March, 1939, the number of apprentices who had registered at the Mine-School throughout the year was 130, of whom 22 had already been placed at remunerative work in operating mines of the region, 70 were in training at the mine-school and the balance abandoned the course for various reasons.

In December, 1938, the branch line of the Canadian National Railways, from Rouyn to Senneterre, was opened to traffic, with the usual formalities, by the Honourable C. D. Howe, Federal Minister of Transport, who drove the last spike in the road bed, and the Honourable Onesime Gagnon, Quebec Minister of Mines and Fisheries, who cut the official ribbon.

This line, which is 101 miles in length, serves ten townships, in which there are at present 16 operating mines with an aggregate milling capacity of approximately 5,600 tons a day, which previously had no direct means of railway communications.

In the course of the year the total network of mine roads in the Western Quebec gold mining field was substantially extended. From a total of 669 miles of such roads on January 1st, 1938, it was increased to 765 miles during the year.

The Quebec Bureau of Mines has charge of seeing to the establishment, regulating and the town planning of mining villages in new mining districts, in order to guard against abuses and speculations detrimental to public welfare and to the mining industry. Under this item, in 1938 the village-site of Cadillac was established in January, by Order in Council, in Cadillac township. The demand for building lots was so keen that later on additional territory was subdivided and the construction of municipal works is being studied.

The problem of the agglomeration of buildings which was locally called Stadacona village, in Rouyn township, was solved by the establishment of the village of Rouyn-Sud in June.

The mining development at the Perron and the Cournor mines and vicinity, necessitated the establishment of a townsite in July, 1938, to which the name of Pascalis Village was given.

The question of the creation of a mining village in Guillet township, in the vicinity of the Belletère mine, was being studied at the end of the year.

The growth of the village of Bourlamaque necessitated an additional subdivision of its territory into building lots. In the neighbouring town of Val d'Or municipal works were constructed: water-supply, sewers and roads.

ONTARIO GOLD MINING INDUSTRY, 1938.

(A. C. Young - Ontario Department of Mines)

While the underground development in gold mining in the province in 1938 compared favourably with that of the previous year, there was a decided decline in diamond-drilling and also in the recording of mining claims. The following data cover some of the more important happenings in the different mining areas.

Porcupine - In June, the Hallnor mine was brought into production, this being one of the highest grade mines in Ontario. Porcupine Lake also started producing in June. Mill construction was under way at Preston East Dome, capacity 300 tons. Other operations were: Augite, Broulan, Faymar, and Naybob which enlarged its mill. Employment by producing mines in the Porcupine area in 1938 totalled 7,557 men who drew \$15,133,550 in wages. These figures are considerably above the high points made in 1937.

Kirkland Lake - Milling was commenced by Golden Gate in June, while the older established mines continued at capacity. Mine development in this area has now reached a considerable depth, e.g. at Wright-Hargreaves No. 5 winze was sunk to 6,400 feet. Lake Shore commenced operating a roasting plant of 50 tons capacity. Many prospects formerly operated were idle in 1938. To the east, however, the Upper Canada property continued developing good ore, and this company commenced milling, using the idle Morris mill. Employment at producing mines continued to expand, but with large waiting lists of applicants. The total payroll for all producing properties was 4,560 to whom was paid \$7,880,132.

Larder Lake - Three companies were actively milling in this area, while diamond-drilling or surface exploration was carried on some seven or eight other claims. Sinking was under way at Fernland, Cheminis, Barber-Larder, Chesterville, and Martin-Bird. Employment at producing mines totalled 537 and wages amounted to \$775,465. The Boston Creek-Skead area, which adjoins Larder to the south and west, was more or less quiescent with little work being done.

Sudbury-Timagami-Shiningtree - This area is of considerable extent in length and more properly might be divided into three groups. Apart from the steady production of three mines - New Golden Rose, Lebel-Oro, and Tionaga - mining operations were confined to Tyrannite, Matona, Beanland, and Hermiston, in Timagami, while Shiningtree, Bilmac built a 75-ton mill before closing down in September and Ronda was active in the construction of a 125-ton plant, also constructing a 14-mile power line.

Matachewan - Apart from the steadily producing Young-Davidson and Matachewan Consolidated, there were no operations of any considerable size. Properties on which work was done in former years were reported idle.

Algoma - This area includes Michipicoten and Goudreau and for many years has been a small producer of gold. None of the mines have, so far, been developed to large capacities. In 1938, however, the Cline was opened to the 500-foot level and in July a 200-ton cyanide plant was tuned in and is now in steady operation.

Thunder Bay - Producing mines rose in number from 8 to 11 in 1938, while other operations both surface and underground totalled 27, as compared with 41 in 1937. The general decline in this area is indicative of the reaction of capital to the unsettled world political conditions. During the year, MacLeod-Cockshutt commenced milling at the rate of 300 tons which shortly was increased to 500 tons. Hardrock also started at 240 tons, and Magnet commenced shipping ore to the Tombill mill. Other producing properties brought in in previous years continued operating.

Kenora and Rainy River - The Wendigo on Lake of the Woods and Straw Lake Beach operated their milling plants, the latter having been constructed during the year. Kenricia completed mill foundations for a 100-ton cyanide plant which was also intended to treat any custom ores available. Development was actively carried on at Split Lake, Big Master, Selby, and Elora properties. Kenopo Mining and Milling Company built a small 25-ton mill at Norman, two miles west of Kenora to treat high-grade ores from High Lake near the Manitoba boundary.

Patricia Portion - In May, 1938, the Sachigo River Exploration Company tuned in a 25-ton mill. This is the highest grade mine in Ontario and is unique in that many Indians are employed on surface, as woodcutters, rock pickers, crusher men, etc.. Other developments were, Berens River Mines, where a 225-ton mill was planned, for which a power site on Dark River about 8 miles from the mine was to be developed. The Hasaga, a new company, covering an area west of Howey, took over the mill of the Red Lake Gold Shores which had been closed in August. Howey, Madsen, McKenzie Red Lake were active throughout the entire period and J-M Consolidated closed down its mill from March 1 to August 15. Central Patricia and Pickle Crow operated all year, the former having additional ore delivered by truck from the adjoining Springer. Jason Gold Mines took over the assets of the Argosy, and with steady, favourable development at the Uchi Mine, preparations were commenced for mill construction.

MANITOBA GOLD MINING INDUSTRY, 1938.

(Geo. E. Cole, Director of Mines, Manitoba)

The production of gold in Manitoba during 1938 totalled 185,706 ounces as compared with 157,949 ounces for 1937.

The year 1938 was marked by a steady production at the operating mines. Apart from the gold quartz mines, gold was obtained from the treatment of base metal ores of the Flin Flon and Sherritt Gordon mines. It is to these latter properties that the increase in gold production for 1938 is due.

Developments at the San Antonio mine have been very satisfactory at depth and the company showed greater ore reserves than any time in its history. During the year the San Antonio and Gunnar companies continued their payments of dividends to shareholders.

Unfortunately there was no improvement in the prospecting situation during the year. With continued unsettled conditions in the money markets of the world funds have not been available for the prospector with a consequence that there has not been the exploration in the past year that Manitoba's Precambrian deserves. However, attention to geological work has been continued, both the Dominion and the Province having parties in the field during the past year.

SASKATCHEWAN'S GOLD MINING INDUSTRY, 1938.

(E. Swain, Supervisor of Mines, Saskatchewan)

Gold production during 1938 was 50,021 fine ounces as against 65,886 ounces in 1937, being a decrease of 15,865 ounces.

The reduction of gold output was due to a lesser recovery of this metal from the complex ore at Flin Flon and to the temporary closing down of the mill at Amisk Lake.

Eighteen ounces of placer gold is included in the total, which was recovered from the North Saskatchewan River in the Western Central portion of the province.

The Consolidated Mining & Smelting Company's 1,000-ton mill on the "Box" property at Lake Athabasca has been completed, but it will not come into operation until hydro-electric power is available, which is expected to be in the fall of this year. When the power is available, the company will, in addition to milling its own ore, take ore from Athona Mines (1937) Limited mine, which is about 2 miles southeast of the mill and immediately south of the town of Goldfields.

Lack of finances prevented Flin Flon Gold Mines Limited installing the necessary roaster and coming into production, which was also the case with other companies interested in developing properties in the vicinities of Flin Flon and Amisk Lake.

The Sulphide Lake area 6 miles north of Lac la Ronge is very active, much staking has been done and considerable surface work completed. Substantial mining companies are interested in this area, and recently one company took in 60 tons of equipment for prospecting. A trial shipment of ore gave good recovery value.

A mining road is being constructed, which will greatly facilitate the problem of taking in machinery and supplies from Prince Albert, a distance of about 190 miles.

The Hudson Bay Mining & Smelting Company has commenced sinking a second main operating shaft to serve the southern portion of the known ore reserves. It is anticipated that the 5250-foot level will be reached by 1941, but it is being equipped to continue to the 4250-foot level when required. Work has also been commenced for an additional unit of 19,000 h.p., which is to be added to the hydro-electric plant at Island Falls, which, when completed, will raise the capacity to 90,000 h.p..

BRITISH COLUMBIA GOLD MINING INDUSTRY, 1938.

(Philip B. Freeland, Chief Mining Engineer, B. C. Department of Mines)

The Polaris-Taku Mining Co. Ltd., operating on the Tulsequah River in the Atlin Mining Division went into production by treating 59,260 tons of ore in their mill that had been completed late in 1937. In the Portland Canal area the Big Missouri mine, owned by the Buena Vista Mining Co. Ltd., and controlled by the Consolidated Mining and Smelting Company of Canada, Ltd., produced the first gold brick in March. During the year 154,387 tons of ore were treated in the mill, one outstanding feature of which is that it is entirely underground. Silbak Premier Mines Ltd. continued their operations and mined and milled 184,606 tons of ore. The Surf Inlet Consolidated Gold Mines Ltd. in the Skeena Mining Division produced 17,418 tons of ore.

In the Cariboo District, the Cariboo Gold Quartz Mining Co. Ltd. increased its milling rate towards the end of the year to 300 tons per day. A total of 102,539 dry tons of ore was milled with a

production of 42,808 oz. of gold and 3,249 oz. of silver. Island Mountain Mining Co. Ltd. operated continuously throughout the year, treated 44,916 tons of ore and produced 18,351 oz. of gold and 2,637 oz. of silver. Towards the end of the year the Cariboo Hudson Gold Mines Ltd. commenced production. In addition a small pilot mill was erected and put into operation by the Quesnelle Quartz Mining Co. Ltd.

In the Similkameen and Osoyoos area, the Kelowna Exploration Co. Ltd., Hedley Mascot Gold Mines, Ltd., Fairview Amalgamated Gold Mines Ltd., and Osoyoos Mines Ltd. continued operations.

In the Nelson area the main producers were the Reno, Sheep Creek, Second Relief and Kootenay Belle mines, and a new producer in the Gold Belt. Production from the Ymir Camp was curtailed through the closing down of the Ymir Centre Star operated by Wesko Mines Ltd., and the Howard, operated by Durango Mines Ltd.. Operations were continued at the Clubine-Comstock but the Bayonne property was closed down at the end of the year with the ore apparently depleted.

In the Bridge River area, Bralorne Mines Ltd. continued operations and Pioneer Gold Mines of British Columbia, Ltd., milled 123,304 tons of ore.

Both Vidette Gold Mines Ltd. and Ashloo Gold Mines Ltd. continued their operations.

In the Zeballos area, Privateer Mines Ltd. produced their first gold brick from their newly completed mill in October. Other production from the area came from shipments of ore from Central Zeballos Gold Mines Ltd. and the Riny group. Rey Oro Gold Mining Co. Ltd. operated a 10-ton Sundfelt mill. A greater production is anticipated in 1939 from the mills now under construction.

The British Columbia Department of Mines and Department of Labor continued the plan created in 1935 whereby unmarried, physically fit, unemployed men were given the opportunity to learn placer mining. In 1939 the age limit was increased and one hundred and fifty men between nineteen and twenty-six were permitted to enroll. Instruction embraced geology, mineralogy, field cooking, the use of all kinds of tools required in the hills, building cabins, making maps and running surveys. Further instruction in geology of three months in the field will be given to those qualified, so that these young men might be trained as prospectors. It is hoped that the mining industry will employ some of these men in the mines during the winter so that they can obtain a grub stake for the following summer.

The idea of training men entirely for placer mining has been discontinued and instruction in this subject has been given only as part of the main course. Those who do not qualify for the extra field season will be given an opportunity to go prospecting for themselves.

LODE GOLD MINING IN THE DAWSON DISTRICT - YUKON

(G. A. Jeckell, Controller, Lands, Parks and Forests Branch, Department of Mines and Resources)

Fifteen Quartz Grants were issued in the Dawson District during the year. Three hundred and eight claims were renewed. This is a decrease from previous year.

In the Mount Free Gold District, Messrs. Richards and Keobke of Whitehorse became interested first in property held by Teare and Miller, and using a primitive type crushing device extracted a gold brick weighing eighty odd ounces from an exposed vein on their property. They then took a working option on the "LaForma" Group of claims, which was at one time prospected by the Timmins interests, and later by The Yukon Consolidated Gold Corporation, Limited. A 10-ton mill has been installed, with a six cell flotation plant, and some test runs have been made, but owing to lack of water the mill could not be run continuously. In the first run of thirty-three shifts of eight hours each, production consisted of a bullion bar weighing 143 ounces, which their Assayer claimed ran eight per cent silver, two per cent base metal, leaving 128 ounces of fine gold. The second run of ten days produced a brick weighing 88.85 ounces. There was also produced ten tons of concentrates averaging six ounces of gold to the ton, and after the installation of the flotation cells, three tons of concentrates averaging approximately thirty-five ounces of gold to the ton. The operators plan to enlarge the capacity of their mill this season to twenty-five tons per day. Sufficient ore of the same grade as that milled is now in sight to keep the mill running full time for a year, and development work is also being done on this property, and prospectors are returning to this area.

The Assay Office was maintained as usual at Keno in the Mayo District by the Territorial Government. 1,282 samples of rock for assay were received from all parts of the Territory, and 1,925 assays or quantitative analyses were made. In addition to this numerous qualitative determinations and chemical tests were made in connection with the identification and classification of the various rocks and minerals of which no record was made. The assays made were, gold and silver 1,282; lead 655; copper 7; and molybdenum 5.

GOLD MINING IN THE NORTHWEST TERRITORIES, 1938.

(By A. W. Jolliffe, Department of Mines and Resources)

Interest in lode gold deposits in the Northwest Territories centers about Yellowknife on the north arm of Great Slave Lake where the Con and Negus mines began production in 1938. During the year the Yellowknife region was very actively prospected and some 3,500 claims were filed. In this region of about 12,000 square miles upwards of one hundred veins carrying visible gold have been found, chiefly within the past two years, and many of these discoveries were under active development in 1938. The more active districts are: Yellowknife Bay, North Yellowknife, Gordon Lake, Beaulieu River, Francois River, Russell Lake, and Wray Lake.

Yellowknife Bay - Most of the gold-bearing veins in the Yellowknife Bay district are in sheared zones in volcanic rocks.

At the Con-Rycon mine, operated by Consolidated Mining and Smelting Co. of Canada Limited, the first gold production from the Northwest Territories was recorded on September 5, 1938, when a brick of 72½ lbs. was poured. From that date until the end of the year 6,794 troy ounces of gold were produced, valued at approximately \$240,000. The mill capacity was initially 100 tons of ore a day but this has been increased to 115 tons a day. The three-compartment vertical shaft at this mine is down to 500 feet with levels developed at 125-foot intervals. So far the ore has been drawn from two veins but a 2200-foot crosscut on the 500-foot level now connects the shaft with the main Ryan vein which is under development. About 150 men are continuously employed at this property. The process used in the mill is straight cyanidation.

The 50-ton mill at the property of Negus Gold Mines Limited was completed early in 1939 and the first gold brick was poured in February. By July, 1939, this mine was producing at the rate of about 1,700 ounces of gold a month at the present mill capacity of 60 tons a day. The method of extraction is cyanidation. The 3-compartment vertical shaft is down to 300 feet. The ore is being drawn from four of the several veins on the property.

Diamond drilling and surface work were carried on at the Fox group, the Kam and Aye groups controlled by Kamlac Gold Mines, various groups belonging to Chan Yellowknife Mines, the Meg and P.R.W. groups of Yellowrex Mines, and the Lily-Jack claims. On the last-named, Ptarmigan Gold Mines (a subsidiary of C.M. & S. Co.) put down a 3-compartment vertical shaft to a depth of 300 feet by June, 1939, and had completed 500 feet of lateral work on the 150 and 300-foot levels by this date. A prospect shaft is also being sunk on the Giant claims controlled by Bear Exploration and Radium Limited.

North Yellowknife - Around Moberly, Clan, and Sito Lakes on the Yellowknife River some 30 miles north of its outlet, development work was done on gold-bearing veins discovered during the latter half of 1937. The deposits lie in volcanic and sedimentary rocks cut by altered gabbroic sills and traversed by the northward extension of the Yellowknife Bay major fault system.

Six veins carrying visible gold were found on a large block of claims held by Territories Exploration Limited. Surface development work was carried out on these and on nearby claims, including the Lil and Lilex groups under option to Oro Plata Mining Corporation, and the Anne group held by International Mining Corporation.

At the main showing on the Mon group (C.M. & S. Co.), a vertical prospect shaft was put down to a depth of 65 feet and 160 feet of lateral work was done at this level in an effort to trace the downward extension of a high grade quartz lens which at the surface measured 50 feet long and up to 20 feet wide.

Gordon Lake - Gordon Lake lies 50 miles northeast of Yellowknife within a wide belt of sedimentary rocks extending south for 40 miles and surrounding McDonald, Murray, Pensive, and Thompson Lakes. Many of the gold deposits within this belt appear to be controlled by folded structures in the sediments.

The original discovery at Gordon Lake has been developed by Camlaren Mines Limited. A shaft was put down to a depth of 380 feet and more than 1,000 feet of lateral work has been done on levels established at 200 and 350 feet. Not sufficient ore has yet been indicated to justify the 50-ton mill which had been contemplated. Two other veins on this property lie within one mile of the shaft. On one of these a prospect shaft was sunk to a depth of 200 feet during the summer of 1938. The other vein was diamond drilled during the following winter.

A few miles west of Gordon Lake, Sentinel Mines trenched two large quartz bodies one of which contains visible gold. Within a distance of 5 miles north of these discoveries C. M. & S. Co. have done some surface work on three claim groups on Murray and McDonald Lakes, and diamond drilling on one of these, the Try-Me group. There a quartz vein averaging 10 feet wide and in places carrying visible gold is

exposed at intervals for a total length of 2,500 feet.

Around Pensive Lake, 15 miles south of Gordon Lake, a number of gold discoveries have been made. Included in the holdings in this vicinity are those of Dome Mines, Chan Yellowknife Gold Mines, Borealis Gold Mines, and Canadian Mining and Smelting Company, Ltd. On the Dome Mines property surface sampling indicated a gold content of 0.24 ounce a ton throughout a quartz body 225 feet long and averaging 23 feet in width. Twenty-three diamond drill holes totalling nearly 4,300 feet were put down under this body and indicated somewhat lower and more erratic values than the surface sampling.

The initial gold finds on Thompson Lake were made on July 22, 1938. Two of the claim groups then staked (Waco and Kim) are being developed by Thompson-Lundmark Gold Mines Limited. Two veins on this property have been diamond drilled. Of these the Kim vein has a dip of 50 degrees to the north-east and was traced on the surface for 1,250 feet. The diamond drilling extended this length a further 500 feet and proved the continuity of the vein to a depth of 400 feet. Surface sampling showed several ore sections, one of which was 450 feet long averaging 0.878 ounce gold a ton across 25.8 inches of quartz. An incline shaft was started about the centre of this shoot early in 1939 and had reached a slope depth of 300 feet by May, with levels established there and at 150 feet. Drifting on the first level for 104 feet indicated an ore shoot averaging 1.35 ounces gold a ton across 1.37 feet of quartz.

Numerous other claims were staked around Thompson Lake and on some of these quartz veins carrying visible gold have been reported.

Beaulieu River - A number of gold-bearing veins have been found around Sunset Lake on Beaulieu River about 70 miles northeast of Yellowknife. Only surface work has been done on these. One deposit is reported to consist of quartz lenses up to 18 inches wide in a sheared zone up to 20 feet wide which has been traced for 2,000 feet through volcanic rocks. Some of the quartz carries visible gold.

Francois River - About 200 claims were staked during 1938 on gold veins found near the headwaters of Francois River around Francois and Blatchford Lakes 60 miles east of Yellowknife. The country rocks are altered sediments. One vein on the Jade group of C.M. & S. Co. is reported to consist of quartz stringers and lenses aggregating 20 feet in width along a sheared zone up to 40 feet wide. Visible gold has been found in some of the quartz.

Russell Lake - Some diamond drilling was done during 1938 at the main showing on the Deloro group of claims staked in 1937. These claims lie on Snare River a short distance above Russell Lake which is 60 miles northwest of Yellowknife. On an island in Mosher Lake, a few miles east of Russell Lake, gold was found in 1938 by the Almo Prospecting Syndicate in a wide quartz stringer lode.

Wray Lake - In the late fall of 1938 a number of gold discoveries were made around Wray Lake which lies 120 miles northwest of Yellowknife. The initial finds were made by Territories Exploration Limited. Further discoveries have since been made by Inspiration Mining and Development Company and by others.

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The Mining Recorder at Fort Smith in a report dated May 30th, 1939, states:- "During the summer peak it was estimated that there were over 800 white people in the Yellowknife District and during the winter there were 350 in the settlement and 300 at the mines in the area. Boat transportation in the MacKenzie district reached a record high in 1938 due to increased tonnage of freight shipped to the Yellowknife area. Fuel oil from Fort Norman was brought up river for use at the mines. In April freight was delivered by tractors and sleighs at Yellowknife from Grimshaw, Alberta, over the new winter tractor road via Hay River. Aeroplane transportation was maintained by three well-known companies. One new coal location was staked eight miles above Fort Norman and prospectors were in the Hay river area in 1938 hunting for coal locations with a hope of finding fuel for use at Yellowknife."

Table 30 - PRINCIPAL STATISTICS OF THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, FOR YEARS SPECIFIED.

	(c) No. of operating plants or mines		Capital employed	Number of em- ployees	Salaries and wages	Cost of fuel and elec- tricity	(b) Cost of process supplies used	Value of freight, paid on shipments of ore, slag, etc.	(d) Smelter and re- finery treat- ment costs	Gross value of bullion, ore, concen- trates or residues shipped from mines	Net value of bullion, ore, concen- trates or residues shipped from mines
			\$		\$	\$	\$	\$	\$	\$	\$
1923	65	65	77,574,976	5,524	8,961,434	1,497,197	Data not available			25,021,837	Data not available...
1929	80	85	135,166,105	8,660	14,258,733	2,579,481	Data not available			37,275,986	Data not available
1937 -											
Nova Scotia	19	20	1,384,240	485	516,987	91,076	251,247	(a)	4,775	685,478	338,380
Quebec	253	257	64,048,672	5,476	8,079,743	1,496,327	2,435,507	128,223	194,116	15,064,326	10,760,153
Ontario	214	222	167,523,907	18,315	31,854,330	4,723,859	10,549,707	16,836	9,624	88,061,419	72,761,393
Manitoba	15	15	9,675,994	842	1,399,884	269,726	494,583	494	698	3,057,649	2,292,148
Saskatchewan	8	9	1,114,463	266	310,305	76,455	66,766	1,621	1,128	30,741	(-115,229)
British Columbia .	117	130	23,440,161	3,631	5,848,778	650,087	2,308,769	332,916	448,273	15,776,492	12,036,447
Northwest Terri- tories	5	6	1,958,212	125	209,291	37,871	74,143	...	...	...	(-112,014)
CANADA	631	659	269,145,649	29,140	48,219,318	7,345,401	16,230,722	480,090	658,614	122,676,105	97,961,278
1938 -											
Nova Scotia	22	22	1,466,958	508	507,806	83,714	226,186	2,889	11,401	937,504	613,314
Quebec	168	169	47,027,201	5,471	8,407,383	1,525,316	2,859,264	76,649	438,177	20,315,407	15,415,501
Ontario	184	188	167,836,682	18,528	32,855,073	4,760,388	11,756,920	113,310	1,160,724	99,364,867	81,573,525
Manitoba	12	12	6,753,690	744	1,269,044	235,780	425,765	8,257	43,789	3,653,893	2,940,302
Saskatchewan	5	6	556,786	210	358,005	90,244	71,542	...	...	...	(-161,786)
British Columbia .	128	137	23,594,496	3,879	6,494,431	686,023	2,684,212	388,164	618,709	18,635,187	14,258,079
Northwest Terri- tories (A)	15	15	3,966,489	304	569,660	112,606	290,211	838	2,825	240,053	(-166,429)
YuKon	1	1	1,500	3	690	...	400	...	...	...	(-400)
CANADA	535	550	251,203,802	29,647	50,462,092	7,494,573	18,314,500	590,107	2,275,625	143,146,911	114,472,106

NOTE - The value of fuel, purchased electricity and process supplies used was deducted from the value of shipments for the first time in 1935; this was done in order to attain a more accurate approximation of a net value, however, freight and treatment charges on all shipments of ores and concentrates have been deducted for all years shown.

(a) Data not available.

(b) Explosives, chemicals, etc.

(c) Number of mines producing - 1923 - 35; 1929 - 38; 1937 - 189; 1938 - 226.

(d) In 1937 does not include marketing or handling charges; these are included in 1938.

(A) Not including data relating to operations of Negus Mines Ltd.

Table 31 - FUEL AND ELECTRICITY USED BY AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1937 and 1938.

Kind	Unit of measure	1 9 3 7		1 9 3 8	
		Quantity	Cost at plant \$	Quantity	Cost at plant \$
Bituminous coal (a) From Canadian mines	short ton	11,714	108,111	18,961	169,929
(b) Imported	short ton	23,007	225,429	27,563	272,020
Anthracite coal (a) From United States	short ton	1,918	21,383	1,475	19,347
(b) Other	short ton	1,057	17,271	965	16,943
Lignite coal	short ton	464	3,687	335	1,842
Coke (for fuel only)	short ton	339	5,544	91	1,604
Gasoline	Imp. gal.	819,179	267,102	655,593	204,922
Kerosene or coal oil	Imp. gal.	30,551	8,939	25,307	6,804
Fuel oil and diesel oil	Imp. gal.	6,209,842	978,572	6,282,606	1,011,478
Wood (cords of 128 cu.ft. piled wood)	cords	142,341	668,476	95,906	456,233
Other fuel .....	\$	...	9,196	...	24
Electricity purchased for power and lighting (including service charges)	K. W. H.	608,831,462	4,908,365	737,053,453	5,326,207
Electricity purchased for other purposes (including service charges)	K. W. H.	20,251,916	123,326	4,813,500	7,220
TOTAL .....	\$	...	7,545,401	...	7,494,573
Electricity generated -					
(a) For own use	K. W. H.	66,250,390	...	80,584,889	...
(b) For sale	K. W. H.	839,720	3,908	1,020,530	8,042

Table 32 - POWER EQUIPMENT (including stand-by or emergency equipment) USED BY THE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1938.

	Ordinarily in use		In reserve or idle	
	Number of units	Total (x)horse power	Number of units	Total (x)horse power
1. Steam engines and steam turbines	43	2,362	27	1,698
2. Diesel engines	162	24,370	43	4,974
3. Gasoline, gas and oil engines, other than diesel engines	189	6,526	86	5,488
4. Hydraulic turbines or water wheels	30	14,957	10	1,903
5. Electric motors - (a) Operated by purchased power..	7,682	222,602	483	15,523
Total (1), (2), (3), (4) and 5(a)	8,106	270,817	649	29,586
(b) Operated by power generated by the establishment	1,486	20,055	71	1,781
Stationary boilers	215	17,048	46	2,756

(x) According to manufacturers' rating.

Table 33 - WAGE-EARNERS, BY MONTHS, IN THE AURIFEROUS QUARTZ MINING INDUSTRY, 1931, 1937 and 1938.

Month	1931	1937	1938
January	8,273	24,713	25,492
February	8,482	24,702	25,480
March	8,681	25,302	25,760
April	8,746	25,654	25,591
May	9,030	26,584	26,707
June	9,319	26,651	27,087
July	9,345	26,983	27,234
August	9,285	27,437	28,824
September	9,391	27,521	27,844
October	9,524	27,259	28,057
November	9,496	26,481	27,787
December	9,323	26,187	27,095

Table 34 - CLASSIFICATION OF WAGE-EARNERS EMPLOYED IN AURIFEROUS QUARTZ MINING INDUSTRY, 1937 and 1938.

Province	1 9 3 7			1 9 3 8		
	Number			Number		
	Mine		Mill	Mine		Mill
	Surface	Underground		Surface	Underground	
Nova Scotia	130	265	42	118	274	54
Quebec	2,337	2,043	235	1,761	2,758	520
Ontario	5,147	10,697	1,137	4,736	11,162	1,220
Manitoba	311	367	62	221	367	61
Saskatchewan	144	67	5	96	60	...
British Columbia	902	1,959	380	1,020	2,109	355
Northwest Territories	86	17	...	206	53	5
Yukon .....	...	...	...	1	1	...
CANADA	9,057	15,415	1,861	8,159	16,764	2,015

Table 35 - CERTAIN DATA RELATING TO THE PRODUCTION OF GOLD BY THE ENTIRE AURIFEROUS QUARTZ MINING INDUSTRY IN CANADA, 1928 - 1938.

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 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 (b)	255	1.21	6.31	to	to	...
1933 (c)	207	1.36	7.45	1934	1936	...
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	0.33(d)	19.26
1938	150	1.85	10.95	4.53	0.56	17.89

(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.

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.

Table 36 - 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 - 1938.

Year	Tonnage treated (x)	Gold content fine oz. (y)	Oz. of fine gold per ton	Average price of gold
1929	4,371,143	1,771,526	.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	.38	\$ 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

(x) Does not include tailings retreated. (y) A relatively small quantity of gold contained in concentrates, slags, etc., shipped 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 37 - ORES MINED AND MILLED, CRUDE BULLION RECOVERED AND CRUDE BULLION AND CONCENTRATES SHIPPED IN THE AURIFEROUS QUARTZ MINING INDUSTRY 1938.

		Nova Scotia	Quebec	Ontario	Manitoba	Saskat- chewan	British Columbia	Northwest Territories	CANADA
Number of producing mines		18	26	77	8	...	96	1	226
Ore mined	Tons	203,550	2,695,375	9,934,066	352,629	17,640	1,529,033	17,356	14,749,649
Material discarded (sorted)	Tons	38,877	118,361	277,371	27,627	...	66,460	...	528,696
Ore milled	Tons	175,760	2,605,799	9,603,679	324,967	...	1,434,517	13,833	14,158,555
Tailings retreated	Tons	40	10,046	3,600	450	...	50,790	...	64,926
Concentrates produced	Tons	1,260	3,149	3,840	110	...	49,763	...	58,122
Gold content of ores, slags, residues and con- centrates shipped -									
To Foreign smelters	fine oz.	161	2,968	1,573	112	...	169,243	...	174,057
To Canadian smelters	fine oz.	...	29,384	6,164	5	...	26,427	...	61,980
Bullion bars shipped - Gold content	fine oz.	26,399	546,068	2,796,456	103,154	...	303,896	5,467	3,781,440
Silver content	fine oz.	974	128,221	513,822	51,011	...	105,631	954	800,613
Bullion produced by amalgamation	crude oz.	28,223	111,497	301,477	40,194	...	139,019	1,833	622,243
Bullion produced by cyanidation	crude oz.	2,275	643,380	3,324,764	134,603	...	311,611	7,111	4,423,744
Total Bullion Produced	crude oz.	30,498	754,877	3,626,241	174,797	...	450,630	8,944	5,045,987
Content of bullion bars produced -									
Gold	fine oz.	26,399	545,537	2,808,391	103,154	...	322,367	6,794	3,810,642
Silver	fine oz.	974	128,212	523,438	51,011	...	111,575	1,256	816,466
Value (standard) ..	\$	546,140	11,289,910	58,278,336	2,154,027	...	6,720,396	140,981	79,129,790
Exchange premium on bullion bars produced.	\$	383,529	7,896,595	40,792,639	1,495,816	...	4,690,571	99,072	55,358,222
Value of ores, concentrates, slags and residues sold	\$	7,835	1,128,902	293,892	4,050	...	7,224,220	...	8,658,899
TOTAL GROSS VALUE OF PRODUCTION	\$	937,504	20,315,407	99,364,867	3,653,893	...	18,635,187	240,053	143,146,911
Value of fuel, electricity and process supplies used also freight on shipments, marketing, smelter and refining charges	\$	324,190	4,899,906	17,791,342	713,591	161,786	4,377,108	406,482	28,674,805(x)
NET VALUE OF PRODUCTION	\$	613,314	15,415,501	81,573,525	2,940,302(-161,786)	14,258,079(-166,429)	14,258,079(-166,429)	114,472,106	

(x) Includes \$400 spent by one mine in the Yukon.

Table 38 - SPECIFIED COSTS PER TON OF ORE MILLED AT CERTAIN OF THE PRINCIPAL AURIFEROUS QUARTZ MINES IN CANADA, 1938.

Name of Mine	Development and (a) exploration	Mining	Milling	General (b)	Total cost per ton(c)
	\$	\$	\$	\$	\$
<u>NOVA SCOTIA</u>					
Seal Harbour Gold Mines Ltd.	0.42	1.06	0.60	0.50	2.58
<u>QUEBEC</u>					
Arntfield Gold Mines Ltd.	0.630	1.815	0.868	0.740	4.053
Beattie Gold Mines (Quebec) Ltd.	0.320	0.619	0.975	0.338	2.252
Belleterre Quebec Mines Ltd.	2.316	2.035	1.891	1.729	7.971
Cournor Mining Co. Ltd.	0.537	2.095	1.202	0.092	3.926
Francoeur Gold Mines Ltd.	0.23	1.54	0.82	1.42	4.01(d)
Lake Rose (Que.) Mines Ltd. ....	...	7.65	9.40	3.12	20.17
Lamaque Mining Co. Ltd.	2.00	2.42	0.74	1.51	6.67
Lapa Cadillac Gold Mines Ltd.	0.19	1.70	0.87	0.63	3.59
McWatters Gold Mines Ltd.	2.69	1.67	1.84	1.21	7.41
O'Brien Gold Mines Ltd.	1.99	2.38	1.74	1.62	7.73
Perron Gold Mines Ltd.	2.033	2.821	0.959	0.754	6.567
Sigma Mines Ltd.	1.16	1.80	0.66	0.29	3.91(e)
Siscoe Gold Mines Ltd.	0.7846	1.9674	1.0627	0.7837	4.5984
Thompson Cadillac Mining Corp.	0.50	1.50	1.00	0.64	3.64
<u>ONTARIO</u>					
<u>Porcupine District</u>					
Buffalo Ankerite Gold Mines Ltd.	0.419	2.717	0.815	0.540	4.491
Dome Mines Ltd.	0.95	1.59	1.07	1.89	5.50
Hollinger Consolidated Gold Mines Ltd. (Ross)	1.011	2.347	1.455	1.025	5.838
Hollinger Consolidated Gold Mines Ltd. (Timmins)..	1.021	2.596	0.638	1.224	5.479
McIntyre Porcupine Mines Ltd.	0.558	3.484	0.781	0.964	5.787
Pamour Porcupine Mines Ltd.	1.09	1.18	0.57	0.22	3.06
Paymaster Consolidated Mines Ltd.	1.40	2.47	0.94	0.51	5.12
<u>Kirkland Lake District</u>					
Bidgood Kirkland Gold Mines Ltd.	2.82	4.08	1.46	0.78	9.14
Kirkland Lake Gold Mining Co. Ltd.	1.24	3.23	1.19	1.04	6.70(f)
Macassa Mines Ltd.	1.84	2.71	1.38	1.96	7.89
Teck-Hughes Gold Mines Ltd. ....	...	3.79(g)	0.99	1.29	6.07
Wright-Hargreaves Mines Ltd. ....	...	4.54(h)	1.248	2.720	8.516
<u>Larder Lake District</u>					
Kerr-Addison Gold Mines Ltd.	1.31	1.16	0.96(i)	0.42	3.86
Raven River Mines Ltd.	2.49	2.12	1.35	0.26	6.22
<u>Matachewan District</u>					
Hollinger Consolidated Gold Mines Ltd. (Young- Davidson)	0.2837	1.1215	0.5973	0.3652	2.3677
Matachewan Consolidated Mines Ltd.	1.072	1.658	0.902	0.511	4.145
<u>Sudbury District</u>					
Lebel Oro Mines Ltd.	0.209	2.211	2.493	0.318	5.231(m)
Consolidated Mining and Smelting Company of Canada, Limited (Golden Rose)	3.77	4.67	2.24	...	10.68
<u>Algoma District</u>					
Algoma Summit Gold Mines Ltd.	1.17	1.22	0.84	0.40	3.63
Cline Lake Gold Mines Ltd.	1.09	2.62	1.18	1.35	6.24
Minto Gold Mines Ltd.	1.77	1.52	2.43(j)	0.85	6.57

Table 38 - SPECIFIED COSTS PER TON OF ORE MILLED AT CERTAIN OF THE PRINCIPAL AURIFEROUS QUARTZ MINES IN CANADA, 1938. (concluded)

	Development and (a) exploration	Mining	Milling	General (b)	Total cost per ton(c)
	\$	\$	\$	\$	\$
<u>ONTARIO (concluded)</u>					
<u>Thunder Bay District</u>					
Bankfield Consolidated Mines Ltd.	2.7226	2.2086	1.6372	1.5900	8.1584
Leitch Gold Mines Ltd.	3.69	5.19	1.78	1.10	11.76
Sand River Gold Mining Co. Ltd.	1.30	6.45	1.52	0.21	9.48
Sturgeon River Gold Mines Ltd.	1.778	6.616	1.819	1.152	11.365
<u>Kenora District</u>					
Wendigo Gold Mines Ltd.	1.71	4.15	2.13	1.19	9.18
<u>Patricia District</u>					
Central Patricia Gold Mines Ltd.	1.96	2.52	1.58	1.98	8.04
McKenzie Red Lake Gold Mines Ltd.	2.34	2.18	1.24	2.05	7.81
Pickle Crow Gold Mines Ltd.	1.34	3.58	1.03	0.79	6.74
Sachigo River Exploration Co. Ltd.	7.595	6.984	7.950	5.454	27.983
<u>MANITOBA</u>					
God's Lake Gold Mines Ltd.	1.774	2.370	1.796(k)	1.202	7.142
Gurney Gold Mines Ltd.	0.278	2.714	2.233	1.650	6.875
Laguna Gold Mines Ltd.	1.37	6.00	2.22	1.08	10.67
<u>BRITISH COLUMBIA</u>					
Ashloo Gold Mines Ltd.	2.25	3.90	2.38(d)	3.02	11.55
Bayonne Cons. Mines Ltd.	2.95	4.19	3.53	3.08	13.75
Bralorne Mines Ltd.	1.6641	2.9627	0.7108	1.8557	7.1933
Buena Vista Mining Co. Ltd.	0.09	0.92	1.03	...	2.04
Fairview Amalgamated Gold Mines Ltd.	0.31	1.38	1.45(j)	0.72	3.86(d)
Hedley Mascot Gold Mines Ltd. ....	...	1.56	1.48(d)	2.92	5.96
Island Mountain Mines Co. Ltd.	3.48	3.22	2.53	(1)	9.23
Kootenay Belle Gold Mines Ltd.	1.75	4.24(j)	1.36	1.99	9.34
Osoyoos Mines of Canada, Ltd.	0.24	0.51	1.15	0.53	2.43
Pioneer Gold Mines of B. C. Ltd.	0.774	3.614	1.044	2.890	8.322
Polaris-Taku Mining Co. Ltd.	0.985	2.659	1.363	1.722	6.729
Privateer Mine Ltd.	1.62	5.32	2.73	1.30	8.97
Reward Mining Co. Ltd.	1.09	2.71	3.13(d)	3.82	10.75
Sheep Creek Gold Mines Ltd.	2.289	3.016	1.508	0.990	7.803
Wesko Mines Ltd.	0.26	3.12	2.38	0.74	6.50
Ymir Yankee Girl Gold Mines Ltd.	0.718	2.626	1.690	1.074	6.108
<u>NORTHWEST TERRITORIES</u>					
The Consolidated Mining and Smelting Company of Canada, Limited (Con) .....	...	9.76	3.67	0.26	13.69

- (a) Exclusive of outside exploration.
- (b) Marketing, head office, taxes, etc.
- (c) Depreciation not included.
- (d) Values recovered at smelter.
- (e) Not including interest on loans or preliminary development written off.
- (f) Not including taxes.
- (g) Including development.

- (h) Includes development, exploration, transporting ore and pumping.
- (i) Commenced May 2nd.
- (j) Includes trucking.
- (k) Includes crushing and conveying.
- (l) Included with other data.
- (m) Salvage operations.

THE COPPER-GOLD-SILVER MINING INDUSTRY, 1938.

The mining of "copper-gold-silver" ores in Canada during 1938 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.

Mining operations conducted on Canadian copper-gold-silver deposits during 1938 were reported by 37 firms compared with 28 in 1937. The gross value of crude ore, concentrates, etc., shipped in 1938 from the mines and mills to smelters was estimated at \$49,340,185; the cost of fuel, purchased electricity, process supplies, freight and smelter treatment totalled \$20,544,691 and the net value of shipments was estimated at \$28,795,492 compared with \$24,902,851 in the preceding year.

During the year under review the industry provided employment for 5,577 persons and distributed \$3,921,465 in salaries and wages.

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 - The Horne mine, in Rouyn township, operated by Noranda Mines Ltd., easily remains the "premier" metal mine of the province. It is the third largest producer of gold in Canada, and is also one of the most important producers of copper. Waite-Amulet Mines, Ltd., continued to operate both its mines, the Waite and the Amulet. An aerial tramway was constructed from the Waite to the Amulet mill, which is now treating 450 tons a day of ore from the Waite mine. It is estimated by the Company that the New Lower (A) orebody of the Amulet mine contains 3,158,260 tons of ore containing 6.24 per cent copper, 4.65 per cent zinc, 0.05 oz. gold per ton and 1.62 oz. silver per ton. The Aldermac and Normetal mines, and their respective mills, were in continuous operation throughout the year. All the above mines are mining complex sulphide ore bodies, which occur in large lenticular lenses of the replacement type, from which are extracted base metals as well as gold and silver. Moreover the ore from the Horne mine also yields the metals selenium and tellurium.

During 1938, Normetal Mining Corporation Ltd. treated in the mill 110,685 tons of ore assaying 2.452% copper, 8.259% zinc, and .027 and 3.027 oz. per ton of gold and silver, respectively; 11,004 tons of copper concentrates were produced, these contained 4,700,192 pounds of copper, 1,998.25 oz. of gold, 231,712 oz. of silver. The production of zinc concentrates totalled 13,312 tons; the zinc content of these amounted to 14,110,428 pounds. All the copper concentrates were shipped to the smelter and of the zinc concentrates produced, 5,966 tons were shipped and the balance placed on stockpile. Early in 1939 operating costs were reported at slightly under \$3.90 per ton.

The tonnage and grade of ore delivered in 1938 from the Horne mine of Noranda Mines Ltd. to the Noranda smelter and concentrator was as follows:-

	<u>Tons</u>	<u>Copper</u> %	<u>Gold per</u> <u>ton</u> oz.	<u>Silver per</u> <u>ton</u> oz.
Direct smelting sulphide ore	672,778	3.57	0.212	0.63
Concentrating sulphide ore	1,106,025	1.51	0.165	0.27
Silicious fluxing ore	217,682	0.38	0.069	0.09

During 1938 the smelter treated 1,291,692 tons of ore, concentrate and refinery slag and produced 99,139,734 pounds of anodes. After deducting the copper, gold and silver which was recovered from the slag received from Canadian Copper Refiners Ltd., the estimated production of new metals was 96,966,169 pounds of fine copper, 337,024 ounces of gold, and 975,623 ounces of silver. These figures include the production from 221,498 tons of customs ore and concentrate; the estimated recovery from the Horne mine ores being 76,358,442 pounds of fine copper, 299,033 ounces of gold and 607,447 ounces of silver.

From information obtained in diamond drilling and other openings in the various orebodies, there is now indicated above the 2,975 foot level, as of January 1, 1939, the following tonnage of ore:-

	Tons	Copper %	Gold per ton oz.
Sulphide ore over 4% copper	7,305,000	7.07	0.149
Sulphide ore under 4% copper	18,325,000	0.93	0.192
Silicious fluxing ore	3,971,000	1.29	0.136

MANITOBA AND SASKATCHEWAN - During 1938 the Hudson Bay Mining and Smelting Co., Limited, mined from both open pit and underground, a total of 1,702,329 tons of ore of which 1,653,123 tons averaging, per ton, copper, 2.03%, zinc, 4.2%, gold, 0.101 ounces, silver, 1.60 ounces, were milled. In addition, 1,248 tons averaging, per ton, copper 0.31%, gold 0.601 ounces, silver 5.90 ounces, were smelted direct. From this tonnage treated and from 138 tons of purchased custom ore and concentrates (assaying 0.681 ounces gold, 0.72 ounces silver and 10.72% copper) there were produced 54,825,936 pounds of copper, 76,327,172 pounds of zinc, 126,107 ounces of gold, 1,835,950 ounces of silver, 188,796 pounds of cadmium, 83,839 pounds of selenium, and 6,119 pounds of tellurium. In addition, the company smelted on toll 57,865 tons of concentrates. Ore reserves of the Flin Flon mine were estimated at the close of 1938 at 27,534,000 tons averaging, per ton, copper 2.23%, zinc 4.20%, gold .094 ounces and silver 1.44 ounces.

Sherritt Gordon Mines Ltd. milled 668,689 tons of ore in 1938 and reported a metal production of 29,022,909 pounds of copper (returnable), 6,262.947 ounces of gold and 212,506.34 ounces of silver. The gross cost of producing a ton of concentrate, including administration and general (head office) costs, was \$2.228 in 1938 and the net cost of electrolytic copper, f.o.b. refinery, was 7.094 cents per pound. The calculated total ore reserve as at December 31st, 1938, was 4,829,500 tons containing 2.45% copper, 2.97% zinc, and 0.018 ounces gold and 0.58 ounces silver per ton. A total of 1,743,169 tons of ore was found during the year which resulted in a net increase in the ore reserve of 1,074,500 tons or approximately 34,910,000 pounds of copper.

BRITISH COLUMBIA - The Granby Consolidated Mining, Smelting and Power Company operated the Copper Mountain mine at capacity. A total of 1,223,200 tons of ore was mined, from which 29,652,613 pounds of copper, 8,730 ounces of gold and 214,676 ounces of silver were produced.

In the Phoenix area concentrates from 17,459 tons of ore from the Brooklyn, Athelstan and Granby mines were shipped to the smelter at Tacoma.

From the Rossland properties of the Consolidated Mining and Smelting Company of Canada, Ltd., 9,633 tons of ore were shipped to Trail, yielding 6,807 ounces of gold, and 7,994 ounces of silver.

The Britannia Mining and Smelting Co. Ltd. operated at capacity during 1938, mined 2,206,992 tons of ore, and produced 33,337,978 pounds of copper, 12,449 ounces of gold and 161,912 ounces of silver. In addition, 74,951 tons of pyrite were produced. The new ore disclosure in the upper levels, containing somewhat higher than normal gold values, was completely developed during 1938 and production from this section of the property began before the close of the year. To keep pace with recent developments in fine grinding and flotation in the metallurgy of ores, and also to allow greater flexibility in capacity, the Britannia mill erected in 1923 was modernized during the year.

Table 39 - 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 concentrates shipped by mines \$
1923	14	14	19,108,072	1,790	3,004,292	334,696	4,361,486
1929	144	152	52,546,697	5,243	8,498,755	1,035,133	21,859,907
1935	16	18	38,461,682	3,430	5,040,196	534,152	13,243,163
1936	19	21	40,732,717	3,738	5,473,325	495,843	15,619,897
1937	28	31	73,338,258	5,164	8,240,614	901,088	24,902,851
1938	37	39	65,416,729	5,577	8,921,465	1,100,284	28,795,492

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

(1) Data relating to idle mines 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 treatment charges.

Table 40 - DETAILS OF FUEL AND ELECTRICITY USED IN THE COPPER-GOLD-SILVER MINING INDUSTRY, 1937 and 1938.

Kind	Unit of measure	1 9 3 7		1 9 3 8	
		Quantity	Cost at plant	Quantity	Cost at plant
Bituminous coal (a) From Canadian mines ..	short ton	11,022	87,851	9,283	78,488
(b) Imported	short ton	206	3,132	10	188
Anthracite coal (a) From United States ...	short ton	76	935	252	4,449
(b) Other	short ton	73	1,600	...	...
Lignite coal	short ton	16,043	41,537	77,090	139,866
Coke (for fuel only)	short ton	76	1,547	79	1,658
Gasoline	Imp. gal.	51,386	16,758	62,750	18,976
Kerosene or coal oil	Imp. gal.	5,384	1,552	3,435	1,155
Fuel oil and diesel oil	Imp. gal.	717,632	58,376	759,768	60,639
Wood (cords of 128 cu.ft. of piled wood) .	cord	2,453	13,261	1,064	4,269
Other fuel .....	\$	...	...	...	865
Electricity purchased, including service charges	K. W. H.	199,045,597	674,539	220,431,538	789,731
TOTAL .....	\$	...	901,088	...	1,100,284
Electricity generated for own use	K. W. H.	48,265,031	...	71,646,408	...
Process supplies consumed (explosives, etc.)	\$	...	4,851,845	...	4,843,663
GRAND TOTAL VALUE FUEL and PROCESS SUPPLIES CONSUMED .....	\$	...	5,752,933	...	5,943,947

Table 41 - POWER EQUIPMENT (including stand-by or emergency equipment) IN THE COPPER-GOLD-SILVER MINING INDUSTRY IN CANADA, 1938.

Description	Ordinarily in use		In reserve or idle	
	Number of units	Total horse power (x)	Number of units	Total horse power (x)
1. Steam engines and steam turbines	4	10,380	6	2,895
2. Diesel engines	4	1,060	4	452
3. Gasoline, gas and oil engines, other than diesel engines.	9	252	21	1,367
4. Hydraulic turbines or water wheels	11	9,909	...	...
5. Electric motors - (a) Operated by purchased power	1,829	68,785	124	3,547
Total (1), (2), (3), (4) and 5(a)	1,857	90,386	155	8,261
(b) Operated by power generated by the establishment ...	255	11,587	22	985
Stationary boilers	23	11,249	10	1,376

(x) According to manufacturers' rating.

Table 42 - WAGE-EARNERS, BY MONTHS, IN THE COPPER-GOLD-SILVER MINING INDUSTRY IN CANADA, 1931, 1937 and 1938.

Month	1 9 3 1	1 9 3 7	1 9 3 8
January	3,198	3,846	4,896
February	3,098	3,928	4,871
March	3,142	4,128	4,938
April	3,063	4,265	5,013
May	3,089	4,639	5,009
June	3,139	4,936	5,114
July	3,099	5,135	5,186
August	3,139	5,123	5,309
September	3,094	5,034	5,413
October	3,123	5,121	5,357
November	3,139	4,990	5,363
December	3,106	5,019	5,260

Table 43 - CLASSIFICATION OF WAGE-EARNERS EMPLOYED IN THE COPPER-GOLD-SILVER MINING INDUSTRY(x), 1932-1938.

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	1,517	2,417	768	4,702
1938	1,543	2,891	710	5,144

(x) Smelter employees not included.

Table 44 - SHIPMENTS FROM COPPER-GOLD-SILVER MINES OF CANADA, 1937 and 1938.

Table 44 - SHIPMENTS FROM COPPER-GOLD-SILVER MINES OF CANADA, 1937 and 1938.

	Quantity	Value	Total Metal Content as determined by settlement assay -				
	Tons	\$	Gold fine oz.	Silver fine oz.	Copper pounds	Sulphur tons	Zinc pounds
<u>1937</u>							
14 mines shipped to Canadian plants (b) -							
Ores	943,790	7,829,208	165,052	388,414	47,632,125	...	...
(A) Copper concentrates ...	528,792	22,325,631	267,998	2,220,794	119,867,914	...	(c)
Zinc concentrates	106,074	3,516,450	8,135	184,248	1,593,711	...	95,941,609
Iron pyrites concentrates .	1,037	4,170	...	...	...	523	...
7 mines shipped to foreign plants -							
Ores	131	2,476	43	164	13,222	...	...
Copper concentrates	97,553	6,460,244	15,120	266,874	48,759,159	...	...
Zinc concentrates	5,871	237,973	...	...	...	...	6,041,690
Iron pyrites concentrates .	118,420	359,649	...	...	...	59,657	...
TOTAL (f)	1,801,668	40,735,801	456,348	3,060,494	217,866,131	60,180	101,983,299
Value of process supplies, etc. (e) .....	...	15,832,950	...	...	...	...	...
NET VALUE .....	...	24,902,851	...	...	...	...	...
<u>1938</u>							
9 mines shipped to Canadian plants -							
Ores	924,236	11,608,275	167,179	470,745	55,558,860	...	...
(A) Copper concentrates ...	606,255	24,544,997	271,099	2,565,893	138,288,971	...	1,668,410
Zinc concentrates	94,994	3,083,527	8,199	175,391	1,446,591	...	85,882,322
Iron pyrites concentrates .	2,088	7,583	...	...	...	1,011	...
Slags, residues and gold precipitates	234	912,815	23,916	129,478	202,519	...	...
11 mines shipped to foreign plants -							
Ores	850	17,845	479	3,191	80,245	...	...
Copper concentrates	152,955	8,827,445	23,759	476,207	79,978,954	...	...
Zinc concentrates	5,966	202,155	103	12,577	133,526	...	6,270,471
Iron pyrites concentrates..	42,515	135,541	...	...	...	21,316	...
TOTAL (f)	1,830,093	49,340,183	494,734	3,833,482	275,689,666	22,327	93,821,703
Value of process supplies, etc. (e) .....	...	20,544,691	...	...	...	...	...
NET VALUE .....	...	28,795,492	...	...	...	...	...

(A) Includes some cyanide precipitate and slags.

(b) Certain mines operated in the Rossland area by leasers in 1938 and 1937 treated, statistically, as one mine.

(c) Not recovered; quantity not reported in 1937.

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

(f) Gross value.

Table 45 - PRODUCTION OF COPPER FROM CANADIAN ORES FOR YEARS SPECIFIED

Year	Pounds	\$	Year	Pounds	\$
1925	111,450,518	15,649,882	1932	247,679,070	15,294,058
1926	133,094,942	17,490,300	1933	299,982,448	21,634,853
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

Table 46 - PRODUCTION OF REFINED COPPER IN CANADA, 1931 - 1938.

Year	Short tons	Year	Short tons
1931	92,183	1935	173,290
1932	90,077	1936	191,818
1933	112,245	1937	215,080
1934	149,261	1938	227,240

GENERAL NOTES RELATING TO GOLD PRODUCTION IN CERTAIN OTHER COUNTRIES

BRITISH COMMONWEALTH OF NATIONS (including colonies and mandates)

OPERATIONS OF THE TRANSVAAL GOLD MINING INDUSTRY DURING 1938.

(J. L. Mutter, Canadian Government Trade Commissioner,
Johannesburg)

The Union's annual prosperity depends on the success of the year's operations of the gold industry. Possibly in future, as the result of the building up of secondary industries, the country may not be so dependent on gold for its prosperity as it is today. Since the Union abandoned the gold standard in 1933, the industry has consistently and wisely turned its attention more and more to the development of low grade ore bodies, with the result that the gold mining industry has been so firmly established that its life has been extended almost indefinitely. In 1938, for the first time, production averaged over one million ounces per month, or a total of 12,156,629 ounces, valued at about £84,000,000. In 1932, under the old gold standard, 35,209,650 tons were milled, which compares with 54,274,850 tons milled last year. Last year the average recovery was reduced from the previous low record of 4.460 dwt. in 1937 to 4.346 dwt. Working costs per ton in 1938 were nineteen shillings and threepence, or an increase of fourpence per ton over 1937. The gold mining industry profit for the year was £31,803,257 which, however, is below the record of over £32,000,000 in 1935. As a further indication of the consistent working of lower grade ores, the profit per ton milled in 1933 was sixteen shillings and sixpence. This has declined steadily, until last year it was down to eleven shillings and ninepence per ton milled.

The dividend declaration last year amounted to £17,262,216, with such profits there is little wonder that the gold industry still remains the basis of the Union's prosperity, not to mention the tremendous distribution of working costs, directly and indirectly throughout the country, which amount to not less than £52,000,000 last year.

With gold forming such an important item in the Union's economic system, no country in the world stands to lose so much, if through barter agreements, the world use of gold were to decline.

The average price obtained for fine gold during the year 1938, without any deductions for realization charges, commission, etc., was £7-2s-6.39d per fine ounce. In December the South African Reserve Bank announced that it was prepared to hold or " earmark " gold for the account of the overseas clients of commercial banks.

Exports of gold bullion, the produce of the Union, amounted to 6,839,940 fine ounces, valued at time of export at £47,995,253, all of which was consigned to the United Kingdom. Corresponding figures for the year 1937 were 11,768,913 fine ounces and £82,751,159 respectively.

The earmarking of gold for commercial banks and firms abroad began in August, 1938, with the retaining in this country of 151,123 ounces valued at £1,077,803. The quantity earmarked in this way has increased progressively each month. In December 857,941 ounces valued at £6,381,270 were earmarked, making a total for the year of 2,821,207 ounces valued at £20,714,902.

Table 47 - PROGRESS OF THE WITWATERSRAND GOLD MINING INDUSTRY (LARGE MINES), 1930 - 1938. (Taken from the Annual Report of the Government Mining Engineer, Department of Mines, Union of South Africa, 1938).

Year	Tons treated	RECOVERY		Working Costs (as declared by Chamber of Mines)	
		Total	Per ton	Per ton	
		£	dwt.	s.	d.
1930	51,543,903	43,471,145	6.530	19	5
1931	52,201,447	43,916,203	6.421	19	4
1932	54,645,543	47,217,058	6.331	19	0
1933	56,588,091	64,739,822	5.674	19	3
1934	59,371,017	67,721,715	4.986	19	3
1935	43,746,129	70,816,538	4.558	18	8
1936	47,546,452	73,391,224	4.402	18	6
1937	49,913,256	75,639,214	4.308	18	8
1938	52,928,780	79,009,120	4.194	18	11

The average percentage of waste sorted from rock hoisted at the Witwatersrand producing mines was 11.19 in 1936, 11.05 in 1937 and 11.46 in 1938.

In a paper on deep mining published by the Mining Journal, London, C. Baring Horwood, refers, in part, to rock bursts as follows- "The waste-filling used at the Morro Velho (Brazil), which packs well and consolidates into a hard mass; the granite-walling used on the Kolar goldfield; and the resue-waste-fill used at the City Deep mine on the Rand seem, respectively, particularly suitable for the particular conditions in each case; and constitute 100, up to 85, and 80 per cent support, respectively, and these methods are being economically employed.

INDIA

According to provisional and partial statistics issued by the Director of the Geological Survey of India, the gold production from the Kolar goldfields in 1938 totalled 321,334 ounces compared with 330,710 ounces in 1937. The production from the operations of the Burma Corporation Ltd., at Bawdwin, Burma, amounted to 1,063 ounces as against 894 ounces in 1937.

The last annual report of the Champion Reef Gold Mines of India states that during the twelve months under review the mill crushed 159,580 tons for a recovery of 70,508 ounces of gold. The average of the ore milled was 9 dwts. and the recovery was no less than 98.24%. Gold sold at an average price of £7-2s-2³/₄d. The ore reserves at December 31, 1938, stood at 530,000 tons averaging 11.15 dwts. During the year the work of supporting the stopes with granite filling proceeded satisfactorily; the efficacy of this granite filling has been proved by the satisfactory way in which it has withstood several heavy rockbursts. It might be thought that it would be a very costly process to fill the stopes with granite blocks built up by hand to form a solid mass, but actually the cost of supporting the workings has risen by only 10 per cent during the past five years. Another method of combating the rock-burst hazard is to stope the ground in accordance with a prearranged sequence. The practice of supporting levels with steel rails has been actively continued.

The total recovery of gold in 1938 by the Ooregum Gold Mining Company of India amounted to 51,301 ounces. The principal event of the year at the property of this company was the completion of the air conditioning plant. At December 31, 1938, the deepest point in the mine was no less than 8,361 feet vertically below the surface and some 5,400 feet below sea level. By December 31st, the wet bulk temperature had fallen on an average at the bottom levels by about 15 degrees F., compared with August, that is from an average of 90 degrees F. to 75 degrees F.

Ore reserves at the Ooregum mine at December 3, 1938, stood at 260,346 tons averaging 10.11 dwts. Reclamation work has been going on for some years and is now producing most satisfactory results, in fact some 48 per cent of the mine output in 1938 came from stopes outside the payable reserves. The grade of this particular ore is, of course, well below the grade of the ore stoped from the payable ore reserves, but at the present price of gold can be worked at a satisfactory profit.

The deepest point reached at the Nundydroog mine is now nearly 7,000 feet vertically below the surface. Ore reserves at this mine were estimated (end of 1938) at 546,334 tons of an average value of 11.1 dwts.. The Chairman of the last annual meeting of the company stated - "In the course of the last 56 years, time and time again on the Kolar goldfield rich zones and prosperous times have given place to poor zones and times not so prosperous, but with patience rich zones have always recurred in depth"

SOUTHERN RHODESIA

The Rhodesian Chamber of Commerce annual report for 1938 states - "The gold won from Southern Rhodesia during the year 1938 amounted to 814,079.49 fine ounces valued at £5,820,531. This was an increase of 9,859.64 fine ounces and £163,838 in value as compared with the preceding year. The value of the gold yield is based on the average London price for the first ten days following the month of production. The Chamber records with satisfaction the abolition by the Government, during the year, of the differential tax on gold mining imposed in 1937 whereby gold mining companies incomes of over £6,500 per annum were assessed at 4s 3d. in the £ as compared with only 3s 9d. on incomes from other sources. The Government is to be congratulated on the steps taken by it during the year for the alleviation of royalties where these pressed unduly upon the mining industry. This relief took the form of (a) exempting from royalty gold outputs not exceeding £300 per month in place of £200 as hitherto, a concession particularly helpful to the small workers; and (b) the establishment of a Royalty Review Committee for the purpose of remission or reduction of royalties on outputs of any minerals in cases of an inadequate return being earned on invested capital."

GOLD MINING IN SOUTHERN STATES OF AUSTRALIA DURING 1938.

(Frederick Palmer, Canadian Trade Commissioner,
Melbourne)

In the aggregate, the production and value of gold in the four southern States of Australia show an increase for the calendar year 1938, and the continued enhanced value of gold, which averaged £A8.875 per fine ounce for 1938, assured the industry of a good return.

<u>VICTORIA</u>	<u>Production</u>	<u>Value</u>
1937	145,799 fine oz.	£A1,266,507
1938	144,243 fine oz.	£A1,281,688

Steady gold production proved the salient feature of mining activity in Victoria for the year 1938. While the yield for the previous calendar year was slightly higher, there was, at that time, a feeling of uncertainty with regard to the permanence of many of the mines. As operations continued throughout 1938 with further success, confidence in mining strengthened, and new companies commenced operations. In several instances discoveries of considerable importance were made and, as the outcome of earlier developmental programmes, improved outputs coupled with continued encouraging prospects brought about a consolidation of position without which the systematic mining of any country cannot be pursued. This favourable outlook persisted in the face of extremely dry conditions which in many cases seriously retarded mining operations. That this should have been so, and that the yields for the second half of 1938 compare favourably with those for the corresponding period of 1937 (when the yield was a 17-year record), is an indication of the possibilities of even greater success when normal climatic conditions are experienced. From the point of view of shareholders, 1938 proved the most successful year since 1914 as nearly a quarter of a million pounds were paid in dividends.

State crushing batteries, which are essential for the purpose of crushing and treating ore mined by prospectors, and also serve as testing plants for companies until formations are proved, treated 15,352½ tons during the year for a yield of approximately 5,345 oz. of gold. The cyanide plants attached to the batteries treated 12,418 tons for a yield of 732 oz. During the past six years 101,495 tons of ore were crushed at State-operated testing plants, the total yield for that period including gold recovered by cyanidation of residues exceeding 50,000 oz.

During 1938, out of a total of 8,368 men employed in mining in Victoria, 6,315 men were engaged in winning gold.

Assistance to the mining industry in Victoria provided by the Department of Mines includes the following methods:-

- (1) Director of Geological Survey and expert technical staff available for consultation on all mining matters. No charge is made for this service.

- (2) Provision of State batteries (26 being operated by the Department, and six by local trusts) for cheap crushing facilities, including concession rates to bona fide prospectors on account of low yields or long cartage.
- (3) Loan of plant at nominal rentals, including hand and power boring plants; hand and power pumping outfits; also miscellaneous plant as available.
- (4) Assays and laboratory treatment of specimens, many being carried out for bona fide prospectors free; in other cases low rates are charged.
- (5) The supply of maps, plans, and literature on different aspects of mining, much being supplied free, and a nominal charge being made in other cases.
- (6) Assistance to mining parties, prospectors, and companies as follows:-
 - (a) The Department issues prospecting equipment (including tent, tools, etc.) a copy of the Prospectors' Guide, and a railway ticket to an approved locality to unemployed men. The conditions provide that at least one member of any such party must be an experienced miner. Arrangements can be made by men on sustenance to have their payments made at the centre nearest to the locality in which they are prospecting. Since 1931, 17,072 men have been assisted, and at the present time, about 1,000 men are out prospecting under this scheme.
 - (b) Mining grants are available only to men registered at a Labour Bureau for employment, or men in receipt of sustenance. A party of two or more men who hold a registered claim may apply for a mining grant from money provided by the Unemployment Relief Fund. If the claim is approved by the local Mining Inspector, an advance may be granted to provide an allowance of £1 per week for each member of the party continuously employed in the carrying out of an approved programme of developmental work. In addition to a monetary grant, ropes and explosives are also provided if recommended by the Inspector. Since June 1930, 6,421 advances have been made under this scheme to individual miners, parties and syndicates. At the present time about 100 men are in receipt of mining grants.
 - (c) A third scheme, carried out with the joint assistance of the State and Commonwealth Governments, provides for financial aid in mining development for holders of mining leases (including syndicates and companies) by which an advance is made without interest on a £1 for £1 basis, from the fund thus established. Allotments from this fund to the end of 1938 totalled £A76,000, of which amount £A66,068 had been actually expended.

<u>WESTERN AUSTRALIA</u>	<u>Production</u>	<u>Value</u>
1937	1,000,647 fine oz.	£A8,688,921
1938	1,167,792 fine oz.	£A10,364,023

A record yield of gold was again the highlight of the mining industry in Western Australia for 1938. This record was mainly attributable to the increased production in the following goldfields: East Coolgardie, East Murchison, Murchison, Mount Margaret, Yilgarn and Dundas. In addition many of the established companies operating in those fields, considerably increased their plants resulting in increased returns.

Dividends paid by the mining companies in Western Australia during 1938 amounted to £A1,103,244.

During 1938 less men were absorbed in the gold mining industry, there being 14,926 men employed. The government assistance to prospectors was maintained, and at the close of the year 725 men were being assisted in the field. From this source the State's gold return has been augmented by 26,004 fine ounces won from 49,970 tons of ore. Other government aids to the industry, such as the public crushing plants, loans for the development of mines, mining schools, and geological investigations of the State's goldfields, were continued with marked success. When it is known that public crushing plants have treated, since their inception in 1936, 2,259,426 tons of ore for gold valued at £A9,977,148, the value of this system can be appreciated.

The excellent returns from mines in the East Coolgardie Goldfield, did much to augment the record gold yield. The main companies operating on the Golden Mile (Kalgoorlie) namely the Lake View and Star (the State's premier gold mine) the Great Boulder Proprietary, the Boulder Perseverance, the North Kalgurli, the South Kalgurli Consolidated, the Paringa and the Gold Mines of Kalgoorlie, reported excellent returns for 1938. Profitable exploitation of the low grade mines at Norseman continued while the Big Bell at Cue added over 70,000 fine ounces of gold to the State's annual figures, during its first year. All the aforementioned mines and the balance of the large producers seem assured of years

of profitable operations on the present developed ore reserves. From the foregoing short review of the gold mining industry it seems definite that the production for 1939, even though State-wide floods caused suspension of operations for some time, will be even better than that of 1938.

<u>TASMANIA</u>	<u>Production</u>	<u>Value</u>
1937	20,376 fine oz.	£A176,130
1938	22,200 fine oz.	£A197,527

There is no regular production of gold from gold mines in Tasmania and apart from the sources referred to only small quantities are raised from alluvial deposits by individual prospectors. An appreciable quantity of gold is recovered in association with alluvial tin, but the great part, probably 75 to 80 per cent of the gold production in Tasmania, is obtained in the treatment of copper sulphide at Mt. Lyell and zinc-lead deposits at Mt. Read-Rosebery. The Mt. Lyell Company deals with approximately 4,000 tons (1-1.25 per cent) of copper sulphide ore daily for 12,000/13,000 tons refined copper yearly. The gold recovered is about 8,000 oz. annually. Mt. Read-Rosebery Mines produce about 500 tons concentrates daily in the treatment processes (oil flotation). Gold is recovered with concentrates and exceeds slightly the above figure.

GOLD PRODUCTION IN THE STATES OF NEW SOUTH WALES, QUEENSLAND, AND THE MANDATED TERRITORY OF NEW GUINEA, 1938.

(L. M. Cosgrave, Canadian Government Trade Commissioner, Sydney)

NEW SOUTH WALES - A continued maintenance of gold prices is graphically revealed in the marked improvement in gold production in the State of New South Wales, Australia - as evidenced by the following comparative figures submitted by the New South Wales Department of Mines, Sydney:

<u>Year</u>	<u>Output (fine ounces)</u>	<u>Value (Australian Currency)</u>
1929	7,496	£ (no figures available)
1933	29,252	225,683
1936	60,739	527,386
1937	68,607	600,705
1938	88,708	785,966

Production for the three months ended April 30th, 1939, amounted to 25,866 fine ounces, valued at £A239,267, as compared with 23,306 ounces valued at £A202,061 for the corresponding period in 1938. There is, therefore, every indication that the 1938 figures will be improved upon this year. (The 1938 yield was, incidentally, the highest since 1916).

Of the more important mines in this State, it is interesting to note the New Occidental Gold Mines N.L. at Cobar, who reopened the old Occidental Mine in 1935 and have since acquired the New Cobar and Chesney Mines adjoining. Substantial and consistent returns have been maintained since the commencement of operations in this district, and indications point to this group being the chief producers in New South Wales for many years to come.

Another important producer which commenced operations during 1938 is Wellington Alluvials N.L. This company operates the largest dredging plant ever installed in Australia, and is conducting operations on the Macquarie River near Wellington, N.S.W., with very satisfactory results.

Other important producers in recent years are Glen Innes Dredging N.L. near Glen Innes - in Western New South Wales; Cullengoral Alluvial Gold Sluicing N.L. near Gulgong; Golden Valley Mining Company N.L. (dredge) near Adelong; Christmas Gift Gold Mine near Cootamundra; and Moruya Gold Mines N.L. near Moruya, New South Wales. Other mines, such as New Baker's Creek, Hillgrove; and the Surprise Mine near Orange, are expected to operate successfully at an early date.

Though the majority of the above mines are operating on comparatively low-grade ore, modern mining methods are ensuring reliable production, and New South Wales is expected to become increasingly important with regard to gold production in the Commonwealth.

QUEENSLAND - Gold production in the northern State of Queensland amounted, in 1938, to 151,432 fine ounces, valued at £1,334,788 (Australian currency) - a marked increase over the figures for the calendar year 1937 when 127,281 fine ounces valued at £A540,656, were won. These latter figures were, in turn, a slight increase over the 1936 figures of 121,174 fine ounces valued at £A514,717.

The major producing mines of Queensland reported steady progress throughout 1938. The most outstanding mines are Mount Morgan, Cracow, and Mount Coolon. The Golden Plateau Mines at Cracow is now treating some 5,500 tons of ore per month, while Mount Coolon's properties were greatly increased by the addition of new leases during the year under review.

During this period (1938), also, the Aerial, Geological and Geophysical Survey of Northern Australia (under the direction of Sir Herbert Gepp, M.I.N.M., M.A.I.N.M.) carried out extensive investigations in the Northern and Central Queensland areas, and in adjacent areas in the Northern Territory - which investigations are very fully summarized in the Official Report published by the Commonwealth Government in December, 1938. The annual running costs of the Survey amounted to approximately £A50,000 during the years 1935, 1936 and 1937. The area surveyed from the air was approximately 3,000 square miles in 1937, and 1,500 square miles in 1938. (Aerial photography is well in advance of the geological work). Reports of this official survey are now in wide demand by prospecting and operating companies, and requirements have been fully met by the provision of reliable information concerning mineral possibilities in remote areas.

The Survey possesses its own equipment for the magnetic, self-potential and gravimetric methods, as well as the motor generator sets for electrical methods - which has been proved of marked value in the new fields.

Copies of the Report of the above-mentioned Survey Committee are available upon application to the Commonwealth Government Printer, Canberra, A.C.T.

MANDATED TERRITORY OF NEW GUINEA - Official figures for the calendar year 1938, covering gold production in the Mandated Territory of New Guinea, are not yet available - in complete form - but figures covering the first nine months of that year are as follows:

<u>1938</u>	<u>Production</u> (Fine ounces)	<u>Value</u> (Australian Currency)
January	17,577.13	£151,875. 8. 6
February	15,952.13	138,779. 2. 10
March	14,766.02	128,988. 15. 0
April	21,260.14	186,190. 6. 5
May	16,141.0	141,342. 13. 4
June	24,370.02	215,060. 14. 6
July	17,592.65	156,345. 13. 1
August	27,053.95	245,246. 16. 1
September	14,670.95	133,788. 7. 5

It will be noted from the foregoing figures that production in the Mandated Territory of New Guinea has been maintained with remarkable consistency.

Heavy floods and difficult climatic conditions have tended to delay the installation of additional dredging machinery, but transport by air into interior fields continues to be utilized, and to show, incidentally, remarkably high safety factor for which this territory has been noted for many years.

GOLD COAST - The year's profit of Ashanti Goldfields Corporation, after providing for depreciation of £61,129 was £1,042,064 and again showed a record. After deducting income-tax reserve of £24,000 and £46,000 for national defence contribution, £972,064 was left available for distribution. Investments in other mining companies were £722,929. Ore reserves showed an increase of 239,176 tons. The company reported ore reserves at 1,834,289 tons of an average value of 21 dwts. The company's interest in Bibiani was considerable; the output of this latter property in 1938 of a total of 136,220 tons of ore mined and treated, gave a yield of 44,162 ounces; ore reserves at Bibiani mine were reported in the region of 3,000,000 tons with an average value of 7½ dwts.

NEW ZEALAND - Martha Gold Mining Company reported 204,645 tons of ore crushed in 1938 compared with 224,553 tons in 1937. The ore in 1938 was of lower grade and it was found impossible to reduce overhead costs in proportion to the reduction in tonnage, so that the latter, combined with higher wages, has resulted in an increase of a little over ls. 10d. in the working costs per ton. The company reports that the reduction in tonnage arises from the gradual exhaustion of its own mine, coupled with the cessation of ore supplies from the Waihi Grand Junction area.

It was reported that the production of alluvial gold from dredges should be trebled within the next year or two and this should far more than offset the decrease which is occurring in quartz mining.

OTHER COUNTRIES

BRAZIL - The St. John D'El Rey Mining Co. Ltd. recently announced that - "it has never been in so strong a mining position as it is today. The reserves of mineral have reached very high figures. Those of the Morro Velho mine are estimated at 4,838,000 tons of an average value of 13 grams or 8.36 dwts. a ton, while those of Espirito Santo, considered payable with gold about its present price, are estimated at 2,590,000 tons. The company reported that it was necessary to look well ahead as regards power and to make provision in advance for future requirements; the board hoped to obtain leave to utilize a certain waterfall which would not only afford an ample supply but also give an alternative source of power to that of the Peixe. But, unfortunately, recent legislation provides that only companies controlled entirely by Brazilian shareholders with wholly Brazilian Boards of Directors can obtain a new water concession. The St. John d'El Rey Company has conducted mining operations for one hundred and eight years."

UNITED STATES - Accordingly to preliminary figures compiled by the Denver Office of the United States Bureau of Mines, the total mine production of recoverable gold in the United States (Territories and Philippines included) amounted to 5,106,109 fine ounces in 1938, an increase of 6 per cent over 1937; the 1938 production was worth \$178,713,815. The increase in quantity in 1938 over 1933 when United States government decrees and legislation between August 9, 1933, and January 31, 1934, raised the price of gold from \$20.67 1/2 to \$35 per fine ounce, was 94 per cent of the total production in 1938; California contributed 25 per cent; Philippine Islands, 17 per cent; Alaska, 13 per cent; South Dakota, 12 per cent; Colorado, 7 per cent; Arizona, 6 per cent; Nevada, 6 per cent; Utah, 4 per cent; and Montana, 4 per cent. The production in the Philippine Islands in 1938 totalled 862,397 fine ounces, (refinery receipts).

SOUTH DAKOTA - HOMESTAKE MINE - The annual report of the general manager of the Homestake Mining Co. for the year ended December 31, 1938, says -

Operations during 1938 were normal in all departments. Ore production from the mine was a little lower than in 1937 and the gross income for gold and silver produced was one-tenth of 1 per cent less. Production for 1939 will probably approximate that of 1938.

Operating expenses exclusive of taxes were substantially the same as in 1937. Taxes again increased to a total of \$3,052,795.67, or \$2.22 per ton of ore mined. The increased tax burden has eliminated a substantial tonnage of marginal ore from the reserve.

There are 189,571 tons of broken ore remaining in shrinkage stopes.

The reserve of developed ore is 18,558,019 tons. Of this reserve 6,446,350 tons are in the new ledge referred to in the report for 1937. The ore developed in this ledge is materially lower in grade than that in the main ledges.

Ore milled, receipts, and dividends, Homestake mine, 1934-38⁽¹⁾

Year	Ore milled (short tons)	Receipts for bullion product		Dividends
		Total	Per ton	
1934	1,440,692	\$16,515,684.14	\$11.4637	\$ 7,534,800
1935	1,379,163	19,191,013.19	13.9150	14,064,960
1936	1,383,929	19,506,534.78	14.0950	9,041,760
1937	1,394,773	19,304,076.45	13.8403	9,041,760
1938	1,377,314	19,284,459.67	14.0015	9,041,760

(1) From 1976 to 1938, inclusive, this mine yielded bullion and concentrates that brought a net return of \$360,075,014 and paid \$115,145,722 in dividends.

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, Canadian Trade Commissioners, Department of Finance, Department of Labour, United States Bureau of Mines and Mint, the Technical Press, and various other contributors, is hereby gratefully acknowledged. The statistical data utilized in recording the price curve shown on chart contained in this report were supplied by General Motors Corporation - Cornell University.

DIRECTORY

PRINCIPAL CANADIAN ALLUVIAL GOLD OPERATORS, 1938.

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>QUEBEC</u> -		
Beauce Gold Mines Co. Ltd. (x)	74 St. Joseph St., Quebec	Watford Tp.
Brunton, G. M., Construction Co. Ltd.	Compton	Moes River
Dion, Geo. A. (x)	19 St. Etienne St., Levis	Des Plantes; du Loup and Famine rivers.
East Angus Placer Mining Society	Box 598, East Angus	Stoke Mts.
Embergold Mines Ltd. (x)	956 New Birks Bldg., Montreal	Ditton and Emberton Tps.
<u>BRITISH COLUMBIA</u> -		
Acheson, W.W., & Sons	Atlin	Pine Creek
Acorn Group Placer Claims	Blewett	Nelson M.D.
Anderson, Oliver	Fort Steele	Fort Steele M.D.
Amador Hydraulic Placers Ltd. (x)	302 Toronto General Trusts Bldg., Calgary, Alberta	Cariboo M.D.
Boquist, Gus.	Atlin	Atlin M.D.
Boudreau, Jos. T.	Ashcroft	various creeks
Bamford, Harold	Tranquille	Yale Dist.
Barkerville Gold Mines Ltd. (x)	Barkerville	Cariboo M.D.
Boundary Gold Placers Ltd.	1509 .. 7th Avenue, Seattle, Wash., U.S.A.	Greenwood M.D.
Brandtold, M., and Steffenson, G.	Cranbrook	Fish Lake Creek
Brewer, A., and Johnson, P.	Lumby	Vernon M.D.
Bullion Placers Ltd.	917 Vancouver Block, Vancouver	Quesnel M.D.
Cananco Ltd.	800 Hall Bldg., Vancouver	Quesnel M.D.
Carter and Steele	Atlin	Atlin M.D.
Chester, C. A.	Atlin	Atlin M.D.
Columbia Development Ltd.	410 King St. W., Kitchener, Ont.	Atlin M.D.
Compagnie Francaise des Mines d'Or du Canada	19 rue D'Aumale IXe, Paris, France	Atlin M.D.
Consolidated Gold Alluvials of B.C. Ltd.	108 Merchants Exchange Bldg., Vancouver	Cariboo M.D.
Consolidated Mining & Smelting Co. of Canada, Limited	Trail	Fort Steele M.D.
Consolidated Mining & Smelting Co. of Canada, Limited	Trail	Atlin M.D.
Consolidated Mining & Smelting Co. of Canada, Limited	Trail	Omineca M.D.
Graft, S. (x)	Atlin	Atlin M.D.
Craig, Munn and Reese	808 Vancouver Block, Vancouver	Quesnel M.D.
Crowe and Kelly	Atlin	Atlin M.D.
Crowe, Kelly, Lindgren & Hoberg	Atlin	Atlin M.D.
Drayton, Wm. A. (x)	Fort Steele	Fort Steele M.D.
Dyer, J.C.	Wells	Cariboo M.D.
Eastman Red Gulch Placers Ltd.	Wells	Cariboo M.D.
Falconer, D.K.	Spruce Creek, Atlin	Spruce Creek
Fraser, B.C.	R. R. 3, Cloverdale	Lillooet M.D.
Fraser River Gold Ltd. (x)	6..815 West Hastings St., Vancouver	Fraser River
Fry, Thos.	Wingdam	Cariboo M.D.
Gairns, C.	Atlin	Birch Creek
Germansen Mines Ltd.	716 Hall Bldg., Vancouver	Omineca M.D.
Germansen Ventures Ltd.	Fort St. James	Germansen Creek
Goodheart, Fred. F.	Tranquille	Kamloops M.D.
Guyet Placers Ltd.	1408 Royal Bank Bldg., Vancouver	Barkerville
Haddock, E.L., and Bell, G. H.	Jordan River	Victoria M.D.
Hall, Jas., and Eley, John	c/o J. Henderson, R.R.1, Kelowna	Vernon M.D.
Harrison Creek Ventures Ltd.	Besner Block, Prince Rupert	Omineca M.D.
Hedley Amalgamated Gold Mines Ltd. (x)	404 West Hastings St., Vancouver	Lytton
Hixon Quesnelle Placers Ltd. (x)	522 Rogers Bldg., Vancouver	Cariboo M.D.
Hodges and Moran	Atlin	Atlin M.D.

DIRECTORY

PRINCIPAL CANADIAN ALLUVIAL GOLD OPERATORS, 1958. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>BRITISH COLUMBIA - (continued)</u>		
Husselbec, W. J.	Atlin	Atlin M.D.
Hultgren, Olaf.	Atlin	Atlin M.D.
International Placers Ltd.	716 Hall Bldg., Vancouver	Similkameen
Ivanic & Co.	Atlin	Atlin
Jawbone Creek Mine (x)	Van Winkle	Cariboo M.D.
Johnson & Co.	Atlin	Spruce Creek
K. V. Syndicate	Vanderhoof	Silver Creek
Keating, James	Keefers P.O.	Ashcroft M.D.
Keller, E.	Lumberton	Fort Steele M.D.
Ketch Ltd. and McDougall, R.E.	Barkerville	Cariboo M.D.
Kuchan, Geo.	Horsefly	Quesnel M.D.
Lindal V., and Walton, H. J.	Atlin	Atlin M.D.
Logan, J., and Kinderchuk, N.	Spruce Creek, Atlin	Spruce Creek
Lost Creek Placers Gold Ltd.	826 ... 736 Granville St., Vancouver	Manson Creek Dist.
Lowhee Mining Co. Ltd.	917 Rust Bldg., Tacoma, Wash., U.S.A.	Cariboo M.D.
Mahaffy, Wm. A. (x)	Hudson Hope	Peace River
Marshall, H.G. (x)	Atlin	Spruce Creek
McCrae, Alex., and Sons	1004 Douglas St., Revelstoke	Revelstoke
McDougall, R. E.	Box 71, Wells	Cariboo Dist.
McKinnon, C. E.	Atlin	Spruce Creek
McQuellan, T. J.	Box 1506, Ketchikan, Alaska	Portland Canal Dist.
Melline, Fred	Jesmond	Clinton Dist.
Melsted, V.J. (Jolly Creek)	Rock Creek	Greenwood M.D.
Moose Syndicate	Likely	Quesnel M.D.
Morrison, A. M.	Atlin	Atlin M.D.
Murphy, Nathan	Atlin	O'Donnell River
Nelson Placers Ltd.	347 Baker St., Nelson	Blawett
Noland, F. E.	Howser	Upper Duncan River
Noland, John W.	Atlin	Atlin M.D.
Norman Placer Mining Co. Ltd.	Fort Steele	Fort Steele M.D.
Ohman & Johnson	Atlin	Spruce Creek
Olivine Mining Co.	c-o T. B. Hooper, Princeton	Similkameen
Pearson, D. E.	Wingdam P.O.	Cariboo M.D.
Peeling, A. A.	Keithley Creek	Quesnel Dist.
Peterson, Ed., and Turbitt, B.	Alice Arm	Squaw Creek
Piccolo Bros.	Atlin	Atlin M.D.
Placer Engineers Ltd.	508 Randall Bldg., Vancouver	Quesnel M.D.
Price, Chas. P.	Beaver Mouth	...
Quesnel Mining Co. Ltd.	503 Rogers Bldg., Vancouver	Quesnel M.D.
Ross, D., and Allen, A.M.	Lytton	Kanaka Bar
Roach, Eli	Skookumchuck	...
Roth, John Peter	Wells	Cariboo M.D.
Shea, Vern	Dease Lake	Stikine M.D.
Simmons, C. M.	Prince George	...
Slade Placers Ltd.	Cottonwood	Cariboo M.D.
Spruce Creek Mining Co. Ltd.	Atlin	Atlin M.D.
Strike, Bond and Gullickson	Slocan City	...
Sundberg, Magnus	Wingdam	Cariboo M.D.
Svoboda and Co.	Atlin	Atlin M.D.
Tahltan River Syndicate Ltd.	Telegraph Creek	Stikine M.D.
Thompson and McKenzie (x)	Atlin	Atlin Dist.
Tom Creek Placers Ltd.	504 Randall Bldg., Vancouver	Omineca Dist.
Tripple Hydraulic Placers Ltd.	Barkerville	Cariboo M.D.
Truha Co.	Atlin	Atlin Dist.
Turnquist, Ernie	Atlin	Ruby Creek
Vanisle Mines Ltd. (x)	800 Hall Bldg., Vancouver	Victoria M.D.
Vik, Alfred	Atlin	Bull Creek

DIRECTORY

PRINCIPAL CANADIAN ALLUVIAL GOLD OPERATORS, 1938. (concluded)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>BRITISH COLUMBIA (concluded) -</u>		
Wheaton, J.	Telegraph Creek	Stikine Dist.
Wilkstrom Co.	Atlin	Atlin M.D.
Wing, David L.	Box 113, Wrangell, Alaska	Stikine M.D.
Woodman, E. H.	Atlin	Atlin M.D.
<u>YUKON -</u>		
Carpenter, J. H.	Dawson	Blackhills Creek
Canadian Placers Ltd.(x)	c/o F. V. Crawford Co., Toronto, Ont.	Various
Holbrook Dredging Co.	Dawson	Sixtymile River
Yukon Consolidated Gold Corp. Ltd.	Victoria Bldg., Ottawa, Ont.	Various

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PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938.

Note - (x) Active but not producing.

<u>NOVA SCOTIA -</u>		
Aulenback, James R.	Box 127, Bridgewater P.O.	Lunenburg Co.
Avon Gold Mines Ltd.	407 Insurance Exchange Bldg., Montreal, P.Q.	Oldham
Berggren, Chester H.	Bedford P.O.	West Gore
Cie Belgo Canadienne de Prospection		
Minière Ltée. (x)	417 St. Peter St., Montreal, P.Q.	Mooseland
Bilteijst, Jean	Moose River Mines	Halifax Co.
Cameron, Lee (x)	Carleton	Yarmouth Co.
Fraser and Grant	Antigonish	Stormont Dist.
Consolidated Mining and Smelting Company of Canada, Limited		
Culode Mine	215 St. James St. W., Montreal, P.Q.	Halifax Co.
Deal, Andrew	572 Trenton Road, New Glasgow	Goldboro
Dickson, Aubrey	Fairview (Station)	Hants Co.
Douglas, L. H.	Box 247, Sydney	Guysborough Co.
Guysborough Mines Ltd.	Caledonia	Queens Co.
Higgins and Lawlor	Goldenville	Goldenville
Horne Gold Mines Ltd.	Box 74, Shubenacadie	Moose River Dist.
MacLaren, Alex. (Lower Caledonia) (x)	50 Sackville St., Halifax	Hants Co.
MacKay, Ian S. (x) (✓)	677 E. River Rd., New Glasgow	Guysborough Co.
Mine Apprentice Project (Lacey)	42 Queen St., Halifax	Cockrans Island
Mineral Industries Ltd.	Department of Mines, Halifax	Chester Basin
Montague Gold Mines Ltd.	Box 538, Saint John, N.B.	Vine Harbour
Nugold Mining Corp. Ltd.	Prudential Trust Co. Ltd., Toronto, Ont.	Halifax Co.
Scotia Metals Ltd.	1406 Concourse Bldg., Toronto, Ont.	Blockhouse
Seal Harbour Gold Mines Ltd.	Box 6, Truro	Goldboro
	57 Bloor St. W., Toronto	Guysborough Co.

(✓) Operations confined to search for treasure.

<u>QUEBEC -</u>		
Abbeville Gold Mines Ltd. (x)	388 St. James St. W., Montreal	Rouyn Tp.
Agaura Explorations Ltd. (x)	c-o Royal Trust Co., 105 St. James St. W., Montreal	prospecting.
Amn Gold Mines Ltd.	Kewagama	Cadillac Tp.
Amphi Gold Properties Ltd. (x)	Amos	Malartic and Varson Tps.
Appalachian Mining Syndicate (x)	192 Robinson St., Moncton, N.B.	Stratford Tp.
Arntfield Gold Mines Ltd.	Arntfield	Beauchastel Tp.
Arno Quebec Mines Ltd. (x)	187 Main St., Hull	Rouyn Dist.
Arrowhead Gold Mines Ltd. (x)	Room 63, 240 St. James St. W., Montreal	Joannes Tp.

DIRECTORY

PRINCIPAL OPERATORS IN THE CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>QUEBEC (continued)</u>		
Ascot Holdings Ltd. (x)	Box 338, Amos	Malartic Tp.
Astoria Quebec Mines Ltd. (x)	70 St. Paul St., Quebec	Rouyn and Louvicourt Tps.
Avocalon Mines Syndicate Ltd. (x)	67 Yonge St., Toronto, Ont.	Vauquelin Tp.
Aurora Gold Mines Ltd. (x)	67 Yonge St., Toronto, Ont.	...
Bayside Malartic Mines Ltd. (x)	1403 Bishop St., Montreal	Loumay Tp.
Beattie Gold Mines Ltd.	25 King St. W., Toronto, Ont.	Duparquet Tp.
Beaufort Mining Corp. (x)	Box 134, Place d'Armes, Montreal	Pascalie and Louvicourt Tps.
Belleterre Quebec Mines Ltd.	Belleterre	Guillet Tp.
Benard Cadillac Gold Mines Ltd. (x)	132 St. James St., Montreal	Cadillac Tp.
Bidquebec Mines Ltd. (x)	Rouyn	Bourlamaque Tp.
Bonroc Mining Co. Ltd. (x)	c-o H. Crepeau, K.C., 132 St. James St. W., Montreal	Dasserat Tp.
Border- Cadillac Mines Ltd. (x)	1103 Central Bldg., Toronto, Ont.	Cadillac Tp.
Brenmore Quebec Mines Ltd. (x)	Ville Marie	Guillet Tp.
Brooke Cadillac Gold Mines Ltd. (x)	400 St. James St. W., Montreal	Cadillac Tp.
Brownlee Mines Ltd. (x)	200 Bay St., Toronto, Ont.	Rouyn Tp.
Bruell Gold Mines Ltd. (x)	402 Victory Bldg., Toronto, Ont.	Vauquelin Tp.
Bytown Rouyn Syndicate (x)	c-o T. E. Clendinnen Ltd., 140 Wellington St., Ottawa, Ont.	Rouyn Tp.
Calder Bousquet Holdings Ltd. (x)	5 St. James St. E., Montreal	Bousquet Tp.
Canabec Exploration Co. (x)	517 Canada Cement Bldg., Montreal	Prospecting
Canadian Malartic Gold Mines Ltd.	2810 .. 25 King St. W., Toronto, Ont.	Fourniere Tp.
Celta Quebec Exploration Ltd. (x)	465 St. John St., Montreal	Malartic
Central Cadillac Gold Mines Ltd. (x)	Room 712, 132 St. James St. W., Montreal	Cadillac Tp.
Centremaque Gold Mines Ltd. (x)	Room 118 .. 276 St. James St., Montreal	Bourlamaque Tp.
Century Mining Corp. Ltd. (x)	266 Notre Dame St. W., Montreal	Cadillac Tp.
Chibmac Mines Ltd. (x)	513 .. 132 St. James St. W., Montreal	Beauchastel Tp.
Chibougamau Properties Ltd. (x)	132 St. James St. W., Montreal	Chibougamau Dist.
Clauder Crossroads Mines Ltd. (x)	Val d'Or	Dubuisson Tp.
Claverly Gold Mines Ltd. (x)	606 Transportation Bldg., Montreal	Duverny Tp.
Cons. Chibougamau Goldfields Ltd. (x)	215 St. James St. W., Montreal	Chibougamau Dist.
Cook Gold Mining Corp. (x)	Belleterre P.O.	Belleterre
Consolidated Mining and Smelting Company of Canada, Limited (x)	215 St. James St. W., Montreal	various
Coronation Cadillac Gold Mines Ltd. (x)	c-o A. Gervais, 59 St. James St. W., Montreal	Cadillac Tp.
Cournor Mining Co. Ltd.	Suite 110 .. 215 St. James St. W., Montreal	Louvicourt Tp.
Deane Cadillac Mining Corp. (x)	360 St. James St., Montreal	exploration.
Dorval Siscoe Mines Ltd. (x)	303 Federal Bldg., Toronto, Ont.	Varsan Tp.
Dubuisson Goldfields Ltd. (x)	726 Insurance Exchange Bldg., Montreal	Dubuisson Tp.
Duquesne Mining Co. Ltd. (x)	Rouyn	Duparquet and Destor Tps.
Dumico Gold Corp. (x)	60 St. James St. W., Montreal	Duparquet Tp.
East Lacombe Mines Ltd. (x)	Senneterre	Haig-Jurie Tps.
East Malartic Mines Ltd.	Box 667, Montreal	Fourniere Tp.
East Rouyn Ltd. (x)	Hotel Noranda, Noranda	Rouyn Tp.
Eureka Gold Mines Ltd. (x)	408 Brock Bldg., Toronto, Ont.	Vauquelin Tp.
Fabreor Ltd. (x)	4125 St. Denis St., Montreal	Fabre
Fleming Mines Ltd. (x)	215 St. James St. W., Montreal	Louvicourt Tp.
Flourian Gold Mines Ltd. (x)	Box 600, Noranda	Duprat Tp.
Fontana Gold Mines Ltd. (x)	Aldred Bldg., Montreal	Duverny Tp.
Francoeur Gold Mines Ltd.	941 Dominion Square Bldg., Montreal	Beauchastel Tp.
Galloway Mines Ltd. (x)	c-o H. Crepeau, K.C., 132 St. James St. W., Montreal	Dasserat Tp.
Globe Rouyn Gold Mines Ltd. (x)	Room 22, 266 Notre Dame St. W., Montreal	Rouyn Tp.

D I R E C T O R Y

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938 (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>QUEBEC (continued) -</u>		
Golconda Mines Ltd. (x)	276 St. James St. W., Montreal	N.W. Quebec
Gold Bar Mines Ltd. (x)	244 Bay St., Toronto, Ont.	Rouyn Tp.
Granada Gold Mines Ltd. (x)	244 Bay St., Toronto, Ont.	Rouyn Tp.
Greater Malartic Gold Mines Ltd. (x)	Malartic	Fourniere Tp.
Guillet Gold Mine (x)	Box 470, Rouyn	Guillet Tp.
Halliwell Gold Mines Ltd.	360 St. James St. W., Montreal	Beauchastel Tp.
Harricana Amalgamated Gold Mines Ltd. (x)	56 St. Peter St., Quebec	Dubuisson Tp.
Harricana Basin Mining Co. (x)	Box B, Amos	Various
Hayes Cadillac Mines Ltd. (x)	Room 721 .. 67 Yonge St., Toronto, Ont.	Tibbelsmont Tp.
Heva Cadillac Gold Mines Ltd. (x)	Room 606, Royal Bank Bldg., Toronto, Ont.	Courville Tp.
Inspiration Mining & Development Co. Ltd. (x)	Box 640, Amos	N. W. Quebec
International Mining Corp. Ltd. (x)	Room 1210, 360 St. James St. W., Montreal	Various
Jacola Mines Ltd. (x)	Val d'Or	Dubuisson Tp.
Joannes Gold Mines Ltd. (x)	New Liskeard, Ont.	Joannes and Bousquet Tps.
Kewagama Gold Mines Ltd. (x)	Kewagama	Kewagama
Kindale Mines Ltd. (x)	217 University Tower, Montreal	Rouyn Tp.
Lake Rose Mines Ltd.	McWatters	Lake Rose
Lacoma Gold Mine Ltd. (x)	Senneterre	N. W. Quebec
Lamaque Mining Co. Ltd.	Bourlamaque	Bourlamaque Tp.
La Mine d'Or Champlain Ltee. (x)	Arntfield	Beauchastel Tp.
La Mine d'Or de la Baie Preulx de Chibougamau Ltd. (x)	c-o J. A. Fortin, Chambord Junction	McKenzie Tp.
Lapa Cadillac Gold Mines Ltd.	Suite 2529 .. 25 King St. W., Toronto, Ont.	Cadillac Tp.
La Pauze Gold Mining Corp. Ltd. (x)	5660 Park Avenue, Montreal	La Pauze Tp.
La Reine Gold Mines Ltd. (x)	505 C. P. R. Bldg., Toronto, Ont.	La Reine Tp.
La Salle Gold Mines Ltd. (x)	5660 Park Ave., Montreal	Malartic
Les Mines d'Or Bellehumeur Ltee. (x)	Bearn	Laverlochière Tp.
Le Roy Mines Ltd. (x)	4 Notre Dame St. E., Montreal	Clericy Tp.
Louvre Gold Mines Ltd. (x)	1034 University Tower Bldg., Montreal	Louvencourt Tp.
Malartic Gold Fields Ltd. (x)	355 St. James St. W., Montreal	Fournier and Dubuisson Tps.
Malartic Lakeshore Mines Ltd. (x)	276 St. James St., Montreal	Heva River
Manitou Mines Ltd. (x)	190 Main St., Hull	Bourlamaque Tp.
Maniwaki Mines Ltd. (x)	167 Main St., Hull	Vauquelin Tp.
Manobec Prospectors Ltd. (x)	Box 188, Noranda	Montray and Pershing Tps.
Mariette Gold Mines Ltd. (x)	113 .. 2nd Ave., Amos	Courville Tp.
McArthur, A. D., et al (x)	1 Toronto St., Toronto, Ont.	Haig Tp.
McIntyre Porcupine Mines Ltd. (x)	Schumacher, Ont.	Malartic
McWatters Gold Mines Ltd.	Haileybury, Ont.	Rouyn Tp.
Mic-Mac Explorations Ltd. (x)	Royal Trust Co., 105 St. James St. W., Montreal	exploration
Midland Mining Corp. Ltd. (x)	31 St. James St. W., Montreal	N. W. Quebec
Mining Corporation of Canada, Ltd. (x)	Suite 602, 350 Bay St., Toronto, Ont.	N. W. Quebec
National Malartic Mining Co. Ltd. (x)	Suite 110, 215 St. James St. W., Montreal	Fourniere and Malartic Tps.
Niagara Gold Mines Ltd. (x)	Rouyn	Beauchastel Tp.
Nipissing Mining Co. Ltd. (x)	1007 Excelsior Life Bldg., Toronto, Ont.	Destor Tp.
Northern Quebec Goldfields Exploration Co. Ltd. (x)	Three Rivers	Bousquet Tp.
Nubell Gold Mines Ltd. (x)	215 St. James St. W., Montreal	Vauquelin and Louvicourt Tps.
O'Brien Gold Mines Ltd.	Kewagama P.O.	Cadillac Tp.
O'Leary Malartic Mines Ltd. (x)	14 Ninth St., Noranda	Prospecting
Orcour Gold Mines Ltd. (x)	275 St. James St. W., Montreal	Louvencourt Tp.
Orland Gold Mines Ltd. (x)	159 Craig St. W., Montreal	N. W. Quebec

D I R E C T O R Y

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938 (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>QUEBEC</u> - (continued)		
Pan-Canadian Gold Mines Ltd.	Room 607, 407 McGill St., Montreal	Cadillac Tp.
Pandora Cadillac Gold Mines Ltd. (x)	New Liskeard, Ont.	Cadillac Tp.
Paquette Malartic Mines Ltd. (x)	71 St. Pierre St., Quebec	Malartic Area
Partanen Malartic Gold Mines Ltd. (x)	617 Confederation Life Bldg., Toronto, Ont.	Malartic
Payore Holdings Ltd.	Canada Permanent Bldg., Toronto, Ont.	Bourlamaque Tp.
Perron Gold Mines Ltd.	Perron	Senneville and Pascal's Tps.
Red Gold Mining Co. Ltd. (x)	159 Craig St. W., Montreal	Rouyn Tp.
Playsafe Mines Ltd. (x)	167 Main St., Hull	Vauquelin and Tavernier Tps.
Pontiac Rouyn Mines Ltd. (x)	Room 706, 100 Adelaide St. W., Toronto, Ont.	Rouyn Tp.
Powell Rouyn Gold Mines Ltd.	Box 300, Noranda	Rouyn Tp.
Prospectors Airways Co. Ltd. (x)	80 King St. W., Toronto, Ont.	various
Quebec Exploration Ltd. (x)	465 St. John St., Montreal	Dubuisson Tp.
Quebec Mining Explorers Ltd. (x)	205 Brock Bldg., Toronto, Ont.	Bourlamaque Tp.
Questor Gold Mines Ltd. (x)	4643 Verdun Ave., Verdun	Rouyn and Joannes Tps.
Quemartic Mines Ltd. (x)	Room 1507 Victory Bldg., Toronto, Ont.	Fournière Tp.
Radius Exploration Ltd. (x)	60 St. James St. W., Montreal	LacLois
Rand Malartic Mines Ltd. (x)	418 Ottawa Electric Bldg., Ottawa, Ont.	Fournière Tp.
Raymond Tiblémont Gold Mines Ltd. (x)	Senneterre	Tiblémont Tp.
Raymond Tiblémont Gold Mines (Que.) Ltd. (x)	Kanasuta	Vauquelin Tp.
Renault, A. (x)	4693 Cote Ste. Catherine Rd., Montreal	Dasserat Tp.
Reynolds Quebec Gold Mines Ltd. (x)	Room 35, 445 St. Francis-Xavier St., Montreal	Duverny Tp.
Ricanow Mines Ltd. (x)	495 Gamble St., Rouyn	Dubuisson Tp.
Riverside Gold Mines, Inc. (x)	Val d'Or	Beauchastal Tp.
Rodcor Mines Ltd. (x)	Taschereau	Dubuisson Tp.
Rochette Gold Mines Ltd. (x)	Room 505, 660 St. Catherine St. W., Montreal	Launay Tp.
Rouleau Mines Ltd. (x)	244 Bay St., Toronto, Ont.	Barry Tp.
Rouyanda Gold Syndicate (x)	4 Notre Dame St. E., Montreal	Rouyn Tp.
Saint Jude Gold Mines Ltd. (x)	Room 513, 132 St. James St. W., Montreal	Duprat Tp.
St. Lawrence Mining Corp. (x)	Room 2, 187 Main St., Hull	Prospecting
Senator-Rouyn Ltd. (x)	51 King St. W., Toronto, Ont.	Rouyn Tp.
Shawkey Gold Mining Co. Ltd.	660 St. Catherine St. W., Montreal	Dubuisson Tp.
Shawmaque Gold Mines Ltd. (x)	Bourlamaque	N. W. Quebec
Sigma Mines Ltd.	Val d'Or	Bourlamaque Tp.
Siscoe Extension Gold Ltd. (x)	907 Dominion Square Bldg., Montreal	Dubuisson Tp.
Siscoe Gold Mines Ltd.	83 Sparks St., Ottawa, Ont.	Varsan Tp.
Sladen-Malartic Mines Ltd.	713 Tramway Bldg., Montreal	Fournière Tp.
Stadacona Rouyn Mines Ltd.	610 St. James St. W., Montreal	Rouyn Tp.
Sullivan Bourlamaque Gold Mines Ltd. (x)	1604 Aldred Bldg., Montreal	Bourlamaque Tp.
Sullivan Cons. Mines Ltd.	25 King St. W., Toronto, Ont.	Dubuisson Tp.
Teck Exploration Co. Ltd. (x)	388 St. James St. W., Montreal	Joannes and Dasserat Tps.
Thompson Bousquet Gold Mines Ltd. (x)	Room 98, 388 St. James St. W., Montreal	Bousquet Tp.
Thompson Cadillac Mining Corp. Ltd.	Rouyn	Kewagama
Thompson-Joannes Gold Ltd. (x)	465 St. John St., Montreal	Rouyn Tp.
Tiblémont Cons. Mines Ltd. (x)	Transportation Bldg., Montreal	Tiblémont Island
Tiblémont Siscoe Mining Ltd. (x)	65 St. Pierre St., Quebec	Tiblémont Tp.
Valco Cadillac Mines Ltd. (x)	231 St. James St. W., Montreal	various
Val Malartic Ltd. (x)	Box 190, Fort Erie, Ont.	Fournière Tp.
Vicor Mines Ltd. (x)	14 Ninth St., Noranda	Louvicourt Tp.
Warrenmac Mines Ltd. (x)	14 Ninth St., Noranda	Bousquet Tp.
Westwood Cadillac Mines Ltd. (x)	907 Dominion Square Bldg., Montreal	Bousquet Tp.
West Siscoe Gold Mines Ltd. (x)		Varsant Tp.

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AUFIFEROUS QUARTZ MINING INDUSTRY, 1938 (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>QUEBEC (concluded) -</u>		
White Quartz Gold Mines Ltd. (x)	Suite 92, 84 Notre Dame St. W., Montreal	Duprat and Beauchastel Tps.
Wiltsey Coghlan Mines Ltd. (x)	Suite 2529 .. 25 King St. W., Toronto, Ont.	Dufresnoy and Rouyn Tps.
Wolverine Mines Ltd. (x)	Rouyn	Bourlamaque Tp.
Wood Cadillac Mines Ltd. (x)	437 St. James St. W., Montreal	Cadillac Tp.
Yates United Mines Ltd. (x)	Room 38, 20 St. James St. E., Montreal	Dubuisson Tp.
<u>ONTARIO - Porcupine District</u>		
Augite Porcupine Mines Ltd. (x)	357 Bay St., Toronto	Deloro Tp.
Broulan Porcupine Mines Ltd. (x)	1701 Sterling Tower, Toronto	Pamour
Buffalo Ankerite Gold Mines Ltd.	Box 533, South Porcupine	Deloro Tp.
Coniaurum Mines Ltd.	25 King St. W., Toronto	Tisdale Tp.
Credo Porcupine Gold Mines Ltd. (x)	25 King St. W., Toronto	Various
Dayton Porcupine Mines Ltd. (x)	347 Bay St., Toronto	Deloro Tp.
Delcairo Gold Mines Ltd. (x)	402 .. 80 Richmond St. W., Toronto	Deloro Tp.
Delnite Mines Ltd.	Box 590, Timmins	Deloro Tp.
Devon Gold Mines Ltd. (x)	517 University Tower, Montreal, P.Q.	Matheson
Dome Mines Ltd.	36 Toronto St., Toronto	South Porcupine
Electra Porcupine Gold Mines Ltd. (x)	29 Malinda St., Toronto	various
Faymar Porcupine Gold Mines Ltd. (x)	Box 141, Timmins	Deloro Tp.
Gillies Lake Porcupine Gold Mines Ltd. (x)	Timmins	Timmins
Guy-Guibord Gold Mines Ltd. (x)	706 Concourse Bldg., Toronto	Shillington
Hallnor Mines Ltd.	1600 Royal Bank Bldg., Toronto	Whitney Tp.
Hollinger Cons. Gold Mines Ltd.	Timmins	Timmins
Hollinger Cons. Gold Mines Ltd.	Timmins	Hislop Tp.
Hollinger Cons. Gold Mines Ltd (Kayorem) (x)	Timmins	Tisdale and Deloro Tps.
Hoyle Gold Mines Ltd. (x)	1701 Sterling Tower, Toronto	Pamour
Jodelo Gold Mines Ltd. (x)	811 Kent Bldg., Toronto	Deloro Tp.
Kendon Porcupine Mines Ltd. (x)	706 Concourse Bldg., Toronto	Shillington
Mace Gold Mines Ltd.	80 King St. W., Toronto	Schumacher
MacGregor Porcupine Gold Mines Ltd. (x)	811 Kent Bldg., Toronto	Whitney and Tisdale Tps.
McIntyre Porcupine Mines Ltd.	Schumacher	Schumacher
Moneta Porcupine Mines Ltd.	67 Yonge St., Toronto	Timmins
Munro Croesus Mines Ltd. (x)	Haileybury	Munro Tp.
Naybob Gold Mines Ltd.	711 Federal Bldg., Toronto	Ogden and Deloro Tps.
North Whitney Mines Ltd. (x)	601 .. 330 Bay St., Toronto	Pamour
Orplit Mines Ltd. (x)	106 Jarvis St., Toronto	Bristol Tp.
Ossian Gold Mines Ltd. (x)	36 Toronto St., Toronto	Deloro Tp.
Pamour Porcupine Mines Ltd.	Pamour	Pamour
Paymaster Cons. Mines Ltd.	South Porcupine	Deloro and Tisdale Tps.
Porcupine Lake Gold Mining Co. Ltd.	112 Yonge St., Toronto	Whitney Tp.
Porcupine McNabb Gold Mines Ltd. (x)	Haileybury	Macklem Tp.
Porcupine Triumph Gold Mines Ltd. (x)	811 Kent Bldg., Toronto	Deloro Tp.
Preston East Dome Mines Ltd.	706 .. 100 Adelaide St. W., Toronto	South Porcupine
Raymore Gold Mining Co. Ltd. (x)	505 C. P. R. Bldg., Toronto	Playfair Tp.
Roma Lake Gold Mines Ltd. (x)	South Porcupine	Cody Tp.
Skynner Lake Gold Mines Ltd. (x)	214 C. P. R. Bldg., Toronto	Deloro Tp.
Verita Porcupine Gold Mines Ltd. (x)	1705 Royal Bank Bldg., Toronto	South Porcupine
<u>Kirkland Lake District</u>		
Bidgood Kirkland Gold Mines Ltd.	Suite 504 .. 357 Bay St., Toronto	Lebel Tp.
Brock Gold Mines Ltd. (x)	1105 Victory Bldg., Toronto	Kirkland Lake
Continental Kirkland Mines Ltd. (x)	Kirkland Lake	E. Kirkland Lake

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>ONTARIO (continued)-</u>		
<u>Kirkland Lake District (concluded)</u>		
Golden Gate Mining Co. Ltd.	19 Melinda St., Toronto	Swastika
Gordon-Lebel Mines Ltd. (x)	67 Yonge St., Toronto	Lebel Tp.
Kelly-Kirkland Mines Ltd. (x)	Elmira	Various
Graff, Frank	Swastika	Burt Tp.
Kirkland Basin Gold Mines Ltd. (x)	Room 1311, 44 Victoria St., Toronto	Teck Tp.
Kirkland Gold Rand Ltd. (x)	Kirkland Lake	Teck Tp.
Kirkland-Hudson Bay Gold Mines Ltd. (x)	Box 700, New Liskeard	Teck Tp.
Kirkland Lake Gold Mining Co. Ltd.	1314 Metropolitan Bldg., Toronto	Teck Tp.
Lake Shore Mines Ltd.	Drawer D - Kirkland Lake	Teck Tp.
Lucky Kirkland Gold Mines Ltd.	159 Bay St., Toronto	Eby Tp.
Macassa Mines Ltd.	1001 Federal Bldg., Toronto	Kirkland Lake
Melba Gold Mines Ltd. (x)	Suite 98, 388 St. James St. W., Montreal	Bourkes
Mesabi Gold Mines Ltd. (Estate)	c-o Moffat Hudson & Co., 199 Bay St., Toronto	Bourkes
Moffat Hall Mining Co. Ltd. (x).	357 Bay St., Toronto	Lebel Tp.
Morris Kirkland Gold Mines Ltd.	902 Kent Bldg., Toronto	Gauthier Tp.
Sylvanite Gold Mines Ltd.	Box 670, Kirkland Lake	Teck Tp.
Teck-Hughes Gold Mines Ltd.	25 King St. W., Toronto	Teck Tp.
Toburn Gold Mines Ltd.	1809 Royal Bank Bldg., Toronto	Teck Tp.
Upper Canada Mines Ltd.	1101 Federal Bldg., Toronto	Gauthier Tp.
Wright-Hargreaves Mines Ltd.	Fort Erie North	Kirkland Lake
Yama Gold Mines Ltd. (x)	171 Yonge St., Toronto	Catherine Tp.
<u>Larder Lake District</u>		
Anoki Gold Mines Ltd. (x)	1006 Concourse Bldg., Toronto	Gauthier Tp.
Baghdad-Larder Mines Ltd. (x)	36 Toronto St., Toronto	Ossian Tp.
Beaverhouse Lake Gold Mines Ltd. (x)	Haileybury	Gauthier and McVittie Tps.
Barber-Larder Gold Mines Ltd. (x)	372 Bay St., Toronto	McGarry Tp.
Brubaker Syndicate (x)	25 King St. W., Toronto	Hearst Tp.
Fernland Gold Mines Ltd. (x)	171 Yonge St., Toronto	McVittie Tp.
Grace-Larder Gold Mines Ltd. (x)	902 Central Bldg., Toronto	Katrine Tp.
Kerr-Addison Gold Mines Ltd.	38 King St. W., Toronto	McGarry Tp.
Korola Larder Mines Ltd. (x)	Drawer 967, Kirkland Lake	Hearst Tp.
Lardego Gold Mines Ltd. (x)	80 Richmond St. W., Toronto	McVittie Tp.
Manor Gold Mines Ltd. (x)	1901 Metropolitan Bldg., Toronto	Skead Tp.
McVittie-Kirkland Mines Ltd. (x)	80 Richmond St. W., Toronto	McVittie Tp.
Omega Gold Mines Ltd.	15 King St. W., Toronto	McVittie Tp.
Pelangio-Larder Mines Ltd. (x)	Drawer 967, Kirkland Lake	McGarry Tp.
Raven River Mines Ltd.	67 Yonge St., Toronto	Larder Lake
<u>Matachewan District</u>		
Hollinger Cons. Gold Mines Ltd. (Y. Davidson)	Timmins	Powell Tp.
Matachewan Cons. Mines Ltd.	25 King St. W., Toronto	Powell and Cairo Tps.
<u>Sudbury and Kowkash Districts</u>		
Bilmore Gold Mines Ltd. (x)	Room 503, 357 Bay St., Toronto	McMurchy Tp.
Consolidated Mining and Smelting Co. of Canada, Limited (x)	215 St. James St. W., Montreal, P.Q.	Temagami & Afton Tps.
Hollinger Cons. Gold Mines Ltd. (x)	Timmins	Newton Tp.
Lake Caswell Mines Ltd. (x)	1465 Yonge St., Toronto	Shining Tree
Lebel Oro Mines Ltd.	320 Bay St., Toronto	Long Lake
Mining Corp. of Canada, Ltd. (x)	Suite 602, 350 Bay St., Toronto	Osway Tp.
Osway Gold Mines Ltd. (x)	505 Northern Ontario Bldg., Sudbury	Osway Tp.
Pirate Gold Mines Ltd. (x)	508 National Bldg., Toronto	Shining Tree
Strathay Basin Mines Ltd. (x)	712 Federal Bldg., Toronto	Various

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>ONTARIO (continued) -</u>		
<u>Sudbury and Kowkosh Districts (concluded)</u>		
Sudlac Gold Mines Ltd. (x)	717 Federal Bldg., Toronto	Garnet Tp.
Tionaga Gold Mines Ltd.	Tionaga	Horwood Tp.
Tyrannite Mines Ltd. (x)	Box 670, Kirkland Lake	Tyrrell and Knight Tps.
Wascanna Mines Ltd. (x)	67 Yonge St., Toronto	Kowkash Dist.
<u>Algoma District</u>		
Agami Gold Mines Ltd. (x)	2125 Yonge St., Toronto	Lizar and Ermine Tps.
Agawa Gold Mines Ltd. (x)	1801 Victory Bldg., Toronto	Gold Park
Algold Mines Ltd.	1007 Central Bldg., Toronto	Goudreau
Algoma Summit Gold Mines Ltd.	514 McKinnon Bldg., Toronto	Goudreau
Cline Lake Gold Mines Ltd.	Lochalsh	Lochalsh
Deep Lake Gold Mines Ltd.	Gold Park	Gold Park
Dog Lake Syndicate (x)	405 Ottawa Electric Bldg., Ottawa	Lochalsh
Edwards Cons. Mines Ltd. (x)	302 Sterling Tower, Toronto	Lochalsh
Erie Canadian Mines Ltd.	Box 670, Kirkland Lake	Various
Hiawatha Gold Mines Ltd. (x)	Oba	Lizar Tp.
Hollinger Cons. Gold Mines Ltd. (x)	Timmins	Mishibishu
Lake Godin Gold Mining Synd. Ltd. (x)	27 Market Square, Chatham	Tp. 48
Michipicoten Gold Mines (x)	510 Queen St. E., Sault Ste. Marie	Gold Park
Minto Gold Mines Ltd.	Wawa	Wawa
Mitnor Gold Mines Ltd. (x)	Room 1123, 67 Yonge St., Toronto	Hawkins Tp.
Ranson Mines Ltd. (x)	Royal Bank Bldg., Sault Ste. Marie	Michipicoten area
Shenango Gold Mines Ltd. (x)	Room 506, 67 Yonge St., Toronto	Hawkins Tp.
Ward Lake Gold Mines Ltd. (x)	29 Melinda St., Toronto	Gold Park
<u>Thunder Bay District</u>		
Bankfield Cons. Mines Ltd.	1006 Concourse Bldg., Toronto	Little Long Lac area
Birch Bay Gold Mines Ltd. (x)	603 Royal Bank Bldg., Toronto	Big Long Lac
Bowhill Mines Ltd. (x)	Room 506, 100 Adelaide St. W., Toronto	Heron Bay
Brennan and Kenty Bros. (x)	Room 1309, 44 Victoria St., Toronto	Mosquito Lake
Elmos Gold Mines Ltd. (x)	Empire	Geraldton
Empress Cons. Gold Mines Ltd. (x)	1608 Star Bldg., Toronto	Jackfish
Gorham Gold Mines Ltd. (x)	Room 401, 330 Bay St., Toronto	Gorham Tp.
Gwyn Beardmore Gold Mines Ltd. (x)	21 King St. E., Toronto	Beardmore
Hard Rock Gold Mines Ltd.	Geraldton	Geraldton
Hollinger Cons. Gold Mines Ltd. (x)	Timmins	Ashmore Tp.
Jellicoe Cons. Gold Mines Ltd. (x)	3100 Bank of Commerce Bldg., Toronto	Geraldton
Jowato Mines Ltd. (x)	67 Yonge St., Toronto	Big Long Lac
Joyce Gold Mining Syndicate Ltd. (x)	195 Pendrith St., Toronto	Little Long Lac
Leitch Gold Mines Ltd.	Beardmore	Beardmore
Little Long Lac Gold Mines Ltd.	Room 1331, 25 King St. W., Toronto	Little Long Lac
MacFarlane Cons. Mines Ltd. (x)	Room 710, Excelsior Life Bldg., Toronto	Long Lac
MacLeod-Cockshutt Gold Mines Ltd.	357 Bay St., Toronto	Little Long Lac
Magnet Cons. Mines Ltd.	Empire	Geraldton
Mosher Long Lac Gold Mines Ltd. (x)	Room 714, 320 Bay St., Toronto	Little Long Lac
Niparea Prospectors Ltd. (x)	29 Commercial St., Leaside, Toronto	Geraldton
Northern Empire Mines Co. Ltd.	Empire	Empire
Portage Longlac Mines Ltd. (x)	Room 601, 67 Yonge St., Toronto	Little Long Lac
Richgreen Gold Mines Ltd. (x)	36 Toronto St., Toronto	Beardmore
St. Anthony Gold Mines Ltd.	159 Bay St., Toronto	Sturgeon Lake
Sand River Gold Mining Co. Ltd.	302 Bay St., Toronto	Beardmore
Shirloc Gold Mines Ltd. (x)	Room 508, 330 Bay St., Toronto	Little Long Lac
Spooner Gold Mines Ltd. (x)	67 Yonge St., Toronto	Beardmore
Sturgeon River Gold Mines Ltd.	Jellicoe	Irwin Tp.
Tashota Goldfields Ltd.	c-o K. L. Carter (custodian), 69 Yonge St., Toronto	Kowkash Dist.

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>ONTARIO (continued) -</u>		
<u>Thunder Bay District (concluded)</u>		
Tellaurum Gold Mines Ltd. (x)	New Liskeard	Long Lac
Theresa Gold Mines Ltd.	29 Government Rd., Kapuskasing	Long Lac
Tombill Gold Mines Ltd.	Empire	Geraldton
Valhalla Beardmore Gold Mining Co. Ltd. (x)	301 N. Hardisty St., Ft. William	Beardmore
West-Side Long Lac Mines Ltd. (x)	Room 1701, 372 Bay St., Toronto	Long Lac
<u>Kenora and Rainy River Districts</u>		
Clark Gold Mines Ltd. (x)	Room 405, 276 St. James St., Montreal, P.Q.	Melgund Tp.
East Lacoma Mines Ltd. (x)	200 Bay St., Toronto	Haig and Jurie Tps.
Elizabeth Gold Mining Co. Ltd. (x)	702 Kent Bldg., Toronto	Atikokan
Elora Gold Mines Ltd. (x)	603 Royal Bank Bldg., Toronto	Goldrock
Kenbrae Gold Mines Ltd. (x)	Room 442, 73 Adelaide St.W., Toronto	Kenora Dist.
Kenburn Gold Syndicate (x)	250 Riverdale Ave., Toronto	Norman
Kenricia Gold Mines Ltd. (x)	25 King St. W., Toronto	Kenora Dist.
Orelia Mines Ltd.	1101 Concourse Bldg., Toronto	Rainy River
Selby Lake Mines Ltd. (x)	509 Lumsden Bldg., Toronto	Goldrock
South Vermillion Gold Mines Ltd. (x)	21 King St. E., Toronto	Fort Francis area
Split Lake Gold Mines Ltd. (x)	1104 .. 67 Yonge St., Toronto	Kenora and Sioux
		Lookout
Straw Lake Beach Gold Mines Ltd.	710 Excelsior Life Bldg., Toronto	Kenora Dist.
Upper Seine Gold Mines Ltd. (x)	702 Kent Bldg., Toronto	Atikokan
Wendigo Gold Mines Ltd.	80 King St. W., Toronto	Lake of the Woods
<u>Patricia District</u>		
Albany River Gold Mines Ltd. (x)	930 Bank of Commerce Bldg., Toronto	Pickle Lake area
Argosy Gold Mines Ltd.	c/o E. G. Clarkson, 15 Wellington St. W., Toronto	Casummit Lake
Berens River Mines Ltd. (x)	Favourable Lake	Favourable Lake
Central Patricia Gold Mines Ltd.	Central Patricia	Central Patricia
Coin Lake Gold Mines Ltd. (x)	357 Bay St., Toronto	Red Lake
Dupont-Hodgson Gold Mines Ltd. (x)	Suite 1007, 80 Richmond St.W., Toronto	Red Lake
Earngold Mines Ltd. (x)	19 Richmond St. W., Toronto	Earngray Tp.
Frontier Red Lake Gold Mines Ltd. (x)	244 Bay St., Toronto	Red Lake
Gold Eagle Gold Mines Ltd.	802 Federal Bldg., Toronto	Dome Tp.
Hasaga Gold Mines Ltd.	930 Bank of Commerce Bldg., Toronto	Red Lake
Howey Gold Mines Ltd.	Red Lake	Red Lake
J. M. Consolidated Mines Ltd.	1116 Federal Bldg., Toronto	Dent Tp.
Jason Mines Ltd. (x) (Argosy)	Room 612, 67 Yonge St., Toronto	Casummit Lake
Lake Rowan Gold Mines Ltd. (x)	1178 Phillips Place, Montreal, P.Q.	Red Lake
Macandrew Red Lake Gold Mines Ltd. (x)	100 Adelaide St., W., Toronto	Dome Tp.
Madsen Red Lake Gold Mines Ltd.	67 Yonge St., Toronto	Baird Tp.
Mattson Patricia Mining Co. Ltd. (x)	Montreal Trust Bldg., Winnipeg, Man.	Red Lake
McDonough Mining Syndicate Ltd. (x)	67 Yonge St., Toronto	Various
McKenzie Red Lake Gold Mines Ltd.	19 Richmond St. W., Toronto	Dome Tp.
Paulore Gold Mines Ltd. (x)	357 Bay St., Toronto	Red Lake
Pickle Crow Gold Mines Ltd.	Pickle Crow	Pickle Crow
Prospectors Airways Co. Ltd. (x)	80 King St. W., Toronto	Various
Red Crest Gold Mines Ltd. (x)	New Liskeard	Todd Tp.
Red Lake Gold Shore Mines Ltd.	(see Hasaga Gold Mines)	Red Lake
Rouge d'Or Mines Ltd. (x)	244 Bay St., Toronto	Red Lake
Sachigo River Exploration Co. Ltd.	Suite 2600, 25 King St. W., Toronto	Sachigo River
Surprise Lake Exploration Syndicate Ltd. (x)	701 National Bldg., Toronto	Woman Lake
Uchi Gold Mines Ltd. (x)	25 King St. W., Toronto	Uchi Lake
Walker Patricia Gold Mines Ltd. (x)	1608 Star Bldg., Toronto	Pickle Lake

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AUIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>ONTARIO (concluded) -</u>		
<u>Old Ontario</u>		
Consolidated Mining and Smelting Company of Canada, Limited (x)	215 St. James St., Montreal, P.Q.	Cordova Mines
Consolidated Mining and Smelting Company of Canada, Limited (x)	215 St. James St., Montreal, P.Q.	Kaladar Tp.
Cataragui Gold Mines Ltd. (x)	67 Yonge St., Toronto	Grimsthorpe Tp.
Pay Rock Gold Syndicate (x)	623 Bank of Hamilton Bldg., Toronto	Barrie Tp.
<u>MANITOBA, -</u>		
Central Manitoba Mines Ltd. (x)	274 Fort St., Winnipeg	...
Golden West Mines Ltd. (x)	204 Lombard Bldg., Winnipeg	The Pas M.D.
Gold Shore Mines Ltd. (x)	302 Electric R. P. Bldg., Winnipeg	English Brook
God's Lake Gold Mines Ltd.	398 Main St., Winnipeg	God's Lake
Gurnar Gold Mines Ltd.	80 King St. W., Toronto, Ont.	Beresford Lake
Gurney Gold Mines Ltd.	919 Grain Exchange Bldg., Winnipeg	The Pas M.D.
Laguna Gold Mines Ltd.	350 Bay St., Toronto, Ont.	Herb Lake
San Antonio Gold Mines Ltd.	237 Curry Bldg., Winnipeg	Rice Lake
Shannon, J. D. (Beresford Lake Mines)	Beresford Lake	Beresford Lake
Sparling, C. C.	Flin Flon	Lake Athapapuskaw
Stanmore Mining & Smelting Ltd. (x)	395 Main St., Winnipeg	Lac du Bonnet
Thor Gold Mines Ltd. (x)	209 McIntyre Block, Winnipeg	West Hawk Lake
<u>SASKATCHEWAN -</u>		
Athona Mines Ltd. (x)	1306 Star Bldg., Toronto, Ont.	Goldfields
Consolidated Mining and Smelting Company of Canada, Limited (x)	Trail, B.C.	Goldfields
Commercial Gold Mines Ltd. (x)	701 National Bldg., Toronto, Ont.	Beaver Lake Dist.
Mari Lake Gold Mining Syndicate Ltd. (x)	Flin Flon, Manitoba	Mari Lake
Nicholson Mines Ltd. (x)	25 King St. W., Toronto, Ont.	Goldfields
<u>BRITISH COLUMBIA -</u>		
Abco Mines Ltd.	Room 403, 626 W. Pender St., Vancouver	Clayoquot M.D.
Alpine Gold Ltd. (x)	Box 1772, Spokane, Wash., U.S.A.	Nelson M.D.
Ames, G. C. (x)	305 Stock Exchange Bldg., Vancouver	Allison Harbour
Ashloo Gold Mines Ltd.	602 Hastings St. W., Vancouver	Upper Squamish
Bayonne Consolidated Mines Ltd.	932 Marine Bldg., Vancouver	Nelson M.D.
Bear Group	Box 140, Nelson	Nelson M.D.
Blue Ice Mines Ltd. (x)	Bank of Nova Scotia Bldg., Vancouver	Kamloops M.D.
Bluehawk Gold Mines Synd. (x)	2083 Byron St., Victoria	Vernon M.D.
Britannia Mining & Smelting Co. Ltd. (x)	Britannia Beach	Zeballos Dist.
B. R. X. Consolidated Mines Ltd.	616 Stock Exchange Bldg., Vancouver	Bridge River Dist.
Bralorne Mines Ltd.	555 Burrard St., Vancouver	Bralorne
Buena Vista Mining Co. Ltd.	Trail	Portland Canal M.D.
California Mine (R. H. Kline)	206 Baker St., Nelson	Kootenay Dist.
Canadian Belle Mining Co. (x)	204 Radio Central Bldg., Spokane, Wash., U.S.A.	Nelson M.D.
Canty Gold Mines Ltd. (x)	1132 Marine Bldg., Vancouver	Hedley
Cariboo Gold Quartz Mining Co. Ltd.	1007 Royal Bank Bldg., Vancouver	Walls
Cariboo Midas Mines Ltd. (x)	1409 Royal Bank Bldg., Vancouver	Quesnel M.D.
Cariboo Thompson Gold Mines Ltd. (x)	1010 2nd Avenue, Seattle, Wash., U.S.A.	Barkerville
Cariboo Group	c-o John Tomich, Rossland	Rossland
Cariboo-Hudson Gold Mines Ltd.	1406 Royal Bank Bldg., Vancouver	Cariboo M.D.
Central Zeballos Gold Mines Ltd.	815 West Hastings St., Vancouver	Clayoquot M.D.
Clubine Comstock Gold Mines Ltd.	Box 191, Nelson	Boulder Creek
Consolidated Mining and Smelting Company of Canada, Limited (x)	Trail, B.C.	Omineca M.D.
Consolidated Mining and Smelting Company of Canada, Limited (x)	Trail, B.C.	Portland Canal M.D.

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1958. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>BRITISH COLUMBIA (continued)</u> -		
Consolidated Mining and Smelting Company of Canada, Limited (x)	Trail, B.C.	Yale M.D.
Conwest Exploration Co. Ltd. (x)	514 Royal Bank Bldg., Vancouver	Zeballos Dist.
Crown Gold Mining Syndicate	312 Union Bldg., Victoria	Nanaimo Dist.
Daylight Gold Mines Ltd. (x)	404 Hastings St. W., Vancouver	Nelson M.D.
Danzig Mines Inc.	310 Lloyd Bldg., Seattle, Wash., U.S.A.	Clayoquot M.D.
Dawson Cons. Mines Ltd.	716 Hall Bldg., Vancouver	Yale M.D.
Delphine Mines Ltd. (x)	716 Hall Bldg., Vancouver	Zeballos Dist.
Dewitte, Ray (Rosemont)	Okanagan, Wash., U.S.A.	Beaverdell
Dentonia Mine (Robt. Lee)	Box 511, Greenwood	Greenwood M.D.
Dufferin Golds Ltd.	101 Royal Trust Bldg., Vancouver	Nelson M.D.
Enderby, A. (Motherlode)	Sheep Creek	Sheep Creek
Fairview Amalgamated Gold Mines Ltd.	814 Standard Bank Bldg., Vancouver	Similkameen
Gem Gold Mines Ltd. (x)	955 Thurlow St., Vancouver	Texada Island
Gold Belt Mining Co. Ltd.	616 Stock Exchange Bldg., Vancouver	Sheep Creek Dist.
Gold Cup Mining Co. Ltd. (x)	Box 509, Rossland	Trail Creek M.D.
Gold Drop Mine (L. Basshart)	Greenwood	Greenwood M.D.
Golden Egg (J.J. Rollheisen)	Kimberley	Ft. Steele M.D.
Gold Nugget (C. G. Dodd)	Box 422, Greenwood	Beaverdell
Golden Zone Mines Ltd. (x)	514 Standard Bank, Vancouver	Hedley
Gold Fern Mines Ltd. (x)	372 Bay St., Toronto, Ont.	Nelson M.D.
Good Hope Mine (L. P. Gormley)	Nelson	Bird Creek
Granby Point Mine (Karl Edlund)	Box 146, Anyox	Anyox
Graham, W. E. (Bell Mine)	Slocan City	Slocan City
Grattan H. Lynch Synd. (x)	616 Stock Exchange Bldg., Vancouver	Clayoquot M.D.
Greenbridge Gold Mines Ltd.	207 Lancaster Bldg., Calgary, Alberta	Greenwood Dist.
Hall, R. G. (Bunker Hill)	Box 916, Aberdeen, Wash., U.S.A.	Nelson M.D.
Harbour, H. L. (Howard Fraction)	Slocan City	Slocan City
Hedley Mascot Gold Mines Ltd.	1132 Marine Bldg., Vancouver	Osoyoos M.D.
Hidden Creek Gold Mine Ltd. (x)	510 W. Hastings St., Vancouver	Yale M.D.
Inland Empire Mine Synd.	1352 Bay St., Trail	Paulson
Iron Cap Prospect (D.B. Sterrett)	Savona	Kamloops M.D.
Island Mountain Mines Co. Ltd.	Wells	Cariboo M.D.
I. X. L. Lessors Ltd.	c-o B. G. Lees, Rossland	Trail Creek M.D.
Jewel Prospectors Synd.	829 Pender St. W., Vancouver	Lillooet M.D.
Kalamalka Gold Mines Ltd.	Box 98, Vernon	Lavington
Kelowna Exploration Co. Ltd.	Hedley	Hedley
Kennedy Lake Gold Mines Ltd. (x)	1414 Broad St., Victoria	Kennedy River
Kerr, James (Carmi)	Carmi	Greenwood M.D.
Kettle River Mine (Geo. Mehmäl)	Grand Forks	Kettle River
Kootenay Belle Gold Mines Ltd.	916 Stock Exchange Bldg., Vancouver	Sheep Creek
Livingstone Mining Co. Inc.	Blewett	Blewett
Lone Silver Gold Mine	818 Vancouver Block, Vancouver	Salmo
Lucky Strike Gold Mining Co. Ltd. (x)	811 Credit Foncier Bldg., Vancouver	Lillooet M.D.
Marmon & Maryland Leasing Co.	c-o W. J. Terman, Trail	Slocan City
Man-O-War Mines Ltd.	601 Bank of Toronto Bldg., Victoria	Zeballos Dist.
Maple Leaf Gold Mining Co. Ltd. (x)	333 $\frac{1}{2}$ Riverside Ave., Spokane, Wash., U.S.A.	Ymir
Maybe Mine	Westbridge	Greenwood M.D.
McArthur, W. E.	Box 629, Greenwood	Greenwood and Grand Forks
McCarthy, James F.	Wallace, Idaho, U.S.A.	Grand Forks
Midnight Mining Co.	Rossland	Rossland
Mogul Mine (C. Sherdahl)	Westbridge	Greenwood M.D.
Molly Gibson Mines Ltd.	1318 .. 12th Ave. W., Calgary, Alberta	Grand Forks M.D.
Noble Five Mines Ltd.	490 Baker St., Nelson	Nelson
Nugget-Motherlode (A. Enderby)	Sheep Creek	Nelson
O. K. Group (S. Peterson)	Westbridge	Greenwood M.D.
O. K. Leasing Co.	Box 522, Rossland	Trail Creek

DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (continued)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>BRITISH COLUMBIA</u> (concluded) -		
Oscarson, Roger O. (Arlington)	Erie	Nelson M.D.
Osoyoos Mines of Canada Ltd.	Bank of Toronto Bldg., Calgary, Alberta	Osoyoos
Pathfinder Cons. Mining Co. (J.J. Herman)	Bridge St., Grand Forks	Grand Forks
Pioneer Gold Mines of B. C. Ltd.	605 Rogers Bldg., Vancouver	Lillooet M.D.
Polaris-Taku Mining Co. Ltd.	807 Lonsdale Bldg., Duluth, Minn., U.S.A.	Atlin M.D.
Pond, S. P. (Paladora)	Nelson	Arrow Lake
Privateer Mine Ltd.	601 Bank of Toronto Bldg., Victoria	Zeballos Dist.
Prosperine Gold Mines Ltd. (x)	502 Pacific Bldg., Vancouver	Cariboo M.D.
Quesnelle Quartz Mining Co. Ltd.	1000 Hall Bldg., Vancouver	Cariboo M.D.
Red Hawk Gold Mines Ltd. (x)	808 W. Pender St., Vancouver	Zeballos Dist.
Relief Arlington Mines Ltd.	626 Pender St. W., Vancouver	Nelson M.D.
Reno Gold Mines Ltd.	216 Yorkshire Bldg., Vancouver	Nelson M.D.
Reward Mining Co. Ltd.	1021 Hall Bldg., Vancouver	Porcher Island
Rey Oro Mining Co. Ltd.	800 Hall Bldg., Vancouver	Zeballos Dist.
Riegel Mines Ltd.	Grand Forks	Similkameen and Grand Forks
Ritchie, Chas. (Gold Stream)	Slocan City	Lemon Creek
St. Paul Mines Ltd. (x)	908 Rogers Bldg., Vancouver	Vernon M.D.
Santiago Mines Ltd. (x)	c-o R. Crowe-Swords, 6842 Cypress St., Vancouver	Lasqueti Island
Sheep Creek Gold Mines Ltd.	616 Stock Exchange Bldg., Vancouver	Sheep Creek
Silbak Premier Mines Ltd.	Royal Trust Bldg., Vancouver	Portland Canal M.D.
Snowshoe Gold Mines Ltd. (x)	785 Dunsmuir St., Vancouver	Quesnel M.D.
Spokane Mine (K.K. Baib)	Bayonne	Nelson M.D.
Spud Valley Gold Mines Ltd.	608 Pacific Bldg., Vancouver	Zeballos Dist.
Surf Inlet Cons. Gold Mines Ltd.	744 West Hastings St., Vancouver	Surf Inlet
Taylor Windfall Gold Mining Co. Ltd. (x)	612 Hall Bldg., Vancouver	Clinton Dist.
Tower-Yuill Mine (A.C. Frost & Co.) (x)	Henry Bldg., Seattle, Wash., U.S.A.	Lardeau M.D.
Timmins, N.A., Corp. (x)	Canada Cement Bldg., Montreal, P.Q.	Quesnel M.D.
Velgo Mining Inc. (x)	8655 E. Marginal Way, Seattle, Wash., U.S.A.	Rossland
Venus-Juno Mine (R. Heddle)	406 First St., Nelson	Nelson
Vidette Gold Mines Ltd.	404 Pacific Bldg., Vancouver	Clinton M.D.
Virginia Mine (J. W. Mulholland)	Nelson	Bayonne
Wayside Cons. Gold Mines Ltd. (x)	2986 Point Grey Road, Vancouver	Lillooet M.D.
Wesko Mines Ltd.	6 Royal Bank Bldg., Nelson	Ymir
West Zeballos Syndicate (x)	409 Vancouver Block, Vancouver	Zeballos Dist.
West Zeballos Gold Mines Ltd. (x)	736 Granville St., Vancouver	Zeballos Dist.
Whitehead & Dovidoff (MacSicar)	4413 W. 14th Avenue, Vancouver	Penticton
White Star Mine Ltd.	811 Rogers Bldg., Vancouver	Zeballos Dist.
Wilcox Mining Synd.	Box 296, Nelson	Ymir
Windpass Gold Mining Co. Ltd.	608 Pacific Bldg., Vancouver	Boulder
Winnipeg Mines	c-o Wm. Reeves, Grand Forks	Greenwood M.D.
Wukelick, J.P.	Box 682, Penticton	Osoyoos M.D.
Ymir Commodore Mines Co. (x)	1112 Paulsen Bldg., Spokane, Wash., U.S.A.	Nelson M.D.
Ymir Cons. Gold Mines Ltd.	704 Royal Trust Bldg., Vancouver	Nelson M.D.
Ymir Yankee Girl Mines Ltd.	525 Seymour St., Vancouver	Nelson M.D.
Zeballos Gold Peak Mines Ltd. (x)	421 Rogers Bldg., Vancouver	Zeballos Dist.
Zeballos Queen Mines Ltd. (x)	703 Royal Trust Bldg., Vancouver	Zeballos Dist.
<u>YUKON</u> -		
Stenbraten, J.O. (x)	Whitehorse	Wheaton Dist.
<u>NORTHWEST TERRITORIES</u> -		
Arctic Yellowknife Mines Ltd. (x)	Room 502, 11 King St. W., Toronto, Ont.	Yellowknife
Burwash Yellowknife Mines Ltd. (x)	302 Bay St., Toronto, Ont.	Yellowknife
Camlaren Mines Ltd. (x)	Suite 602, 350 Bay St., Toronto, Ont.	Gordon Lake
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DIRECTORY

PRINCIPAL OPERATORS IN CANADIAN AURIFEROUS QUARTZ MINING INDUSTRY, 1938. (concluded)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>NORTHWEST TERRITORIES (concluded) -</u>		
Chan Yellowknife Gold Ltd. (x)	67 Yonge St., Toronto, Ont.	Yellowknife
Consolidated Mining and Smelting Company of Canada, Limited	Trail, B.C.	Yellowknife
Conwest Exploration Co. Ltd. (x)	Room 1001, 85 Richmond St. W., Toronto, Ont.	Various
Dome Mines Ltd. (x)	36 Toronto St., Toronto, Ont.	Yellowknife
Galloway Gordon Lake Mines Ltd. (x)	36 Toronto St., Toronto, Ont.	Gordon Lake
Giant Yellowknife Gold Mines Ltd. (x)	28 Adelaide St. W., Toronto, Ont.	Yellowknife
Graymar Yellowknife Gold Mines Ltd. (x)	316 Excelsior Life Bldg., Toronto, Ont.	Yellowknife
Janus Mines Ltd. (x)	Room 607, 15 King St. W., Toronto, Ont.	Yellowknife
Kamlac Gold Mines Ltd. (x)	80 King St. W., Toronto, Ont.	Yellowknife
MacKenzie Exploration & Development Syndicate Co. Ltd. (x)	720 Tegler Bldg., Edmonton, Alberta	Yellowknife and Pensive Lake
Negus Mines Ltd. (x)	410 Royal Bank Bldg., Toronto, Ont.	Yellowknife
Northern Yellowknife Mines Ltd. (x)	104 Commercial Bldg., Edmonton, Alberta	Yellowknife
Oro Plata Mining Corp. Ltd. (x)	3100 Canadian Bank of Commerce Bldg., Toronto, Ont.	Yellowknife
Ptarmigan Mines Ltd. (x)	c-o Consolidated Mining and Smelting Co. of Canada, Limited, Trail, B.C.	Yellowknife
Rycon Mines Ltd. (x)	c-o Consolidated Mining and Smelting Co. of Canada, Limited, Trail, B.C.	Yellowknife
Thompson-Lundmark Gold Mines Ltd. (x)	714 .. 320 Bay St., Toronto, Ont.	Yellowknife
Walpole Yellowknife Mining Syd. Ltd. (x)	36 Toronto St., Toronto, Ont.	Yellowknife
Yellowknife Gold Mines Ltd. (x)	28 Adelaide St. W., Toronto, Ont.	Yellowknife
Yellorex Mines Ltd. (x)	28 Adelaide St. W., Toronto, Ont.	Yellowknife

OPERATORS IN CANADIAN COPPER-GOLD-SILVER MINING INDUSTRY, 1938.

QUEBEC -

Aldermac Copper Corp. Ltd.	941 Dominion Square Bldg., Montreal	Beauchastel Tp.
Bagamac Mines Ltd. (x)	244 Bay St., Toronto, Ont.	Rouyn Tp.
Carlson Mines Ltd. (x)	Rouyn	Dufoy Tp.
Cons. Copper and Sulphur Co.	Eustis	Eustis
Lake Dufault Mines Ltd. (x)	Duparquet	Dufresnoy Tp.
La Sarre Exploration Co. Ltd. (x)	464 St. Francois Xavier St., Montreal	Launay Tp.
MacDonald Mines Ltd. (x)	132 St. James St. W., Montreal	Dufresnoy Tp.
Mainland Chibougamau Ltd. (x)	132 St. James St. W., Montreal	Chibougamau
Metz-Rouyn Gold Mining Syndicate Ltd. (x)	187 Main St., Hull	Rouyn Tp.
Noranda Exploration Co. Ltd. (x)	Noranda	Gaspe
Noranda Mines Ltd.	1600 Royal Bank Bldg., Toronto, Ont.	Rouyn Tp.
Normetal Mining Corp. Ltd.	Suite 602, 350 Bay St., Toronto, Ont.	Desmeloizes Tp.
Obalski Mining Corp. (x)	931 Canada Cement Bldg., Montreal	Chibougamau
Opemiska Copper Mines Ltd. (x)	Room 2800, 25 King St. W., Toronto, Ont.	Levy Tp.
Quebec United Mines Ltd. (x)	Room 816, 215 St. James St. W., Montreal	North Hatley
Rhyolite-Rouyn Mines Ltd. (x)	1 Toronto St., Toronto, Ont.	Duprat Tp.
Rouyn Reward Gold Mines Ltd. (x)	66 King St. W., Toronto, Ont.	Rouyn Tp.
Syndicate Industriel	c-o J. Hurtubise, 500 Place d'Armes, Montreal	Fabre Tp.
Waite-Amulet Mines Ltd.	1600 Royal Bank Bldg., Toronto, Ont.	Duprat and Dufresnoy Tps.

ONTARIO -

Andowan Mines Ltd. (x)	15 Woolworth Bldg., Port Arthur	Kashabowie
Noranda Mines Ltd. (x)	1600 Royal Bank Bldg., Toronto	Sudbury Dist.

MANITOBA -

Hudson Bay Mining & Smelting Co. Ltd.	14 Finkle St., Woodstock, Ont.	Flin Flon
Sherritt Gordon Mines Ltd.	Room 2810, 25 King St. W., Toronto, Ont.	Sherridon

DIRECTORY

OPERATORS IN CANADIAN COPPER-GOLD-SILVER MINING INDUSTRY, 1938. (concluded)

Note - (x) Active but not producing.

<u>Name</u>	<u>Head Office Address</u>	<u>Location</u>
<u>SASKATCHEWAN</u> -		
Hudson Bay Mining and Smelting Co. Ltd.	14 Finkle St., Woodstock, Ont.	Flin Flon (✓)
<u>BRITISH COLUMBIA</u> (a)		
Barnato Mine (F. O. Peterson)	Westbridge	Greenwood M.D.
Britannia Mining & Smelting Co. Ltd.	Britannia Beach	Britannia Beach
Consolidated Mining and Smelting Company of Canada, Limited (x)	Trail	Anyox
Devey, H. W. (Ralph mine)	Belmont Bldg., Victoria	Victoria M.D.
Granby Consolidated Mining, Smelting and Power Co. Ltd.	Royal Bank Bldg., Vancouver	Copper Mountain
Love, Ernest (Mountain Boy Mine)	c-o Portland Canal Telephone & Telegraph Co., Stewart	Portland Canal M.D.
McArthur, W. E., & Son (Granby)	Box 629, Greenwood	Greenwood M.D.
McKelvie Bros. (Copper King)	Kamloops	Kamloops
Nicholson Creek Mining Corp. (x)	Usk	Omineca M.D.
Sidney Inlet Mining Co. Ltd.	711 Pacific Bldg., Vancouver	Sidney Inlet
Tyee Cons. Mining Co. Ltd. (x)	616 Stock Exchange Bldg., Vancouver	Victoria M.D.

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(✓) This property is divided by Manitoba-Saskatchewan boundary.

(a) In addition to the companies listed, there were numerous operators working under lease on other mines in the Rossland district (salvage operations).

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